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PROF. CHARLES A. KOFOID AND
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THE
LEPIDOPTERIST'S
CALENDAR:
GIVING THE TIME
WHEN THE BRITISH LEPIDOPTERA APPEAR
IN THE
EGG, LARVAL, PUPAL, AND IMAGO STATES;
WITH
THE FOOD-PLANT, AND HABITAT.

BY
JOSEPH MERRIN,
(AUTHOR OF "BUTTERFLYING WITH THE POETS," ETC.)

SECOND EDITION.
ENLARGED AND CORRECTED TO THE PRESENT TIME.

GLOUCESTER:
HERBERT MARSDEN, REGENT STREET.
1875.
INTRODUCTION.

(FROM THE FIRST EDITION.)

To know how to do a thing is a great step towards its accomplishment; but to know exactly when to do it, is often the one thing needful to insure success. The regularity with which, at certain definite dates, most species of Butterflies and Moths ordinarily appear, is something almost marvellous; and many species are not obtained in fine condition through inattention to the time of their advent, while some may be missed altogether. Although every care has been taken in giving the dates of appearance, it is evident that some allowance must be made for the difference of locality, for our variable climate, and for other causes, which militate against an unerring accuracy being always attainable. The time given for the Imagoes includes the earliest at which they appear, in ordinary seasons, so that the Collector may be able to secure them in the best condition. It is hoped that the notes under most of the months will be found to contain some useful hints; and that the Calendar, altogether, will prove a useful Time-guide to the Lepidopterist throughout the year.
INTRODUCTION

TO THE SECOND EDITION.

The study of Butterflies and Moths (Lepidoptera, or scale-winged insects), has been much more generally pursued in this country, than that of any other order of the class Insecta. Most of the large towns in England contain one or more students of this attractive order, who take a commendable pride in increasing and improving their collections of specimens; while in many of our largest centres of population societies have been established to advance the science of Entomology, and increase the number of its students.

Under the encouragement of Government the study of Science generally has, of late years, been immensely extended. The preference largely given to the Physical Sciences, over the Natural Sciences, is doubtless due to the practical mode in which physics have been taught; while the devotees of Nature have been offered little else than theory, as derivable from books. Field Botany, Field Geology, or Field Entomology has, to a large degree, had to be pursued by individual students, at their own discretion, unaided by that light of experiment and demonstration, which, in the hands of good, practical teachers, has so effectively helped forward the student of Physical Science. This is an omission which ought to be supplied, as the pursuit of Field Studies would be an immense benefit to the sedentary populations of our large cities and towns.

The favourable reception accorded to the First Edition of THE LEPIDOPTERIST'S CALENDAR proved that it supplied, however imperfectly, a want that was really felt. The present Edition has been re-cast, re-written, and considerably extended. While largely adding details regarding various species, the Author believes he has carried out several improvements, which
will make the Work both of wider scope, and of easier reference. The arrangement carried out (Doubleday's), is that which is now generally adopted in this country. The number of new species added to our Lists since the publication of the First Edition of the CALENDAR, in 1860, is considerable, and affords a striking proof of the intelligent energy which has been exercised in working out the Lepidoptera. This fact, coupled with the great increase which has taken-place in our knowledge regarding a large number of species, rendered a New Edition of the CALENDAR desirable, independent of the fact of its having been for some time out of print, and still in considerable request.

In a work of this kind, which is mainly made up of recorded observation, the great aim of the Author has been to indicate the leading points of what is known of the British Lepidoptera, in all their stages, and to record how they behave in a state of nature, rather than under the artificial treatment of the breeder, with a view to finding the species desired, with the smallest expenditure of time and trouble. While breeding insects from the egg is an admirable method of gaining insight into the habits of some species, which could not otherwise be obtained, and especially for the initial steps where the food-plant and habits are wholly unknown, it often has its drawbacks in hiding from view habits pursued in a state of nature, to obtain food, evade enemies, and other important points which pertain to the life-history of the species. Breeding has a legitimate function to perform, in helping to enlighten us as to the occult habits of many species; but to continue the process year after year with the same species, simply for the sake of obtaining "fine specimens" for cabinet exhibition and exchange, is not true science. No one ever heard of a botanist gathering seeds of a rare plant, and imitating the natural conditions in his own garden, and then offering the products of his industry in exchange for other plants he has not been able to obtain. One of the evil results of this system has been that (many rare or local species having been thus secured) no effort is made to obtain a knowledge of their habits in a state of nature, simply because the "blank" their absence caused in the cabinet has been filled up, and we know what the species can be got to eat, and how it behaves in the captivity of the breeding-cage.

In collecting the many details set forth in the CALENDAR, the Author has received important aid from several Entomologists,
including Mr. Charles G. Barrett, Mr. J. B. Hodgkinson, Mr. J. Sang, M. Ragonot, Mr. H. Marsden, Mr. G. T. Porritt, Mr. R. Mitford, Rev. H. Harpur Crewe, Mr. Howard Vaughan, Rev. B. Smith, and others, to all of whom he desires to express his grateful acknowledgments.

With respect to the plan of the Calendar, it may be explained that under each month of the year is given the species, as they appear, as

**OVA,** or Eggs;

**LARVÆ,** or Caterpillars;

**PUPÆ,** or Chrysalides; and as

**IMAGOS,** or perfect Insects;

With the Plant, or Material upon which they may be found; or the kind of Hiding-place, or Habitat, in which, they are most frequently met with. Where no peculiar habitat could be tabulated, in the case of the Tortrices and the Tinæa, some of the more noted localities are mentioned. The Lists of Ova, as well as of Pupæ, might have been enlarged; but only those species have been notified about which something definite can be stated. It is only chiefly those Larvæ which hibernate that have had the earlier period of the larval condition noted, in order that the full term of its duration may be indicated. In most other cases the period of approaching maturity only has been given.

After the work open to the Collector, each month, has been thus set forth,

**A List of British Lepidoptera,**

**WITH THE TIMES OF THEIR APPEARANCE,**

follows, the months being indicated by Roman numerals. The life of an Insect, in its various stages, can thus be seen at a glance; while details pertaining to each species will be found specified under the month which is given in the body of the Book, thus rendering a paged Index unnecessary. So few of the smaller species being mentioned as Ova and Pupæ, they are omitted from the LIST, the Larvæ and Imagos only being given.
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Explanation of Abbreviations.

In order to save space, a few abbreviations have been used in the Monthly Lists. They are as follow:

- **s.** ... ... Sometimes; that the species is not constant in appearing at the time indicated
- **r.** ... ... Root; that the species is found at the root of the plant mentioned
- **sub.** ... ... Subterranean; that the species pupates in the earth
- **fl.** ... ... Flower, or flowers
- **♂** ... ... Male
- **♀** ... ... Female
- **l.** ... ... Light
- **b.** ... ... Beginning of a month
- **m.** ... ... About the middle of a month
- **e.** ... ... Towards the end of a month
- **var.** ... ... Variety
- **N.** ... ... North
- **S.** ... ... South
- **E.** ... ... East
- **W.** ... ... West
- **2** ... ... Second appearance, or second brood
- **3** ... ... Third, ditto
- **h.** ... ... Hibernates, or hibernation

Corrections and Additions.

P. 35, for the title *Larvae* on the top of this p. read *Pupa.*
" 53, near the bottom of the second column dele B. uliginosana.
" 99, line 8, dele B. uliginosana.
" 115, line 21, for B. uliginosana, read D. Lorquiniana.
Add to the hibernating larvae appearing in the spring months: N. genistella, from Sept., in a web, among furze.
Add to p. 93, after "fraxinata: " extensaria, a large and rare Eupethecia, reported by Mr. Prest, of York, to have been taken, by Mr Sawyer, on some waste ground near Hull, about the middle of the summer of 1873.
** A few typographical errors in the names will be found in the body of the Book, but they have been corrected in the List.
Beyond a continuation of the winter's work of searching for pupae, &c., which will be found specified under the months best adapted for commencing it, the Lepidopterist will not find much to do in the way of out-door occupation this month. Now is the time to ramble into fresh districts, with the view of discovering new localities, the character of which may often be judged of by the trees, herbage, and general appearance, although no insect-life be stirring. With a view to future reference, the result of such visits should not fail to be recorded in the Entomological Diary, which no one engaged in the study should omit to keep.

While egg-searching may be carried on at those times when little or nothing is stirring in the insect-world, and

"The banks that wore a smiling green,
With rank defilement overspread,
Bewail their flowery beauties, dead,"

the occupation will have its advantage in sometimes Rewarding the searcher with a large batch of perhaps some "good" species, besides furnishing him with a knowledge of the habits of many previously unknown. A collection of eggs of Lepidoptera, preserved upon the objects on which they have been laid, would be very interesting. Insect eggs are, of course, generally laid upon, or near the food of the future larva; and therefore the localities where known species occur should be more especially chosen for the work of searching.

Although many eggs are laid late in the spring, or during the summer, soon after the imagos emerge, the eggs of several autumnal species, as well as of many which do not pair until the spring, may be found during the early months of the year, by careful searching. Unless the eyesight is very good, it is desirable for the searcher to call in optical aid in the shape of spectacles, by which he would be enabled to clearly see a minute object like the egg of a lepidopteron at a distance of one or two feet. His chances of success will be thus very much increased. Bright or sunny days should be chosen by preference for egg hunting. By exercise the eye will become rapidly accustomed to this kind of work, and proportionate success may be expected. Many species, particularly some of the bombyces, begin to lay almost immediately after they emerge. Other kinds, notably some of the butterflies,
postpone the season of pairing and laying until they have well-nigh worn themselves ragged and bare. A knowledge of these facts will, of course, aid the searcher in his discovery of eggs. Much time may be saved by hitting upon the right time when, and the right place where, to look for certain species, resulting from actual observation, or reasonable deduction.

Many other species besides those named in the lists given in the Calendar, whose larvæ arrive at maturity towards the end of May, may be found during this and the next two months, by searching the twigs, shoots, &c., of trees and bushes.

T. quercus ......on oak
  " w-album ......on wytch elm
  " pruni .........on sloe
L. Ægon .........on Ornithopus per- pusillus; white
H. comma ......on trefoil, and other
  Leguminosæ
L. dispar ......on trunks of sloe, hawthorn, and fruit trees; in a conical heap, covered with down
  " monachæ ......on oak, beech, birch, fir, apple, &c.
T. cratægi........on hawthorn; also s. sloe, sallow, birch, oak
P. populi .........on oak, poplar, lime, ash, hawthorn
B. neustria ......on hawthorn, sloe, orchard trees; in batches spirally round twigs and branches
  " castreñsis ......on Artemesia mari- tima, Daucus maritimus, &c.
E. vesperatæria ..on nut
  " apiciaria ......on poplar, willow, sallow
C. elinguaria ......on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.; brick-shaped, large, purplish slate colour
E. alniaria ......on alder, birch, sallow, beech, &c.; brick-shaped, like all the Ennomos
  " tiliaaria ......on oak, sallow, birch, alder, &c.; purplish
  " fuscanaria ......on ash, privet; upon the twigs, in small batches
  " erosaria ......on oak, birch, &c.
  " angularia ......on oak, birch, beech, &c.
H. pennaria ......on oak
F. pinetaria ......on bilberry
H. aurantiaria ......on oak, birch, hawthorn, &c.
  " defoliaria ......on oak, nut, sloe, hawthorn, birch, elm, lime, &c.
C. brumata ......on oak, and other
  trees
  " boreata.........on birch
O. dilutata ......on oak, and other
  trees
  " filigrammaria on sallow
E. subciñiata ......on maple; at foot- stalk of leaf
M. rubiginata ......on alder; large
S. vetulata ......on buckthorn
C. immanata ......probably on alder, and other trees, and strawberry, bilberry, &c.; large
  " prunata ......on currant, and gooseberry; upon the bark; large
  " testata ......on heath, birch, sallow, poplar, &c.; singly, large
  " populata ......on bilberry, whortle- berry; globular, large, yellow
  " fulvata ......on dog rose; rose pink, large
  " pyraliata ......on Galium, and hawthorn; large
  " dotata ......black, and red cur- rant; large
E. cerviniaria ......on mallow
  " lineolata ......on Galium
C. spartiata ......on broom
T. chærophyllata on Bunium flex- usum
P. Cassinea ......on oak
January

P. plumigera ...on maple, chiefly on the twigs, in hedges not shaded by trees. Often singly, but s. in clusters of two, three, or many more. Circular, smooth, brown above, whitish beneath

G. flavago ...on marsh thistles, burdock, &c.; in heaps

O. lota ...on willows, & sallow

T. subtusa ...on poplar; upon the twigs

" retusa ...sallow, willow, poplar; upon the axils of the leaves

P. chi ...on dock, hawthorn, sallow; and probably lettuce, sow thistle, "tea tree," &c.; purplish brown

" flavocincta ...on dock, chickweed, groundsel, mint, &c.; in gardens on everlasting pea, plum, &c.

H. proboscidalis on nettle; rather large, globular, (slightly oval) indented on upper side; pale yellow

Larvae

The following are among the larvae which may be found this month:

L. lithargyria ...chickweed, plantain, grasses, &c.

A. saucia ...from Nov., plantain, dock, and other low plants

P. meticulosa ...from Nov., groundsel, and various low plants

S. anomala ...grass, in open parts of woods

P. farella ...Anthyllis vulneraria; may be found hibernating in balls of sand during the winter

E. elutella ...nuts, cocoa nibs, figs, dog biscuit, &c.

" ficella ...figs

" artemesiella . Artemisia vulgaris, and A. absinthium; through the winter inside the r. stalks

M. cephalonica ...from Nov., dried currants, &c.

P. gentiana ...teazel heads

O. antiquana ...Stachys arvensis, r.

E. gallicolana ...oak apple galls

C. cosmophorana bark of spruce and Scotch fir

R. resinana ...in twigs of Scotch fir; and it is said in the resinous exudation

N. aurella ...bramble; may be found almost throughout the year, mining bramble leaves

S. corollana ...shoots of aspen

D. tanacetana (?) tansy

A. Schreibersiana bark of elm

" æniana ...in r. of ragwort

C. Dipoltana ...seeds of Achillea millefolium

T. rusticella ...on cloth, &c.

O. pseudo-pretella in dried peas, &c.

E. fenestrella ...all the year round; on waste substances in houses

B. grandipennella furze

Besides the above there are a large number of other larvae which have hibernated. These, however, will be found specified under the next, and following months, by which time their food-plants are beginning to be obtainable.

If the winter is a very mild one, some of the species set out under February and March may be found this month, and some portion of the work falling due in those months may now be performed.
PUPÆ

Pupae hunting this month, with the thermometer down, and "the wind's low stave" exercising its depressing effect, is likely to be rather trying work. In the list which is appended the species which are to be found in the early part of the winter are repeated, in order that the full amount of work to be done in this department may be seen, and that that which has not been sufficiently attended to before the winter set in, may be looked after as opportunity offers.

P. Machaon ......on stems of Peucedanum palustre; in fens
P. brassicae... {on palings, walls,
   rapæ .......... &c.
   napi .......... }
A. cardamines ...on stems of grass, &c.
S. ocellatus ......sub. at willows, poplars, &c.
   " populi ..........sub. at poplars, willows, &c.
   " tiliæ ..........sub. at elm, lime, beech
C. ligniperda ...at various trees; spun up, under bark, &c.; but s. buries
L. asellus ..........spun up, on a leaf
A. mendica ......under moss, on trees bordering ditches
   " lubricepeda } spun up, on trees,
   " menthrasti } palings, &c.
   " urtice ..........under moss, on trees
O. pudibunda ...in dead leaves, under moss, &c.
E. lanestris ......cocoon on the ground, near hawthorn, sloe, &c.; s. remains in pupa many years
E. versicolora ...spun up, at birch
S. carpini .........cocoon amongst leaves, heath, &c.
E. dolobraria ......under moss, on oak, &c.
S. illunaria ......sub., at willow, oak, &c.
   lunaria ..........at sloe, oak, nut, &c.
Ö. bidentata ......under moss, on various trees
N. zonaria ......sub., at sandhills, on the coast
   hispidaria ...at oak
B. hirtaria ..........sub., at elm, lime, ash, and fruit trees
A. prodromaria sub., at oak, elm, &c.
   " betularia ......sub., at oak, elm, birch, and other trees
H. abruptaria ...spun up, on twigs, &c., of lilac, rose, or privet
T. consonaria ......under moss, at r. of beech, oak, birch
T. crepusularia under moss, on alder, birch, elm, poplar, willow; or in bark crevices
   " biundularia ...spun up, on oak, and birch
   " punctulata ......under moss, on birch and alder; or in bark crevices
I. lactearia ......spun up, among leaves of oak, and birch
E. porata ..........fastened to leaf of oak
   " punctaria ......fastened to leaf of oak, or birch
   " trilineralia ......fastened to leaf of beech
   " pendularia ......fastened to leaf of birch
E. heparata ......among moss, &c., on alder
C. exanthemaria spun up, under leaves of sallow, and alder
M. liturata ......at larch, rarely within 2 ft. of the tree
N. pulveraria ......in withered sallow leaves
F. carbonaria ......among dead leaves of sallow, and birch
   " pinariaria ......at Scotch fir, and larch; in open places in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
H. rupicapraria in a slight web, on the ground, among hawthorn, sloe, or oak
PUPÆ]

H. leucophearia on the ground, near oaks
" progemmaria sub., at oak, birch, hornbeam, &c.
" defoliaria...sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
A. ëscularia...sub., at elm, oak, lime, sloe, hawthorn
L. multistrigaria sub., about Galium
E. albulata ...within the spun-up sepalis of yellow rattle
" decororata ...about Lychnis dioica
E. venosata ...about Silene, and Lychnis
" consignata ...probably under moss, & loose bark, in apple orchards
" pulchellata ...among the seeds, and dead fl. of foxglove
" isogrammata about Clematis vitalba
" fraxinata ...on ash, under moss, and loose bark
" vulgata...sub., about various plants, and trees
" minutata ...about heath
" assimilata.....in crevices about currant and hop
" exiguata .....about oak, &c.
M. ocellata .....among Galium; spun up, near the ground
M. subtristata { sub., near Galium
" galiata .....}
A. sinuata.........in earthen cocoon, on the ground among Galium
" badiata... ...in earthen cocoon, on the ground, beneath dog rose bushes
" derivata ......sub., at dog rose
C. sagittata ......spun up, among Thalictrum, or on the ground near; in fens
E. lineolata .....cocoon attached to Galium verum, under the surface, on coast sandhills
D. bicuspis ......spun up, on birch trunks in the south; alder in the north; rarely above 2 ft. from the ground
" furcula ......spun up, on trunk of willow, or sallow

JANUARY

D. bifida ..........spun up, on trunk of poplars
" vinula ..........spun up, on trunk of willows, poplars, and sallow; three or four feet from the ground
S. fagi ..........spun up, among leaves of beech, oak, birch, elm; s. at r.
P. bucephala ...sub., at various trees
C. curtula..... . . . . . spun up, between dead leaves of poplars, & sallow
" reclusa.........spun up, among dead leaves of sallow, poplars, willow
P. palpina ......at willows, and poplars, on edges of streams, or under sods near
N. camelina ...sub., at various trees
" cucullina ......sub., at maple, and sycamore
" carmelita ......sub., at birch
" dictæa .......at poplars, and willows, or under sods near
" dictæoides ...sub., at birch
" dromedarius ' sub., at birch, alder, nut
" ziczac ......sub., at poplars, sallow, willows
" trepida.........sub., at oak
" Chaonia ......sub., at oak
" Dodonea ......sub., at oak, and birch
T. batis..........near bramble, and wild raspberry
C. duplaris .....between united birch leaves
" fluctuosa ......among birch leaves
" flavicornis ..between united birch leaves
D. Orion .........at birch and oak, in a cocoon of gnawed bark, or rotten wood
A. tridens ......spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
" psi ............in bark crevices of various trees
" leporina ......in excavations in the bark of birch, poplar, alder, sallow
PUPÆ]

A. aceris ...... spun up, among fallen leaves, and under loose bark of sycamore, horse chestnut, maple, birch, and s. oak [poplar megacephala under loose bark of "strigosa ...... among dead leaves of hawthorn, or rubbish, or decayed wood; s. sub. " alm .......... between leaves of various trees, or inside bramble sticks " ligustri ...... spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the topstones of walls against the tree A. rumicis ...... spun up, in crevices of trees, palings, walls, &c. A. putris ...... sub. at elm D. pinastri ...... in a cocoon, on the ground, among dock, sorrel, &c. X. conspicillaris sub., at elm, and other trees M. albicolon ...... sub., near Atriplex, Chenopodium, lettuce, &c. C. Morpheus ...... spun up, in a leaf, or earthen cocoon attached to food-plant [fere, grass, &c. A. segetum, s. ...... sub., among Cruciferae T. piniperda......at Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark; and under moss and fallen needles, rarely within 2 ft. of the tree, 1½ to 2 in. deep T. gothica ...... sub., at various trees " leucographa } at r. of low plants " rubricosa } " instabilis } " opima ...... at r. of Rosa spinosissima, and dwarf sallow; on sandhills in the north, below the sand " populet ...... sub., at poplars, especially Populus nigra; deep " gracilis ...... sub., at willows, sallows, and low plants [&c. miniosa ...... among fallen leaves, " munda ...... under moss, at base of oaks

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T. cruda .......... sub., at oak D. carpophaga ...... sub., near Silene and Lychnis, on the coast; found by raking sandhills " caesia ...... sub., about Silene capsophila } maritima, on the coast capsicina ...... sub., near Lychnis H. serena ...... sub., near Sonchus, and lettuce " glauca ...... sub., near sallow, and birch oleracea ...... sub., near elm, nettle, dock, &c.; also in kitchen gardens thalassina ...... sub., near honeysuckle, sallow, broom, &c. X. lithoriza ...... near honeysuckle, in a papery cocoon, on the ground C. verbasci ...... sub., in earthen cocoon, near mullein and figwort scrophulariae } s. 2 years in pupa " lychnitis ...... in earthen cocoon, near white and black mullein; s. 2 years in pupa asteris .......... near golden rod, &c.; s. 2 years in pupa gnaphali ...... near golden rod umbratica ...... sub., near Sonchus, &c. H. marginata ...... sub., near Ononis procurrens dipsacea ...... among melilot, and probably Silene otites, and Linaria A. myrtilli ...... spun up, in heath E. venustula ...... at r. of Tormentilla reptans, and grass B. argentula ...... among grass, on the ground B. parthenias ...... at birch, in crevices of bark, or on the ground A. urticæ ...... spun up, among nettle leaves triplasia ...... spun up, among nettle leaves, hop, &c. [garis P. ænea .............. among Polygala vulgaris E. sambucalis ...... spun up, in crevices, in palings, walls, &c., near elder G. canella ............... among Salsola kali
IMAGOS]

JANUARY

The following species emerge this month:—

P. pilosaria .......♂ comes to l.; ♀ on tree trunks, &c.
H. rupicapraria on hedges at dusk

The following, with several other species, hibernate, and may be found in this and succeeding months, up to May or June:—

G. rhamni.......in and near woods on sunny days
C. Edusa ......at rest in hollow trees, outhouses, &c.
    Hyale ......
    V. c-album ...
    " urticæ ...... at rest in outhouses, &c., and s. flying
    " polychloros
    " Antiope ... about on sunny days
    " Io............
    " Atalanta ...
    " cardui ......
M. stellatarum...from Sept., s. flying in the sunshine
    E. fasciaria ...may be beaten from Scotch fir
    T. variata ......Scotch fir
    C. fluvia......
    S. dubitata ...comes to light
    C. psitticata ...
        " silaceata ...
    A. auricoma....
L. lithargyria?...
A. puta ............
    " suffusa ......
H. leucophearia...♂ often flies by day; ♀ hides on oak trunks [round
E. fenestrella ...in houses all the year

A. saucia ......this species has been taken this month and also in
C. vaccinii ......
    " spadicea ......
    " erythrocephala
S. satellitia .....D. rubiginea......
H. croceago ......
D. templi ......under stone heaps in elevated districts; one or two
               moths may s. be obtained by turning over a ton of stones!
C. vetusta ......
    " exoleta ........X. conformis ....
        " rhizolitha
        " semibrunnea
        " petrificata ..
G. libatrix ......in cellars, and hollow trees
H. rostralis ......in gardens, and outhouses
E. ocellea ......comes to l.
Some of the bright days which sometimes occur during this month, when apparently,

"Winter storms have ceased to chide,"

will be found particularly suitable for egg searching, as it will generally be yet too early to do much with larvae, or imagos. The eggs obtainable last month, and which still remain unhatched, are repeated under this, and succeeding months, until they hatch; so that the work to be done in this department can be clearly seen.

T. quercus ... on oak
  w-album ... on wytch elm
  pruni ... ... on sloe
L. Ægon ... on Ornithopus perpusillus; white
H. comma ... on trefoil, and other Leguminosæ
L. dispar ... on trunks of sloe, hawthorn, and various fruit trees; in a conical heap, covered with down
  monacha ... on oak, beech, birch, fir, apple, &c.
T. cratægi ... on hawthorn; also s. sloe, sallow, birch, oak
P. populi ... on oak, poplar, lime, ash, hawthorn
B. neustria ... on hawthorn, sloe, orchard trees; in batches spirally round twigs and branches
  castrensis ... on Artemisia maritima, Daucus maritimus, &c.
E. vespertaria ... on nut
  apiciaria ... on poplar, willow, sallow
C. elinguaria ... on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.; brick-shaped, large, purplish slate colour
E. alniaria ... on alder, birch, sallow, beech, &c.; brick-shaped, like all the Ennomos
  tiliaria ... on oak, sallow, birch, alder, &c.; purplish
E. fuscantaria ... on ash, privet; upon the twigs, in small batches
  erosaria ... on oak, birch, &c.
  angularia ... on oak, birch, beech, &c.
H. pennaria ... on oak
F. pinetaria ... on bilberry [sloe
H. rupicapraria on oak, hawthorn,
  aurantiaria ... on oak, birch, hawthorn, &c.
  defoliaria ... on oak, nut, sloe, hawthorn, birch, elm, lime, &c.
C. brumata ... on oak, and other trees
  boreata ... on birch
O. dilutata ... on oak, and other trees
  filigrammaria, on sallow
E. subciliata ... on maple; at footstalk of leaf
M. rubiginata ... on alder; large
S. vetulata ... on buckthorn
C. immanata ... probably on alder, and other trees, and strawberry, bilberry, &c.; large
  prunata ... on currant, and gooseberry; upon the bark; large
  testata ... on heath, birch, sallow, poplar, &c.; singly, large
  populata ... on poplar, bilberry, whortleberry; globular, large, yellow
  fulvata ... on dog rose; rose-pink, large
OVA]

C. pyraliata ......on Galium, hawthorn; large
" dotata ..........on black, and red currant; large
E. cervinaria......on mallow
C. spartiata ......on broom
T. charophyllata...on Bunium flexuosum
P. Cassina ......on oak
P. plumigeran ...on maple, chiefly on the twigs, in hedges not shaded by trees. Often singly, but s. in clusters of two, three, or many more. Circular, smooth, brown above, whitish beneath
G. flavago ........on stems of marsh thistles, burdock, &c.; in heaps

O. lota ............on willows, & sallow
T. subtusa ........on poplar; upon the twigs
" retusa ............on sallow, willow, poplar; upon the axils of the leaves
P. chi .............on dock, hawthorn, sallow; and probably lettuce, sow thistle, "tea tree" &c.; purplish brown
" flavocincta ...on dock, chickweed, groundsel, mint, &c.; in gardens, on everlasting pea, plum, &c.
X. conformis ...on alder, birch
H. proboscidalis.on nettle; rather large, globular (slightly oval) indented on upper side; pale yellow

LARVAE]

If the weather is mild, many hybernating larvae may be found in the evening, or in the day-time where the sun is shining. Those feeding on grasses, low plants, &c., are best found in the evening, with the aid of a lantern. The edges of wood-ridings, hedge banks, &c., should be examined on mild evenings, and a good supply of the herbage upon which the species is found be taken away for their sustenance.

O. filigrammara bilberry and sallows
C. munitata ...from Sept., groundsel
C. suffumata ...full fed in the autumn; turns to a pupa this month or the next
B. glandifera ...from Sept., lichens on walls
" perla ............from Sept., lichens on walls
L. vitellina ......from Oct., grasses
" turca ..........grasses
" lithargyria ......chickweed, plantain grasses &c.
" straminea ...common reed, and coarse grasses, in damp meadows and borders of streams
M. anceps ...... ?
A. basilinea ......from Aug., various plants
A. lucernean ......harebell, dandelion, &c.
N. festiva .........from July, violet, sallows, foxglove, &c.
" umbrosa ......from Aug., dock and various low plants
E. lichenea ......from Nov., ragwort, and various low plants on the coast
P. empyrea ......from Nov., pilewort, &c.
S. anomala .....grass, in open parts of woods
C. falsellus ......to May, the moss growing on walls and rocks, Grimmea pulvinata, &c.
C. phragmitellus from Oct., common reed
E. elutella ......nuts, chocolate, figs, &c.
P. gentianana ..teazle
O. antiquana ..Stachys arvensis, r.
E. scutulana ....in thistle stems
LAÆVÆ]  

E. gallicolana ... oak apple galls  
C. cosmophorana bark of spruce,  
and Scotch fir  
R. resinana ..... in twigs of Scotch fir; and it is said in the resinous exudation  
S. corollana ..... shoots of aspen  
D. tanacetana? ... tansy  
A. Schreibersiana bark of elm  
C. Dipoltana seeds of Achillea millefolium  
P. Birdella ..... in grass stems, and probably among hay grass  
T. rusticella ..... on cloth, &c.  
I. Oehlmanniella from Oct., in a flat case under fallen leaves  
G. ericetella ..... from Sept., Erica cinerea and on E. tetralix, and Calluna erica  

G. luculella ..... in decayed wood  
P. Metzneriella ... in heads of Centaurea nigra  
" carlinella ... Centaurea nigra, and thistle heads  
H. bracteella ... in decayed wood  
C. pseudo-spretella dried peas, &c.  
B. grandipennella furze  
A. Gcedaretella... in bark of alder, birch, &c.  
C. farinatella ... Scotch fir  
L. paludicolella... Epilobium atrata (Hellerella) hirsutum, thorn berries, and shoots of apple  
N. aurella ..... in bramble; may be found all the year round  

PUPÆ]  

"February fill-dyke" will oppose many obstacles to the pupa hunter. But it is hoped that the long list of species, many of them decidedly "good," which will be found set forth as possible to be obtained this month, will induce extra activity, and convert what might otherwise be only a simple ramble for health sake, into a profitable, as well as health-giving, excursion.  
P. Machaon ..... on stems of Peucedanum palustre, in fens  
P. brassicæ ..}  
" rape ..... } on palings, walls, &c.  
" napi ......... }  
A. cardamines ... on stems of grass, &c.  
S. ocellatus ..... sub., at willows, poplars, &c.  
" populi .....sub., at poplars, willow, &c.  
" tiliæ .....sub., at elm, lime, beech  
C. ligniperda..... at various trees; spun up, under bark, &c.; but s. buries  
L. asellus ..... spun up, on a leaf  
A. mendica ..... under moss, on trees bordering ditches  
" lubricpeda } spun up, on trees, " menthrasti } palings, &c.  

A. urticae ......... under moss, on trees  
O. pudibunda ... in dead leaves, under moss, &c.  
E. versicolora ... spun up, at birch  
S. carpini ..... cocoon amongst leaves, heath, &c.  
E. dolobraria ... under moss on oak, &c.  
S. illunaria ..... sub., at willow, oak, &c.  
O. bidentata ... under moss on various trees  
N. zonaria .....sub., at sandhills on the coast  
B. hirtaria ......... sub., at elm, lime, ash, and fruit trees [ &c.  
A. prodomaria ... sub., at oak, elm, " betularia ..... sub., at oak, elm, birch, and other trees  
H. abruptaria ... spun up, on twigs, &c., of lilac, rose, or privet
THE LEPIDOPTERIST'S CALENDAR - FEBRUARY

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T. consonaria ......under moss at r. of beech, oak, birch
" biundularia ......spun up, on oak and birch
" punctulata ......under moss, on birch, and alder; or in bark crevices
I. lactearia ......spun up, among leaves of oak, and birch
E. porata ........ fastened to leaf of oak
" punctaria ......fastened to leaf of oak, or birch
" trilinearia ......fastened to leaf of beech
" pendularia ......fastened to leaf of birch
E. heparata ......among moss, &c., on alder
C. exanthemaria spun up, under leaves of sallow, and alder
M. liturata ......at larch, rarely within 2 feet of the tree
N. pulveraria ......in withered sallow leaves
F. carbonaria ......among dead leaves of sallow, and birch
" pinaria ......at Scotch fir and larch; in open places in woods, rarely within 2 feet of the tree, at 1½ to 2 inches deep
A. ascularia ......sub., at elm, oak, lime, sloe, hawthorn
L. multistrigaria sub., about Galium
E. albulata ......within the spun-up sepal of yellow rattle
decolorata ......about Lychnis dioica
E. venosata ......about Silene, and Lychnis
" consignata ......probably under moss, and loose bark, in apple orchards
" pulchellata ......among the seeds and dead fl. of foxglove
" isogrammata about Clematis vitalba
" fraxinata ......on ash, under moss, and loose bark
" nanata ......about heath
" vulgata ......sub., about various plants, and trees
E. minutata ......about heath
" assimilata ......in crevices, about currant and hop
" exiguata ......about oak, &c.
M. ocellata ......among Galium; spun up, near the ground
M. subtristata \{ sub., near Galium
" galiata ......\}
A. sinuata ......in earthen cocoon; on the ground, among Galium
" badiata ......in earthen cocoon; on the ground, beneath dog rose bushes
derivata ......sub., at dog rose
C. sagittata ......spun up, among Thalictrum; or on the ground near; in fens
E. lineolata ......cocoon attached to Galium verum, under the surface, on sandhills
D. bicuspis ......spun up, on birch trunks in the S.; alder in the N.; rarely above 2 ft., from the ground
" furcula ......spun up, on trunk of willow, or sallow
" bifida ......spun up, on trunk of poplars
" vinula ......spun up, on trunk of willows, poplars, and sallows; three, or four feet from the ground
S. fagi ......spun up, among leaves of beech, oak, birch, elm; s. at r.
P. bucephala ......sub., at various trees
C. curtula ......spun up, between dead leaves of poplars, and sallow
" reclusa ......spun up, among dead leaves of sallows, poplars, willows
P. palpina ......at willows, and poplars, on edges of streams, or under sods near
N. camelina ......sub., at various trees
" cucullina ......sub., at maple, and sycamore
" carmelita ......sub., at birch
" dictæa ......at poplars, and willows, or under sods near
PUPÆ]

N. dictæoides ...sub., at birch
" dromedarius...sub., at birch, alder, nut
" ziczac............sub., at poplars, sallow, willows
" trepida ............sub., at oak
" Chaonia .........sub., at oak
" Dodonea .........sub., at oak, and birch
T. batis ...........near bramble, and wild raspberry [Leaves
C. duplæris .......between united birch leaves
" fluctuosa ..........among birch leaves
" flavicornis ....between united birch leaves
D. Orion ......at birch, and oak, in a cocoon of gnawed bark, or rotten wood
A. tridens ........spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
" psi .............in bark crevices of various trees
" leporina ......in excavations in the bark of birch, poplar, alder, sallow
" aceris ......spun up, among fallen leaves, and under loose bark of sycamore, horse chestnut, maple, birch, and s. oak
" megacephala....under loose bark of poplar
" strigosa ......among dead leaves of hawthorn, or rubbish or decayed wood; s. sub.
" alni ........between leaves of various trees, or inside bramble sticks
" ligustri ......spun up, under moss, stones &c., near ash, and privet; also sub.; also found under the top stones of walls against the tree
" rumicis ........spun up, in crevices of trees, palings, walls, &c.
A. putris ..........sub., at elm
D. pinastri.........in a cocoon on the ground among dock, sorrel, &c.
X. conspicuariæ sub., at elm, and other trees

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M. albicolon......sub., near Atriplex, Chenopodium, lettuce, &c.
C. Morpheus ...spun up, in a leaf, or an earthen cocoon, attached to food plant
A. segetum, s. ...sub., among Cruciferæ, grass, &c.
T. piniperda.....at Scotch and other firs, in open places in fir woods, and on the margin, in crevices of bark, and under moss and fallen needles
T. gothica ......sub., at various trees
" leucographa    |at r. of low plants
" rubricosa ...|at r. of various trees
" instabilis    |at r. of various trees
" stabulis ......|at r. of Rosa spinosissima, and dwarf sallow; on sandhills in the north, below the sand
" populeti ......sub., at poplars, especially Populus nigra; deep
" gracilis ......sub., at willows, sallows, and low plants
" miniosa ......among fallen leaves &c.
" munda ..........under moss at base of oaks
" cruda ..........sub., at oak
D. carpophaga ...sub., near Silene and Lychnis, on the coast; found by raking sandhills
" capsophila ..|sub., about Silene
" cresia ........|maritima
" capsincola ..|sub., near Lychnis
H. serena .........sub., near Sonchus, and lettuce
H. glauca .........sub., near sallow, and birch
" oleracea ......sub., near elm, nettle, dock, &c., also in kitchen gardens
" thalassina ...sub., near honey-suckle, sallow, broom, &c.
X lithoriza ......near honeysuckle, in a papery cocoon, on the ground
C. verbasci ......sub., in earthen cocoons, near mullein and figwort, s. 2 years in pupa
FEBRUARY

PUPÆ]
C. lychnitis ..... in earthen cocoon, near white and black mullein; s. 2 years in pupa
" asteris ..... near golden rod, &c.; s. 2 years in pupa
" gnaphalii ..... near golden rod
" umbratica......sub., near Sonchus, &c.
H. marginata ...sub., near Ononis procurrens
" dipsacea ..... among melilot, and probably Silene otites and Linaria
A. myrtilli ..... spun up, in heath
E. venustula ......at r. of Tormentilla reptans, and grass
B. argentula ......among grass, on the ground
B. parthenias ......at birch, in crevices of bark, or on the ground
A. urticae ......spun up, among nettle leaves
" triplasia ......spun up, among nettle leaves, hop, &c. [garis
P. ænea........... among Polygala vul-
E. sambucalis ...spun up, in crevices, in palings, walls, &c., near elder
G. canella ......among Salsola kali

IMAGOS]
The species ordinarily due this month will be found specified below; but it does not follow that they will be obtainable, even in a favourable locality, unless the weather is tolerably mild.

Some of the wingless ♀ of the genus Hibernia, especially when they hide on tree trunks, are often a puzzle to see. In searching trunks, palings, and wooden fences for moths, an operation which may with advantage be pursued at almost all seasons of the year, not much success is likely to follow unless it be done systematically. As in pupa digging, the most protected side of the tree trunk is found to be the most productive, which is generally the northern and eastern face. It is seldom of much use examining the southern side at all; it is probably too much exposed to sunshine and the prevailing winds to be agreeable as a place of concealment. Fences in protected situations are consequently found to be better for harbouring insects than where fully exposed. Some of the larger moths thus resting are conspicuous enough, even from a distance; others from their resemblance in colour and marking to the tree trunk or fence, or the lichen upon them, are difficult to be discerned, especially if the wood under examination is a gloomy one, or their resting place is in a "bad light." The tree to be examined should be approached carefully, or some species which are easily alarmed will flit off before the net can be brought into use. A general examination of the north-eastern aspect should be first made, from the highest point at which a moth can be seen down to the ground; then, if small, or inconspicuous species are being sought for, the finger should be passed in lines down the trunk, the eye attentively following. To the surprise of the searcher he will sometimes thus come upon a specimen he would otherwise have missed.

E. lanestris ..... on tree trunks, near the ground
P. pilosaria ... ♂ comes to light; ♀ on tree trunks, &c.
A. prodromaria, e. at rest on trees
N. hispidaria ... at rest on oak trunks
T. crepuscularia at rest on trees
FEBRUARY

H. rupicaprina at rest on tree trunks
" leucophearia or in hollow trees;
" progemmaria at dusk they frequent
A. aescularia, e. hedges, the ♀ sitting
on the twigs, the ♂ fluttering around. Hedges favourably
placed may be beaten into an umbrella for the ♀, which may
also be found on the top ledge of
palings, &c., running up to the
highest point. H. leucophearia
♂ often flies by day

T. instabilis ......at the sallows in
mild seasons
" stabilis ......
T. hyemana ......oak woods "
T. pellionella ...to November
D. applanella ...flies over hedges, &c.
N. minusculella among pear trees

The following are among the species which have hibernated, and which
have been found this month:

G. rhamni ......in and near woods
on sunny days
C. Edusa ......at rest in hollow
trees, outhouses, &c.

Hyale ..........
V. c-album ...
" urtice ........
" polychloros at rest in outhouses,
" Antiopa ... &c., and s. flying
" Io .......... about on sunny days
" Atalanta ...
" cardui ........
M. stellatarum, s. from Sept., flying
in the sunshine
E. fasciaria ... may be beaten from
T. variata...... Scotch fir
C. fluvia.ta ...... comes to l.
S. dubitata ......comes to l.
C. psitticata ...... in hollow trees, out-
miata ...... houses, &c.
" silaceata ......
A. auricoma......
L. lithargyria ?
A. puta ............
" suffusa ...........
During this boisterous month,

"whose Spring is but the child
Of churlish Winter in her froward moods,
Discovering much the temper of her sire,"

many fine days are often available for entomologising. As many species set forth in the accompanying list will ere long cease to be found in the egg form, it is desirable the collector should clear off his arrears of work in this section as soon as possible. The remarks on egg-hunting under previous months should be re-perused. Wherever a species is known to have occurred, there is a possibility of finding the eggs in likely situations.

T. quercus ...on oak
" w-album ...on wytch elm
pruni ........on sloe
L. Ægón ........on Ornithopus perpusillus; white; generally hatch this month
H. comma .....on trefoil, and other Leguminosœ
L. dispar ........on the trunks of sloe, hawthorn, and various fruit trees; in a conical heap, covered with down
" monacha .....on oak, beech, birch, fir, apple, &c.
T. cratægi ... ...from Oct., on hawthorn; also s. sloe, sallow, birch, oak
P. populi ........from Nov., on oak, poplar, lime, ash, hawthorn
B. neustria ......from July, on sloe, hawthorn, and fruit trees; in batches spirally round twigs and branches
" castrensis ... ...from July, on Artemesia maritima, Daucus maritamus, &c.
E. vespertaria ...on nut [sallow
" apiciaria .....on poplar, willow,
N. zonaria .....on sea reed, or marum (Ammophila arundinacea) and other sand-hill plants; in clusters in the interstices; long, bright-green
C. clinguaria ...on oak, honey-suckle, hawthorn, sloe; also heath, bilberry, &c.; brick-shaped, large, purplish slate colour
E. alniaria .....on alder, birch, sallow, beech, &c.; brick-shaped, like all the Ennomos
" tiliaria ..........on oak, sallow, birch, alder, &c.; purplish
" fuscantaria ...on ash, privet; upon the twigs, in small batches
" erosaria .....on oak, birch, &c.
" angularia ...on oak, birch, beech, &c.
H. pennaria ......on oak
A. prodromaria...in bark crevices of oak, birch, elm, nut
F. pinetaria ......on bilberry
H. leucophearia .on oak
" aurantiaria ...on oak, birch, hawthorn, &c.
" defoliaria ...on oak, nut, sloe, hawthorn, birch, elm, lime, &c.
C. brumata ......on oak, and other trees
" boreata...........on birch
O. dilutata ......on oak, and other trees
E. subciiliata ...on maple; at foot-stalk of leaf
M. rubatia ...on alder; large
A. badiata, e. ...on dog rose
OVA]

A. derivata, e. ... on dog rose
S. vetulata ...... on buckthorn
C. immanata ... probably on alder, and other trees, and strawberry, bilberry, &c.; large
" prunata ..... on currant, and gooseberry; upon the bark; large
" testata ......... on heath, birch, sallow, poplar, &c.; singly, large
" populata ...... on poplar, bilberry, whortleberry; globular, large, yellow
" fulvata ......... on dog rose; rose pink, large [thorn; large
" pyraliata ...... on Galium, haw-
" dotata ........ on black, and red currant; large
E. cervinaria ... on mallow
C. spartiata ...... on broom
P. Cassinea ...... on oak
P. plumigera ... on maple, chiefly on the twigs, in hedges not shaded by trees. Best found this month when the sun is shining, which renders them clearly visible. Often singly, but s. in clusters of two, three, or many more. Circular, smooth, brown above, whitish beneath

MARCH

C. flavicornis, e. on birch; red
G. flavago ...... on stems of marsh thistles, burdock, &c.; in heaps
S. satellitius ...... on oak; upon the twigs
D. rubiginosa ...... probably on apple, &c., and dandelion and other low plants
P. chi .......... on dock, hawthorn, sallow, and probably lettuce, sowthistle, tea tree, &c.; purplish brown
" flavocincta ... on dock, chickweed, groundsel, mint, &c.; in gardens on everlasting pea, plum, &c.
D. templius ...... on Heracleum sphondylium; upon the leaves
T. subsutius ...... on poplar; upon the twigs
" retusia ......... on sallow, willow, poplar; upon the axils of the leaves
C. vetusta ...... on various meadow and marsh plants, also poplar
X. conformis, b. on alder, birch
H. proboscidalis on nettle; rather large, globular (slightly oval) indented on upper side; pale yellow

LARVAE]

A good harvest is sure to reward the industrious worker this month, if he persistently prosecutes his larva-searching, on mild evenings, in good localities, there being so many species which have hibernated, and only now seem to require a ramble before making a selection of their hiding place for pupation.

In the lists of larva, the month of origin of hibernation has been specified as far as possible. When a larva ceases to be mentioned, it may be assumed that at the last period of its mention, it was nearly if not quite full fed.

S. Ægeria... ..... from Sept., grasses
" Megæra ..... from Sept., grasses
R. cratægata ... from Sept., hawthorn, sloe
H. auroraria ... from Aug., plantain
A. ossea...... from Aug., dandelion, &c.
S. belgariæa ...... from Aug., heath
O. filigrammaria bilberry and sallows
E. tenuiata ...... in sallow catkins
MARCH

towards the end of this month
wanders about for a few days,
then changes to a pupa in a
slight cocoon, at the foot of a
tree, or under bark

M. strigilis ......grasses, and other
plants

C. alsines ......from Sept., dock, chickweed, plantain

" cubicularis ......from Sept., in corn
ricks, on grass, pulse, and
grain

R. tenebrosa......from Sept., various
plants

A. corticea ......from Sept., Chenopodium, &c.

" cinerea ......from Sept., r. of
low plants

" lucernea ......dandelion, harebell,
&c.

" Ashworthii ......from Sept., fescue
grass, hawkweed, sun cistus,
thyme, heath, harebell

T. ianthina ......from Aug., broom,
chickweed, &c.

" fimbria ......from Oct., broom,
sallow, oak, ash, broom, prim-
rose, &c.

[&c.

" interjecta ......dock, mallow, grass,
subsequa ......from Oct., low plants

" orbona ......from Aug., broom
and low plants; when young
on sallow buds

" pronuba ......from Aug., dock,
and various other plants

N. festiva ......from Aug., violet,
sallow, foxglove, &c.

" umbrosa ......from Sept., dock,
and low plants

" xanthographa from Oct., grasses
and low plants

C. xerampelina, s. from Oct., ash;
hides in crevices of bark

E. lutulenta ......from Oct., Lithos-
permum arvense, and other low
plants

" lichenea ...... from Nov., ragwort,
and various low plants

P. empyrea ......from Nov., pile-
wort, &c.
**MARCH**

A. advena ... from Aug., lettuce, knotgrass, and various plants
H. adusta ........ from Aug., low plants
   " rectilinea ...... from Aug., sallow, bramble, bilberry
A. myrtilli, s ... from Aug., heath
P. chrysitis ...... from Sept., burdock, thistle, nettles, dead nettle, &c.
M. typica ...... from Sept., dock, low-plants, &c.
   " maura .......... from Sept., dock, chickweed, ivy, &c.
H. proboscidalis from July, nettle
H. deralis ...... from Aug., among dead oak leaves
   " barbalis ...... from Sept., birch catkins
A. pinguinalis ... in greasy horse cloths, rubbish in houses, &c.
P. stratiotalis .. aquatic, on Callitriche verna, Stratiaotes aloides, &c.
B. asinalis ....... from Oct., madder, fl., and young seeds
S. muralis ...... the mosses Grimmmea pulvinata, Dryum capillare, &c.
   " mercuralis ... the mosses Hypnus elegans, and Jungermannia dilatata
   " cratægalis ... the mosses Hypnus elegans, and Jungermannia dilatata
C. tristellus ...... in damp moss
   " culmellus ... in damp moss
C. phragmitellus from Oct., reed
M. cribrella ...... from Oct., in thistle stems
P. abietella ...... from Sept., Scotch fir-cones, decayed wood, and shoots
T. adjunctana ... ivy, honeysuckle, &c.
P. gentianana ... from Nov., in teazel heads [poplar
G. nisana ......... catkins of white Penklerianna...alder catkins
E. cirsianna ...... from Sept., in thistle and knapweed stems, in woods
   E. Pfulgiana ...... from Sept., in thistle and knapweed stems, in open places
   " Brunnichiana in stems of coltsfoot
   " nigricostana...Stachys, r.
   " grandævana...in r. of coltsfoot and Petasites, on the ballast heaps at S. Shields, making long tubes in the sand
S. Wœberiana ... from Oct., bark of plum, &c.
C. strobilana ... from Oct., cones of spruce
   " Hercyniana ... from Oct., spruce
R. turionana ... in shoots of Scotch fir
S. coniferana ... from Oct., under bark of Scotch fir
   " Leplastrierana from Oct., in stems of cabbage
   " regiana ...... from Oct., under sycamore bark
D. politana ...... from Oct., Achillea millefolium, r.
E. nana ........... birch catkins
   " roseana....... from Oct., seeds of teazel
C. Francillonana from Oct., in stems of wild carrot
T. pesudo-bombycella from Oct., lichen, on oak trunks, &c.
S. triquetralla ... on old palings on moors, marshes, &c., in a triangular case
   " inconspiciella in a case on trees and palings
T. ganomella ... from Oct., in birds' nests
   " biseliella ...... from Oct., in bird skins, hair seating, &c.
L. prælatella ... from Sept., in a flat case, under wild strawberry
A. Degeerella ... from Oct., wood anemone, &c.
D. assimilella ... broom
G. ericetella ... from Sept., on Erica cinerea, E. tetralix, and Calluna erica
   " arundinetella...Carex riparia
   " domesticella ... in moss, on old walls
LARVÆ]

G. luculella ..... in decayed wood
" bifractella ...from Oct., Conyza
squarrosa, Inula dysenterica
" cerealella ..... from Oct., in grains
of wheat and barley
P. Metzneriella from Oct., Centaurea
nigra, heads
" carlinella ... from Oct., Centaurea
nigra, and thistle heads
H. bracteella ... in decayed wood
Œ. minutella ... on seeds
" pseudo-spretella from Oct., dried
fruit, peas, and other seeds, also
hams, &c.
A. glaucinella ... in bark of oak,
horse chestnut, &c.
" Goedartella ... in bark of elder,
birch, &c.
" Brochella..... birch shoots
C. farinatella ... Scotch fir
" Gysselinella... Scotch fir, in a web
between leaves
O. pinariella ..... Scotch fir
G. tringipennella in plantain
C. pyrrhulipennella from Oct., heath
" discordella from Oct., Lotus cor-
iculatus
" genistææcola from Oct., Genista
anglica

MARCH

C. lineolella..... Ballota nigra
" juncicolella ... from Oct., heath
" laricella ..... from Sept., larch
" viminette ..... from Sept., sallow,
and osier
" solitariella ... from Oct., Stellaria
holostea
L. palludicolella Epilobium hirsutum
" atra (hellerella) hawthorn berries,
and shoots of apple
C. flavicapitella from Sept., in twigs
of hawthorn, in which it bores
A. æratella ..... from Oct., galls on
knotgrass
E. apicipunctella from Oct., in Aira
" cinereopunctella from Sept., in
Carex glauca
" trapeziella ... from Oct., in Luzula
pilosa
" subobscurælla Holcus mollis
T. marginæ (emyella) from Oct., in
bramble
" dodoneæla ... from Oct., in oak
P. trigonodactylus in coltsfoot, fl.
stems
" tephradactylus from Sept., golden
rod, in shady places
" osteodactylus from Sept., golden
rod

PUPÆ]

As other, and more attractive work will soon be crowding upon us, and
many species are beginning to emerge, the final search for winter pupæ
should, if possible, be completed this month, if it has not been done long
before.

P. Machaon ..... on stems of Peuce-
danum palustre ; in fens
P. brassica
\{ rape\} on palings, walls, &c.
\{ napi\}
A. cardamines on stems of grass, &c.
L. Alsus ..... among Anthyllis
vulneraria
S. ocellatus ..... sub., at willows,
poplars, &c.
" populi ..... sub., at poplars,
willow, &c. [beech
" tiliae ..... sub., at elm, lime,
C 2
E. versicolora ...spun up, at birch
S. carpini .......cocoon amongst leaves, heath, &c.
E. dolobraria ...under moss, on oak, &c.
S. illunaria ......sub., at willow, oak, &c.
O. bidentata ...under moss, on various trees
N. zonaria ......sub., at sandhills on the coast
B. hirtaria.......sub., at elm, lime, ash, and fruit trees
A. betularia ......sub., at oak, elm, birch, and other trees
H. abruptaria ...spun up, on twigs, &c., of lilac, rose, or privet
T. consonaria ...under moss at r. of beech, oak, birch
" biundularia ...spun up, on oak, and birch
" punctulata ...undermoss, on birch and alder, or in bark crevices
I. lactearia ......spun up, among leaves of oak, and birch
E. porata ........fastened to leaf of oak
" punctaria ........fastened to leaf of oak, or birch
" trilinearia.....fastened to leaf of beech
" pendularia ...fastened to leaf of birch
E. heparata ......among moss, &c., on alder
C. exanthemaria spun up, under leaves of sallow, and alder
M. liturata ......at larch, rarely within 2 ft. of the tree
N. pulveraria ....in withered sallow leaves
F. carbonaria ...among dead leaves of sallow, and birch
" piniaria ......At Scotch fir, and larch; in open places in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
L. multistrigaria, sub., about Galium
E. albulata ......within the spun-up sepals of yellow rattle

E. decolorata ...about Lychnis dioica
E. venosata ......about Silene, and Lychnis
" consignata ......probably under moss, and loose bark, in apple orchards
" pulchellata ...among the seeds, and dead fl. of foxglove
" isogrammata, about Clematis vitalba
" fraxinata ......on ash, under moss, and loose bark
" nanata .........about heath
" vulgata......sub., about various plants and trees
" minutata ......about heath
" assimilata ....in crevices, about currant and hop
" exiguata .......about oak, &c.
M. ocellata ......among Galium; spun up, near the ground
M. subtristata } sub., near Galium galiata
A. sinata........in earthen cocoon;
.....on the ground, among Galium
" badiata........in earthen cocoon, on the ground, beneath dog rose bushes
" derivata ......sub., at dog rose
C. sagittata ......spun up, among Thalictrum;
.....or on the ground near; in fens
" suffumata ...changes to a pupa this month among bedstraw or ragwort
E. lineolata ......cocoon attached to Galium verum under the surface on coast sandhills
D. bicuspis ......spun up, on birch trunks in the south; alder in the north; rarely above 2 ft. from the ground
" furcula ......spun up, on trunk of willow, or sallow
" bifida .........spun up, on trunk of poplars
" vinula .......spun up, on trunk of willows, poplars, and sallow; three or four feet from the ground
PUPÆ]

S. fagi ............... spun up, among leaves of beech, oak, birch, elm; s. at r.
P. bucephala ... sub., at various trees
C. curtula ........ spun up, between dead leaves of poplars, and sallow
" reclusa ........ spun up, among dead leaves of sallows, poplars, willows
P. palpina .......... at willows, and poplars, on edges of streams, or under sods near
N. camelina ....... sub., at various trees
" cucullina ....... sub., at maple, and sycamore
" carmelita ...... sub., at birch
" dictæa ......... at poplars, and willows, or under sods near
" dictæoides ... sub., at birch
" dromedarius .. sub., at birch, alder, nut
" ziczac .......... sub., at poplars, sallow, willows
trepida ....... sub., at oak
" Chaonia ...... sub., at oak
" Dodonea ...... sub., at oak, and birch
T. batis ............ near bramble, and wild raspberry
C. duplaris ...... between united birch leaves
" fluctuosa ...... among birch leaves
D. Orion .......... at birch, and oak, in a cocoon of gnawed bark, or rotten wood
A. tridens ........ spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
" psi ............ in bark crevices of various trees
" leporina ..... in excavations in the bark of birch, poplar, alder, sallow
" aceris ........ spun up, among fallen leaves, and under loose bark, of sycamore, horse chestnut, maple, birch, and s. oak
" megacephala under loose bark of poplar

MARCH

A. strigosa ...... among dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
" alni ............ between leaves of various trees, or inside bramble sticks
" ligustri ...... spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls against the tree
" rumicis ...... spun up, in crevices of trees, palings, walls, &c.

N. putris ....... sub., at elm
D. pinastri ...... in a cocoon, on the ground, among dock, sorrel, &c.
X. conspicillaris, sub. at elm, and other trees
M. albicolon ....... sub., near Atriplex, Chenopodium, lettuce, &c.
C. Morpheus ...... spun up, in a leaf, or an earthen cocoon attached to food-plant
A. segetum, s ... sub., among Crucifera, grass, &c.
T. piniperda...... at Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark; and under moss and fallen needles, rarely within 2 ft. of the tree, 1½ to 2 in. deep
D. carpophaga ... sub., near Silene, and Lychnis, on the coast; found by raking sandhills
" capsophila { sub., about Silene cæsia ...... } maritima
capsincola ... sub., near Lychnis
H. serena ...... sub., near Sônchus, and lettuce
H. glauca ...... sub., near sallow, and birch
" oleracea ...... sub., near elm, nettle, dock, &c., and in kitchen gardens
" thalassina ...... sub., near honey-suckle, sallow, broom, &c.
C. verbasci ... sub., in earthen cocoons, near mullein, and figwort
" scrophulariae } s. 2 yrs. in pupa
PUPÆ]

C. lychnitis ....in earthen cocoon, near white and black mullein; s. 2 yrs. in pupa
" asteris .......near golden rod, &c.; s. 2 yrs. in pupa
" gnaphalii ......near golden rod
" umbratica ...sub., near Sonchus, &c.
H. marginata ...sub., near Ononis procurrens
" dipsacea ......among melilot, and probably Silene otites, and Linaria
E. venustula.....at r. of Tormentilla reptans, and grass
B. argentula ......among grass, on the ground

IMAGOS]

If the season should be a forward one, the sallows will be in bloom this month. They are found to be a great attraction to most of the moths on the wing at this period, more especially the Tæniocampæ, and the hibernating Noctuæ. These, having

"skimmed the dusk fields,"

we shall find feasting on the sparse blossoms,

"In the retired quiet of the night."

If the sallow bushes we are in the habit of visiting are awkwardly situated for the capture of moths, branches of them may be cut before dark, and stuck into the ground at convenient places. If they should afterwards take root in these places, they may save the trouble of the process being repeated next season.

The following are the freshly-emerged species which ordinarily appear this month:—

P. rapæ............gardens, &c.
E. lanestris ......at rest on hawthorn, &c.
E. versicolora ...in birch woods
S. illustraria
P. pilosaria .... at l.; ♀ on tree trunks
N. hispidaria ...on oak trunks
B. hirtaria........
A. prodromaria s. on oaks
T. crepuscularia on tree trunks
H. leucopheaeria ) rest on tree trunks;
" progemmaria } fly at dusk; s. come
A. æscularia ... ) to sallows (See last month)

MARCH

B. parthenias ...at birch, in crevices of bark, or on the ground
A. urtice...........spun up, among nettle leaves
" triplasia ......spun up, among nettle leaves, hop, &c.
P. Ænea ..........amongst Polygala vulgaris
E. sambucalis ...spun up, in crevices in palings, walls, &c., near elder
G. canella.........among Salsola kali
H. prasinaria .. under moss at base of oaks
I. mascellella } among dead leaves
" Zinckenella } of birch and oak
" Oehlmanniella 

L. multistrigaria
E. abbreviata ...among oak
L. lobulata .....on Scotch fir trunks
A. badiata ......at sallows, and flying over hedges at dusk
derivata ......
" P. polygrammata damp meadows;
very local
P. nubeculosa
N. carmelita......on birch trunks, and palings near. Flies in the sunshine; may be taken at sallows; and is attracted by puddles
C. flavicornis ...at rest on birch twigs
MARCH

C. chamomillæ...has been taken at rest on iron bars, and various materials, probably h.

B. parthenias ...birch woods; flies on sunny mornings over birch trees, and round sallows.

" notha .......rests on aspens; flies in the sunshine round sallows, &c.

A. prodromana, e., on moors.

S. pauperana ...among wild rose.

P. crenana ...moors, &c.

C. vernana, e.

" pygmæa, e. among spruce.

H. fimbriana, e. oak woods in the S., at rest on the branches; darts to the ground when disturbed.

T. hyemana"......oak woods, at rest on the branches.

D. fagella, e. ...on tree trunks and palings.

E. avellanella, e. among birch.

T. biselliella ...to Oct.

D. arenella

" ciniflonella ...Rannoch.

" rhodochrella beaten from thatch.

B. incongruella on moors, &c.

E. consortella

N. aurella.......to August, on tree trunks and palings.

THE FOLLOWING HIBERNATING SPECIES HAVE BEEN TAKEN THIS MONTH:

C. Edusa, C. Hyale, at rest in hollow trees, outhouses, &c.; V. c-album, V. urticae, V. polychloros, V. Antiope, V. Io, V. Atalanta, V. cardui, at rest in outhouses, &c. and s. flying about on sunny days; M. stellatarum, hovers over fl. in the sunshine, and also flies in the evening; E. fasciaria, and T. variata, among Scotch fir; C. fluviata, and S. dubitata, at l.; C. psitticata, C. miata, and C. silaceata, in hollow trees, outhouses, &c.; A. auricomæ, L. lithargyria?

This is the month when many hibernating species deposit their ova, as well as several which are freshly emerged. Owing to the scarcity of leaves upon the trees and bushes, the egg in many cases may be more readily found than when, later in the season, the branches are more covered. Some day-flyer, "Drawn from his refuge in some lonely elm,
That age or injury has hollowed deep," may sometimes be seen, when the sun shines, engaged in the interesting operation of oviposition. By carefully watching, a clue as to the plant upon which the egg is laid, as well as its situation, will be often afforded.

G. rhamni ......on buckthorn; placed singly upon terminal shoots, and on the midrib; pointed
V. urticae .........on nettle; in batches upon underside of the leaves; barrel-shaped, fluted, green
T. quercus ......on oak
T. w-album ......on wytch elm
E. lanestris ......on hawthorn, sloe, &c.; spirally round twigs, and branches
E. versicolora ...on birch; upon the twigs, in small batches
E. yespertaria ...on nut
E. apiciaria ......on poplar, willow, sallow
R. cratægata ...to Sept., successive broods, on hawthorn and sloe; oblong, covered with hexamedal ridges; yellow, with red spots, like the imago
S. illunaria ......in the fissures of the bark of willow, ash, hawthorn, plum, &c.; light pink.
E. alniaria ......on alder, birch, sallow, beech, &c; brick-shaped, like all the Ennomos
" tiliaria ......on oak, sallow, birch, alder, &c.; purplish
" fuscantaria ...on ash, privet; upon the twigs, in small batches
" erosaria ......on oak, birch, &c.
E. angularia ...on oak, birch, beech, &c.
H. pennaria ......from Oct., on oak
B. hirtaria ......on lime, elm, ash, fruit trees; small, green, imbricated
A. prodromaria in crevices of bark of oak, birch, elm, nut
" betularia ......on oak, elm, hawthorn, birch, beech, alder, mountain ash; very small for the size of the moth
A. æscularia ......on oak, elm, horse-chesnut, privet, &c.; round the twigs, covered with down
L. multistrigaria on Galium
E. subciliata ...on maple; at foot-stalk of leaf
L. lobulata ......on honeysuckle, sallow, willow
" polycommata on honeysuckle, ash
M. rubiginata ...on alder; large
A. badiata ......on dog rose
" derivata ......on dog rose
S. dubitata ......on buckthorn
C. prunata ......on currant, gooseberry, sloe; upon the bark; large
" testata .........on heath, birch, sallow, poplar, &c.; singly, large
" populata ......on bilberry, whortleberry, poplar; globular, large, yellow
OVA]

C. fulvata ........ on dog rose; rose pink, large
dotata .......... on black and red current; large
E. cervinaria ... on mallow
lineolata .... on Galium; in clusters of eight or ten; at first pale yellow, but soon change to bright ochreous-brown
C. spartiata ...... on broom
P. Cassinea ...... on oak
nubeculosa ... on birch
C. curtula ........ on poplars & sallow
C. ridens ...... on oak; upon the twigs
G. flavago........ on stems of marsh thistles, burdock, &c.; in heaps
A. suffusa ... on grass, lettuce, radish, &c.
T. gothica........ on sallow, oak, and other trees, also many low plants
leucographa... on plantain; oval, bright yellow
rubricosa ..... on dock; pale yellow
opima ...... on Rosa spinosissima; in large clusters, conspicuous at a distance; at first pale yellow, but soon change to pinkish brown. The eggs of this species are, however, as often deposited upon the dead seed-heads of ragwort and houndstongue; also upon marum grass (Ammophila arundinacea) and sallow, growing on sandy sea-shores, as upon the food-plant
T. populetia ...... on twigs of aspen and poplar, especially Populus nigra; in clusters below the axils
gracilis.......... on willow, sallow, and low plants; often upon seed-heads of plantain; also upon dead reed-heads
miniosa ...... on oak; in clusters below the leaf-buds
H. croceago ... on oak
C. vetusta......... on poplar, & various meadow and marsh plants
exoleta ........ on scabious cam- pion, rest harrow
X. petrificata ... on oak, lime, birch; oval, greyish, thickly dotted with purple

LARVÆ]

The indications of past hibernation become numerous in the list this month. It might be supposed that moths and butterflies have a very brief life, as they are often only visible in the winged state for a short time; but with many of the larger species the period of life extends over eleven or twelve months, of which nearly nine are passed in the larval state, though a portion of this time, during the severe cold of winter, they are in a torpid condition. In others, though the total length of life is about the same, the larval life is short, and the imago life is long, commencing at the latter part of the summer, and extending through the winter, to the commencement of the succeeding summer,—interrupted, as in the larval life, by a period of torpidity during the winter. Of course with those insects of which two, or three broods appear in the year, the life is very much briefer. Some species hibernate nearly full-fed, or feeding occasionally during mild weather, are found during this and the next month as larvæ, still unchanged. E. Lichenea will be found in its haunts on the coast full-fed, and about to change, from now to July. It is a species which is hard to breed away from its native habitat. The two chief modes of capturing larvæ are by beating, and by searching with a lantern in the evening. It is yet too early in the season, now that we only see

"the first
Hedge-grown primrose that hath burst,"
for much profit to result from beating, but night searching will well repay the labour. Examine the underwood of one or two years' growth, and the grass at the edges of ridings, with a lantern, immediately after dark, every mild evening. Large numbers of different larvæ may be thus taken during this and the following month. Nearly all the genus Noctua can be thus easily found.

The rolled-up leaves and shoots of sallow contain a large number of species, chiefly tortrices. They should be put into a flower pot in a cool place, and fresh leaves added when these are becoming dried up. The following are among the species which may be thus bred, and which will appear in June:—E. viminalis, T. crataegana, P. Lecheana, P. caprea, S. dealbana, H. angustana, G. populella, A. pygmaeella. By shaking or beating wild plants and flowers into a net or other receptacle many larvæ may be obtained, particularly of the smaller species.

Grasses, rushes, and carices are now productive of sundry Elachistidae and Coleophoridae, and several of the larger tribes. Sheltered spots in woods and lanes are the best places; and for the larger species wet evenings the best time. The mealy guelder rose, is an early tree, and will repay a search. Hawthorn trees nourish hordes of common larvæ. P. Verhuelella must be taken now, mining in the seed fronds of A. Ruta muraria, and other ferns. L. Rubiella is often too common in raspberry shoots. The pink larva betrays its presence by the blighted aspect of the young shoots.

