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Neotropical Microlepidoptera, XVII¹

Notes and New Species of Phaloniidae

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For several years I have been engaged, somewhat sporadically, on a revision of the American Phaloniidae. Because this revision will not be completed for several more years—indeed, there is yet much to be done—I wish to make known the new taxa described below and to clarify the status of several previously described forms.

None of the previously published species have been illustrated before (except *Phalonia embrihopa* Meyrick; Clarke, 1963, pl. 13: figs. 1–1a), but all the species included in this paper are being figured.

In recent years several investigators (Busck, 1939; Razowski, 1964) have attempted classifications of this family, but for the most part the treatments have been based on characters of the male genitalia. Not only have the females been neglected but also, when they have been used, the accessory bursa has generally been omitted from the figures and it has not been employed in classification. Actually, the value of this feature and its origin in relation to associated structures are not presently known. The reason for this state of affairs is that

¹ See list at end of paper.

apparently it is seldom seen by the investigators, is destroyed during the preparation of the genitalia mounts, and is now missing from most slides.

Busck (1939) illustrated the accessory bursa of several species but did not use it in his classification. His keys are based on male genitalia and wing venation. Razowski (1964) does not illustrate the accessory bursa at all, nor does he allude to it anywhere in his papers. At this time I am not using it in classification, although I am illustrating it wherever it could be found, but I believe that many more preparations of many species in numerous genera must be made before we can evaluate its true significance. In most species of most genera the accessory bursa has its inception posteriorly, either from the bursa copulatrix or the ductus bursae. In the species group consisting of *vesta*, *tornosema*, and *charma* this structure emerges anteriorly. Surely such differences are significant. The male *vesta*, the only male known for this group, suggests affinity with *Phalonia* and *Amallectis*, but the females of these two genera do not exhibit the anterior origin of the accessory bursa. Since it is not clear at this time to what genus these three species are referable, I am placing them in the genus *Phalonia* until all the genera have been examined properly and revised.

Unfortunately, phaloniids seldom are collected in sufficient series to permit exhaustive study, and all too frequently one or the other sex is missing. The state of our knowledge, therefore, is imperfect but it is hoped that papers such as this will point out the need for more material so that more complete treatments can be presented. There is an appalling lack of biological information on the New World species, particularly the Neotropical representatives, but it will be a long time before microlepidopterists will be able to devote time to life history studies in the latter region. In the meantime we must content ourselves with making known the existing taxa.

The drawings of the genitalia were made by Mr. André del Campo Pizzini, staff artist. The photographs of the wings were made by Mr. Jack Scott and Mr. Victor Krantz.

Hysterosia Stephens

Hysterosia gigantea Busck

FIGURE 1; PLATE 1 (FIG. 5)

Hysterosia gigantea Busck, 1920, Ins. Insc. Mens., vol. 8, nos. 4-6, p. 87.

Female genitalia slide JFGC no. 11621. Ostium broad, slitlike, with posteroventral edge curved ventrally. Antrum membranous. Inception of ductus seminalis from deep concavity in side of bursa copulatrix. Ductus bursae very short; anterior portion ridged, the ridges continuing into bursa copulatrix. Bursa copulatrix studded with spicules

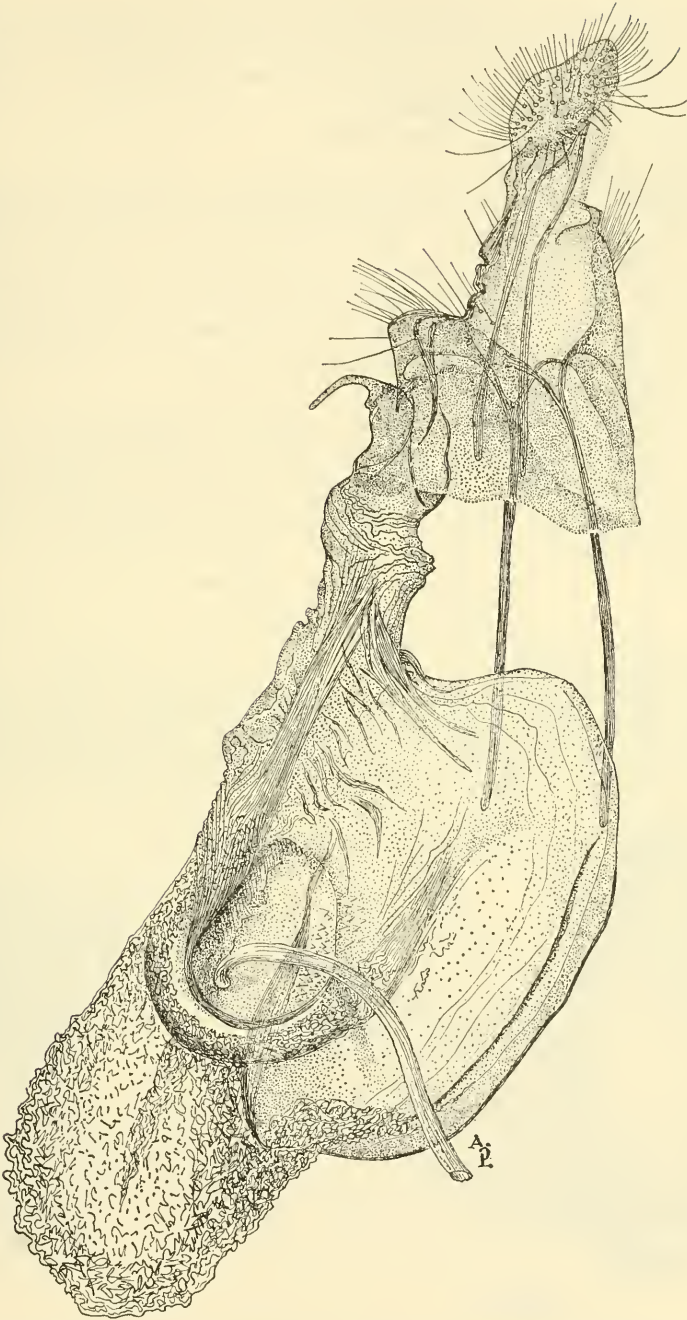


FIGURE 1.—*Hysterosia gigantea* Busck: lateral aspect of female genitalia.

in anterior third, strongly sclerotized in posterior two-thirds. Accessory bursa not evident in this example (may have been destroyed). Lamella antevaginalis and lamella postvaginalis rather strongly sclerotized.

Type: U.S. National Museum.

Type-locality: Mexico, Mexico City.

Distribution: Mexico.

In his description of this species, Busck did not mention the number of specimens he had before him. In the U.S. National Museum collection there are four specimens from Mexico: one ♀ marked "TYPE" in Busck's handwriting; one ♀ marked "Cotype" and a ♂ and ♀, the latter from Tehuacan, with red "cotype" labels. All bear USNM type number 22307 and all have a small white label with the number 3958.

The type and first cotype indicated above are conspecific, but the third and fourth specimens, the ♂ and the ♀ from Tehuacan, are what was described as *Hysterosia perspicuana* Barnes and Busck, from Arizona. The known range of *perspicuana* is thus extended into Latin America.

Hysterosia iodes, new species

FIGURE 2; PLATE 1 (FIG. 3)

Alar expanse 28 mm.

Labial palpus fuscous, the scales laterally sparsely white tipped, and strongly so dorsally on second segment. Antenna ochraceous buff with fuscous scaling dorsally at base; scape fuscous. Head and thorax

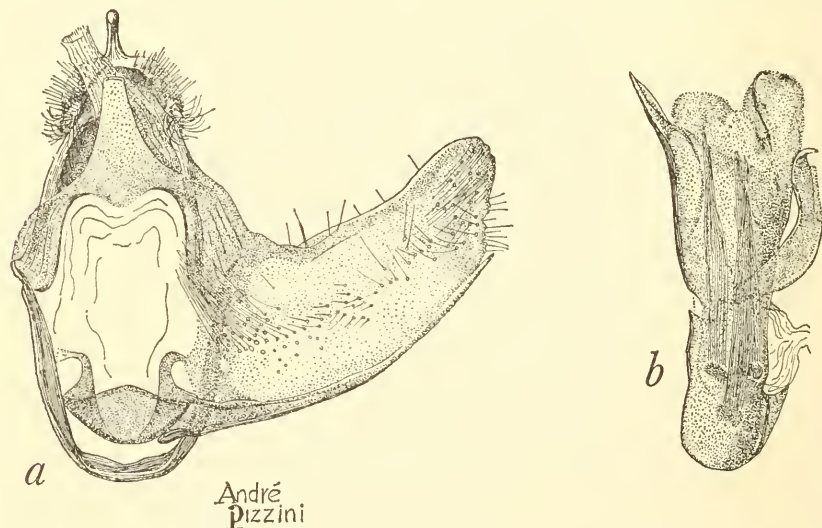


FIGURE 2.—*Hysterosia iodes*, new species: a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.

fuscous with a sprinkling of white-tipped scales; posterior tuft of thorax with mixture of reddish-brown and white-tipped scales. Forewing ground color grayish fuscous, much of the area overlaid with violaceous-metallic scales; on inner angle a narrow, longitudinal, ferruginous dash; at basal fifth an inwardly oblique, blackish-fuscous patch to fold, then outwardly to dorsum; from middle of costa, to dorsum at basal third, a blackish-fuscous transverse band, strongest about midway across wing; at end of cell a small, blackish-fuscous spot; slightly beyond end of cell, obliquely, a blackish-fuscous transverse band extends nearly to tornus; from apical third of costa a blackish-fuscous transverse band, broadest at vein 7, extends to and narrows at tornus; along costa several small patches of white-tipped scales; cilia fuscous. Hindwing ochreous white, heavily mottled with fuscous; cilia grayish fuscous with a very narrow, lighter, basal line. Foreleg pale ochraceous buff; femur and tibia strongly overlaid with fuscous exteriorly; tarsal segments almost wholly fuscous. Midleg similar to foreleg but not so strongly marked with fuscous; hindleg ochraceous buff with slight fuscous irroration and small fuscous patches at tibial spurs. Abdomen dull buff, suffused and irrorate with fuscous.

Male genitalia slide JFGC no. 11622. Harpe subrectangular; cucullus bluntly pointed; ventral edge of harpe produced into a slender pointed process before cucullus. Transtilla with long, smooth, median process. Uncus curved, slender. Vinculum evenly rounded, coalesced. Tegumen about two-thirds the length of harpe. Anellus a strongly sclerotized, curved, oval plate. Aedeagus stout, distally terminating in a sharp point ventrally; dorsally, from about middle, a long, curved process; cornuti, three long, closely compact, clusters of spines.

Holotype: U.S. National Museum No. 69729.

Type-locality: Guatemala, Volcan Santa Maria.

Distribution: Known only from the type-locality.

Described from the unique male holotype (Schaus and Barnes, "10.").

This species resembles the North American *Hysterosia birdana* Busck but lacks the unbroken, dark apical area of that species; moreover, the median portion of the transtilla of *birdana* is broad and armed with numerous, small, dentate processes, the cornuti are one or two, and the aedeagus lacks the long, curved, dorsal process of *iodes*.

Hysterosia turialba Busck

FIGURE 3; PLATE 1 (FIG. 1)

Hysterosia turialba Busck, 1920, Ins. Insc. Mens., vol. 8, nos. 4-6, p. 86.

