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FOUR NEW MELITÆINE GENERA (NYMPHALIDÆ)

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The American species of Melitæinæ show a diversity of wing-markings and structure that far exceeds anything met with in the Palearctic series. During a recent rearrangement of the collection in the British Museum (N. H.), London, I have found it necessary to distinguish the following new genera.

1.) *TEXOLA* Higgins, gen. nov.

Generotype *Eresia elada* Hewitson.

These are very small butterflies with long fore-wings, the outer margin slightly convex. On the upper surface the ground-colour is orange-yellow, with fine linear longitudinal and transverse markings.

Neuration. — The upper disco-cellular nervure of the fore-wing is rather short; the lower disco-cellular nervure closes half the cell or a little more. In the hind-wing the lower disco-cellular nervure is present (*dymas*) or absent (*elada*).

Palpus. — The terminal segment is short, slender in *elada,* wider in *dymas.*

Male genitalia. — The organs are very small and fragile even in proportion to the small size of the insects. The tegumen is simple and wide, the clasper with 3 processes, the terminal process slender, curved backwards or horizontally across the organs, sharply pointed and firmly chitinized distally with hairs only on the basal part.

Female genitalia. — There is a long double bacillus but most of the genital plate shows little character.

This group is well-defined in general habitus and shape and pattern of the wings. It is not easy to make satisfactory preparations of such small organs, but it appears to me that the terminal process of the clasp in *Texola* arises from the superior border. The male genitalia show an obvious approach to *Chlosyne* Butler, in which genus the finger-like process of the clasp is not rigid and is set with hairs to the extreme apex. I am able to identify only two species, *elada* Hewitson and *dymas* Edw, among the various forms of these little butterflies available for examination. They are placed in a single genus on account of their obvious similarity, although close examination shows unexpected differences in structure. It appears that EDWARDS' name *dymas* 1877 should replace the more familiar *chara* Edwards 1883.

2.) *ATLANTEA* Higgins, gen. nov.

Generotype *Synchloe perezi* Herrich-Schaeffer.

The apex of the fore-wing is produced and the hind-margin excavated below nervure 6.

Neuration. — The upper disco-cellular nervure is short; the lower disco-cellular nervure extends about half-way across the cell which is weakly closed above this by the obsolescent upper part of the nervure. The discoidal cell of the hind-wing is quite open.

Palpus. — Ascending and densely clothed with orange hair scales, which rise to a crest on the dorsum of the second segment. The terminal segment is short, about 1/5 the length of the second segment.

Antenna. — The club is rather abrupt and pyriform.

Male fore-leg. — This is very hairy, the tarsus relatively long with a small second terminal joint.

Male genitalia. — The tegumen is slightly conical, simple. The clasp terminates in a single process which is curved downwards and carries small teeth along its posterior border. There is a massive harpe directed backwards and downwards.

Female genitalia. — The genital plate is extensive and shows unusual features. The bacillus is not developed. The presence of a well-defined "cone" recalls the formation found in the *didyma* Esper group of *Melitæa* Fabricus.

This insect is often associated with *Chlosyne narva* Fabricius and *C. gaudealis* Bates which it resembles in the shape of the fore-wings. The similarity is misleading and it appears that *Atlantea* is confined to the Greater Antilles and is not represented on the mainland of America. On the other hand the structural characters in both sexes show a close relationship with several divergent forms of *Melitæa,* (*e.g., M. ambrisia* Higgins). *A. perezi* is only known from Cuba, and no doubt *seitzi* Röber from Jamaica and *tulita* Dewitz from Porto Rico are closely allied, and possibly should rank as subspecies. Specimens of these forms are not yet available for dissection.

3.) *FULVIA* Higgins, gen. nov.

Generotype *Melitæa fasciata* Hopffer

These are small butterflies, with the fore-wing short and wide, the apex not produced, the posterior margin entire and slightly convex; the hind-wing is ample.

EXPLANATION FOR PLATE

Fig. 1—male genitalia, dorsal view: a. *Fulvia fasciata;* b. *Texola elada;* c. *Atlantea perezi;* d. *Antillea pelops.*

