

A REDESCRIPTION OF "MICROPTERYX" *SELECTELLA*
WALKER WITH A DISCUSSION CONCERNING ITS
FAMILY AFFINITIES (ACROLEPIIDAE)

DON R. DAVIS

Department of Entomology, Smithsonian Institution, Washington, D.C. 20560

ABSTRACT. The Holotype of "*Micropteryx*" [*sic*] *selectella* Walker is re-examined and illustrated. On the basis of head structure, wing venation, abdominal articulation, and male genitalia, it is concluded that the species demonstrates closest relationship to the genus *Antispastis* of the Acrolepiidae.

In the course of investigations on primitive Lepidoptera, particularly the Micropterigidae and Incurvariidae, I found it necessary to examine a curious little species collected by William Bates in the Amazon during his residency there from 1848 until 1859. This virtually unknown species, represented by a unique male, was described by Walker (1863) in the genus *Micropteryx*. Meyrick (1912) later transferred the species to the genus *Adela*. Because neither of these two genera are believed to exist in the Amazon basin, it is significant, both from the standpoint of biogeography as well as of systematics, to determine the proper family affinities of this insect.

In contrast to both Walker's and Meyrick's superficial conclusions, "*Micropteryx*" *selectella* is without question a member of a ditrysian family. In both venation and male genital structure, it appears most similar to *Antispastis xylophragma* Meyrick, as figured by Clarke (1969). The latter differs somewhat from *selectella*, particularly by the stalked condition of M_1 and M_2 of the hindwing. Consequently, it is possible that although the two species may be closely related, they may not be congeneric. Until further study, however, it seems advisable to place *selectella* in *Antispastis* Meyrick. The venation of *Machlotica chrysodeta* Meyrick appears more similar to *selectella*, but the male genitalia of these two species differ strikingly.

Some uncertainty also persists concerning the family placement of *Antispastis*. Meyrick (1926) originally placed the genus in Glyphipterigidae, and that decision has been followed to the present. Heppner (personal communication), after reviewing most of the glyphipterigid genera, now believes that *Antispastis* is more related to *Acrolepia*, a member of the yponomeutoid family Acrolepiidae. I concur with this opinion, particularly on the basis of the observed similarities of the male genitalia of *Antispastis* and *Acrolepia*.

The abdominal articulation of *Antispastis selectella* is similar to that of Acrolepiidae and other families of the primitive ditrysian stock in possessing the "tineoid" type of apodemes as discussed by Brock

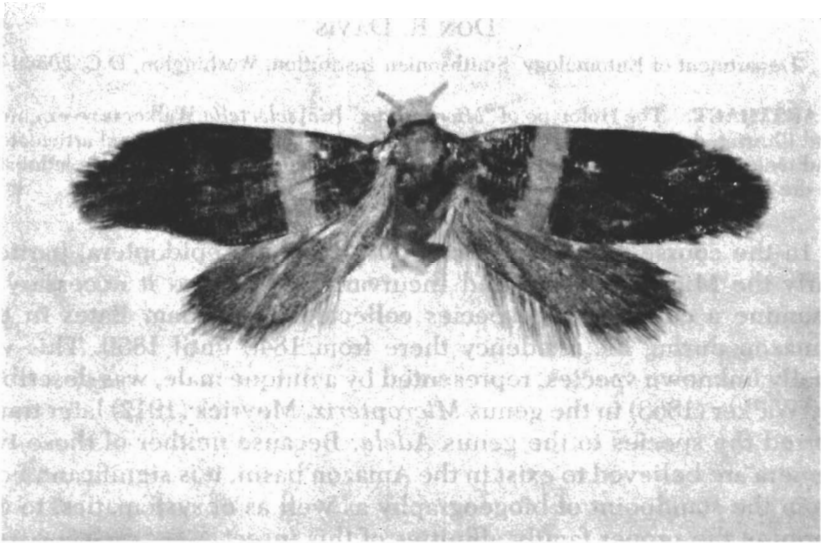


FIG. 1. *Antispastis selectella*; ♂ holotype. Wing expanse 7.8 mm; Tefé, Brazil.