Male genitalia slide AB Dec. 21, 1925. Harpe triangular; cucullus pointed; costa moderately sclerotized; from base of sacculus a long, irregular, sclerotized arm, free at distal extremity and ornamented with short ridges on each side. Uncus broad, divided, each lateral element terminating in a sharp point; socii recurved, slender. Vinculum

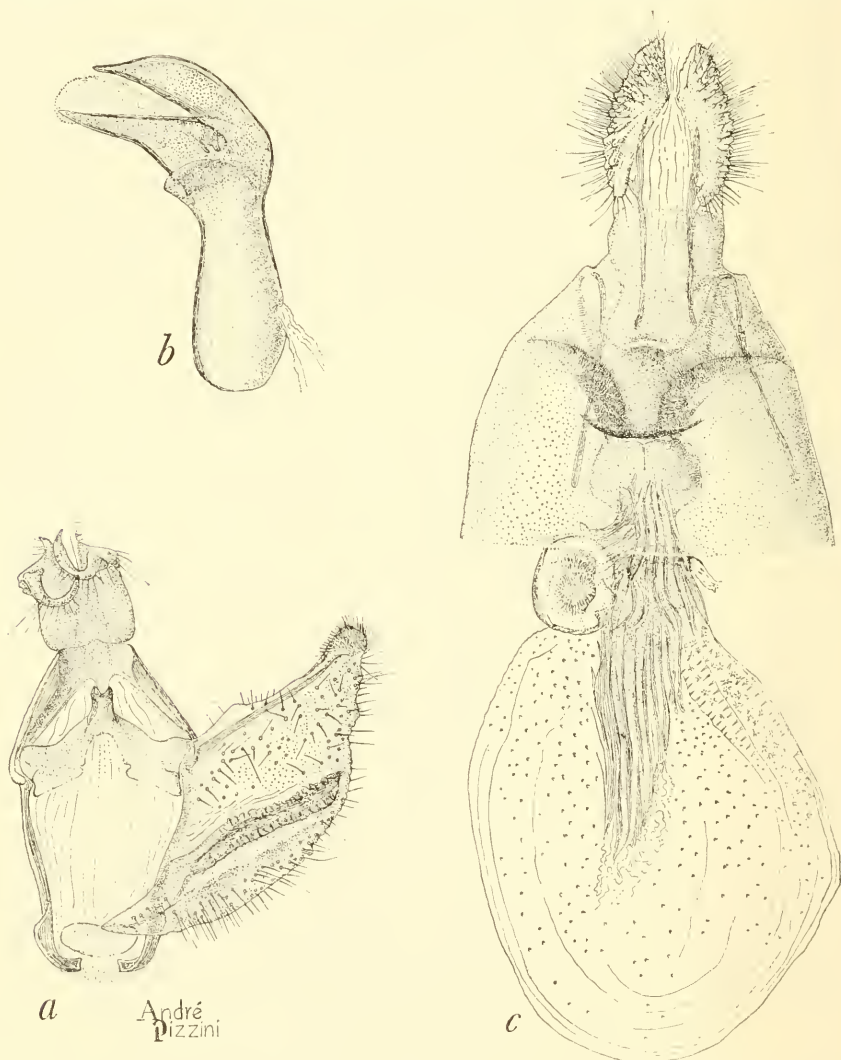


FIGURE 3.—*Hysterosia turialba* Busck: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

not coalesced. Tegumen short, about half the length of harpe. Anellus a broad, oval, sclerotized plate. Aedeagus stout, curved, with a dorsodistal, pointed, curved element and a pointed ventrodial part expanded basally as a flat plate.

Female genitalia slide AB Dec. 2, 1925. Ostium transverse, narrow, ventral lip slightly concave; lamella antevaginalis heavily sclerotized laterally. Antrum broad, flattened, sclerotized. Inception of ductus seminalis posterior, from a depressed area within a sclerotized ring in side of bursa copulatrix. Ductus bursae ribbed, short. Bursa copulatrix ribbed posteriorly, the ribs confluent with those of ductus bursae.

Type: U.S. National Museum.

Type-locality: Costa Rica, Juan Vinas.

Distribution: Costa Rica, Guatemala.

Busck's type is a ♀ from Juan Vinas as indicated in the original description. There are three other specimens (2 ♀♀, Turrialba, Costa Rica, Wm. Schaus; ♂, Volcan Santa Maria, Guatemala, Schaus and Barnes) not mentioned by Busck, which are marked "Cotype." Presumably these three were before Busck when he described the species and are, therefore, paratypes, not cotypes. In addition, there is another specimen, ♀, from Volcan Santa Maria, Guatemala.

The name of this species is a misspelling of Turrialba.

The illustrations of this species are presented for comparative purposes because the species has not been figured previously.

Hysterosia alplitopa, new species

FIGURE 4; PLATE 1 (FIG. 2)

Alar expanse 22–26 mm.

Labial palpus creamy white; second segment with ochreous-buff scaling basally on outer side. Antenna gray with white scaling dorsally at base of shaft; scape creamy white. Head creamy white with slight grayish-ocherous suffusion. Thorax creamy white; anteriorly burnt sienna; dorsally, two irregular but conspicuous black spots. Forewing ground color gray, basal third pale, ochraceous buff; at end of cell, and at extreme base of wing small, but conspicuous, yellow spots of raised scales; inner angle yellow; costa, to middle, broadly fuscous marked by dashes of leaden-metallic scales; beyond the fuscous basal portion a conspicuous, large, white blotch with a distinct black spot on costa at center of blotch; from the outer edge of the costal white blotch, at about vein 8, an oblique, outwardly curved, ochreous-white line extends to termen at vein 4, is preceded inwardly by an irregular patch of burnt sienna, the latter to tornus, with two small, black dashes costad, and followed by an irregular, outwardly oblique, blackish band, this bounded by narrow lines of metallic scales; at apex

and around termen, a series of burnt sienna spots; between dorsum and fold, at about basal third, a triangular burnt sienna spot with two small black spots costad; underside strongly overlaid with blackish fuscous, except whitish outer half of costa, the latter with several blackish spots; cilia burnt sienna mixed with gray and ochraceous buff. Hindwing gray strongly mottled with fuscous, in female almost wholly fuscous; cilia gray with darker subbasal line. Foreleg blackish fuscous outwardly with scattered white scales; inwardly creamy white; midleg femur white, irrorate with fuscous; tibia and tarsus fuscous, narrowly banded with whitish; hindleg creamy white, blotched and irrorate with fuscous. Abdomen fuscous dorsally, creamy white ventrally, speckled with fuscous.

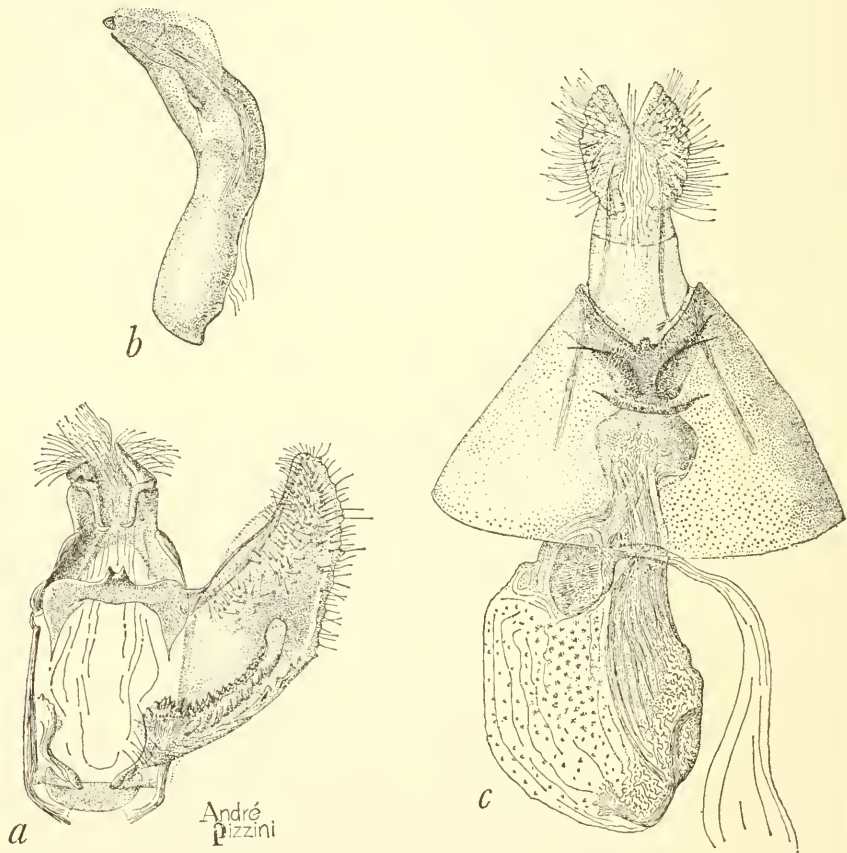


FIGURE 4.—*Hysterosia alplitopa*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

Male genitalia slide JFGC no. 11612. Harpe broad, saccular process extending to about half the length of harpe; posterior edge of process strongly setaceous. Uncus broad, divided into two flat elements, each terminating in a curved point. Vinculum narrow, lateral elements not coalesced in middle. Tegumen about half the length of harpe. Anellus cup shaped. Aedeagus stout, curved, with a long, narrow, dorsodistal projection.

Female genitalia slide JFGC no. 11613. Antrum strongly sclerotized. Inception of ductus seminalis from a fovea in posterior part of bursa copulatrix. Ductus bursae very short, broad. Bursa copulatrix strongly rugose on right side. Signum absent. Ostium broad, slitlike, transverse. Lamella antevaginalis moderately sclerotized; lamella postvaginalis with two strongly sclerotized lateral areas.

Holotype: U.S. National Museum No. 69730.

Type-locality: Venezuela, Aragua, Rancho Grande, 1100 m.

Distribution: Known only from the type-locality.

Described from the male holotype (16–23.X.66. S. S. and W. D. Duckworth), 5 ♂♂ and 1 ♀ paratypes with same locality and dates, from 16–31.X.66.

This taxon is strikingly similar to *turalba* but is a smaller insect with more strongly mottled hindwings. The saccular process of *alphitopa* is much shorter than that of *turalba* and the aedeagus is much more slender (see figs. 3, 4). The two lateral, sclerotized areas of the lamella postvaginalis of *turalba* are larger and the rugose portion of the bursa copulatrix is smaller than in *alphitopa*.

Hysterosia melasma, new species

FIGURE 5; PLATE 1 (FIG. 4)

Alar expanse 22–24 mm.

Labial palpus white; second segment fuscous ventrally and apically and irrorate with fuscous; third segment fuscous on outer side. Antenna gray, suffused with fuscous basally. Head mixed gray and sordid white. Thorax gray, irrorate with fuscous; tegula tipped with white; posterior tuft with white scales mixed. Forewing ground color gray, transversely marked with numerous fine, fuscous strigulae; from costal two-fifths, obliquely to inner angle, a straight, narrow, whitish line; from apical third of costa, a transverse, triangular whitish patch extends to center of wing; between this and the basal whitish line, a black, longitudinal dash; from apical third of costa, and confluent with the tip of the triangular patch, a double, narrow, whitish, transverse line extends outwardly to vein 3, then turns inwardly to tornus; outer edge of this pale line bordered with a very thin line of fuscous; subapically, a whitish line extends around termen; underside of costa spotted with white; cilia gray basally, white apically. Hind-

wing whitish, strongly mottled with grayish fuscous; cilia gray basally, white apically. Foreleg ochereous white, overlaid with fuscous; hindleg ochereous white, suffused and irrorate with grayish fuscous, particularly on outer side. Abdomen ochereous white with grayish-fuscous suffusion and irroration.

Male genitalia slide JFGC no. 11623. Harpe moderately broad, cucullus rounded; saccus very broad basally and heavily sclerotized, terminating in a sharp point. Uncus rather short, compressed, sharply pointed. Vinculum evenly rounded, narrow. Tegumen short, stout. Transtilla terminating in a median, stout, strongly spined process. Anellus subrectangular, broader than long. Aedeagus stout, distally terminating in a sharp, slightly curved, point; vesica armed with two long and two short cornuti.

Holotype: U.S. National Museum No. 69731.