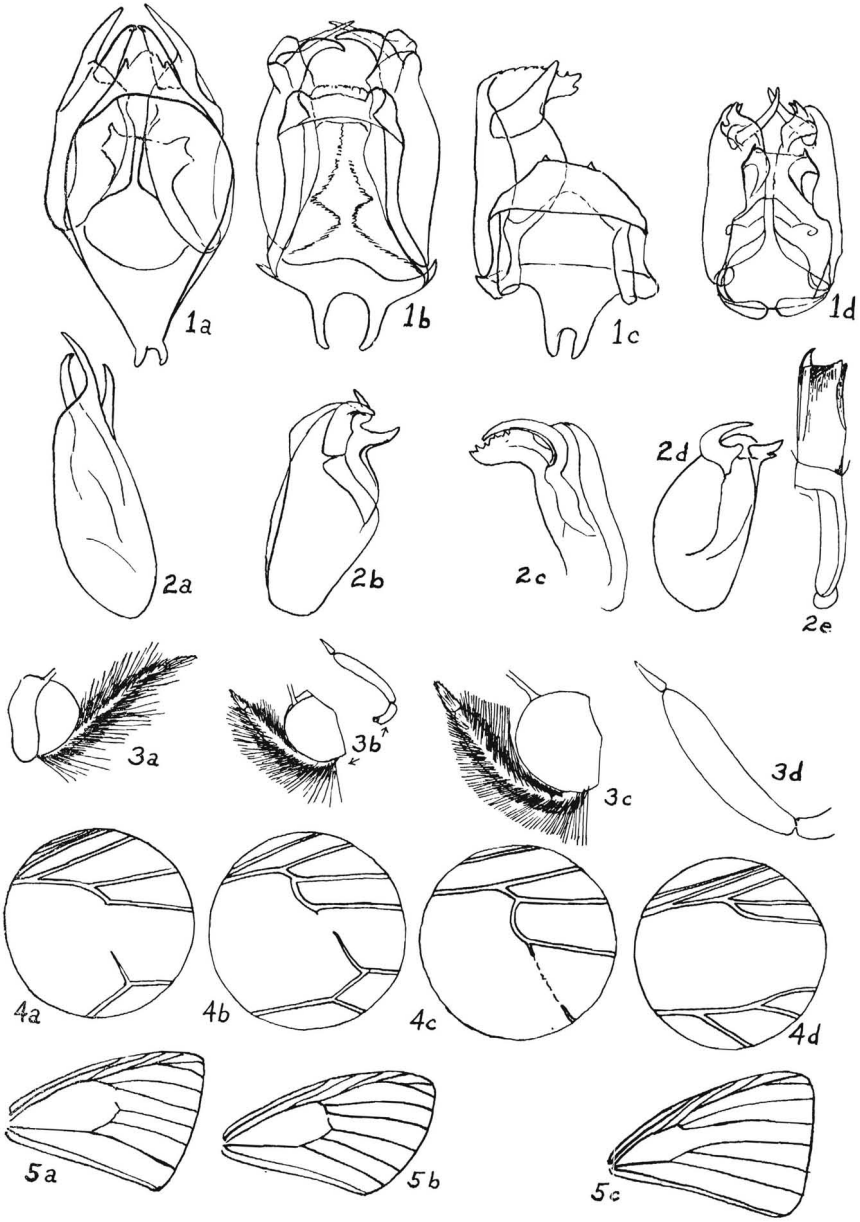
Fig. 2—male clasp, lateral view: a. *F. fasciata*; b. *T. elada ulrica;* c. *A. perezi;* d. *A. pelops;* e. ædeagus, lateral view, of *A. pelops.*

Fig. 3—palpus, lateral view: a. *F. fasciata;* b. *T. elada;* c. *A. perezi;* d. *A. pelops.*

Fig. 4—discoidal nervures of forewing: a. *F. fasciata*; b. *T. dymas;* c. *A. perezi;* d. *A. pelops.*

Fig. 5—forewing neuration: a. *F. fasciata;* b. *T. dymas;* c. *A. pelops.*

[Approximate magnifications: figs. 1a, 1b, 1d, 2a, 2b, 2d, 2e are × 27; figs. 1c, 2c are × 13.7; figs. 3a-d are × 5.5; figs. 4a-d are × 6.8; figs. 5a-c are × 1.65.]


1a
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5c

Neuration. — In the fore-wing nervure 11 arises very close to the stalk of 7-10. The upper disco-cellular nervure is long, branching into 5 and 6. A similar formation is present in the genus *Gnathotriche* Felder. The lower disco-cellular nervure closes about half the cell.

Palpus. — This is unusually long, horizontal, with the terminal segment long and turned slightly downwards.

Male genitalia. — The saccus is greatly elongated. The tegumen is narrow and conical. The narrow oval clasp terminates posteriorly in a long, slender process, below which arises a strong tooth. The ædeagus is cylindrical with the suspensory ligament slightly proximal to the centre.

No female specimen is available for examination.

This genus is required for *fasciata,* an isolated form which shows several unusual features. The very long, downwardly inclined palpi are characteristic. No doubt *miriam* Dognin should be placed here, but no specimen is available yet for examination. The species appear to have a restricted distribution in northern Peru and Ecuador.

4.) *ANTILLEA* Higgins, gen. nov.

Generotype *Papilio pelops* Drury.

These are very small butterflies, with the fore-wing short and wide, the hind-margin straight. On the upper surface the markings are brown macules arranged in transverse fasciæ upon a darker ground-colour.

Neuration. — In the fore-wings nervure 6 and the stalk of 7-10 arise from a common point. The discoidal cell is completely open (*pelops*) or with a vestigial lower disco-cellular nervure (*proclea*). On the hind-wings in the male nervures 1a and 1b are modified to accomodate between them a tuft of long hair scales.

Palpus. — These are ascending, long, with a short terminal joint which is about ¼ as long as the second segment.

Male genitalia. — The tegumen is prolonged; the clasp oval with a definite tooth arising posteriorly from the inferior border; the harpe is long. The structure of these organs is most unusual and differs considerably in the two species. The outstanding feature in both consists in the large ædeagus, flattened from side to side and terminating in a sharp, small ostium keel, almost like a beak.

Female genitalia (*proclea* only). — There is a large genital plate with a short wide bacillus; two rods can be distinguished.

The two species *pelops* Drury and *proclea* Doubleday & Hewitson which constitute this genus are restricted to the Greater Antilles; no representative has been found on the mainland of America. Many features are peculiar, but the wing-neuration, the long tegumen, and the shape of the female genitalia place it with the *Phyciodes* section of the subfamily. The presence of a tooth on the inferior margin of the clasp recalls *Chlosyne,* but from every other angle the relationship with *Phyciodes* is clear. *A. pelops* is the only Melitæine species I have seen in which the cell of the fore-wing is completely open. It is probably the smallest Nymphaline butterfly.

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