

SUMMARY AND CONCLUDING

The homeosis of the Maine worm-like larva of a much more aberrant *relictus*-like individual from Arizona, with allowances for individual variation and for a regularization associated with a seeming attraction toward each other of half-grizzled midgments, is attributable to halving of mesoblastic somites. Daughter larvae, when discrete and in anterior-posterior sequence, retain developmental potentialities of the parent to lambried morphogenesis.

(1) Epidermal metamorphism is induced by the mesoblast. (2) Neural metamorphism is induced by the mesoblast. (3) Development of dorsal pores in the epidermis is induced by the mesoblast. (4) Development of the spermathecae is induced by the mesoblast. (5) Determination for induction of spermathecal development is a function of original axial position of the individual embryonic somites. (6) Development of calciferous glands is induced by the mesoblast. (7) Determination for induction of calciferous gland development is a function of axial position of somites. Calciferous glands, however, develop only at anterior end of the gland, i.e., halves of somites at tenth level in *Inbrevitata* and related species does not give two pairs of sacs. (8) Determination for grizzled development is a function of axial position of somites. Nevertheless, half-grizzards, unlike half-calciferous glands, are not developed, even when asymmetry is marked.

REFERENCES.

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1956b. On the origin of the lambried condition in lambried earthworms. Ann. Mag. Nat. Hist. 12, 9, 577-581.

ASPECTS OF THE FAUNA AND FLORA OF THE AZORES
XI. LEPIDOPTERA

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The first list of Lepidoptera from the Azores was not produced until the middle of the last century (Broquet, 1861). This unfortunately was a rather misleading one and it remained for Codman (1870) to lay the foundation of our knowledge of the distribution of these insects in those islands. Later, in 1903, Ogilvie Grant collected in the Azores (Warren, 1905). After these two works, no other lists of species were published until 1930 when Rehfuß's list of the specimens obtained by Frey and others in 1928 appeared. The present list is of those specimens obtained by the author as a member of the Queen Mary College Expedition to the Azores in August and September 1952 (Chapman, 1954; Carry, 1955). As no pretence is made that this collection represents all the species to be found, no definitive list of all the Lepidoptera has been made, the results of this expedition alone being presented.

On the whole the Lepidopterous fauna has more affinity with that of the European mainland than with the Americas. Many of the species are widespread by reason of their ability to migrate.

Where insects have previously been recorded from either Faial or Pico, a note is made; where there is no comment, no previous record for either of these two islands has been found.

I wish to express my thanks to members of the Department of Entomology, British Museum (Natural History) for their identification of most of the specimens, a selection of which remains in that Museum.

RHOPALOPTERA

Pieridae.

Celias erronea Fourcroy.

3♂, 1♀, and 1♂ *var. helice*, pasture 2,500 ft. above Madalena. Poco garden, Horta. Faial. 26. viii. and 11. ix.; 3♂, and 1♀ *var. helice*, roadside West of Horta. Faial. 26. viii.
Also Godman (1870), Rehfuß (1940).

Migrant.

Pirus brassicae azorensis Rebel.

1♂, grass track above Capelo, Faial. 11. ix.; 1♂, eucalypt. 5. ix.; 1♂, 800 ft. above town, Poco, 6. ix.; 1♂, bungalow garden, Horta, Faial.

Euphyia centrostrigaria Wooldaston.

One specimen, at light, Domus Campestris garden, Pico, 17. viii.
Not previously recorded.

1 ♀, at light, Domus Campestris garden, Pico, 17. viii.
Not previously recorded.

Gymnoecia obstipata Fabricius.
Not previously recorded.

Gymnoecia pumilata Hübner.

One specimen, at light, bungalow garden, Horta, Fayal, 25. viii.
Not previously recorded.
Migrant.

Pyralidae.*Pyraustinae.*

Udea maritatis Guenée.

Very common on both Fayal and Pico, by day and night.
Not previously recorded.

Migrant.

Palpitinae.

Palpita unionalis Hübner.
One specimen, at night, Caes, Pico, 6. ix.

Not previously recorded.
Migrant.

Diasemia ramburialis Duponchel.

One specimen from field, 2,500 ft. above Madalena, Pico, 15. viii.; one specimen, by sweeping from grass/lupin field, West of Horta, Fayal, 26. viii.; one specimen at light, bungalow garden, Horta, Fayal, 10. ix.
Also Rebel (1940).
Migrant.

Migrant.

Aglissa cypræalis Hübner.

One specimen, Domus Campestris, Pico, 14. viii.; one specimen, bungalow garden, Horta, Fayal, 13. ix.
Also Rebel (1940).

May be carried in stored products.

Scopariinae.*Scoparia* sp.

One specimen from *Pisonia* bushes, Caldeira, Fayal, 29. viii.
Not previously recorded.

Scoparia interlinealis Warren.

W. Fayal, 30. viii., one specimen, sweeping from *Pisonia* bushes by Lagoa do Capitão, Caes, Pico, 3. ix.
Warren (1905) from other islands but not on Pico or Fayal.