Type-locality: Guatemala, Chejel.

Distribution: Guatemala.

Described from the male holotype (June, Schaus and Barnes) and 3 ♂♂ paratypes, all with the same data. Male genitalia figured from the holotype.

Apparently *melasma* is closely related to *H. perspicuana* Barnes and Busck but is immediately distinguished from it by the four cornuti, there being only three in *perspicuana*. The uncus of *melasma* is less than half the length of that of *perspicuana* and the saccus is much wider.

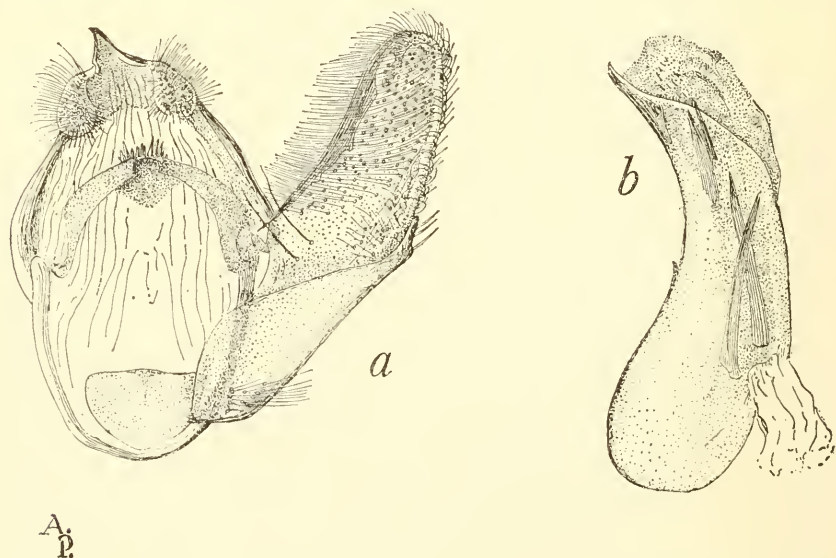


FIGURE 5.—*Hysterosia melasma*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

Phalonia Hübner*Phalonia embrithopa* Meyrick

PLATE 1 (FIGS. 6, 7)

Phalonia embrithopa Meyrick, 1927, *Exotic Microlepidoptera*, vol. 3, p. 366.—Clarke, 1963, Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, vol. 4, p. 27, pl. 13, figs. 1-1a.

Meyrick described *embrithopa* from three specimens stated by him to be females. One specimen has disappeared but the remaining two, the lectotype and a paralectotype, the latter before me, are males. In addition to these, I have three males from Colombia that are obviously this species but that are atypical. For two of these specimens I append the following description.

Alar expanse 26-28 mm.

Labial palpus clay color; first segment with conspicuous fuscous spot exteriorly; third segment mixed with fuscous. Antenna clay color; scape infuscated distally. Head light clay color. Thorax and tegula light clay color; posterior tuft fuscous mixed with sordid white. Forewing ground color sordid white, heavily overlaid and strigulated with tawny olive; from basal third of costa, obliquely to inner angle, a tawny-olive line delimiting a mixed tawny-olive and whitish basal patch; on middle of costa a tawny-olive spot continued indistinctly and transversely to cell, then obliquely and inwardly to dorsum; apical fourth tawny olive mixed with white and fuscous scales; at end of cell, between veins 2 and 4, an outwardly oblique, indistinct fuscous blotch extends to tornus; on dorsal edge a series of fuscous spots; underside strongly infuscated except apical two-fifths of costa; cilia sordid white mixed with gray, fuscous, and tawny olive. Hindwing sordid white, transversely striated and mottled with grayish fuscous, underside more strongly so; cilia whitish mixed with gray. Foreleg ochereous white strongly overlaid with fuscous outwardly; midleg similar to foreleg but banded with tawny olive; hindleg ochereous white suffused and irrorate with fuscous. Abdomen clay color infuscated ventrally.

These two, from Páramo de Puracé, are larger than the two remaining Meyrick types and the pattern of the forewing is less blotched and the reticulations are finer. The basal patch and median transverse fascia are more pronounced. The hindwing of the original *embrithopa* is darker and the mottling is heavier than in the two from Páramo de Puracé. The third additional specimen from Volcan Galeras is smaller than the types (22 mm) and the forewing is paler in color. The hindwing of this specimen is intermediate between the originals and the two from Páramo de Puracé.

All of the specimens are from high altitudes. Mt. Tolima (3846 m), Páramo de Puracé (3570 m) and Volcan Galeras (2900 m). The differences in altitude are not great but may well account for the variation that exists. All of the specimens are indistinguishable on genitalia.

Type: British Museum (Natural History).

Type-locality: Colombia, Mt. Tolima.

Distribution: Colombia: 2 ♂♂, Mt. Tolima; 2 ♂♂, Cauca, Páramo de Puracé, Lake San Rafael, 3570 m, 27.I.1959, J. F. G. Clarke; ♂ Nariño, Volcan Galeras, 2900 m, 13.I.1959, J. F. G. Clarke.

Phalonia tornosema, new species

FIGURE 6; PLATE 2 (FIG. 7)

Alar expanse 12–13 mm.

Labial palpus white; basal half of second segment fuscous on outer side; third segment with a few scattered fuscous scales. Antenna fuscous; scape white except fuscous apex. Head white with grayish scales laterally. Thorax gray, mixed with russet and fuscous; anterior margin narrowly white; posterior tuft ochraceous orange. Forewing ground color pale gray; on each side of fold a series of four (total 8) round spots of mixed russet and leaden gray scales; on tornus a conspicuous ochraceous-orange spot; basal patch indistinct, indicated mostly by ochraceous-tawny scales; inner angle fuscous; from middle of costa an ill-defined, brown, transverse fascia with a small fuscous spot on each edge in cell; beyond this fascia a costal whitish area followed by short, transverse whitish and russet fasciae; underside grayish fuscous except from fold to dorsal edge; cilia light tawny mixed with gray, lighter around tornal area. Hindwing grayish fuscous; cilia light grayish with darker sub-basal band. Foreleg sordid white strongly infuscated on outer side; tarsus banded with fuscous; midleg similar to foreleg; hindleg ochereous white; tibial spurs and tarsus minutely spotted with fuscous. Abdomen grayish fuscous dorsally; ochereous white ventrally, irrorate and suffused with fuscous.

Female genitalia slide JFGC nos. 11223, 11630. Ostium transverse, narrow. Antrum sclerotized in a narrow band. Inception of ductus seminalis from anterior end of bursa copulatrix; accessory bursa from near inception of ductus seminalis. Ductus bursae very short, about one-third the length of bursa copulatrix. Bursa copulatrix membranous. Signum absent. Lamella antevaginalis and lamella postvaginalis very lightly sclerotized.

Holotype: U.S. National Museum No. 69740.

Type-locality: Guatemala, Volcan Santa Maria.

Distribution: Guatemala.

Described from the female holotype and seven ♀♀ paratypes all

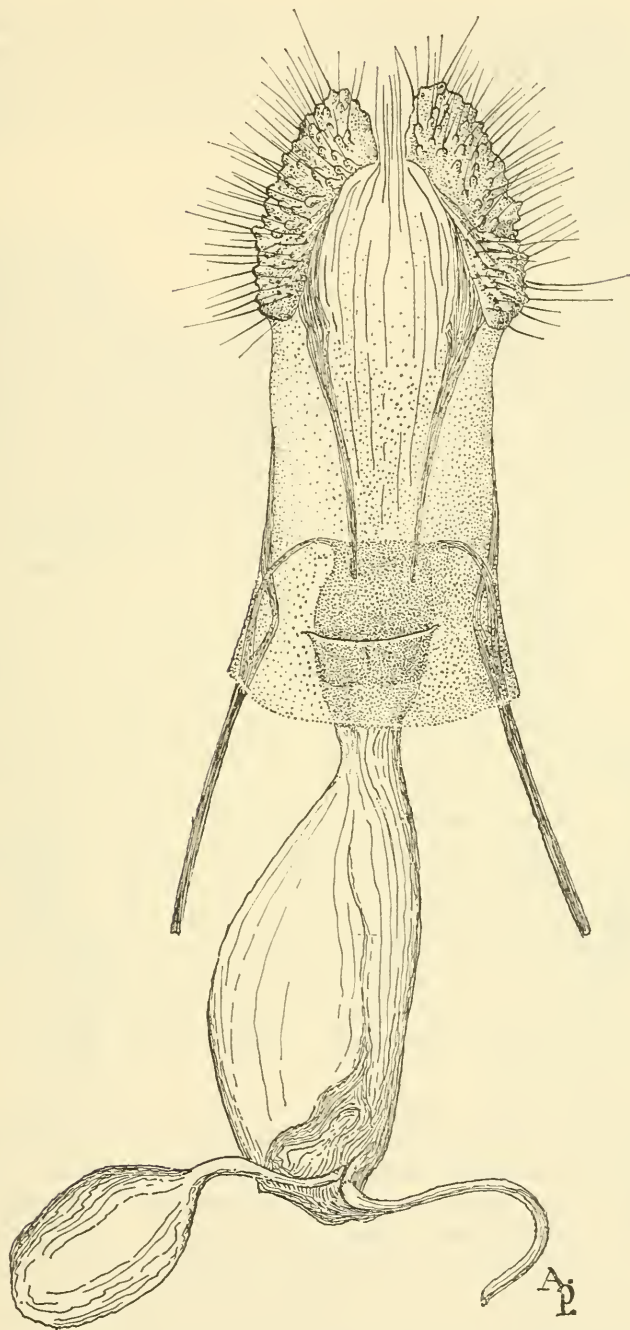


FIGURE 6.—*Phalonia tornosema*, new species: ventral view of female genitalia.

from the type-locality (June, July, November; Schaus and Barnes).

Under *vesta* I have indicated the close similarity, and the apparent close relationship of *vesta* and *tornosema*. The eight round spots of leaden gray scales on the forewing of *tornosema* are not apparent on the forewing of *vesta*.

Phalonia vesta, new species

FIGURE 7; PLATE 4 (FIG. 7)

Alar expanse 12-13 mm.

Labial palpus white; basal two-thirds of second segment strongly overlaid with grayish fuscous; third segment sparsely irrorate with grayish fuscous. Antenna grayish fuscous; scape white, irrorate with grayish fuscous. Head white, laterally suffused grayish. Thorax grayish, mottled with white, russet and ochraceous-tawny scales. Forewing ground color grayish, largely obscured by tawny, grayish-fuscous and leaden-metallic scales; on costa, three russet bars alternating with leaden-metallic, transverse fasciae; inner angle narrowly marked black; along fold a series of scattered black scales; at costal two-thirds an ill-defined whitish area; at end of cell a conspicuous elongate, oval, ochereous-white spot preceded and followed by black scales; tornus ochraceous orange; apex marked by several ill-defined transverse, russet fasciae; cilia clay color mixed with gray. Hindwing grayish fuscous; cilia pale gray with darker basal line. Foreleg sordid white overlaid with blackish fuscous on outer side; tarsal segments with only narrow bands of white showing on outer side; midleg similar but with less blackish fuscous on tibia; hindleg sordid white, faintly irrorate with gray. Abdomen grayish fuscous dorsally, sordid white, suffused with cinereous ventrally; anal tuft light ochereous gray.

Male genitalia slide JFGC no. 11638. Harpe about twice as long as tegumen, widest about middle, tapering to a blunt point; sacculus slightly thickened. Uncus a minute nodule. Vinculum not coalesced, narrow laterally. Tegumen broadly arched, dome shaped. Anellus subrectangular, lightly sclerotized. Aedeagus rather slender, curved; vesica without cornuti.

