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NEOTROPICAL MICROLEPIDOPTERA, VI¹

GENERA *ORSOTRICHA* MEYRICK AND *PALINORSA* MEYRICK
(GELECHIIDAE, OECOPHORIDAE)

By J. F. GATES CLARKE

The moths of the genera *Orsotricha* and *Palinorsa* have been confused in collections for fifty years. Only the study of their types, plus additional material, permits clarification of their relationships at this time.

Gelechiidae

Orsotricha Meyrick

Orsotricha Meyrick, 1914, *Exotic Microlepidoptera*, vol. 1, p. 269; 1922, in Wytsman, *Genera insectorum*, fasc. 180, p. 45.—Fletcher, 1929, *Mem. Dept. Agric. India, Ent. Ser.*, vol. 11, p. 156.—Gaede, in Bryk, 1938, *Lepidopterorum catalogus*, part 88, p. 87.—Clarke, 1963, *Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History)* described by Edward Meyrick, vol. 4, p. 341, pl. 167, figs. 1-1e.

¹ Prepared with the aid of a National Science Foundation Grant. Previous parts of this same series are: I and II, J. F. Gates Clarke, 1962, *Proc. U.S. Nat. Mus.*, vol. 113, no. 3457, pp. 373-388; III, Clarke, 1964, *ibid.*, vol. 115, no. 3480, pp. 61-84; IV, Duckworth, 1964, *ibid.*, vol. 116, no. 3497, pp. 97-114; V, Obratsov, 1964, *ibid.*, vol. 116, no. 3502, pp. 183-196.

Meyrick proposed *Orsotricha* for *Topoutis venosa* Butler, from Chile, and subsequently associated with it *Pleurota literatella* Busek and *Orsotricha raptans* Meyrick, and placed the genus in the family Oecophoridae.

Butler's *Topoutis venosa*, the type of the genus *Orsotricha*, was described from a single female. Both the genitalia and the wing venation, particularly the crossvein between vein 8 and the cell of the hindwing, indicated at the time of the study of the Meyrick types that the species belonged in the Gelechiidae. Recent study of a male, the second specimen known, confirms this relationship and I hereby transfer *Orsotricha* to the Gelechiidae.

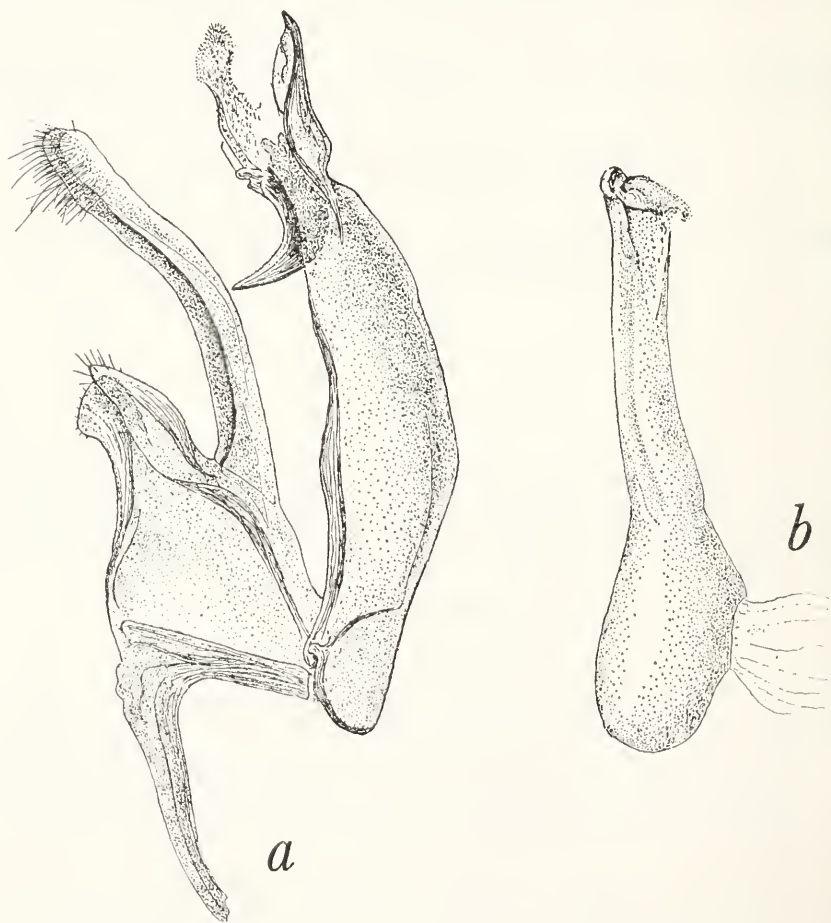


FIGURE 1.—*Orsotricha venosa* (Butler): *a*, lateral aspect of male genitalia with aedeagus removed; *b*, aedeagus.

