W. DONALD DUCKWORTH

Neotropical Microlepidoptera XVIII: Revision of the Genus Peleopoda (Lepidoptera: Oecophoridae)

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ABSTRACT

Duckworth, W. Donald. Neotropical Microlepidoptera XVIII: Revision of the Genus *Peleopoda* (Lepidoptera: Oecophoridae). *Smithsonian Contributions to Zoology,* 48:1–30. 1970.—The oecophorid genus *Peleopoda* Zeller is revised and one new species, *P. convoluta,* is described. A key to the species based on structures of the male and female genitalia is provided. All the species are reviewed regarding their taxonomic history, distribution, identity, and morphology. Distribution maps, photographs of the adults, drawings of the male and female genitalia, and all known biological information are included.

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Neotropical Microlepidoptera XVIII: Revision of the Genus Peleopoda (Lepidoptera: Oecophoridae)

Introduction

The genus *Peleopoda* as herein defined consists of thirteen species which have been previously associated with at least five genera in a number of different families including the Gelechiidae, Xyloryctidae, Stenomidae, and Oecophoridae. One species in the present study is described as new. This report presents the first review of this genus for the Nearctic and Neotropical Regions and includes all the species known to occur in these areas. Previous studies on species and genera included here have been brief, largely lacking in illustrations or keys, and primarily devoted to the description of new taxa.

Undoubtedly, the lack of more comprehensive studies on the part of previous workers has been due to the paucity of specimens. A similar lack of material was experienced during the course of the present study even though efforts to obtain specimens have been made by the author and many other people while conducting field studies in both the Nearctic and Neotropical Region. Due to these efforts a number of species are now represented by a much larger series over a more adequate portion of their geographical range. A large number, however, are still known from only one or two specimens and distribution data is inadequate for most of the species.

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The author also wishes to acknowledge the assistance of Mr. Andre Pizzini, staff illustrator, for the line drawings and distribution maps. The photographic work was done by the Smithsonian Photographic Laboratory.

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History

The genus *Peleopoda* was established by Zeller (1877) for a new species, *lobitarsis,* which he described from a single male from Panama. Busck (1908) described a new genus of Gelechiidae, *Durrantia,* for a Zeller species, *piperatella,* noting: "The type has veins 7 and 8 in the forewings stalked; I include as generic character 'or coincident' in order not to exclude another closely related and very similar, undescribed Texan species, which I believe congeneric, in spite of this single difference." Walsingham (1912) added four additional species to *Durrantia* from Central and South America. In the same study he described a new genus of Gelechiidae, *Theatria,* with one included species, *spudasma,* which he related to another genus, failing to note that the venational characters were identical to those of the four species of *Durrantia* he had described on the preceding two pages.

Busck (1911) redescribed *Peleopoda* Zeller, noting that though Zeller's generic description was totally inadequate for absolute determination he felt assured in applying the name to the genus before him and gave the characters accordingly. He included three new species from French Guiana on which he based his characterization of the genus.

Busck (1912) described yet another genus in the Gelechiidae, *Dolidiria,* for a single new species, *arcanella,* noting: "The genus is nearest to and a direct development from *Durrantia* Busck, differing only in veins 7 and 8 of the forewings being coincident instead of stalked."

Meyrick (1916) described a new genus of Oecophoridae with the following comment: ". . . Mr. Busck has regarded this genus as identical with *Peleopoda* Zell., with which conclusion I do not agree; Zeller's type species is indeed unknown to both of us, but the accuracy and reliability of Zeller's work entitles us to read his description literally; . . . ; the characters as given point to a genus allied to *Cryptolechia* and quite distant from the present, and the superficial appearance as shown by the figure confirms this." Meyrick (1922) in his review of the Oecophoridae lists *Peleopoda* Zeller with one included species, *lobitarsis,* and indicated that he had not studied material of this genus and species and that the characters in the original description were incomplete and doubtful. In 1925 Meyrick described a new species of *Durrantia* from Peru and noted: "*Dolidiria* Busck is a synonym of *Durrantia*; the genus belongs to the Xyloryctid group, and is closely allied to *Odites.*" On the same page Meyrick gives a revised description of the genus *Peleopoda* Zeller and comments as follows: "Having obtained a fine example of the type-species, *P. lobitarsis,* from Jurimaguas, Peru, I find that my conjectural reference of it to the Oecophoridae was mistaken, and it is really nearly related to *Durrantia,* and also to *Xylorycta.*"

Meyrick (1930) described the second species assigned to Peleopoda, *semocrossa,* from Bolivia and indicated that it was closely related and similar to *lobitarsis.* Busck (1934) listed *Peleopoda* and the two described species in the Stenomidae part of the "Lepidopterorum Catalogus" series. Gaede (1939) listed *Peleopoda* in the Oecophoridae part of the same series and only included one species, *Lobitarsis.*

Clarke (1955) listed *Durrantia* in the Xyloryctidae and illustrated the wings and genitalia of the two Meyrick species in his study of the Meyrick types in the British Museum (Natural History).

Clarke (1956) described a new genus in the Oecophoridae, *Pseuderotis,* for a new species, *Cannescens,* from Argentina. Clarke (1963) listed *Peleopoda* in the Oecophoridae portion of his Meyrick Types study and illustrated the wings and genitalia of *semocrossa.*

Biology

Distribution.—As pointed out previously the distributional data for *Peleopoda* are far from complete, but the Neotropical character of the genus is readily observable. The two species that occur in the Nearctic Region (*piperatella, obiterella*) have distributions which indicate only a fringe penetration at best. The large concentration of species in Central America could suggest that area as the center of origin for the group with subsequent dispersal both north and south, but primarily south.

It is very likely that the genus is more abundant in South America than present information indicates. Undoubtedly, further collecting will produce additional records of known species as well as new species.

LIFE HISTORY.—As is the case for a vast majority of Microlepidoptera in the Neotropics very little is known of the life histories of the species included here. Except for Bourquin's (1957) casual account of his observations on *P. cannescens* there are no published studies of the biology of any *Peleopoda* species. Host plant data from specimens have been utilized wherever possible and host plants have been listed for four species including *P. cannescens*. From these data, species in the genus are now known to feed on plants in the families Malpighiaceae, Verbenaceae, Polygonaccae, and Platanaceae. In addition, there is one questionable record of *P. resurgens* on a species of Orchidaceae which is discussed in further detail under that species.

Classification

While engaged in studies on the related family Stenomidae, my attention was first directed to the group of moths included in this study. Several of the species and genera have been formally assigned to that family at one time or another and specimens are most usually found mixed with undetermined and unsorted stenomid material in collections. The primary reason for this is the possession by these species of a number of characters which have been distinctive for the Stenomidae, i.e., veins 6 and 7 of the hind wing stalked, absence of pecten on the basal segment of the antennae, and general shape of the wings. Examination of the genitalia, however, indicates a clear relationship with the family Oecophoridae and when studied carefully there are supportive characters to be found in the venation for this placement.

The presence of spines on the gnathos and the general shape and modification of the valvae in the male genitalia are frequently encountered in the Oecophoridae as is the long ovipositor in the female genitalia. These characters rarely occur in the Stenomidae. Although the stalking of veins 6 and 7 in the hind wing is typically a stenomid characteristic the stalking or coincidence of veins 7 and 8 in the forewing is oecophorid as well as the tendency of veins 3 and 4 in the hind wing to be approximate or stalked.

The question of proper placement of *Peleopoda* within the family Oecophoridae is a very difficult one. The family is in great need of study, particularly the Neotropical representatives. The existing higher classification is essentially that established by Meyrick (1922) in his world catalog for the family. Unfortunately, Meyrick did not include characters of the genitalia in his studies and the five categories into which he divided the family are virtually useless since they are based on very superficial characters of the antenna and termination point of vein 7 in the forewing. Thus, until further comprehensive studies are made, the relationships of the large number of genera in the family must remain uncertain.

There is a possibility that future studies on the Neotropical Oecophoridae will indicate that the species included here should be further divided into either genera or subgenera. There are several venation and genitalic characters which could be evaluated in this fashion. Without sufficient comparative information for other Neotropical genera, however, it seems more advisable to take a conservative approach for the time being.

Genus *Peleopoda* Zeller

Peleopoda Zeller, 1877, p. 383.
Durrantia Busck, 1908, p. 197. [New synonymy.]
Theatria Walsingham, 1912, p. 116. [New synonymy.]
Doldiria Busck, 1912, p. 5.
Pseuderotis Clarke, 1956, p. 254. [New synonymy.]

TYPE SPECIES.—*Peleopoda lobitarsis* Zeller.

Head with loosely raised scales; antenna slightly serrulate in male, simple in female, basal segment without pecten but in most species a row of spreading scales at base; maxillary palpi developed, simple; labial palpus long, recurved, extending beyond vertex, second segment roughened beneath with appressed scales, apical segment smooth, only slightly shorter than second; tongue developed, scaled at base. Legs with hind tibia thickened with dense scales. Forewing with 12 veins, 11 with fusion of 7 and 8; 1b furcate; 2 arising well before angle; 3, 4, and 5 separate or approximate; 6 to termen below apex; 7 and 8 stalked or coincident, 11 from middle of cell or before. Hind wing with 8 veins, 7 with fusion of 3 and 4; 1b furcate at base; area between fork point of attachment for hair pencil; 2 remote; 3 and 4 connate, stalked or coincident; 5 connate, approximate or remote to 3+4; 6 and 7 stalked.

MALE GENITALIA.—Symmetrical or asymmetrical; uncus bifid; gnathal plate separate or divided, spiny; valvae with moderate to large lobes from costae frequently overlapping medially; anellus with or without lateral lobes; aedeagus with ductus ejaculatorius attached at base, cornuti present or absent.

FEMALE GENITALIA.—Ovipositor moderately long to long, telescoping; ostium bursae typically sclerotized, sometimes membranous, in some species extruded beyond body wall; ductus bursae typically membranous, in one species partially sclerotized; corpus bursae membranous, signa present or absent.

REMARKS.—This taxon can be easily separated from the other genera of Oecophoridae by stalking of veins 6 and 7 in the hind wing and the bifid uncus in the male genitalia. The lack of sufficient material makes the definition of the genus on female characters extremely difficult at this time. The principal character used by Zeller in establishing this genus, the elaborate dorsal scale tufts on the tibia and tarsi of the hind leg, although present to varying degrees, were found to be seldom as elaborate and distinctive in the species other than the type species, *lobitarsis*.

Key to the Species of *Peleopoda* Based on the Genitalia

1. Male 2
   Female 15
2. Valvae symmetrical 3
   Valvae asymmetrical 7
3. Gnathos separate 4
   Gnathos fused 5
4. Valvae with thornlike process near apex; vesica of aedeagus with a single, long, sinuate cornutus ..... ***P. piperatella*** (Zeller)
   Valvae without thornlike process near apex; vesica of aedeagus without cornuti ..... ***P. flaccescens*** (Meyrick)
5. Arms of uncus very short, length less than distance between their bases; aedeagus with external spines 6
   Arms of uncus long, length greater than distance between their bases; aedeagus without external spines ..... ***P. cannescens*** (Clarke)
6. Valvae with prominent costal process near base; aedeagus with scattered spines on anterior dorsal margin ..... ***P. thamnolopha*** (Meyrick)
   Valvae without costal process; aedeagus with a small patch of spines near midpoint ..... ***P. obiterella*** (Busck)
7. Vesica of aedeagus with cornuti 8
   Vesica of aedeagus without cornuti 11
8. Vesica of aedeagus with two cornuti 9
   Vesica of aedeagus with a single long cornutus which exceeds the length of the aedeagus ..... ***P. amabilis*** (Walsingham)
9. Gnathal plate partially or totally fused; valvae with various processes or lobes 10
   Gnathal plate divided; valvae simple ..... ***P. pugnax*** (Walsingham)
10. Aedeagus long, more than five times greatest width; one valva with small setiferous ampulla on costa near midpoint ..... ***P. arcanella*** (Busck)
    Aedeagus short, much less than five times greatest width; valvae with saccular processes ..... ***P. resurgens*** (Walsingham)
11. Aedeagus membranous ventrally from approximately midpoint; without prominent upright process on costa of valva 12
    Aedeagus sclerotized ventrally, dorsal surface incised from apex to beyond midpoint; valva with prominent upright process on costa before apex ..... ***P. convoluta***, new species
12. Spines on gnathal plate divided medially into two patches 13
    Spines on gnathal plate not divided medially 14
13. Valvae with costal margins heavily sclerotized from base and developed into prominent processes near midpoint; left valva with small setiferous lobe below costa ..... ***P. spudasma*** (Walsingham)
    Valvae without costal margins sclerotized or developed into processes; left valva constricted near midpoint, upturned approximately 90°, apical half clublike ..... ***P. navigatrix*** (Meyrick)

Key to the Species of *Peleopoda* Based on the Genitalia—Continued

14. Valvae approximately equal in width at midpoint; aedeagus membranous ventrally from before midpoint ..... ***P. semocrossa*** (Meyrick)
    Valvae unequal in width at midpoint, one valva less than half the width of the other; aedeagus membranous ventrally after midpoint ..... ***P. lobitarsis*** (Zeller)
15. Ostium bursae extruded beyond body wall 16
    Ostium bursae not extruded beyond body wall 20
16. Corpus bursae with signa; ductus bursae without diverticulum 17
    Corpus bursae without signa; ductus bursae with sclerotized diverticulum at junction with ostium bursae ..... ***P. piperatella*** (Zeller)
17. Ductus bursae membranous; ostium without ventral medial cleft 18
    Ductus bursae sclerotized from inception of ductus seminalis to midpoint; ostium with ventral medial cleft extending to posterior edge of sternite 7.. ***P. pugnax*** (Walsingham)
18. Extruded portions of ostium bursae without flange 19
    Extruded portion of ostium bursae three-fourths encircled with broad, sclerotized flange; dorsal edge of ostium pointed with one side broadly and irregularly serrate ..... ***P. resurgens*** (Walsingham)
19. Ostium with ventral edge deeply excavated, ductus bursae short, convoluted ..... ***P. amabilis*** (Walsingham)
    Ostium with ventromedial notch causing extruded portion of the ostium bursae to appear heart-shaped in ventral view; ductus bursae short, broad ..... ***P. arcanella*** (Busck)
20. Ostium bursae sclerotized 21
    Ostium bursae membranous; ostium irregular in outline ..... ***P. thamnolopha*** (Meyrick)
21. Ductus bursae without convolutions, shorter than abdomen 22
    Ductus bursae with many convolutions, much longer than abdomen ..... ***P. convoluta***, new species
22. Ductus bursae long, membranous; corpus bursae distinctly differentiated from ductus bursae ..... ***P. cannescens*** (Clarke)
    Ductus bursae short; corpus bursae indistinctly differentiated from ductus bursae ..... ***P. obiterella*** (Busck)

Peleopoda lobitarsis Zeller

FIGURES 1–5; PLATE 1A; MAP 1

Peleopoda lobitarsis Zeller, 1877, p. 287.