Female genitalia slide JFGC no. 11639. Ostium narrow, transverse. Antrum narrowly sclerotized. Inception of ductus seminalis from near anterior end of bursa copulatrix; accessory bursa adjacent to inception of ductus seminalis. Ductus bursae mainly membranous with narrow longitudinal ridges in anterior half. Bursa copulatrix membranous with weak sculpturing posteriorly. Signum absent. Lamella antevaginalis and lamella postvaginalis very lightly sclerotized.

Holotype: U.S. National Museum No. 69755.

Type-locality: Venezuela, Aragua, Rancho Grande, 1100 m.

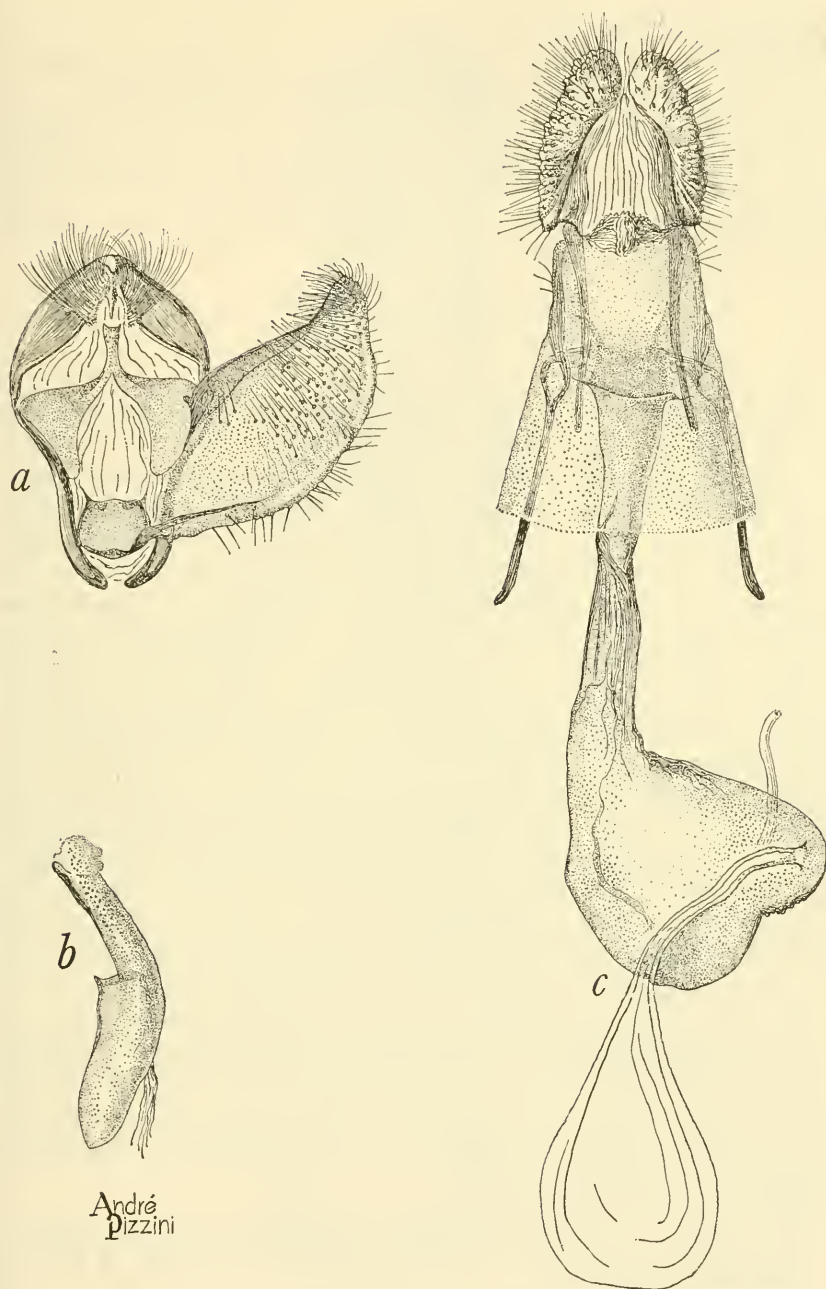


FIGURE 7.—*Phalonia vesta*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

Distribution: Venezuela.

Described from the male holotype, and one ♀ paratype, all from the same locality (16-23.X.1966, S. S. and W. D. Duckworth).

In general appearance *vesta* is very similar to *tornosema* but differs from that species by the presence of a large, oval, ochereous-white spot at end of cell in forewing. No males of *tornosema* are known but the ductus bursae of *tornosema* is very short; that of *vesta* is nearly four times as long (cf. figs. 6, 7).

Phalonia charma, new species

FIGURE 8; PLATE 3 (FIG. 7)

Alar expanse 14 mm.

Labial palpus white; second segment suffused grayish and sparsely irrorate with fuscous on outer side; third segment with fuscous dash dorsally and ventrally on outer side. Antenna grayish fuscous; scape sordid white with fuscous irroration. Head sordid white; face suffused grayish. Thorax sordid white with band of fuscous anteriorly and posteriorly; tegula fuscous anteriorly and irrorate with fuscous on remainder of surface. Forewing ground color sordid white; basal two-fifths of costa gray; on middle of costa a rectangular gray spot; at apical fourth of costa an olive-buff blotch; apical fifth of wing gray, strongly marked with blackish-fuscous spots and blotches; on mid-dorsum an olive-buff shade extending into cell, preceded basally by a blackish-fuscous blotch; on dorsum, before tornus a small, but conspicuous, blackish-fuscous spot; underside strongly infuscated except on apical half of costa; cilia sordid white with contrasting, dark gray basal line. Hindwing sordid white with pale grayish-fuscous mottling; cilia pale grayish with darker subbasal line. Foreleg white; femur and tibia fuscous on outer side; midleg similar to foreleg; hindleg sordid white. Abdomen ochereous white with grayish-fuscous suffusion and irroration dorsally; ventrally sparsely irrorate with fuscous.

Female genitalia slide JFGC no. 11634. Ostium crescentic, broad. Antrum strongly sclerotized. Inception of ductus seminalis at middle of bursa copulatrix. Ductus bursae short, broad. Bursa copulatrix membranous; accessory bursa extending well beyond anterior end of bursa copulatrix. Signa consisting of very fine spicules; lamella post-vaginalis moderately sclerotized.

Holotype: U.S. National Museum No. 69744.

Type-locality: Argentina, Tucumán, Ciudad Universitaria, 800 m.

Distribution: Argentina.

Described from the unique female holotype (17.II.59. J. F. G. Clarke).

In general aspect *charma* is similar to the North American *Phalonia glaucofuscana* (Zeller), but the terminal dark area of *charma* is less

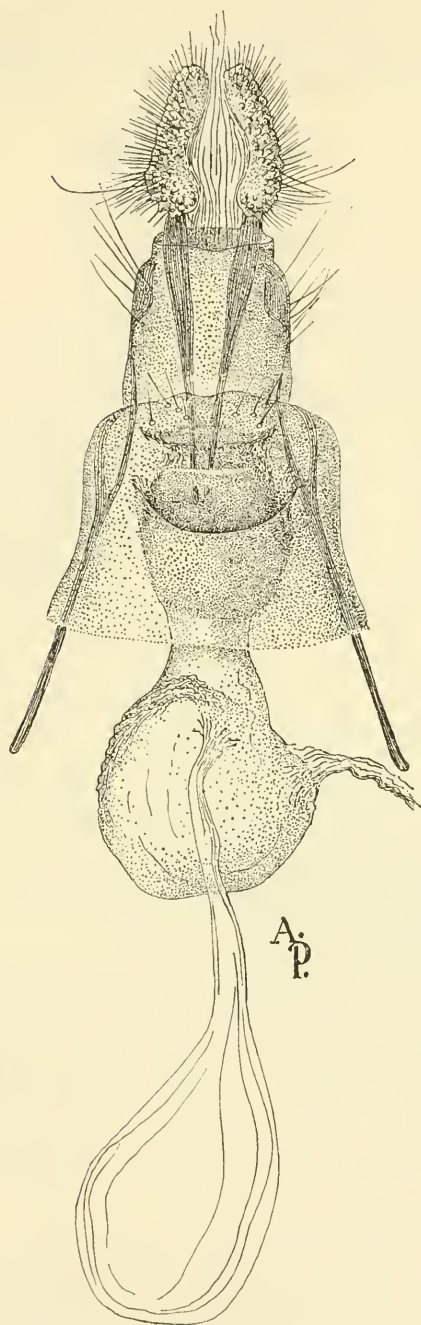


FIGURE 8.—*Phalonia charma*, new species: ventral view of female genitalia.

extensive than in *glaucofuscana* and the hindwing of the former is much lighter than that of the latter. The actual affinities of *charma* are not clear but the broad ostium and short ductus bursae characterize this species.

Cochylis Treitschke

Cochylis caesiata, new species

FIGURE 9; PLATE 3 (FIG. 4)

Alar expanse 10–12 mm.

Labial palpus ochraceous buff; second segment sparsely irrorate with fuscous; third segment with slight infuscation. Antenna grayish fuscous; scape buff. Head buff; laterally, scales slightly darker. Thorax buff, posteriorly a few tawny scales; tegula light clay color anteriorly. Forewing ground color buff; basal two-fifths clouded with clay color; across middle of wing a broad, leaden-gray, transverse band variously marked with brown and fuscous; within this broad band, from dorsum, along inner side of band, a large blackish-fuscous patch extending two-thirds distance to costa; outer margin of median band narrowly edged with brown; along extreme costal edge a series of small blackish dots, the last slightly before apex; subterminal pale area with a few scattered brown scales; underside with broad grayish-fuscous median band; terminal area tawny; cilia buff. Hindwing ochraceous white basally, followed by a grayish fuscous band; subterminal and apical areas light tawny. Foreleg buff, irrorate and shaded with fuscous; midleg buff, femur and tibia each with a proximal and distal blotch of fuscous; first tarsal segment with fuscous spot, remaining segments with scattered fuscous scales. Hindleg buff, tarsal segments slightly more ochraceous. Abdomen pale grayish dorsally; ventrally buff with a median longitudinal line of fuscous spots.

Female genitalia slide JFGC no. 11614. Ostium very broad, convex; anterior edge armed with sharp teeth. Inception of ductus seminalis at middle of bursa copulatrix, from an alveole at the anterior end of a sclerotized bar, the latter with one crenulate edge. Ductus bursae very short, hardly differentiated from bursa copulatrix; accessory bursa from posterior edge of bursa copulatrix. Bursa copulatrix membranous with spiculate inner surface. Signum absent. Lamella antevaginalis depressed, sclerotized; lamella postvaginalis lightly sclerotized.

Holotype: U.S. National Museum No. 69742.

Type-locality: Venezuela, Aragua, Rancho Grande, 1100 m.

Distribution: Known only from the type-locality.

Described from the female holotype (16–23.X.66. S. S. and W. D. Duckworth) and two ♀♀ paratypes, all from the type-locality. Paratypes dated 11–19.I.66.

