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*An Abstract of the Characters of Ochsenheimer's Genera of the Lepidoptera of Europe; with a List of the Species of each Genus, and Reference to one or more of their respective Icones. By J. G. CHILDREN, F.R.S. L. & E. F.L.S. &c.*

**I**N Samouelle's Entomologist's Useful Companion, as well as in several other works of deserved reputation, the names of the Genera established by Ochsenheimer, in his *Schmetterlinge von Europa*, are frequently quoted, but the characters on which they are founded wholly omitted, so that they can only be inferred from a laborious comparison of those of their respective types,—a task few persons will be disposed to submit to, in order to clear up an occasional doubt, as to what genus such or such an insect is to be referred. This inconvenience is attributable to the want of an English edition of Ochsenheimer's work; and in some measure to lessen it, the following translation of his Family and Generic Characters is offered to the British student.

Ochsenheimer died in 1822, leaving his work incomplete, only four volumes having been published in his life-time, the last of which appeared in 1816, and consists chiefly of an improved sketch of his arrangement of the European Lepidoptera from the first genus to the eighty-seventh. Before his death, however, only the first forty-three genera were published in detail, with the characters and descriptions of their respective species; these occupy the first three volumes, the last of which terminates with the genus *Eyprepia*; for the fourth contains, besides the sketch of the arrangement, only notes concerning

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some

some of the species published in the former volumes. The work is continued by M. Frederick Treitschke, and the specific descriptions are completed to the hundred-and-sixth genus inclusive; and M. Treitschke has also given a further sketch of the arrangement, including ten additional genera consisting of the *Phalænæ Pyralides* of Linnæus, the specific descriptions of which are not yet published\*. More therefore still remains to be done, and we wait anxiously for the completion of the work. In the mean time we lay the present abstract before the reader; and should he entertain any doubts of the value of M.M. Ochsenheimer's and Treitschke's labours, we refer him to the Introduction to Dr. Horsfield's Descriptive Catalogue of the Lepidopterous Insects contained in the Museum of the East India Company, where he will find such ample testimony to their merit as cannot fail (unless he disregard the maxim "*laudari à laudato,*") presently and effectually to remove them.

1st Division.—PAPILIONES.

*Wings* when at rest, erect.

*Antennæ* filiform, generally capitate, or terminated by a knob; sometimes only slightly incrassate at the end.

*Flight*, diurnal.

*Larva* with sixteen legs; *head* globular, perfectly distinct from the body; *motion* indolent, and sluggish.

*Pupa* angular.

*Metamorphosis* generally naked, or not concealed by a web.

Genus 1. MELITÆA, *Fab.*

MELITÆA, *Fab.* Syst. Glossat.

BATTUS et GRAPHIUM, *Scopoli.* Introductio ad Hist. Nat.

NYMPHALIS, *Latr.* Gen. Crust. et Ins.

PAPILIO, *Schrank.* Faun. boïc.

LEMONIADES, *Hübner.*

*Legs*, first pair imperfect.

*Wings*, roundish; *upper surface* of the *anterior wings*, reddish-yellow with black maculæ and dots, or blackish, with reddish-yellow maculæ and dots; *under surface* of the *posterior wings* with alternate orange-yellow, and yellowish-white cross bands with black spots; not silvered.

*Antennæ*, knob oval, compressed, obtuse.

\* The last volume as yet published is the sixth, of which, Parts I. and II. appeared in the present year.

*Larva* with seven or nine conical, fleshy protuberances, covered with short hairs, on each of the middle segments of the body, and two larger on the side of the throat.

*Pupa*, anteriorly rather obtuse, hinder part usually with elevated points; not suspended in any constant manner.

Species.	Icon.
1. <i>M. Maturna</i> , Linn...	Ernst, I. Pl. XVII. f. 27. a. b.
2. — <i>Cynthia</i> , Fab.....	Ernst, I. Pl. XVII. f. 26. a—d.
3. — <i>Artemis</i> , Fab.....	Ernst, I. Pl. XVII. f. 28. a. b.
4. — <i>Cinxia</i> , Linn.....	Ernst, I. Pl. XIX. f. 32. a—f.
5. — <i>Didyma</i> , Esp. ...	Ernst, I. Pl. XVIII. f. 29. a—d.
6. — <i>Trivia</i> , Hübn. ...	Ernst, I. Pl. LXI. Suppl. VII. f. 29. a—d. bis.
7. — <i>Phœbe</i> , Hübn. ...	Ernst, I. Pl. LXI. Suppl. VII. f. 28. a. b. bis.
8. — <i>Dictynna</i> , Esp....	Ernst, I. Pl. LXII. Suppl. VIII. f. 31. a—d. bis.
9. — <i>Athalia</i> , Esp.....	Ernst, I. Pl. XIX. f. 31. c. d.
10. — <i>Parthenia</i> , Borkh.	Hübn. Pap. Tab. 4. f. 19. 20. (fœm.)
11. — <i>Lucina</i> , Linn.....	Ernst, I. Pl. XVI. f. 25. a. b.

Genus 2. ARGYNNIS, *Fab.*

ARGYNNIS, <i>Fab.</i>	PAPILIO, Schrank.
ARGYREUS, Scop.	DRYADES, Hübn.
NYPHALIS, Latr.	

*Legs*, four perfect, gressorial.

*Wings* subdentate, *upper surface* generally reddish-brown with black spots; *under surface* with silvery bands or spots.

*Antennæ* capitate, knob compressed.

*Larva* with six longitudinal rows of ramose spines, and two others, generally larger than the rest on the first segment; a broad, longitudinal, dorsal band, divided by a medial line.

*Pupa*, suspended variously; cavity of the neck, and the neck, with brilliant points.

Species.	Icon.
1. <i>A. Apherape</i> , Hübn.	Hübn. Pap. Tab. 5. f. 23. 24. (mas.) 25. (fœm).
2. — <i>Selene</i> , Fab.....	Ernst, I. Pl. XVI. f. 23. a. b.
3. — <i>Euphrosyne</i> , Linn.	Ernst, I. Pl. XVI. f. 22. a. b.
4. — <i>Dia</i> , Linn. . . . .	Ernst, I. Pl. XV. f. 21. a. b.

	Species.	Icon.
5.	<i>A. Pales</i> , Hübn.....	Ernst, I. Pl. LX. Suppl. VI. f. 21. a. b. c. d. bis, a. b. c. d. tert.
6.	— <i>Hecate</i> , Fab.....	Ernst, I. Pl. LIX. Suppl. V. f. 20. a—d. tert.
7.	— <i>Ino</i> , Hübn. ....	Ernst, I. Pl. XV. f. 20. c.
8.	— <i>Daphne</i> , Fab. ....	Ernst, I. Pl. XV. f. 20. a. b.
9.	— <i>Frigga</i> , Hübn.	Hübn. Pap. Tab. 9. f. 49. 50. (fœm.)
10.	— <i>Thore</i> , Hübn. ...	Hübn. Pap. Tab. 3. f. 571— 573.
11.	— <i>Amathusia</i> , Fab.	Ernst, I. Pl. LXXX. Suppl. II. Pl. I. f. 21. a. b. quart.
12.	— <i>Chariclea</i> , Schneid.	Herbst, Pap. Tab. 272. f. 5. 6.
13.	— <i>Freija</i> , Schneid...	Herbst, Pap. Tab. 272. f. 7—10.
14.	— <i>Latonia</i> , Linn. ...	Hübn. Pap. Tab. 11. f. 59. 60. (fœm.) Pl. CXX. f. 613. var.
15.	— <i>Niobe</i> , Linn. ....	Ernst, I. Pl. XV. f. 19. a. b. c.
16.	— <i>Adippe</i> , Fab.....	Ernst, I. Pl. XIII. f. 16. c—i.
17.	— <i>Aglaiä</i> , Linn.....	Hübn. Pap. Tab. 13. f. 65. 66. (fœm.)
18.	— <i>Laodice</i> , Fab. ....	Hübn. Pap. Tab. 13. f. 67. 68. (fœm.)
19.	— <i>Paphia</i> , Linn. ...	Ernst, I. Pl. XII. f. 15. a—f.
20.	— <i>Pandora</i> , Fab. ...	Ernst, I. Pl. XII. f. 15. g. h.

Genus 3. EUPLOEA, *Fab.*

BATTUS, Scop.

DANAIS, Latr.

LIMNADES, Hübn.

*Legs*, four perfect.*Wings*, anterior with the external margin rather curved; colour reddish-yellow, margin black with white spots; a curved band of white spots towards the apex.*Antennæ* oval, knob gradually incrassate. Head and breast black, with white spots.*Larva*, with sixteen feet; feet sub-spinous, spines simple.*Pupa* nearly cylindrical; suspended freely.

	Species.	Icon.
1.	<i>E. Chrysippus</i> , Linn....	Hübn. Pap. Tab. 133. f. 678. 679. (mas.)

† The only European species of the genus.

Genus 4. VANESSA, *Fab.*

CYNTHIA, *Fab.* PAPILIO, *Schrank.*  
 NYMPHALIS, *Latr.* HAMADRYADES, *Hübner.*  
 BATTUS et GRAPHIUM, *Scop.*

*Legs*, four perfect, gressorial.

*Wings*, exterior margin angular; upper surface spotted; under side with transverse bands; bands usually blackish-brown or variegated.

*Antennæ* capitate.

*Larva* sub-lanate, with several longitudinal rows of stiff, bristly hairs, or spines. (The first segment naked, second and third with four, and the rest with six spines.) Head blackish, bifid; in some species armed with ramose sub-obtuse spines.

*Pupa* suspended vertically; often externally with a brilliant gold or silver hue: head and dorsal segments mucronate; dorsal ridge acuminate.

Species.

Icon.

A. Wings slightly dentate.

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|----------------------------------|-------------------------------|
| 1. <i>V. Cardui</i> , Linn.....  | Ernst, I. Pl. VII. f. 7. a—g. |
| 2. — <i>Atalanta</i> , Linn. ... | Ernst, I. Pl. VI. f. 6. a—i.  |

B. Wings furcate.

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|---|---|
| 3. <i>V. Io</i> , Linn.....             | Ernst, I. Pl. II. f. 2. a—f.                  |
| 4. — <i>Antiopa</i> , Linn....          | Ernst, I. Pl. I. f. 1. a—h.                   |
| 5. — <i>V. album</i> , <i>Fab.</i> ...  | Ernst, I. Pl. LVI. Suppl. II. f. 5. a—d. bis. |
| 6. — <i>Polychloros</i> , Linn.         | Ernst, I. Pl. III. f. 3. a—i.                 |
| 7. — <i>Xanthomelas</i> , <i>Illig.</i> | Ernst, I. Pl. LV. Suppl. I. f. 3. a b. bis.   |
| 8. — <i>Urticæ</i> , Linn.....          | Ernst, I. Pl. IV. f. 4. a—h.                  |
| 9. — <i>Triangulum</i> , <i>Fab.</i>    | Ernst, I. Pl. V. f. 5. g. h.                  |
| 10. — <i>C. album</i> , Linn....        | Ernst, I. Pl. V. f. 5. a—f.                   |
| — <i>F. aibum</i> , <i>Fab.</i> ...     | } Herbst, <i>Schm. Tab.</i> 163. f. 1. 2.     |
| (var. <i>C. album</i> ) ...             |   |

C. Posterior wings slightly acuminate.

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| 11. <i>V. Prorsa</i> , Linn..... | Ernst, I. Pl. VIII. f. 8. a—e. |
| 12. — <i>Levana</i> , Linn....   | Ernst, I. Pl. VIII. f. 9. a—f. |

Genus 5. LIMENITIS, *Fab.*

NEPTIS, *Fab.* PAPILIO, *Schrank.*  
 NYMPHALIS, *Latr.* NAIADES, *Hübner.*  
 BATTUS et GRAPHIUM, *Scop.*

*Legs*, anterior pair very small; second and third perfect, gressorial.

*Wings*,

*Wings*, dentated, the anterior somewhat repand \*; upper surface black, or blueish-green; under surface reddish-brown, or cinnamon colour; body griseous.

*Antennæ* clavate.

*Larva* variegated; head with two elevated points; body with two longitudinal rows of ramose spines.

*Pupa* variously suspended; head with two small elevations; the dorsal larger, securiform.

Species.	Icon.
1. <i>L. Aceris</i> , Fab. ....	Ernst, I. Pl. II. Suppl. III. f. 12. a—d. bis.
2. — <i>Lucilla</i> , Fab.....	Ernst, I. Pl. X. f. 12. a. b.
3. — <i>Sibylla</i> , Linn.....	Ernst, I. Pl. XI. f. 13. a—f.
4. — <i>Camilla</i> , Fab.....	Ernst, I. Pl. XI. f. 14. a. b.
5. — <i>Populi</i> , Linn.....	Ernst, I. Pl. IX. f. 10. a—d.

### Genus 6. CHARAXES, *Ochs.*

PAPHIA, Fab.

NYPHALIS, Latr.

*Legs*, first pair imperfect.

*Wings*, anterior elongated, angular; posterior dentate, the external margin bicaudate near the apex.

*Antennæ* clavate.

*Larva* smooth; head with four horns; body bicuspidate at the anal extremity.

*Pupa*, nearly oval.

Species.	Icon.
1. <i>C. Jasius</i> , Linn. ....	Drury, Illustr. of Nat. Hist. I. Pl. I. f. 1.

† Only one European species.

### Genus 7. APATURA, *Fab.*

NYPHALIS, Latr.

MANIOLA, Schrank.

ARGUS, Scop.

POTAMIDES, Hübn.

*Legs*, first pair imperfect.

*Wings*, somewhat repand, and dentate; colour changeable according to the direction of the light, between brown and purple; posterior wings ocellated at the interior angle.

*Antennæ* clavate, knob sub-cylindrical, and rather slender.

*Larva* similar to that of *Charaxes*; but with faint yellow transverse bands: head smooth anteriorly, with two long, straight, obtuse, or bipartite horns.

\* *Ausgeschweift*, repandus, *repand*: cut into very slight sinuations, so as to run in a serpentine direction.—*Kirby and Spence*, iv. 297.

*Pupa* green, compressed: head bicuspidate; suspended vertically by the posterior extremity.

	Species.		Icon.
1.	<i>A. Iris</i> , Linn. ....	Ernst, I. Pl. XXXI. f. 62. a. b.	
2.	— <i>Ilia</i> , Fab. ....	Ernst, I. Pl. XXXI. f. 62. c. d. (fœm.) Pl. XXXII. f. 64. e. f. (mas.)	

Genus 8. HIPPARCHIA, *Fab.*

NYMPHALIS, Latr.	MANIOLA, Schrank.
ARGUS, Scop.	OREADES, Hübn.

*Legs*, first pair less than half the size of the second and third.

*Wings*, generally brownish, with the margin ocellated.

*Antennæ* clavate; knob flattened; (often slightly curved.)

*Larva*, anal extremity bicuspidate: head globular, anteriorly depressed; generally hairy, with dark-coloured longitudinal striæ; hairs whitish.

*Pupa* short, anteriorly bicuspidate, points erect, small; suspended by the anal extremity.

*Metamorphosis*, usually in the air, but some species change under ground.

	Species.		Icon.
A. 1.	<i>H. Proserpina</i> , Fab.	Ernst, I. Pl. XX. f. 33. a. b.	
2.	— <i>Hermione</i> , Linn.	Ernst, I. Pl. XX. f. 34. a. b. c.	
3.	— <i>Alcyone</i> , Linn.	Ernst, I. Pl. LXII. Suppl. VIII. f. 35. a. b. c.	
4.	— <i>Anthe</i> , Hübn.	Hübn. Pap. Tab. 115. f. 589. 590. (fœm.)	
5.	— <i>Briseis</i> , Linn..	Ernst, I. Pl. XXI. f. 36. a—d.	
6.	— <i>Semele</i> , Linn. .	Ernst, I. Pl. XXII. f. 38. a. b. c.	
7.	— <i>Hippolytus</i> , Fab.	Ernst, I. Pl. VIII. Suppl. III. f. 36. a. b. bis.	
8.	— <i>Arethusa</i> , Fab.	Ernst, I. Pl. XXII. f. 39. a. b. c.	
9.	— <i>Fidia</i> , Linn. ...	Ernst, I. Pl. XXI. f. 37. c. d.	
10.	— <i>Allionia</i> , Fab.	Ernst, I. Pl. XXI. f. 37. a. b.	
11.	— <i>Statilinus</i> , Fab.	Ernst, I. Pl. LXIII. Suppl. IX. f. 37. a. b. c. bis.	
12.	— <i>Phædra</i> , Linn.	Ernst, I. Pl. XXIII. f. 40. a—e.	
13.	— <i>Bryce</i> , Fab. ...	Hübn. Pap. Tab. 33. f. 149. 150. (fœm.)	
14.	— <i>Cordula</i> , Fab.	Hübn. Pap. Tab. 29. f. 132. 133. (fœm.)	
15.	— <i>Actæa</i> , Hübn.	Ernst, I. Pl. LXIII. Suppl. IX. f. 37. g. h.	

	Species.	Icon.
	16. H. <i>Podarce</i> , Ochs.*	— — — —
	17. — <i>Aëlo</i> , Hübn. .	Hüb. Pap. Tab. 102. f. 519. 520. (mas.) Tab. 31. f. 141. 142. (fœm.)
	18. — <i>Norna</i> , Thunb.	Hüb. Pap. Tab. 34. f. 152. 153. (mas.) Tab. 30. f. 142. (fœm.)
	19. — <i>Tarpeia</i> , Fab.	Cram. Pap. Exot. Pl. CCCLXXV. E. F.
	20. — <i>Bore</i> , Fab. ....	Hüb. Pap. Tab. 29. f. 134. (mas.) 135. 136. (fœm.)
B.	21. — <i>Tithonus</i> , Linn.	Ernst, I. Pl. XXVII. f. 53. a—e.
	22. — <i>Ida</i> , Fab. ....	Ernst, I. Pl. V. Suppl. III. f. 53. h.
	23. — <i>Pasiphæe</i> , Fab.	Ernst, I. Pl. LXVI. Suppl. XII. f. 53. a. b. bis.
	24. — <i>Clymene</i> , Fab.	Ernst, I. Pl. V. Suppl. III. f. 50. a. b. tert.
	25. — <i>Roxelana</i> , Fab.	Cram. Pap. Exot. Pl. CLXI. fig. C. D. E. F.
	26. — <i>Janira</i> , Linn. .	Ernst, I. Pl. XXVIII. f. 54. a—h.
	27. — <i>Eudora</i> , Fab. .	Ernst, I. Pl. XXVIII. f. 55. a. b.
C.	28. — <i>Hyperanthus</i> , Linn. }	Ernst, I. Pl. XXVII. f. 52. a—f.
	29. — <i>Dejanira</i> , Linn.	Ernst, I. Pl. XXV. f. 48. a. b.
	30. — <i>Hiera</i> , Hübn.	Hüb. Pap. Tab. 39. f. 176. (fœm.)
	31. — <i>Mæra</i> , Linn. .	Ernst, I. Pl. XXVI. f. 51. a. b.
	32. — <i>Adrasta</i> , Hoff- mansegg. .... }	Ernst, I. Pl. LXXXII. Suppl. II. Pl. 3. fig. 50. a. b. c. bis.
	33. — <i>Megæra</i> , Linn.	Ernst, I. Pl. XXVI. f. 50. a. b. c. d. (e. f. var.)
	34. — <i>Egeria</i> , Linn.	Ernst, I. Pl. XXV. f. 49. a—d.
	35. — <i>Meone</i> , Hübn.	Cram. Pap. Exot. Pl. CCCXIV. f. E. F.
D.	36. — <i>Galatea</i> , Linn.	Ernst, I. Pl. XXX. f. 60. a—d.
	37. — <i>Lachesis</i> , Hübn.	Hüb. Pap. Tab. 41. f. 186. 187. (mas.) Tab. 42. f. 188. 189. (fœm.)
	38. — <i>Clotho</i> , Fab....	Ernst, I. Pl. V. Suppl. III. f. 61. a. b. bis.
	39. — <i>Ines</i> , Hoffm. . .	— — — —
	40. — <i>Arge</i> , Sulzer. .	Ernst, I. Pl. XXX. f. 61. a. b.
	41. — <i>Syllius</i> , Herbst.	Ernst, I. Pl. XXX. f. e. f.

\* Sp. n.—H. alis subdentatis fuscis: anticis utrinque ocello, punctisque subtus duobus albis: posticis supra immaculatis, subtus albo fuscoque marmoratis, fasciâ crenatâ concolore albo marginatâ venisque albis.



	Species.	Icon.
E. 42.	H. <i>Epiphron</i> , Fab.	Hüb. Pap. Tab. 44. f. 202.
43.	— <i>Pharte</i> , Hübn.	Hüb. Pap. Tab. 97. f. 491. 492. (mas.) 493. 494. (fœm.)
44.	— <i>Melampus</i> , Esp.	Ernst, I. Pl. LXXXI. Suppl. II. Pl. II. f. 41. a. b. bis.
45.	— <i>Cassiope</i> , Fab.	Ernst, I. Pl. XXIV. f. 45. a. b.
46.	— <i>Arete</i> , Fab. ...	Hüb. Pap. Tab. 50. f. 231. 232. (fœm.)
47.	— <i>Mnestra</i> , Hübn.	Hüb. Pap. Tab. 106. f. 540. 541. (mas.) 542. 543. (fœm.)
48.	— <i>Pyrrha</i> , Fab. .	Ernst, I. Pl. XXIII. f. 41. a—d.
49.	— <i>Oeme</i> , Hübn. .	Hüb. Pap. Tab. 104. f. 530. 531. (mas.) 532. 533. (fœm.)
50.	— <i>Psodea</i> , Hübn.	Hüb. Pap. Tab. 98. f. 497. (mas.) 498. 499. (fœm.)
51.	— <i>Afer</i> , Fab. . . . .	Hüb. Pap. Tab. 98. f. 500. 501. (mas.)
52.	— <i>Ceto</i> , Hübn. . . . .	Hüb. Pap. Tab. 112. f. 578. 579. (mas.)
53.	— <i>Medusa</i> , Fab.	Ernst, I. Pl. XXIV. f. 44. a. b.
F. 54.	— <i>Stygne</i> , Hübn.	Hüb. Pap. Tab. 48. f. 223. 224. (mas.)
55.	— <i>Melas</i> , Herbst.	Hüb. Pap. Tab. 45. f. 105. 106. (mas.)
56.	— <i>Alecto</i> , Hübn.	Hüb. Pap. Tab. 104. f. 528. 529. (mas.) Tab. 101. f. 515. 516. (fœm.)
57.	— <i>Medea</i> , Fab. .	Ernst, I. Pl. XXIV. f. 43. a. b. e. f. g.
58.	— <i>Ligea</i> , Linn. .	Ernst, I. Pl. XXIII. f. 42. a. b.
59.	— <i>Euryale</i> , Esp.	Esp. Schm. I. Th. Tab. 118. Cont. 73. f. 2. (mas.) f. 3. (fœm.)
60.	— <i>Embla</i> , Fab. . .	Hüb. Pap. Tab. 109. f. 561. 562. (mas.) Tab. 49. f. 228. 229. (fœm.)
61.	— <i>Pronœ</i> , Fab. .	Ernst, I. Pl. LXIV. Suppl. X. f. 42. a—c. bis.
62.	— <i>Goante</i> , Esp. .	Hüb. Pap. Tab. 50. f. 233. 234. (fœm.)
63.	— <i>Gorge</i> , Hübn.	Hüb. Pap. Tab. 99. f. 502. 503. (mas.) 504. 505. (fœm.)
64.	— <i>Manto</i> , Fab. . . .	Ernst, I. Pl. LXV. Suppl. XI. f. 42. a. b. tert.
65.	— <i>Tyndarus</i> , Fab.	Ernst, I. Pl. LXV. Suppl. XI. f. 42. a. b. quart.

B

	Species.	Icon.
G. 66.	H. <i>Davus</i> , Linn. .	Ernst, I. Pl. XXIX. f. 58. a. b.
67.	— <i>Pamphilus</i> , Linn.	Ernst, I. Pl. XXIX. f. 56. a. b.
68.	— <i>Lyllus</i> , Esp....	Hüb. Pap. Tab. 109. f. 557. 558. (foem.)
69.	— <i>Iphis</i> , Fab. ...	Hüb. Pap. Tab. 53. f. 249. (mas.) 250. 251. (foem.)
70.	— <i>Hero</i> , Linn. ...	Ernst, I. Pl. XXIX. f. 59. a. b.
71.	— <i>Ædipus</i> , Fab..	Hüb. Pap. Tab. 52. f. 245. 246. (mas.)
72.	— <i>Arcania</i> , Linn.	Ernst, I. Pl. XXIX. f. 57. a—d.
73.	— <i>Dorus</i> , Esp. ...	Ernst, I. Pl. LXVIII. Suppl. XIV. f. 57. a. b. bis.
74.	— <i>Satyrion</i> , Esp.	Hüb. Pap. Tab. 53. f. 254. 255. (mas.)
75.	— <i>Corinna</i> , Hüb. Hüb.	Hüb. Pap. Tab. 105. f. 534. 537. (foem.)
76.	— <i>Leander</i> , Fab.	Hüb. Pap. Tab. 103. f. 526. 527. (foem.)
77.	— <i>Phryne</i> , Fab. .	Ernst, I. Pl. VIII. Suppl. III. f. 58. a. b. bis.

### Genus 9. LYCÆNA, Fab.

THECLA et HESPERIA, Fab.

POLYOMMATUS, Latr.

ARGYREUS, ARGUS, PTEROURUS, BATTUS et GRAPHIUM, Scop.

CUPIDO, Schrank.

RUSTICI, Hüb. H.

FAM. A.—*Legs*, first pair shorter than the rest.

*Wings*, upper surface generally blue, especially in the males; in the females often brown, with a row of reddish-yellow spots near the exterior margin; under surface almost constantly grayish, with numerous ocelli with black pupils surrounded by white irides\*.

*Antennæ* filiform, terminated by an elongated, compressed club.

*Larva* onisciform; head black, and, as well as the feet, very small, and scarcely perceptible; the body lacinate as usual,

\* Latreille at first subdivided his genus *Polyommatus* into three great groups,—*les petits-porte-queue*, *les argus*, and *les bronzés*; and subsequently he established several smaller sections in each of those subdivisions. Mr. Stephens has arranged the British *Lycænida* in the three genera *Thecla*, *Lycæna*, and *Polyommatus*, including in the first, those insects “distinguished by the sombre tints of the upper surface of their wings, and the pale streaks with which they are adorned below; by the pubescence of the eyes, the abbreviated, triangular anterior wings, and the ovate-triangular posterior ones, which are usually furnished near the anal angle with one or more short linear tails, or are strongly denticulated on that part.”—“The indigenous

usual, the back elevated, and generally beautifully coloured.

*Pupa* rather long, naked; colour whitish, with some dusky spots on the back and side.

*Metamorphosis* usually on the stem of a plant; rarely under the surface of the ground.

Species.

Icon.

a. No transverse reddish-yellow fascia on the under surface of the posterior wings.

- |                                   |  |
|-----------------------------------|--|
| 1. <i>L. Arion</i> , Linn.        | Ernst, I. Pl. XLI. f. 36. d. e. f.   |
| 2. — <i>Alcon</i> , Fab. ....     | Ernst, I. Pl. XLI. f. 86. i. k.<br>Pl. LXXXIII. Suppl. II.<br>Pl. IV. f. 80. a.—d. tert. |
| 3. — <i>Iolas</i> , Ochs.*        |  |
| 4. — <i>Euphemus</i> , Hübn.      | Ernst, I. Pl. XLI. f. 36. g. h.  |
| 5. — <i>Erebus</i> , Fab. ....    | Ernst, I. Pl. XL. f. 86. a—c.  |
| 6. — <i>Cyllarus</i> , Fab. ....  | Ernst, I. Pl. XLI. f. 86. o.   |
| 7. — <i>Acis</i> , Ochs. ....     | Ernst, I. Pl. XLII. f. 88. a—d.  |
| 8. — <i>Argiolus</i> , Linn. .... | Ernst, I. Pl. XLI. f. 86. l. m.  |
| 9. — <i>Damon</i> , Fab. ....     | Ernst, I. Pl. XLII. f. 87. a—d.  |
| 10. — <i>Alsus</i> , Fab. ....    | Ernst, I. Pl. XLII. f. 88. e. f.   |
| 11. — <i>Lysimon</i> , Hübn. .    | Hübn. Pap. Tab. 105. f. 534. 535.<br>(mas.)  |
| 12. — <i>Pheretes</i> , Hübn. .   | Hübn. Pap. Tab. 97. f. 495. 496.<br>(mas.) Tab. 107. f. 548. 549.<br>(fœm.)              |
| 13. — <i>Daphnis</i> , Hübn.      | Ernst, I. Pl. XXXVIII. f. 81. a. b.  |

b. A transverse fascia of orange-coloured spots on the under side of the posterior wings, near the outer margin.

- |                                   |   |
|-----------------------------------|---|
| 14. — <i>Corydon</i> , Fab. ....  | Ernst, I. Pl. XXXIX. f. 83. a—d.                              |
| 15. — <i>Dorylas</i> , Hübn. .... | Ernst, I. Pl. LXXXIII. Suppl. II.<br>Pl. IV. f. 82. a—d. bis. |

digenous *Lycænæ* are known by the brilliant coppery tints which adorn the greater portion of the disc of the upper surface of the wings;” and though considerable diversity of habit and form prevails amongst the *Polyommata*, they are in general distinguished by the rich blue tints with which their wings are enlivened.

The *Lycænæ*, he adds, are further discriminated from the *Theclæ* by their naked eyes, and by the want of the tail-like appendages to their posterior wings; and from the *Polyommata*, by the abrupt obtuse club of the antennæ, the more evidently denticulated posterior wings, and the superior size of the pulvilli, or foot-cushions.—The antennæ of Stephens's *Polyommata* have an abrupt compressed club, terminating in a lateral point; those of the *Theclæ* have the club elongate, cylindrical-oval.—See Illustr. of Brit. Entom. vol. i. (HAUSTELLATA), p. 75—83.

\* Sp. n.—*L. alis integris cœruleis, maris immaculatis, fœminæ fuscis, disco cœruleo, subtus cinereis, lunula media strigaeque punctorum nigrorum ocellarium.*

Species.	Icon.
16. <i>L. Adonis</i> , Fab.....	Ernst, I. Pl. XXXIX. f. 82. a—e.
17. — <i>Icarius</i> , Esp.....	Hüb. Pap. Tab. LIX. f. 283. (mas.) 284. 285. (fœm.)
18. — <i>Alexis</i> , Hübn ....	Ernst, I. Pl. XXXVIII. f. 80. g. h.
19. — <i>Eros</i> , Ochs. ....	Hüb. Pap. Tab. 108. f. 555. 556. (mas.)
20. — <i>Orbitulus</i> , Esp...	Hüb. Pap. Tab. 103. f. 522. 523. (mas.) 524. 525. (fœm.)
21. — <i>Agestis</i> , Hübn. ...	Hüb. Pap. Tab. 62. f. 303. 304. (mas.) 305. 306. (fœm.)
22. — <i>Eumedon</i> , Hübn..	Hüb. Pap. Tab. 62. f. 301. 302. (mas.) 138. f. 700. 701. (fœm.)
23. — <i>Admetus</i> , Hübn...	Ernst, I. Pl. VI. Suppl. III. f. 80. a—d. quart.
24. — <i>Optilete</i> , Hübn...	Ernst, I. Pl. LXXXIV. Suppl. II. Pl. V. f. 85. a—c. tert.
25. — <i>Argus</i> , Linn.....	Hüb. Pap. Tab. 64. f. 316. (mas.) 317. 318. (fœm.)
26. — <i>Aegon</i> , Hübn.....	Hüb. Pap. Tab. 64. f. 313. (mas.) 314. 315. (fœm.)*
27. — <i>Amyntas</i> , Fab. ...	Ernst, I. Pl. XXXVII. f. 73. a—d.
28. — <i>Polysperchon</i> , Bergstræes. ....	} Ernst, I. Pl. XXXVII. f. 79. a. b.
29. — <i>Hylas</i> , Fab. ....	
30. — <i>Battus</i> , Fab.....	Ernst, I. Pl. LXXXIV. Suppl. II. Pl. V. f. 85. a—c. bis.

FAM. B.—The upper surface of the wings usually of a reddish-gold, or copper colour, often with black maculæ; the under surface always spotted; the posterior wings with an orange-coloured plain fascia, or composed of a series

\* Ochseneimer also quotes, *inter alia*, (though with a note of doubt,) Lewin's Ins. pl. 39. f. 8. 9, as icons of his *L. Ægon*, which, according to Haworth, represent *Papilio (Lycæna) Artaxerxes*. Through the kindness of James Wilson, Esq. of Woodville, Canaan, near Edinburgh, and author of the beautiful Illustrations of Zoology now in course of publication, my cabinet is rich in specimens of that singularly local and rare insect, by comparing which with Ochseneimer's specific characters of *L. Ægon*, it is obvious that he never saw the true *L. Artaxerxes*. I subjoin his sp. ch. of *L. Ægon*, and the very accurate one of *P. Artaxerxes*, as given by Mr. Haworth.

*L. Aegon*. Alis integris cœruleis margine lato nigro; subtus cœrulescenti-albidis, punctis ocellaribus: posticis fascia ferruginea ocellisque cœruleo argenteis marginalibus.—*Ochs. Schm. von. Eur. I. part 2. p. 57.*

*P. Artaxerxes*. Alis nigris, anticis puncto medio utrinque albo, posticis lunulis rufis, subtus margine albo rufo punctato.—*Haw. Lep. Brit. p. 47. No. 62.*

of

of maculæ, near the posterior margin; anal extremity usually distinctly angular.

*Larva*, generally longer than those of the preceding family; usually pale green, and villose; hairs reddish; head light brown, or brownish-white.

*Pupa* brownish, usually obtuse at each end; suspended horizontally by threads attached to the neck and posterior extremity.

Species.	Icon.
31. <i>L. Helle</i> , Fab. ....	Ernst, I. Pl. LXXI. Suppl. XVII. f. 89. a—c. bis.
32. — <i>Circe</i> , Hübn. ....	Ernst, I. Pl. XLIII. f. 89. a—d.
33. — <i>Thersamon</i> , Fab..	Hübn. Pap. Tab. 69. f. 346. (mas.) 347. 348. (fœm.)
34. — <i>Gordius</i> , Hübn. .	Ernst, I. Pl. LXXII. Suppl. XVIII. f. 91. a. b. bis. Pl. LXXIII. Suppl. XIX. f. 91. c. d. bis.
35. — <i>Hipponoë</i> , Esp...	Ernst, I. Pl. XLIV. f. 92. a. b. Pl. LXXII. Suppl. XVIII. f. 92. f. g.
36. — <i>Chryseis</i> , Fab. ....	Ernst, I. Pl. LXXIII. Suppl. XIX. f. 93. a—g. bis.
37. — <i>Eurybia</i> , Ochs....	Hübn. Pap. Tab. 68. f. 339. 340. (mas.) 341. 342. (fœm.)
38. — <i>Hippothoë</i> , Linn..	Ernst, I. Pl. XLIII. f. 91. c. d. Pl. XLIV. f. 93. a—c. †
39. — <i>Virgaureæ</i> , Linn.	Ernst, I. Pl. XLIV. f. 92. c—e.
40. — <i>Phleas</i> , Linn. ....	Ernst, I. Pl. XLIII. f. 91. a. b. Pl. LXXII. Suppl. XVIII. f. 91. e. g. h.
41. — <i>Ballus</i> , Fab. ....	Hübn. Pap. Tab. 107. f. 550. (mas.) Tab. 72. f. 360. 361. (fœm.)
42. — <i>Rubi</i> , Linn. ....	Ernst, I. Pl. XLIII. f. 90. a. b.

FAM. C.—The posterior wings subcaudate, with generally one or more reddish-yellow maculæ above the short tail; a white transverse fascia (more or less distinct) either simple, or composed of minute maculæ on the under surface of both wings.

*Larva* similar to those of Fam. A., but less elevated, and rather broad at the fore-part; back hairy; hairs very fine and short.

† 38\*. *L. Dispar*, Haw. .... Curtis, Brit. Ent. I. Pl. 12. ♂ & ♀.

Mr. Stephens observes, that this species may eventually prove to be the same as *L. Hippothoc.* Ochsenheimer has omitted it altogether.

*Pupa*

*Pupa* flat beneath; back very convex; generally attached to a leaf by a web, and filaments across the back.

Species.	Icon.
43. L. <i>Roboris</i> , Esp. ....	Hüb. Pap. Tab. 73. f. 366. 367. (foem.)
44. — <i>Quercus</i> , Linn. ...	Ernst, I. Pl. XXXV. f. 71. a—c.
45. — <i>Bæticus</i> , Linn. ...	Ernst, I. Pl. XXXVII. f. 76. a. b. Pl. LXXI. Suppl. XVII. f. 76. c.
46. — <i>Telicanus</i> , Hübn.	Hüb. Pap. Tab. 74. f. 371. 372. (mas.) Tab. 108. f. 553. 554. (foem.)
47. — <i>Spini</i> , Fab.....	Ernst, I. Pl. XXXVI. f. 74. a. b.
48. — <i>Ilicis</i> , Hübn.....	Ernst, I. Pl. XXXV. f. 72. a. b.? Pl. XXXVI. f. 75. a. b.
49. — <i>Æsculi</i> , Ochs. ....	Hüb. Pap. Tab. 109. f. 559. 560. (mas.)
50. — <i>Acaciæ</i> , Fab.....	Herbst, Schm. Tab. 308. f. 3. 4.
51. — <i>W. album</i> , Knoch.	Ernst, I. Pl. LXXXII. Suppl. II. Pl. III. f. 72. a—c. bis.
52. — <i>Pruni</i> , Linn.....	Ernst, I. Pl. XXXVI. f. 73. a—f.
53. — <i>Betulæ</i> , Linn.....	Ernst, I. Pl. XXXV. f. 70. a—f.

### Genus 10. PAPILIO, *Fab., Lat.*

PTEROURUS, Scop. PIERIS, Schrank. PRINCIPES, Hübn.

*Legs* six, perfect (formed for walking).

*Wings*, exterior margin of the anterior wings longer than the interior; posterior wings caudate, and excised to allow freedom of motion to the abdomen, or grooved to receive it.

*Antennæ* filiform, terminated by an oval obtuse club.

*Larva* fleshy; head obtuse, small; neck furnished with a furcate, retractile organ.

*Pupa* angular, anteriorly bifurcate, fastened by a transverse thread.

*Metamorphosis* in the air.

Species.	Icon.
1. P. <i>Ajax</i> , Linn.....	Esper, Schm. I. Th. Tab. LI. Cont. I. f. 1.
2. — <i>Podalirius</i> , Linn.	Ernst, I. Pl. XXXIV. f. 69. a—d.
3. — <i>Machaon</i> , Linn..	Ernst, I. Pl. XXXIV. f. 68. a—e.

Genus

Genus 11. ZERYNTHIA, Ochs.

THAIS, Fab., Latr. ARGYREUS, Scop. PIERIS, Schrank.

*Legs* six, perfect (formed for walking).

*Wings*, posterior elongated, dentate, ecaudate.

*Antennæ* short; knob oval; apex slightly pointed.

*Larva* similar to those of the preceding genus in form, with the segments of the body furnished with rows of stiff hairs.

Species.	Icon.
1. Z. <i>Polyxena</i> , Hüb. . .	Ernst, I. Pl. LII. f. 109. a. b.
2. — <i>Medesicaste</i> , Illig.	Ernst, I. Pl. LXXVIII. Suppl. XXIV. f. 109. a—d. bis.
3. — <i>Rumina</i> , Linn. . . .	Hüb. Pap. Tab. 124. f. 633. 634. (mas.)

Genus 12. DORITIS, Fab.

PARNASSIUS, Latr. PIERIS, Schrank.

ARGUS et BATTUS, Scop.

*Legs* six, perfect.

*Wings* rather long, partially diaphanous; posterior excised, not enveloping the body.

*Body* very short, thick, and hairy; the females with a strong, carinated, concave membrane on the posterior segment of the abdomen.

*Antennæ* short; club elongated oval, straight.

*Larva* with tentacula, and nearly of equal thickness through its whole length, hairy, hairs short.

*Pupa*, oval, folliculated, inclosed in a thin web.

Species.	Icon.
1. D. <i>Apollinus</i> , Herbst.	Ernst, I. Pl. LXXVI. Suppl. XXII. f. 99. a—d. quart.
2. — <i>Apollo</i> , Linn. . . . .	Ernst, I. Pl. XLVII. f. 99. a—h. Pl. LXXV. Suppl. XXI. f. 99. a. b. bis.
3. — <i>Delius</i> , Esp. . . . .	Hüb. Pap. Tab. 110. f. 567. 568. (mas.)
4. — <i>Mnemosyne</i> , Linn.	Ernst, I. Pl. XLVIII. f. 100. a—c.

Genus 13. PONTIA, Fab. (Steph.)

PIERIS, Latr., Schrank. BATTUS et ASCIA, Scop.

MANCIPIA, Hüb.

*Legs* six, alike in both sexes.

*Wings* entire, opaque; anterior somewhat triangular, sometimes

times rounded at the tip, generally white, with some black spots; posterior rounded, with a groove on the inner margin to receive the abdomen, beneath often coloured yellowish or greenish.

*Antennæ* with an abrupt, obconic, compressed club.

*Larva* with a small, round head; body slender, tapering at each end, downy.

*Pupa* angular, acuminate in front, supported by transverse threads on the middle and posterior portion of the body\*.

Species.	Icon.
1. <i>Po. Cratægi</i> , Linn...	Ernst, I. Pl. XLVIII. f. 101. a—f.
2. — <i>Brassicæ</i> , Linn...	Ernst, I. Pl. XLIX. f. 102. a—e.
3. — <i>Rapæ</i> , Linn.....	Ernst, I. Pl. XLIX. f. 103. a—d.
4. — <i>Napi</i> , Linn. ....	Ernst, I. Pl. L. f. 104. a. b.
5. — <i>Callidice</i> , Hübn...	Hübn. Pap. Tab. 81. f. 408. 409. (mas.) Tab. 108. f. 551. 552. (fœm.)
6. — <i>Raphani</i> , Fab. ...	Esper, Schm. I. Th. Tab. LXXXIV. Cont. XXXIV. f. 3. (mas.) Tab. CXXIII. Cont. 78. f. 3. (mas.) 4. (fœm.)

#### 7. *P. Chlo-*

\* Mr. Stephens, in his Illustrations, observes that the insects of this Genus, “from the simplicity of their colouring, and their common appearance, have been unworthily neglected in this country by collectors; and in consequence we still remain unacquainted with the history and metamorphosis of some of the species, which evidently are far from uncommon.” Mr. Stephens has examined this group with considerable attention, and has been induced in consequence to introduce as distinct species, certain individuals which have hitherto been considered merely as varieties of long established species:—for instance, the smaller variety of *Po. Brassicæ* constitutes his species *Chariclea*. Now it has been generally considered, that the chief difference between the larger and smaller varieties of *Po. Brassicæ* consists in size and colour; to explain which, it is observed that the larger are the æstival, and the smaller the vernal brood; and that the paler colours and smaller size of the latter are owing, the one, to the solar rays not being sufficiently powerful, when the insect comes forth, to produce the intense hue so conspicuous in the supposed æstival brood of *Po. Brassicæ*; the other, to the diminution in bulk, which the animal is presumed to sustain in consequence of the longer period that it remains in the pupa state, namely, from September to April; whereas the æstival brood remains in that state a few days only. To these explanations Mr. Stephens objects, that *Po. Brassicæ* also occurs early in the month of May, so that the difference of the sun's influence can, in those cases, amount to little. And as to the supposed alternating increase and diminution of size in the vernal and æstival broods, it is an anomaly in Zoology, “unless *Po. Rapæ* and *Metra* offer an example; but these insects, I presume, are distinct, upon similar grounds to those which appear to separate the insects that have promoted these observations.”—*Stephens*. These grounds are, at least as to *Po. Brassicæ* and *Chariclea*, that the latter is considerably smaller than the former; *Po. Brassicæ* has the



Species.	Icon.
7. <i>P. Chloridice</i> , Hübn.	Hübn. Pap. Tab. 141. f. 712. 713. (mas.) 714. 715. (fœm.)
8. — <i>Daplidice</i> , Linn..	Ernst, I. Pl. L. f. 106. a—c. Curtis, Brit. Ent. I. Pl. 48. (figura optima.)
9. — <i>Glauce</i> , Hübn. ...	Hübn. Pap. Tab. 107. f. 546. 547. (mas.)
10. — <i>Belemia</i> , Hübn...	Hübn. Pap. Tab. 82. f. 412. 413. (fœm.)
11. — <i>Belia</i> , Fab. ....	Hübn. Pap. Tab. 83. f. 417. 418. (fœm.)
12. — <i>Ausonia</i> , Hübn...	Hübn. Pap. Tab. 113. f. 582. 583. (fœm.) Tab. 83. 416. (mas.)
13. — <i>Tagis</i> , Hübn. ....	Hübn. Pap. Tab. 110. f. 565. 566. (mas.)
14. — <i>Cardamines</i> , Linn.	Ernst, I. Pl. LI. f. 107. a—k.
15. — <i>Eupheno</i> , Linn....	Ernst, I. Pl. LII. f. 108. a. b. e. f. Pl. LXXVII. Suppl. XXIII. f. 108. g. h.
16. — <i>Sinapis</i> *, Linn...	Ernst, I. Pl. L. f. 105. a—c.

Genus 14. COLIAS, *Fab., Latr.*

ARGYREUS et BATTUS, Scop.

PIERIS, Schrank.

*Legs* six, alike in both sexes, moderate, slender.

*Wings,*

the tip of the anterior wings above, black, and the patch on its inner edge indented, the points of the indentations following the direction of the nervures, and the extreme tip being slightly irrorated with white, with the cilia waved with black and yellowish; *Po. Chariclea* has the tip ash-coloured, without any internal indentations; the cilia with which it is fringed are pale, and the under surface of the posterior wings of a deeper yellow and more thickly irrorated with dusky, than those of *Pontia Brassicae*. Stephens divides his genus into two sections,—the first containing “the true *Pontia*; the second, those insects which, if necessary to create (*them*) into a new genus, may, after Hübner, be termed *Mancipia*.”

The following are his characters of the two sections:

- “A. With the terminal joint of the palpi longer than the second: the apex of the anterior wings obtusely angled: the posterior wings not variegated beneath: the pupa strongly angulated, with a distinct short process in front, and projecting lateral appendages in front of the wing-cases (PONTIA).”
- “B. With the terminal joint of the palpi shorter than the second: the anterior wings distinctly rounded at the tip: the posterior variegated beneath: the pupa angulated, with an elongated acute process or beak in front: lateral appendages wanting (MANCIPIUM).”

\* On this species Stephens has formed a new Genus, which he has called LEUCOPHASIA. Its characters are as follows:

C

“ Genus

*Wings*, anterior somewhat triangular, posterior rounded, with a groove to receive the abdomen.

*Antennæ* short, rather slender, filiform at the base, towards the tip gradually thickening into an obconic club.

*Larva* elongated, nearly cylindrical, hairy, but the hairs so short that they appear naked; back pale, or dark green, no central, longitudinal stripe.

*Pupa* acuminated in front, gibbous, subangulated, fastened by a transverse thread.

“The *Coliades* are particularly gay and showy insects; they are eminently distinguished by the brilliant tints of orange and yellow with which their wings are adorned; they are of moderate size, and usually appear in their final state towards the autumn.”—*Stephens*.

FAM. A.—Wings rounded, margin generally dark-coloured.

Species.

Icon.

- |                                 |   |
|---------------------------------|---|
| 1. <i>C. Edusa</i> , Fab. ....  | Ernst, I. Pl. LIV. f. 111. a—e.                         |
| 2. — <i>Aurora</i> , Fab. ....  | Ernst, I. Pl. VIII. Suppl. III. f. 111. quint.          |
| 3. — <i>Myrmidone</i> , Hübn.   | Ernst, I. Pl. LXXVIII. Suppl. XXIV. f. 111. a. b. bis.  |
| 4. — <i>Chrysothème</i> , Hübn. | Ernst, I. Pl. LXXVIII. Suppl. XXIV. f. 111. a. b. tert. |
| 5. — <i>Phicomone</i> , Hübn.   | Ernst, I. Pl. LXXIX. Suppl. XXV. f. 112. a—c. bis.      |
| 6. — <i>Hyale</i> , Linn. ....  | Ernst, I. Pl. LIV. f. 112. a. b.                        |
| 7. — <i>Palæno</i> , Linn. .... | Ernst, I. Pl. VI. Suppl. III. f. 111. a. b. quart.      |

FAM. B.—Wings somewhat angular\*.

8. *C. Rhamni*,

“Genus 5. LEUCOPHASIA<sup>a</sup>, *mili*.”

“*Antennæ* with an abrupt, obconic, compressed club; *palpi* very short, depressed, three-jointed, the basal joint large, conic, the second small, quadrate, the terminal one minute, globose: *wings* opaque, suborbicular, the discoidal cell small, basal; posterior wings slightly grooved: *legs* alike in both sexes, moderate; *claws* distinct, bifid. *Caterpillar* cylindric, downy. *Chrysalis* angulated, fusiform, supported by a transverse thread.”—*Illust. Brit. Entom.* (HAUSTELLATA), vol. i. p. 24.

*Stephens* refers *Po. Cratægi* to the genus *Pieris*, which he adopts as distinct from *Pontia*; and in the latter genus he inserts as separate species *Napææ*, Hübn., and *Bryoniæ*, Wallner, both of which *Ochsenheimer* considers (though with a note of doubt) as varieties of *Napi*; and *Stephens* himself suspects also, that the former may possibly be nothing more. He has substituted *Petiver*'s name of *Sabellicæ* for that of *Bryoniæ*, adopted by *Wallner* on the score of priority.

<sup>a</sup> Λευκος, albus; Φασίς, apparitio.

\* Genus GONEPTERYX, *Leach*.

“*Antennæ* short, stout, very gradually thickening into an obconic club; *palpi*

- | Species.                          | Icon.   |
|-----------------------------------|---|
| 8. <i>C. Rhamni</i> , Linn.....   | Ernst, I. Pl. LIII. f. 110. a—e.<br>Curtis, Brit. Ent. Pl. 173. |
| 9. — <i>Cleopatra</i> , Linn. ... | Ernst, I. Pl. LIII. f. 110. f. g. (mas.)                        |

Genus 15. HECAERGE, *Ochs.*

LIBYTHEA, Fab.

NYMPHALIS, Latr.

*Legs* four, perfect.

*Wings* angular, dentate, dark coloured with lighter spots.

*Antennæ* short, rigid, fusiform.

*Palpi* very long, porrected, straight.

- | Species.                        | Icon.   |
|---------------------------------|---|
| 1. <i>H. Celtis</i> , Fab. .... | Ernst, I. Pl. I. Suppl. III. f. 5.<br>a—f. bis. |

† Only one Europæan species.

Genus 16. HESPERIA, *Latr.*

THYMELE, PAMPHILA, Fab. (Steph.)

BATTUS, Scop.

ERINNYS, Schrank.

URBANI, Hübn.

*Legs* six, perfect (formed for walking.)

*Wings*, anterior either short, broad, triangular, and rounded posteriorly (THYMELE, Steph.), or nearly triangular, and slightly elongate (PAMPHILA, Stephens); posterior broad, rounded, triangular, entire, or slightly denticulated (THYMELE, Steph.), or rather ovate-triangular, with an obsolete emargination on the hinder margin, and sometimes a rudiment of a tail at the anal angle (PAMPHILA, Steph.).

*Antennæ* short, a little elongate, with a curved, fusiform club, not terminating in an acute hook (THYMELE, Steph.), or not very long, with an abrupt, fusiform club, varying slightly in form, and terminated generally in a hook (PAMPHILA, Steph.).

*Head* large.

*Body* short, thick.

*Larva*, naked (THYMELE, Steph.), or pubescent (PAMPHILA, Steph.).

*Pupa*, with the head-case notched (THYMELE, Steph.), or with the front acuminate (PAMPHILA, Steph.).