Alar expanse, 13 mm.

Antenna white basally, dark brown beyond. Labial palpus white, second segment brown exteriorly except apex. Head, thorax white, slightly tinged with yellow. Legs white tinged with yellow, fore and midleg with tibia and tarsi heavily shaded with brown, hindleg with tibia and each tarsal segment heavily shaded with brown, each bearing a dorsal yellow-brown scale tuft. Forewing white tinged with yellow, costa narrowly edged with yellow, spot at end of cell brown, cilia white, yellow basally from costa at four-fifths to middle of termen. Hind wing white, cilia white shaded yellow at apex.

MALE GENITALIA (WDD 3928).—Uncus bifid, moderate. Gnathal plate fused. Anellus a simple band with posterior flap, without lateral lobes. Valvae asymmetrical; one twice as broad as the other, approximately uniform in width to two-thirds, then narrowing to rounded apex by excavation of ventral margin; other narrow, approximately uniform width throughout. Aedeagus large, curved membranous ventrally from approximately one-half, dorsal portion expanded into hoodlike flap at apex, vesica without cornuti.

FEMALE GENITALIA.—Unknown.

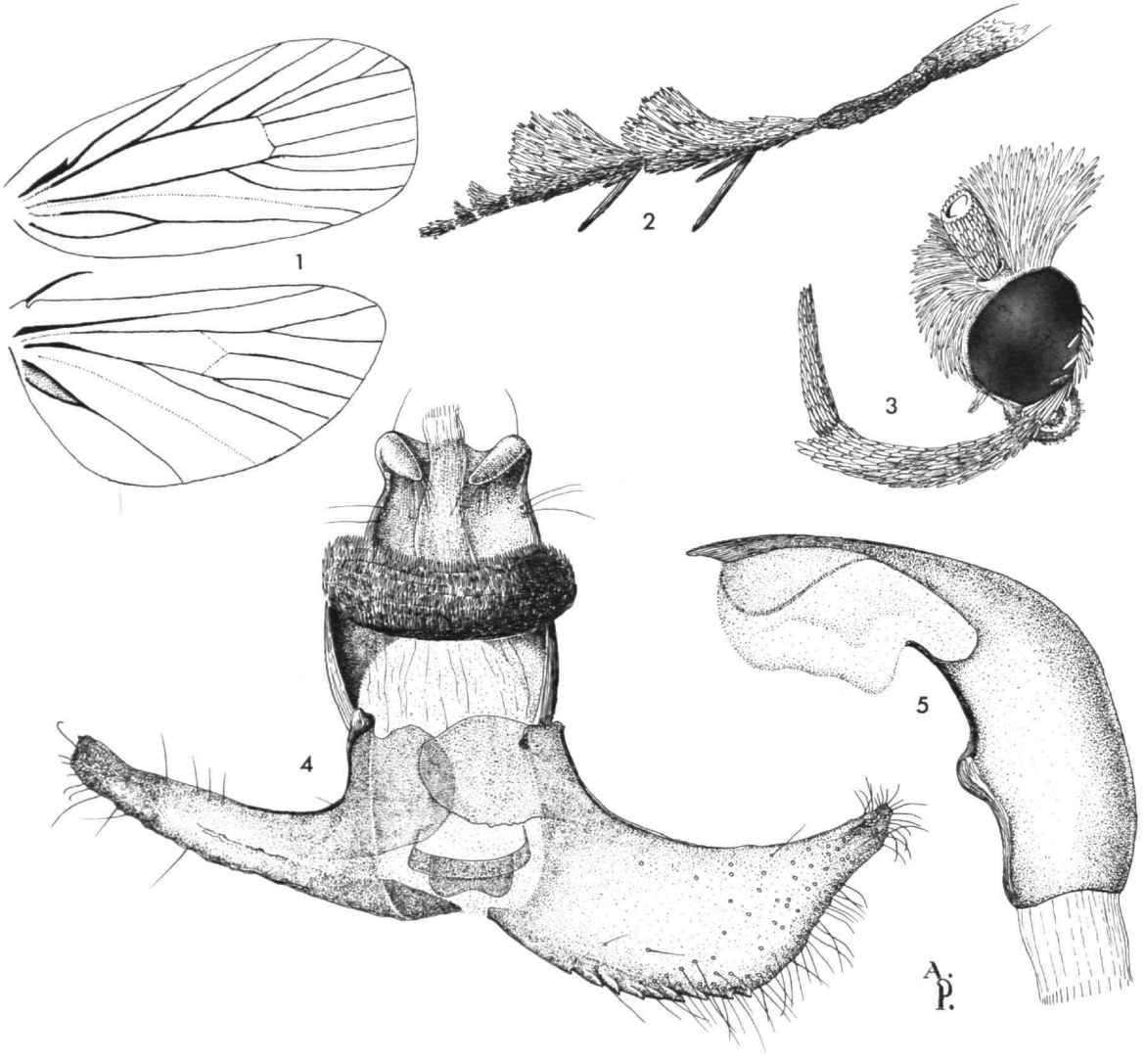
TYPE.—Lost.

TYPE LOCALITY.—Chiriqui, Panama.

HOST PLANT.—Unknown.

DISTRIBUTION.—Panama: Chiriqui (no date). Peru: Jurimaguas (no date).

REMARKS.—The type specimen of this species has not been located during the course of the present study. In the original description Zeller indicated the type was in the Staudinger Museum, which now is located at the Zoologisches Museum, Museum Fur Naturkunde de Humboldt—Universitat zu Berlin. Attempts to locate the type in that collection have been unsuccessful to date. The description and illustrations provided here were derived from the only other known specimen. It is from the Meyrick collection now in the British Museum (Natural History).



FIGURES 1–5.—*Peleopoda lobitarsis* Zeller: 1, wing venation; 2, lateral view of hind leg; 3, lateral view of head; 4, caudal view of male genitalia (aedeagus removed); 5, lateral view of aedeagus.

P. lobitarsis may easily be separated from the other species of *Peleopoda* by the shape of the valvae and the dorsal hoodlike flap at the apex of the aedeagus in the male genitalia.

MAP 1.—Distribution of *Peleopoda* species.
▲ *Peleopoda lobitarsis*
★ *Peleopoda semocrossa*
● *Peleopoda navigatrix*
■ *Peleopoda convoluta*

Peleopoda navigatrix (Meyrick), new combination

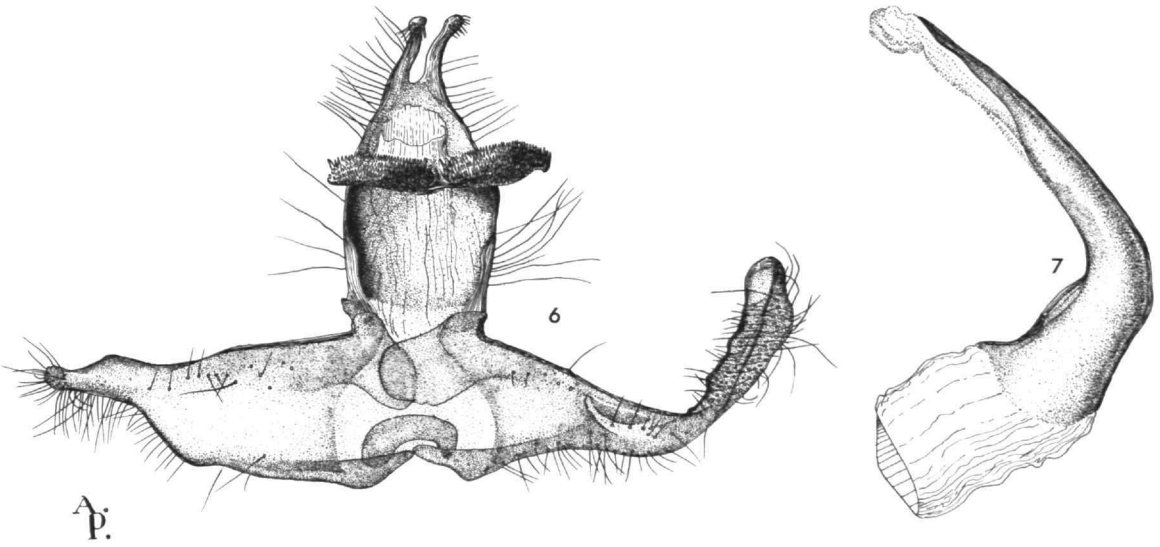
FIGURES 6–7; PLATE 1*b*; MAP 1

Xylorycta navigatrix Meyrick, 1912, p. 705.

Alar expanse, 25 mm.

Antenna white, labial palpus white, second segment dark gray exteriorly except apex. Head, thorax white. Forewing white with slight yellowish tinge, an irregular black patch on costa at base, an irregular triangular black patch occupying median third of costa and extending half across wing, an indistinct light gray outwardly curved transverse line from costa at two-thirds to dorsum before tornus, some faint gray suffusion toward apex; cilia white. Hind wing white with slight yellow tinge; cilia white.

Male genitalia (JFGC 4793, type). Uncus bifid, long. Gnathal plate fused, spines divided at midpoint into two patches. Anellus reniform, without lateral lobes. Valvae asymmetrical; one narrow, bent approximately 90° at midpoint, apex forming an upright club like structure, the other near uniform width to two-thirds, then narrowing sharply to less than one-half, then narrowing again just before rounded apex. Aedeagus long, curved 90° at basal one-fourth, membranous ventrally from apical two-thirds to apex. Vesica without cornuti.



FIGURES 6–7.—*Peleopoda navigatrix* (Meyrick) 6, caudal view of male genitalia (aedeagus removed); 7, lateral view of aedeagus.

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FEMALE GENITALIA.—Unknown.

TYPE.—In the British Museum (Natural History).

TYPE LOCALITY.—San Antonio, Colombia, 5,800 ft.

HOST PLANT.—Unknown.

DISTRIBUTION.—Known only from the type locality.

REMARKS.—This large and striking species is known only by the type specimen from Colombia. It appears to be closely related to the following species, *P. semocrossa,* but is readily separated by the development of the apex of one valva into an upright, clublike structure. Since *P. semocrossa* is also known only by a single speimen it is not possible to adequately determine the relative positions of these two species at this time.

Peleopoda semocrossa Meyrick

FIGURES 8–9; PLATE 1C; MAP 1

Peleopoda semocrossa Meyrick, 1920, p. 13.

Alar expanse, 19 mm.

Antenna white, grayish beneath. Labial palpus white, second segment shaded exteriorly with yellow except apex. Head, thorax white. Legs white, hind legs shaded with gray. Forewing white tinged slightly with yellow, transverse streak at end of cell light gray; cilia white, a brown bar at base on upper portion of termen, very lightly edged dark brown on terminal margin in middle, a slight gray tinge toward base above apex. Hind wing white; cilia white.

MALE GENITALIA (slide JFGC 5606, type).—Uncus bifid, moderate. Gnathal plate fused. Anellus a simple band, without lateral lobes. Valvae asymmetrical, one shorter, wide at base tapering to narrow rounded apex, the other near uniform width to two-thirds, then narrowing sharply to less than one-third. Aedeagus slightly curved, membranous ventrally from basal one-fourth, vesica without cornuti.

FEMALE GENITALIA.—Unknown.

TYPE.—In the British Museum (Natural History).

TYPE LOCALITY.—Cochabamba, Bolivia.

HOST PLANT.—Unknown.

DISTRIBUTION.—Known only from the type locality.

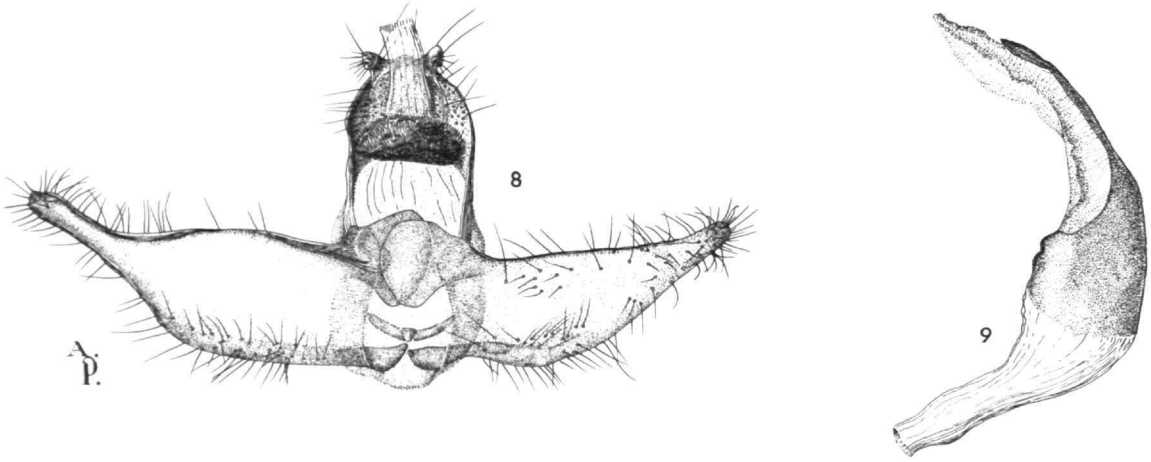
REMARKS.—In the original description of this species Meyrick notes, "Closely related and similar to the typical *lobitarsis,* but differs in stalking of vein 9 with 7, and brown mark in cilia." Both this and the preceding species show a relationship in the genitalia to *P. lobitarsis;* however, they are much closer to each other than either is to *P. lobitarsis.* The distinguishing characters between *P. semocrossa* and *P. navigatrix* have been given in the remarks concerning the latter species.

Peleopoda convoluta, new species

FIGURES 10–13, PLATE 1D; MAP 1

Alar expanse, 23–29 mm.