Orsotricha venosa (Butler)

FIGURE 1; PLATE 1 (FIG. 1)

Topeutis venosa Butler, 1883, Trans. Ent. Soc. London, 1883, p. 77.—Meyrick, 1914, Exotic Microlepidoptera, vol. 1, p. 269; 1922, in Wytzman, Genera insectorum, fasc. 180, p. 45.—Fletcher, 1929, Mem. Dept. Agric. India, Ent. Ser., vol. 11, p. 156.—Gaede, in Bryk, 1938, Lepidopterorum catalogus, part 88, p. 87.—Clarke, 1963, Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, vol. 4, p. 341, pl. 167, figs. 1-1e.

Type: British Museum (Natural History).

Distribution: Chile.

The genitalia of the male are here figured for the first time.

The two species previously associated with *O. venosa* belong to the family Oecophoridae and are treated below. Fortunately, a generic name is available for them.

Oecophoridae

Palinorsa Meyrick

Palinorsa Meyrick, 1924, Exotic Microlepidoptera, vol. 3, p. 99.—Fletcher, 1929, Mem. Dept. Agric. India, Ent. Ser., vol. 11, p. 159.—Gaede, in Bryk, 1938, Lepidopterorum catalogus, part 88, p. 87.

Meyrick proposed *Palinorsa* for *Pleurota literatella* Busck after he had assigned that species to *Orsotricha*. Despite the obvious close relationship between *P. literatella* and *O. raptans*, Meyrick left the latter species associated with *O. venosa* (Butler). I now include four species in *Palinorsa*.

Key to the Species of *Palinorsa*

1. Head brown or brownish 2
- Head ocherous white *zonaria* Clarke, new species
2. Metathorax clothed with red hairlike scales 3
- Metathorax without red hairlike scales *raptans* (Meyrick)
3. Forewing with conspicuous dark longitudinal streak. . . *literatella* (Busck)
- Forewing without conspicuous dark longitudinal streak. *acritomorpha* Clarke, new species

Palinorsa literatella (Busck)

FIGURE 2

Pleurota literatella Busck, 1911, Proc. U.S. Nat. Mus., vol. 40, p. 205, pl. 8, fig. 12.
Palinorsa literatella (Busck), Meyrick, 1924, Exotic Microlepidoptera, vol. 3, p. 99.

Type: USNM.

Distribution: French Guiana, Rio Maroni.

Male genitalia: Harpe subtriangular; cucullus rounded with serrate ventral edge produced as a strong thornlike process; overlapping

the cucullar process a double-pointed, flattened, sclerotized plate, serrate on outer edge. Anellus composed of two irregularly shaped, curved plates fused at base and each with a small laterodistal lobe. Aedeagus short, stout, terminating in a beaklike process. Transtilla membranous, indicated by a few minute granules. Vinculum a broad sclerotized band. Gnathos an oval spined knob. Socii mainly indicated by setae. Uncus moderately hood-shaped, deeply incised on posterior margin.

Slide examined: ♂, JFGC 10948.

Female genitalia: Ostium irregular, broadest posteriorly, surrounded by a raised spiculate lip. Ductus bursae very short; inception of ductus seminalis dorsal and opposite center of ostial opening. Bursa copulatrix oval, without signum. Ovipositor lobes leathery, compressed. Anterior apophyses absent, or at most indicated only by a lateral thickening of genital plate.

Slide examined: ♀, JFGC 11198.

This is the first time that the genitalia of *P. literatella* have been figured, and the female is the first of any species of this genus that I have seen.