*palpi* short, much compressed, the terminal joint very short; *wings* angulated, large, the posterior grooved to receive the abdomen: *legs* alike in both sexes, short, stout; *claws* minute, bifid. *Caterpillar* naked. *Chrysalis* angulated, acuminate in front; fastened with a loose thread round its middle."—Stephens, *Illust. Brit. Entom.* (HAUSTELLATA), vol. i. p. 8.

Species.	Icon.
1. H. <i>Malvarum</i> , Hoffmannsegg. O. * ...	} Ernst, I. Pl. XLVI. f. 98. a—c.
2. — <i>Lavateræ</i> , Hübn.	
3. — <i>Tessellum</i> , Hübn.	Hübn. Pap. Tab. 93. f. 469. 470. (mas.)
4. — <i>Sidæ</i> , Fab.....	Ernst, I. Pl. VII. Suppl. III. f. 97. a. b. quart.
5. — <i>Carthami</i> , Hübn.	Ernst, I. Pl. VII. Suppl. III. f. 97. quint.
6. — <i>Alveus</i> , Hübn. ...	Hübn. Pap. Tab. 99. f. 506. (fœm.)
7. — <i>Fritillum</i> , Hübn.	Hübn. Pap. Tab. 92. f. 461. (mas.) 462. 463. (fœm.)
8. — <i>Alveolus</i> , Hübn. †	Hübn. Pap. Tab. 92. f. 466. 467. (fœm.)
9. — <i>Proto</i> , Ochs. ....	Esper, Schm. I. Th. Tab. CXXIII. Cont. 78. f. 5. (mas.) f. 6. (fœm.)
10. — <i>Sertorius</i> , Illig. ...	Hübn. Pap. Tab. 95. f. 471. 472. (fœm.)
11. — <i>Eucrate</i> , Ochs. ...	Esper, Schm. I. Th. Tab. CXXIV. Cont. 79. f. 6.
12. — <i>Tages</i> , Linn. † ...	Ernst, I. Pl. LXXV. Suppl. XXI. f. 97. a. b. bis.
13. — <i>Pumilio</i> , Illig. ....	Hübn. Pap. Tab. 91. f. 458. (mas.) 459. 460. (fœm.)
14. — <i>Steropes</i> , Hübn....	Ernst, I. Pl. LXIV. f. 94. a. b.
15. — <i>Paniscus</i> , Fab. †	Ernst, I. Pl. XLV. f. 96. a. b.
16. — <i>Sylvius</i> , Fab. † ...	Ernst, I. Pl. LXXIV. Suppl. XX. f. 96. e. f.
17. — <i>Comma</i> , Linn. †...	Hübn. Pap. Tab. 95. f. 479. (mas.) 480. 481. (fœm.)
18. — <i>Sylvanus</i> , Fab. †...	Ernst, I. Pl. XLV. f. 95. a—d. g. h.
19. — <i>Linea</i> , Fab. †.....	Ernst, I. Pl. XLV. f. 95. e. f.
20. — <i>Lineola</i> , Ochs. ...	Hübn. Pap. Tab. 130. f. 660. 661. (mas.) 662. 663. (fœm.)
21. — <i>Actæon</i> , Hübn....	Hübn. Pap. Tab. 96. f. 488. 489. (mas.) 490. (fœm.)

## Genus 17. CHIMÆRA, Ochs.

ATYCHIA, Latr.

STYGIA, Godart. §

\* Pa. *Malvæ*, Fab.—THYMELE, Steph.

† THYMELE, Steph.

‡ PAMPHILA, Steph.

§ *Histoire Naturelle des Lepidoptères, ou Papillons de France*, vol. iii. p. 167. Although this volume is dated 1822, and the fourth of Ochseneimer's work appeared six years before, Godart does not seem to have been aware that

*Wings*, anterior short, small, of nearly equal length throughout; posterior rounded.

*Head* small.

*Antennæ* bipectinate in the male, simple in the female (Latr.).\*

*Palpi*, labial rising remarkably above the clypeus, anteriorly very hirsute. (Latr.)

*Antlia* very short, or wanting.

*Abdomen* posteriorly elongated.

*Tibiæ*, with elongated scales and calcaria. (Latr.)

*Larva*, unknown.

Species.

Icon.

- |                                  |   |
|----------------------------------|---|
| 1. Ch. <i>Pumila</i> , Ochs. ... | Hüb. Noctuæ, Tab. 86. f. 405.   |
| 2. — <i>Appendiculata</i> ,      | } Ernst, III. Pl. CII. f. 149. a—c.<br>(fœm.) VI. Pl. CCLXXIII.<br>f. 438. a—c. |
| Ochs. † .....                    |   |
| 3. — <i>Radiata</i> , Ochs. ...  | — — —   |
| 4. — <i>Lugubris</i> , Ochs. †   | Hüb. Bombyces, Tab. 51. f. 217. (mas.)  |

Genus 18. ATYCHIA, Ochs.

PROCRIS, Fab., Latr. AGLAOPE, Latr. GLAUCOPIS, Fab., Latr. (Ino, Leach, Stephens.) CHRYSAORES, Hüb.

*Wings* oblong, ciliated; submarginal cell of the inferior closed behind by a very angular nervure, from which three branches proceed, and terminate at the posterior margin. (Godart.)

*Antennæ* bipectinate in the male, simple in the female. (Latr.)

*Palpi* short, scarcely or not at all rising above the clypeus, densely clothed with scales, not hirsute. (Latr.)

*Tibiæ* scaly; posterior with small calcaria, and the two upper, interior spines very minute, or obsolete. (Latr.)

*Larva*, short, thick, nearly naked; head small.

*Pupa* soft, with moderately long wing-cases.

Species.

Icon.

- |                                 |                                       |
|---------------------------------|---------------------------------------|
| Fam. A. 1. A. <i>Infausta</i> , | } Ernst, III. Pl. CIII. f. 152. a. b. |
| Linn. § ... ..                  |                                       |

that the German author had in this, his last volume, adopted Latreille's, or rather Draparnaud's Genus STYGIA, for the reception of Hübner's *Bombyx Terebellum*, which he accordingly transferred from its former place with the *Chimeræ* (vol. ii. p. 6. No. 4. *Ch. leucomelas*) to that Genus.

\* Ochsenheimer's generic characters in this and several other instances are so insufficient, that I have often found it necessary, as in the present case, to quote other naturalists of acknowledged authority.

† *Noct. Chimæra*, Hüb. *Pyral. Vahliana*, Fab.

‡ *Bomb. lugubris*, Hüb.

§ Genus AGLAOPE, Latr.

A. *lingua* nulla, aut obsoleta. *Palpi* minimi, articulo ultimo subgraciliore, minus squamato. *Tibiæ* posticæ calcaribus spinisque brevissimis, subobsoletis,

	Species.	Icon.
Fam. B. 2.	<i>A. Pruni</i> , Fab.	Ernst, III. Pl. CIII. f. 151. a—e.
3.	— <i>Globulariæ</i> , Hüb. ....	Hüb. Sping. Tab. 1. f. 2. (mas.)
4.	— <i>Statives</i> , Linn. * .....	3. (fœm.) Ernst, III. Pl. CIII. f. 150. a—d.

*Note.*—The reader is requested to attend to the following corrections of some of the preceding synonyms.

Gen. Argynnis 20.	for Fab. read Hüb.	Gen. Hipparchia 28.	for Fab. read Hüb.
Hipparchia 1.	— Fab. — Hüb.	57.	— Fab. — Thunb.
3.	— Linn. — Hüb.	60.	— Fab. — Esp.
7.	— Fab. — Herbst.	61.	— Fab. — Hüb.
11.	— Fab. — Hüb.	65.	— Fab. — Pallas.
13.	— Fab. — Esper.	69.	
20.		77.	
23.			

### Genus 19. ZYGÆNA, Fab., Latr., Hüb.

#### ANTHROCERA, Scop. (Steph.)

*Legs*, tibiæ with short, close-set scales; the posterior with very small calcaria, or spines. (Latr.)

*Wings*, deflexed, (Latr.) broad; anterior generally steel-blue, with red spots; posterior generally red.

*Antennæ* slender at the base, thickening into an abrupt, bent fusiform club, with the apex simple; in the males robust. (Steph.)

obsoletis. *Anus imberbis*. Latr. *Gen. Crust. et Ins.* iv. 214. To which may be added: *Antennæ* sexu utroque bipectinatæ; *alæ* oblongæ, cellulâ marginali inferiorum posticè clausâ, ramisque duobus nervosis, ad lineam sepimenti sese invicem decussantibus, longitudinaliter divisâ. (Godart.)

\* This and the preceding species are placed by Stephens in the Genus *Ino*, Leach, "established by Fabricius by the name of *Procris*; but that having been preoccupied, Dr. Leach changed its appellation to the one it now bears." The generic characters of *Ino* are given by Mr. Stephens as follows:

"*INO*, Leach.—*Antennæ* gradually thickening from the base to near the apex, straight, bipectinated, or simple, with the interior edge subserrated: *palpi* short, not reaching beyond the clypeus, densely clothed with scales: *head*, *thorax*, *abdomen*, and *femora*, thickly covered with scales, rather elongate on the former. *Larva* scaly, depressed; head small: pupa with long wing-cases."

"The species are known from the Anthoceræ (*Zygænæ*) by the form of the *Antennæ*, which are not curved, but nearly straight, and become gradually thicker as they approach the tip, which is again slightly attenuated; the males have this part bipectinated, and the females simple, but serrated beneath; the species (of which there are several on the continent) are all of rich tints of light green, blue, or brownish, and immaculate."—*Illust. Brit. Ent.* (Haustellata), vol. i. p. 105. Stephens gives only one species, (*Statives*, Linn.) as decidedly British: that considered as *Globulariæ*, Hüb. having, on examination, proved to be referable to *Ino Statives*, var. *β*. He conceives, however, that it is extremely probable that *Ino Globulariæ* may occur in England.

*Palpi*

*Palpi* reaching beyond the clypeus, cylindric-conic, acuminate, densely clothed with hair. (Steph.)

*Antlia* fine, moderately long.

*Abdomen* nearly cylindrical, obtuse; (Latr.) thickly clothed (as well as the *head* and *thorax*) with short silken hairs, with a few scales intermixed. (Steph.)

*Flight*, diurnal.

*Larva*, villose, fusiform, generally spotted with black on a pale ground; *head* small. (Steph.) No horn on the last segment of the body. (Latr.)

*Pupa* elongate. (Steph.)

*Metamorphosis* in the air, in a pretty solid silken cocoon, attached to the branch or leaf of a plant. (Latr.)

*Obs.* These insects are sluggish, and fly but little; they commonly remain on the plants on which the females deposit their eggs. Neither sex lives longer than is necessary for copulation and laying the eggs, resigning their lives as soon as those objects of their existence are accomplished.

Species.	Icon.
1. <i>Z. Erythrus</i> , Hübn. .	Hübn. Sping. Tab. 18. f. 87. (fœm.)
2. — <i>Minos</i> , Hübn. ....	Ernst, III. Pl. XCV. f. 133. a—d.
3. — <i>Pluto</i> , Ochs. ....	Hübn. Sping. Tab. 18. f. 88. (mas.)
4. — <i>Brizæ</i> , Hübn. . . . .	Hübn. Sping. Tab. 18. f. 85. (mas.) Tab. 2. f. 6. (fœm.)
5. — <i>Scabiosæ</i> , Fab. ....	Ernst, III. Pl. XCVI. f. 134. a—d.
6. — <i>Achilleæ</i> , Esp. ....	Ernst, III. Pl. XCIX. f. 141. a—d.
7. — <i>Punctum</i> , Ochs....	Hübn. Sping. Tab. 26. f. 119. (mas.)
8. — <i>Sarpedon</i> , Hübn. .	Hübn. Sping. Tab. 2. f. 9. (mas.)
9. — <i>Exulans</i> , Hübn. .	Hübn. Sping. Tab. 2. f. 12. (mas.) Fab. 20. f. 101. (fœm.)
10. — <i>Cynaræ</i> , Hübn....	Hübn. Sping. Tab. 17. f. 80. (fœm.)
11. — <i>Meliloti</i> , Esp.....	Hübn. Sping. Tab. 17. f. 82. (mas.)
12. — <i>Trifolii</i> , Esp.....	Ernst, III. Pl. XCVII. f. 136. a—e.
13. — <i>Lonicæræ</i> , Hübn. .	Hübn. Sping. Tab. 2. f. 7. (fœm.)
14. — <i>Filipendulæ</i> , Linn.	Ernst, III. Pl. XCVII. f. 137. a—f.
15. — <i>Transalpina</i> , Hübn.	Hübn. Sping. Tab. 3. f. 15. (mas.) f. 19. (fœm.)
16. — <i>Medicaginis</i> , Hübn.	Hübn. Sping. Tab. 4. f. 20. (mas.) ?
	17. <i>Z. Hip-</i>

Species.	Icon.
17. <i>Z. Hippocrepidis</i> , Hüb. ....	Hüb. Sphing. Tab. 5. f. 32. (fœm.) Tab. 17. f. 83. (mas.)
18. — <i>Angelica</i> , Ochs...	Hüb. Sphing. Tab. 26. f. 120. (mas.) f. 121. (fœm.)
19. — <i>Dorycnii</i> , Hoff- mansegg* . . . . .	
20. — <i>Peucedani</i> , Hüb.	Ernst, III. Pl. XCVIII. f. 139. a—e.
21. — <i>Ephialtes</i> , Linn...	Ernst, III. Pl. C. f. 144. a. b.
22. — <i>Stoehadis</i> , Borkh.	Hüb. Sphing. Tab. 4. f. 24. (mas.)
23. — <i>Lavandula</i> , Fab..	Ernst, III. Pl. CI. f. 145. a. b.
24. — <i>Rhadamanthus</i> , Hüb. ....	} Hüb. Sphing. Tab. 4. f. 23. (mas.)
25. — <i>Onobrychis</i> , Fab..	
26. — <i>Occitanica</i> , de Vil- lers. ....	Ernst, III. Pl. XCIX. f. 140. a—h. Hüb. Sphing. Tab. 22. f. 106. (mas.) 107. (fœm.)
27. — <i>Fausta</i> , Linn.....	Ernst, III. Pl. C. f. 142. c. d.
28. — <i>Faustina</i> , Ochs.†	
29. — <i>Hilaris</i> , Ochs. ...	Hüb. Sphing. Tab. 26. f. 123. (fœm.)
30. — <i>Læta</i> , Hüb. ....	Ernst, III. Pl. C. f. 142. a. b.
31. — <i>Sedi</i> , Fab. ....	Hüb. Sphing. Tab. 28. f. 132. (fœm.)

Genus 20. SYNTOMIS, *Hoffmansegg* ‡, *Latr.*

AMATA, Fab.

SPHINX, Linn.

GLAUCOPES, Hüb.

ZYGÆNA, ROSS.

*Wings*, anterior large, posterior very small; deflexed.*Antennæ* filiform; (subfusiform. *Latr.*)*Palpi*, inferior nearly cylindrical, obtuse, not reaching beyond the clypeus. (*Latr.*)*Abdomen* cylindrical. (*Latr.*)

Species.

Icon.

- |                                  |                                    |
|----------------------------------|------------------------------------|
| 1. <i>S. Phegea</i> , Linn.....  | Ernst, III. Pl. CII. f. 147. c. d. |
| 2. — <i>Cerbera</i> , Linn. §... | Cram. Pap. exot. Tab. 83. f. F.    |

\* *Z. alis anticis viridibus, punctis sex coccineis: posticis coccineis, margine latissimo cyaneo; abdomine cingulo supra coccineo.*—*Ochs.* II. 69.† *Z. alis anticis nigro-viridibus; maculis sex rubris confluentibus luteo marginatis; posticis rubris, limbo æquali nigro; collari rubro; pedibus nigro-viridibus cinguloque abdominis rubro subtus non coeunte.*—*Ochs.* II. 99.‡ According to Latreille, this genus was established by Illiger:—*Nouv. Dict. d'Hist. Nat.* xxxii. 320.§ An *Europæa*?—*Ochs.*

Genus



Genus 21. THYRIS, *Hoffmansegg, Latr., Hübn.*

SPHINX, Fab.

*Legs* hairy, spinous.

*Wings* divaricate, nearly horizontal, eroso-dentate, (Latr.) with white semi-transparent maculæ.

*Antennæ*, scarcely fusiform, nearly subsetaceous, simple; apex not tufted, (Latr.) alike in both sexes.

*Palpi* cylindrico-conical, the last joint nearly bare, acuminate; reaching much beyond the clypeus. (Latr.)

*Abdomen* conical, anus not barbate. (Latr.)

*Flight*, diurnal.

Species.

Icon.

1. *T. Fenestrina*, Fab. . . Ernst, III. Pl. CXXII. f. 167.  
a. b.

Genus 22. STYGIA, *Drap., Latr.\**

BOMBYX, Hübn.

*Legs*, posterior tibiæ with very distinct spines and calcaria.

*Antennæ* short, insensibly diminishing in size from the base to the apex, curved, covered beneath with a double row of small laminæ; apex simple.

*Palpi* thick, cylindrical, squamate, reaching beyond the clypeus.

*Tongue* obsolete, or none.

*Anus* barbate.

Species.

Icon.

1. *S. Australis*, *Drap.* }  
(*Bombyx terebellum*, Hübn.). } Hübn. *Bombyces*, Tab. 57. f. 244.  
(mas.)

Genus 23. SESIA, *Fab.*

ÆGERIA, Fab. TROCHILIUM, Scop. SESIA, Hübn.

*Legs*, tibiæ clothed with long scales; the posterior with four elongated spines or calcaria, disposed in pairs. (Latr.)

*Wings* long and small, displayed nearly horizontally; the superior incumbent on the inferior; the latter hyaline; the former very narrow, and usually fenestrate. (Latr.)

*Antennæ* fusiform, incrassate towards the middle, simple; apex with a small scaly tuft.

*Palpi* reaching beyond the clypeus, pointed. (Latr.)

*Antlia* long and thin, except in the two first species.

*Abdomen* sub-cylindrical; anus barbate. (Latr.)

*Flight*, diurnal.

\* Generic Characters, from Latreille.

D

*Larva*,

*Larva*, nearly bare, cylindrical, without any horn at the extremity of the body. (Latr.)

*Pupa* elongate; back spinous.

*Obs.* The caterpillars of the *Sesiæ* gnaw out the interior of vegetables, and make themselves a more or less solid cocoon therein, composed of the detached and pulverized portions, which they agglutinate, and connect together by silk. They usually pass the winter in that state, and become perfect insects in the following spring. (Latr.)

Ochsenheimer very justly observes that the term *Sesia*, being derived from the Greek word  $\sigma\eta\varsigma$ , (*tinea*,) would be more correctly spelt *Setia*, since the genitive of the original is  $\sigma\eta\tau\omicron\varsigma$ .

Authors are not well agreed as to the arrangement of the species of this genus. Stephens separates those which occur in Britain into two families, *Sesiidæ* and *Ægeriidæ*; the first containing the genera *Macroglossa*, Ochs. and *Sesia*, Fab. the second those of *Trochilium*, Scop. and *Ægeria*, Fab. Ochsenheimer comprehends the whole in the two former genera; but two out of the six species which he places under *Macroglossa*, namely *S. Fuciformis* and *Bombyliformis*, Stephens arranges with his *Sesiæ*. Latreille observes (*Nouv. Dict. d'Hist. Nat.* xxxi. 105.), that "Scopoli separated from the *Sphinges*, properly so called, certain species which have the abdomen terminated by a tuft, and of them he formed his genus *Macroglossum*. Other naturalists united them to the *Sesiæ*. Fabricius, in his *Systema Glossatorum*\*, comprehends under the latter generic name only those species (i. e. the *Macroglossa* of Scopoli); our *Sesiæ* being considered by him as forming the genus *Ægeria*. M. Ochsenheimer, in his work on the Lepidoptera of Europe, has, with reason, rejected this arrangement, and in that respect his opinion and mine coincide."—*Latr.* l. c.

Species.	Icon.
1. <i>S. Apiformis</i> , Linn.†	Ernst, III. Pl. XCI. f. 121. a. b.
2. — <i>Bembiciformis</i> ,	Hüb. Sphing. Tab. 20. f. 98. (fœm.) Lewin, Linn. Trans. III. Pl. I. f. 6—10.
Hüb.†( <i>Crabroniformis</i> , Steph.)	
	3. <i>S. Asili-</i>

\* Where is that work to be met with?—C.

† *TROCHILIUM*, Stephens. The first genus of his family *Ægeriidæ*, which he thus characterizes:—"Fam. IV. *ÆGERIIDÆ*." "*Antennæ* fusiform, a little curved, ciliated in the males, the apex terminating in a plume of scales: *ocelli* two, minute, placed between the antennæ and the base of the thorax: *palpi* elongate, thickly clothed with scales and long hairs, the last joint elongate: *abdomen* cylindric, tufted at the apex: *wings* horizontally displayed, generally naked, with the tips above opaque: *larva* sub-cylindric, hirsute,

Species.	Icon.
3. <i>S. Asiliformis</i> , Fab.*	Ernst, III. Pl. XC. f. 119. a. b.
4. — <i>Rhingiaeformis</i> , Hübner.....	} Hübn. Sphing. Tab. 7. f. 41. (fœm.)
5. — <i>Sphécicormis</i> , Hübn.†	
6. — <i>Scoliaeformis</i> , Las- peyres. ....	} Hübn. Sphing. Tab. 23. f. 111.
7. — <i>Hylæiformis</i> , Lasp.	
8. — <i>Doryliiformis</i> , Hoffm. ‡	
9. — <i>Chrysidiformis</i> , Hübner. § .....	} Ernst, III. Pl. XC. f. 118. a. b.
10. — <i>Prosopiformis</i> , Ochs. ....	
	} Hübn. Sphing. Tab. 19. f. 93. (mas.)

hirsute, tail-less: *pupa* elongate, with a row of spines on each segment; changes in the interior of plants."—*Illust. Brit. Entom.* I. 136.

The generic characters of *Trochilium* are detailed as follows:

"Genus 29. TROCHILIUM, *Scopoli.*

*Antennæ* short, more or less serrated, especially in the males, stout, gradually incrassated nearly to the apex, which is curved, acuminate, and terminates in a hairy tuft: *palpi* moderately long, parallel, suddenly recurved, the base very hairy, the apex scaly and attenuated: *head* small: *clypeus* densely clothed with elongate hairs: *thorax* and *abdomen* stout, the latter with a very small tuft at its apex: *wings* with the tips not clothed transversely with scales."—*Steph.* l. c. p. 137.

\* ÆGERIA, Stephens.—"Genus 30. ÆGERIA, *Fabricius.*

*Antennæ* long, slender, gradually increasing in size nearly to the apex, which is slightly curved and acuminate; in the males they are slightly ciliated, sub-serrated, or pectinated: *palpi* longer than the head, divaricating, gradually reflexed, thickly clothed beneath with scales and long hair; the terminal joint somewhat naked and acuminate: *head* moderate: *clypeus* densely clothed with flat scales: *thorax* and *abdomen* rather slender, the latter with a large trilobed tuft, variable in form at its apex: *wings* transversely covered with scales at the tip."—*Steph.* l. c. p. 138.

Stephens subdivides the genus *Ægeria* into sections.

- A. *Antennæ* much shorter than the body: of the males distinctly pectinated: *anterior wings* nearly clothed with scales: *abdomen* robust.
- B. *Antennæ* as long as the body: of the males generally ciliated: *anterior wings* with the disc, hyaline.
  - a. *Abdomen* more or less robust and abbreviated, fasciated with whitish or yellow.
  - b. *Abdomen* slender and elongated, generally with a single red belt.
  - c. *Abdomen* beltless.

The last subdivision of Sect. B. has only one individual, viz. *Sphinx*, (*Sesia*) *Ephemcræformis*, Haworth; a species not mentioned by Ochsenheimer.

† *Ægeria*, Sect. B. a. *Steph.* l. c. p. 140. Sp. 2. Pl. 11. f. 1.

‡ *Ses.* *Doryliiformis*—*alis* hyalinis, *marginibus* fasciâque fuscis; *abdomine* barbato, nigro, *segmento* quarto *marginibus* albo; *antennis* ferrugineis, *apice* nigris.—*Ochs.* II. p. 141. Sp. 9.

§ *Ægeria*, Sect. B. a.—*Steph.*

Species.	Icon.
11. <i>S. Ichneumoniformis</i> , Fab.* .....	} Ernst, III. Pl. XCII. f. 124. a—d. Curtis, Brit. Ent. Pl. LIII.
12. — <i>Cynipiformis</i> , Esp.*	
13. — <i>Melliniformis</i> , Lasp. † .....	} Lasp. Ses. Europ. f. 5. 6.
14. — <i>Andrenæformis</i> , Lasp. ....	
15. — <i>Stomoxxyformis</i> , Hüb. † .....	} Ernst, III. Pl. XCIII. f. 126. a. b. d. Steph. I. Pl. XI. f. 3.
16. — <i>Culiciformis</i> , Linn. †	
17. — <i>Mutillæformis</i> , Lasp. † .....	} Ernst, III. Pl. XCIII. f. 127. a—d.
18. — <i>Typhiæformis</i> , Lasp.	
19. — <i>Formicæformis</i> , Lasp. † .....	} Ernst, III. Pl. XCV. f. 132. a—d. Steph. Pl. XI. fig. 4.
20. — <i>Nomadæformis</i> , Lasp. ....	
21. — <i>Cephiiformis</i> , Gol- degg. §	
22. — <i>Eucercæformis</i> , Ochs.	
23. — <i>Tipuliformis</i> , Linn. ¶	Ernst, III. Pl. XCIV. f. 130. a—d.
24. — <i>Masariformis</i> , Ochs.**	
25. — <i>Tenthrediniformis</i> , Hüb. ....	} Ernst, III. Pl. XCIII. f. 128. a—d.

\* *Egeria*, Sect. B. a.—*Steph.*

† *Ses. Melliniformis*—alis hyalinis, anticis apice inauratis, marginibus fasciâque nigris; abdomine barbato, nigro, cingulis flavis; barba flava.—*Ochs.* II. p. 154. n. 14.

‡ *Egeria*, Sect. B. b. *Steph.*

§ *Ses. Cephiiformis*, alis hyalinis, anticis marginibus fasciâque nigro-cæruleis; abdomine barbato flavo, cingulis tribus flavis.—*Ochs.* II. p. 169. *Sp.* 22.

|| *Ses. Eucercæformis*, alis anticis fuscis apice inauratis, maculis duabus hyalinis; abdomine barbato nigro, strigâ mediî interruptâ flavâ.—*Ochs.* IV. p. 171. No. 22.

¶ *Egeria*, Sect. B. a. *Steph.*

\*\* *Ses. Masariformis*, alis hyalinis, anticis apice flavo irroratis, marginibus fasciâque nigris; abdomine nigro, cingulis tribus flavis; barbâ terminali flavâ.—*Ochs.* II. p. 173. *Sp.* 24.

- | Species.  | Icon. |
|---|-------|
| 26. <i>S. Philanthiformis</i> , } Laspeyres, Ses. Europ. fig. 23,<br>Lasp. .... } 24. (mas.) 25, 26. (fœm.) |       |
| 27. — <i>Tineiformis</i> , Hübn. } Hübn. Sphing. Tab. 7. f. 46. (fœm.)                                      |       |
| 28. — <i>Brosiformis</i> , Hübn. } Hübn. Sphing. Tab. 25. f. 116.<br>(mas.)                                 |       |

Genus 24. MACROGLOSSA, *Ochs., Steph.*

MACROGLOSSUM, Scop.                      SESIA, Fab., Syst., Gloss.  
BOMBYLIÆ, Hübn.                          SPHINX, Ochs.

*Wings*, small in proportion to the body; (elongate-lanceolate, opaque. Steph.)

*Antennæ* clavate; (gradually thickening nearly to the apex, which is scarcely attenuated: simple in the females. Steph.)

*Palpi* contiguous above the maxillæ, thickly clothed with scales. (Steph.)

*Maxillæ* as long as the *body*; the latter elongate, clothed with scales, tufted on the sides towards the apex and at the tip; (Steph.) broad at the hinder part.

*Flight* diurnal.

*Larva* elongate, slightly attenuated in front; caudal horn straight. (Steph.)

*Pupa* elongate, head-case produced. (Steph.)

A. *Margin of the wings entire.*

- | Species.  | Icon.   |
|---|---|
| 1. <i>M. Fuciformis</i> , Linn.*                | Ernst, III. Pl. LXXXIX. f. 117.<br>e. f.—Curtis, Brit. Ent. I.<br>Pl. XL. |
| 2. — <i>Bombyliformis</i> , }<br>Ochs.† ..... } | Ernst, III. Pl. LXXXIX. f. 117.<br>c. d.                                  |
| 3. — <i>Croatica</i> , Esp. ....                | Hübn. Sphing. Tab. 18. f. 89.<br>(mas.)                                   |
| 4. — <i>Stellatarum</i> ‡, Linn.                | Ernst, III. Pl. LXXXIX. f. 116.<br>a—e.                                   |

B. *Margin of the wings indented.*

- |                                 |                                    |
|---------------------------------|------------------------------------|
| 5. <i>M. Oenotheræ</i> , Fab... | Ernst, III. Pl. CXXI. f. 166. a—i. |
| 6. — <i>Gorgon</i> , Esp. ....  | Hübn. Sphing. Tab. 21. f. 102.     |

CREPUSCULAR LEPIDOPTERA.

Genus 25. DEILEPHILA, *Ochs., Steph.*

SPHINX, Fab., Latr.                      SPECTRUM, Scop.  
EUMORPHÆ, Hübn.

*Wings* rather long, interior and exterior margin somewhat

- \* *Sesia.*—*Steph.*      † *Sesia.*—*Steph.*      ‡ *Macroglossa.*—*Steph.*  
repend;

repand; (entire, the posterior slightly produced at the anal angle. Steph.)

*Antennæ* sub-filiform, (gradually but distinctly clubbed, especially in the males, the club attenuated at the apex and uncinated, with a naked subulated appendage, terminating in two slender hairs. Steph.)

*Palpi* contiguous above the *maxillæ*, which are rather elongated. (Steph.)

*Head* moderate, subovate; (Steph.) *eyes* large.

*Body* very acute, with a small tuft at the apex. (Steph.)

*Flight* crepuscular.

*Larva* various; *head* small; body smooth with lateral spots, generally of lively colours; the anterior segments incapable of being withdrawn or expanded; or, without lateral spots, colours dull, the anterior portion of the body capable of elongation, and with lateral ocelli: *pupa* smooth, sheath of the *maxillæ* not exerted: changes in a loose leafy cell on the ground; or, subterranean. (Steph.)

Mr. Stephens divides this genus into two sections:

- A. "*Anterior wings* not subfalcate, hinder margin rounded towards the apex: *abdomen* transversely banded: *antennæ* distinctly clavate. *Larva* maculated; anterior segments not retractile: caudal horn rugose: *pupa* superficially buried."
- B. "*Anterior wings* very acute, subfalcate, the hinder margin having an emargination towards the apex: *abdomen* longitudinally striated: *antennæ* obscurely clavate. *Larvæ* not spotted, some of the anterior segments with a single large ocellus on each, and retractile; caudal horn smooth, sometimes nearly obliterated: *pupa* enclosed in a cocoon of leaves on the ground."—*Illust. Brit. Ent.* I. pp. 124. and 128.

FAM. A. *Sphinges caudacutæ*—*Larvæ ophthalmicæ*.

Species.	Icon.
1. D. <i>Nerii</i> , Linn. ....	Ernst, III. Pl. CIV. f. 153. a—f.
2. — <i>Celerio</i> , Linn.* ...	Ernst, III. Pl. CX. f. 157. a—e.
3. — <i>Elpenor</i> , Linn.* ...	Ernst, III. Pl. CXII. f. 160. a—g.
4. — <i>Porcellus</i> , Linn.* .	Ernst, III. Pl. CXIII. f. 161. a—i.

FAM. B. *Sphinges semifasciatæ*—*Larvæ maculatæ*.

5. D. <i>Lineata</i> , Fab.† ..	Ernst, III. Pl. CX. f. 158. a—c. Pl. CXI. f. 158. d. e.—Steph. Pl. XII. f. 1.
---------------------------------	---

\* Sect. B.—*Steph. l. c.*

† Sect. A.—*Steph. l. c.*

6. D. *Galii*,

- | Species.                                 | Icon.  |
|--|--|
| 6. <i>D. Galii</i> , Hübn.* ...          | Ernst, III. Pl. CIX. f. 156. a—f.<br>Steph. Pl. XII. f. 2. |
| 7. — <i>Hippophaes</i> , Esp.            | Hübn. Sphing. Tab. 22. f. 109.<br>(fœm.)                   |
| 8. — <i>Nicæa</i> , De Prun-<br>ner..... | } Hübn. Sphing. Tab. 24. f. 115.<br>(fœm.)                 |
| 9. — <i>Euphorbiæ</i> , Linn.*           |  |
| 10. — <i>Zygophylli</i> , Hoffm.         | Hübn. Sphing. Tab. 27. f. 125.<br>(mas.)                   |
| 11. — <i>Vespertilio</i> , Fab..         | Ernst, III. Pl. CXI. f. 159. a—d.                          |

Genus 26. SPHINX, *Fab., Latr., Steph.*

SPECTRUM, Scop.

EUMORPHÆ, Hübn.

*Wings* lanceolate, entire.

*Antennæ* rather elongate, gradually, but slightly increasing in thickness from the base nearly to the apex, especially in the females; the apex attenuated, uncinated, and terminated by a scaly seta. (Steph.)

*Palpi* contiguous at their apex, densely clothed with hair. (Steph.)

*Maxillæ* very long, (Steph.) and strong.

*Head* large, subtrigonal; (Steph.) eyes very large.

*Body* thickly covered with hair; (Steph.) abdomen generally marked posteriorly with transverse light and dark coloured bands.

*Larva* smooth, not hairy, *head* flat, obtuse, oval; *caudal horn* on the penultimate segment large, smooth and incurved; *body* marked with oblique lateral stripes.

*Pupa* smooth, the sheath of the maxillæ always prominent; metamorphosis subterranean.

- | Species.                           | Icon.  |
|------------------------------------|--|
| 1. <i>Sp. Pinastris</i> , Linn.... | Ernst, III. Pl. LXXXVIII.<br>f. 115. a—f.                            |
| 2. — <i>Convolutuli</i> , Linn..   | Ernst, III. Pl. LXXXVI. f. 114.<br>a—e. Pl. LXXXVII. f. 114.<br>f—k. |
| 3. — <i>Ligustri</i> , Linn. ...   | Ernst, III. Pl. LXXXV. f. 113. a—g.                                  |

Genus 27. ACHERONTIA, *Ochs., Steph.*

MANDUCÆ, Hübn.

SPHINX, Linn. Fab. Latr.

SPECTRUM, Scop.

*Legs*, tarsi terminated by sharp claws, tibiæ spinous.

\* Sect. A.—*Steph. l. c.*

*Wings*

*Wings* broad, entire; the posterior slightly emarginated: *cilia* very short.

*Antennæ* short, very gradually and slightly thickening from the base nearly to the apex, uncinated, the hook terminating in a long, hairy seta. (Steph.)

*Palpi* not contiguous, applied close to the head, naked inwardly, densely clothed with hair outwardly. (Steph.)

*Maxillæ* very short, robust.

*Head* large.

*Body* obtuse, densely clothed with short velvety pile. (Steph.)

*Larva* smooth, not hairy, with oblique, purplish-coloured lateral stripes; anal horn tuberculated, deflexed, and curved at the apex.

*Pupa* smooth, *metamorphosis* subterranean.

## Species.

## Icon.

1. Ach. *Atropos*, Linn. . Ernst, III. Pl. CV. f. 154. a—f. Pl. CVI. f. 154. g—k. Pl. CXXII. f. 154. n. (Thorax of a female, without the mark of the Death's-Head.)—Curtis, Brit. Ent. IV. Pl. CXLVII. (Imago et Larva, figuræ pulcherrimæ.)

Genus 28. SMERINTHUS, *Latr., Steph.*

LAOTHÖE, Fab.

SPECTRUM, Scop.

AMORPHA, Hübn.

*Wings*, anterior more or less dentated, or angulated.

*Antennæ* incrassated towards the middle, sub-prismatic, serrated or pectinated; apex generally incurved, and pointed.

*Palpi* contiguous, very thickly covered with scales, third joint scarcely distinct.

*Head* small; *maxillæ* very short, or obsolete.

*Larva* very much granulated, head conical, last segment with a conical, recurved horn. (Steph.)

*Pupa* slightly rugose, acute, pointed at the apex; *metamorphosis* subterranean. (Steph.)

## Species.

## Icon.

1. Sm. *Tilia*, Linn. .... Ernst, III. Pl. CXVI. f. 163. a—e.
2. — *Ocellata*, Linn. ... Ernst, III. Pl. CXIX. f. 164. a—g.
- *Ocellatus*, Steph...
3. — *Populi*, Linn. .... Ernst, III. Pl. CXIV. f. 162. a—f.
4. — *Quercus*, Fab. .... Ernst, III. Pl. CXX. f. 165. a—f.



## NOCTURNAL LEPIDOPTERA.

Genus 29. SATURNIA, *Schrank., Steph.*

BOMBYX., *Fab., Latr.* HERÆÆ, *Hüb.*

PHAL. ATTACUS, *Linn. Esp.*

*Wings* rounded, entire, broad, exterior margin incurved, horizontally expanded when at rest; posterior ones simple: *cilia* very short.

*Antennæ* subcylindric, very short, in the male bi-pectinate, (the pectinations divergent and diminishing in length to the apex of the antennæ, each joint of which bears two ramifications, internally and externally; female with each joint bidentate. (*Steph.*)

*Palpi* and *maxillæ* obsolete, their place occupied by a dense tuft of hair. (*Steph.*)

*Head* small, scarcely visible from above. (*Steph.*)

*Thorax* stout, densely pilose.

*Abdomen* abbreviated in the males; rather elongate and stout in the females, pilose, slightly tufted at the apex. (*Steph.*)

*Larva* naked, with a coloured ring on each segment, adorned with several whirls of hair, placed upon distinct warts. (*Steph.*)

*Pupa* inclosed in a rigid pyriform folliculus. (*Steph.*)

Species.

Icon.

- |  |  |
|--|--|
| 1. Sa. <i>Pyri</i> , <i>Hüb.</i> ..... | Ernst, IV. Pl. CXXX. f. 176. a—f.<br>Pl. CXXXI. f. 176. g—i. |
| 2. — <i>Spini</i> , <i>Hüb.</i> .....  | Ernst, IV. Pl. CXXXII. f. 177.<br>a—h.                       |
| 3. — <i>Carpini</i> , <i>Hüb.</i> ...  | Ernst, IV. Pl. CXXXIII. f. 178.<br>a—h.                      |

Genus 30. AGLIA, *Ochs.*

ECHIDNÆ, *Hüb.*

PH. ATTACUS, *Linn. Esp.*

SATURNIA, *Schrank.*

*Wings* entire, broad, horizontally expanded; posterior simple: *cilia* moderate.

*Antennæ* short; of the male bipectinated, each joint bearing a single pectination, the latter diminishing in length towards the apex of the antennæ; female with each joint unidentate, not pectinated.

*Palpi* distinct, rather short, clothed with scales, compressed, triarticulate, terminal joint short, ovate.

E

*Maxille*

*Maxillæ* obsolete.

*Head* moderate.

*Thorax* rather short.

*Abdomen* moderate, pilose, tufted at the apex.

*Larva* naked, fleshy, the back subnodose.

*Pupa* slightly hairy, folliculated \*.

- |                                |                               |       |
|--------------------------------|-------------------------------|-------|
|                                | Species.                      | Icon. |
| 1. Agl. <i>Tau</i> , Linn..... | Ernst, IV. Pl. CXXIX. f. 175. | a—i.  |

Genus 31. ENDROMIS, *Ochs., Steph.*

DIMORPHÆ, Hübner.

BOMBYX, Latr. Schr. &c.

(DORVILLIA, Leach †.)

*Legs* slender; *hinder tibiæ* with a minute pair of spurs at the apex only.

*Wings* broad, subtriangular, entire, somewhat diaphanous, pilose, without a dorsal prominence: *cilia* extremely short.

*Antennæ* filiform, closely bipectinated in both sexes, the bipectinations shortest in the female, and in both sexes incurved and terminating rather abruptly at the apex.

*Palpi* very short, hairy, compressed, recurved, obtuse.

*Maxillæ* obsolete.

*Head, thorax* and *abdomen* thickly clothed with very fine long hairs, which also envelope the base of the wings.

*Larva* naked, attenuated in front with a pyramidal elevation at the anal segment, and oblique lateral stripes.

*Pupa* folliculated, not subterranean ‡.

- |                                   |                                   |                         |
|-----------------------------------|-----------------------------------|-------------------------|
|                                   | Species.                          | Icon.                   |
| 1. En. <i>Versicolora</i> , Linn. | Ernst, IV. Pl. CXXV. f. 169. a—g. | Pl. CXXVI. f. 169. h—l. |

Genus 32. HARPYIA, *Ochs.*

CERURA, Schr. Steph.

ANDRIÆ, Hübner.

*Legs* woolly; *anterior tibiæ* with an elongate, compressed lobe; *posterior* simple.

*Wings* entire, somewhat diaphanous, deflexed, *anterior* elongate.

*Antennæ* bipectinate in both sexes, in some species with the apex simple; the pectinations longest in the males, and ciliated.

\* The Generic characters are taken from Stephens.—*Illust. Brit. Ent. Haustellata*, II. p. 36.

† Edinburgh Encyclopædia, Art. "Entomology."

‡ Characters from Stephens, who places this genus in his second family of *Lepidoptera nocturna, notodontidæ*.—*Illust. Brit. Ent., Haustell. II. p. 33.*

*Palpi*

*Palpi* four; *labial* small, tri-articulate, compressed, apex obtuse; *maxillary* minute, attenuated at the tip.

*Maxillæ* very short, flat, not spiral.

*Head* moderate.

*Thorax* rather stout, not crested.

*Abdomen* moderate, robust in the females, with the apex obtuse, slightly tufted in the males; beneath woolly.

*Larva* robust, anteriorly truncate, with an elevation on the third segment; the anal feet produced into two long retractile filaments, with two short spines between.

*Pupa* inclosed in a hard case, generally formed of agglutinated pieces of woody fibre\*.

A. *Antennæ* *bipectinate* throughout.

Species.	Icon.
1. H. <i>Vinula</i> , Linn.....	Ernst, V. Pl. CCIV. f. 271. a—i.
2. — <i>Erminea</i> , Esp. ....	Ernst, V. Pl. CCV. f. 272. a—g.
3. — <i>Bicuspis</i> , Hübn....	Ernst, V. Pl. CCVI. f. 273. i. Steph. <i>Haustell.</i> II. Pl. 13. f. 3.
4. — <i>Bifida</i> , Hübn. ...	Ernst, V. Pl. CCVI. f. 273. f—h. (mas.) k. l. (fœm. Var.)—Steph. <i>Illust. Brit. Ent. Pl.</i> 15. f. 2.
5. — <i>Furcula</i> , Linn. ...	Ernst, V. Pl. CCVI. f. 273. b. (larva). d. (mas.) e. f. (fœm.) †

B. *Antennæ* with the apex bare.

6. H. <i>Ulmi</i> , Borkh.....	Ernst, V. Pl. CXCIV. f. 256. a—c.
7. — <i>Fagi</i> , Linn. †.....	Ernst, V. Pl. CCI. f. 270. a—g.
8. — <i>Milhauseri</i> , Fab. .	Ernst, V. Pl. CCII. f. 269. a—g.

Genus 33.

\* Characters chiefly from Stephens.—*Illust. Brit. Ent., Haustell.* II. p. 15.

† The following species, belonging to the first section, not noticed by Ochsenheimer, are given by Stephens.

1. <i>Cerura integra</i> , Steph.....	Steph. <i>Illust. Brit. Ent. Pl.</i> XV. f. 3.
2. — <i>arcuata</i> , Steph. <sup>a</sup>	
3. — <i>latifascia</i> , Curtis .....	Curtis, <i>Brit. Ent. IV. Pl.</i> CXCIII.
4. — <i>fuscinula</i> , Steph. Hübn.?	Steph. <i>Illust. Brit. Ent. Pl.</i> XV. f. 1.

† *Stauropus fagi*, Steph.

Mr. Stephens has separated this insect from the *Cerura*, and placed it by itself under Germar's genus *Stauropus*, which "differs from the other genera of this family by having several patches of elevated scales on the anterior wings, which are rather densely clothed with scales, and somewhat pilose."

"Genus 38. STAUROPUS, Germar.

"*Palpi* short, clothed with elongate scales, straight, cylindric, biarticulate,

<sup>a</sup> "*C. arcuata*. Alis griseis, anticis basi, margineque postico nigro punctatis, fasciâ transversâ angustâ cinereâ nigro marginatâ, strigâque posticâ flexuosâ arcuorum (arcuum?) nigrorum, thorace antice cinereo."—*Steph. l. c.*

## Genus 33. NOTODONTA, Ochs.

## PTILODONTES, Hübn.

(NOTODONTA, LEIOCAMPA, LOPHOPTERYX, PTILODONTIS, PTILOPHORA, CHAONIA, PERIDEA, Steph.)

*Wings*, anterior generally with a tuft of hairs on the interior margin, which when at rest are elevated, and form a tooth-like projection on the back.

*Antennæ* bipectinate in the males; in the females occasionally filiform and simple.

*Antlia* very short.

*Larva* naked, with protuberances on the middle segment; or with two points or tubercular projections on the anal segment; or quite smooth.

*Pupa* with the apex aculeated\*.

FAM. A.—*Larvæ* with protuberances on the middle segment; head and anal segments elevated when at rest.

## Species.

## Icon.

- |  |   |
|--|---|
| 1. N. <i>Tritophus</i> , Fab....         | Ernst, V. Pl. CCII. f. 268. a—e.                        |
| 2. — <i>Ziczac</i> , Linn.†....          | Ernst, V. Pl. CC. f. 266. a—c.<br>Pl. CCI. f. 266. d—g. |
| 3. — <i>Torva</i> , Hübn. ....           | Ernst, IV. Pl. CXXVII. f. 172.<br>a—c.                  |
| 4. — <i>Dromedarius</i> ,<br>Linn.†..... | } Ernst, V. Pl. CCI. f. 267. a—f.                       |

5. N. *Cucul-*

the terminal joint acute; *maxillæ* obsolete. *Antennæ* porrect, simple at the apex; of the male, strongly bipectinated from the base nearly to the tip; of the female, simple throughout; *head* very small; *eyes* large; *thorax* not very stout, nor crested; *abdomen* somewhat elongate, rather attenuated towards the apex, which is furnished in both sexes with a tuft of fine woolly hair; *wings* entire, thickly clothed with scales, with several elevated tufts of scales and down; *anterior* lanceolate-ovate; *posterior* ovate-triangular; *legs* rather short, thickly clothed with down: *anterior tibiæ* in both sexes with an elongate attenuated spine or lobe; *posterior* with spines at the apex only. *Larva* naked, the back with several acute protuberances, the caudal segments laterally expanded and reflexed, with the hinder prolegs converted into two styliform processes: *pupa* folliculated."—Steph. *Illustr. Brit. Ent. Haust.* II. 21.

\* These insufficient characters are given literally from Ochsenheimer. Mr. Stephens, as seen in the synonyma above, has divided this group into no less than seven genera, the characters of which I shall annex as the species occur on which they are respectively formed, in order that such entomologists as do not possess Mr. Stephens's elegant and important "Illustrations" may, if they please, be enabled to adopt his views, and know on what grounds they are established.

† NOTODONTA, Steph.

"N. *Palpi* short, very hairy, biarticulate, basal joint minute, terminal compressed, truncate; *maxillæ* short. *Antennæ* filiform, bipectinated in the males,

Species.

Icon.

5. *N. Cucullina*, Hübn.\* Hübn. Bomb. Tab. 5. f. 20. (fœm.)

FAM. B.—*Larvæ* with two conical projections on the anal segment; the head and anterior segments elevated and thrown back when at rest.

6. *N. Camelina*, Linn.\* Ernst, V. Pl. CXCIX. f. 263. a—i.

7. — *Carmelita*, Esp.\* Hübn. Bomb. Tab. 5. f. 21. (mas.)

FAM. C.—*Larvæ* tuberculated, especially on the anal segment.

8. *N. Dictæa*, Linn.† ... Ernst, V. Pl. CXCVII. f. 260. a. (larva) b. (pupa) f. 261. d—f.

9. — *Dictæoides*, Esp.† Ernst, V. Pl. CXCVII. f. 261. a. b. (larva) c. (pupa) f. 260. c—e.

10. *N. Argen-*

males, the pectinations short, and nearly vanishing at the apex; in the females, slightly denticulated interiorly, and ciliated: *head* and *eyes* small; *thorax* not crested; *abdomen* somewhat elongated, robust, sub-cylindric; the apex downy: *wings*, *anterior* obtuse at the apex, with the hinder margin rounded and denticulated; the interior, or dorsal edge, with a projecting tuft of scales in the centre: *legs* short, robust, densely clothed with scales and hair; the *anterior tibiæ* anteriorly with an elongate lobate appendage; *anterior tarsi* short, stout, clothed with elongate scaly hair. *Larva* naked, with two or more conical protuberances on the back, the anal segment reflected, and bearing two imperfect prolegs: *pupa* subterranean, folliculated."—Steph. *Illustr. Brit. Ent. Haust.* II. 22.

Stephens's second species, *No. perfusca* (*B. perfuscus*? Haw.), is not noticed by Ochsenheimer.

"Sp. 2. *perfusca*—Pl. XIV. f. 2. Alis anticis fusco-nebulosis, liturâ baseos anique flavescentibus, strigis duabus denticulatis obsoletis."—Steph. *l. c.* p. 23.

Stephens is not positive that this insect is distinct from *No. Drmedarius*, but is inclined to think it is. It is found near Dublin.

\* LOPHOPTERYX, Steph.

"L.—*Palpi* short, hairy, slightly ascending, biarticulate, the first joint elongate, curved at the base, the terminal one short, ovate; *maxillæ* short, a little spiral. *Antennæ* short, filiform, simple and ciliated in the females, very slightly bipectinated in the males," (bipectinations) "nearly vanishing towards the apex: *head* small; *eyes* moderate: *thorax* crested: *abdomen* not elongate, rather stout; apex of the male with a trifid scaly tuft: *wings* compressed when at rest; *anterior* subtriangular, the hinder margin rounded, and rather deeply denticulated; the interior with a single, elongate, squamous tooth towards the centre: *legs* rather slender, downy; the apex of the *tibiæ* with two elongate spurs; the *anterior* internally simple. *Larva* slightly hairy, with one or two conical protuberances on the anal segment alone; hinder prolegs perfect: *pupa* folliculated."—Steph. *l. c.* II. 26.

† LEIOCAMPA, Steph.

"L.—*Palpi* extremely minute, enveloped in dense hair: *maxillæ* obsolete. *Antennæ* filiform, bipectinated in both sexes to the apex; the pectinations

Species.

Icon.

10. N. *Argentina*, Fab... Ernst, V. Pl. CXCVIII. f. 262.  
a—i.

FAM. D.—*Larvæ* quite smooth.

11. N. *Palpina*, Linn.\*.. Ernst, V. Pl. CXCVI. f. 259. a—h.  
12. — *Plumigera*, Fab.† Ernst, V. Pl. CXCIV. f. 257. a—d.  
13. — *Bicolora*, Fab. ... Ernst, IV. Pl. CXXVI. f. 170. b—e.  
14. — *Velitaris*, Hübn... Ernst, V. Pl. CC. f. 264. a. b.  
15. — *Melagona*, Hübn. Ernst, V. Pl. CC. f. 265. a—c.  
16. — *Crenata*, Esp. .... Ernst, V. Pl. CLXXXIII. f. 237.  
a—c.  
17. — *Dodonæa*, Hübn.‡ Ernst, V. Pl. CLXXXVII. f. 243.  
a—e.  
18. — *Chaonia*, Hübn.‡ } Ernst, IV. Pl. CXXVIII. f. 174.  
(*Roboris*, Steph.) } a—f.  
19. — *Querna*, Fab.‡. ... Ernst, IV. Pl. CXXVIII. f. 173.  
a—d.