A. Niobe ...........from Aug., violet & heartsease; should be looked for in localities where A. Aglaia, and A. adippe abounds
'' Euphrosyne, e. from July, dog and sweet violet, feeds in the sunshine; hides beneath primrose and other leaves
'' Selene, e ......from July, dog and sweet violet
M. Artemis .........from Aug., in wet meadows, among scabious, plantain, honeysuckle, &c.; rest exposed in the sunshine
E. Medea..........from Sept., moorland poa, and other grasses
S. Megera .........from Sept., grasses
'' hyperanthus from Aug., grasses; may be found at night among long grass near woods, &c.
P. Phlæas............from Oct., sorrel, dock, ragwort
L. agestis ..........from Sept., Erodium circutarium &c.
'' Alexis .........rest harrow, trefoil,
'' Adonis..........from Oct., Hippocrepis comosa, &c.
L. Arion ..........thyme; in dry and elevated districts, and hilly, thyme-covered slopes and fields
S. alveolus .......bramble, wild raspberry
T. tages.............from Sept., Lotus corniculatus
S. myopaformis in stems of apple, pear, plum, hawthorn; chiefly old or unhealthy trees
'' culiciformis ...in birch and alder
'' formicaformis from Sept., in osier stumps; the larva-hole, or the gnawings therefrom are often visible; the larva is best sawn out
'' chrysidiformis inside r. of sorrel and dock; at Folkestone and Eastbourne, and probably other places on the S. & E. coasts; supposed to be 2 yrs. feeding
'' cynipiformis in the bark of unhealthy-looking oaks and old stumps
'' tipuliformis ...from Oct., in the stems of old currant bushes
APRIL

E. apiciaria ... nut, poplar, willow, alder
A. prunaria ... from October, sloe, beech, broom, bramble, sallow, hawthorn, plum, &c.
E. fasciaria ... from Sept., Scotch fir
P. syringaria ... from Sept., lilac, privet, elder, honeysuckle; may be found at night hanging from its food
C. lichenaria ... from Sept., lichens, on oak
B. repandata ... bramble, sloe, birch, plum, spindle, and upon almost all sorts of underwood
" rhomboidaria from Sept., ivy, birch, oak, plum, rose, lilac, elder, &c.
" perfumaria ... ivy, lilac, clematis, &c.
" abietaria ... from Sept., larch, spruce, and Scotch fir
roboraria ... from Sept., oak
G. obscurata ... from Sept., Potentilla reptans, Poteriam sanguisorba, thyme, grass, sun cistus, &c.; s. found concealed by day among stones
H. auroraria ... from Aug., plantain
A. candidata ... hornbeam
A. rubricata ... from Aug., ...? will eat knotgrass, dandelion, Lotus corniculatus, Medicago lupulina, Thalictrum minus
scutulata ... from August, Anthriscus sylvestris, fl. and dandelion, preferring the withered leaves
" bisetata ... from Aug., dandelion; will also eat knotgrass and withered bramble
" trigeminata ... from July, some low plant? will eat knotgrass
" osseata ... from Aug., dandelion, &c.
" interjectaria ... from Aug., dandelion, scarlet pimpernel, withered ornata, s. ... from Sept., thyme
" remutata ... from August, low plants? will eat knotgrass
" fumata ... from Aug., heath
APRIL

A. strigilata ...... from Aug., Stachys sylvatica, &c.
" aversata ..... from Sept., primrose, nut, gooseberry, Geum urbanum, &c.
" degeneraria ..... from Aug., ? will eat knotgrass, bramble, Cerastium, Veronica
S. clathrata ..... from Oct., saintfoin, lucerne, &c.
S. belgiaria ..... from Aug., heath; may be found at night on heaths, &c.
F. pinetaria ..... bilberry, &c.
A. ononaria ..... rest harrow
O. filigrammaria bilberry and sallow
L. didymata ..... Chaerophyllum temulum, cowslip, &c.
" cesiata....... from Sept., bilberry and whortleberry
" olivata ....... from Oct., Galium mollugo; very sluggish
E. tenuiata ..... in sallow catkins
" rectangulata apple and crab, buds and fl.
" debiliata ..... whortleberry; in curled-up leaves
T. variata ....... Scotch fir, larch, &c.
" firmata....... larch and Scotch fir
M. montanata ..... from Oct., primrose
C. quadrifasciaria hawthorn, white dead nettle, knapweed, &c.
C. bilineata ..... grasses, chickweed, dock; hides under stones, at r. of herbage, &c., by day
P. lignata ..... from Sept., Galium palustre, &c.
C. russata ...... from Oct., strawberry, birch, hawthorn, sallow, &c.
" dotata ...... currant
E. palumbaria ... from Aug., broom, &c.
" lineolata, s. ... Galium verum
A. plagiata ...... from Oct., Hypericum perforatum
B. glandifera ..... from Sept., lichens, on walls; local. Both glandifera and perla build a cocoon of silk and earth, mortar, or crum-
bled stone, like a blister on paint, in which they live, except when they come out to feed, in the night, or early morning, especially in wet weather, when the lichens are soft.
B. perla ........... from Sept., lichens on walls
L. conigera ...... couch grass, & other grasses
" lithargyria ...... grasses, chickweed, plantain, &c.
" littoralis ...... from Aug., Ammophila arundinacea, on the coast; burrow seven or eight inches in the sand. Will also eat Carex
" pudorina ...... grasses, reed
" comma ........... grass, &c.
" strangulina ...... coarse grasses and common reed, in damp meadows, and borders of streams
" impura ...... from Oct., Carex, & Dactylis glomerata, inside the stem
" pallens ...... from October, Deschampsia cespitosa
S. ulva ............ from Sept., common reed
N. neurica ...... in stems of common reed; a small hole is visible in the stem of the plant, tenanted by a larva
" lutos ..... from Oct., in stems of common reed, near the r.
X. rurea .......... generally on grasses
" polyon ..... low plants
" hepatica, b. ... from Aug., grasses, chickweed, &c.
A. australis ...... from Oct., Cichorium, Poa annua, and other plants
H. popularis ...... grasses, amongst the roots, &c.
P. leucophae ...... from Oct., tufts of grass on commons, and in woods
C. Cytherea ...... from Sept., grass, in dry and stony places
L. cespitis ...... grasses; hides at r. by day
A. gemina ...... from Aug., grasses; hides at r. by day
APRIL

**LARVÆ**

A. **unanimis** .....from Sept., grasses, at the base of willows, &c.; hides at r. by day

" fibrosa ........in fl. stems of yellow flag

" oculea ........grasses, principally Dactylis glomerata, feeding on the undeveloped fl.

M. **strigilis** ......grasses, and other plants

" furuncula ......in stems of Festuca

G. **trilinea**......greater plantain and other plants; hides among the r. by day

C. **alsines** ......from Sept., dock, chickweed, greater plantain. In feeding be careful to give the same food as found on, as the larva is easily injured by shifting its food

" **blanda** ........chickweed, &c.

" **cubicularis** ...from Sept., in corn ricks, on grass, pulse, and grain

A. **valligera** ......from Oct., grasses, r.

" **segetum** ......from July, in r. of turnip, &c.

" **corticea** ......from Sept., Chenopodium, and other plants

" **agathina** ......heath

" **porphyrea** ...from Aug., heath

" **ravida** ........thistles, dandelion, &c.

" **lucernæa** ......harebell, dandelion, &c.

" **Ashworthii** ...from Sept., fescue grass, hawkweed, sun cistus, thyme, heath, harebell, &c.

T. **ianthina** ......from Aug., broom, chickweed, and other low plants

" **fimbria** ......from Oct., primrose and other low plants; also birch, oak, sallow, broom; concealed by day; found feeding at night

" **interjecta** ......dock, mallow, grass, &c.

" **subsequa** ......from October, low plants

" **Orbona** ......from Aug., sallow buds, when young; afterwards on broom and low plants

**THE LEPIDOPTERIST’S CALENDAR**

**T. pronuba** ......from Aug., dock, & various other plants [plants

N. **depuncta** ......sorrel, and other low " augur .........from August, low plants, hawthorn, sallow, &c.

" **pecta** ......low plants

" **c-nigrum** ......from Sept., low plants

" **triangulum** ......sallow, bramble, &c.

" **rhomboidea** ......from Sept., chickweed, sallow

" **brunnea** ......sallow

" **festiva** ......from Aug., violet, sallow, foxglove, &c.

" **Dahlii** ......from Sept., low plants; in mild winters s. feeds up without hibernating

" **umbrosa** ......from Sept., dock, and other low plants

" **baia** ......low plants

" **xanthographa** from October, plantain; hides under stones, &c.

O. **lota** ......willow, sallow

" **macilenta** ......beech, and s. birch

A. **pistacina** ......buttercup, dock, &c.

" **lunosa** ......from Oct., grasses, more especially in elevated places; concealed under stones

X. **cerago** ......sallow catkins; later on low plants

" **silago** ......sallow catkins

" **ferruginea** ......sallow and aspen buds, wytch elm seeds

C. **xerampelina** from Dec., on ash; may be found, at dusk, crawling up ash trunks; concealed in chinks of bark, and among grass at the base of the tree, during the day; very retired and sluggish in its habits, and feeds sparingly on ash shoots and hawthorn [leaves

T. **subtusa** ......poplar; between the C. **trapezina** ......oak, birch, hornbeam, &c.; also other caterpillars

" **pyralina** ......plum, pear, &c.

" **chi** ......hawthorn, sallow, tea tree, dock, lettuce, hawkweed, Sonchus, &c.
LARVAE]

D. templi .... Heracleum sphon-
dylium, inside the stem and r.
E. lutulenta .... from Oct., Lithos-
permum arvense, and other low plants
" viminalis .... sallow
" lichenea .... from Nov., ragwort
and other low plants, on the coast
P. meticulosa ... from Nov., ground-
sel, and various low plants
" empyrea .... from Nov., pilewort,
&c.
A. herbida .... from Aug., dock,
and other low plants
" occultula ....... primrose, plantain,
and other low plants; can only
be found in the evening
" nebula .... from Sept., sallow,
hawthorn, birch, &c.
" tincta .... from Sept., grass,
and low plants; also birch, and
other trees
" advena .... from Aug., various
plants
C. vetusta ....... poplar, and various
meadow and marsh plants
" exoleta ........ scabious, campion,
rest harrow, dock, Eryngium
maritimum, turnip, asparagus,
&c.
X. furcifera ...... alder, birch
A. myrtilli, s ...... from Aug., heath;
gently clear away the bottom
of the heath, and shake it into
the net
P. chrysitis ...... from July, burdock,
thistle, nettle, dead nettle, &c.
" iota ........ nettle, dead nettle,
honeysuckle, groundsel, &c.
" gamma .... nettle, hop, and
most low plants [plants
M. typica ...... from Sept., low
" maura ...... from Sept., ivy,
dock, chickweed, &c.
C. sponsa .... oak
H. probscidialis from July, nettle
H. derivalis .... from Aug., among
dead oak leaves
" barbalis .... from Sept., birch
catkinds

APRIL

H. tarsippennalis from Aug., rasp-
berry? Will eat knotgrass and
sallow
" cribralis .... from Aug., sallow,
Carex sylvatica, and Luzula
pilosa
A. flexula ....... lichen
P. farinalis ...... straw, corn, &c.
A. pinguinalis ... greasy horse cloths,
rubbish in houses, &c.
E. cingulalis .... from Sept., Salvia
pratensis
A. nemoralis ... Chrysosplenium alter-
-nifolium
C. lemnalis ... aquatic, in a case
filled with air, feeding beneath
the leaves (fronds) of duckweed
P. stratiiotalis ... aquatic, on Calli-
triche verna, Stratiotes aloides,
&c.
H. nymphaealis aquatic, in a flat
case, under the leaves of yellow
water lily, and Potamogeton
pectinatus
" stagnalis ...... aquatic, on Potamo-
geton
B. terrealis ...... from Aug., golden
rod, fl.
" asinallis ...... from Oct., madder
E. crocealis ...... Inula dysenterica,
between the leaves
S. olivalis ...... ground ivy, and
other low plants, in a web
under the leaves
" prunalis ...... sloe, and low plants
S. ambigualis .. moss
" mercurella ... the mosses Hypnus
elegans and Jungermannia dilata-
ta
" resinella ...... the lichens on ash,
Stigoneura mammillosa, and
Oscillatora autumnalis
C. hortuellus ... moss
C. phragmitellus ... from Oct., reed
A. lotella ...... in the stem and r. of
Festuca ovina, and Aira canes-
cens, in a silken tube
P. abietella ...... from Sept., young
shoots of Scotch fir, and decayed
wood and cones
APRIL

P. palumbella ...from Sept., polygala
T. Fosterana ...ivy, honeysuckle, &c.
P. Lecheana ...sallow, willow, honeysuckle, oak, &c.
P. capreana......sallow
" gentiana ......from Nov., in teazle heads
S. roborana ......in rose shoots
S. conchana? ......Galium, alder, &c.
E. mygindana ...in shoots of Myrica and Vaccinium, on northern moors
" rufana ........sun cistus
" arbutana ......Vaccinium, twisted shoots
S. subjectana ...various plants
" virgaureana ...various plants
B. lanceolana ...in stems of rushes
P. unguicana ...heath
" uncana ......Myrica gale, heath
" lundana ......trefoils, and vetches
G. ramana ......buds of birch
P. immundana ...in leaves of birch, and alder
" Demarniana catkins of birch
H. cruciana ......in sallow shoots
P. bilunana ......catkins of birch and alder
E. cirsiana ......from Sept., in thistle and knapweed stems, in woods
" Pfulgiana ......from Sept., in thistle and knapweed stems, in open places
" Brunnichiana in stems of coltsfoot
" turbidana......r. of butter burr (?)
" fœniana ......from Oct., in r. of Artemesia
" grandævana......r. of Petasites and Tussilago
S. Waëberana ......from Oct., under bark of fruit trees
C. strobilana ......in fir cones
" hercyniana ......spruce fir
" ustomaculana Vaccinium
R. turionana......in shoots of Scotch fir
" pinivorana ......in shoots of Scotch fir
S. coniferana ......under bark of Scotch fir
S. Leplastrierana in stems of cabbage
D. Petiverana ....r. of Achillea millefolium
" simpliciana ......in r. of Artemesia vulgaris
" acuminatana ox eye
" consortana ......shoots of chrysanthemum
C. nimbana ......under moss, and bark of beech
X. Fabriciana ......nettle, pellitory, &c.
E. udana ......in stems of Alisma plantago
" rupicolana ......hemp agrimony (?)
" roseana ......from Oct., in seeds of teazle
X. Zoegana ......in r. of Scabiosa calumbaria, Centaurea nigra, &c.
C. tesserana ......from Sept., in r. of Picris hieracioides
T. pseudo-bombycella from October, lichen on oak, beech, &c., in a long, slender case
P. opacella ......in a case on fallen fir logs, probably feeds on lichen, grass, heath, furze, &c.
S. triquetrella ......in old palings, on moors, marshes, &c., in a triangular case
P. Verhuellella in the indusia of Asplenum ruta-mutaria and hartstongue
D. marginepunctella in a case on trees, &c.
X. melanella ......on lichens, in a case on trees, and palings
S. carpinetella ......fungi on rotten wood cloacella ......rotten wood
" albipunctella ......rotten sticks
" pellionella ......in carpets, cloth, feathers, &c.
" ganomella ......from Oct., in birds' nests
" biselliella ......from Oct., in bird nests, hair seating, &c.
L. pœchraceella ......ants' nests
L. prælatella ......from Sept., in a flat case on underside of wild strawberry
LARVAE]

L. rubiella ..... in shoots of raspberry
I. masculella ... from June, rose, &c.
" capitella ..... in the shoots of current bushes
M. Allionella ... honeysuckle
" fastuosella ... nut
A. viridella (?)... oak
N. scabiosellus... from July, various low plants
" cupriacella .. from July, Sedum reflexum, S. album, &c.
E. Messingiella Cardamine amara
P. porrectella ... Barbara vulgaris, Hesperis matronalis, in a web on the underside of the leaves
H. harpella ..... honeysuckle
D. assimilella ... broom, between united twigs
G. velocella ..... Rumex acetosella, towards the r.
" diffinella ..... Rumex acetosella, towards the r.
" arundinetella Carex riparia
" affinella ..... under moss on old walls
" domesticella in moss on old walls
" vulgella ..... hawthorn, between united leaves
" tricolorella ... in seeds and shoots of Stellaria
" instabilella ... Plantago maritima
" Mouffetella ... in shoots of honeysuckle
" tenebrella ... from Sept., in r. and lower stem of Rumex acetosella
" anthyllidella shoots of Anthyllis
P. neuropterella from Oct., in heads of Cirsium acaule
M. ustulella ..... from August, nut, birch, lime, maple, hornbeam, &c.
P. bicostella ..... from Nov., Erica cinerea
H. bracteella ... in decayed wood
D. sulphurella ... in rotten wood
CE. fusco-aurella in dead sticks
" pseudo-spretella from Oct., various kinds of dried fruit, dried peas, and other seeds; also hams

APRIL

CE. flavifrontella... from Sept., in a case on beech
B. grandipennella... furze
" fusco-aneella... among sun cistus
" chenopodiella... Chenopodium and Atriplex
R. Erxlebenella Tilia
G. Haworthella Eriophorum, seeds
" schænicolella in seed-heads of Schænus nigricans
D. ocnerostomella in dried stems of Echium vulgare
A. ephippella ... in shoots of wild cherry
" glaucinella ... in bark of oak, horse chestnut, &c.
" abdominella... in needles of juniper
" pygmaeella ... in sallow catkins
" Gadartella ... in bark of alder, birch, &c.
" Brochella... birch shoots
" arceuthinella in shoots of juniper
" aurulentella... juniper, in the leaves
C. farinatella ... in leaves of Scotch fir
O. pinariella...... Scotch fir, in the leaves
G. tringipennella in plantain
" auroguttella... willow herb, and hypericum
" ononiella ..... rest harrow, and clover
C. lixella ....... grasses
" pyrrhulipennella from Oct., heath
" discordella ... from Oct., Lotus corniculatus
" genistæcolella from Oct., Genista anglica
" lineolella ..... Ballota nigra
" juncicolella ... from Oct., heath
" cæspititiella... from Sept., rushes, seeds
" laricella ..... from Sept., larch
" albitarsella ... from Nov., Origanum and Glechoma
" gryphipennella from Sept., rose
" vitisella ..... from Nov., whortleberry
" viminetella ... from Sept., sallow and osier
**APRIL**

**C. solitariella** ...from Oct., Stellaria holostea
**L. paludicolabella** Epilobium hirsutum miscella ...sun cistus
**C. Linneella** ...from Nov., under bark of lime trees
**" Schrankella** ...Epilobium alsiniforme
**A. æratella** ...from Oct., in galls on knotgrass
**S. Brünnicchellia** Melissa clinopodium
**E. Gleichenella** in Luzula and Carex magnifica...Luzula pilosa
**" apicipunctella** from Oct., in Aira albita
**" labifrontella** ...in many grasses
**" laticomella** ...in stems of Dactylis glomerata
**" poella** ...Poa aquatica
**" kilmunella** ...Carex
**" cinereopunctella** from Sept., in Carex glauca...Luzula pilosa
**" trapeziella** ...from Oct., in Luzula Gregsonella
**" nigr ella** ...Poa trivialis, &c.
**" subnigr ella** ...Bromus erectus
**" perplexella** ...in Aira cespitosa
**Bedellella** ...Avena pratensis
**" zonariella** ...in Aira cespitosa
**" gangabella** ...from Nov., Dactylis glomerata
**" taniatella** ...from Sept., in Brachypodium sylvaticum
**Megerlella** ...from Sept., in Brachypodium, Bromus, Aira, &c.

**E. cerussella** ...in reed
**" biatomella** ...in Carex glauca
**" rufocinerea** ...in Holcus mollis
**" cygnipennella** Dactylis glomerata, and other grasses
**" paludum** , ...Carex intermedia, C. paniculata, and C. paludosa
**" serricornella** ...Carex
**T. dodonæella** ...from Oct., in oak
**L. lantanella** ...from Sept., Viburnum lantana
**" vacciniella** ...in whortleberry
**" Messaniella** ...in oak, evergreen oak, chestnut, hornbeam
**" trifasciella** ...in honeysuckle
**" scabiosacecola** ...in r. leaves of Scabiosa calumbaria
**C. Spartifoliiella** ...under bark of broom
**B. aurimaculella** on Chrysanthemum ox eye
**" cristatella** ...from Sept., on yarrow
**" artemisiella** ...Artemesia campetris, and yarrow
**N. Weaverella** ...from Oct., in whortleberry
**T. immundella** ...beneath bark of broom
**P. trigonodactylus** in coltsfoot stems
**" plagiodactylus** ...Scabiosa, and Veronica chamædrys
**" osteodactylus** from Sept., golden rod
**" aridus** ...on the Continent, on fl. buds of Coris monspeliensis

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**PUPÆ**

A new "spurt" will be given to the operations of the pupae hunter, now that he begins to find species which have only just changed. A glance down the list will show that he may, by diligent searching, find the chrysalids of some of the early summer butterflies, enabling him to secure them in all their glory, ere they

"hover on the flowers—aerial things,
With little rainbows flickering in their wings."

**P. Machaon** ......on stems of Peucedanum palustre; in fens
**L. sinapis** ......from Oct., on stems of Vicia cracca, and Orobus tuberosus; in woods

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**P. brassicæ** ...
**" rapæ** ...}

**L. sinapis** ...

**A. cardamines** ...on stems of grass, &c.
PUPÆ]

A. Euphrosyne...suspended by the tail among dog violet, &c.
M. Artemis ...suspended under a leaf, among scabious, plantain, &c., in damp meadows
" Cinxia, e. ...suspended among plantain, &c.
S. Ægeria, b. ...on grass stems, &c.
L. Alsus ...among Anthyllis vulneraria
S. ocellatus ...sub., at willows, poplars, &c.
" populi ...sub., at poplars, willow, &c. [beech tiliæ ...sub., at elm, lime,
Č. ligniperda ...at various trees, spun up, under bark; s. sub.
L. asellus ...spun up, on a leaf
A. mendica ...under moss on trees bordering ditches
" lubricepeda ] spun up, on trees, " menthrasti ] palings, &c.
" urtica ...under moss on trees
O. pudibunda ...in dead leaves, under moss, &c.
B. rubi ... ...along cocoon, among coarse grass, &c.; s. 2 years in pupa
S. carpini ... ...cocoon among leaves, heath, grass, &c.; s. 2 years in pupa
S. lunaria ... ...from Aug., at sloe, oak, nut, &c.
O. bidentata ... ...from Sept., under moss, on various trees
A. betularia ... ...from Oct., sub., at oak, elm, birch, &c.
H. abruptaria ... ...from Sept., spun up, on twigs, or branches
T. consonaria ... ...from Oct., under moss, at r. of beech, &c.
" punctulata ... ...from Oct., under moss, on birch and alder, or in bark crevices
I. lactearia ... ...spun up, among leaves of oak, and birch
N. viridata ... ...between united leaves of hawthorn and Bramble
E. porata ... ...fastened to leaf of oak

E. punctaria ... ...fastened to leaf of oak, or birch
" trilinearia ... ...from Sept., fastened to leaf of beech
" pendularia ... ...from Aug., fastened to leaf of birch
E. heparata ... ...from Oct., among moss, &c., on alder
C. exanthemaria ... ...spun up, under leaves of sallow and alder
C. temerata ... ...from Sept., woods, &c., near sloe, wild cherry, and probably buckthorn
M. liturata ... ...from Oct., in open places, and on the margins of fir woods, at 1 in. to 2 in. deep, rarely within 2 ft. of the tree
N. pulveraria ... ...from September, in withered sallow leaves, &c.
F. carbonaria ... ...from Aug., among dead leaves of sallow, and birch
L. adustata ... ...from Sept., in a slight cocoon just beneath the surface, among spindle
E. albula ... ... ...from Oct., within the spun-up sepals of yellow rattle
" decolorata ... ...from July, about Lychnis dioica
E. venosata ... ...from July, about Silene, and Lychnis
" consignata ... ...from Sept., probably under moss, and loose bark, in apple orchards
" pulchellata ... ...from Sept., among the dead fl. of foxglove
" isogrammata about Clematis vitalba
" fraxinata ... ...from end of Aug., on ash, under moss, and loose bark
" nanata ... ...about heath
" campanulata from Sept., sub., about Campanulae
" minutata ... ...about heath
" assimilata ... ...from September, in crevices about currant, and hop
" exigua ... ...from Aug., about oak, &c.
APRIL

LARVAE]

Y. ruberata ...... under loose bark of sallow, alder, &c.
M. ocellata ...... among Galium; spun up, near the ground
" subtristata ...... from Sept., sub., near Galium
" galata ...... sub., near Galium
A. sinuata ...... in earthen cocoon; on the ground, among Galium
C. munitata ...... spun up, on moss, on tree trunks
" unidentaria ...... among bedstraw, & sweet woodruff, in a slight web, on the surface of the ground
" sagittata ...... spun up, about Thalictrum, or on the ground near; in fens
" suffumata ...... among Galium and ragwort
E. lineata ...... cocoon attached to Galium verum, on coast sandhills, below the surface
C. obliquaria ...... from Aug., among broom
P. hamula ...... oak, birch; between united leaves
D. bicuspis ...... spun up, on birch trunks in the S., alder in the N.
" furcula ...... spun up, on trunk of willow or sallow
" bifida ...... spun up, on trunk of poplars
" vinula ...... spun up, on trunk of willows, poplars, and sallow, three or four feet from the ground
S. fagi ...... spun up, among leaves of beach, oak, elm, birch; s. at r.
P. bucephala ...... sub., at various trees
C. reclusa ...... spun up, among dead leaves of sallows, poplars, willows
P. palpina ...... at willows, and poplars, on edges of streams, or under sods near
N. camelina ...... sub., at various trees
" cucullina ...... sub., at maple and sycamore
" carmelita ...... sub., at birch
" dictæa ...... at poplars and willows, or under sods near

N. dictæoides ...... sub., at birch
" dromedarius ...... sub., at birch, alder, nut
" ziczac ...... sub., at poplars, sallow, willows
" trepida ...... sub., at oak, in a tough cocoon
" Chaonia ...... sub., at oak
" Dodonea ...... sub., at oak and birch
T. batis ...... near bramble and wild raspberry
C. duplica ...... between united birch leaves
" fluctuosa ...... among birch leaves
D. Orion ...... at birch, and oak, in a cocoon of gnawed bark, or rotten wood
A. tridents ...... spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
" psi ...... in bark crevices of various trees
" Ieporia ...... in excavations in the bark of birch, poplar, alder, sallow
" acer's ...... spun up, among fallen leaves, and under loose bark of sycamore, horse-chestnut, maple, birch, and s. oak
" megacephala ...... under loose bark of poplar
" strigosa ...... among dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
" alni ...... between leaves of various trees, or inside bramble sticks
" ligustri ...... spun up, under moss, stones, &c., near ash and privet; also sub.; also found under the top stones of walls against the tree
" rumici's ...... spun up, in crevices of trees, palings, walls, &c.
" menyanthis ...... spun up, near bilberry, heath, sweet gale, &c.
A. putris ...... sub., at elm
D. pinastri ...... in a cocoon on the ground, among dock, sorrel, &c.
PUPÆ]  

M. albicolon sub., near Atriplex, Chenopodium, lettuce, &c.  
A. segetum, s. sub., among Cruciferae, grass, &c.  
X. rurea under moss, on stumps  
A. unanimis under bark of willows, in damp places, and among decayed willow wood  
C. Morpheus spun up, in a leaf, or an earthen cocoon, attached to food plant  
R. tenebrosa among violets, and other low plants; a little beneath the surface  
A. Puta from Jan., near r. of dandelion, lettuce, carrots  
D. carpophaga...sub., near Silene, and Lychnis, on the coast; found by raking sandhills  
" capsophila from June, a constant succession, sub., about Silene maritima, on the coast  
" capsincola from August, sub., near Lychnis  
" caesia from August, about Silene maritima, on the coast  
H. serena sub., near Sonchus, and lettuce  
" adusta sub., near sallow  
" glauca sub., near sallow, and birch  
" oleracea sub., near elm, nettle, dock, &c., also in kitchen gardens  

IMAGOS]  

With the lengthening days, and warmer sunshine, the number of insects on the wing continues to increase; and amongst those which are due this month are several somewhat rare species. The sallows constitute an irresistible attraction on mild evenings, when we are sure to find that many moths have  

"from far and nigh  
Sped to the lure."  
The hibernating butterflies, as well as some which have freshly emerged, are also occasionally attracted to these blossoms in the daytime, when we are cheered by  

"amber sunbeams slanting down the vale."
IMAGOS]

APRIL

But the only rare species is V. Antiopa, which, however, is but seldom seen in the spring. Eggs may sometimes be obtained from the captured ♀ at this and other periods of the year. The freshly emerged ♀ of many species, particularly the Bombyces, can be used to attract the ♂, and large numbers are sometimes thereby taken. Beating thatch is a mode of capture often resorted to, and at this season many moths may be beaten out, particularly hibernating Geometrae. As the season advances,

"and vernal airs breathe mild,"

large numbers of Tineæ may be thus captured. Depressariæ, and some other species, seem much commoner now than before hibernation.

In the following list is given the species ordinarily to be found this month, including those which have hibernated, but which have not generally before put in an earlier appearance in the new year.

L. sinapis, e. ...woods; does not travel quietly if boxed
P. brassicæ, e. ...gardens, &c.
" rapæ..........gardens, &c.
" napi ..........gardens, &c.
A. cardamines ...fields, &c.
S. Ægeria, e. ...woods and shady lanes
T. rubi, m. ......woods, &c.
P. Phlæs ........fields and lanes, coast sandhills, &c.
L. argiolus, m. ...amongst holly, and at fl.
A. mendica, e....
D. coryli ......beech woods; may be beaten
E. lanestris, b. ...at rest on hawthorn, &c.
L. ilicifolia ......at rest on moors?
E. versicolora ...♂ flies by day; ♀ generally not till evening. A bred ♀ in a roomy box is useful for attracting the ♂ of most bombyces
S. carpini ........heaths and open places; fly in the sunshine
R. cratægata ...in hedges, &c.
S. illunaria, b....
" lunaria ........woods; comes to l.
" illustraria, e...woods
O. bidentata ...rests on tree trunks
B. hirtaria......in the squares of London
A. prodromaria, b. at rest on trees, &c.

H. abruptaria, e. on palings, trees, &c., and in gardens; comes to l.
T. crepuscularia...on trees
" biundularia...on trees and palings
E. pendularia .. beaten from trees
C. temperata, e. ...among sloe, &c.
A. pictaria ......at sloe fl.
N. pulveraria, e.
F. carbonaria, e.
A. ëscuraria.....on trees, &c.
L. multistrigaria, may be found towards the bottom of palings, on the grass, &c., being turned away
E. helveticata ...this species s. appears much earlier. Most of the genus fly just before dusk
" irriguata ......on birch trunks
" pimpinellata
" vulgata.........
" dodoneata ...flies in the early morning sunshine
" abbreviata ...
" pumilata ......
" coronata ......on trees and palings
L. hexapterata...woods
" lobulata .......on Scotch fir trunks, and gate posts, &c.
" polycommata
T. simulata ....
M. fluctuata ......on walls, palings, and in gardens
A. badiata ......at sallows, and flying over hedges at dusk
APRIL

A. derivata .......

P. polygrammata, b. damp meadows; very local

suffumata ... flies at dusk

P. lacertula ......beaten from birch

D. unguicula, e...among beech; flies in the day time

D. bicuspis ...at rest on tree trunks

P. nubeculosa ...birch woods in Perthshire

C. curtula ..........

N. carmelita......on birch trunks, and palings near. Flies in the sunshine; may be taken at sawlows; and is attracted by puddles

" trepida, e. ...on oaks

" Chaonia, e. ...

C. ridens .......at l., at sugar, and at rest on tree trunks

X. conspicillaris, at rest on trees; also beaten, and has been taken at sugar

T. piniperda......at sawlows, and at rest on fir trees

T. gothica .......at sawlows. The notes under March in reference to this genus also apply to April. Laburnum, and other early fl. also attract the genus

" gothacina......a var. of gothica, which is found in Finland and Lapland, and has been taken in Morayshire, &c.

leucographa...

" rubricosa ......

" instabilis ......remarkable vars. of this species, and also of stabilis often appear

" opima ........

" populeti ......

" stabilis.........

" gracilis........

" miniosa .......

" munda .........

" cruda .........

V. oleagina ......

P. meticulosa. This species occurs all the summer, there appearing to be, as is the case with several other common species, a suc-

cession of broods, but it is most abundant in Sept. and Oct.

X. lithoriza ......at sawlows, and on trees, walls, &c.

C. verbasci ......

" chamomilla, s. at rest, on rails, &c.

B. parthenias ......in and near birch woods; flies on sunny mornings round sawlows, &c.

" notha ...........on aspens, flies in the sunshine round sawlows, &c.

P. gamma, to Oct. } fly in the sun-

P. aenea, e. .......... } shine, & hover

over fl.

S. augustea ......from Aug.

S. Kevayana ......from Sept., woods

L. literana ......on oak trunks

" niveana ......at sawlows

P. mixtana ......from July, moors

S. pauperana ......among wild rose

C. musculana ......hedges

O. rusticana ......moors, fens, mosses

P. comptanata......chalk downs, &c.

P. tetraquerotrana, among birch

" immundana ......among birch and alder

" crenana ......from Sept.; most heaths in the N.

C. splendidulana, on oak trunks

" pygmaeana, b. among spruce

vaccinina ...

H. fimbriana ......oak woods, in the S.

T. hyemana ......oak woods

L. salicella ......among dog rose?

D. fagella ......on trees

E. avellanella ...

Steinkellneriella

S. triquetrella ......moors in the N.

" inconspicuella, b. at rest on pa-

lings, &c.

I. Zinckenella, e. among birch.

M. purpurella ......among birch and Scotch fir; may be obtained by sweeping the twigs; most of the genus fly on sunny afternoons, and at other times may be shaken from trees

" salopiella ......among birch

" semipurpurella, among birch
IMAGOS]

M. unimaculella among birch, and
  Scotch fir
" Sparmannella, among birch
" subpurpurella, among oak
" fastuosella ... among nut
A. cuprella, e. ... at sallows, flying in the sunshine
S. comptella, e. on hedges
" pyrella ....... among hawthorn hedges
Y. vigintipunctella, e. among Sedum telephium
P. xylosteella ...... among Cruciferae
  Dalella ...... on moors
H. radiatella ...... from Aug.
P. caudella ...... from Sept., on paling, &c., flies over spindle bushes after dark
D. arenella ...... from Aug.
" Alstræmeriella, from Aug.
" ciniflonella ... Rannoch
" capreolella ... from Aug.
" conterminella, from Aug.
" applanella ...... from July, flying over hedges
" chærophylloearella, from Aug.
G. velocella, e....
" ericetella, e.... moors and heaths
" junctella ......
D. sulphurella...
B. incongruella ... on heaths and moors, hides among withered sprigs of heath when disturbed
A. autumnitella, from Aug.
G. fuscoviridella
T. sericiella ......
O. pinariella, h.? among Scotch fir
Z. hepariella ... from Aug.
G. stigmatella ... from Aug.
  stramineella ... from Aug.
" populetella ... from Sept.
" phasianipennella, from Sept.
C. cuculpennella, from Sept.
" citrinella ...... from Oct.
O. anglicella, e. among hawthorn and sloe
C. chærophyllella, from Oct.
L. decorella ...... from Oct.
C. flavicapitella ... among hawthorn
E. rufocinerella ... among grass
L. Bremiella......
" alnifoliella ...

The following hibernated species may also be met with this month, but their condition is often so "seedy" that they are of little value as specimens, unless eggs are desired:

MAY

OVAl

As the geologist, to be successful at his favourite pursuit,

"Must dig out buried monsters, and explore
The green earth's fruitful crust,"

so the entomologist ought to be willing to devote himself, it may be, to the somewhat "dry" work of studying the earlier stages of the insects he collects, and not allow the more engrossing attractions of merely catching the imagos to solely occupy his attention. This is the more necessary to bear in mind now that the work of the season is beginning to crowd upon the collector. He should not "shut his apprehension up," and drop, it may be, into his old habit of merely amassing numbers of species, without making a corresponding addition to his knowledge regarding them. As he pursues his way

"through matted fern, and hazels thick,"

the eggs of many species may be found by critically examining the food-plant at the time they are due; but a more certain method of obtaining eggs is to induce the female imago to deposit on a sprig of the food-plant. With this view, all female specimens from which eggs are desired should be isolated, and placed under the most favourable conditions for oviposition. Many species readily deposit their eggs in a chip, or other box; others prefer the gauze, or cheese-cloth cover of a breeding-cage, or a spray of the larval food-plant; some can be induced to lay when placed in a glass tube or a glass shade, with a sprig of the food-plant, or of blooming heather, or a small piece of jam; and others, especially the butterflies, love the stimulus of air and sunshine.

One of the difficulties the breeder from the egg encounters is a prompt supply of the proper food-plant. Valuable species are often lost from neglect or mistake on this point. The most successful mode of meeting this difficulty is doubtless by having a growing plant ready, with the eggs placed upon, or near it; and this must be supplemented by other growing plants as the first one becomes demolished. Sometimes, however, the greater difficulty meets us of not knowing what is the food-plant in a state of nature. Every effort should be made to discover this, as we cannot be said to have worked out the life-history of an insect, though we may succeed in feeding it up from the egg, unless we have ascertained the natural food-plant, and thus accomplished it. Watching the female imago deposit her eggs is one of the surest and most satisfactory methods of solving this problem, and should always be carefully looked for, whenever opportunity offers, in all cases of imperfectly known species. Pieces of the various kinds of herbage among which the species is most frequently found should be in readiness to be first offered to the newly emerged larvae; and if these are refused, we must then resort to substitute-food-plants. Happily we have many available. For the Geometrina the common knotgrass (Polygonum aviculare) occupies
MAY

the first place, and it is often eaten by species in confinement in preference to the natural food-plant. Hawthorn, Lotus (trefoil), and Glechoma (ground ivy), sallow, and sloe are also useful. For the Noctuæ the following plants have been found acceptable—sallow, birch, plum, hawthorn, plantain, dock, dandelion, lettuce, clover, borage, goosefoot. When the food-plant is known, but cannot be procured, plants of the same natural order may be pretty safely substituted, and many will eat hawthorn or knotgrass when their natural food is not within reach. It is here, as in working out other branches of entomology, that a knowledge of botany is desirable; and the collector should not fail to make it his business to learn "all about" plants, as well as his favourite insects. If he does not, he will constantly find his progress impeded, and his ignorance upbraiding him. He should do this not by merely going through a cramming course at a Science School, however useful that may be as a groundwork for technical knowledge, but by super-adding to it the work of field botany, and mastering the mysteries of classification, and the best systems of natural arrangement.

L. sinapis . . . . . .on Vicia cracca, and Orobus tuberosus; long, standing on one end, yellow-white
P. brassicæ . . . . . .on cabbage, &c.; in groups; conical, ridged, yellow
" rapæ . . . . . .on Cruciferae, mignonette, and other garden plants; singly on the underside of a leaf
" napi . . . . . .on Cruciferae
" Daphlidice . . . . . .on wild mignonette, and weld
A. cardamines, e. . . .on Cardamine, Erysimum, &c., upon the fl.-stalks, and base of the fl.; bright orange
C. Edusa . . . . . .on white clover, lucerne, &c. This species also oviposits in June, and s. in July and August, and even in September
" Hyale . . . . . .on clover, melilot
V. c-album . . . . . .on nettle, hop, elm, sloe, currant
" urticae . . . . . .on nettle; in batches upon underside of leaf; barrel-shaped, fluted, green
" polychloros . . .on elm, s. willow and poplar; in regular batches; globular, glassy, brownish
" Antiopa . . . . . .on willow, birch, poplar, nettle
" Io . . . . . .on nettle; green
" Atalanta . . . . . .on nettle, singly; green

S. Ægeria . . . . . .on grasses; singly
" Megæra, e. . . .on grasses
" C. Pamphilus . . .on Nardus stricta, and probably other grasses
T. rubi . . . . . .on bramble, broom, Genista
L. Alexis, e. . . .on rest-harrow, trefoil, &c.
" Argiolus, b. . . .on holly, and probably buckthorn, upon the fl.-stalks, rather close to the fl.; at first green, changing to white
S. alveolus . . . . . .on bramble and wild raspberry; singly, pale green
T. Tages . . . . . .on Lotus corniculatus
M. stellatarum . . .on Galium mollugo; upon underside of leaf of plants growing on old walls
S. populi . . . . . .on poplar, sallow, willow; laid singly upon the leaves; oval, green
A. fuliginosa . . .on dock, nettle, plantain, &c.; in regular batches upon the leaves, as do the three following species
" mendica . . . . . .on sloe, plantain, &c.
" lubricipeda . . .on various low plants; s. elder and other trees
menthrasti . . .on various low plants
" Ö. pudibunda . . .on hop, oak, &c.; in regular batches
OVA\[  
S. carpini, b. ... on heath, bramble, sloe, sallow, &c., spirally round the twigs; round, pale green  
E. advenaria......on dogwood, and probably wild rose, and bilberry  
O. bidenta......on oak, sallow, nut, sloe, &c.; in regular batches, upon the leaves; dark green  
E. alniaria ......on alder, birch, sallow, beech &c.; brick-shaped, like all the Ennomos  
" tiliaria ........on oak, sallow, birch, alder, &c.; purplish  
" fuscantaria ...on ash, privet; upon the twigs, in small batches  
" erosaria ......on oak, birch, &c.  
" angularia ......on oak, birch, beech, &c.  
A. prodromaria in bark crevices of oak, birch, elm, nut  
T. consonaria ...on beech, oak, birch; oval, dull reddish purple  
" biundularia ...on oak, birch, &c.; slightly oval, bright green  
P. petraria ......on brake fern  
F. carbonaria ...on sallow, birch  
" piniaria ......on needles of Scotch fir and larch; in a row on the higher branches  
A. citraria........on wild carrot, trefoil, &c.; on the coast  
L. polycomata on honeysuckle, ash  
M. albicillata ...on bramble, raspberry; large  
C. ferrugata ......on ground ivy, Galium, chickweed  

MAY  
C. russata, e. ...on strawberry, birch, hawthorn, sallow, &c.; singly, large, flattish; dingy yellow  
E. lineolata, e. ...on Galium verum, on the coast; in clusters; oval, standing on the smaller end; yellow, changing to pale brown  
N. trepida...........on oak; white, with faint blue tinge; large  
T. gracilis .. ......on willow, &c., and low plants; often upon seed-heads of plantain, also dead reed-heads  
M. brassicae ......on cabbage, dock, Chenopodium, &c.; in regular batches, upon the underside of the leaves  
A. saucia ..........on plantain, grass, clover, and other low plants; hatch in about a fortnight after being laid. The eggs are, however, s. laid in Oct., hatch early in November, turn to pupæ about Christmas, and the imagos emerge in April  
D. capsophila ...on fl.-heads of Silene maritima  
" capsincola, e. on fl.-heads of Lychnis and Silene  
X. petrificata ...on oak, lime, birch; oval, greyish, thickly dotted with purple  
A. urticae ..........on nettle  
" triplasia ......on hop, and nettle; globular, singly  

LARVAE]  
The "merry month of May" is the great month for larva beating. Now is the time when most of the species which have hibernated are nearly, if not quite, full-fed. These, therefore, are gladly seized upon, as they require but little attention to bring them into healthy pupæ. Of course in all these cases it is desirable, if possible, to identify the species, and give it its proper pabulum, and as nearly natural conditions as possible, to enable it to easily pass into the next stage. Quiet and cleanliness are essential conditions of healthy larval and pupal life. Breeding cages should, therefore, never be crowded either with species or with the food-plant; and should, if possible, have some quiet crannies, with the requisite material, and space for each particular species to effect its last and most important transformations. In
LARVÆ]  

MAY

carrying out these arrangements, not only should every means be afforded the larva to make its cocoon, or to otherwise pass into the pupal state, but it should be remembered that in a few weeks the perfect insect will emerge, and provision must be made for its successful advent in the winged state.

Besides the hibernated larvæ, many will be found in various stages of growth which have only emerged from the egg state in the earlier spring months. Some of these may be rather small, especially if the season has been backward; but their careful feeding up will have its reward in their being found to be seldom infected with parasites, to which older larvæ are more liable. In carrying out these breeding arrangements our object should not only be to carry the operation successfully through, but to learn the habits of the various species as they would behave in a state of nature.

Many larvæ vary in appearance according to their age. In some species, when one of the regular changes of skin takes place, the appearance of the insect is completely altered. Many young larvæ are thus unknown, which, when mature, are recognised as old friends. Many noctuæ are more gaily dressed in youth than in maturity. Among the other kinds which are sober in colour in the earlier stage, but array themselves gorgeously in their last moult, are L. Àegon, C. flavicornis, A. australis, T. rubricosa, E. nigra, C.exoleta.

The cannibal larvæ should be carefully looked for when beating; and be “left out in the cold” if not wanted, or boxed separately if they are, or they will make short work of any larva that happens to come in their way.

A useful article to the larva collector is a bag, made of canvas or linen, about two feet deep by one foot wide. This would hold a large number of larvæ, with sprays of their food-plants, and when the mouth is tied the whole may easily be carried. If time presses on reaching home, the larva may be left hung up in their bag for a day or two, in a cool place, without injury. If the whole of the larvæ are turned out into a pan on reaching home, and covered with muslin, the case bearers will crawl up and attach themselves thereto.

The reader may again be reminded that night searching for larvæ, especially on low plants, often yields many species. They are sometimes found crawling up or down trees. Just before sunset is the best time for beating, or sweeping, especially on warm evenings in the early summer. On favourable evenings towards the end of May upon a heath, or moor, many species may be sometimes met with in abundance. Lettuce leaves have been recommended as a bait to catch larvæ, scattering the leaves over the ground some time before searching.

The long list of larvæ which comes under this month will furnish the collector with ample choice of material upon which to work.

P. cratægi ..........from August, hawthorn, sloe, and orchard trees  
A. Aglaia ..........from August, dog, and sweet violet, and wild heartsease; on hill-sides, and sea-side sandhills
A. Paphia ..........from August, dog, and sweet violet, in woods, &c.
MAY

H. hyperanthus...from Aug., annual meadow, millet, and other grasses; in and near woods; may be found at dusk, or at night, feeding on the blades of grass, in wood ridings

C. Davus ........from Aug., Rhynchospora alba; lives exposed

T. quercus ......oak; most abundant in the upper branches. In confinement s. eats the changing pupa

\( w \)-album ......wythch elm

\( p \)ruini ..........sloe

betulae ..........sloe, birch

P. Phlaees .......from Oct., sorrel, dock, ragwort

L. Ågon ...........Ornithopus perpusillus

Artaxerxes (var.) b., sun cistus; hides on the underside of the leaves

Adonis, b. ...from Oct., Hippocrepis comosa, &c.

Corydon ...... from Oct., Hippocrepis comosa, &c.

P. sylvanus, b. ...grasses, in rolled-up blades

S. myopeformis in stems of apple, pear, plum, hawthorn; in old gardens

formicaeformis from Sept., in withy stems; may be found in the old stumps

chrysidiiformis inside r. of sorrel and dock; at Folkestone and Eastbourne, and probably other places on the S. and E. coasts; supposed to be 2 years feeding

cynipiformis...in the bark of unhealthy-looking oaks, and in old stumps

ichneuniformis in the stems of stinking hellebore, growing on cliffs, under-cliffs, and land-slips, on the coast

bembeciformis from Sept., in the stems of poplar, and sallow, and in the stumps of osiers
M. arundinis, b. in stems of common reed

Z. aesculi ..........from Aug., in the wood of ash, elm, or pear trees; s. in hawthorn, lime, or box. The larvae feed in the interior of the smaller branches, and are generally found in the upper branches of the highest trees. Their presence is indicated by the pellets of pink frass lying about, under the infected trees. They may be reared if the infected branch is sawn off, and kept damp. If the infected tree is marked, or known, it may be visited when the imago is due, and large numbers be s. taken at rest upon it

H. hectar ..........from Aug., in r. of brake fern; two seasons feeding

" lupulinus ..........from Aug., in r. of dead nettle, &c.

" velleda ..........from Aug., in r. of brake fern

P. statices ..........sorrel, Cardamine impatiens, &c.; in the leaves while young

" geryon ..........sun cistus; mine in the leaves while young

" globulariae ........?

Z. minos ..........trefoil, vetch

" trifolii ..........from July, trefoil, vetch

" lonicera ..........from July, clover, grasses

" filipendulae ...from July, crowfoot, trefoil, &c.

S. phegea ..........from Sept., danedelion, scabious, plantain, &c.

N. cucullatella ...sloe, apple, hawthorn, &c.

" confusalis ......oak

" strigula ......oak

" albulalis? ......bramble? ash?

N. senex ..........lichens, in fens and bogs

" mundana ..........lichens, on or under the top stones of old loose stone walls

S. irrorella ..........ground lichens on the coast, just above the tide. The larva will feed equally well on tree lichens if sprinkled with salt water every morning, and the pan in which they may be kept is placed in the sun

C. miniata ..........from Aug., lichen on oaks (Lichen caninus); also withered sawlow, oak, alder

L. mesomella ..........from Aug., lichens; will also eat sawlow and heath; has been taken among r. of heath

" muscerea ..........lichens, on sawlow, in fens

" aureola, e. ..........from Sept., lichens, on larch, oak, &c.

" pygmaea ..........lichens, among moss

" lurideola ..........from Aug., lichens; will also eat crab

" molybdéola ..........from July, lichens

" complana ..........from Aug., lichens, on sloe and fir

" griseola ..........from Aug., lichens, on poplar; Lichen caninus the supposed proper food, will also eat withered sawlow, &c.

" quadra ..........lichens, on oak, beech, apple &c., mostly old trees

E. grammica ..........fescue grass, heath, cribrum ..........from Aug., heath, bilberry

D. pulchella ..........Myosotis arvensis

E. jacobée ..........ragwort, and groundsel

C. hera ..........from Sept., bugloss, and low plants

" dominula ..........from Aug., Cynoglossum officinale, &c., on hilly places, gravel pits, &c.

E. russula ..........from Sept., plantain, Erica cinerea, Hieracium, danedelion &c. Feeds well on lettuce in confinement

C. plantaninis ..........from Sept., violets, plantain, &c.

" caia ..........from Sept., nettle, and various other plants. Dark varieties may be s. got by feeding on coltsfoot or lettuce
LARVÆ]

C. villica ........ from Sept., chickweed, furze, and other plants. The hairy bombyces prefer feeding in the morning sunshine.

A. fuliginosa, b. from Sept., plantain, dock, grasses, &c.

L. chrysorrhaæ ... from Sept., sloe, hawthorn, &c. " Painfully undesirable to handle"

" auriflua ......... from Sept., sloe, hawthorn, &c., dispar ........... Myrica gale, willow, sloe, hawthorn, and various fruit trees. Formerly found at large; now bred artificially.

" monacha ...... oak, beech, birch, fir, apple, &c. ; hides in the crevices of the bark.

O. fasicelina ... ... from September, on hedges, dwarf sawls, furze fl., broom, heath, and various trees and plants.

" gonostigma ... from Sept., oak, nut, willow, sawls, bramble, sloe, hawthorn, beech, &c. If fed on willow there is a tendency to become double-brooded. Hibernate in a loose web.

T. cratægi......... hawthorn, sloe, sawl, birch, oak. May be found on dense and closely-cropped hawthorn hedges bordering roads.

P. populii ...... oak, poplar, lime, ash, hawthorn. In repose it lies closely pressed on a branch or twig.

E. lanestris ...... hawthorn, sloe, &c., in hedges; generally a large number in a web; s. remains in pupa several years.

B. neustria ...... sloe, hawthorn, and fruit trees; generally in a batch in a web.

" rubi ............ from Sept., bramble, heath, &c.; often found wandering about in the sunshine.

MAY

B. roboris ........ from Sept., hawthorn, dogwood, bramble, sawl, broom, heath, &c.

" quercus (callunæ) from Sept., bilberry, &c. ; dogwood preferred.

" trifolii ...... from Sept., trefoil, clover, broom, grass, furze, raspberry, &c.; attached to the coast.

O. potatoria ...... from Sept., coarse grasses.

L. quercifolia ... from Sept., bramble, sloe, sawl, willow, plum, &c. Rests along a twig or branch, which it greatly resembles.

O. sambucata ... from Sept., ivy, elder, holly, bramble, and other trees and plants.

E. vespertaria .... nut.

" apiciaria ...... nut, poplar, willow, sawl, alder.

A. prunaria, b. ... from Oct., broom, sloe, beech, bramble, sawl, hawthorn, plum, &c.

M. margaritata ... from Sept., oak, beech, birch, hornbeam, &c.

P. syringaria ...... from Sept., lilac, privet, elder, honeysuckle. May be found at night, hanging from its food.

C. elinguarda...... hawthorn, sloe, oak, honeysuckle, &c., also, heath, bilberry, &c.

H. pennaria ...... oak, hawthorn.

P. pilosaria ...... oak, elm.

N. zonaria ...... Ammophila arundinacea, and other sand-hill plants.

" hispidaria ...... oak.

C. glabrarí ...... lichens, on fir.

" lichenaria ...... from Sept., lichens, on oak, park palings, &c.; rests among the lichens, which it greatly resembles.

B. repandata ...... bramble, sloe, birch, plum, spindle.

" perfumaria .. ivy, lilac, clematis, &c.

" abietaria ...... from Sept., larch, spruce, and Scotch fir; has been found on whortleberry; will also eat birch, and oak.
LARVAE

B. roboraria ...from Sept., oak
G. obscurata....from Sept., thyme, sun cistus, Potentilla reptans, Poteriam sanguisorba, &c.; hides under r. &c., by day
D. obfuscata .....from Sept., heath, vetch, &c.
M. cineraria.....lichens, on walls
P. cytisaria ......broom, and Genista anglica, on heaths, forests, and waste places on the coast; may be found at rest, stuck up like twigs on broom plants
G. papilionaria ..from Oct., nut, birch, beech, &c.
" smaragdaria ......? on the S. E. coast; covers itself with fragments of leaves, &c.
I. vernaria..... ...from Sept., Clematis vitalba
P. baularia, b. from Aug., oak; covers itself with fragments of leaves, &c., after every moult, until nearly full-fed
H. thymiaria.......hawthorn, oak
H. auroraria.......from Aug., plantain
A. rubicata .....from Aug., —— ? will eat knotgrass, Lotus corniculatus, Medicago lupulina, Thalictrum minus, and the smaller trifoliums
" scutulata .......from Aug., fl. of Anthriscus sylvestris, and dandelion, preferring the withered leaves
" contigua .....from Aug., Empetr um nigrum; will also eat hawthorn buds, and knotgrass
" herbariata .....from Oct., dried plants in herbaria, & herbalist’ shops, &c. Tansy found to be eaten where it occurred
" rusticata .......from Aug., hawthorn; will also eat ivy, lilac, and withered bramble. Very local
" interjectaria ...from Aug., dandelion, scarlet pimpernel, withered
" holosericata ...from Aug., sun cistus, withered

MAY

A. promutata ...from Aug., Achillea millefolium, Artemesia vulgaris, l’otentilla reptans
" straminata .. from July, —— ? will eat knotgrass
" immutata .......from Aug., some marsh plant; common in fens; will also eat knotgrass
" fumata ........from Aug., heath
" strigilata ... ...from Aug., clematis, Stachys, &c.; on the coast
" emutaria ......from Aug., Triticum repens; in salt marshes on the coast; will also eat Medicago Lupulina, mint, Chenopodium, Lotus corniculatus, knotgrass, &c.
" aversata.........from Sept., primrose, gooseberry, nut, Geum urbanum, &c.
" inornata ......various plants
T. amataria .....from Oct., dock, knotgrass, and other plants
H. vaularia ......gooseberry, &c., in gardens
S. belgiaia ......from Aug., heath
S. plunaria ......heath
F. atomaria ...from July, Centaurea, trefoils, &c.
" pinetaria ......bilberry
S. dealbata ......from Sept., grasses
A. strigillaria ...from Aug., heath, broom; found at night on heaths, &c.
" gilvaria ......from Sept., Achillea millefolium, &c.
A. grossulariata...gooseberry, currant, sloe, &c.
P. hippocastanaria from Sept., heath
H. rupicapraia .. oak, hawthorn, sloe
" leucophearia...oak, maple. Vary very much
" progemmaria oak, birch, horn-beam, nut
" defoliaria ......oak, nut, sloe, hawthorn, birch, elm, lime, &c.
A. aestuaria ......oak, elm, lime, sloe, hawthorn, horse chestnut, apple, privet, &c.
C. brumata ......oak, and other trees
LARVAE]

O. dilutata ......oak, and other trees
L. didymata ......Chærophylleum tem-
ulmum, cowslip, &c.
" caesiata, b. ...from Sept., bilberry,
whortleberry, heath; prefers the
" ruficinctata ...Saxifraga granulata,
and S. hypnoides; has been
also found on fruit trees, pepper-
mint, and sage
E. nanata...........from Aug., heath, fl.
" minutata ......from Aug., heath, fl.,
scabious; s. a cannibal
" subcilata, b. maple
" sobrinata ......juniper
" rectangulata...apple, and crab,
buds, and fl.
" debiliata ......whortleberry, in
curled-up leaves
T. variata ........Scotch fir, larch, &c.
" firmata ......larch, and Scotch fir
Y. elutata, e......from Oct., nut, sal-
low, bilberry, alder; hides
among the seed-down of sallow
M. rubiginata ......alder
C. quadrifasciaria hawthorn, white
dead nettle, knapweed, and low
plants
P. lapidata ......? will eat cle-
matis
S. vetulata ......buckthorn; between
the leaves
" rhamnata ......buckthorn, birch;
between united leaves
C. immanata ...strawberry, bilberry,
alder, birch, &c.
" prunata.........currant, gooseberry,
sloe, &c.
" testata ..........birch, sallow, poplar
" populata ......bilberry, whortle-
berry, poplar, sallow
" fulvata ......dog rose
" pyraliata ......Galiun, and haw-
thorn
" dotata ......black, & red currant
E. meniaria ......broom
" palumbaria ...Genista, broom,
heath, clover
" bipunctaria ....from Oct., trefoil,
clover, &c.

MAY

E. lineolata, s. ...Galium verum
C. spartiata, e....broom; feeds soli-
tarily under the leaves, in which
it makes holes. Is a cannibal
in confinement
T. chærophyllata Anthriscus sylves-
tris, and Bunium flexuosum fl.
D. sicula ......oak, birch, lime
C. spinula .........hawthorn, sloe,
mountain ash
P. Cassinea ......oak; s. sallow, lime,
elm; grips its food-plant tightly
" nubeculosa ...birch; is difficult to
rear in confinement; stale, dryish
food is stated to afford the best
chance of success
C. curtula ........ poplars, sallow;
webbed in the leaves
P. plumigera, e. maple; will also eat
sycamore [apple
D. caeruleocephala hawthorn, sloe,
C. diluta ......oak, birch; between
leaves
B. glandifera ...from Sept., lichens,
on walls. (See last month.)
Towards the end of this month
glandifera and perla are full-
fed, and spin up in a crevice,
or in the larva cocoon
" perla ..........from Sept., lichens,
on walls
L. conigera ......couch, and other
grasses
" lithargyria ...grasses, chickweed,
plantain, &c.; may be found
feeding at night
" littoralis, b. ...from Aug., Ammo-
phila arundinacea, on the coast.
Burrows 6in. or 7in. in the sand.
Will also eat Carex
" impura ..........from Oct., Dactylis
glomerata; may be found at
night, feeding on the grass-
blades
" phragmitidis from Aug., in the
young stems of common reed;
in marshes and fens
T. elymi, m......Elymus arenarius,
on the coast; may be shaken
out of the plant
MAY

C. Haworthii ...... Eriphorum vaginatum
G. trilinea........ greater plantain, and other plants; hides among the r. by day
A. valligera ...... from Oct., at r. of grasses, mostly on the coast
" suffusa ...... at r. of grass, lettuce, radish, spinach, &c.
" saucia .......... low plants
" exclamationis from Sept., at r. of cabbage, turnips, &c.
" corticea, b. ... from Sept., Chenopodium album, and other plants
" cinerea ...... from Sept., at r. of low plants
" cursoria ...... Euphorbia esula, sandwort, sea violet, &c.
" nigricans ...... plantain, clover, &c.
" aquilina ...... plantain, chickweed, cabbage, poppy, bedstraw, clover, &c.
" obelisca ...... Galium verum, and low plants
" agathina ... \{ heath, found at night
" porphyrea \{ on heath, or moors
" præcox...... sea-side sandwort, sea violet, chickweed, and other low plants on the coast; also
" Salix repens, and other dwarf willows. May be traced, and
dug up in the sand, in which it burrows 7 or 8 in.
" ravida .......... at roots of thistle, dandelion, &c.
" Ashworthii ... from Oct., fescue grass, hawkweed, sun cistus, thyme, heath, harebell, &c.
T. ianthina ...... from Aug., broom, chickweed, and other low plants
" fimbria........ from Oct., birch, oak, sallow, broom, primrose; may be found at night feeding
on primrose fl.
" orbona ...... from Aug., broom, and low plants
" pronuba ...... from Aug., dock, and other plants
N. depuncta...... sorrel, and other low plants

THE LEPIDOPTERIST'S CALENDAR

LARVÆ]

N. sulva ........ Poa aquatica, and Carex, in the stems; in damp
woods and fens
" neurica ....... common reed, in the stems; a small hole is visible
in the stem of the plant tenanted by a larva
" geminipuncta common reed, in the stems. Holes covered with silk
from within are visible on stems containing larvæ
" cannae ........ on Typha latifolia
" lutosa .......... from Oct., in stems of common reed, below the ground
G. flavago....... marsh, and other thistles, burdock, alder, fox-
glove, &c.
H. nictitans ...... at r. of Tussilago, Cyperaceæ, &c.
" micacea ...... at base of leaves of Carex, and inside stems and r.
of Equisetum, dock, &c.
X. lithoxylea ...... at r. of grass, and other plants
" polyodon ...... low plants
" scolopacina .. wood rushes, and grasses
H. popularis ...... at r. of grasses
L. cespitis ..... grasses. Hides among the r. by day
M. abjecta ...... at r. of couch grass; the species generally occurs
on the coast, and in confinement the food-plant should be
sprinkled with salt water
" brassicae ...... cabbage, dock, Chenopodium, and chrysanthemum;
eats into the heart of cabbages
A. gemina ...... from Aug., grasses; hides at r. by day
" fibrosa .......... in fl.-stems of yellow flag
" oculæa ......... in stems of Dactylis glomerata, and other grass
M. literosa ...... slender foxtail grass
" furuncula ...... in stems of Festuca, and slender foxtail grass
" arcuosa ...... Aira cespitosa, at the crown of the root
**MAY**

**O. macilentata**... beech, birch

**A. rufina**... oak

" pistacina ... buttercups, dock, &c. Spins a tight, neat earthen cocoon, in which it remains some weeks before pupation

" litura ... meadow sweet, and other low plants; also oak, willow, alder

" lunosa, b... from Oct., grasses in elevated places; concealed under stones

C. spadicea ... sloe, hawthorn, and honeysuckle, when young; later on various low plants

S. satellitia ... oak, &c., between the leaves; also other caterpillars

D. rubiginosa... apple, plum, dandelion, and other low plants

H. croceago... oak

X. citrago... lime

" cerago ... sallows, when young; later on low plants. Larvae feeding on Salix capreae and S. aurita, Mr. Gregson says, almost always produce the typical species; while those which feed upon the catkins and leaves of S. viminalis often produce the lemon-coloured variety and its variations

" aurago ... beech; hides in the chinks of the bark

" gilvago... wych elm (seeds)

" ferruginea ... sallow, Populus tremula (buds), wych elm (seeds)

C. xerampelina, b. from Dec., on ash; may be found at dusk, crawling up ash trunks; concealed in chinks of bark, and among grass at the base of the tree, during the day. Towards the middle or end of the month, having become full-fed, the larva spins under ground a very neat and compact boat-like cocoon, in which it remains some time before changing to a pupa

**N. augur**... from August, low plants, hawthorn, sallow, &c.

" ditrapedium... low plants &c.

" triangulum, b. sallow, bramble, rhomboidea... from Sept., chickweed, when young, afterwards on sallow, hawthorn

" brunnea... sallow

" festiva ... from Aug., violet, sallow, foxglove, &c.

" conflua... from Aug., Silene acaulis, and many other plants

Dahlia... from Sept., low plants; found at night on heaths, &c.

" subrosea... Myrica gale, sallow

" umbrosa... from Sept., dock, and other low plants

" baia... low plants

" neglecta... from Oct., heath, birch, sallow, and low plants; found at night on heaths, &c.

xanthographa from Oct., plantain, &c.; hides under stones, &c.

T. gothica... sallow, hawthorn, oak, &c., also dock, nettle, laurel, broom, lilac, &c.

rubricosa... dock

" instabilis... sloe, sallow, willow, oak, dock, and other low plants

" opima... willow, sallow, rose

" populeti... poplars, especially Populus nigra; between united leaves [&c.

" stabilis... oak, elm, hawthorn, grachtis... willow, sallow, low plants

" miniosa... oak, and birch, when young, then hawthorn, and low plants

" munda... oak, elm, poplar; hides in the bark crevices, and under detached pieces

" cruda... oak, nut, sallow; also other caterpillars

O. suspecta... birch, poplar

" upsilon... willow, poplar; hides under loose bark, or grass at the r.

" lote... willow, sallow; hides in the bark crevices

**LARVÆ**
LARVÆ]

T. subtusa .......... poplar, between the leaves
" retusa, e. ...... sallow, poplar, willow; between the leaves. The skin is very delicate, so that the lines look as if raised; head small, yellowish green, or blackish brown. These characters distinguish it from E. viminalis, which it otherwise resembles
D. oo ............... oak; between united leaves
C. trapezina ...... oak, birch, hornbeam, &c.; also other caterpillars
" pyralina ...... pear, plum, &c.; between united leaves
" diffinis ...... elm; between united leaves
" affinis ...... leaves
E. ochroleuca ... Dactylis glomerata
D. capsophila ... Silene maritima, & S. inflata (seeds)
P. chi ............. hawthorn, sallow, hawkweed, dock, Sonchus, lettuce, tea tree, &c.
D. templi .......... Heracleum spondylium, inside the stem and root
E. nigra ...... Galium mollugo, plantain, grass
" viminalis ...... sallow. Occurs with T. retusa, which it resembles, but the head is pale grey, with the lobes outlined in black; the lines more sharply defined, and two pairs of whitish dots on the back of each segment
" lichenea ...... from Nov., ragwort, and various low plants, on the coast
V. oleagina ...... sloe, in shady places, and skirts of woods
M. bimaculosa ... elm
" oxyacanthæ ... hawthorn, sloe
A. Aprilina ...... oak
P. empyrea ...... from Nov., pilewort, &c.
A. occulta ...... primrose, plantain, and other low plants
" nebulosa ...... from Oct., sallow, hawthorn, birch, &c.

MAY

A. tincta .......... from Sept., birch, grass, and low plants
H. protea .......... oak
" dentina ...... roots of dandelion
" peregrina ...... Chenopodium, and Salsola kali
C. solidaginis ... bilberry; will also eat hawthorn
C. vetusta .......... poplar, and various meadow and marsh plants
" exoleta ...... scabious, campion, rest harrow, dock, Eryngium maritimum, turnip, asparagus, &c.
X. Lambda (Zinckenii) Myrica gale; on moors
" furcifera ...... alder, birch
" rhizolitha ...... oak
" petrificala, e. oak, lime, birch
C. chamomillæ ... chamomile, fl., Pyrethrum inodorum, and P. maritimum
A. myrtilli, s. ...... from Oct., heath
A. luctuosa ...... small convolvulus; feeds by night, chiefly on the fl.-buds
P. bractea .......... Eupatorium canabinum
" festucæ ....... Carex, reeds, and grasses, near the sea
iota ............ nettle, dead nettle, honeysuckle, groundsel, &c.; may be easily found at night
v. aureum ...... nettle, &c.
" interrogationis nettle
A. pyramidea ... oak, elm, birch, willow
" tragopogonis hawthorn, larkspur, and low plants
M. maura ...... from Sept., dock, chickweed, ivy, &c.
T. pastinum ...... Vicia cracca
C. nupta ........ Salix fragilis, and poplar; hides under bark during the day; may be found at night crawling up the tree trunks to feed
" promissa ...... oak
" sponsa .......... oak
E. mi ............. Melilotus
MAY

C. inquinatellus moss (Barbula muralis on the Continent)
" chrysomutchellus? Festuca ovina
" hortuellus...moss
" paludellus...Typha latifolia
C. cicatricellus...bullrush
" phragmitellus...from Oct., reed
S. forficellus...Poa aquatica
" gigantellus...common reed
A. lotella...in the stem and r.
of Festuca ovina, and Aira caneculatus, fl.
I. carnella...Lotus corniculatus, fl.
H. binavella, e. in heads of this'les
E. pinguis...under bark of ash
" cinerosella? Artemesia campes- tris, and A. vulgaris?
P. betulella...birch
" dilatella...thyme
" subornatella...thyme (Zeller). Globularia vulgaris (Herr Mann);
between the leaves
" obductella...in spun-up leaves of
Origanum vulgare, Mentha arvensis, Melissa acinos
" roborella...oak
R. consociella...oak
" advenella...hawthorn
" marmorea...on stunted sloe
" bushes
" suavella...sloe
" tumidella...oak
G. cerella...wax in beehives
O. ahenella...under the radical
leaves of Helianthemum vulgare
M. alveariella...from Oct., wax in
beehives
H. quercana...oak
S. Revayana...sallow (?)
T. podana....rose, fruit trees, oak,
&c.
" piceana......fir
" cratægana...oak (?)
" xylosteana...fruit trees, oak,
honeysuckle, &c.
" sorbiana...birch, alder, nut, oak
" rosana...almost any plant
" dumetana...low plants
" diversana...polyphagous on trees

[larvæ]
E. glyphica......Dutch, or white
clover
R. sericealis......on——? Probably
various low plants
H. derivalis......from Aug., Carex
sylvatica, and Luzula pilosa
A. flexula......lichen, in hedges, &c.
O. dentalis......in stems of Echium
vulgare, on the coast; the plants
look sickly when infested
P. glaucinalis...in nest-like forma-
tions on the end of birch twigs
A. cuprealis......on——?
C. angustalis...moss, on sea shores
E. flavemalis...heath
C. lemnalis......aquatic, in a case
filled with air, feeding beneath
the fronds of duckweed; if bred
must be kept in water
H. nymphaealis...aquatic, in a flat
case, under the leaves of yellow
water-lily, and Potamogeton
pectinatus
" stagnalis......aquatic, on Potamo-
geton
B. flavalis?......Galium verum?
" verticalis......nettle, between the
leaves
" terrealis......from July, golden
rod, fl., &c.
E. crocealis?......Inula dysenterica,
between the leaves
M. unionalis?......privet? successive
broods
S. lutealis......coltsfoot, &c.
" olivalis......ground ivy, and
other low plants, in a web under
the leaves
" prunalis......sloe, and low plants
S. ambigualis...moss
" cembræ......the mosses Hypnus
elegans, and Jungermannia dilata-
ta
" murana......the mosses Grimmia
pulvinata, Drymæ capillare, &c.
C. verellus?......moss on trees, &c.
" falsellus......the moss growing
on walls and rocks, Grimmia
pulvinata, &c.
" myellus?......moss, on stones
LARVÆ]

T. cinnamomeana beech, larch, &c.
" heparana...hawthorn, &c.
" ribeana...hawthorn, and almost any tree
" corylana...nut, plane, dogwood, &c.
" unifasciana...hawthorn, &c.
" semialbana Iris germanica, honeysuckle, beech, &c.
" costana...figwort, willow herbs, and other marsh plants
" viburnana...Myrica gale, and Vaccinium
" icterana...knapweed, plantain, and almost any low plant
" viridana...oak, birch, &c.
" Branderiana...aspen, poplar
" gnomana...polyphagous on trees
D. Grotiana?...oak?
A. Gerningiana...sea pink, asphodel, &c.
L. Boscana...elm
P. permutana?...Rosa spinosissima
" maccana...Myrica gale
" ferrugana...oak, birch, &c.
" aspersana...Potentilla, meadow sweet
" Shepherdana...hemp agrimony, and meadow sweet
" comariana...Comarum, Fragaria, &c., in boggy heaths and fens
T. caudana...willow, sallow, poplars
" contaminana...sloe, hawthorn, &c.
D. lorquiniana...Lythrum, in fens, &c.
" Loeflingiana...oak
" Holmiana...hawthorn, rose, &c.; folded leaves
" Bergmanniana...rose; folded leaves
" Foskaleana...maple, lime
P. Lecheana...sallow, willow, elm, honeysuckle, oak, &c.
D. Hartmanniana...willow, &c.
" semifasciana...sallows
P. picana, e...birch, sallow shoots
" sororculana...birch
" capraeana...sallow
" pruniana...sloe

MAY

P. ochroleucana rose
" cynosbana...sloe, rose, hawthorn, and fruit trees
" gentianana...from Nov., in teazel heads
" carbonana...fuligana Stachys
A. salicana...sallow, willow, poplar; in folded leaves
S. laricina...larch
" ocellana...alder
" aceriana...poplar; in the young shoots and bark
" dealbana...poplar, sallow
" neglectana...bark of willow, and poplar
" simplana...aspen
" incarnata...aspenny, e. Rosa spinosissima, on the coast
" suffusan, e. hawthorn
" roseecolana, e. rose
" roborana...rose
P. tripunctata...rose
A. Udmanniana...bramble
S. achata...hawthorn
S. latifasciana...under moss, on trees
" littorana...sea pink
" lacunana...various low plants
" uricana...various low plants
M. Schulziana?...Pinus sylvestris
" Ratzeburgiana...spruce fir, terminal shoots, and needles
E. arbutana...Arctostaphylos uva-ursi
E. quadrana?...Scabiosa arvensis
C. cinctana?...Anthyllis vulneraria politana...polyphagous
S. subjectana...various plants
" virgaureana...various plants
" Wahlbomiana...polyphagous, like all the genus
" abrasana?...Achilleamillefolium, &c.
S. ictericana...almost any low plant
B. uliginosana...Lythrum salicaria
P. inornatana?...?
" laetana...aspen
G. minutana...black poplar
" trimaculana...elm
" nævana...in holly shoots
LARVÆ]

G. geminana ...in shoots of Vaccinium
H. cruciana ......in sallow and willow shoots
B. angustiorana yew
P. corticana ......hawthorn

" profundana ...oak
" ophthalmiciana white poplar
" sordiana ......alder
E. bimaculana ...alder, birch

" cirsiana ......from Sept., in thistle and knapweed stems, in woods
" Pfugiana......from Sept., in thistle and knapweed stems, in open places; the piece of stem containing the larvæ may be cut off above and below the entrance-hole, and kept in damp sand

" turbidana ......roots of butter-burr?
" fœniana ......from Oct., in r. of Artemesia
" signatana ......Cerasus padus
" grandevana (?) in r. of Petasites, &c.
" Tussilago

" populana ......sallows
O. ulnana? ......bilberry
S. spiniana? ......hawthorn, sloe
C. Hercyniana......spruce fir

" ustomaculana Vaccinium
P. mercuriana......Dryas octopetala
R. Boulianna......Scotch fir

" pinicola......in shoots of Scotch fir
" sylvestrana ......in shoots of Scotch fir
S. regiana.......under sycamore bark
D. politana ......r. of Achillea millefolium

" alpinana (?)....tansy r. (?)
" Petiverana ......r. of Achillea millefolium

" acuminatana ox eye
" simpliciana ......Artemesia
" consortana ......shoots of chrysanthemum
C. hypericana ......tops of hypericum maritimana ......Artemesia maritima
S. vibranâ ......Carduus acanthoides, and C. crispus
E. dubitana ......Hieracium, fl., and other Compositæ

MAY

E. ambiguana ......in fl.-buds of vine?
" angustana ......heath
" vectisana ......Plantago maritima
" X. hamana ......has been bred from Ononis repens
A. zephyrana ......in stems and r. of Eryngium maritimum
C. Francilloniana from Oct., in stems of wild carrot
T. pubicornella on ——? near Grassington, Yorks

" pseudo-bombycella from October, lichen, on oak, beech, &c.; in a long slender case

THE PSYCHE.—If a sharp look-out is kept in likely localities, the case-bearing larvæ of some of the genus Psyche may be found, though the perfect insect is rarely met with. Mr. R. MITFORD, of Hampstead, who has added much to our knowledge of the English members of this unsatisfactory group, writes to me of them as follows:—They have had herewfew friends, and in our List we have one or two which do not agree with Bruand’s description of the insects. With the exception of a few of the species, it is utterly impossible to give the food-plant, as many of them are not found until they are crawling up tree-trunks, &c., to spin up, and others which may be found feeding on leaf or lichen on one tree or plant, will readily accommodate themselves to anything else that falls in their way; yet I have found that nearly all the species I find at Hampstead prefer the buckthorn bushes, particularly when in blossom, to anything else, whether for leaf, blossom, or lichen, I know not, but they will eat all the three. I have found all these insects the easiest things to rear in existence.