***Palinorsa raptans* (Meyrick), new combination**

Orsotricha raptans Meyrick, 1920, Exotic Microlepidoptera, vol. 2, p. 366.—Clarke, 1963, Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, vol. 4, p. 341, pl. 167, figs. 2–2b.

Type: British Museum (Natural History).

Distribution: Peru, Río Napo.

***Palinorsa zonaria*, new species**

FIGURE 3

Alar expanse 42 mm.

Labial palpus white; second segment with narrow fuscous line dorso-basally; third segment with slight apical infuscation. Antenna sordid white. Head ochereous white with ring of reddish-brown scales posteriorly. Thorax pale orange yellow shaded with reddish brown anteriorly; metathorax clothed with long, coral-red hairlike scales. Forewing pale orange yellow with brown median longitudinal streak: costa very narrowly edged with white; a pale spot on each side of vein 1c opposite base of vein 2; cilia pale orange yellow except at apex, the latter same color as median streak. Hindwing semihyaline; costal third and cilia ochereous white; at base a few coral-red hairlike scales and cilia. Legs ochereous white.

Male genitalia: Harpe broad; saccular and costal margins parallel, distally tapering to a blunt cucullus; middle heavily sclerotized giving rise to a strong thornlike clasper directed toward sacculus. Anellus

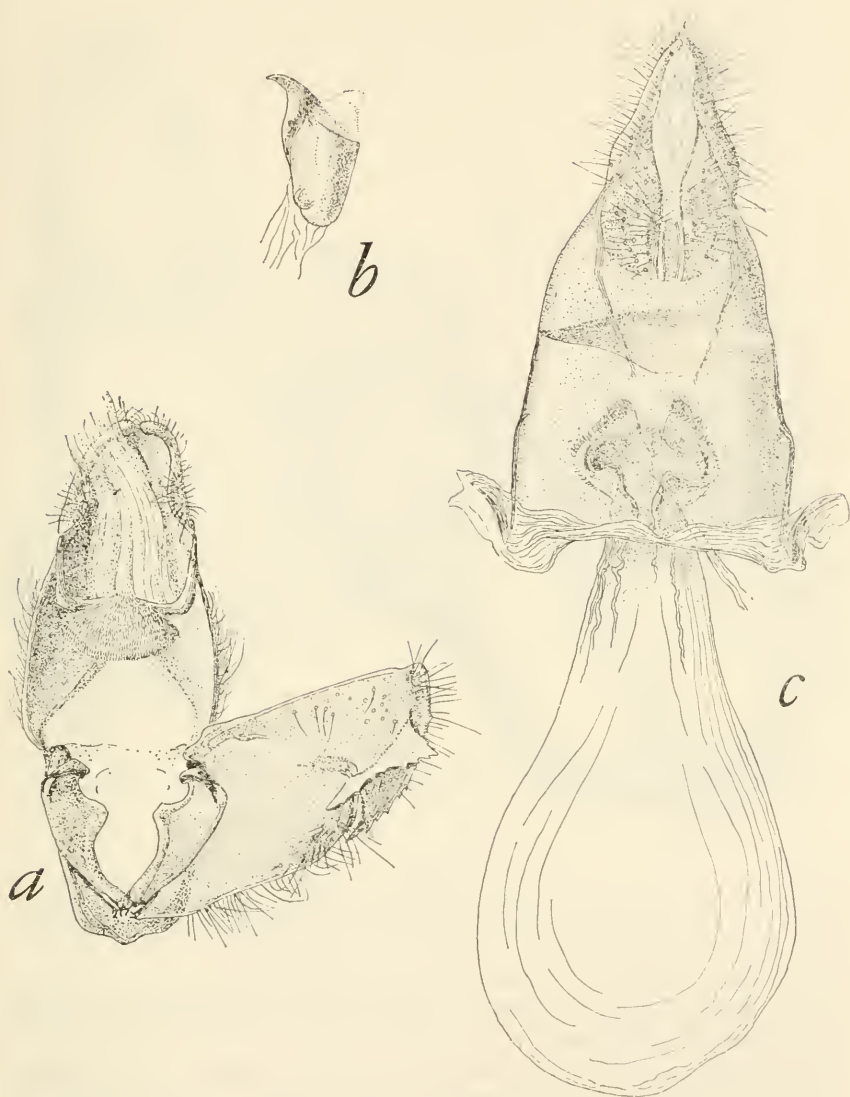


FIGURE 2.—*Palinorsa literatella* (Busck): *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

U-shaped with broad basal plate fused with base of harpe. Aedeagus short, stout, terminating in a broad hooked process articulating with anellus. Vinculum a narrow ring. Gnathos spined, U-shaped. Socii indicated by numerous setae. Uncus elongate, narrowly triangular, terminating in two points.