Antenna yellowish white basally, light brown beyond. Labial palpus yellowish white, second segment shaded with brown exteriorly except apex. Head yellowish white, face light brown medially, dark brown laterally. Thorax light brown. Legs yellowish white, foreleg heavily shaded with brown, midleg with brown shad-



FIGURES 8–9.—*Peleopoda semocrossa* (Meyrick): 8, caudal view of male genitalia (aedeagus removed); 9, lateral view of aedeagus.

ing on tibia and tarsi. Forewing yellowish white, costa narrowly edged with dark brown on basal one-eighth, spot at end of cell, spot in cell, spot in fold consisting of a few brown scales, subterminal line of very faint brown spots, terminal line of small brown spots from apex to tornus, cilia yellowish white. Hind wing white, cilia white.

MALE GENITALIA (WDD 3834, type).—Uncus bifid, very long. Gnathal plate fused, small, with median transverse groove. Anellus with dorsomedial notch dividing dorsal half of plate into two lobes. Valvae asymmetrical, one spatulate apically, the other with large, upright costal lobe just before apex. Aedeagus large, curved, dorsal surface incised from apex to beyond midpoint, vesica without cornuti.

FEMALE GENITALIA (WDD 3829).—Ostium bursae sclerotized, not extruded beyond body wall. Ostium membranous, twice as wide as ostium bursae. Ductus bursae membranous, extremely long, convoluted. Corpus bursae membranous, signum a small, invaginated dentate plate.

TYPE.—In the National Museum of Natural History, USNM 70838.

TYPE LOCALITY.—Rancho Grande, Aragua, Venezuela.

HOST PLANT.—Unknown.

DISTRIBUTION.—Known only from the type locality.

REMARKS.—Described from the male holotype: Rancho Grande, Aragua, Venez., 7 August 1943, Virgin Forest 1,100 m, R. Lichy; three male paratypes: Venezuela, Ar., Rancho Grande, 1,100 m, 24–31–X.66, S. S. and W. D. Duckworth, one male paratype with same data except, 16–19.I.66; one male paratype with same data except, 21–25–I.66; one female paratype with same data except, 16–23.X.66; one female paratype: Venezuela: Ar., Rancho Grande, 22–30 June 1967, R. W. Poole, 1,100 m; one female paratype: Venezuela: Ar., Rancho Grande, 1,100 m, 28–XI–1966, F. Fernandez, Y. J. Salcedo.

This species is nearest *P. navigatrix;* it is readily separated, however, by the shape of the valvae in the male genitalia and the long, convoluted ductus bursae in the female genitalia.

Peleopoda obiterella (Busck), new combination

FIGURES 14–17; PLATE 1E, MAP 2

Durrantia obiterella Busck, 1908, p. 207.
Ethmia chambersella Dyar (not Dyar), 1902, p. 208.

Alar expanse, 20–26 mm.

Antenna white basally, light brown beyond. Labial palpus white, second segment brown exteriorly except apex. Head white, face brown adjacent to eye margins. Thorax white with dorsum overcast pale brown with scattered darker brown spots. Legs brown. Forewing white, costa narrowly edged in dark brown at base, spot in the cell, spot at end of cell, spot in fold dark brown, terminal row of brown spots from costa at apical four-fifths to tornus, indistinct submarginal row of brown dashes paralleling terminal line, entire surface randomly sprinkled with brown scales; cilia white. Hind wing white; cilia white, brown basally below apex.

MALE GENITALIA (WDD 2695).—Uncus bifid, very short. Gnathal plate fused. Anellus bandlike with a median protuberance, without lateral lobes. Valvae symmetrical, short, broad, greatest length approximately twice greatest width. Aedeagus slightly curved, largely membranous ventrally, a small patch of spines at approximately midpoint; vesica without cornuti.

FEMALE GENITALIA (JFGC 11178, type).—Ostium bursae short, sclerotized, not extruded beyond body wall. Ostium with ventral edge slightly indented medially. Ductus bursae long, membranous, signum a diamond-shaped sclerotized plate with a longitudinal invaginated groove.

TYPE.—In the National Museum of Natural History.

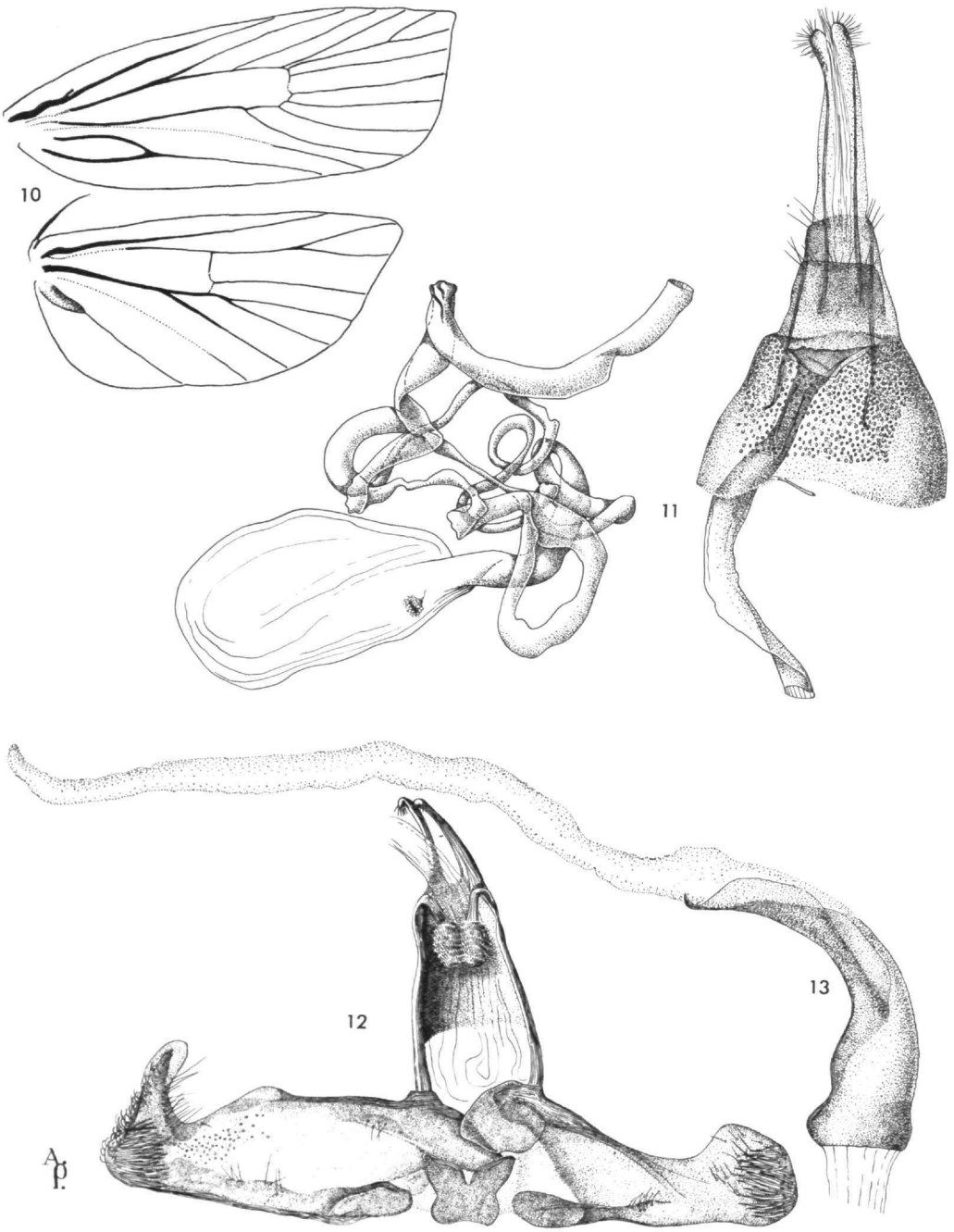
TYPE LOCALITY.—Unknown.

HOST PLANT.—Unknown.

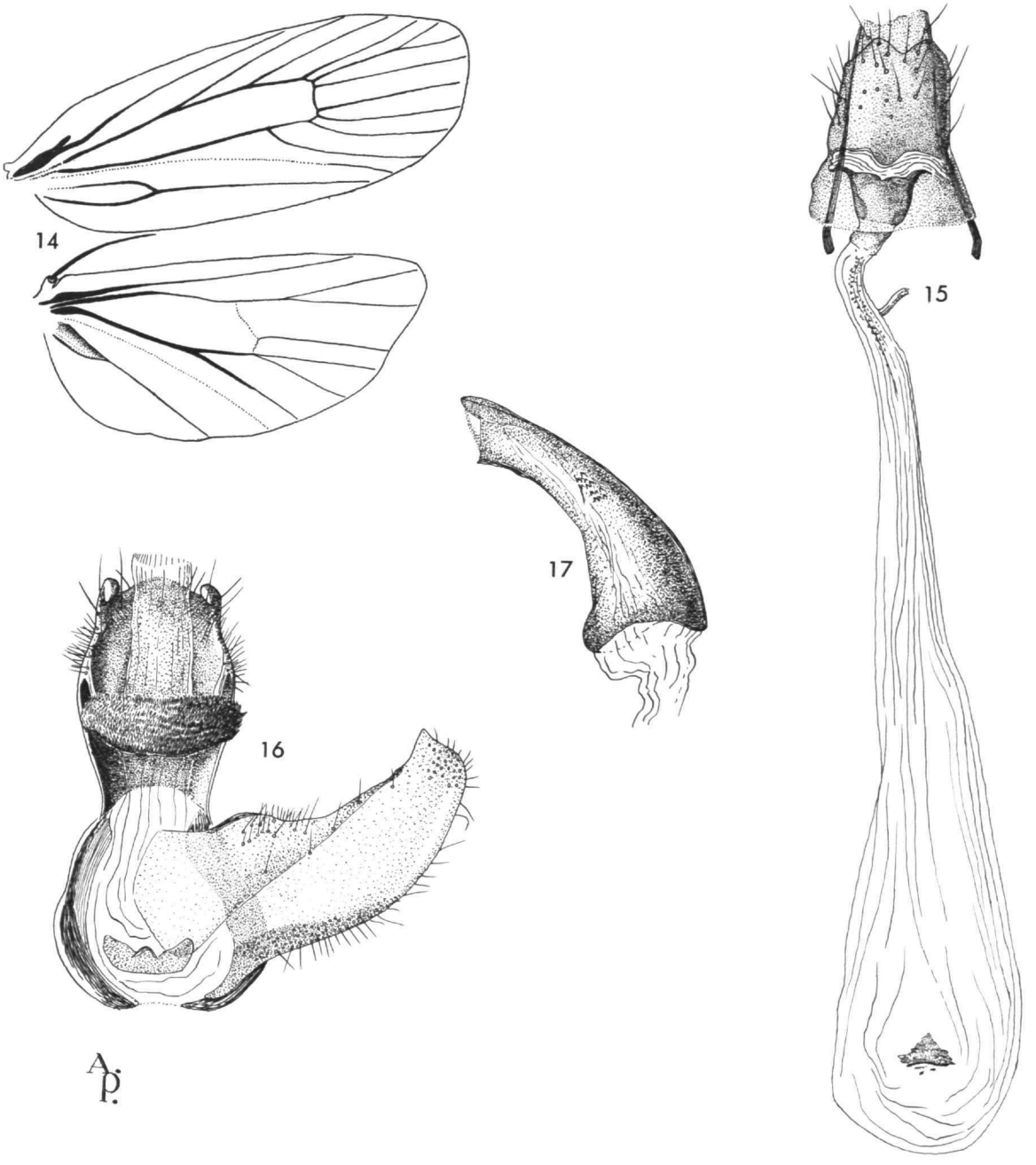
DISTRIBUTION.—Florida. Pensacola (February, June, September).

REMARKS.—This species is nearest to *P. thamnolopha* on characters of the genitalia but is easily separated by the simple valvae in the male and a sclerotized ostium bursae in the female. *P. thamnolopha,* on the other hand, has a well-developed costal process on the valva in the male and a large membranous ostium bursae in the female.

The rather involved nomenclatural activities associated with this species have been summarized by Busck (1908), and I will not reiterate them here except to point out that my study verifies Busck's conclusions entirely.



FIGURES 10–13.—*Peleopoda convoluta*, new species: 10, wing venation; 11, ventral view of female genitalia; 12, caudal view of male genitalia (aedeagus removed); 13, lateral view of aedeagus.



FIGURES 14–17.—Peleopoda obiterella (Busck): 14, wing venation, 15, ventral view of female genitalia (ovipositor missing); 16, caudal view of male genitalia (right valva and aedeagus removed); 17, lateral view of aedeagus.

MAP 2.—Distribution of *Peleopoda* species.
▲ *Peleopoda obiterella* ● *Peleopoda thamnolopha*

Peleopoda thamnolopha (Meyrick), new combination

FIGURES 18–21; PLATE 1F, MAP 2

Asapharcha thamnolopha Meyrick, 1932, p. 286.

Alar expanse, 22–30 mm.

Antenna white basally, brown beyond. Labial palpus white, second segment as in *obiterella,* apical segment shaded with brown at apex. Head light brown, face white medially, shaded light brown adjacent to eye margins. Thorax light brown. Legs yellow brown, darker toward tarsi. Forewing very pale brown, costa narrowly orange yellow to slightly beyond midpoint, beyond this point to apex a more broadly diffused band of rose and gray roughly projecting scales to apex, indistinct brown spot at end of cell, terminal row of brown spots from costa at four-fifths to tornus, entire wing heavily shaded with irregularly scattered brown scales; cilia whitish with gray subbasal line. Hind wing yellowish white; cilia white.

MALE GENITALIA (WDD 2876).—Uncus slightly bifid. Gnathal plate fused. Anellus bandlike narrowest at midpoint. Valvae symmetrical, short, broad, greatest length more than twice greatest width, with prominent process from costa near base. Aedeagus broad, dorsoventrally flattened, anterior dorsal edge with scattered spines; vesica without cornuti.

FEMALE GENITALIA (WDD 3405, type).—Ostium bursae short, membranous, not extruded beyond body wall. Ostium broad, irregular in outline. Ductus bursae long, membranous. Corpus bursae membranous, signum an irregular diamond shape slightly dentate plate.

TYPE.—In the Naturhistorisches Museum, Vienna, Austria.

TYPE LOCALITY.—La Trinidad, Costa Rica.