P. villosella (nigricans) e. grasses, heath, furze, &c.; New Forest, &c. Probably 2 years feeding up. This, and other low-plant feeding case-bearers, may be obtained by sweeping, or beating
LARVÆ]

P. opacella, e. ...grass, heath, furze, &c.; has been found on fallen firs; New Forest, Witherslack, Rannoch. Probably 2 years feeding up calvella (fuscus) from Aug., on bramble; 2 years feeding up salicolella .......?
betulinella (anicanella) buckthorn pullella...........grass, on heaths intermediella —? Black Park, Virginia Water, &c.
roboricolella on trunks, and stones, and short grass, among Scotch fir crassiorella .......?
" reticella ........?
p. Verhuellella seed-fronds of Asplenium ruta-muraria and harts-tongue
D. marginepunctella in a case, on trees, &c.
X. melanella......lichens, in a case, on trees, and palings
P. Birdella ......probably among hay grass
S. choragella ...in fungi emortuella ...in fungi, on hornbeam arcuatella......in fungi " granella ......among grain " cloacella......in rotten wood " arcella ......in rotten wood
T. fulvimitrella in fungi, and rotten birch stumps " albipunctella rotten sticks " caprimulgella in rotten wood " pellionella ...in carpets, cloth, feathers, &c. " pallescentella in rabbit, hare, and cat skins " ganomella ...from Oct., in birds' nests biseliella ......from Oct., in bird skins, hair seating, &c.; all the year round " nigripunctella in a case, on old fences " semifulvella ...from Nov., in birds' nests, feeding on wool

MAY

T. perochraceella ants' nests L. quadripunctella in shoots of roses prælatella.......from Sept., in a flat case, on underside of wild strawberry rubiella ......in shoots of raspberry I. canariella ......Rosa spinosissima M. fastuosella ...nut N. Schiffermillerella? marsh mallow minimella ..ox eye, fl. Y. plumbella ...spindle " padella.......hawthorn, apple, &c. " cognatella ...apple and spindle evonymella ...Prunus padus P. Curtisella......in shoots and young stems of ash E. Messingiella Cardamine amara P. xylostella......turnip, &c. " porrectella ...Barbara vulgaris, Hesperis matronalis H. sequella ......sycamore " vittella.......elm, beech, &c. " radiatella......oak " ecstella ......oak Y. asperella ......apple H. scabrellla ...apple, hawthorn " nemorella ......honesuckle " harpella ......honesuckle P. quercella ......oak, and between leaves of sallow E. Allisella ...Artemisia vulgaris, terminal shoots D. costosella......furze, Genista anglica, and broom, fl. " paliorella......in leaves of Centaurea scabiosa assimilella ...broom " nanatella ......carline thistle " atomella ......Genista anglica, G. tinctoria, broom " arenella ......Anthriscus, thistles, and knapweed " propinquella thistle " Alstræmeriella hemlock " hypericella ...hypericum " carduella ......thistle " ocellella ......sallow " rotundella ......wild carrot
MAY

D. cnicella ......in Eryngium maritimun, and E. campestris, on the Continent
" Douglassella ...wild carrot
" Weirella ......Anthriscus
" chærophyllivorella, e. Chærophyl-

G. rufescenella in grasses
" populella ......sallow shoots
" nigra............on Populus nigra, and P. tremula
" lentiginosella Genista
" mulinella......furze and broom, fl.
" sororculella ...dwarf sallow
" peliella........Rumex acetosella, in leaves near the stem
" viscariella ...Lychnis shoots
" affinella ......under moss, on old walls
" basaltinella? moss?
" vulgella ......hawthorn; between united leaves
" fugitivella.......nut, elm, maple
" muscosella ...on poplars, and sal-

M. marginella ...... juniper
" juniperella ......juniper
A. palpella ......lichens, and rotten wood
N. verbascella ......nr. Norwich, among Verbascum pulverulentum
S. humerella......Artemisia campes-
tris; between united leaves
P. bicosella ......from Nov., Erica cinerea
H. Christiernella Polygala
D. sulphurella ...in rotten wood
" oliviella? ......decayed wood
Œ. augustella? bark of trees
" tintella? ......decayed wood
Œ. fusco-aurella in dead sticks
B. senescentella thyme
" cicadella, e...among r. of Scleran-
thus perennis, and S. annuus
" chenopodiella Chenopodium, and Atriplex
G. thrasonella? in stems of rush?
" equitella ......in shoots of Sedum acre
" schœnicolella in seed-heads of Schœnus nigricans
A. ephippella ...wild cherry, in the shoots
" nitidella ......in hawthorn shoots
" spiniella ......in mountain ash
" albistriella ......sloe, in the shoots
" semifuscella, birch, mountain ash, sloe shoots
LARVÆ]

A. mendicella ...sloe shoots  
  " dilectella ....juniper shoots  
  " andereggiella wild apple  
  " curvella ....apple shoots  
  " sorbiella ....mountain ash shoots  
  " pygmella......in sallow catkins,  
  and shoots  
Z. saxirage, e. Saxifraga azoides, &c.
G. elongella......rest harrow & clover
G. atriplicivorella from Sept., in Atriplex
C. alcyoniphennella Centaurea, burdock, and thistles
  " Wockeella ...Stachys betonica  
  " ochreella .....sun cistus  
  " salicornella..from Oct., Salicornia, in the stems  
  " vibicella .....Genista tinctoria  
  " conspicuella: Centaurea nigra, &c.  
  " pyrrhulipennella heath  
  " anatipennella sloe  
  " palliataella......oak, sallow, &c.  
  " ibipennella ......birk  
  " currucipennella oak, sallow  
  " discordella .....Lotus corniculatus  
  " saturatella .....from Sept., broom  
  " onosmella ...Echium vulgare  
  " troglodytella Inula dysenterica,  
  " Eupatorium cannabinum  
  " lineolella ......Ballota nigra  
  " murinipennella rushes  
  " caespitidiella...from Sept., rushes;  
  " cornena  
  " salinella ......from Oct., Atriplex  
  " portulacoides  
  " hemerobiella plum, pear, cherry;  
  " in a case on the leaves  
  " junecoilella ...from Oct., heath  
  " laricella......from Sept., larch  
  " albitarsella ......from Nov., Ori-  
  " ganum, and Glechoma  
  " nigricella......hawthorn, sloe, apple  
  " fuscocuprella from Sept., elm,  
  " alder, birch  
  " gryphipennella from Sept., rose  
  " vimineutela ...from Sept., sallow,  
  " and osier  

MAY

C. olivaceella ...Stellaria holostea,  
  " Cerastium vulgatum, and C.  
  " arvense  
  " solitaria .....from Oct., Stellaria  
  " holostea  
  " artemisicolella from Aug., fl. of  
  " Artemesia vulgaris, and A.  
  " campestris  
  " graminicolella? Lychnis flos cuculi?  
  " lutipennella...oak, birch  
  " badiipennella elm, ash  
  " limosipennella elm  
  " chalcogrammella Cerastium  
  " arvense  
  " bicolorella?...alder  
B. praangustella poplar, willow; be-  
  tween united leaves  
O. v-flavella......in fungi, and wine  
  " corks  
C. Illigerella ....Egopodium poda-  
  " graria, in crumpled leaves  
L. paludicolella Epilobium hirsutum  
  " lacteeula ......Epilobium hirsutum  
  " conturbatella Epilobium angusti-  
  " folium, among terminal leaves  
  " Raschkiella ...Epilobium angusti-  
  " folium  
  " ochraceella ...Epilobium hirsutum,  
  " in stem and r.  
  " phragmitella Typha latifolia, heads  
  " rhamniella ...buckthorn  
C. Schrankella...in Epilobium alsinio-  
  " folium  
E. Gleichenh in Luzula, and Carex  
  " magnificella...Luzula pilosa  
  " albitrontella...in many grasses  
  " atricollina...in stems of Dactylis  
  " glomerata  
  " laticomella ...in stems of Dactylis  
  " glomerata  
  " cinereopunctella from Sept., in  
  " Carex glauca  
  " trapeziella ...from Oct., in Luzula  
  " pilosa ; examine the under-side  
  " of the leaves  
  " perplexella ...in Aira caespitosa  
  " teniatella ...from Sept., in Brachy-  
  " podium sylvaticum  
  " megerlella ...from Sept., in Brachy-  
  " podium, Bromus, Aira, &c.
LARVÆ]

E. adscitalla ......in Sesleria cœrulea, and Aira caespitosa
" rhyncosporella in Eriphorum, and Carex
" eleochariella...in Eriphorum, and Carex
" biatomella ...in Carex glauca
" triatomella ...in a fine grass
" pollinariella...Brachypodium sylvaticum
" cygnipennella Dactylis glomerata, and other grasses
T. dodonælla from Oct., in oak
L. quinqueguttella in dwarf willows
" vacciniella ...in whortleberry
L. Clerckella ...in sloe, apple, cherry, hawthorn, &c.
C. spartifoliella under bark of broom
O. auritella ......in fl. stalks of Caltha palustris
B. aurimaculella on Chrysanthemum, and ox eye
" maritimella ...Tripolium vulgare
" cristatella......on yarrow
" artemisiella...Artemisia campestris, and yarrow
T. immundella...under bark of broom

MAY

A. Bennetii ......Statice limonium
P. Bertrami ......Achillea millefolium, and A. ptarmica
" ochrodaactylus yarrow shoots
" isodactylus ...in shoots and stems of Senecio aquaticus, &c.
" Zetterstedtii? in stems of Senecio sylvaticus
" parvidactylus thyme, and Hieracium pilosella
" phæodactylus rest herb
" serotinus ......Galium mollugo
" plagiodactylus Scabiosa, and Veronica chamaedrys
" lithodactylus Inula dysenterica, & I. conyza
" tephradactylus from Sept., goldenrod; in shady places
" galactodactylus burdock
" spilodactylus Marrubium vulgare
" tetradactylus thyme
" pentadactylus convolvulus, &c.
" dichrodactylus tansy
" Lienigianus, e. Artemisia vulgaris
" brachydactylus Lactuca muralis, &c.
" baliodactylus Origanum vulgare
" aridus ........on the Continent on fl. buds of Coris monspeliensis

PUPÆ]

Although the practice of searching for pupæ has never been recommended during the summer months, the number of kinds, as proved by the subjoined list, shows that it should not be omitted from our programme, at least when we are in quest of any particular species, or when circumstances prevent our following out any other plan of operations.

M. Athalia, e. ...suspended, among plantain, &c.
S. Megæra, b. ...on grass stems, &c.
L. Alexis, b. ...under stones, &c.
" Adonis, m. ...sub. at, or among Hippocrepis comosa
S. populi ..........sub., at r. of poplar, willow, &c.
" tiliae ............sub., at elm, lime, beech
C. porcellus ......sub., near Galium
" elpenor.........sub., near willow herb, &c.
S. myopæformis in wood of branches and trunks of apple, and pear trees
" culiciformis ...in stumps of felled birch
" formicaæformis in withy stumps.
Pupæ of clear-wings are best sawn out of the wood
" cynipiformis in oak stumps
" muscæformis in the heart of withered plants of sea pink
" tipuliformis ...in wood of currant bushes
MAY

S. sphegiformis in r., branch, or twig of alder
" asiliformis ...in r. or stem of ash, or poplar
" bembeciformis in stem, or branch of poplar, osier, or sallow
" apiiformis, b. in r., or base of trunk of poplar
M. arundinis ...inside reed stem, which the pupa can traverse, by means of its hooks
C. ligniperda ...at various trees, spun up, under bark; s. sub.
H. lupulinus ...at r. of dead nettles, &c.; in a long cocoon, like a gallery, which it can traverse, by means of its hooks
" velleda ...at r. of brake fern; spun up amongst loose soil
L. assellus ...spun up, on a leaf
N. cucullatella ...on twigs, and bark of hawthorn, and sloe
" confusalis ...on bark of oak
S. irorella ...in a slight web, under stones, oyster, cockle, mussel shells, &c., on the coast, just above the tide-mark
L. aureola ...under moss, on lichen-covered larch, oak, &c.
" deplana ...on lichen-covered yew, spruce fir, oak, beech
" lurideola ...on lichen-covered trees, and old walls
C. plantaginis ...spun up, between leaves of violets, plantain, &c.
" villica ...spun up, about low plants
A. fuliginosa ...in a boat-shaped cocoon, on food-plant
" lubricipeda ...spun up, on trees, palings, &c.
" menthrasti ...spun up, on trees, palings, &c.
" urticae ...under moss, on trees
L. salcis ...between leaves of willow, poplar, &c.; under bark and copings, and on palings, &c.
B. rubi ...in a long, loose cocoon, among food-plant
A. prunaria ...amidst folded leaves

E. fasciaria ......at base of Scotch firs; rarely within 2 feet of the tree, at 1½ to 2 inches deep
E. dolobraria ...under moss, on oak, &c.
N. zonaria ......to March, sub., on sand-hills
B. repandata ...e. spun up, in rhomboidaria ...loose cocoon
" abietaria, e. in cocoon, about larch
" roboraria ......at oak, in slight cocoon; s. sub.
C. consortaria ...under moss, on oak
I. lactearia ...spun up, among leaves of oak, or birch
P. baiularia ...spun up, in a loose net-work, on underside of oak twigs
H. thymia ...in loose cocoon, amongst leaves
E. porata ...fastened to leaf of oak
E. heparata ......at alder; on the surface
A. bisetata .....in slight cocoon, at base of leaves of dandelion
" trigeminata ...in loose cocoon
" promutata ...
" fumata .......
" aversata .......
C. exanthemaria spun up, under leaves of sallow, and alder
S. belgiaria ......among heath, in a slight cocoon, on the ground
S. dealbata ......in shuttle-shaped cocoon, on grass stem
A. ononaria ......among, or near rest harrow, on the surface
A. strigillaria, e. in a web among heath, or broom
L. caesiata, e. ...in a slight web, among leaves of bilberry, whortleberry, or heath; on mountainous heaths
" olivata ......among Galium mollugo, in a slight cocoon, on the surface of the soil, under a leaf, or stem
E. unifasciata ...from May, among, or near Odontites rubra; s. remains several years in pupa
MAY

E. isogrammata......about Clematis vitalba
" nanata ........about heath
" minutata ......about heath
" rectangulata....on apple, and crab; under moss, and loose bark
M. ocellata ......in cocoon, amongst Galium; near the ground
M. galiata........sub., near Galium
A. sinuata......on the ground, in earthen cocoon, among Galium
C. picata ... ...from Sept., in a slight cocoon, on the surface, among, or near chickweed
    sagittata ......spun up, about Thalictrum, or on the ground near; in fens
" russata .......spun up, on leaf of strawberry, birch, hawthorn, sallow, &c.
" populata ......spun up, about bilberry, &c.
" fulvata .......about dog rose
E. palumbaria ....in compact cocoon, among broom, &c.
P. falcata .........birch, &c.; between united leaves...
" hamula.........oak, birch; between united leaves
" unguicula ......among beech leaves, in a slight web, or on the ground
D. furcula.......spun up, on trunk of willow, or sallow
" vinula .........spun up, on trunk of willows, poplars, or sallow
S. fagi ...........spun up, at beech, oak, birch, elm; among leaves, or at r.
P. bucephala ....sub., at various trees
C. reclusa.......spun up, among dead leaves of sallows, poplars, willows
P. palpina ......at willows, and poplars, on edges of streams, in cocoon on the ground, or under sands
N. camelina......at various trees, in a slight cocoon
" cucullina ......at maple, and sycamore, under moss, &c.
N. dictaea ......in large cocoon, at poplars, sallows, and willows, under a leaf, or sod
" dictoeoides ...in a slight cocoon, at birch, under a leaf, &c.
" dromedarius in a slight cocoon, at birch, alder, nut, under a leaf, &c.
" ziczac .......at poplars, sallow, willows, in a slight cocoon
" Dodonea .......sub., at oak, or birch
T. batis.........near bramble, and wild raspberry,
C. duplaris ......between united birch leaves
" fluctuosa ......among birch leaves
D. Orion .......at birch, and oak; in a cocoon of gnawed bark, or rotten wood
A. tridens.......spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
" psi ...........in bark crevices of various trees
" leporina ......in excavations in the bark of birch, poplar, alder, sallow
" aceris .......spun up, among fallen leaves, and under loose bark of sycamore, horse-chestnut, maple, birch, and s. oak
" strigosa .......amongst dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
" ligustri.......spun up, under moss, stones, &c., near ash, and privet; also sub.
" rumicis.......spun up, in crevices of trees, palings, walls, &c.
L. lithargyria ...sub., about grass
" littoralis ......below the surface, on sand-hills, about marum grass; on the coast
A. puris .........sub., at elm
X. rurea .........under moss, on stumps, &c.
" hepatica ......under moss, and stumps
D. pinasti ......in a cocoon, on the ground, among dock, sorrel, &c.
PUPÆ

P. leucophæa ... amongst moss
A. unanimis ... under bark of willows, in damp places, and among decayed willow wood
C. Morpheus ... spun up, in a leaf, or an earthen cocoon, attached to food-plant
R. tenebrosa, b. among violets, and other low plants; a little beneath the surface
A. segetum, s. ... sub., among Cruciferæ, grass, &c.
T. ianthina ...... } sub., at various
" fimbria ....... } low plants
" orbona ........
N. augur ...... } sub., near rose,
" baia ........... } bramble, &c.
" festiva ........ sub.
" conflua ...... among low plants; on, or near the surface
" umbrosa ...... under moss, &c.
A. nebulosa ..... sub., near low plants
H. marginata ... sub., near Ononis procurrens

MAY

H. dipsacea ...... among melilot, and probably Silene otites, and Linaria
A. myrtilli ...... spun up, in heath
E. venustula ...... at r. of Tormentilla reptans, and grass
A. urticae ...... spun up, among nettle leaves
" triplasia ...... spun up, among nettle leaves, hop, &c.
P. chrysis ...... among the leaves of burdock, thistle, nettle, dead nettle, &c.
M. typica, e. ... spun up, on walls, palings, &c.
P. ænea ...... among Polygala vulgaris
H. tarsipennalis at sallow, or wild raspberry (?); spins down a leaf
A. flexula, e. ... in a spun leaf
E. sambucalis ... spun up, in crevices, in palings, walls, &c., near elder
P. margaritalis ... among wild mustard
G. canella ...... among Salsola kali
P. trigonodactylus on coltsfoot
" osteodactylus on golden rod

IMAGOS

The rapidly lengthening lists, which each month now discloses, plainly enough indicate the increasing number of possible captures open to the collector. A great number of species will require the stimulant of the beating stick before they will discover themselves. A rarity sometimes

"Then breaks from out the bush with hurried wing,"

and the collector has himself to thank if he misses it. A mallet, which is used on the Continent, has been recommended for jarring moths off trees with slender trunks, and the lower branches of other trees. The yew is a good tree for harbouring moths, and may be sometimes pelted with stones, &c., with advantage. The plant or tree which the larva feeds upon is often chosen by the imago for its place of concealment, and may be said to constitute the next natural attraction to flowers,—

"The murmurous haunt of flies on summer eves,"

which are visited by many moths and butterflies, both during sunshine and at night. A mass of flowers, in the sunshine,

"With butterflies for crowns,"

forms, indeed, a beautiful object, besides giving the collector a chance of a good "haul."
MAY

Many small moths (says Mr. C. G. Barrett) may be blown (by the mouth) into the net. If a steady wind is blowing this mode of capture is often very productive; if it is stormy or gusty, hardly a specimen can be obtained. Many species which cannot be seen may be thus captured, especially from trunks of trees which they so much resemble in colour as to be undistinguishable. This practice of blowing, however, tries the “wind,” and only the strong can keep up the exercise.

Some of the species which rest on tree trunks, and which may be found this month, require to be carefully sought for. Some notes on this subject will be found under the February Imagos. The northern and eastern side of tree trunks, in larch and beech woods, in most elevated districts, yield T. crepuscularia, and sometimes T. consonaria, T. biundularia, and H. abruptaria. T. consonaria when disturbed generally dives down into the grass, from whence it sometimes requires care to extricate it without damage.

The reader may be reminded that most of the Pyrales require to be beaten out of the thick undergrowth in which they hide; and that Tortrices generally fly most at about a couple of hours before dusk, while many also fly in the early sunshine.

Now that the Noctuæ are beginning to appear in some plenty, the reader should not forget the desirability of resorting to “sugaring,” which, from this family’s love of sweets, often proves a means of capturing large numbers. Many of them also show a great liking for light, and this is indicated in the lists where it has been strongly manifested.

P. Machaon......fens, and marshes
L. sinapis.......woods; does not travel quietly if boxed
P. brassica ......gardens, &c.
" rapae.......gardens, &c.
" napi ..........gardens, &c.
" Daplidice ...has been taken in lucerne fields
A. cardamines ...fields, &c.
A. Euphrosyne ....woods, &c.
M. Artemis ......wet meadows; rests among the herbage in dull weather
Cinxia ..........on the coast
S. Ageria.......woods, and lanes
Megerea ......lanes, banks, walls
C. Pamphilus ...fields, &c.
T. rubi ..........near woods
P. Phleas ......fields, and lanes, coast sand-hills, &c.
L. agestis ......hilly fields
" Alexis, e. ...fields, and hills; rests on grass, &c., at night
" Adonis ......chalk downs, and limestone hills
L. alsus, e. ......hills, railway banks, coast sand-hills, &c.
" argiolus ......among holly, in plantations, woods, and gardens, and at fl.
N. Lucina, e. ...woods, and banks near, where primrose abounds
S. alveolus ......woods, and fields
T. tages ........heaths, commons, hills, &c.
H. sylvanus ......hills, and woods
S. ocellatus ......rest on trees,
" populi ........{ palings, &c.; " tiliae ........} come to 1.
D. lineata......at fl.
C. porcellus, e. may be found on patches of Galium verum, or on the ground near; hovers over fl. at early dusk, and comes to sugar
M. stellatarum ...flies by day, and in the evening; hovers over fl.; often found flying over old walls where Galium grows, and on coast sand-hills
MAY

R. cratægata ...beaten from hedges
V. maculata ......woods; flies by day
E. dolobraria ...woods; beaten from oak
S. lunaria ......woods; comes to l. illustraria......woods
O. bidentata .....rests on tree trunks
B. hirtaria, b. ...in the squares of London
A. betularia ......on trees
H. abruptaria ..on trees, palings, &c., and in gardens; comes to l.
B. cinctaria ......
T. consonaria ..at rest, on trees; in beech woods
" crepuscularia, b. on trees
" biundularia ...on trees, and palings
" punctulata ...
N. viridata ......mosses and fens; fades soon after appearing
I. lactearia, e. ...woods; flies by day; soon fades
E. porata ........woods
" punctaria ......woods
" trilinearia......beech woods, flies in the sunshine
" omicronaria...woods; beaten from maple
" orbicularia ....may be beaten from pendularia ...woods, &c. [birch
H. auroraria ...in fens, &c.
A. luteata........woods
" candidata ......woods
" Blomeraria ...on wooded hillsides,
near wytch elms, at rest on larch, and other trees
A. ornata ......on grassy hills, &c.
" remutata, e. ...woods
" C. pusaria.......woods
" rotundaria ...
" exanthemaria woods
C. temerata ......woods, &c., in the neighbourhood of wild cherry,
and buckthorn
taminata ......woods
M. notata ......woods; on birch trunks
liturata........in larch woods
S. clathrata ......in, and near saint-
foin fields
MAY

E. pimpinellata
  " fraxinata, e....s. as early as Jan.
  " indigata ..... on fir trunks
  " nanata ...... on heaths
  " vulgaris......
  " assimilata ...
  " dodoneata ..flies in the early morning sunshine
  " exiguata ......
  " pumilata '......
  " coronata ..... on trees, and palings
L. sexualata ..... on tree trunks, in hedges, and by beating
  " hexapterata...woods
  " viretata ..... on birch, and fir trunks
T. simulata ..... 
Y. ruberata ..... " impluviata ...
M. ocellata ...... 
  " albicillata ...
M. hastata, e. ... woods ; flies in the sunshine, generally after 2 p.m.;
may be beaten from birch, and other trees
  " procellata ...beaten from clematis
  " sociata .......(subristata)
  " montanata ...woods
  " fluctuata ......on walls, and palings
  " galiata .........
A. derivata ...... 
  " berberata ......
C. propugnata ...woods
  " ferrugata ......woods
  " unidentaria ...
C. fluviata ......at light
P. lignata, e. ...
  " vitalbata ......beaten from clematis
S. certata ......at rest on palings, &c.; also at light
C. corylata ......woods
  " russata .....woods
  " suffumata......flies at dusk
  " silaceata ......among willow herb
  " prunata .......
E. lineolata ......rests on coarse grasses, on the coast
A. plagiata ...... 
C. oblliquaria ...among broom; does not fly till between 10 and 11 p.m.
THE LEPIDOPTERIST'S CALENDAR

IMAGOS]

P. lacertula ......the hook-tips may be beaten from their hiding-places, in trees, by a long pole; females may be thus obtained, which are rarely seen.

" sicula, e. ....
" falcula ........
" hamula........flies in the day time, generally in the morning; may be beaten from oak; comes to l.
" unguicula......a day-flyer; may be beaten from beech
C. spinula ......at rest, on palings, &c.
D. bicuspidis ... 
  " fuscata, e. 
  " bifida, e. ...
  " vinula ...... 
P. bucephala ...at rest; comes to l.
C. curtula ...... 
  " reclusa .......
G. crenata ...... 
P. palpina ......at l.
N. camelina......hides on fronds of fern, and in, and on trees; comes to l.

" dictaea ......at rest, at base of willows, and large poplars 
" dictaeoides ...
" dromedarius at l.
" tritophus ......
" zizicac .........hides in bark crevices of poplar 
" trepida ......at l., and on oak trunks 
" Chaonia ......
" Dodonea ...... 
T. batis......flies over bramble, at dusk
C. duplicaris ..... 
" fluctuosa ... } do not always travel 
" ocularis ... } quietly when boxed 
A. psi ......at rest, on tree trunks 
" leporina ......on tree trunks, s.
  " high up 
" aceris ......on trunks of sycomores, and palings 
" megacephala on tree trunks, and palings 
" alni ...........this rare species has been taken at sugar

MAY

A. ligustri ......at rest, on ash trees 
  " rumicis........
  " auricoma ..... 
  " myricae......in the North 
M. flammea ..... 
X. rurea, e. ..... 
X. conspicillaris, b. rests on trees, especially where the bark has been stripped 
N. saponaria, e. 
P. leucophaea, e. 
M. albicolon, e. on the coast 
" brassica ......on walls, palings, &c.

A. basilina ...... 
  " unanimis, e. marshes, and fens 
G. trilinea......in grassy places 
H. palustris, e. has been taken at l. 
C. cubicularis ...beaten from thatch 
R. tenebrosa, m.
T. pronuba ...... 
N. c.-nigrum ...
" rubi ...........
T. gothica......at fl. 
  " rubricosa ......at fl. 
  " opima ......at fl. 
  " populeti ......at fl. 
D. carpophaga...at l. 
" capsophila ... 
" capsincola ...
" cucubali ......may be taken at rest, and hovers over fl. 
E. lucipara...... 
H. adusta, e. ... 
" dentina........
" chenopodii ...at l. 
" suasa ......at sugared fl., on commons, &c.
" pisi, e. ........
" thalassina, e. 
" genista, e. ... 
" rectilinea......at rest, on stones, &c., on dull days 
C. perspicillaris 
C. verbasci ...... 
" scrophulariae 
" asteris ........
" chamomilla...s. hides under the top ledge of a paling 
H. marginata, e.
THE LEPIDOPTERIST'S CALENDAR

MAY

T. ministrana ...woods
A. prodromana northern moors
P. mixtana ......from July, moors
A. Conwaysana...
P. Lecheana......woods
P. prælongana...

m marginana .. damp woods, heaths, and fens
S. liriciana ......among larch

" suffusana ......hedges
" simplana ......among poplar
P. tripunctana, e. gardens, and hedges
S. euphorbiana S. coast
M. palustrana ...Perthshire, &c.
R. arcuana ......among young oaks
E. arbutana ......on heaths, in the N.
E. fraetifasciana on downs
quadrana .....Kent, Surrey, &c.
P. rugosana, e. in hedges, among briony
C. politana ......on heaths
musculana ....hedges
C. favillacea...in woods, among juniper
C. rusticana ......moors, fens, mosses
B. lanceolana ......among rushes
P. siculana ......Witherslack
unguicana ......heaths
uncana ......heaths, and woods
comptana ......chalk downs, &c.
subarcuana ...fens
" myrtillana ...moors, among Vaccinium
" Lundana ...
" diminutana, e. among sallows
" Mitterpacheriana among oak
upupana ......Southern woods
" campoliliana among sallow
 obtusana ......Lancashire
P. tetraquetrana woods
immundana ...woods
E. Pfulgiana.....
gallicolana ...Darent
C. strobilana ...woods, among spruce
" splendidulana on oak trunks
" argyrana ......on oak trunks
" nemorivagana moors, and Scotch mountains
" Hercyniana ...among spruce
" distinctana...Westmoreland, Cumberland, Norfolk

IMAGOS]
A. cordigera......at Rannoch
" myrtilli........flies in the sunshine,
on heaths
H. arbuti ........fields, &c. ; flies in
the sunshine
A. luctuosa ......flies in the sunshine,
in clover fields, &c., and hovers
over fl.
E. venustula, e.
C. alchymista ...
O. lunaris ........
E. mi...........
" cordigera
" fly in the sunshine,
glyphica ...
" arbuti
" and hover over fl.
P. ænea.........
M. salicalis......among long grass, &c.
H. barbalis ... beaten from under-
growth
" tarsipennalis, e. woods
P. punicealis ...flies in the sunshine
" purpuralis ...flies by day
ostralbis, e. flies in the sunshine
H. cespitalis......
E. cingulalis.....on grassy hill-sides,
" anguinalis ...on grassy hill-sides,
" octomaculalis, e. woods, &c.
A. nemoralis.....
P. stratiotalis ...flies at dusk, over
stagnant pools; comes to light
B. lupulinalis ...among hop
lancealis, e....
M. unionalis......successive broods
S. decrepitalis ...
S. dubitalis ......
C. pratellus ......s. at sugar
" chrysonuchellus among dry grass,
" cespitalis....on grassy hill-sides,
" anguinalis ...on grassy hill-sides,
" octomaculalis, e. woods, &c.
A. nemoralis.....
P. stratiotalis ...flies at dusk, over
stagnant pools; comes to light
B. lupulinalis ...among hop
lancealis, e....
M. unionalis......successive broods
S. decrepitalis ...
S. dubitalis ......
C. pratellus ......s. at sugar
" chrysonuchellus among dry grass,
" cespitalis....on grassy hill-sides,
" anguinalis ...on grassy hill-sides,
**IMAGOS**

C. vacciniana ...among bilberry
R. turionana......among Scotch fir
S. perlepidana...among grass, and low bushes
" internana ......among furze
" composana ...in clover fields
" germarana .....woods in the S.
D. sequana ......dry fields and railway banks
plumbana......

P. Rheediana ...in hawthorn hedges
C. albersana......woods
" ulietana ......among furze
" aspidiscana ...knocks about if kept long in a box
X. Fabriciana ...
L. reliquana......woods
" servillana......woods in the S.
E. maculosana...woods
" Degreyana...Norfolk
" curvistrigana woods in the S., among ragwort
vectisana......
" udana ........marshes, &c.
" notulana .....fens, and marshes
" rupicolana ...marshes
" ciliana .........
" pallidana ......cliffs
" anthemidiana chalk districts
X. Zoegana ......
" hamana ......
A. Beaumanniana among rushes, in damp places
" zephyrana ...South coast
" maritimana, e. on the coast
C. Francillonana on the coast
" stramineana...chalky places
T. hyemana ......oak woods
D. fagella ......on trees
P. villosella (nigricans) e. New Forest
" opacella, e....New Forest, Witherslack, Rannoch
" calvella (fusca) e.
" pullella, e. ...heaths, the larva feeding on grass
S. inconspicuella
S. emortuella .....Cheshire
cloacella ......Witherslack
T. imella ........Lytham
" rusticella ......among cloth, &c.

**MAY**

T. monachella ...Cambs
ganomella ...hedges
" bistrigella ...on birch twigs
ruricolella ...
L. luzella .......Yorks
I. masculella ...among hawthorn
capitella, e....
M. calthella ......in fl., of Caltha palustris, and buttercup
mansuetella, e. Windermere
" allionella, e. among vaccinium
" Thunbergella
" purpurella ...among birch, and Scotch fir
salopiella ......among birch
" Sparmannella among birch
" subpurpurella, e. among oak
fastuosella .. among nut
N. Swammerdammella, e. on trees, among heath
Schwaziella in hedges, &c.
pilella ...........Yorks, Scotland, Lake District
" metaxella ......Yorks, Scotland
A. fibulella .......in veronica fl. These "long horns" fly in the sunshine
" rufimitrella ...in wet meadows, and bogs
viridella, e......in hedges, and among oak
S. comptella......among sloe
" griseocapitella among birch
" pyrella ...........in hawthorn hedges
V. viginipunctella Guildford, Beckenham
A. decembrutella Darenth
C. pyraustella ...has occurred in Sutherlandshire
P. xylostella......among Cruciferae
porrectella, e. in gardens
G. velocella .....among sheep’s sorrel
ericetella ......moors, &c.
" longicornis ...in bare, burnt places
diffinella .....among sheep’s sorrel
desertella .....on coast sand-hills
acuminatella among thistles
" mundella ...... sands, on the coast
proximella ...among birch, and alder, on moors
" notatella ......among sallow
IMAGOS]

G. luculella ...... among oak

" scriptella ...... among maple

" æthiopella ...... on moss

" solutella ...... Rannoch, Lizard

" lioirella ...... Birkenhead, Isle of Wight

" aleela .......... West Wickham

" triparella ...... among oak

" cerealella ...... among grain

" anthyllidella among Anthyllis, and clover

" Hermannella in fens, and on the coast

" næviferella ...

" pictella ........ coast sand-hills

" brizella ........ about thrift

" intaminatella railway banks

" gracillella, e....

" umbrosella . coast sands

M. fasciella ...... Cambs, Lewes

" ustulella ...... near Worcester

H. Geoffroyella, e.

D. sulphurella ...

Œ. minutella ...... in hay lofts

" trisignella.....

" stipella ...... among dead fir trees

" grandella, e.... Llangollen, Bewdley Forest [N.

" subaqueilella ..Lancashire and the

" tinctella ..... Gravesend, Dareuth, W. Wickham

" flavifrontella Cambs, Wither

" slack, &c.

B. grandipennella among furze

P. Lewenhoeckella

R. Erxlebenella among lime under

" wood

" pronubella ....... has occurred in Sutherlandshire

G. fuscoviridella

" Haworthella in the N.

" Schenicolella, e. in the Norfolk

" fens, and at the Lizard

" Fischerella ...

Æ. dentella ...... Cambs, Sanderstead, &c.

P. obscurepunctella

T. sericiella ...... among willow

" stanneella ...... among oak

A. conjugella ...... among mountain ash

MAY

A. mendicella ... on sloe

" arcæotherina among fir, and

" juniper

" praecolella ...Sanderstead

O. pinariella ...... among Scotch fir

G. alchimiella ...

" elongella ...... among alder, and

" yew

" tringipennella ... among Plantago

" lanceolata

" syringella ...... in gardens, among

" lilac

" omissella ...... among Artemesia

" vulgaris

" auroguttella... among Hypericum

" quadrangulum

" imperialella ... Cambs, Dorset

" Hoffmanniella

" Kollariella ...

O. avellanella ... among nut

" Devonella ...... has occurred near

" Dawlish

" anglicella ...... among hawthorn

" betulaævorella among birch

" torquilella ...... among sloe

" Scoticella ...... in mountain ash

" Loganella ...... in the N.

" guttella ......... among apple

C. albicostella, e. among furze

" murinipennella... among Luzula

" sylvatica

" virgaureella...

" viminetella ...

" graminceolella among ragged robin

" limosipennella among elm

C. orichalcella, e.

L. miscella ... among sun cistus

" epilobiella ... from Aug., among willow herb

" subbistrigella from Aug.

C. flavicapitella ... among hawthorn

A. modestella ... among Stellaria

" holostea

" fuscociliella ..... among nut

C. festaliella ...... among blackberry

A. Pfeifferella ...... among Cornus san-

" guinea

S. Brunnicellia in chalk pits, among

" Clinopodium vulgare

E. poella .......... among Poa aquatica
MAY

L. vimitetella ...
- carpinicolella among hornbeam
- ulmifoliella among birch, &c.
- spinolella ......
- quercifoliella among oak
- Messaniella ......among evergreen oak
- corylifoliella among hawthorn
- Caledoniella in the N.
- vimitiella ......among sallow
- alnifoliella ......among alder
- Heegeriella ......among oak
- Cramerella ......among oak
tenella ......
- sylvella (acerifoliella) among maple
- emberizaepennella
- Frolichiella ......among alder
- Dunningiella Yorks, &c.
- Nicelliella ......among nut
- Stettinella ......among alder
- Klemannella Preston, &c.
- Schreberella among elm
- tristrigella ......among elm
- trifasciella ......among honeysuckle
- scabiosicolella Surrey
- comparella ......
- C. spartifoliella among broom
- laburnella ......among laburnum
- Wailesella ......among Genista
- lotella ...........among Lotus major
- lathyrifoliella among vetches
- orobiella ......Scarborough
- O. reliquella ......near Thetford
- B. anrimaculella among Chrysanthemum leucanthemum
- cidariella ......among alder
- ulmella ...........among oak, &c.
- crataegifoliella ......among hawthorn hedges
- Demaryella ......
- Boyerella ......among elm
- hippocastanella
- cristatella ......among yarrow
- N. atricapitella ......among oak
- perpygmæella
- pomella ......
- oxyacanthacolella
- viscerella ......
- catharticella, ......
- Septembrella among hypericum
- intimella ......Witherslack, Bristol

IMAGOS]
- E. Kilmunella ...moors, marshes, and bogs, among coarse grass
- cinereopunctella many of the genus are found among carices, coarse grass, &c.
- trapeziella ......
- Gregsonella......
- nigrella......
- subnigrella, e.
- humiliella, e.
- Bedellella......
- perplexella ......
- subobscurella
- zonariella ......
- gangabella, e.
- teniatella......
- obliquella......Grange
- Megerella......
- cerussella ......among reeds, in marshes, &c.
- biatomella ......in wet places
- ruficinerella ......among grass
- subochreella......moors
- cygnipennella, e.
- T. marginea (emyella) among blackberry
- angusticolella ......among rose
- L. roborella ......many of the genus are found flying in the early morning
- hortella ......
- amyotella ......among oak
- lantanella......
- trigutella ......
- quinqueguttella ......among dwarf
- salicicolella ......among sallow
- nigrescentella
- irradiella ......among oak
- Bremiella......
- insignitella ..Castle Eden, &c.
- lautella ......among oak
- vacciniella ......
- cavella ...........W. Wickham
- pomifoliella ......among hawthorn, and apple
- corylella ......among nut
- spinicolella ......among sloe
- faginella ......among beech
- torminella ......
- salicicolella ......among sallow
IMAGOS]

N. argyropezella
  trimaculella...
  floslactella ...among nut
  salicivorella...among sallow
  myrtillella ...
  microtheriella
  betulicolella...
  ignobilella ...among hawthorn
  argentipedella
  acetosella ......Witherslack, Isle of Wight
  plagicolella ...
  prunetella ...Scarboro'
  tityrella ......
  malella.........among wild apple
  atricolella.....
  arcuosella.....
  gratiosella.....
  marginecolella
  alnetella ......among alder
  glutinosella ...

MAY

N. splendidissimella
  apicella ......amongst aspen
  ruficapitella ...among oaks
  castanella ..... 
  luteella ......
  senosefasciella Darlington, Witherslack
  sorbiella ..... 
  aucupariella...among mountain ash
  ulmivorella ...among elm
  tilxeella ........
  centifoliella ...among roses
T. pulversella...among wild apple
P. microdactylus among Eupatorium cannabinum
tetradactylus
Hodgkinsoni
pentadactylus among Convolulus arvensis, and Calystegia sepium
A. polydactyla ...from Aug.
JUNE

OVA]

"The leafy month of June" is one of the most prolific in insect life, and consequently the number of species obtainable is now reaching its maximum. Many eggs laid this month soon hatch, so that vigilance and activity will have to be exercised to secure the kinds which may be desired.

The Weather.—As it is sometimes important, in fixing the time for an entomological excursion, to know the weather we are likely to have, the chief signs upon which it may be fore-casted are subjoined:

A dark blue sky indicates fine weather.

A rosy sky at sunset, whether clear or cloudy, presages fine weather; a bright yellow, wind; a pale yellow, wet; a sickly-looking greenish hue, wind and rain; a dark or Indian red, rain.

A grey sky in the morning, fine weather; red, bad weather, or much wind, perhaps rain; a high dawn, wind; a low dawn, fine.

Soft-looking, or delicate clouds foretell fine weather, with moderate or light breezes; hard-edged, oily-looking clouds, wind. Generally, the softer the clouds, the less wind (but perhaps more rain) may be expected; and the harder, more greasy, rolled, tufted, or ragged, the stronger the coming wind will prove. Small inky-looking clouds foretell rain; light-scud clouds driving across heavy masses show wind and rain; but if alone, they indicate wind only. High upper clouds crossing the sun, moon, or stars in a direction different from the lower clouds, or the wind felt below, foretell a change of wind in their direction. After fine clear weather, the first signs in the sky of a coming change are usually light streaks, curls, whips, or mottled patches of white distant cloud.

Dew is an indication of fine weather; so is fog. Remarkable clearness of atmosphere near the horizon, distant objects being rendered unusually visible, is a sign of wet, if not wind.

P. Machaon ......on undersides of leaflets of Peucedanum palustre, in fens
L. sinapis, b. ... on Vicia cracca, and Orobus tuberosus; long, standing on end, curved, yellow white
P. cratægi...........on hawthorn, sloe, and orchard trees
A. cardamines ...on fl.-stalks of Cardamine, Erysimum, &c.; bright orange
C. Edusa ..........white clover (Trifolium repens), lucerne, &c. The egg laid up to this time produces the imago in August

A. Euphrosyne on dog, and sweet violet; bluntly conical; dull greenish at first, afterwards brownish
" Selene ........on dog, and sweet violet
M. Artemis ......on scabious, plantain; upon the underside of leaves nearest the ground; yellow
" Cinxia ........on Plantago lanceolata; in batches
V. cardui, e. ...on thistles; by preference Cirsium lanceolatum and carduus arvensis; low down on the plant; s. nettle
S. Semele...........on Triticum repens
C. Davus, e..........on Rhynchospora alba
" Pamphilus ...on small mat grass (Nardus stricta)
L. agestis ..........on Erodium circu- tarium
" Alsus, e. .......on Anthyllis vulner- aria; upon the calyx, low down
" Arion, e. ........on thyme; at the base of the florets; round, flattened, and depressed in the centre, greenish white; hatch within two or three weeks after being laid
N. Lucina ......on primrose, and cowslip; pale glaucus
H. Paniscus ...on plantain
M. stellatarum ...on Galium Mollugo. The egg is deposited while the moth is on the wing, curling its abdomen so as to place the egg upon the underside of the leaf
" fuciformis ...on honeysuckle, upon the underside of the leaf
H. hectus ..........on Pteris aquilina. The eggs of the Hepialus are laid loosely over the plant, while the moth is on the wing; at first white, but soon turn black; globular
" lupulinus ......on dead nettle, &c.
" velleleda........on Pteris aquilina
" humuli..........on various plants
Z. trifolii .........on trefoil, and vetches. The eggs of the Zeuzera are laid in heaps; yellow
" lonicerae ......on clover, & grasses
" filipendulæ, e. on crowfoot, trefoil, &c.
C. dominula ...among houndstongue, scattered loosely; rather small
E. russula....... .on plantain, heath, &c.
C. plantaginis ...on violets, plantain, &c. The eggs of the Chelonia are deposited in regular batches upon the leaves; globular, straw colour
C. caia ..........on nettle, & various plants
" villica ..........on chickweed, furze, &c.; pearly
O. pudibunda ...on hop, oak, &c.; in regular batches
" gonostigma ...on oak, nut, sallow, bramble
B. quercus (callunaæ) scattered over heath, bilberry, &c., as the moth flies; globular, large
E. advenaria ...on dogwood, and probably wild rose, and bilberry
B. rhomboidaria in crevices of bark of various trees; long, dark green
P. baiularia ......on oak; large, oval, brownish
E. omicronaria...on maple; oblong, red
A. remutata ......on ———? has been laid in confinement upon Polygonum aviculare, which plant the larva will eat; red
C. temerata ......on sloe, wild cherry; upon the shoots, and in crevices of the bark
S. belgiaria ......on heath, upon the shoots; rather large, brick-shaped, lead coloured
F. piniaria ......on Scotch fir, and larch; on the higher branches, upon the needles, in a row
S. dealbata, e. ....on grasses; bright orange
S. sacraria ......on dock, chamomile, and other Compositæ; long, narrow, oval, and flattened
L. adustata ......on spindles; oblong, oval, pinkish brown
E. albulata ......on yellow rattle; upon the bracts
" decorata ...on fl. of Lychnis dioica; two or three eggs upon a fl.-head; yellow
M. ocellata ......on Galium; large
M. sociata......... on Galium Mollugo. Deposited singly on the food-plant
OVA] JUNE

L. comma ........... on Dactyliis glo-
merata, and other grass, and
sorrel; in clusters upon the
stems

M. albicolon ...... on Atriplex, and
Chenopodium

A. basilinea ...... on immature wheat;
in the ears

A. segetum ..... on Cruciferæ, &c.

" capsophila ...... on fl.-heads of Silene
maritima

" capsincola ...... on fl.-heads of Lych-
nis, and Silene

" cucubali ...... on fl. - heads of Silene
inflata, Lychnis, and Cucubalus

" caesia ............ on fl.-heads of Silene
maritima

E. lucipara ...... on brake fern, male
fern, nettle, plantain, primrose,
sallow, dandelion, &c. ; in a
row, upon the back of the
leaf

H. chenopodii .... on Chenopodium

" rectilinea ...... on sallow, bilberry,
bramble; upon the leaves

C. umbratica ...... on sowthistle, let-
tuce; upon the leaves

A. luctuosa ...... on small convol-
vulus; upon stems, and fl.-
buds

H. barbalis ...... on oak, and birch
catkins; globular, pale greenish
yellow

C. pratellus ...... probably in moss,
growing amongst grass; "oval,
much pointed at one end, pale
yellow, and ornamented with
slight longitudinal ridges, con-
ected by slight cross-bars;" prob-
ably laid loosely, as it is
supposed most of the genus are

M. montanata ...... on primrose

" galiata ......... on Galium sexatile

A. rubidata, e. .. on Galium

C. munitata ...... on groundsel

C. corylata, e. ... on sloe, lime; large,

oval, pearly

L. griseata ...... on Sisymbrium

Sophia

P. lacertula ...... on birch; upon the
twigs

" unguicula, b. on beech; upon the
leaf, generally on stunted and
pollard trees

D. furcula...... on sallow, willow,
poplar; upon upper surface of
leaves, in groups of two or
three; black, small

" bifida ...... on poplars, willows,
sallows; upon upper surface of
leaves, in groups of two or
three; black, small

" vinula ...... on willows, poplars,
sallow; upon upper surface of
leaves, in groups of two or
three; chocolate brown

P. palpina....... on poplars, and

sallows

N. camelina ...... (birch; on underside

" dictæoides ...... of leaves; white

" dromedarius ...... on poplars, and

" dictæa ...... on poplars, and

" ziczac ...... onallows

" trepida ...... on oak; laid sparsely
upon the leaves; pale

A. leporina, b. ... on the bark of birch,
poplar, alder, sallow; light
purple

" strigosa....... on hawthorn; upon
the twigs

" rumicis ...... on plantain, and

other low plants; upon the
leaves

" myricæ ...... on sallow; rather
large, quite flat on the base,
round and globular above, pink,
speckled with purple, and a
distinct spot of this colour in
the centre

S. venosa ...... on reed grass; upon
the leaves, and stems
LARVÆ]

JUNE

Strange and new will be the larval forms of many species which will be met with in this and the last month, if the collector works as the tempting time, which will soon pass away, should prompt him; and the regular posting up of the entomological diary, with the due labelling of unknown or local species, for future identification, will be highly desirable.

From the end of this month to August, the delicate green larva of P. Machaon may be found in fens and marshes, feeding on umbelliferous plants. This, the largest of our Butterflies, never thrives when removed from its marshy habitat; all attempts to naturalize it in other localities having failed. Towards the end of the month, G. rhamni may be found of all sizes on the two buckthorns, R. catharticus and R. frangula. Sloe bushes in the neighbourhood of woods should be beaten this month for T. betule.

C. ligniperda may be taken at night by visiting the trees which can be seen to have been bored by this strong-smelling three-year wood-feeder. If roughly handled, it feigns death for some time. T. cratægi are extremely various in their appearance. Though hawthorn is their food-plant, they will eat many other plants. They often die whilst changing their fourth skin. L. trifolii is seldom found far from the coast; and when a number are removed from their habitat, there is generally a large per-centage of deaths. L. griseola, L. quadra, L. lurideola, and M. miniata, should not be sought for later than the beginning of this month, or perhaps better at the end of May, as all these species are often full-fed at that period, and if left too late, may be found to be ichneumoned.

E. fuscantaria may be beaten from its food-tree, small, at the end of the month. Ash is its favourite food, but it will also eat privet. Old junipers in gardens, shrubberies, and on hills, should be searched to the middle of this month for E. sobrinata.

P. palpina has a knack of wriggling off the branch it is on, as soon as the branch is touched. P. Cassinea lies close along the petiole of a leaf, and is not easily seen. Though elm and nut are its favourite food, it will eat of almost any tree; as also will P. populi. P. Cassinea, although not generally full-fed until this month, is sometimes more forward; it should, therefore, also be looked for in May.

X. lithoxylea, M. strigilis, M. literosa, G. trilinea, C. Morpheus, and many others, may be found on elder, red currant, beans, &c., by visiting them with a lantern at night. M. oxyacanthae is easily found at night. It falls to the ground the moment it is touched. B. notha is more frequently found on aspen than sallow. When full-fed it eats some depth into rotten wood, and then assumes the pupa state.

P. Machaon, e... Peucedanum pa... lustre, and other Umbelliferae ; P. rapæ...........turnip, and other Cruciferae, tropæolum, &c. in fens
L. sinapis ........ Vicia cracca, and " napi ...........rapeseed, and other Cruciferae
Orobus tuberosus " " " Daplidice......Reseda lutea, and
P. brassicæ .....cabbage, and other Cruciferae, tropæolum, &c. G. rhamni.......buckthorn
JUNE

T. betulæ ..........sloe, birch; generally on stunted bushes
P. hippothoe .......great water dock; formerly in the Cambridge
tens
Phleas ..........dock, ragwort, sorrel
L. Ægon ..........Ornithopus perpusillus
Corydon ......from Oct., Hippocrepis comosa, &c.
Argiolus ......holly, and probably also on buckthorn. The eggs
have been laid on the fl.-stalks, rather close to the fl.; the larva
feeds first on the fl., then on the green berries. Some have been
found on the underside of the leaves, in which they had eaten
shot-holes. It spins up closely adhering to the underside of a holly
leaf; the butterfly appearing in Aug., as the second, or autumnal brood
H. comma ......Ornithopus perpusillus, Lotus corniculatus, and
other Leguminosæ, in rolled-up leaves
linea ............from Aug., grasses. Conceals itself by drawing the
edges of a blade of grass together
Actæon ......in Calamagrotis epi-
gejos
D. lineata .......Galium, vine, &c.
S. chrysidiformis r. of dock, and sorrel. Supposed to be 2 years
feeding up
Z. meliloti, b. ...from July, Lotus corniculatus, vetches, &c.; par-
tial to chalky soils
N. senex ..........lichen; in fens, and
bogs
mundana ......lichen; on top stones
of walls
C. miniata .......from Aug., lichen, on oaks (Lichen caninus); also
withered sallow, and oak
L. muscérda ......lichen, on sallow, in fens
pygmaëola ......lichen, among
moss

LARVÆ

C. Edusa ..........Dutch clover, lucerne, &c.
A. Paphia, b. ...from Aug., dog, and sweet violet
Æglæa, b. ...from Aug., dog, and sweet violet, and wild hearts-
 ease, on hill-sides, and sea-side sand-hills
Adippe, b. ...from Aug., dog, and sweet violet
Latona .........from Aug., violet, and wild heartsease
V. c-album ......nettle, elm, hop, sloe, currant
urticæ, b. ......nettle; in batches, on the underside of the leaves; green
polychloros .. elm, osiers, sallow, aspen, Pyrus aria, and fruit
trees; s. the eggs are laid in the autumn, and the young larvæ hibernate
Antiopa ......willow, birch, poplar, nettle
Io ............ nettle
Atalanta ......nettle, generally in sheltered places
cardui ..........Cirsium arvense, and other thistles; will also eat nettle,
mallow, scarlet bean, &c.
A. Iris ............from Aug., sallow, poplar
E. Medea ........from Oct., moorland grasses
S. Ægeria, 2 ...... grasses
Megæra, 2 ...... grasses
Semele ........from Aug., quaking grass, couch grass, &c.; on dry
hill-sides, and sea-shore sand-hills
Tithonus .........from Aug., annual meadow grass, &c.
Hyperanthus from Aug.; Aira caespitosa, annual meadow, mil-
let, and other grasses, in and near woods
C. pamphilus ... grasses
T. quercus, b. ..oak. See last month
w-album, b. ....wytch elm
pruni ............sloe
LARVÆ]

L. caniola ........Lotus corniculatus, and other Leguminosae; prefers the fl. On the Continent on lichens upon roofs. Spins up on underside of pieces of bark
" deplana ......lichens, on yew, oak, beech, spruce; may be beaten from the trees
" lurideola ......from Aug., lichens, on ash and elm
" complana ......from Aug., lichens, on sloe, and fir
" griseola, b. ...from Aug., lichens on poplar; will also eat withered sallow, &c.
" stramineola (var.) from August, lichens, on sloe, oak, sallow, &c.
" quadra .........lichens, on oak, beech
D. pulchella ......Myosotis arvensis
C. caia ..........from Sept., various plants
L. dispar ..........sloe, hawthorn, and various fruit trees
" monacha ......oak, beech, birch, fir, apple, &c.; hides in the crevices of the bark
D. coryli ...........beech, and several other trees; generally beaten from beech
T. cratægii ...........hawthorn, sloe, sallow, birch, oak, plum
P. populii ..........oak, poplar, lime, ash, hawthorn
E. lanestris ......hawthorn, sloe, &c.; in large nests of silk on hedges, &c.
B. neustria ......sloe, hawthorn, fruit trees, &c.; in large nests of silk
" caestrensis, e. on Artemisia maritima, and Daucus maritimus; will also eat knotgrass, chrysantheum, wild cherry, and various trees, if sprinkled with salt water. Feeds in the sunshine
" roboris ......from Sept., hawthorn, dogwood, bramble, broom, heath, &c.

JUNE

B. trifolii .........from Sept., trefoil, clover, broom, furze, grass, raspberry, &c.; attached to the coast
E. versicolora ...birch
E. vespertaria ...nut
" apiaria ......nut, poplar, willow, sallow, alder
R. cratægata ......from Sept., hawthorn, sloe
P. syringaria ......from Sept., lilac,privet, elder, honeysuckle
S. illunaria ......willow, ash, hawthorn, oak, plum, &c.
" illustraria ..........oak, birch, ash, beech, maple
E. tillaria ...........oak, sallow, birch, alder, &c.
" fuscanaria, e. ash, privet; eats round holes in the leaves
" erosaria ..........oak, birch, &c.
" angularia ..........oak, birch, ash, beech
P. pilosaria ......oak, elm
N. zonaria ..........on Ammophila arundinacea, and other sand-hill plants
hispidaria ..........oak
B. hirtaria .........lime, elm, ash, and fruit trees
A. prodomaria .......lime, elm, nut
H. abruptaria ......lilac, rose, privet
C. glabaria ......lichens, on fir
B. perfumaria ......ivy, lilac, clematis, &c.
" abietaria, b....from Sept., larch, and spruce; has been found on whortleberry; will also eat birch, and oak
T. biundularia ......oak, birch, &c.
Vary very much
D. obfuscata ......from Sept., heath, vetch, &c.
M. cineraria ......lichens, on walls
P. cytisaria, b....broom and Genista anglica, on heaths, forests, and waste places on the coast
I. vernaria, b. ...from Sept., Clematis vitalba
H. thymiaria, b. hawthorn, oak
H. auroraria, b. from Aug., plantain
A. strigaria, b. (?) —— ? Will eat knotgrass
" strigilata ......from Aug., Clematis, Stachys, &c.
" imitaria ......Galium ; will also eat sorrel
P. petaria ...brake fern
S. sacraria..............dock, chamomile
A. margaritaria ...sallow, willow, aspen
H. aurantia ...oak, birch, hawthorn
" progemmaria oak, birch, hornbeam
A. escularia......oak, elm, lime, sloe, hawthorn, horse chestnut, apple, privet, &c.
C. boreata ......birch, in a curled-up leaf
O. dilutata ......oak, and other trees
L. multistrigaria Galium
" ruficinctata ...Saxifraga granulata, and S. hypnoides ; has also been found on fruit trees, peppermint, and sage
E. consignata ...fruit trees, oak, nut, &c.
" pygmaea ... Stellaria holostea, fl ; will also eat Cerastium tomentosum, fl.
" pusillata ......spruce
" irrigata ......oak, sloe
" pinnellata seeds of Pimpinella magna, and P. saxifraga, also Angelica
" dodoneata ...oak
" abbreviata ...oak
" sobrinata juniper
" pumilata ......fl. of Anthriscus sylvestris, gorse, marjoram, asters, clematis, &c.
L. polycymata honeysuckle, ash
T. simulata .....juniper
M. rubiginata .....alders
M. rivata ......Galium Mollugo
" sociata ......Galium Mollugo
" fluctuata ......cabbage, horse-radish, nasturtium, &c.
A. badiata ......dog rose
" derivata ......dog rose, honeysuckle
" berberata ...barberry
P. lapidata ......— ? will eat clematis
" vitalbata, e. ...Clematis vitalba
S. dubitata ......buckthorn
" vetulata, b. ...buckthorn; between united leaves
" rhhamnata, b. buckthorn, birch ; between united leaves
" certata .......barberry ; between united leaves
C. immanata ...bilberry, alder, birch, strawberry, &c.
" prunata ......currant, gooseberry, sloe, &c.
" dotata ........black and red currant
E. cervinaria ...mallow, hollyhock
" mensuraria ...grasses
" lineolata ...Galium verum, on the coast ; will also eat G. sexatilis and G. mollugo
C. imbutata ......cranberry ; also eats whortleberry
C. spartiata ......broom ; feeds under the leaves, in which it makes holes. Is a cannibal in confinement
P. lacertula ........ birch ; between united leaves
" sicula ........oak, birch, lime
" hamula, e. ...oak, birch
" unguicula, e. beech ; generally on pollard and stunted trees
C. spinula, b. ...... hawthorn, sloe, mountain ash
P. Cassinea, b. ...oak ; s. elm, lime, sallow ; grips its food-plant tightly
" nubeculosa ...birch ; stale, dryish food is stated to suit the larva best, in confinement ; two years in pupa
P. plumigera ...maple ; will also eat sycamore
P. palpina, e. ....willows, sallows, poplars
N. carmelita......birch
" dictaea, e....poplars, sallow, willow


LARVÆ]

N. ziczac ........ poplars, sallows, willow, alder
Chaonia, m. oak
D. ceruleocephala hawthorn, sloe, apple
C. diluta ........ oak, birch; between united leaves
or ................ poplars; between the leaves
flavicorns ...... birch, in rolled up leaves; cannot be beaten out
ridens ........ oak; between united leaves
A. leporina ..... birch, poplar, alder, sallow
megacephala poplar
rumicis......... bramble, plantain, and other low plants; will eat knotgrass
auricoma ...... bramble, bilberry, birch, oak
menyanthidis Menyanthes trifoliiata, Myrica gale, heath, bramble, sallow
N. fulva ........ in stems of Carex, and Poa aquatica
Hellmanni, b. in r. of common reed
neurica ........ in stems of common reed
geminipuncta in stems of common reed. Holes covered with silk from within are visible on stems containing larvae
lutosa ......... from Oct., in stems of common reed, near the r.
H. nictitans ....... at r. of Tussilago, Cyperaceæ, &c.
petasitis ...... in stems, and r. of butter burr, and burdock
micacea ....... at the base of leaves of Carex, and inside stems, and r. of Equisetum arvense, and E. fluviatile, and dock
X. lithoxylea ... grass, and other plants
X. conspicullaris Lótus corniculatus, and other low plants
C. graminis ...... r. of grass; hides under stones

JUNE

L. cespitis ...... grasses; hides among the r. by day
C. exulís, b. ...... various species of Poa
M. furva ...... grasses, especially Aira canescens
brassicæ ...... cabbage, dock, Chenopodium, chrysanthemum, &c.
M. strigilis ...... grasses, and other plants
literosa ...... slender foxtail grass, and other plants
furuncula ...... Festuca, slender foxtail grass, and other plants
arçuosa, b. ... Aira caespitosa
C. Haworthii ... Eriphorum vaginatum
A. suffusa ...... r. of spinach, lettuce, radish, &c.
cursoria ...... Euphorbia esula, sandwort, sea violet, &c.
nigricans ...... plantain, clover, &c.
tritici ...... roots of sandwort, sea violet, and other low plants
præcox ...... sandwort, sea violet, chickweed, and other low plants, on the coast; also dwarf willows. May be traced, and dug up in the sand, in which it burrows
T. pronuba ...... from Aug., dock, and other plants
N. glareosa ...... dock, sorrel, broom subrosea ...... Myrica gale, sallow
rubri ........... low plants
T. piniperda ...... Scotch, and other firs
T. gothica ...... sallow, hawthorn, oak, &c.; also dock, nettle, laurel, broom, lilac, &c.
leucographe plantain
rubricosa ...... dock, elm
instabilis ...... sloe, sallow, willow, oak, dock, and other low plants
opima ...... willow, sallow, rose
populeti ...... poplars, especially Populus nigra; between united leaves
stabilis...... oak, elm, hawthorn, &c.
THE LEPIDOPTERIST'S CALENDAR

JUNE

T. gracilis........willow, sallow, low plants

" miniosa ......oak, and birch, when young; then hawthorn, and low plants

" munda ......oak, elm, poplar

" cruda ......oak, nut, sallow; also other caterpillars

O. upilon, b ..willow, poplar

" lota, b........willow, sallow, poplar

A. pistacina ......buttercup, dock, &c. Spins a tight, neat earthen cocoon, in which it remains some weeks before pupation

" litura ........meadow sweet, and other low plants; also oak, willow, alder

C. vaccinii ......elm, oak, sallow, willow, and low plants

" spadicea ......sloe, hawthorn, and honeysuckle when young; later on various low plants

S. satellitia ......oak, &c.; between the leaves; also other caterpillars

D. rubiginea......apple, dandelion, and other low plants

H. croceago ......oak

X. citrago.......lime, between united leaves

" silago .........sallow

" aurago ........beech; hides in the chips of the bark

" gilvago.......wythl elm (seeds)

" ferruginea ......sallow, aspen (buds), wythl elm (seeds)

C. xerampelina ash

T. retusa, b........ sallow, poplar, willow; between the leaves

E. fulvago.......oak, birch

D. oo .............oak, between united leaves

C. trapezina ......oak, birch, hornbeam, &c.; also other caterpillars

" difinis .........elm; between united leaves

E. ochroleuca ...Dactylis glomerata

D. capsophila ... Silene maritima (seeds); will also eat S. inflata; may be found this month in all stages of growth

P. xanthomista Plantago maritima, campion, violet, harebell, &c.; found amongst the r. by day; feeds on the fl., &c., at night

" flavocincta ....chickweed, groundsel, mint, everlasting pea, &c., plum, &c.