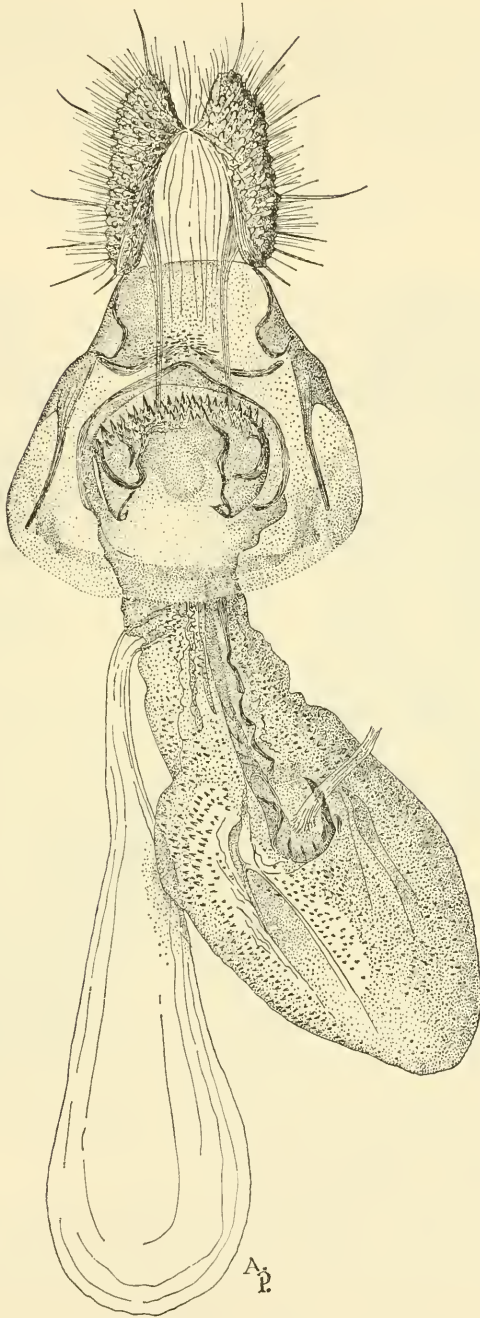


FIGURE 9.—*Cochylis caesiata*, new species: ventral view of female genitalia.

In appearance quite similar to *Euxanthis amphimnesta* Meyrick, from Kumaon, but the median fascia of *caesiata* is broader and the tricolored hindwing immediately distinguishes the latter from the former. In female genitalia *caesiata* is nearest the North American *C. hospes* Walsingham.

Cochylis serena, new species

FIGURE 10; PLATE 4 (FIG. 6)

Alar expanse 15–17 mm.

Labial palpus white; second segment irrorate with fuscous on outer side; third segment suffused fuscous apically. Antenna grayish fuscous; basal fifth black dorsally; scape white. Head white with some gray scaling posterolaterally. Thorax gray, mixed with fuscous and leaden-metallic scales; tegula whitish to gray mixed with fuscous. Forewing ground color white; basal three-fifths fuscous mixed with leaden gray and tawny; in some specimens the basal dark area becomes attenuated so that dorsum is almost wholly white; on costal edge of cell, near middle of wing, two black spots and a third black spot beyond end of cell; from outer fifth of costa a crescentic, gray fascia to vein 4 at termen; on termen from vein 4 to vein 2 a narrow, tawny, transverse fascia; apical sixth of wing marked with several irregular strigulae and spots of mixed gray, fuscous and tawny; underside fuscous except a costal area at two-thirds; cilia ochraceous buff with a strong gray basal line around apex and termen. Hindwing sordid white mottled with grayish fuscous in male; in female grayish fuscous, the darker mottling ill-defined; cilia ochraceous white with gray sub-basal line. Foreleg ochraceous white; femur and tibia blackish fuscous on outer side; tarsal segments broadly banded blackish fuscous; midleg similar but not so strongly marked; hindleg ochraceous white lightly suffused and irrorate with fuscous. Abdomen grayish fuscous dorsally somewhat paler ventrally; anal tuft ochraceous white.

Male genitalia slide JFGC no. 11659. Harpe broad, tapering to a bluntly pointed cucullus. Transtilla with flattened dentate median process. Socii fleshy lobes. Vinculum narrow, lateral elements not coalesced. Tegumen a moderately narrow band. Anellus a broad sclerotized saucer-shaped plate. Aedeagus stout, acutely pointed; vesica armed with a single stout cornutus.

Female genitalia slide JFGC no. 11660. Ostium broad, anterior edge concave. Antrum moderately sclerotized. Inception of ductus seminalis ventrally from posterior third of bursa copulatrix; accessory bursa extending slightly beyond anterior end of bursa copulatrix. Ductus bursae short, broad with sclerotized ring near middle. Bursa copulatrix membranous except an irregular area posteriorly.

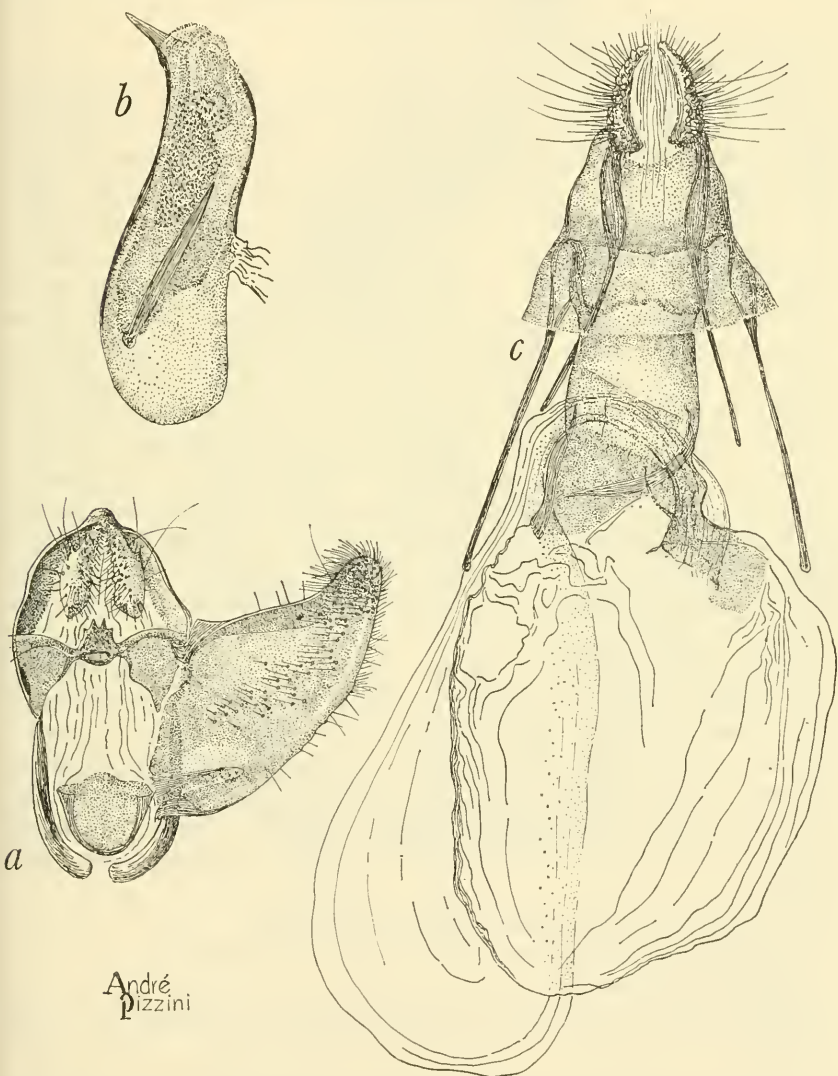
Holotype: U.S. National Museum No. 69754.

Type-locality: Brazil, Santa Catharina, Nova Teutonia.

Distribution: Known from the type-locality only.

Described from the male holotype (VII.1963, F. Plaumann), 4 ♂♂ and one ♀ paratypes all from the same locality (June to December dates).

This species is nearly allied to the following *constantia*, but the apical third of the forewing of *serena* is whitish except for a narrow,



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FIGURE 10.—*Cochylis serena*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

dark, subterminal line. In *constantia* only the extreme apex is white, the remaining part of the apical third is largely filled with fuscous and leaden-gray scales. The female genitalia of *constantia* show much more sculpturing and spining in the bursa copulatrix than is present in *serena*. No comparison of the male genitalia can be made because the male of *constantia* is unknown.

Cochylis constantia, new species

FIGURE 11; PLATE 4 (FIG. 8)

Alar expanse 17 mm.

Labial palpus fuscous, paler on inner surface of second segment. Antenna grayish fuscous; scape sordid white strongly suffused fuscous. Head fuscous. Thorax mottled fuscous and pale gray; posterior edge white; apex of tegula white. Forewing ground color sordid white; basal patch ill-defined, indicated mainly by fuscous and gray mottling; costa marked by gray spots and short bars; at middle of costa a subquadrate, gray blotch; on dorsal edge six small, fuscous spots; from mid-dorsum a large gray blotch extending into cell and superimposed over it an outwardly oblique fuscous band; from tornus to termen at vein 5, thence obliquely to costa before apex, a gray suffusion mixed with fuscous at its middle; apex white with three small, grayish-fuscous spots at edge; cilia grayish fuscous mixed with cinerous. Hindwing sordid white contrastingly mottled with grayish fuscous. Foreleg ocherous white overlaid with fuscous on outer side; midleg ocherous white suffused with grayish fuscous; tibia with fuscous spot distally on outer side; tarsal segments narrowly edged whitish distally; hindleg ocherous white with only slight suggestion of infuscation. Abdomen grayish fuscous.

Female genitalia slide JFGC no. 11593. Ostium slitlike; anterior edge slightly concave. Antrum broadly sclerotized. Inception of ductus seminalis from slight depression in side of bursa copulatrix. Ductus bursae short, membranous. Bursa copulatrix membranous except for longitudinal sculpturing posteriorly and spiculate inner surface. Accessory bursa from juncture of ductus bursae and bursa copulatrix. Lamella antevaginalis membranous; lamella postvaginalis scobinate.

Holotype: U.S. National Museum No. 69756.

Type-locality: Peru, Cusco, Machu Picchu, 2700 m.

Distribution: Peru.

Described from the unique female holotype (6.II.1959, J. F. G. Clarke).

Under the foregoing, *serena*, I have discussed the apparent relationship of the two species, but much additional material will be required before a proper alignment can be made.

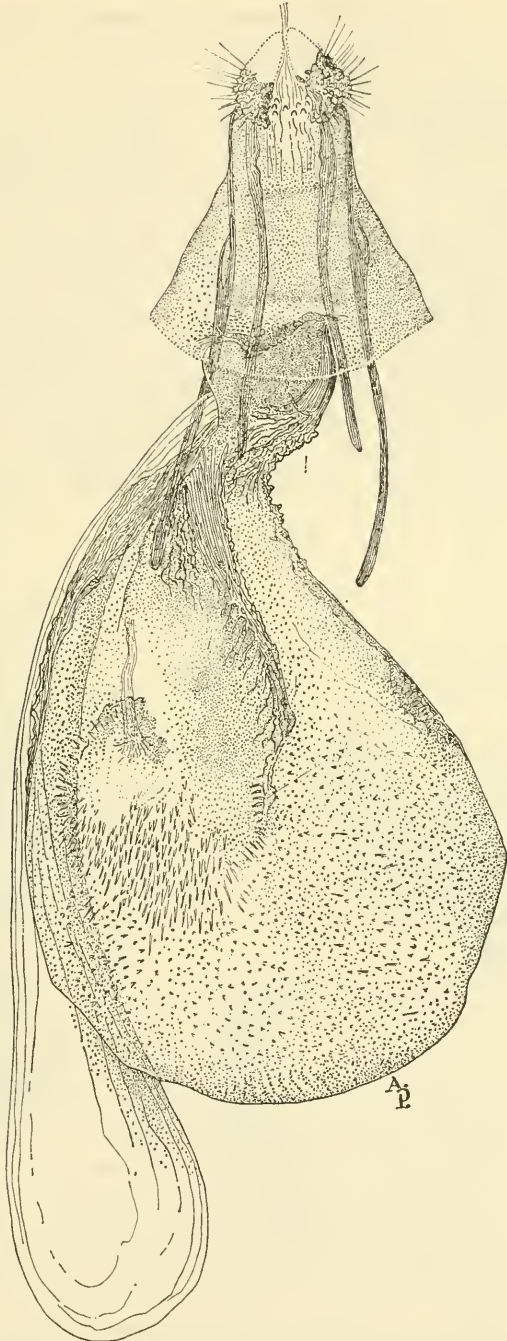


FIGURE 11.—*Cochylis constantia*, new species: ventral view of female genitalia.