HOST PLANT.—Unknown.

DISTRIBUTION.—Guatemala: Volcan Santa Maria (November). Costa Rica: La Trinidad (no date).

REMARKS.—This species is closely related to *P.* obiterella (Busck), and the distinguishing characters have been discussed in the remarks pertaining to that species.

Meyrick originally described *P. thamnolopha* in the African genus *Asapharcha* (Xyloryctidae) on the basis of the wing venation. Examination of the type, a female, and the only other known specimen, a male in the NMNH, clearly indicates placement in the Oecophoridae. Future studies may indicate that *P. thamnolopha* and *P. obiterella* represent a separate genus. At the present time, however, it seems more appropriate to include them in *Peleopoda.*

Peleopoda cannescens (Clarke), new combination

FIGURES 22–25; PLATE 2A; MAP 3

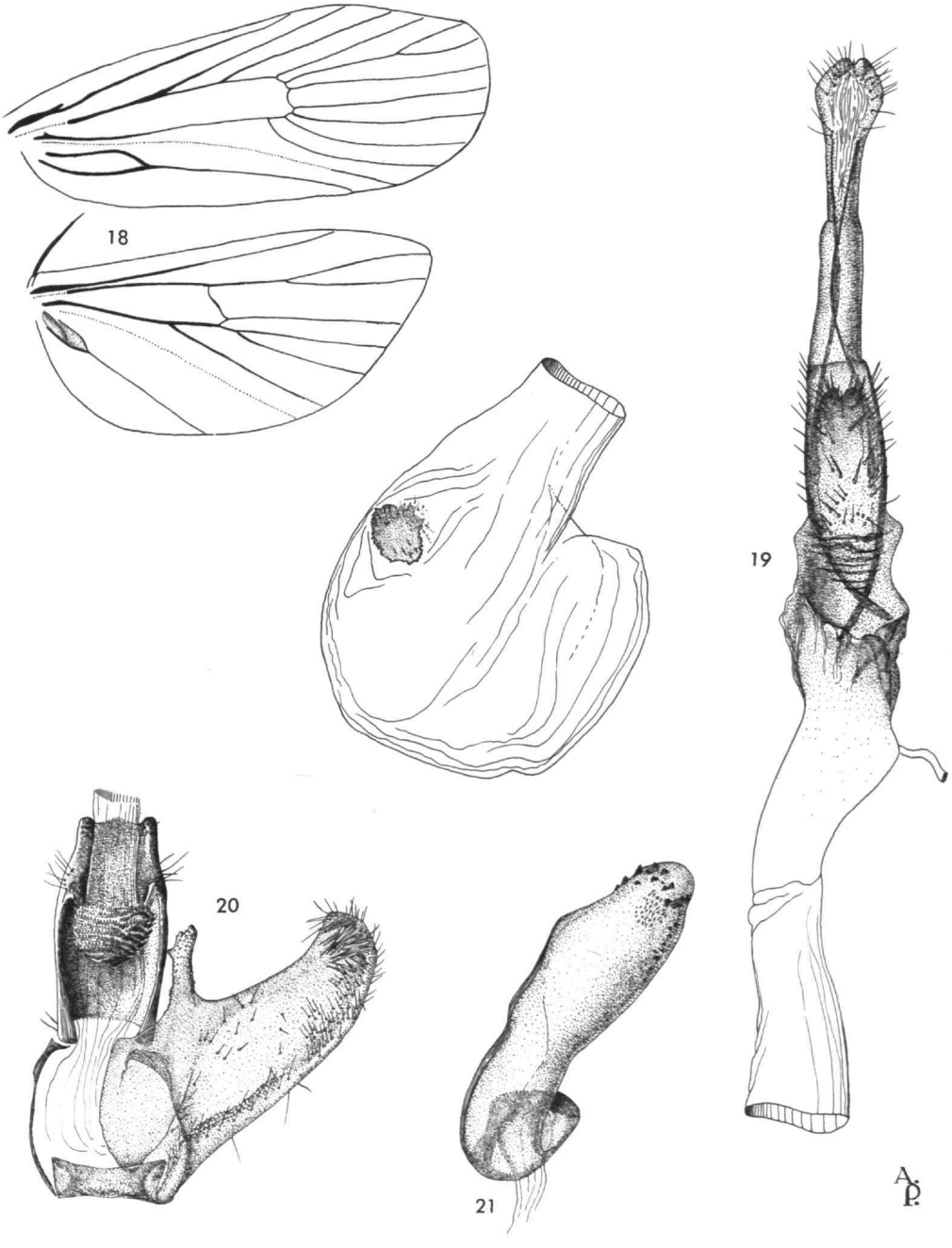
Pseuderotis cannescens Clarke, 1956, p. 256.

Alar expanse, 17–18 mm.

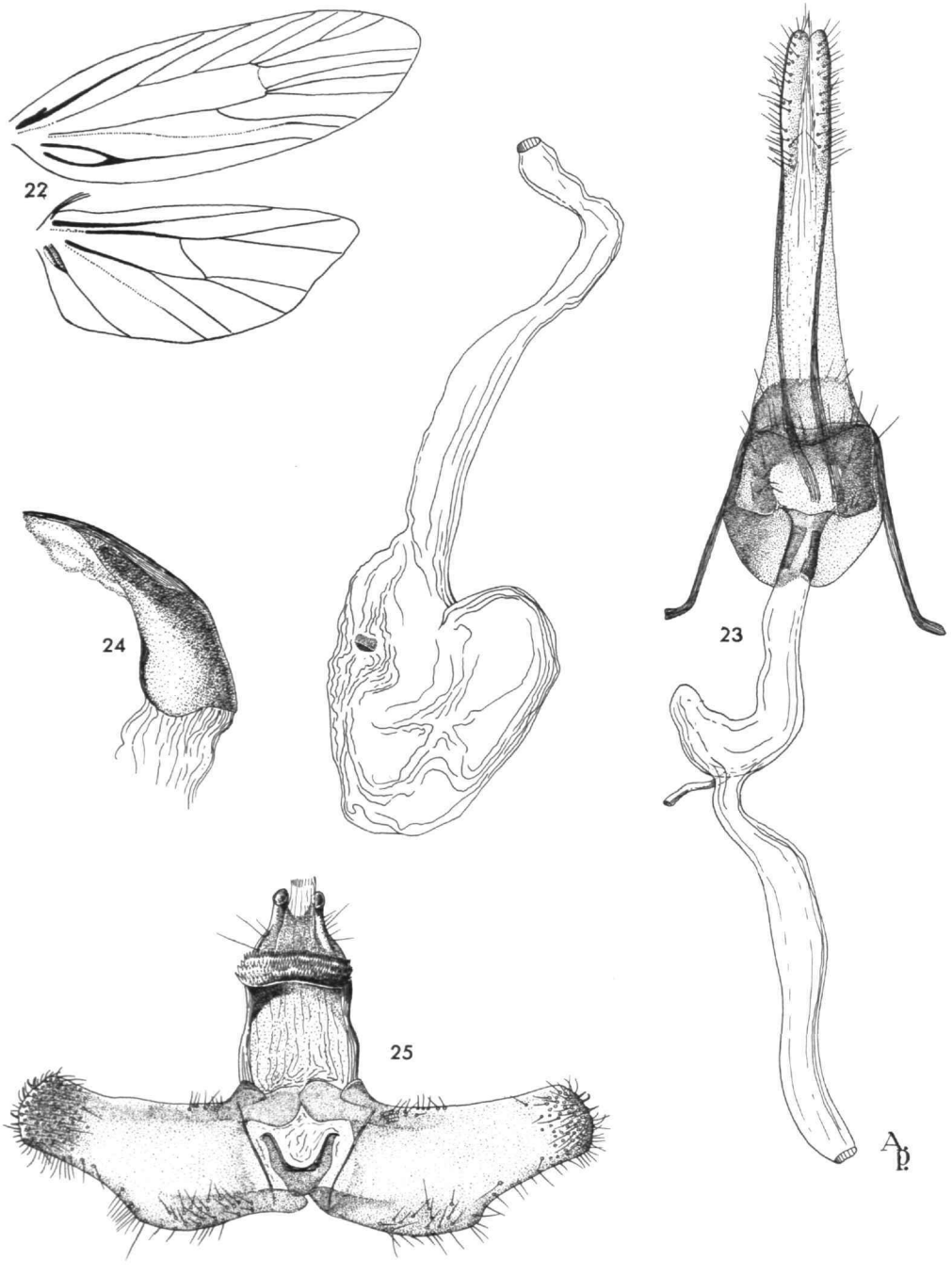
Antenna white shaded with light brown basally, light brown beyond. Labial palpus white, second segment shaded with brown exteriorly, apical segment shaded with brown at tip. Head, thorax white shaded with brown. Forewing white to pale yellow; costa shaded with brown from midpoint to apex; a spot in the middle of cell, one at end of cell, two in the fold, dark brown; a terminal and subterminal series of transverse spots, brown; entire wing randomly sprinkled with brown scales; cilia white mixed with pure yellow. Hind wing pale yellow, cilia pale yellow mixed with white.

MALE GENITALIA (JFGC 10009, paratype).—Uncus bifid, long. Gnathal plate fused. Anellus U-shaped. Valvae symmetrical, apical half approximately half the width of basal half. Aedeagus wide basally narrowing to extremely acute apex; vesica without cornuti.

FEMALE GENITALIA (JFGC 10522, type).—Ostium bursae short, sclerotized, not extruded beyond body wall. Ostium with ventral edge uniform. Ductus bursae long, membranous. Corpus bursae membranous, signum a very small weakly sclerotized plate with a small invaginated keel.



FIGURES 18–21.—*Peleopoda thamnolopha* (Meyrick): 18, wing venation; 19, ventral view of female genitalia; 20, caudal view of male genitalia (right valva and aedeagus removed); 21, dorsolateral view of aedeagus.



FIGURES 22–25.—*Peleopoda cannescens* (Clarke): 22, wing venation; 23, ventral view of female genitalia; 24, lateral view of aedeagus; 25, caudal view of male genitalia (aedeagus removed).

TYPE.—In the National Museum of Natural History.

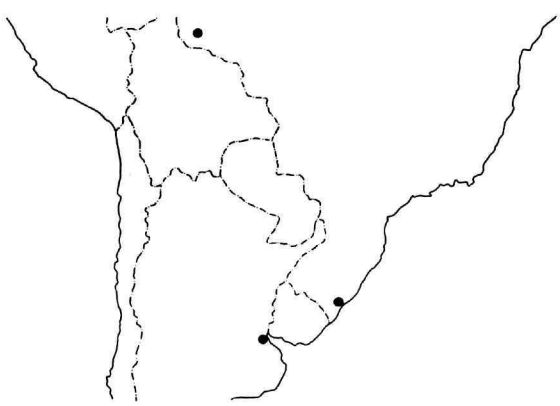
TYPE LOCALITY.—Tigre, Argentina.

HOST PLANT.—*Polygonom persicariodes* H.B.K. [Polygonaceae], *Platanus orientalis* L. [Platanaceae].

DISTRIBUTION.—Argentina: Tigre (no date). Brazil: Nova Teutonia, 300–500 m (May, August, September); Pelotas (October).

REMARKS.—This species is nearest *P. arcanella* in size and maculation, but examination of the genitalia indicates that, although there is an indication of relationship with the *P. arcanella* group, there are some striking differences. *P. cannescens* has the gnathos fused, the valvae symmetrical and the vesica of the aedeagus unarmed in the males, whereas the *P. arcanella* group has the gnathos separate, the valvae asymmetrical, and the vesica armed. The females of *P. cannescens* have the ostium bursae unextruded, the bursa copulatrix more than three times the length of the ovipositor, and a single, small signum in the corpus bursae. In females of the *P. arcanella* group the ostium bursae is extruded beyond the body wall, the bursa copulatrix short, never more than twice the length of the ovipositor, and the two signa in the corpus bursae.

The life history of the species has been briefly described by Bourquin (1957). The larva lives and pupates beneath a white silk web on the leaves of *Polygonum persicariodes* and *Platnus orientalis*. The web causes a slight folding of the leaf and the larva orients itself beneath the web either along the leaf midvein or the central axis of the nest. Departure from the nest when disturbed is accomplished through an exit hole in the leaf.



MAP 3.—Distribution of *Peleopoda cannescens*.

It is very likely that *Platanus orientalis* is a secondary host plant since it is an introduced ornamental tree in Argentina. The case of *Polygonum persicariodes* is more difficult to analyze. This plant is an extremely widespread weed of moist environments from Mexico to Argentina. It may represent another secondary host or the primary host. On the other hand, *P cannescens* may well be a general feeder and utilize a broad spectrum of plants as hosts.

Peleopoda arcanella (Busck), new combination

FIGURES 26–29; PLATE 2B; MAP 4

Dolidiria arcanella Busck, 1912, p. 5.

Alar expanse, 13–21 mm.

Antenna white basally, shaded with golden brown beyond. Labial palpus white, second segment shaded with brown exteriorly. Head, thorax white. Legs ranging from white to brown, forelegs always darkest, hind legs always lightest. Forewing ground color white frequently suffused with very pale yellow; costa narrowly edged with light yellow to golden brown from base to apex; spot at end of cell and discal spot a patch of golden brown with black center; entire wing randomly sprinkled with black scales; cilia ranging from pure white to alternating bands of pale yellow and brown. Hind wing ranging from white to pale yellow; cilia ranging from white to pale yellow tending to be darkest at wing apex.

MALE GENITALIA (slide WDD 2939).—Uncus bifid, short. Gnathal plate fixed, spines divided medially into two patches. Anellus wedge-shaped, lateral lobes moderate. Valvae asymmetrical; one simple, approximately uniform in width throughout, somewhat concave; the other shorter, approximately uniform in width to midpoint, reduced sharply at midpoint forming a fingerlike apical half, a small, setiferous ampulla on costa near midpoint. Aedeagus long, slightly curved, only slightly wider basally, vesica armed with two cornuti, one long, needlelike, approximately half the length of aedeagus, the other short, thornlike.