D. templi.......Heracleum sphondylium; inside the stem, and r.

E. nigra ....... Galium Mollugo, plantain, dock, chickweed, grass

" viminalis ......sallow

" lichenea .........from Nov., ragwort, and various low plants, on the coast

V. oleagina ......sloe; in shady places, and skirts of woods

M. oxyacanthae hawthorn, sloe

A. Aprilina ......oak; hides in bark crevices during the day

H. satura ........honeysuckle protea, b. ......oak

" dentina.......roots of dandelion

" peregrina ......Chenopodium, and Salsola kali

X. lithoriza ......honeysuckle

C. solidaginis ...bilberry; will also eat hawthorn

C. vetusta.......poplar, and various meadow, and marsh plants

X. exoleta .......scabious, campion, rest harrow, dock, Eryngium maritimum, turnip, asparagus, &c.

X. lambda .......Myrica gale; on moors

" furcifera, m ...alder, birch

" rhizolitha ......oak

" petrificata ...oak, lime, birch

C. verbasci ......Verbascum, and Scrophularia aquatica. Most of the Cucullia feed in the sunshine

" scrophulariae ...Scrophularia nodosa
JUNE

P. purpuralis .....Mentha arvensis, between the leaves
" ostrinalis .....var. of P. purpuralis?
H. cespitalis, e. under leaves of
Salvia pratensis, and Plantago
A. niveus .........in a case, under the
leaves of Potamogeton
P. forficalis ......cabbage, horserad-
ish, &c.
S. sticticalis .....Artemisia, near the
coast
cinctalis .....broom, clover?
" alpinalis .....Senecio
S. lineola .........the lichens on sloe,
Parmelia parietana, and P.
olivacea
C. fascelinellus...at Yarmouth, in the
r. and stems of Triticum jun-
ceanum, spinning silken galleries
about the r.
paludellus ...Typha latifolia
C. cicatricellus...bullrush
" phragmitellus from Oct., common
reed
S. forficellus......Poa aquatica
" mucronellus...common reed
" gigantellus ...common reed
I. cernella.......Lotus corniculatus,
fl.
H. binavella, b. in heads of thistles
H. senecionis ...mines in stems of
ragwort
E. pinguis.......under the bark of
ash
N. genistella ...from Sept., furze;
also Genista Corsica
P. dilutella ......thyme
" subornatella..thyme (Zeller) Glo-
bularia vulgaris (Herr Mann),
between the leaves
" obductella ...in spun-up leaves of
Origanum vulgare, Mentha
arvensis, Melissa acinos
R. consociella ...oak
" advenella ...hawthorn
" suavella .....sloe
O. ahenella .....under the radical
leaves of Helianthemum vulgare
" tumidella......oak

C. chamomille...... chamomile, fl.,
Pyrethrum inodorum, and P.
maritinum. Basks in the sun-
shine. Has been found in
waste places, shipwright’s yards,
&c.
H. armigera ........wild mignonette
H. arbuti ..........Cerastium arvense,
fl. and seeds, forget-me-not, &c.
A. sulphuralis ...small convolvulus
A. lucutiosa ......small convolvulus;
feeds by night, principally on
the unexpanded fl.-buds
B. parthenias ...birch; s. beech, and
oak
" notha ........aspen, sallow; be-
tween united leaves
P. orichalcea ...Eupatorium canna-
binum
" bractea.........Eupatorium canna-
binum
" festucae.......Carex, reeds, and
grasses; near the sea
" iota ............nettle, dead nettle,
honeysuckle, groundsel, &c.
" interrogationis nettle
G. libatrix......... willow, sallow,
poplar
A. pyramidea ...oak, elm, birch,
willow
" tragopogonis hawthorn, larkspur,
columbine (seed pods), and low
plants
T. craccse ..........Vicia sylvatica
C. nupta ........willow, poplar
" promissa .........oak
" sponsa ............oak
M. salicalis (?) ...sallow, willow
" rostralis ......hop
H. derivalis ......from Aug., among
dead oak leaves
" cribralis, b....from Aug., Carex
sylvatica, and Luzula pilosa
P. glaucinalis ...in nest-like forma-
tions on the end of birch twigs.
Larvae, pupae, and imagoes are
all found during this month
C. angustalis ...moss, on sea shores
P. punicealis ...Nepeta cataria, fl.
heads
THE LEPIDOPTERIST’S CALENDAR

JUNE

O. rubrotibiella, b. oak
G. cerella ............wax, in beehives
S. Revayana ........sallow (?)
T. podana ............rose, fruit trees, &c.
" rosana ............almost any plant
" heparana ............hawthorn, &c.
" ribeana ............hawthorn, and almost any tree
" corylana ............plane trees, &c.
" costana ............figwort, and other marsh plants
" viburnana ............Myrica gale, and Vaccinium
" icterana ............knapsweed, plantain, and almost any low plant
" viridana ............oak, birch, &c.
" adjunctana ............ivy, &c.
OE. pilleriana ........vine, and almost any plant
L. literana ............oak
" niveana ............birch
" Boscana ............elm
P. autumnana ............Myrica, sallow, &c.
" comariana ............Comarum, Fragaria, &c., in boggy heaths, and fens
" Schalleriana ............hawthorn
" camparana ............
" Caledonian Myrica gale
" variegana ............bramble, hawthorn, &c.
" cristana ............dwarf sallows, and hawthorn, between united leaves
" Hastiana, e. dwarf sallows
" maccana ............Myrica gale
" ferrugana ............birch, oak
" tristana ............guelder rose
" aspersana ............Potentilla, meadow sweet
" Shepherdana ............hemp agrimony, meadow sweet, in the tops
" lipsiana (? ............Petasites galericulata
T. caudana ............willow, sallow, poplars
D. Bergmanniana, b. rose; folded leaves
" Foskaleana ............maple, lime
P. Lecheana ............sallow, willow, oak, honeysuckle, &c.
P. sellana ............heads of Centaurea?
Cirsium?

P. marginana ............teazle heads, and probably in seed-heads of various Composite, in heaths, and fens
S. roborana ............rose
P. tripunctana ............sloe, &c.
A. Udmanniana ............bramble
S. euphorbiana ............Euphorbia paralias, heads
" littorana ............sea pink
" lacunana ............various low plants
" urticae ............various low plants
" M. Ratzeburgiana ............prunus fr., terminal shoots and needles
P. rugosana ............Bryonia dioica
S. subjectana ............various plants
" virgaureana ............various plants
" chrysantheana ............various plants
" penziana ............the r. of grass, on rocks
S. ictericana ............almost any low plant
G. naevana ............holly
" geminana ............in shoots of Vaccinium
H. angustana ............sallow, and willow shoots
P. corticana ............hawthorn
" profundana ............oak
" occultana ............larch, and Scotch fir
" Solandriana ............birch, alder, nut, poplar
" semifusca ............meadow sweet, and dwarf sallow shoots
E. foenana ............from Oct., in r. of Artemisia
P. mercuriana ............Dryas octopetala
P. pinicolana ............shoots of Scotch fir
D. politana ............r. of Achillea millefolium
" alpinana? ............tansy, r.?
" consortana ............shoots of chrysanthemum
C. maritimana ............in stems, or r. of Artemisia maritima
" pupillana? ............in r. of Artemisia maritima
S. vibranus ............Carduus acanthoides, and C. crispus
C. scintillulana ............Scutellaria galericulata
X. Fabriciana ............nettle
E. Degreyana ? in seeds of Linaria vulgaris
X. hamana .....has been bred from Ononis repens
C. rutilana .....in a web, among juniper
L. phryganella...oak, hawthorn, bil-berry, &c.
T. pseudo-bombycella from Oct., lichen, on oak, beech, &c.; in a long, slender case between united leaves
P. calvella (fusca) from Aug., on bramble; 2 years feeding up
S. inconspicuella on tree trunks, and palings
P. Verhuellella in the indusia of Asplenium ruta-muraria, and Scolopendrum vulgare
X. argentimaculella powdery lichens, on walls
T. tapetzella ...woollen cloth, &c.
" pellionella ...in carpets, cloth, feathers, &c.
" pallescentella in rabbit, hare, and cat skins
I. muscalella .....oak; mines the leaves about this time, then cuts out its case, and feeds on the ground, on all kinds of plants
I. Zinckenella ...in birch leaves
S. comptella......sloe, and plum
S. cratægella ...hawthorn, sloe
Y. vigipunctella, e. Sedum telephium
" plumbella ...spindle
" irrorella ...spindle
" padella.........hawthorn, apple, &c.
P. xylostella......turnip, &c.
" porrectella ...Barbara vulgaris, Hesperis matronalis annulatella ...Cochlearia
" Dalea .......Arabis
H. vittella .....elm
Y. sylveilla .....oak
alpella......oak
" lucella ..........oak
" horridella.....apple, sloe
H. scabrella.....apple, hawthorn

JUNE

H. nemorella ...honeysuckle
P. caudella ...spindle
O. sparganiella...stems of Sparganium
P. quercella......oak, and between leaves of sallow
E. Allisella ......Artimisia vulgaris
D. costosella......furze, broom, and Genista fl.
" liturella .....knapweed
" pallorella ...in leaves of Centaurea " scabiosa
" umbellella ...furze
" assimilella ...broom
" arenella ......Anthriscus, thistles, and knapweed
" subpropinquella thistle
" Alstræmeriella hemlock
" vaccinella......wild carrot
" capreolella ...wild carrot
" hypericella ...Hypericum
" conterminella shoots of sallow
" angelicella ...Angelica
" Yeatesiella ...wild carrot
" applanella ...wild carrot, and most Umbelliferae
" granulosella...Anthriscus vulgaris, Chaerophyllum, and other Umbelliferae
" depressella ...seed-heads of wild carrot
" pimpinella ...Anthriscus
albipunctella Chaerophyllum
" cnicella ......in Eryngium maritimum, and E. campestris, on the Continent
" pulcherimella Bunium flexuosum fl.
" Weirella ......Anthriscus
" chaerophyllivorella Chaerophyllum
ultimella ...wild parsnip
" nervousella ...parsnip, and CEnanth the crocata
" heracliella ...thistle, Heracleum, and parsnip
" olerella ......on Achillea millefolium
P. gibbosella ...sallows
G. rufescenella in grasses
" nigra ......on Populus nigra, and P. tremula
LARVAE]

G. temerella...sallow shoots
lentiginosella Genista
alacella lichens, on fruit trees
artemisiella...thyme, between terminal leaves
albipalpella Genista anglica, between united leaves
affinella under moss, on old walls
rhombella in wild apple leaves
maculella...in seeds, and shoots of Stellaria
Hubnerella (?) in oak tumps
ocellatella Beta maritima, fl.
atriplicella Atriplex, and Chenopodium
leucatella hawthorn, apple, mountain ash
albicapitella Genista anglica
vorticella...Lotus corniculatus
tæniolella...Lotus corniculatus, and other Leguminosæ, between united leaves
striatella?Cerastium vulgatum
atrella...in Hypericum stems
eæviferella...in leaves of Atriplex, and Chenopodium
Hermannella in leaves of Atriplex, and Chenopodium
subdecurtella Lythrum salicaria
ericinella...heath
Knaggsiella, b. in seed capsules of Stellaria holostea
P. neuropterella from Oct., in heads of Cirsium acaule
C. striatella...tansy, in the stem
C. conscriptella?birch
A. spartiella...furze
N. Durdhamella Origanum, in rolled-up leaves
A. granitella...Inula dysenterica, in the leaves
G. Haworthella Epilobium, seeds
epitilla...in shoots of Sedum acre
A. spinella...in mountain ash
sorbiella...mountain ash, shoots
C. farinatella...Scotch fir, in the leaves
O. pinariella...Scotch fir, in the leaves

JUNE

Z. saxifragæ, b. on Saxifraga azoides, &c.
G. stigmatella...in sallow, willow, poplar
tringipennella in plantain
syringella...ash, privet, and lilac
auroguttella...willow herb, and Hypericum
Kollariella, e. mining leaves of broom
C. Brogniartella oak
C. alcyonipennella Centaurea, burdock, and thistles
vibicella...Genista tinctoria
conspicuella...Centaurea nigra, &c.
pyrrhulipennella heath
anatipennella sloe
niveicostella...thyme
genistæcolella Genista anglica
saturatella...from Sept., broom
onosmella, b. Echium vulgare
Eupatorium cannabinum
murinipennella rushes
albitarsella...Origanum
nigricella...hawthorn, sloe, apple
gryphipennella rose
viminetella...sallow, and osier
lutipennella...oak, birch
ardeœpennella, e. oak
tartecilia...Artemisia
B. præangustella sallow, willow, poplar; between united leaves
O. v-flavella...in fungi, and wine corks
C. Illigerella, b. Ægopodium podagraria, in crumpled leaves
cærophyllella, e. most Umbellifæ
L. miscella...sun cistus
conturbatella Epilobium angustifolium, among terminal leaves
epilibiella Epilobium hirsutum, tops
decorella...in stems of Epilobium montanum, E. parviforum, E. palustræ, E. hirsutum, &c., producing gall-like swellings
H. Rüsella...Atriplex and Chenopodium
**JUNE**

**LARVAE**

A. modestella ...in seeds of Stellaria holostea  
A. Pfeifferella .. dogwood  
E. atricomella ...in stems of Dactylis glomerata  
Megerlella ... in Brachypodium, Bromus, Aira, &c.  
" adsictella ......in Sesleria cærulea, and Aira cæspitosa  
rhyncosporella, Erphorum, and Carex  
" triatomella ...in a fine grass  
pollinariella...Brachypodium sylvaticum  
" cygnipennella Dactylis glomerata, and other grasses  
T. marginea ......in bramble  
L. quinqueguttella in dwarf sallows  
P. suffusella ......in poplars  
salignella......in willows  
C. Wailesella ...in Genista tinctoria  
B. maritimella ...Tripolium vulgar  
" artemisiella ...Artemisia campestris, and yarrow  
N. sericopeza ...sycamore  
" poteriella......Poteriam sanguisorba  
N. centifoliella...Rosa centifolia, and  
R. canina  
ulmivorella ...elm  
T. pulversella in wild apple  
P. rhododactylus in fl. of rose  
" Bertrami, b. Achillea millefolium, and A. ptarmica  
" acanthodactylus Bartsia, and rest  
harrow  
hieracii ......Hieracium umbellatum, and Teucrium scorodonia,  
" first biting through the stems,  
and causing the leaves to wither  
tetus ........Audryala sinuata, on the Continent  
pilosæ ......Hieracium pilosella  
pheodactylus rest harrow  
" Lienigianus...Artemisia vulgaris  
" spilodactylus Marrubiam vulgar  
" brachydactylus Lactuca muralis, &c.  
" baliodactylus Origanum vulgar  
" tetradactylus...thyme  
" dichroodactylus tansy  
" A. polydactyla...honesuckle, buds

**PUPÆE**

The various modes in which the metamorphosis of puation is carried out in the Lepidoptera constitute a most interesting subject of study; and in the months succeeding those most prolific in insect life that variety is seen to perfection. The forms, indeed, seem—

"Numerous as shadows haunting fairly  
The brain, new stuff’d, in youth, with  
triumphs gay  
Of old romance."

The peculiar mode of concealment known as "the cocoon," variously worked out, is more especially seen in the summer months, at least in the species we have been able to tabulate; while in those changing towards the autumn the subterranean form becomes more common. While some species are remarkable for the little trouble they take in effecting this change—simply spinning a few threads, or even dispensing with these—others are conspicuous for the care and labour they put into the work. Although some of the changes are peculiar to some families, it is found to be impossible to make simple form of puation a basis for classification. While some cocoons are as flimsy as a cobweb, others are as tough as horn, with intermediary forms of texture both numerous and remarkable; yet all are the result of fluid exudations woven into form and substance by the caterpillar. While the pupæ of some, even
JUNE

of the commonest species, are conspicuously exposed without covering, and therefore fully open to injury or destruction, those of others are carefully swathed in silk, and surrounded by almost indestructible coverings, and ingeniously concealed, or buried in the earth.

"Far from the sun and summer gale."

It is the business of the collector, by acquiring a knowledge of the habits of as many species as possible, to learn their secrets, and "by his so potent art," to bring them to the light of day, for his own and others' advantage.

A. Paphia ......on a stem of bramble, or some low shrub, in woods
" Aglaia, e. ....among violet, and wild heartsease, on hillsides, &c.; suspended by the tail within an enclosure of spun leaves, on the top of the plant, or attached to stalks of bent grass, &c.
" Adippe...... among, or near violets
" Latona.........among dog violet, or sweet violet
M. Athalia, b. ... suspended, among plantain, &c.
V. c-album, b. ... suspended, among nettle, and on walls, &c.
" urticae .........suspended, among nettle
L. sibylla, e. ....suspended, on stems of fern, underside of leaf of honeysuckle, &c.
A. Iris ...........has been found sus-
pended from underside of oak, and sallow leaf, and neighbouring objects
A. Galatea ......attached to timothy, and other grass
E. Medea, e. ......among moorland grass, near the ground
S. Semele .........under r. of Aira, and Triticum, and clods, on dry banks
" Ianira......... } attached to a
Hyperanthus, e. } blade of grass,&c.
C. Davus ...........among, or near Rhynchospora alba; freely sus-
pended
T. w-album, b. at wytch elm ; fast-
tened on a leaf, or twig
L. Ægon, e...... among Ornithopus perpusillus, at the base of the plant-stems
" Artaxerxes, b. slightly attached to stems of sun cistus, near the ground
Z. æsculi ............in r., branch, or twig of elm, pear, &c.
L. asellus ............spun up, on a leaf
P. statices ............spun up, on sorrel
Z. minos ..........oval cocoon, attached to stones
" trifoliı ............cocoon on stem of grass, &c.; yellow
" melliloti ............cocoon on grass stems, &c.; pale yellow
" lonicera ..........cocoon on stem of grass, &c.; some yellow, some white
" filipendulæ ...cocoon on stem of grass, &c.; white
N. albulalis ......probably in the leaves of bramble, or ash
S. irrorella, b. ... in a slight web, under stones, oyster, cockle, mussel shells, &c., covered with ground lichen; on the coast, just above the tide mark
C. miniata ..........spun up, on lichen-covered trees
L. deplana ............spun up, on lichen-covered trees
" lurideola ..........spun up, on lichen-covered trees, and old walls
" molybdeola ... spun up, under stones, or moss
" complana ..........under moss, on lichen-covered sloe, and fir, and on rocks, on the sea shore
" griseola ..........under moss, on lichen-covered poplars, &c.
PUPAE

L. quadra, e.........on palings, near lichen-covered trees, in crevices of bark, or between leaves
E. grammica ...cocoon between leaves of food-plant
C. dominula.....spun up, near its food-plant
C. caia ...........in a slight cocoon, amongst leaves, &c.; on palings, &c.
L. chrysorräea in a slight cocoon, amongst leaves, &c.
" auriflua ......in a slight cocoon, on palings, &c.
O. fasicelina .....spun up, among dwarf sallow
E. lanestris, e....to Jan.; hard, oval cocoon on the ground, near hawthorn, sloe, &c.; s. remains in pupa many years
B. neustria ......in cocoon among, or near sloe, hawthorn, and fruit trees
L. quercifolia ...in a dark, papery cocoon, amongst leaves, &c.
O. potatoria......papery cocoon, on, or near coarse grass
O. sambucata ...cocoon,hung among ivy, &c.
E. vespertaria under moss, on nut, &c.
" apiciaria ......under moss, on poplar, willow, sallow
M. margaritata at various trees; on the ground
P. syringaria ...fastened to a twig, or under a leaf, or blade of grass; the caterpillar skin is often found hanging from the long-tailed pupa
C. elinguaria ...between leaves of honeysuckle, hawthorn, sloe, &c.; on the ground, or under moss
E. angularia......under moss, on oak, birch, beech, &c.
N. zonaria ......sub., on sand-hills
" hispidaria .....to Jan., at oak
C. glabrarra ...at fir
B. abietaria ......sub., at larch, and spruce
G. papilionaria, b. in a transparent cocoon, among leaves, and moss, on various trees
L. vernaria ......in loose cocoon, amongst leaves, in, or near Clematis vitalba
A. rusticata ....sub., at ——?
" incanaria ....sub., at ——?
" ornata .......sub., near thyme
" straminata ...on heaths, in a loose cocoon, near, or on the ground
" emutaria ......in marshy places
" inornata ......spun up, among leaves of poplar, willow, and heath
H. vaaria ......spun up, among leaves of gooseberry, currant, &c.
S. dealbata ......in shuttle-shaped cocoon, on grass stems
A. grossulariata, b. between united leaves of gooseberry, currant, sloe, nut, &c.
E. subciliata......about maple
" rectangulata on apple, and crab; under moss, and loose bark
T. firmata.......in a cocoon, among fir
Y. clutata, b. ...amongst seed-down of sallow, and moss, &c., on nearly every kind of tree
C. sagittata ......spun up, about Thalictrum, or on the ground, near; in fens
" prunata ......on currant, and gooseberry; between leaves
" testata ......spun up, among leaves of birch, sallow, poplar; generally on heaths, in the North
C. spinula........spun up, among hawthorn, and sloe
C. curtula........spun up, between dead leaves of poplars, and sallow
P. palpina ......at willows, and poplars; on edges of streams; or under sods
L. impura........among Dactylis glomerata; on the ground
PUPÆ]
X. polyodon, b. under clods, and stones
M. abjecta.......under clods, and stones, in an earthen cocoon
A. unanimis......under bark of willows; in damp places, and among decayed willow wood
M. arcuosa, b. ......at the crown of r. of Aira caespitosa
" ripe, b. ......sub., near Cynoglossum officinale; on the coast; found by raking sand-hills
" cursoria ......by raking sand-hills, on the coast
T. Orbona ......among broom, and low plants; on the surface
O. upsilon, b. ......under bark, or spun up, at r. of willow, and poplar
C. xerampelina sub., at ash; cocoon very tender, and brittle; s. the larva remains unchanged in the cocoon for several weeks
T. subtusa ......sub., at poplar
E. fulvago ......spun up, in dead leaves, &c.; and probably s. sub., at oak, and birch
D. oo ...........at oak, on the ground; in an oval cocoon
C. trapezina, e. at oak, birch, hornbeam, &c.; among leaves, on, or near the surface
D. capsophila ...to April, sub., about Silene maritima; on the coast
" capsincola ...to April, about Silene maritima; on the coast
E. viminalis ......sub., near sallow
" lichenea ......sub., by Sedum acre, &c.; near the coast
P. bractea...........near the r. of Eupatorium cannabinum
" festucae......amongst grasses, reeds, &c.; near the coast

JUNE
P. iota .............amongst the leaves of nettle, dead nettle, &c.
A. pyramidea, b. at oak, elm, birch, willow; cocoon on the ground, in spun up, withered leaves, &c.
M. maura ...........spun up, under loose bark, &c.
C. sponsa, e. ......at oak; among the leaves on the tree
H. cribralis ......among sallow, Luzula pilosa, and Carex sylvatica
P. glaucinalis ......among birch twigs
C. fascinellus...in cocoons, just under the sand, among Triticum juncceum
A. lotella ......among Festuca ovina, and Aira canescens
G. canella...........from Oct., among Salsola kali
H. quercana......in a boat-shaped, light green cocoon, amongst oak leaves
A. Bennetii ......on Statice limonium
P. ochrodactylus on tansy
" parvidactylus on thyme, and hawkweed
" plagiodactylus on scabious, and speedwell
" fuscodactylus on speedwell
" lithodactylus on fleabane
" tephradactylus on golden rod, in shady places
" osteodactylus on golden rod
" galeodactylus on burdock
" pentadactylus on convolvulus
" spilodactylus, e. on Marrubium vulgare
" tetradactylus on thyme
" pentadactylus on convolvulus
" dichrodactylus on tansy

IMAGOS]
Every available place where the Lepidoptera "most do congregate" will now, during this, the most prolific month in the year for the perfect insect, be eagerly scanned by the collector desirous of making the best use of his time. The sun is near his meridian, and long and brilliant days promise excellent sport, if we are only properly endowed with that "fiery quality,"
JUNE

energy. As some species can be more readily taken early on sunny summer mornings, the hours of sleep should not be unduly prolonged. Some stern poet cynically says:

"Nature requires five;  
Custom gives seven;  
Laziness takes nine;  
And wickedness eleven!"

And though we shall, of course, meet with many species "of no mark or likelihood," we can scarcely fail in a fair locality to be rewarded with some good prizes. Many butterflies commence flying at seven o'clock in the morning on hot days. In day searching, the beating-stick will be a sine qua non; but low bushes and herbage should not be beaten from the top, but rather from beneath, otherwise many species which are concealed therein are only driven lower down. Not much good will attend the beating of thatch this month. The food of the larvae of the species required, especially where it occurs in some plenty, should have special attention paid to it. Flowers, especially Silene, Lychnis, honeysuckle, and ragwort, are often a great attraction. The lime, and other trees which blossom this month, should be sought for and examined. Cossus infected trees, and gummy exudations from fruit trees are alike a fascination, both for butterflies and moths. Day sugar- ing, as well as by night, has been recommended, and where flowers are scarce is generally successful. Many species may be smoked out of grass, bushes, and banks by ignited touch-paper. Among those species which do not travel quietly when boxed are T. rubi, H. hectus, A. velleda, C. plantaginis, T. derasa, and T. batis.

At that charming time, when

"the twilight shadows grow,  
And steal the rose-bloom genial summer sheds,"

many species start out from their hiding places, and remain on the wing for a short time only. Then is the "witching time" to catch them; and in some favoured places local species appear in swarms at such times.

At night, when

"The dark, delightsome woods lie veiled and still,"

many fragrant flowers become extra fragrant, and additionally attractive to moths. The following are more especially of this character:—Wallflowers, lime blossoms, the butterfly orchis, the fragrant orchis (occurring on chalky heaths) the musk mallow, and the yellow bedstraw. The lure of "sugar," too, at this time may be used with advantage, especially where there are few flowers; or the flowers themselves may be sugared, more particularly in places where there are no trees. Large bare tracks may be thus made to yield a good harvest. If pieces of white paper are placed near the trees, &c., when they are sugared, they may be readily seen and identified in the dark in the successive visits which are paid to them in the course of the night. The French are said to use putrid soapsuds as a bait, as the sugar in France, which is made from beet, is not attractive, from having no smell. Artificial light is also a great means of capture. A bright light placed near a partially-open window is recommended.
IMAGOS]

JUNE

Many species may be found at rest on tree trunks, and palings and fences near. S. fagi is a prize well worth the search. It rests almost as if set out on the tree, and from the light brown of its ample, serrated wings forming a contrast to the dark trunk on which it rests, it can sometimes be discovered a good distance off. It is useless looking for it (or indeed for any other species which rest on trunks) among very young trees. The difficulty generally is in first finding a species, as the eye does not exactly know what it is looking for, and mistakes many of the stains and marks on trees and palings for insects; but having once seen the desiderated species, the eye, thus educated, will ever afterwards quickly detect it. The number of markings on trees and wooden fences which resemble moths is surprising; but when we know the species we are looking for, and the exact appearance they present when spread out flat, as they generally are, little difficulty is felt in rapidly making a thorough examination of a large number of trees. After having looked at a tree or fence, and found nothing, it is desirable to give it a parting tap with a stick; like the magic wand of a harlequin it will sometimes bring forth something we little expected.

P. Machaon ...fens, and marshes
P. crataegi, e. ...near woods, &c.
" brassicae ...gardens, &c.
" rapae ........gardens, &c.
" napi ...........gardens, &c.
A. cardamines...fields, &c.
C. Edusa ...........lucerne, and clover fields, and railway banks; fond of fl.
A. Paphia, e. ...woods
" Aglaia, e. ...hillsides, coast sandhills, &c.
" Niobe, & b. ...hillsides, in company with Aglaia, or Adippe. Has occurred in Kent, the New Forest, and near Windermere
" Adippe, e. ...woods
" Euphrosyne, b. woods, &c.
" Selene ..........woods, &c.
M. Artemis .....wet meadows
" Cinxia ........
" Athalia ......woods, and heaths
V. c.-album, e. gardens, hopgrounds, &c.
" urticae, e...gardens, fields, &c.
L. sibylla, e. ...woods, parks, forests
E. epiphron ......in marshy hollows, on mountain sides
S. Ianira, e....fields, &c.
" hyperanthus woods, &c.
C. Davus ..........Northern moors
" Pamphilus ...fields, &c.
T. w-album, e. flies over trees, and is attracted by fl. of bramble, lime trees, grass, &c.
" pruni .........woods, at fl. of privet, &c.
P. Phleas.......fields, lanes, coast sand-hills, &c.; at fl.; rests on sorrel, &c., at night
L. Artaxterxes (var.) at St. Arthur's seat, &c.
" agestis ........hilly fields, &c.
" Alexis .......fields, hills, &c.; rests on grass stalks, &c., in dull weather, and at night
" Alsus ......hilly fields, railway banks, coast sand-hills, &c.
" Arion ......dry, hilly fields, where thyme abounds, and deserted stone quarries, in hilly districts; rests on grass stems, &c., in dull weather; and at night
N. Lucina, b. ...woods, and banks near, where primrose abounds
H. sylvanus ......woods, hills, &c.
" Paniscus, e....woods
S. ocellatus ...
" populi ......on trees, palings, &c., &c., come to l.
" ligustri ....
D. euphorbiæ ...has occurred on the coast, and at Killing, Ireland, among Euphorbia
IMAGOS]
C. porcellus ......may be found on patches of Galium verum, or on the ground, near; hovers over fl. at early dusk, and comes to sugar

" elpenor ......at honeysuckle, yellow flag, and other fl., and at light

M. fuciformis, b. flies in the sunshine, and hovers over fl., from 9 till 11 a.m., and 3 to 4 p.m.

" bombyliformis flies in the sunshine, and hovers over fl., seldom after 1 or 2 p.m.

S. myopeformis on old apple, and pear trees, and fl., bushes, and palings near

" culiciformis...on birch

" formicæformis, b. in, and near withy beds; flies in the sunshine; fond of sunning itself on leaves

" chrysidiformis, e. on the S.E. coast; flies from about 9 to 11 a.m., and 3 to 4 p.m.; "booms along like a burnet"

" ichneumoniformis by sweeping the fl. of rushes, &c., on slopes on the coast; hovers over fl.

" cynipiformis...at rest, on oak; s. in coppices

" muscæformis on the coast, among sea pink

" tipuliformis.......among currant bushes; flies in the sunshine, and rests on the leaves

" scolæformis...

" sphegiiformis, b. at rest, on alder, and low plants; hovers over fl.; also flies in the evening

" asiliformis ...

" apiformis......on poplars; liable to be mistaken for a hornet

M. arundinis ...among reeds; emerges from the pupa generally at about 10 p.m.

Z. resculi ...........on trees, &c.

C. ligniperda ...on trees, and palings

H. hectus ......flies at dusk

JUNE
H. lupinus......flies just before dusk

" velleta.......on walls, and in crevices of birch trunks

" humuli.......in fields, &c.

L. asellus, e. ...

" testudo.......may be shaken from young oaks; the & flies in the sunshine

P. statices, b. .....in damp meadows

" geryon ......on grassy hill-sides; flies in the sunshine

" globulariæ, m. in grassy places; very local; generally appears on the 14th, or 15th

Z. minos ........flies in the sunshine, during the early part of the day; afterwards rests on fl.

" nubigena .....flies in the sunshine

" trilobi ......flies in the sunshine

" mellotii, e. ...smaller, slenderer, and less densely clothed than triloli, and the marginal border of the hind wing narrower

" lonicerae ......flies in the sunshine

" filipendulae ...flies in the sunshine

S. phegea ...........on old ramparts

N. ancilla ...........

N. cucullatella ...at rest, on trees, and palings

" confusalis......at rest, on trees, &c.

" strigula........

S. irrorella ......on the coast

L. mesomella ...on trees, &c.

" aureola, b. ....rests on larch trunks, high up, and may be beaten from trees

" deplana .....beaten from yew, larch, &c.

" lurideola ......at fl.

" griseola .....comes to fl.

" stramineola (var.) by damp wood-sides, ditches, and fens

" rubricollis .....flies in the sunshine, over trees, &c.; s. perches on grass

E. grammica, e. on heaths

D. pulchella......has been taken in fields, flying by day

E. jacobee, e. ...gardens, fields, &c.; flies in the sunshine
JUNE

C. viduaria ...... 
  " lichenaria, e. on lichen-covered oak trunks
B. repandata .. gardens, &c.; comes to sugar; rests on tree trunks 
  " rhomboidaria gardens, &c.; on palings, and trees
  " perfumaria ... 
  " cinctaria .....on tree trunks 
  " roboraria .....on oak trunks 
  " consortaria ...on tree trunks 
T. exstersaria ...at sugar 
  " punctulata, b.
B. fuliginaria
P. cytisaria .....heaths, forests, and waste places, on the coast; beaten from broom, furze, and heath
G. papilionaria, e. woods, forests, fens; flies at dusk; may be beaten from trees, in the day time; has been found among brake fern
N. viridata, b....mosses, and fens
I. lactearia .....woods; flies by day; soon fades
P. baiularia ......flies at dusk, 10 or 12 feet high; the ♀ attracts the ♂
H. thymiaria ...beaten, from hedges
E. porata, b. .....woods
  " punctaria......woods 
  " trilinearia .....flies in the sunshine, among beech 
  " omicronaria...beaten, from maple 
  " orbicularia ...beaten, from birch 
  " pendularia .....woods; beaten, from trees 
H. auroraria......in fens, &c.
A. luteata......woods
  " candidata....woods 
  " sylvata.......woods 
  " Blomeraria ...on wooded hill-sides, near wytch elms; at rest, on tree trunks; soon disturbed 
E. heparata ......among alder 
V. cambricaria, e. at rest, on rocks 
A. ochrata ......on the Kent, and Essex coasts 
  " perochraria...near Redhill 
  " rubricata .....heaths, and coast sand-hills; flies at dusk

IMAGOS]

C. dominula ......at rest 
E. russula ...... ...on heaths 
C. plantaginis ...on hills, and in woods near 
  " villica, e. .....comes to l.
A. fuliginosa...... 
  " mendica, b. .....at rest 
  " lubricpeda ...gardens, &c. 
  " menthrasti ...gardens, &c. 
  " urticae ..........in wet places
L. dispar ........formerly found at large, but now the breed seems to be entirely maintained artificially
O. pudibunda ...in gardens, &c.; flies about 11 p.m.
  " fascelina ......on heaths, &c. 
  " coenosa.........fens, and marshes 
  " gonostigma ...local
D. coryli ............beech woods, &c.
B. rubi .............heaths, &c.; s. flies in the afternoon sunshine, and in the evening
  " roboris, e. ...flies at dusk; more frequently met with in the larva state
L. quercifolia ...hedges, &c.
E. vespertaria ...flies from 7, to 9, or 10 a.m.
  " advenaria ....among bilberry, and grass, in wood ridings; hides low down in the herbage, but is easily disturbed
R. crataegata ...hedges, &c.
V. maculata .....woods; flies by day 
A. prunaria, m. woods; flies in the sunshine, also at dusk 
M. margaritata hedges, &c.
E. fasciaria, e. ...beaten from fir trees; flies at night 
E. dolobraria, b. woods; rests exposed on leaves of bushes, &c., and may be beaten from oak 
P. syringaria ...gardens, &c.; flies at dusk, over fl.
S. lunaria, b. ...woods 
A. betularia .....at rest 
H. abruptaria, b. gardens, &c.; at rest, on palings, tree trunks, &c.; comes to l.
IMAGOS]

A. scutulata ......hedges, &c.
" bisetata ......hedges, &c.
" trigeminata ...
" contiguaria ...Conway, Bangor, &c.
" herbariata ...has been found in herbalists' shops
" osseata .........Portland, among various plants. The Isle of Portland is an excellent locality for the Acidalia
dilutaria, e....
" interjectaria...Bristol, & Thetford
" incanaria ......on palings, &c., near gardens
circellata ......near Manchester
" ornata ......on grassy hill-sides, &c.
promutata ......woods
" straminata ...
" subsericeata beaten, from wild rose
" strigaria (?) ...bushes, on hills
" immutata ......fens, &c.
" remutata ......woods
" fumata ......heaths, in the North
" emutaria ......salt marshes of Kent, Norfolk, and New Forest. Flies at dusk. The Sheerness specimens are more tinged with rose colour than the others
" aversata ......woods, &c.
" inornata, e....found on fir trunks.
" Flies at dusk
degeneraria...at rest, on various plants, and the face of the rock at Portland
emarginata, e.
T. amataria ......lanes, and fields
C. pusaria ...
C. exanthemaria
C. temerata ......woods, &c.; near wild cherry and buckthorn							
taminata ......woods
M. alternata, b. woods
" notata .........woods; on birch trunks
" liturata ......beaten, from larch
S. clathrata ......clover, and saintfoin fields, &c.
P. petraria ......

JUNE

N. pulveraria ...
S. belgariata ......on heaths
F. atomaria ......fields, woods, heaths, fens
" piniaria ......flies in the sunshine, round fir trees
" pinetaria ......Scotch heaths; flies in the sunshine
" conspicuata...on broom
M. euphorbiata woods
S. dealbata ......flies in the sunshine
L. purpuraria ...on dry sunshine, in the North; flies by day
A. grossulariata gardens, and hedges
" ulmata.......edges of woods
L. adustata ......among spindle
L. marginata ......woods
L. didymata ....
" cæsiata........Scotland. Comes to sugar
" salicata, b. ....
" olivata ......woods
" pectinatæria ...in hedges; comes to sugar
E. affinitata ......beaten, from bushes, near woods
" alchemillata....
" albulata ......among yellow rattle
decolorata ...flies at dusk, at fl. of Lychnis dioica
teniata, e....
" unifasciata ...at l., has occurred at Forest Hill, West Wickham, and Cheltenham
" ericetata ......at fl., on heaths; flies by day
blandiata.....
E. venosata ......among Silene inflata, and Lychnis, and on palings near
" consignata...in apple orchards; rests on the trunks
" linariata ......among toadflax
" pulchellata ...among foxglove
centaureata ...on palings, &c., and among ragwort
" subfulvata ...at fl.
" subumbrata ...Cambs, Yorks
" plumbeolata...at l.
" isogrammata
THE LEPIDOPTERIST'S CALENDAR

JUNE

E. pygmæata ...flies in the sunshine, among long grass, and settles on low fl.

satyrata .......

egenata .......

castigata ......on palings, &c.

valerianata ...among valerian

trisignata ....

lariciata ......among larch

virgaureata, b.

albipunctata

irriguata ......beaten from trees; also at rest, on birch trunks

fraxinata ......among ash

indigata ......in fir woods

innotata ......at Wallasy

nanata .........on heaths

subnotata......often on the banks of rivers

campanulata at fl., in woods, &c.

absynthiata ...

knautiata ...has been taken by Mr. Gregson at Bull Hill, Bolton

tenuiata ......beaten, from sallows

dodoneata ...flies in the early morning sunshine

exiguata ......

togata ........at rest, on tree trunks

rectangulata at rest, on apple, and pear trees, and palings

debilitata ......may be beaten from grass, on wood-paths

C. sparsata ......flies round sallows, in the evening

L. sexalata ......on tree trunks, in hedges, and by beating

viretata ......on birch, and fir trunks

T. variata ...........among larch

Y. ruberata ......

" elutata, e. ...woods; flies high, when disturbed

M. ocellata ......

albicillata ....

M. hastata ......may be beaten, from birch, and other trees; flies in the sunshine, generally after 2 p.m. When flying high, it may be brought within reach by throwing a clod, &c., at it, as it is very combative

M. procellata ...may be beaten, from clematis

unangulata ...beaten, from hedge-banks

montanata ...woods

galiata ..........beaten, from bushes

A. sinuata ......Cambs

rubidata ......

C. munitata ......fond of settling on the underside of fallen trees

propugnata ......woods

" ferrugata ......woods

" unidentaria ...

" quadrifasciaria, e. on palings, &c.

C. bilineata ......hedges

P. tersata ..........among clematis

lignata ......

" vitalbata, b. ......among clematis

S. vetulata ......among buckthorn

" rhamnata ......among buckthorn, and at light

" certata ......among barberry, and at rest on palings, &c.

" undulata ......woods

" picata ..........beaten, from bushes

" corylata ......woods

" russata ......woods

" silaceata ......among willow herb

" prunata ......

" fulvata ..........beaten, from bushes

" dotata, e. ......near woods

E. mensuraria ......in grassy woods

" palumbaria ......at light

" lineolata ......rests on coarse grasses, on the coast

A. plagiata ......

L. griseata ......on the Norfolk coast, among Sisymbrium

S. obliquaria ......among broom; does not fly till between 10, and 11 p.m.

T. chærophyllata flies in the sunshine, in grassy places, near woods

P. lacertula ......beaten from birch

" sicula, b. ......

" hamula.........flies in the day time, generally in the morning; beaten from oak

" unguicula, b. flies in the day time

C. spinula.........on palings, &c.
**IMAGOS**

**JUNE**

D. furcula......} rest on willows, bifida ........} poplars, &c.
'' vinula ........} and palings; generally in old beechn woods
" fagi ..........at rest, on tree trunks, and palings; generally in old beech woods
P. bucephala ...at rest; at light
G. crenata ......formerly at Epping, and Halton, Bucks.
P. palpina.........at light
N. camelina......at light; hides on fronds of fern, and in, and on trees
cucullina, e. s.
bicolora ......has been taken at Burnt Wood, Staffordshire
dictaea .........at rest, at base of willows, and large poplars
dictaeoides ...
dromedarius at light
" ziczac ..........hides in dark crevices of poplar
trepida.........at light, and on oak trunks
" Dodonea ......
T. derasa .......
" batis, e. .....flies over Brambles, at dusk
C. duplaris ..... do not always travel
" fluctuosa ......quietly, when boxed.
" or ..........} C. or s. found at rest, on aspens
A. tridens.......} rest, on trees,
" psi ..........} palings, &c.
" leporina ......rests on tree trunks, s. high up
" aceris ..........on trunks of sycamore, and palings near
" megacephala on tree trunks, and palings, among poplars
" strigosa ......Cambs
" alni ..........at sugar
" ligustri ......on ash trees
" rumicis .......menyanthis heaths, &c.
" myricæ.......at Rannoch
S. venosa .......in fens
L. conigera ......

L. turca ..........in grassy woods
" lithargyria, e.
" obsoleta .....in marshes
" littoralis .....on coast sand-hills;
" settles on tufts of Ammophila arenaria
" pudorina ......marshes, and fens
" comma ......
" straminea ...marshes, and fens
" impura.......
" pallens ......
" phragmitidis marshes, and fens
T. Bondii .........rests on stems of grass, at night
M. flammea ......marshes, and fens
S. ulvae ..........marshes, &c.
N. despecta .....the Nonagriæ fly at dusk, for about 20 minutes, after which they settle on fl., and on the foliage of their food-plant
" concolor, e...fens
" Hellmanni ...fens
G. flavago .......
A. putris ........at r. of trees
X. rurea ......
" lithoxylea......
" sublustris ..... 
" polyodon ..... 
" hepatica ...... 
D. pinastri ....
N. saponaria ...comes to l.
P. leucophaea ...
M. anceps.........marshes, and fens
" albicolon, b. on the coast
" furva, e ..... 
" brassicæ ....hides on walls, palings, &c.
persicariae .....on palings, &c.
A. basilinea ..... 
" connexa ..... 
" gemina........
" unanimis ......marshes, and fens
" ophiogramma marshes, &c. ; s. at light
" oculia ...... 
M. strigilis ..... 
" fasciuncula ..wet woods, &c.; at fl.
" literosa ......on the coast
" furuncula ...
THE LEPIDOPTERIST'S CALENDAR

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M. arcuosa, e...flies at dusk, then settles on fl., and the foliage of its food-plant
P. captiuncula...at Darlington
H. palustris, b. has been taken at l.
A. caliginosa...in moist woods
C. Morpheus...

" blanda...at fl.
" cubicolaris...beaten from thatch; flies in hay fields
R. tenebrosa...
A. valligera, e...mostly on the coast; at fl.

" Puta...
" suffusa...
" segetum...
" exclamationis often in kitchen gardens
" corticea, e...comes to l.
" ripæ...under pieces of wood, &c., near the coast
porphyrea...among heath; frequents the fl. at night
ravida, m...
" pyrophila...at fl.

T. fimbria...
" Orbona...
" pronuba...

N. augur...
" plecta...
" c-nigrum...comes to l.
" triangula...
" brunnea...
" festiva...
" confluia...
" Dahlii...
" rubi...
" baia...

O. Upsilon, e...flies over willows
D. oo...
D. irregularis...at rest, on viper's bugloss, and in crevices of bark of trees
carpophaga...among Silene inflata; flies at dusk, at Silene fl. The whole genus are attracted by fl.
capsophila...
capsincola...among Lychnis

D. cucubali...among Lychnis flos-cuculi; flies in the sunshine
albimacula...
" conspersa...
" caesia.......
" Barretti...on the Hill of Howth, Ireland, and Isle of Man
H. dysodea...at fl. of red valerian
" serena...on trees, palings, &c., near kitchen gardens
P. meticulosa...
E. lucipara....
A. herbida...woods, &c.; very local
" occulta...at rest; early in the morning; unquiet when boxed
nebulosa...
" tincta...on trees, and palings; unquiet when boxed
advena...at fl.; rests on stumps, and trees
H. adusta....
glauc...
" dentina....
" chenopodii...at l.
" atriplicis....
" suasa...at sugar, on commons, &c.
olveracea....
pisi.......
" thalassini....
" contigua....
" genistae....
" rectilinea...at rest on stones, &c., on dull days
C. lycnitis....
" asteris.......
" gnaphali....
" absynthii....
" chamomillae...rests on railings, &c.; s. hides under the top edge of a paling
" umbratica...at rest, on palings, and at fl.
H. marginata....
" peltigera...may be started from herbage
dipsacea...flies over fl., in the sunshine
A. melanopa...at Rannoch; flies in the sunshine
JUNE

R. sericealis .....in damp woods, and
marshes
S. emortalis ...among oak
H. derivalis ......
" barbalis .....beaten, from under-
growth
" tarsipennalis woods, &c.
" grisealis ...... 
A. flexula .........beaten, from hedges,
&c.
P. fimbrialis ......at light
" farinalis ......at rest, in stables,
corn stores, &c.
" glaucinalis ...in thatch, and at
light
A. pinguinalis ...on walls in stables,
houses, granaries, &c.
" cuprealis, e. occurs in houses
C. angustalis ...
P. purpuralis ...flies by day, among
grass, &c.
" ostrinalis ......flies by day
R. sanguinalis ...flies at dusk
E. octomaculalis woods, &c.
A. nemoralis ...
E. flammealis ...on sloping hills, and
cliffs, near the sea, among fern;
very local
N. ciliialis .......in fens
S. punctalis .......among Iris feetidis-
sima
C. leminalis ......flies over duckweed-
covered ponds, at dusk; comes
to light
P. stratiotalis ...beaten, from water-
plants; flies at dusk; comes to
light
H. nymphealis } may be beaten from
" stagnalis ...
water-plants; flies
" at dusk
A. nivens ......at rest, on twigs,
&c., in weedy ponds, and rivers,
close to the water's edge, or
flying slowly over the surface
B. pandalis .....among grass, &c., in
woods, particularly beech
" verticalis ......among nettle
" lancealis .......in damp woods, or
lanes near
" fuscalis ......marshes, &c.

A. cordigera......at Rannoch; flies
in the sunshine
" myrtilli......on heaths, &c.; flies
in the sunshine
H. arbuti, b. ...fields, &c.; flies in
the sunshine
A. sulphuralis ...wet places, among
Convolutus arvensis; s. on fl.
of knapweed in the day time;
flies quickly a little way, when
disturbed
A. lucuosa .......flies in the sunshine,
over fl., in clover fields, &c.; on
the chalk and limestone
E. venustula .......
" fuscula "s. in fir woods
B. argentula ......in the bogs of Killar-
ney, and the S.W. of Ireland
H. unca ......marshes, and fens
M. ostrina...... } in sheltered spots, on
" parva ...... } sand-hills
A. urticae .......
" triplasia ...... 
P. chrysitis ......among nettle
" festuce, s. ...in fens, sea marshes,
&c., and at fl. of Lythrum
salicaria
" iota .......... among Glechoma
hederacea
" v-aureum......over Lychnis fl., &c.
" gamma.......flies in the sunshine
" ni .............
" interrogationis flies wildly; rests on
rocks, and stumps, in dull weather
M. typica .........rests on walls, &c.
T. pastinum .......beaten, from bushes
O. lunaris .......
E. mi....... } fly in the sunshine,
" glyphica .. } and hover over fl.
P. aenea ........
M. salicalis ......among long grass,
and rushes, in wood-paths, and
young underwood; comes to l.
H. proboscidalis among nettle
" crassalis .... on heaths, among
bilberry; may be beaten out of
over-hanging banks in woods;
is very active in the net
H. albistrigalis... comes to rush fl.,
and s. sugar
THE LEPIDOPTERIST'S CALENDAR

JUNE

B. terrealis among golden rod
urticalis among nettle
E. crocealis among fleabane
verbascalis among Teucrium scorodonia
sambucalis among elder
P. forficalis, e. in gardens
margaritalis, e. fens, &c.
S. sticticalis at 1., and fl.
palealis among wild carrot,
and Peucedanum, on the S.E. coast
cinctalis in clover fields;
comes to l.
S. alpinalis on the tops of mountains, in Perthshire, &c.
olivalis in hedges
prunalis in hedges, &c.
L. pulveralis among hairy mint
S. ambigualis among grass, and clover
S. ambiguus at sugar, and at rest. Many of the genus may be
found at rest, on walls, palings, &c.
Zelleri beaten, out of old willows, and hawthorns
dubitalis
murana among heath
ingratella
mercurella
atomalis among heath
P. cerusellus in grassy places, among shingle
C. pratellus at sugar
dumetellus
sylvellus in fens, &c.; local
pascuellus damp meadows, and moors; local
uliginosellus, e. in fens, &c.; local
furcatellus a mountain species, in Britain, not below 2000 ft.
margaritellus damp, grassy places, in open woods
culmellus
chrysonuchellus among dry grass, &c.; local
rorellus
 cassentiniellus Brighton, &c.; considered a var. of Rorellus
H
C. hortuellus among grass, and moss
C. phragmitellus marshes, and fens
S. forficellus among weedy ditches, &c.
mucronellus, e. fens, &c.
A. lotella on coast sand-hills; flies at dusk
M. cirrigerella some specimens were taken, for the first time, in this
country in 1874, near Marlborough, Wilts. They were
found to be very fond of going into lighted candles. Probably
about the 20th of the month would be the best time to look
for the species, as some which were taken (on the 30th) were
worn
H. nimbellus among Jasione montana, and thistles, and ragwort;
on the coast
nebulella among Carduus nutans, &c.; very local
E. elutella among grocers’ warehouses, &c.; also thatch, and ivy
cinerosella
semirufa
C. bistriga
P. interpunctella in corn, seed, and
grocers' warehouses, &c.
N. angustella among spindle
G. canella among Salsola
P. betulella among birch
carboniellus among burnt heath, and birch
adelphella
dilutella in chalky places
subornatella
abietella may be beaten from young fir trees
P. palumbella among heath
R. formosella
marmorea among sloe
tumidella, e. among oak
O. ahennella
H. prasinana woods
quercana woods
T. podana hedges
sobiana woods
rozana gardens, woods, &c.
THE LEPIDOPTERIST’S CALENDAR

IMAGOS]

T. cinnamoneana Kent, Surrey, Hants
  corylanæ, e.... among nut, dogwood, &c.
  unifasciana ...hedges
  semialbana ...on the chalk
  costana .........fens, and marshes
  viburnana ...boggy heaths, and
      viridana ......among oak, &c.
  ministrana ...woods
  Branderiana Essex, Cambs, Hants
D. Grotiana among oak, in woods
A. Gerningana...heaths, and moors, in the N.
P. permutana ...among Rosa spinosissima
  comarianæ ...boggy heaths, and
      pruniana .........Kent
      ochroleucana among rose
      cynosbana ...
      dimidiana ...
      sauciana ......Sheffield, Leith Hill, Hazlemere
      Grevillana ...Scotch mountains
      Staintoniana Perthshire, among Arctostaphylos uva ursi
gentianana ...Gravesend
      marginana ...damp woods, heaths, and fens
  carbonana (fuligana) woods, and fens
A. salicana ......among sallow, and
      poplar
S. lariciana ......in larch woods

JUNE

S. ocellana ......among alder
dealbana ......
eglectana ...among willows, and
      poplars
      simplana ......among aspen
      incarnatana...on the coast
      suffusana ......hedges
      rosecolana ...in gardens, among
          roborana ....
P. tripectata ...
A. Udmanniana among bramble
S. achatana ......
S. latifasciana ...woods
euphorbiana...among spurge
  littorana ......banks, on the coast
  abscisana......at Folkestone, among
      Inula, and thistles
  cespitana ......coast, and other
      conchana ......meadows, & marshes
  Daleana ......among Vaccinium, at Rannoch, &c.
micana............marshes
M. Schulziana ...heaths, and mosses
  palustrana ...Rannoch, among
      Ratzeburgiana among spruce fir
      rubiginosana Scotch mountains
  consequana ...South coast, among
      Euphorbia paralias
R. arcuana ......among young oaks
E. rufana .........
arbutana ......
O. antiquana ...corn fields
  striana ........ dry banks, and
      rough pastures
      ericetana ......in clover fields, and
          rough pastures
E. fractifasciana downs
P. rugosana ......hedges, &c., among
      Bryonia dioica
C. musculana ...hedges
S. nubilana ......hawthorn hedges
  Peterana ......dry banks
  subjectana ...
      virgaureana ...
      abrasana ....
  hybridana ...among elm, and sloe
  octomaculana .rough pastures
THE LEPIDOPTERIST'S CALENDAR

JUNE

E. nigrocostana in lanes, among Stachys
signatana......
" grandevana, e. S. Shields, among coltsfoot, on ballast heaps; flies at dusk, and rests on the leaves
gallicolana ...Darent
" trigeminana...fields, & dry banks, among ragwort
obscurana ...Darent
O. ulmana .......
S. spiniana ...hawthorn hedges
rufillana ...among wild carrot
Woeberana ...gardens, among plum trees
C. cosmophorana on fir shoots
strobilana ...woods, among spruce
splendidulana on oak trunks
argyrana ......oak trunks
" nemorivagana...moors, Rannoch, Scotch mountains
" Hereyniana...among spruce
distinctana ...Westmoreland, Cumberland, Norfolk
" ustomaculana
" ravulana ......
vacciniana ...
nanana ........
R. Buolianna ......among Scotch fir
turionana, b.
" pinivorana ...
" resinana .....Perthshire
duplana .....Perthshire
" sylvestrana ...Bournemouth, Kent
" grossana ......among beech
" pomonana ...among apple trees, and bred from bought apples, and pears
O. funebrina ...bred from bought plums
E. nigricana......among peas
" pisana ....... among peas, and vetches
S. dorsana ......railway banks
" leguminana...among fir, & alder?
" coniferana ...among Scotch fir
" perlepidana, b. among grass, and low bushes
" composana ...among clover, and trefoils

IMAGOS]

S. Colquhounana wild hills, on Scotch and Irish coast
S. ictericana......hay fields, and sandhills
C. favillaceana... in woods, among juniper
O. rustica...moors, fens, mosses
B. uliginosana ...in fens
" lanceolana ...among rushes
" furfurana .....Lancashire coast, Scotland, &c.
P. siculana ......Yorks
" uguiciana ...heaths
" uncana......on heaths, and in Southern woods
" biarcuana ...among sallows
" inornatana ...(subarcuana) in fens; local
" paludana......fens
" comptana......chalk downs, &c.
" myrtillana ......moors, among Vaccinium
derasana ......Southern woods
diminutana ....
" Mitterpacheriana oak woods
" upupana ......Southern woods
" ietana ........Southern woods, among aspen
G. nigromaculana among ragwort
campoliliana among sallow
" Penkeriana...among nut, & alder
" obtusana ......
geminana.....moors, among Vaccinium
D. argyrana ......oak trunks
distinctana ...Westmoreland, Cumberland, Norfolk
ustomaculana
" ravulana ......
vacciniana ...
nanana ........
R. Buolianna ......among Scotch fir
turionana, b.
" pinivorana ...
" resinana .....Perthshire
duplana .....Perthshire
" sylvestrana ...Bournemouth, Kent
C. grossana ......among beech
" pomonana ...among apple trees, and bred from bought apples, and pears
O. funebrina ...bred from bought plums
E. nigricana......among peas
" pisana ....... among peas, and vetches
S. dorsana ......railway banks
" leguminana...among fir, & alder?
" coniferana ...among Scotch fir
" perlepidana, b. among grass, and low bushes
" composana ...among clover, and trefoils
JUNE

X. Zoegana ...... among thistles
C. bifasciata ...... woods, in the S.
A. Beaumanniara ...... in wet, rushy places
Zephyrana ...... S. coast
Schreiberiana ...... in fens
badiana ...... railway banks, &c.; among burdock
ciciana ...... among thistles
maniana ......
reniana ......
Mussehliana ...... Devonshire
maritimana, b. on the coast
C. Francillonana ...... on the coast
dilucidana ......
Smeathmanniana
stramineana ...... chalky places
alternana ...... Folkestone
T. pubicornella ...... Howth, and Grassington, Yorks
pseudo-bombycella ...... oak woods
P. villosella ...... New Forest
opacella ...... New Forest, Witherslack, Rannoch
calvella ......
salicella ......
betulina ...... [heaths
pullella ...... among grass, on
intermediella ...... Black Park, Virginia Water
roboricella ......
crassioresella ...... Hampstead, Highgate
reticella ...... Sheerness, and near
Gravesend. The ♀ when alive is banded with yellow like a
larva of E. jacobæ, but turns
nearly black soon after death
P. Verhuellella
D. marginepunctella
X. melanella ......
S. carpinetella ...... among fir
arcuatella ...... Cheshire, Rannoch
granella ...... about granaries, and
flour mills
cloacella ......
cochylidella ......
T. fulvimitrella ...... Walsingham, Lan
cashire, Rannoch

IMAGOS]

S. Weirana ...... among beech
" nitisana ......
" Trauniana ...... among maple
" Germarana ...... woods, in the South
D. politana ......
" sequana ...... dry fields, and railway banks
" Petiverana ...... among yarrow
" plumbana ......
" plumbagana ......
" acuminatana ...... railway banks
" herbosana ...... N. of England, and Scotland
" simpliciana ...... among Artemisia vulgaris
P. Rheedia ...... in hawthorn
C. albersana ...... woods
" ulicetana ...... among furze
" nimbana ...... among beech
" Juliana ...... among oak
" microgrammana ...... among rest harrow
" hypericana ...... among Hypericum cana ...... among thistles
" fulvana ...... chalky districts, among Centaurea scabiosa
" Hohenwarthiana ...... among thistles
" scopoliana ...... among Centaurea nigra
" expallidiana ...... dry banks
" conterminana ......
T. mediana ...... near London, Folkestone, Fulborne
S. vibrana......
L. Servillana ...... woods, in the S.
E. nana ...... among birch
" maculosana ...... woods, in the S.
" sodaliana ...... among Rhamnus catharticus
" hybridellana ...... Witherslack
" manniana ......
" curvistrigana ...... woods, in the S., among ragwort?
" udana ...... marshes, &c.
" notulana ...... fens, and marshes
" ripulchina ...... marshes
" subroseana ...... woods, in the S.
" implicitana ...... woods, in the S.
" ciliana ......
" pallidiana ...... cliffs
IMAGOS]

T. tapetzella ...common in houses, &c., where its larva feeds on hair stuffing, carpets, fur, &c.
" albibunctella
" misella.......in outhouses
" pellionella ...common in houses, its larva feeding on cloth, fur, &c.
" fuscipectella
" ganomella ...woods, and hedges
" merdella .....Darlington, Liverpool, Manchester
" biselicella .....in houses, and museums, its larva feeding on hair, fur, and feathers
" semifulvella...
" perochracea Rannoch
L. quadrupunctella among roses
" luezza ........ berry]
" prælatella ...among wild straw-rubiella .....in gardens
I. tenuicornella Witherslack, Manchester, West Wickham
" Oehlmanniella
" canariella......Isle of Man
M. calthella ..... aruncella ......dry banks
" seppella ......on fl. of Veronica chamædris, on dry banks
" mansuetella...
" Allionella ...among Vaccinium
" Thunbergella ...
" subpurpurella among oak
N. Swammerdamella on trees, among heath
" Schwarziella, b. in hedges, &c.
" pilella ......... Yorks, Scotland, Lake District
" Metaxella .....among alder, in fens, &c.
A. fibulella ......in Veronica fl.
" rufinitrella ....in wet meadows and bogs
" sulzella....... Degeerella....in, and near woods
" viridella ......in hedges, and among oak
N. scabiosellus...among Scabiosa arvensis, and S. columbaria; very local

JUNE

N. cupriacella ...
" Schiffermillerella Southend, Dar- renth
" minimella ....Witherslack, Scot- land, Mickleham
S. comptella......among sloe
cæsiella .... ...among sloe
" griseocapitella among birch
S. lutarella......
A. funerella .....Richmond, Yorks; Cambs, Lake District
decemguttella Darenth
P. Curtisella......among ash
E. Messingiella in swamps, and damp bottoms
P. porrectella ...in gardens
" annulatella ...Howth, Morecomb, Castle Eden, Scotland, Portland
E. lobella...........among sloe
D. assimilella ...among broom
" conterminella
" cnicella ..... rufescentella
" inornatella ...in fens
" malvella ......in gardens, about hollyhocks
" populella ..... nigra.............
" lentiginosella
" fumatella ..... New Brighton, Birkenhead, Dawlish
" ericetella ...moors, and heaths
" mulinella ......among furze
" divisella ..... sororcula ...among sallow
" peliella ......... Manchester, West Wickham
" longicornis ...in bare, burnt places
" diffinella ......sand-hills on the coast
terrella ........ desertella ......
" expolitella ...Darenth, Skiddaw, Pentlands, &c.
" acuminatella
" arundinatella
terrella ...... among Scolopendra arvensis, and S. columbaria; very local
G. mundella ..... coast sands
umbrosella ..... coast sands
affinella ..... 
 boreella ..... Scotland
basaltinella ..... Cambs, Addington
domesticella
proximella ..... among birch, and
  alder; on moors
notatella ..... 
vulgella ..... hedges, &c.
luculella ..... among oak
scriptella ..... 
fugitivella ..... on trunks of elm,
  and beech
æthiopella ..... on moss
distinctella ..... on the coast, and in
  sandy places
tricolorella ..... among Stellaria
holostea
muscosella ..... 
fraternella ..... among Cerastium
  arvense
leucomelanella
marmorella ..... coast sand-hills
obsoletella ..... Darlington, Redcar,
  S. Shields, Portland
ocellatella ..... 
atriplicella ..... among Atriplex, and
  Chenopodium
sequacella ..... 
alcella ..... West Wickham
leucatella ..... 
Mouffetella ..... among honeysuckle
dodecella ..... 
triparella ..... 
tenebrella ..... 
ligulella ..... among Lotus major,
  on railway banks, &c.
vorticella ..... railway banks, &c.
sircomella ..... railway banks, &c.
nigrinetella ..... 
coronillela ..... Micklemah
anthyllidella ..... railway banks, and
  coast sand-hills
bifractella ..... Folkestone, Micklemah
oblitella ..... in fens
confinis ..... on old walls
cerealella ..... in granaries
nigricostella ..... in fens
G. næviferella ..... among Chenopod-
  dium
subdecurtella ..... among Lythrum
  salicaria, in fens
inopella ..... 
subocellela ..... 
Strelitziella ..... 
intaminatella ..... railway banks
Tarquinella ..... 
sangiaella ..... railway banks
lathyrella ..... among Lathyrus
  palustris; in fens, &c.
P. lappella ..... 
Metzneriella
cardinella ..... 
S. parenthesesella
humerella ..... 
P. bicostella ..... moors, &c.
H. Geoffroyella
bracteella ..... near Gateshead
H. Christiennella, e. Castle Eden,
  Darenth, Greenhith, Seven-
  oaks
D. sulphurella ..... 
oliviella ..... Darenth, Tenterden,
  Lewes, &c.
OE. minutella ..... in hay lofts
flavimaculella ..... among Angelica
  sylvestris
trisignella ..... 
stipella ..... Preston, Staley-
  bridge, Lake District, Yorks,
  Rannoch, &c.
augustella ..... Hyde Park, Bristol
Woodiella ..... formerly on Kersall
  Moor, near Manchester
grandella ..... 
 lambella ..... Charlton, Bristol
subaquilella ..... Scarboro', S. Shields,
  Lake District, &c.
tinctella ..... Gravesend, Darenth,
  W. Wickham, &c.
subochreella ..... Cambs, Lewes, &c.
flavifrontella ..... Witherslack, Cambs,
  &c.
B. grandipennella ..... among furze
fusco-æneella
variella ..... in sand-pits
chenepodiella ..... Yorks, &c.
torquatella ..... Scotland
JUNE

O. Loganella ...
  guttella ..... among apple
  C. Fabriciella ... on railway banks
  paripennella
  Wockeella, e.
  lixella, e. ......
  conspicuella...
  pyrrhulipennella
  albicostella ... among furze
  vulnerariella
  antipennella
  palliatella......
  ibipennella, e.
  currupipennella among sallow
  niveicostella, e.
  discordella ... among Lotus major
  genistæcolella, e. among Genista anglica
  therinella ..... among thistles; very local
troglodytella
  lineolella ..... on Ballota nigra
  murinipennella
  cæspititiella... among rushes
  salinella ..... Yorks, and near Brighton
  laricella, e. ... among larch
  albitarsella ... among ground ivy
  fuscocuprella among nut
  nigricella ..... among hawthorn
  orbitella ......
tigrisolestella among rose
  siccifoliella ...
  vitisella ..... Staleybridge, and moors near Manchester
  vimenetella ... among sallow
  olivaceella ... Chesterfield
  solitariella ... among Stellaria holostea
  lutipennella ... among oak
  badiipennella ... among hawthorn
  limosipennella
  chalcogrammella among Cerastium arvense
  Wilkinsonella
  C. Lienigiella ... in fens, among reed
  B. pinicolella ... among Scotch fir
  L. paludicoella among willow herb
  lacteella ........... Yorks, Lake District, Bristol
L. miscella, b. ...
   " conturbatella among willow herb
   " Raschkiella ...
   " ochraceella, e.
   " subbistrigella
   " atrella among hawthorn
C. bimaculella, e. Black Park, and Leith Hill
   " Schrankella...
   " flavicapitella among hawthorn
A. æratella       ...         
   " terminella ...
C. festaliella......         
A. Treitschiella about dogwood
S. Brunichella in chalk pits, among Clinopodium vulgare
E. Gleichenella most of the genus are found among grass, sedges, and rushes
   " apicipunctella
   " albifrontella...
   " Holdenella ...         
   " atricomella ...
   " luticomella ...
   " kilmunella ...
   " cinereopunctella
   " trapeziella ...
   " stabilella ......         
   " Gregsonella...
   " nigrella ......         
   " perplexella ...
   " humiliella ...
   " subobscurella
   " zonariella......         
   " gangabella ...
   " teniattella.....         
   " cingilella .....         
   " obliquella ...
   " Megerlella ...
   " adscitella.....         
   " cerussella...... among reeds, in marshes, &c.
   " rhyncosporella
   " eleochariella
   " biatomeella ...
   " serricornella
   " triatomella .. in chalk pits
   " dispunctella...
   " collitella .....         
   " pollinariella...
E. subochreella
   " cygniopennella
T. complanella...among oak
   " emyella ......among blackberry
   " angusticolella
   " dodonea ......         
L. roberella ......among oak
   " amyotella......         
   " quinqueguttella among dwarf sallows
   " irradiella......         
   " insignitella ...Castle Eden, Scarboro', Windermere
   " lautella........among oak
   " vacciniella ...
   " cavella ..........         
   " pomifoliella... among hawthorn, and apple
   " corylella .....among nut
   " spinicolella ...among sloe
   " faginella ......among beech
   " carpinicolella among hornbeam; local
   " ulmifoliella ...among birch, &c.
   " spinolella......among sallows
   " quercifoliella among oak
   " vimiiniella ...among sallow
   " scopariella .. among broom
   " ulicolella, e. among furze
   " Heegeriella...among oak
   " tenella........ Epping, Windermere, Wanstead
   " sylvella........among maple
   " emberizepennella
   " Frolicihiella...among alder
   " Dunningiella ...... Yorks, Lake District, &c.
   " Nicelliella ...
   " Stettinella ...
   " Klemannela
   " tristrigella ...among elm
L. Clerckella ...
   P. salignella, e.
C. spartifoliella among broom
   " laburnella ..among laburnum
   " scitella ........         
   " Wailesella ...among Genista
   " lotella .........among Lotus major
O. salaciella ......among sorrel
   " auritella .....in fens
IMAGOS]

O. crepusculella
B. aurimaculella among chrysanthemum leucanthemum
" cidariella among alder
" ulmella among oak
" cratergifoliella about hawthorn
" hedges
demaryella among Scarboro'
" Boyerella among elm
" frangulella among buckthorn
" hippocastanella
" cristatella among yarrow
" artemisiella among yarrow
" N. atricapitella among oak
" anomalilla
" perpygmæella
" pomella
" oxyacanthella
" viscerella
" catharticella
" septembrella among Hypericum
" cryptella
" Weaverella
" intimella
" Headleyella Mickleham, Scarboro'
" subbimaculella among oak
" apicella on moors
" argyropezella
" quinquella

JUNE

N. sericopezella
" argentipedella
" angulifasciella
" arcuosella
" alnetosella among alder
" continuella among alder
" regiella among alder
" sorbiella
" tiliæella
T. pulversella among wild apple
P. Bertrami, e. among yarrow
" ochrodactylus among tansy
" trigonodactylus comes to I.
" Zetterstedtii
" acanthodactylus
" baliodactylus
" aridius
" parvidactylus
" serotinus
" plagiodactylus among Scabiosa columbaria
" Hodgkinsonii, b.
" microdactylus among Eupatorium cannabinum
" paladum in fens
" tetradactylus
" pentadactylus
A. polydactyla, from Aug.
JULY

OVA]

Now that the heat of summer is really making itself felt, a slumbrous calm seems to hang over the landscape, "half drowned in sleepy peace,"

"As satiate with the boundless play
Of sunshine on its green array."

And the Collector, yielding to the soothing influences around him, may perhaps be seen

"beneath an ancient shade,
Or on the matted grass supinely laid."

But he should remember that he must work, often very hard, to obtain what he may be specially in search of, and that very few, if any, prizes will come to his hand unless they are thoughtfully sought for.

This may be a convenient time to note that the pursuit of Entomology is liable to be attended with some inconvenience, and, it may be, risk, which, however, may be minimized by a little pre-consideration. Marshes, and other disagreeable places, although "farthest from them is best," have occasionally to be visited, and the Collector would do well to be as expeditious as possible over his work in these localities, and he should be careful to keep as much as possible to the "windward" of the rotten carcases, and worst spots he may think it desirable to explore, for the treasures to be found at them. When heated, he should be especially careful how he allows himself to "cool down," and not be tempted to sit, or lie down in damp or miasmatic places, because the shade may be grateful, as cold, fever, rheumatism, or worse, may result. In very hot weather drink of any kind should not be too freely indulged in, as its tendency is to unduly promote perspiration. If the journey on foot is a long one, or the time out in the blazing sun is prolonged, an occasional small "drink" of some acidulated preparation, in which is a "touch" of brandy or whiskey, with the partaking of solid food at short intervals, will prevent that exhaustion which sometimes culminates in sunstroke. Completeness of pre-arrangement in these cases, generally means efficiency of work, besides the absence of bad after-results. Midges, flies, &c., are often a source of annoyance on a hot day, particularly if the Collector is corpulent, and perspires freely. Stings may, however, be generally avoided by anointing the face, head, and hands with fluid camphor, or some other strong-smelling insect bane. Washing the head, &c., just before starting in a strong solution of borax, or of alum, both said to be particularly distasteful to insects, might be tried with advantage. Alcoholic emanations are great attractions to most insects, and therefore teetotallers are least liable to annoyance from this source. The Author remembers once collecting with a young wine and spirit merchant, who had hastily left his cellar for "a day out," and the attention which was paid him by hundreds of flying "cusses" was, to use another Americanism, "a caution." Adders may be often met with, but they never bite unless attacked, or accidentally trodden upon, and they are generally too
much on the alert to be thus caught napping. They are much more alarmed at the presence of man than he ought to be of them, though a suddenly disturbed female will sometimes face him, and hold herself ready for attack, when she is burdened with a troop of young ones, clinging round her. High boots, or leggings, are a good protection against any such risk. Good lace-up boots are much to be preferred, for tramping about, to the effeminate, though it may be convenient, "elastics." It might be desirable to be provided with a small bottle of liquid ammonia, in case either of a bite, or a severe insect sting. Prompt application is essential to success. There is yet another risk sometimes incurred by the ardent Entomologist: a bull, or a cow may give chase, and, with dreadful declension of horns, threaten a most unwelcome "heave offering" over the hedge. Such an attack should be promptly met by the sudden opening of an umbrella in the face of your enemy, or the flinging about of your net, with a "jobbing" of the ferrule at his or her nose—a most sensitive part, and conqueringly seized upon by dogs at bull-fights. If these movements be accompanied by an unearthly noise, on your part, the chances of your tormentor's rapid retreat are increased.