Cochylis mendora, new species

FIGURE 12; PLATE 3 (FIG. 2)

Alar expanse 14–15 mm.

Labial palpus sordid white; second segment tinged ochereous on outer side; third segment tipped with fuscous. Antenna grayish fuscous; scape sordid white. Head sordid white tinged with ochereous posteriorly. Thorax sordid white, sparsely irrorate with brownish and ochereous; tegula fuscous anteriorly. Forewing ground color sordid white; base of costa narrowly fuscous, followed by several small dots and a bar of the same color at middle; basal fifth of wing light clay color forming an ill-defined basal patch; from middle of dorsum to middle of cell, a broad, outwardly oblique brown fascia followed at outer end by a clay-colored shade; on dorsum, four fuscous spots, the larger of the four astride the base of the transverse fascia; subterminally a clay-colored transverse shade; extreme terminal edge marked with clay

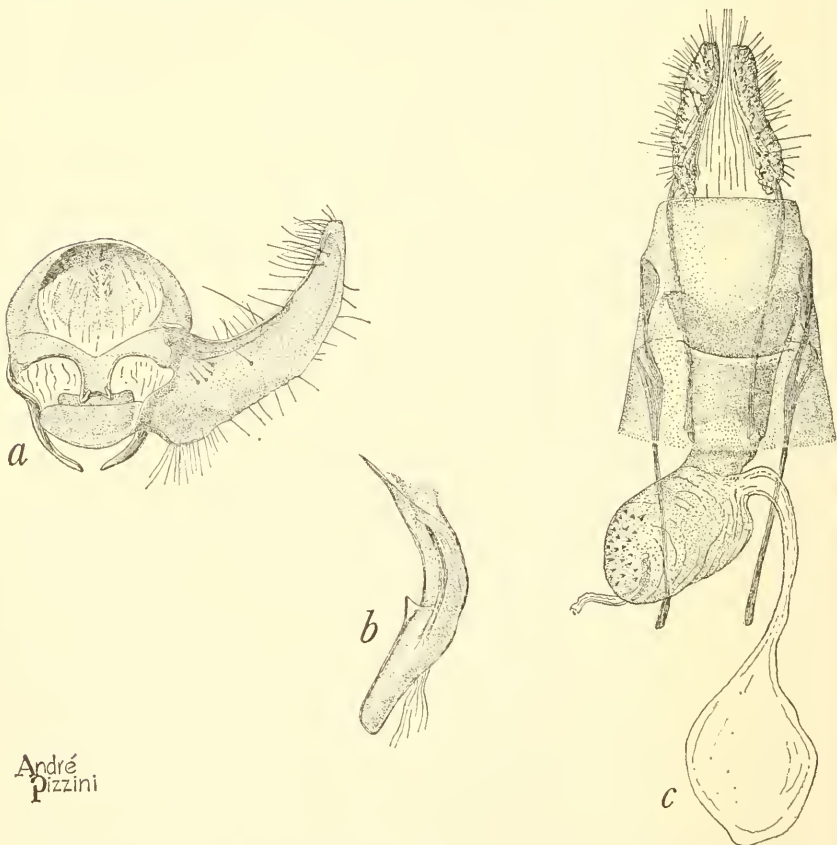
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FIGURE 12.—*Cochylis mendora*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

color; underside, except costal two-fifths, fuscous; cilia white mixed with clay color and fuscous. Hindwing grayish fuscous, lighter basally; cilia pale gray with darker subbasal line. Foreleg ochereous white; femur and tibia shaded with fuscous on outer side; midleg similar to foreleg; hindleg ochereous white. Abdomen grayish fuscous dorsally, ochereous white ventrally.

Male genitalia slide JFGC no. 11632. Harpe slender; cucullus narrow, bluntly pointed; base of sacculus dilated. Vinculum very narrow, but coalesced medially. Tegumen broad, rounded, Anellus a broad, concave plate. Aedeagus moderately stout, curved, sharply pointed; vesica armed with a single, long, slender cornutus.

Female genitalia slide JFGC nos. 11633, 11217. Ostium wide; ventro-anterior lip concave. Antrum broadly sclerotized. Ductus seminalis from anterior half of bursa copulatrix. Ductus bursae short, broad. Bursa copulatrix membranous; accessory bursa extending well beyond anterior end of bursa copulatrix. Signa many small spinules.

Holotype: U.S. National Museum No. 69743.

Type-locality: Chile, Santiago Prov., Cajon de Maypo, Cordillera, El Centro.

Distribution: Known only from Chile.

Described from the male holotype (12-20 Jan. 1948, Tito Ramirez), and one ♀ paratype with same data, and one ♀ paratype, El Principal (11.1888, V. Izquierdo).

In general appearance *mendora* is similar to the North American *Cochylis felix* (Walsingham) but is smaller, lighter, and lacks the dark subterminal spot of that species. The harpe of *felix* is more evenly rounded and broader ventrally than that of *mendora* and the aedeagus is stouter. The ostium of *mendora* is twice as broad as that of *felix* and the spining of the bursa copulatrix is much less extensive than in the latter.

Cochylis laetitia, new species

FIGURE 13; PLATE 3 (FIG. 3)

Alar expanse 15 mm.

Labial palpus ochereous white, light ochraceous buff on outer side; second segment sparsely irrorate with grayish basally. Antenna pale grayish buff; scape with grayish-fuscous irrorations. Head ochereous white with slight, pale infuscation. Thorax ochereous white, suffused ochraceous buff; tegula ochraceous buff anteriorly. Forewing ground color buff; costa and dorsum marked with small grayish-fuscous spots; at basal two-fifths a triangular yellow-ocher spot astride fold; a similarly colored triangular spot, its base on dorsum slightly beyond middle, extending to fold; in apical third several ill-defined transverse fasciae composed of narrow yellow-ocher spots and the whole

area finely irrorate with grayish fuscous; underside lightly mottled with grayish fuscous; cilia mixed gray and yellow ochre with dark gray basal line. Hindwing sordid whitish mottled with grayish fuscous; cilia ochreous white with gray subbasal line. Foreleg ochreous white; femur and tibia overlaid with fuscous on outer side; tarsal segments broadly banded with grayish fuscous; midleg similar to foreleg; hindleg ochreous white; femur sparsely irrorate with grayish fuscous. Abdomen pale buff; dorsally suffused with grayish fuscous; ventrally with slight, fuscous, median irroration.

Male genitalia slide JFGC no. 11635. Harpe triangular, broad basally, tapering to a pointed cucullus. Vinculum coalesced, with median point. Tegumen rounded, broad. Anellus a broad, sclerotized plate. Aedeagus moderately stout, sharply curved at distal third, sharply pointed; vesica armed with a single, slightly curved, slender cornutus.

Holotype: U.S. National Museum No. 69745.

Type-locality: Argentina, Tucumán, Ciudad Universitaria, 800 m.

Distribution: Known only from the type-locality.

Described from the unique male holotype (20.II.59, J. F. G. Clarke).

Similar to *Phalonia sublimis* Meyrick from Peru, but lacking the contrasting transverse fascia of the forewing of that species.

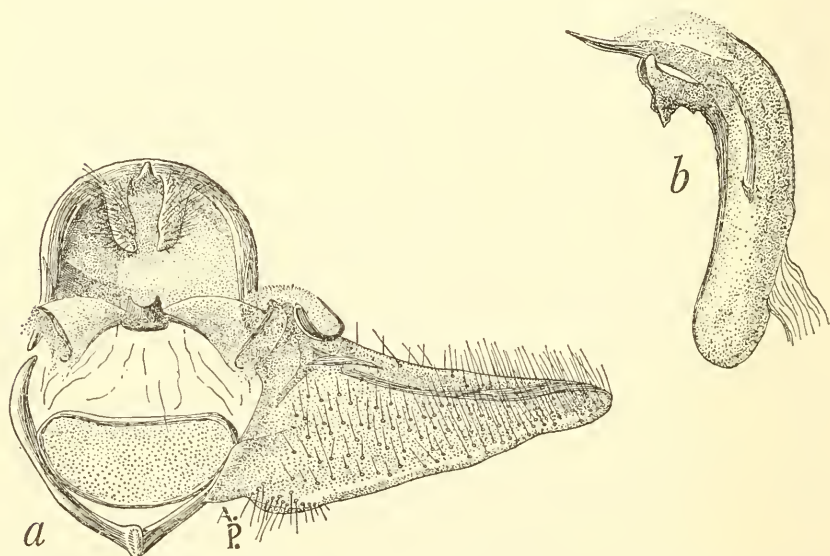


FIGURE 13.—*Cochylys laetitia*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

Amallectis Meyrick*Amallectis nephelodes*, new species

FIGURE 14; PLATE 2 (FIG. 3)

Alar expanse 16–21 mm.

Labial palpus creamy white overlaid with ochereous buff on outer side; second segment infuscated basally. Antenna grayish fuscous; scape fuscous. Head ochereous buff with grayish scales laterally; in female, head gray. Thorax brownish gray; apex of tegula grayish buff. Forewing ground color, light clay color in basal half, gray in apical half; basal third of wing overlaid with ochraceous buff; from basal

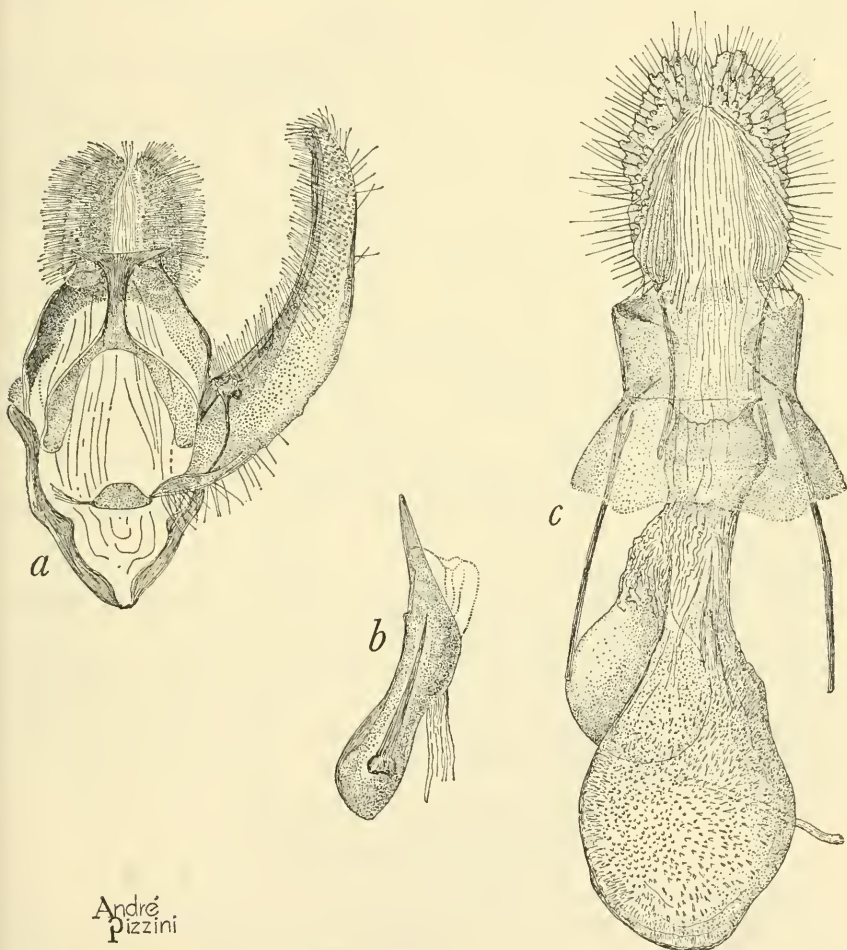
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FIGURE 14.—*Amallectis nephelodes*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

third of dorsum to well beyond middle of cell, an outwardly oblique ochraceous-tawny, transverse band with fuscous scales at base and apex; beyond this fascia, on middle of dorsum, an elongate, transverse, grayish-olive patch with its apex near end of cell; on tornus a small fuscous spot; beyond end of cell a large, irregular, transverse, fuscous blotch followed by a curved line of ground color, the latter followed by a broadly crescentic, subapical, fuscous, transverse bar; cilia mixed ochraceous, fuscous and gray. Hindwing grayish fuscous, somewhat paler basally. Foreleg ochraceous buff strongly infuscated on outer side; midleg similar to foreleg but with less fuscous; hindleg ochraceous buff lightly spotted with gray on femur and tibia; tarsal segments marked with blackish fuscous on outer side. Abdomen grayish fuscous dorsally, ochraceous white ventrally.