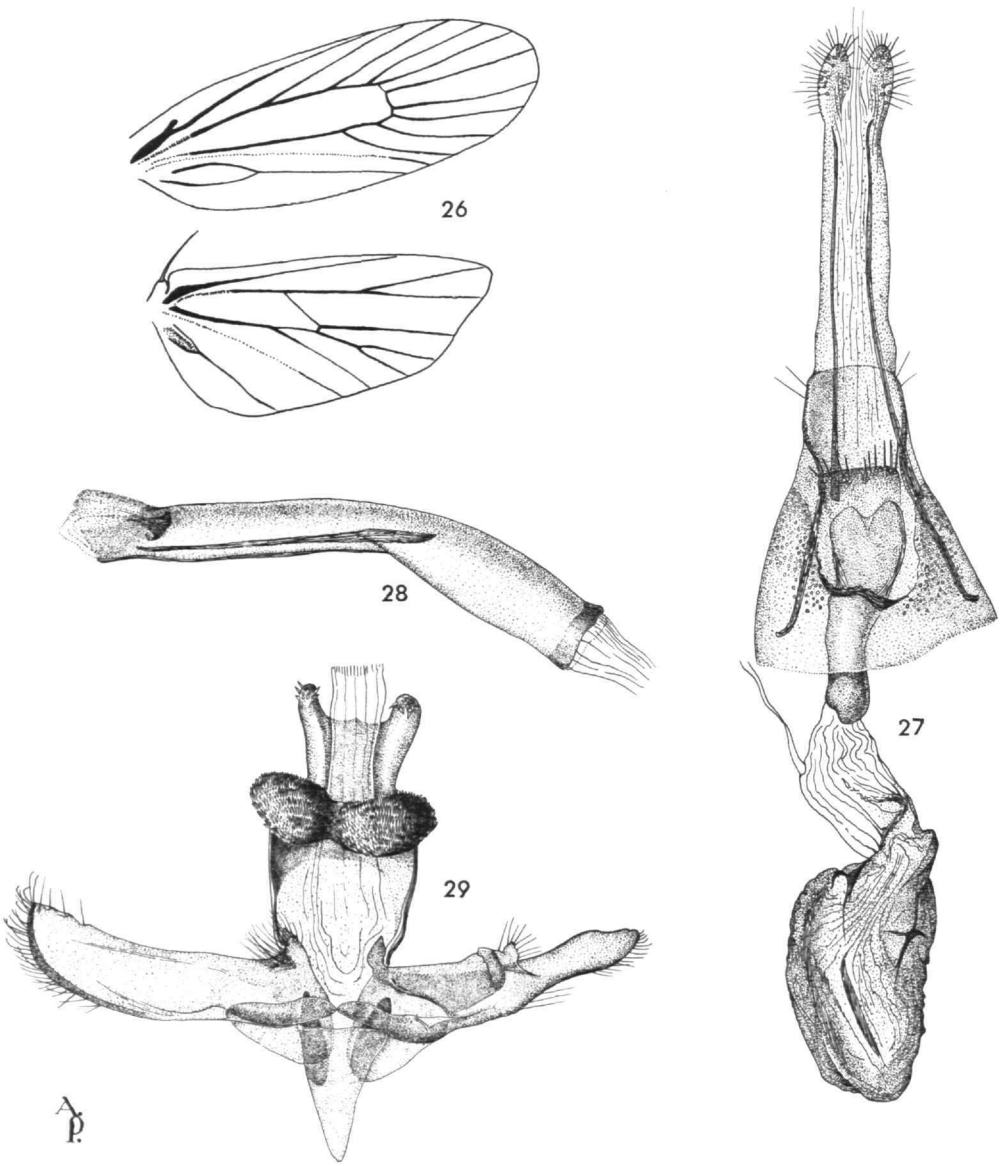
FEMALE GENITALIA (slide WDD 3824).—Ostium bursae sclerotized, extruded beyond body wall. Ostium with ventromedial excavation causing the extruded portion of the ostium bursae to appear heart-shaped in ventral view. Ductus bursae short, broad, membranous. Corpus bursae membranous, signa consisting of two sclerotized plates with median keel.

TYPE LOCALITY.—In the National Museum of Natural History.

TYPE LOCALITY.—Cabima, Panama.

HOST PLANT.—Unknown.

DISTRIBUTION.—Panama: Trinidad River (March, May, June); Alhajuelo (March, April); Cabima (June); Porto Bello (April, September); Tabogilla Id. (February); La Chorrera (May); Barro Colorado Id. (March, April, May); Rio Agua Salud, C.Z., Nav. Res. (March); Canal Zone nr. Gamboa (March). Guatemala: Cayuga (no date). British Honduras: Rio Temas (April). Mexico: Tamazunchale (July); 7 mi



FIGURES 26–29.—*Peleopoda arcanella* (Busck): 26, wing venation; 27, ventral view of female genitalia; 28, lateral view of aedeagus, 29, caudal view of male genitalia (aedeagus removed).

SW Pozo Rica, Ver. (July); 2 mi NE St. Miguel, Cozumel Id., Quintana Roo (April). Venezuela: Barinas Reserva Forestal, Ticaporo, 230 m (April), San Estaban, Carabobo (December).

REMARKS.—Busk described a separate genus for this species on the basis of veins 7 and 8 of the forewing being coincident rather than stalked although he noted its relationship with other species included in the genus *Durrantia* (=*Peleopoda*). Examination of the genitalia clearly demonstrates the close relationship of *P. arcanella* to other species included here and indicates that the venation character is of specific significance only.

MAP 4.—Distribution of *Peleopoda arcanella*.

This species appears most closely related to *P. amabilis*, but has several distinguishing characters in the genitalia. In the male genitalia *P. arcanello* has a wedge-shaped anellus and one valva sharply narrowed beyond the midpoint, whereas in *P. amabilis* the anellus is rectangular and the valvae are much wider apically than basally. In the female genitalia the extruded portion of the ostium bursae is heart-shaped in *P. arcanella* and irregularly excavate in *P. amabilis*.

Peleopoda amabilis (Walsingham), new combination

FIGURES 30–37; PLATE 2G; MAP 5

Durrantia amabilis Walsingham, 1912, p. 115.

Alar expanse, 13–27 mm.

Antenna white basally, light brown beyond. Labial palpus white, second segment shaded from pale yellow to dark brown exteriorly. Head white to pale yellow. Thorax white shaded dorsally from pale yellow to dark brown. Legs white to pale yellow, tibia and tarsi frequently shaded with brown. Forewing white to pale yellow, costa, apex, termen, dorsum varyingly edged with yellow to brown; in some specimens a few darker scales at end of cell, and a few randomly sprinkled over wing; cilia white to pale yellow, darker at wing apex. Hind wing white; cilia white, slightly darker at apex.

MALE GENITALIA (JFGC 11197).—Uncus bifid, short. Gnathal plate divided. Anellus rectangular; lateral lobes asymmetrical, one approximately twice as long as the other. Valvae asymmetrical, both expanded apically with the apical width at least twice that of width at midpoint; one valva with apically directed saccular process. Aedeagus slightly bent, tapering from base to apex; vesica armed with a single, long, slightly sinuate cornutus which slightly exceeds the length of aedeagus.

FEMALE GENITALIA (JFGC 11179).—Ostium bursae long, sclerotized, extruded beyond body wall. Ostium with ventral edge deeply excavated. Ductus bursae short, membranous, convoluted. Corpus bursae membranous, signa consisting of two sclerotized plates with invaginated median keels.

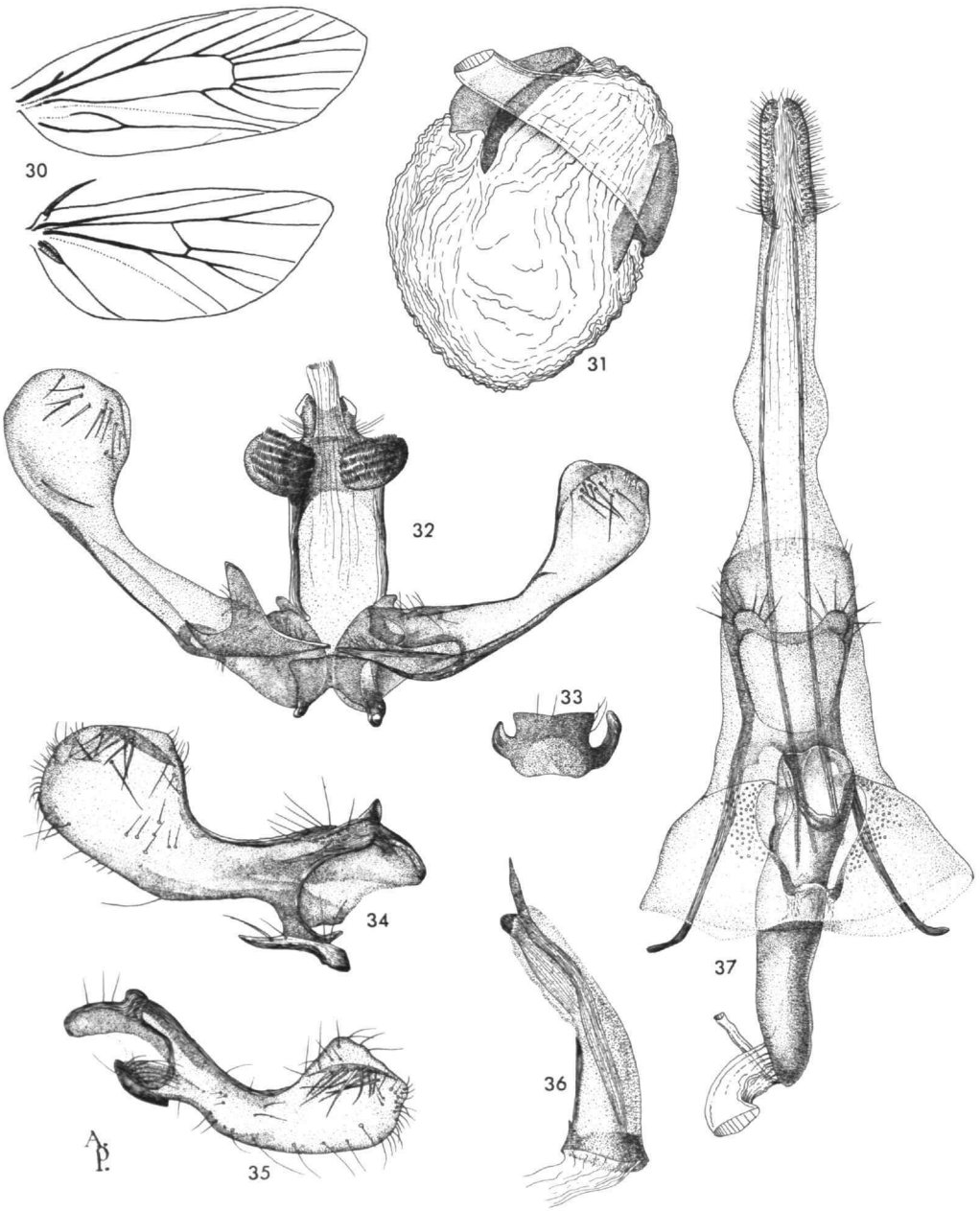
TYPE.—In the British Museum (Natural History).

TYPE LOCALITY.—Volcan de Atitlan, Guatemala, 2,500–3,500 ft.

HOST PLANT.—*Lantana camara* L. [Verbenaceae].

DISTRIBUTION.—Mexico: Cuernavaca, Morelos (June); Tamazunchale (June); 25 m N. Tamazunchale, S.L.P., 400 ft. (August); Cordoba, Ver. (July, September). Guatemala: Volcan de Atitlan, 2,500–3,500 ft. (no date); Chejel (no date); Volcan Station Maria (July). Venezuela: Aroa (no date).

REMARKS.—This species is extremely variable in both size and degree of maculation. In general, the larger specimens are readily recognized on the basis of their size; the smaller specimens, however, are frequently difficult to separate from closely related species such as *P. pugnax* on superficial characters such as maculation. Examination of the genitalia readily reveals characters distinctive for this species. In the male the shape and armature of the valvae and the single long sinuate cornutus in the aedeagus serve to distinguish *P. amabilis* from all other species in the genus. In the female the shape of the ventral edge of the ostium and the long, sclerotized ostium bursae readily separate the species from all others.



FIGURES 30–37.—*Peleopoda amabilis* (Walsingham): 30, wing venation; 31, corpus bursae of female genitalia; 32, caudal view of male genitalia (aedeagus removed); 33, ventral view of anellus; 34, ental view of right valva; 35, ental view of left valva; 36, lateral view of aedeagus; 37, ventral view of female genitalia (corpus bursae removed).

MAP 5.—Distribution of *Peleopoda amabilis.*

The host plant recorded for this species is based on one reared specimen in the USNM collection from Tamazunchale, Mexico. If *P. amabilis* occurs through the range of *L. camara* its distribution will be far wider than reported here. *Lantana camara* is widely distributed in tropical America and due to its ornamental value has been naturalized in the Old World. In some areas, such as Hawaii, it has become a troublesome weed.

Peleopoda resurgens (Walsingham), new combination

FIGURES 38–41; PLATE 2D; MAP 6

Durrantia resurgens Walsingham, 1912, p. 115.

Alar expanse, 20–22 mm.

Antenna white basally, light brown beyond. Labial palpus white, second segment shaded with brown exteriorly. Head, thorax white. Legs white, forelegs heavily shaded with brown exteriorly, mid and hindlegs lightly shaded with brown. Forewing white to pale yellow; three brown spots, one at middle of cell, one at end of cell and one in the fold; a series of elongate brown marks along termen from apex to tornus, entire wing randomly sprinkled with brown scales; cilia pale yellow. Hindwing and cilia pale yellow.

Male genitalia (JFGC 11177). Uncus bifid, moderate. Gnathal plate partially divided, spines divided into two patches. Anellus U-shaped. Valvae symmetrical, of approximately uniform width throughout, a costal lobe at apical two-thirds, a saccular process at basal one-third. Aedeagus short, bent, tapering from base to apex; vesica armed with two cornuti; one short, thornlike, one long, sinuate, extending three-fourths the length of aedeagus, spatulate at apex.

Female genitalia (WDD 3923, type). Ostium bursae long, sclerotized, extruded beyond body wall. Ostium with ventral edge slightly excavate, dorsal edge pointed with one side broadly and irregularly serrate, with broad, sclerotized flange encircling three-fourths of the extruded portion. Ductus bursae short, membranous. Corpus bursae membranous, signa consisting of two sclerotized plates with invaginated median keels.

TYPE.—In the British Museum (Natural History).