Slide examined: JFGC 11110.

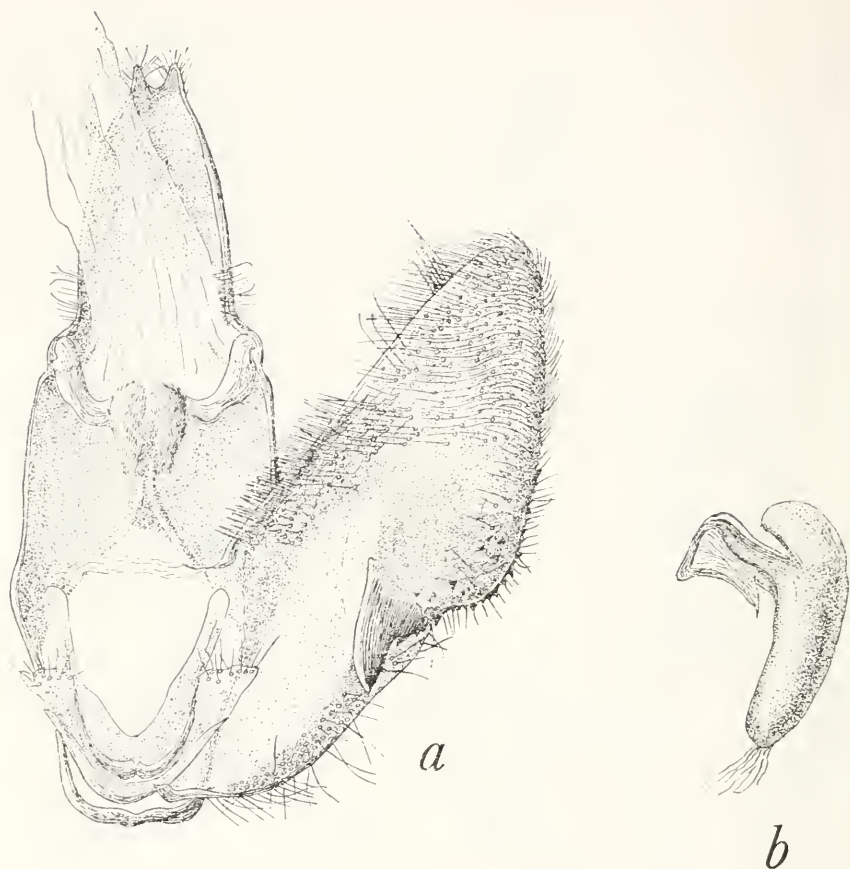


FIGURE 3.—*Palinorsa zonaria* Clarke, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

Female genitalia: Unknown.

Holotype: Bolivia(?), Monte Cristo (and an indecipherable word), Amazonas. USNM 64993.

Described from the holotype male. Although there is only a single male with indefinite locality, it is so distinct it is worth description. The locality label leaves much to be desired. It is impossible to ascertain exactly where "Monte Cristo" is located but the "Amazones" suggests that the locality is actually in Bolivia. If it were possible to read the indecipherable part of the label, a more definite attribution might be made. In addition to the "Monte Cristo" label there is another in Busck's handwriting: "*Orsotricha raptans* Meyr.?"

All of the species of this genus are closely related but *zonaria* appears to be nearest to *literatella*. It is distinguished easily from the latter by its ochreous-white head.