20. N.

nations shorter, but not vanishing at the tip, and abbreviated in the female: *head* hairy in front: *eyes* moderate; *thorax* not crested: *abdomen* elongate, cylindric, tufted at the apex: *anterior wings* elongate, rather acute at the apex, the posterior margin slightly rounded and obsoletely denticulated; the interior with a single squamous tooth towards the centre: *legs* short, not very stout; *femora* and *tibiæ* densely clothed with hair; *tarsi* slender: *anterior tibiæ* with a very short spine-like process interiorly. *Larva* naked, with a small conical protuberance on the anal segment only: caudal legs perfect: *pupa* subterranean, folliculated."—*Steph. l. c. II. 24.*

\* *PTILODONTIS*, Hübn. Steph.

- † P.—*Palpi* considerably elongated, porrect, ascending, clothed with elongate scales: *maxillæ* short. *Antennæ* filiform, bipectinated in both sexes, the pectinations shortest in the females: *head* minute: *eyes* small: *thorax* slightly crested: *abdomen* elongated, tufted at the apex, the tuft bifid in the male: *anterior wings* denticulated at the hinder margin, the interior edge with two recurved tufts of elongate scales, the basal one the largest; *posterior* entire: *legs* moderate, downy; *tibiæ* with spurs at the apex. *Larva* naked, smooth, without any dorsal prominences, head very acute: *pupa* subterranean, folliculated."—*Steph. l. c. II. 28.*

‡ *PTILOPHORA*, Steph.

- † P.—*Palpi* minute, enveloped in dense elongated hairs; *maxillæ* very short. *Antennæ* slender, of the males furnished with extremely long plumose radii, of the females subserrated; *head* densely pilose, small: *eyes* moderate: *thorax* not crested, pilose: *abdomen* scarcely elongated, clothed with velvety pile, and slightly tufted in the male: *wings* subdiaphanous, pilose; *anterior* with the apex entire, the inner margin obsoletely denticulated; *posterior* entire; *legs* short, robust, downy: *tibiæ* with minute spurs at the apex. *Larva* without dorsal protuberances: *pupa* subterranean, folliculated."—*Steph. l. c. II. 29.*

‡ *CHAONIA*, Steph.

- † Ch.—*Palpi* very minute, slightly porrect, recurved at the base, pilose: *maxillæ*,

- |                                  |  |
|----------------------------------|--|
| Species.                         | Icon.                                  |
| 20. N. <i>Trepida</i> , Fab.*... | Ernst, IV. Pl. CXXVII. f. 171.<br>a—e. |

Genus 34. COSSUS, *Fab., Latr.*

HEPIALUS, *Schr.*

TEREDINES, *Hübner.*

*Legs*, tibiæ with spurs. (Steph.)

*Wings* entire, strong; interior margin of the *anterior* repand.

*Antennæ* setaceous, as long as the thorax, furnished with a single row of short, transverse, obtuse teeth, (Latr.) on their inner edge. (Steph.)

*Palpi* very distinct, cylindrical, rather thick, squamose, (Latr.) three-jointed. (Steph.)

*Head* small, with a pilose crown; *thorax* stout, scaly; *abdomen* robust, elongate, (Steph.) that of the female terminated by a prominent aculeus.

*Larva* smooth, with a few fine, short hairs; living in the trunks of trees, lignivorous.

*Pupa* posteriorly spinous, inclosed in a case formed of the particles of rotten wood cemented by gluten.

A.—*Antennæ* pectinated.

- |                                |  |
|--------------------------------|--|
| Species.                       | Icon.  |
| 1. C. <i>Ligniperda</i> , Fab. | Ernst, V. Pl. CLXXXIX. f. 246.<br>a—g. Pl. CXC. f. 246. h—k.<br>Curt. Brit. Ent. Pl. 60. (Imago<br>et larva, figuræ perpulchræ.) |

*maxillæ* extremely short. *Antennæ* bipectinated in the males to the apex, in the females subserrated and ciliated: *head* small, pilose, with a distinct fascicle of hairs at the base of each antenna: *eyes* moderate: *thorax* slightly crested: *abdomen* not elongated, clothed with short down: *wings* opaque, squamous: *anterior* entire at the apex, with an obsolete denticulation on the inner edge; *posterior* entire: *legs* short, downy: *tibiæ* with spurs at the apex, *anterior* with a compressed spine. *Larva* naked, without dorsal protuberances; anal legs perfect: *pupa* subterranean, folliculated."—*Steph. l. c.* II. 30.

\* PERIDEA, Steph.

"Pe.—*Palpi* very short, hairy, triarticulate, the basal and terminal joints minute: *maxillæ* short. *Antennæ* elongate, serrated, bipectinated nearly to the apex in the males: *head* small, pilose: *thorax* slightly crested, robust, hairy: *abdomen* scarcely elongated, rather stout, slightly tufted at the apex: *thorax* and *body* beneath very downy: *legs* short, stout, densely clothed with hair and down to the middle of the tarsi; *anterior tibiæ* with a spiniform lobe on the inner margin: *wings* entire, subdiaphanous; *anterior* lanceolate-ovate, with a single prominence on the inner margin. *Larva* naked, without dorsal protuberances, the back slightly rugose, the sides obliquely streaked: *pupa* folliculated, the folliculus placed on the surface of the ground."—*Steph. l. c.* II. 32.

2. C. *Terebra*,

Species.	Icon.
2. <i>C. Terebra</i> , Fab. ....	Ernst, V. Pl. CXX. f. 246. l.
3. — <i>Cæstrum</i> , Hübn. ..	Hübn. Bomb. Tab. 46. f. 199. (mas.)
4. — <i>Pantherinus</i> , Ochs.	Ernst, V. Pl. CXCIII. f. 254. a. b.

B.—Antennæ in the male semi-pectinated; apex slightly crenate.

5. <i>C. Arundinis</i> , Hübn.	Hübn. Bomb. Tab. 47. f. 200. (mas.) 201. (fœm.)
6. — <i>Æsculi</i> , Linn.*	Ernst, V. Pl. CXC. f. 247. a—d.

Genus 35. HEPIOLUS, *Illig., Hübn.*

HEPIALUS, Fab. Latr. Schrank. (Steph.)

*Legs*, tibiæ unarmed.*Wings* oblong-lanceolate, sub-equal.*Antennæ* much shorter than the thorax, subfiliform, or moniliform, sometimes pectinated or serrated.*Palpi* obsolete.*Head* small; *thorax* woolly; *abdomen* rather stout, elongate, the apex tufted in the males.*Larva* subterranean, radicivorous.*Pupa* elongate, rather stout, obtuse, with two parallel rows of spinous processes: changes in a web amongst the food of the larva†.

Species.	Icon.
1. <i>H. Humuli</i> , Linn. †...	Ernst, V. Pl. CXCI. f. 248. a—k.
2. — <i>Velleda</i> , Hübn. † .	Hübn. Bomb. Tab. 50. f. 212. (mas.) Tab. 54. f. 233. (mas.) 234. (fœm.)
3. — <i>Carnus</i> , Fab. † . . . .	Ernst, V. Pl. CXCIII. f. 251. d. e.
4. — <i>Sylvinus</i> , Och. † . . .	Ernst, V. Pl. CXCII. f. 249. a—g. Curtis, Brit. Ent. IV. Pl. 185. f. sup. ♂ f. inf. ♀.

\* ZEUZERA, Latr. Steph.

“*Antennæ* not so long as the thorax, setaceous, of the males pectinated at the base, with the apex simple; of the females entirely simple, with the base tomentose; *palpi* obsolete; *wings* entire, elongate, lanceolate, unequal. *Head* small, tomentose: *thorax* stout, thickly clothed with hair: *abdomen* not very robust, much elongated, attenuated, clothed with short hair: *legs* rather long, shanks unarmed. *Larva* residing in the trunks of trees, lignivorous; *pupa* inclosed in a case of wood, cemented by a glutinous substance.”—*Steph. Illust. Brit. Ent.* II. p. 8.

Stephens adds, that *Zeuzera* is distinguished from *Cossus* by its antennæ in both sexes having the apical half simple, by the form and texture of the wings, and by the slenderness of its tomentose body.

† Generic characters from Stephens (*Illust. Brit. Ent. Haust.* II. p. 4.), who divides the genus into two sections; the first (A) having the antennæ simple in both sexes, the second (B) having them pectinated or serrated.

‡ Steph. Sect. A.

§ Steph. Sect. B.

5. *H. Ganna*,



Species.	Icon.
5. H. <i>Ganna</i> , Hübn. ...	Hübn. Bomb. Tab. 50. f. 215. (mas.)
6. — <i>Lupulinus</i> , Fab.*.	Ernst, V. Pl. CXCIIL. f. 252. a—d.
7. — <i>Hectus</i> , Fab.*.....	Ernst, V. Pl. CXCIIL. f. 251. a—c.

Genus 36. PHYCIS, *Fab., Latr.*

EUPLOCAMUS, *Latr.*

*Legs*, posterior with the tibiæ armed with spines.

*Wings* small; posterior margin rounded.

*Antennæ* very strongly pectinated.

*Palpi* with the second joint hairy, with very numerous elongated scales, produced into a fasciculus; the third nearly naked, ascending. (*Latr.*)

*Larva* naked, except a few scattered hairs on the body; inhabits rotten wood.

*Pupa* elongated; the hinder part armed with fine hamuli; changes in a delicate closed web, formed in the cavities inhabited by the larva.

Species.	Icon.
1. P. <i>Boleti</i> , <i>Fab.</i> .....	Hübn. Tineæ, Tab. 3. f. 18. (fœm.)
2. — <i>Mediella</i> , Hübn. .	Hübn. Tin. Tab. 3. f. 19. (fœm.)
3. — <i>Anthracina</i> , <i>Ochs.</i>	Hübn. Pyralides, Tab. 4. f. 22. (mas.)

Genus 37. LITHOSIA, *Fab., Latr.*

SETINA, *Schreb.*

CALLIMORPHA, *Latr.†*

HIPPOCRITÆ, *Hübn.*

*Legs*, anterior with the coxæ long and robust; *thighs* very long and slender; *tibiæ* short and slender; *tarsi* 5-jointed; *pulvilli* distinct; *claws* obscure.

*Wings*

\* *Steph. Sect. A.*

† Ochsenheimer has divided this genus into four families, the first of which agrees pretty nearly with the second division of Latreille's genus *Lithosia*, and the second family contains three species of his genus *Callimorpha*. Several species of the genera *Lithosia* and *Callimorpha*, *Latr.* are arranged by Ochsenheimer under his own genus *Eyprepia*. Altogether, no small share of confusion prevails with respect to the species of these three genera; and we hope that some one better qualified for the task than ourselves, and not too fond of creating new genera, will disentangle this perplexed web. We are already indebted to Mr. Curtis for having done something towards it; and the sure grounds which that author goes upon—dissection of the essential parts, and the admirable manner in which those dissections are executed and delineated—not only create unlimited confidence in his results, but leave nothing to wish for, as far as he has gone. To him and to Mr. Stephens, amongst our own entomologists, now actively and so much to their own honour devoted to the science, we must look to have "all

F

these

*Wings* long, oblong, somewhat elliptic, incumbent or convolute; *inferior* ones much folded.

*Antennæ* remote, covered with long scales above, hairy beneath, pectinated (under a lens), the pectinations arising from the centre of the joints on each side.

*Palpi* two, generally shorter than the head, covered with various scales; the apex nearly naked, 2-jointed, first joint long, cylindric, attenuated, curved upwards; second joint small, somewhat rhomboid.

*Head* short, covered with close scales (not hairy in front); *eyes* remote\*.

FAM. A.—*Antennæ* filiform, setaceous; setæ very delicate, and inserted in the joints; posterior legs long, armed with spines: anterior wings small, long, convolute; posterior broad and plicate. (Ochs.)

*Larva* hairy, subfusiform, variegated; live chiefly in moss on trees.

*Metamorphosis* occurs in a fine web.

- | Species.                        | Icon.                                  |
|---------------------------------|--|
| 1. <i>L. Quadra</i> , Linn. ... | Ernst, VI. Pl. CCXVII. f. 298.<br>a—k. |
| 2. — <i>Griseola</i> , Hübn. .  | Ernst, VI. Pl. CCXIX. f. 303.<br>a—d.  |

these odds made even." Of his genus *Lithosia*, Latreille says (*Nouv. Dict. d'Hist. Nat.* vol. xviii. p. 130. 1817.), "This genus answers in great measure to the genus *Lithosia* of Fabricius, and to the *Setines* (*Setina*) of Schrank." And a little further, "M. Ochseneimer, in his *Lepidoptera* of Europe, arranges some of my *Lithosiæ* with his *Eyprepixæ*, which comprehend many species of *Arctia*, and my *Callimorphæ*." "The *Lithosiæ*," Latreille adds, "are, in general, species of *Bombyx*, having the form of *Tineæ*, either narrow or elongated, adorned with pleasing colours, sometimes uniform, sometimes variegated, and marked with dots, maculæ, or bands. Their wings form a sort of mantle. These *Lepidoptera* remain quiet, during the day, on the trunks of trees, or the stems of plants."

The species enumerated by Curtis (*Brit. Ent.* I. 36.) as belonging to this genus are eight: namely, *L. muscerda*, Hübn.; *flava*, Fab.; *aurantia*, Haw.; *ochreola*, Hübn.; *helvecola*, Hübn.; *complanata*, Linn.; *griseola*, Hübn.; and *quadra*, Linn.: and he concludes the subject with the following observation: "*L. quadra* will form a second division in this genus, since the second joint of the palpus is as long as the first, and curved upward; *Bombyx pulchella* and *rubricollis*, Fab., with some others, are included by that author and Latreille in the genus *Lithosia*, which has occasioned the latter to state that the palpi are three-jointed, whereas Fabricius has described them as biarticulate: after dissecting several specimens of our genus, and examining them most carefully, I can discover only two joints; *B. pulchella* and *rubricollis* having three distinct joints in the palpi, must therefore be constituted into a new genus."

\* Generic characters from Curtis, l. c.

3. *L. Com-*

Species.	Icon.
3. <i>L. Complana</i> , Linn. .	Ernst, VI. Pl. CCXVIII. f. 301. a—c.
4. — <i>Caniola</i> , Hübn....	Hüb. Bomb. Tab. 81. f. 220. (mas.)
5. — <i>Depressa</i> , Esp. ...	Hüb. Bomb. Tab. 23. f. 96. (fœm.)
6. — <i>Helveola</i> , Ochs....	Ernst, VI. Pl. CCXVIII. f. 302. a—c.
7. — <i>Unita</i> , Hübn. . . .	Hüb. Bomb. Tab. 51. f. 221. (mas.) Tab. 23. f. 93. (fœm.)
8. — <i>Gilveola</i> , Ochs. ...	Hüb. Bomb. Tab. 23. f. 91. (fœm.)
9. — <i>Luteola</i> , Hübn. ...	Ernst, VI. Pl. CCXVIII. f. 300. a—c.
10. — <i>Aureola</i> , Hübn....	Ernst, VI. Pl. CCXVIII. f. 299. a—c.
11. — <i>Rubicollis</i> , Linn.	Ernst, VI. Pl. CCXXII. f. 311. a—c.
12. — <i>Muscerda</i> , Hübn.	Hüb. Bomb. Tab. 24. f. 103. (fœm.) Curtis, Brit. Ent. I. Pl. 36.

FAM. B.—Anterior wings broad, deflexed.

13. <i>L. Rosea</i> , Fab. ....	Ernst, VI. Pl. CCXXI. f. 310. a—f.
14. — <i>Roscida</i> , Fab. ...	Ernst, VI. Pl. CCXX. f. 307. a—d.
15. — <i>Irrorea</i> , Hübn. ...	Ernst, VI. Pl. CCXX. f. 306. a—e.
16. — <i>Aurita</i> , Esp. ....	Ernst, VI. Pl. CCXIX. f. 305. a—c.
17. — <i>Ramosa</i> , Fab. ....	Ernst, VI. Pl. CCXIX. f. 305. d.
18. — <i>Eborina</i> , Hübn. ...	Ernst, VI. Pl. CCXIX. f. 304. a—c.
19. — <i>Jacobeæ</i> , Linn. ...	Ernst. VI. Pl. CCXXII. f. 312. a—f.

FAM. C.—Antennæ setaceous; anterior wings broad, with semi-transparent spots; posterior wings very small: posterior portion of the body with black dots.

20. <i>L. Ancilla</i> , Linn. ...	Ernst, VI. Pl. CCXXIII. f. 314. a—e.
21. — <i>Punctata</i> , Fab. ...	Ernst, VI. Pl. CCXXIII. f. 315. a. b.

FAM. D.—Antennæ setaceous; in the male the setæ extremely delicate, and scarcely visible to the naked eye; wings broad, rounded, sub-diaphanous, with dark-coloured spots.

22. <i>L. Mundana</i> , Linn. .	Hüb. Bomb. Tab. 17. f. 63. (mas.) 64. (fœm.) f. 65. (mas.)
23. — <i>Murina</i> , Hübn....	Hüb. Beitr. II. B. 3. Th. II. Taf. fig. K. S. 66.—Bomb. Tab. 17. f. 62. (mas.)

Species.	Icon.
24. <i>L. Senex</i> , Hübn. ....	Hübn. Bomb. Tab. 55. f. 236. (mas.) 237. (fœm.)

## Genus 38. PSYCHE, Schrank, (Steph.)

CANEPHORÆ, Hübn.

BOMBYX, Fab., Latr.

*Legs* slender, transparent, scarcely pilose; posterior tarsi with very short spurs at the apex.

*Wings* in the male elongate, rounded posteriorly, very transparent, slightly hairy; wanting in the females.

*Antennæ*—of the male rather short, bipectinated, the pectinations twisted and very pilose:—of the female very short, simple, submoniliform, the two basal joints very large and robust, the rest small.

*Palpi* and *maxillæ* none, replaced by a loose tuft of hair.

*Head* and *thorax* scarcely pilose, shining: *abdomen* of the male rather robust, thickly pilose;—of the female naked, rather glossy above, with a woolly mass at the apex: *ovipositor* exerted, subtruncate\*.

*Larva* inclosed in a cylindrical case, composed of blades of grass, morsels of leaves, bark of trees, &c. and which it drags about with it by means of the anterior or *pectoral* feet (hence called sacciferous larvæ), the only ones fit for crawling—the posterior being imperfect.

*Pupa* elongate: *metamorphosis* in the larva-case attached to the branches of trees, or other elevated objects. Prior to the change the larva is reversed; so that the imago issues from the posterior aperture. (Ochs.)

*Obs.* The natural history of the sacciferous insects has for many years engaged the attention of the most distinguished entomologists, and yet much still remains to be done for its perfect elucidation, although many singular and important facts have been discovered respecting them. One of the most remarkable is that of the females occasionally laying fruitful eggs without any previous intercourse with the male: the fact is as unquestionable as it is mysterious, having been confirmed by many experiments conducted with every necessary precaution. The most complete are those of Rossi, an account of which is given in a letter on *Psyche apiformis*, addressed to the Abbate Mazzola.

I venture to introduce the genus *Psyche* (which cannot with propriety be arranged with the *Tineæ*, Schaben?) in this place;

\* Characters from Stephens. *Illust. Brit. Ent.* II. *Haust.* p. 79.

since,

since, in respect of the perfect male insect, it forms the fittest passage to the next genus (*Liparis*). Ochs.\*

A.—Females apterous, hexapodous: *abdomen* terminated by a pilose tuft: *ovipositor* exerted.

Species.	Icon.
1. Ps. <i>Pulla</i> , Esp. ....	Hüb. Tineæ, Tab. I. f. 7. (mas.)
2. — <i>Plumella</i> , Ochs.†	Hüb. Samm. auser: Vog. und Schmett. Tab. 47.
3. — <i>Nitidella</i> , Hübn..	Hüb. Tineæ, Tab. I. f. 6. (mas.)
4. — <i>Pectinella</i> , Fab....	Hüb. Tineæ, Tab. I. f. 5. (mas.)
5. — <i>Bombycella</i> , Hübn.	Hüb. Tineæ, Tab. I. f. 4. (mas.)
6. — <i>Calvella</i> , Ochs. ...	Hüb. Tineæ, Tab. I. f. 3. (mas.)
7. — <i>Nudella</i> , Ochs.‡..	— — — —
8. — <i>Glabrella</i> , Ochs...	Hüb. Tineæ, Tab. 31. f. 212. (mas.) Tab. 56. f. 382. (fœm.)
9. — <i>Politella</i> , Ochs.§..	— — — —

B.—Females vermiform; no visible organs of emotion.

10. Ps. <i>Hirsutella</i> , Ochs.	— — —
11. — <i>Muscella</i> , Fab. ...	Hüb. Tineæ, Tab. 2. f. 8. (mas.)
12. — <i>Plumifera</i> , Ochs.¶	— — —
13. — <i>Apiformis</i> , Rossi .	Hüb. Tineæ, Tab. 44. f. 305.
14. — <i>Viciella</i> , Fab. ....	Hüb. Tineæ, Tab. 41. f. 280. (mas.)
15. — <i>Villosella</i> , Ochs. .	Hüb. Tineæ, Tab. 1. f. 2. (mas.)
16. — <i>Graminella</i> , Hübn.	Hüb. Tineæ, Tab. 1. f. 1. (mas.)

### Genus 39. LIPARIS, Ochs.

LARIA, Schrank.

HYPOGYMNÆ et LEUCOMÆ, Hübn.

*Antennæ* bipectinate, the pectinations in the male very strong.  
*Maxillæ* none.

*Wings* deflexed, rather lightly scaled, generally of one uniform colour, or marked with dark maculæ or bands.

*Abdomen*,—in the female often furnished at the apex with a large, finely pilose, tuft, with which she covers her eggs

\* Poda in the *Mus. Græc.* places them with *Tenthredo*, and Scopoli, in the *Ento. Carniol.* with *Phryganea*.—Ochs.

† Ps. alis rotundatis fuscis, nigro-venosis.—Ochs. III. 168.

‡ Ps. alis omnibus albo-cinereis, subhyalinis, albo-ciliatis.—Ochs. III. 173.

§ *Nov. Sp.* Ps. alis anticis oblongis, lividis, immaculatis; posticis cinereis, ciliis albidis.—Ochs. IV. 200.

|| Ps. alis nigrescentibus, abdomine hirto, fusco.—Ochs. III. 173.

¶ Ps. alis angustis, hyalinis, corpore atro, hirsuto, antennis plumosis.—Ochs. III. 176.

when

when deposited, tearing it from her body for that purpose, by means of the hinder legs.

*Larva* with hairy tubercles, variegated.

*Pupa* with small pilose tufts; changes in a thin web.

*Obs.* All the species enumerated below, unquestionably belong to this genus; the two last, only, differing from the rest, as regards the pupa and its web; but there does not appear to be sufficient reason for assigning them a separate place on that account. (Ochs.)

Species.	Icon.
1. <i>L. Morio</i> , Linn.* ...	Ernst, IV. Pl. CXXXIV. f. 179. a—d.
2. — <i>Detrita</i> , Esp.* ...	Hüb. Bomb. Tab. 16. f. 58. (mas.) 59. (fœm.)
3. — <i>Rubea</i> , Fab.* ...	Hüb. Bomb. Tab. 56. f. 240. (mas.) Tab. 16. f. 60. 61. (fœm.)†
4. — <i>Monacha</i> , Linn.‡	Ernst, IV. Pl. CXXXVII. f. 185. a—i.

4. *L. Dispar*,

\* *Penthophera*, Germar, Curtis, Steph.

“*Antennæ* inserted on the crown of the head close to the eyes, setaceous, strongly bipectinated in the males, each joint producing two slightly clavate rays, very long and slender towards the centre, pilose, and terminated by a few strong hairs; simple in the females. *Maxillæ* none. *Labial palpi* cuspidate, nearly concealed by hair, porrected, triarticulate? the basal joint very obscure, 2nd small, 3rd large, oval. *Head* small. *Eyes* small, globose, granulated. *Thorax* large in the males alone. *Abdomen* sometimes short and truncated in the male, subovate in the female. *Wings* large and rounded, rarely small and lanceolate in the female. *Legs* slender. *Tibiæ* anterior with a short slender spine on the internal side, the others spurred only at their apex. *Tarsi* 5-jointed, basal joint the longest, penultimate the smallest. *Claws* and *pulvilli* distinct. *Larva* with 6 pectoral, 8 abdominal, and 2 anal feet, tuberculated, each tubercle producing a bundle of hairs.”—Curtis, *Brit. Ent.* V. 213.

† 3\**P. nigricans*, Curtis..... Curtis, *Brit. Ent.* V. Pl. 213.

This species is not noticed by Ochsenheimer.

‡ *PSILULA*, Steph.

“*Palpi* very hairy, triarticulate; the basal joint nearly half as long as the second, somewhat clavate; the second elongate, clavate; the terminal ovate, acute: *maxillæ* obsolete. *Antennæ* short, acute, very strongly bipectinated in the males, slightly in the females: *head* small, very pilose: *thorax* rather short and downy: *abdomen* slender, and tufted at the apex in the male, rather short and attenuated in the female, with the apex acute and naked: *wings* deflexed, thickly clothed with scales: *legs* not very slender; *femora* and *tibiæ* fringed with hairs. *Larva* elongate, attenuated posteriorly, with fascicles of hair on the back and sides; those behind the head and on the penultimate segment longest. *Pupa* smooth, with tufts of hair on the segments, the terminal one with an obtuse projection: changes in a loose folliculus.”

“This genus differs from the foregoing (*Hypogymna*) by having the basal joint

Species.	Icon.
5. <i>L. Dispar</i> , Linn.* ...	Ernst, IV. Pl. CXXXVIII. f. 186. a—g.
6. — <i>Salicis</i> , Linn.† ...	Ernst, IV. Pl. CXXXV. f. 181. a—d.
7. — <i>V. nigrum</i> , Fab.†	Ernst, IV. Pl. CXXXIV. f. 180. a—g.
8. — <i>Chrysorrhœa</i> , Linn.‡ .....	} Ernst, IV. Pl. CXXXV. f. 182. a—f.
9. — <i>Auriflua</i> , Fab.‡ ...	

Genus

joint of the palpi elongate, somewhat triangular and clavate, the terminal acute, and closely allied to the preceding; the female has the abdomen moderately stout, and attenuated posteriorly, with the ovipositor exposed."—*Steph. Illust. Brit. Ent.* II. 57.

\* HYPOGYMNA, Steph.

“*Palpi* hairy, short, triarticulate, the basal joint minute, second elongate, subclavate, terminal ovate, obtuse: *maxillæ* obsolete. *Antennæ* short, acute at the tip, very strongly bipectinated in the males, slightly in the females: *head* minute, with a downy tuft: *thorax* and *abdomen* stout, woolly, the latter very robust and obtuse in the female, and terminated by a downy mass, rather attenuated, and furnished with a hairy tuft in the male: *wings* deflexed, not very densely clothed with scales: *legs* not very stout; *femora* and *tibiæ* slightly fringed with long hairs. *Larva* elongate, cylindric, with short, rigid hairs on the back, and elongate fascicles on the sides of the head, and at the tail: *pupa* slightly hairy, the apex with a truncate projection: it changes in a loose cocoon.”—*Steph. Illust. Brit. Ent.* II. 55.

† LEUCOMA, Steph.

“*Palpi* short, bent upwards, hairy, cylindric, triarticulate, the intermediate joint longest, the terminal shortest, obtuse: *maxillæ* very short. *Antennæ* acute, of equal length in both sexes, deeply bipectinated in the males, the *pectinations* gradually shortened towards the apex, ciliated and furnished with one or two fine setæ at the tip, shortest in the females: *head* small, hairy, with a distinct fascicle of scales at the base of each antenna: *thorax* short, woolly: *abdomen* tufted in the males, very robust and acute in the females: *wings* deflexed, rather broad, trigonate, with remote scales: *legs* robust; *femora* and *tibiæ* slightly fringed with hair. *Larva* with fascicles of hair on each side, and sometimes with loose dorsal tufts: *pupa* slightly hairy, enclosed in a loose orbiculate cocoon: *eggs* enveloped in a friable silken matter.”—*Steph. l. c.* p. 63.

‡ PORTHESIA, Steph.

“*Palpi* very short, descending, slightly hairy, cylindric, triarticulate, the terminal joint exposed; the basal minute, about half as long as the terminal, the intermediate longest: *maxillæ* very short: *antennæ* short, especially in the females, acute, bipectinated in both sexes to the apex, the *pectinations* shortest in the females: *head* small, very pilose: *thorax* and *abdomen* somewhat robust and woolly: *wings* deflexed, subtrigonate, thickly clothed with scales: *legs* robust, short; *femora*, *tibiæ*, and *anterior tarsi* densely fringed with elongate hairs. *Larva* with close fascicles of hair down the sides, rather longest on the neck; the back

without

## Genus 40. ORGYIA, Ochs.

LARIA, Schrank.

DASYCHIRÆ, Hübn.

*Legs*, anterior hairy, stretched out forwards, when at rest\*.*Antennæ*,—in the male strongly bipectinate; in the female only slightly feathered.*Haustellum* very short.*Wings* deflexed.*Larva*, with hairy tufts on the head, back and posterior portions of the body.*Pupa* hairy; the metamorphosis takes place in a double web mixed with hairs †.1. O. *Pudi-*without tufts: *pupa* slightly hairy, acute, enclosed in a slight folliculus: *eggs* enveloped in down."—*Steph. Illust. Brit. Ent.* II. 65.

Schrank's genus *Arctia* is quoted by Ochsenheimer as forming part of his genus *Eyrepria*. Curtis has adopted the genus *Arctia*, as Stephens has also done more lately; the former inserting under it the British species, 1. *cænosa*, Hübn.; 2. *V. nigra*, Fab.; 3. *Salicis*, Linn.; 4. *chrysoorrhæa*, Linn.; and 5. *phæorrhæa*, Haw. The first and last species I cannot find noticed at all by Ochsenheimer; the second, third, and fourth, form part of his genus *Liparis* (q. v. *ut sup.*). Stephens has adopted Hübner's genus *Leucoma* to receive *V. nigra* and *Salicis*; and has created a new one, *Porthesia*, for *chrysoorrhæa* and another; and his genus *Arctia* consists of *Caja*, *matronula*, *villica*, *Hebe*, *purpurea*, and *aulica*, all of them *Eyrepriæ* of Ochsenheimer. He has, moreover, created another new genus, *Lælia*, to receive Hübner's *Bombyx cænosa*, and which he characterizes as follows:

## "LÆLIA, Steph.

"*Palpi* elongate, projecting, very hairy beneath, the last joint exposed; triarticulate, the basal and terminal joints very minute, the second considerably elongated: *maxillæ* distinct. *Antennæ* moderate, shortest in the females, deeply bipectinated in the males, the pectinations terminating abruptly at the tip, and very short in the female, each pectination ciliated, and furnished at its apex with three or four divergent bristles: *head* small, pilose; *thorax* not crested, pilose: *wings* deflexed, rather narrow, trigonate, sparingly clothed with scales: *abdomen* rather elongated, and stout, slightly tufted: *legs* moderate; the *femora* and *tibiæ* fringed with elongate hairs. *Larva* hairy, with four compact dorsal tufts, and one at the tail, and two elongate fascicles at the neck: *pupa* slightly pilose, acute at the tip, enclosed in an elongate, compact, yellow folliculus."

1. *Læ. Cænosa*, Hübn. . . . Curtis, Brit. Ent. II. Pl. 68. ♂, ♀ and Larva.\* Hence the name of the genus, from *οργω*, *extendo*, and *γυιον*, *membrum*.† Stephens has adopted Ochsenheimer's genus *Orgyia*, for his two last species, *Gonostigma*, and *Antiqua*, with the following characters:

"*Palpi* short, compact, hairy, biarticulate; the basal joint small, the terminal large, broad, ovate, subacute: *maxillæ* obsolete. *Antennæ* short, deeply bipectinated in the males, abruptly terminated: serrated in the females, each serrature producing a bristle: *head* small, hairy: *thorax* slender, not crested: *wings* deflexed, short, triangular, or wanting: *legs* rather stout, anterior elongated; the *femora* and *tibiæ* of all, and the *tarsi* of the anterior, fringed with elongate hairs. *Larva* with distinct



Species.	Icon.
1. <i>O. Pudibunda</i> , Linn.*	Ernst, IV. Pl. CLX. f. 207. a—g.
2. — <i>Abietis</i> , Hübn. ...	Hübn. Bomb. Tab. 21. f. 82. (mas.) 83. (fœm.)
3. — <i>Fascelina</i> , Linn.*	Ernst, IV. Pl. CLXI. f. 209. a—h.
4. — <i>Selenitica</i> , Hübn.	Hübn. Beitr. II. B. 3. Th. I. Taf. fig. A. (fœm.) Hübn. Bomb. Tab. 20. f. 79. (mas.) 80. (fœm.)
5. — <i>Gonostigma</i> , Fab. †	Ernst, IV. Pl. CLXIII. f. 212. a—h.
6. — <i>Antiqua</i> , Linn. † .	Ernst, IV. Pl. CLXII. f. 211. a—f.

Genus 41. PYGÆRA, *Ochs.*

LARIA, Schrank.

PYGÆRA, Steph.

MELALOPHÆ, Hübn.

CLOSTERA, Hoffmannsegg, Steph.

*Antennæ* bipectinate.

*Haustellum* short.

*Wings* lie close to the body; anterior with a coloured spot at the apex, and bright curved transverse lines.

*Head* and *thorax* with a velvety striga.

distinct fascicles of hair on the sides, and several dorsal tufts; two or more, composed of capitate hairs, on the sides of the body and head; one on the penultimate joint, and some shorter ones at the apex: *pupa* slightly pilose, with an acute spine at the tip: *folliculus* ovate, of a very loose texture."—*Illust. Brit. Ent. Haust.* II. 60.

The females of this genus are apterous.

• DASYCHIRA, Hübn. Steph.

“ *Palpi* very short, hairy, triarticulate; the basal joint about one-third the length of the second, and more slender, the terminal ovate, acute: *maxilla* obsolete. *Antennæ* short, acute at the apex, thickly bipectinated, especially in the male; the pectinations deeply ciliated, and shortest in the females: *head* small, hairy: *thorax* rather stout, not crested: *abdomen* somewhat robust, especially in the females, woolly beneath: *wings* deflexed, elongate, thickly and densely covered with scales: *legs* short, stout, pilose; *femora* and *tibiæ*, and *exterior tarsi* fringed with long hairs. *Larva* very hairy, with several compact, truncated tufts on the back, and another on the tail: *pupa* hairy, enclosed in an ovate folliculus, its posterior extremity with an acute projection.”—*Steph. Illust. Brit. Ent. Haust.* II. 58.

*Dasychira*, Stephens adds, differs “from *Orgyia*, by the acuteness of the apex of the antennæ, and triarticulate palpi. The species of this genus considerably resemble those of *Cnethocampa*.”—(*Gastropacha*, Ochs.) *Steph.* l. c.

† Genus, ORGYIA, Steph.

G

*Abdomen*

*Abdomen* long, tufted at the extremity (tuft bifid in the male); posterior portion elevated when at rest\*.

*Legs*, anterior extended.

*Larva* slightly pilose; with a hairy tubercle on the fourth and last segment.

*Pupa*, with the extremity aculeated, changes in a close web, enveloped in leaves.

*Obs.* Ochseneimer confesses that it is difficult to justify the placing the sixth species (*Bucephala*) with the rest of his *Pygæra*, since the setose antennæ of the females, the fore feet extended when at rest, and the mode of metamorphosis, are opposed to that arrangement. He has consequently separated that species and the next (*Bucephaloides*) from the five preceding, under a third family of the genus C. Stephens places *Bucephala* alone in the genus *Pygæra*, though his generic characters differ little from those of Ochseneimer, as far as the latter go. Four other species of our author's *Pygæra* (composing his family B. of this genus) are placed by Stephens in Hoffmannsegg's genus *Clostera*, which he adopts, as will be seen presently. To the preceding generic characters of Ochseneimer, I add, in a note hereafter, those of *Pygæra* as given by Stephens: the characters of the genus *Clostera* will also be found below.

Species.	Icon.
FAM. A. 1. <i>Py. Timon</i> , Hübner.	Hübner. Bomb. Tab. 22. f. 86. (mas.)
FAM. B. 2. <i>Anastomosis</i> , Linn.†	} Ernst, IV. Pl. CLXIV. f. 213. a—i.
3. <i>Py. Reclusa</i> , Fab.†...	
4. — <i>Anachoreta</i> , Fab.†	Ernst, IV. Pl. CLXV. f. 214. a—e.
5. — <i>Curtula</i> , Linn.†...	Ernst, IV. Pl. CLXV. f. 215. a—c.

FAM. C.

\* Hence the name of the genus, from *πυγή*, anus, and *αιψα*, tolle.

† CLOSTERA, Hoffmannsegg. Steph.

“*Palpi* short, porrect, slightly ascending and pilose, triarticulate, the apical joint minute. *Antennæ* short, curved, pectinated to the apex in both sexes, in the males especially, with a fascicle of scales at the base: *head* very minute, concealed beneath the *thorax*, the latter robust, strongly crested, with a central, coloured, longitudinal patch: *abdomen* moderate, the apex suddenly attenuated, with a bifid tuft: *wings*, anterior elongate, the hinder margin entire, the apex with a more or less discoloured patch; *posterior* entire; *tibiæ* with spurs. *Larvæ* slightly pilose, with a tubercle on the fourth, and another on the anal segment,

Species.

Icon.

FAM. C. 6. *Bucephala*, Linn.\* Ernst, V. Pl. CLXXXV. f. 240.  
a—h.

6. *Py. Bucephaloides*, Ochs. Hübn. Bomb. Tab. 63. f. 267. (inas.)  
268. (fœm.)

Genus 42. GASTROPACHA, Ochs.†

LASIOCAMPA, Schrank, Latr.

ODENESIS, LASIOCAMPA, CLISIOCAMPA, Curtis.

GASTROPACHA, EUTRICA, ODONESTIS, LASIOCAMPA,  
PÆCILOCAMPA, CNETHOCAMPA, ERIOGASTER, and  
CLISIOCAMPA, Stephens.

*Obs.* Ochsenheimer remarks that this genus embraces, in fact, several groups well distinguished by peculiar characters, yet

segment, posterior legs perfect: *pupa* folliculated."—*Steph. Illust. Brit. Ent. Haustell.* II. p. 12.

The distinguishing characters between this genus and *Pygæra*, Stephens states to be the brevity of the antennæ of the former, which are pectinated in both sexes and distinctly curved; the form of the thoracic crest, and the longitudinal patch thereon; the deeply inserted, minute head, and the integrity of the posterior margin of the anterior wings. The larva differs from that of *Pygæra* in being very slightly pilose, and in having the fourth and anal segment, tuberculated above.—*Steph. l. c.*

\* PYGÆRA, Steph.

“*Palpi* short, porrect, densely pilose, two-jointed, basal joint incurved, second reversed, obtuse. *Antennæ* rather long, pectinated in the male, each articulation producing a duplex cilia on each side, the apex simple; setaceous in the female; *head* small, with a bifid crest at the base of the antennæ: *thorax* stout, strongly crested, with two elevated lateral strigæ: *abdomen* long, the apex with an undivided tuft: *wings*, anterior elongate, triangular, the apex with a large, rounded, discoloured patch, the hinder margin denticulated; *posterior* entire: *tibiæ* with spurs. *Larva* cylindric, pilose, without elevated appendages, the anal legs perfect: *pupa* subterranean.”—*Steph. Illust. Brit. Ent. Haustellata*, II. p. 11.

† In the twenty-third Number of his *Illustrations of British Entomology*, published on the first of this month (February, 1829), Mr. Stephens has introduced some further divisions of certain of the preceding genera of Ochsenheimer, which we take the earliest opportunity of communicating to our readers.

1. Genus FUMEA, Haworth, adopted to receive the five following species, separated from Schrank's Genus PSYCHE, as given by Ochsenheimer; viz. *nitidella*, *pulla*, *muscella*, *bombycella?* and *pectinella*.

“FUMEA, Haw.

“*Palpi* and *maxillæ* wanting, their place occupied by a tuft of hairs. *Antennæ* of the male elongate, bipectinated, the pectinations subclavate, ciliated and straight; of the female very short, simple, the two basal joints largest: *head* pilose anteriorly: *thorax* slightly hairy, and generally glossy: *abdomen* of the male pilose, with a tuft at the apex; of the female more robust, with a woolly mass at the tip: *wings* in-

yet so passing into one another, that he did not think fit to divide them into separate genera. He accordingly merely marked the several groups, by the imaginary family lines, A, B, and C, without assigning other names to any of them than the general one, *Gastropacha*, which he adopted in consequence of a pretty universally prevailing

cumbent, of the male diaphanous, deeply ciliated, pilose; of the female wanting: *legs* rather stout, the *posterior tibiae* very pilose, with elongate spurs at the apex. *Larva* inclosed in a case, in which it changes to *pupa*."—*Steph. Illust. Brit. Ent. Haust.* II. p. 81.

2. Genus *NUDARIA*, Haworth, adopted to receive the three species, *murdana*, *hemerobia* and *senex*, separated from the *Lithosia* of Fabricius, Latreille and Ochsenheimer.—Stephens's second species, *hemerobia*, Hübn. is quoted by Ochsenheimer as synonymous with *murdana*.

"*NUDARIA*, Haw.

- "*Palpi* minute, curved upwards, squamous, triarticulate, the two basal joints of equal length, the terminal minute, cylindrical: *maxillæ* longer than the head. *Antennæ* simple in both sexes, ciliated beneath in the males: the basal joint robust, elongate, with a dense hairy tuft: *head* with a dense fascicle of hairs between the antennæ: *thorax* not crested: *abdomen* pilose, slender in the males, with a tuft at the apex; more robust in the females, the tip rather conical: *wings* slightly deflexed, more or less elongate, rounded posteriorly, diaphanous, pilose: *legs* rather slender, naked, the two posterior joints with spurs at the tip. *Larva* exposed, hairy: *pupa* obtuse."—*Steph. l. c.* II. p. 83.

*Nudaria* is distinguished "from the rest of the Arctiidæ (except *Hypercompa*) by the length of its maxillæ, which considerably exceeds that of the head."—*Steph. l. c.*

3. Genus *HETEROGENEA*, Knoch. The only species which Stephens records under this genus is *asellus*, (*Hepialus asellus*, Fab.)—It is not included by Ochsenheimer with his *Hepiali*, nor can I find it introduced by him, any where else.

"*HETEROGENEA*, Knoch.

- "*Palpi* minute, densely clothed with scales, triarticulate, the second joint longest, the last minute: *maxillæ* wanting. *Antennæ* of the female simple, slightly pubescent at the tip, with a small tuft of hairs at the end: *head* slightly hairy: *thorax* and *abdomen* scaly: *wings* opaque, scaly: *anterior* subtriangular, acute; *posterior* suborbiculate: *legs* rather slender; *posterior tibiae* short, robust, with rather long spurs at the apex. *Larva* ovate, without legs, naked, depressed: *pupa* folliculated. Differs from *Limacodes* by the form of the anterior wings, which are trigonate, and somewhat truncated posteriorly."—*Steph. l. c.* p. 84.

4. Genus *LIMACODES*, Latreille. This is the last of the Arctiidæ; and the species, *testudo*, the only one which Stephens places in it, is also a *Hepialus* of Fabricius, and like the last, not noticed by Ochsenheimer.

"*LIMACODES*, Latr.

- "*Palpi* short, a little ascending, densely clothed with scales and short hairs, triarticulate, basal joint short, second as long as the other two, robust, subcylindric, terminal, the length of the first, slender, subfusiform, slightly acute: *maxillæ* obsolete. *Antennæ* simple, of the male stout, compressed, rather serrated, pilose at the apex, of the female slender, a little serrated towards the apex, which is acute: *head* moderate, very hairy: *thorax* stout: *abdomen* slightly robust, a little tufted in both

sexes

vailing character; viz. the remarkable thickness of the abdomen of the female moth, deriving the term from the two Greek words *γαστήρ* *venter*, and *παχὺς* *crassus*. That other authors have not thought with Ochsenheimer, as to the propriety of creating new genera and new names, is pretty evident, from the list of synonyms immediately preceding these observations; and in the present instance they seem to be right.

FAM. A. — *Antennæ* bipectinate; *palpi* porrected; *wings* dentated; *anterior* deflexed; *posterior* projecting beyond the *anterior* when at rest; *haustellum*, none: *larva* flat beneath, convex above, semirugose; second and third segments with one or two transverse bands, and a conical tubercle on the penultimate, and similar shaped, tufted tubercles on the sides: *metamorphosis* above ground, in a rather long web covered on the inside with a whitish powder.

sexes at the apex, rather stoutest in the female: *wings* opaque, deflexed: *anterior* elongate, subtrigonate, posterior margins rounded; *legs* very stout, short; *femora* and *tibiæ* with a broad fringe of hairs; *anterior tibiæ* simple, four posterior with spurs at the apex. *Larva* very stout, naked, limaciform, gibbous above, flat beneath, apodous: *pupa* robust, obtuse, posteriorly acute; inclosed in a dense ovate folliculus.—*Limacodes* differs from *Heterogenea* at first sight by the stoutness of its *thorax* and abdomen, the elongation and rotundity of its anterior wings, and the robustness of its antennæ; the proportions and comparative bulk of the palpi, and other less evident characters.”—*Steph. l. c. p. 85.*

5. Genus CALLIMORPHA, Latreille. This genus and LITHOSIA, Latr. form each a part of Ochsenheimer's genera *Lithosia*, and *Eyprepia*. Mr. Stephens places *Callimorpha* at the head of his first family of the nocturnal Lepidoptera, the *Lithosiidæ*<sup>a</sup>, and arranges under it the two British species *Jacobææ* and *Miniata*: (*Lithosia*, *Jacobææ*, and *Rosea*, Ochs.)

“CALLIMORPHA, Latr.

“*Palpi* short, a little descending or horizontally porrected, slightly hairy, triarticulate, the basal joint elongate-ovate, as long as the two following, which are of equal length, and subovate or attenuated, with the terminal one acute: *maxillæ* longer than the head. *Antennæ* setaceous, slightly ciliated in the males: *head* small, rather hairy in front: *thorax* and *abdomen* clothed with silken scales; the latter somewhat robust in the female, slightly tufted in the male: *wings* rather broad, anterior elongate-trigonate, with the hinder margin rounded or subelliptic: *legs* moderate; *tibiæ* short, the posterior with two pair of spurs. *Larvæ* sparingly covered with hairs, or densely pilose. the head nearly naked: *pupa* obtuse or acute.”—*Steph. Illust. Brit. Ent. Haust. II. 89.*

<sup>a</sup> Consisting of the genera *Callimorpha*, *Eulepia*, *Deiopeia*, *Lithosia*, *Gnophia*, and *Setina*, as stated in the tabular view of the family, p. 89.

Species.	Icon.
1. <i>G. Ilicifolia</i> , Linn.*	Ernst, IV. Pl. CLXVIII. f. 219. a. b.
2. — <i>Betulifolia</i> , Ochs.	Ernst, IV. Pl. CLXVIII. f. 220. a—k.
3. — <i>Populifolia</i> , Fab.	Ernst, IV. Pl. CLXVII. f. 218. a—g.
4. — <i>Quercifolia</i> , Linn.*	Ernst, IV. Pl. CLXVI. f. 217. a—g. Curtis, I. Pl. 24. Imago et larva.
5. — <i>Alnifolia</i> , Ochs. †	— — —
6. — <i>Pini</i> , Linn. ‡ ...	Ernst, IV. Pl. CLXX. f. 222. a—h. Pl. CLXXI. f. 222. i—o.
7. — <i>Pruni</i> , Linn. ...	Ernst, IV. Pl. CLXIX. f. 221. a—g.

\* *GASTROPACHA*, Steph.

- “*Palpi* elongate, porrected, hairy, triarticulate, the second joint longest; the terminal obtuse: *maxillæ* very small. *Antennæ* short, recurved, strongly bipectinated in both sexes: *head* small, with an acute, projecting hairy tuft: *thorax* and *abdomen* robust, densely pilose, the latter acute in the female: *wings* dentated, reversed during repose: *legs* moderately stout: the *femora* and *tibiæ* pilose. *Larva* broad, rounded above, with fascicles of hair on the sides, each segment with a fleshy lateral appendage, and on the penultimate joint a distinct truncated tubercle: *pupa* obtuse, inclosed in an oblong, broadly constructed cocoon and covered with a whitish powder.” — *Steph. Illust. Brit. Ent. Haust. II. p. 52.*

† *Gastr. alis reversis, subdentatis, cuprinis, strigis undatis, nigris.* — (*Ochs. IV. p. 205.*)

‡ *ODONESIS*, Curtis; *EUTRICHIA*, Hübn. Steph.

- “*Palpi* not very long, porrected, triarticulate, two basal joints of equal length, terminal more slender and obtuse: *maxillæ* short, a little spiral. *Antennæ* nearly straight, not very short, deeply bipectinated in the males to the apex, which is a little bent; slightly bipectinated in the females: *head* small; *thorax* robust, densely pilose: *abdomen* the same, rather elongate; more robust in the females: *wings*, *anterior* entire, rounded posteriorly; *posterior* obsoletely denticulated, reversed during repose: *legs* rather slender, not very pilose, with minute spurs at the apex of the *tibiæ*. *Larva* cylindrical, with fascicles of hairs down the sides, and a tubercular eminence on the penultimate joint: *pupa* short, obtuse, inclosed in an elongate, subfusiform, loosely-constructed cocoon.” — *Steph. Illust. Brit. Entom. Haust. II. p. 50.*

Curtis's generic characters agree, of course, almost exactly with Stephens's, except as regards the middle joint of the palpi, “twice the length of either of the others,” which is one of the principal characters assigned by Stephens as a reason for separating *Bo. Pini*, Linn., from *ODONESTIS*, the type of which genus, both according to Curtis and Stephens, is *Bo. potatoria*, Linn. Curtis also doubts the existence of *maxillæ* and *mandibles*. His description is accompanied, as usual, with a beautiful plate (vol. i. Pl. 7.) on which is represented the figure of a male perfect insect, taken at Norwich, and that of the female caterpillar, copied from Roesel, together with figures of the dissected *antennæ* and *palpi*, magnified.

FAM. B.

FAM. B. The two following species are placed in this division, as connecting the first and third families, *Gastr. potatoria* being nearly allied in its characters to the species of the family A. and *G. lobulina* to those of family C. Ochsenheimer gives no separate characters for this division.

Species.	Icon.
8. <i>G. Potatoria</i> , Linn.*	Ernst, V. Pl. CLXXII. f. 223. a—h.
9. — <i>Lobulina</i> , Fab. ...	Hübner, Bomb. Tab. 41. f. 180. (mas.) 181. (fœm.)

FAM. C. *Antennæ* bipectinate, in the male, very strongly, more slightly in the female: *haustellum* very small: *wings* entire, deflexed; the *anterior* with one or two transverse bands, and generally a white spot near the middle of the disc. *Larva* covered with short hairs, resembling pelt; when touched it rolls itself up: *metamorphosis*; the *first* species changes in a rigid cylindrical cocoon; the last in a soft, rather elongated web.

10. *G. Trifolii*, Hübn. † Ernst, V. Pl. CLXXVI. f. 226.  
a. b. e.
11. — *Medicaginis*, Borkh. † Ernst, V. Pl. CLXXVI. f. 226.  
c. d. f. g. i.  
Curtis, Brit. Ent. IV. pl. 181.  
Imago et larva.
12. *G. Quercus*,

\* ODONESIS, Curtis.—ODONESTIS, Germar. Steph.

“ *Palpi* elongate, porrected, hairy, triarticulate, the basal joint not half as long as the second, the terminal rather larger than the basal, obtuse: *maxillæ* obsolete. *Antennæ* slightly curved near the base, bipectinated, especially in the males, to the apex: *head* small: *thorax* stout, loosely, but thickly pilose; *abdomen* the same, elongated, and tufted at the apex in the males, somewhat acute and stout in the females: *wings* reversed when at rest; *anterior* rather acute at the tip, the posterior margin rounded, entire; *posterior* slightly denticulate: *legs* stout, densely pilose, especially in the males, with spurs at the apex of the tibiæ. *Larva* robust, cylindric, with fascicles of hair down the sides, a distinct tuft on the neck, and another placed on a minute tubercle on the penultimate joint: when alarmed it rolls itself in a ring: *pupa* robust; obtuse, placed in a fusiform, closely woven, luteous cocoon.”  
—*Steph. Illust. Brit. Ent. Haust.* II. p. 51.