Scoparia cucimacula Warren.

One specimen from crater of O Pico, Pico, 19. viii.
Described by Warren (1905) as endemic on S. Jorge and Graciosa but apparently not recorded on Pico or Fayal.

Scoparia aquipennalis Warren.

One specimen, Domus Campestris, Pico, 16. viii.; one specimen in crater of O Pico, Pico, 19. viii.; one specimen at night, Caes, Pico, 6. ix.; one specimen at light, bungalow garden, Horta, Fayal, 10. ix.
Endemic in the islands, Rebel (1940), Warren (1905).

Phycitinae.*Homosoma pseudonimbella* Bentink.

One specimen, at light, bungalow garden, Horta, Fayal, 25. viii.; one specimen, eodem loco, 10. ix.

Migrant.

Pterophoridae.*Platypilia acanthodactyla* Hübner.

One specimen on *Calanitha ascendens* Jord. by road in wooded area six miles West of Horta, Fayal, 12. ix.
Also Rebel (1940).
Palaearctic.

Stenoptilia n. sp. ?

One specimen, Domus Campestris, Pico, 16. viii.
Probably a new species.

Glyptipterygidae.*Choreutis herkandrella* Thunberg.

One specimen on *Calanitha ascendens* Jord. from roadside, three miles West of Horta, Fayal, 26. viii.
Not previously recorded.

Lyonetiidae.*Ophrysia suberrimella* Walker.

Single specimens at light, bungalow garden, Horta, Fayal, on 14. ix. and 25. ix.
Not previously recorded.

Carried by banana boats.

Tineidae.*Monopis* sp.

3 ♀s, at light, bungalow garden, Horta, Fayal, 25. viii.
Rebel (1940) *M. crociapunctella* Clemens.

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NEW SPECIES OF *CHLAMISUS* (CHLAMISINAE, COL.

CHRYSOMELIDAE) FROM INDIA, E. INDIES AND QUEENSLAND.

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There are 355 described species of *Chlamisus*, 21 known from India and the East Indies, to which I now add five species and one species of *Hymetus*, an allied genus. The Oriental species are far less tuberculate than the African species, the majority with irregular ridges enclosing strong punctures.

List of Oriental Species of *Chlamisus* so far known.

- Chlamisus andrewsi* Jac. Ann. Soc. Ent. Belg. xlvii, 1903, p. 93
Chlamisus celebensis Rely. Trans. Ent. Soc. Lond. (3) iv, 1865
Chlamisus ceylonensis Jac. Ent. Soc. Ind. Col. ii, 1908, p. 271
Chlamisus foveatus Jac. Ann. Mus. Civ. Genova xxviii, 1892, p. 887
Chlamisus fulvipes Rely. Journ. Linn. Soc. Lond. xiv, 1877, p. 275
Chlamisus flavatarsis Jac. Fauna Ind. Col. ii, 1908, p. 275
Chlamisus granulatus Milk. Rec. Ind. Mus. 12, 1916, p. 65, fig.
Chlamisus indicus Jac. Proc. Zool. Soc. Lond. 1901, p. 163, t. 9, t. 14
Chlamisus integriceps Jac. Fugit. Ind. Col. iii, 1908, p. 273
Chlamisus kanarensis Jac. Fauna Ind. Col. ii, 1908, p. 276
Chlamisus malabaricus Jac. Fauna Ind. Col. ii, 1908, p. 275
Chlamisus orientalis Jac. Ann. Soc. Ent. Belg. xxix, 1895, p. 299
Chlamisus pudimabhai Phasmin. Indian J. Ent. 6, 1915, p. 65, fig.
Chlamisus pallidulus Jacq. Proc. Zool. Soc. Lond. 1897, p. 68
Chlamisus pusillus Stål. Rec. Ind. Mus. 19, 1920, p. 19, fig.
Chlamisus micrographus Ach. Bull. Ent. Soc. Fr. 1913, p. 147
Chlamisus pallidulus of Ann. Soc. Ent. Fr. (6) iii, 1882, Bull. p. lxii
Chlamisus sumatrana Jacq. Proc. Zool. Soc. Lond. 1901, p. 163
Chlamisus tenerostriatus Jac. Fauna Ind. Col. ii, 1908, p. 274
Chlamisus transversarius Bhagat. Indian J. Ent. 6, 1945, p. 65, fig.
Chlamisus wallacei Rely. Trans. Ent. Soc. Lond. (3) iv, i, 1865, p. 58

The types of the new species described are in the British Museum (Natural History).

Chlamisus championi, sp. n. (Fig. 1.)

Reddish brown, with darker markings on the prothorax and elytra. The elytra with strong irregular ridges and strongly punctured, 1.4 mm. Head reddish brown closely punctured; a deep median impression at the base. Antennae short flavous, the first segment the longest, the second very short and transverse, the third long and slender, the remainder