Male genitalia slide JFGC no. 11625. Harpe long, slender, without ornamentation; cucullus narrowly rounded. Transtilla long, terminating in two widely separated, acutely sharp, points. Uncus absent. Vinculum narrow, bluntly pointed. Tegumen broad, about half the length of harpe; socii long fleshy lobes. Anellus subtriangular. Aedeagus moderately slender, apically flattened and pointed; vesica armed with one cornutus, slightly more than half the length of aedeagus.

Female genitalia slide JFGC no. 11626. Ostium small with concave ventro-anterior lip. Antrum broad, wider than long. Inception of ductus seminalis at about middle of ductus bursae; accessory bursa a rounded, sclerotized sac dorsal to bursa copulatrix. Ductus bursae wide, mostly membranous. Bursa copulatrix with finely granular surface. Signum absent.

Holotype: U.S. National Museum No. 69737.

Type-locality: Bolivia, Cochabamba, Incachaca, Tropical cloud area, 2100 m.

Distribution: Bolivia.

Described from the male holotype (27.VIII-5.IX.56. L. Peña), and one ♀ paratype with identical data.

The female is the larger of the two specimens and has paler hindwings than the male.

This species is near *anaxia* and *peñai* but differs from both by the larger size and generally darker color.

Amallectis peñai, new species

FIGURE 15; PLATE 2 (FIG. 2)

Alar expanse 14 mm.

Labial palpus white; second segment, except apical portion, ochraceous buff on outer side. Antenna ochraceous tawny. Head sordid white with some ochraceous-buff scales around eye. Thorax grayish fuscous; apex of tegula sordid white. Forewing ground color white

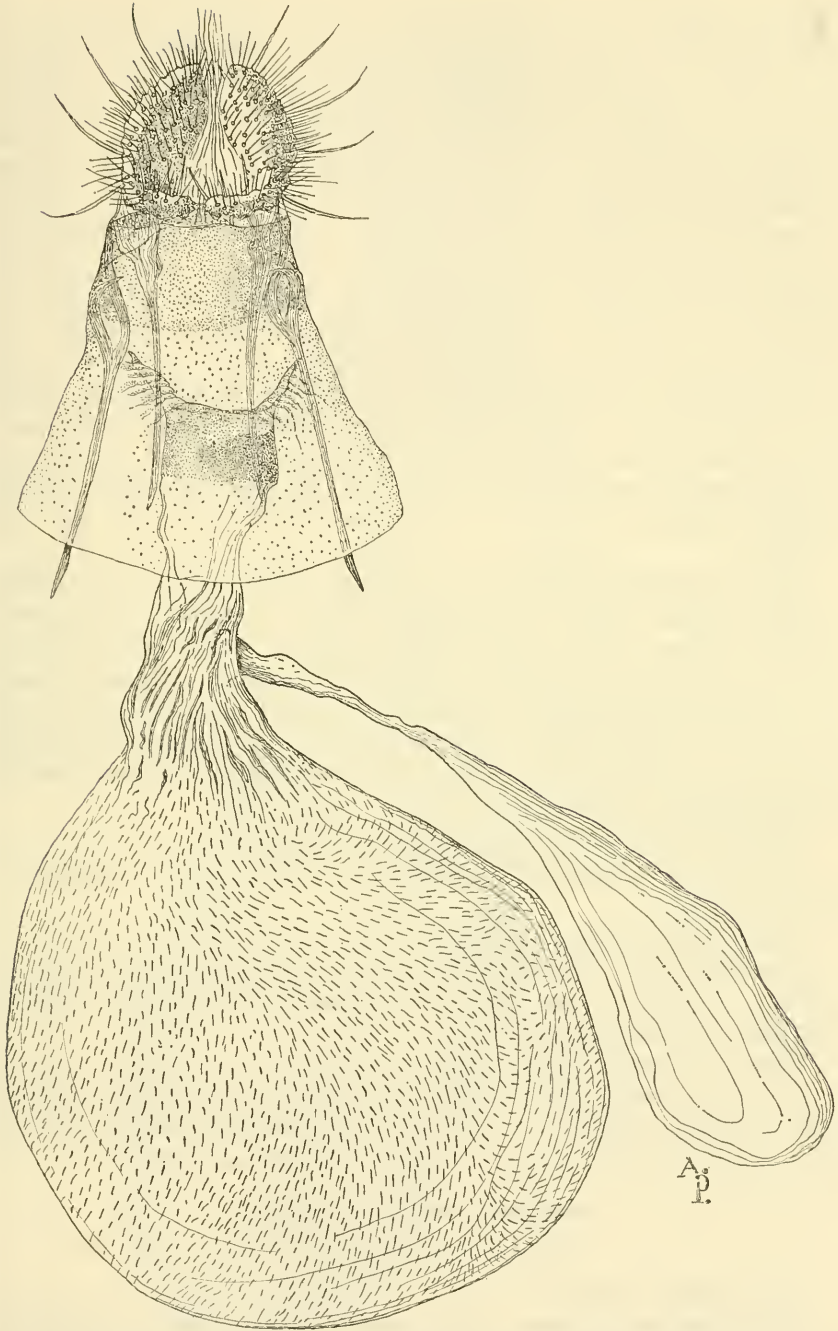


FIGURE 15.—*Amallectis peñai*, new species: ventral view of female genitalia.

(clearly visible only in apical area), heavily overlaid with ochraceous buff and olivaceous gray; basal half of costa ochraceous buff; from basal third of dorsum to cell, an oblique subrectangular blackish-fuscous and tawny patch bounded on each side with a narrow whitish line; basad of this shade an olivaceous shade parallels it and extends well into cell; beyond the dark dorsal mark a grayish shade, terminated by a few leaden scales, extends to tornus; on tornus a rounded, olivaceous spot extends to vein 6 and is bounded outwardly by ochraceous-tawny and blackish-fuscous scales; from apical third to termen at vein 4, an outwardly curved crescentic fascia, broadest in middle, shaded with ochraceous tawny on costa and edged with blackish fuscous in terminal half; on costa, on each side of the crescentic mark, a small patch of leaden scales; cilia buff with slightly darker basal band. Hindwing ochraceous white basally shading to light ochraceous buff apically; cilia ochraceous white becoming darker around apex. Foreleg ochraceous buff suffused with fuscous on outer side; midleg similar; hindleg buff. Abdomen ochraceous white to buff, suffused with grayish.

Female genitalia slide JFGC nos. 11219, 11629. Ostium moderately broad, slitlike, anterior edge concave. Antrum broadly sclerotized. Ductus bursae nearly as long as bursa copulatrix with weak sculpturing in the form of longitudinal ridges. Bursa copulatrix membranous with weak sculpturing in posterior portion, the ridges confluent with those from ductus bursae; inner surface of bursa copulatrix clothed with very fine, weak spicules. Lamella antevaginalis and lamella postvaginalis membranous.

Holotype: U.S. National Museum No. 69734.

Type-locality: Bolivia, Cochabamba, Incachaca. Tropical cloud area, 2100 m.

Distribution: Bolivia and Peru.

Described from the female holotype (27.VIII. to 5.IX.56, L. Peña), and one ♀ paratype, Peru, Cusco, Machu Picchu, 2700 m. (6.II.59, J. F. G. Clarke).

This taxon is nearest *anaxia* and is discussed under that species.

It is with great pleasure that I dedicate this species to its collector, Mr. Luis Peña, who has contributed much material toward a better knowledge of the Neotropical microlepidopterous fauna.

Amallectis frangula, new species

FIGURE 16; PLATE 2 (FIG. 8)

Alar expanse 16 mm.

Labial palpus ochraceous white; second segment shaded ochraceous buff basally on outer side; third segment brown dorsoposteriorly. Antenna grayish fuscous, basally suffused tawny; scape tawny. Head

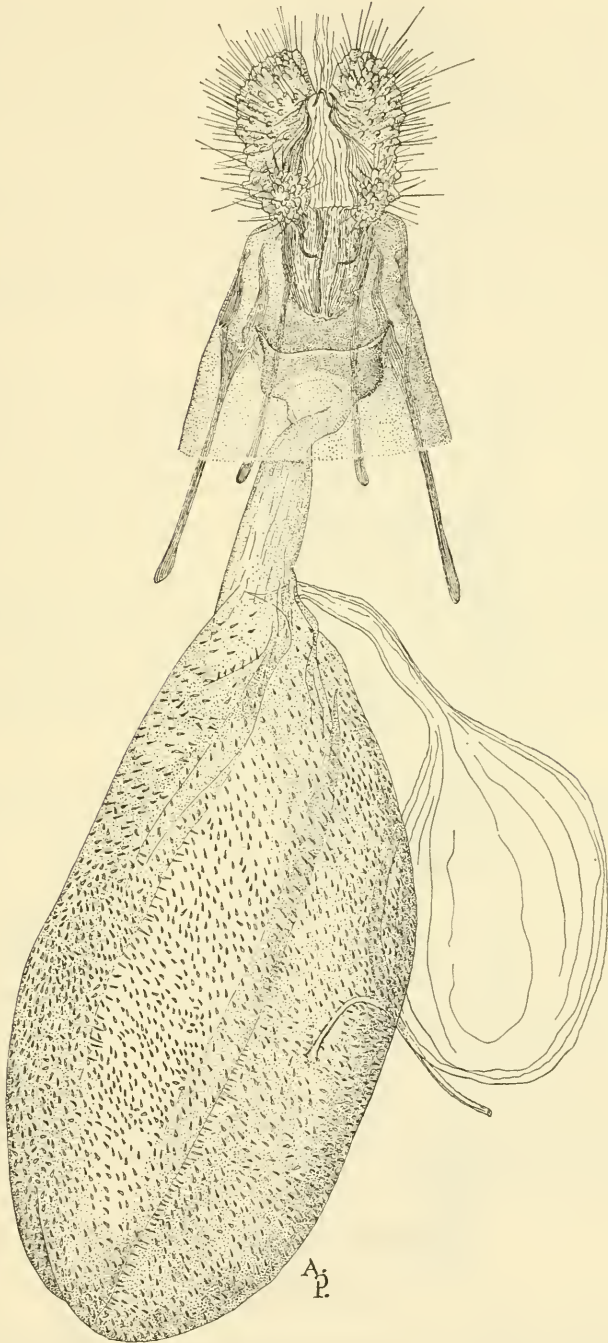


FIGURE 16.—*Amallectis frangula*, new species: ventral view of female genitalia.

ocherous white shaded ochraceous buff laterally and posteriorly. Thorax olivaceous with slight brassy hue. Forewing ground color ocherous white; extreme costal edge ochraceous tawny to two-thirds, shading to olivaceous brown for a short distance toward cell, parallel to costa; at two-thirds the olivaceous brown coloring forms a triangle, the apex of which extends nearly to end of cell; from near base to tornus a broad gray shade with tiny, short, transverse strigulae on dorsal edge and toward tornus two transverse brassy bars; apical third russet, interrupted by an oblique bar of ground color suffused pale russet, and an apical area of same color; from dorsal edge near base, an olivaceous shade extending well into cell; cilia ochraceous buff mixed with some paler scales.