TYPE LOCALITY.—Volcan de Atitlan, Guatemala, 2,500–3,500 ft.

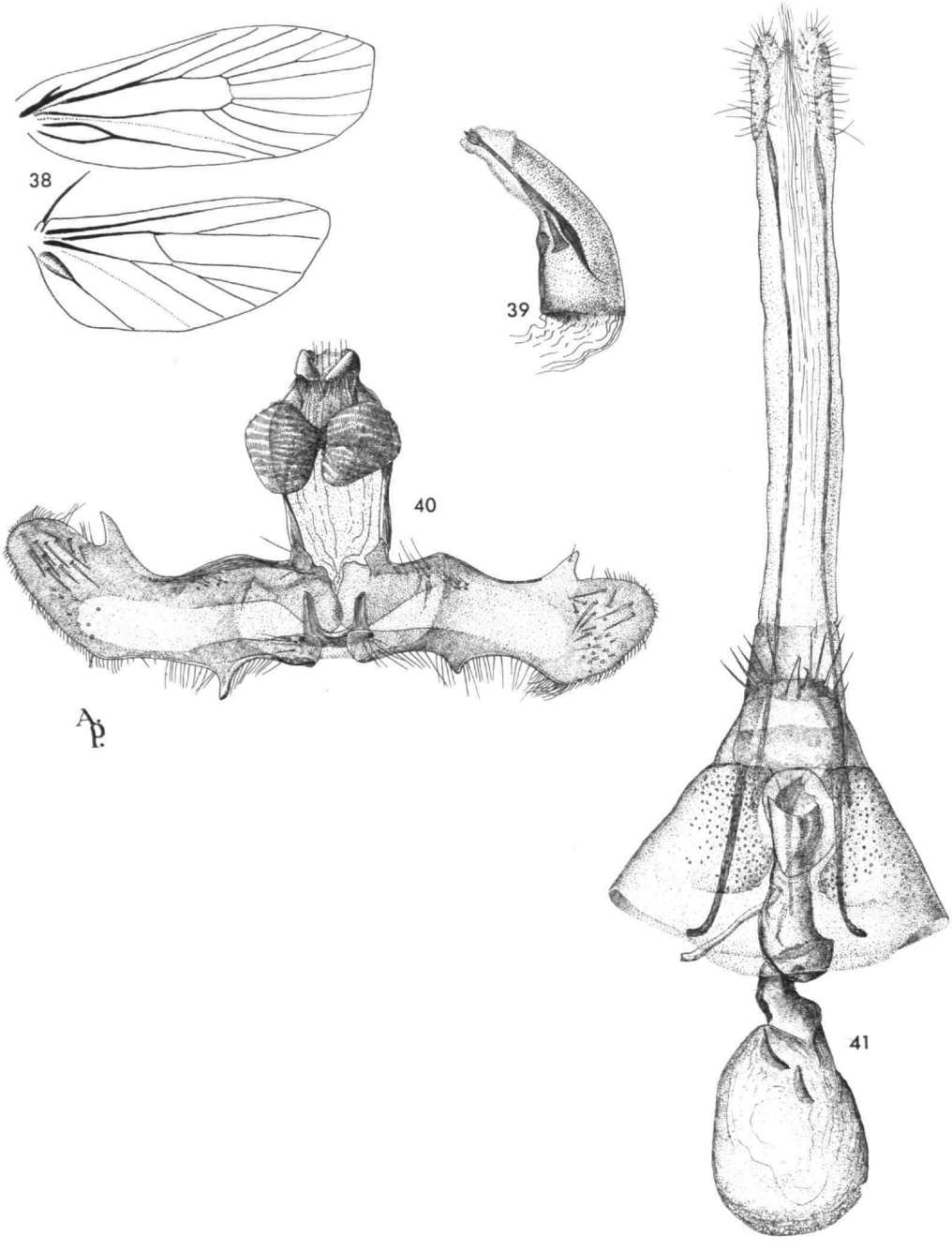
HOST PLANT.—*Laelia* sp.? [Orchidaceae].

DISTRIBUTION.—Mexico: Maiz, S.L.P. (no date). Guatemala: Volcan de Atitlan, 2,500–3,500 ft. (no date); Grutas de San Pedro Martir, Escuintla (August).

REMARKS.—This species is related to *P. pugnax,* but it is readily distinguished by the development of costal and saccular processes on the valvae and the size and shape of the cornuti in the male genitalia. In the female genitalia the shape of the dorsal edge of the ostium readily separates *P. resurgens* from *P. pugnax.*

The host plant recorded for this species is based on a single reared specimen in the NMNH labeled "reared from *Laelia* leaf (cocoon on)." Since the other known host plants in this genus are rather far removed from the orchids, it is rather doubtful that *Laelia* is the primary host. It would seem far more likely that the *Laelia* was utilizing the same host plant and the specimen accidentally pupated on the *Laelia* leaf. Further support for this speculation is provided by the fact that species of *Byrsonima,* known to be a host for one species of *Peleopoda,* are good orchid hosts and in Central America are very likely to have *Laelia* and other *Laelia*-like orchids growing on them. Under such circumstances a chance pupation on the orchid rather than the primary host could easily occur.

I have one specimen of what undoubtedly is a new species from Teffe, Brazil, which is very closely related to *P. resurgens.* The lack of adequate material precludes the description of this taxon at this time; mention is made here, however, in order to note its relationship to this species. The valvae of the undescribed species are much more elaborately developed and the coloration of the wings is much darker than that of *P. resurgens.*



FIGURES 38–41.—*Peleopoda resurgens* (Walsingham): 38, wing venation; 39, lateral view of aedeagus; 40, caudal view of male genitalia (aedeagus removed); 41, ventral view of female genitalia.

MAP 6.—Distribution of *Peleopoda resurgens*.

Peleopoda pugnax (Walsingham), new combination

FIGURES 42–45; PLATE 2E; MAP 7

Durrantia pugnax Walsingham, 1912, p. 114.
Durrantia acompsa Walsingham, 1912, p. 115. [New synonymy.]
Stenoma monotona Amsel, 1956, p. 300.

Alar expanse, 12–26 mm.

Antenna whitish basally, lightly shaded with brown beyond. Labial palpus whitish, second segment shaded lightly with brown exteriorly. Head, thorax, legs whitish. Forewing whitish with margins narrowly shaded with brownish-yellow; a small brown spot at end of cell; entire wing sprinkled with brown scales; cilia pale yellow basally, white beyond. Hind wing shining white, cilia white.

MALE GENITALIA (slide JFGC 11182).—Uncus bifid, short. Gnathal plate divided. Anellus subrectangular, lateral lobes very small. Valvae slighty asymmetrical, simple, dilated apically. Aedeagus short, approximately twice as broad basally as apically, vesica armed with two cornuti, one short, broad with bladelike apex, one long, slender, needlelike.

FEMALE GENITALIA (slide WDD 3562).—Ostium bursae sclerotized, extruded beyond the body wall. Ostium with ventral, medial cleft extending to posterior edge of sternite 7. Ductus bursae sclerotized from inception of ductus seminalis to midpoint, membranous beyond. Corpus bursae membranous, signa consisting of two sclerotized plates with invaginated median keel.

TYPE.—In the British Museum (Natural History).

TYPE LOCALITY.—San Geronimo, Baja Vera Paz, Guatemale (*pugnax*). Tabernilla, Canal Zone, Panama (*acompsa*). Maracay, Venezuela (*monotona*).

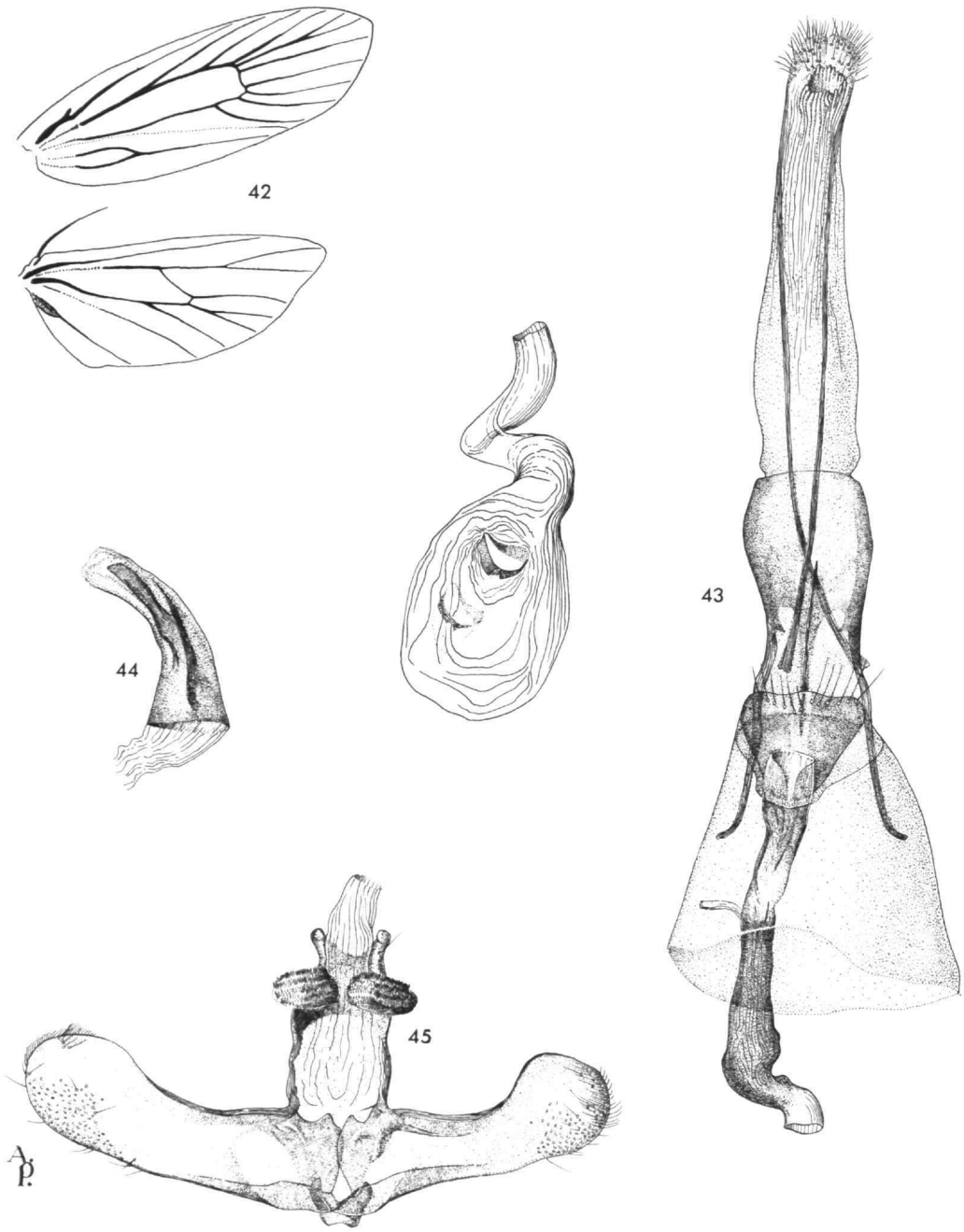
HOST PLANT.—In fruit of *Byrsonima crassifolia* (L.) [Malpighiaceae].

DISTRIBUTION.—Panama: La Chorrera (April, May); Tabernilla (June). Mexico: Cordoba, Veracruz (July); Venadio, Sinola (no date, Teapa, Tabasco (March). Costa Rica: 9 mi NW Esparta (July); San Jose (no date). Venezuela: Maracay (August, November), Caracas (no date). Trinidad: Simla, Arima Valley (February); no specific locality (February). Colombia: Atlantico, Quatro Bocas (January). El Salvador: 13 km N San Salvador (February). Guatemala: Baja Vera Paz, San Geronimo (no date).

REMARKS.—This species is closely related to *P. arcanella* and *P. resurgens*. The male and female genitalia, however, provide a number of distinguishing characters. In the males, the shape of the valve and armature of the aedeagus readily separate *P. pugnax*. In the females the ventral, medial cleft of the ostium readily distinguishes this species.

I have examined the type of *P. pugnax*, a female without abdomen, and that of *P. acompsa* and found the two identical. The principal differences between the two in the original descriptions are size and a slight variation in maculation. The size factor is due to a sex differential, *P. pugnax* being described from a single female and *P. acompsa* from a single male. The maculation difference is insignificant when a large series of specimens from throughout the range of the species is examined. Since the type of *P. pugnax* is without abdomen it was impossible to examine the genitalia, but specimens from El Salvador which agreed in size and maculation with the type had identical genitalia to those of *P. acompsa*. A previous study (Duckworth, 1966) of Amsel types revealed the synonomy of *P. monotona* with this species.

MAP 7.—Distribution of *Peleopoda* species.
● *Peleopoda pugnax* ▲ *Peleopoda piperatella*



FIGURES 42–45.—*Peleopoda pugnax* (Walsingham): 42, wing venation; 43, ventral view of female genitalia; 44, lateral view of aedeagus; 45, caudal view of male genitalia (aedeagus removed).

The known distribution of *P. pugnax* follows closely the distribution of the host plant as given by Standley (1923). Standley lists *Byrsonima crassifolia* (L.) as occurring in Mexico from Sinaloa to Chiapas and Veracruz, Central America, West Indies, and northern South America.

Peleopoda piperatella (Zeller), new combination

FIGURES 46–49; PLATE 2F; Map 7

Cryptolechia piperatella Zeller, 1872, p. 39.
Harpalyce albella Chambers, 1874, p. 235. [New synonymy.]
Durrantia montivola Meyrick, 1927, p. 364. [New synonymy.]

Alar expanse, 18–20 mm.

Antenna white. Labial palpus white, second segment shaded with brown exteriorly. Head, thorax white. Legs white, fore- and midlegs shaded with brown in some specimens. Forewing white, costa narrowly edged with pale yellow in most specimens, maculation varies from uniform white to white with pale yellow patch at end of cell containing a few brown scales and entire wing randomly sprinkled with few to many brown scales; cilia white, in some specimens pale yellow basally. Hind wing white; cilia white.

MALE GENITALIA (JFGC 11196).—Uncas bifid, short; gnathal plate divided. Anellus reniform, without lateral lobes. Valvae symmetrical; broad basally tapering sharply near midpoint to rounded apex which bears thornlike process from coastal edge. Aedeagus long, near uniform width throughout, vesica armed with one long, sinuate cornutus which slightly exceeds the aedeagus in length, recurved apically with a short, thornlike process at tip.