† LASIOCAMPA, Schrank, Curtis, Stephens, Leach.

“ *Antennæ* inserted towards the hind part of the head, nearly straight, setaceous, strongly bipectinated in the males, each branch being ciliated and

Species.	Icon.
12. <i>G. Quercus</i> , Linn.*...	Ernst, V. Pl. CLXXIV. f. 225. a—f.
13. — <i>Rubi</i> , Linn.*.....	Ernst, V. Pl. CLXXIII. f. 224. a—i.

FAM. D. *Antennæ* bipectinated, pectinations in the male very broad: *wings* not densely covered with scales; *abdomen* pilose, with black and yellow bands. *Larva* slightly hairy, with two rows of black spots on the back: do not roll themselves up when disturbed: *metamorphosis*, subterranean, without any web.

14. <i>G. Taraxici</i> , Fab....	Hüb. Bomb. Tab. 37. f. 165. (mas.) 166. (fem.)
15. — <i>Dumeti</i> , Linn.† ...	Ernst, V. Pl. CLXXVII. f. 227. a—g.

and producing a rigid bristle near the apex, inclining upwards: serrated in the females: *maxillæ* and *mandibles* none.

“*Palpi* 2, small, short, hairy; 3-jointed, 1st and 2nd joints robust; the former the longest; 3rd minute, ovate. *Males* smaller than the females.

“*Head* short. *Eyes* small. *Thorax* large, not crested. *Abdomen* of the males attenuated and divided at the apex; robust and subovate in the females. *Wings* entire, deflexed when at rest. *Tarsi* 5-jointed. *Claui* and *pulvilli* distinct.

“*Caterpillars* with 6 pectoral, 8 abdominal, and 2 anal feet; cylindrical and hairy, curling themselves up when disturbed.

“*Pupæ* inclosed in an obtuse, oblong cocoon of very close texture.”—*Curtis, Brit. Ent.* IV. p. 181.

*Curtis* assigns the following characters as distinctive of the three genera *Gastropacha*, *Odonestis*, and *Lasiocampa*; including the two former in one section, the last in another.

A. *Palpi* long. Inferior wings when at rest projecting beyond the costa of the superior. *Larvæ* not cylindric, having fascicles of hair down the sides, and a dorsal tubercle near the apex. *Cocoons* long, attenuated, silky and soft.

a. *Antennæ* curved. *Tongue* short. *Wings* denticulated.

#### GASTROPACHA.

b. *Antennæ* straight. *Tongue* none. *Wings* not denticulated.

#### ODONESTIS.

B. *Palpi* minute. Inferior wings not projecting when at rest. *Larvæ* cylindric, clothed with hairs. *Cocoons* oblong, obtuse, dense and rigid in texture.

#### LASIOCAMPA.

\* LASIOCAMPA, *Curtis*, &c.

† LASIOCAMPA, *Steph.*

FAM. E.



FAM. E. *Antennæ* curved, finely pectinated in the male, scarcely perceptibly so in the female: *wings* deflexed, the *anterior* generally with two transverse bands, and occasionally a small, bright spot. *Abdomen* hairy; generally terminated, in the female by a dense tuft of soft hairs, with which she covers her eggs. *Haustellum* none. *Larva* elongated, slightly hairy, gregarious when young: *metamorphosis*, above ground in an oval cocoon.

Obs. Ochsenheimer, on Hübner's authority, subdivides this family into three sections, but gives no distinctive characters for either, which, he says, are better obtained by description of the separate species respectively, than they can be collectively, from the groups.

Species.	Icon.
16. <i>G. Populi</i> , Linn.*....	Ernst, V. Pl. CLXXXIII. f. 236. a—g.
17. — <i>Cratægi</i> , Linn.† ..	Ernst, V. Pl. CLXXXII. f. 235. a—e.
18. — <i>Processionea</i> , Linn.† ‡	Ernst, V. Pl. CLXXXIV. f. 238. a—f.
19. — <i>Pityocampa</i> , Fab. ‡	Ernst, V. Pl. CLXXXIV. f. 239. a—f.
20. — <i>Catax</i> , Linn.....	Ernst, V. Pl. CLXXVIII. f. 229. a—e.

21. *G. Everia*,

\* PÆCIOCAMPA, Steph.<sup>a</sup>

“*Palpi* extremely minute, subglobose, enveloped in slender elongate hairs: *maxillæ* obsolete. *Antennæ* densely bipectinated in the males, the pectinations scarcely decreasing towards the apex; strongly serrated in the females: *head* very small, and hairy: *thorax* stout and hairy: *abdomen* abbreviated, tufted in the male, and pilose laterally in both sexes, the female without a downy mass at the apex: *wings* entire, elongate, acute, subdiaphanous, not reversed during repose: *legs* with the *femora* and *tibiæ* pilose. *Larva* slightly hairy, a little depressed, maculated, not gregarious: *pupa* short, obtuse, inclosed in a silken folliculus, superficially subterranean.”—*Steph. Illust. Brit. Ent. Haust.* II. 43.

† CLISIOCAMPA, Curtis.—See Gen. Char., Species 25. *G. castrensis*; note.

‡ CNETHOCAMPA<sup>b</sup>, Steph.

“*Palpi* very short, enveloped in longish hairs, triarticulate, the basal joint longer, and stouter than the second, terminal minute, slender, rather acute: *maxillæ* obsolete. *Antennæ* short, slightly curved, bipectinated in the males, serrated in the females, the pectinations gradually decreasing in length to the apex: *head* distinctly visible from above: *thorax* stout, hairy: *abdomen* rather elongate, tufted, the apex of the

<sup>a</sup> Ποικίλος *varius*; καμπη *eruca*.

<sup>b</sup> Κνηθω *prurimum moveo*, καμπη *eruca*.

Species.	Icon.
21. G. <i>Everia</i> , Fab. ....	Ernst, V. Pl. CLXXIX. f. 231. a—i.
22. — <i>Lanestris</i> , Linn.*	Ernst, V. Pl. CLXXVIII. f. 230. a—f.
23. — <i>Loti</i> , Ochs. ... ..	Hüb. Bomb. Tab. 60. f. 256. (mas.) 257. (fœm.)
24. — <i>Franconica</i> , Fab.	Ernst, V. Pl. CLXXXII. f. 234. a—c.
25. — <i>Castrensis</i> , Linn.†	Ernst, V. Pl. CLXXXI. f. 233. a—l. Pl. CLXXXII. f. 233. m, n. Curtis, Brit. Ent. V. Pl. 229. mas. fœm. et larva.
26. — <i>Neustria</i> , Linn.†...	Ernst, V. Pl. CLXXX. f. 232. a—n.

## Genus 43.

female with a woolly mass: *wings* slightly reversed, obscurely diaphanous: *cilia* not abbreviated: *legs* slender: *femora* and *tibiæ* pilose. *Larva* gregarious, cylindrical, hairy: *pupa* also gregarious, obtuse, bidentate posteriorly, inclosed in a rigid cocoon."—*Steph. Illust. Brit. Ent. Haustel. II. 46.*

From *Pœcilocampa* and *Eriogaster* (a genus to be presently noticed); *Cnethocampa* differs by the tenuity and shortness of the antennæ and their pectinations in the males, and by the downy tuft at the apex of the abdomen, in the females; and from the latter genus both sexes differ by the elongation of the *cilia*, exclusively of differences in the trophi, &c. "The habits of the larvæ are also remarkably dissimilar to those of the above genera; and their hairs, when applied to any part of the body, cause very great irritation and acute pain, especially those of *Cn. Pityocampa*."—*Steph. l. c.*

\* *ERIOGASTER*, Germar, Steph.

"*Palpi* short, distinctly triarticulate, the basal joint longest and stoutest, the terminal minute, ovate, subacute; *maxillæ* obsolete. *Antennæ* bipectinated in the males, the pectinations decreasing in length to the apex, slightly serrated in the females: *head* small, pilose: *thorax* very stout, pilose above and below: *abdomen* robust and elongate in the females; moderate, and rather abbreviated in the males; densely clothed in both sexes with short down, and the apex in the female with a large woolly mass: *wings* elongate, entire, subdiaphanous, slightly reversed during repose: *cilia* short: *legs* short, *femora* and *tibiæ* densely clothed with wool. *Larva* gregarious cylindrical, pilose, semi-annulated: *pupa* short, obtuse, not dentated at the apex, inclosed in a rigid, ovate cocoon."—*Steph. Illust. Brit. Ent. Haustel. II. 44.*

† *CLISIOCAMPA*, Curtis, Steph.

"*Antennæ* inserted close to the eyes on the crown of the head, short, setaceous, bipectinated, the pectinations ciliated, long in the male, and gradually decreasing in length to the apex, short in the female. *Maxillæ* and *mandibles* none. *Labial palpi* short, and very indistinct, being concealed by scales, the basal joint producing a fascicle of hairs beneath; triarticulate; 1st joint rather robust; 2nd larger, elongate-ovate;

Genus 43. EYPREPIA, Ochs.\*

ARCTIA, Schrank, Latr. HYPERCOMPÆ, Hübn.

CALLIMORPHA et LITHOSIA, Latr.

EYPREPIA, EULEPIA, SPILOSOMA, DEIOPEIA, Curtis.

ARCTIA, EUTHEMONIA, NEMEOPHILA, HYPERCOMPA,  
PHRAGMATOBIA, DIAPHORA, SPILOGMA, EULEPIA,  
DEIOPEIA. Stephens.

*Antennæ* bipectinate, or setose, and very slightly ciliated; cilia scarcely visible.

*Wings* deflexed.

*Haustellum* very short.

*Abdomen* spotted on the hinder part.

*Larva* with hairy tubercles on every segment of the body †.

*Pupa* robust; changes in a soft web, of unequal texture, above ground.

*Obs.* Ochsenheimer appears to have been as much too fearful of creating new genera, as many of our modern naturalists, not merely in entomology, are too fond of it. He has in this group, as in the last, adopted divisions into families, and also, except in one instance, given distinctive characters to each, but no names.—We are no friends to loading natural history with unnecessary words, but great groups like the present *must* be divided; and those divisions are better discriminated as genera, with appropriate names, than as families with the unmeaning A, B, C, &c. prefixed. All arrangement is artificial, and its great object is to assist the memory; and, therefore, well-chosen names are better than letters and asterisks; and system, by bringing together those subjects which have more or less resemblance to each other, impresses their forms and qualities more firmly on the mind, than the individuals could do, separately; as great masses strike the attention more forcibly than minute. But we should never forget that nature knows nothing of our systems; indispensable

ovate; 3rd minute oval. *Malcs smaller than the females.* Head very small and scarcely visible from above. Eyes globose. Thorax very robust. Abdomen short and small in the male, long robust and conical in the female. Wings deflexed when at rest, short in the males. Tibiæ anterior producing a broad compressed and pubescent lobe on the inside. Tarsi 5-jointed, basal joint the longest. Claws simple. Pulvilli distinct. Caterpillars with 6 pectoral, 8 abdominal, and 2 anal feet, cylindrical and hairy. Pupæ inclosed in a long silky cocoon.—Curtis, *Brit. Ent.* V. Pl. 229.

\* *Ευπρεπία*, decor eximius.

† Hence called *Barenraupen*—*Larvæ ursinæ*—*Bear-Caterpillars.*

as they may be to us, they are altogether the offspring of our own imaginings, from the comparatively rude attempts of the earlier methodists, to the *Règne Animal* of Cuvier, or the *Horæ Entomologicae* of W. S. Macleay. They are human, not divine systems; and however beautifully they may illustrate the apparently mutual connections and gradations in structure or habit amongst the countless multitude of beings that constitute the animal world, we have only our own assumption that any such gradations and connections really exist;—an assumption, however, far from rash or presumptuous, but, on the contrary, supported by the evident harmonies of nature. It is not, therefore, against such systems that we would object, but against their abuse; against the wild attempt to strain them beyond what their texture can bear; to make them, not the faithful guide and assistant to the student, but the laboratory note-book of the Great Author of Nature! Such, at least, is the almost blasphemous trash, published by a celebrated foreign naturalist, in an otherwise admirable work,—trash, of which it is difficult to say, whether it most deserves our execration, or our contempt! Infinite power, trying experiments! First making a monkey,—and then a man!! What *the greatest Naturalist of modern times* has recently said of Fish, is applicable, *mutatis mutandis*, to the whole of animated nature. “Les Poissons forment une classe d’animaux distincte de toutes les autres, et destinée en totalité par sa conformation à vivre, à se mouvoir, à exercer les actes essentiels à sa nature dans l’élément aqueux. C’est là leur place dans la création. *Ils y ont été dès leur origine; ils y resteront jusqu’à la destruction de l’ordre actuel des choses, et ce n’est que par de vaines spéculations métaphysiques, ou par des rapprochemens très-superficiels, que l’on a voulu considérer leur classe comme un développement, un perfectionnement, un annoblissement de celle des mollusques, ou comme une première ébauche, comme un état de fœtus des autres classes des vertèbres.*” — Cuvier, *Hist. Nat. des Poissons*. 4to. I. 401.

Had the author, against whom Cuvier’s observations are obviously directed, been a Scotchman, we might have supposed he had stolen a hint for his precious hypothesis from the playful lines of Burns:—

“ Her ’prentice han  
She tried on man,  
And then she made the lassies, O ! ”

FAM.

FAM. A\*. *Antennæ* finely pectinated. *Wings*, anterior small, posterior broad: *body*, back smooth; *abdomen* slender at the hinder part, with black spots on the middle and sides.

Species.	Icon.
1. <i>E. Coscinia</i> , Ochs....	Hübner. Bomb. Tab. 58. f. 251. B.
2. — <i>Candida</i> , Cyril....	Hübner. Bomb. Tab. 28. f. 119. (fœm.)
3. — <i>Cribrum</i> , Linn.†	Ernst, VI. Pl. CCXX. f. 308. a. b. Curtis, Brit. Ent. II. pl. 56.
4. — <i>Pulchra</i> , Hübn. ‡	Ernst, VI. Pl. CCXXI. f. 309. a—e. Curtis, Brit. Ent. IV. Pl. 169. (Imago et larva.)
5. — <i>Grammica</i> , Linn.	Ernst, IV. Pl. CLVI. f. 202. a—l.

FAM. B. *Antennæ* finely pectinated, or scarcely visibly ciliated. *Wings*, anterior, with white or yellow spots, on a dark ground; posterior red or yellow with black spots. *Abdomen*, hind part slender, red or yellow; generally with black transverse lines. *Flight* diurnal.

\* LITHOSIA, Latr.

“*Palpi* (cylindrici) capite breviores, articulo tertio, sive ultimo secundo brevior, cylindrico. *Eruca* pedibus sexdecim, solitaria, nec cucullata, nec subcutanea.”—Latr. *Gen. Crust. et Ins.* IV. 221.—Hoc genus in sectiones duas à Latreilli oscinditur; nempe, I. *Antennæ* masculorum pectinatae. II. *Antennæ* simplices vel tantummodo ciliatæ.

† EULEPIA, Curtis.

“*Antennæ* setaceous, composed of about 40 joints covered above with long scales, bipectinated in the males, pilose, each branch terminated by two bristles: simple in the females, with two bristles arising on both sides from each joint. *Labrum* and *mandibles* attached to the clypeus. *Maxillæ* short, broad, flat, not much longer than the head. *Labial palpi* 2, very short, sparingly clothed with scales: 2- or 3-jointed, 1st joint long, curved upwards, 2nd and 3rd short, of equal length.

Head rather small, thickly covered with hairy scales. *Wings* oblong, incumbent, convolute, inferior ones much folded. *Thighs* long and slender; anterior tibiae short, with a large spine on the middle of the internal side, 2nd pair terminated by spurs; posterior with 2 pair of spurs. *Tarsi* 5-jointed. *Claws* obscure. *Pulvilli* distinct.”—Curtis, *Brit. Ent.* II. Pl. 56.

‡ DEIOPEIA, Stephens.

“*Palpi* elongate, bent upwards, slightly clothed with scales, triarticulate, the basal joint stoutest, the second longest, the third short, ovate: *maxillæ* as long as the antennæ. *Antennæ* simple in both sexes, rather short, slightly hairy beneath in the males: head short, scaly: wings deflexed, anterior elongate, posterior broad, subdiaphanous, much folded; body subconic, stout, a little tufted in the male: legs moderate, tibiae very short; posterior with two pair of spurs at the apex. *Larva* hairy: *pupa* folliculated.”—Steph. *Illust. Brit. Ent. Haust.* II. p. 92.

6. *E. Russula*,

- | Species.                          | Icon.   |
|-----------------------------------|---|
| 6. <i>E. Russula</i> , Linn.* ... | Ernst, IV. Pl. CLV. f. 201. a—i.<br>Curtis, Brit. Ent. Pl. 21. ♂ & ♀.                       |
| 7. — <i>Plantaginis</i> , Linn.†  | Ernst, IV. Pl. CXLV. f. 191.<br>a—k. Pl. CXLVI. f. 191.<br>l—u. Pl. CXLVII. f. 192.<br>a—k. |
| 8. — <i>Lapponica</i> , Thunb..   | Hübner, Bomb. Tab. 57. f. 247.<br>(mas.) Tab. 53. f. 230. (fœm.)                            |

## \* EYPREPIA, Curtis.

To the above slender materials for distinguishing a genus (for these A. B. C. families are in fact genera), I think the reader will thank me for adding the characters of Eyprepia, as given by Curtis, who includes under this genus three species; *Russula*, *Caja*, and *Villica*. Stephens does not adopt Eyprepia, but has created the genus Euthemonia to receive the present species, placing *Caja* and *Villica* under Schrank's genus Arctia, which he restores. "Ey. *Antennæ* setaceous, composed of many joints, covered with scales above, naked beneath, bipectinated and ciliated in the males, each branch having a bristle at its apex; rather serrated in the females, each serrature being terminated by a bristle. *Labrum* and *Mandibles* small and obscure. *Maxillæ* about the same length as the head, composed of two separate filaments, distant, broad and flat. *Labial palpi* 2, porrected, covered with long hairs, three-jointed. *Wings* trigonate, deflexed, undivided. *Anterior tibia* with a compressed spine in the centre of its internal side. *Caterpillars* hairy, with 16 feet."—Curtis, Brit. Ent. I. Pl. 21.

The genus Euthemonia (εὐθημων, *concinus*) is characterized by Stephens as follows:

"*Palpi* porrected, moderate, slightly hairy, triarticulate; the basal joint shorter than the second, the terminal rather slender: *maxillæ* short. *Antennæ* rather short, slender, bipectinated in the males, serrated in the females: *head* small, pilose: *thorax* and *abdomen* rather slender; the former hairy, the latter with a small tuft at the apex, and annulated: *wings* deflexed, densely squamous, trigonate: *legs* rather slender, the anterior with a compressed lobe on the inner edge, the posterior with spines at the apex: females smaller than the males. *Larva* with short, closely set fascicles of hair: *pupa* rather elongate, with a spine at the apex."—Steph. *Illust. Brit. Entom. Haust.* II. p. 68.

† NEMEOPHILA, Steph.<sup>a</sup>

"*Palpi* extremely short, enveloped in the hairs of the front, triarticulate, the joints of nearly equal length, subglobose, the basal largest; the terminal smallest, and slightly compressed: *maxillæ* very short. *Antennæ* rather slightly bipectinated in the male, the pectinations shortening towards the apex, serrated and ciliated in the female: *head* small, very pilose: *thorax* and *abdomen* rather slender, the former with elongated hairs in the male, the latter stoutest and acute in the female, tufted at the apex in the male: *wings* deflexed, opaque, scaly: *legs* rather short: *anterior tibiæ* with a spine on the inside; *posterior* with spurs at the apex. *Larva* cylindric, slightly tuberculated, each tubercle producing a fascicle of hair: *pupa* with a truncate projection."—Steph. *Illust. Brit. Ent. Haustell.* II. p. 72.

\* Νεμος *nemus*, φίλος *amicus*.

Species.	Icon.
9. <i>E. Dominula</i> , Linn*...	Ernst, IV. Pl. CLII. f. 197. a—h.
10. — <i>Hera</i> , Linn. ... ..	Ernst, IV. Pl. CXLIV. f. 190. a—i.
11. — <i>Clymene</i> , Esper....	Hüb. Bomb. Tab. 31. f. 135. (fœm.)

FAM. C. *Antennæ* bipectinated: *wings*, anterior with white or yellow stripes or spots on a dark ground, or dark spots on a light ground; *posterior* red or yellow, with, frequently confluent, black spots: *head* and *back* very pilose: *abdomen* thick at the hinder part, with red, or yellow and black spots.

12. <i>E. Purpurea</i> , Linn.†	Ernst, IV. Pl. CLIII. f. 198. a—k.
13. — <i>Aulica</i> , Linn.†...	Ernst, IV. Pl. CXLIX. f. 195. b—f.
14. — <i>Curialis</i> , Borkh.	Ernst, IV. Suppl. Cl. Ire. f. 195. a—f. bis.
15. — <i>Matronula</i> , Linn.†	Ernst, IV. Pl. CXLVIII. f. 194. a—e. Pl. CXLIX. f. 194. f—h.
16. — <i>Villica</i> , Linn.† ...	Ernst, IV. Pl. CL. f. 196. a—g. Pl. CLI. f. 196. h—o.
17. — <i>Fasciata</i> , Esp.....	Ernst, IV. Pl. III. Suppl. Cl. Ire. f. 187. a—d. bis.
18. — <i>Pudica</i> , Fab.....	Ernst, IV. Pl. CXLVIII. f. 193.
19. — <i>Caja</i> , Linn.† .....	Ernst, IV. Pl. CXXXIX. f. 187. a—h. Pl. CXL. f. 187. i—q. Pl. CXLI. f. 187. r—y. Pl. CXLII. f. 187. aa—ff.
20. — <i>Flavia</i> , Fab. ....	Ernst, IV. Pl. CXLII. f. 188. a. b.
21. — <i>Hebe</i> , Linn.† .....	Ernst, IV. Pl. CXLIII. f. 189. a—k.

FAM.

\* HYPERCOMPA, Hüb. ? Steph.

“*Palpi* very short, ascending, pilose, triarticulate, the terminal joint exposed; the basal joint tumid at the apex, as long as the second, terminal short, ovate: *maxillæ* considerably longer than the head. *Antennæ* simple, ciliated in both sexes: *head* small, clothed with short, compact hair: *thorax* and *abdomen* not very stout, covered with close, short, velvety pile: *wings* deflexed, densely squamous; the anterior elongate-trigonal: *legs* robust, squamous. *Larva* with fascicles of hairs down the sides: *pupa* smooth, with a spine at the apex, inclosed in a loose web on the ground.”—*Steph. Illust. Brit. Ent. Haust.* II. p. 67.

Both sexes, Stephens adds, of *Hypercompa*, are remarkable for having the *antennæ* simple and ciliated, and are readily distinguished from all the other *Arctiidæ* by their elongated *maxillæ*, which are much longer than the head, and spirally, but irregularly twisted.—*Steph. l. c.*

† ARCTIA, Schrank, Steph.

“*Palpi* porrected, short, very hairy, triarticulate, the basal joint longer than

Species.	Icon.
FAM. D. 22. E. <i>Casta</i> , Fab. ...	Hüb. Bomb. Tab. 31. f. 137. (fœm.) Tab. 51. f. 219. (mas.)
23. — <i>Maculosa</i> , Fab. ...	Ernst, IV. Pl. CLIV. f. 199. a—h.
24. — <i>Parasita</i> , Hüb. ...	Hüb. Bomb. Tab. 33. f. 146. (mas.) Tab. 53. f. 228. (fœm.)
25. — <i>Fuliginosa</i> , Linn.*	Ernst, IV. Pl. CLIV. f. 200. a—e. Pl. CLV. f. 200. f—h.
26. — <i>Luctifera</i> , Fab. ...	Ernst, IV. Pl. CLIX. f. 206. a—d. Pl. CLX. f. 206. e—g.
27. — <i>Ciliaris</i> , Ochs. ...	Hüb. Bomb. Tab. 51. f. 216. (mas.)

than the second, the terminal ovate, or cylindrical: *maxillæ* short. *Antennæ* rather long, slender, bipectinated in the males, serrated in the females, the serrations and pectinations terminated by a fine bristle: *head* small, pilose: *thorax* stout, densely pilose: *abdomen* robust, tufted at the apex in both sexes, transversely streaked or spotted: *wings* deflexed, densely scaly, elongate-trigonal: *legs* short, *femora* very pilose: *anterior tibiæ* with a compressed lobe. *Larvæ* solitary, cylindrical, thickly clothed with elongate fascicles of hair, each fascicle arising from a tubercle; when touched roll themselves into a ring: *pupa* rather elongate, with a spine at the apex, inclosed in a loose, extended web; eggs naked, deposited with regularity."—*Steph. Illust. Brit. Ent. Haust. II. p. 69.*

The colours of the *Arctiæ*, Stephens adds, are lively and brilliant, and the individuals of this genus are distinguished from those of the genera *Euthemonia*, and *Nemeophila*, by their robust thorax and abdomen, and the transverse stripes, or longitudinal spots of the latter; they have also the basal joint of the palpi longer than the second, and the antennæ rather elongated.—*Steph. l. c.*

\* *PHRAGMATOBIA*<sup>a</sup>, Steph.

"*Palpi* short, very hairy, triarticulate, the basal joint the length of the second, and stouter; the terminal shortest, and ovate, obtuse: *maxilla* rather spiral. *Antennæ* short, serrated, simple in the female, ciliated in both sexes: *head* very small, pilose: *thorax* stout, woolly: *abdomen* rather stout in both sexes, tufted at the apex in the males, acute and smooth in the females: *wings* deflexed, subdiaphanous; the *anterior* elongate, trigonal: *legs* stout: *anterior tibiæ* with a spine internally; two posterior pair with spurs at the apex. *Larva* very hairy: *pupa* with a slight spine, folliculated."

"The abbreviated nearly simple antennæ in both sexes, robust thorax and abdomen, the latter spotted, and semi-transparent elongate, triangular wings, well distinguish this genus; to these may be added the characters of the palpi, which have the basal joint as long as the second, and stouter, with the terminal very short and ovate."—*Steph. Illust. Brit. Ent. Haust. II. p. 73.*

<sup>a</sup> *Φραγματός σῆψος, βίωσιν vivo.*



FAM. E. *Antennæ* pectinate, pectinations short: *wings* white or yellow, with black spots: *legs*, *femora* of the anterior yellow: colour of the *back* and *abdomen* simple, or the latter yellow with five rows of black spots; *back* hairy.

Species.	Icon.
28. E. <i>Mendica</i> , Linn.*	Ernst, IV. Pl. CLIX. f. 205. a—h.
29. — <i>Rustica</i> , Hübn.?	— — —
30. — <i>Menthastri</i> , Fab.†	Ernst, IV. Pl. CLVII. f. 204. a—c. Pl. CLVIII. f. 204. d—k.
31. — <i>Urticæ</i> , Esp.†. ...	Ernst, IV. Pl. CLVIII. f. 204. m—n.
32. — <i>Lubricipeda</i> , Linn.†	Ernst, IV. Pl. CLVII. f. 203. a—g.

\* DIAPHORA<sup>a</sup>, Steph.

“*Palpi* moderate, descending, triarticulate, the two basal joints very hairy, the terminal squamous, all of nearly equal length, cylindrical, the basal one incurved, the terminal more slender than the others, obtuse: *maxillæ* rather longer than the head. *Antennæ* bipectinated in the males, serrated in the females, the pectinations incurved, and meeting at the apex: *head* very small, woolly: *thorax* stout, very woolly: *abdomen* slender in the male, robust and slightly acute in the female: *wings* subdiaphanous, deflexed, trigonate: *legs* short, stout; the *anterior tibiæ* short, with a spine on the inside, the *posterior* with spurs at the apex. *Larva* tuberculated, each tubercle producing a tuft of hairs: *pupa* acute, folliculated.”—*Steph. Illust. Brit. Ent. Haust.* II. p. 77.

† SPILOSOMA<sup>b</sup>, Steph.

“*Palpi* short, a little descending, triarticulate, the two basal joints very hairy, the terminal scaly, the basal joint somewhat longer than the second, the apical rather small, oval, subconic: *maxillæ* short. *Antennæ* slightly bipectinated in the males, serrated in the females, each articulation with a bristle at the apex: *head* rather small, hairy: *thorax* and *abdomen* stout in both sexes, the latter slightly tufted in the male, acute in the female; *wings* trigonate, deflexed, opaque: *legs* moderately stout: *anterior tibiæ* short, with a spine internally: the *four posterior* with spurs at the apex. *Larva* slightly tuberculated, each tubercle producing a whisker of hairs: *pupa* obtuse, folliculated.”—*Steph. Illust. Brit. Ent. Haust.* II. p. 74.

The predominant colour of this group is white, the wings deeply speckled with black, and the body spotted with the same colour, in longitudinal lines. Curtis adopts this genus from Stephens's MSS., and quotes as belonging to it the following British species:

1. *Spilosoma lubricipeda*, Linn.—*Don*. Vol. xvi. pl. 568.
2. ——— *Walkerii*, Curtis. Vol. ii. pl. 92.
3. ——— *Menthastri*, Fabr.—Linn. Trans. I. p. 70. (*Erminea*. *Marsh.*)
4. ——— *Urticæ*, Hübn.
5. ——— *papyritia*, Marsh.—Linn. Trans. I. p. 70.
6. ——— *radiata*, Haw. MSS.

<sup>a</sup> Διαφορά, *differentia*.

<sup>b</sup> Σπιλος macula, σωμα corpus.

## Genus 44. ACRONYCTA, Ochs., Treitschke.

## APATELÆ, Hübner.

*Antennæ* inserted on the crown of the head, close to the eyes, alike in both sexes, long, setaceous, composed of numerous joints covered with scales above, basal joint tufted with scales, forming a cup for the insertion of the second.

*Maxillæ* as long as the antennæ, with tentacula towards the apex.

*Labial palpi* porrected obliquely, completely clothed with rather short scales, the terminal joint being very distinct; three-jointed, basal joint robust, second long, linear, third short, ovate.

*Head* subtrigonal. *Thorax* subquadrate, clothed with rather long and large scales. *Abdomen* large, robust, angulated, obtuse, and having a margin of scales in the males; cylindro-conical in the females.

*Wings* deflexed when at rest; superior rather elongate-lanceolate; inferior rather small.

*Legs*, anterior the shortest: *tibiæ*, anterior much shorter than the tarsus, with a twisted, subulated spine on the internal side, the others spurred at the apex, the posterior having a pair above, on the side: *tarsi* five-jointed, basal joint the longest: *claws* simple: *pulvilli* distinct.

*Larvæ* various, with six pectoral, eight abdominal, and two anal feet\*.

FAM. A. *Larva* hairy; no tubercles on the back.

Species.	Icon.
1. A. <i>Leporina</i> , Linn.	Ernst, VI. Pl. CCXVI. f. 296. b. d. e.—f. 297. a. b.
2. — <i>Bradyporina</i> , Treit.	Ernst, VI. Pl. CCXVI. f. 296. c.
3. — <i>Aceris</i> , Linn. ....	Ernst, VI. Pl. CCXVI. f. 295.
4. — <i>Megacephala</i> , Fab.	Ernst, VI. Pl. CCXV. f. 294.
5. — <i>Alni</i> , Linn. ....	Ernst, VI. Pl. CCLIV. f. 386.
6. — <i>Ligustri</i> , Fab. ...	Ernst, VI. Pl. CCXXV. f. 320.
7. — <i>Strigosa</i> , Fab. ...	Ernst, VI. Pl. CCXI. f. 285.
8. — <i>Tridens</i> , Fab. ...	Ernst, VI. Pl. CCXII. f. 287. a. b. c. e.
9. — <i>Psi</i> , Linn.....	Ernst, VI. Pl. CCXII. f. 286.
10. — <i>Cuspis</i> , Hübner. ...	Ernst, VI. Pl. CCXII. f. 287. d. f.
11. — <i>Menyanthidis</i> , Hübner. Hübner. Noct. Tab. 2. fig. 6. (mas.) f. 7. (fœm.)	

\* Generic Characters from Curtis.

Species.	Icon.
12. <i>A. Auricoma</i> , Fab. ...	Ernst, VI. Pl. CCXIII. f. 289.
13. — <i>Rumicis</i> , Linn. ...	Ernst, Pl. VI. CCXIII. f. 288.
14. — <i>Euphorbiæ</i> , Fab.	Hüb. Noct. Tab. 3. fig. 12. (fœm.) Tab. 114. f. 529. (mas.)
15. — <i>Salicis</i> *, Curtis....	Curtis, Brit. Ent. III. Pl. 136.
16. — <i>Euphrasiæ</i> , Borkh.	Hüb. Noct. Tab. 134. f. 613.

Genus 45. DIPHTHERA, Ochs.

DIPHTHERÆ, Hüb. n.

*Wings* deflexed; *anterior* spotted.

*Body*, posteriorly spotted; *back* gibbous.

*Larva* variegated, hairy; hairs long and thinly set: (much resembling those of the genus *Liparis*.)

*Pupa*, changes in a close web above ground †.

*Palpi* very short.—*Godart, Duponch.*

*Antennæ* filiform in both sexes ‡.—*Godart, Duponch.*

Species.	Icon.
1. <i>D. Cænobita</i> , Hüb. n.	Ernst, IV. Pl. CXXXVI. f. 184.
2. — <i>Ludifica</i> , Linn. ...	Ernst, VI. Pl. CCXXXVI. f. 323.
3. — <i>Orion</i> , Esper.....	Ernst, VI. Pl. CCXXXVII. f. 325.

Genus 46. BRYOPHILA, Ochs., Treitsch.

PÆCILIA, Schrank., Ochs. JASPIDIA, Hüb. n. §

*Wings*, deflexed when at rest.

*Antennæ* filiform.

*Body*, posteriorly rugose.

*Larva* gregarious.

FAM.

\* Not in Treitschke's continuation of Ochsenheimer: usually confounded with *A. Euphorbiæ*. (C.)

† The above are all the characters given by M. Treitschke as *generic*, whereby to distinguish the *Diphtheræ*!

‡ This applies only to *D. ludifica*, and *Orion*: in *D. Cænobita* the antennæ of the male, according to Duponchel, is bipectinated; those of the female, filiform.

§ In his sketch of the Genera, in the 4th volume, Ochsenheimer has announced a genus by the name of *COLOCASIA*, to receive two species, *B. Coryli*, Linn. and *Geographica*, Fab. (*B. Sericina*, Hüb. n.) which his successor M. Treitschke has rejected, referring the first species to the genus *Orgyia*, and the second to that of *Gastropacha*. Mr. Stephens seems to differ from M. Treitschke in his idea that these two species should not form a distinct genus, and accordingly he adopts Ochsenheimer's views: "the crested thorax at once distinguishing this genus from the other *Arctiidæ*, and its subspirax maxillæ from '*Dasychira*, *Psilura*,' &c.; from which it also differs by

FAM. A.—*Wings* rounded; generally of a light-greenish colour.

Species.	Icon.
1. <i>B. Glandifera</i> , Hübn.	Ernst, VI. Pl. CCXXVI. f. 322.
2. — <i>Par</i> , Hübn. ....	Hübn. Noct. Tab. 110. fig. 515. (mas.)
3. — <i>Perla</i> , Hübn. ...	Ernst, VI. Pl. CCXXV. f. 321.

FAM. B.—*Wings* elongated, small, marbled on a brown ground.

4. <i>B. Spoliatricula</i> , Hübn.	Ernst, VI. Pl. CCXXVII. f. 324.
5. — <i>Ereptripula</i> , Hübn.	Hübn. Noct. Tab. 6. f. 26. (fœm.)
6. — <i>Receptricula</i> , Hübn.	Hübn. Noct. Tab. 6. f. 27. (mas.)
7. — <i>Fraudatricula</i> , Hübn.	Ernst, VI. Pl. CCXXIV. f. 316.
8. — <i>Raptricula</i> , Hübn.	Ernst, VI. Pl. CCXXIV. f. 317.
9. — <i>Deceptricula</i> , Hübn.	Hübn. Noct. Tab. 6. f. 30. (fœm.)
10. — <i>Chalcedonia</i> , Hübn.	Hübn. Noct. Tab. 86. f. 404. (mas.)

the more slightly pectinated antennæ of the males, and simply ciliated antennæ of the females.”—In adopting Ochseneimer's views, however, Stephens does not adopt his generic name; *Colocasia* being employed in botany, he has chosen that of *DEMAS*<sup>a</sup> in its stead.

DEMAS, Steph.

“*Palpi* extremely short, enveloped in hair, triarticulate, the basal joints rather stoutest, the second nearly as long again as the preceding, the terminal minute, ovate: *maxillæ* short, a little spiral. *Antennæ* rather elongate, acute, slightly bipectinated in the males, ciliated in the females: *head* small, pilose: *thorax* stout, crested: *abdomen* moderately stout, the back with hairy fasciculi; the apex with a tuft: *wings* deflexed, elongate, densely squamous: *legs* moderate; *femora* and *tibiæ* pilose; the anterior with a large, naked, lobate appendage anteriorly. *Larva* hairy, with two dorsal tufts, whiskers at the head, and a fascicle of hair at the tail: *pupa* smooth, with an acute termination posteriorly: changes in an ovate cocoon.”—*Steph. Illust. Brit. Ent. Haustell.* II. p. 59.

1. *D. Coryli*, Linn..... Albin's Ins. Pl. 90. Don. IX. Pl. 309.

2. — *Geographica*, Fab.

N. cristata, alis deflexis fusco variis: strigis duabus posticæ coëuntibus niveis, apice striatis.—*Fab. Ent. Syst.* III. b. 91. p. 271.

<sup>a</sup> Δημας, nomen viri.

Genus 47. CYMATOPHORA, *Ochs., Treitsch.*

TETHEA, *Ochs.*

BOMBYCIÆ, *Hüb.*

*Wings* deflexed.

*Body* sub-pilose.

*Antennæ* filiform in both sexes; in the male cylindrical, and very large; in the female flattened.—*Godart, Dup.\**

FAM. A. Anterior wings with the posterior margin incurved, and the posterior angle acute, pointed.

Species.	Icon.
1. <i>Cym. Ambusta</i> , Fab....	Ernst, VII. Pl. CCXCV. f. 500. a. c. (b. var.)
2. — <i>Retusa</i> , Linn.....	Ernst, VII. Pl. CCLIX. f. 402. d.
3. — <i>Subtusa</i> , Fab.....	Ernst, VII. Pl. CCLIX. f. 402. a—c.

FAM. B. a. Anterior wings elongate, with cancellated markings.

4. <i>Cym. Oo</i> , Linn. ....	Hüb. Noct. Tab. 41. f. 195. (fœm.)
5. — <i>Xanthoceros</i> , Hüb.	Ernst, VI. Pl. CCXIV. f. 291.

FAM. B. b. Wings broad, elongate, variegated, with wavy markings.

6. <i>Cym. Ruficollis</i> , Fab...	Ernst, VI. Pl. CCXLII. f. 358.
7. — <i>Diluta</i> , Fab. ....	Ernst, IV. Pl. CLXI. f. 208.
8. — <i>Bipuncta</i> , Borkh.	Ernst, VIII. Pl. CCCIX. f. 535.
9. — <i>Fluctuosa</i> , Hüb.	Ernst, VIII. Pl. CCCIX. f. 534.
10. — <i>Octogesima</i> , Hüb.	Ernst, VIII. Pl. CCCVIII. f. 532.
11. — <i>Or</i> , Fab. ....	Ernst, VIII. Pl. CCCVIII. f. 533.
12. — <i>Flavicornis</i> , Linn.	Ernst, VI. Pl. CCXLIII. f. 359.

FAM. B. c. Anterior wings broad, short, with faint, wavy markings.

\* We have added this character, derived from the *Antennæ*, from Duponchel's continuation of Godart's *Lépidoptères de France*; as it seems to prevail in all the species quoted by Treitschke, as composing this genus. Miserably deficient as Ochsenheimer's generic characters generally are, those of his successor, thus far at least, are still more so. Indeed his genera can only be satisfactorily determined by examining the principal species included, respectively, in them,—a labour we have neither leisure nor inclination to undergo. We shall therefore give Treitschke's characters as we find them, with such additions from other quarters as we can safely rely on, referring our readers to the Species themselves, or their Icones, for further means of distinguishing the several groups.

- | Species.                         | Icon.   |
|----------------------------------|---|
| 13. Cym. <i>Saliceti</i> , Hübn. | Ernst, VI. Pl. CCXL. f. 352.<br>—a. Larva.—b. Pupa. |
| 14. — <i>Congener</i> , Hübn.    | Hübn. Noct. Tab. 135. f. 617.<br>(fœm.)             |
| 15. — <i>Scoriacea</i> , Esper.  | Ernst, VII. Pl. CCLXXXIV.<br>f. 469.                |

Genus 48. EPISEMA, Ochs. (*Steph.*)

GRAPHIPHORÆ, Hübn.

HETEROMORPHÆ, Hübn.

*Legs* very hairy; *tibiæ* with spurs.

*Wings* elongate; *anterior* with the hinder margin entire, deflexed; *cilia* long.

*Antennæ* rather elongate, not curved, bipectinated to the apex in the males, simple in the females: *head* exerted, not very small: *thorax* slightly crested with transverse fasciæ: *abdomen* rather stout, with a simple tuft at the apex.

*Palpi* elongate, very pilose, biarticulate, the basal joint large, the terminal very slender, elongate, acute, scaly: *maxillæ* short.

*Larva* cylindric, very fleshy and robust, not tuberculate; the *hinder legs* perfect.

*Pupa* folliculated\*.

- | Species.                             | Icon.  |
|--------------------------------------|--|
| 1. Ep. <i>Cæruleocephala</i> , Linn. | Ernst, V. Pl. CLXXXVI. f. 242.                     |
| 2. — <i>I. cinctum</i> , Hübn.       | Hübn. Noct. Tab. 30. f. 144.<br>(mas.)             |
| 3. — <i>Trimacula</i> , Hübn.        | Hübn. Noct. Tab. 30. f. 141. (mas.)<br>142. (fœm.) |
| 4. — <i>Tersa</i> , Hübn.....        | Hübn. Noct. Tab. 30. f. 140. (fœm.)                |
| 5. — <i>Graminis</i> , Linn.†        | Ernst, VI. Pl. CCLVII. f. 395.                     |

## Genus

\* Characters chiefly from Stephens.

† CHARÆAS, Steph.

"*Palpi* very short, triarticulate, the two basal joints densely squamous, the terminal slightly exposed, the basal joint shorter and stouter than the following, which is stout at the base and gradually attenuated to the apex, the terminal slightly elongate, acute, or ovate acuminate: *maxillæ* long. *Antennæ* simple in the females, more or less pectinated in the males: *head* small, squamous: *thorax* robust, not crested: *body* short, slightly carinated on the back; the apex of the males with a tuft: *wings* generally denticulated on the hinder margin, sometimes rounded; *posterior* not very large, ovate-triangular, usually whitish in the males, fuscous in the females. *Larva* naked, radicivorous: *pupa* subterraneous."—*Steph. Illust. Brit. Ent. Haust.* II. 108.

The British species which Stephens inserts in this genus, are: *Noct. cespitis*,

Genus 49. AGROTIS, Ochs. (*Curtis, Steph.*)AGROTIS, Hübn.  
(NOCTUA, Linn.)GRAPHIPHORÆ, Hübn. (Steph.)  
PHALÆNA, Don.)

*Legs*, anterior the shortest: *tibiæ*, anterior very short, with a flat spine on the inner side: *tarsi* with five joints.

*Wings* horizontal and crossing each other when at rest; the upper generally narrowed towards the base.

*Antennæ* long, setaceous, strongly pectinated in the males, especially towards the base; merely covered with bristles at the apex; simple and pubescent in the females.

*Head* small, thickly clothed with scales: *thorax* densely squamous, not crested.

*Maxillæ* as long as the antennæ, robust, furnished with tentacula at the apex.

*Palpi*, labial nearly vertical, divaricating, very robust, thickly clothed with long scales.

*Larva* with six pectoral, eight abdominal, and two anal feet; subterranean, naked, radicivorous.

*Pupa* subterranean\*.

Curtis subdivides this genus into two groups:

A. Antennæ pectinated in the males.

a. nearly to the apex.

This subdivision contains the following species:

*Ag. nigra*, Haw. — *fusca*, Haw. — *cinerea*, Hübn., Curtis.

b. pectinated only half their length: in this are contained, *Ag. suffusa*, Hübn. — *æqua*, Hübn. — *subterranea*, Haw. — *monostigma*, Curtis. — *segetum*, Hübn. — *affinis*, — *elavigera*, Haw. — *pupillata*, Haw. — *sagittifera*, Hübn. — *hibernica*, Haw. MSS. — *pascua*, Curtis.

B. Antennæ of the males producing fascicles of hair only.

*Ag. cespitis*, Hübn. — *autumnalis*, Curt. — *exclamationis*, Linn. — *picea*, Haw. — *corticea*, Hübn. — *ruris*, Hübn. — *nigricans*, Linn. — *valligera*, Fab. — *obelisca*, Hübn.? — *albilinea*, Haw. — *lineolata*, Haw. — *radius*, Haw. — *radiolus*, Haw. MSS. — *subgothica*, Haw.

*cespitis*, Wien. Verz.—*Ch. confinis*, Steph.—*Bo. fuscus*, Haworth.—*Noct. nigra*, Haw.—*Ph. Bo. Graminis*, Linn.—Stephens observes, that the typical species of this genus are distinguished by having their wings more or less denticulated, but in *Ch. Graminis* (which ought probably to be separated from the rest as a distinct genus) they are entire.

\* Characters from Curtis and Stephens.

1. *Ag.*

Species.	Icon.
1. Ag. <i>Rectangula</i> , Fab.	Hüb. Noct. Tab. 24. f. 110. (fœm.)
2. — <i>Multangula</i> , Hüb.	Hüb. Noct. Tab. 25. f. 116. (mas.)
3. — <i>Ocellina</i> , Hüb.	Ernst, VII. Pl. CCLXVI. f. 420.
4. — <i>Lidia</i> , Hüb. . . .	Hüb. Noct. Tab. 149. f. 649. (fœm.) 650. (mas.)
5. — <i>Vitta</i> , Hüb. . . . .	Hüb. Noct. Tab. 115. f. 533. (mas.) 534. (fœm.)
6. — <i>Aquilina</i> , Hüb. . . .	Hüb. Noct. Tab. 29. f. 135. (mas.) Tab. 115. f. 535. (mas.)
7. — <i>Tritici</i> , Linn. . . . .	Hüb. Noct. Tab. 101. f. 479. (mas.) Tab. 136. f. 623. (fœm.)
8. — <i>Fumosa</i> , Fab. . . . .	Ernst, VI. Pl. CCLVI. f. 391.
9. — <i>Obelisca</i> , Hüb. . . .	Ernst, VII. Pl. CCLXXV. f. 443.
10. — <i>Buris</i> , Hüb. . . . .	Ernst, VII. Pl. CCLXXVI. f. 446. b.
11. — <i>Saucia</i> , Hüb. . . .	Ernst, VII. Pl. CCLXXVIII. f. 453.
12. — <i>Æqua</i> , Hüb. . . . .	Hüb. Noct. Tab. 122. f. 564. (mas.)
13. — <i>Suffusa</i> , Fab. . . . .	Ernst, VII. Pl. CCLXXVII. f. 452.
14. — <i>Annexa</i> *, . . . . .	— — —
15. — <i>Segetum</i> , Hüb. . . .	Ernst, VII. Pl. CCLXXVII. f. 448. a.
16. — <i>Corticea</i> , Hüb. . . .	Hüb. Noct. Tab. 31. f. 145. (mas.)
17. — <i>Exclamationis</i> , Linn.	Ernst, VII. Pl. CCLXXV. f. 442.
18. — <i>Valligera</i> , Fab. . . .	Ernst, VII. Pl. CCLXXIV. f. 441.
19. — <i>Crassa</i> , Hüb. † . . .	Ernst, VII. Pl. CCLXXVI. f. 446. a.
20. — <i>Forcipula</i> , Hüb.	Hüb. Noct. Tab. 27. f. 128. (fœm.) Tab. 118. f. 547. (mas.)
21. — <i>Signifera</i> , Hüb.	Ernst, VI. Pl. CCLIII. f. 381.

\* Agr. alis anticis fuscis, vittâ marginis superioris apiceque pallidioribus, lineolâ maculas duas jungente ordinarias atrâ.

† GRAPHIPHORA, Steph.

“Palpi moderate, ascending, parallel, densely clothed with scales, the base pilose, the terminal joint distinct, squamous; triarticulate, the basal joint curved, the second longer than the first, slightly attenuated, the terminal small, elongate-ovate, a little acuminate: *maxillæ* as long as the antennæ. *Antennæ* various, moderate, generally simple, with the lower surface pubescent in the females; usually ciliated beneath in the males, or deeply bipectinated, with the pectinations abbreviated towards the apex, sometimes serrated and pubescent beneath: *head* large, scaly: *thorax* slightly crested: *wings* generally rather broad, slightly rounded behind, horizontal during repose, not denticulated; mostly griseous or dusky, with dark spots towards the costa. *Larva* exposed, usually with pale lateral stripes, naked: *pupa* subterranean.”  
—*Steph. Illust. Brit. Ent. Haust.* II. p. 128.

22. Ag. Sa-



Species.	Icon.
22. Ag. <i>Sagittifera</i> , Hübn.	Hübn. Noct. Tab. 114. f. 532.
23. — <i>Ripæ</i> , Hübn. ....	Hübn. Noct. Tab. 151. f. 702. 703. (mas.)
24. — <i>Cursoria</i> , Hübn.	Hübn. Noct. Tab. 116. f. 540. (mas.)
25. — <i>Cinerea</i> , Hübn. ...	Curtis, Brit. Ent. IV. pl. 165. Hübn. Noct. Tab. 33. f. 155. (mas.) f. 156. (fœm.)
26. — <i>Tenebrosa</i> , Hübn.*	Ernst, VI. Pl. CCLV. f. 387.
27. — <i>Pancratii</i> , Hübn.	Hübn. Noct. Tab. 84. f. 391. (fœm.)
28. — <i>Æthiops</i> , Hübn. †	Ernst, VII. Pl. CCLXXVIII. f. 455. a—c.
29. — <i>Lutulenta</i> , Hübn.	Hübn. Noct. Tab. 33. f. 159. (fœm.)
30. — <i>Decora</i> , Hübn. ....	Hübn. Noct. Tab. 9. f. 45. (mas.)
31. — <i>Fimbriola</i> , Hübn.	Hübn. Noct. Tab. 132. f. 603. (mas.)
32. — <i>Birivia</i> , Hübn. ...	Hübn. Noct. Tab. 9. f. 42. (fœm.) Tab. 138. f. 631. (fœm.)
33. — <i>Grisescens</i> , Fab. ‡	— — —
34. — <i>Fugax</i> , Ochs. ....	Hübn. Noct. Tab. 9. f. 44. (mas.)
35. — <i>Renigera</i> , Hübn. §	Hübn. Noct. Tab. 82. f. 384. (mas.)
36. — <i>Dilucida</i> , Hübn.	Hübn. Noct. Tab. 82. f. 383. (mas.)
37. — <i>Lucipeta</i> , Fab. ...	Ernst, VI. Pl. CCXXXV. f. 341.
38. — <i>Pyrophila</i> , Fab. §	Ernst, VI. Pl. CCXXXV. f. 342. a.
39. — <i>Latens</i> , Hübn. § ...	Hübn. Noct. Tab. 89. f. 419. (mas.) Tab. 117. f. 546. (mas.)

\* RUSINA, Stephens.

“*Palpi* ascending, densely squamous, with the terminal joint exposed, rather elongate, composed of three somewhat slender joints, the terminal one being most slender: the basal joint about half the length of the second and a little curved, the terminal one-third the length of the preceding, elongate, obtuse: *maxillæ* moderate. *Antennæ* deeply bipectinated in the males, the pectinations suddenly abbreviated towards the apex; ciliated in the females: *head* small, pilose: *thorax* not very stout, clothed with loose hair-like scales, subcrested: *wings* horizontal, entire; the *anterior* elongate, subtrigonal, narrowed at the base, with the shoulder a little rounded; *posterior* orbiculate-triangular, slightly excised towards the costa: *body* slender, tufted at the apex in the males: *legs* short, robust. *Caterpillar* subterranean: *pupa* short, spinose at the apex, subterranean.”—*Steph. Illust. Brit. Ent.* II. 111.