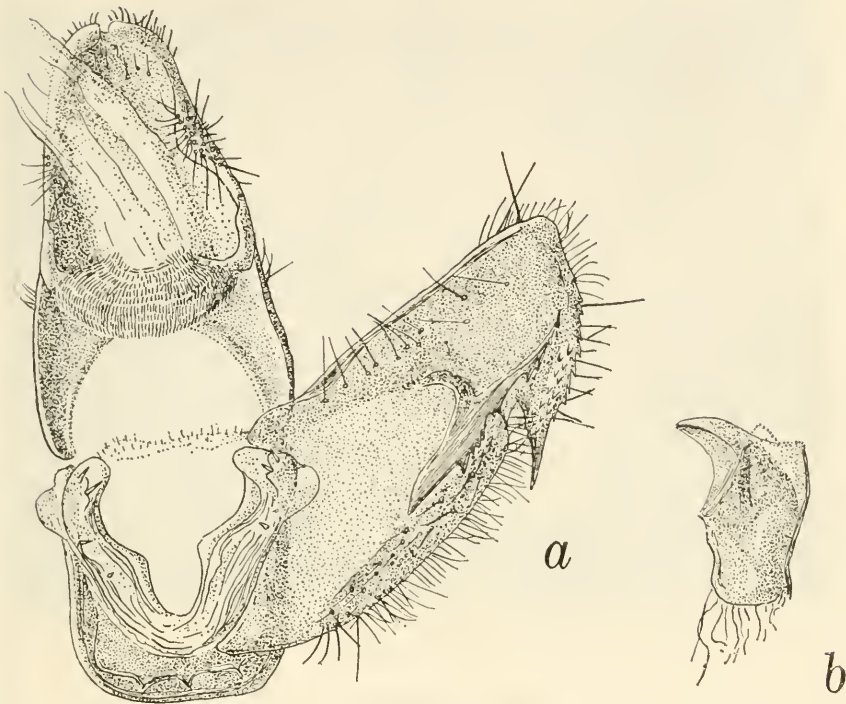


FIGURE 4.—*Palinorsa acritomorpha* Clarke, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

Palinorsa acritomorpha, new species

FIGURE 4; PLATE 1 (FIG. 2)

Alar expanse 33–36 mm.

Labial palpus with second segment white ventrobasally, brown on outer side; on second segment a coral red median line on distal half on inner surface; third segment white. Antenna light brown. Head cinnamon; face white. Thorax cinnamon brown with a broad ochreous-buff median longitudinal band; metathorax clothed with long coral-red hairlike scales. Forewing cinnamon; extreme costa, before apex, whitish; in cell at one-third, a small fuscous spot; at end of cell an ill-defined transverse fuscous bar; on each side of vein 1c, opposite base of vein 2, a buff spot narrowly edged with fuscous; dorsum and termen narrowly fuscous; terminal cilia fuscous. Hindwing semi-hyaline whitish; cilia sordid white, except around base, coral red. Legs white shaded with cinnamon and fuscous. Abdomen roseate dorsally with median longitudinal row of confluent cinnamon spots.

Male genitalia: Harpe elongate ovate; cucullar edge serrate terminating in a long spinous process; from outer third a large spine

directed toward sacculus. Anellus V-shaped with prominent lateral lobes. Aedeagus short, stout, terminating in a beaklike process. Vinculum a broad sclerotized band. Transtilla indicated by sparsely setaceous membrane. Gnathos a finely spined oval knob. Socii indicated by a few setae. Uncus elongate, incised posteriorly.

Slides examined: 2 ♂♂, JFGC 10946, 11109.

Female genitalia: Unknown.

Holotype: Peru, Tingo Maria (Nov. 24, 1949, H. A. Allard). USNM 64992.

Described from the type male and one male paratype with identical data.

The two species *litteratella* and *acritomorpha* are similar but *acritomorpha* lacks the dark longitudinal streak of the forewing found in *litteratella*.

All of the species of *Palinorsa* are related closely and one wonders if one is dealing with a "cline" or incipient species. All males possess a short, stout aedeagus terminating in a beaklike process, and all specimens have a pair of small pale spots opposite the base of vein 2 of forewing. The genitalia appear to present substantial characters for the separation of the species, but the paucity of material is a serious handicap to proper interpretation.

Acknowledgments

The photographs for the paper were made by Mr. Jack Scott, staff photographer. The drawings were made by Mr. André Pizzini.



FIGURE 1.—*Orsotricha venosa* (Butler): left wings.



FIGURE 2.—*Palinorsa acritomorpha* Clarke, new species: left wings.