FEMALE GENITALIA (WDD 3826).—Ostium bursae sclerotized, extruded beyond body wall. Ostium with ventral edge broadly excavated. Ductus bursae membranous, with sclerotized diverticulum at junction with ostium bursae. Corpus bursae small, membranous, without signum.

TYPE.—In the Museum of Comparative Zoology, Harvard University.

TYPE LOCALITY.—Texas (*pipertatella*); Texas (*albella*); Alpine, Texas, 7,000 ft. (*montivola*).

HOST PLANT.—Unknown.

DISTRIBUTION.—Texas: Dallas (no date); San Antonio (April); Brewster County, 7,000 ft. (April); Alpine, 6,000–7,000 ft. (April, May); Bosque County (March).

REMARKS.—This species is closely related to *P. flaccescens,* but, there are a number of distinguishing characteristics in the male genitalia. The shape of the valvae is completely different with *P. piperatella* possessing a thornlike processs from the apex which is absent in *P. flaccescens.* Also, the shape and armature of the aedeagus are quite distinctive in the two species and readily separate them. The female of *P. flaccescens* is not known so comparison of the female genitalia is not possible.

Examination of the genitalia of the types of *H. albella* Chambers and *D. montivola* Meyrick indicates that these two species are synonymous with Zeller's *P. piperatella.* The species is somewhat variable in maculation and undoubtedly this variation was responsible for the description of the two synonymns. For many years Chamber's *H. albella* stood as a synonym of *Antaeotricha vestalis* (Walsingham), a species of Stenomidae. Duckworth (1964), however, removed *P. albella* from synonymy and placed it in the genus *Durrantia.*

Peleopoda flaccescens (Meyrick), new combination

FIGURES 50–52, PLATE 3A; MAP 8

Durrantia flaccescens Meyrick, 1925, p. 161.

Alar expanse, 17–18 mm.

Antenna white. Labial palpus white, second segment light brown exteriorly except apex. Head, thorax white. Legs white. Forelegs shaded with brown, especially tibia and tarsi. Forewing white, costa narrowly edged with pale yellow, spot at end of cell indistinct, pale yellow; cilia white. Hind wing white; cilia white.

MALE GENITALIA (WDD 3831).—Uncus bifid, short, setiferous. Gnathal plate divided. Anellus rectangular, indented dorsally and laterally, without lateral lobes. Valvae symmetrical; narrow, sharply constricted near midpoint, then very wide before tapering to acute apex. Aedeagus slightly curved, near uniform width throughout except apex, vesica without cornuti.

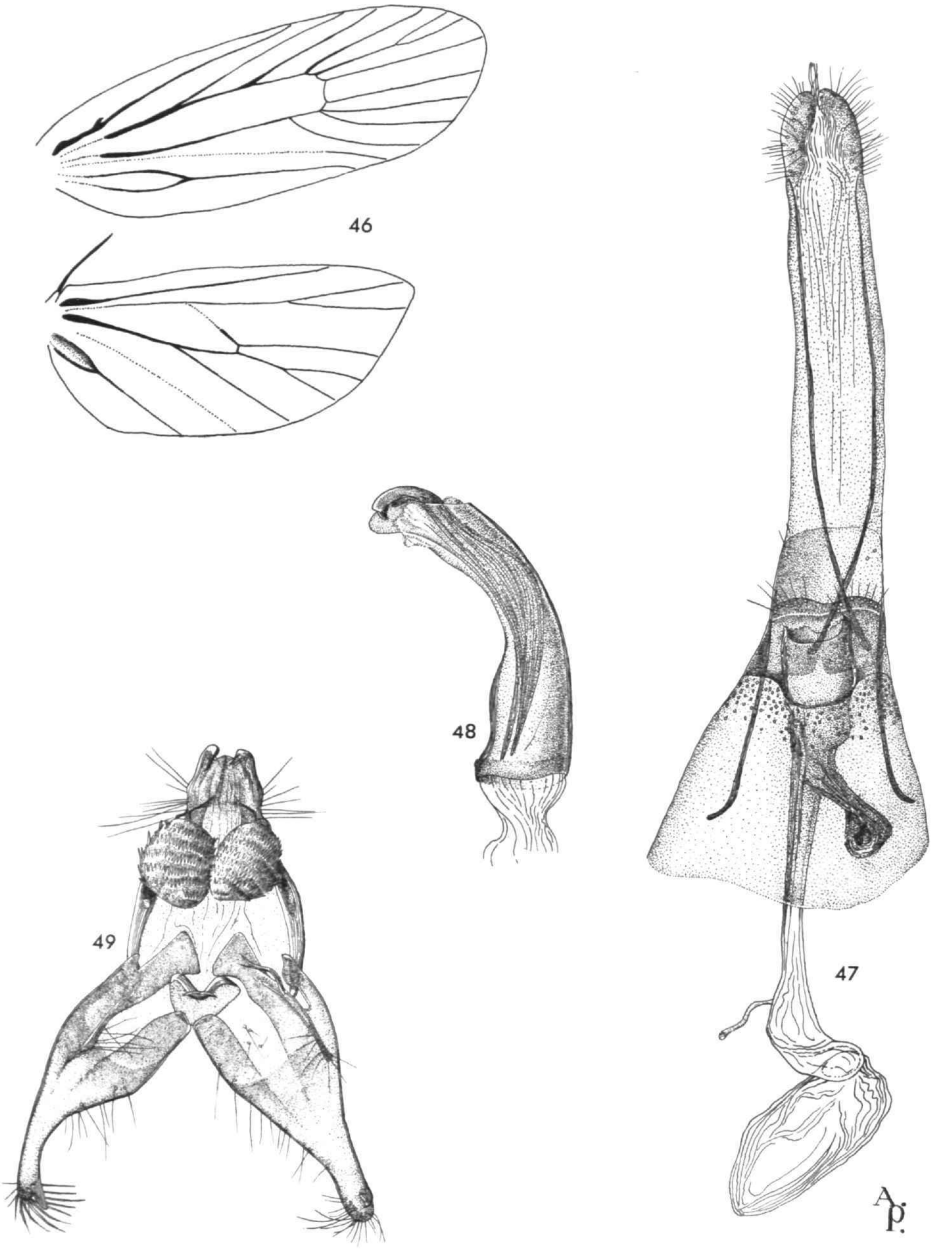
FEMALE GENITALIA.—Unknown.

TYPE.—In the British Museum (Natural History).

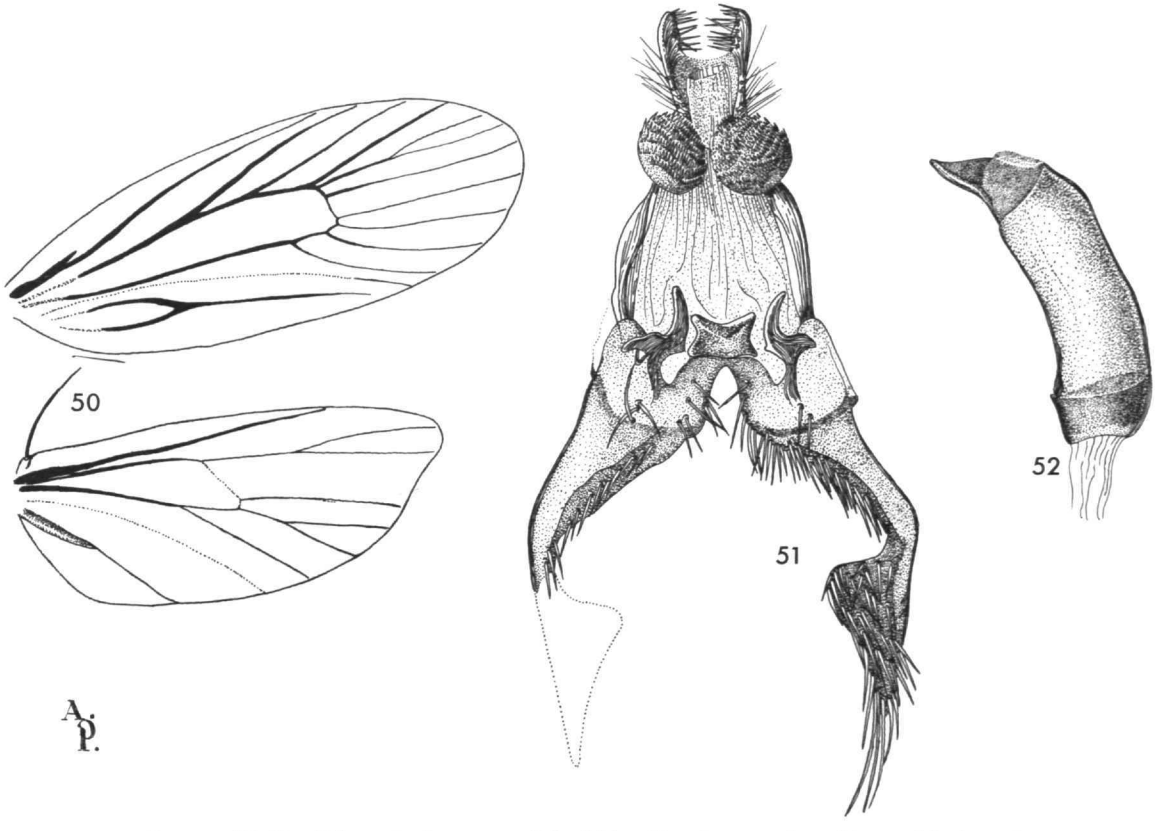
TYPE LOCALITY.—Jurimaguas, Peru.

HOST PLANT.—Unknown.

DISTRIBUTION.—Venezuela. Barinas Reserva Forestal, Ticopora, 230 m (April). Peru: Jurimaguas (no date).



FIGURES 46–49.—*Peleopoda piperatella* (Zeller): 46, wing venation; 47, ventral view of female genitalia; 48, lateral view of aedeagus; 49, caudal view of male genitalia (aedeagus removed).

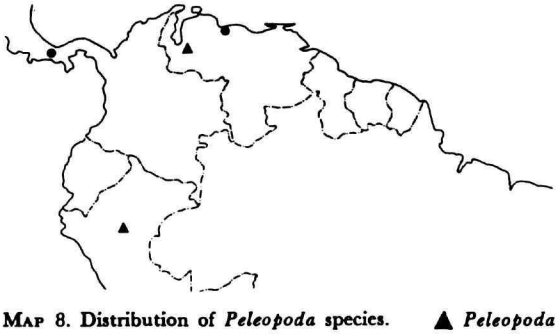


FIGURES 50–52.—*Peleopoda flaccescens* (Meyrick): 50, wing venation; 51, caudal view of male genitalia (aedeagus removed and apical portion of right valva missing); 52, dorsolateral view of aedeagus.

REMARKS.—This species is nearest the preceding species *P. piperatella,* and the distinguishing characters have been discussed in the remarks pertaining to that species.

This species is known only by the type and one additional specimen in the NMNH from western Venezuela. At first glance the distribution might appear rather disjunct; both localities, however, are at the eastern base of the Andes at approximately the same altitude and in the same type habitat. It is very likely that the species range is even greater than indicated by the known distribution.

Clarke (1955) illustrates the male genitalia and left wings of the type in the British Museum (Natural History) and the male specimen in the NMNH agrees completely with it.



MAP 8. Distribution of *Peleopoda* species. ▲ *Peleopoda flaccescens* ● *Peleopoda spudasma*

Peleopoda spudasma (Walsingham), new combination

FIGURES 53–55; PLATE 3B; Map 8

Theatria spudasma Walsingham, p. 116.

Alar expanse 17–19 mm.

Antenna white basally, slightly shaded with brown beyond. Labial palpus white, second segment slightly shaded with brown exteriorly. Head white. Thorax white, lightly shaded with brown dorsally. Legs white, forelegs shaded with brown. Forewing yellow-white, costal one-half suffused with brown, a dark brown marginal shade extends along termen and is broken into brown spots from apex to beginning of costal cilia; spot at end of cell, spot in middle of cell, spot in fold, dark brown, cilia yellow-white, heavily shaded with dark brown at tornus. Hind wing white, cilia white.

MALE GENITALIA (WDD 3825).—Uncus bifid, each arm somewhat bulbous at apex and with dorsolateral keel. Gnathal plate fused, spines divided at midpoint into two patches. Anellus small, trifoil, without lateral lobes. Valvae asymmetrical, costal margins heavily sclerotized from base developed into prominent process near midpoint, bases of sacculus broad, fan-shaped, left valva with small setiferous lobe below costa, dentate flange on dorsum of sacculus. Aedeagus short, sharply curved at midpoint, ventrally membranous from midpoint; vesica without cornuti.

FEMALE GENITALIA.—Unknown.

TYPE.—In the British Museum (Natural History).

TYPE LOCALITY.—Bugaba, Chiriqui, Panama, 800–1,500 ft.

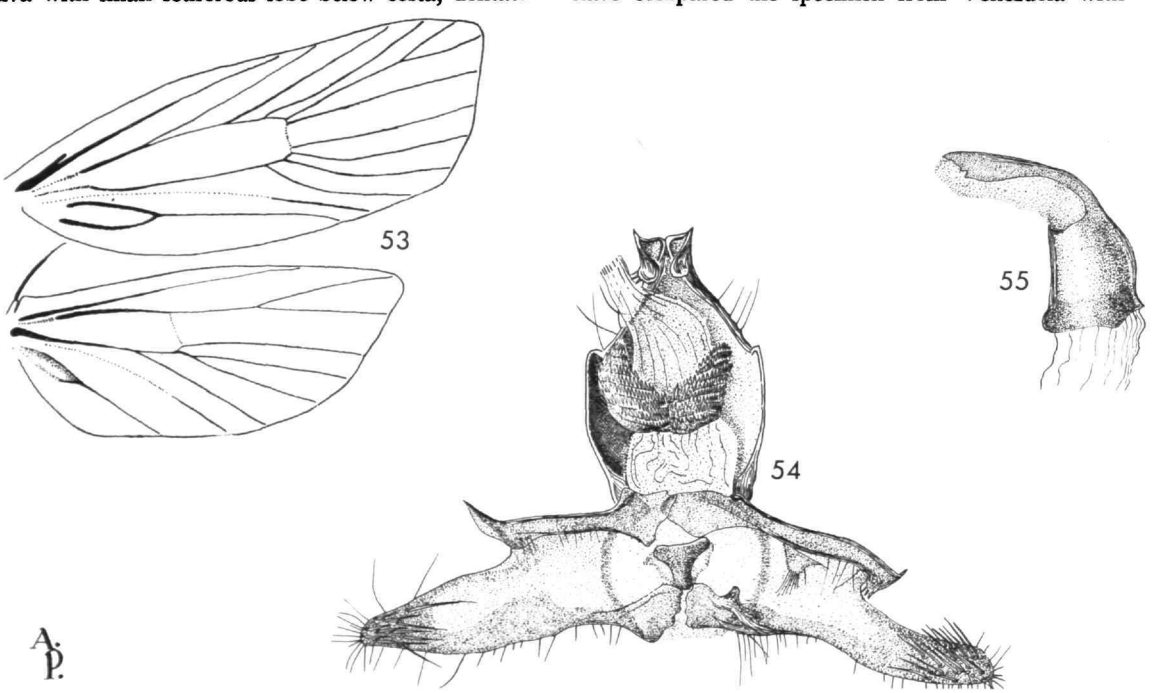
HOST PLANT.—Unknown.