C. Edusa, s........ on white clover, lucerne, &c.

A. Paphia, e. .... on dog, and sweet violet, and dead leaves, and moss near; in woods; whitish

M. Athalia ...... on Plantago lanceolata, and P. major; also foxglove, germander, and Teucrium scorodonia

V. urticae ...... on nettle; in batches, on underside of leaf; barrel-shaped, fluted, green

L. sibylla ........ on honeysuckle

A. Iris .......... on sallow; on underside of leaves

A. Galatea ....... among timothy, and other grass; laid loosely; globular, cream-coloured

S. Semele ......... on quaking grass, &c.

T. quercus ...... to April, on oak twigs, high up

" w-album ...... to April, on wytch elm, also elm; on the twigs; whitish

T. pruni .......... to March, on sloe twigs

L. Ægon, e........ to March, on Ornithopus perpusillus; white

H. sylvanus ...... on grasses; a little within the sheath; white, laid in a line

" linea............. to March, on grasses

S. bembeciformis on poplar, sallow; upon the bark; oblong, dark brown

M. arundinis ..... on stems of common reed; singly

Z. assculi ...... on elm, pear, and other trees; in masses, in the chinks of the bark

C. ligniperda .... in the chinks of the bark, of various trees, especially ash, willow, and elm

H. sylvinus, e.... among sorrel, and dock; laid while the moth is on the wing; at first white, but soon turn black

C. miniata, e. .... on lichens, on oaks; laid in rows; yellow

E. cribrum ...... on heath; globular, shining metallic bronze

C. villica ...... on chickweed, furze, &c.; laid in regular batches, upon the leaves; pearly, pale straw-colour
OVAJ

L. chrysorrhæa on sloe, and hawthorn. The eggs of the Liparis are laid in batches, round the twigs, and are covered with down from the parent moth
" auriflua .....on sloe, hawthorn, oak, &c.
" salicis .....on willow, poplar, &c. The satiny-like batches are very peculiar
" dispar .....to March, on sloe, hawthorn, and various fruit-trees

O. gonostigma on oak, nut, sallow, bramble
" antiqua.......on the old cocoon, which has been spun on various trees, and shrubs, palings, &c.; hollowed somewhat in the form of a cup

B. neustria .....to March, on hawthorn, sloe, fruit-trees; in batches round twigs, and branches
" castrensis......to March, on Artemisia maritima, and Daucus maritimus

O. potatoria......on blades of coarse grass; white, with two rings of green

E. vespertaria ...to April, on nut
B. repandata ... on birch, plum, bramble, &c. The eggs of the tree-feeding species of this genus are deposited in the chinks of the bark
" rhomboidaria ...on ivy, birch, oak, plum, lilac, rose, elder, &c.
" perfumaria ...on ivy, lilac, clematis, &c.
" abietaria .....on larch, and spruce
" cinctaria .....on heath. In confinement eggs have been laid, by preference, on sallow catkins
" roboraria.....on oak; in clusters; oblong, oval; at first dull greenish, then reddish brown
" consortaria ... on oak; bright green

JULY

G. obscurata......on thyme, sun cistus, Potentilla reptans, Poteriam sanguisorba
D. obscurata .....on heath, vetch, &c.
P. baiularia .....on oak; large, oval, brownish
H. thymiaria .. on hawthorn, oak; rather large, oblong-oval, and flattened; a peculiar shining greenish-bronze colour
A. Blomeraria ...on wych elm; in small batches; somewhat brick shaped; at first pale, afterwards deep yellow, at last again pale
A. scutulata .....on dandelion
" bisetata .....on dandelion
" rusticata .....on hawthorn
" holosericata...on sun cistus
" incanaria......on dandelion, groundsel, &c.
" ornata ......on thyme and marjoram
" straminata ......? (Larva will eat knotgrass.) Rather large, oblong-square, with the corners rounded; reddish-brown; seem to be deposited loosely
" subsericeata...on Rosa spinosissima?
" fumata ........on heath
" strigilata .....on clematis, and Stachys
" emutaria ......on Triticum repens?
" oblong, clear salmon colour
" aversata .....on primrose, &c.
" emarginata ...on convolvulus, Galium, &c.

T. amataria ......on dock, &c.
F. pinetaria ......to Mar., on bilberry conspicuata ...on broom
M. euphorbiata on Euphorbia cyparissias
A. strigillaria ...on heath
L. caesiata.......on whortleberry, bilberry, and heath
E. sobrinata ...on juniper
Y. clutata ......on nut, sallow, alder, bilberry, &c.
M. rubiginata ...to April, on alder; large
OVA]

M. procellata, e. on Clematis vitalba montanata ...on primrose
A. rubiplita, b....on Galium
C. fluvia....on Polygonum persicaria; oblong flatish, yellow, afterwards changing to brown
P. lignata.....on Galium palustre, &c.
S. veutulata ...to Mar., on buckthorn
C. picata, e. ...on chickweed; singly, on the leaves and stems; large
" sagittata ..... on Thalictrum flavum, growing in fens
" immanata, e. to March, probably on alder, and other trees, and strawberry, bilberry, &c.
" prunata .....to April, on currant, gooseberry, sloe, &c., on the bark; large
" populata .....to April, on bilberry, whortleberry, poplar; globular, large, yellow
" fulvata .........to April, on dog rose; rose pink, large
E. palumbaria ...on twigs of broom
C. imbutata ......on cranberry; rather large, oblong-oval, at first pale yellow, afterwards orange
T. chærophyllata to Feb., on Anthriscus sylvestris, and Bunium flexuosum
C. curtulla ........on poplars, sallow
N. cucullina ......on maple; after the 10th to the e. of the month; on underside of leaves, in shady places in woods; generally singly, but s. in twos, and rarely in threes; circular, smooth, white, s. opalescent
" dictæa ............on poplars, sallow, willow; laid sparsely, on the leaves
" dictæoides ...on birch
A. aceris .........on sycamore, horse chestnut, maple, birch, and s. oak
L. littoralis ...... on Ammophila arundinacea
" impura ......on Dactylis glomerata
" phragmitidis on the common reed; upon the stems

JULY

N. lutosa .........on the common reed; upon the stems
L. exigua .........on plantain
C. exulis ........on various species of Poa; upon the stems
M. persicariae ...on Polygonum persicaria, and other low plants
A. gemina......on grass culms
M. nigricans....on clover, plantain, porphyrea ...on heath [&c.
C. Morpheus ...on dock, teazle, &c.
T. Orbona ......on broom, & various plants
" pronuba ......on stalks of grass, and ears of corn
N. augur ........on low plants, hawthorn, sallow, &c.
" festiva ........on violet, foxglove, sallow, &c.
" conflua........on Silene acaulis, and other low plants
T. substasa, e. ...to Mar., on poplar, upon the twigs; hatch in the spring
D. carpophaga...on Silene inflata, and Lychnis; upon the fl.
H. adusta .... on hawthorn, sallow; upon the leaves, and twigs
C. umbratica ...on sowthistle, lettuce; upon the leaves
P. v-aurem ... on nettle, &c.; singly
A. pyramidea ...on oak, birch, elm, willow; in crevices, upon the bark; small
M. typica .........on dock, low plants, &c.; in clusters, upon the leaves
H. proboscidalis to March, on nettle; rather large, globular (slightly oval) indented on upper side; pale yellow
C. marisartiellus probably among damp grass, in open woods; "greenish-yellow, oblong, and slightly oval, rounded at each end, one end slightly smaller; surface shining, covered with slight oval depressions placed side by side—not end to end—and arranged in wavy longitudinal lines."
LARVAE]

JULY

Some few of the larvæ to be found this month occur in the list with the "h" annexed, signifying that they hibernate. These are, of course, now extremely small, and at this busy period of the year, unless required for purposes of observation, will be passed over by the Collector, until they reappear in the spring, in a state approaching maturity, especially as it is generally found to be a "ticklish job" to imitate the natural conditions sufficiently to preserve small larvæ alive through the winter.

During hot summers, and not unfrequently in confinement, especially with a little forcing, "double broods," or second appearances, of an insect not ordinarily appearing twice in a year, will come upon us. Sometimes only a portion of a brood feeds up rapidly, and the second imago emerges before the winter. S. ocellatus, and S. populi are pretty regularly double-brooded in the South and West of England, in confinement, without forcing, though we believe a second brood of S. ocellatus has never been seen at large. If the summer be hot, a second brood of S. populi not unfrequently occurs, and then the larvæ appear this month.

P. Machaon ... Peucedanum palustre, and other Umbelliferæ; in fens
A. cardamines ... Cardamine, Erysimum, &c.; on the seeds
G. rhamni, b. ... buckthorn
C. Edusa ............. Dutch clover, lucerne, &c.
" Hyale ........... clover, melilot
A. Euphrasyne, h. ... dog, and sweet violet
Selene, h. ... dog, and sweet violet
M. Cinxia, h. ... Plantago lanceolata
V. Antiopa....... willow, birch, poplar, nettle
" Io................. nettle, feeding exposed, generally gregarious
" Atalanta ......... nettle; feeding concealed in curled-up leaves
" cardui........ thistles; under a web, from 3 to 6 or so, on a plant. Will also eat nettle
S. Aegeria, b. 2 ... grasses
Megæra, b. 2 grasses
C. Pamphilus, 2 grasses
T. rubi, b. ........... broom; buds, and fl.; also broom, Genista, birch, Salix fusca, and bilberry
" betulae ........... sloe, birch; generally stunted bushes
L. bötica......... Collutea arborescens
" agestis, 2 ... Erodium circuitarium
" Adonis, e. 2 ... Hippocrepis comosa, &c.
L. Alsus .......... Anthyllis vulneraria, in the fl.-heads, or legumes; full grown about the m. of the month, but do not change to pupæ till after the winter
" Arion, h.? ... thyme; in the fl., or among the seeds when young; is supposed to hibernate
N. Lucina....... primrose, and cow-slip; eats small holes in the leaves
T. Tages ........ Lotus corniculatus
H. sylvanus ...... grasses; in rolled-up blades
" comma, b. ... trefoil, and other Leguminosæ; in rolled-up leaves
S. convolvuli ... small convolvulus, balsam, &c.; hides under sods
D. lineata......... Galium, vine, &c.
M. fuciformis ... Lychnis, Scabiosa, Galium, honeysuckle, &c.
" bombyliformis Scabiosa
S. ichneumoniformis in r. of Lotus corniculatus
" muscaformis in stems of Statice ammeria. The larva is found from this month to Sept., and is supposed to be 2 yrs. feeding up
H. sylvinus ...... at r. of sorrel, and dock; 2 years feeding
Z. nubigena, h.? thyme
" meliloti, e. h. Lotus corniculatus, vetches, &c.; partial to chalky soils
JULY

A. ornata, s., h. thyme, marjoram; will also eat mint
  " promutata ... yarrow, mugwort, creeping cinquefoil
  " straminata, h. ----?
  " mancuniata ...---? will eat knot-grass
  " subsericeata...---? will eat knot-grass
  " emutaria, h....Triticum repens;
    will also eat M. lupulina, L. corniculatus, Chenopodium
    mint, and knotgrass
C. pusaria........oak, nut, alder,
    birch, sallow
C. temerata ........sloe, wild cherry,
    buckthorn?
  " taminata ......wild cherry, sallow,
    buckthorn?
A. pictaria (?) ...stunted, and un-
    healthy-looking sloe bushes
N. pulveraria ...sallow, nut, privet
F. carbonaria ...sallow, birch
  " atomaria ......Centaurea, trefoils,
    &c.
A. citaria........wild carrot, trefoil,
    &c., near the coast
H. aurantiaria ...hawthorn, birch, oak
E. decorolata, b. to m. seed-capsules
    of Lychnis dioica
E. venosata ......in seed-capsules of
    Silene inflata, and Lychnis dioica
  " pulchellata ...in foxglove fl.
  " valerianata ...Valerian officinalis,
    fl.
  " plumbeolata Melampyrum pra-
    tense, fl.
  " isogrammata clematis, fl.-buds
  " pygmaeata, m. Stellaria holostea,
    fl. Will also eat Cerastium
    tomentosum, fl.
  " lariceata ......larch, and spruce
  " pusillata ......spruce
  " indigata ......juniper, and Scotch
    fir; will eat cypress, in confine-
    ment
  " vulgata........hawthorn, willow,
    golden rod, ragwort, &c.

LARVAE]

Z. trifolii, h.......trefoil, vetch
  " lonicera, h. ....clover, grasses
  " filipendulae h. Lotus corniculatus,
    &c.
L. molybdela, h. lichens
D. pulchella......field forget-me-not
L. monacha, b. oak, beech, apple,
    birch, fir, &c.; hides in the
    crevices of the bark
O. antiqua ......various trees, and
    plants
D. coryli .........beech, nut, birch,
    alder, oak, willow
E. lanestris ..... hawthorn, sloe, &c.;
    in large nests of silk
B. neustria ......sloe, hawthorn, fruit-
    trees, &c.; gregarious, in a web,
    until nearly full-fed
  " caestrens, b.... Artemisia mar-
    tima, and Daucus maritimus.
    Feed in the sunshine. Will
    also eat knotgrass, chrysanthem-
    um, wild cherry, and various
    trees, if sprinkled with salt water
E. versicolora ...birch
P. syringaria, h. lilac, privet, elder,
    honeysuckle; s. feed up this
    month, and a second brood
    appears in August
E. alniaria ......alder, birch, sallow,
    beech, &c.
  " tiliaria ........oak, sallow, birch,
    alder
  " fuscataria, b. ash, privet; eats
    round holes in the leaves
  " angularia ... oak, birch, beech, &c.
B. hirtaria.......lime, elm, ash, and
    fruit trees
A. prodromaria ...oak, birch, elm, nut
T. consonaria ...beech, oak, birch
B. fuliginaria ...fungi ; on timber
P. bailiaria, h...oak. Covers itself
    with fragments of leaves, &c.,
    after every moult
E. omicronaria, e. maple; s. beech
  " punctaria ......oak
  " pendularia ...birch
A. trigeminata h. ----? probably
    some low plant; will eat knot-
    grass
JULY

E. dodoneata ... oak
   abbreviata ... oak
   coronata ... fl. of clematis, wormwood, bramble, Eupatorium cannabinum, golden rod, wild angelica, &c.
L. viretata ... privet, and Actaea spicata; when young, on the unripe berries
T. variata......... Scotch fir, larch
M. ocellata ..... Galium
M. unangulata ... chickweed
   galiata......... Galium sexatile, C. munitata, h. groundsel
   ferrugata ...... ground ivy, Galium, chickweed
S. certata, b. ... barberry; between united leaves
C. psitticata ..... oak, lime, apple, rose; probably also birch, hawthorn, sallow
   russata, 2. ... strawberry, birch, hawthorn, sallow, &c.
   immanata...... strawberry, bilberry, birch, alder, &c.
   silaceata ......... Epilobium, and Circaea lutetiana, &c.
E. cervinaria ... mallow, hollyhock
A. plagiata ...... Hypericum perforatum, fl.
L. griseata ..... Sisymbrium Sophia (seed pods); on the coast; will also eat Erysimum cheiriroides
C. obliquaria ... broom
D. falcula ...... birch; also oak, alder, willow, poplar
   unguicula...... beech; generally on the stunted bushes
C. spinula, 2. hawthorn, sloe, mountain ash
D. furcula .......... sallow, willow, poplar
   bifida .......... poplars
   vinula .......... willows, poplars, sallow; by preference the Lombardy poplar
P. bucephala ..... elm, oak, lime, sallow, beech, nut, &c.
C. anachoreata, b. poplars, sallows
C. reclusa, b. between united leaves of sallows, aspen, willow
P. palpina......... willows, sallows, poplars, birch
N. camelina ..... oak, beech, birch, maple, nut, alder, apple, sallow, aspen, hawthorn
   cucullina, e. maple, sycamore
dictaeoides ... birch
dromedarius birch, alder, nut
tritophus ...... birch, poplars
   Chaonía ...... oak
   Dodonea ..... oak, and birch
C. or .......... poplars; between the leaves
   ocularis ...... poplars
   flavicornis ... birch; in rolled-up leaves
   ridens .......... oak; between united leaves
D. Orion ........ birch, oak; birch is recommended in feeding, as an alternative diet
A. megacephala poplar
   strigosa......... hawthorn; chiefly in Cambridgeshire, and in chalky districts
   alni .......... hawthorn, alder, willow, oak, lime, rose, elm, nut, beech, Spanish chestnut, horse chestnut, sycamore, poplar, sallow, bramble. Has been found, at rest, on palings, &c.
   rumicis ...... bramble, plantain, knotgrass, and other low plants
   auricoma ...... bramble, birch, oak, bilberry
   menyanthidis Menyanthes trifoliata, heath, sallow, bramble, Myrica gale
L. Comma ....... Dactylis glomerata, and other grass, also sorrel
N. typhae, e. ... in stem of Typha latifolia
G. flavago......... inside thistles, Lappa, elder, foxglove, &c.; feeding on the pith
H. petasitis ...... in r. and stems of butter burr, and burdock
JULY

T. cruda .......... oak, nut; also other caterpillars
A. littura ........ meadow sweet, and other low plants; also oak, willow, alder
C. vaccinii ...... elm, oak, sallow, willow, and low plants
D. rubiginea ...... apple, dandelion, and other low plants
C. xerampelina ash
D. carpophaga...Lychnis, and Silene inflata, seeds
" capsincola ... Lychnis, and Silene seeds
" cucubali ...... Lychnis, Silene inflata, and Cucubalus baciferus, seeds
" albimacula ... Silene nutans, seeds; and s. S. inflata; in dry and hilly woods. When young, conceals itself in the seed capsule, and afterwards at the root, crawling up, after sunset, to feed on the unripe seeds. In confinement will also eat seeds of Silene maritima, and Lychnis dioica
" conspersa...... Lychnis flos-cuculi, and Silene inflata, seeds
" compta....... garden pinks, and other Caryophylleae, seeds
" cæsia ........ Silene maritima, S. inflata
H. dysodea .... fl., and seed-heads of Sonchus, and Lactuca, (lettuce, garden and wild)
" serena ....... fl. of sow thistle, hawkweed, wild lettuce, &c.
P. xanthomista... violet, harebell, &c., at night
" flavocincta ... chickweed, groundsel, mint, everlasting pea, &c., plum, &c.
D. templi ....... in stem, and r. of Heracleum sphondylium
E. lichenea, s. ... from Nov., ragwort, and various low plants, on the coast
A. Aprilina ...... oak; hides in the bark crevices

LARVAE]

H. micacea ...... at the base of leaves of Carex, and inside stems, and r. of Equisetum arvense, and E. fluviatile, and dock
X. conspicillaris Lotus corniculatus, and other low plants
N. saponaria ...Silene, Lychnis, and other low plants
M. albicolon...... Atriplex, and Chenopodium, on coast-sands, &c.; also lettuce, &c., in gardens
" brassica ........ cabbage, dock, Chenopodium, chrysanthemum, &c.
C. Haworthii ... Eriphorum vaginatum
H. palustris ...... plantain, and other low plants
A. suffusa, ...... r. of spinach, lettuce, radish, &c.
" saucia ...... plantain, dock, and other low plants
" segetum, h. ... in r. of turnips, &c.
" corticea, h. ... Chenopodium
" cursoria ...... Euphorbia esula, sandwort, sea violet, &c.
" tritici ........ r. of sandwort, sea violet, and other low plants
" præcox ...... sandwort, sea violet, chickweed, and other low plants; on the coast; also dwarf willows
N. plecta ........ Galium verum, Asperula odorata
" festiva, h. ... violet, sallow, foxglove, &c.
" rubi .......... low plants
T. piniperda...... Scotch, and other firs; resembles the "needles," on which it feeds
T. gothica ...... sallow, hawthorn, oak, &c.; also dock, nettle, laurel, broom, lilac, &c.
" leucographa plantain
" rubricosa ...... dock
" instabilis ...... sloe, sallow, willow, oak, dock, and other low plants
" stabilis .......... oak, elm, hawthorn, &c.
" gracilis ........ willow, sallow, low plants
LARVAE]

JULY

M. oxyacanthae hawthorn, sloe
H. adusta, h. ...hawthorn, and sallow, when young; afterwards, low plants
   glauca .........sallow, birch, bilberry, heath; will eat lettuce, in confinement
   peregrina......Chenopodium, and Salsola kali
   chenopodii ...Chenopodium
   suasa...........plantain, lettuce, knotgrass, &c.
   thalassina......honesuckle, sallow, broom, knotgrass, &c.
   genistae ......broom, chickweed, Silene, knotgrass, &c.
X. lithoriza ......honesuckle
C. perspicillaris Hypericum
C. exoleta.........scabious, campion, rest harrow, Eryngium maritimum, dock, turnip, asparagus, &c.

X. rhizolitha ...oak
   semibrunnea willow, ash
   petrificata ...oak, lime, birch
C. verbasci ......mullein, figwort
   scrophulariae figworts, mullein
   lychnitis ......seeds of white, and black mullein
   gnaphalii ......golden rod
   umbratica......Sonchus, lettuce, &c.; hides by day under leaves, near the ground; feeds on the upper leaves, and fl. at night; very variable
H. marginata, e. rest harrow, preferring the fl.; also Arenaria, and Hyoscamus; knotgrass, in confinement
   peltigera ......rest harrow, Hyoscamus niger, marigold, and several coast plants
   armigeria ...... wild mignonette, preferring the fl.
   scutosa......... Artemisia campestris
A. myrtilli ......heath
H. arbuti ........Cerastium arvens, forget-me-not, &c.
A. sulphuralis ...small convolvulus
A. luctuosa ......small convolvulus; feeds by night
H. unca ..........sedge (Carex)
B. parthenias ...birch; s. oak, and beech
P. orichalcea ...Eupatorium cannabinum
   chrysitis, h. ...thistle, Lappa, nettle, dead nettle, &c.
   festucace........reeds, sedges, and grasses; near the sea
   gamma......... nettle, hop, and most low plants
G. libatrix .........willow, sallow, poplar
C. fraxini .........ash, poplars
   nupta .........Salix fragilis, poplar, &c.; often found hiding in the crevices of the bark, or under detached pieces
O. lunaris .........oak
H. proboscidalis, h. nettle
   crassalis ......heath
H. costaestrigalis thyme
P. punicealis ...Origanum vulgare, between the leaves
   purpuralis ...Mentha arvensis, between united leaves
   ostrinalis.... var. of P. purpuralis?
R. sanguinalis ...thyme, fl.
E. cingulalis .....Salvia pratensis, under the leaves
A. niveus, b. ...in a case, under the leaves of Potamogeton
B. lupulinalis ...in stems of hop
   terrealis, h. ...golden rod, fl., &c.
   astinalis, e. ...madder, fl., and young seeds
P. forficalis ......cabbage, horseradish, &c.
S. sticticalis .....Artemisia
S. lineolalis, b. the lichens on sloe, Parmelia paretiana, and P. olivacea
   coarctalis .......moss
N. genistella, b. furze; also Genista Corsica. Isle of Wight, and New Forest
P. adelphella .......poplar, willow
R. formosella ......elm, birch
LARVAE]
H. prasinana ...oak, &c.
A. prodromana Potentilla anserina, and most low plants
P. sponsana ......beech, elm
" mixtana ......heath
" Caledonian Myrica gale
" cristana ......dwarf sallows, and hawthorn; between united leaves
" hastiana ......dwarf sallows
" aspersana......Potentilla, and meadow sweet
" Shepherdana hemp agrimony, meadow sweet; in the tops
comariana (?) strawberry
F. marginana ...teazle, and probably seed-heads of Compositæ
S. euphorbiana...Euphorbia paralis, heads
M. consequana...Euphorbia paralis
P. rugosana ......Bryonia dioica
B. uliginosa...Lythrum salicaria ; in fens
P. myrtillana...Vaccinium
G. nævana ......holly
P. immundana...in leaves of birch, and alder
E. nigricana.....in pea pods
" pisana ......in pea pods, and vetches
S. dorsana ......in pods of Vicia lutea, and Orobus
" perlepidana....in Orobus pods
C. cana............thistle heads
" conterminaria lettuce, fl., and other Compositæ
T. mediana......seeds of Umbelliferae
E. curvistrigana fl. of Lactuca muralis
ciliana ..........seeds of cowslip
" anthemidana Erigeron acre, fl.
A. cnicana ......thistle stems
T. hyemana ? ...oak
E. gelatella ......between sallow, or hawthorn leaves
P. radiella ......in a case, on grass
T. fuscipunctella on all kinds of waste substances
N. scabiosellus, h. in seed-heads of Scabiosa arvensis; in the autumn in its case, on various low plants

JULY
N. cupriacella, h. in seed-heads of teazle, and Scabiosa succisa
S. pyrella.......hawthorn, apple, pear, &c.
Y. viginipunctella Sedum telephium
C. pyraustella ...on Thalictrum aquilegifolium, on the Continent
Y. sylvella, b. ...oak
D. costosella ...furze, and broom, fl.
" pallorella......in leaves of Centaurea scabiosa
" umbellula ...furze
" conterminella shoots of sallow
ocecella ......sallow
" ciliella .......most Umbelliferae, and Angelica
" emeritella ....in tansy leaves
" pulcherimella Bunium flexuosum, fl.
" chærophyllivorea Chærophyllum
" nervosella ...parsnip, &c
" olerella, b. ...Achillea millefolium
G. hippophaela Hippophae rhamnoides, between the terminal leaves
" cuneatella ...willows
" longicornis ? Erica cinerea
" acuminatella in thistle leaves
" costella ......Solanum dulcamara
" obsoletella ...in stems of Chenopodium
" atriplicella ...Atriplex, and Chenopodium
" solutella ?.....Genista pilosa
" paupella .....Inula dysenterica, in fl.-heads
" inopella ......Inula dysenterica, in fl.-heads
A. granitella......Inula dysenterica
" autumnitella Solanum dulcamara
K. Erxlebenella Tilia
G. fischeriella ...in seeds of Dactylis glomerata, and other grasses
E. dentella ......seeds of Chærophyllum, and Angelica sylvestris
P. obscurepunctella honeysuckle
T. resplendella...alder
G. alchimiella ...oak [more
" hemidactylella maple, and syca-
LARVAE

G. semifasciella maple
" populetella ... birch, aspen
" elongella ... in rolled-up leaves
of birch, and alder
" tringipennella plantana
" omissella, b. Artemisia vulgaris
" Hoffmanniella Orobus niger
C. Brogniartella oak
O. avellanella ... nut
" anglicella ... hawthorn, sloe
" betulævorella birch
" torquilella ... sloe
C. troglodytella Inula dysenterica,
and Eupatorium cannabinum
" siccifoliella ... hawthorn, apple,
birch
" limosipennella elm
" ardeaepennella, b. oak
L. Raschiella ... Epilobium angusti-
folium
" epilobiella ... Epilobium hirsutum
" decolorrella ... in stems of Epilo-
bium montanum, E. parviflorum,
E. palustre, E. hirsutum, &c.,
producing gall-like swellings
" subbistrigella ... in seed-pods of Epi-
lobium montanum
C. Schrankella ... Epilobium alsini-
folium
A. Langiella ... Circaea lutetiana
A. modestella ... in capsule of Stel-
laria holostea
C. festaliella ... honeysuckle, rasp-
berry, bramble
A. Pfeifferella ... dogwood
S. Brunnichella Melissa clinopodium
E. poella ... Poa aquatica
Kilmunella ... Carex
" nigrella ... Poa trivialis, &c.
" subnigrella ... Bromus erectus
" Bedellælla ... Avena pratensis
" subobscurælla Holcus mollis
" zonariella ... Aira cæspitosa
" cerussella ... reed
" biatomella ... Carex glauca
T. marginea (emylla) in bramble
L. roborella ... oak
" hortella ... oak
" Amyotella ... oak, nut
" lantanella ... Viburnum lantana

JULY

L. irradiella ... oak
" Bremiella ... vetches
" lautella ... oak
" vaccinella ... whortleberry
" cavella ... birch
" pomifoliella ... apple, hawthorn
" corylella ... nut, birch
" spinicolella ... sloe
" faginella ... beech
" torminella ... Sorbus terminalis
" salicolella ... sallow
" viminetella ... osier
" carpinicolella hornbeam
" ulmifoliella ... birch
" spinolella ... sallow, willow
" quercifoliella oak, willow
" Messaniella ... oak, evergreen oak,
cheshnut, hornbeam
" corylifoliella hawthorn]
" Caledoniella hawthorn, birch
" viminiella ... osier, sallow
" alnifoliella ... alder
" Heegeriella ... oak
" Cramerella ... oak
" tenella ... hornbeam
" acerifoliella ... maple
" emberizæpennella ... honeysuckle
" Frolichiella ... alder
" Nicelliella ... alder
" stettinella ... alder
" Klemannella alder
" Schreberella elm
" tristrigella ... elm
" trifasciella ... honeysuckle
" scabiosacolella in r. leaves of
Scabiosa columbaria
" comparella ... poplar
L. Clerckella ... sloe, apple, cherry,
hawthorn, &c.
" padifoliella ... sloe, birch, &c.
C. spartifoliiella ... broom; under bark
laburnella ... laburnum
" lotella ... Lotus major
B. aurimaculella ... Chrysanthemum,
and ox eye
" ulmella ... oak
" cristatella ... yarrow
N. atricapitella ... oaks
" anomalella ... rose
" perpygmaæella hawthorn
JULY

N. atricolella ...apple, hawthorn
" arcuosella ...strawberry
" marginecolella elm
" glutinosella ...splendidissimella bramble, and
dewberry; rarer in wild rasp-
berry
" luteella.........birch
" sorbiella ......mountain ash
" centifoliella, b. ... dog rose, and
cabbage rose
T. pulverosella...wild apple
P. acanthodactylus Bartsia, and rest
harrow
" punctidactylus in seed-capsules of columbine
" dichroductylus tansy
A. polydactyla...honesuckle, buds

**LARVAE**

N. pomella ......apple
" oxyacanthella hawthorn
" viscerella ......elm
" catharticella buckthorn
" Septembrella Hypericum
" cryptella ......Lotus
" trimaculella...poplar
" floslactella ...nut, hornbeam
" salicivorella...sallows
" myrtilella ...bilberry
" microtheriella nut, hornbeam
" betulicolella...birch
" ignobilella ...hawthorn
" acetosella......sorrel
" plagiolella ...sloe
" prunetella ...sloe
" tityrella ......beech
" malella.........beech

**PUPÆ**

Many species are now rapidly “taking to earth,” and a large number, besides those specified in the list, could be obtained by diligent searching. But at this period of the year, with

“its glorious days of golden light,”

and

“its virgin roses’ blushes,
Warm as when Aurora rushes
Freshly from the God’s embrace,
With all her shame upon her face,”

greater attractions are presented by the numerous insects which may be obtained in the imago and larva states, especially as the search for many of the pupæ may be safely deferred till a later, and less busy period.

L. sinapis .........on stems of Vicia cracca, and Orobus tuberosus, in woods
P. brassicæ .......on palings, walls, &c.
" rape ............on palings, walls, &c.
" napi ............on palings, walls, &c.
A. cardamines ...to April, on stems of grass, &c.
G. rhamni.......attached, by a thread, to leaves, and stems of buck-
thorn
V. polychloros...under copings, and on palings, &c., near elms
" Io............among nettle
V. Atalanta .......suspended, within a chamber formed by united leaves of nettle
cardui ...........on, or near thistles
S. Ægeria.........on grass stems, &c.
Megera ...........on grass stems, &c.
T. betulæ ........on sloe, and birch; generally on stunted bushes; placed lengthways, on a leaf
L. Argiulus ......spun up, closely adhering to the underside of a holly leaf
L. chrysorrhaæa in a slight cocoon, amongst leaves, &c.
**JULY**

L. dispar --------in a slight cocoon, amongst leaves, &c.

" monacha --------in a web, in bark crevices of oak, birch, apple, beech, fir, &c.

O. antiqua -------- to Sept., in a web, on palings, &c.

T. cratægi --------in a compact, earthy cocoon, on, or near the surface of the ground, among hawthorn, sloe, &c.

E. lanestris -------- cocoon, on the ground, near hawthorn, sloe, &c.

B. castrensis --------in a cocoon, among, or near Artemisia maritima, &c.

E. erosaria --------under moss, on oak, birch, &c.

" angularia --------under moss, on oak, birch, beech, &c.

N. zonaria -------- sub., on sand-hills hispidaria......at oak

H. abruptaria ...spun up, on twigs, or between the forks, or beneath the branches, of lilac, rose, or privet

H. rupicapra to Jan., in a slight web, on the ground, among hawthorn, sloe, or oak

" leucophearia...to Jan., on the ground, near oak

" aurantiaria, e. sub., at hawthorn, birch, oak, &c.

" progemmaria to Jan., sub., at oak, birch, hornbeam, &c.

" defoliaria......sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.

C. brumata .....sub., at oak, &c.

O. dilutata ...sub., at oak, &c.

L. multistrigaria to Mar., sub., about Galium

E. decororata ... to April, about Lychnis dioica

E. venosata ... to April, about Silene, and Lychnis

A. badiata ...to Mar., in earthen cocoon, on the ground, beneath dog rose bushes [rose derivata ...to Mar., sub., at dog

C. russata ............spun up, on leaf of strawberry, birch, hawthorn, sallow, &c.

E. lineolata .........cocoon attached to Galium verum, on coast sand-hills, just under the surface

P. falcula ...........between united birch leaves

P. Cassinea ...to Oct., sub., at oak; deep

C. reclusa ...........spun up, among dead leaves of sallow, poplars, willow

D. caeruleocapala spun up, at hawthorn, and sloe; on a twig, or under bark

C. diluta .........amongst leaves, &c., of oak, and birch

N. geminipuncta in reeds; may be detected by small hole in the stem

" lutosa ............inside stems of common reed

H. petasitis ...at r. of Petasis vulgarius; below plants which have a hole in the stem

" micacea, e. ...at r. of Cyperaceæ, Equisetum, and dock

A. cursoria ...by raking sand-hills, on the coast, near Euphorbia esula, sandwort, sea violet, &c.

" agathina ...sub., about heath

" praecoxt, b. ...by raking sand-hills, on the coast, near dwarf willows, sandwort, sea violet, chickweed, &c.

N. xanthographa sub., at various trees, and on heaths, &c.

T. populetæ ...to Feb., sub., at poplars, especially Populus nigra; deep

" miniosa ...to Feb., amongst fallen leaves, &c.

" munda ...to Mar., under moss, at base of oak

A. litura ...sub., at r. of low plants

H. croceago ...sub., at oak, just below the surface

X. citrago........ at lime; generally between united leaves; the larva remains a long time before changing
PUPÆ]
X. cerago .......... } sub., at sallow
  " silago ..........} sub., at sallow
  " aurago ........ in a cocoon, at beech; the larva a long time changing
  " ferruginea ...... sub., at sallow, poplar, &c.
C. xerampelina, e. ... sub., at ash; cocoon very tender, and brittle
T. retusa ........ sub., at sallow
C. trapezina, b. at oak, birch, hornbeam, &c.; among leaves on, or near the surface
  " diffinis, b. ... at elm; spun up, on the trunk, or between leaves, or amongst rubbish, at the r.
  " affinis, b. ... at elm; spun up, on the trunk, or between leaves, or among rubbish, at the r.
D. capsophila .. sub., about Silene maritima
  " capsincola ... sub., about Silene maritima
P. chi ............ sub., near low plants
  " Xanthomista sub., on exposed rocks, on Isle of Man coast
  " flavocincta ... sub., near low plants
E. lichenea ..... sub., by Sedum acre, &c.; on the coast
A. Aprilina, e. .... sub., at oak
H. protea .......... sub., at oak
C. solidaginosa, b. sub., about bilberry
X. conformis .. at alder, and birch; under moss, or in folded leaves
C. chamomillæ... among, or near chamomile, &c.
G. libatrix ...... among willow, sallow, and poplar; spun up, in the leaves, at end of twigs
C. nupta, e. ...... at Salix fragilis, and poplar; among the leaves, or in crevices of bark, or under loose bark
  " sponsa ...... at oak; among the leaves, on the tree
H. derivalis ...... among sallow, Bramble, and dead oak leaves
C. fascelinellus.... in cocoons, just under the sand, among Triticum junceum
H. costella ...... in cocoon, on leaves, moss, &c., round oaks
H. scabrella....... in canoe-shaped cocoon, on leaves of hawthorn, moss, &c.
P. rhododactylus on rose
  " acanthodactylus on Bartsia, and rest harrow, attached to the stems
  " hieracii....... on Hieracium umbellatum
  " pilosella ...... on Hieracium pilosella
  " phaeodactylus on rest harrow
  " pterodactylus on convolvulus
  " spilodactylus..... on Marrubium vulgare
  " tetradactylus on thyme
A. polydactyla... on honeysuckle

IMAGOS]
The summer harvest of life now teems on every side, as with
  " Purple, gold, and green, the living blossoms swarm."

This is the great month for insects in the perfect state, though the very minute species are not so numerous as in June; still all the great divisions, and especially the Noctuids, and the Tortricids, are well represented. During the hot months of summer, the cycle of insect-life is often so rapidly completed, while the commencement and duration of that cycle vary so much according to the temperature, that not unfrequently a single month includes the time-space in which a species passes through all the stages of its existence; and
**IMAGOS**

**JULY**

five to six weeks the period for a brood to hatch from the egg, attain the imago state, deposit eggs, and die. Though woods and forests,

"So thick no bird betwixt their leaves could fly
But she would smite her wings,"

are the most prolific, in the number of species they yield, barren-looking places,

"Where zephyrs wave the balmy wing,
And fan the buxom air,"

will well repay a careful search. Each peculiar locality produces peculiar insects. While the dry land and level country should be made to yield their insect treasures, as they sally forth on floating gauze,

"No jewell'd queen
So rich,"

marshes and mountains, moors and mosses, hills and heaths, woods and forests, cliffs and coast sands, ought all to be diligently explored, for "beauties unespied." Tree trunks, palings, fences, and walls should not be forgotten. On the latter, if old and covered with lichen, B. perla will be sure to be found, and often also the rarer B. glandifera, much resembling in its mottled green, olive, black, and grey markings, the lichen on the wall upon which it fed when a larva. B. abietaria may be found resting on large larch trunks, in elevated districts, generally at no great height from the ground. They must be carefully approached, or they will be lost.

A large number of species may be now captured at light. Thatch-beating may, this month, be advantageously resumed. Heads of rushes should be examined from 9 to 10 o'clock at night, as many moths swarm at them, especially during the last fortnight in this month. Puddles, carrion, &c., attract some butterflies, especially that king of his tribe, the Emperor, who comes,

"flushed with a purple grace,"

"Prouder than when blue Iris bends."

Even a mass of the despised stinging nettle is often worth visiting, from the moths attracted to the "honey dew," on the leaves. On dull days many Noctua, as well as Geometers, may sometimes be found, at rest, on stumps, stones, and leaves.

Although the Collector's "sugar" is the great attraction to which the Noctua are drawn,

"Swift, as with Dædalean wing,"

to many members of this family light is equally alluring. In fact, bright light seems to have a highly stimulating, dazzling, and no doubt, delightful effect upon nearly the whole of the Lepidoptera: almost all butterflies, and a large number of moths revel in the hottest sunshine; while brilliant, artificial light seems so highly exciting that many moths "a death of rapture dare" by rushing into the burning flame. Moreover, the Noctua are not alone open to the attraction of sweets; at least some members of the other great families of the Lepidoptera are equally so, whether in the form of "sugar," of honey-scented flowers, or of ripe fruits. During this, the great month for captures of Noctua, the facts here briefly referred to should not be forgotten.
**IMAGOS**

P. Machaon ..... fens, and marshes; chiefly Cambridge, and Norfolk

L. sinapis, e. s. woods; this brood is seldom so abundant as the spring brood

P. crataegi.....near woods, &c.; local

" brassica, e. 2. gardens, &c.

" rapæ, m. 2. ...gardens, &c.

" napi, m. 2. ...gardens, &c.

G. rhamni, e. ...woods, lanes, &c.

C. Edusa......cloverfields, railway banks, &c.; some seasons this species is very abundant

" Hyale......clover fields, &c., more especially near the coast; in some seasons abundant, in others not seen

A. Paphia........woods; fond of flying among bramble fl.

" Aglaia.......at fl. on hill-sides, coast sand-hills, &c.

" Niobe........hill-sides, in company with Aglaia or adippe; has been taken in the New Forest, at the Devil's Gallop, Windermere, and in Kent, between Wye and Ashford

" adippe.......woods; fond of fl. of Centaurea, &c.

M. Athalia ......woods, and heaths

V. c-album......gardens, hop-grounds, woods, lanes, &c.; fond of fl., and fruits

" urtice.......gardens, fields, &c.

" polychloros...among elms, and at the sap flowing from Cossus-infected trees

" Antiopa......at fl., and at Cossus-infected trees, &c.; s. not seen for many years

" Io, e. .........woods, gardens, &c.

" Atalanta, e. gardens, fallen fruit in orchards, and Cossus-infected trees

" cardui, e. ......attracted by thistles, &c.; rests on dusty roads, and on the leads of tall buildings in the hot sunshine

**JULY**

L. sibylla, b. ...woods, parks, forests, where honeysuckle abounds; the flight is lower in the early morning, than later in the day

A. Iris ...........woods, &c.; fond of flying over tops of oaks; attracted by puddles, exuviae, dead animals, &c.; generally accompanied by T. quercus; may be s. brought to earth by a sod, thrown up at it

A. Galatea ......fields, &c.; rests on grass stems, in dull weather, and at night

E. epiphron ......in marshy hollows, on mountain sides, Scotland

Medea, m. ...Northern moors, &c.

S. Aegeria, e. 2. woods, & shady lanes

" Semele, m. ...hills, dry pastures, heaths, coast sand-hills, &c.

" Ianira.......fields, &c.

" Tithonus ......hedges, &c.

" hyperanthus...woods, &c.

C. Davus ......Northern moors

Pamphilus, 2. fields, &c.

T. quercus ......woods, &c.; flies over the tops of oak, and ash, in the sunshine, and rests under the leaves at night, and in dull weather

" w.-album......flies over trees, in the sunshine, especially wytch elm; is attracted by fl. of grass, and other fl.; may be s. brought down by a clod

" pruni.......woods

" betuta, e. ...woods; at fl.; in dull, or wet weather may be found hanging from the underside of leaves of sloe, and other bushes

P. Hippothoe ...formerly in the Cambridge fens; now supposed to be extinct in this country

Phleas, s. ...fields, &c.

L. Aegon ......rests, at night, on heath, &c.

" Alexis......fields, &c.; rests on grass stems, &c., in dull, and windy weather, and at night
When systems, now in on on on "booms comes comes formerly this on gardens, N. Z. L. H. S. D. A. H. L. IMAGOS] 122 tl tl.,, minos centonalis strigula velleda bembeciformis asellus ligniperda scolseformis chrysidiformis galii cucullatella linea Actseon, Argiolus, Acis sylvinus, atropos Corydon, comma, e. H. comma, e. hills, &c. linea. fields, and woods Acteon, m. if the season is forward; on the Dorset coast, flying with H. linea; does not continue fine long after it is out A. atropos at rest, on palings, &c. D. euphorbiae has occurred on the coast, and at Killing, Ireland, among sea spurge, and cypress-leaved spurge galii on the sand-hills at Deal, and other parts of the coast, among bedstraw S. chrysidiformis at Folkestone, and Eastbourne, and probably other places on the S.E. coast; flies from about 9 to 11, a.m. and 3 to 4, p.m.; "booms along like a burnet" ichneumoniformis by sweeping the fl. of rushes, &c., on slopes on the coast; hovers over fl. muscæformis on the coast, among sea pink scolæformis on birch trunks bembeciformis among osiers, sal-lows, &c. Z. æsculi on trees, &c. C. lignipera on trees, and palings H. sylvinus, e. on heaths, and grassy lanes, and banks; flies just before dusk velleda on walls, and in cre-vices of birch trunks L. asellus has been beaten Z. minos flies in the sunshine, and rests on fl. N. cucullatella on trees, and palings strigula centonalis JULY N. albulalis has been taken in young ash plantations, in Kent N. senex, e. in wet places; flies at night mundana beaten from weeds, against loose stone walls S. irrorella on lichen-covered trees C. miniella beaten from trees L. mesomella on lichen-covered trees muscerda in fens, among alder; flies in the evening aureola on larch trunks, high up; and may be beaten from trees deplana beaten from yew, and other trees lurideola comes to fl., rests among herbage, &c. molybdcea ... complana flies at dusk, and after dark griseola on lichen-covered trees; comes to fl. stramineola (var.) by moist woods-sides, and ditches quadra beaten from fir, and oak; comes to fl. of lime, &c. rubricollis flies in the sunshine, over trees, &c. E. grammica ... heaths, &c. cribrum ... heaths, &c. D. pulchella has been taken flying by day, in stubble fields, proba-bly near the field forget-me-not, its food-plant E. jacobæ gardens, fields, &c.; flies in the sunshine C. caia gardens, &c.; at rest; very sluggish L. chrysorræa at rest auriflua at rest, on hedges, trees, &c. salcis, e. on willows, and pop-lars dispar formerly found at large; now bred artificially monacha at rest Ö. cænosa fens, and marshes
JULY

O. gonostigma...very local
" antiqua........& often seen flying
about wildly just before rain
B. neustria ......at rest
" castrensis......at rest ; on the S.E.
coast
" quercis (callunæ) heaths, &c.
" roboris (quercus) flies at dusk ;
more frequently met with in the
larva state
O. potatoria ......at rest, among coarse
grass, &c.
O. sambucata, b. flies wildly at dusk,
and soon after dark ; not always
quiet, when boxed
E. vespertaria ...flies from 7 to 9, or
10, a.m.
" apiciaria ......hedges, &c. ; flies
soon after 7, a.m.
" advenaria......among bilberry, and
grass, in woods
R. cratægata......hedges, &c.
A. prunaria ......woods ; flies in the
sunshine, also at dusk
M. margaritata...hedges, &c.
E. fasciaria, h....beaten from fir trees;
flies at night
P. syringaria ...gardens, &c. ; flies at
dusk, over fl.
S. illunaria, b....at rest, on trees, &c.
" illustraria, e. 2. the summer brood,
or var. delunaria
C. elingnaria, e. hedges, &c.
E. erosaria ......at rest
angularea......on trees, &c.
C. glabaria, e. on fir trees, &c.
" lichenaria......on lichen-covered
oaks

D. obscurata.....on heaths, about
Scotch mountains
P. trepidaria.....flies by day ; on
mountains, in Scotland
M. cineraria......
P. cytisaria ......heaths, forests, and
waste places, on the coast ; may
be beaten from broom, furze,
and hearth
G. papilionaria...comes to l ; flies at
dusk ; may be beaten from trees,
in the day time ; has been
found among brake fern
" smaragdaria...on the Kent, and
Essex coasts
I. vernaria, b. ...beaten from cle-
matis, chiefly in elevated, and
exposed situations
P. baularia ......among oak ; flies at
dusk
H. thymiaria ...hedges, &c.
H. Auroraria ...
A. sylvata........woods
" Blomeraria .. on wooded hill-sides,
near wyth elms, at rest, on
tree trunks
E. heparata ......among alder
V. cambricaria...at rest, on rocks
A. rubricata ......heaths, and coast
sand-hills ; flies just before sunset
scutulata ......hedges, &c.
" bisetata ......hedges, &c.
" contiguaria ...Conway, Bangor, &c.
" herbariata ...has been found in
herbalists’ shops
" rusticata ......Portland, and North-
fleet,—very local ; resting flat,
on ivy leaves ; flies at dusk
dilutaria ......
" interjectaria...Plumstead marshes,
and Folkestone
" holoserica...Bristol, and Thetford
" incanaria ......on palings, walls,
&c., near gardens
" ornata ............grassy hills, &c.
" straminata ...
" mancuniata ...
" subsericea...beaten from wild
rose bushes, on hills
" immutata......fens, &c.
THE LEPIDOPTERIST'S CALENDAR

IMAGOS]

JULY

A. strigilata...... Folkestone, among clematis

" emutaria ...... salt marshes of Kent, (Sheerness), Norfolk, (King's Lynn), and the New Forest; flies at dusk. The Sheerness specimens are more tinged with rose-colour, than the others

" aversata ...... woods, &c.

" inornata ...... at rest, on fir trunks; flies at dusk

" degeneraria ...... at rest, on various plants, and on the rock, at Portland

emarginata, b.

T. amataria ...... hedges, and waste places

C. exanthemaria woods

M. alternata ......

\" liturata ...... fir woods

H. vauaria ...... in gardens

S. plumaria ...... heaths, &c.

F. pinetaria ...... Scotch heaths; flies in the sunshine

conspicuata ...... on broom

M. euphorbiata, 2 ? woods

S. sacaria ...... has been taken at l., at sugar, and at fl.; and also flies by day

L. purpuraria ...... on dry hills, in the North; flies by day

A. ononaria ...... among rest harrow

A. strigillaria ...... on heaths

A. grossulariata in gardens, and hedges

" ulmata ...... woods, &c., near wytch elms

L. adustata ...... among spindle

L. marginata ...... woods

L. ruficinctata ...... woods

salicata,......

" olivata ...... woods

E. teneiata,...... the Lake district, &c.

unifasciata ...... local

" bifasciata ? ...... in an old hedge

" ericetata ...... heaths; at fl.; flies by day

" blandiata ...... hills, &c.

E. centaureata ...... on palings, &c.

" succentriata beaten from hawthorn

" subfulvata ...... at fl.

" arceuthata ...... flies among juniper, and savine

" trisignata......

" fraxinata ...... among ash

" innotata ...... at Wallasy

" constrictata ......

" subnotata ...... often on river banks

" campanulata ...... at fl., in woods, &c.

" vulgata, 2 ...... at rest

" expallidata ......

" absynthiata ......

" knautiata ...... among Knautia arvensis, very local

" tenuiata ...... beaten from sallows

" subciliata, e. beaten from maple

" sobrinata ...... beaten from juniper, and at fl.

" pumilata, 2 ......

T. firmata ...... among larch

Y. elutata ...... woods; flies high, when disturbed

M. rubiginata ......

" albicilla ......

M. hastata ...... flies in the sunshine, generally after 2 p.m.; may be beaten from birch, and other trees; very pugnacious

" tristata ......

" procellata ...... among clematis

" unangulata ...... beaten from hedge banks

rivata ......

" sociata, e ......

" montanata ...... woods

C. munitata ...... fond of settling on underside of fallen trees

" quadrifasciaria on palings, &c.

C. bilinea ...... hedges

" fluviata ...... at l., at sugar, and at fl.; at Rannoch, &c.

P. tersata ...... among clematis

" lignata ......

" vetulata, b. ...... among buckthorn

" rhamnata ...... comes to fl.

undulata ...... woods

C. picata ...... beaten from bushes
IMAGOS]

C. sagittata .....in fens
" russata .....woods
" immanata.....
" reticulata .....the Lake District, &c.
" prunata .....testata .....populata .....fulvata .....beaten from bushes
" pyraliata .....gardens, and fields
" dotata .....near woods
P. comitata .....E. mensuraria ...
" bipunctaria ...on the chalk, and limestone
" lineolata ...rests on coarse grasses, on the coast
C. imbutata .....L. griseata .....on the Norfolk coast, among Sisymbrium
C. obliquaria ...among broom; does not fly till between 10 and 11, p.m.
T. chaeophyllata in grassy places, in, and near woods; flies in the sunshine
P. lacertula .....beaten from birch
D. furcula
" bifida........
" fagi ........at rest, on tree trunks, in beech woods
P. bucephala ...at rest ; at light
C. curtula, 2.....
P. palpina, b ...comes to l.
N. camelina .....at light ; hides on fronds of fern, and in, and on trees
" cucullina ....." comes out mostly when the glass is near 80 deg., and a thunderstorm is imminent"
" dictæa, b......at rest, at base of willows, and large poplars
" dictæoides ...rests on birch tritophus .....ziczac, b. .....hides in bark crevices of poplar
T. derasa .....batis ............flies over brambles, at dusk
C. duplaris .....JULY

C. fluctuosa .....this, and C. or do not always travel quietly, when boxed
" or, b. .........s. on aspens
B. glandifera.....on old walls
" alge ............
" perla.........on old walls
D. Orion .....at rest, on oak trunks
A. tridens .....} at rest, on trees,
" psi.........} palings, &c.
" leporina .....rests on tree trunks,
" s. high up
" aceris ..........on trunks of sycamore, and palings, near
" strigosa .....at sugar
" ligustri, b ...on ash trees
" rumicis........
" auricoma .....myriceæ..heaths, &c. in the N.
L. conigera .....in grassy places
" turca..........among grass
" lithargyria, h.
" obsoleta .....in wet places
" Loreyi ........
" putrescens ...among grass
" littoralis .....on coast sand-hills ; settles on tufts of Ammophila arenaria
" pudorina .....marshes, and fens
" comma........
" straminea ...marshes, and fens
" impura.......
" pallens........
" phragmitidis marshes, and fens
T. Bondii .....in wet places ; rests on stems of grass, at night
S. ulvæ..........marshes, &c.
N. despecta .....marshes, and fens
" elymi .....on coast sand-hills ; very sluggish ; hides among Elymus arenarius, and maram grass, from which it may be shaken
" neurica.......in wet places
" geminipuncta in wet places
G. flavago.......in marshy spots, near thistles
H. nictitans .....at ragwort, thistle, &c., and among grass
IMAGOS]

A. putris ..........at r. of trees
X. rurea ...........
" lithoxylea......among grass
" sublustris......
" polyodon......
" hepatica......
" scolopacina....damp, grassy places
A. Australis.....among grass, near the S. coast; comes to l.
N. saponaria ...at sugar, and l.
C. graminis, e...on commons, &c.; s. at ragwort, and thistle fl.
P. leucophaea ...among grass
C. cytherea.....dry, grassy places
C. exulis.......has been taken at sugar
M. abjecta .....among coarse grass
" anceps .........marshes, and fens
" furva ..........in grassy places
" brasscae......hides on palings, walls, &c.
" persicariae ...on palings, under eaves, walls, &c.
" connexa ......
" gemina.........in grassy places
" unanimens .....marshes, and fens
" ophiogramma marshes, &c.; s. at l.
" fibrosa .........in marshy places
" oculnea ......
M. strigilis .....fasciuncula ...at fl.
" literosa.......on the coast
" furuncula......
" arcuosa......flies at dusk, for a short time, then settles on fl., and the foliage of its food-plant
P. captiuncula (expolita) at Darlington
C. Haworthii ...
G. trilinea.......H. palustris .......s. comes to l.
A. caliginosa ...
C. Morpheus ...
" alsines .......
" blandula .......
" cubicularis ...beaten from thatch; flies in hay fields
R. tenebrosa.......
A. valligera .....at fl.; mostly on the coast

JULY

A. suffusa........
" fennica ........
" saucia ........at l., sugar, and fl.
" segetum .......
" junigera, e. ...
" exclamationis often in kitchen gardens
" corticea ......
" cinerea........
" ripae ..........under pieces of wood, &c., near the coast
" cursoria ......by beating, on coast sand-hills
" nigricans .....tutrica .....aquillina .....porphyrea .. among heath
" praecox ......on sand-hills, by the coast
" ravid ..........pyrophila ...at fl.
" helvetina .....lucerne .....Ashworthii ...very local
" T. ianthina .....fimbria ...at l., and sugar
" interjecta .....subsequa ...at l., and sugar
" Orbona....at l., and sugar
" pronuba ....at l., and sugar
N. depuncta .....augur .....plecta .....flammatra .....c.-nigrum.....comes to l.
" ditrapezium ...New Forest, Birchwood, &c.
" triangulum ...
" rhomboidea...at l.
" brunea .....festiva .....conflua .....Dahlia ....
" subrosea .....in fens
" rubi ..........umbrosa ...at ragwort fl.
" baia ...........
" sobrina ......at Rannoch
" neglecta, e. ...at sugared rags, on heather
THE LEPIDOPTERIST'S CALENDAR

IMAGOS]

N. xanthographa
P. alpina .......... has been taken in Perthshire
O. suspecta ......
" upsilon ........ flies over willows
X. cerago ......... on leaves, and twigs of lime trees, at night
T. subtusa ........ comes to l.
" retusa, e. ........ comes to l.
E. fulvago, e. .... on heath fl.; Sherwood, and the Lake District
D. oo .............. comes to l.
C. trapezina ......
" diffinis ........ comes to l.
" affinis ........ comes to l.
E. ochroleuca ... at fl.; rests on knapweed, thistles, &c.
D. irregularis ... at rest, on viping's bugloss, and in crevices of bark of trees
" carpophaga, b. at dusk, at Silene fl. The whole genus are attracted by fl.
" capsophila ...
" conspersa....
" cæsia ......... generally on the coast
H. dysodea, b... at fl. of red valerian
" serena, b. .......... on trees, palings, &c., near kitchen gardens, &c.
P. chi ............. on trees
E. viminalis, b. rests among willows
P. meticulosa ...
E. lucipara ..... A. herbida ...... woods, &c.; very local
" occulta........ at rest; flies early in the morning; unquiet when boxed
" tintca .......... on trees, stumps, and palings; unquiet when boxed
" advena, b. .... at fl.; rests on stumps, and trees
H. adusta .........
" glauca ........
" dentina........ on trees
" chenopodii ... at fl., and l.
" oleracea ...... among herbage
" pisi ............

JULY

H. thalassini, b.
" contigua ......
" rectilinea ... at rest, on stones, &c., on dull days
C. lycnitis ......
" asteris ........
" absynthii ....
" chamomillæ ... at rest
" umbratica ... at rest, on palings, and at fl.
H. margina ...
" peltigera ...... may be started from herbage
" dipsaceæ ...... flies over fl., in the sunshine
A. myrtili ...... on heaths; flies in the sunshine
A. sulphurali ... at light; s. on fl. of knapweed, in the day time; flies quickly a little way, when disturbed
A. luctuosa ...... flies in the sunshine, over fl., in clover fields, &c.
" solaris ........
E. venustula......
" fuscula .......... s. in fir woods
H. unca.......... marshes, and fens
M. ostrina....... in sheltered spots, on sand-hills
" paula?......... at Freshwater, Isle of Wight
A. urticae ...... } among, or near
" triplasia ...... } nettle
P. orichalcea .... on the coast
" chrysitis ...... among nettle
" bractea .........
" iota ............ among Glechoma hederacea
" v. - aureum ... at lychnis fl., &c.
" gamma ...... flies in the sunshine
" interrogationis flies wildly; rests on rocks, and stumps, in dull weather
A. pyramidea ...
" tragopogonis hides in windows
M. typica ........ rests on walls, &c.
" maura ........ s. rests on inner surface of roofs of outhouses
T. pastinum ... beaten from bushes
" cracæ .........
JULY

E. cingulalis......on grassy hill-sides, &c.

E. octomaculalis in woods

A. nemoralis ...at Holme Bush, near Henfield, Sussex

E. flammealis ...on sloping hills, and cliffs, near the sea, among fern; very local [places

D. literalis ..... generally in dry
N. cilialis ..........in fens, &c.

S. punctalis ......among Iris foetidis-sima

C. lemnalis .....flies over duckweed-covered ponds, at dusk; comes to l.

P. stratitotalis ...flies at dusk, among water-plants ; comes to l.

" nymphaealis... rest among water-
" stagnalis ..... plants ; fly at dusk

A. niveus ..........at rest, on twigs, &c., in weedy ponds, and rivers, close to the water's edge, or flying slowly over the surface

B. flavalis ......in chalk, and lime-stone districts, on the S. coast

" hyalinalis......in chalk, and lime-
stone districts

" verticalis ......among nettle

" lancealis ......in damp woods, or lanes, near

" terrealis ......Lynmouth, Conway

" asinalis.........at light

" urticalis ......among nettle

E. crocealis ......among fleabane

" verbascalis ... among Teucrium scorodonia

" sambucalis ...among elder

P. forficalis ......in gardens

" margaritalis...fens, &c.

" stramentalis...beaten from brake fern, and undergrowth, in woods, fens, &c. ; comes to l.

S. sticticalis ......among Artemisia ; at l. and fl.

" palealis.........among wild carrot, and Peucedanum, on the S.E. coast

" cinctalis .....in clover fields ; comes to l.
S. alpinalis ......on the tops of mount-
tains, in Perthshire, &c.
" lutealis ...... in hedges
" olivaris ........in hedges
" prunalis ...... in hedges
L. pulvaralis ...single specimens have
occurred at Folkestone, Isle of
Wight, and Ranworth
S. ambiguas ......s. at sugar, and at
rest. Many of the genus, which
are mostly moss, and lichen-
feeders, may be found at rest
on walls, palings, &c.
" basistrigalis...at rest, on oak
trunks; s. at sugar; has oc-
curred among birch, and alder,
in Tilgate Forest, Sussex
" Zelleri .........beaten from old wil-
lows, and hawthorns
" ulmella.........on trunks of wytch
elm
" cembre .......on tree trunks, &c.
" murana.......among heath
" mercurella ...
" cratægella ...
" resinae ........on ash trunks; very
local
" pheoleuca ...
" truncicolella...on fir trunks
" atomalis ......among heath
" graciatis ..... 
" alpina .........
" pallida .........in fens, &c.
P. cerusellus ......in grassy places,
among shingle
" alpinellus ...... in sandy, grassy
places, especially in fir woods;
not a mountain species
C. verellus ......among grass, and
moss
" falsellus ......common in England,
more local in Scotland
" dumetellus ......local
" ericellus ......on moss, among
heath; local
" sylvellus ......in fens, &c. ..local
" hamellus ......in grassy places,
among heath
" pascuellus.......damp meadows, and
moores; local; s. at sugar
C. uliginosellus in fens; local
" furcatellus ...a mountain species
in Britain, not below 2,000 ft.
" margaritellus damp, grassy places,
in open woods, more especially
in the Highlands
" myellus ......Rannoch, Braemar,
&c.
" pinetellus ...best obtained at night,
by searching dry banks
" latistriellus ...on coast sand-hills;
local
" perellus ......local
" Warringtonellus on mosses and
moores, and on the coast; very
local
" selassellus ......fens, and wet me-
dows
" tristellus ......in damp, mossy
places
" fascelinellus...on the coast, near
Yarmouth; at rest, on the sand
inquinatellus among alder bushes,
and on heaths; s. at sugar
contaminellus dry pastures; rather
local
" geniculellus...among thick grass
culmellus ......common in fields
" hortuelltus......in grassy places
" paludellus ...in the Norfolk fens
C. cicatricellus ...in wet places
" phragmitellus marshes, and fens
" forficellus......weedy ditches, &c.
" mucronellus...fens, &c.
" gigantellus ...marshes, &c.
A. lotella .........on coast sand-hills;
flies at dusk
" farrella ......on the coast
I. carnella .........local
M. cribrella ......among thistles, often
on hills
H. sinella ......Brighton, &c.
" nimbellae ......among Jasione mon-
tana, and thistles, and ragwort,
on the coast
" nebulellea ...... among Carduus
nutans, &c.; very local
" bivellaea ......local
" secoellus, 2? [coasts
N. achatinella ...on the S. and E.
IMAGOS]

E. clutella in grocers' warehouses &c.; also in thatch
semirufa local
" pinguis rests on ash trunks; comes to l.
cinerosel at local
C. bistriga local
P. interpunctella in corn, seed, and grocers' warehouses, &c.
N. genistella among furze; Isle of Wight, and New Forest
G. canella Folkestone, Hastings, &c.
P. betulella among birch, &c.
" carbonariella among burnt heath, and birch
dilutella
" subornatella
" obductella
" ornatella local
" abietella may be beaten from young fir trees
roborrella among oak
P. palumbella among heath
R. formosella at light
" consociella s. at sugar
" advenella among hawthorn
" marmorea among old sloe bushes
" suavella among sloe
" tumidella among oak
rubrotribiella
O. ahenella
M. sociella near beehives
anella on the coast
M. alveariella among beehives, to which the larva, which lives on the wax, is destructive
H. prasinana woods
" quercana woods; at sugar; and may be beaten from trees
S. Revayana...woods, &c.
T. podana hedges, &c.
piceana...woods
crataegana...oak woods, in the S.
" xylosteana...woods
" sorbiana...woods
" rosana
" dumetana...marshes, and fens
diversana...Kent, Surrey, Essex

JULY

T. cinnamomeana...Kent, Surrey, Hants, Essex, Norfolk, &c.
" heparana...hedges
" ribea...hedges
" corylana...woods
" unifasciana...hedges
" semifasciana...hedges
" costana...fens, and marshes
" viburnana...boggy heaths, and moors
" icterana...dry banks
" viridana
" adjunctana
" Branderiana Essex, Cambridge, Hants, &c.
D. Grotiana...among oak, in woods
gnomana...woods
" A. Gerningana...heaths, and moors
" E. Pilleriana...South coast
" L. Boscana...among elm
P. mixtana, h...moors
" Caledonia moors
" aspersana...dry banks, Yorks, &c.
" Shepherdana...fens
" lipsiana...Witherslack, Ran...noch, &c.
T. caudana...woods, and fens
contaminana hawthorn hedges, &c.
D. lorquiniana...fens
" Loeflingana...among oaks, in woods, and hedges
" Holmiana...hedges
" Foskaleana...maple hedges, &c.
" Conawayana
P. Lecheana...woods
D. Hartmanniana among willows
semifasciana among sallows
P. picana...on birch trunks
" sororculana...among birch, and willows
" praelongana...among birch and willows
" ochroleucana...among rose
" sellana...chalk districts
" marginana...damp woods, heaths, and fens
" carbonana...woods, and fens
A. salicana...among sallow, and poplar
IMAGOS]

S. laricina ......in larch woods
ocellana ......among alder
neglectana ......among willows
incarnatana ......among Rosa spinosissima, on the coast
suffusana ......hedges
rosecolana ......in gardens, among roses
robora... ......woods
Ph. tripunctana ...gardens, and hedges
A. Udmanniana among bramble
S. achatana ......among hawthorn, and sloe
S. euphorbiana...S. coast
bifasciana......among Scotch fir
absisana ......at Folkestone, among Inula, and thistles
littorana ......banks, on the coast
cespitana ......on the coast, and other sandy districts
conchana ......meadows, & marshes
lacunana ......a smoky-black var., with lustrous lines, is found in the Norfolk fens, and also a small var.
urticana ......woods
miçana ......marshes
irriguana ......grassy slopes of Scotch mountains
Doubledayana... Ranworth, and Horning fens
M. Schulziana ...heaths, and mosses
Ratzburgiana among spruce, and Scotch fir
E. mygindana ...Northern heaths
rufana 
O. antiquana ...corn fields
striana.......dry banks, and rough pastures
E. fractifasciana downs
quadran... ......Kent, Surrey, &c.
C. cinctana ......Folkestone
politana ......heaths, &c.
S. nubilana ......hawthorn hedges
Peterana ......dry banks
subjectana ...
virgaeuna ...
chrysantheana ...dry banks
Wahlbomiana
pasivana ......on the coast
S. abrasana ......
hybridana ......among elm, and sloe
penziana ......
Colquhounana wild hills, on the Scotch, and Irish coast
S. ictericana......hay fields, and sandhills
B. lanceolana ......among rushes
furfüra... ......local
P. unguicana ......heaths
biarcuana......among sallows
derasana ......Southern woods
Mitterpacheriana oak woods
G. ramana ......among birch
misana...........among sallow; local
nigromaculana among ragwort
campolliana among sallow
minutana ......on poplar
trimaculana ......among elm
Penkleriana...among nut, & alder
geminana......moors, among Vaccinium
ravulana ......Kent, and Essex
P. Demarmiana...Southern woods
H. cruciana ......among sallow
B. angustioriana garden hedges
P. bilunana ......
corticiana ......among oaks
occulta......among young firs
semifusca... ...among sallows
E. bimaculana ...woods
cirsi... ......in lanes
Brunnichiana...in waste places, among coltsfoot
turbidana......Preston
fecnana.......on the coast, and in fens, among Artemisia vulgaris
nigrocostana in lanes, among Stachys [mond, Yorks signita... Witherslack, Rich
grandsevan...S. Shields, among coltsfoot, on ballast heaps; flies at dusk, and rests on the leaves
trigemin... .......fields, and dry banks among ragwort
tetragonana......among black briony
populana ......among sallow
obscurana ...Darenth
O. ulmana ......Witherslack, Harrogate, Norfolk, Surrey, &c.
IMAGOS]

S. spiniana ......hawthorn hedges
" ianthinana ......among wild carrot
C. ravulana ......Kent, and Essex
" hyrciniana ......among spruce
" ustomaculana N. of England, and Scotland
" nanana ......among spruce
P. mercuriana ......Northern hills, and mountains
R. Buoliana ......among Scotch fir
" pinicolana ......among Scotch fir
" pinivorana ......among Scotch fir
" sylvestrana ......Bournemouth, Kent
" grossana ......among beech
E. nigricana, b. among peas
S. dorsana ......railway banks
" coniferana ......among Scotch fir
" Leplastrierana ......among wild cabbage, on the S. E. coast
" corollana ......among aspen; local
" internana ......Eastern counties, &c., among furze [trefoils
" composana ......among clover, and
" redinitana ......among under-growth
" regiana.......among sycamore
" roseticolana ......among wild rose
" orobana ......Darlington, Scarborough
D. politana ......dry banks, among yarrow; Norfolk, Kent
" alpinana ......at river sides, among tansy
" Petiverana ......among yarrow
" saturnana ......Isle of Wight, and grassy places in the S., and Scotland
" acuminatana ......railway banks
" herbosana, b. Scotland, and N. of England [vulgars
" simpliciana ......among Artemisia
" tanacetana ......Exeter
" consortana ......meadows
C. ulicetana ......among furze
" Juliana ......among oak
" microgrammana ......among restharrow
" hypericana ......among Hypericum
" parvulana ......Isle of Wight
" maritima ......Isle of Wight
" cantiana ......coast of Essex, and Kent; among Artemisia mari-
C. cana ...........among thistles
" fulviana ......chalky districts, among Centaurea scabiosa
" Hohenwarthiana ......among thistles
" Scopolianna ......among Centaurea nigra
" coccimaculana ......Mickleham
" emulana ......Southend
" expallidana ......dry banks
" citrina ......Lancashire, and S. coast
T. mediana ......near London, Folkestone, Fulborne
S. vibranu ......among thistles; very local
C. scintilulana ......marshes
E. dubitana ......Farnham, Bristol, Scotland
" atricapitana ......among ragwort
" sodaliana ......among Rhamnus catharticus
" ambiguana ......among Rhamnus frangula
" Degreyana ......Norfolk
" angustana ......on heaths, &c.
" vectisana ......Fleetwood, and Isle of Wight, among sea-plantain
" rupicolana ......marshes
" flaviciciana ......S. downs
" subroseana ......woods, in the S.
" implicitana ......woods, in the S.
" anthemidiana, 2. chalk districts
" pallidana ......cliffs
X. Zoegana ......among scabious, and knapweed
" hamana ......among thistles
C. tesserana, b. on the coast, &c.
" rutilana ......among juniper
A. sub-beaumanniana ......in chalk-pits, and dry fields
" zephyranthana ......S. coast
" badiana ......railway banks, &c., among burdock
" cnicana ......among thistles
C. dipoliana ......on chalk, in the S.
" Smeathmanniana ......London district, Darlington
" stramineana ......chalky places
" alternata ......Folkestone
" inopiana ......among Inula
IMAGOS]

A. osseana ......marshes
P. betulina (anicanella) Hampstead radiella, e...
" Verhuellella ...flies in the sunshine, among hartstongue, and Asplenium
X. argentimaculella
P. Birdella ........in pasture fields, among grass
" bisontella ......in heathy places
vaculella ......frequents houses
S. chorargella ...Cumberland, and
" picarella ......Manchester, and
Newcastle
" granella ......about granaries, and flour mills
cloacella ......
" arcella ......
T. imella ......scarce, and local; found where the fields are manured with furrier's refuse
" ferruginella ...
rusticella ......
tapetzella ......common, in houses
albipunctella Witherslack, &c.
" confusella ......Howth, Hartlepool
" caprimulgelga...Hackney, Hyde Park
" misella ......in outhouses
" pellionella ......common, in houses, its larva feeding on cloth, fur, &c.
fuscipunctella
" pallescentella in warehouses, and poultener's shops
" ganomella ......woods, and hedges
" merdella ...Darlington, Liverpool, Manchester
" biseliella ......in houses, and museums, its larva feeding on hair, fur, and feathers
" simpliciella ...Mickleham, Dover
" nigripunctella Yorks, &c.
" semifulvella ...
" sub-ammanella has occurred at Tor Wood, Stirling
" perochraceella Rannoch
" luzella ........ Cambs]
N. metaxella ...Witherslack, Yorks, A.
" viridella ......in hedges, and among oak
" Schiffermillerella ...... Southend, Darenth
" minimella ...
" comptella ......among sloe
cesiella ......among sloe
lutarella ......on hedges
S. cratægella ......on hedges
" vigintipunctella, e. Guildford, &c.
" plumbea ......among Euonymus europæus
" irrorella ......near Wandsworth
" padella ......among hawthorn
cognatella ......among Euonymus europæus
evonymella ......among Prunus padus
" Curtisella ......among ash
" xylostella ......among Cruciferae
porrectella ......in gardens
" annulatella...Howth, Castle Eden, Scotland, Portland, &c.
" Dalella ......on moors
H. sequella ......on trunks of sycamore and maple
" vittella ......on trunks of elm, and beech
Y. lucella ......among young oaks
" horridella ......New Forest
" asperella, e. formerly at Glanville's Wotton
H. scabrella ......
" nemorella ......among honeysuckle
" harpella ......among honeysuckle
O. sparganiella in fens, among Sparganium
" quercella ......among oak
E. Allisella ......coasts of Cheshire, Lancashire, Norfolk, &c., among Artemisia vulgaris
D. costosella ......among furze
" liturella ......among Centaurea
" assimilella ......among broom
nanatella ......among thistle
" atomella ......among broom
" arenella ......
" propinquella, h.
" subpropinquella, h.
" Alstræmeriella, h. among Conium maculatum
" ciniflonella, h. Rannoch
" vaccinella ......Lytham
IMAGOS]

D. hypericella ... among Hypericum conterminella among sallows
" Anglicella ..... among Anglica sylvestris
carduella ..... 
" ocellella ..... among sallow applanella, h.
pimpinella ... 
" bipunctosella, e. New Forest, Isle of Wight albibunctella, h.
" pulcherimella among Bunium flexuosum cnicella.........
" Douglasella ... Fleetwood, Redcar, Folkestone, Isle of Wight Weirella ..... Preston, Lewisham, Lewes ultimella ..... marshes, &c.
P. gibbosella ...
G. cinerella ...... rufescenella ... marshes, &c.
gerronella ... marshes, &c.
vilella ..... Gravesend, Worthing, Folkestone malvella ..... in gardens populella ..... nigra........
temerella ..... Lytham lentiginosella ericetella ..... moors, and heaths mulinella ..... among furze palustrella ..... in fens sororculella ..... among sallow peliella........ Manchester, West Wickham alcella ..... Leatherhead terella ........
desertella ..... sand-hills, on the coast expolitella ..... Darlington, Skid-daw, Pentlands, &c.
acuminatella ...
artemisiella ... coast sand-hills, Manchester, &c.
albipalpella ...
arundinetta Hackney, Cambs senectella ..... in lanes, &c.
mundella ..... coast sands similella ......