(1968). The apodemes in *A. selectella* consist of a pair of elongate, slender and slightly curved rods which project free far beyond the cephalic margin of the second abdominal sternite. The free portion of the apodemes continues internally as a tapering, sclerotized bar posteriorly along the sternite.

A more complete description of *Antispastis selectella* (Walker) may be summarized as follows:

***Antispastis selectella* (Walker), new combination**

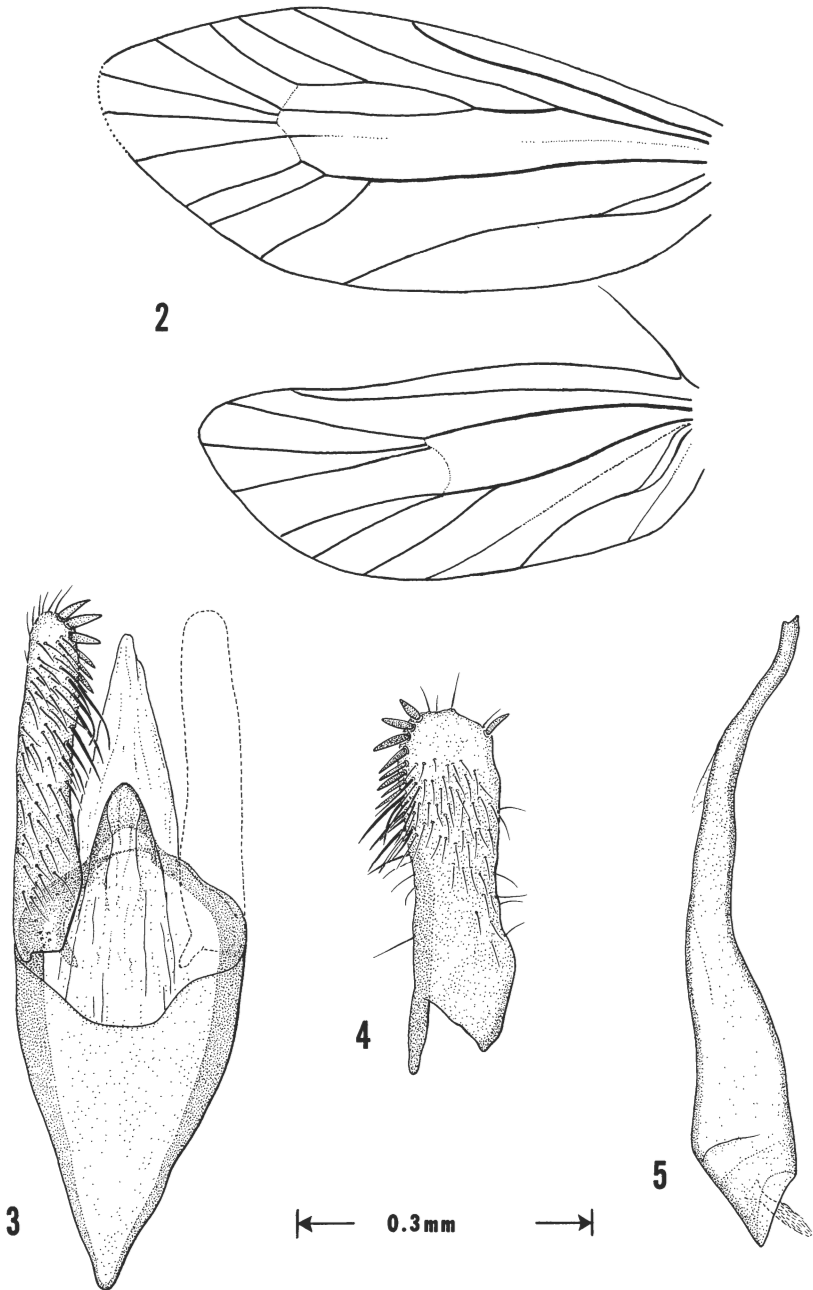
Figs. 1-5

Micropteryx [sic] *selectella* Walker, 1863: 495.

Adela selectella (Walker). Meyrick, 1912: 11.

Adult (Fig. 1). Wing expanse: ♂, 7.8 mm; length of forewing 3.5 mm.