Stephens gives but one British species, as belonging to this genus, *Bo. ferruginea*, Esper., quoted by Treitschke, as synonymous with *N. tenebrosa*, Hübn.

† *CHARÆAS nigra*, Steph.

‡ *Agr. Alis cinereis*: maculis ordinariis pallidis, strigâque submarginali punctorum atrorum.

§ *GRAPHIPHORA*, Steph.

Genus 50. NOCTUA, *Treitsch.*

GRAPHIPHORA, Ochsen. (Steph.) GRAPHIPHORÆ, Hübn.

*Obs.* If instead of merely changing Ochsenheimer's name for this genus from Graphiphora to Noctua, out of compliment, as it seems to Schrank, and "a highly esteemed entomological writer in the *Allgemeinen Literaturzeitung*,"—M. Treitschke had favoured us with good generic characters for the group of insects he has placed in it, he would have performed an acceptable service to Entomology: but all that he tells us is, literally, that these Moths have a tuft on the back (*Ruckenschopf*), that their anterior wings are deflexed and somewhat overlap each other when at rest, and are decorated with reniform spots, and markings resembling Oriental characters: that the larvæ are variegated, and have strongly marked lateral stripes, and live chiefly on the leaves of low plants, but not on their roots; and that the metamorphosis is subterranean!—Thirteen of the nineteen species enumerated by Treitschke, as constituting his genus Noctua, are comprehended in Stephens's genus Graphiphora, the characters of which we have already given in the note to the 19th species, *crassa*, of the preceding genus, Agrotis; to which we shall add, in this place, a few extracts from his observations on the Graphiphoræ. Like Agrotis, this genus, Stephens remarks, is chiefly composed of dingy and similarly marked species, though amongst them may be noticed a few of delicate and somewhat vivid colours: these two genera are evidently closely allied, and several of the species are included in the former by Ochsenheimer and Treitschke, while Schrank and Boisduval agree in uniting the whole under the incorrect appellation Noctua (a name which has also been employed by Treitschke in lieu of Graphiphora, as just stated, although justly restored by Savigny to a genus of Owls); they may, however, be distinguished by the superior width and glossiness of the wings, which have usually but two stigmata, and by the general simplicity of the antennæ.—*Steph. l. c.*

## Species.

## Icon.

- |                                 |                                 |
|---------------------------------|---------------------------------|
| 1. N. <i>Ravida</i> , Hübn. ... | Ernst, VII. Pl. CCLXVI. f. 421. |
| 2. — <i>Augur</i> , Fab. ....   | Ernst, VI. Pl. CCLV. f. 388.    |
| 3. — <i>Sigma</i> , Hübn.....   | Ernst, VIII. Pl. CCCXI. f. 542. |
| 4. — <i>Baja</i> , Fab.....     | Ernst, VIII. Pl. CCCXI. f. 540. |

5. N. *Can-*

Species.	Icon.
5. <i>N. Candelisequa</i> , Hübn.	Hüb. Noct. Tab. 85. f. 397. (fœm.)
6. — <i>Brunnea</i> , Fab. ...	Hüb. Noct. Tab. 26. f. 121. (mas.)
7. — <i>Dahlîi</i> , Hübn. ...	Ernst, VII. Pl. CCLXVIII. f. 428.
8. — <i>Punicca</i> , Hübn. ...	Hüb. Noct. Tab. 25. f. 115. (fœm.)
9. — <i>Festiva</i> , Hübn. ...	Ernst, VIII. Pl. CCCXI. f. 541.
10. — <i>Polygona</i> , Fab. ...	Ernst, VII. Pl. CCLXVI. f. 423. a.
11. — <i>Depuncta</i> , Linn. ...	Hüb. Noct. Tab. 26. f. 120. (mas.) Tab. 107. f. 502. (mas.)
12. — <i>Rhomboidea</i> , Esper.	Ernst, VII. Pl. CCLXVII. f. 425. a.
13. — <i>Gothica</i> , Linn.* ...	Ernst, VII. Pl. CCLXVI. f. 422.
14. — <i>C. Nigrum</i> , Linn.	Ernst, VII. Pl. CCLXVII. f. 424.
15. — <i>Triangulum</i> , Ochs.	Ernst, VII. Pl. CCLXVII. f. 427.
16. — <i>Tristigma</i> , Ochs. ...	Ernst, VII. Pl. CCLXVII. f. 425. b.
17. — <i>Flammatra</i> , Fab.	Hüb. Noct. Tab. 26. f. 124. (mas.)
18. — <i>Musiva</i> , Hübn. ...	Hüb. Noct. Tab. 25. f. 118. (mas.)
19. — <i>Plecta</i> , Linn. ....	Ernst, VII. Pl. CCLXV. f. 419.

Genus 51. TRIPHÆNA, *Ochs.* (Steph.)

*Antennæ* simple in both sexes, ciliated beneath in the males.

*Palpi* ascending, compressed, parallel, triarticulate, the two basal joints clothed with very compact capitate scales, terminating acutely in front, the apical somewhat exposed; the basal joint shorter than the following, and curving upwards; the second as long as the other two, a little bent inwards towards the apex; the terminal short, rather slender, somewhat attenuated at the tip, which is obtuse: *maxillæ* very long.

\* SEMIOPHORA<sup>a</sup>, Steph.

“ *Palpi* short, very hairy at the base, the terminal joint exposed and scaly; triarticulate, the basal joint slightly bent, stout, not half as long as the second, which is elongate, slightly attenuated, the terminal one minute, ovate, subtruncate: *maxillæ* as long as the antennæ. *Antennæ* bipectinated in the males, serrated in the females, each joint producing a bristle on both sides: *head* small, pilose: *thorax* stout, woolly, not crested: *body* not very stout, short: *wings* entire, slightly deflexed, *anterior* elongate, narrowed at the base, rather acute at the tip, *posterior* abbreviated, subtrigonal: *legs* short: *femora* woolly. *Larva* naked, exposed: *pupa* subterranean.”—*Steph. Illust. Brit. Ent. Haust.* II. p. 138.

Stephens adds that this genus differs from *Graphiphora* and *Agrotis* by the woolliness of its smooth thorax, the brevity of the posterior wings, and by reposing with the anterior ones deflexed.

<sup>a</sup> Σημισιον signum, Φερα fero.

*Wings* horizontal, entire; *anterior* elongate-lanceolate, rounded posteriorly, with two stigmata; *posterior* orbiculate-triangular, slightly emarginated, large, folded during repose, of lively colours, usually luteous with black margins.

*Head* densely clothed with scales; *thorax* not crested, with large anterior tippets; *body* rather stout, flat on the back, downy at the base.

*Larva* naked, cylindric, with sixteen legs.

*Pupa* subterraneous, not folliculated\*.

Species.	Icon.
1. Tr. <i>Interjecta</i> , Hübn.	Hübn. Noct. Tab. 23. f. 107. (mas.)
2. — <i>Comes</i> , Hübn. ....	Ernst, VII. Pl. CCLXXII. f. 435. c. f. g.
3. — <i>Subsequa</i> , Hübn....	Ernst, VII. Pl. CCLXXII. f. 435. a. d. e.
4. — <i>Pronuba</i> , Linn....	Ernst, VII. Pl. CCLXX. and CCLXXI. f. 433. c. d. e. i.
5. — <i>Innuba</i> , Treitsch.	Ernst, VII. Pl. CCLXXI. f. 434. f—h.
6. — <i>Fimbria</i> , Linn. ...	Ernst, VII. Pl. CCLXIX. f. 432.
7. — <i>Ianthina</i> , Fab. ...	Ernst, VII. Pl. CCLXX. f. 433.
8. — <i>Linogrisea</i> , Fab.	Ernst, VII. Pl. CCLXXII. f. 436.

Genus 52. AMPHIPYRA, Ochs., Treitsch.

PYROPHILÆ, Hübn.

*Wings*, *anterior* somewhat deflexed, half covering the body when at rest; surface glossy, rather inclining to a brassy hue, without distinct spots.

*Antennæ* long, pectinated; pectinations very short, so as to give the organ a crenate appearance.

*Body* compressed, obtuse; back smooth; small, lateral tufts of hair in the male.

*Larva* naked, or very slightly hairy.

Species.	Icon.
1. Amp. <i>Tragopogonis</i> , L.	Ernst, VI. Pl. CCXXXIV. f. 338.
2. — <i>Tetra</i> , Hübn. ...	Hübn. Noct. Tab. 8. f. 39. (fœm.)
3. — <i>Livida</i> , Fab. ....	Ernst, VI. Pl. CCXXXIII. f. 337. g. h.
4. — <i>Cinnamomea</i> , Borkh.	Ernst, VI. CCXXXIV. f. 339. a—e.
5. — <i>Pyramidea</i> , Linn.	Ernst, VI. CCXXXIII. f. 337.
6. — <i>Perflua</i> , Hübn....	Hübn. Noct. Tab. 8. f. 35. (fœm.)
7. — <i>Spectrum</i> , Hübn.	Ernst, VIII. Pl. CCCXX. f. 562.

\* Characters from Stephens.

Genus 53. MANIA, Ochs., Treitsch.

MORMO, Ochs.

LEMURES, Hübn.

*Legs*, gressorial; *second* and *third* pair with the *tibiæ* armed with long, stout spines, terminated by a very fine point.

*Wings* triangular, margins crenate.

*Antennæ* filiform, pectinated; pectinations extremely short.

*Body* rather stout; *thorax* densely pilose; *back* with a separate tuft of hair on each segment, except the last, forming a crest down the middle; *abdomen* terminated by a tuft of hairs.

*Larva* naked, with a small head; *body* tapering towards the hinder part; the last segment tuberculated.

Obs. *Mormo* being a term already employed in ornithology, M. Treitschke has rejected it, and adopted that of *Mania* in its stead.

Species.

Icon.

1. *Man. Maura*, Linn.... Ernst, VIII. Pl. CCCXIX. f. 561.

2. — *Typica*, Linn.\* ... Ernst, VII. Pl. CCLXXXI. f. 461.

Genus 54. HADENA, Schrank.

*Wings* deflexed; *body* with tufts of hair on the back, forming a longitudinal crest; (as in the preceding genus;) posteriorly gibbous.

*Larvæ* various: *Pupa* subterranean. Treitschke has subdi-

\* NÆNIA, Steph.

“*Palpi* rather long, porrect, ascending, triarticulate, the two basal joints clothed with elongate capitate scales, terminating in an acute point anteriorly, at the apex of the second joint, apical joint slender, elongate, exposed, covered with abbreviated scales; basal joint of equal length with the terminal, and slightly bent, the second nearly as long again, more slender than the first, a little attenuated at the apex; terminal linear, very slender, slightly acuminate: *maxillæ* longer than the antennæ. *Antennæ* short, slender in the females, ciliated internally in the males: *head* small, with a crest between the antennæ: *eyes* rather prominent, naked: *thorax* stout, with an anterior and posterior crest: *abdomen* slightly depressed, with a carina in the male: *wings* incumbent, faintly denticulate: *legs* short, rather stout. *Larva* naked, with the anal segment a little elevated: *pupa* folliculated, with a single spine at the apex.”—*Steph. Illust. Brit. Ent. Haustell.* II. 165.

Stephens complains of the unnatural union of the Noctuxæ *Maura* and *Typica*, Linn. effected by Ochsenheimer and Treitschke, “than which,” he says, “nothing can be more unnatural, their only resemblance consisting in the dinginess of their colours.”—“*Nænia* may be readily known by the peculiar bifid appearance of the apex of the palpi, arising from the elongation of the scales,—combined with the highly crested thorax, dingy, reticulated, and subcrenated wings.”—*Steph. l. c.*

vided

vided this genus into four families, founded (except the second) on certain markings on the anterior wings, not, however, sufficiently definite or constant to afford good lines of demarcation between the respective groups. They are briefly as follows :

- FAM. A. With fine lines and transverse bands of a light colour on the anterior wings.
- B. The males with strongly pectinated antennæ.
- C. The anterior wings with an indented transverse band near the outer margin, and irregular oblong or reniform spots between the indented band and the base of the wing.
- D. The anterior wings with light-coloured transverse fasciæ, and a conical spot, extending from the base of the wings nearly to the second cross band.

## FAM. A. Species.

## Icon.

1. H. *Saponariæ*, Hübn. Ernst, VII. Pl. CCLXXXI. f. 462.
2. — *Perplexa*, Hübn. Ernst, VII. Pl. CCXC. f. 488. c. d.
3. — *Capsincola*, Hübn. Ernst, VII. Pl. CCLXXX. f. 460.
4. — *Cucubali*, Hübn. Ernst, VII. Pl. CCLXXXI. f. 463.

## FAM. B.

5. H. *Popularis*, Fab... Ernst, V. Pl. CLXXXVII. f. 243.  
244.
6. — *Leucophæa*, Hübn. Ernst, V. Pl. CLXXXVIII. f. 245.

## FAM. C.

## c—h.

7. H. *Glaucæ*, Hübn.... Hübn. Noct. Tab. 87. f. 410. (fœm.)
8. — *Proxima*, Hübn. Hübn. Noct. Tab. 87. f. 409. (fœm.)
9. — *Marmorosa*, Bork. Ernst, VI. Pl. CCXXXVII. f. 348.
10. — *Dentina*, Hübn... Ernst, VI. Pl. CCXLII, f. 356.
11. — *Peregrina*, Treitsch.\*

## FAM. D.

12. H. *Amica*, Treitsch.†
13. — *Satura*, Hübn.... Ernst, VII. Pl. CCLXXXVI.  
f. 475. b. c.
14. — *Adusta*, Hübn. ... Ernst, VII. Pl. CCLXXXVI.  
f. 476. c.
15. — *Thalassina*, Borkh. Ernst, VII. Pl. CCLXXXVI.  
f. 474. a. b.
16. — *Gemina*, Hübn... Ernst, VII. Pl. CCLXXXV. f. 471.
17. — *Genistæ*, Hübn... Ernst, VII. Pl. CCLXXXV. f. 473.
18. — *Contigua*, Fab. ... Ernst, VII. Pl. CCLXXXV. f. 472.

\* Had. alis anticis argillaceis, maculâ conicâ obscuriori, strigâ posticâ dentatâ albidâ, maculis sagittiformibus brunneis; posticis albis, fusco venosis.—*Treitschke*.

† Had. alis anticis fusco rubroque variis, maculâ anteriori oblongâ, reniformique albidis, fasciâ posticâ violaceâ.

- |     | Species.                    | Icon.  |
|-----|-----------------------------|--|
| 19. | H. <i>Æruginea</i> , Hübn.  | Ernst, VII. Pl. CCLXXXIX.<br>f. 482.               |
| 20. | — <i>Convergens</i> , Fab.  | Hüb. Noct. Tab. 18. f. 84. (mas.)                  |
| 21. | — <i>Distans</i> , Hübn...  | Hüb. Noct. Tab. 112. f. 522. (mas.)<br>523. (fœm.) |
| 22. | — <i>Protea</i> , Hübn. ... | Hüb. Noct. Tab. 87. f. 406. (mas.)                 |

Genus 55. ERIOPUS\*, *Treitsch.*

*Legs*, anterior pair porrected when at rest, in the males furnished with long woolly hairs, as far as the penultimate joint of the tarsus; in the females naked.

*Antennæ* slightly pectinated on the inner side, in the males, rather pubescent beneath; simple in the females.

*Wings*, anterior deflexed, angular.

*Larva* solitary, feeds on the *Pterisaquilinea* (Common Fern) and always keeps underneath the leaves; *head* light-brown or fulvous; *body* delicate green, with a white stripe, margined with brown on the sides and stigmata, and a transverse line and a crescent of the same colours on each segment, the points of the crescent being directed towards the anus. *Duponch. Lep. de France*, vi. 326.

*Pupa* subterranean. *Id. l. c.*

Esper had named the species on which Treitschke has formed this genus *Lagopus*; but as that term is already adopted in Ornithology, the latter has changed the appellation to Eriopus.

- |    | Species.                     | Icon.   |
|----|------------------------------|---|
| 1. | Eri. <i>Pteridis</i> , Hübn. | Hüb. Noct. Tab. 13. f. 65. (fœm.)<br>—— Larv. Lepid. IV. Noct. II.<br>Genuin. E. e. fig. a. b.<br>Duponch. VI. pl. 93. fig. 1. (mas.)<br>fig. 2. (fœm.) |

The only species of the genus.

Genus 56. PHLOGOPHORA †, *Treitsch.*

*Antennæ* long, setaceous, slightly pectinated on the inner side.  
*Wings* indented; anterior rounded or angular, generally variegated with brilliant colours.

*Body*, *thorax* crested.

*Larva* rather long and slender, with a small tubercle on the

\* *Ἐριον* lana, *πους* pes—woolly foot.

† *Φλοξ* flamma, *Φερω* fero.  
anal

anal segment; delicately marked with longitudinal and transverse lines; feeds chiefly on low plants.

*Pupa* folliculated; *metamorphosis* subterranean.

FAM. A.—Wings involuted when at rest, crenate; the anterior marked with brilliant colours.

FAM. B.—Wings rounded, less involuted, subdeflexed; only the cilia crenate.

FAM. A. Species.

Icon.

1. Phl. *Adulatrix*, Hübn. Hübn. Noct. Tab. 111. fig. 517.  
(fœm.) Tab. 142. fig. 649.  
650. (mas.)

2. — *Scita*, Hübn. .... Hübn. Noct. Tab. 14. fig. 68. (fœm.)  
Tab. 101. fig. 475. (mas.)

3. — *Meticulosa*, Linn. Ernst, VII. Pl. CCXC. f. 487.

FAM. B.

4. Phl. *Lucipara*, Linn... Ernst, VII. Pl. CCXCII. f. 491.

5. — *Fovea*, Treitsch.\*

6. — *Empyrea*, Hübn. Ernst, VII. Pl. CCLXVII. f. 426.

Genus 57. MISELIA†, *Treitsch.* (*Curtis.*)

MISELIÆ, Hübn.

*Antennæ* inserted close to the eyes, on the crown of the head, long, setaceous, robust in the males, sometimes produced on the inside; covered with scales above, pubescent beneath, basal joint cup-shaped, the scales extending far beyond the edge.

*Maxillæ* spiral, setaceous, not longer than the antennæ, furnished with tentacula at the apex.

*Labial palpi* short, porrected somewhat obliquely, thickly clothed with scales excepting the terminal joint, which is almost naked; 3-jointed, basal joint rather robust, 2nd long and not so thick, 3rd elongate obovate.

*Head* tufted on the crown: *eyes* rather small and oval.

*Body, thorax* quadrate, thickly clothed with scales: *abdomen* large, robust, angulated, tufted on the back near the base, ovate conic in the females.

*Wings* slightly deflexed; *superior* large, the posterior margin and cilia crenate; *inferior* rather small.

\* Phl. alis anticis purpurascensibus lucidis, fasciâ nigrâ, stigmatè postico maculâque marginis interioris flavis: posticis cinereis, foveâ pellucidâ in mare.—*Ochs. Treitsch. V. pars I. p. 380.*

† Μισα οδιο, 'Ηλιος Sol.



*Legs* strong, anterior the shortest: *femora* thickly ciliated: *tibiae*, anterior thickly clothed with scales, concealing the internal spine, middle and posterior spurred, the latter having a pair above the apex, one being very short: *tarsi* 5-jointed, basal joint the longest, as long as the tibia in the anterior pair: *claws* distinct, bifid: *pulvilli* small.

*Larva*, head and pectoral segments depressed, penultimate gibbous or tuberculated\*.

Species.	Icon.
1. <i>Mis. Conspersa</i> , Hübn.	Ernst, VI. Pl. CCXXX. f. 332. c. g.
2. — <i>Compta</i> , Hübn....	Ernst, VI. Pl. CCXXX. f. 332. a. b.
3. — <i>Albimacula</i> , Borkh.	Ernst, VI. Pl. CCXXX. f. 331.
4. — <i>Gemmea</i> , Treitsch. †	
5. — <i>Culta</i> , Fab.....	Ernst, VI. Pl. CCXXIX. f. 329.
6. — <i>Serpentina</i> , Treitsch. †	
7. — <i>Oleagina</i> , Fab. §...	Ernst, V. Pl. CLXXXVI. f. 241.
8. — <i>Orbiculosa</i> , Esper.	Esper. Schm. III. Th. Tab. 93. f. 8.
9. — <i>Oxyacantha</i> , Linn.	Ernst, VI. Pl. CCXXIX. f. 328.
10. — <i>Bimaculosa</i> , Linn.	Ernst, VI. Pl. CCXXIX. f. 327. Curtis, Brit. Ent. IV. Pl. 177. Imago et Larva.
11. — <i>Aprilina</i> , Linn....	Ernst, VI. Pl. CCXXVIII. f. 326.

Genus 58. POLIA, *Treitsch.* (*Curtis.*)

POLIAE, Hübner.

*Antennæ* inserted close to the eyes on the crown of the head, setaceous, rather stouter in the males, composed of numerous transverse joints, covered with scales above, pubescent beneath, each joint producing a bristle.

*Maxilla* setaceous, spiral, not longer than the antennæ, furnished with tentacula at the apex.

*Labial palpi* porrected obliquely, thickly clothed with scales, which are longest beneath and very short on the terminal joint; triarticulate, basal joint short, slightly curved,

\* Characters from Curtis, *Brit. Ent.* IV. 177.

† *Mis. alis anticis fuscis flavo alboque variis, maculis ordinariis albis, lineisque transversis arcuatis atris; posticis cinereis, lunulâ mediâ fasciâque terminali fuscis.*—*Ochs. Treitsch.* V. pars I. 393.

‡ *Mis. alis anticis viridescenti fuscis, nigro undatis, maculâ reniformi albâ; posticis maris niveis nigrocinctis, fœminæ cinereo adpersis.*—*Ochs. Treitsch.* V. pars I. 399.

§ Curtis rejects this species, as incompatible with the genus, on account of its strongly pectinated antennæ. Fabricius classes it with the Bombyces.

2nd twice as long, slightly attenuated, and acuminate at the superior angle of the apex, 3rd rigid, compressed, ovate and acuminate, having a longitudinal groove on the side.

*Head* thickly clothed with shortish scales: *eyes* globose: *ocelli* two.

*Body, thorax* subquadrate, slightly crested and trilobed: *abdomen* long, robust, sometimes tufted down the back, obtuse, dilated at the apex in the males, somewhat tapering in the females.

*Wings* deflexed; *anterior* long, sublanceolate.

*Legs* strong, anterior the shortest: *femora* thickly ciliated: *tibiæ*, anterior thickly clothed with scales, concealing the internal spine, the others spurred, and furnished with a brush of scales on the outside near the middle, the posterior with two pair of unequal spurs: *tarsi* with the basal joint very long, having series of bristles beneath: *claws* bifid\*.

*Larva* smooth, cylindrical, feeds on low plants.

*Pupa* folliculated; *metamorphosis* subterranean.

FAM. A.—General colour greyish white, the wings rather short, and rounded. Larva greenish, usually becoming greyish-brown before it changes to the pupa state.

FAM. B.—General colour brown, the wings longer. Larva dark coloured, dusky.

FAM. C.—Anterior wings rounded, and dark coloured; posterior yellow, with black margins. Larva whitish-gray coloured.

FAM. A.	Species.	Icon.
1. Pol.	<i>Cappa</i> , Hübn.....	Hübn. Noct. Tab. 95. fig. 447. (fœm.)
2. —	<i>Chi</i> , Linn.....	Ernst, VI. Pl. CCXLI. f. 354.
3. —	<i>Serena</i> , Fab. ....	Ernst, VI. Pl. CCXL. f. 352. c—f.
4. —	<i>Dysodea</i> , Hübn...	Ernst, VI. Pl. CCXXXIX. f. 350. a—f.
5. —	<i>Filigrama</i> , Esp...	Ernst, VI. Pl. CCXXXIX. f. 350. g—i.
6. —	<i>Cesia</i> , Hübn.....	Ernst, VI. Pl. CCXLI. f. 355.
7. —	<i>Templi</i> , Thunb...	Hübn. Noct. Tab. 80. fig. 373. (mas.)
8. —	<i>Polymita</i> , Linn...	Ernst, VII. Pl. CCCLXXIII. f. 439.
9. —	<i>Flavicincta</i> , Fab...	Ernst, VI. Pl. CCXXXVIII. f. 349.

\* Characters from Curtis, *Brit. Ent.* VI. 248.

Species.	Icon.
10. Pol. <i>Nigrocincta</i> , Treitsch.*	
11. — <i>Platina</i> , Treitsch.†	
FAM. B.	
12. Pol. <i>Zeta</i> , Treitsch.‡	
13. — <i>Serratilinea</i> , Treitsch.	Hübner, Noct. Tab. 78. fig. 365. (mas.)
14. — <i>Advena</i> , Fab.....	Ernst, VII. Pl. CCLXXXIV. fig. 468.
15. — <i>Tincta</i> , Borkh. ...	Ernst, VII. Pl. CCLXXXIII. fig. 467.
16. — <i>Nebulosa</i> , Hübner.	Ernst, VII. Pl. CCLXXXIV. f. 470.
17. — <i>Occulta</i> , Linn. ...	Ernst, VI. Pl. CCXXXII. fig. 336. Curtis, Brit. Ent. Pl. 248. Larva et Imago.
18. — <i>Herbida</i> , Hübner...	Ernst, VII. Pl. CCLXXXII. fig. 465.
FAM. C.	
19. Pol. <i>Prospicua</i> , Hübner.	Ernst, VII. Pl. CCLXVIII. fig. 431.
20. — <i>Texta</i> §, Esp.....	Ernst, VII. Pl. CCLXVIII. fig. 430.

Genus 59. TRACHEA, Treitsch.

ACHATIÆ, Hübner.

(ACHATEA, Curtis.)

*Wings* deflexed, anterior usually variegated with lively colours; posterior ciliated; cilia generally white, or very light coloured.

*Body*,

\* Pol. alis anticis cinerascentibus, medio nigrocinctis, strigæque posticæ albis.—*Ochs. Treitsch. V. pars I. 31.*

† Pol. alis anticis albido-griseis splendidibus, strigis cinerascentibus obsoletis, serie punctorum nigrorum ad marginem externum.—*Ochs. Treitsch. V. pars I. 34.*

‡ Pol. alis anticis cæruleo-cinereis, ζ, albo notatis, fimbriis latioribus albo cinereoque variis.—*Ochs. Treitsch. V. pars I. 35.*

§ CERIGO, Steph.

“*Palpi* rather porrect. ascending, slightly compressed, clothed with loose hair-like scales, triarticulate, the joints of nearly equal length, the basal joint reniform, the next cylindrical, slightly attenuated at the apex, the terminal more slender, bending outwards, and somewhat acute: *maxillæ* long. *Antennæ* elongate, setaceous, slightly pectinated to the apex in the males: *head* clothed with loose scales: *thorax* stout, a little crested behind, loosely squamous: *body* cylindrical, rather long, slightly carinated on the back, tufted at the apex: *wings* horizontal entire, *anterior* elongate-triangular, with three stigmata: *posterior*

*Body, thorax* crested, crest divided, small.

*Larva*, marked with broad, longitudinal bands, generally of brilliant colours. *Metamorphosis* subterranean.

FAM. A.—*Wings* broad and long.

FAM. B.—*Wings* narrow and long.

FAM. C.—*Wings* broad and short.

FAM. A. Species.

Icon.

1. Tr. *Atriplicis*, Linn... Ernst, VII. Pl. CCLXXXII. fig. 464.

FAM. B.

2. Tr. *Præcox*, Linn.... Ernst, VII. Pl. CCLXXXIII. fig. 466.

FAM. C.

3. Tr. *Porphyrea*, Hübn. Ernst, VI. Pl. CCXXXV. fig. 340.  
4. — *Pini-perda*\*, Esper. Ernst, VII. Pl. CCXCI. fig. 489.  
Curtis, Brit. Ent. III. Pl. 117.  
Larva et Imago.

Genus 60. APAMEA, Ochs., Treitsch.

(Stephens†.)

(Curtis.)

*Wings*, deflexed during repose; anterior elongate triangular, obtuse, the apex in some species slightly acuminate.

*Antennæ*

suborbiculate-triangular, usually pale yellow, with a darker hinder border."—*Steph. Illust. Brit. Ent. Haust.* II. p. 106.

Stephens considers this species as more allied in its habits to the *Triphænæ* than the *Poliæ*, from the latter of which it is readily known by its proportionately shorter and broader (anterior) wings, and by the lively colour of the posterior; and from the former it differs in the proportion of the joints of its palpi, its subcrested thorax, and dissimilar antennæ. Stephens mentions no other species as belonging to this genus.

\* *ACHATEA*, Curtis.

"*Antennæ* inserted at the back of the head, serrated, and somewhat thickest in the middle in the males, slender in the females, composed of numerous joints, covered with scales above, hairy beneath, the basal joint large and hairy.

"*Maxillæ* long, furnished with tentacula towards the apex.

"*Labial palpi* small, very hairy, porrected horizontally, 3-jointed, 1st joint curved upward, long, robust, 2nd short robust, attenuated, 3rd minute, cylindric, truncate.

"*Head* small, nearly concealed: *eyes* small. *Thorax* large, hairy: *abdomen* robust, short, very soft, hairy beneath. *Wings* deflexed when at rest; superior obtuse, inferior rather small. *Legs*, anterior short: *tibiæ*, anterior short with a small spine on the internal side, 4 posterior terminated by spurs: *tarsi* 5-jointed: *claws* large. *Larva* naked, with 6 pectoral, 8 abdominal, and 2 anal feet."—*Curtis, l. c.*

† The recent publication of the 27th and 28th Numbers of Mr. Stephens's "Illustrations of British Entomology," enables us to make some useful additions to the genera we gave last month; and first we shall supply the miserable

*Antennæ* very slender, pubescent beneath, pilose in the males.

*Palpi* moderate, subclavate, the basal joints clothed with elongate broad scales, the terminal exposed, obtuse, not so long as the basal, very slender, compressed, the apex obtuse,

serable deficiency of Treitschke's generic characters of *Hadena*, by copying those given by Stephens at p. 179 of the second volume of his "Haustellata."

"*Palpi* short, rather slender, slightly ascending, clothed with hair and scales, triarticulate; terminal joint rather exposed, short, subovate: the basal joint curved, in general rather shorter and stouter than the second, which is a little attenuated towards the apex; terminal subovate, obliquely truncate: *maxillæ* about the length of the antennæ. *Antennæ* short, rather stout, in general simple, with the under side ciliated in the males, or obscurely subserrate, with a distinct fasciculus of hair on each joint within: *head* small, with a dense frontal crest; *eyes* large, globose, sometimes pubescent: *thorax* slightly crested: *body* stout, rather elongate, very acute in some females: *wings* slightly deflexed during repose; anterior obscurely denticulate on the hinder margin: in general of gay colours, sometimes with pale reticulations, and mostly with a pale undulated striga, in which is usually a conspicuous angulation, resembling the letter W, near the posterior margin; *stigmata* distinct; posterior wings with an obscure emargination towards the costæ: *larva* naked, generally of lively colour: *pupa* subterranean."—  
EUPLEXIA, Steph.

Of the fourth species of Treitschke's fifty-sixth genus, *Phlogophora lucipara* (*Noctua lucipara*, Linn.), Stephens has made a new genus by the name of *Euplexia*, to which he assigns the following characters.

EUPLEXIA.

"*Palpi* moderate, subclavate, clothed with elongate scales, the terminal joint exposed, obtuse, rather slender; basal joint slightly curved, rather longer than the third, which is somewhat attenuated and acute; the second as long again as the third, and gradually attenuated to the apex, which is obliquely truncate: *maxillæ* long. *Antennæ* stout, elongate, closely ciliated in the males, with a few short bristles in the females: *head* small, with a dense frontal crest: *eyes* naked: *thorax* stout, subquadrate, with a double crest posteriorly: *abdomen* moderate, carinated, and crested on the back, the crest on the third segment very long and conspicuous, the terminal segment in the males broad, semi-circular, and fringed with long fascicles of hair; in the females somewhat triangular, and but slightly fringed: *wings* short, entire, deflexed, and longitudinally wrinkled during repose: *cilia* emarginate: *stigmata* very large. *Caterpillar* naked, smooth: *pupa* subterranean."—*Steph. Illust. Brit. Ent. Haust.* III. 3.

Stephens mentions only one species of *Euplexia*.

TRACHEA, Ochs. (Genus 59.)

"*Palpi* moderate, the basal joint pubescent, the second densely clothed with scales, the terminal minute, exposed, ovate; basal joint stouter and shorter than the second, a little bent; second stoutest at the base, rather attenuated at the apex; terminal one-third as long as the second, rather slender, ovate; *maxillæ* elongate. *Antennæ* simple in both sexes, pubescent beneath and ciliated in the males: *head* with a dense frontal crest, produced into a tuft at the base of each antennæ: *eyes* globose, naked: *thorax* stout, quadrate, crested anteriorly and posteriorly: *abdomen* elongate, carinated and crested on the back in both sexes; male with a small anal tuft: *wings* deflexed during repose, anterior

tuse, the intermediate joint as long again as the first, slightly bent and somewhat acute at each extremity,

anterior elongate-triangular, the posterior margin faintly denticulated; posterior ovate-triangular. *Caterpillar* naked, smooth: *pupa* subterranean."—*Steph. l. c. p. 21.*

The only species which Stephens enumerates as of this genus is *Noct. atriplicis*, Linn., the first in Treitschke's catalogue, and constituting his Family A. —For Treitschke's three remaining species, viz. *Præcox*, of his Fam. B., and *Porphyræa*, and *Piniperda*, Fam. C., Stephens has adopted as many distinct genera, ACTEBIA, SCOTOPHILA, and ACHATIA, with the following characters assigned them respectively.

ACTEBIA<sup>a</sup>, Stephens.

"*Palpi* short, robust, porrected obliquely, densely clothed with compact scales; the terminal joint exposed, subrhombic; the two basal joints nearly of equal length and stoutness, the first curved, the second shuttle-shaped, the terminal slender, elongate-ovate: *maxillæ* elongate. *Antennæ* elongate, slender, pubescent beneath, ciliated on each side in the males; the basal joint large and squamose: *head* small, with a dense frontal crest: *eyes* large, globose, naked: *thorax* slightly crested posteriorly: *abdomen* elongate, somewhat depressed, a little pubescent at the base, slightly carinated in the males, with a small anal tuft; stouter in the females: *wings* deflexed during repose; *anterior* very narrow, linear, entire, glossy; *posterior* ovate-triangular, entire. *Caterpillar* naked, smooth: *pupa* subterranean."—*Steph. l. c. p. 20.*

Only one species.

SCOTOPHILA<sup>b</sup>, Stephens.

"*Palpi* rather distant, porrected obliquely, slender at the base, subclavate, the two basal joints clothed with rather elongate scales, the apical minute, exposed, somewhat acute; the basal joint about two-thirds the length of the second, stout, reniform, the second more slender, rather tumid at the base, the apex attenuated and truncate; terminal sub-ovate, obtuse: *maxillæ* elongate. *Antennæ* long, pubescent beneath, stout, subserrate, and slightly pectinated in the males; slender and simple in the females: *head* small: *eyes* globose, naked: *thorax* sub-quadrangle, not crested: *abdomen* moderate, rather depressed, acute at the tip in the females, with a tuft in the males: *wings* entire, deflexed; the *anterior* narrow; *posterior* rather large. *Caterpillar* naked: *pupa* subterranean."—*Steph. l. c. p. 18.*

Only one species.

ACHATIA, Hübn.

"*Palpi* very short, nearly concealed by long hairs, the terminal joint not visible; the two basal joints robust, the first as long again, and stouter than the second, slightly curved, second attenuated, the apex truncate, third minute, cylindric, truncate: *maxillæ* elongate. *Antennæ* rather long, slender, and simple in the females, subserrated, and rather robust in the males, pubescent beneath: *head* minute, scarcely visible from above: *eyes* small, naked: *thorax* large, downy: *wings* deflexed during repose; *anterior* entire, obtuse: *abdomen* short, rather stout, pubescent on the sides, and at the apex. *Caterpillar* naked, smooth: *pupa* subterranean."—*Steph. l. c. p. 19.*

Only one species.

<sup>a</sup> Αχτη *litlus*; βίωσι *τινω*.

<sup>b</sup> Σκοτος *lenchra*, Φιλω *ανο*.

basal joint a little curved, rather slender at the base: *maxillæ* as long as the antennæ.

*Head* with a dense fascicle of scales on the crown: *eyes* globose, naked: *thorax* subquadrate, slightly crested, the crest anteriorly and posteriorly bifid: *abdomen* moderate, scarcely tufted on the back and sides, the apex with a small tuft, obtuse in the males, acute in the females.

*Larva* naked; *pupa* subterranean\*.

Ochsenheimer, or rather Treitschke, has divided this genus into four families.

FAM. A.—With a very bright white or yellow reniform spot on the fore-wings.

FAM. B.—Small species (N. Pusillæ, Fam. V. Wien. Verz.), with bright metallic markings on the fore-wings.

FAM. C.—Larger, generally dark coloured, species, with the fore-wings long, and rounded at the extremities.

FAM. D.—Colour inclining to copper-red, with the fore-wings shorter, and pointed at the extremities.

FAM. A. Species.

Icon.

1. Ap. *Nictitans*, Linn. Ernst, VI. Pl. CCLVII. f. 394.  
a. b.

2. — *Didyma*, Borkh. Ernst, VI. Pl. CCLVI. fig. 390 & 392. & Pl. CCLVII. f. 393.

3. — *Ophiogramma*, Hübn. Ernst, VIII. Pl. CCCVI. f. 529.

FAM. B.

4. Ap. *Furuncula*, Hübn. Hübn. Noct. Tab. 117. fig. 545.  
(mas.)

5. — *Captiuncula*, Treit. † — — —

6. — *Suffuruncula*, Treit. ‡

7. — *Latruncula*, Hübn. § Ernst, VIII. Pl. CCCXIV. f. 548.

8. Ap. *Stri-*

\* Characters from Stephens. *Haust.* III. p. 6.

† Ap. alis anticis fuscis, fasciâ mediâ obscuriore, stigmatè reniformi fasciâque externâ albidis.—*Ochs. Treitsch.* V. pars II. 96.

‡ Ap. alis anticis fuscis, cupreo argenteoque splendentibus, macula in medio quadrata nigra.—*Ochs. Treitsch.* V. pars II. 97.

§ MIANA, Steph.

“*Palpi* short, porrected obliquely, the two basal joints sparingly clothed with elongate scales, the terminal one exposed, somewhat acute, and placed obliquely, very slender when denuded; the basal joint short, stouter than the following, which is slightly curved, attenuated towards the apex, and nearly three times as long as the basal; terminal elongate-ovate, nearly as stout as the second, and about the length of the basal: *maxillæ* elongate. *Antennæ* short, finely ciliated and pubescent in the males, simple in the females: *head* with a frontal crest: *eyes* naked: *thorax* subquadrate, with a posterior dorsal crest: *abdomen* slender, with a small tuft at the apex in the males, and a little crested on the back: *wings* entire, deflexed, anterior elongate triangular, with indistinct,

	Species.	Icon.
8.	Ap. <i>Strigilis</i> , Linn.*	Ernst, VIII. Pl. CCCXV. f. 551.
FAM. C.		
9.	Ap. <i>Connexa</i> , Borkh.†	Ernst, VI. Pl. CCXXXIX. f. 351.
10.	— <i>Testacea</i> , Hübn.†	Ernst, VII. Pl. CCLXXVII. f. 451.
11.	— <i>Basilinea</i> , Fab.†	Ernst, VII. Pl. CCLXIII. f. 414.
12.	— <i>Infesta</i> , Treitsch.	Ernst, VII. Pl. CCLXXXIX. f. 484. b.
13.	— <i>Cespitis</i> , Fab.‡ ...	Ernst, VII. Pl. CCLXXX. f. 459.

indistinct, nearly concolorous stigmata. *Caterpillar* naked: *pupa* subterranean."—*Steph. Illust. Brit. Ent. Haust.* III. p. 11.

Stephens adds, that the species of this genus are distinguished from the Apameæ, by their small size, nearly concolorous posterior stigmata on the anterior wings, the smallness of their palpi, slenderness of body, and by the thorax not being anteriorly crested.

\* MIANA, Steph.—Next to his genus Miana, Stephens has introduced another new Genus, CELÆNA, founded on four species, viz. *Ce. renigera*, Steph. (of which only three specimens are known); Ap. *Haworthii*, Curtis, VI. pl. 260;—Noct. *hibernica*, Haw. MSS. (a Dublin species); and, with a mark of doubt, No. *lancea*, Esper. The characters of this genus are,

CELÆNA, Steph.

“*Palpi* not very short, porrected obliquely, the two basal joints densely clothed with elongate scales, the terminal exposed, rather obtuse, sublinear: basal joint short, reniform, scarcely stouter than the second, which is nearly linear, a little curved and slightly acute; terminal stouter than the first, elongate-ovate, obtuse: *maxillæ* elongate. *Antennæ* moderate, rather stout, pubescent beneath, and ciliated in the males: *head* with a dense tuft of scales on the crown: *eyes* naked: *thorax* large, somewhat downy, not crested: *body* rather short and slender, the sides and apex tufted, the apical tuft largest in the males: *wings* deflexed, entire; *anterior* elongate-triangular, obtuse; *stigmata*, especially the posterior, conspicuous, not concolorous.”—*Steph. Illust. Brit. Ent.* III. p. 15.

The Celænæ are nearly of the same size as the Mianæ, but are distinguished from them by their broader anterior wings, with very conspicuous posterior stigmata, and the adjoining nervures generally pale; the palpi are more densely scaly, and the terminal joint somewhat linear and obtuse, not subacuminate; the thorax is stout, and not crested.

† HAMA, Steph.

“*Palpi* short, subclavate, the basal joint clothed with elongate scales, the terminal exposed and conic, about as long as the first, subovate, compressed, acute; the first short, rather bent, the second stout at the base, considerably attenuated at the apex: *maxillæ* scarcely as long as the antennæ. *Antennæ* moderate, rather stout, ciliated in the males, and sometimes subserrate, pubescent beneath, with a few bristles in the females: *head* small, densely pubescent in the forehead: *eyes* large, globose, naked: *thorax* stout, woolly, subquadrate, scarcely crested: *wings* deflexed during repose, not folded; *anterior* rather long, emarginate on the posterior edge; *cilia* nearly entire: *body* moderate, carinated, and sometimes with some short fascicles of scales on the back; the sides and apex tufted in the males, scarcely so in the females. *Caterpillar* naked: *pupa* subterranean.”—*Steph. Illust. Brit. Ent.* III. 4.

‡ CHARÆAS, Steph.



- | FAM. D. | Species.                    | Icon.  |
|---------|-----------------------------|--|
| 14. Ap. | <i>Leucographa</i> , Hüb.*  | Hüb. Noct. Tab. 88. f. 411. (mas.)<br>Tab. 124. f. 572. (mas.) |
| 15. —   | <i>Bella</i> , Borkh.....   | Hüb. Noct. Tab. 101. f. 477. (mas.)                            |
| 16. —   | <i>Umbrosa</i> , Hüb.*      | Hüb. Noct. Tab. 97. f. 456. (mas.)<br>f. 457. (fœm.)           |
| 17. —   | <i>Cuprea</i> , Hüb....     | Hüb. Noct. Tab. 13. f. 62. (fœm.)                              |
| 18. —   | <i>Conflua</i> , Treitsch.† |  |
| 19. —   | <i>Haworthii</i> , Curtis.  | Curtis, Brit. Ent. pl. 260.                                    |

Genus 61. MAMESTRA, *Ochs.*, *Treitsch.* (Stephens.)

*Wings* slightly deflexed during repose, *anterior* obscurely denticulated on their hinder margin, *posterior* simple.

*Legs* short, stout; *femora* and *tibiæ* very pilose interiorly; tibial spurs moderate.

*Palpi* short, triarticulate, densely clothed with elongate scales at the base, the terminal joint not very distinctly exposed; the basal joint the length of the terminal, subconic; the following as long again, more slender than the basal, subcylindric, a little bent, and slightly attenuated at the tip, which is obliquely truncate; terminal elongate-ovate: *maxillæ* rather long.

*Antennæ* elongate, rather slender, simple in both sexes, each joint producing a short bristle on each side, ciliated beneath in the males.

*Head* rather small, forehead densely crested: *eyes* rather large, globose, pubescent.

*Thorax* subquadrate, with a bifid dorsal crest.

*Abdomen* moderate, crested on the back, the apex with a small tuft.

\* *LYTÆA*, Steph.

“*Palpi* slightly ascending, triarticulate, the two basal joints densely clothed with elongate, loose depending clavate scales, the terminal almost naked; the two basal joints of nearly equal length, the first slightly curved and very robust, the second more slender, gradually attenuated from the base to the apex; the terminal minute, ovate obtuse: *maxilla* elongate. *Antennæ* rather long, serrated internally in the males, and ciliated; simple in the females: *head* and *thorax* downy, the latter stout and not crested: *body* rather short, slender, very downy at the base, slender posteriorly and tufted at the apex, and on the sides: *wings* horizontal, entire, very glossy; *anterior* considerably rounded at the base; *posterior* scarcely emarginate on the hinder margin; with a dark fimbria, and a more or less distinct transverse dusky striga, with a central spot of similar hue. *Larva* radicivorous: *pupa* subterranean.”—*Steph. Illust. Brit. Ent.* II. 107, and 199.

† Ap. alis anticis hepaticis, maculis ordinariis pallidioribus, strigis obsoletis confluentibus.—*Ochs. Treitsch.* VI. pars I. p. 405.

M

Larva

*Larva* naked, varied.

*Pupa* subterranean.\*

Species.	Icon.
1. Mam. <i>Pisi</i> , Linn.....	Ernst, VI. Pl. CCLXXXVII. f. 477.
2. — <i>Splendens</i> , Hübn.	Hübn. Noct. Tab. 85. f. 400. (fœm.)
3. — <i>Oleracea</i> , Linn....	Ernst, VII. Pl. CCLXXXVIII. f. 479.
4. — <i>Suasa</i> , Hübn.....	Ernst, VII. Pl. CCLXXXVII. f. 478.
5. — <i>Alicna</i> , Hübn. †...	Hübn. Noct. Tab. 94. f. 441.
6. — <i>Nigricans</i> , Vieweg.	Hübn. Noct. Tab. 116. f. 539. (fœm.)
7. — <i>Chenopodii</i> , Fab.	Hübn. Noct. Tab. 18. f. 86. (mas.)
8. — <i>Albicolon</i> , Hübn.	Hübn. Noct. Tab. 117. f. 542. (mas.)
9. — <i>Brassicæ</i> , Linn....	Ernst, VII. Pl. CCLXXIX. f. 456.
10. — <i>Furva</i> , Hübn. ....	Ernst, VII. Pl. CCLXXXVI. f. 474. c.
11. — <i>Persicariæ</i> , Linn.	Ernst, VI. Pl. CCXXXII. f. 335.
12. — <i>Rubrirena</i> ‡, Treitsch.	— — —

Genus 62. THYATIRA, *Ochs.*, *Treitsch.* (Curtis.)

*Legs*, anterior; *tibiæ* with a compressed spine on the inside; middle and posterior *tibiæ* with a pair of spurs at their apex, one very small, the posterior pair with also two spurs below the middle.

*Wings*, deflexed, *superior* slightly hooked at the posterior angle; *inferior* large.

*Antennæ*, alike in both sexes, rather short, clothed with scales above, with short hairs beneath.

*Palpi*, porrected obliquely, distant, triarticulate, longer than the head, covered with long hairy scales, the terminal joint clothed with short, close scales only; first joint short, second long, attenuated, third as long as the first, slender, conical: *maxillæ* as long as the antennæ.

*Head*, transverse.

*Thorax* clothed with long, light scales, forming a transverse crest.

*Abdomen* rather long and slender, with a small tuft of scales on the back near the base.

*Larva*, with six pectoral, eight abdominal, and two anal feet ♂.

\* Characters from Stephens.—*Haut.* II. 191.

† *HAMM.* Steph.—*Haut.* III. 4.

‡ Mam. alis anticis nigris, maculis strigisque ordinariis rubescentibus; posticis nigro-griseis.—*Ochs.*, *Treitsch.* V. pars II. p. 159.

§ Characters from Curtis, *Brit. Ent.* II. pl. 72.

- | Species.                         | Icon.  |
|----------------------------------|--|
| 1. Thy. <i>Batis</i> , Linn..... | Ernst, VI. Pl. CCXXXI. f. 333.<br>Curtis, Brit. Ent. II. pl. 72. |
|                                  | Imago et larva.  |
| 2. — <i>Derasa</i> , Linn. ...   | Ernst, VIII. Pl. CCCVII. f. 530.                                 |

Genus 63. CALPE\*, *Ochs.*, *Treitsch.*

CALYPTRA, *Ochs.*

*Wings* deflexed and crossing over one another, when at rest; the usual reniform markings and maculæ, indistinct, but the transverse bands well defined.

*Antennæ*, strongly pectinated in the male.

- | Species.                            | Icon.                                    |
|-------------------------------------|--|
| 1. Calp. <i>Thalictri</i> , Hüb. n. | Ernst, Suppl. Pl. VIII. f. 258. a. b. c. |
| 2. — <i>Libatrix</i> , Linn....     | Ernst, V. Pl. CXCIV. f. 258.             |

Genus 64. MYTHIMNA, *Ochs.*, *Treitsch.* (Stephens.)

*Legs*, moderate; *femora* and *tibiæ* stout, and densely pilose in the males.

*Wings*, slightly deflexed; *anterior* entire, acute at the apex, with the stigmata nearly or quite obliterated; *posterior* obsoletely emarginate on the hinder margin.

*Antennæ* moderate, shortest in the females; finely ciliated in both sexes, stoutest, and somewhat pubescent beneath in the males.

*Palpi* short, ascending, densely enveloped in scales, the apical joint not exposed; triarticulate, the basal joint scarcely one-third as long as the second, bent; the second very long, slightly attenuated towards the apex, not so stout as the first, a little curved; terminal small, elongate-ovate, subacuminate, conic: *maxillæ* as long as the *antennæ*.

*Head* small, with a tuft of scales: *eyes* large, pubescent.

*Thorax* slightly crested anteriorly.

*Abdomen* elongate, densely tufted at the apex, and laterally in the males; somewhat obtuse in the females.

*Larva* naked, with longitudinal streaks.

*Pupa* subterranean †.

The genus is divided by Treitschke into three families, according to the markings on the wings.

- | FAM. A. Species.                  | Icon.                                 |
|-----------------------------------|---------------------------------------|
| 1. Myth. <i>Oxalina</i> , Hüb. n. | Hüb. n. Noct. Tab. 45. f. 219. (mas.) |
| 2. — <i>Acetosellæ</i> , Fab....  | Hüb. n. Noct. Tab. 45. f. 220. (mas.) |

\* *Καλπη*, *Calpe*, an urn; from the peculiar hollows of the fore-wings.

† Characters from Stephens. — *Haust.* II. 149.

FAM. B.	Species.	Icon.
3. Myth.	<i>Turca</i> , Linn....	Ernst, VII. Pl. CCXCIV. f. 497.
4. —	<i>Lithargyria</i> , Hübn.	Ernst, VII. Pl. CCXCV. f. 499.
5. —	<i>Albipuncta</i> , Fab...	Ernst, VII. Pl. CCXCIV. f. 498.
6. —	<i>Conigera</i> , Fab. ...	Ernst, VII. Pl. CCXCI. f. 492.
7. —	<i>Imbecilla</i> , Fab. ...	Hüb. Noct. Tab. 120. f. 555. (mas.)
8. —	<i>Nexa</i> , Hübn. ....	Hüb. Noct. Tab. 84. f. 395. (mas.)
FAM. C.		
9. Myth.	<i>Xanthographa</i> , Fab.*	Ernst, VII. Pl. CCLXVIII. f. 429.
10. —	<i>Neglecta</i> , Hübn.* ..	Ernst, VII. Pl. CCLIX. f. 401.