G. affinella ...... boreella ..... Scotland galbanella ..... Rannoch basaltinella ... Cambs, Addington domesticella rhombella ..... among crab, in hedges, &c.
Lyellella ..... Castle Eden, Wither-sack, New Forest, &c.
vulgella ..... hedges, &c.
fugitivella ..... on trunks of elm, and beech distinctella ..... on the coast, and in sandy places maculella ..... fraternity ..... muscosella ...
maculiferella among Cerastium semidecandrum
leucoblemelina Howth, Isle o1 Man, Lizard Hubnerella ...
marmorella ..... coast sand-hills instabilella ..... on the coast ocellatella ...... Preston, Folkestone, Lizard; comes to sugar atriplicella ..... South Shields, Scarboro' sequacella ...
leucatella...... albicapitella... nanella........
Mouffetella...
dodecella ..... among fir trees tenebrella ..... ligulella ..... among Lotus major, on railway banks, &c.
vorticella ..... railway banks, &c.
teniolella...... Sircomella ..... railway banks, &c.
coronillela ..... Mickleham anthyllidella ..... railway banks, and coast sand-hills atrella ..... among Hypericum bifractella ..... Folkestone, Mickle-lucida ...... in marshes [ham lutulentella ..... near Bristol, Dart-ford Heath, &c.
gemmella ..... Birkenhead, Bristol, Manchester
IMAGOS]

G. ericinella ......heaths
   " subocellella...
   " osseella ......flies at dusk, among grass
   " Knaggsiella...
   " umbrosella...
   " sangiella ......pulinginella...
P. lappella ......
   " Metzneriella
carlinella ......
   " neuropterella Deal, Mickleham
C. cytisella ......
A. spartiella......among furze
genistella......Morecombe, Alkam, Pembury
M. marginella ...Witherslack, Newcastle, Sanderstead
   " juniperella .. Perthshire
N. verbascella .. near Norwich, among Verbascum pulverulentum
   " Durdhamella
S. parenthesella
P. bicostella......on moors, &c.
H. Christierninella, b. Castle Eden, Darent, Greenhithe, Seven-oaks
D. sulphurella ...
   " oliviella ......Darent, Tenterden, Lewes, &c.
CE. flavimaculella among Angelica sylvestris
   " trisignella ...
   " stipella ......Preston, Staleybridge, Lake District, Yorks, Rannoch
   " formosella ...Wanstead
   " lunarella ......
   " lambdella......Charlton, Bristol
   " subochreella Cambs, Lewes, &c.
   " fuscescentella
   " pseudo-spretella common in houses
CE. Kindermanniella, in houses
E. fenestrella ...is found all the year round, in houses, but is most numerous about this season.
B. grandipennella among furze
   " fusco-œneella
   " senescentella

JULY

B. fuscocuprella ...on railway banks, &c.
   " cicadella ...has occurred at Brandon
torquatella ...Scotland
P. Leuwenhoekella
   " Latreillella...
A. granitella......
G. Thrasonella...among rushes
   " cladiella ......among rushes, in fens, &c.
Haworthella
   " equitella, b. among Sedum acre
D. ocnerostomella among Echium vulgare; very local
A. epippella ...local
   " nitidella ......among hawthorn
   " albistriella ...among sloe
   " conjugella ......among wild mountain ash
   " semifuscella...in hedges, among sloe, and hawthorn
   " mendicella ...among sloe
   " glaucinella ......among oak
   " retinella ......among birch
   " abdominella, b. on juniper, on the coast, &c.
dilectella......
   " Andereggiella Witherslack
curvella ......among wild apple
   " sorbiella ......among wild mountain ash
   " pygmaælla......among sallow
   " Goedartella ......among alder, and birch
   " Brochartella ......among alder, and birch
   " aurulentella Sanderstead, Mickleham, Tenterden
C. farinatella ...among Scotch fir
   " Gysselinella...Rannoch
Ö. pinariella, 2. among Scotch fir
   " Z. saxifragæ ......Braemar
G. stigmatella ...among willow, &c.
syringella......in gardens, among lilac
   " omissella, e.
auroguttella...
   " Kollariella ...
C. Brogniartella
O. torquilella ...among sloe
   Loganella ....
C. Fabriciella ...on railway banks
dearatella ...
   alcyonipennella among Centaurea
   nigra, in sheltered places
   Frischella ... Portland, Isle of
   Wight, and Dorset coast
   Wockeella ...
ochreella ...
salicornella ...Fleetwood
   lixella .........on the coast, among
   grass
   vibicella .....
   conspicuella
   pyrrhulipennella
   albicostella ...among furze
   vulnerariella
   anatipennella
   palliatella ...
   ibipennella ...
   currucipennella among sallow
   niveicostella...
discordella ...among Lotus major
   genistœcolella among Genista
   anglica
   sataratella ...among broom
   onosmella ...among Echium vul-
gare
   inflatella ...among Silene inflata
   therinella......among thistles
   trogloidyta among Eupatorium
   cannabinum
   lineolella ......on Ballota nigra
   murinipennella among Luzula
   sylvatica
cespititiella...among rushes
   annulatella (Tengstromella) among
   Chenopodium
   salinella .....'
apicella (cacuminatella) fens, and
   marshes
   argentulella..... among Achillea
   millefolium
   virgaureella ...
hemerothella
   junceicolella ...among heath
   laricella ......among larch
   albitarsella .., among Glechoma
   hederacea
  
C. nigricella......among hawthorn
   fucedinella...
   orbitella .....
   vitisella ..... 
   viminetella ...among sallow
   solitariella ...... among Stellaria
   holostea
   lutipennella...among oak
   artemisicolella among Artemisia
   badiipennella among hawthorn
   limosipennella
   chalco grammella among Ceras-
tium arvense
   meliotella .. railway banks, &c.
adremiella ...
S. pedella.......near Brandon, Suffolk
C. Druriella ..... 
orichalcella, b.
Lienigiella ...in fens, among reed
B. præangustella on poplars, and
   sallows
   pinicolella ...among Scotch fir
O. v.-flavella ...in wine vaults, and
   cellars
C. insecurella, e. at Stoat’s Nest, near
   Croydon
   Illigerella.....
   chærophyllella
L. paludicolella
   facteella ..... 
   miscella ..... 
   conturbatella
   Stephensiella
   ochraceella ...among Epilobium
   phragmitella among Typha lati-
   folia
   atra (Hellerella) among hawthorn
   rahniella ...among buckthorn
   C. Linneella.....
   bimaculella...Black Park, and
   Leith Hill
H. Rœsella......formerly near London
A. profugella ..Witherslack, Dar-
   lington, and Kemsing, Kent
   seratella ..... 
E. Gleichenella
   magnificella...
apicicipunctella
   luticomella ...
   flavicomella...
IMAGOS]

E. Kilmunella ... moors, marshes, and bogs, among coarse grass
   stablella ....
   Gregsonella ...
   nigrella ....
   perplexella ...
   Paludum ....
   humiliella ...
   subobscurella
   zonariella ....
   cingilella ....
   adscietella ...
   cerussella...... among reeds, in marshes, &c.
   rhyncosporella
   eleochariella
   biatomella ...
   serricornella
   triatomella ... in chalk pits
   dispunctella...
   collitella ....
   pollinariella
L. corylella ...... among nut
   spinicolella ... among sloe
   spinolella......
   quercifoliella among oak
   scopariella ... among broom
   ulicolella ...... among furze
   alnifoliella ... among alder
   trifasciella ... among honeysuckle
P. suffusella...... among sallow
   salignella ....
C. scitella .......
   Wailesella ... among Genista
O. salaciella ...... among sorrel
   crepusculella
   spatulella ....... [lium
B. maritimella ... among Aster tripo-
   frangulella ... among buckthorn
N. quinquella ...
   poteriella ....
   angulifasciella

JULY

N. centfoliella...
T. immundella...
B. quadrimaculella
A. Benneti... Sheppey, and the Essex coast
P. rhododactylus among rose
   Bertrami, b.
   ochrodactylus among tansy
   isodactylus ... in marshes, among Senecio aquaticus
   Zetterstedtii ... Darlington, Scar
   boro', Lymouth
   acanthodactylus on heaths
   laetus ........... on the "Breck" sand of Norfolk and Suffolk
   punctidactylus
   parvidactylus
   hieracii.......
   pilosellae ...... Cambs, Mickleham
   phæodactylus Cambs, Mickleham
   serotinus ......
   plagiodactylus among Scabiosa columnaria
   zophodactylus
   lithodactylus among Inula dysen-
   terica
   Liengianus ... among Artemisia vulgaris; Ventnor, Deal
   tephradactylus
   osteodactylus Witherslack, Scar
   boro'
   microdactylus among Eupatorium cannabinum
   Paludum ....
   brachydactylus Carlisle, Norfolk
   galactodactylus among burdock
   spilodactylus Isle of Wight
   baliodactylus
   tetradactylus among thyme
   pentadactylus among Convolvulus sepium, and C. arvensis
   dichrodactylus
AUGUST

OVAJ

Those who wish for eggs of Butterflies, for purposes of preservation, &c., will find many species obtainable this month, while if the opportunity, now presented, be lost, very few will be found in succeeding months of the year. Where the food-plant of the species sought for is abundant, and the Imago is known to frequent the locality, much time may be sometimes saved by collecting conspicuous sprays of the plant into a bag, and looking for the eggs afterwards, at home, with the aid of a magnifying glass.

L. sinapis, s. ...on Vicia, cracca, and Orobus tuberosus; long, standing on end, curved, yellow-white
P. Brassicæ ......on cabbage, &c.; in groups; conical, ridged, yellow
" rape..............on Cruciferae, mignonette, and other garden plants
" napi ..............on Cruciferae
" Daplidice ......on wild mignonette, and weld
C. Edusa, s. ......on white clover, lucerne, &c.
A. Aglaia ...........on dog, and sweet violet, and wild heartsease
" Niobe ............on dog, and sweet violet
" adippe ............on dog, and sweet violet
" Latona.........on violet, and hearts ease
E. Medea...........on moorland poa, and other grasses; large, nearly globular, at first greenish-yellow, afterwards pinkish-grey, speckled with claret-brown
S. Semele, b. ...on Triticum repens
T. quercus ......on oak twigs
" w-album ......on wytch elm, also elm; on the twigs; whitish
T. pruni ..........on sloe twigs
" betule ......to Mar., on twigs of sloe
L. Ægon..........on Ornithopus perpusillus; white. Do not hatch until about March
" agestis........on Erodium circutarium
" Alexis.......on Lotus corniculatus
" Corydon ......on Hippocrepis comosa; on chalk, and sandstone downs, and hills
" argiolus ......on ivy; on the fl.-stalks; white
H. comma ......to Mar., on trefoil, and other Leguminosæ
L. salicis .........on poplar, willow, &c.; covered with white down
" dispar ..........on the trunks of sloe, hawthorn, and various fruit trees; in a conical heap, covered with down
" monacha ......to Mar., on oak, beech, fir, birch, apple, &c.
B. neustria ......on hawthorn, sloe, fruit trees; in batches, round twigs, and branches
OVAJ

AUGUST

B. castrensis......on Artemisia maritima, Daucus maritimus, &c.
E. vespertaria ...on nut apiciaria.....to April, on poplar, willow, sallow
C. elinguaria ...to Feb., on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.; brick-shaped, large, purplish-slate colour
F. pinetaria ......on bilberry S. sacraria ......on dock, and chamomile; at first pale greenish-yellow, afterwards bright red
A. citrina..........on wild carrot, trefoil; &c.; generally near the coast
L. olivata, e. .....on Galium mollugo; rather small, oval, plump; at first pale straw, then red, and at last a pale livid hue
E. unifasciata ......on Odontites rubra
E. subciliata ......to April, on maple; at footstalk of leaf
M. rubiginata ......on alder; large montanata ......on primrose
P. vitalbata ......on Clematis vitalba
S. vetulata ......on buckthorn
C. russata ......on strawberry, birch, hawthorn, sallow, &c.; singly, large, flattish, dingy yellow
" immanata......probably on alder, and other trees, and strawberry, bilberry, &c.; large, flat, yellow
" prunata ......on currant, gooseberry, sloe, &c.; on the bark, large
" testata ...........to April, on heath, birch, sallow, poplar, &c.; singly, large
" populata ......on bilberry, whortleberry, poplar; globular, large, yellow
" fulvata ......on dog rose; rose-pink, large
" pyraliata ......to Mar., on Galium, and hawthorn; large
dotata ..........to April, on black, and red currant; large
E. lineolata ......on Galium verum, on the coast; in clusters, oval; standing on the smaller end; yellow, changing to pale brown
T. chaerophyllata on Anthriscus sylvestris, and Bunium flexuosum
X. lithoxylea ......among grass; small, globular, pale yellow
P. captiuncula ......on——? At Darlington. Globular, pale straw colour
C. Morpheus ......on dock, teazle, &c. " alsines ..........on chickweed, &c. " cubicularis ......on grasses, pulse, and grain
A. Puta ..........on dandelion, lettuce, carrot, &c.
N. depuncta ......on sorrel, and other low plants; globular, slightly flattened above, and ribbed, pale straw colour, in the centre a brown spot, and encircled at some distance with brown xanthographa on plantain, &c.
C. xerampelina, e. on ash; probably in the chinks of the twigs, and the buds, &c.; round, smooth, dirty-white round, smooth, dirty-white
T. subtusa ......to Mar., on poplar; upon the twigs
C. trapezina ......on oak, and many other trees
P. chi ..........to Mar., on dock, hawthorn, sallow, and probably lettuce, sow thistle, tea tree, &c.; purplish-brown
" xanthomista, e. on Plantago maritima, in exposed places, on the coast (notably the Isle of Man); and also, probably, on campion, violet, harebell, &c.
E. viminalis ......on sallow
M. typica ......on dock, low plants, &c.; in clusters upon the leaves
C. sponsa ......on oak; upon the twigs
H. proboscisialis on nettle; rather large, pale yellow
C. pinetellus ...amongst moss, on dry banks; oblong, oval, whitish
AUGUST

We now begin to find many of our larvæ commencing a life of feeding, which, on and off, will not terminate until May, or June, of the following year. These deliberate eaters appear in the lists with the contraction “h.,” signifying that they hibernate. Most of these are now quite small, and few will repay the trouble and risk of keeping all the winter; for even with the food-plant in a growing state, large numbers of hibernating larvæ always die in confinement; they are, therefore, generally better left until the spring, unless special reasons exist for trying to rear them. Sometimes part of a brood, in confinement, will complete its change to the pupa, or even the perfect state, in the autumn, while the other part will not do so until the spring.

P. Machaon......Peucedanum palustre, and other Umbellifere; in fens
P. cratægi, h. ...hawthorn, sloe, and orchard trees
A. Paphia, h. ...dog, and sweet violet; in a slight web, on, or near the ground
" Aeglaia, h. ......dog, and sweet violet, and wild heartsease
" Niobe, h. ......dog, and sweet violet, and wild heartsease
" adippe, h. ...dog, and sweet violet
" Latona.......dog, and sweet violet, and wild heartsease
M. Artemis, h. ...scabious, plantain, woodbine; will also eat fox-glove, wood sage, &c.
" Athalia, h. ...narrow-leaved plantain, fox-glove, wild germander
V. c. -album ......nettle, elm, hop, sloe, currant
" urticae .........nettle
L. sibylla, h. ...honeysuckle
A. Iris, h. ........sallow, poplar
A. Galatea, h. ...timothy, and other grasses
E. Epiphron, h. Poa annua, Festuca ovina, and small rushes; in mountain bogs
S. Semele, h. ...quaking grass, couch grass, &c.; on dry hill-sides, and on sand-hills along the sea-shore; feeds by night; hides at the r., and under clods by day.
" Ianira, h. ....meadow grasses [&c.
" Tithonus, h. annual meadow grass,
" hyperanthus, h. annual meadow, millet, and other grasses
C. Davus, h.......Rhynchospora alba
P. Phloeas............dock, ragwort, sorrel
L. Boetica..........Collutea arborescens
" Alexis, 2.......rest harrow, clover, trefoil, &c.
" Adonis, b., 2. Hippocrepis comosa, &c.
N. Lucina.......primrose, and cowslip; eats small holes in the leaves
H. linea, h. ......grasses
S. ocellatus ......willow, sallow, poplar, apple; will also eat sloe, peach, almond, &c.
" populi ...........poplar, sallow, willow; will also eat birch, laurel, laurustinus
" tiliae ...........elm, lime, beech
D. euphorbiæ ...Euphorbia paralis, and E. cyparissias. Feeds exposed
" galii ......Galium verum, and G. elatum. In their native haunts, on the sea shore, they feed from the beginning of this month, till the end of Oct. They seem to prefer the scrubby plants; are nearly always found in pairs; and may be traced from the frass, on the sandhills. They vary very much in appearance
C. celerio ......Galium, vine
D. porcellus ......Galium; also willow herb, and vine
" elpenor ......Galium palustre, G. uliginosum, and other Galiums; also willow herb, fuschia, vine
LARVAE]

AUGUST

M. stellatarum......Galium Mollugo, growing on old walls, exposed to the sun
" fuciformis...... Lychnis, scabious, honeysuckle, Galium, &c.
" bombyliformis Scabiosa
S. musceformis in stems of Statice armeria
Z. æsculi, h......in the wood of ash, elm, pear, horse chesnut; s. hawthorn, lime, box. The larvae are generally in the highest branches of the tallest trees
H. hectus, h......in r. of brake fern
" lupulinus, h......in r. of dead nettles, &c.
" velleda, h......in r. of brake fern
" humuli, h......in r. of various plants, including Humulus (hop)
L. asellus.............oak, beech, poplar, &c.
Z. nubigena, h......thyme
" meliloti, h......Lotus corniculatus, vetches, &c.; partial to chalky soils
" trifoliæ, h......trefoil, vetch
" loniceras, h......clover, grasses
" filipendulae, h......Lotus corniculatus, &c.
L. sericea, h......lichens
C. miniata, h......lichen, on oak (Lichen caninus); also withered sallow, oak, alder
L. mesomella, h......lichens; will also eat sallow, and heath
lurideæa, h......lichens
" complana, h......lichens, on sloe, and fir
" griseola, h......lichens, on poplar; Lichen caninus the supposed proper food; will also eat withered sallow, &c.
" stramineola (var.) h. lichens, on sloe, oak, sallow
L. rubricollis......lichens, on larch, &c.; may be beaten from the tree
E. cribrum, h......heath, bilberry
C. dominula, h......Cynoglossum officinale, &c.; on hilly places
C. plantaginis, h......violets, plantain, &c.
" caia, h......various plants, and bushes
villica, h......chickweed, &c.
A. fuliginosa, 2. dock, nettle, plantain, grasses, &c.
" mendica......sloe, plantain, &c.
" lubricepeda......nettle, plantain, &c.
" menthrasti......nettle, and various plants, and bushes
" urtica..............willow herb, and low plants; in damp places
L. salicus, h......poplar, willow, oak, &c.
O. pudibunda......hop, beech, hawthorn, nut, oak, &c.
ccenasosa.......reed, and carex
" gonostigma, h......oak, nut, hawthorn, sloe, bramble, willow, sallow, beech, &c. In confinement this species may, by careful feeding on willow, or sallow, be often caused to pupate in the autumn, and even emerge
D. coryli.......beech, nut, birch, alder, oak, willow, ash, &c.
L. ilicifolia.......whortleberry, sallow
S. carpini.......sloe, bramble, heath, apple, sallow, hawthorn, meadow sweet, &c.; generally gregarious; may be s. found in hedges
E. advenaria.......dogwood; will also eat wild rose [aspen
E. dolobraria.......oak, beech, birch, S. lunaria.......sloe, oak, nut, elm, ash, hawthorn
O. bidentata.......oak, sallow, nut, ivy, ash, sloe, &c.
E. alniaria.......alder, birch, sallow, beech, &c.
" tiliaiaria.......oak, sallow, birch, alder, &c.
" angulariaria.......oak, birch, beech, &c.
A. betularia.......oak, elm, hawthorn, birch, beech, alder, mountain ash, rose, ivy
AUGUST

A. ornata, s., h. thyme, marjorum; will eat mint

" promutata, h. Achillea millefolium, Artemisia vulgaris, Potentilla, reptans

" straminata, h, ——? will eat knot-grass

" immutata, h. some marsh plant; will also eat knotgrass

" remutata, h. low plants? will eat knotgrass [knotgrass

" fumata, h. ...heath; will also eat

" strigliata, h. Clematis vitalba, Stachys sylvatica, &c.

" emutaria, h....Trifolium repens

" will also eat Medicago lupulina,

" Lotus corniculatus, Chenopodium, mint, and knotgrass

" inornata ......low plants; also, it is said, poplar, and willow

" degeneraria, h. ——? will eat knotgrass, bramble, Cerastium, Veronica

" emarginata ...convolvulus, Galium

C. pusaria......... oak, nut, alder, birch, sallow, &c.

C. temperata ......sloe, & wild cherry, and buckthorn?

" taminata ......wild cherry, sallow? buckthorn?

N. pulveraria ...sallow, nut, privet

S. belgeria, h. ...heath

F. atomaria ......Centaurea, trefoils, &c.

" piniaria ...... Scotch fir, and larch; on the high branches

" conspicuata ...broom

M. euphorbiata...Euphorbia cyparissias

L. purpuraria ?...dock, Polygonum

A. strigillaria, h. heath, broom

L. adustata ......spindle; rests along the stems

L. pectinaria ...... alder, Galium

" Mollugo, and G. secale

E. affinitata ......Silene, and Lychnis, seeds

" alchemillata...Galeopsis, Silene, Lychnis

" albulata ......yellow rattle, seeds

LARVÆ]

H. abruptaria s. lilac, rose, privet

B. consortaria ...oak

T. consonaria ...beech, oak, birch

" crepuscularia larch, willow; poplar,

" elm, birch, alder, &c.

" extersaria, e...beech, oak

" punctulata ...birch, alder

N. viridata ......hawthorn, bramble

P. baularia, h. ... oak. A second brood will s. appear in confine-

E. punctaria......oak [ment

" trilinearia...... beech; generally dwarf, and pollard trees

" omicronaria...maple; s. beech

" orbicularia ...sallow, alder

" pendularia ...birch

H. auroraria, h. plantain

A. luteata.........maple

" sylvata.........alder

" Blomeraria ...wytch elm, in, or near hilly woods; remains on the under-side of the leaf

V. cambricaria...mountain ash

A. rubricata, h. ——? will eat knot-grass, Lotus corniculatus, Medicago lupulina, Thalictrum minus, and the smaller trifoliums

" scutulata, h. Anthriscus sylvestris, fl., and dandelion, withered; will also eat knotgrass

" bisetata, h. ...dandelion; will also eat knotgrass, and withered bramble

" trigeminata, h. some low plant? will eat knotgrass

" contiguaria, h. Empetrum nigrum; will also eat hawthorn buds, and knotgrass

" rusticata, h. hawthorn; will also eat ivy, lilac, and withered bramble, and knotgrass; very local

" interjectaria, h. dandelion, scarlet pimpernel (withered)

" osseata, h. ...dandelion, &c.

" holosericata, h. sun cistus, withered; will also eat knotgrass

" sicellata ......——? will eat knotgrass
LARVÆ]

AUGUST

E. tæniata? ..... has been obtained by beating holly
E. linariata ..... in fl., and seed-vessels of yellow toadflax
" centaureata ..... fl., and seeds of ragwort, goldenrod, Angelica, yarrow, Eupatorium cannabini-
um, Pimpinella, &c.
" succenturiata, e. Achillea mille-folium, Artemisia, and Valerian officinalis, seeds
" subumbra...Gentiana, Campan-
ula, and other fl.; in, and near beech woods
" plumbeolata Melanpyrum pra-
tense, fl.
" isogrammata Clematis vitalba, fl.-buds
" castigata ..... goldenrod, heath, nettle, Angelica sylvestris, &c.
" virgaureata ..... goldenrod, fl.
" fraxinata ..... ash; will eat laurus-
tinus, fl.
" innotata (?) e. Artemisia campes-
tris, at Wallasy
" nanata ........... heath, fl.
" subnotata......Atriplex, and Chenop-
dium, fl., and seeds
" campanulata seed capsules of Campanula trachelium, and other Campanula
" minutata ........ heath, fl., and scabious; s. a cannibal
togata, e.......spruce, in the buds, and shoots; and, it is said, on the seeds of the Scotch fir
" coronata ........ fl. of Clematis vitalba, wormwood, bramble, Eupatorium cannabini-um, golden rod, wild angelica, &c.
C. sparsata ..... Lysimachia vulgaris, fl., and leaves
L. hexapterata....sallow, poplar
" viretata ...... privet, and Actæa spicata
" lobulata ......honesuckle, Sallow, willow
T. juniperata ...juniper
Y. impluviata ...alder, Sallow; in curled-up leaves

M. ocellata ..... Galium albicillata......bramble, raspberry
M. hastata ....... birch, Myrica, gale; within spun-up leaves
" tristata ........ Galium Mollugo
" procellata ....Clematis vitalba
tersata, e. ...Clematis vitalba
unangulata ......chickweed
A. sinusata....... Galium verum
rubidata ...... Galium
C. unidentaria, b. Galium; will also eat Asperula odorata
" quadrifasciaria hawthorn, white dead nettle, knapweed, and low plants
C. fluvia ..... Polygonum persi-
caria; will also eat groundsel, &c.
P. lignata, b. ...Galium palustre, &c.
C. psitticata ...... oak, lime, apple, rose; probably also birch, haw-
thorn, Sallow
" miata ..... ... oak, alder, birch, poplar, willow
" picata ... chockweed; rests along the stems
" corylata ..... sloe, lime, nut
" sagittata ..... Thalictrum flavum, seeds, and withered leaves; in confinement will eat other species of Thalictrum
P. comitata ..... Chenopodium —
E. palumbaria, h. broom
C. obliquaria ... broom
P. lacertula ......... birch; between united leaves
D. bicuspis ......alder, beech, birch
furcula,......... sallow, willow, poplar; often rests on decayed leaves
" bifida .......... poplars
" vinula, b........ willows, sallow, poplars
S. fagi .......... beech, oak, birch, nut
P. bucephala ..elm, oak, lime, beech, sallow, nut, &c.
C. curtula .... poplars, sallow; webbed in the leaves
G. crenata ..... poplar
N. cucullina ... maple, sycamore
LARVAE

N. dromedarius, e. birch, alder, nut
  "  tritophus  ......  birch, poplars
  "  trepida ........  oak; tightly grips its food
  "  Chaonia ......  oak
  "  Dodonea ......  oak, birch
T. derasa ..........  bramble, hawthorn
  "  batis ..........  bramble, raspberry
C. duplaris ..........  birch; between united leaves
  "  or .............  poplars; between leaves
  "  ocularis ..........  poplars
D. Orion ..........  oak, birch
A. tridens ..........  hawthorn, sloe, rose, willow, sallow, mountain ash, &c.
  "  psi ............  hawthorn, poplar, pear, elm, lime, &c.
  "  leporina ..........  birch, poplar, alder, sallow
  "  aceris ...........  sycamore, horse chestnut, maple, birch; s. oak; often on the loftiest branches; clings closely to the leaf
  "  megacephala poplar
  "  strigosa ......  hawthorn; especially in chalky districts
  "  alni ..........  hawthorn, alder, willow, oak, lime, rose, elm, nut, beech, the chesnuts, birch, sycamore, poplar, sallow, bramble. Should be looked for, as it is probably difficult to dislodge, by beating. Has been found at rest on a leaf, palings, &c.
  "  ligustri ......  ash, privet; seems to prefer shaded trees
  "  rumicis ..........  bramble, plantain, knotgrass, and other low plants
  "  menyanthis Menyanthes trifoliata, heath, bramble, sallow, sweet gale
  "  myrice ..........  Myrica gale, sallow, birch, heath? thistle?
S. venosa ..........  Glyceria aquatica
L. obsoleta ..........  common reed; concealed, by day, in hollow stems

AUGUST

L. littoralis, h...  Ammophila arundinacea, on the coast; burrows seven, or eight inches in the sand. Will also eat Carex
  "  comma..........  Dactylis glomerata, and other grass; also sorrel
  "  phragmitidis, h. common reed; in the young stems
N. typhae ........  in the stems of Typha latifolia
G. flavago .........  inside stems of Lappa, thistles, elder, foxglove, &c., feeding on the pith
A. putris ........  low plants [&c.
X. hepatica, h. grasses, chickweed, D. pinastri ......  dock, sorrel, &c.
X. conspicillaris  Lotus corniculatus, and other low plants
L. exigua ..........  plantain
N. saponaria .....  Silene, Lychnis, and other low plants
M. albicolen......  Atriplex, and Chenopodium; on coast sands, &c.; also lettuce, in gardens
  "  brassicae ......  cabbage, dock, Chenopodium, chrysanthemum, &c.
  "  persicariae ......  Polygonum persicaria, and other low plants; also elder
A. basilinea, h.  growing wheat; on the immature grains; after hibernation, in spring, on various plants
  "  gemina, h.  ...  grasses
H. palustris ......  plantain, and other low plants
A. saucia ..........  plantain, dock, and other low plants
  "  segetum, h...  in r. of turnips, &c.
  "  lunigera ......  ? will eat knotgrass, &c.
  "  corticea, h...  Chenopodium, &c.
  "  ripae ...........  Cynoglossum officinale; on the coast; burrows 7 in. or 8 in. in the sand
  "  porphyrea, h.  heath
  "  pyrophila ......  grasses, heath, and other low plants
T. ianthina, h...  primula, and other low plants; also broom, &c.
LARVAE

AUGUST

T. Orböna, h. ... low plants, and broom; when young, on sallow buds
pronuba, h. ... dock, &c.

N. augur, h. ... low plants, hawthorn, sallow, &c.

" festiva, h. ... violet, sallow, fox-glove, &c.

" conflua, h. ... various low plants, including Silene acaulis

T. gothica ..... sallow, hawthorn, oak, &c.; also dock, nettle, laurel, broom, lilac, &c.

D. irregularis ... Echium vulgare, Silene oitites

carpophaga ... Lychnis, and Silene inflata, the young seeds

capsincola ... Lychnis, and Silene seeds [inflata, seeds
cucubali ..... Lychnis, and Silene

cormissa ... Lychnis flos cuculi, and Silene inflata, seeds

cæsia, b. ..... Silene maritima, S. inflata

H. dysodea ..... fl., and seed-heads of Sonchus, and Lactuca (lettuce, garden, and wild)

" serena ...... Sonchus, and wild lettuce

E. luciparia ..... brake fern, and Polygonum flexi-mas; also

" adusta, h. ..... hawthorn, and sallow, when young; afterwards, low plants

glauc. sallow, birch, bilberry, heath; will eat lettuce, in confinement

" peregrina..... Chenopodium, and Salsola kali

" chenopodium ... Chenopodium

" atriplcis ..... Chenopodium, dock, Polygonum persicaria, &c.

suasa ......... plantain, lettuce, knotgrass, &c.

H. oleracea ..... elm, nettle, dock, cabbage, &c.

" pisi ............ brake fern, broom, scabious, grass, sedge, sallow, birch, mountain ash, &c.

" thalassini ..... honeysuckle, sallow, broom, knotgrass, &c.

" contigua ..... birch, oak, nut, &c.

" genistæ....... broom, chickweed, Silene, Polygonum, &c.

" elongata, h. sallow, bramble, bilberry

X. lithoriza ..... honeysuckle

C. perspicillaris Hypericum

C. lychnitis ..... seeds of Verbascum lychnitis, and V. nigrum

" asteris ........ golden rod, Triopodium vulgare, and China aster

" gnaphali ...... golden rod

" absynthii....... Artemisia absinthium

" chamomilla, s. chamomile, fl.; also Pyrethrum inodorum, and P. maritimum

" umbratica ... Sonchus, lettuce, &c.; hides by day under leaves, near the ground; feeds on the upper leaves, and fl. at night

H. marginata ... rest harrow, preferring the fl.; also Arenaria, and Hyoscamus; knotgrass, in confinement

" peltigera ...... rest harrow, henbane, and several coast plants, preferring the fl.

" dipsacea ... Linaria, fl.; also Silene oitites, seeds; the pupa has been found among melilot

A. cordigera ... Vaccinium

" myrtilli, s., h. heath

A. sulphuralis ... small convolvulus

E. venustula ... Tormentilla reptans, fl.

" fuscula ...... lavender grass (Molinia caerulea). May be found feeding at night, about half way up the blades of grass

B. argentonula ... grasses

H. unca ...... Carex

B. parthenias ... birch

A. urticae, e. ... nettle
LARVAE]

AUGUST

A. triplasia ......nettle, hop
P. chrysitis, h...Lappa, thistle, net-
tle, dead nettle, &c.
" festucæ, b...Carex, reeds, and
grasses; near the sea
" gamma...... nettle, hop, and most
low plants
C. alchymista ...oak
P. ænea......Polygala vulgaris
H. crassalis.....heath
H. costesstrigalis thyme
H. derivalis, h. sallow, bramble
" tarsipennalis, h. wild raspberry?
will eat knotgrass, and sallow
" grisealis ......Sisymbrium Sophia,
oak, &c.
" cribleis, h...sallow; afterwards,
on Carex, and Luzula
E. cingulalis......Salvia pratensis,
under the leaves
B. lancealis ......Eupatorium canna-
binum, Senecio, Sium latifo-
lium, &c.
" fuscalis.......yellow rattle, seeds
" terrealis, h...golden rod, fl., &c.
" asinalis, b...madder, fl., and
young seeds
E. catalaunalis...Linaria spuria
P. margaritalis...wild mustard, seeds;
live under a web, and change
in spring
S. palealis ......wild carrot, and
Peucedanum; in a web, within
a fl.-head of the umbels
L. pulveralis ...Mentha aquatica
S. coarcatalis, b. moss
N. angustella ...fruit of spindle
G. canella, e...Salsola kali; mines
the stems, when young; after-
wards feeds on the unripe seeds
R. formosella ...elm, birch
M. sociella ......wax, in nest of hum-
ble bee
H. prasinana ...oak, &c.
" clorana...... willow, buds
A. prodromana Potentilla anserina,
and most low plants
P. hastiana ......dwarf sallows
" tristana.......guelder rose [ash?
A. Conwayana...fruit of privet, nut?
P. Lecheana......sallow, willow, oak,
honeysuckle, &c.
P. prælongana ...birch
" saucian traversa (?)...Vaccinium
S. euphorbiana...Euphorbia paralias,
heads
M. rubiginosana? Scotch fir
" consequana...Euphorbia paralias
E. fructifasciana Scabious, heads
P. biarcuana.......sallow
" myrtillana ...Vaccinium
" lundana, h...trefoils, and vetches
" derasana ......Rhamnus frangula
" diminutana ...sallows
Mitterpacheriana elm, oak
G. nigromaculana ragwort
" campoliliana in sallow leaves
" obtusana ......nut
P. crenana ......sallows, willows
E. trigemina...ragwort
S. rufillana ......umbels of wild carrot
C. nematicasana? Scotch fir
" vacciniana ...Vaccinium, and Ber-
eris
R. duplana ?..Scotch fir
C. pomonana ...in apples, and pears
O. funebrana ...in plums
E. pisana . . . . . . . . . . . .in pea pods, and
vetches
S. Weirana ......beech
" leguminiana? elder
" orobana ......in pods of Vicia
" cracca, V. sylvestria, Orobus
" tuberosus, and Genista tinctoria
C. ulicetana ......seeds of furze
" cana ...............thistle heads
" Höhenarthiana knapweed, and
thistle
" aspidiscana ...golden rod
X. Fabriciana ...nettle
" pariana.........apple, hawthorn
E. hybridellana thistle, and ragwort,
seeds
" vectisana ......Plantago maritima
" ciliiana . . . . . . . . . . . .seeds of cowslip
A. cnicana ......thistle stems
" Mussehliana ? seeds of Linum ca-
tharticum
" maritimana ...in stems, and r. of
Eryngium maritimum
LARVÆ]

AUGUST

E. Steinkellneriella hawthorn, mountain ash, sloe, &c.; between turned-down leaves
P. calvella (fusca) h. in a case, on bramble; 2 years feeding up
T. fuscipunctella on all kinds of waste substances
M. purpurella? birch
" salopiella?... birch
" semipurpurella? birch
" unimaculella? birch
" sparmannella? birch
" subpurpurella? on various plants, in a flat case, of pieces of dried leaves
A. fibulella.....in a flat case, on leaves of Veronica chamaedrys
N. scabiosellus, h. in seed-heads of Scabiosa arvensis; in the autumn, in its case, on various low plants
" capriacella, h. in seed-heads of teazel, and Scabiosa succisa
A. funerella..... ?
E. lobella.....under turned-down sloe leaves
D. pallorella, b. in leaves of Centaurea scabiosa
G. proximella...in birch leaves
" scriptella.....maple
" æthiopella?...among burnt heath
" costella........ Solanum dulcamara
" triparella.....oak, between united leaves
" paupella.....Inula dysenterica, in fl-heads
" intaminatella Lotus corniculatus
M. ustulella, h....nut, birch, lime, maple, hornbeam, &c.
B. chenopodiella...Chenopodium, and Atriplex
torquatella...birch, elm
T. sericiella.....nut
" resplendella...alder
A. conjugella...mountain ash, in the berries
G. stigmatella.....sallow, willow, poplar

L. 2

G. hemidactylella maple, and sycamore
" falconipennella alder
" phasianipennella Polygonum hydropiper, and sorrel
" imperialella...Symphytum officinale
C. Brogniartella oak
" cuclipennella ash, privet
O. avellanella...nut
" guttella..........in turned-down leaves of apple
C. alcicostella...on pods of furze
" artemisiolella, h. fl. of Artemisia vulgaris, and A. campestris
" inflatella.....Silene inflata, seeds
" siccifoliella..hawthorn, apple, birch
" melilotetla...melilot, seeds
" Wilkinsonella birch
B. somnulenta convolvulus
C. Druriella.....hop
" orichalcella...in leaves of Festuca arundinacea
L. subbistrigella in seed-pods of Epilobium montanum
E. serricornella Carex
A. terminetella Cirsæa lutetiana
A. Treitschkiella dogwood
L. padifoliella...sloe, birch, &c.
P. suffusella.....poplars
" salignella...willows
C. scitella.....hawthorn, apple, &c.
lotella.........Lotus major
" lathyrifoliella in leaves of Lathyrus sylvestris
" orobiella.....Orobus tuberosus
B. cidariella.....alder
" cratægfoliella hawthorn
" Demaryella...birch
" Boyerella...elm
" frangulella...buckthorn
" hippocastanella lime
N. minusculella pear
P. isodactylus...in shoots, and stems of Senecio aquaticus, &c.
" pterodactylus convolvulus
" monodactylus...Convulvulus arvensis, and Calystegia sepium, &c.
PUPÆ] AUGUST

Although pupæ, of some kind or other, may be found at any period of the year, the middle of the present month is the best time to commence the systematic work of digging, and otherwise searching, for species which have arrived at this stage. From about that time this work should be followed, until the winter, as a regular part of the Collector's operations, as it is one of the best means of securing many species otherwise difficult to be got. The insects thus obtained come to hand in the finest condition, and many curious varieties often appear. Although the digging at trees has been long recommended, some kinds are only to be found at the roots of the low plants upon which they have been feeding, or in their immediate neighbourhood. Wherever there is a good mass of the food-plant of a desiderated species, the pupa should be sought, or dug for, near, or among the roots, of course, avoiding the destruction of the plant, if it should be rare or local.

P. Machaon ......to April, on stems of Peucedanum palustre; in fens
A. cardamines .....on stems of grass, &c.
V. urticæ ..........among nettle cardui .........on, or near thistles
" Adonis, b. ...sub. at, or among Hippocrepis comosa
O. antiqua .....in a web, on palings, &c.
E. lanestris ...... cocoons, on the ground, near hawthorn, sloe, &c.
P. populi ..........to Oct., spun up, against oak, poplar, &c.; near, or just beneath, the ground
E. versicolora ....to March, spun up, at birch
S. lunaria ..........to April, at sloe, oak, nut, &c.
E. alniaria ......under moss, on tree trunks, or between leaves
" tiliaria, b. ...spun up, between leaves, or grass, at r. of oak, birch, &c.
" fuscataria, b. suspended, within a curled-up leaf
H. pennaria .......sub., at oak
N. zonaria .......sub., on sand-hills
" hispidaria ....at oak
A. prodromaria to Feb., sub., at oak, elm, &c.; just beneath the surface
E. punctaria. ....to April, fastened to leaf of oak, or birch

E. pendularia ...to April, fastened to leaf of birch
F. carbonaria ......to April, among dead leaves of sallow, and birch
H.rupicapraaria in a web, on the ground, among oak, sloe, &c.
" leucophearia on the ground, near oaks
" aurantiaria ...sub., at hawthorn, birch, oak, &c.
" progemmaria sub., at oak, birch, hornbeam, &c.
" defoliaria ......sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
C. brumata ......sub., at oak, &c.
O. dilutata .....sub., at oak, &c.
L. multistrigaria sub., about Galium
E. decorata ...about Lychnis dioica
E. venosata ......about Silene, and Lychnis
" fraxinata, e. to April, on ash; under moss, and loose bark
" vulgata.......to Mar., sub., about various plants, and trees
" exiguata ......to April, about oak, &c.
M. ocellata ........to May, among Galium; spun up, near the ground; larva s. remains during winter
A. badiata ......in earthen cocoon, on the ground, beneath dog rose bushes
AUGUST

PUPÆ]

A. derivata ...... sub., at dog rose
C. unidentaria, m. among bedstraw, and sweet woodruff, in a slight web, on the surface of the ground [broom
C. obliquaria ... to April, among
D. vinula, e. ... to May, spun up, on trunk of willows, poplars, and sallow; three or four feet from the ground
P. Cassinea ...... sub., at oak; deep
N. carmelita...... to April, sub., at birch
D. caeruleocephala spun up, at hawthorn, and sallow; under bark, or on twig
C. ocularis, e. ... at poplar; spun up, under moss, &c.; or between leaves
" ridens ........ spun up, at oak, among rubbish; or under bark; s. among leaves, and falls with them; tender
A. alni ............ to April, between leaves of various trees; or inside bramble sticks
N. typhæ, e...... in stems of Typha latifolia
G. flavago........... inside thistle, and burdock stems; about 3 in. from the ground
T. piniperda...... to Mar., at Scotch, and other firs, in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles; rarely within 2 ft. of the tree, 1½ in. to 2 in. deep
T. gothica ...... to Feb., at various trees; just beneath the surface
" leucographa 
" rubricosa ...
" instabilis ...
" stabilis ..... to Feb., at r. of various trees; just below the surface
" opima ......... to Feb., at r. of Rosa spinosissima, and dwarf sallow; below the sand, on sand-hills, in the North
T. populeti ...... to Feb., sub., at poplars; especially Populus nigra; deep
" gracilis ......... to Feb., sub., at willows, sallows, and low plants
" miniosa ...... among fallen oak leaves, &c.
" munda ........ under moss, at base of oaks
" cruda ......... to Feb., sub., at oak
O. lota ............ between leaves of willow, and sallow; or on the ground
" macilenta ...... at r. of beech, and birch
S. satellitia ...... sub., at oak
X. citrago, b. ... between united leaves of lime
" cerago, b. ... sub., among low plants, near sallow
" gilvago, b. ... sub., at wytch elm
" aurago ......... in a cocoon, at beech
" ferruginea ... sub., at sallow, poplar, &c.
C. xerampelina sub., at ash; cocoon, very tender, and brittle
D. templi ........ sub., at r. of Heracleum sphondylium, &c.
M. oxyacanthæ . in a cocoon, on the ground; among sloe; and hawthorn
A. Aprilina ...... sub., at oak
C. vetusta ........ among meadow, and marsh plants; on the surface
" exoleta ....... among scabious, campion, rest harrow, &c.
C. fraxini, b. .... amongst the leaves of ash, and poplar
" nupta ....... at Salix fragilis, and poplar; among the leaves; or in crevices of bark; or under loose bark
P. festuce ........ conspicuous amongst rush, &c.; near the sea
P. acanthodactylus on Bartsia, and rest harrow
" dichrodactylus on tansy
Å. polydactyla .. on honeysuckle
AUGUST

Many Moths, in their fresh "palmy state," make their appearance this month; while we may often see sunny banks, or fields glowing

"With open, velvet butterflies,
That swing, and spread their peacock eyes,
As if they cared no more to rise
From off their beds of chamomile."

All kinds of flowers, especially in exposed situations, should be carefully examined, soon after sunset, for the Moths they attract. A. saucia, and other local species, are often found on garden flowers, and flowering shrubs. As the honey of most flowers has a stupifying effect on Moths, they may be easily boxed from the flower, or shaken into an umbrella first. Other species, which hover over flowers, either in the sunshine, or at early dusk, as C. celerio, and S. convolvuli, and also many Noctuæ, must be netted first, and immediately introduced into a wide-mouthed bottle charged with chloroform, bruised laurel, or cyanide of potassium. Some other natural attractions than flowers, are also worth noting. Newly cut-down birch trees, as well as exudations from the bark of standing ones, attract both Butterflies, and Moths; and Butterflies are also, sometimes, drawn to a particular spot by some white, or brightly coloured object.

But to the attractions which nature offers, the energetic Collector adds those of art,

"And with delusive baits betrays."

The sugar-pot should now be prepared, and liberally used. If, owing to the abundance of flowers, captures should prove rare, the flowers themselves should be sugared, especially thistles, and flowers presenting a large surface, as they will prove superior to tree trunks, &c. Our highest authority in English Entomology, Mr. Henry Doubleday, of Epping, says the sugar should always be applied to the trees before sunset, and when practicable it should be put on warm, as the scent is much more powerful than when it is applied cold. The greatest number of Moths will generally be found about three quarters of an hour after sunset, and in spring and autumn but few will be found after ten o'clock. Many species visit the sugar about an hour before sunrise, in the morning. Sugar is almost useless in the neighbourhood of lime trees, when they are in bloom, and also when there is much honey-dew. Neither should the allurement of light be forgotten. In a favourable situation this means of capture may be pursued far into the night, as some species do not respond to the call until a late hour of the night, or early hour in the morning. It is recommended that a bright light be placed near a slightly-open window, and a net used for the capture of specimens. A wag has suggested that the watcher may wile the idle time away by reading Young's "Night Thoughts," Bulwer's "Night and Morning," or the "Arabian (K)nights' Entertainments!"

Gas lamps often prove highly attractive to Moths, and many good species have been captured thereat, though it is not often that their condition is fine. Lamplighters in country towns may sometimes be bought over to box specimens for you, as they often find them when they clean the lamps; but you must give frequent calls upon the official to keep him up to his work, and the chances are in favour of your getting little else than a lot of rubbish, or
IMAGOS]  

AUGUST

if any species are good they will probably be found to be much damaged by the rough treatment they have received. "Many species, especially the good ones, settle under the lamp, or on some part of the frame-work where they are not easily got at, or even seen, without climbing the lamp-post; many lie very close to the frame, so that a keen inspection is required to detect them. Many species viewed from below appear like dead leaves, bits of stick, mud, &c. The time to commence the operation of 'lamping' is about 10 p.m. Very few Moths come sooner; but they continue to appear till dawn. From two to three o'clock is a capital time."

Many species which are ordinarily single-brooded in this country, are double, or treble-brooded on the Continent, where the summer is longer and hotter; but sometimes, in this country, in a hot season, an additional brood of an insect will appear. Thus, in 1868 there was a third brood of S. Megæra. When this occurs, of course the times ordinarily set down for the appearance of a species should be somewhat advanced.

P. Machaon, s....fens, and marshes
L. sinapis, 2. ....woods; the autumn brood is rather smaller than the spring brood
P. brassice, 2....gardens, &c.
" rape, 2. .....gardens, &c.
" napi, 2 ........gardens, &c.
" Daplidice, 2. has been taken in lucerne fields
G. rhamnii, h. ...in woods
C. Edusa, h. ...lucerne, and clover fields, railway banks, &c. Fond of fl.
" Hyale, h. ...lucerne, and clover fields; more especially near the coast
A. Latona .....fields, woods, &c.
" Euphrosyne, s. woods, &c.
" Selene, s. ...woods, &c.
V. polychloros, h. about elms
" Antiopa, h....attracted by sugar, ivy bloom, and cockus-infected trees
" Io, h. .......woods, &c.; at fl.
" Atalanta, h. gardens, &c.; fond of fl., and fallen fruit
" cardui, h. ...at fl.; often rests on a hot dusty road, and on the lead roofs of churches, and other buildings, in the sunshine
E. Medea .........
S. Ægeria, 2. ...woods, and lanes
" Megæra, 2....at fl., in lanes, and on walls, and banks
T. rubi, s. 2. ...in woods, &c.
" betulae ...........in woods, at fl.; in wet weather may be readily taken with the fingers, as may many other butterflies
P. Hippothoe ...formerly in Cambridge fens
Phloeas, s. ...fields, &c.
L. Bœtica...........has been recently taken in this country
" Ægon .........at rest, on heather, at night
" agestis, 2. ....on hills, &c.
" Alexis, e. 2....fields, and hills
" Adonis, 2. ...chalk downs, and limestone hills
" Corydon, b. chalk downs, and limestone hills
" Argiulus, 2....among holly, and ivy, and at fl.
S. Alveolus, s. ...woods, &c.
T. Tages, 2......dry heaths, commons, and hills
H. sylvanus, 2....woods, and grassy hills
" comma .....hills, &c.
" Acteon ......on the Dorset coast
A. Atropos ......at rest
S. convolvuli ...at fl., at dusk
D. euphorbiae ...on the coast
" galii .............on the coast
" lineata .........
C. celerio .........at fl., at dusk
H. sylvinus, b....flies just before dusk
AUGUST

E. erosaria .......
  " angularia .......on trees, &c.; comes to l.
H. abruptaria, 2. in gardens and woods; rests on trees, and palings; comes to l.
D. obfuscata...... on heaths, about Scotch mountains
A. trigeminata, 2. in some hot summers many of the Acidalize are double-brooded
  " incanaria ......on palings, walls, &c., near gardens
  " ornata, 2......in grassy places
  " promutata ...woods
  " mancuniata...
  " subsericeata...beaten from wild rose
  "imitaria ......among Rosa spinosissima, at Portland
  " emutaria .....salt marshes of Kent, Norfolk, and the New Forest; flies at dusk. The Sheerness specimens are more tinged with rose-colour than the others
C. exanthermaria woods
S. plumaria .......
M. euphorbiata, 2.? woods
S. sacraria.......flies by day; has been taken at fl., at sugar, and at l.
A. ononaria, 2. among, or near rest harrow
A. citraria, 2. ...among wild carrot, chiefly on the coast
  "gilvaria......wild in the net
A. grossulariata gardens, and hedges
L. marginata ...woods, and hedges
O. filigrammaria
L. olivata .........woods
E. unifasciata ...
  " bifasciata? ...in an old hedge, in a marsh
  " blandiata....
E. centaureata...at rest, on palings, &c.
  " subfulvata ...at fl.
  " pygmeata, s. 2.
  " pimpinellata, 2.
THE LEPIDOPTERIST'S CALENDAR

AUGUST

E. indigata, 2...on fir trunks
" constrictata...
" nanata, 2. s...on heaths
" expallidata ...
" assimilata, 2.
" pumilata, 2.
T. simulata, 2...
" variata, 2., h. among larch
firmata.......
M. rivata ..... ...
" fluctuata, 2., in gardens, &c.
A. berberata, 2.
C. ferrugata, 2. woods
" unidentaria, e., 2.
P. lapidata ......at Rannoch
" lignata, e., 2. this brood is smaller, and generally more abundant than the first brood
" polygrammata, 2. damp meadows; very local
" vitalbata .......
S. dubitata, h...at light
C. russata...woods
" immanata ...
" silaceata, 2., h. among willow herb; beaten from thatch. Double-brooded only in the S.
E. mæniata ......beaten from broom; at E. Grinstead, &c.
" lineolata, 2.......rests on coarse grasses; on the coast
A. plagiata, 2 ...
P. falcüa, 2.......beaten from birch
" hamula, s., 2. flies in the day time, generally in the morning; beaten from oak
" unguicula, s., 2., a dayflyer; beaten from beech
C. spinula, 2. ...rests on palings, &c.
P. bucephala ...at rest
C. anchoreata ...
" reclusa .........
N. camelina ......at light; hides on fern fronds, and in, and on trees
" cucullina, s...comes out when a thunder storm is imminent
" dictæa .........at rest, at base of willows, and large poplars
" dromedarius, s.
" tritophus .......
N. ziczac ...........hides in bark crevices of poplar
C. diluta ...........
B. glandifera ...on walls
" algae.............
" perla...............on walls
A. alni ...........this rare species has occurred at sugar, but is often found in the larva state
" auricoma, h.
S. musculosa ...
L. albibuncta ...at fl.
" putrescens, b.
" straminea, b. marshes, and fens
" pallens, b. ...
N. despecta ......marshes, and fens
" fulva.............s. abundant in one corner of a meadow
" neurica ...........
" brevilinea ...at Horning Fen, &c.; flies at dusk, among reed mace
" cannae ......a marsh species
" lutoso ...........in marshes
H. nictitans ......at ragwort, & thistle fl.; comes to l.
" petasitis ......among butter burr
" micacea ......comes to l.
X. polyodon ..... 
" scolopacina ...
D. pinastri ..... 
A. Australis .......among grass; comes to l.
L. exigua ...........most often taken at gas lamps
N. saponaria ...
H. popularis......
C. graminis ..........on commons; s. at ragwort, and thistle, fl.
C. Cytherae ......in dry, grassy places; comes to l.
L. testacea .......
" Dumerili ...
" cespitis.......hides in grass, by day; comes to l.
M. furva ...........
" brassicæ .......rests on walls, &c.
A. gemina ...... 
" fibrosa ......in marshy places
" oculæ ...........

IMAGOS]
AUGUST

M. literosa ...... on the coast
C. Haworthii ...
A. caliginosa ...
C. cubicularis ... beaten from thatch; flies in hay-fields
A. valligera ...... at fl.; mostly on the coast
" Puta, 2., h. ...
" suffusa, h. ...
" fennica ........
" saucia, h...... at fl.; comes to l.
" segetum ......
" lunigera ......
" exclamationis often in kitchen gardens
" spinifera ......
" cursoria ...... by beating, on coast 
sand-hills
" nigricans ...
" tritici, b. ......
" aquilina, b. ...
" obelsica ...... on ragwort fl.
" agathina ...... beaten from heat in the day time; flies over the fl., and rests on them, at night
" porphyrea ...... on sand-hills, by the coast
" ravida, b. ...... comes to l.
" pyrophila, b.
Ashworthii ...
T. ianthina ......
" fimbria,...... comes to l.
" interjecta ...
" subsequa ...... comes to l.
" Orbona ...... comes to l.
" pronuba ...... comes to l.
N. glareosa, e...... on heaths
" depuncta ......
" augur ........
" plecta, b. ......
" C.-nigrum ...... comes to l.
" rhomboidea ...
" brunnea ......
" festiva ........
" conflua ..........
" Dahlia .........
" rubi ............
" umbrosa ...... at ragwort fl.
" Baia.......... ...
N. sobrina ......
" neglecta ...... on heaths, at sugared rags
" xanthographa
P. alpina ........
O. specta ......
A. ruhna, e......
" pistacina, e...
" litura ......
X. citrago, e. ...... at l., and ivy; this, and the two following frequent the leaves, and twigs of lime trees, at night
" cerago .........
" silago ........
" aurago, e. ...... at fl.
" gilvago ........
" ferruginea ...... at fl.
C. xerampelina ...... at l., and at rest, on ash trunks
T. subtusa, b. ...
" retusa ......... comes to l.
" E. fulvago ...... in Sherwood Forest, at heath fl.
D. oo............ comes to l.
C. trapezina ......
" pyralina ......
" diffinis ...... comes to l.
" affinis .......... comes to l.
E. ochroleuca ...... at fl.; rests on knapweed, thistles, &c.
D. capsophila, s., 2.
" capsincola, 2.
" cucubali, 2. ? flies in the sunshine
P. chi ............ on tree trunks
" xanthomista...
" flavocincta ...... on walls, &c.
E. lutulenta ...... at heath fl.
" nigra............ at fl.
" viminalis ...... among sallows
" lichenea ...... on the coast
M. bimaculosa ...
P. meticulosa ...
A. occultatur...... at rest, early in the morning; unquiet when boxed
" nebulosa ......
" tincta ...... on trees, stumps, and palings; unquiet when boxed
H. satura .........
AUGUST

H. rostralis, h....
H. albigastralis at rush fl., and s. sugar
  costaeastrigalis at rush fl., and s. sugar
H. derivalis ......comes to l.
A. flexula ........beaten from hedges
O. dentalis ......on the coast, among viper's bugloss
P. fimbrialis......comes to l.
  farinalis ......in stables, &c.
  glaucinalis . in thatch ; and at l.
P. punicealis, 2. in grassy places ;
  flies in the sunshine
  ostrinalis 2.? 
R. sanguinalis 2? flies at dusk
H. cespitalis 2.? 
E. cingulalis 2.? ..... on grassy hill-sides, &c.
  anguinalis 2.? ...on grassy hill-sides, &c.
C. leminalis .....among the weeds of duckweed-covered ponds ; flies at dusk ; comes to l.
P. stratitotalis ...among water plants ;
  flies at dusk ; comes to l.
A. niveus, b. ...at rest, on twigs, &c.
  in weedy ponds and rivers,
  close to the water's edge, or
  flying slowly over the surface
B. flavalis ..........in chalk, and lime-
  stone districts, on the S. coast
P. forficalis 2?....gardens
  stramentalis...beaten from under-
  growth, in woods, fens, &c.
S. sticticalis ......at l., and fl.
  palealis.........among wild carrot,
  and Peucedanum; on the S.E.
  coast
  cinctalis ......clover fields; comes
to l.
S. alpinalis ......on the tops of moun-
  tains, in Perthshire, &c.
lutealis......in hedges
  ferrugalis ......beaten from hedges;
  flies at dusk; comes to fl., and
  sugar
decrepitalis...
S. Zelleri.........beaten out of old
  willows, and hawthorns
IMAGOS]

AUGUST

S. cembre ......
" murana ......among heath
" lineola ......among old, lichen-covered sloe, and hawthorn bushes
" crataegella ......[local
" resinea ......on ash trunks, very
" phaœleuca ......
" truncicolella on fir trunks
" coarctalis (angustea) on mossy walls
" alpina .........
" pallida ...... in fens, &c.
P. alpinellus.......in sandy, grassy places, especially in fir woods; not a mountain species
E. ocellea, e., h. comes to l.
C. verellus ......
" falsellus ...... common in England, more local in Scotland
" pratellus, 2....s. at sugar
" dumetellus ......
" ericellus ......on moors, among heath; local
" sylvellus (adipellus) in fens, &c.
" hamellus ...... in grassy places, among heath
" pascuells ......damp meadows, and moors; local; s. at sugar
" furcatellus ......a mountain species, in Britain
" margaritellus damp, grassy places, in open woods
" pinetellus ...... best obtained at night, by searching dry banks
" latistriellus ......on coast sand-hills; local
" perlellus ......
" Warringtonellus on mosses, and moors, and on the coast; very local
" selasellus ......fens, and wet meadows
" tristellus ......
" fascelinellus...on the coast, near Yarmouth; at rest, on the sand
" inquinatellus among alder bushes, and on heaths; s. at sugar
" contaminellus dry pastures; rather local

C. geniculellus......
M. cribrella......among thistles; often on hills
T. pryorella ......
H. nimbellla ......among Jasione montana, and thistles, and ragwort; on the coast
" nebuliella ......... among Carduus nutans, &c. ; very local
" binævella ......
E. pinguis.........rests on ash trunks; comes to l.
P. obductella ......
" ornatella ......
" abietella ......may be beaten from young fir trees
" roborella ......
P. palumbella ......among heath
R. consociella ......s. at sugar
" advenella ......
" tumidella ......
" ahenella ......
M. sociella ......
" anella ......
G. cerella ......
S. Revayana, h. woods
T. rosana ......
" corylana ......woods
" costana.......fens, and marshes
" viburnana......boggy heaths, and moors
" icterana ......dry banks
" adjunctana ......
D. grotiana ......among oak, in woods
A. Gerningana...heaths, and moors
L. literana ......on oak trunks
P. sponsana ......woods
" Schalleriana...on moors, and fens; among sallow
" comparana ......
" Caledoniana Northern moors
" variegana ......hedges
" cristana ......among dwarf sallows
" Hastiana ......among sallows
" maccana ......Rannoch
" ferrugana ......woods
" aspersana ......Yorks coast, &c.
" Shepherdana fens
" comariana ......boggy heaths, and fens
THE LEPIDOPTERIST’S CALENDAR

IMAGOS]

AUGUST

D. alpinana .....at river sides, among tansy
" Petiverana ...among yarrow
" acuminatana railway banks, &c.
" simpliciana ... among Artemisia vulgaris
C. ulicetana .....among furze
cana............among thistles
" Hohenwarthiana among thistles
" Scopoliana ... among Centaurea nigra
" semulana .....Southend
" pupillana ...on the coast, among Artemisia
C. scintillulana marshes
E. dubitana .....angustana ...on heaths, &c.
" roseana .....Gravesend
" implicitana ...woods, in the S.
" anthemidana chalk districts
X. Zoegana ..... among Centaurea nigra
C. rutilana .....among juniper
C. dipoltana .....on chalk, in the S.
A. osseana .....marshes
P. Birdella .....S. chorargella ..Cumberland, Epping, and New Forest
" emortuella ..Cheshire, Epping, Gloucestershire, &c.
" cloacella ...arcella ...........
T. rusticella .....T. monachella ..Cambs
" confusella ...Howth, Hartlepool
" misella .....in outhouses
" pellionella ...common, in houses
" fuscipunctella
" pallescentella in warehouses, and poulterer's shops
" nigripunctella .....York, Bristol, Lewes
" ruricolella ...
" comptella ...among sloe
S. pyrella .....in hawthorn hedges
Y. viginipunctella Guildford, Becket-
ham
" plumbella ...among Eunonymus europæus
" padella .....among hawthorn
IMAGOS]

Y. evonymella...among Prunus padus
P. porrectella ...
  annulatella...Howth, Castle Eden, Scotland, Portland, &c.
  Dalella...on moors
H. sequella...on trunks of syca-
  more, and maple
  vittella...on trunks of elm, and beech
  radiatella...among oak
  costella...
Y. sylve\sella...among young oak
  alpella...among oak
  lucella...
  asperella...among apple
H. scabrella...among crab apple;
  on tansy fl., at dusk
  nemorella...among honeysuckle
P. caudella, h...among Euphorbus
O. sparganella...
P. quercella...among oak
D. costosella...among furze
  liturella...among Centaurea
  pallorella, h.
  umbellella...among furze
  assimilella...among broom
  nanatella...
  atomella...
  arenella...
  propinquella, h.
  subpropinquella, h.
  Alstrœmeriella, h...among Conium
  maculatum
  ciniflonella, h...Rannoch
  vaccinella, h.
  capreolella...
  hypericella...
  conterminella, h...among sallows
  angelicella...among Angelica
  sylvestris
  carduella...among thistles
  ocellabella...among sallow
  Yeatesiella...in fens, &c.
  applanella, h.
  ciliella, h...
  rotundella...Howth, Lancashire,
  Folkestone, &c.
  depressella...Fleetwood, Essex,
  Folkestone, &c...
D. pimpinella...
  albipunctella, h.
  emeritella...
  pulcherimella...among Bunium
  flexuosum
  Douglasella...Fleetwood, Redcar,
  Folkestone, Isle of Wight, &c.
  Weirella...Preston, Lewisham, Lewes
  cheiropyllivorella, h.
  ultimella...marshes, &c.
  nervosella...
  badiella...
  discipunctella
  heracliella, h.
  olerella...near Hazlemere;
  beaten from thatch
P. gibbosella...Manchester, Hain-
  ault
G. ruscentella...marshes, &c.
  vilella...Gravesend, Wor-
   thing, Folkestone, &c.
  hippoophaela...near Deal
  populella...Yorks, Birkenhead,
   Bristol, &c.
  lentiginosella...Preston, Epping, &c.
  velocella...Witherslack, Cambs
  fumatella...New Brighton, Bir-
   kenhead, Dawlish
  ericetella...moors, and heaths
  mulinella...among furze, and
   broom
  desertella...sand-hills, on the
   coast
  acuminatella...among thistles
  artemisiella...coast sand-hills,
   Manchester, &c.
  senectella...in lanes, &c.
  mundella...coast sands
  similella...
  domesticella
  rhombella...among crab, in
   hedges, &c.
  Lyellella...Castle Eden, With-
   erslack, New Forest, Worthing
  distinctella...Lytham, Croydon,
   Portland
  costella...among Solanum
   dulcamara
  maculella...
AUGUST

G. tricolorella ...
" fraternella ...Manchester, Yorks, &c.
" vicinella .......Belfast, Brighton
" junctella .......Witherslack, Lake District, &c.
" Hubnerella ...Carlisle, nr. Wakefield, Manchester, &c.
" marmorrella ...coast sand-hills
" instabilella ...on the coast
" ocellatella ...Folkestone, Preston, the Lizard; s. at sugar
" atriplicella, 2. S. Shields, Scarborough
" sequacella ...
" albicapitella...
" tæniolella.......
" immaculella...W. Wickham
" anthyllidella...railway banks, and coast sand-hills
" atrella ........Witherslack, Darlington, West Wickham
" bifractella ...Folkestone, Mickleham, Bristol
" gemmella.....Birkenhead, Bristol, Manchester
" næsifierella ...among Chenopodium
" Hermannella Cambs, Yorks, &c.
" pictella .........coast sand-hills
" brizella.........near Dawlish, Brighton, Southend
" ericinella ........heaths
" paupella ........near Lewisham, Folkestone, Lewes
" inopella ......near Bristol, Folkestone, Lewes
" Knaagsiella...
" P. Metzneriella Darlington, Scarborough, &c.
" neuropterella Deal, Mickleham
" cytisella ......
" striatella .......Cambs, Brighton, Lewisham
" C. conscriptella Witherslack
" A. spartiella .......among furze
" M. marginella ...among juniper
" A. palpella ........Hainault, Ripley
" N. Durhamella Bristol, Darent, Deal

CE. flavimaculella among Angelica sylvestris
" lunarella ........Cambs, Lewes, Lewisham, &c.
" subaquilella...Yorks, Lake District
" fuscoaurella...West Wickham, &c.
" fuscescentella
" pseudopretella common in houses
CE. Kindermannella in houses
A. granitella ...Cambs, Witherslack, Darlington
" autumnitella, h. among Solanum dulcamara
" betulella ......Castle Eden, and High Force; beaten out
R. Erxlebenella among lime underwood
G. equitella .....among Sedum acre
" Fischeriella...
A. nitidella .....among hawthorn
" semitestacella among beech
" spiniella .....among mountain ash, on moors
" semifuscella...in hedges, among sloe, and hawthorn
" Andereggiiella
" aurulentella...Sanderstead,Mickleham, Tenderden
O. pinariella, 2. among Scotch fir
Z. hepariella, h. Darlington, Lake District, &c.
" insignipennella to April (probably a of hepariella)
G. alchimiella ...
" stigmatella, h. among sallow, and poplar
" stramineella, h. Castle Eden, Lake District, Stirlingshire
" tringipennella among Plantago lanceolata
" syringella.....in gardens, among lilac
" omissella ......among Artemisia vulgaris
" auroguttella...among Hypericum quadrangulum
" ononiella ......Cambs, Mickleham
" Hoffmanniella at Richmond, Yorks
C. Brogniartella Yorks, Lake District, Cambs
IMAGOS] AUGUST

C. cuculipennella, h. among privet
O. avellanella ...among nut
" anglicella......among hawthorn
" betulævorella. among birch
" torquillella ...among sloe
G. atriplicivorella Isle of Wight
C. alcyonipennella in sheltered places, among Centaurea nigra
ochreella ....
" salicornella ...Fleetwood
" binotapennella near Brighton
" anatipennella
" discordella ...among Lotus major
trogloditella Yorks, Cambs, Castle Eden, &c.
squamosella...near Mickleham
" annulatella (Tengstromella) among Chenopodium
" salinella ......Yorks, and near Brighton
" apicella (cacuminatella) fens, and marshes
" virgaureella ...Grange, Scarboro’, Devon
" griphipennella among rose
B. somnulentella
B. preangustella on poplars, and sal-lows
O. v.-flavella ...in wine vaults, and cellars
C. insecurella ...at Stoat’s Nest, near Croydon
cherophyllumella
L. paludicolella Lake District, Yorks, Cambs, Darlington
" lacteella ......Yorks, Lake District
" miscella ......Witherslack,"Yorks, Castle Eden
" Raschkiella ...Box Hill
" Stephensiella Hainault Forest
" epitobiella, h.
" ochraceella ...among Epilobium
decorella ...among Epilobium
" subbistrigella, h. ...Witherslack, Worthing, Devon
C. Linneella ...in parks,&c.,among old lime trees
" Schrankella..........Witherslack, Scarboro’, Scotland
H. Rœsella......formerly near London
A. Langiella ...Devon, Lake District
C. festaliella......among blackberry
S. Brunnichella in chalk-pits, among Clinopodium vulgare
E. luticomella ...
" poella .........among Poa aquatica
" Kilmunella ...moors, marshes, and bogs; among coarse grass
" nigrella ....
" subnigrella ...Scarboro’, Bristol, Mickleham
" Bedellella ...
" subobscurrella Darlington, Scarboro’
" zonariella ......
" Megerlella ...
" cerussella......
" biatomella ...Witherslack, Darlington, Cambs
cygnipennella
T. marginea ......among blackberry
L. rocorella, 2...most of these second appearances of the genus Lithocolletisdo not occur in the North
hortella ......very local
" Amyotella ...
" lantanella......among guelder rose
" quinqueguttella among dwarf sal-lows
" irradiella ......among oak
" Bremiella ...
" lautella ......among oak
" vacciniella ...Yorks, Scotland,&c.
" cavella .........West Wickham
" pomifoliella ......among hawthorn, and apple
" spinicolella ...among sloe
" faginella ......among beech
torinella ...Manchester, Lewis-ham
" salicicolella ...among sallow
" viminetella ...Witherslack, Manchester, &c.
carpinicollela among hornbeam; local
" ulmifoliella ......among birch
" spinolella ......among sallow
" quercifoliella among oak
" Messaniella...among evergreen oak
corylifoliella among hawthorn
IMAGOS]

AUGUST

L. Caledoniella Lake District, Darlington, Yorks, Scotland
" viminiella...among sallow
" ulicicolella...among furze
" alnifoliella...among alder
" Heegerella...among oak
" Cramerella...among oak
	" tenella .......... Epping, Windermere
" sylveilla (acerifoliella) among maple
" emberizeppenella Yorks, Lake District, &c.
" Frolichiella...among alder
" Dunningiella Darlington, Lake District, Yorks
" Nicelliella...among nut
" Stettinella...among alder
" Kleemanella Scarboro', Harrogate, Preston
" Schreberella...among elm
" tristrigella *...among elm
" trifasiella...among honeysuckle
" scabiosecolella
" comparella...London District
L. Clerckella, h. among sloe, and fruit trees
P. salignella ......among willows, near London
C. spartifoliella among broom
" laburnella......among laburnum
O. reliquella, b.
B. aurimaculella...among Chrysanthemum leucanthemum
" ulmella......among oak
" cristatella......among yarrow
N. atricapitella among oak
" ruficapitella...among oak
" anomeella...among rose
" tilizella, b. ...
" perpygmæella among hawthorn
" pomella ......Darlington, Richmond, Yorks, Lewisham, &c.
" oxyacanthella among hawthorn
" viscerella ......Richmond, Yorks, Darlington
" catharticella...Yorks, &c.
" Septembrella among Hypericum
" cryptella ......Scarboro', Darlington, Manchester [borō]
" Headleyella...Mickleham, Scarbor
N. trimaculella...Darlington, Yorks
" floslactella ...among nut
" salicivorella...among sallow
" myrtillella ...Witherslack, Yorks, Manchester
" microtheriella ...among nut, and hornbeam
" betulicolella...Darlington, Scarboro', W. Wickham, Manchester
" ignobilella...among hawthorn
" acetosella......Witherslack, Isle of Wight, near Dublin
" plagicolella...among sloe [ter
" prunetella ...Scarboro', Manchester
" fityrella......among beech
" malella......among wild apple
" atricolella...Darlington, Manchester, Lewisham [borō
" arcuosella......Darlington, Scarboro', Marginecolella among elm; local
" glutinosella...Yorks, Darlington
" aurella......among blackberry
" splendidissimella among Bramble, dewberry, and wild raspberry
" luteella........
" ulmivorella...among elm
T. atrifrontella...Lewisham
" squamatarella...Charlton, Bristol
" immundella...among broom
P. rhododactylus among rose
" isodactylus ......among Senecio aquaticus
" acanthodactylus on heaths
" punctidactylus......Lake District, Birkenhead, Bristol, Farnham
" hieracii........
" pilosellae ......Cambs, Mickleham
" zophodactylus
" fuscodactylus
" lithodactylus among Inula dysenterica
" pterodactylus among convolvulus
" osteodactylus Scarboro', Witherslack
" baliodactylus, b. Bristol, Lewes, Mickleham
" tetradactylus among thyme
" pentadactylus among Convolvulus sepium, and arvensis
A. polydactyla, h. among honeysuckle
SEPTEMBER

OVA]

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C. Edusa, s. .... on white clover, lucerne, &c.
A. Latona. ....... on violet, and hearts-ease
T. quercus ...... on oak twigs
w. -album ...... on wych elm; also elm; on the twigs
pruni. .......... on sloe twigs
betulae ......... on sloe twigs
L. Ægon .......... on Ornithopus perpusillus; white
Alexis .......... on rest harrow, trefoil, &c.
H. comma ....... on trefoil, and other Leguminosse
L. dispar ...... on sloe, hawthorn, fruit trees; on the trunks, in a heap, covered with down
monacha ...... on oak, beech, fir, apple, birch, &c.
T. cratægi ........ to Mar., on hawthorn, sloe, &c.; on roadside hedges; pale-brown, thickly covered with dark-coloured down
B. neustria ...... on hawthorn, sloe, fruit-trees; in batches, round the twigs, and branches
castrensis ...... on Artemisia maritima, Daucus maritimus, &c.
C. elinguaria ... on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.
E. vespertaria ... on nut
apiciaria ...... on poplar, willow, sallow
E. alniaria ...... to May, on alder, birch, sallow, beech, &c.; brick-shaped, like all the Ennomos
E. tiliaria ....... to May, on oak, sallow, birch, alder, &c.; purplish
fuscantaria ... to May, on ash, privet; upon the twigs, in small batches
F. pinetaria ....... on bilberry
O. filigramaria to Feb., on sallow
E. subciliata ...... on maple; at foot-stalk of leaf
M. rubiginata ... on alder; large
L. lignata ....... on Galium palustre, &c.
S. vetulata ..... on buckthorn
C. immanata ...... probably on alder, and other trees, and strawberry, bilberry, &c.
prunata ...... on currant, gooseberry, sloe, &c.; on the bark; large
testata .......... on heath, birch, sallow, poplar, &c.; singly, large
populata ...... on bilberry, whortleberry, poplar; globular, large, yellow
fulvata .......... on dog rose; rose-pink, large
pyraliata ...... on Galium, and hawthorn
dotata .......... on black, and red currant; large
T. chærophyllata on Bunium flexuosum
D. caeruleocephala on hawthorn, sloe; ragged
B. glandifera ... on wall-lichens
perla. .......... on wall-lichens
L. pallens ....... on Deschampsia cespitosa
OVA]

SEPTEMBER

N. lutoso ...on stems of common reed
G. flavago ..........to April, on stems of marsh thistles, burdock, &c.; in heaps
T. fimbria ..........on primrose, broom, and various trees
N. xanthographa on plantain, &c.
A. rufina ..........on oak. Oval, with a slight peak rising from the centre, ribbed rather coarsely from base to centre; dirty-pink, brown round the base, and a conspicuous brown central spot
C. xerampela .....on ash; probably in the chinks of the twigs, and the buds ; round, smooth, dirty-white
T. subusa............poplar ; upon twigs
" retusa ..........to Mar., on sallow, willow, poplar ; upon the axils of the leaves
P. chi ............on dock, hawthorn, sallow ; and probably lettuce, sow thistle, "tea tree," &c.
" flavocincta ...to March, on dock, chickweed, groundsel, mint, &c.; in gardens, on everlasting pea, plum, &c.
M. oxyacanthae on hawthorn, sloe; rather large, distinctly ribbed
P. empyrea .......on pilewort, on the leaf-stalks
H. proboscidalis on nettle; rather large, pale-yellow

LARVÆ]

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The lazy sabbath of a half-year's sleep."