Head. Vestiture smooth (but badly rubbed in unique holotype), consisting of moderately broad, stramineous scales interspersed with more narrow, hairlike scales of same general color. Antennae broken near base but with basal 3 to 5 segments intact, stramineous, ringed with fuscous apically on each segment; scales appressed, with venter of flagellum mostly naked, except for short, pale pubescence; scape without pecten. Ocelli present. Labrum and pilifers extremely reduced, with a short tuft of stramineous setae arising from each pilifer. Maxillae with haustellum essentially naked except for very short, pale pubescence; haustellum coiled in repose, exceeding length of labial palpi; maxillary palpi minute, apparently consisting of one short segment. Labial palpi 3-segmented, mostly porrect though slightly upturned; third segment elon-



FIGS. 2-5. *Antispastis selectella*. 2, Wing venation. 3, ♂ genitalia, ventral view. 4, Valva of genitalia, lateral view. 5, Aedeagus, lateral view (scale = 0.3 mm).

gate, slightly exceeding length of second; apex acute; vestiture relatively smooth, without ventral tufts, stramineous with a suffusion of brownish fuscous ventrally, especially on third segment.

Thorax. Dorsum (badly rubbed) covered with broad, brownish fuscous scales with a slight golden-bronze luster. Venter whitish to stramineous with a silvery sheen. Prothoracic and mesothoracic femora largely stramineous, not banded; tibiae darker, brownish fuscous, with a broad stramineous band encircling base; prothoracic tibiae with a prominent epiphysis; mesothoracic tibiae with a single pair of well developed spurs, one member of pair nearly 2.0× the length of other; each spur stramineous dorsally and fuscous ventrally; tarsal segments of pro- and mesothoracic legs fuscous, banded with whitish to stramineous; mesothoracic tarsi with three broad bands dorsally which tend to coalesce distally underneath. Forewings mostly brownish fuscous with a strong golden-bronze iridescence; basal third of wing with single broad yellowish fascia with parallel sides; width of fascia approximately equal to width of head; a somewhat indistinct, incomplete blackish fascia extending from midway along costa about halfway across wing; width of black fascia slightly less than that of yellow fascia; fringe uniformly brownish fuscous. Hindwings distinctly paler in color, uniformly covered with broad grayish scales.

Abdomen. Uniformly brownish fuscous dorsally and ventrally. Eighth segment with moderately long hair pencils.

Male genitalia (Figs. 3-5) Uncus absent. Tegumen reduced to a narrow ring dorsally. Vinculum well developed, triangular, nearly equalling length of valvae. Valvae relatively simple, approximately same width throughout with sacculus only slightly evident; apex terminating in a rather symmetrically rounded cucullus; costal apex of valva with 6 to 8 large peglike setae arranged in a single marginal series; a single peglike seta present at lower angle of cucullar margin. Annellus slightly sclerotized dorsally and produced into a partially membranous conical process extending noticeably beyond caudal apex of tegumen. Aedeagus elongate, approximately 1.7× the length of valvae and relatively simple, slightly sinuate, without cornuti or exterior processes.

Type. Holotype, ♂, in the British Museum (Natural History). **Type locality.** Ega [=Tefé], Brazil.

Host. Unknown.

Distribution. Known only from the type locality of Tefé (formerly Ega) which is located on the Rio Tefé near its junction with the Amazon River in the state of Amazonas, Brazil.

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LITERATURE CITED

- BROCK, J. P. 1968. The systematic position of the Choreutinae (Lep., Glyphipterygidae). *Entomol. Monthly Mag.* 103: 245-246.
- CLARKE, J. F. G. 1969. Catalogue of the type specimens in the British Museum (Natural History) described by Edward Meyrick, vol. 6, Glyphipterigidae, Gelechiidae (A-C), London. 537 p.
- MEYRICK, E. 1912. Adelidae, Micropterygidae [sic], Gracilariidae [sic]. Pages 1-68 in H. Wagner (editor), *Lepidopterorum Catalogus*, Par. 6.
- WALKER, F. 1863. List of the specimens of lepidopterous insects in the collection of the British Museum, vol. 28, Tortricites and Tineites. London, 561 p.