DISTRIBUTION.—Venezuela: Rancho Grande, Aragua, 1100 m (January) Panama: Bugaba, Chiriqui, 800–1,500 ft. (no date).

REMARKS.—This species does not appear to be closely related to any other species in the genus. The female is unknown and of the two existing male specimens of the species, only one has an intact abdomen. Very likely additional specimens of both sexes would permit a clearer assessment of the relationship with other species in the genus.

P. spudasma is readily separated from the other species in the genus by the shape of the arms of the uncus and the valvae with heavily sclerotized costa developed into a prominent process in the male genitalia.

Although the localities are somewhat disjunct, I have compared the specimen from Venezuela with



FIGURES 53–55.—*Peleopoda spudasma* (Walsingham): 53, wing venation; 54, caudal view of male genitalia (aedeagus removed); 55, lateral view of aedeagus.

the type specimen and they agree perfectly in all aspects. The type is without abdomen so it was impossible to compare characters of the genitalia.

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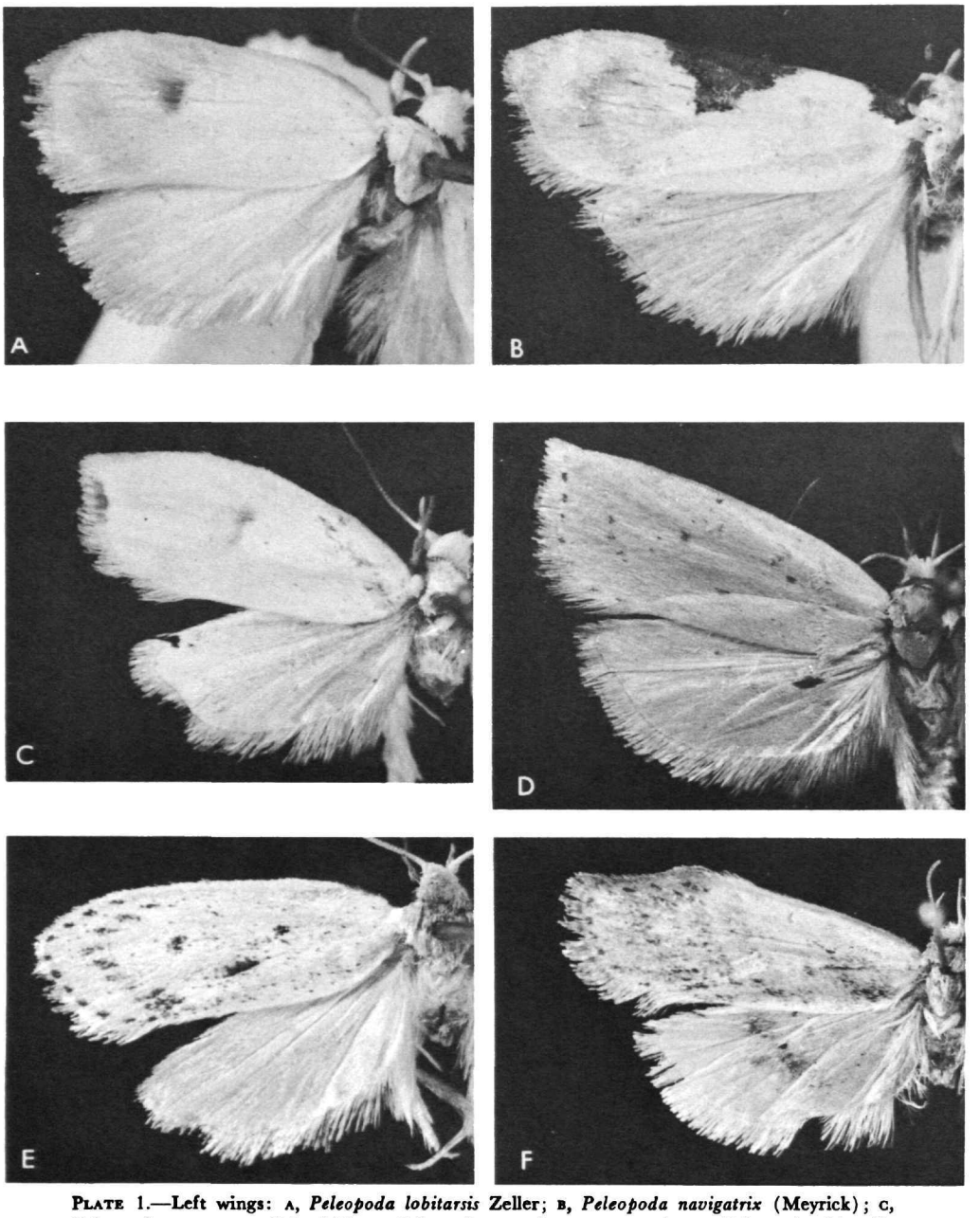

PLATE 1.—Left wings: A, *Peleopoda lobitarsis* Zeller; B, *Peleopoda navigatrix* (Meyrick); C, *Peleopoda semocrossa* (Meyrick); D, *Peleopoda convoluta*, new species; E, *Peleopoda obiterella* (Busck); F, *Peleopoda thamnolopha* (Meyrick).

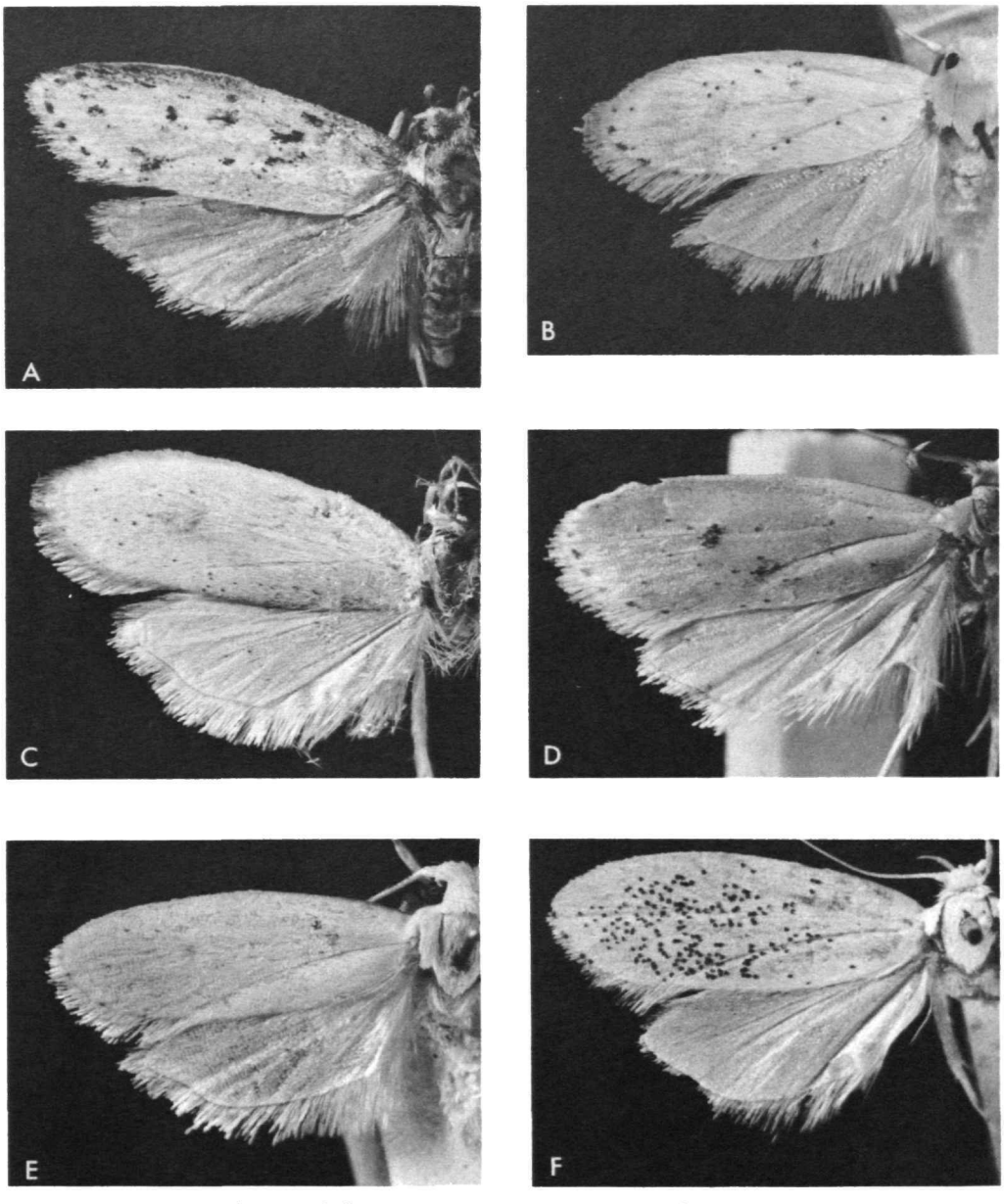

PLATE 2.—Left wings: A, *Peleopoda cannescens* (Clarke); B, *Peleopoda arcanella* (Busck); C, *Peleopoda amabilis* (Walsingham); D, *Peleopoda resurgens* (Walsingham); E, *Peleopoda pugnax* (Walsingham); F, *Peleopoda piparatella* (Zeller).

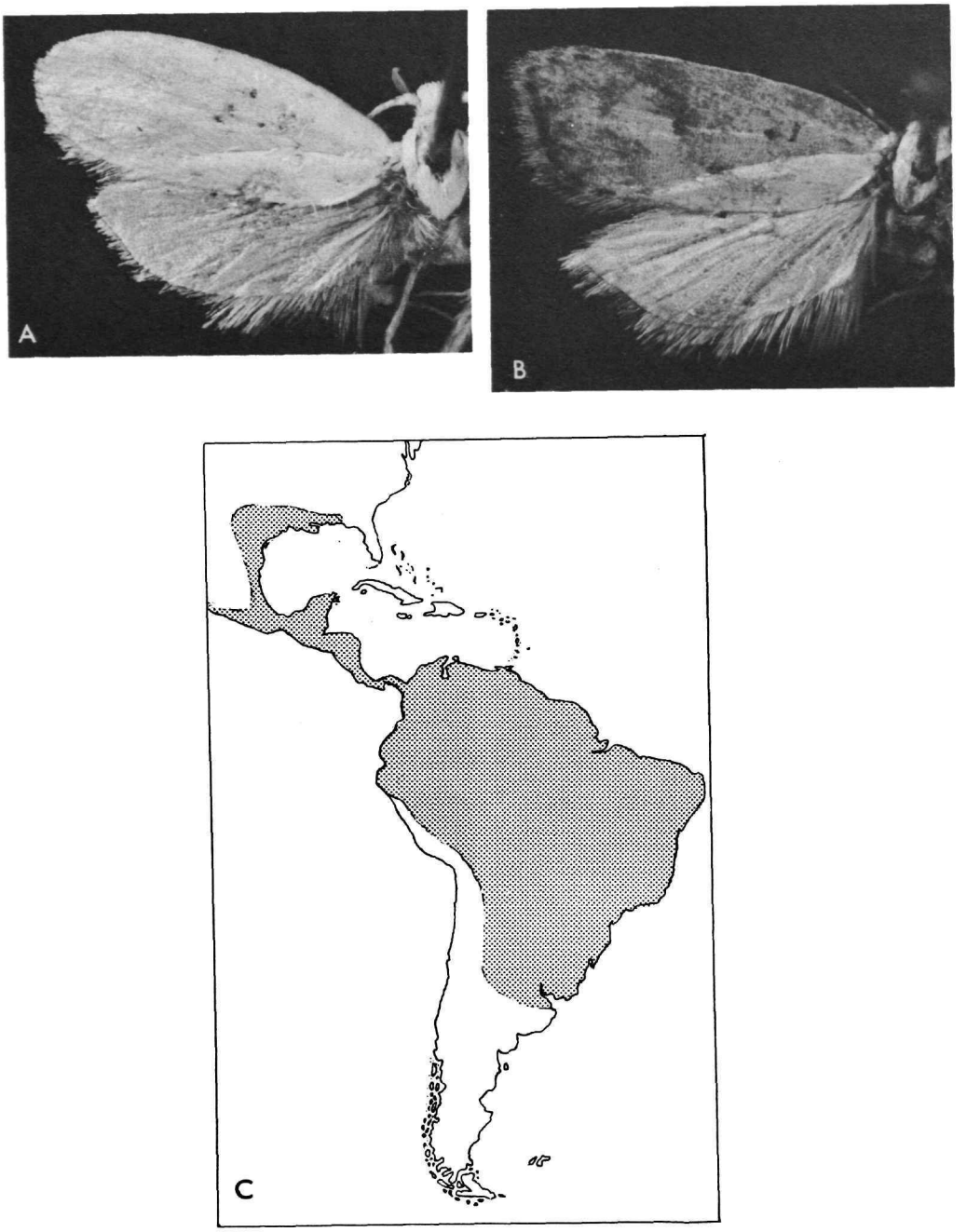

PLATE 3.—Left wings: A, *Peleopoda flaccescens* (Meyrick); B, *Peleopoda spudasma* (Walsingham); C, Range of the genus *Peleopoda*.

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