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"while, deep and wide,
The dim night settles on the country side."

Although a large number thus found this month speedily pupate, still a good many which may be obtained by beating and sweeping, hibernate, some being very small; and unless the Collector is able to provide something approaching the natural conditions of larval life, they are best left until the spring. Their re-appearance at that season is duly recorded in the lists.

C. reclusa regularly appears twice a-year, in confinement; but when at large, its habits do not appear so regular. L. roboris will occasionaly feed all the winter, if tolerably mild, and many other species will at times have a nibble, if the food-plant is handy. The eggs of C. xerampelina occasionally hatch this month, though generally later. The young larvae feed only by night, on ash, though they will sometimes eat hawthorn, and guelder rose. Now is the time when we find

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OVA]

SEPTember

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THE LEPIDOPTERIST'S CALENDAR

LARVAE

L. sinapis .......... Vicia cracca, and Orobus tuberosus
P. brassicaceae ......cabbage, &c.
" rapee .............. Cruciferae, &c.
" napi ............... Cruciferae
" Daplidice ...... wild mignonette, and weld
V. polychloros, s., h. ground shoots of elm; will also eat osier, sallow, aspen, and fruit trees. The eggs of this species are s. laid about this time, and hatch, and the young larvae hibernate. It is, however, generally supposed that none of the Vanessae pair until the spring
" cardui .......... thistles; will also eat nettle
E. epiphron, h. probably on Nardus stricta, and small rushes; in mountain bogs
" Medea, h. ......moorland poa, and other grasses
S. Ægeria, h. .... grasses
Megalara, h. .... grasses
" Semele, h. .......... quaking grass, couch grass, &c.; on dry hillsides, &c.
" Ianira, h. ......... meadow grasses
" Tithonus, h. ......... annual meadow grass, &c.
" Hyperanthus, h. .... annual meadow millet, and other grasses
C. Davus, h. ... Rhyncospora alba
P. Hippothoe, h. .... great water dock
Phleas, h. .... dock, ragwort, sorrel
L. Boetica ....... Colluta arborescens
" agestis, h. Erodium circutarium
" Argiolus ...... ivy, fl. The eggs of this, the second brood, are laid on the fl.-stalks; the young larvae burrow in the unexpanded fl.-buds, feed up in the blossom, and spin up on the underside of a leaf; the butterfly appearing in April, or beginning of May
N. Lucina ......... Primula
T. Tages, h. ...... Lotus corniculatus
H. Paniscus ...... plantain, in rolled-up leaves

SEPTEMBER

H. linea, h. ...... grasses, in rolled-up blades
S. populi ...... poplar, sallow, willow, &c.
" tiliae .......... elm, lime, beech
A. Atropos ...... potato leaves; will also eat "tea tree," jasmine, ash, woody nightshade, snowberry, Lycium barbarum, elder, thorn-apple, spindile, sweet pea, &c.; hides under sods
S. ligustri ......... privet, lilac, ash, holly, mountain ash, laurustinus, guelder rose, evergreen oak, &c.
D. euphorbiae ...... Euphorbia paralias and cyperissias
" galii ........... Galium verum, and G. clatum. (See last month's note.) This species is s. found on the sand-hills at Deal, from the first battery Southwards, as far as the large sand-hills extend, and from the sea Westward, for two or three hundred yards
C. celerio ...... Galium, and vine nerii ...... Galium, and vine
" hyperici ...... Galium, and vine
M. stellatarum ... Galium Mollugo, growing on old walls, exposed to the sun
S. formiceformis, h. in osier stumps
" musceformis in stems of Statice armeria
" bembeciformis, h. in the stems of poplar, and sallow
" apiformis, h. in poplar stems, &c.
Z. æsculi, h. ...... in the wood of ash, elm, pear, horse chestnut, &c.
S. ligniperda ... in the trunks of large trees of ash, willow, elm, &c.; feeding on the wood, seldom higher than 5ft. from the ground. They may be found during this month, or the next, full-fed, under the bark which is an inch or two under the ground. If it is desired to feed them up, care must be taken not to put them into a wooden, or even a brick receptacle, as they will be
LARVÆ] SEPTEMBER

sure to eat, or force their way out. They are best kept in large flower pots, wide-mouthed bottles, or tin boxes, and supplied with fresh-cut, but not wet, chips, and sawdust of their food, or with decayed pieces, and covered with glass, or wire gauze, well secured. Keep a sharp look-out for mildew

H. hectus, h. ... in r. of brake fern
lupilinus, h. ... in r. of dead nettle, &c.

" velleda, h. ... in r. of brake fern
humuli, h. ... in r. of various plants
L. asellus ......... oak, beech, poplar
testudo ............. oak
S. phegea, h. ... doubtless native. On the Continent it feeds from this month to May, on dandelion, scabious, plantain, &c.; pupa under moss, and dried leaves
L. aureola, h. ... lichens, on oak, larch, &c.

" lurideola, h. ... lichens
rubricollis ...... lichens, on larch, &c.
E. cribrum, h. ... heath, bilberry
C. Hera, h. ....... doubtless native. On the Continent it feeds from this month to May, on Echium vulgaris, and various low plants

dominula, h. Cynoglossum officinale, &c., on hilly places
E. russula, h. ... plantain, heath, &c.
C. plantaginis, h. ... violets, plantain, &c.
cia, h. ... nettle, and various plants

" villica, h. ..... chickweed, furze, sloe, and other plants
A. fuliginosa, h. dock, nettle, plantain, &c.
L. chrysorrhea, h. ... hawthorn, sloe, blackberry, &c.
auriflua, h. ..... sloe, hawthorn, oak, sallow, &c.
salicis, h. ..... poplar, willow, &c.
O. pudibunda ... hop, beech, hawthorn, nut, oak, &c.

" fascelina, h. ... on hedges, dwarf sallows, furze fl., heath, broom, and various trees, and plants

O. gonostigma, h. oak, sallow, nut, hawthorn, sloe, bramble, beech, &c.
" antiqua...... various trees, and shrubs
D. coryli ........ beech, nut, birch, alder, oak, willow. Sometimes, in confinement, the larvae feed up, and emerge this month
B. rubi, h. .......... bramble, heath, &c.; generally hibernates full-bred; s. buries in the ground, until the spring

" roboris, h. ... hawthorn, dogwood, bramble, broom, health, ivy, &c.
" quercus, h. ... bilberry, &c.; dogwood preferred
" trifoli, h. ... trefoil, clover, broom, furze, &c.
O. potatoria, h. coarse grasses
L. quercifolia, h. bramble, sloe, sallow, willow, plum, &c.
O. sambucata, h. ivy, elder, holly, bramble, and other trees, and plants
R. cratægata, h. hawthorn, sloe
V. maculata ...... nettle, and other plants
M. margaritata, h. oak, beech, birch, hornbeam, &c.
E. fasciaria, h. ... Scotch fir; rests closely pressed upon a twig
E. dolobaria ... oak, beech, birch, aspen
P. syringaria, h. lilac, privet, honeysuckle, elder
S. illunaria ...... willow, ash, hawthorn, oak, plum, &c.

" illustraria ...... oak, birch, ash, beech, maple
O. bidentata ...... oak, sallow, nut, ivy, ash, sloe, &c.
A. betularia ...... oak, elm, hawthorn, birch, beech, alder, mountain ash
C. lichenaria, h. lichens, on oak, park palings, &c.
B. rhomboidaria, h. ivy, birch, oak, plum, rose, lilac, elder, &c.
**SEPTEMBER**

**LARVÆ**

B. abietaria, h. larch, spruce, Scotch fir; has been found on whortleberry; will also eat birch, and oak
**"** cinctaria ...... heath. In confinement of the impregnated females deposited their eggs, by preference, on sallow catkins
**"** roboraria, h. oak; h. on a twig, which it much resembles
T. crepuscularia larch, willow, popular, elm, birch, alder, &c.
**"** extersaria......birch, beech, oak
G. obscurata, h. thyme, sun cistus, Potentilla reptans, Poteriam sanguisorba, &c. Feeds at night; hides by day under r., stones, &c.
D. obfuscata, h. heath, vetch, &c.
G. papilionaria, h. nut, birch, alder, beech, &c.; about the m. of this month, in the N., the larva fastens itself to a twig, for the winter
I. vernaria, h. ......Clematis vitalba lactearia ......oak, birch
* P. baularia, h. oak
E. porata ...... oak
**"** punctaria ...... oak
**"** trilinearia ...... beech
**"** omicronaria ...... maple; s. beech
H. auroraria, h. plantain
A. luteata ...... maple
**"** Blomeraria ...... wytch elm; in, or near hilly woods; remains, on the under-side of the leaves
E. heparata ...... alder
V. cambricaria ...... mountain ash
A. rubricata, h. ......? will eat knotgrass, Lotus corniculatus, Medicago lupulina, Thalictrum minus, and the smaller Trifoliums
**"** scutulata, h. ...... Anthriscus sylvestris, fl., and dandelion, preferring the withered leaves
**"** bisetata, h. dandelion; will also eat knotgrass, and withered bramble
**"** contiguaria, h. Empetrium nigrum; will also eat hawthorn buds, and knotgrass
A. rusticata, h...... hawthorn; will also eat ivy, lilac, and withered bramble
**"** osseata, h. ...... dandelion, &c.
**"** interjectaria, h. dandelion, scarlet pimpernel, withered
**"** holosericata, h. sun cistus, withered
**"** incanaria ...... dandelion, ground-sel; will also eat knotgrass
**"** ornata, s., h. thyme, marjorum; will also eat mint
**"** promutata, h. yarrow, mugwort, creeping cinquefoil
**"** immutata, h. some marsh plant; common in fens; will also eat knotgrass
**"** strigilata, h. ...... Stachys sylvatica
**"** emutaria, h. ...... Triticum repens; in salt marshes, on the coast; will also eat Medicago lupulina, Lotus corniculatus, Chenopodium, mint, knotgrass
**"** aversata, h. ...... primrose, gooseberry, nut, Geum urbanum, &c.
**"** degeneraria, h. ......? will eat bramble, knotgrass, Cerastium, Veronica. Occurs at Portland
T. amatoria, h. ...... dock, Polygonum, and various plants; may be found on the underside of the leaves, adhering to the veins
C. pusaria. ............. oak, nut, alder, birch, sallow, &c.
**"** rotundaria ...... birch, sallow
C. temerata ...... slce, and wild cherry, and buckthorn?
M. alternata, b. sallow, sloe
**"** notata, b. ...... sallow
**"** liturata...... larch, and Scotch fir
S. belgiaria, h. ...... heath
F. atomaria, h. ...... Centaurea, trefoils, &c.
**"** piniaria ...... Scotch fir, and larch,
**"** conspicuata...... broom
M. euphorbiata... Euphorbia cyparissias
S. dealbata, h. ...... grasses
S. sacaria ...... dock, chamomile, and other Compositæ; will also eat knotgrass
**SEPTEMBER**

A. ononaria ...... rest harrow [&c.  
A. glivaria, h. Achillea millefolium,  
A. ulmata........wyth elm [lars  
L. marginata ...sallow, willow, pop-  
P. hippocastanaria, h. heath  
L. cesiata, h. ... bilberry, whortle-  
berry, heath  
" pectinitaria ...Galium Mollugo, G.  
saxatile; very sluggish  
E. alchemillata...Galeopsis ladanum,  
G. tetrahit, Silene, Lychnis  
unifasciata ...Odontites rubra  
" blandiatu ......eyebright  
E. centaureata ...ragwort, Angelica,  
golden rod, &c.  
" succentureata... Achillea millefo-  
lium, Artemisia, and Valerian  
officinalis, seeds  
" subfulvata...... Achillea millefo-  
lium, and chrysanthemum  
subumbra ...Gentiana, Campan-  
ula, and other fl., in, and near  
beech woods  
" helveticata ...juniper  
" satyrata ......Galium, scabious,  
and other fl., in, and near beech  
woods  
" castigata ......golden rod, heath,  
nettle, Angelica, &c.  
" trisignata .....Angelica sylvestris,  
fl., and seeds  
" virgaurea ...golden rod, fl.  
" albipunctata...fl., and seeds of An-  
gelica sylvestris, Heracleum  
sphondylum, and Lythrum  
salicaria  
" pimpinellata Pimpinellata magna,  
and P. saxifraga (seeds); also  
anglica  
" fraxinata ......ash; will eat fl. of  
laurestinus  
" innotata? ......Artemisia campes-  
tris; at Wallasy  
" constrictata...thyme  
" nanata, h. ...heath, fl.  
" subnotata......Atriplex, & Cheno-  
podium, fl., and seeds  
" companulata ...seed-capsules, of  
Campanula trachelium, and  
other Campanulæ  
E. vulgata, 2. ...hawthorn, willow,  
golden rod, ragwort, &c.  
" expallidata ...golden rod, fl.; will  
also eat Michaelmas daisy, &c.  
" absynthiata ...fl., and seeds of rag-  
wort, Eupatorium cannabina,  
Artemisia vulgaris, Achillea  
millefolium, golden rod, &c.  
" minutata, h. heath, fl., and sca-  
bious; s. a cannibal  
" knautiata......Knautia arvensis,  
fl., and seeds  
" assimilata ...black currant (on  
underside of the leaves), and  
hop (on the leaves, and ? fl.)  
" exiguata .......hawthorn, black  
currant, barberry, ash, alder,  
sallow, &c.  
C. sarsata .......Lysimachia vul-  
garis, fl., and leaves  
L. sexualata .......sallow, willow  
T. juniperata .......juniper  
Y. ruberata .......sallow, alder, bil-  
berry, &c.  
" impluviata ...alder, sallow; in  
curled-up leaves; does not  
change into a pupa until Dec.  
M. albicillata ...bramble, raspberry  
M. tristata ......Galium Mollugo  
" procellata ...Clematis vitalba  
rivata? ......Galium Mollugo  
" sociata .......Galium Mollugo  
" galiata, b. ...Galium sexatile  
" fluctuata, b......cabbage, horse  
radish, nasturtium, &c.  
A. berberata, e. barberry  
C. munitata, h. groundsel  
" propugnata ......primrose? Crucii-  
fere? &c.  
" ferrugata .......Neapeta glechoma,  
Galium, chickweed  
P. tersata .......Clematis vitalba  
lignata, h. ...Galium palustre, &c.  
S. undulata .......sallow, poplars;  
between leaves  
C. corylata .......sloe, lime, nut  
" suffumata, h. Galium Mollugo, and  
rugwort  
" silaceata .......willow herb (Epilo-  
bium), and Circae lutetiana
SEPTEMBER

LARVAE]

P. comitata ......Chenopodium
E. lineolata ......Galium verum, on
the coast; will also eat G.
sextile, and G. Mollugo
C. obliquaria ...broom
P. lacertula .......... birch; between
united leaves
" hamula.........oak, birch
" unguicula......beech
D. bicuspis ......alder, beech, birch
" furcula ...... sallow, willow,
poplar
" bifida .........poplars [nut
S. fagi ............beech, oak, birch,
C. bucephala ...elm, oak, lime,
beech, sallow, nut, &c.
C. curtula .........poplars, sallow
" reclusa ......between united leaves
of sallows, poplars, willows
P. palpina......... willows, sallows,
poplars, birch
N. camelina ...oak, beech, birch,
maple, nut, alder, hawthorn,
aspen, sallow, apple
" cucullina ......maple, sycamore
" dictæa ..........poplars, sallow, wil-
low
" dictæoides ...birch
" dromedarius...birch, alder, nut
" trilophus ......birch, poplars
" ziczac ..........poplars, sallow, wil-
low, alder; more frequently
found than the imago
Dodonea ......oak, birch
T. derasa ..........bramble, hawthorn,
batis ........bramble, raspberry
C. duplaris ........birch; between
united leaves
" fluctuosa ........birch; between
united leaves
" ocularis .........poplars
B. glandulifer, h...lichens on walls;
local. This species, and the
next, build a cocoon of silk and
earth, mortar, or crumbled
stone, like a blister on paint,
in which they live, except
when they come out to feed,
in the night, or early morning,
especially in wet weather

B. perla, h. ......lichens, on walls
D. Orion ..........oak, birch
A. tridens.......hawthorn, sloe, rose,
willow, sallow, mountain ash,
&c.
" psi............. hawthorn, poplar,
pear, elm, lime, &c.
" leporina ......birch, poplar, alder,
sallow
" aceris .......... sycamore, horse
chesnut, maple, birch, s. oak
" strigosa, b...hawthorn; especially
in chalky districts
" alni ........... alder, oak, lime,
elm, beech, birch, sycamore,
poplar, nut, willow, sallow,
hawthorn, bramble, Spanish
chesnut, horse chesnut, rose.
Has been found, at rest, on
palings, &c.
" ligustri.......ash, privet; seems
to prefer shaded trees
" auricoma, s., 2.? ...... bramble,
bilberry, birch, oak
" myricæ....... Myrica gale, heath?
thistle? sallow, birch
S. venosa ......Glyceria aquatica
L. obsoleta ......common reed, in
marshes, and fens; concealed,
by day, in hollow stems
S. ulvæ, h. ......common reed; in
marshes, and fens
X. hepatica, h. grasses, chickweed,
&c.
D. pinastri ......dock, sorrel, &c.
L. exigua ......plantain
C. cytherea, h.....grass; in stony
places
M. brassicæ ......cabbage, dock,
Chenopodium, chrysanthemum,
&c.
" persicaria ...Polygonum persi-
caria, and other low plants;
also elder
A. gemina, h...grasses
" unanimis, h. grasses
C. Morpheus .....Sedum telephium,
sallow, bramble, docks, teasle,
&c.
" alsines, h ...chickweed, &c.
LARVÆ]

C. cubicularis, h. grasses, pulse, grain
R. tenebrosa, h. violets, knotgrass, and other low plants
A. Puta ..........dandelion, lettuce, carrot r., knotgrass, &c.
 " segetum, h. ... in r. of turnips, and other Cruciferae, &c.
 " lunigera ......? will eat knotgrass, &c.
 " exclamationis, h. r. of cabbage, grass, turnips, &c.
 " corticæ, h. ... Chenopodium, &c.
 " cinerea, h. ... r. of low plants
 " ripæ .......... Cynoglossum officinale, on the coast; burrows 7 or 8 in. in the sand
 " Ashworthii, h. fescuegrass, hawkweed, sun cistus, thyme, heath, harebell, &c.
N. augur, h.......low plants, hawthorn, sallow, &c.
 " nigrum, h. ... pea stems, and low plants
 " rhomboidea, h. chickweed, sallow festiva, h. ... violet, sallow, foxglove, &c.
 " Dahlhii, h. ... various low plants
 " umbrosa, h. ... dock
D. carpophaga, s. Lychnis, and Silene inflata, the young seeds capsophila ... Silene maritima, and S. inflata
capsincola ... Lychnis, and Silene, seeds
conspersa...... Lychnis flos cuculi, and Silene inflata, seeds
E. lucipara ......brake fern, & Polygonatum filix-mas; also sallow, nettle, primrose, plantain, dandelion, &c.
A. nebulosa, h. birch, sallow, hawthorn, &c.
tincta, h. ...... birch, grass, and low plants
 " advena, h. ... lettuce, knotgrass, and various plants
H. adusta, h. ... sallow; also low plants, and hawthorn; the larva hibernates full-fed
 " chenopodii ... Chenopodium

SEPTEMBER

H. atriplicis ... Chenopodium, dock, Polygonum persicaria, &c.
 " oleracea ...... elm, nettle, dock, cabbage, &c.
 " pisi ...........brake fern, broom, sallow, birch, mountain ash, scabious, Carex, grass
 " contigua ...... birch, oak, nut, &c.
 " geniste ...... broom, chickweed, Silene, knotgrass, &c.
 " rectilinea, h. sallow, bilberry, Bramble
C. lychnitis ...... seeds of white, and black mullein
 " asteris ...... golden rod, Trifolium vulgare, and China aster
 " absynthii ...... wormwood
 " umbratica ...... Sonchus, lettuce
H. dipsacea ...... Linaria, fl.; also Silene otites, seeds
A. myrtilli, s. h. heath
E. fuscula ...... lavender grass (Mo linenia cerulea). May be found feeding, at night, about half way up the blades of grass
A. urtica ...... nettle
 " triplasia ...... nettle, hop
P. chrysitl, h. ... Lappa, thistle, nettle, dead nettle, &c.
 " gamma ...... nettle, hop, and most low plants
M. typica, h. ... dock, low plants, &c.; gregarious until after h.
 " maura, h.......dock, chickweed, ivy, &c.
P. ænea.......... Polygala vulgaris
H. crassalis ...... heath
S. emortualis ... oak
H. derivalis, h. sallow, and bramble barbalis, h. ... oak; afterwards, birch catkins
tarsipennalis, h. wild raspberry? will eat knotgrass, and sallow grisealis ...... Sisymbrium Sophia, oak, &c.
P. punicalis ...... Nepeta cataria, fl.-heads
R. sanguinalis ... thyme, fl.
E. cingulalis, h. Salvia pratensis, under the leaves
SEPTEMBER

B. lancealis ...Eupatorium canna-binium, Senecio, Sium latifo-lium, &c.
" terrealis, h. ...golden rod, fl., &c.; hibernates nearly, if not quite, full-fed
" urticalis ......nettle
E. sambucalis ...elder, convolvulus; may be found hiding, among the coryms of elder
P. foricalis ...cabbage, horse-radish, &c.
S. palealis.......wild carrot, and Peucedanum; in a web, within a fl.-head, of the umbels
A. farrella ...Anthyllis vulneraria, fl.
H. nimbella .. chamomile
" nebulrella.....heads of thistles; also China aster
" saxicola .....fl.-heads of chamomile
C. bistrigella ...alder, between the leaves
P. interpunctella on grain, figs, dried insects, &c.; in corn, and seed, and grocers' warehouses, &c.
N. angustella ...fruit of spindle
G. canella, b. ...Salsola kali; mines the stems, when young; afterwards, feeds on the unripe seeds
P. adelpheilla ...poplar, willow
" abietella, h. ...young shoots of Scotch fir, and decayed wood, and cones
P. palumbella, h. Polygala
R. formosella ...elm, birch
M. alveariella ...wax in beehives; some hibernate, and others emerge next month
T. viburnana ...Myrica gale, and Vaccinium
" ministrana ...willow, nut, birch, buckthorn
L. scabran..elm
P. Hastiana.....dwarf sallows, and hawthorn
" umbrana ......poplar, sallow, hornbeam (?)

P. tristana........guelder rose
A. Conwayana...fruit of privet, nut? ash?
P. prelongana ...birch
dimidiana ...Myrica, birch, sallow
" marginana ...teazle, and probably seed-heads of Composite
M. Ratzeburgiana? Scotch fir
" consequana ...Euphorbia paralias
C. musculana ...hawthorn, &c.
P. myrtellana ...Vaccinium
" lundana .....trefoils, and vetches
derasanada ..Rhamnus frangula
" Mitterpacheriana elm, oak
" upupana (?)...oak, birch
G. nigromaculana ragwort
" campoliliana in sallow leaves
gemina...Vaccinium; s. apple
P. tetraquetra in leaves of birch
" crenana?......sallows, willows
P. oppressana? poplar
E. cirsianna, h. ...in thistle, and knapweed stems; in woods
" Pfulgiana, h. in thistle, and knapweed stems; in open places
" nigricostana, h. Stachys, r.
" trigeminana ...ragwort
S. ianthinana ...hawthorn berries
" rufillana......umbels of wild carrot
C. vacciniana ...Vaccinium, and Berberis
P. mercuriana? Dryas octopetala
C. splendana ...in acorns; to be collected as soon as possible, and kept cool; also walnuts
grossana ......in beech nuts
O. funebrana ...in plums
E. pisana.......in pea pods, and vetches
S. Weirana ......beech
" redimitana ...oak
" germarana ...in plums
" rosseticolana...hips of roses
" orobana ......in pods of Vicia cracca, V. sylvatica, Orobus tuberosus, and Genista tinctoria
D. plumbana ...pods of vetches? &c.
" plumbagana Achillea millefolium
**LARVAE**

**SEPTEMBER**

P. Rheediana ...... wild plum, and apple

C. Juliana? ...... acorns
" microgrammana? Ononis?
" fulvana ...... heads of Centaurea scabiosa
" Hohenwarthiana knapweed, and thistle
" scopoliana ...... Centaurea, heads
" citrana ...... Artemisia campestris

E. dubitana ...... Hieracium, fl., and other Compositae
" atricapitana ...... stems of ragwort
" maculosana? raspberries?
" hybridellana ...... thistle, and ragwort, seeds
" notulana? ...... mint, stems

C. tesserana, h. ...... in r. of Picris hieracioides

A. badiana ...... in stems, and r. of burdock
" maritimana ...... in stems, and r. of Eryngium maritimum

C. dilucida ...... in stems of parsnip
" stramineana ...... Centaurea, heads
" alternana ...... Centaurea scabiosa, heads
" inopiana ...... in r. of Artemisia campestris

T. hyemana ...... hawthorn

L. salicella ...... dog rose; between united leaves

D. fagella ...... ...... on most trees; between united leaves

E. Steinkellneriella hawthorn, mountain ash, sloe, &c.; between turned-down leaves

T. misella ...... ...... in dried stems of beans, and unthrashed wheat
" bistrigella ...... birch

L. praelatella, h. ...... in a flat case, on underside of wild strawberry

I. muscalella, h. ...... rose, &c.

A. fibulella ...... in a flat case, on leaves of Veronica chamaedrys
" rufimitrilla ...... Cardamine pratense

N. scabiosellus, h. ...... various low plants
" cupriacella, h. ...... various low plants

S. comptella ...... sloe, and plum

S. caesiella ...... hawthorn, and apple
" griseocapitella ...... birch
" lutarella ...... hawthorn
" pyrella ...... hawthorn, apple, pear, &c.

Y. vigintipunctella Sedum telephium
A. decemguttella Lithospermum
P. xylostella ...... turnip, &c.

E. lobella ...... ...... under turned-down sloe leaves

D. depressella ...... seed-heads of wild carrot

G. malvella ...... hollyhock, seeds
" ericetella, h. ..... Erica cinerea, E. tetralix, and Calluna erica
" acuminetella ...... in thistle leaves
" aleella ...... moss
" tenebrella, h. ...... in r., and lower stem of Rumex acetosella
" lathyrella ...... ?

notatella ...... sallow
" atripicella Atriplex, and Chenopodium, seed heads
" triparella ...... oak, between united leaves
" nigricostella ...... lucerne, between united leaves
" intaminatella Lotus corniculatus

P. lappella ...... knapweed, and burdock, seeds

M. fasciella ...... sloe
" ustulella, h. ...... nut, birch, lime, maple, hornbeam, &c.

CE. flavimaculella Angelica, seeds
" stipella ...... ...... under bark of dead fir trees
" flavifrontella, h. ...... in a case, on beech

B. torquatella ...... birch, elm
" incongruella ...... Erica, and Calluna

T. stanneella ...... oak
" resplendella ...... alder

G. alcimiella ...... oak
" Kollariella ...... mining leaves of broom
" stigmatella ...... sallow, willow, poplar

syringella ...... privet, lilac, ash
" omissella ...... Artemisia vulgaris

phasianipennella ...... Polygonum hydropiper, and sorrel
LARVAE]

SEPTEMBER

G. auroguttella... willow herb, and Hypericum
   imperialellya... Symphytum officinale
O. avellanella... nut
   anglicella... hawthorn, sloe
   betulevorella... birch
   scutulatella?... birch
   torquilella... sloe
   Scoticella... mountain ash
   Logannella... birch
   guttella....... apple, in turned-down leaves
G. atriplicivorella, h. Atriplex
C. paripennella in a case, flat, on leaf of birch, rose, sloe, bramble, &c.
   saturatella, h. broom
   inflatella... Silene inflata, seeds
   therinella... thistles
   caespiticia, h. rushes, seeds
   annulatella... seeds of Atriplex, — and Chenopodium
   argentulella... seeds of yarrow
   virgaureella... seeds of golden rod
   laricella, h....larch
   fusocuprellica, h. nut
   gryphipennella, h. rose
   viminetella, h. sallow, and osier
   artemisicolella, h. fl. of Artemisia
   vulgaris, and A. campestris
   melilotella... seeds of melilot
   Wilkinsonella... birch
B. somnulentella Convolvulus
S. pedella... in fruit of alder
C. Druriella.... hop
   orichalcella... in leaves of Festuca arundinacea
   Lienigiella......... in leaves of Phragmites communis
C. cherophyllella, b. most Umbelliferae
daucella?... wild carrot
L. atra......... hawthorn berries, and shoots of apple
C. flavicapitella, h. in twigs of hawthorn, in which it bores
A. profugella... gentian, seed
   terminetella... Circeae lutetiana
A. Treitschkiella dogwood
F. cinereopunctella, h. Carex glauca
E. teniatella, h...... Brachypodium sylvaticum
   Megerlella...... Brachypodium, Bromus, Aira, &c.
T. complanella... oak
   angusticolella rose
L. hortella...... oak
   lantanella, h. Viburnum lantana; best collected in Nov.
   quinqueguttella... dwarf sallows
   irradiella...... oak
   Bremiella...... vetches
   lautella......... oak
   cavella........... birch
   pomificoliella... apple, hawthorn
coryllella...... nut, birch
   spinicolella... sloe
   faginella..... beech
   termimella... Sorbus torminalis
   salicolella...... sallow
   viminetella... osier
   carpincolicella... hornbeam
   ulmifoliella... birch
   spinolella...... willow
   quercifoliella... oak, willow
   corylefoliella... hawthorn
   Caledoniella... hawthorn, birch
   viminiella... osier, sallow
   ulicolella..... furze
   alnifoliella... alder
   Heegeriella... oak
   Crameriella... oak
   tenella......... hornbeam
   acerifoliella... maple
   emberizaeppennella... honeysuckle
   Frolichiella... alder
   Nicelliella... alder
   Stettinella... alder
   Klemannella... alder
   Schreberella... elm
   tristrigella... elm
   trifasiciella... honeysuckle
   comparella... poplar
L. Clerckella... sloe, apple, cherry, hawthorn, &c.
P. salignella... willows
C. laburnella... laburnum
   scitella... hawthorn, apple, &c.
   Wailesella... Genista tinctoria
B. cidariella... alder
**LARVAE**

<table>
<thead>
<tr>
<th>B. ulmella...oak</th>
<th>N. arcuosella...strawberry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demaryella...birch</strong></td>
<td><strong>gratiosella...hawthorn</strong></td>
</tr>
<tr>
<td><strong>frangulella...buckthorn</strong></td>
<td><strong>marginocolella...elm</strong></td>
</tr>
<tr>
<td><strong>cristatella...yarrow</strong></td>
<td><strong>alnetella...alder</strong></td>
</tr>
<tr>
<td>N. intimella...sallows</td>
<td><strong>glutinosella...alder</strong></td>
</tr>
<tr>
<td><strong>subbimaculella...oak</strong></td>
<td><strong>continuella...birch</strong></td>
</tr>
<tr>
<td><strong>trimaculella...poplar</strong></td>
<td><strong>splendidissimella...bramble, and</strong></td>
</tr>
<tr>
<td><strong>floslactella...nut, hornbeam</strong></td>
<td><strong>dewberry; rarer in wild rasp-</strong></td>
</tr>
<tr>
<td><strong>salicivorella...sallows</strong></td>
<td><strong>berry</strong></td>
</tr>
<tr>
<td><strong>myrtillella...bilberry</strong></td>
<td><strong>luteella......birch</strong></td>
</tr>
<tr>
<td><strong>microtheriella...nut, hornbeam</strong></td>
<td><strong>regiella.......hawthorn</strong></td>
</tr>
<tr>
<td><strong>betulicolella...birch</strong></td>
<td><strong>tilæxella........lime</strong></td>
</tr>
<tr>
<td><strong>argentipella...birch</strong></td>
<td><strong>P. zophodactylus...Erythæa centau-</strong></td>
</tr>
<tr>
<td><strong>acetosella...sorrel</strong></td>
<td><strong>rium</strong></td>
</tr>
<tr>
<td><strong>plagiocolella...sloe</strong></td>
<td><strong>pterodactylus...convolvulus</strong></td>
</tr>
<tr>
<td><strong>prunetella...sloe</strong></td>
<td><strong>tephradactylus, h. golden rod, in</strong></td>
</tr>
<tr>
<td><strong>tityrella...beech</strong></td>
<td><strong>shady places</strong></td>
</tr>
<tr>
<td><strong>malella........wild apple</strong></td>
<td><strong>serotinus.......Galium Mollugo</strong></td>
</tr>
<tr>
<td><strong>angulifasciella...rose</strong></td>
<td><strong>ostodactylus, h. golden rod</strong></td>
</tr>
<tr>
<td><strong>atricoleil...apple, hawthorn</strong></td>
<td><strong>microdactylus...Eupatorium cannabi-</strong></td>
</tr>
<tr>
<td><strong>The Lepidopterist's Calendar</strong></td>
<td><strong>num</strong></td>
</tr>
</tbody>
</table>

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**PUPÆ**

All who are bent upon doing "the right thing," as regards pupae, should not fail to study the Rev. Joseph Greene's "Insect-Hunter's Companion." To that gentleman we are indebted for, many years ago, raising the operation of obtaining subterranean pupæ to the dignity of an art. This is the month recommended for a commencement, in earnest, of this work, as a large number of summer, and autumn species have pupated, and other collecting work is on the wane; while it is desirable to get early possession of pupæ before mice, birds, flooding, &c., exercise their destructive influence. The pupæ-hunter is rewarded with specimens in the finest condition, and often with interesting varieties. Most subterranean pupæ are to be found at from 1 in. to 3 in. in depth, close to, or not far from, their food-plants; some species, however, in a light soil go much deeper, particularly A. Atropos, P. Cassinea, T. populeti, C. vetusta, and C. exoleta. Sandy, or gravelly soils are the most favourable for those species which "go to earth;" and they are seldom found in sticky, or clayey soils, or if so, not far from the surface, if not amongst the first superficial layer of rubbish. The roots of grass, &c., afford a favourite hiding-place to many. Those species which spin up, do so either on, or near, or just beneath their food-plants; or among grass, moss, or rubbish; or on palings, walls, &c., contiguous. So that, as in the case of subterranean pupæ, an abundance of the food-plant peculiar to a species, may sometimes guide us to a successful search.

When pupæ are obtained, they should be preserved in as natural conditions as possible, and should not be exposed to sunshine, or kept in the dry air of a living room. An outhouse, or cellar is to be preferred; but they must be protected from spiders, mice, beetles, &c., and should be kept in sufficiently
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open cages to allow of the free expansion of wings, and of ready examination of the imago on emergence. Too much damp must be guarded against, or mould will exercise a fatal effect. Although emergence may be looked for, often with surprising certainty, at the exact time the imago is due, a warm season will hasten, and a cold one will retard, the period; and some species will remain in pupa for many years, a portion, only, of the same brood, appearing in successive years. Mr. Doubleday suggests that this may often cause the non-appearance of a species, for several years. Among those which, sometimes, remain more than one year in pupa, besides those mentioned in the lists are S. carpini, B. rubi, B. callunaæ, B. roboris, N. camelina, N. cucullina, N. dictæa, N. dromedarius, N. ziczac, N. Chaonia, N. Dódönea, E. unifasciata.

P. Machaon ......on stems of Peucedanum palustré; in fens
P. brassicæ ... to April, on palings, " napi .......... to April, on palings, "
V. c-album, b....among nettle, and on walls, &c.
N. Lucina..... attached to leaf-stalk of Primula
S. populi ..........to April, sub., at r. of poplar, willow, &c.
M. fuciformus ...to April, in a loose web, among Lychnis, Scabiosa, &c., on the surface
A. mendica ...... to May, under moss, on trees, and on the ground
" lubricepda...to May, spun up, on trees, palings, &c.
" menthrasti ...to May, spun up, on trees, palings, &c.
O. pudibunda ... to April, in dead leaves, under moss, &c.
" antiqua ......from July, in a web, on palings, &c.
P. populi ...... spun up, against oak, poplar, &c.; near, or just beneath, the ground
E. lanestris ........ cocoons on the ground, near hawthorn, &c.; s. more than one year in pupa
E. versicolora ...... spun up, among fallen leaves, at birch; s. more than one year in pupa
S. illunaria ......to March, sub., at willow, oak, &c.
" lunaria ...... at sloe, oak, nut, &c.
O. bidentata ...to April, under moss, on various trees
H. pennaria......sub., at oak
P. pilosaria ......to Dec., sub., at oak, and elm
N. zonaria ......sub., on sand-hills
B. hirtaria ......to Mar., sub., at elm, lime, ash, and fruit trees
A. prodromaria sub., at oak, elm, &c.; just beneath the surface
H. abruptaria ...to April, spun up, on twigs, or between the forks, or beneath the branches, of lilac, rose, or privet
N. viridata ......to April, between united leaves of hawthorn, or bramble
E. porata ......to May; fastened to leaf of oak
" punctaria......fastened to leaf of oak, or birch
" trilinearia ...to April; fastened to leaf of beech, the margin of the leaf often curling over, and concealing the pupa
" pendularia .. fastened to leaf of birch
C. temerata ......to April, in slight cocoon among sloe, and wild cherry, and probably buckthorn
N. pulveraria ...to April, in withered sallow leaves, &c.
F. carbonaria ...to April, among dead leaves of sallow and birch, on the ground
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L. adustata ......to April, in a slight cocoon, just beneath the surface; among spindle

H. rupicapraaria in a web, on the ground; among oak, sloe, &c.
 " leucopheria on the ground; near oak
 " aurantiaria ...sub., at hawthorn, birch, oak, &c.
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defoliaria ......sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.

C. brumata ......sub., at oak, &c.
L. multistrigaria sub., about Galium
E. decolorata ......about Lycnisdioica
E. venosata ......about Silene, and Lychnis
 " consignata ...to April, probably under moss, and loose bark, in apple orchards
 " linariata ...to April, among yellow toadflax
 " pulchellata ...to April, among the seeds, and dead fl. of foxglove
 " isogrammata to May, about Clematis vitalba
 " fraxinata ......to April, on ash; under moss, and loose bark
 " nanata ........to May, about heath
 " vulgata ........sub., about various plants, and trees
 " expallidata ......to June, about golden rod; s. more than one year in pupa
 " minutata ......to May, about heath
 " assimilata ...to April, in crevices; about currant, and hop
 " exiguata ...about oak, &c.
 " dioneata ......about oak; s. more than one year in pupa

L. viretata ......to April, in spun-up leaves of privet
M. ocellata .........among Galium; spun up, near the ground
M. subtristata ...to April, sub., near Galium
 " galiata ......to May, sub., near Galium

A. badiata ......in earthen cocoon, on the ground, beneath dog rose bushes
 " derivata ......sub., at dog rose
C. fluviiata ......spun up, in moss, &c.
C. psittacata.........spun up, among rubbish at r. of oak, lime, apple, rose
 " miata .........at r. of oak, alder, birch, poplar, willow; on the surface, among grass, &c.
 " picata ........to May, in a slight cocoon, on the surface, among, or near chickweed
 " sagittata ......to June, spun up, about Thalictrum, or on the ground, near; in fens
C. obliquaria ...among broom
D. furcula ........to May, spun up, on trunk of willow, or sallow
 " bifida ........to April, spun up, on trunk of poplars
 " vinula ........spun up, on trunk of willows, poplars, and sallow; 3 ft. or 4 ft. from the ground
P. Cassinea ......sub., at oak, deep
C. curtula ........to Mar., spun up, between dead leaves of poplars, and sallow
N. carmelita ......sub., at birch
 " trepida ........to April, sub., at oak; cocoon tough, but not always coated with earth; s. more than one year in pupa
 " Chaonia ...... to April, sub., at oak
C. or .............at birch, among dead, or united leaves
 " ocularis.......at poplars; near the surface of the ground, or spun against the tree
 " flavicornis ...to Feb., between united birch leaves
A. megacephala to April, under loose bark of poplar
 " alni ...... ......between leaves of various trees; or inside bramble sticks
N. typhae, b. ....in stems of Typha latifolia
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G. flavago....inside thistle, and burdock stems, about 3 in. from the ground
T. piniperda....at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles; rarely within 2 ft. of the tree; 1½ in. to 2 in. deep
T. gothica ......at various trees; just beneath the surface
" leucographa \{ at r. of low plants;
" rubricosa ... \} below the surface
" instabilis ... \} at r. of various trees;
" stabilis ...... \} just below the surface
" opima ........ at r. of Rosa spinosissima, and dwarf sallow; below the sand, on sand-hills, in the N.
" populetii ......sub., at poplars, especially Populus nigra; deep
" gracilis ......sub., at willows, sallows, and low plants
" miniosa ......among fallen leaves, &c.
" munda ......under moss, at base of oaks
" cruda ......sub., at oak
O. macilenta ...sub., in an oval cocoon, at beech, and birch
H. serena .......to May, sub., near Sonchus, and lettuce

A. Apriliina, b...sub., at oak
H. glauca ... ...to May, sub., near sallow, and birch
" oleracea ......to April, sub., near elm, nettle, dock, &c.; also in kitchen gardens
" thalassina... ...to May, sub., near honeysuckle, sallow, broom, &c.
C. verbasci ......to April, in a large tough, earthen cocoon, below the surface; near mullein, and figwort
" lychnitis ........to April, in an earthen cocoon, near white, and black mullein; s. 2 yrs. in pupa
" asteris ......to April, near goldenrod, &c.; s. 2 yrs. in pupa
" gnaphalii ......to April, near goldenrod
" absynthii ......to April, near wormwood
" chamomillae near chamomile, &c.
" umbratica ...to May, sub., near Sonchus, &c.
H. marginata ...sub., near Ononis procurrens
A. myrtilli .....spun up, in heath
B. argentula .......to May, among grass, on the ground
B. parthenias ...to Mar., at birch, in crevices of bark, or on the ground
P. pterodactylus on Convolvulus

IMAGOS]

Although the freshly-emerged species this month, are not numerous, many of them are very local, or rare. L. Boetica, which has occasionally been taken recently, may possibly be found more frequently if diligently sought for, as it may have been overlooked among the common L. Alexis. S. convolvuli, D. lineata, and C. celerio occasionally come to flowers, and have been taken at rest in strange places, and on strange substances. The beautiful D. pulchella should be sought for in the day time in stubble-fields. S. sacaria is also a day-flyer, but frequents no special locality. The grand blue underwing, C. fraxini, has been found at rest. Some of the hibernating species, which may be found this month, are also rare. The bait of sugar should be continued to be employed this month, until the ivy blossoms come out. On hills, and in sunny spots, these blossoms expand much earlier than in colder, and damper situations.
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The Collector may be reminded that the character of the locality he is working, and the nature of the species he is seeking, must largely determine his method of search and capture, not forgetting the fact that however far Moths may fly, they generally return, for rest, to, or near, what were their food-plants when larvae. All kinds of places form a harbour for insects. The beating-stick should be energetically applied to heaps of dry rubbish, masses of grass, reeds, weeds, &c., tangled under-growth, haystacks, and thatch (the latter harbours many Depressaritc, &c.); while "scarecrows," tree-trunks (especially those exuding sap), leaves, flowers, blackberries, fallen fruit, palings, posts, fences, walls, heaps of stone or sticks, logs of wood, outhouses, eaves, &c., all furnish lodgment-space, and a means of concealment, to various species, and should be vigilently scanned. Indeed, vigilence is especially required, for many species closely resemble the substances on which they are in the habit of resting.

"Second appearances" are this month becoming more common than before. Among the Sphinges and Bombyces, especially, it is not unusual to find two series of transformations in the twelve-months; but by a wise provision of nature, the development of a portion of the brood is sometimes retarded. With some of the Geometrince three broods are regularly obtained in confinement; while some of the Bombyces, Psychidce, and Coleophorac, require twenty-four months, and even more, to enable them to complete their round of metamorphoses. And sometimes even the date of their advent in the winged state is further delayed by their remaining in the chrysalis state for two, or three, and sometimes as many as four, or five seasons.

G. rhamni, h. ...woods, &c.
C. Edusa, h......clover fields, railway banks, &c.
Hyal, h.......in clover fields, &c.
A. Latona ......fields, woods, &c.
V. c-album, 2, h. at blackberries, and fl.; may be found hanging to underside of leaves, in dull weather

"urtice, h. . .
" polychloros, h. about elms
" Antiopa, h. . .attracted by ivy fl., and cossus-infected trees
" Io, h. .........at fl.
" Atalanta, h., at fl., and fallen fruit, in orchards
" cardui, h. .......at fl.
C. Pamphilus ...
P. Phleas .........at fl.; at rest, on sorrel, &c., at night
L. Boetica .......
" Alexis ...........at fl.; may be found on cold, windy days, and at night, at rest, on grass stems, &c., in hollows, on hills

A. Atropo ......at rest, on palings, &c.
S. convolvuli ...at fl., at dusk
D. euphorbie, m. on the coast
" lineata ..........at fl., at dusk
C. celerio ........at fl., at dusk
M. stellatarum, 2, h. at fl.; flies by day, and in the evening, and s. at moonlight
D. pulchella .......in stubble fields; a day flyer
C. plantaginis, s., 2
O. antiqua ........
D. coryli, s. ..... 
T. crataegi .......comes to l.
R. crataegata, 2, hedges, &c.
E. alniaria .......
" tiliaria .........comes to l.
" fuscantaria .....comes to l.
" erosaria .......
" angularia ......on trees; comes to l.
H. pennaria ......
N. zonaria ......
P. baiularia, s....a second brood s. appears in confinement.
IMAGOS]

A. promutata, 2.

S. Sacaria flies by day; has been taken at fl., at sugar, and l.

O. dilutata

T. variata, h.

M. galiata, 2.

P. polygrammata damp meadows; very local

C. psittacata, h. comes to l.

" picata, 2. s. in confinement

" immanata...

E. cervinaria...

A. plagiata, 2...

C. spartiata...

P. facertula, s., 2. beaten, from birch

P. bucephala...at rest

D. ceruleocephala at light

T. batis, 2. ....

C. diluta.......

B. algæ ........

A. psi., s. .......

L. vitellina.....

" albipuncta...at fl.

" extranea...on scabious fl.

" l-album.....

N. fulva........s. abundant in one corner of a meadow

" typhæ...in marshes

" lutosa...in marshes

G. flavago, s. ...

H. nictitans....at ragwort, and thistle fl.

" petasitis...among butter burr

" micacea...comes to l.

A. Australis...among grass; comes to l.

H. popularis, b. comes to l.

" hispida

C. graminis, b. on commons; s. at ragwort, and thistle, fl.

L. testacea...comes to l.

" cespitis...hides in grass, by day; comes to l.

M. literosa.....

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C. Haworthii ...

C. cubicularis...hides in thatch

A. Puta, h. ....

" suffusa, h. ...

" saucia, h. ...at ivy; comes to l.

" agathina...beaten, from heath, in the day time; flies over the fl., and rests on them, at night

" precox......on sand-hills, by the coast

N. glareosa.....on heaths

" c-nigrum.....comes to l.

" Dahlii........

" neglecta.....on heaths

O. lota........at fl., at night

" macilenta......at ivy, and yew berries

A. rufina.......at ivy

" pistacina....at ivy

" lunosa........comes to l, and ivy

" litura.....at ivy

C. vaccinii, h. ...at ivy

" spadicea, h. at ivy

" erythrolecephala, h.

S. satellitia, h....at ivy

D. rubiginea, h. at ivy, and yew berries

H. croceago, h. at fl.

X. citrago.......at l., and ivy; this, and the two following, may be found on the leaves, and twigs of lime trees, at night

" cerago........

" silago ........

" aurago.......at ivy

" gilvago.......at fl.

" ferruginea.....at fl.

C. xerampelina...at l., and at rest, on ash trunks

T. retusa........comes to l.

E. fulvago, b. ...at heath fl.

E. ochroleuca, b. at fl.; rests on knapweed, and thistles, &c.

P. chi.............on tree trunks

" xanthomista...

" flavocincta...at ivy; rests on walls, &c.

D. templi, e., h. usually found by turning over stone-heaps, in elevated districts; comes to l.
IMAGOS]

E. lutulenta, b...at heath fl.
" nigra...........at ivy
" lichenea......on the coast
M. oxyacanthæ...at fl.
A. Aprilina .......
P. meticulosa, 2. at ivy
" empyrea .....at ivy
A. occulta .......at rest, early in the
morning; unquiet when boxed
H. protea.......on tree trunks
" peregrina .......
C. solidaginis ...at rest
C. v tersebut, h...at ivy
" exoleta, h...at ivy
X. lambda, e ...[trunks
" furcifera, h...at ivy, and on tree
" rhizolitha, h...at ivy, and on tree
trunks
" semibrunnnea, h...at ivy
" petricicata, h...at ivy
H. marginata ...
" peltigera ......may be started from
" armigera ......at ivy
A. lu t u o s a ....flies in the sunshine,
over fl., in clover fields, &c.
P. gamma .........
G. libatrix, h...in cellars, and on
palings, trees, &c.
A. pyramidea ....
" tragopogonis hides in windows
S. anomală ......at heath fl., and
flying along hedgerows, at night;
remains fine but a very few
days after emergence
C. fraxini .........at rest on walls, &c.
" nupta .........at rest, on walls,
tree-trunks, &c.; soon alarmed
when approached; comes to l.
H. rostralis, h...in gardens, &c.
H. tarsipennalis, 2. woods
P. fimbrialis......comes to l.
" farinalis 2? ....at rest in, and near
stables, corn stores, &c.
" glaucinalis ..beaten from thatch;
also at l.
B. asinalis, 2. ...comes to l.
E. catalaunalis....at fl.
S. ferrugalis .....at fl., and sugar;
flies at dusk, and can be beaten
from hedges
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S. decrepitalis, 2?
S. hybridalis, 2. among grass, and
clover
S. murana ....... among heath
" coarctalis, h....on mossy walls
E. ocellea, b., h...comes to l.
C. tristellus .....T. Pryorella....
E. ficella .......in corn, and seed
warehouses, among oilcake, &c.
N. angustella, 2
M. cephalonica
N. genistella, h. Ulex europaeus
G. cerella .........
S. Revayana, h. woods
L. literana ......on oak trunks
" scabrana ......among elm
P. sponsana ......woods
" variegata ...hedges
" cristana ......among sallows, and
hawthorn
" Hastiana ......among sallows
" maccana .......
" umbrana ......
" ferrugana ......woods
" tristana ......
" lipsiana ......
" comariana ...boggy heaths, & fens
G. noevana ......among holly
P. crenana, h...on most Northern
heaths
P. opthalmica among aspens
" occultana ......among young firs
" Solandriana...
" sordidana ......among alder, in fens,
and marshes
E. bimaculana ...woods
R. pinicolana ...among Scotch fir
D. acuminatana
C. ulicetana ......among furze
X. Fabriciana ....
" pariana .......
E. anthemidana, 3. chalk districts
L. phryganella...
T. pellionella ...common, in houses
" fuscipunctella
" pallescentella in warehouses, and
poulterer's shops
V. evonymella ...among Prunus padus
H. radiatella, h.
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Y. sylvella ...... 
" asperella .......... among apple
H. scabrella ....... among crab apple; rests on tansy fl. at dusk
P. caudella, h. among Eunonymus europaeus
D. pallorella, h. among bushwood
" umbellella .......... among furze
" arenella, h. 
" propinquella, h.
" subpropinquella, h.
" alstræmeriella, h. among Conium
" ciniflonella, h. Rannoch
" vaccinella, h. Lytham
" capreolella, h.
" hypericella ...... among Hypericum
" conterminella, h. among sallows
" angelicella .......... among Angelica sylvestris
" ocellella .......... among sallow
" Yeatesiella ...... in fens, &c.
" applicelulla, h.
" ciliella, h. .......... [vulgaris
" granulosella ... among Anthriscus
" rotundella .......... Howth, Lancashire,
Folkestone, &c.
" albipunctella, h.
" chaerophyllivorella, h.
" nervosella ...... 
" badiella ...... 
" discipunctella 
" heracliella, h.
" olerella.......... near Hazlemere, beaten from thatch
G. hippophaeella
" cuneatella .......... [slack
" Lyelliella ...... Castle Eden, Witherslack, Lake District, &c.
" celerella ...... on coast sand-hills
" costella.......... among Solanum dulcamara
" vicinella ...... Belfast, Brighton
" junctella ...... Witherslack, Lake District, &c.
" Hubnerella .......... Carlisle, nr. Wakefield, Manchester, &c.
" paupella ...... near Lewisham, Folkestone, Lewes
C. conscriptella .. Witherslack
B. chenopodiella
A. betulella ....... Castle Eden, and High Force; beaten out
R. Erxlebenella, b. ...... among lime underwood
A. semitestacella, b. among beech
" spiniella, b. ...... among mountain ash, on moors
Z. fasciapennella the Pentlands
G. stigmatella ...... among willow, &c.
" stramineella ...... Castle Eden, Lake District, and Stirlingshire
" hemidactyella 
" falconipennella near London
" semifasciella
" populetella, h.
" elongella ...... among alder, and yew
" phasianipennella, h.
" onioniella ...... Cambs, Mickleham
C. Brogniartella ...... Yorks, Lake District, Cambs
" cuculipennella, h. among privet
citrinella, b.
B. somnulentella
L. epilobiella, h. among Epilobium hirsutum
decorella, h. among Epilobium
" subbistrigella, h. ...... Witherslack, Worthing, Devon
L. trifasciella ...... among honeysuckle
L. Clerckella, h. among sloe, and fruit trees
" padifoliella ....
P. suffusella, h. among sallow
" salignella, h. among willows, near London
B. ulmella.......... among oak
P. acanthodactylus on heaths
" punctidactylus ...... Lake District, Birkenhead, Bristol, Farnham
" pterodactylus, h. ...... among Convolvulus
" monodactylus among Convolvulus
A. polydactyla, h. ...... among honeysuckle, and in windows
OCTOBER

OVA]

V. polychloros, s. on elm; s. sallow, and poplar; in regular batches, globular, glassy, brownish
T. quercus ......on oak twigs
w-album ......on wych elm, also elm; on the twigs
pruni ......on sloe twigs
betulæ ......on sloe [sorrel
P. phleas ......on dock, ragwort,
L. Ægon ......on Ornithopus perpusillus; white
L. Argiolus ......on ivy, fl.; white
H. comma ......on trefoil, and other Leguminosæ
L. dispar ......on sloe, hawthorn, fruit trees; on the trunks, in a heap, covered with down
monachæ ......on oak, beech, fir, birch, apple, &c.
T. cratægi ......to March, on hawthorn; also s. sloe, sallow, birch, oak
B. neustria ......on hawthorn, sloe, fruit trees; in batches, round twigs, and branches
castreænsis ......on Artemisia maritima, Daucus maritimus, &c.
E. vespertaria ......on nut [sallow
apiciaria ......on poplar, willow,
C. elinguaria ......on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.
H. pennaria ......to April, on oak
F. pinetaria ......on bilberry
E. subciilata ......on maple; at foot-stalk of leaf
M. rubiginata ......on alder; large
S. vetulata ......on buckthorn
C. immanata ......probably on alder, and other trees, and strawberry, bilberry, &c.; large
prunata ......on currant, gooseberry, sloe; on the bark, large
testata ......on heath, birch, sallow, poplar, &c.; singly, large
C. populata ......on bilberry, whortleberry, poplar; globular, large, yellow
fulvata ......on dog rose; rose-pink, large
pyraliata ......on Galium, and hawthorn; large
dotata ......on black, and red currant; large
C. spartiata ......to April, on broom
T. chærophyllata on Anthriscus sylvestris, and Bunium flexuosum
D. caeruleocephala on hawthorn, sloe; ragged
A. Australis ......on succory, Poa annua, &c.
C. xerampelina ......on ash, probably in the chinks of the twigs, and the buds
T. subtusa ......upon twigs of poplar
retusa ......on sallow, willow, poplar; upon the axils of the leaves
O. lota ......on willow, and sallow; upon the axils of the leaves; hatch in the spring
A. pistacina ......on buttercup, &c.
lunosa ......on grasses
P. chi ......on dock, hawthorn, sallow, and probably lettuce, sowthistle, tea tree, &c.
flavocincta to Mar., on dock, chickweed, groundsel, mint, &c.; in gardens, on everlasting pea, plum, &c.
E. lutulenta ......on Lithospermum arvense, and probably other low plants
lichenea ......on ragwort, and probably other plants; on the coast
P. empyprea ......on pilewort; on the leaf-stalks
H. proboscidalis on nettle; rather large, pale yellow
LARVÆ]

OCTOBER

Many of the larvæ met with this month hibernate. The others will be found nearly full-fed, and may be expected to change this month, or the next.

The eggs of C. xerampelina often hatch this month. The young larvæ feed only by night, on ash, though they will eat hawthorn, and guelder rose. Sometimes they attain a fair size before they hibernate; but at others they remain quite small; and occasionally even the larvæ do not hatch until November or December. Then it is, when the buds of the ash being small, and hard, the hawthorn, or guelder rose may be found useful as a substitute.