Genus 65. ORTHOSIA, *Ochs., Treitsch.* (Stephens, Curtis).

*Legs* moderate.

*Wings* slightly deflexed, entire; *anterior* elongate, the apex slightly rounded or somewhat acute; *posterior* short, ovate-triangular.

*Palpi* nearly horizontal, densely clothed with elongate scales, the terminal joint scarcely projecting; triarticulate, basal joint a little bent, above half the length of the second, and more robust, second nearly straight, terminal about the length of the basal, obscurely pear-shaped: *maxilla* shorter than the antennæ.

*Antennæ* simple in the females; bipectinated or ciliated in the males.

*Head* small, with long scales above.

*Thorax* not crested, stout, woolly.

*Abdomen* short, tufted in the males, acute in the females†.

	Species.	Icon.
1. Orth.	<i>Cæcimacula</i> , Fab.	Ernst, VII. Pl. CCLXIV. f. 415. c—f.
2. —	<i>Instabilis</i> , Fab....	Ernst, VII. Pl. CCLXIII. f. 414. d—h.
3. —	<i>Munda</i> , Fab. ....	Ernst, VII. Pl. CCLVIII. f. 396.

\* SEGETIA, Steph.

† *Palpi* slightly ascending, densely clothed with squamose hair; the terminal joint exposed, triarticulate; the basal joint reniform, stouter than the following; the second as long again as the first, a little attenuated towards the apex; terminal minute, ovate, obtuse; *maxilla* about the length of the antennæ. *Antennæ* moderate, stout and ciliated in the males, slender and simple in the females: *head* small: *eyes* naked: *thorax* stout, woolly, not crested: *wings* slightly deflexed, short; *anterior* obtuse and rounded posteriorly, with distinct stigmata: *body* rather short, the male with a tuft at the apex; the female with the apex acute: *legs* with the *femora* very pilose. *Larva* naked: *pupa* subterranean."—*Stephens's Illust. Brit. Ent.* II. p. 153.

† Characters from Stephens's *Illust. Brit. Ent. Haust.* II. p. 139.

4. Orth.

Species.	Icon.
4. Orth. <i>Ypsilon</i> , Hübn....	Hübn. Noct. Tab. 29. f. 136. (mas.)
(4* — <i>Lunosa</i> , Haworth,	Curtis, Brit. Ent. Pl. 237.)
5. — <i>Lota</i> , Linn. ....	Ernst, VII. Pl. CCLIX. f. 400.
6. — <i>Macilenta</i> , Hübn.	Ernst, VII. Pl. CCLXI. f. 409.
7. — <i>Gracilis</i> , Fab.....	Ernst, VII. Pl. CCLXIII. f. 414.
	a—c.
8. — <i>Opinia</i> , Hübn. ...	Hübn. Noct. Tab. 90. f. 424. (mas.)
9. — <i>Populeti</i> , Fab.....	Ernst, VII. Pl. CCLXII. f. 412. b.
10. — <i>Stabilis</i> , Hübn. ...	Ernst, VII. Pl. CCLXII. f. 412. c. d.
11. — <i>Carnea</i> , Thunb...	Hübn. Noct. Tab. 81. f. 377. (fœm.)
12. — <i>Miniosa</i> , Fab. ....	Ernst, VII. Pl. CCLXII. f. 411.
13. — <i>Cruda</i> , Götze. ....	Ernst, VII. Pl. CCLXII. f. 413.
14. — <i>Lævis</i> , Hübn.....	Hübn. Noct. Tab. 34. f. 163. (fœm.)
15. — <i>Nitida</i> , Fab. ....	Hübn. Noct. Tab. 38. f. 180. (fœm.)
16. — <i>Humilis</i> , Fab.....	Ernst, VII. Pl. CCXCIX. f. 508. c.
17. — <i>Pistacina</i> , Fab....	Ernst, VII. Pl. CCLVIII. f. 397.
18. — <i>Litura</i> , Linn.....	Ernst, VII. Pl. CCLVIII. f. 399. a. b.

Genus 66. CARADRINA, *Ochs.*, *Treitsch.*

(Steph.)†

*Legs* rather short, not very stout: *femora* with moderate fascicles of hair.

*Wings* slightly deflexed, entire, very glossy; *anterior* with strigæ and distinct stigmata.

*Palpi* rather short, somewhat porrect, a little ascending, squamose, the terminal joint exposed at the apex; triarticulate, slender, basal joint reniform, about one-third the

† In his 29th Number, which had not appeared when our last went to press, Mr. Stephens has adopted Ochsenheimer's genus *Calyptra*, (*Calpe*, *Treitsch.*) with the following characters:

“*Palpi* elongate, ascending, clothed with short capitate scales, which are rather longest in front of the two basal joints; the terminal joint scarcely less robust than the preceding; the basal joint shorter than the apical, rather stouter than the second, which is twice the length of the first, and a little acuminate at the apex, terminal joint nearly as long as the second, linear, its apex a little turned: *maxillæ* rather short. *Antennæ* rather short, robust, bipectinate to the apex in the males, the pectinations very short at the tip, subserrated and pubescent in the females: *head* transverse, with a tuft of scales on the forehead: *eyes* rather small, globose, naked; *thorax* stout, with a short acute crest anteriorly; *abdomen* rather stout, somewhat depressed, obtuse at the apex, the male with a subquadrate tuft: *wings* deflexed during repose; *anterior* deeply emarginate, and dentate on the hinder margin; *posterior* slightly denticulate: *legs* stout, woolly; two basal joints of the *posterior tarsi* with long fascicles of scales, especially in the male. *Caterpillar* slender, naked: *pupa* folliculate.”—*Steph. Illust. Brit. Ent. Haust.* III. 49.

Only one British species. *No. libatrix*, Linn.

length

length of the second, which is very long, slightly bent, and a little narrowed towards the apex; terminal minute, ovate-obtuse: *maxillæ* not longer than the antennæ.

*Antennæ* slender, more or less ciliated in both sexes.

*Head* small, densely squamose: *eyes* small, naked: *thorax* moderately stout, obsolete crested.

*Larva* naked.

*Pupa* subterranean\*.

This genus is divided into four families, by Treitschke, according to the markings on the wings.

FAM. A. Species.

Icon.

1. *Car. Glareosa*, Esp. ... Ernst, VII. Pl. CCLIV. f. 416.
2. — *Morpheus*, Götze.. Ernst, VII. Pl. CCLX. f. 406. e.
3. — *Cubicularis*, Hübn. Ernst, VII. Pl. CCLX. f. 403. a.
4. — *Exigua*, Hübn.... Hübn. Noct. Tab. 78. f. 362. (fœm.)

FAM. B.

5. *Car. Palustris*, Hübn. Hübn. Noct. Tab. 79. f. 367. (mas.)
6. — *Lenta*, Treitsch. †
7. — *Stagnicola*, Treitsch. ‡

FAM. C.

8. *Car. Superstes*, Ochs. Ernst, VII. Pl. CCLX. f. 406. a.
9. — *Ambigua*, Fab.... Hübn. Noct. Tab. 125. f. 576. (mas.)
10. — *Blanda*, Fab..... Hübn. Noct. Tab. 125. f. 575. (mas.)
11. — *Alsines*, Hübn. ... Ernst, VII. Pl. CCLX. f. 406. b—d.
12. — *Respersa*, Hübn... Hübn. Noct. Tab. 34. f. 164. (fœm.)
13. — *Iners*, Treitsch. §.

FAM. D.

14. *Car. Trilinea*, Hübn. || Ernst, VI. Pl. CCXXXVI. f. 344. a—c.
15. — *Bilinea*, Hübn. || Hübn. Noct. Tab. 45. f. 217. (mas.)
16. — *Virens*, Linn..... Ernst, VII. Pl. CCXCIII. f. 495.

Genus

\* Characters from Stephens. *Haust.* II. p. 154.

† *Car. alis anticis cinereo nitidis, strigis ordinariis fasciâque mediâ nigricantibus, maculâ orbiculari minimâ, atrâ; posticis plumbeis.* — *Ochs. Treitsch. V. pars II. p. 257.*

‡ *Car. alis anticis cæruleo plumbeis, maculis duabus dilutioribus, orbiculari solito majore, obliquâ; posticis albidis fusco adspersis.* — *Ochs. Treitsch. l. c. p. 258.*

§ *Car. alis anticis flavo albicantibus, atomis griseis adspersis, serie punctorum nigrorum unicâ; posticis maris albis.* — *Ochs. Treitsch. V. pars II. p. 271.*

|| GRAMMESIA<sup>a</sup>, Stephens.

“*Palpi* short, scarcely ascending; densely squamous, the terminal joint with its apex only exposed; triarticulate, not very slender, the basal

<sup>a</sup> *Γραμμη lineæ.*

joint

Genus 67. SIMYRA, *Ochs., Treitsch.*

*Wings* deflexed; marked with bright streaks and interspersed dark spots, without any transverse bandings.

*Antennæ* bipectinate in the male.

*Body*, with the back thickly covered with dense scales.

*Larva* hairy; *pupa* inclosed in a white, compact web.

Species.

Icon.

- |                                   |                                       |
|-----------------------------------|---------------------------------------|
| 1. Sim. <i>Venosa</i> , Borkh.... | Hübner, Noct. Tab. 81. f. 380. (fœm.) |
| 2. — <i>Nervosa</i> , Fab.....    | Ernst, VI. Pl. CCXLVII. f. 367.       |
| 3. — <i>Musculosa</i> , Hübner.   | Ernst, VI. Pl. CCXXXVII. f. 346.      |
| 4. — <i>Punctosa</i> , Treitsch.* |                                       |

Genus 68. LEUCANIA, *Ochs., Treitsch.*

(Stephens, Curtis.)

HELIOPHILÆ, Hübner.

*Wings* incumbent during repose; *anterior* rather narrow, the hinder margin entire†, the apex acute; *nervures* distinct, apparently elevated.

*Antennæ* simple in both sexes, thickly ciliated beneath, especially in the males.

*Palpi* rather short, considerably bent upwards, approximating, the basal joints with elongate compact scales, the terminal exposed and nearly denuded, obtuse; basal joint slightly bent, horizontal, second vertical, as long again as the first, slightly bent at the base, and a little attenuated at the apex; terminal slender, elongate-ovate: *maxillæ* moderate.

*Head* small, subtrigonal: *eyes* globose, large, pubescent, rarely naked.

*Thorax* rather stout, woolly, not crested.

joint above half the length of the second, reniform, contracted at the base; the second subcylindric; terminal, elongate-ovate, somewhat acuminate at the apex, about one-third as long as the second: *maxillæ* as long as the antennæ. *Antennæ* rather long, serrated in the males, simple in the females: *head* and *eyes* small, the latter naked: *thorax* stout, woolly: *wings* slightly deflexed: *anterior* with transverse lines, stigmata obscure, or wanting; entire, rounded behind, the apex obtuse: *legs* rather short, stout; *femora* with dense fascicles of hair. *Larva* naked: *pupa* subterranean."—*Steph. Illust. Brit. Ent. Haust.* II. p. 151.

\* Sim. alis anticis albido fuscis, lineâ baseos nigra, striâ longitudinali cinerea, puncto medio albo; posticis albis.—*Ochs. Treitsch. V. pars II. 287.*

† A distinguishing character, according to Stephens, between *Leucania* and *Nonagria*.

*Abdomen*

*Abdomen* slightly elongate, carinated, rather slender in the males, with a large tuft at the apex, stouter, and somewhat conic in the females.

*Larva* slightly pilose: *pupa* folliculated\*.

Species.	Icon.
1. <i>Leuc. Pallens</i> , Linn. ...	Ernst, VII. Pl. CCXCVIII. f. 505. f. g.
2. — <i>Elymi</i> , Treitsch. †	— — —
3. — <i>Impura</i> , Hübn. ...	Hübn. Noct. Tab. 85. f. 396. (mas.)
4. — <i>Straminea</i> , Treitsch. ‡	— — —
5. — <i>Pudorina</i> , Hübn.	Ernst, VII. Pl. CCXCVIII. f. 505. a—c.
6. — <i>Obsoleta</i> , Hübn. ...	Ernst, VII. Pl. CCXCVII. f. 503. c.
7. — <i>Comma</i> , Linn. ...	Ernst, VII. Pl. CCXCVII. f. 504.
8. — <i>L album</i> , Linn. §	Ernst, VII. Pl. CCXCVII. f. 503. a. b. d.

Genus 69. NONAGRIA, *Ochs.*, *Treitsch.* (Stephens.)

*Wings* deflexed during repose: *anterior* elongate, narrow, slightly crenated on the hinder margin; *posterior* somewhat triangular, faintly denticulate.

*Antennæ* rather short, stout, subserrated, sometimes slightly pectinated in the males, pubescent beneath.

*Palpi* nearly vertical, very thickly clothed with elongate scales on the two basal joints, the terminal one exposed, with the scales rather elongated beneath; basal joint reniform, nearly horizontal, stouter than the following, and above half its length; the second rather elongate, straight, acuminate; the terminal very short; ovate: *maxilla* moderate.

*Head* small, subtriangular, with a dense tuft of scales on the forehead: *eyes* large, globose, naked.

*Thorax* rather stout, slightly crested anteriorly.

*Abdomen* elongated, not very robust, with a large tuft at the apex, especially in the males ||.

\* Characters from Stephens.—*Haust.* III. p. 73.

† *Leuc. alis anticis solito longioribus, pallidè flavis, atomis fuscis adspersis, serie externâ striolarum, fuscis.*—*Ochs. Treitsch.* V. *pars* II. p. 294.

‡ *Leuc. alis anticis pallidè stramineis, punctis tribus medio, pluribus ad marginem in seriem dispositis, nigris; posticis albis fusco venosis.*—*Ochs. Treitsch. l. c.* p. 297.

§ Add, *Leuc. Littoralis*, (The Sea-shore Wainscot.) *Curtis, Brit. Ent.* vol. iv. Pl. 157.

|| Characters from Stephens. *Haust.* III. p. 71.

*Larva*



*Larva* fleshy, lives within the stems of reeds and other plants, and feeds on their internal substance: *pupa* internal.

Species.	Icon.
1. Non. <i>Ulvæ</i> , Hübn.....	Hübn. Noct. Tab. 139. f. 635. (mas.) f. 636. (fœm.)
2. — <i>Despecta</i> , Treitsch.*	— — —
3. — <i>Fluxa</i> , Hübn. † ...	Hübn. Noct. Tab. 88. f. 413. (fœm.)
4. — <i>Extrema</i> , Hübn. ...	Hübn. Noct. Tab. 88. f. 412. (fœm.)
5. — <i>Phragmitidis</i> , Hübn.	Hübn. Noct. Tab. 47. f. 230, (on the plate 330) (mas.)
6. — <i>Neurica</i> , Hübn. ‡	Hübn. Noct. Tab. 82. f. 381. (mas.) — Tab. 144. f. 659 et 660. (mas.) f. 661. (fœm.)
7. — <i>Paludicola</i> , Hübn.	Hübn. Noct. Tab. 136. f. 624. (fœm.) — Tab. 137. f. 628. (mas.) f. 629. (fœm.) Tab. 139. f. 637. (mas.)
8. — <i>Sparganii</i> , Hübn.	Hübn. Noct. Tab. 118. f. 549. (mas.) f. 550. (fœm.)
9. — <i>Cannæ</i> , Treitsch.	Ernst, VII. Pl. CCXCVI. f. 501.
10. — <i>Typhæ</i> , Hübn. ...	Ernst, VII. Pl. CCXCVI. f. 502.

Genus 70. GORTYNA, *Ochs.*, *Treitsch.* (Stephens, Curtis.)

*Wings* deflexed when at rest; *anterior* triangular, slightly emarginate at the apex; *cilia* of all a little indented.

*Antennæ* simple in both sexes, clothed with scales above, pubescent beneath.

*Palpi* short, slightly ascending, the basal joints clothed with long hair-like scales, the terminal exposed, ovate obtuse; the basal joint curved upwards and attenuated at the apex; the second elongated, somewhat attenuated, the terminal rather short, subovate, obtuse: *maxillæ* slender, and very short.

*Head* rather small, with a dense tuft before the antennæ: *eyes* globose, naked.

*Thorax* subquadrate, with a compressed acute crest in front.

*Abdomen* elongated, the sides producing fascicles of scales, robust in the females, and obtuse at the apex, which is rather broad, and has a subquadrate tuft in the males.

*Larva* fleshy, slightly hairy, radicivorous: *pupa* internal§.

\* Non. alis anticis micantibus fusco ferrugineis, margine anteriore dilu-  
tiore, fimbriis obscurioribus.— *Ochs. Treitsch.* vol. v. *pars* II. p. 311.

† LEUCANIA, Steph.

‡ LEUCANIA, Steph. ?

§ Characters chiefly from Stephens. *Haust.* III. 69.

Species.	Icon.
1. Gort. <i>Leucostigma</i> , Hüb.*	Ernst, VI. Pl. CCLV. f. 389.
2. — <i>Micacea</i> , Esper...	Ernst, VII. Pl. CCLXI. f. 407. Curtis, Brit. Ent. VI. Pl. 252.
3. — <i>Flavago</i> , Hübn....	Ernst, VII. Pl. CCCII. f. 517.
4. — <i>Luteago</i> , Fab. ....	Ernst, VI. Pl. CCL. f. 372.

Genus 71. XANTHIA †, *Ochs.*, *Treitsch.* (Steph., Curtis.)

XANTHIÆ, Hübner.

*Wings* entire, or crenulated, deflexed during repose: anterior subtriangular; posterior moderate.

*Antennæ* rather stout, long, simple in both sexes, pubescent, ciliated transversely beneath in the males.

*Palpi* rather short, obliquely porrected, thickly clothed with elongate scales; the terminal joint slightly exposed and obtuse, basal joint less than half the length of the second, rather slender at its base, curved upwards, second very long, attenuated and somewhat acute at the apex, terminal elongate, apex slightly conic: *maxillæ* as long as the antennæ.

*Head*, round, small: *eyes* naked.

*Thorax* somewhat robust, slightly crested.

*Abdomen* moderately stout, carinated in the males, cylindric and rather acute at the tip in the females, with a small tuft at the apex; sometimes depressed in both sexes, with the sides slightly reflexed.

*Larva* naked: *pupa* subterranean †.

Ochsenheimer and Treitschke divide this genus into three families, according to the colours and markings of the anterior wings.

FAM. A.—Anterior wings brown-yellow, with darker confluent spots.

FAM. B.—Anterior wings reddish-yellow, with distinct transverse bands.

FAM. C.—Anterior wings bright yellow (*schön gelbon*) with reddish-brown transverse bands; posterior wings light coloured.

FAM. A.	Species.	Icon.
1. Xanth.	<i>Pulmonaris</i> , Hüb.	Hübner. Noct. Tab. 20. f. 98. (mas.)
2. —	<i>Echii</i> , Hübn.....	Ernst, VII. Pl. CCXC. f. 488.
3. —	<i>Ochroleuca</i> , Hübn.	Hübner. Noct. Tab. 19. f. 92.
FAM. B.		
4. Xanth.	<i>Rufina</i> , Linn....	Ernst, VII. Pl. CCLXI. f. 410.

\* APAMEA, Steph.

† *Ξανθος*, yellow.

‡ Characters from Stephens. *Illustr. Brit. Ent. Haust.* III. p. 63.

Species.	Icon.
5. Xanth. <i>Ferruginea</i> , Hübn.	Ernst, VII. Pl. CCLXI. f. 408. a. b.
6. — <i>Evidens</i> , Hübn....	Hübner. Noct. Tab. 79. f. 369. (mas.)
7. — <i>Rubecula</i> , Esp. ...	Hübner. Noct. Tab. 92. f. 431. (mas.)
8. — <i>Xerampelina</i> , Hüb.*	Hübner. Noct. Tab. 90. f. 421. (fœm.)

FAM. C.

9. Xanth. <i>Vitellina</i> , Hüb.	Ernst, VII. Pl. CCXCVIII. f. 506.
10. — <i>Citrago</i> , Linn.....	Ernst, VII. Pl. CCCV. f. 527.
11. — <i>Croceago</i> , Fab.....	Ernst, VII. Pl. CCCII. f. 518.
12. — <i>Aurago</i> , Fab.....	Ernst, VII. Pl. CCCIII. f. 520.
13. — <i>Sulphurago</i> , Fab.	Hübner. Noct. Tab. 41. f. 194. (mas.)
14. — <i>Silago</i> , Hübn.....	Ernst, VII. Pl. CCCIV. f. 524.
15. — <i>Cerago</i> , Fab. ....	Ernst, VII. Pl. CCCIV. f. 523.
	a—d.
16. — <i>Gilvago</i> , Fab.....	Ernst, VII. Pl. CCCIV. f. 523. e.
17. — <i>Palleago</i> , Hübn...	Hübner. Noct. Tab. 94. f. 442. (mas.)

Genus 72. COSMIA †, *Ochs.*, *Treitsch.* (Stephens.)

COSMIÆ, Hübner.

*Wings* deflexed during repose; *anterior* subtriangular, slightly truncate or obscurely emarginate on their hinder margin, with distinct angular strigæ; *posterior* rather ample.

*Antennæ* short, rather slender, pubescent within, each articulation furnished with a bristle on each side, shortest in the females.

*Palpi* moderate, ascending, densely clothed with elongate scales on the two basal joints, the terminal exposed, somewhat acute; basal joint elongate, nearly three-fourths the length of the second, arcuated, the second scarcely more slender than the first, linear, and somewhat bent at the base; terminal more slender, elongate, above half the length of the second, slightly attenuated at the apex, which is acute: *maxillæ* moderate.

*Head* small, rounded: *eyes* large, globose, naked.

*Thorax* stout, not crested.

*Abdomen* rather slender, with tufts of hair on the sides, and a larger tuft at the apex, especially in the males, of the females gradually attenuated from the base to the apex, which is somewhat acute.

*Larva* naked, with a few scattered hairs: *pupa* subterranean ‡.

Species.	Icon.
1. Cosm. <i>Fulvago</i> , Hübn.	Ernst, VII. Pl. CCCV. f. 526.
2. — <i>Abluta</i> , Hübn....	Hübner. Noct. Tab. 76. f. 351. (fœm.)

\* Add, Xanth. Centrago, (The centre-barred Sallow,) *Haw. Curtis Brit. Ent.* II. Pl. 84.

† Κοσμιος, *modestus*.

‡ Characters from Stephens. *Haust.* III. p. 59.

Species.	Icon.
3. <i>Cosm. Trapezina</i> , Linn.	Ernst, VIII. Pl. CCCXIII. f. 546.
4. — <i>Diffinis</i> , Linn. ....	Ernst, VIII. Pl. CCCXI. f. 543.
5. — <i>Affinis</i> , Linn. ....	Ernst, VIII. Pl. CCCXII. f. 544.
6. — <i>Pyralina</i> , Hübn.	Ernst, VIII. Pl. CCCXII. f. 545.

Genus 73. CERASTIS, *Ochs., Treitsch.*

GLÆÆ, Hübner. GLÆA, Stephens, Curtis.

*Legs* moderate; *femora* not very pilose.*Wings* generally entire, incumbent; *anterior* more or less castaneous.*Antennæ* rather long, stout, generally simple in both sexes, and ciliated; sometimes a little serrated in the males.*Palpi* very short, porrect, horizontal, triarticulate, not very robust, clothed with elongate scales, the terminal joint concealed; the basal joint nearly as long as the second, a little bent, the second more slender than the first, slightly curved, and narrowed towards the tip; terminal joint ovate, obtuse: *maxillæ* shorter than the antennæ.*Head* small, with a dense tuft of hair between the antennæ: *eyes* small, naked.*Thorax* stout, pilose, with an abbreviated dorsal tuft towards the front.*Body* generally depressed, with the sides and apex considerably tufted.*Larva* naked, or slightly hairy: *pupa* subterranean\*.

Treitschke divides this genus into three families.

FAM. A.—Larva naked, variegated.

FAM. B.—Larva hairy, dark coloured.

FAM. C.—Larva naked, body dark coloured, with generally lighter longitudinal lines.

Both Stephens and Curtis have very properly restored Hübner's name, Glæa, to this genus, which Treitschke, for some unknown reason, has thought fit to change to Cerastis, a term already employed to designate a serpent.

FAM. A. Species. Icon.

1. *Cer. Rubricosa*, Fab. ... Ernst, VII. Pl. CCCI. f. 513.

FAM. B.

2. *Cer. Rubiginea*, Fab. ... Ernst, VII. Pl. CCC. f. 512.

FAM. C.

3. *Cer. Ruticilla*, Esper. .. Hübn. Noct. Tab. 104. f. 488.  
(mas.) f. 489. (fœm.)4. — *Vaccinii*, Linn. ... Ernst, VII. Pl. CCCI. f. 514.5. — *Erythrocephala*, F.† Ernst, VII. Pl. CCXCIX. f. 507. a.\* Characters from Stephens. *Haust.* II. p. 159.

† GRAPHIPHORA? Stephens.

Species.	Icon.
6. Cer. <i>Dolosa</i> , Hübn.....	Ernst, VII. Pl. CCCI. f. 515. c. et f. 516. a.
7. — <i>Glabra</i> , Hübn....	Ernst, VII. Pl. CCXCIX. f. 510. a.
8. — <i>Silene</i> , Fab.....	Ernst, VII. Pl. CCLXV. f. 417.
9. — <i>Satellitina</i> , Linn...	Ernst, VII. Pl. CCC. f. 511.
10. — <i>Serotina</i> , Treitsch.	Ernst, VII. Pl. CCLXXI. f. 434.

Genus 74. XYLINA, *Ochs., Treitsch.*

XYLINÆ, Hübner.

XYLINA, CALOCAMPA, XYLOPHASIA, PETASIA, DYPTERIGIA,  
HADENA, CHARICLEA, Stephens.

XYLINA, CHARICLEA, Curtis.

*Wings* very long and sublinear; *superior* with the cilia indented; *inferior* rather large.

*Legs*, *anterior* short, *posterior* long; *femora* very large and woolly: *anterior tibiæ* very short, with an internal scaly spine; *posterior* very long, terminated by spurs, and a pair above the apex: *tarsi* with series of spiny scales beneath, 5-jointed, anterior joint very short, basal the longest: *claws* distinct, slightly notched near the middle: *pulvilli* minute. *Antennæ* setaceous, robust in the males, thickly clothed with obtuse scales above, each joint ciliated with hairs beneath.

*Palpi* short, robust, porrected obliquely, densely covered with scales, which conceal the apical joint; triarticulate, basal joint robust, 2nd long, slightly dilated in the middle, 3rd oval-truncate.

*Head* very short, closely united to the thorax, and densely covered with long scales: *eyes* small.

*Thorax* quadrate, slightly crested.

*Abdomen* short, depressed, the apex, in the males, triangular.

*Larva* cylindrical, naked\*: *pupa* folliculated, its apex unidentate. (Stephens.)

Treitschke (whose concise definition of this genus, Mr. Stephens justly remarks, is so truly general and indefinite that it will include a host of species that he has placed elsewhere) has divided the insects included under his Xylina, into four families.

FAM. A.—Anterior wings long, and narrow; body depressed. Larva green or brown; corrugated.

FAM. B.—Anterior wings rather broader and shorter; body less depressed. Larva tuberculated.

FAM. C.—Wings and body densely scaly. Antennæ of the males pectinated. Larva green; the 11th segment of the body tuberculated.

\* Characters from Curtis. *Brit. Ent.* VI. pl. 256.

FAM. D.—Anterior wings marbled, the markings intersected longitudinally with brighter lines. Larva variegated, and like parchment! (*pergamentartig*.)

FAM. A.	Species.	Icon.
1.	Xyl. <i>Vetusta</i> , Hübn.* ..	Ernst, VI. Pl. CCXLIX. f. 370. b.
2.	— <i>Exoleta</i> , Linn*....	Ernst, VI. Pl. CCXLIX. f. 370. a. c. f. g. h. Curtis, Brit. Ent. Pl. 256. Larva et Imago.
3.	— <i>Solidaginis</i> , Hübn.	Noct. Tab. 53. f. 256. (fœm.)
4.	— <i>Conformis</i> , Fab....	Ernst, VI. Pl. CCXXXVI. f. 343.
5.	— <i>Zinckenii</i> , Treitsch.†	— — —
6.	— <i>Lapidea</i> , Hübn...	Hubn. Noct. Tab. 82. f. 382. (mas.)
7.	— <i>Rhizolitha</i> , Fab...	Ernst, VI. Pl. CCXI. f. 284.
8.	— <i>Petrificata</i> , W. Verz.	Ernst, VI. Pl. CCL. f. 371.
9.	— <i>Conspicillaris</i> , Linn.	Ernst, VI. Pl. CCLIII. f. 382.
10.	— <i>Putris</i> , Linn.....	Ernst, VI. Pl. CCLI. f. 376.
11.	— <i>Erythroxylea</i> , Treitsch.‡	— — —
12.	— <i>Putra</i> , Hübn.....	Hübn. Noct. Tab. 52. f. 55. (fœm.)

## FAM. B.

13.	Xyl. <i>Scolopacina</i> , Hüb. §	Ernst, VI. Pl. CCLI. f. 377.
14.	— <i>Rurea</i> , Fab. §.....	Ernst, VI. Pl. CCL. f. 373.
15.	— <i>Hepatica</i> , Fab.....	Ernst, VI. Pl. CCLI. f. 375.
16.	— <i>Polyodon</i> , Linn. §..	Ernst, V. Pl. CLXXXVIII. f. 245. a. b.
17.	— <i>Lateritia</i> , Esper...	Hübn. Noct. Tab. 15. f. 74. (fœm.)
18.	— <i>Lithoxylea</i> , Fab. §	Ernst, VI. Pl. CCLI. f. 378.

19. Xyl.

\* CALOCAMPA, Steph.<sup>a</sup>

“*Palpi* short, oblique, robust; triarticulate, densely squamous, the terminal joint concealed, basal much shorter than the second and more robust, terminal ovate truncate: *maxillæ* the length of the antennæ. *Antennæ* rather short, stout in the males and ciliated beneath: *head* small, with a dense frontal crest: *eyes* naked, small: *thorax* quadrate, with a small anterior crest: *wings* convoluted or incumbent; anterior elongate, sublinear, denticulated on the hinder margin: *body* short, depressed, the apex with a small tuft in the male. *Larva* smooth: *pupa* foliiculated, with two elongate spines at the apex.”—*Steph. Illust. Brit. Ent. Haust. II. p. 172.*

† Xyl. *alis anticis cinereo albidoque marmoratis, lineolâ baseos atrâ, albo inductâ, maculis ordinariis albidis, nigro cinctis, lineâ marginali interruptâ.*—*Ochs., Treitsch. V. pars III. p. 16.*

‡ Xyl. *alis anticis ex flavo albidis, margine anteriori externoque rufescentibus, maculâ reniformi obscuriore.*—*Ochs., Treitsch. l. c. p. 31.*

§ XYLOPHASIA, Steph.<sup>b</sup>

“*Palpi* rather elongate, slightly ascending; triarticulate; the two basal joints densely clothed with elongate scales, the terminal considerably exposed;

<sup>a</sup> Καλλι pulchra, καμπη eruca.

<sup>b</sup> Ξυλον lignum, Φασις apparitio.

Species.	Icon.
19. Xyl. <i>Petrorhiza</i> , Borkh.	Ernst, VI. Pl. CCXI. f. 283.
20. — <i>Pulla</i> , Hübn.....	Hübn. Noct. Tab. 49. f. 238. (mas.) Tab. 150. f. 692. 693. (fœm.)
FAM. C.	
21. Xyl. <i>Cassinia</i> , Fab. *...	Ernst, V. Pl. CXCIV. f. 255.
22. — <i>Nubeculosa</i> , Esper.	Ernst, Suppl. Pl. I. f. 172. a—i.
23. — <i>Pinastri</i> , Linn. †...	Ernst, VII. Pl. CCLXXX. f. 458.
24. — <i>Rectilinea</i> , Hübn. ‡.	Ernst, VI. Pl. CCLIV. f. 385.
25. — <i>Ramosa</i> , Hübn...	Ernst, VI. Pl. CCLIV. f. 384.
26. — <i>Lithorhiza</i> , Borkh. §	Ernst, VI. Pl. CCXIII. f. 290.
	27. Xyl.

exposed; the basal joint rather shorter and more robust than the second, the terminal elongate-ovate, somewhat acute: *maxillæ* as long as the antennæ. *Antennæ* simple, more or less ciliated or pilose, in the males; *thorax* quadrate, with a small crest in front: *wings* deflexed, anterior rather elongate, subtriangular, the base being narrowed; hinder margin more or less denticulated: *body* elongated, stout, not depressed, the back carinated, each segment with a dorsal crest; apex, in the male, with a large tuft, in the female, narrowed, sublinear, with a small tuft. *Larva* naked: *pupa* subterranean, with a spine at the apex."—*Steph. Illust. Brit. Ent. Haust. II. p. 174.*

\* PETASIA, Steph.<sup>a</sup>

"*Palpi* short, compressed, straight, very hairy, biarticulate, the terminal joint ovate, subacute: *maxillæ* nearly obsolete. *Antennæ* elongated, bipectinated to the apex in the males, subserrated and ciliated in the females: *head* moderate, hairy, with two fascicles of elongate scales at the base of each antenna: *thorax* not crested; *abdomen* slightly elongated, scarcely tufted at the apex: *anterior wings* elongate, entire, with a patch of elongate scales in the middle of the interior edge: *posterior* subovate: *breast* and *femora* very downy; *anterior tibiæ* with a compressed lobe internally; and an acute, bent, glossy spine exteriorly; the *posterior tibiæ* with spurs at the apex. *Larva* naked, fleshy, with the anal segment gibbous: *pupa* subterranean."—*Steph. Illust. Brit. Ent. Haust. II. p. 31.*

† DYPTELYGIA, Steph.

"*Palpi* conspicuous, ascending, slender, triarticulate; the two basal joints clothed with elongate scales, the apical joint considerably exposed, covered with short scales, linear, and as long as the basal one, which is slightly bent and more robust than the second; the latter is about one half as long again as the first, slightly attenuated towards the apex: *maxillæ* moderate. *Antennæ* very short, rather stout, simple in both sexes, ciliated within and pubescent in the male: *head* slightly crested; *eyes* small, naked: *thorax* robust, thick, crested on the back: *wings* incumbent; *anterior* short, broad, subtriangular, subdentate; *posterior* ample: *body* rather stout, crested on the back: *legs* short; *posterior tibiæ* robust, compressed, with a fascicle of hair on the outer edge. *Larva* naked, with a conical protuberance on the anal segment: *pupa* folliculated, with four apical spines."—*Steph. Haust. II. p. 167.*

‡ XYLOPHASIA, Steph.

§ HADENA, Steph.

Although we have already given the genus *Hadena* (the 54th of Treitschke's arrangement), we shall add in this place the characters assigned

\* Πεταζω *pando*.

Species.	Icon.
27. Xyl. <i>Hyperici</i> , Fab.. ...	Ernst, VI. Pl. CCXLII. f. 357.
28. — <i>Perspicillaris</i> , Linn.	Ernst, VI. Pl. CCXXXVI. f. 345.
29. — <i>Platyptera</i> , Esper.	Ernst, VII. Pl. CCXCI. f. 490.
30. — <i>Radiosa</i> , Esper....	Hüb. Noct. Tab. 92. f. 434. (fœm.)
31. — <i>Antirrhini</i> , Hüb. n.	Ernst, VI. Pl. CCXXXVII. f. 347. e. f.
32. — <i>Linaria</i> , Fab.. ...	Ernst, VI. Pl. CCXXXVII. f. 347. a—d.
33. — <i>Opalina</i> , Hüb. n.	Hüb. Noct. Tab. 81. f. 376. (fœm.)
34. — <i>Delphinii</i> , Linn.*	Ernst, VIII. Pl. CCCX. f. 538. Curtis, Brit. Ent. II. Pl. 76. Larva et Imago.

signed to it by Stephens, which had not appeared when that part of our abstract containing this genus was published.

HADENA. “*Palpi* short, rather slender, slightly ascending, clothed with hair and scales, triarticulate; terminal joint rather exposed, short, subovate; the basal joint curved, in general rather shorter and stouter than the second, which is a little attenuated towards the apex; terminal subovate, obliquely truncate: *maxillæ* about the length of the antennæ. *Antennæ* short, rather stout, in general simple, with the under side ciliated in the males, or obscurely subserrate, with a distinct fasciculus of hair on each joint within: *head* small, with a dense frontal crest; *eyes* large, globose, sometimes pubescent: *thorax* slightly crested; *body* stout, rather elongate, very acute in some females: *wings* slightly deflexed during repose; *anterior* obscurely denticulate on the hinder margin: in general of gay colours, sometimes with pale reticulations, and mostly with a pale undulated striga, in which is usually a conspicuous angulation, resembling the letter W, near the posterior margin; *stigmata* distinct; *posterior wings* with an obscure emargination towards the costa: *larva* naked, generally of lively colour: *pupa* subterranean.”—*Steph. Haust.* II. p. 179.

\* CHARICLEA, Steph. Curtis.

“*Antennæ* long setaceous, composed of numerous short joints covered with scales above, hairy beneath, 1st joint large, concealed by long, hairy scales. *Labrum* and *mandibles* attached to the clypeus. *Maxillæ* nearly as long as the body, with a few glands like tentacula towards the apex. *Labial palpi* rather short, curved upward, covered entirely with long hairy scales, 3-jointed, 1st joint long, cylindrical, 2nd shorter, somewhat ovate, 3rd small ovate. *Head* trigonate viewed from above. *Abdomen* without tufts of scales, apex of the male slightly bifid. *Wings* deflexed, superior somewhat lanceolate, inferior rather small. *Cilia* very long. *Legs* clothed with soft hair, anterior rather short. *Tibiæ*, anterior very short, trigonate, with 2 horny naked spines at the apex, the internal one being very long and curved. *Tarsi* 5-jointed, armed with rows of spines beneath, 1st being very long. *Claws* minute, bifid. *Pulvilli* distinct. *Caterpillars* with 6 pectoral, 8 abdominal and 2 anal feet.”—*Curtis, l. c.*



Genus 75. CUCULLIA, Ochs., Treitsch.

CUCULLIA, Schrank. (Curtis, Stephens, Duponchel.)

TRIBONOPHORÆ, Hübner.

*Legs*, hairy: *tarsi* five-jointed, with a row of spines on each side beneath.—*Wings superior* deflexed, narrow, lanceolate: *inferior* rather small.—*Antennæ* very long, and setaceous in both sexes.—*Palpi* with the last joint very short, cylindrical, truncated and nearly naked; entire length less than that of the head.—*Maxillæ* nearly twice as long as the antennæ.—*Head* rather small, obtuse.—*Thorax* with an elevated crest, forming anteriorly a sort of hood, which partially covers the head\*.—*Abdomen* long, often with dorsal tufts, and sometimes with a long pointed, or divided apex.—*Larva* with 16 feet, smooth, moniliform.—*Pupa* with the case inclosing the maxillæ, feet and wings elongated into a sort of sheath distinct from the abdomen †.

Species.

Icon.

1. Cuc. *Spectabilis*, Hüb. ... Hüb. Noct. tab. 120. f. 557. (mas.)
- 2.—*Gnaphalii*, Hüb. .... Hüb. Noct. tab. 126. f. 582. (mas.)  
583. (fœm.)
- 3.—*Abrotani*, Fab. ... Ernst, VI. pl. ccxlv. f. 362.
- 4.—*Absinthii*, Linn. .... Ernst, VI. pl. ccxlv. f. 361.
- 5.—*Artemisiæ*, Fab. .... Ernst, VI. pl. ccxlv. f. 360.
- 6.—*Argentina*, Fab. .... Hüb. Noct. tab. 119. f. 553. (fœm.)
- 7.—*Lactea*, Fab. .... Hüb. Noct. tab. 95. f. 448. (mas.)
- 8.—*Tanaceti*, Fab. .... Ernst, VI. pl. ccxlvii. f. 366.
- 9.—*Dracunculi*, Hüb. .... Hüb. Noct. tab. 127. f. 586. (mas.)
- 10.—*Umbratica*, Linn. .... Ernst, VI. pl. ccxlviii. f. 369. a—d.
- 11.—*Lactucæ*, Fab. .... Ernst, VI. pl. ccxlviii. f. 368.
- 12.—*Chamomillæ*, Fab. .... Hüb. Noct. tab. 54. f. 261. (mas.)
- 13.—*Chrysanthemi*, Hüb. ... Hüb. Noct. tab. 149. f. 686. (fœm.)  
687. (mas.)
- 14.—*Lucifuga*, Hüb. .... Hüb. Noct. tab. 54. f. 262. (mas.)
- 15.—*Asteris*, Fab. .... Ernst, VI. pl. ccxlv. f. 364. a. b.  
Curtis, Brit. Ent. vol. i. pl. 45.  
Imago et Larva.
- 16.—*Thapsiphaga*, Treitsch. † — — —
- 17.—*Blattariæ*, Esper. .... Esper. Schm. IV. Th. tab. cliv.  
Noct. 75. f. 4.
- 18.—*Verbasci*, Linn. .... Ernst, VI. pl. ccxlv. f. 364. a—d. g. h.
- 19.—*Scrophulariæ*, Hüb. .... Ernst, VI. pl. ccxlv. f. 363.

\* Hence the name of the genus from *Cucullus* (a hood).

† Characters chiefly from Curtis and Duponchel.

‡ Cuc. alis anticis medio ex albido cinereis, marginibus fuscis serie duplici punctorum nigrorum.—Ochs, Treitsch. v. pars iii. p. 120.

## Genus 76. PLUSIA, Ochs., Treitsch.

(Latreille, Duponchel, Stephens.)

PLUSIÆ, Hübner.

*Wings*, deflexed, superior and posterior angles of the *upper*, very acute and somewhat curved. — *Antennæ* filiform in both sexes. — *Palpi* curved upwards above the head, but very little surpassing it. — *Thorax* with two tufts of hair at the base. — *Abdomen*, crested with tufts of hair on the first three or four segments. — *Larva* with 12 feet, the body sprinkled with a few hairs, the head small and the three first segments more slender than the rest. — *Pupa* with the case inclosing the maxillæ, feet and wings elongated into a sheath adhering to the abdomen\*.

*Obs.* Most of the species of this genus are remarkable for the metallic splendour of their superior wings †, which reflect a golden or silvery brilliancy, sometimes from larger or smaller bands or plates, sometimes from slender lines or small spots more or less resembling letters or accents.

Treitschke has divided this genus into five families, according to the markings of the superior wings. Duponchel has adopted four divisions of it, on similar grounds, as follows:

1st Division. No metallic spots on the superior wings. — Pl. *illustris* — *modesta* — *consona* — *ærea*.

2nd. Upper wings with larger or smaller metallic spots of undefined forms. — Pl. *orichalcea* — *chrysitis* — *aurifera* — *bractea* — *æmula* — *festuæ*.

3rd. Upper wings with small metallic spots in the form of letters or accents, and the lower wings gray. — Pl. *mya* — *chalsytis* — *iota* — *gamma* — *ni* — *interrogationis* — *accentifera* — *circumflexa*.

4th. Upper wings as in the third division, but the lower dull yellow, with dark margins. — Pl. *ain* — *microgramma* — *divergens*.

The species, *triplasia*, *asclepiadis*, *consona*, *modesta*, and *illustris*, were originally arranged by Ochsenheimer in a separate genus, which he called *Abrostola*. He, however, as his successor informs us, after the publication of the *Systema Glossatorum Europæ*, in his 4th volume, united them to his *Plusiæ*, in which arrangement he has been followed by M. Treitschke. Stephens (Syst. Cat. ii. p. 104.) has revived the genus *Abrostola* (also adopted by Samouelle, Compend. p. 252) for the reception of the British species, *triplasia*, *asclepiadis*, *urticæ*? and *illustris*.

\* Characters chiefly from Duponchel, *Lep. de France*, tom. vii. part ii. p. 5.

† Hence the name of the genus, from πλωσιος (dives.)

- | FAM. A. Species.                      | Icon.  |
|---------------------------------------|--|
| 1. Pl. <i>Amethystina</i> , Hüb....   | Hüb. Noct. tab. 130. f. 597. (mas.)                            |
| FAM. B.                               | 598. (fœm.)  |
| 2. Pl. <i>Triplasia</i> , Linn.....   | Ernst, VIII. pl. cccxxxii. f. 578.                             |
| 3.— <i>Asclepiadis</i> , Fab.....     | Hüb. Noct. tab. 55. f. 268. (fœm.)<br>tab. 137. f. 626. (mas.) |
| 4.— <i>Urtica</i> , Hüb.....          | Hüb. Noct. tab. 137. f. 625. (mas.)                            |
| FAM. C.                               |  |
| 5. Pl. <i>Celsia</i> , Linn.....      | Ernst, Suppl. pl. viii. f. 262. a—d.                           |
| FAM. D.                               |  |
| 6. Pl. <i>Consona</i> , Fab..         | Hüb. Noct. tab. 56. f. 273. (fœm.)                             |
| 7.— <i>Modesta</i> , Hüb. ....        | Hüb. Noct. tab. 76. f. 354. (fœm.)                             |
| 8.— <i>Illustris</i> , Fab.....       | Ernst, VIII. pl. cccxxxiii. f. 583.                            |
| FAM. E.                               |  |
| 9. Pl. <i>Deaurata</i> , Esper.*...   | Hüb. Noct. tab. 59. f. 189.                                    |
| 10.— <i>Moneta</i> , Fab.* .....      | Ernst, VIII. pl. cccxxxiv. f. 584.                             |
| 11.— <i>Concha</i> , Fab* .....       | Ernst, VIII. pl. cccxxxv. f. 587.                              |
| 12.— <i>Chalsytis</i> , Hüb.....      | Ernst, VIII. pl. cccxxxiv. f. 586.                             |
| 13.— <i>Festuca</i> , Linn.....       | Ernst, VIII. pl. cccxxxiv. f. 585.                             |
| 14.— <i>Aurifera</i> , Hüb. ....      | Hüb. Noct. tab. 98. f. 463. (mas.)                             |
| 15.— <i>Chrysitis</i> , Linn.....     | Ernst, VIII. pl. cccxxxv. f. 588.                              |
| 16.— <i>Orichalcea</i> , Fab. ....    | Ernst, VIII. pl. cccxxxvi. f. 589.                             |
| 17.— <i>Bractea</i> , Fab.....        | Ernst, VIII. pl. cccxxxvi. f. 590.                             |
| 18.— <i>Æmula</i> , Hüb.....          | Hüb. Noct. tab. 57. f. 280. (mas.)                             |
| 19.— <i>Circumflexa</i> , Linn.....   | Ernst, VIII. pl. cccxxxvi. f. 591.                             |
| 20.— <i>Iota</i> , Linn.....          | Ernst, VIII. pl. cccxxxvii. f. 592.                            |
| 21.— <i>Gamma</i> , Linn. ....        | Ernst, VIII. pl. cccxxxviii. f. 594.                           |
| 22.— <i>Ni</i> , Hüb. ....            | Ernst, VIII. pl. cccxxxviii. f. 595.                           |
| 23.— <i>Interrogationis</i> , Linn... | Ernst, VIII. pl. cccxxxvii. f. 593.                            |
| 24.— <i>Ain</i> , Hüb.....            | Ernst, VIII. pl. cccxxxix. f. 596.                             |
| 25.— <i>Divergens</i> , Fab.....      | Ernst, VIII. pl. cccxxxix. f. 597.                             |
| 26.— <i>Devergens</i> , Hüb. ....     | Hüb. Noct. tab. 107. f. 500. (mas.)<br>501. (fœm.)             |
| 27.— <i>Microgamma</i> , Hüb. ...     | Hüb. Noct. tab. 151. f. 698. (fœm.)<br>699. (mas.)             |

\* CHRYSOPTERA, Latr.—Duponch.—“*Palpi* very long, curved above the head and very much surpassing it.—*Antennæ* filiform in both sexes.—*Thorax* with two tufts of hair at the base.—*Superior* and *posterior angles* of the *upper wings* very acute, and slightly curved.—*Abdomen* crested on the three or four anterior segments.—*Larva* with 12 feet; *head* small; three first segments of the body smaller than the rest, the latter with angular tubercles above. *Pupa* with the case of the maxillæ, feet and wings elongated into a sheath, adhering to the abdomen.”

The individuals (only three) of this genus differ from the true *Plusiæ*, principally in the greater development of their palpi; they are ornamented with metallic colours, even more brilliant than those of the latter, and the larvæ of the two genera differ by those of the Chrysoptera having the nine posterior segments of the body surmounted by angular elevations.—*Duponchel, Lep. de France, tom. vii. part. ii. p. 58.*

Genus 77. ANARTA, *Ochs., Treitsch.*

(Curtis, Stephens.)

*Legs*, anterior the shortest, the *tibiæ* with a flat strong spine on the internal side, middle and posterior *tibiæ* very hairy towards the base, terminated by spurs, the latter having a pair also above the apex: *tarsi* very long, the basal joint nearly as long as the *tibiæ*.—*Wings* deflexed; superior lanceolate, inferior small.—*Antennæ* alike in both sexes, rather long, slender, setaceous, covered with scales above, pubescent beneath, basal joint robust, ovate.—*Palpi* extending a little beyond the head, very hairy.—*Maxillæ* as long as the *antennæ*, furnished with tentacula towards the apex.—*Head* very small: *eyes* small, pubescent.—*Thorax* not crested, covered with hairy scales.—*Abdomen* short, robust, ciliated on the sides and at the apex.—*Larva* naked, with 16 feet\*.

The individuals of this genus are small, and fly by day, revelling in the sunshine.

Species.

Icon.

1. *An. Myrtilli*, Linn.....Ernst, VII. pl. cclxxiii. f. 437.  
Curtis, Brit. Ent. III. pl. 145.  
Larva et Imago.
- 2.—*Cordigera*, Thunb.....Hüb. Noct. tab. 21. f. 99. (fœm.)  
tab. 147. f. 675. (mas.)
- 3.—*Melaleuca*, Thunb.....Hüb. Noct. tab. 77. f. 357. (fœm.)
- 4.—*Vidua*, Hüb.....Hüb. Noct. tab. 86. f. 403. (fœm.)  
tab. 141. f. 644. 645. (mas.)
- 5.—*Funebris*, Hüb. ....Hüb. Noct. tab. 92. f. 433. (fœm.)
- 6.—*Rupicola*, Wien. Verz. Hüb. Noct. tab. 64. f. 317. (fœm.)
- 7.—*Heliaca*, Hüb.....Ernst, VIII. pl. cccxlii. f. 606.

Genus 78. HELIOTHIS, *Ochs., Treitsch.* (Stephens.)

HELIOTHENTES, Hübner.

*Wings*, anterior broad, generally of lively colours; posterior whitish, or light-coloured with broad, dark margins.—*Antennæ* long, setaceous.—*Abdomen* slender, tapering.—*Larva* slender, tapering towards the head and tail; *head* speckled; *body* marked with dark-coloured dots on the sides, and variegated, longitudinal, wavy lines.—*Metamorphosis* subterranean.

Species.

Icon.

1. *Hel. Cardui*, Hüb.....Hüb. Noct. tab. 64. f. 313. (fœm.)
- 2.—*Ononis*, Fab. ....Hüb. Noct. tab. 63. f. 312. (fœm.)

\* Characters from Curtis, *Brit. Ent.* iii. pl. 145.

Species.

Icon.

3. *Hel. Dispacea*, Linn.....Ernst, VIII. pl. cccxvi. f. 553.
- 4.—*Scutosa*, Fab.....Ernst, VIII. pl. cccxv. f. 552.
- 5.—*Pettigera*, Hüb.....Ernst, VIII. pl. cccxvi. f. 555.
- 6.—*Armigera*, Hüb.....Hüb. Noct. tab. 79. f. 370. (fœm.)
- 7.—*Marginata*, Fab.....Ernst, VII. pl. cclxxxviii. f. 480.
- 8.—*Purpurites*, Hüb. ....Ernst, VII. pl. cclxxxviii. f. 481.

Genus 79. ACONTIA, *Ochs., Treitsch.* (Curtis, Stephens.)

*Legs*, anterior with an internal spine on the tibiæ; posterior pair long, the tibiæ spurred at and above the apex: *tarsi* 5-jointed, basal joint the longest: claws bifid.—*Wings* rhomboidal or sublanceolate; cilia rather long.—*Antennæ* simple, slender and setaceous, inserted on the crown of the head close to the eyes, covered with scales above, very pubescent beneath.—*Palpi* curved upward, clothed with close, short scales.—*Maxillæ* slender, spiral, as long as the antennæ, ciliated on the outside at the apex.—*Head* broad: *eyes* rather large.—*Thorax* obovate, clothed with compact, depressed scales.—*Abdomen* rather slender, tufted and obtuse in the males, subconical in the females.—*Larva* attenuated to both ends; with 12 feet\*.

Species.

Icon.

1. *Acon. Malvæ*, Hüb. ....Hüb. Noct. tab. 77. f. 358. (fœm.)
- 2.—*Aprica*, Hüb.....Hüb. Noct. tab. 80. f. 371. (fœm.)
- 3.—*Cerinthæ*†.
- 4.—*Caloris*, Hüb.....Hüb. Noct. tab. 80. f. 372. (fœm.)
- 5.—*Titania*, Esper.....Esper, Schm. IV. Th. tab. exc. Noct. iii. f. 2.
- 6.—*Solaris*, Hüb.....Hüb. Noct. tab. 62. f. 307. (mas.) 308. (fœm.)
- 7.—*Luctuosa*, Hüb.....Hüb. Noct. tab. 62. f. 305. (mas.) 306. (fœm.)

Genus 80. ERASTRIA, *Ochs., Treitsch.* (Curtis, Stephens.)

*Legs*, anterior tibiæ with a small spine on the internal side, middle and posterior pairs armed at the apex, and the latter, towards the middle also with spines of unequal length: *tarsi* rather stout, 5-jointed; basal joint the longest: *claws* simple.—*Wings* nearly horizontal when at rest, forming a triangle; *superior* with the anterior angle somewhat acute;

\* Characters from Curtis, *Brit. Ent.* vi. pl. 276.

† *Acon. alis anticis albis, fasciis tribus fusco cæruleoque marmoratis, intermedia magis obsoleta; posticis albis.*—*Ochs. Treitsch.* v. pars iii. p. 240.

*inferior*

*inferior* rather large, rounded.—*Antennæ* alike in both sexes, inserted close to the eyes on the crown of the head, rather short, setaceous, scaly above, hairy beneath; basal joint elongate, robust.—*Palpi* porrected obliquely beyond the head, remote, rather slender, covered with scales, slightly curved.—*Head* short, covered with depressed scales.—*Thorax* not crested, covered with short scales.—*Abdomen* slightly tufted at the apex.—*Larva* half looper, with 10 feet\*.

Species.

Icon.

1. *Erast. Sulphurea*, Hüb. ... Ernst, VIII. pl. cccxxxix. f. 598.
- 2.—*Unca*, Hüb. .... Ernst, VIII. pl. cccxxxiii. f. 581.
- 3.—*Argentula*, Borkh. .... Hüb. Noct. tab. 60. f. 292. (fœm.)
- 4.—*Fuscula*, Wien. Verz. .... Ernst, VI. pl. ccxxiv. f. 319.
- 5.—*Quieta*, Hüb. .... Hüb. Noct. tab. 103. f. 485. (fœm.)
- 6.—*Atratula*, Hüb. .... Hüb. Noct. tab. 60. f. 296. (fœm.)
- 7.—*Candidula*, Hüb. .... Hüb. Noct. tab. 60. f. 295. (fœm.)
- 8.—*Venustula*, Hüb. .... Hüb. Noct. tab. 60. f. 294. (mas.)
- 9.—*Minuta*, Hüb. .... Hüb. Noct. tab. 96. f. 451. (fœm.)
- 10.—*Paula*, Hüb. .... Hüb. Noct. tab. 96. f. 452. (mas.)  
Pyr. tab. 6. f. 38. (fœm.)
- 11.—*Parva*, Hüb. .... Hüb. Noct. tab. 77. f. 356. (fœm.)
- 12.—*Ostrina*, Hüb. .... Hüb. Noct. tab. 85. f. 399. (fœm.)  
tab. 142. f. 648. (mas.) Curtis, Brit. Ent. III. pl. 140.
- 13.—*Cymbalaria*, Hüb. .... Hüb. Noct. tab. 92. f. 432. (fœm.)

Genus 81. ANTHOPHILA †, *Ochs., Treitsch.*

ANTHOPHILÆ, Hübner.

(ACOSMETA, Steph. †

PHYTOMETRA, Steph.

NOCTUA., God. Duponch.)

*Legs*, posterior elongated.—*Wings*, *superior* subtriangular, anterior angle acute, generally without the usual orbicular or reniform markings; *inferior* rounded, with broad fringes.—*Antennæ* nearly filiform, faintly pectinated.—*Head* smooth.—*Body* small.—*Larva* unknown.

The insects of this genus fly by day, and enjoy the sunshine.

Species.

Icon.

1. *Ant. Ænea*, Hüb. ♂. .... Hüb. Noct. tab. 75. f. 350. (fœm.)
- 2.—*Purpurina*, Fab. .... Ernst, VIII. pl. cccx. f. 539.
- 3.—*Communimacula*, Fab. .... Ernst, VII. pl. ccxciii. f. 494.
- 4.—*Flavida*, Hüb. .... Hüb. Noct. tab. 96. f. 453. (fœm.)

\* Characters chiefly from Curtis. *Brit. Ent.* iii. pl. 140.† *αυθός σλος, φιλῆω ἀμο.*‡ *Syst. Cat.* ii. 110. *Gen.* 151 and 152.§ PHYTOMETRA, Steph. *l.c. supra.*

- | Species.                               | Icon.   |
|--|---|
| 5. <i>Ant. Vespertina</i> , Treitsch.. | Hüb. Pyr. tab. 24. f. 159. (mas.)                 |
| 6.— <i>Glarea</i> , Treitsch.*         |   |
| 7.— <i>Amæna</i> , Hüb. ....           | Hüb. Noct. tab. 61. f. 300. (fœm.)                |
| 8.— <i>Inamæna</i> , Hüb. ....         | Hüb. Noct. tab. 61. f. 301. (mas.)<br>302. (fœm.) |
| 9.— <i>Caliginosa</i> , Hüb. † ....    | Hüb. Noct. tab. 100. f. 474. (mas.)               |

Genus 82. OPHIUSA, *Ochs., Treitsch.*

ASCALEPHÆ, Hübner. (OPHIUSA, Steph.)

*Wings*, superior broad, subtriangular, anterior angle acute; inferior rounded, margins deeply fringed.—*Antennæ* long, filiform, very faintly pectinated, except in the male of the last species.—*Abdomen* long, slender.—*Larva* with 12 feet, naked, slender: in their motion they resemble the larvæ of the Geometridæ.—*Pupa* folliculated; *metamorphosis* on the ground, or subterranean.

The insects of this genus fly chiefly by night, but also, occasionally, in the day-time.

- | Species.                           | Icon.  |
|------------------------------------|--|
| 1. <i>Oph. Lusoria</i> , Fab. .... | Ernst, VIII. pl. cccxli. f. 600.   |
| 2.— <i>Ludicra</i> , Hüb. ....     | Hüb. Noct. tab. 65. f. 319. (fœm.)   |
| 3.— <i>Viciæ</i> , Hüb. ....       | Hüb. Noct. tab. 145. f. 664. 665.<br>(fœm.) tab. 146. f. 671. 672.<br>(mas.) 673. (fœm.) |
| 4.— <i>Craccæ</i> , Fab. ....      | Ernst, VIII. pl. cccxli. f. 601.   |
| 5.— <i>Pastinum</i> , Treitsch. †. | — — —  |
| 6.— <i>Limosa</i> , Treitsch. .... | Ernst, VIII. pl. cccxli. f. 602. a.  |
| 7.— <i>Tirrhæa</i> , Fab. ....     | Hüb. Noct. tab. 66. f. 321. (fœm.)   |
| 8.— <i>Lanaris</i> , Fab. ....     | Ernst, VIII. pl. ccexl. f. 599.  |
| 9.— <i>Illunaris</i> , Hüb. ....   | Hüb. Noct. tab. 122. f. 565. (fœm.)<br>tab. 124. f. 574. (mas.)                          |
| 10.— <i>Punctularis</i> , Hüb. ... | Hüb. Noct. tab. 78. f. 364. (fœm.)   |
| 11.— <i>Algira</i> , Linn. ....    | Ernst, VIII. pl. cccvii. f. 531.   |
| 12.— <i>Geometrica</i> , Fab. ...  | Hüb. Noct. tab. 66. f. 324. (fœm.)   |
| 13.— <i>Cingularis</i> , Hüb. ...  | Hüb. Noct. tab. 76. f. 352. (fœm.)   |
| 14.— <i>Jucunda</i> , Hüb. ....    | Hüb. Noct. tab. 103. f. 436. (mas.)<br>tab. 105. f. 492. (fœm.)                          |
| 15.— <i>Regularis</i> , Hüb. ....  | Hüb. Noct. tab. 128. f. 588. (fœm.)  |

\* *Ant. alis anticis albis, viridi flavo undulatis.*—*Ochs. Treitsch. v. pars iii. p. 282.* † *ACOSMETIA*, Steph. *l. c. supra.*

‡ *Oph. alis anticis glaucescentibus, obsolete fusco fasciatis, maculâ reniformi punctisque nigris.*—*Ochs. Treitsch. v. pars iii. p. 297.*

- | Species.  | Icon.                    |
|---|--------------------------|
| 16. Oph. <i>Irregularis</i> , Hüb. . Hüb. Noct. tab. 78. f. 361. (fœm.) |                          |
| 17.— <i>Scapulosa</i> , Hüb.* . . . Hüb. Noct. tab. 77. f. 360. (mas.)  |                          |
|   | tab. 121. f. 561. (fœm.) |

Genus 83. CATEPHIA †, *Ochs., Treitsch.*

(CATEPHIA, Stephens, Boisduval.)

*Wings*, superior dark coloured, with sombre markings: *inferior* at the base light coloured, with a broad dark margin.—*Antennæ* setaceous, slightly pectinated.—*Abdomen* dark coloured, with tufts of hairs on the posterior segments.

- | Species.   | Icon. |
|--|-------|
| 1. Cat. <i>Leucomelas</i> , Hüb. . . Ernst, VIII. pl. cccxvii. f. 557. |       |
| 2.— <i>Alchymista</i> , Hüb. . . Ernst, VIII. pl. cccxvii. f. 556.     |       |

Genus 84. CATOCALA ‡, *Ochs., Treitsch.*

CATOCALA, Schrank. (Curtis, Stephens, Boisduval.)

BLEPHARA, Hübner.

*Legs* long, anterior the shortest; *anterior tibiæ* short, with a compressed broad spine on the inner side; anterior tarsi much longer than the tibiæ.—*Wings* ample, slightly deflexed; *superior* subtrigonate; cilia long, indented.—*Antennæ* alike in both sexes, long, slender, setaceous.—*Palpi* porrected obliquely, triarticulate, densely clothed with long scales.—*Maxillæ* as long as the antennæ, ciliated at the apex.—*Head* rather small.—*Thorax* large.—*Abdomen* robust, cylindrical, attenuated, tufted on the back at the base and tail.—*Larva* with 16 feet.—*Pupa* inclosed in a large cocoon formed between some leaves §.

\* CEROCALA, Boisduval. *Europ. Lepid. Ind. Meth.*—Duponchel remarks of this species, that it is quite anomalous, for from the form of its palpi, the last joint of which is slender and very long, and from the length of the maxillæ, it should belong to the genus *Erebus* Latr.; but its slender body and the very strongly pectinated, or rather plumose antennæ of the male, denote its place to be with the *Phalænidæ*. Until the larva, however, which as yet is unknown, shall have been discovered, its true situation must remain doubtful. Latreille (who makes it an *Erebus*) is evidently of the same opinion as Boisduval, that it may be separated from all the hitherto-known genera, since he says, "Les males de quelques espèces" (of his genus *Erebus*) "ont les antennes pectinées, et pourraient constituer un sous-genre propre."

† *κατηφεια* luctus.‡ *κατω* subtus, *καλος* pulcher.§ Characters from Curtis. *Brit. Ent.* v. pl. 217.

1. Catoc.



- | Species.                                 | Icon.  |
|--|--|
| 1. <i>Catoc. Fraxini</i> , Linn. . . . . | Ernst, VIII. pl. cccxx. et cccxxi. f. 563. a—i.                |
| 2.— <i>Elocata</i> , Esper. . . . .      | Ernst, VIII. pl. cccxxii. et cccxxiii. f. 564.                 |
| 3.— <i>Nupta</i> , Linn. . . . .         | Ernst, VIII. pl. cccxxiii. f. 565.                             |
| 4.— <i>Dilecta</i> , Hüb. . . . .        | Ernst, VIII. pl. cccxxv. f. 568. g. h.                         |
| 5.— <i>Sponsa</i> , Linn. . . . .        | Ernst, VIII. pl. cccxxv. f. 568. a—e.                          |
| 6.— <i>Conjuncta</i> , Esper. . . . .    | Ernst, VIII. pl. cccxxvii. f. a—d.                             |
| 7.— <i>Promissa</i> , Fab. . . . .       | Ernst, VIII. pl. cccxxvi. f. 569.                              |
| 8.— <i>Pacta</i> , Linn. . . . .         | Ernst, VIII. pl. cccxxiv. f. 567.                              |
| 9.— <i>Electa</i> , Hüb. . . . .         | Ernst, VIII. pl. cccxxiv. f. 566.                              |
| 10.— <i>Puerpera</i> , Giorna.* . . . .  | Hüb. Noct. tab. 92. f. 435. (mas.)<br>tab. 129. f. 594. (fœm.) |
| 11.— <i>Neonympha</i> , Hüb. . . . .     | Hüb. Noct. tab. 95. f. 450. (mas.)                             |
| 12.— <i>Nymphæa</i> , Hüb. . . . .       | Ernst, VIII. pl. cccxxviii. f. 572.                            |
| 13.— <i>Conversa</i> , Esper. . . . .    | Ernst, VIII. pl. cccxxvii. et cccxxviii. f. 571.               |
| 14.— <i>Agamos</i> , Hüb. . . . .        | Hüb. Noct. tab. 112. f. 525. (mas.)                            |
| 15.— <i>Paranympha</i> , Linn. . . . .   | Ernst, VIII. pl. cccxxix. f. 573.                              |
| 16.— <i>Nymphagoga</i> , Hüb. . . . .    | Ernst, VIII. pl. cccxxx. f. 575.                               |
| 17.— <i>Hymenæa</i> , Fab. . . . .       | Ernst, VIII. pl. cccxxix. f. 574.                              |

Genus 85. BREPHOS, *Ochs., Treitsch.*

BREPHA, Hübner. (Curtis, Stephens.)

*Legs*, anterior rather short; *anterior tibiæ* with a spine on the inside: *tarsi* five-jointed.—*Wings* rather narrow, horizontal when at rest.—*Antennæ* pectinated in the males; filiform, slender and clothed with long scales in the females.—*Palpi* with three joints, covered with long spreading hairs.—*Maxillæ* very long and tapering, with a dilated membranous edge, and tentacula towards the apex.—*Abdomen* slender.—*Larva* with 16 feet†.

- | Species.                                    | Icon.   |
|---|---|
| 1. <i>Breph. Parthenias</i> , Linn. . . . . | Ernst, VIII. pl. cccxxxi. f. 577. a. b. e—h.  |
| 2.— <i>Notha</i> , Hüb. . . . .             | Ernst, VIII. pl. cccxxxi. f. 577. c. d. k. i.<br>Curt. Brit. Ent. III. pl. 121. ♂ et ♀. |
| 3.— <i>Puella</i> , Esper. . . . .          | Ernst, VIII. pl. cccxxx. f. 576.  |

Genus 86. EUCLIDIA, *Ochs., Treitsch.*

EUCLIDIÆ, Hübner. (EUCLIDIA, Stephens.)

*Wings*, *anterior* generally marked with transverse bars, and

\* Calendario Entomologico, Torino, 1791. † Characters from Curtis. figures

figures resembling mathematical symbols; *posterior* usually with blackish maculæ, and bars, on a yellow ground.—*Antennæ* short, filiform, slightly pectinated in the males.—*Abdomen* slender, rather elongated.—*Larva* slender, with 12 feet.—*Pupa* folliculated; *metamorphosis* not subterranean.

Species.

Icon.

1. *Eucl. Monogramma*, Hüb. Hüb. Noct. tab. 76. f. 353. (mas.)
- 2.—*Glyphica*, Linn. . . . . Ernst, VIII. pl. cccxlii. f. 604.
- 3.—*Triquetra*, Fab. . . . . Ernst, VIII. pl. cccxlii. f. 605.
- 4.—*Mi*, Linn. . . . . Ernst, VIII. pl. cccxli. f. 603.

Genus 87. PLATYPTERYX\*, *Ochs., Treitsch.*

PLATYPTERYX, Laspeyres, Hübner, (Stephens, Duponchel.)

(DREPANA, Stephens. CILIX, Stephens.)

*Wings* large, nearly horizontal when at rest, the upper lying very little over the under; summit of the former, in most species, falciform.—*Antennæ* short, pectinated in the males, ciliated in the females.—*Palpi*, *inferior* very small, and nearly conical.—*Maxillæ* short, almost obsolete.—*Head* small.—*Abdomen* more or less slender.—*Larva* with 14 feet, naked, terminating in a simple truncated tail, without any feet on the last segment.—*Pupa* sprinkled with white, or gray, folliculated, and the cocoon itself inclosed in a semi-convoluted leaf †.

Treitschke divides this genus into three families, according to the form of the upper wings.

FAM. A.—Upper wings rounded at the summit.

FAM. B.—Upper wings with the summit falciform; terminal margin entire.

FAM. C.—Upper wings with the summit falciform; terminal margin dentate.

FAM. A. Species.

Icon.

1. *Plat. Spinula*, Hüb. ‡ . . . Hüb. Bomb. tab. 11. f. 40. (mas.)

FAM. B.

2. *Plat. Sicula*, Hüb. . . . . Ernst, V. pl. ccviii. f. 277.
- 3.—*Curvatula*, Borkh. . . . Ernst, V. pl. ccviii. f. 276. f. g.
- 4.—*Falcula*, Hüb. § . . . . Ernst, V. pl. ccvii. f. 276. a—e.
- 5.—*Hamula*, Hüb. § . . . . Ernst, V. pl. ccviii. f. 278.
- 6.—*Unguicula*, Hüb. . . . . Ernst, V. pl. ccvii. f. 275.

FAM. C.

7. *Plat. Lacertula*, Hub. . . Ernst, V. pl. ccix. f. 279.

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\* *πλατυς* latus, *πτερον* ala.† Characters from Duponchel, *Lepidopt. de France, tom. vii. part. ii. p. 73.*‡ CILIX, Stephens, *Syst. Cat. ii. p. 157.* § DREPANA, Steph. l. c. p. 156.

Genus 88. ENNOMOS, *Ochs., Treitsch.*

(ENNOMOS, GEOMETRA, PERICALLIA, BRADYPETES,  
MACARIA, Stephens.      MACARIA, Curtis.  
ENNOMOS, AVENTIA, PHILOBIA, TIMANDRA, EPIONE,  
EURYMENE, RUMIA, ANGERONA, Duponchel.)

*Wings* not, or scarcely at all, deflexed when at rest; the *inferior* with a prominent angle at the posterior margin; the underside generally ornamented with lively colours.—*Larva*, with the body tubercular, tapering towards the head, which is prominent, rather broad, and depressed.—*Pupa* folliculated, not subterranean; generally changes in a slight web attached to the leaves of plants.

*Obs.* The preceding long list of synonyms shows sufficiently the concurrent opinions of many authors as to the necessity of breaking down this genus into several new ones; and M. Treitschke himself seems to admit their accuracy, since he has adopted no less than five families or subdivisions to receive the species, according to the form of the wings, their markings, &c. demonstrating how inefficient, even in his own estimation, are the very meagre characters which (as above) he has prefixed to the genus.

FAM. A. — Fore wings horizontally extended,—hind wings rounded.

FAM. B.—Fore wings extended,—hind wings angular.

FAM. C.—All the wings indented.

FAM. D.—Crescent-shaped markings or maculæ on the disc of the fore wings.

FAM. E.—All the wings indented,—the dentations of the fore wings particularly strong.

We shall, as usual, give the characters of the new genera (if published) in foot-notes, as the respective species occur on which they have been established; and as we are now entering on the PHALÆNIDÆ, (PHALÆNITES, Latr.) we shall also in this place insert the characters of that tribe, as given in the beautiful and eminently useful work begun by the late M. Godart, and, since his death, continued with increasing ability and excellence by his successor M. Duponchel.

PHALÆNIDÆ.

This tribe was originally composed of the true Phalænæ, or Geometræ, and those species which M. Latreille has since separated from them under Laspeyre's genus *Platypteryx*: the following characters apply therefore solely to the former.

*Wings* entire, or without fissures, generally of a slighter texture, and larger in proportion to the body than those of the BOMBYCIDÆ or NOCTUIDÆ, horizontally extended, or scarcely deflexed, when at rest; no orbicular or reniform spots (the usual distinguishing markings of the Noctuidæ) on the upper wings; the lower wings very little folded at the internal margin when hid by the upper.—*Antennæ* setaceous, sometimes simple\* in both sexes, sometimes pectinated or ciliated, in the males.—*Lower palpi* always covering the upper, in form pretty constant, often very velvety, and very little, or not at all porrected beyond the head.—*Maxillæ* more frequently membranous than horny, in the greater part of the species more or less projecting, but almost or altogether wanting in the rest.—*Thorax* more frequently velvety than squamous, never crested, nor tufted.—*Abdomen* generally long and slender, except in certain females.—*Larva* naked or only furnished with a few short hairs; always *loopers*, whatever the number of feet, which varies from ten to fourteen, including the anal, which are never wanting; the six anterior, and four posterior feet only, used in walking.—*Metamorphosis* very various.—*Duponch. Lep. de France, tom. vii. part. ii. p. 97.*

## FAM. A. Species.

## Icon.

1. Enn. *Flexularia*, Hübn...Ernst, V. pl. ccx. f. 280. a. b.

2.—*Cordiaria*, Hübn.....Hübn. Geom. tab. 8. f. 38. (mas.)  
tab. 66. f. 342. (fœm.)

3.—*Adspersaria*, Hübn....Hübn. Geom. tab. 39. f. 206. (mas.)

## FAM. B.

4. Enn. *Notataria*, Hübn.†.Hübn. Geom. tab. 11. f. 53. (mas.)  
tab. 61. f. 316. (fœm.)

\* As seen by the naked eye: examined with a lens they never appear simple or filiform.—*Dup.*

† PHILOBIA, Duponch.—“*Antennæ* slightly pectinated in the males, and simple in the females.—*Thorax* narrow, but slightly velvety.—*Anterior wings* slightly emarginate below the superior angle; middle of the margin of the *lower wings* forming a more or less acute angle.—*Palpi* convergent at the extremity, porrected beyond the head.—*Larva* smooth, not tuberculated, somewhat attenuated anteriorly; *head* small, cordiform.—*Metamorphosis* occurs amongst leaves or moss at the foot of trees, according to the season.”—*Duponchel, Lep. de France, tom. vii. part. ii. p. 195.*

Duponchel refers seven species (all taken from Treitschke's genus *Ennomos*.) to his genus *Philobia*, grouping them according to the ground colour of the wings, and the upper being with or without emarginations.—Ground yellow, *Ph. flavicaria*.—Ground gray, with the upper wings distinctly emarginate.—*Cordiaria, notataria, alternaria, lituraria*.—Gray, with no emargination in the upper wings,—*signaria, æstimaria*.

5. Enn.

- | Species.   | Icon. |
|--|-------|
| 5. Enn. <i>Lituraria</i> , Hübn.*..Hübn. Geom. tab. 11. f. 54. (mas.)<br>tab. 61. f. 314. (fœm.)<br>Curtis, Brit. Ent. III. pl. 132. |       |
| 6.— <i>Signaria</i> , Hübn. ....Hübn. Geom. tab. 61. f. 313. (fœm.)  |       |
| 7.— <i>Alternaria</i> , Hübn. ...Hübn. Geom. tab. 61. f. 315. (fœm.)   |       |
| 8.— <i>Æstimaria</i> , Hübn.:...Hübn. Geom. tab. 64. f. 333. (fœm.)  |       |
| 9.— <i>Amataria</i> , Linn. †.....Hübn. Geom. tab. 10. f. 52. (mas.)   |       |
| 10.— <i>Imitaria</i> , Hübn. †.....Hübn. Geom. tab. 10. f. 51. (mas.)  |       |
| 11.— <i>Strigillata</i> , Lasp. ....Hübn. Geom. tab. 20. f. 109. (fœm.)  |       |
| 12.— <i>Emutaria</i> , Hübn. †.....Hübn. Geom. tab. 63. f. 323. (mas.)   |       |
| FAM. C.  |       |
| 13. Enn. <i>Emarginaria</i> , Hübn. †Hübn. Geom. tab. 20. f. 107. (mas.)   |       |
| 14.— <i>Flavicaria</i> , Hübn.....Hübn. Geom. tab. 8. f. 40. (mas.)  |       |
| 15.— <i>Parallelaria</i> , Hübn....Hübn. Geom. tab. 9. f. 43. (mas.)<br>f. 44. (fœm.)  |       |
| 16.— <i>Apiciaria</i> , Hübn.....Hübn. Geom. tab. 9. f. 47. (mas.)   |       |
| 17.— <i>Advenaria</i> , Hübn.....Hübn. Geom. tab. 9. f. 45. (mas.)   |       |
| 18.— <i>Dolabraria</i> , Linn. §. ...Hübn. Geom. tab. 8. f. 42. (fœm.)   |       |

\* MACARIA, Curtis.—Curtis suggests the propriety of dividing the Phalœnidæ into two families, calling those species whose males have the antennæ pectinated *Geometridæ*, and the rest, or those with simple antennæ in both sexes, *Phalœnidæ*. His genus *Macaria* belongs to the latter group.

† TIMANDRA, Duponch.—“*Antennæ* in the males pectinated, in the females simple.—*Thorax* narrow, slightly velvety. Superior angle of the *upper wings* very acute; middle of the margin of the lower projecting to a point. *Palpi* porrected beyond the head, last joint very slender and acuminated.—*Maxillæ* rather long.—*Larva* not tuberculated, anteriorly clavate.—*Pupa* angular, enveloped in a slight web amongst leaves.”—*Lep. de France, tom. vii. part. ii. p. 224.*

The three species composing this genus, are readily known by the band which traverses all the wings diagonally, and by the well defined angle formed by the middle of the lower wings.

‡ EPIONE, Duponch.—“*Antennæ* pectinated or ciliated in the males, simple in the females.—*Thorax* narrow, slightly velvety.—*Lower wings* with the terminal margin more or less emarginate, or sinuous.—*Palpi* very distinct, porrected beyond the head.—*Maxillæ* long.—*Larva* covered with fine, insulated hairs, not tuberculated, attenuated anteriorly from the sixth segment; *head* small, square.—*Metamorphosis* in leaves united by silken threads.”—*Lep. de France, tom. vii. part. ii. p. 211.*—Four species are assigned to this genus by its author; *apiciaria* and *parallelaria*, which have all the wings terminated by a broad band,—and *advenaria* and *emarginaria*, which want the terminal band.

§ EURYMENE, Duponchel.—“*Antennæ* pectinated in the males, simple in the females.—*Thorax* narrow, slightly velvety.—*Upper wings* narrow in proportion to the lower, square at the extremity.—*Palpi* thick, scarcely porrected beyond the head.—*Maxillæ* long.—*Larva* with the second and eighth segments tuberculated; *head* slightly emarginate superiorly.—*Metamorphosis* in a slight web amongst leaves.”—*Lep. de France, tom. vii. part. ii. p. 185.*—One species only.

FAM.



Genus 89. ACÆNA, *Ochs., Treitsch.*

(OURAPTERYX, Leach, Samouelle, Stephens, Duponchel.  
URAPTERYX, Kirby.)

*Wings*, upper angle of the *superior* very acute; *inferior* with the middle of the terminal margin truncato-caudate.—*Palpi*, last joint very small, not surpassing the forehead, which is broad and velvety.—*Maxillæ* very long\*.

Species.

Icon.

1. *Ac. Sambucaria*, Linn. ... Hüb. Geom. tab. 6. f. 28. (fœm.)

Genus 90. ELLOPIA, *Ochs., Treitsch.*

(ELLOPIA, PHALÆNA, Stephens.

METROCAMPE, Latreille, Duponchel.)

*Wings* angular or rounded; the upper always with two transverse bands, and the lower with a single one, exactly corresponding with that nearest the terminal margin on the upper.—*Antennæ* pectinated in the males, simple in the females.—*Palpi* slender, scarcely surpassing the forehead.—*Maxillæ* long.—*Larva* naked, occasionally with a few scattered short hairs; *body* elongate, flattened beneath; *head* obtuse, rounded.—*Metamorphosis* in a thin web on the ground, under the surface on trees, or amongst leaves\*.

Both Treitschke and Duponchel divide the four species of which this genus consists into two groups: the first having the wings angular (Fam. A. *Treitsch.*); the second rounded (Fam. B. *Treitsch.*)—Duponchel states that M. Latreille formed this genus, under the name of *Metrocampe*, two years before M. Treitschke gave it that of *Ellopia*. He consequently very properly retains the former, and rejects the latter appellation.

FAM. A. Species.

Icon.

1. Ell. *Honoraria*, Hübn.... Hübn. Geom. tab. 3. f. 16. (mas.)

2.—*Margaritaria*, Hübn... Hübn. Geom. tab. 3. f. 13. (fœm.)

FAM. B.

3. Ell. *Prasinaria*, Hübn. ... Hübn. Geom. tab. 1. f. 4. (mas.)

4.—*Fasciaria*, Linn..... Hübn. Geom. tab. 1. f. 5. (mas.)  
tab. 87. f. 447. (fœm.)

the tree on which they came forth; the males are very active, and in continual flight, even during the day-time. Duponchel divides the species into three groups: 1st group, all the wings denticulated; no crescent-shaped marking at the summit of the upper; *alniaria*, *tiliaria*, *angularia*, *erosaria*, *dentaria*.—2nd group, all the wings denticulated; a crescent at the summit of the upper; *lunaria*, *illunaria*, *illustraria*.—3rd group, the wings rather sinuated than denticulated; *syringaria*, *evonymaria*, *pectinaria*.

\* Characters from Duponchel.

Genus

## Genus 91. GEOMETRA, Ochs., Treitsch.

(HIPPARCHUS, Stephens.

HEMITHEA, GEOMETRA, Duponchel.)

*Wings* with one or more transverse, wavy, white lines or bands; generally of a very light green, or whitish green colour.—*Larva* usually green, sometimes mixed with reddish-brown; *head* and first segment of the body with two small reddish tubercles.—*Metamorphosis* in a thin, transparent web.

FAM. A.—Posterior wings angular.

FAM. B.—Posterior wings rounded.

*Obs.* Such are M. Treitschke's generic characters by which his Geometræ are to be distinguished, the chief of which consists in the ground-colour of the wings being green! —Well may M. Duponchel exclaim (*Lep. de Fran. tom. vii. part. ii. p. 256*) "how could he establish a *genus* on a character which is not even specific? for we see species varying from green to red. It is not so as to the principal markings of the wings (putting their colour out of the question), for their relation to the rest of the organization has always appeared to us to be constant; and we have not hesitated to adopt them as generic characters, whenever we have been unable to discover others in the perfect insect." We are not quite sure that we agree with M. Duponchel in the latter part of his observation; but whatever comes from the pen of such distinguished authority, must at least command attention and respect.

FAM. A. Species.

Icon.

1. *Geom. Vernaria*, Linn.\* Hüb. *Geom. tab. 2. f. 7.* (fœm.)2. *Geom.*

\* HEMITHEA, Duponch.—" *Antennæ* pectinated in the males, simple in the females.—*Thorax* narrow, slightly velvety.—Upper angle of the *anterior wings* more or less acute; middle of the terminal margin of the *posterior* in most species, pointed.—*Palpi* slender, extending beyond the forehead.—*Maxillæ* prominent.—*Larva* smooth, elongated; *head* deeply bifurcate; anterior margin of the first segment with one or two points inclined towards the head.—*Metamorphosis* in a slight web amongst leaves."—*Lep. de Fran. tom. vii. part. ii. p. 233.*

M. Duponchel adds that these insects are at once distinguished by their delicate green colour and the two white bands on the wings, which however are only secondary characters. It was the peculiar form of the larvæ that determined him to create the genus *Hemithea*, for those species which he places in it, and which he arranges in three groups: 1. Lower wings angular; fringe of two alternating colours; *buplevaria*, *æstivaria*.—2. Lower wings angular, fringe of one colour; *putalaria*, *æruginaria*, *viridaria*



- | Species.                              | Icon.  |
|---------------------------------------|--|
| 2. <i>Geom. Papilionaria</i> , Linn.* | Hübner. <i>Geom. tab. 2. f. 6.</i> (fœm.)                  |
| 3.— <i>Viridata</i> , Linn.....       | Hübner. <i>Geom. tab. 2. f. 11.</i> (mas.)                 |
| 4.— <i>Æruginaria</i> , Hübner....    | Hübner. <i>Geom. tab. 9. f. 46.</i> (mas.)                 |
| 5.— <i>Putataria</i> , Linn.....      | Hübner. <i>Geom. tab. 2. f. 10.</i> (fœm.)                 |
| 6.— <i>Bupleuraria</i> , Hübner....   | Hübner. <i>Geom. tab. 2. f. 8.</i> (mas.)                  |
| 7.— <i>Æstivaria</i> , Hübner.....    | Hübner. <i>Geom. tab. 2. f. 9.</i> (fœm.)                  |
| FAM. B.                               |  |
| 8. <i>Geom. Cythisaria</i> , Hübner.. | Hübner. <i>Geom. tab. 1. f. 2.</i> (mas.)                  |
| 9.— <i>Bajularia</i> , Hübner.....    | Hübner. <i>Geom. tab. 1. f. 3.</i> (mas.)                  |
| 10.— <i>Smaragdaria</i> , Fab. ....   | Hübner. <i>Geom. tab. 1. f. 1.</i> (fœm.)                  |
| (11.— <i>Agrestaria</i> , Duponch.    | Duponch. <i>Lep. de Fr. vii. pl. 152.</i><br>f. 4.) (fœm.) |

Genus 92. ASPILATES, *Ochs., Treitsch.*

(ASPILATES, PHASIANE, Duponchel.

ASPILATES, PHIBALAPTERYX, LOZOGRAMMA, Stephens.)

*Wings*, anterior with three almost straight, transverse, diagonal bands, dividing the area into as many nearly equal compartments: *posterior* with faint traces of the outer bands.—*Larva*, not tubercular, except two small elevations on the last segment, somewhat attenuated anteriorly.—*Metamorphosis* above ground.

- | Species.                           | Icon.  |
|------------------------------------|--|
| 1. <i>Asp. Purpuraria</i> , Linn.† | Hübner. <i>Geom. tab. 38. f. 198.</i> (mas.)<br>f. 199. (fœm.) |
| 2.— <i>Mundataria</i> , Cram. ...  | Hübner. <i>Geom. tab. 72. f. 375.</i> (mas.)                   |
| 3.— <i>Sacraria</i> , Linn.....    | Hübner. <i>Geom. tab. 38. f. 200.</i> (mas.)                   |
| 4.— <i>Gilvaria</i> , Fab. ‡.....  | Hübner. <i>Geom. tab. 38. f. 201.</i> (fœm.)                   |

*daría, vernaria*.—3. Lower wings rounded; *smaragdaria, genistaria, corollaria, agrestaria*.

The following caution of M. Duponchel may be useful to young collectors:—"Be careful to *set* all the species of this genus *before they become rigid*; for their fine green colour becomes white or yellowish by damping."

\* GEOMETRA, Duponch.—"*Antennæ* pectinated in the males, simple in the females.—*Thorax* narrow, slightly velvety.—*Lower wings* only, slightly denticulated.—*Palpi* straight, extending beyond the forehead; last joint naked, very distinct.—*Maxillæ* not prominent.—*Larva* short, cylindrical; head rounded; the middle segments tubercular.—*Metamorphosis* in a transparent cocoon, amongst leaves."—Duponch. *Lep. de Fran. tom. vii. part. ii. p. 259.*

The species *papilionaria* and *bajularia* are the only ones which M. Duponchel includes in this genus. † ASPILATES, Stephens.

‡ ASPILATES, Duponch.—"*Anterior wings* traversed diagonally by one or two lines springing from the superior angle; *posterior wings* of nearly the same form as the anterior.—*Palpi* pointed, extending beyond the forehead.—*Legs* very long.—*Maxillæ* very distinct."—*Lep. de France, tom. vii. part. ii. p. 108.*

Species.	Icon.
5. <i>Asp. Arenacearia</i> , Hübn. Hübn. Geom. tab. 21. f. 114. (mas.)	
6.— <i>Cruentaria</i> , Hübn. .... Hübn. Geom. tab. 10. f. 48. (mas.)	
7.— <i>Vespertaria</i> , Linn. .... Hübn. Geom. tab. 45. f. 226. (mas.)	
8.— <i>Citraria</i> , Hübn. .... Hübn. Geom. tab. 40. f. 212. (mas.)	
9.— <i>Artesiararia</i> , Fab. .... Hübn. Geom. tab. 3. f. 15. (fœm.)	
10.— <i>Coarctata</i> , Fab. .... Hübn. Geom. tab. 42. f. 219. (fœm.)	
11.— <i>Lineolata</i> , Hübn.* .... Hübn. Geom. tab. 60. f. 311. (mas.)	
12.— <i>Palumbaria</i> , Fab. † .... Hübn. Geom. tab. 42. f. 221. (fœm.)	
13.— <i>Petraria</i> , Hübn. ‡ .... Hübn. Geom. tab. 21. f. 113. (mas.)	

Genus 93. CROCALLIS, *Ochs., Treitsch.*

(CROCALLIS, HIMERA, Duponchel.

CROCALLIS, METRA, Stephens.)

*Antennæ* in the males strongly pectinated, nearly plumose.—*Anterior wings* with two transverse bands, converging towards the interior margin.—*Abdomen* remarkably stout, especially in the females.—*Larva* very thick in proportion to its length.—*Metamorphosis* above ground, or just under the surface in a slight web.

Species.

Icon.

1. *Cro. Extimaria*, Hübn. § ... Hübn. Geom. tab. 4. f. 21. (mas.)
- 2.—*Elinguaria*, Linn. || .... Hübn. Geom. tab. 4. f. 20. (fœm.)
- 3.—*Pennaria*, Linn. ¶ ..... Hübn. Geom. tab. 3. f. 14. (mas.)

\* PHIBALAPTERYX, Stephens.

† ASPILATES, Stephens. PHASIANE, Duponch.—“*Ph. Anterior wings* with a dot between two transverse, nearly straight, and almost parallel lines.—*Palpi* pointed, extending beyond the forehead.—*Maxillæ* long.”—*Lep. de France, tom. vii. part. ii. p. 109.*

‡ LOZOGRAMMA, Stephens.

§ CROCALLIS, Duponch.—“*All the wings* slightly indented, with a point in the centre of each, two transverse, diverging lines on the *anterior*, and a single line on the *posterior*.—*Palpi* with the last joint pointed, extending beyond the forehead.—*Maxillæ* none.—*Thorax* wide, very velvety.—*Antennæ* pectinated in the males; simple in the females.—*Larva* rugose, of equal thickness through its whole length, not tubercular, but with a few short, scattered hairs; *head* as large as the first segments, slightly depressed anteriorly.”—*Lep. de France, tom. vii. part. ii. p. 174.*

|| CROCALLIS, Duponchel, Stephens.

¶ METRA, Stephens. HIMERA, Duponch.—“*Thorax* and *wings* as in CROCALLIS.—*Palpi* very velvety, not extending beyond the forehead.—*Maxillæ* very distinct, though slender.—*Antennæ* plumose in the male, simple in the female.—*Larva* smooth, cylindrical, not tubercular; *head* small, rounded; two fleshy points, inclined towards the anus, on the penultimate segment.”—*Lep. de France, l. c. supra, p. 169.*

Genus

Genus 94. GNOPHOS, *Ochs., Treitsch.*

(GNOPHOS, HEMITHEA, Duponchel.

CHARISSA, Curtis, Stephens.)

*Wings* dusky, blackish or cinereous, with indistinct transverse bands; *posterior* slightly indented.—*Larva* smooth, cylindrical.—*Metamorphosis* subterranean.

Species.	Icon.
1. Gnop. <i>Furvata</i> , Fab.*.....	Hübner. Geom. tab. 27. f. 144. (mas.)
2.— <i>Dumetata</i> , Treitsch.†	— — — —
3.— <i>Obfuscata</i> , Wien. Verz.	Hübner. Geom. tab. 27. f. 142. (fœm.)
4.— <i>Perspersata</i> , Treitsch.	Hübner. Geom. tab. 79. f. 406. (fœm.)
5.— <i>Obscurata</i> , Wien. Ver.‡	Hübner. Geom. tab. 27. f. 146. (mas.)
6.— <i>Coronillaria</i> , Hübner.§	Hübner. Geom. tab. 93. f. 479. 480. (mas.) f. 481. 482. (fœm.)
7.— <i>Serotinaria</i> , Hübner.†... Hübner.	Geom. tab. 28. f. 147. (fœm.)
8.— <i>Dilucidaria</i> , Hübner. ... Hübner.	Geom. tab. 27. f. 143. (mas.)
(8*— <i>Operaria</i> , Hübner.‡..... Hübner.	Geom. tab. 69. f. 359. Curtis, Brit. Ent. iii. pl. 105.)
9.— <i>Sartata</i> , Treitsch.	— — — —
10.— <i>Glaucinata</i> , Treitsch.	Hübner. Geom. tab. 28. f. 150. (mas.)
11.— <i>Pullata</i> , Wien. Verz.... Hübner.	Geom. tab. 27. f. 145. (mas.)
12.— <i>Punctulata</i> , Wien. Ver.¶	Hübner. Geom. tab. 61. f. 317. (fœm.)
13.— <i>Mucidata</i> , Treitsch.... Hübner.	Geom. tab. 28. f. 148. (fœm.)
14.— <i>Carbonaria</i> , Linn..... Hübner.	Geom. tab. 28. f. 151. (mas.)

\* GNOPHOS, Duponchel.—“Fringe of all the *wings* more or less indented or festooned; *superior* traversed by two indented lines, the *inferior* by only one; an orbicular spot in the centre of each wing.—*Body* long and slender.—*Palpi* short, obtuse.—*Maxillæ* long.”—*Lep. de France*, tom. vii. part. ii. p. 110.

† Gnop. *alis dentatis cæruleo-fuscis, margine externo obscuriore, striis punctatis nigris.*—*Ochs. Treitsch. tom. vi. pars i. p. 163.*

‡ CHARISSA, Curtis.—“*Antennæ* arising from the back part of the head, rather robust, long, attenuated at both ends, composed of numerous transverse joints, with a few short scales above, hairy beneath, compressed and produced internally in the males, slender and setaceous in the females.—*Labrum* and *mandibles* minute, the latter ciliated internally.—*Maxillæ* long, ciliated towards their extremity.—*Labial palpi* not so long as the head, nearly straight, not projecting like a beak, nor contiguous, sparingly covered with scales, 3-jointed.—*Head* small, covered with short close scales.—*Wings, superior* trigonate, apex acute, margins indented, especially in the *inferior*.—*Abdomen* long, slender and obtuse in the males, shorter and subconic in the females.”—*Brit. Ent. l. c. supra.*

§ HEMITHEA, Duponchel. (*vide supra, Genus 91. Geometra vernaria; note.*)

¶ Gnop. *alis cinereis nebulosis, striis obsolete obscurioribus, margine externo maculis albis.*—*Ochs. Treitsch. vi. pars i. p. 175.*

† BOARMIA, Curtis.

## Genus 95. BOARMIA, Ochs., Treitsch.

(BOARMIA, Duponchel.

CLEORA, ALCIS, BOARMIA, Curtis, Stephens.)

*Wings* broad, dusky, with transverse, indented lines, and a dark spot near the centre of the disc; posterior margin with a dark, interrupted transverse line, or row of spots.—*Body* proportionally small and slender.—*Larva* cylindrical; *head* nearly concealed by the first segment of the body.—*Metamorphosis* subterranean.

Species.

Icon.

1. *Boa. Cinctaria*, Hübn.\*...Hübn. *Geom. tab. 31. f. 166.* (fœm.)  
Curtis, *Brit. Ent. ii. pl. 88.*
- 2.—*Crepuscularia*, Hübn.†Hübn. *Geom. tab. 50. f. 158.* (fœm.)

\* *CLEORA*, Curtis, Stephens.—“*Antennæ* setaceous, long and slender.—*Maxillæ* slender, not so long as the antennæ.—*Labial palpi* projecting a little beyond the head, obtuse, thickly covered with scales, which extend considerably beyond the apex.—*Wings* undivided, slightly indented.—*Abdomen* robust, conical in the females.—*Legs* rather stout.”—(Extract)—*Brit. Ent. ii. pl. 88.*

The genus *Cleora* was established some years since by Curtis, at which time he had never seen a male of the species he has so very beautifully figured in his 88th plate: but having lately received one, he finds that its antennæ are pectinated like those of the genus *Alcis*; whilst in *Boarmia* they are ciliated, or pilose beneath. In consequence of this recently acquired information, Curtis has removed the six species with which he originally supposed that *Cleora cinctaria* should be associated (on the probable, but, as it has proved, erroneous, assumption that the male insect would be found to have *ciliated, not pectinated, antennæ*) to the genus *Boarmia*. It does not distinctly appear whether Curtis proposes to abolish the Genus *Cleora* altogether, and transfer *cinctaria* to that of *Alcis* or not. Stephens however, at all events, retains it, including in it *Treitschke's Geometra bajularia*, and his *Boarmia lichenaria, viduaria, glabraria (teneralia, Steph.)* and *cinctaria*, and Thunberg's *Geometra pictaria*.—(See *Syst. Cat. part ii. p. 123.*)

† *BOARMIA*, Curtis, Stephens.—“*Antennæ* inserted on the crown of the head, setaceous, clothed with scales above, composed of numerous joints, each producing a series of long curved hairs in the males; simple in the females.—*Maxillæ* not so long as the antennæ.—*Labial palpi* short, projected horizontally, thickly clothed with short scales.—*Head* small.—*Thorax* not large.—*Abdomen* rather long, slender and attenuated in the males, shorter, subconical or acuminate in the females.—*Upper wings* trigonate, lower with the margin deeply indented.”—*Brit. Ent. vi. pl. 280*, in which Curtis has given a lovely figure of the female *B. tetragonaria*,—a species not known to *Treitschke*. In his enumeration of the British species of *Boarmia*, Curtis remarks that *B. abietaria*, (*Geometra abietaria, Haw. 276. 14.*) is not the *G. abietaria* of *Hübner*, “which is not only differently marked, but has the antennæ strongly pectinated, and is probably my *Aleis australaria*.”—*Haworth (l. c. supra)*, refers to *Hübner's G. abietaria*, as identical with his own species, though with a mark of doubt; but *Stephens (Syst. Cat. part ii. p. 125)* gives the *abietaria* of *Hübner, Treitschke, Haworth* and *Curtis*, as identical, without any mark of doubt at all.

3. *Boa.*

- | Species.                               | Icon.   |
|--|---|
| 3. <i>Boa.elenaria</i> , Hübn.....     | Hübn. Geom. tab.31.f.163.(fœm.)                             |
| 4.— <i>Roboraria</i> , Fab.* † ...     | Hübn. Geom. tab.32.f.169.(mas.)                             |
| 5.— <i>Consortaria</i> , Fab.†.....    | Hübn. Geom. tab.32. f.168. (mas.)                           |
| 6.— <i>Hortaria</i> , Fab.....         | Hübn. Geom. tab.29. f.153.(mas.)                            |
| 7.— <i>Abietaria</i> , Hübn.‡ § ...    | Hübn. Geom. tab.30. f.160.(mas.)                            |
| 8.— <i>Lividaria</i> , Hübn.....       | Hübn. Geom. tab. 26. f.141.(mas.)                           |
| 9.— <i>Repandaria</i> , Hübn.†...Hübn. | Geom. tab.30. f.161. (mas.)                                 |
| 10.— <i>Rhomboidaria</i> , Hübn.†Hübn. | Geom. tab. 29.f.154.(fœm.)<br>tab. 32. f. 170. (mas.)       |
| 11.— <i>Sociaria</i> , Hübn.....       | Hübn. Geom. tab. 29.f.155.(mas.)<br>tab. 82. f. 424. (fœm.) |
| 12.— <i>Extersaria</i> , Hübn.   ...   | Hübn. Geom. tab. 30.f.159.(fœm.)                            |
| 13.— <i>Secundaria</i> , Hübn.....     | Hübn. Geom. tab.29. f.156.(mas.)                            |
| 14.— <i>Lichenaria</i> , Fab.¶.....    | Hübn. Geom. tab.31.f.164.(mas.)                             |
| 15.— <i>Viduarina</i> , Hübn.¶.....    | Hübn. Geom. tab.31.f.165.(mas.)<br>tab. 70. f. 364. (fœm.)  |
| 16.— <i>Glabraria</i> , Hübn.¶....     | Hübn. Geom. tab.31. f.162.(fœm.)<br>tab. 65. f. 339. (mas.) |
| 17.— <i>Cineraria</i> , Fab.....       | Hübn. Geom. tab.32. f. 171.(mas.)                           |

Genus 96. AMPHIDASIS, *Ochs., Treitsch.*

(AMPHIDASIS, PHIGALIA, NYSSIA, Duponchel.)  
AMPHIDASIS, BISTON, Stephens.

*Antennæ* bipectinated in the males, simple in the females; the apex sometimes naked.—*Wings* strong, generally of a whitish-gray colour, with dark, indistinct bands, and coarse dots; females occasionally apterous.—*Body* short, and pointed in the males; in the females stout, conical: *thorax* broad, hairy.

\* BOARMIA, Duponchel.

† ALCIS, Curtis, Stephens.—“*Antennæ* inserted between the eyes, filiform, bipectinated in the males, simple towards the apex; branches ciliated, arising near the centre of the joint: simple, hairy beneath, with a bristle arising from each joint in the females.—*Labrum* and *mandibles* larger than usual.—*Maxillæ* long, slender, furnished with distinct tentacula towards the apex.—*Labial palpi* porrected, visible viewed from above, not hairy, thickly covered with broad scales, very much lengthened beneath, terminal joint not quite concealed.—*Wings* ample, extended horizontally, *superior* trigonate, *inferior* slightly indented.—*Abdomen* long, linear, somewhat truncated in the males, shorter and conical in the females.—*Legs* rather long and slender.”—*Curtis, Brit. Ent.* iii. pl. 113, giving an excellent figure of *A. sericearia*, Curtis,—a species not mentioned by Treitschke.

‡ ALCIS *australaria*, Curtis?

§ *A. abietaria*, Haw., Steph.

¶ BOARMIA, Curtis, Stephens.

¶ CLEORA, Stephens.

1. Amp.

Species.

Icon.

1. *Amp. Betularia*, Linn.\* † Hübn. *Geom. tab. 33. f. 173.* (fœm.)
- 2.—*Prodromaria*, Fab.\* † Hübn. *Geom. tab. 33. f. 172.* (mas.)
- 3.—*Hirtaria*, Linn.\* †..... Hübn. *Geom. tab. 33. f. 175.* (mas.)
- 4.—*Pilosaria*, Hübn. † § ... Hübn. *Geom. tab. 34. f. 176.* (mas.)
- 5.—*Alpinaria*, Hübn. || .... Hübn. *Geom. tab. 34. f. 178.* (mas.)  
tab. 99. f. 513. (fœm.)
- 6.—*Hispidaria*, Fab. † || ... Hübn. *Geom. tab. 34. f. 177.* (mas.)
- 7.—*Pomonaria*, Hübn. † ... Hübn. *Geom. tab. 34. f. 180.* (mas.)
- 8.—*Zonaria*, Hübn. † ..... Hübn. *Geom. tab. 34. f. 179.* (mas.)  
tab. 99. f. 511. (fœm.)