L. sinapis ......... Vicia cracca, and Orbipus tuberosus
P. cratægi, h. ...hawthorn, sloe, and orchard trees
A. Paphia, h. ...dog violet, and sweet violet
" Aglaia, h. ...dog violet, and sweet violet, and wild heartsease
" Niobe, h. ...dog violet, and sweet violet
" adippe, h. ...dog violet, and sweet violet
" Latona, h. ...dog violet, and sweet violet, and wild heartsease
" Euphrosyne, h. } in a web at r. of Selene, h. ...... } violets, &c.
M. Artemis, h. ...Scabious, plantain ; in batches, under a web under leaves; also eats woodbine, &c.
Cinxia, h. ... Plantago lanceolata
" Athalia, h. ...narrow-leaved plantain, foxglove, wild germander
L. sibylla, h. ...honeysuckle; under a leaf, suspended by silk, from a twig
A. Iris, h. .......... sallow, poplar
A. Galatea, h. ...timothy grass, &c.
E. Epiphron, h. probably on Nardus stricta, and small rushes; in mountain bogs
T. rubi ............ bramble, buds, and fl.; also probably broom, and Genista
P. Phlceas, h. ...dock, ragwort, sorrel
L. Adonis, h. ...Hippocrepis comosa, &c. [&c.
Corydon, h. ...Hippocrepis comosa,
A. Atropos ...... potato leaves, &c.
(See last month)
D. galii ............ Galium, fuschia, &c. (See last month)

S. tipuliformis, h. in the wood of currant bushes
C. ligniperda ... in the wood of various trees. (See last month)
C. miniata, h. ...... lichen, on oak (Lichen caninus); also withered sallow, oak, alder
L. mesomella, h. lichens; will also eat sallow, and heath
" griseola, h. ... lichens, on poplar; also withered sallow, &c.
D. coryli, s. ...... beech, nut, birch, alder, oak, willow; generally beaten from beech
R. cratagata, h. hawthorn, sloe
A. prunaria, h. sloe, beech, broom, sallow, hawthorn, plum, &c.
S. illustraria......... oak, birch, ash, beech, maple
A. betularia ...... oak, birch, elm, hawthorn, elder, beech, mountain ash, &c.
E. trilinearia ... beech
" omicronaria maple; s. beech
A. luteata ......... maple
A. herbariata, h. dried plants, in herbaria, and in herbalists' shops, &c. Tansy has been found to be eaten, where the species has occurred
C. exanthemaria sallow, alder
S. clathrata, h. saintfoin, lucerne, &c.
A. strigillaria, h. heath, broom
A. citrina, 2. ... wild carrot, trefoil, &c. ; generally on the coast
L. olivata, h. ...Galium Mollugo
E. unifasciata ... Odontites rubra, on the capsules, and seeds
E. subfulvata ... Achillea millefolium, and chrysanthemum
OCTOBER

LARVÆ]

E. arceuthata ..........juniper, and savine
" castigata ......golden rod, heath, nettle, Angelica, &c.
" expallidata ...golden rod, fl.; will also eat Michaelmas daisy, &c.
" absynthiata ...fl., and seeds of ragwort, Eupatorium cannabinum, Artemisia vulgaris, Achillea millefolium, golden rod, &c.
" knautiata ......Knautia arvensis, fl. and seeds
" assimilata......black currant, hop
" exigua ......barberry, hawthorn, black currant, ash, alder, sallow
T. simulata ......juniper
Y. elutata, h. ...nut, sallow, bilberry, alder
M. montanata, h. primrose
C. munitata, h. groundsel
P. vitalbata, 2. Clematis vitalba
S. undulata ........sallow, poplars; between leaves
C. russata, h. ...strawberry, birch, hawthorn, sallow, &c.
" suffumata, h. Galium Mollugo, and ragwort; hibernates full-fed to March
E. bipunctaria, h. Lotus corniculatus, clover, &c.
A. plagiata, h... Hypericum perforatum, fl.
D. calcula ........ birch; also oak, alder, willow, poplar
unguicula......beech
D. bicuspis ......alder, beech, birch
C. fluctuosa ........ birch; between leaves
B. glandifera, h. lichens, on walls
" perla, h. ......lichens, on walls
A. tridens.......hawthorn, sloe, rose, willow, sallow, mountain ash
L. vitellina, h.. grasses
" putrescens ....grass
" littoralis, h...... on Ammophila arundinacea; on the coast; burrows 7 or 8 inches in the sand. Will also eat Carex
L. impura, h...Carex, and Dactylis glomerata. Before h. the larva rolls the grass up, to form "a house," by day; afterwards, lives inside the stem, and feeds at night only [pitosa pallens h. ... Deschampsia ces-
" phragmitidis, h. common reed, in the young stems; in marshes, and fens
N. lutos, h......in stems of common reed, near the r.; feeds during winter, in mild weather
A. Australis, h. Cichorium intybus, Poa annua, and other plants
P. leucopeæa, h. tufts of grass; on commons, and in woods
A. basilinæa, h. on the immature grains of growing wheat; after h., in spring; on various plants
C. Morpheus ...Sedum telephium, sallow, bramble, docks, teasle, and other low plants
A. valligera, h. roots of grasses; chiefly on the coast
" Puta ..........dandelion, lettuce, carrot, r., knotgrass, &c.
" saucia, h......plantain, dock, and other low plants
" lunigera .......—? will eat knotgrass, &c.
" ripæ ..........Cynoglossum officinale; on the coast; burrows 7, or 8 in. in the sand
porphyrea, h. heath
T. ianthina, h. Primula, and other low plants; also broom, &c.
" simbria, h...birch, sallow, oak, ash, broom, primrose, &c.
" subsequa, h. low plants
" Orbons, h. ......low plants, and broom; when young, on sallow buds
pronuba, h...dock, &c.
N. c-nigrum, h. pea stems, and low plants
" conflua, h. ......various low plants, including Silene caulcis
" Dahlia, h. ......low plants; s. feeds up without h. in mild winters
LARVAE]

OCTOBER

A. Conwayana...fruit of privet, nut, (?) ash (?)
C. musculana ...hawthorn, &c.
P. siculana ...Myrica gale
" comptana ...Potentilla
" Mitterpacheriana elm, oak
G. campoliliana in sallow leaves
" geminana ...Vaccinium, apple, s.
E. fennana, h. ...in r. of Artemisia
S. Wœberana, h. under bark of plum, and other fruit trees
C. strobilana, h. cones of spruce
" argyrana ......moss, and bark of oak, &c.
" hycrimiana, h. spruce fir
" vacciniana ...Vaccinium, and Berberis
H. fimbriana ...rotten oak wood
E. pisana .........in pea pods, and vetches [fir
S. coniferana, h. under bark of Scotch Leplastrieranana, h. ...in stems of cabbage
" reeditiana ...oak
" regiana, h. ...under sycamore bark
" orbana ......in pods of Vicia cracca, V. sylvatica, Orobus tuberosus, and Genista tinctoria
D. politana, h...... Achillea millefolium, r.
" plumbana......pods of vetches (?) &c.
" plumbagana...... Achillea millefolium
C. Albersana ...honesuckle
" fulvana.......heads of Centaurea scabiosa
" Scopoliana ...Centaurea heads
" æmulana ......in fl. of golden rod
L. Servillana ... shoots of woolly-leaved sallows
E. roseana, h. ...seeds of teazle
" subroseana ...Solidago, fl.
" impliciana ...Solidago, fl. Pyrethrum, Gnaphalium, &c.
" anthemidana Erigeron acre, fl.
A. maritimana in stems, and r. of Eryngium maritimum
C. Francillonana, h., in stems of wild carrot

N. umbrosa, h. dock, &c.; seeds in mild winters
" neglecta, h. ...heath, birch, sallow, and low plants
" xanthographa, h. plantain, &c.; hides under stones
A. lunosa, e., h. grasses; more especially in elevated places; may be found concealed under stones
C. xerampelina, h. ash; will also eat hawthorn, and guelder rose
D. carpophaga, s. Lychnis, and Silene inflata, young seeds
E. lutulenta, h. ...Lithospermum arvense, and other low plants
A. herbida, h. ...dock, and other low plants
H. suasa, s. ...... plantain, lettuce, knotgrass, &c.
" pisi ..........brake fern, broom, Scabious, grass, Carex, sallow, birch, mountain ash, &c.
H. proboscidalis, h. nettle
S. emortualis ...oak
" grisealis ......Sisymbrium Sophia, oak, &c.; the larva does not change until the spring
B. lupulinalis ...in stems of hop
" asinalis, h. ...madder, fl., and young seeds
E. sambucalis ...elder, convolvulus
P. forficalis ........cabbage, horse-radish, &c.
M. polygonalis...Ulex nanus, fl.; on heaths, &c.; Genista?
C. phragmitellus, h. common reed
M. cribrella, h.....in thistle stems
H. nimbella.......chamomile, and other composite fl.
" nebulella, b. ...heads of thistles; also China aster
C. bistrigella ...alder, between the leaves
P. interpunctella ... in seed stores, grocer's warehouses, &c., on grain, figs, dried insects, &c.
P. palumbella, h. Polygala
M. alvarella, h. wax, in bee hives
T. ministrana ...willow, nut, birch, buckthorn
OCTOBER

C. dilucidana ...in stems of parsnip
Smethmanniana Anthemis cotula
straminea Centaurea heads
alternana ......Centaurea scabiosa, heads
L. salicella ......sallow, alder, maple, rose, Cornus sanguinea, Potentilla anserina, &c.
T. pseudo-bombycella, h. lichen, on oak trunks
S. conspicuella, h. on tree trunks, and palings
T. misella......in dried stems of beans, and unthreshed wheat
Ganomella, h. in birds' nests
Merdella ......in furs
Biseliella, h. in birds' skins, hair seating, &c.
I. Zinckenella ...birch
Oehlmanniella, h., in a flat case, under fallen leaves
A. fibulella ......in a flat case, on leaves of Veronica chamædrys
Degeerella, h., wood anemone
S. pyrella......... hawthorn, apple, pear, &c.
Y. viginipunctella Sedum telephium
A. decemguttella Lithospermum
G. malvella ......hollyhock, seeds
Notatella ......sallow
Obsolleta ...in stems of Chenopodium
Bifractella, h. Inula dysenterica,
and L. conyza, seeds
Cerealella, h. in grains of wheat, and barley
Næviferella ...Atriplex, and Chenopodium
Hermannella, Atriplex, and Chenopodium
Brizella ......Statice armeria, in fl-stems
Subocellella ...Origanum vulgare, seeds
P. lappella ....... knapweed, and burdock, seeds
Metzeriella, h. Centaureanigræa, heads
Carlinella, h. Centaurea nigra, and thistle heads
P. neuropterella, h. in heads of Cirsium acaule
CE. pseudo-spretella, h. dried fruit, peas, and other seeds; also hams, &c.
A. autumnitella Solanum dulcamara
G. Kollariella, b. mining leaves of broom
O. avellanella ...nut betulævorella birch
P. paripennella...in a case, flat on leaf of birch, rose, sloe
Salicornella, h. Salicornia herbacea
Pyrrhulipennella, h. heath
Discordella, h. Lotus corniculatus
Genistæcolella, h. Genista anglica
Annulatella ...seeds of Atriplex, and Chenopodium
Salinella ...... Atriplex portulacoides
Cacuminetella seeds of Stellaria graminea
Argentulella...seeds of Achillea millefolium
Virgaureella ...seeds of golden rod
Juncicolella, h. heath
Solitariella, h. Stellaria holostea
Meliotella ...seeds of melilot
A. æratella, h. in galls, on knotgrass
E. apicipunctella, h. in AIRA
Trapeziella, h. in Luzula pilosa
T. complanella...oak
Angusticolella rose
dodonæella, h. in oak
L. roborella ......oak
Quinqueguttella dwarf sallows
Bremiella......vetches
Insignitella ...in a clover
Lautella.........oak
Vacciniella ...whortleberry
Messaniella ...oak, evergreen oak, chesnut, hornbeam, beech
Dunningiella nut
L. Clerckella ...sloe, apple, cherry, hawthorn, &c.
C. spartifoliella...under bark of broom laburnella ...
N. atricapitella...oak
Anomalælla ...rose
OCTOBER

N. ziczac ........to May, sub., at poplars, sallow, willows
" trepida ........sub., at oak; cocoon tough, but not always coated with earth [oak
" Chaonia ......to April, sub., at "
" Dodonea ......to May, sub., at oak, and birch
T. batis.........to May, near bramble, and wild raspberry
C. duplicatis ...to May, between united birch leaves
" fluctuosa ...to May, among birch leaves
" or, b. .........at birch, among dead, or united leaves
" ocularis, b. ...at poplars, near the surface of the ground, or spun against the tree
" flavicornis ...between united birch leaves
D. Orion ........to May, at birch, and oak; in a cocoon of gnawed bark, or rotten wood
A. tridens.......to May, spun up, in crevices of bark, at hawthorn, sloe, rose, willow, mountain ash, sallow
" psi ............to May, in bark crevices, of various trees
" leporina .....to May, in excavations, in the bark of birch, poplar, alder, sallow
" aceris ........to May, spun up, among fallen leaves, and under loose bark of sycamore, horse chestnut, maple, birch, and s. oak [bark
" megacephala at poplar, under the strigosa .....to May among, dead leaves, of hawthorn; or rubbish, or decayed wood ; s. sub.
" alni ..............between leaves of various trees; or inside bramble sticks
" ligustri ......to May, spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top-stones of walls, against the tree
PUPÆ]

A. rumicis ......to May, spun up, in crevices of trees, palings, walls, &c.
A. putris ...........to May, sub., at elm
D. pinastri ......to May, in a cocoon, on the ground, among dock, sorrel, &c.
X. conspicillaris to Mar., sub., at elm, and other trees
M. albicolen......to April, sub., near Atriplex, Chenopodium, lettuce, &c.
C. Morpheus......to May, spun up, in a leaf, or an earthen cocoon, attached to food-plant
A. segetum, s. ...to May, sub., among Cruciferae, grass, &c.
T. piniperda......at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles, about 1½ in. or 2 in. deep, rarely within 2 ft. of the tree
T. gothica.......at various trees, just beneath the surface

" leucographa } at r. of low plants
rubricosa ... } at r. of various trees
" instabilis } at r. of various trees
" opima .........at r. of Rosa spinosissima, and dwarf sallows; below the sand, on sand-hills, in the N.
" populeti ......sub., at poplars, especially Populus nigra; deep gracilis......... sub., at willows, sallows, and low plants
" miniosa ......among fallen leaves, &c.
" mundula ........under moss, at base of oak
" cruda ...........sub., at oak
D. carpophaga...to April, sub., near Silene, and Lychnis; on the coast; found by raking sand-hills
H. serena ......sub., near Sonchus, and lettuce [and birch
H. glauca..........sub., near sallow,
H. oleracea ........sub., near elm, nettle dock, &c.; also in kitchen gardens

" thalassina ...sub., near honey-suckle, sallow, broom, &c.
X. lithoriza ......to Feb., near honey-suckle; in a papery cocoon, on the ground
C. verbasci ......in a large, tough, earthen cocoon, near mullein, or figwort

" scorpiulariae in a cocoon, near figwort, or mullein; s. two years in pupa
" lychnitis ......sub., near white, or black mullein; s. two years in pupa
" asteris ........sub., near golden rod, &c.; s. two years in pupa
" gnaphalii ......sub., near golden rod
" absinthii ......sub., near worm-wood
" chamomillae...sub., near chamomile, &c.
" umbratica ......sub., near Sonchus, &c.
H. marginata ...sub., near Ononis procurrens
H. dipsacea ........to May, among melilot, and probably Silene otites, and Linaria
A. myrtilli ......spun up, in heath
E. venustula ......to May, at r. of Tormentilla reptans, and grass
B. argentula ......among grass, on the ground
B. parthenias ...at birch; in crevices of bark, or on the ground
A. urticæ ..........to May; spun up, among nettle leaves
" triplasia ......to May, spun up, among nettle leaves, hop, &c.
P. senea ..........to May, amongst Polygala vulgaris
E. sambucalis ...to May, spun up, in crevices, in palings, walls, &c.; near elder
G. canella........to June, among ~ Salsola kali

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C. sagittata ...... spun up, among Thalictrum; or on the ground, near; in fens
E. lineolata ...... to April, cocoon, attached to Galium verum, on coast sand-hills; below the surface
C. obliquaria ...... among broom
D. bicuspid ...... to April, spun up, on birch trunks, in the S.; alder in the N.; rarely above 2 ft. from the ground. Resembles a Brazil nut
" furcula ........ spun up, on trunk of willow, or sallow
" bifida ........ spun up, on trunk of poplars
" vinula ........ spun up, on trunk of willows, poplars, and sallow; three or four ft. from the ground
S. fagi .......... to May, spun up, among leaves of beech, oak, birch, elm; s. at r.
P. Cassinea ...... sub., at oak; deep
P. bucephala ...... to May, sub., at various trees
C. curtula ...... to Mar., spun up, between dead leaves of poplars, and sallow
" reclusa .......... to May, spun up, among dead leaves of sallows, poplars, willows
P. palpina ...... to June, in cocoon, at willows, and poplars; on edges of streams, on the ground, or under sods
N. camelina ...... to May, at various trees, in a slight cocoon
" cucullina ...... to May, at maple, and sycamore; under moss, &c.
" carmelita ...... sub., at birch
" dictaea ........ to May, in large cocoon, at poplars, and willows; under a leaf, or sod
" dictæoides ...... to May, at birch; in a slight cocoon, under a leaf, &c.
" dromedarius...... to May, at birch, alder, nut; in a slight cocoon, under a leaf, &c.

OCTOBER

N. ziczac ...... to May, sub., at poplars, sallow, willows
" trepida ...... sub., at oak; cocoon tough, but not always coated with earth [oak
" Chaonia ...... to April, sub., at birch
" Dodonea ...... to May, sub., at oak, and birch
T. batis .......... to May, near bramble, and wild raspberry
C. duplicaris ...... to May, between united birch leaves
" fluctuosa ....... to May, among birch leaves
" or, b. .......... at birch, among dead, or united leaves
" ocularis, b. ...... at poplars, near the surface of the ground, or spun against the tree
" flavicornis ...... between united birch leaves
D. Orion ...... to May, at birch, and oak; in a cocoon of gnawed bark, or rotten wood
A. tridens ...... to May, spun up, in crevices of bark, at hawthorn, sloe, rose, willow, mountain ash, sallow
" psi .......... to May, in bark crevices, of various trees
" leporina ...... to May, in excavations, in the bark of birch, poplar, alder, sallow
" aceris ...... to May, spun up, among fallen leaves, and under loose bark of sycamore, horse chestnut, maple, birch, and s. oak
" megacephala at poplar, under the
" strigosa ...... to May among, dead leaves, of hawthorn; or rubbish, or decayed wood; s. sub.
" alni ...... between leaves of various trees; or inside bramble sticks
" ligustri ...... to May, spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top-stones of walls, against the tree
PUPÆ]

OCTOBER

A. rumicis ......to May, spun up, in crevices of trees, palings, walls, &c.
A. putris ........to May, sub., at elm
D. pinastrî ......to May, in a cocoon, on the ground, among dock, sorrel, &c.
X. conspiciliaris to Mar., sub., at elm, and other trees
M. albicolon......to April, sub., near Atriplex, Chenopodium, lettuce, &c.
C. Morpheus......to May, spun up, in a leaf, or an earthen cocoon, attached to food-plant
A. segetum, s. ...to May, sub., among Cruciferae, grass, &c.
T. piniperda......at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles, about 1½ in. or 2 in. deep, rarely within 2 ft. of the tree
T. gothica........at various trees, just beneath the surface
'' leucographa } at r. of low plants
'' rubricosa ... { at r. of various trees
'' instabilis { at r. of various trees
'' opima ......at r. of Rosa spinosissima, and dwarf sallows; below the sand, on sand-hills, in the N.
'' populeti ...... sub., at poplars, especially Populus nigra; deep gracilis....... sub., at willows, sallows, and low plants
'' miniosa ......among fallen leaves, &c.
'' munda..........under moss, at base of oak
'' cruda ..........sub., at oak
D. carpophaga...to April, sub., near Silene, and Lychnis; on the coast; found by raking sand-hills
H. serena.......sub., near Sonchus, and lettuce [and birch
H. glauca....... sub., near sallow,
H. oleracea ......sub., near elm, nettle dock, &c.; also in kitchen gardens
'' thalassina ... sub., near honey-suckle, sallow, broom, &c.
X. lithoriza ......to Feb., near honey-suckle; in a papery cocoon, on the ground
C. verbasci ......in a large, tough, earthen cocoon, near mullein, or figwort
'' scrophulariae in a cocoon, near figwort, or mullein; s. two years in pupa
'' lychnitis ......sub., near white, or black mullein; s. two years in pupa
'' asteris ..........sub., near golden rod, &c.; s. two years in pupa
'' gnaphali ......sub., near golden rod
'' absynthii ......sub., near worm-wood
'' chamomillae...sub., near chamomile, &c.
'' umbratica ......sub., near Sonchus, &c.
H. marginata ...sub., near Ononis procurrens
H. dipsacea .......to May, among melilot, and probably Silene otites, and Linaria
A. myrtilli ......spun up, in heath
E. venustula.......to May, at r. of Tormentilla reptans, and grass
B. argentula ......among grass, on the ground
B. parthenias ....at birch; in crevices of bark, or on the ground
A. urticae .......to May, spun up, among nettle leaves
'' triplasia ......to May, spun up, among nettle leaves, hop, &c.
P. ânea .......to May, amongst Polygala vulgaris
E. sambucalis ....to May, spun up, in crevices, in palings, walls, &c.; near elder
G. canella.........to June, among Salsola kali
OCTOBER

L. faginella ...... among fallen beech leaves
" carpin colella } among fallen leaves
" tenella ... { of hornbeam
" among fallen oak leaves
L. roborella ......
" hortella ......
" amyotella......
" lautella........
" quercifoliella
" Heegeriella ...
" Cramerella ...

IMAGOS]
Although the cold-winds, and occasional frosts, which now begin to visit us, tell of the approach of winter, we have not yet reached the time,

"When the Night doth meet the Noon
In a dark conspiracy
To banish Even from her sky;"

and the Collector must not yet suppose his "season" is closed. This is the great month for captures at ivy, which is now in bloom; and a large number of the autumnal species are attracted to the stupifying blossoms. In the daytime, bees, and butterflies hold high festival over the mantling ivy sprays; and at night, soon after dusk, many Moths, especially Noctue, flock as to a banquet, where

"Unbought dainties crown the feast."

The short period required for the intoxication, or stupefaction, of the Moths is remarkable. The blossoms should be lightly beaten, or shaken, into an umbrella, or clap-net, or sheet, or other contrivance, held or spread beneath, when the Moths required are easily boxed. Sometimes the labours of the Collector are rewarded by the capture of the rare D. rubiginea. Other flowers, besides the ivy, are also very attractive to Moths, especially arbutus, and stinging nettle; as are also blackberries, and other fruit.

V. c. album, h. at blackberries, &c.; may be found hanging to underside of leaves of trees, in wet weather
" polychloros, h. hangs up, in out-houses, hollow trees, &c., for the winter
" Antiopa, h...at ivy, fl., and cossus-infected trees
" Atalanta, h. at ivy, fl., and fruit
" cardui, h....at fl.
C. Pamphilus ...
P. Phloeas........at fl.
A. Atropos ......at rest, on palings, &c.
C. celerio ......at fl., at dusk
" neri......
E. alniaria ......

H. pennaria......woods; at rest, on trees
S. sacraria, 2. ...flies by day; has been taken at fl.; at sugar; and at l. [trees
H. aurantiaria ...woods; at rest, on " defoliaria......woods; at rest, on trees
C. brumata ..... comes to l.
" boreata ......
O. dilutata ......
T. juniperata ...comes to l.
C. psittacata, h. comes to l.
" miata, h. ....." cervinata ....." spartiata ......
P. Cassinea, e....comes to l.
P. bucephala .....at rest
IMAGOS]

OCTOBER

P. plumigera .. shady woods, and hedges; local
D. caeruleocephala comes to l.
T. batis, 2. ......
L. vitellina ......
" albinuncta ...at fl.
" comma, s., 2.
" I-album ......
N. lutosist, b. ..comes to l.
H. micacea .......comes to l. [to l.
A. Australis......among grass; comes
L. exigua ...
C. cubicularis ..beaten, from thatch
A. suffusa, h. ...at ivy
" saucia, h. ......at ivy ; comes to l.
" segetum ......at ivy
O. lotta .......at ivy [berries
" maciienta...at ivy, and yew
A. rufina .......at ivy
" pistacina ......at ivy
" lunosa .......comes to l., and ivy
C. vaccinii, h. ...at ivy
" spadicea, h. ...at ivy
" erythrocephala, h. at ivy
S. satellitata, h. ...at ivy [berries
D. rubiginata, h. ...at ivy, and yew
H. croceago, h. at ivy
X. silago ......
" aurago, b. ......at ivy
" ferruginea ...at ivy
D. templi, h. ....usually found by
turning over stone-heaps, in
elvated districts ; comes to l.
E. nigra ......at ivy
M. oxyacanthae at ivy
A. Aprilina ......
P. meticulosa .. at ivy
" empyrea ......at ivy
C. vertusta, h. ...at ivy
" exoleta, h. ...at ivy
X. lambda ...... [tree trunks
" furcifera, h...at ivy, and rests on
" rhizolitha, h. at ivy, and rests on
tree trunks
" semibrunea, h. at ivy
" petrificata, h. at ivy
H. armigera .......at ivy [palings
C. fraxini ..........at rest, on walls, and
" nupta ..........at rest, on walls, tree trunks, &c.

H. proboscidalis [houses
" rostralis, h. ..in gardens, and out-
P. fimbrialis ......comes to l.
D. ramburialis ...
M. unionalis......-successive broods,
during the year
S. coarctalis, h. on mossy walls
E. ficella .........in corn, and seed
warehouses, among oilcake, &c.
N. angustella, 2.
M. alveariella, s. about beehives
L. scabrina ......among elm [thorn
P. cristana .......among sallows, & haw-
P. sordidana.......among alder ; in
marshes, and fens
L. phryganella...
E. gelatella ......
T. imella .......
" pallionella ..common, in houses
" pallescentella in warehouses, and
poulterer’s shops
H. radiatella, h.
Y. asperella ......among apple
P. caudella, h....
D. hypericella ...among Hypericum
" ocellata ......among sallow
" depressella, s.
" olerella ......beaten, from thatch;
near Hazlemere [slack
G. Lyellella ......Castle Eden, Wither-
" atriplicella, 3. among Atriplex,
and Chenopodium
A. betulella ......beaten; Castle Eden,
High Force
Z. fasciapennella the Pentlands
G. semifasciella
C. citrinella, h....
B. somnulenta
C. cheraephyllicella, h.
" daucella ......
L. decorrella, h. among Epilobium
L. trifasciella ...among honeysuckle
L. padificella ...
P. salignella, h. among willows, near
London [vulus
P. pterodactylus, h. among Convol-
ersotinus ......... among Galium
Mollugo
A. polydactyla, h. ...among honey-
suckle, and in windows
NOVEMBER

OVA]

T. quercus ...... on oak twigs
w-album ...... on wytch elm; also elm; on the twigs
pruni ...... on sloe twigs
L. Ægon ...... on Ornithopus pusillus; white
H. comma ...... on trefoil, and other Leguminose
I. monacha ...... on oak, beech, fir, birch, apple, &c.
T. cratægi ...... on hawthorn; also s. sloe, sallow, birch, oak
P. populi ...... to Mar., on oak, poplar, lime, ash, hawthorn
B. neustria ...... on hawthorn, sloe, fruit trees; in batches round twigs, and branches
castrensis ...... on Artemisia maritima, Daucus maritimus, &c.
E. vespertaria ...... on nut
" apiciaria ...... poplar, willow, sallow
C. elinguaria ...... on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.
H. pennaria ...... on oak
F. pinetaria ...... on bilberry
H. aurantiaria ...... to March, on oak, birch, hawthorn, &c.
defoliaria ...... to March, on oak, nut, sloe, hawthorn, birch, elm, lime, &c.
C. brumata ...... to March, on oak, and other trees
boreata ...... to March, on birch
O. dilutata ...... to March, on oak, and other trees
E. subcellata ...... on maple; at foot-stalk of leaf
M. rubiginata ...... on alder; large
S. vetulata ...... on buckthorn
C. immanata ...... probably on alder, and other trees, and strawberry, bilberry, &c.; large
C. prunata ...... on currant, gooseberry, sloe; on the bark, large
testata ...... on heath, birch, sallow, poplar, &c.; singly, large
" populata ...... on bilberry, whortleberry, poplar; globular, large, yellow
" fulvata ...... on dog rose; rose-pink, large
" pyraliata ...... on Galium, and hawthorn; large
dotata ...... on black, and red currant; large
E. cervinaria ...... to April, on mallow
C. spartiata ...... on broom
T. chérophyllata ...... on Anthriscus sylvestris, and Bunium flexuosum
P. Cassinia ...... to April, on oak
P. plumigera ...... on maple; chiefly on the twigs, in hedges, not shaded by trees; after the 7th of the month, until March. Often singly; but also in twos, threes, and s. much larger clusters. Circular, smooth; brown above, whitish beneath
C. xerampelina ...... on ash; probably in the chinks of the twigs, and the buds
T. subtusa ...... upon the twigs of poplar
" retusa ...... on sallow, willow, poplar; upon the axils of the leaves
P. chi ...... on dock, hawthorn, sallow; and probably lettuce, sowthistle, "tea tree," &c.
" flavocincta ...... on dock, chickweed, groundsel, mint, &c.; in gardens, on everlasting pea, plum, &c.
H. proboscidalis on nettle; rather large, pale yellow
LARVAE]

NOVEMBER

A large number of hibernating larvae hide away early, and are seldom seen again until the spring. Thus several specified under this month may not have been seen since July, August, or September. Several others come out to feed occasionally, when the weather is mild.

A. Iris, h.........stretched out, on a sallow twig
A. Australis, h. Cichorium intybus, Poa annua, and other plants
H. hispida, h? .. grasses, lettuce, plantain, &c.
A. Pata.............dandelion, lettuce, carrot r., knotgrass, &c.
" saucia, h. ......plantain, dock, and other low plants
N. Dahlii, h. ...low plants; s. feeds up without h., in mild winters
" umbrosa, h...dock, and other low plants
D. P. meticulosa, h. groundsel, and various low plants
" empyrea, h....pilewort, &c.
M. cephalonica, h. ...dried currants, &c.
P. gentiana, h...teazle, heads
" marginana, h. teazle, heads

PUPÆ]

P. Machaon ......on stems of Peucedanum palustre; in fens
P. brassicae ... \{ on palings, walls, " napi ......... \}
S. ocellatus ... sub., at willows, poplars, &c.
" populi .........sub., at poplar, willow, &c.
" tiliae ...........sub., at elm, lime, beech
C. ligniperra ...to May, at various trees; spun up, under bark, &c.; but s. buries
L. asellus ........spun up, on a leaf
A. mendica ......under moss, on trees bordering ditches
C. fulvana? ......heads of Centaurea scabiosa
S. ferrugalis ......has been fed on Aster amellus, on the Continent
M. polygonalis...Ulex nanus, fl., on heaths; Genista?
T. imella .........among furrier's refuse, and has been found in a felt shoe!
" semifulvella, h. in birds' nests, feeding on wool
P. bicusstella, h. Erica cinerea
A. fibulella ......in a flat case, on leaves of Veronica chamædrys
C. albitarsella, h. ...Origanum, and Glechoma
" vitisella, h...whortleberry [trees
C. Linneella, h. under bark of lime
E. gangabella, h. Dactylis glomerata
L. lanestella, h. Viburnum lantana; best collected this month
T. marginæ, h. bramble
N. ruficapitella... in common oak, and evergreen oak

A. lubricepeda } spun up, on palings, " menthrasti } trees, &c.
" urtice ..........under moss, on trees
O. pudibunda ......in dead leaves, under moss, &c.
E. lananesta ...... cocoons, on the ground, near hawthorn, &c.
E. versicolora ...spun up, at birch
S. carpini ............cocoons, amongst leaves, heath, &c.
E. dolobraria ...under moss, on oak
S. illunaria .......sub., at willow, oak, &c.
" lunaria.......at sloe, oak, nut, &c.
" illustraria........ cocoons, among leaves, on, or near, the ground
O. bidentata........under moss, on various trees.
P. pilosaria ......sub., at oak, and elm.
N. zonaria.........sub., on sand-hills.
hispidaria......at oak.
B. hirtaria..........sub., at elm, lime, ash, and fruit trees.
A. prodromaria sub., at oak, elm, &c.; just beneath the surface.
betularia ......sub., at oak, elm, birch, and other trees.
H. abruptaria ...spun up, on twigs, &c.; of lilac, rose, or privet.
T. consonaria ...under moss, at r. of beech, oak, birch.
crepuscularia undermoss, on alder, birch, elm, poplar, willow; or in bark crevices.
biundularia ...spun up, on oak, and birch.
punctulata ...under moss, on birch, and alder; or in bark crevices.
lactearia ......spun up, among leaves of oak, and birch.
E. porata ..........fastened to leaf of oak.
punctaria......fastened to leaf of oak, or birch.
trilinearia......fastened to leaf of beech.
pendularia ...fastened to leaf of birch.
E. heparata ......among moss, &c., on alder.
C. pusaria.........spun up, on the ground.
exanthermaria spun up, under leaves of sallow, and alder.
M. liturata ......in open places, and on the margins of fir woods, at 1 inch to 2 inches deep, rarely within 2 feet of the tree.
N. pulveraria ...in withered sallow leaves, &c.
F. carbonaria ...among dead leaves of sallow, and birch.
piniaria ......at Scotch fir, and larch; in open places, in woods, rarely within 2 feet of the tree, at 1½ in. to 2 in. deep.
H. rupicaparia in a web, on the ground, among oak, sloe, &c.
" leucocepharia on the ground, near oak.
" progemmaria sub., at oak, birch, hornbeam, &c.
" defoliaria ......sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
A. escularia......sub., at elm, oak, lime, sloe, hawthorn.
L. multistrigaria sub., about Galium.
E. albulata ......within the spun-up sepals of yellow rattle.
decolorata ......about Lychnis dioica.
E. venosata ......about Silene, and Lychnis.
" consignata ......probably under moss, and loose bark, in apple orchards.
pulchellata ...among the seeds, and dead fl. of foxglove.
isogrammata ......about Clematis vitalba.
fraxinata ......on ash; under moss, and loose bark.
nanata ...........about heath.
vulgata ......sub., at various plants, and trees.
minutata ......about heath.
" assimilata......in crevices, about currant, and hop.
exiguata ......about oak, &c.
M. ocellata ......among Galium; spun up, near the ground. The larva s. remains during winter.
M. subtristata ......sub., near Galium.
galiata ..........sub., near Galium.
A. sinuata.......in earthen cocoon, on the ground, among Galium.
badiata.......in earthen cocoon, on the ground, beneath dog rose bushes.
derivata ......sub., at dog rose.
C. sagittata ......spun up, about Thalictrum, or on the ground, near; in fens.
E. lineolata ......cocoon attached to Galium verum, below the surface, on coast sand-hills.
PUPÆ

P. fulcula ........ between united birch leaves
D. bicuspis ........ spun up, on birch trunks, in the S.; alder in the N.; rarely above 2 ft. from the ground
" furcula .......... spun up, on trunk of willow, or sallow
" bifida .......... spun up, on trunk of poplars
" vinula .......... spun up, on trunk of willows, poplars, and sallow; three, or four feet from the ground
S. fagi .......... spun up, among leaves of beech, oak, birch, elm; s. at r.
P. bucephala ... sub., at various trees
C. curtula .......... spun up, between dead leaves of poplars, and sallow
" reclusa .......... to May, spun up, among dead leaves of poplars, willows, sallows
P. palpina .......... at willows, and poplars, on edges of streams, in cocoon, on the ground, or under sods
N. camelina ...... in a slight cocoon, at various trees
" cucullina ...... at maple, and sycamore, under moss, &c.
" carmelita ...... sub., at birch
" dictaea .......... at poplars, and willows; in large cocoon, under a leaf, or sod
" dictaeoides ...... at birch; in a slight cocoon, under a leaf, &c.
" dromedarius ...... at birch, alder, nut; in a slight cocoon, under a leaf, &c.
" ziczac ...... at poplars, sallow, willows; in a slight cocoon
" trepida .......... sub., at oak; cocoon tough, but not always coated with earth
" Chaonia ...... sub., at oak
" Dodonea ...... sub., at oak, & birch
T. batis .......... near bramble, and wild raspberry

NOVEMBER

C. duplaris ...... between united birch leaves
" fluctuosa ...... among birch leaves
" or, b. ........... at birch, among dead, or united leaves
" ocularis, b. ...... at poplars; near the surface of the ground, or spun against the tree
" flavicornis ...... between united birch leaves
D. Orion ........... at birch, and oak; in a cocoon of gnawed bark, or rotten wood
A. tridens .......... spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
" psi ............... in bark crevices, of various trees
" leporina ...... in excavations in the bark of birch, poplar, alder, sallow
" aceris .......... spun up, among fallen leaves, and under loose bark of sycamore, horse chestnut, maple, birch, and s. oak
" megacephala ...... at poplar, under the bark
" strigosa ...... among dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
" alni ...... between leaves of various trees; or inside bramble sticks
" ligustri ...... spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls, against the tree
" rumicis ...... spun up, in crevices of trees, palings, walls, &c.
A. putris ...... sub., at elm
D. pinastri ...... in a cocoon, on the ground, among dock, sorrel, &c.
X. conspicillaris sub., at elm, and other trees
M. albicolumn ...... sub., near Atriplex, Chenopodium, lettuce, &c.
A. segetum, s. ...... sub., among Cruciferae, grass, &c.
NOVEMBER

T. piniperda......at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, and under moss, and fallen needles; rarely within 2 ft. of the tree, 1½ to 2 in. deep

T. gothica.........at various trees
" leucographa } at r. of low plants
" rubricosa .......sub., at r. of various trees
" instabilis ......at r. of various trees
" opima ..........at r. of Rosa spinosissima, and dwarf sallow; below the sand, on sand-hills in the N.
" populeti ......sub., at poplars, especially Populus nigra; deep
" gracilis ..........sub., at willows,allows, and dwarf plants
" miniosa ......among fallen leaves, &c.
" munda ............under moss, at base of oaks
" cruda .............sub., at oak

D. carpophaga...sub., near Silene, and Lychnis; on the coast; found by raking sand-hills

H. serena .........sub., near Sonchus, and lettuce

H. glauca ..........sub., near sallow, and birch
" oleracea ..........sub., near elm, nettle, dock, &c.; also in kitchen gardens
" thalassina .......sub., near honeysuckle, sallow, broom, &c.

X. lithoriza ......near honeysuckle, in a papery cocoon, on the ground

C. verbasci .... } sub., in a cocoon, " scrophulariae } near mullein, or figwort
" lychnitis ......sub., near white, and black mullein
" asteris .........} sub., near golden gnaphalii .......} rod, &c.
" absynthii ......sub., near wormwood
" chamomillaesub., near chamomile, &c.
" umbratica ...sub., near Sonchus, &c.

H. marginata ...sub., near Ononis procurrens

H. dipsacea .....among melilot, and probably Silene otites, and Linaria

A. myrtilli .....spun up, on heath
E. venustula......at r. of Tormentilla reptans, and grass

B. argentula......among grass, on the ground

B. parthenias ...at birch; in crevices of bark, or on the ground

A. urtice ............spun up, among nettle leaves
" triplasia ............spun up, among nettle leaves, hop, &c.

P. ænea ............among Polygala vulgaris

E. sambucalis ..spun up, in crevices in palings, walls, &c., near elder

G. canella.......among Salsola kali

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IMAGOS]

P. populi ...........at rest, at the base of oak, &c.

H. pennaria ......woods; at rest, on trees

H. aurantiaria ...woods; at rest, on trees
" defoliaria ......woods; at rest, on trees
C. brumata ......comes to l.
" boreata........
" O. dilutata ......

C. psittacata, h. comes to l.
P. Cassinea ......comes to l
P. plumigera ...shady woods, and hedges
L. vitellina ......A. segetum ......C. vaccini, h ...
" spadicea, h ...
" erythrocephala, h.
S. satellitia, h...
D. rubiginea, h.
IMAGOS]

H. croceago, h.
D. templi, h. ...
M. oxyacantha
* C. exoleta, h. ...
C. chamomilla, h.
S. coarctalis, h. on mossy walls
L. scabrana ......among elm
P. cristana ......among sallows, and hawthorn

NOVEMBER

L. phryganella ...flies in woods, in calm weather
E. gelatella ......among sallow
T. imella ..........
H. radiatella, h.
P. caudella, h....
C. daucella ......
L. Messaniella ...among evergreen oak trifasciella ...among honeysuckle
L. Clerckella, h.
DECEMBER

As there is now but little work to be done, out-of-doors, and as that may be impeded by frost, or snow, the reader may be reminded that this is a convenient period for over-hauling his collection; carrying out any re-arrangement that, in these days of name-changing, may be deemed desirable; or clearing out duplicate boxes, and otherwise preparing for the campaign next season. Mitey specimens, if worth preserving, may be "doctored" with a diluted solution of corrosive sublimate, dissolved in alcohol, or vinegar; or with a weak solution of phenic acid in alcohol, or naphtha.

As papered drawers and boxes are often objectionable, from the trouble they involve, and the obstacle presented to the entrance of fine pins into the cork, by the coat of paper and paste, it may be desirable to whiten the cork instead. To carry this out properly the paper should be entirely removed from the cork, and the drawer cleaned. Then take as much lævigated oxide of zinc as may be deemed necessary, with a minute portion of indigo or ultramarine, to give greater whiteness, and gently add, mixing with a spatula, as much skimmed milk as will form with it a mixture of the consistence of cream; then with a soft, flat camel's hair brush apply the mixture evenly over the surface; by means of a dabber of muslin or cambric eliminate the lines formed by the brush, and dry slowly at some distance from the fire.

The following are stated to be preferable modes of keeping insects in cabinets or boxes to the ordinary camphor method: Treat each drawer, or box, to a fumigation, for a day or two, of Bisulphate of Carbon, by placing a small piece of sponge partially soaked with the fluid in the corner. If this is done once a-year or so, it is said to be perfectly effective in preventing the appearance of mites, beetles, or other enemies. This is the material employed by many dealers for preserving their large stocks of insects. The reader, however, ought to be warned that so offensive is the smell of this enemy of animal life, that it can only be applied in cases where a spare room is available for the purpose. Dr. Laboulbène gives the preference over every other insect preservative to a solution of equal parts of phenic acid and pure benzine, dropped on a small piece of sponge, and placed in the corner of the box, or drawer. This is stated to have the advantage of arresting fungoid growths.

OVA]

T. quercus ......on oak twigs
" w-album ......on wytch elm, also elm; on the twigs
" pruni ........on sloe twigs
L. Ægon ..........on Ornithopus perpusillus; white
H. comma ......on trefoil, and other Leguminosse
L. monacha ......on oak, beech, fir, birch, apple, &c.
T. crataegi.......on hawthorn; also s. sloe, sallow, birch, oak
P. populi ..........on oak, poplar, lime, ash, hawthorn
B. neustria ......on sloe, hawthorn, fruit trees; in batches, round twigs, and branches
" castrensis ......on Artemisia maritima, Daucus maritimus, &c.
E. vespertaria ...on nut
OVA

DECEMBER

E. apiciaria .......on poplar, willow, sallow
C. elinguaria ...on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.
H. pennaria .......on oak
F. pinetaria .......on bilberry
H. aurantiaria ...on oak, birch, hawthorn, &c. [trees
C. brumata .......on oak, and other boreata.........on birch [trees
O. dilutata .......on oak, and other
E. subellata .......on maple; on foot- stalk of leaf
M. rubiginata ....on alder; large
S. vetulata .......on buckthorn
C. immanata ...probably on alder, and other trees; and strawberry, bilberry, &c.; large
" prunata .......on currant, goose- berry, sloe; on the bark; large
" testata .........on heath, birch, sallow, poplar, &c.; singly, large
" populata .......on bilberry, whortle- berry, poplar; globular, large, yellow
C. fulvata .........on dog rose; rose- pink, large
" pyraliata .......on Galium, and haw- thorn; large
" dotata .......on black, and red currant; large
E. cervinaria .......on mallow
C. spartiata .......on broom
T. chærophyllata on Bunium flexuosum
P. Cassinea .......on oak
P. plumigera ...on maple; chiefly on the twigs, in hedges, where not shaded by trees. Often singly, but s. in clusters of two, three, or many more. Circular, smooth, brown above, whitish underneath
T. subtusa .. upon twigs of poplar
" retusa .........upon sallow, willow, poplar; upon the axils of the leaves
P. flavicincta ...on dock, chickweed, groundsel, mint, &c.
H. proboscis on nettle; rather large, pale yellow

LARVÆ

M. anceps ..... — ? in damp places
A. Puta.................dandelion, lettuce, carrot roots, knotgrass, &c.
" saucia, h. .. plantain, dock, and other low plants
M. cephalonica, h. .. dried currants, &c.
P. gentianana, h. teazle heads
N. aurella .........from Jan., bramble

PUPÆ

P. Machaon .......on stems of Peucedanum palustre; in fens
P. brassicae ...
" rape .........{on palings, walls, &c.
" napi .........
S. ocellatus .......sub., at willows, poplars, &c.
" populi .......sub., at poplar, willow, &c.
" tiliae .........sub., at elm, lime, beech
C. ligniperda ....at various trees; spun up, under bark, &c.; but s. buries
L. asellus .........spun up, on a leaf
A. mendica .......under moss, on trees bordering ditches
" lubricepeda } spun up, on palings,
" menthasti } trees, &c.
" urticeae ...........under moss, on trees
O. pudibunda ...in dead leaves, under moss, &c.
E. lanestris .......cocoon, on the ground, near hawthorn, &c.
E. versicolora .......spun up, at birch
S. carpini ........cocoon, amongst leaves, heath, &c.
E. dolobraria ....under moss, on oak
DECEMBER

C. asteris .......... } sub., near golden
  " gnaphalii ..... } rod, &c.
  " absinthii ..... } sub., near worm-  wood
  " chamomillæ...sub., near chamomile, &c.
  " umbratica ...sub., near Sonchus, &c.
H. marginata ...sub., near Ononis  procurrens
  " dipsacea ......among melilot, and probably Silene otites, and Linaria
  " triplasia .....spun up, among nettles, leaves
  " lychnitis ......sub., near white, and black mullein
  " scrophulariae } near mullein, or
  " verbasci ...... ) sub., in a cocoon,
  " defoliaria.....
A. myrtilli ......spun up, on heath
E. venustula......at r. of Tormentilla  reptans, and grass
B. argentina ......among grass
B. partheniata ......at birch, in crevices of bark; or on the ground
A. urtica ............spun up, among nettles, leaves
  " triplasia ......spun up, among nettles, hop, &c.
P. ëææa............among Polycla vulgaris
E. sambucalis ...spun up, in crevices in palings, walls, &c., near elder
G. canella...........among Salsola kali

IMAGOS

H. pennaria ......
P. pilosaria ......
H. rupicapraria, e. on hawthorn twigs  deffoliaria..
C. brumata ......comes to l.
  " boreata........
O. dilutata ......  
P. populi .........

P. Cassinea, b. ..
P. plumigera ......
X. rhizolitha, h.
E. gelatella ......among sallow
H. radiatella, h.
P. caudella, h. ...
L. trifasciella ......among honeysuckle
NOTES ON LOCALITIES.

In spite of the encroachments constantly being made by advancing "civilization," and the agricultural, and other improvements being carried out, in large tracts of country, fortunately, for the sake of Entomological and Botanical Science, we have still many localities left to us in a comparatively state of nature. The geological and physical features of a country are well known to be the chief regulating agencies in the production of its Flora and its Fauna. We are chiefly interested in the Insect Fauna only, and the Flora upon which that mainly depends. If the observer is assured of the productiveness of any particular locality in a special plant, or family of plants, he may fairly conclude that there are corresponding Insects also to be found. Hills, as a rule, (when moderately covered with a good variety of not-too-closely planted wood) seem more productive than purely agricultural districts in the vale, besides producing special Insects which are not to be found elsewhere. Wet places, provided they are not too much exposed, produce more insect-life than colder and dryer places. Thus forests, woods, heaths, bogs, and especially fens, and sandy districts bordering the sea, are favourite resorts of the Entomologist. In these latter places especially do we find rare and interesting insects. Some of them are remarkably local, being apparently confined to a very small space, not always precisely defined by the range of the food-plant. In some of these districts, notably the "Breck" districts of Norfolk and Suffolk, the ancient coast-line, inside the existing line, is unmistakeably indicated, and produces its special plants and insects, not to be found elsewhere in the kingdom. These are spots which are most interesting from a scientific point of view, and ought never to be "hunted to death," for the sake of the rare specimens they produce, or we may see "the goose killed for the sake of the golden eggs," to our cost,—a process, indeed, we are threatened with, in regard to some of our local insects, by needy dealers, and greedy Collectors. Mr. Charles G. Barrett has done much to make us acquainted with the riches of this "Breck" district, and the neighbouring fens, and by his energy and intelligence has greatly enlarged our scientific knowledge of many species.

Probably one of the best districts in this country for Insects is Rannoch, which is doubtless largely due to the abundant vegetation of the heaths, woods, and hills having from time immemorial remained wild and unshorn. This it is, too, which makes our old forests such excellent hunting grounds for local insects, particularly Sherwood Forest, and the New Forest. Epping Forest, too, (now happily preserved against further encroachments from lucrative lords-of-the-manor), was once a famous locality, and doubtless many good species still linger there. The Forest of Dean has been somewhat disappointing, probably because of the poorness of a good deal of the soil, and the number of young plantations, interspersed with coal-pits and ironworks; while it is a difficult country to work, on account of its hilly character. Bewdley Forest, Worcestershire, has yielded larvae of E. versicolora, and other good things.
Many of our moors, mosses, and heaths yield a fair number of good species, or did do so some years ago; and the undrained fens of Cambridge and Norfolk have long been held in esteem for the richness of their Insect Fauna. Many of the bare, wild districts in the North, "far removed from the haunts of men," have, by sturdy and persistent hunting, been made to yield abundantly. The Isle of Man, and the Hill of Howth, near Dublin, have attracted some of our best Entomologists, and have been the means of adding several new species to our Lists. The Isle of Portland is almost the only place where some species of Acidalia are to be found, though success is not always vouchsafed the wayfarer, owing to the villainously wet and windy weather which largely prevails in that district. The coast of Dorset in two places, the Burning Cliff, and Lulworth Cove, yields the very local skipper *P. Actæon*.

The London District includes many good localities which can easily be reached by railway. West Wickham wood, near Croydon, has yielded several good species. The Collector is recommended to proceed from Croydon towards the village of Addington, examining as he goes along the "Bishop's fence" for *N. carmelita*, should he be there when it is due, and also the birch, fir, and other tree trunks. The wood is near the inn. Coombe wood has been worked by the older Entomologists with great success. It is preserved for shooting purposes by the Duke of Cambridge, from whose agent Mr. Clutton, Whitehall-place, it is said to be possible to get an order for admission in pursuit of insects.

Kent, besides being "the garden of England," is probably one of our finest entomological counties. It is so largely blown upon from the sea; it has such a variety of soil and physical feature; and it is so liberally interspersed with well-wooded hills, that this is not to be wondered at. Fortunate is the Entomologist sojourning or resident in London, with time and means to hunt the coasts, and hills, and glades of sunny Kent.

It is on our coasts, marshes, and mountains that we are most likely to find species hitherto unrecorded as British, if not absolutely new to Science. Unfortunately working in these places involves a large expenditure of time, while the labour is so severe that only the strongest can follow it up. If some of our Societies could be induced to take this work up, by employing trustworthy Collectors, they would, while adding materially to the richness of their own collections, fulfil a legitimate function of their existence, and give additional lustre to the reputation gained by England of late years in the path of Entomological Discovery.
APPENDIX 1.

SPECIFIC AND COMMON NAMES OF PLANTS MENTIONED IN THE CALENDAR.

Abies excelsa ....................... spruce fir
  " picea ....................... silver fir
Acer pseudo-platanus ............ sycamore
  " campestrē .................. maple
Achillea millefolium ............... yarrow
  " ptarmica .................. sneezewort
Actaea spicata ...................... herb Christopher
Ægopodium podagraria ........... gout weed
Aira canescens ................. grey hair grass
  " caespitosa ................. turfy hair grass
Agrimonia eupatoria ............... agrimony
Alisma plantago .................... greater water plantain
Alnus glutinosa .................... alder
Alopecurus agrestis ............... slender foxtail grass
Althea officinalis ............... marsh mallow
  " rosea ..................... hollyhock
Ammophila arundinacea .......... sea reed, or marum
Anagalis arvensis ............... scarlet pimpernel, or poor man’s weather glass
Arenaria media .................... sea-side sandwort
Angelica sylvestris ............... wild angelica
Anthemis nobilis ................... common chamomile
  " cotula ...................... stinking chamomile
" Anthriscus sylvestris .......... wild chervil
  " vulgaris .................. common beaked parsley
Anthyllis vulneraria .......... woundwort, or kidney vetch
Aquilegia vulgaris ............... columbine
Arabis ................................ rock cress, white arabis, &c.
Arctostaphyllos uva-ursi ......... red bearberry
Artemisia campestris ............. field southernwood
  " vulgaris ................. mugwort
  " maritima ................. sea wormwood
  " absinthium .............. wormwood
Æsculus hippocastanum ........... horse chestnut
Asparagus officinalis ............ common asparagus
Asperula odorata ................. sweet woodruff
Asphodelus luteus ............... yellow asphodel
Asplenium Ruta muriaria .......... wall-rue spleenwort
Aster novi belgii ................. Michaelmas daisy
<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atriplex portulacoides</td>
<td>shrubby orache, or sea purslane</td>
</tr>
<tr>
<td>Avena pratensis</td>
<td>narrow-leaved oatgrass</td>
</tr>
<tr>
<td>Ballota nigra</td>
<td>black horeround</td>
</tr>
<tr>
<td>Balsamia hortensis</td>
<td>balsam</td>
</tr>
<tr>
<td>Barbarea vulgaris</td>
<td>yellow rocket, or bitter winter cress</td>
</tr>
<tr>
<td>Bartsia viscosa</td>
<td>yellow viscid bartsia</td>
</tr>
<tr>
<td>Berberis vulgaris</td>
<td>barberry</td>
</tr>
<tr>
<td>Beta maritima</td>
<td>sea beet</td>
</tr>
<tr>
<td>Betula alba</td>
<td>birch</td>
</tr>
<tr>
<td>Brachypodium sylvaticum</td>
<td>slender false brome grass</td>
</tr>
<tr>
<td>Brassica oleracea</td>
<td>cabbage</td>
</tr>
<tr>
<td>Brassica rapa</td>
<td>turnip</td>
</tr>
<tr>
<td>Brassica napus</td>
<td>rape</td>
</tr>
<tr>
<td>Bryonia dioica</td>
<td>red-berried bryony</td>
</tr>
<tr>
<td>Briza media</td>
<td>quaking grass</td>
</tr>
<tr>
<td>Bunium flexuosum</td>
<td>earth nut</td>
</tr>
<tr>
<td>Calamagrotis epigejos</td>
<td>wood reed</td>
</tr>
<tr>
<td>Callistephus chinensis</td>
<td>China aster</td>
</tr>
<tr>
<td>Callitriche verna</td>
<td>water starwort</td>
</tr>
<tr>
<td>Calluna erica</td>
<td>heath, or ling</td>
</tr>
<tr>
<td>Caltha palustris</td>
<td>marsh marigold</td>
</tr>
<tr>
<td>Calystegia sepium</td>
<td>large convolvulus, or great bindweed</td>
</tr>
<tr>
<td>Campanula trachelium</td>
<td>nettle-leaved campanula</td>
</tr>
<tr>
<td>Cardamine amara</td>
<td>bitter lady’s smock</td>
</tr>
<tr>
<td>Cardamine pratensis</td>
<td>common lady’s smock</td>
</tr>
<tr>
<td>Cardamine hirsuta</td>
<td>hairy bitter cress</td>
</tr>
<tr>
<td>Carduus nutans</td>
<td>musk thistle</td>
</tr>
<tr>
<td>Carduus acanthoides</td>
<td>welted thistle</td>
</tr>
<tr>
<td>Carduus lanceolatus</td>
<td>spear plume thistle</td>
</tr>
<tr>
<td>Carduus crispus</td>
<td>jagged thistle</td>
</tr>
<tr>
<td>Carex paniculata</td>
<td>great panicled sedge</td>
</tr>
<tr>
<td>Carex sylvatica</td>
<td>pendulous wood sedge</td>
</tr>
<tr>
<td>Carex paludosa</td>
<td>lesser common sedge</td>
</tr>
<tr>
<td>Carex riparia</td>
<td>great common sedge</td>
</tr>
<tr>
<td>Carex glauca</td>
<td>glaucous heath sedge</td>
</tr>
<tr>
<td>Carex intermedia</td>
<td>soft brown marsh sedge</td>
</tr>
<tr>
<td>Carpinus betulus</td>
<td>hornbeam</td>
</tr>
<tr>
<td>Castanea vulgaris</td>
<td>Spanish chesnut</td>
</tr>
<tr>
<td>Centaurea nigra</td>
<td>black knapweed</td>
</tr>
<tr>
<td>Centaurea scabiosa</td>
<td>great knapweed</td>
</tr>
<tr>
<td>Cerastium vulgatum</td>
<td>broad-leaved mouse-ear chickweed</td>
</tr>
<tr>
<td>Cerastium tomentosum</td>
<td>woolley mouse-ear chickweed</td>
</tr>
<tr>
<td>Cerastium arvense</td>
<td>field chickweed, or mouse-ear</td>
</tr>
<tr>
<td>Cerasus avium</td>
<td>wild cherry</td>
</tr>
<tr>
<td>Cerasus padus</td>
<td>bird cherry</td>
</tr>
<tr>
<td>Cerasus laurocerasus</td>
<td>laurel</td>
</tr>
<tr>
<td>Chenopodium album</td>
<td>goosefoot</td>
</tr>
<tr>
<td>Chaerophyllum temulun</td>
<td>rough chervil</td>
</tr>
<tr>
<td>Chrysanthemum leucanthemum</td>
<td>ox eye</td>
</tr>
<tr>
<td>Chrysanthemum sineuse</td>
<td>chrysanthemum</td>
</tr>
</tbody>
</table>
Chrysosplenium alternifolium ....... alternate-leaved golden saxifrage
Cichorium intybus .................................. wild succory
Circeae lutetiana .................................. enchanter's nightshade
Cirsium lanceolatum .................................. spear plume thistle
    " arvense (Carduus arvensis) ........ creeping plume thistle
    " acaule .................................. dwarf plume thistle
Clematis vitalba .................................. clematis, or travellers' joy
Cochlearia armoracia .................................. horse radish
    " anglica ............ English scurvy grass
    " officinalis ............ common scurvy grass
    " danica ........ Danish scurvy grass
Colutea arborescens .................................. bladder senna
Conium maculatum .................................. common hemlock
Convolvulus arvensis .................................. small convolvulus, or small bindweed
Cornus sanguinea .................................. dogwood, or wild cornel
Corylus avellana .................................. nut, or hazel
Crataegus oxyacantha .................................. hawthorn, or whitethorn
Cucubalus bacciferus .................................. berry-bearing campion
Cupressus fastigata .................................. cypress
Cynoglossum officinale .................................. houndstongue
Cyperaceae .............................................. rush
Cyrtisus scoparius .................................. broom
Dactylis glomerata .................................. rough cocksfoot grass
Datura stramonium .................................. thorn-apple
Daucus carota .................................. common carrot
    " maritimus ............ sea-side carrot
Delphinium .............................................. larkspur
Digitalis purpurea .................................. foxglove
Dipsacus sylvestris .................................. wild teaze
    " Fullonum ............ fuller's teaze
Dryas ocyopetala .................................. dryas, or mountain avens
Dryum capillare .................................. a common moss
Echium vulgare .................................. viper's bugloss
Elymus arenarius .................................. upright sea lyme grass
Empetrum nigrum .................................. crakeberry, or crowberry
Epilobium montanum .................................. broad smooth-leaved willow herb
    " parviflorum ............ small-flowered hairy willow herb
    " palustre ............ narrow-leaved marsh willow herb
    " angustifolium ............ rose bay willow herb
    " hirsutum ............ great hairy willow herb
    " alsinifolium ............ chickweed-leaved willow herb
Equisetum .............................................. horsetail
Erica cinerea .................................. fine-leaved heath
    " tetralix ............ cross-leaved heath
Erigeron acre .................................. blue fleabane
Eriophorum vaginatum .................................. cotton grass
Erithrea centaurium .................................. common centaury
Erodium circutarium .................................. hemlock storksbill
Eryngium maritimum .................................. sea eryngo, or sea holly
Erysimum cheiranthoides .................................. treacle mustard
Eunonymus europaeus .................................. spindle
Eupatorium cannabinum .................................. hemp agrimony
Euphorbia esula........................leafy branched spurge
  " cyparissias........................cypress spurge
  " paralias..........................sea spurge
Euphrasia officinalis..................eye bright
Fagus sylvatica........................beech
Festuca ovina..........................sheep's fescue grass
  " durieuscula.........................hard fescue grass
Ficaria ranunculoides..................pilewort
Fragaria vesca........................strawberry
Fraxinus excelsior.....................ash
Fuscia coccinea .......................scarlet fuschia
Galeopsis..............................hemp nettle
Galium Mollugo.........................hedge bedstraw
  " uliginosum.........................rough marsh bedstraw
  " palustre..........................white water bedstraw
  " sexatile..........................smooth heath bedstraw
  " verum.............................yellow bedstraw
Genista anglica........................needle Greenwood
  " tinctoria..........................dyer's Greenwood
Gentiana campestris....................gentian
Geum urbanum..........................herb Bennet, or wood avens
Glehoma hederacea......................ground ivy
Glyceria aquatica......................reed grass
Gnaphalium..............................cudweed
Gymnadenia conopsea....................fragrant orchis
Habenaria bifolia......................butterfly orchis
Hedera helix...........................ivy
Helianthemum vulgare..................sun cistus, or rock rose
Heracleum sphondylium..................cow parsley
Hesperis matronalis....................dame's violet
Hieracium pilosella....................mouse-ear hawkweed
  " umbellatum.........................narrow-leaved hawkweed
Hippocrepis comosa......................tufted horse-shoe vetch
Hippophae rhamnoides..................sea buckthorn, or sallow thorn
Holcus mollis.........................creeping soft grass
Humulus lupulus........................hop
Hyoscamus niger.......................henbane
Hypericum perforatum..................perforated St. John's wort
Ilex aquifolium........................holly
Inula dysenterica......................feabane
  " conyza............................ploughman's spikenard
Iris pseud-acorus......................yellow water iris, or flag
  " foetidissima.......................stinking iris
  " germanica.........................fleur de luce, or purple flag
Jasione montana........................annual sheep's scabious
Jasminum officinale...................white jasmine
Juniperus sabina.......................savine
  " communis.........................juniper
Lactuca virosa......................strong scented wild lettuce
  " sativa.............................garden lettuce
  " muralis...........................ivy-leaved wall lettuce
Lamium purpureum......................red dead nettle
Lamium vulgatum ............... common dead nettle
   " album .................. white dead nettle
Lappa tomentosa ............... downy-headed burdock
   " glabra .................. smooth-headed burdock
Larix europaea ................. larch
Lathyrus latifolius ............ everlasting pea
   " sylvestris .......... narrow-leaved everlasting pea
   " pratensis .......... meadow vetchling
   " palustris .......... blue marsh vetchling
Lemna minor ................... duckweed
Ligustrum vulgare ............. privet
Linaria vulgaris .............. yellow toadflax
   " spuria ............... round-leaved toadflax, or fluellen
Linum catharticum ............ purging flax
Lithospermum arvense .......... corn gromwell
Lonicera periclymenum .......... honeysuckle, or woodbine
Lotus corniculatus ............ common birdsfoot trefoil
   " major ................ greater birdsfoot trefoil
Luzula pilosa .................. broad-leaved wood rush
Lychnis sylvestris ............ red campion
   " dioica ................ white campion
   " flos-cuculi ......... ragged robin
Lycium barbarum .............. box thorn
Lycopsis arvensis ............. bugloss
Lysimachia vulgaris ........... great loosestrife
Lythrum salicaria ............. spiked purple loosestrife
   " hyssopifolium ...... hyssop-leaved purple loosestrife
Malva moschata ............... musk mallow
   " sylvestris .......... common mallow
Marubium vulgare ............. white horeround
Matricaria chamomila .......... wild chamomile
Medicago lupulina ............. black mendick, or nonsuch
   " sativa ............... lucerne
" Melampyrum pratense ........ yellow cow wheat
Melilotus officinalis .......... yellow melilot
Melissa clinopodium .......... wild basil
   " acinos ................ basil thyme
Mentha arvensis .............. corn mint
   " aquatica ............. hairy mint
Menyanthes trifoliata .......... buckbean
Milium effusum ............... millet grass
Molinia caerulea ............. lavender grass
Myosotis arvensis ............ field forget-me-not, or scorpion grass
Myrica gale .................. sweet gale
Nardus stricta ................ small mat grass
Nepea cataria ................ cat mint
Nerum oleander ............... oleander
Nuppar lutea .................. yellow water lily
Odontites rubra ............... wood chickweed
Oenanthe crocata ............. hemlock waterdrop
Onobrychis sativa ............ saintfoin
Ononis procurrens ............ trailing rest harrow
Ononis spinosa .................................. spinous rest harrow
Origanum vulgare ................................ wild marjoram
Ornithopus perpusillus .......................... birdsfoot
Orobus sylvesticus .............................. wood bitter vetch
" tuberosus .......................... tuberous orobus
" niger .......................... black bitter vetch
Oxyccocus palustris .......................... cranberry
Papaver rhœas .............................. common red poppy
" orientale .......................... large garden poppy
Pastinaca sativa .......................... parsnip
" sylvestris .......................... wild parsnip
" edulis .......................... garden parsnip
Petasites vulgaris .......................... butter bur
Peucedanum palustre ........................ milk parsley, or hog's fennel, or marsh fennel
Phleum pratense .......................... cat's-tail, or timothy grass
Phragmites communis ........................ common reed
Picris hieracioides ........................ hawkweed picris
Pimpinella magna .......................... great burnet saxifrage
" saxifraga .......................... common burnet saxifrage
Pinus sylvestris .......................... Scotch fir
" strobos .......................... Weymouth fir
" balsamea .......................... Canadian balsam fir
" alba .......................... white fir
Plantago major .......................... greater plantain
" lanceolata .......................... ribwort, or narrow-leaved plantain
" maritima .......................... sea plantain
Platanus orientalis ........................ oriental plane tree
" occidentalis ........................ American plane tree
Poa annua .......................... annual meadow grass
" aquatica .......................... reed meadow grass
Polygala vulgaris .......................... milkwort
Polygonum aviculare ........................ knotgrass
" hydropiper .......................... water pepper, or biting persicaria
" persicaria .......................... spotted persicaria
Polypodium filix-mas ........................ male fern
Populus alba .......................... white poplar
" tremula .......................... aspen
" nigra .......................... black poplar
" fastigata .......................... Lombardy poplar
Potamogeton pectinatus ........................ fennel-leaved pondweed
Potentilla tormentilla ........................ tormentil
" reptans .......................... creeping cinquefoil
" anserina .......................... silver weed
Poteriam sanguisorba ........................ salad burnet
Primula vulgaris .......................... primrose
" veris .......................... cowslip
Prunus spinosa .......................... sloe, or blackthorn
" domestica .......................... plum
Pteris aquilina .......................... brake fern
Pyrethrum inodorum ........................ corn feverfew
Pyrethrum maritimum .......... seaside feverfew
Pyrus communis ................ pear
   " malus ................. apple
   " aucuparia ................. mountain ash
Quercus robur ................. oak
   " ilex ................... evergreen oak
Ranunculus acris ............. upright crowfoot
   " bulbosus ................. bulbous crowfoot, or buttercup
Raphanus sativus ............. radish
Reseda luteola ................ weld
   " lutea ................... wild mignonette
   " odorata .......... garden mignonette
Rhamnus catharticus .......... common buckthorn
   " frangula ................. berry-bearing alder
Rhinanthus crista galli ...... yellow rattle
Rynchospora alba .............. white beak rush
Ribes uva-crispa .............. gooseberry
   " rubrum ................. red currant
   " nigrum ................ black currant
Rosa spinosissima ............. burnet-leaved rose
   " canina ................. wild rose, or dog rose
   " centifolia ............. cabbage rose
Rubia peregrina ............... wild madder
Rubus idæus ................. wild raspberry
   " fruticosus ............. bramble, or blackberry
   " cæsius ................ dewberry
Rumex obtusifolius .......... broad-leaved dock
   " acutus ................ sharp dock
   " crispus ................ curled dock
   " hydrolapathum ........ great water dock
   " acetosa ................. common sorrel
   " acetosella ............. sheep's sorrel
Salicornia herbacea .......... jointed glasswort
   " radicans ............... creeping glasswort
Salix fragilis ............... crack willow
   " vitellina ............... yellow willow, or golden osier
   " triandra ............... long-leaved triandrous willow
   " viminalis ............... common osier, or withy
   " cinerea ................. grey sallow
   " aquatica ............... water sallow
   " caprea ................. great round-leaved sallow
   " repens ................ creeping willow
Salsola kali ................... prickly saltwort
Salvia pratensis ............ sage, or meadow clary
Sambucus nigra ............... elder
Saxifraga granulata .......... white meadow saxifrage
Scabiosa arvensis ............ field scabious
   " succisa ............... devil's bit scabious
   " columbaria ............ small scabious
Schenus nigricans ........... black bog rush
Scirpus lacustris ............ bullrush, or clubrush
Scleranthus perennis ........... perennial knawel
Scleranthus annuus............. annual knawel
Scolopendrium vulgare........... common hartstongue
Scrophularia aquatica........... water figwort
                nodosa............. knotted figwort
Scutellaria galericulata........ common skullcap
Sedum telephium.................. opine, or live-long
                        acre.......................... biting stonecrop, or wall pepper
                        reflexum.................... crooked yellow stonecrop
                        album.......................... white stonecrop
Senecio Jacobæa.................. common ragwort
                        aquaticus............. marsh ragwort
                        vulgaris............. common groundsel
                        sylvaticus........... mountain groundsel
Sesleria cærulea................ blue moor grass
Silene acaulis................... moss campion
                        inflata.................... bladder campion
                        maritima............. sea campion
                        apiites............... Spanish catchfly
                        nutans................... Nottingham catchfly
Sinapis nigra.................... black mustard
                        arvensis............... charlock
                        alba..................... white mustard
Sisymbrium Sophias.............. flixweed
Sium latifolium.................. broad-leaved water parsnip
Solanum dulcamara.............. woody nightshade
                        nigrum.................... black nightshade
                        tuberosum............... potato
Solidago virgaurea.............. golden rod
Sonchus arvensis.............. corn sow thistle
                        oleraceus............... common sow thistle
Sparganium...................... bur reed
Spinacia......................... spinach
Spiræa ulmaria.................. meadow sweet
Stachys betonica.............. betony
                        sylvatica............... hedge woundwort
                        arvensis............... corn woundwort
Statice armeria................ sea pink, or thrift
                        limonium................ spreading spiked sea thrift, or sea lavender
Stellaria uliginosa............. bog stitchwort
                        graminea............... lesser stitchwort
                        media.................... common chickweed
                        holostea............... greater stitchwort
Stratiotes aloides............... water aloe, or water soldier
Symphoricarpos racemosus........ snowberry
Symphytum officinale............. common comfrey
Syringa vulgaris............... lilac
Tamus communis.................. black bryony
Tanacetum vulgare.............. tansy
Taraxacum dens leonis........... dandelion
Teucrium scorodonia............. wild germander, or wood sage
Thalictrum minus............... lesser meadow rue
                        flavum................. common meadow rue
Thymus serpyllum .................. wild thyme
Tilia intermedia .................. lime tree
Trifolium repens .................. Dutch clover, white clover, or shamrock
  procumbens .................. hop trefoil
Tripolium vulgare .................. sea starwort
Triticum repens .................. couch grass
  junceum .................. rushy sea wheat grass
Tropaeolum .................. garden nasturtium
Tussilago farfara ................. coltsfoot
Typha latifolia .................. reed mace
Ulex europaeus .................. common furze
  nanus .................. dwarf furze
Ulmus campestris .................. elm
  montana .................. wych elm
Urtica dioica .................. nettle, or stinging nettle
Vaccinium myrtillus .............. bilberry
  vitis idaea ................. whortleberry
Valerian officinalis ............. officinal valerian
Verbascum lycnitis .............. white mullein
  pulverulentum .............. yellow hoary mullein
  nigrum .................. dark mullein
  blattaria .................. moth mullein
Veronica chamædrys .............. germander speedwell
Viburnum tinus .................. laurustinus
  lantana .................. mealy guelder rose, or wayfaring tree
  opulus .................. guelder rose
Vicia cracca .................. tufted vetch
  sylvatica .................. wood vetch
  lutea .................. yellow vetch
  sativa .................. common vetch
  sepium .................. bush vetch
Viola odorata ................. sweet violet
  canina .................. dog violet
  tricolor ................. wild heartsease
Vitis vinifera ................. vine
APPENDIX II.

A List of British Lepidoptera, WITH THE TIMES OF THEIR APPEARANCE.

ABBREVIATIONS.—The Roman numerals are used to indicate the Months, thus:—


DIURNI.

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The text above is a list of species names categorized under the Lepidoptera, a group of insects that includes butterflies and moths. Each species is listed with its common or scientific name, followed by its larval or adult form. The text is structured in a table format to make it easier to read and understand. The names are then followed by a list of species under the Crambidae family, which are also butterflies and moths. The text is a detailed catalog of species, their larvae, and their imagos, which are their adult forms.
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ERRATUM.

** At page 221, third line from the bottom, strike out INTERJECTARIA, as synonymous with DILUTARIA.