Genus 97. PSODOS, *Ochs., Treitsch.*

(PSODOS, Duponchel. PSYCOPHORA, Kirby, Stephens.)

*Palpi* very hairy, projecting beyond the forehead.—*Maxillæ* long. Ground-colour of the *wings* and *body* black, or very dark; the latter slightly hairy, and slender.

1. Pso.

\* BISTON, Stephens.

† AMPHIDASIS, Duponchel.—“*Antennæ* pectinated in the males, simple in the females. Terminal margin of the *wings* simple or entire.—*Thorax* broad, woolly.—*Wings* thick and small in proportion to the body.—*Head* sunk beneath the thorax.—*Abdomen* large, conical.—*Maxillæ* none, or scarcely discernible.—*Females* winged.—*Larva* long, cylindrical, tubercular; *head* flat, more or less emarginate on the upper part.—*Pupa* naked, in the earth.”—*Duponchel, Lep. de France, tom. vii. part. ii. p. 268.* Except that the larvæ are decided *loopers*, the three species included in this genus by M. Duponchel, might be taken for *Bombyces*, which, in their perfect state, they very much resemble; they differ from them, however, by the antennæ of the females being entirely filiform, whereas in the *Bombyces* they are always slightly pectinated, or ciliated.

† AMPHIDASIS, Stephens.

§ PHIGALIA, Duponchel.—“*Antennæ* pectinated in the males, ciliated in the females.—Terminal margin of the *wings* simple.—*Thorax* broad, woolly. *Abdomen* slender.—*Wings* thin, and large in proportion to the body.—*Palpi* velvety, not projecting beyond the forehead.—*Maxillæ* none, or scarcely discernible.—*Females* apterous.—*Larva* cylindrical, of equal size throughout, with a few short hairs; *head* hemispherical; a bifid tubercle on the eleventh segment.—*Pupa* naked, in the earth.”—*Duponch. l. c. p. 296.* Duponchel has formed this genus on the single species, *pilosaria*, which differs from his *Amphidas*es and *Nyssia*, by its slender abdomen, and proportionately wider and thinner wings; and also from the former by the female being apterous.

|| NYSSIA, Duponchel.—“*Antennæ* pectinated in the males, simple in the females.—Terminal margin of the *wings* simple.—*Thorax* broad, woolly.—*Wings* thick and small in proportion to the body.—*Head* sunk beneath the thorax.—*Abdomen* large, conical.—*Palpi* velvety, not projecting beyond the forehead.—*Maxillæ* wholly, or nearly wanting.—*Females* apterous.—*Larva* cylindrical, slightly attenuated at each end, sometimes smooth, sometimes with little tubercles, each carrying a single hair; *head* hemispherical.—

*Pupa*

Species.	Icon.
1. Pso. <i>Alpinata</i> , Hübn.* †	Hübn. Geom. tab. 38. f. 197. (mas.)
2.— <i>Torvaria</i> , Hübn. ....	Hübn. Geom. tab. 71. f. 366. 367. (mas.) 368. 369. (fœm.)
3.— <i>Horridaria</i> , Fab.....	Hübn. Geom. tab. 60. f. 312. (fœm.)
4.— <i>Venetaria</i> , Hübn.....	Hübn. Geom. tab. 64. f. 329. (mas.)
5.— <i>Trepidaria</i> , Hübn. † ...	Hübn. Geom. tab. 66. f. 343. (fœm.)

Genus 98. FIDONIA, *Ochs., Treitsch.*

(FIDONIA, LIGIA, STRENIA, HALIA, NUMERARIA, HIBERNIA, Duponchel.

FIDONIA, BUPALUS, ANISOPTERYX, LAMPETIA, GRAMMATOPHORA, AZINEPHORA, CHEIMATOBIA, HERCYNIA, HYRIA, Stephens.

BUPALUS, SPERANZA, Curtis.

*Wings* entire, rounded; sprinkled with dark, minute specks, like dust.—*Body* slender; back narrow.—*Larva* stout in proportion to its length, with generally bright coloured dorsal and lateral stripes.—*Metamorphosis* in a thin web, on the ground, or at a small depth below the surface.

Species.	Icon.
1. Fid. <i>Cebraria</i> , Hübn.....	Hübn. Geom. tab. 24. f. 129. (mas.)
2.— <i>Hepararia</i> , Hübn.....	Hübn. Geom. tab. 11. f. 58. (mas.)
3.— <i>Pinetaria</i> , Hübn.....	Hübn. Geom. tab. 24. f. 130. (fœm.) tab. 100. f. 516. 517. (mas.)
4.— <i>Auroraria</i> , Hübn. †....	Hübn. Geom. tab. 12. f. 63. (mas.)
5.— <i>Indigenaria</i> , Treitsch.	Hübn. Geom. tab. 91. f. 168. (fœm.)
6.— <i>Spartiararia</i> , Hübn.....	Hübn. Geom. tab. 22. f. 116. (mas.)
7.— <i>Conspicuararia</i> , Hübn. §	Hübn. Geom. tab. 22. f. 117. 118. (mas.)
8.— <i>Piniaria</i> , Linn.    .....	Hübn. Geom. tab. 22. f. 119. 120. (mas.) tab. 91. f. 469. 470. (fœm.)

*Pupa* naked, in the earth."—*Duponch. l. c. p.* 283. The Nyssiæ are distinguished from the Amphidases (which they very much resemble), not only by the females being apterous, but also by the hemispherical head of the larvæ, which live also exclusively on trees; whereas the larvæ of the latter feed, apparently, in preference on herbaceous plants.

\* PSODOS *equestrata*, Duponchel. † PSYCOPHORA, Stephens.

‡ HYRIA, Stephens.

§ SPERANZA, Curtis.—*Antennæ* setaceous, with numerous oblong joints, each joint, in the males, producing two ciliated branches: simple in the females and ciliated beneath.—*Maxillæ* slender, nearly as long as the antennæ.—*Labial palpi* porrected nearly horizontally, thickly clothed with scales.—*Wings*, the superior of the male, with a small protuberance on the upper side, near the base.—*Head* small; *abdomen* slender.—*Legs* long.—*Curtis* (Extract).—Type of the genus, Sp. *sylvaria*, Curtis, Brit. Ent. v. pl. 225. (mas. et fœm.)

|| BUPALUS, Stephens.

19. Fid.

Species.

Icon.

9. *Fid. Diversata*, Treitsch. Hübn. Geom. tab. 39. f. 202. (fœm.)  
 10.—*Jourdanaria*, Treitsch.\* An. de la Soc. Linn. de Paris. v.  
 tab. xi. f. h—n.  
 11.—*Pennigeraria*, Hübn... Hübn. Geom. tab. 70. f. 363. (mas.)  
 12.—*Plumistaria*, Hübn. †. Hübn. Geom. tab. 24. f. 127. (mas.)  
 13.—*Concordaria*, Hübn... Hübn. Geom. tab. 24. f. 126. (mas.)  
 tab. 100. f. 518. 519. (fœm.)  
 14.—*Murinaria*, Fab..... Hübn. Geom. tab. 21. f. 115. (mas.)  
 tab. 25. f. 134. (fœm.)  
 15.—*Atomaria*, Linn. † ..... Hübn. Geom. tab. 25. f. 136. (fœm.)  
 16.—*Glarearia*, Hübn..... Hübn. Geom. tab. 25. f. 131. (mas.)  
 17.—*Clathrata*, Linn. § ¶ ..... Hübn. Geom. tab. 25. f. 132. (fœm.)  
 18.—*Dilectaria*, Hübn..... Hübn. Geom. tab. 8. f. 39. (mas.)  
 19.—*Cararia*, Hübn..... Hübn. Geom. tab. 8. f. 38. (fœm.)  
 20.—*Immorata*, Linn..... Hübn. Geom. tab. 25. f. 133. (mas.)  
 21.—*Favillacearia*, Hübn. ¶ Hübn. Geom. tab. 26. f. 139. (mas.)  
 Curtis, Brit. Ent. i. pl. 33. ♂ et ♀.  
 22.—*Conspersaria*, Fab..... Hübn. Geom. tab. 26. f. 138. (mas.)  
 23.—*Wavaria*, Linn.<sup>a b</sup> ..... Hübn. Geom. tab. 11. f. 55. (fœm.)  
 24.—*Capreolaria*, Fab. .... Hübn. Geom. tab. 39. f. 204. (mas.)  
 f. 205. (fœm.)  
 25.—*Plumaria*, Hübn. .... Hübn. Geom. tab. 23. f. 124. (mas.)  
 26.—*Pulveraria*, Linn.<sup>c d</sup> ... Hübn. Geom. tab. 39. f. 203. (fœm.)  
 27. *Fid.*

\* *LIGIA*, Duponchel.—“*Upper wings* narrow.—*Head* surmounted by a tuft of hairs terminating in a point.—*Palpi* short, obtuse.—*Maxillæ* nearly obsolete.—*Antennæ*, in the males, very plumose.”—*Duponch. Lep. de France, tom. vii. part. ii. p. 107.*

† *FIDONIA*, Duponchel.—“*All four wings* sprinkled with dots more or less minute, forming by their union more or less distinct bands.—*Palpi* short, often covered with long scales.—*Maxillæ* short, or obsolete.—*Antennæ* very plumose in the males of the principal species.”—*Duponch. Lep. de France, tom. vii. l. c. supra, p. 107.*]

‡ *FIDONIA*, Stephens.

§ *HERCYNIA*, Stephens.

¶ *STRENIA*, Duponchel.—“*All four wings* marked with longitudinal and transverse lines, or reticulated.—*Palpi* very short.—*Maxillæ* rather long.”—*Duponch. l. c. supra, p. 112.*

¶ *BUPALUS*, Stephens. Curtis.—“*Antennæ* setaceous, bipectinated in the males.—*Maxillæ* short, rather broad and flat.—*Labial palpi* slightly hirsute, shorter than the head, scarcely projecting beyond the eyes.—*Wings* not angular, nor indented; very much deflexed when at rest.—*Body* slender.”—*Curtis. Brit. Ent. i. pl. 33. (Extract.)*

<sup>a</sup> *GRAMMATOPHORA*, Stephens.

<sup>b</sup> *HALIA*, Duponchel.—“*All four wings* pulverulent; the superior marked on the anterior margin with three or four spots, from each of which springs an indistinct line.—*Palpi* scarcely projecting beyond the forehead.—*Maxillæ* long.”—*Duponch. l. c. supra, p. 107.*

<sup>c</sup> *AZINEPHORA*, Stephens.

<sup>d</sup> *NUMERIA*, Duponchel.—“*All four wings* pulverulent, with a transverse



Species.	Icon.
27. <i>Fid. Aurantiaria</i> , Hübn.* Hübn. Geom. tab. 35. f. 184. (mas.)	
28.— <i>Progemmaria</i> , Hübn.* Hübn. Geom. tab. 35. f. 183. (mas.)	
29.— <i>Defoliaria</i> , Linn.* †... Hübn. Geom. tab. 35. f. 182. (mas.) tab. 99. f. 510. (fœm.)	
30.— <i>Aceraria</i> , Hübn..... Hübn. Geom. tab. 35. f. 185. (mas.) tab. 99. f. 514. (fœm.)	
31.— <i>Fumidaria</i> , Hübn. .... Hübn. Geom. tab. 101. f. 520. 521. (mas.)	
32.— <i>Bajaria</i> , Hübn..... Hübn. Geom. tab. 37. f. 194. (mas.)	
33.— <i>Leucophæaria</i> , Hübn. † Hübn. Geom. tab. 37. f. 195. (mas.)	
34.— <i>Æscularia</i> , Hübn. ‡... Hübn. Geom. tab. 36. f. 189. (mas.)	
35.— <i>Rupicapraria</i> , Hübn. § Hübn. Geom. tab. 42. f. 222. (mas.)	

Genus 99. CHESIAS, *Ochs., Treitsch.*

(CHESIAS, Duponchel.

CHESIAS, PACHYCNEMIA, Stephens.

LOBOPHORA, Stephens, Curtis.)

*Upper wings* elliptical or lanceolate; *lower* oval.—*Palpi* long, depressed.—*Maxillæ* long.

Species.

Icon.

1. *Ch. Spartiata*, Fab. || ..... Hübn. Geom. tab. 36. f. 187. (mas.)
- 2.—*Polycommata*, Hübn. ¶ Hübn. Geom. tab. 36. f. 190. (fœm.)  
Curtis. Brit. Ent. ii. pl. 81.
- 3.—*Variata*, Hübn..... Hübn. Geom. tab. 57. f. 293. (mas.)  
tab. 73. f. 380. (fœm.) var.
- 4.—*Juniperata*, Linn. .... Hübn. Geom. tab. 57. f. 294. (mas.)
- 5.—*Obeliscata*, Hübn..... Hübn. Geom. tab. 57. f. 296. (mas.)

verse band on the middle of the upper.—*Palpi* acuminate, and somewhat projecting beyond the forehead.—*Maxillæ* short."—*Duponch. l. c. supra*, p. 107.

\* LAMPETIA, Stephens.

† HIBERNIA, Duponchel.—"Upper wings more coloured than the lower.—*Palpi* very short, not projecting as far forward as the forehead.—*Maxillæ* none or obsolete.—*Legs* very long.—Females apterous, or with only the rudiments of wings."—*Duponch. l. c. supra*, p. 106.

‡ ANISOPTERYX, Stephens.

§ CHEIMATOBIJA, Stephens.

¶ CHESIAS, Duponchel, Stephens.

¶ LOBOPHORA, Stephens, Curtis.—"Antennæ rather short, setaceous.—*Maxillæ* not very long.—*Labial palpi* short, distant, incurved, thickly covered with scales.—*Wings* entire, extended horizontally when at rest; upper long, somewhat lanceolate; lower small in the males, with a lobe attached at the base of the abdominal margin.—*Head* small.—*Abdomen* and legs slender."—*Curtis. Brit. Ent. l. c. supra*, (Extract.)

R

6. Ch.

- | Species.                             | Icon.  |
|--------------------------------------|--|
| 6. Ch. <i>Obliquata</i> , Hübn. .... | Hübn. Geom. tab. 43. f. 225. (fœm.)<br>tab. 82. f. 423. (mas.) |
| 7.— <i>Hippocastanata</i> , Hüb.*    | Hüb. Geom. tab. 36. f. 186. (mas.)                             |

Genus 100. CABERA, *Ochs., Treitsch.*

(CABERA, EPHYRA, Duponchel.  
CABERA, CYCLOPHORA, Stephens.)

All the *wings* pulverulent, or spotted with multitudes of minute dots, and traversed by from two to four bands.—*Palpi* scarcely projecting beyond the forehead.—*Maxillæ* long.

- | Species.                            | Icon.  |
|-------------------------------------|--|
| 1. Cab. <i>Pusaria</i> , Linn. †    | ..... Hübn. Geom. tab. 17. f. 87. (fœm.)                       |
| 2.— <i>Exanthemaria</i> , Esper. †  | Hüb. Geom. tab. 17. f. 88. (mas.)<br>tab. 98. f. 506. (fœm.)   |
| 3.— <i>Strigillaria</i> , Hübn. ‡   | ... Hübn. Geom. tab. 23. f. 125. (fœm.)                        |
| 4.— <i>Onoraria</i> , Hübn. ....    | Hüb. Geom. tab. 18. f. 93. (fœm.)                              |
| 5.— <i>Punctaria</i> , Linn. §      | ... Esper. Schm. v. th. tab. vi. f. 5—7.<br>tab. vii. f. 1. 2. |
| 6.— <i>Poraria</i> , Treitsch. §    | ... Hübn. Geom. tab. 13. f. 67. (mas.)                         |
| 7.— <i>Omicronaria</i> , Hübn. §    | .. Hübn. Geom. tab. 13. f. 65. (mas.)                          |
| 8.— <i>Ocellaria</i> , Hübn. §      | .... Hübn. Geom. tab. 13. f. 64. (mas.)                        |
| 9.— <i>Pendularia</i> , Linn. §     | ... Hübn. Geom. tab. 13. f. 66. (mas.)                         |
| 10.— <i>Orbicularia</i> , Hübn. §   | .... Hübn. Geom. tab. 12. f. 60. (mas.)                        |
| 11.— <i>Pupillaria</i> , Hübn. .... | Hüb. Geom. tab. 13. f. 69. (mas.)                              |
| 12.— <i>Gyraria</i> , Hübn. ....    | Hüb. Geom. tab. 84. f. 434. (mas.)                             |
| 13.— <i>Trilineararia</i> , Bork. § | ... Hübn. Geom. tab. 13. f. 68. (fœm.)                         |

Genus 101. ACIDALIA, *Ochs., Treitsch.*

(ACIDALIA, AMATHIA, LARENTIA, Duponchel.

HEMEROPHILA, YPSIPETES, PHIBALAPTERYX, SCOTOSIA,  
TRIPHOSA, CHEIMATOBIA, LOBOPHORA, EMMELESIA, PTY-  
CHOPODA, Stephens.)

All the *wings* marked with numerous undulated, transverse parallel lines.—*Larva* short, stout; generally of a green colour, with pale, longitudinal lines, or reddish streaks: segments of the body, distinct.—*Metamorphosis* subterranean.

## 1. Acid.

\* PACHYCNEMIA, Stephens.

† CABERA, Stephens.

‡ CABERA, Duponchel.

§ CYCLOPHORA, Stephens.

|| EPHYRA, Duponchel.—“Base of all the *wings* pulverulent, with a transverse

Species.	Icon.
1. <i>Acid. Ochrearia</i> , Hübn...Hüb. Geom. tab. 20. f. 110. (mas.)	
2.— <i>Rufaria</i> , Hübn.....Hüb. Geom. tab. 21. f. 112. (mas.)	
3.— <i>Rubricaria</i> , Hübn.. ...Hüb. Geom. tab. 21. f. 111. (fœm.)	
	tab. 94. f. 487. (mas.)
4.— <i>Pygmæaria</i> , Hübn.....Hüb. Geom. tab. 65. f. 335. (mas.)	
	f. 336. (fœm.)
5.— <i>Vittaria</i> , Hübn.....Hüb. Geom. tab. 83. f. 429. (mas.)	
6.— <i>Pusillaria</i> , Hübn.....Hüb. Geom. tab. 19. f. 99. (fœm.)	
7.— <i>Decolorata</i> , Hübn.* ..Hüb. Geom. tab. 47. f. 243. (fœm.)	
8.— <i>Albulata</i> , Hübn. ....Hüb. Geom. tab. 50. f. 257. (fœm.)	
9.— <i>Sylvata</i> , Hübn.....Hüb. Geom. tab. 44. f. 231. (fœm.)	
10.— <i>Luteata</i> , Fab.....Hüb. Geom. tab. 19. f. 103. (fœm.)	
11.— <i>Alpestrata</i> , Hübn.....Hüb. Geom. tab. 62. f. 320. (fœm.)	
12.— <i>Scabraria</i> , Hübn.....Hüb. Geom. tab. 44. f. 229. (mas.)	
13.— <i>Elutata</i> , Hübn.†.....Hüb. Geom. tab. 43. f. 224. (mas.)	
	tab. 74. f. 385. (fœm.)
14.— <i>Impluviata</i> , Hübn.† ...Hüb. Geom. tab. 43. f. 223. (mas.)	
15.— <i>Brumata</i> , Linn.‡ .....Hüb. Geom. tab. 37. f. 191. (mas.)	
	tab. 99. f. 509. (fœm.)
16.— <i>Dilutata</i> , Hübn. ....Hüb. Geom. tab. 36. f. 188. (mas.)	
17.— <i>Lobulata</i> , Hübn. ....Hüb. Geom. tab. 70. f. 362. (mas.)	
18.— <i>Rupestrata</i> , Fab. ....Hüb. Geom. tab. 37. f. 192. (mas.)	
19.— <i>Candidata</i> , Borkh.....Hüb. Geom. tab. 19. f. 101. (fœm.)	
20.— <i>Osseata</i> , Fab.§ .....Hüb. Geom. tab. 19. f. 102. (fœm.)	
21.— <i>Pallidaria</i> , Hübn.....Hüb. Geom. tab. 18. f. 96. (mas.)	
22.— <i>Strigaria</i> , Hübn.  .....Hüb. Geom. tab. 18. f. 98. (mas.)	
23.— <i>Byssinata</i> , Treitsch.¶	
24.— <i>Scriceata</i> , Hübn.....Hüb. Geom. tab. 78. f. 404. (mas.)	
25.— <i>Hexapterata</i> , Fab. <sup>a</sup> ....Hüb. Geom. tab. 44. f. 232. (mas.)	
26.— <i>Sexalata</i> , Borkh. <sup>b</sup> . . .Hüb. Geom. tab. 44. f. 228. (mas.)	

verse line, and an omicron, more or less accurately defined, on the centre of the disc, in most of the species.—*Palpi* slender, very much inclined, and not projecting beyond the forehead.—*Maxillæ* long.”—*Duponch. Lep. de France, tom. vii. part. ii. p. 108.*

† *YPSIPETES*, Stephens.

\* *EMMELESIA*, Stephens.

‡ *CHEIMATOPIA*, Stephens.

§ *PTYCHOPODA*, Stephens.

|| *ACIDALIA*, *Duponchel*.—“All the wings traversed by parallel lines, sometimes straight, sometimes wavy or sinuated, and varying from three to five, on an uniform ground colour. A point in the middle of each wing, on most species.—*Palpi* very short.—*Maxillæ* long.—*Antennæ* ciliated in the males.”—*Duponch. Lep. de France, tom. vii. part. ii. p. 108.*

¶ *Acid. alis albo flavicantibus, strigis obscurioribus.*—*Ochs. Treitsch. vi. part. v. p. 36.*

<sup>a</sup> *LOBOPHORA*, Stephens.

<sup>b</sup> *AMATHIA*, *Duponchel*.—“*Upper wings* only traversed by very numerous parallel, wavy lines, separated by bands.—*Palpi* very short.—*Maxillæ* long.—*Lower wings* of the males, in many species, with an appendage resembling a third pair of rudimentary wings, near their base, on the inner side.”—*Duponch. l. c. p. 112.*

- | Species.                                     | Icon.  |
|--|--|
| 27. Acid. <i>Rivulata</i> , Hübn. . . . .    | Hübn. Geom. tab. 50. f. 259. (mas.)                            |
| 28.— <i>Blandiata</i> , Hübn. . . . .        | Hübn. Geom. tab. 50. f. 258. (mas.)                            |
| 29.— <i>Rusticata</i> , Fab. . . . .         | Hübn. Geom. tab. 46. f. 241. (mas.)                            |
| 30.— <i>Filicata</i> , Hübn. . . . .         | Hübn. Geom. tab. 46. f. 238. (fœm.)                            |
| 31.— <i>Salicaria</i> , Treitsch. . . . .    | Hübn. Geom. tab. 53. f. 273. (mas.)                            |
| 32.— <i>Scripturata</i> , Hübn. . . . .      | Hübn. Geom. tab. 53. f. 274. (mas.)                            |
| 33.— <i>Coraciata</i> , Hübn. . . . .        | Hübn. Geom. tab. 54. f. 278. (fœm.)                            |
| 34.— <i>Frustata</i> , Treitsch.*            |  |
| 35.— <i>Viretata</i> , Hübn. . . . .         | Hübn. Geom. tab. 44. f. 230. (mas.)                            |
| 36.— <i>Riguata</i> , Hübn. . . . .          | Hübn. Geom. tab. 69. f. 358. (fœm.)                            |
| 37.— <i>Undulata</i> , Hübn. . . . .         | Hübn. Geom. tab. 51. f. 262. (fœm.)<br>tab. 85. f. 436. (mas.) |
| 38.— <i>Vetulata</i> , Hübn. †. . . . .      | Hübn. Geom. tab. 51. f. 263. (mas.)                            |
| 39.— <i>Fluviata</i> , Hübn. . . . .         | Hübn. Geom. tab. 54. f. 280. (fœm.)<br>f. 281. (mas.)          |
| 40.— <i>Bilineata</i> , Linn. . . . .        | Hübn. Geom. tab. 51. f. 264. (fœm.)                            |
| 41.— <i>Bistrigata</i> , Treitsch. ‡         |  |
| 42.— <i>Polygrammata</i> , Hübn. . . . .     | Hübn. Geom. tab. 54. f. 277. (mas.)                            |
| 43.— <i>Lignata</i> , Hübn. . . . .          | Hübn. Geom. tab. 52. f. 270. (fœm.)                            |
| 44.— <i>Tersata</i> , Hübn. § . . . . .      | Hübn. Geom. tab. 52. f. 268. (mas.)<br>tab. 87. f. 448. (fœm.) |
| 45.— <i>Aquata</i> , Hübn. . . . .           | Hübn. Geom. tab. 79. f. 410. (fœm.)                            |
| 46.— <i>Petrificaria</i> , Hübn.   . . . . . | Hübn. Geom. tab. 52. f. 267. (mas.)                            |
| 47.— <i>Vitalbata</i> , Hübn. . . . .        | Hübn. Geom. tab. 52. f. 269. (mas.)                            |
| 48.— <i>Rhamnata</i> , Fab. . . . .          | Hübn. Geom. tab. 52. f. 271. (mas.)<br>tab. 77. f. 400. (fœm.) |
| 49.— <i>Dubitata</i> , Linn. ¶ . . . . .     | Hübn. Geom. tab. 51. f. 265. (fœm.)                            |
| 50.— <i>Certata</i> , Hübn. . . . .          | Hübn. Geom. tab. 51. f. 266. (mas.)                            |

## Genus 102. LARENTIA, Ochs., Treitsch.

(EUBOLIA, ANAITIS, Duponchel.

LARENTIA, APLOCERA, EUPITHECIA, Stephens.

EUPITHECIA, Curtis.)

*Anterior wings*, like those of the preceding genus, with wavy,\* Acid. alis anticis fusco virescentibus, fascia obsoleta alba, strigisque obscurioribus; posticis cinereis.—Ochs. *Treitsch. l. c.* p. 50.

† SCOTOSIA, Stephens.

‡ Acid. alis anticis albido ferrugineis, strigis dentatis fuscis; posticis flavido ferrugineis, linea dentata fusca in medio.—Ochs. *Treitsch. vi. part. v.* p. 59.

§ PHIBALAPTERYX, Stephens.

|| HEMEROPHILA, Stephens.

¶ TRIPHOSA, Stephens.—LARENTIA, Duponchel.—“All the *wings* traversed by a great number of parallel lines, wavy, angular, or indented, and more distinct on the *upper* than on the *lower*.—*Palpi* long, projecting beyond the forehead.—*Maxillæ* long.”—Duponch. *Lep. de France, tom. vii. part. ii.* p. 111.

transverse

transverse lines, and frequently a dark transverse band near the centre of the disc.—*Larva* short, stout, rugose, usually of a greenish colour, with spots or stripes.—*Metamorphosis* subterranean.

Species.

Icon.

1. *La. Cervinaria*, Treitsch.\* Hübner. *Geom. tab. 62. f. 318.* (foem.)
- 2.—*Mensuraria*, Treitsch.† Hübner. *Geom. tab. 37. f. 193.* (mas.)
- 3.—*Badiata*, Hübner. . . . . Hübner. *Geom. tab. 56. f. 291.* (mas.)
- 4.—*Plagiata*, Linn.‡ . . . . Hübner. *Geom. tab. 42. f. 220.* (foem.)
- 5.—*Cassiata*, Treitsch.§
- 6.—*Sororiata*, Hübner. . . . . Hübner. *Geom. tab. 68. f. 355.* (mas.)
- 7.—*Bipunctaria*, Fab. . . . . Hübner. *Geom. tab. 53. f. 276.* (mas.)
- 8.—*Cæsiata*, Hübner. . . . . Hübner. *Geom. tab. 53. f. 275.* (mas.)
- 9.—*Sertata*, Hübner. . . . . Hübner. *Geom. tab. 95. f. 489.* (mas.)
- 10.—*Flavicinctata*, Hübner. . . . . Hübner. *Geom. tab. 68. f. 354.* (foem.)
- 11.—*Molluginata*, Hübner. . . . . Hübner. *Geom. tab. 71. f. 371.* (foem.)
- 12.—*Psittacata*, Fab. . . . . Hübner. *Geom. tab. 43. f. 227.* (mas.)
- 13.—*Cyanata*, Hübner. . . . . Hübner. *Geom. tab. 62. f. 319.* (mas.)
- 14.—*Rectangulata*, Linn.|| . . . . Hübner. *Geom. tab. 45. f. 255.* (foem.)  
tab. 72. f. 372. (mas.)
- 15.—*Isogrammata*, Treitsch.¶
- 16.—*Cydoniata*, Borkh. . . . . Rösel, *Ins. i. th. 3. cl. tab. viii. f. 1—3.*
- 17.—*Inturbata*, Hübner. . . . . Hübner. *Geom. tab. 90. f. 461.* (foem.)
- 18.—*Valerianata*, Hübner. . . . . Hübner. *Geom. tab. 76. f. 395.* (mas.)
- 19.—*Residuata*, Hübner. . . . . Hübner. *Geom. tab. 91. f. 467.* (foem.)
- 20.—*Minutata*, Hübner. . . . . Hübner. *Geom. tab. 88. f. 454.* (foem.)
- 21.—*Austerata*, Hübner. . . . . Hübner. *Geom. tab. 89. f. 457.* (mas.)
- 22.—*Satyrata*, Hübner. . . . . Hübner. *Geom. tab. 85. f. 439.* (mas.)
- 23.—*Subnotata*, Hübner. . . . . Hübner. *Geom. tab. 89. f. 458.* (foem.)
- 24.—*Strobilata*, Hübner. . . . . Hübner. *Geom. tab. 87. f. 449.* (mas.)  
450. (foem.)
- 25.—*Sobrinata*, Hübner. . . . . Hübner. *Geom. tab. 90. f. 465.* (mas.)
- 26.—*Subumbrata*, Hübner. . . . . Hübner. *Geom. tab. 45. f. 233.* (foem.)
- 27.—*Oxydata*, Treitsch.<sup>a</sup>

\* LARENTIA, Stephens. † EUBOLIA, Duponchel.—“*Upper wings* with a central transverse band, composed of several parallel lines, more or less undulated.—*Palpi* long, and pointed.—*Maxillæ* long.”—*Duponch. Lep. de Fran. tom. vii. part. ii. p. 109.*

‡ APLOCERA, Stephens.—ANAITIS, Duponchel.—“*Upper wings* only traversed by a great number of angular, parallel lines, divided into bands of three lines each.—*Forehead* very prominent, but the *palpi* nevertheless projecting beyond it.—*Maxillæ* short.”—*Duponch. l. c. p. 111.*

§ Lar. alis anticis griseo glaucescentibus, fasciis duabus interruptis fusco ferrugineis; posticis griseo albidis.—*Ochs. Treitsch. vi. part. ii. p. 85.*

|| EUPITHECIA, Stephens.

¶ Lar. alis cinereo fuscis, lineis undato albidis.—*Ochs. Treitsch. l. c. p. 100.*

<sup>a</sup> Lar. alis anticis fuscis, area ferruginea, puncto medio nigro, strigis obsoletis albidis; posticis cinereis, strigis interruptis albidis.—*Ochs. Treitsch. l. c. p. 114.*

Species.	Icon.
28.— <i>La. Pimpinellata</i> , Hübn. . . . .	Hübn. Geom. tab. 86. f. 443. (mas.) 444. (fœm.)
29.— <i>Exiguata</i> , Hübn. . . . .	Hübn. Geom. tab. 73. f. 379. (fœm.)
30.— <i>Consignata</i> , Hübn. . . . .	Hübn. Geom. tab. 47. f. 245. (fœm.)
31.— <i>Pusillata</i> , Fab. . . . .	Hübn. Geom. tab. 73. f. 378. (fœm.)
32.— <i>Hospitata</i> , Treitsch. . . . .	Hübn. Geom. tab. 45. f. 236. (mas.)
33.— <i>Linariata</i> , Fab.* . . . .	Hübn. Geom. tab. 46. f. 242. (mas.) Curtis. Brit. Ent. ii. pl. 64.
34.— <i>Irriguata</i> , Hübn. . . . .	Hübn. Geom. tab. 77. f. 397. (mas.)
35.— <i>Innotata</i> , Hübn. . . . .	Hübn. Geom. tab. 86. f. 441. (mas.) 442. (fœm.)
36.— <i>Centaureata</i> , Fab. . . . .	Hübn. Geom. tab. 46. f. 240. (mas.) tab. 88. f. 452. (fœm.)
37.— <i>Succenturiata</i> , Linn. . . . .	Hübn. Geom. tab. 89. f. 450. (fœm.)
38.— <i>Denticulata</i> , Treitsch. †	
39.— <i>Sparsata</i> , Hübn. . . . .	Hübn. Geom. tab. 77. f. 398. (fœm.)
40.— <i>Pygmæata</i> , Hübn. . . . .	Hübn. Geom. tab. 45. f. 234. (fœm.)
41.— <i>Nanata</i> , Hübn. . . . .	Hübn. Geom. tab. 75. f. 387. (mas.)
42.— <i>Caliginata</i> , Treitsch. ‡	
43.— <i>Venosata</i> , Fab. . . . .	Hübn. Geom. tab. 47. f. 244. (fœm.)

Genus 103. CIDARIA, *Ochs., Treitsch.*

(CIDARIA, MELANIPPE, Duponchel.

CIDARIA, HARPALICÉ, ELECTRA, EMMELESIA, Stephens.)

*Wings* superior with a dark coloured, transverse band, across the centre of the disc, with its external margin angular.—*Larva* short, thick, each segment with angular spots, the angle pointing towards the head.—*Metamorphosis* in a slight web, amongst leaves on the ground, or beneath the surface.

Species.

Icon.

1. *Ci. Propugnaria*, Treitsch. Hübn. Geom. tab. 55. f. 286. (fœm.)
- 2.—*Aptata*, Hübn. . . . . Hübn. Geom. tab. 67. f. 349. (fœm.)
- 3.—*Minorata*, Treitsch. §

\* *EUPITHECIA*, Curtis.—“*Antennæ* alike in both sexes, rather long, setaceous.—*Maxillæ* as long as the antennæ, slender.—*Palpi* projecting obliquely, like a beak, beyond the head, thickly covered with long and broad scales.—*Wings* entire, horizontal when at rest, superior long, somewhat lanceolate.—*Abdomen* short, slender.—*Legs* rather slender.”—(Extract.) *Curtis l. c. supra.*

† *Lar. alis albis, limbo strigisque obsolete fuscis, puncto medio nigro.*—*Ochs. Treitsch. vi. part. ii. p. 132.*

‡ *Lar. alis plumbeis, atomis, strigisque fuscis.*—*Ochs. Treitsch. l. c. p. 137.*

§ *Cid. alis albido griseis; anticis fasciis fuscis, albo marginatis, linea externa denticulata alba, puncto medio nigro.*—*Ochs. Treitsch. vi. part. ii. p. 143.*

3. *Ci.*

Species.	Icon.
4. <i>Ci. Graphata</i> , Treitsch.*	
5.— <i>Quadrifasciaria</i> , Linn.†	Hübner. Geom. tab. 55. f. 284. (foem.)
6.— <i>Ferrugaria</i> , Wien. Verz.	Hübner. Geom. tab. 55. f. 258. (mas.) tab. 89. f. 460. foem.)
7.— <i>Ligustraria</i> , Hübner. . .	Hübner. Geom. tab. 55. f. 282. (foem.)
8.— <i>Ocellata</i> , Linn. . . . .	Hübner. Geom. tab. 48. f. 252. (foem.)
9.— <i>Galiata</i> , Hübner. . . . .	Hübner. Geom. tab. 53. f. 272. (mas.)
10.— <i>Olivaria</i> , Treitsch. . . .	Hübner. Geom. tab. 59. f. 307. (foem.)
11.— <i>Miaria</i> , Bork. . . . .	Hübner. Geom. tab. 57. f. 292. (foem.)
12.— <i>Tophaceata</i> , Hübner. . .	Hübner. Geom. tab. 60. f. 309. (mas.)
13.— <i>Æquata</i> , Hübner. . . . .	Hübner. Geom. tab. 68. f. 353. (mas.)
14.— <i>Nebulata</i> , Treitsch. ‡	
15.— <i>Populata</i> , Linn. § . . . .	Hübner. Geom. tab. 58. f. 300. (mas.)
16.— <i>Chenopodiata</i> , Linn. . . .	Hübner. Geom. tab. 58. f. 299. (mas.)
17.— <i>Achatinata</i> , Hübner. . .	Hübner. Geom. tab. 58. f. 301. (mas.)
18.— <i>Marmorata</i> , Hübner. . .	Hübner. Geom. tab. 54. f. 279. (foem.)
19.— <i>Mæniaria</i> , Fab. . . . .	Hübner. Geom. tab. 58. f. 298. (foem.)
20.— <i>Fulvata</i> , Hübner.    . . . .	Hübner. Geom. tab. 57. f. 297. (mas.)
21.— <i>Pyropata</i> , Hübner. . . . .	Hübner. Geom. tab. 63. f. 328. (foem.)
22.— <i>Sagittata</i> , Fab. . . . .	Hübner. Geom. tab. 60. f. 310. (foem.)
23.— <i>Pyraliata</i> , Fab. . . . .	Hübner. Geom. tab. 58. f. 302. (mas.)
24.— <i>Derivata</i> , Hübner. . . .	Hübner. Geom. tab. 56. f. 289. (foem.)
25.— <i>Berberata</i> , Fab. . . . .	Hübner. Geom. tab. 56. f. 287. (mas.)
26.— <i>Rubidata</i> , Fab. . . . .	Hübner. Geom. tab. 56. f. 290. (mas.)
27.— <i>Russata</i> , Hübner. . . . .	Hübner. Geom. tab. 59. f. 305. (foem.)
28.— <i>Suffumata</i> , Hübner. . . .	Hübner. Geom. tab. 59. f. 306. (mas.)
29.— <i>Picata</i> , Hübner. . . . .	Hübner. Geom. tab. 84. f. 435. (foem.)
30.— <i>Prunata</i> , Linn. . . . .	Hübner. Geom. tab. 59. f. 304. (mas.)
31.— <i>Silaceata</i> , Hübner. . . .	Hübner. Geom. tab. 59. f. 303. (mas.) tab. 93. f. 477. 478. (foem.)
32.— <i>Reticulata</i> , Fab. . . . .	Hübner. Geom. tab. 60. f. 308. (foem.)
33.— <i>Ruptata</i> , Hübner. . . . .	Hübner. Geom. tab. 57. f. 295. (foem.)
34.— <i>Montanaria</i> , Treitsch.	Hübner. Geom. tab. 48. f. 248. (foem.)
35.— <i>Alchemillata</i> , Linn. ¶ . .	Hübner. Geom. tab. 50. f. 261. (foem.)
36.— <i>Hastata</i> , Linn. <sup>a</sup> . . . .	Hübner. Geom. tab. 49. f. 256. (foem.)
	37. Zer.

\* *Cid. alis cretaceis, atomis strigisque numerosis angulatis fuscis, puncto medio nigro.*—*Ochs. Treitsch. l. c. p. 144.* † *CIDARIA*, Stephens.

‡ *Cid. alis cinereo albidis, atomis nigris, fascia media obsoleta.*—*Ochs. Treitsch. l. c. p. 164.* § *ELECTRA*, Stephens.

|| *CIDARIA*, Duponchel.—“*Upper Wings* traversed across the middle of the disc by a more or less wide band, always bent into one or more salient angles on the outer side.—*Palpi* projecting beyond the forehead.—*Maxillæ* long.”—*Duponch. Lep. de France, vii. part. ii. p. 111.*

¶ *EMMELESIA*, Stephens.

<sup>a</sup> *MELANIPPE*, Duponchel.—“All the *wings* terminated by a more or less interrupted

- | Species.                                 | Icon.   |
|--|---|
| 37. <i>Zer. Tristata</i> , Linn. . . . . | Hüb. Geom. tab. 49. f. 254. (mas.)<br>tab. 50. f. 260. (fœm.) |
| 38.— <i>Rivata</i> , Hübn. . . . .       | Hüb. Geom. tab. 79. f. 409. (fœm.)                            |
| 39.— <i>Luctuata</i> , Hübn. . . . .     | Hüb. Geom. tab. 49. f. 253. (mas.)                            |
| 40.— <i>Turbaria</i> , Hübn. . . . .     | Hüb. Geom. tab. 49. f. 255. (fœm.)                            |

Genus 104. ZERENE, *Ochs., Treitsch.*

(MELANTHIA, VENILIA, ZERENE, CORYCIA, Duponchel.  
XERENE, CIDARIA, HERCYNIA, ABRAXAS, BAPTA, Stephens.)

*Wings superior*, with the ground colour nearly white, or yellow, and a more or less interrupted, dark, transverse band.—*Larva*, thick in proportion to their length; back and sides marked with dots and lines; motion sluggish.—*Metamorphosis* in a slight web amongst leaves, or subterranean.

- | Species.   | Icon.  |
|--|--|
| 1. <i>Zer. Procellata</i> , Fab.* † . . . . .              | Hüb. Geom. tab. 48. f. 251. (fœm.)   |
| 2.— <i>Fluctuata</i> , Linn. † . . . .                     | Hüb. Geom. tab. 48. f. 249. (mas.)   |
| 3.— <i>Stragulata</i> , Hübn. . . . .                      | Hüb. Geom. tab. 65. f. 337. (fœm.)   |
| 4.— <i>Rubiginata</i> , Fab. . . . .                       | Hüb. Geom. tab. 48. f. 250. (fœm.)   |
| 5.— <i>Adustata</i> , Fab. . . . .                         | Hüb. Geom. tab. 15. f. 75. (mas.)  |
| 6.— <i>Suniata</i> , Hübn. . . . .                         | Hüb. Geom. tab. 56. f. 288. (mas.)   |
| 7.— <i>Albicillata</i> , Linn. . . . .                     | Hüb. Geom. tab. 15. f. 76. (fœm.)  |
| 8.— <i>Marginata</i> , Linn. . . . .                       | Hüb. Geom. tab. 15. f. 80. (mas.)  |
| 9.— <i>Maculata</i> , Fab. §    . . . . .                  | Hüb. Geom. tab. 25. f. 155. (mas.)   |
| 10.— <i>Melanaria</i> , Linn. . . . .                      | Hüb. Geom. tab. 16. f. 86. (mas.)  |
| 11.— <i>Grossulariata</i> , Linn. ¶ <sup>a</sup> . . . . . | Hüb. Geom. tab. 16. f. 81. (fœm.)  |
| 12.— <i>Ulmaria</i> , Treitsch. . . . .                    | Hüb. Geom. tab. 16. f. 85. (fœm.)<br>tab. 76. f. 391. (mas.) f. 392.<br>(fœm.) |
| 13.— <i>Pantaria</i> , Linn. . . . .                       | Hüb. Geom. tab. 16. f. 84. (fœm.)  |

interrupted band. Last joint of the *palpi* very pointed, scarcely projecting beyond the forehead.—*Maxillæ* long.—*Duponch. Lep. de France*, vii. part. ii. p. 111. \* XERENE, Stephens.

† MELANTHIA, Duponchel.—“Head, thorax, and base of the upper wings of a deeper colour than the rest.—*Palpi* very short.—*Maxillæ* long.”—*Duponch. Lep. de France*, vii. part. ii. p. 111.

‡ CIDARIA, Stephens.

§ HERCYNIA, Stephens.

|| VENILIA, Duponchel.—“All the *wings* sprinkled with little irregular spots, both on the upper and under sides, on a light ground-colour.—*Palpi* long and velvety.—*Maxillæ* long.”—*Duponch. l. c.* p. 110.

¶ ABRAXAS, Stephens.

<sup>a</sup> ZERENE, Duponchel.—“All the *wings* traversed across the middle by two rows of crowded spots, many of which form larger spots by their union.—*Abdomen* punctuated.—*Palpi* very short.—*Maxillæ* long, convolute only at the extremity.”—*Duponch. l. c.* p. 110.

14. *Zer.*



- | Species.  | Icon.                                     |
|---|---|
| 14. <i>Zer. Cribrata</i> , Treitsch. . . Hübn. Geom. tab. 16. f. 83. (mas.) |   |
| 15.— <i>Taminata</i> , Wien. Verz.* Hübn. Geom. tab. 17. f. 90. (fœm.)      |   |
| 16.— <i>Temerata</i> , Wien. Verz.* † Hübn. Geom. tab. 17. f. 91. (mas.)    |   |
|   | tab. 73. f. 376. (mas.) f. 377.<br>(fœm.) |

Genus 105. MINOA, Ochs., Treitsch.

(MINOA, CLEOGENE, TANAGRA, Duponchel.  
MINOA, Stephens.)

*Wings*, both on the upper and under surfaces, of one colour.—  
*Larva* with the body tapering anteriorly, naked, and generally of lively colours; head small.—*Metamorphosis* in a slight web. Divided into two families.

FAM. A.—With rounded wings.

FAM. B.—With the anterior wings lanceolate, with faint traces, occasionally, of one or two transverse bands.

- | FAM. A. Species.  | Icon. |
|---|-------|
| 1. Min. <i>Euphorbiata</i> , Fab. † Hübn. Geom. tab. 15. f. 78. (mas.)    |       |
| 2.— <i>Lutearia</i> , Fab. §. . . . Hübn. Geom. tab. 23. f. 121. (mas.)   |       |
| 3.— <i>Chærophyllata</i> , Linn. ¶¶ Hübn. Geom. tab. 38. f. 196. (mas.)   |       |
| FAM. B.   |       |
| 4. Min. <i>Griseata</i> , Wien. Verz. Hübn. Geom. tab. 41. f. 216. (mas.) |       |
| 5.— <i>Niveata</i> , Treitsch. . . Hübn. Geom. tab. 41. f. 217. (fœm.)    |       |
| 6.— <i>Illibaria</i> , Hübn. . . Hübn. Geom. tab. 40. f. 207. (mas.)      |       |

Genus 106. IDÆA, Ochs., Treitsch.

(SIONA, PELLONIA, DOSITHEA, Duponchel.  
IDÆA, PTYCHOPODA, Stephens.)

*Obs.* M. Duponchel, whose profound knowledge of the subject entitles his remarks to more than common attention and respect, says of this genus;—"prejudiced in favour of

\* BAPTA, Stephens.

† CORCYRIA, Duponchel.—"Independent of the rest of the markings, which vary with the species, each *wing* has a distinct spot in or near the centre of its disc.—*Palpi* very short.—*Maxillæ* very long."—*Duponch. l. c.* p. 110.

‡ MINOA, Duponchel.—"All the *wings* of one colour, both on the upper and under sides; the *second wings* very much rounded.—*Palpi* short.—*Maxillæ* long."—*Duponch. l. c.* p. 112.

§ CLEOGENE, Duponchel.—"All the *wings* of one colour, sometimes very light, sometimes very dark.—*Palpi* short, velvety.—*Maxillæ* very long."—*Duponch. l. c.* p. 109.

¶ MINOA, Stephens.

¶ TANAGRA, Duponchel.—"Superior angle of the *first wings*, rounded.—*Body* long and thin.—*Palpi* short.—*Maxillæ* long."—*Duponch. l. c.* p. 112.

S

his

his (Treitschke's) arrangement of the Phalænidæ, I had intended to adopt it, unaltered, in this work; but on applying it to my own collection, I found that the Author comprehends a host of species, in his genera, which do not possess the characters assigned respectively to them; and that his nineteenth and last genus, which he calls *Idæa*, is composed of species the most incongruous, such as *dealbata*, *calabraria*, *ornataria*, &c.: so that one might imagine that he has here brought together all those species for which he could not find a place in either of his preceding eighteen genera, without troubling himself to consider whether or not any analogy exists between them. However, with the exception of this genus, which ought to be abolished, the others appear to rest on solid bases; and I have consequently adopted them, but with the restriction, of referring to each, those species only which really belong to it."—As to the name *Idæa*, Duponchel very justly observes that it cannot stand, having already been employed to denote an exotic genus of the Papilionidæ.

All the *wings* with two or three dusky, somewhat arched, and undulated transverse bands, with, generally, between them a point or crescent-shaped spot.—*Larva* very thin in proportion to their length, almost filiform.—*Metamorphosis* subterranean.

Species.

Icon.

1. *Id. Dealbata*, Linn.\* ...Hübner. *Geom. tab. 41. f. 214.* (fœm.)
- 2.—*Decussata*, Wien. *Verz.* .Hübner. *Geom. tab. 41. f. 213.* (mas.)  
f. 215. (fœm.)
- 3.—*Calabraria*, Hübner. ...Hübner. *Geom. tab. 10. f. 49.* (fœm.)
- 4.—*Vibicaria*, Linn.† .....Hübner. *Geom. tab. 10. f. 50.* (mas.)
- 5.—*Vincularia*, Hübner. . . .Hübner. *Geom. tab. 78. f. 402.* (mas.)
- 6.—*Aureolaria*, Fab. . . .Hübner. *Geom. tab. 12. f. 62.* (mas.)
- 7.—*Degenerata*, Treitsch. Hübner. *Geom. tab. 11. f. 57.* (mas.)
- 8.—*Aversata*, Linn. . . . .Hübner. *Geom. tab. 11. f. 56.* (mas.)  
tab. 75. f. 389. (fœm.)
- 9.—*Suffusata*, Treitsch.‡
- 10.—*Remutata*, Linn. . . . .Hübner. *Geom. tab. 18. f. 98.* (fœm.)

\* *IDÆA*, Stephens.—*SCORIA*, Duponchel.—“*Nervures of the wings* very strong.—*Abdomen* long, linear.—*Palpi* with the last joint very acute, projecting beyond the forehead.—*Maxillæ* very long.”—*Duponch. Lep. de Fran. tom. vii. part. 2. p. 112.*

† *PELLONIA*, Duponchel.—“*All the wings* traversed by a narrow band towards the centre of the disc,—the band often separating into two lines.—*Antennæ* and *legs* very long.—*Palpi* obtuse, not projecting beyond the forehead.—*Maxillæ* long.”—*Duponch. l. c. p. 109.*

‡ *Id. alis virescenti flavidis, lineis obsoletis fusciscentibus, puncto medio nigro.*—*Ochs. Treitsch. vi. part. 2. p. 272.*

11. *Id.*

	Species.	Icon.
11.	<i>Id Mutata</i> , Treitsch. . . . .	Rösel, I. th. 3. cl. tab. 11. f. 1—3.
12.	— <i>Submutata</i> , Treitsch.*	
13.	— <i>Immutata</i> , Linn. . . . .	Hübner. Geom. tab. 20. f. 108. (mas.)
14.	— <i>Incanata</i> , Linn. . . . .	Hübner. Geom. tab. 19. f. 100. (mas.) tab. 20. f. 106. (fœm.)
15.	— <i>Ornata</i> , Fab. † . . . . .	Hübner. Geom. tab. 14. f. 70. (mas.)
16.	— <i>Decorata</i> , Wien. Verz. †	Hübner. Geom. tab. 14. f. 71. (mas.)
17.	— <i>Reversata</i> , Treitsch. §	
18.	— <i>Bisetata</i> , Borkh. . . . .	Hübner. Geom. tab. 14. f. 73. (fœm.)
19.	— <i>Scutulata</i> , Borkh. . . . .	Hübner. Geom. tab. 14. f. 72. (fœm.)
20.	— <i>Moniliata</i> , Fab. . . . .	Hübner. Geom. tab. 12. f. 59. (fœm.)
21.	— <i>Lævigata</i> , Fab. . . . .	Hübner. Geom. tab. 14. f. 74. (fœm.)

At length we have completed our extracts from the *Schmetterlinge Von Europa*, as far as we have yet received the work. When the third part of the sixth volume shall reach us, we propose to resume our labours, in continuation. Till when, we heartily bid our entomological readers farewell.

\* *Id. alis albidis, atomis cærulescentibus; anticis maculis costæ lineisque obsoletis fuscis.*—*Ochs. Treitsch. l. c. p. 277.*

† *DOSITHEA*, Duponchel.—“All the *wings* with a point in the centre, on an uniform ground, and traversed near the extremity by a sinuous line, usually accompanied by confluent spots.—*Palpi* very short.—*Maxillæ* long.—*Antennæ* in the males rather ciliated than pectinated.”—*Duponch. l. c. p. 108.*

‡ *PTYCHOPODA*, Stephens.

§ *Id. alis pallide flavis, margine externo fusco, lineaque undata albida, puncto medio nigro.*—*Ochs. Treitsch. l. c. p. 286.*