Hindwing fuscous; cilia grayish fuscous. Foreleg ocherous white strongly overlaid fuscous outwardly; midleg ocherous white; tibia suffused tawny on outer side; tarsal segments fuscous on outer side; hindleg ocherous white with small, ill-defined fuscous spot on tibia, and tarsal segments with slight infuscation. Abdomen fuscous dorsally, ocherous white ventrally.

Female genitalia slide JFGC no. 11637. Ostium moderately broad, ventral edge concave. Antrum broadly sclerotized for short distance. Inception of ductus seminalis from side of bursa copulatrix. Ductus bursae membranous. Accessory bursa from near junction of bursa copulatrix and ductus bursae. Bursa copulatrix clothed with fine spines.

Holotype: U.S. National Museum No. 69733.

Type-locality: Venezuela, Aragua, Rancho Grande, 1100 m.

Distribution: Known only from the type-locality.

Described from the holotype female (16-23.X.1966, S. S. and W. D. Duckworth).

The three species *peñai*, *anaxia*, and *frangula* are closely similar and obviously closely related. Of these, *peñai* can at once be distinguished from the other two by its very pale hindwing; and *frangula* can be distinguished from *anaxia* by the extensive gray dorsal patch, absent in the latter species.

It is strange that not a single male of any of the three species has appeared although the dates of collection cover much of the year. This suggests some peculiar behavioral pattern for the males, an interesting subject for investigation.

Amallectis anaxia, new species

FIGURE 17; PLATE 2 (FIG. 1)

Alar expanse 17 mm.

Labial palpus ocherous white; second segment ochraceous buff on

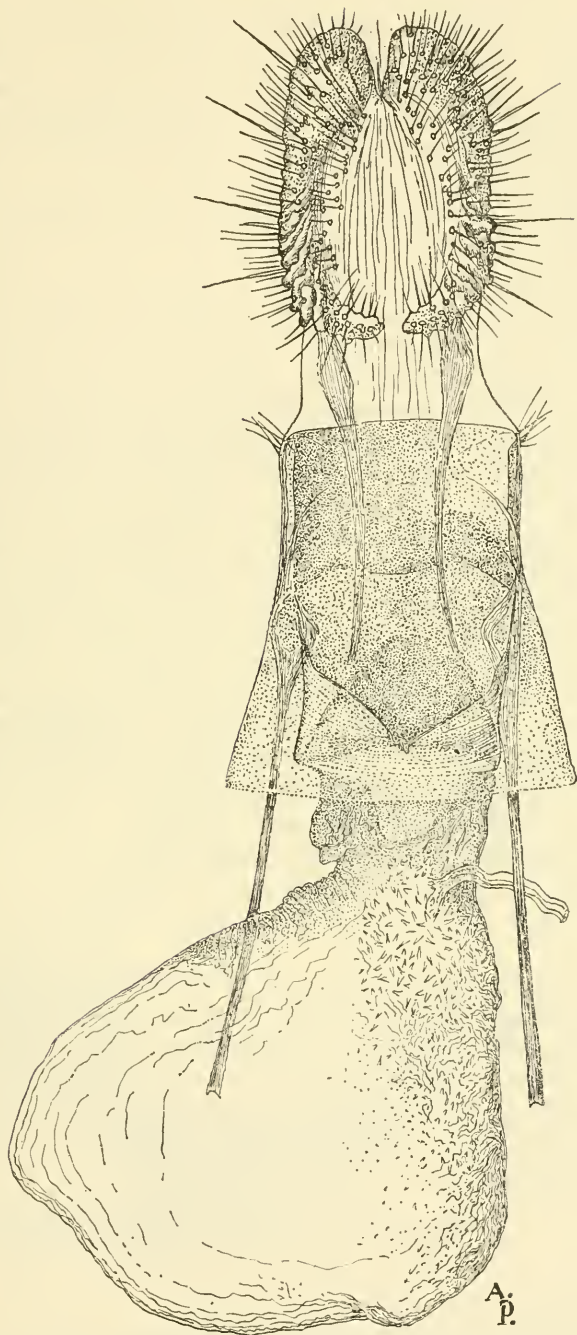


FIGURE 17.—*Amallectis anaxia*, new species: ventral view of female genitalia.

outer side; third segment with ocherous-fuscous spot on outside. Antenna pale brown; scape ochraceous buff. Head light buff; laterally ochraceous buff. Thorax pale grayish olive; tegula ochraceous buff anteriorly. Forewing ground color pale buff; costa ochraceous buff on basal fifth followed by gray then ochraceous buff, the three areas of equal length; from inner angle a slightly curved ochraceous-buff fascia extends to end of cell, where it terminates in a few leaden-gray scales; dorsally this fascia is separated from a fuscous and ochraceous-buff blotch by a narrow line of the ground color; before tornus an ochraceous-buff triangular spot followed by a few leaden-gray scales, then a larger blotch of ochraceous buff, the latter edged along vein 5 by fuscous; from apical fourth of costa to termen, between vein 5 and 6, an outwardly oblique ochraceous-buff fascia terminating in a fuscous spot; outer half of dorsal margin marked with several short fuscous dashes; cilia buff with slightly darker basal band. Hindwing grayish fuscous, paler basally; cilia pale grayish fuscous with a darker sub-basal line. Foreleg ocherous white suffused with fuscous on outer side; midleg similar; hindleg light buff; tibial spurs faintly tipped brown.

Female genitalia slide JFGC no. 11216. Ostium very broad; anterior edge deeply V-shaped. Ductus bursae very broad, short, slightly sclerotized, lightly sculptured, hardly differentiated from bursa copulatrix. Bursa copulatrix membranous, with slight sculpturing posteriorly and clothed with short, small spines; accessory bursa from juncture of ductus bursae and bursa copulatrix. Lamella antevaginalis and lamella postvaginalis lightly sclerotized.

Holotype: U.S. National Museum No. 69735.

Type-locality: Guatemala, Volcan Santa Maria.

Distribution: Recorded only from the type-locality.

Described from the unique female holotype (Schaus and Barnes. VII).

This and the foregoing *peñai* are very closely related but differ markedly in the color of the hindwing, which is ocherous white in *peñai* and grayish fuscous in *anaxia*; the gray dorsal patch of the forewing of *peñai* is absent in *anaxia* and the curved crescentic subapical fascia of the former is replaced in the latter by a straight band; the ground color of the apical part of the forewing is strongly contrasted against the darker markings in *peñai*, not so in *anaxia*.

Amallectis domna, new species

FIGURE 18; PLATE 2 (FIG. 4)

Alar expanse 15 mm.

Labial palpus olive buff; second segment deep olive buff on outer side, except apex; third segment almost wholly deep olive buff. Antenna fuscous basally shading to gray apically. Head pale olive buff, some-

what darker laterally, thorax deep olive buff suffused with fuscous; tegula pale olive buff apically. Forewing ground color very pale olive buff; basal fourth of costa, inwardly to cell, deep olive buff suffused with fuscous; from inner angle, well into cell, an oblique, narrowly triangular olive-gray shade; from basal third of dorsum to middle of cell a well-defined, outwardly oblique, blackish-fuscous fascia followed outwardly to tornus by an olive shade; from the apical corner of the dark fascia a slender blackish-fuscous line parallels dorsum to end of cell, where it broadens into an area irrorate with blackish-fuscous scales; from apical third of costa to tornus an irregular, indistinct, olive-buff fascia; apical area grayish with scattered olive-buff and fuscous scales; dorsal edge marked with a few small fuscous points; cilia composed of mixed olive-buff, gray, and fuscous scales. Hindwing ochereous white basally shading to fuscous apically; cilia very pale, whitish basally shading to grayish fuscous apically. Foreleg buff strongly overlaid with fuscous on outer side; midleg similar to foreleg; hindleg buff, tibial spurs and tarsal segments with faint infuscation.

Male genitalia slide JFGC no. 11617. Harpe moderately narrow, unornamented; cucullus rounded; sacculus dilated basally. Uncus absent. Socii large, fleshy. Vinculum not coalesced. Tegumen broad, about half the length of harpe. Anellus a broadly oval, sclerotized plate. Aedeagus stout, slightly curved, pointed; vesica armed with one large cornutus.

Holotype: U.S. National Museum No. 69736.

Type-locality: Colombia, Nariño, Volcan Galeras, 3100 m.

Distribution: Known only from the type-locality.

Described from the unique male holotype (14 Jan. 1959. J. F. G. Clarke).

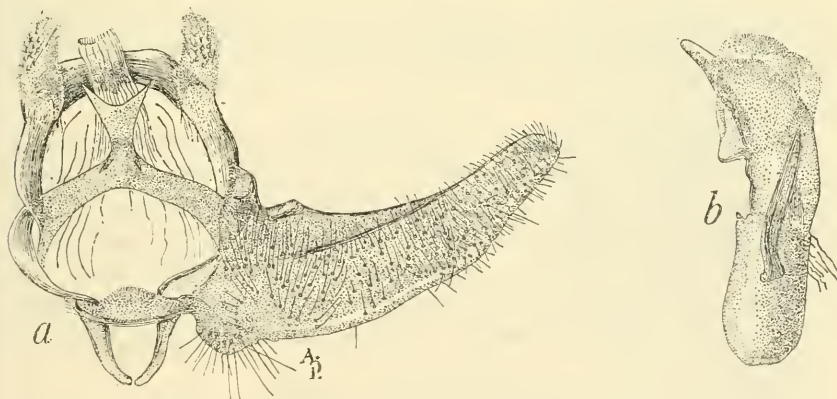


FIGURE 18.—*Amallectis domna*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

This species is very close to *A. devincta* Meyrick, from Peru, but is a slightly larger species. The prominent, fleshy socii at once set *domna* apart from *devincta*. It is further distinguished from *devincta* by the large cornutus, which is nearly half the length of the aedeagus; that of *devincta* is less than one-third the length of the aedeagus.

Phalonidia LeMarchand

Phalonidia heterophaea, new species

FIGURE 19; PLATE 4 (FIG. 1)

Alar expanse 11 mm.

Labial palpus pale buff; second segment suffused clay color with scattered brownish irrorations on outer side. Antenna grayish fuscous; scape buff, lightly suffused with fuscous. Head buff, tinged clay color laterally. Thorax buff; tegula grayish buff. Forewing ground color buff variously marked and suffused with dark olive buff; basal half of costa suffused grayish; on middle of costa a blackish-fuscous rectangular patch; two short transverse bars of the same color slightly before and at end of cell; before middle of termen two or three short, slender blackish-fuscous transverse dashes; from base of blackish-fuscous costal patch an irregular dark olive-buff transverse fascia reaching middle of dorsum; from apical fourth of costa an outwardly curved, crescentic, dark olive-buff bar ending at about vein 6; dorsum marked with scattered blackish-fuscous scales; underside strongly infuscated except outer half of costa; cilia olive buff. Hindwing shining grayish buff, darker toward margins; cell very thinly scaled; cilia grayish, darker around termen and apex. Foreleg buff, heavily overlaid with fuscous on outer side; midleg similar but less strongly marked fuscous; hindleg buff with slight grayish-fuscous suffusion on outer side. Abdomen grayish fuscous dorsally; ventrally buff except segments 5 and 6, which are grayish fuscous; anal tuft ochraceous buff. The sixth sternum is developed into a hollow evagination terminating in two divergent arms, turned upward on each side of the seventh segment.

Male genitalia slide JFGC no. 11645. Harpe broad basally narrowing abruptly slightly beyond middle, terminating in a very narrow, bluntly pointed cucullus. Transtilla with long median pointed process. Uncus tubular, enclosing anal tube. Vinculum narrow. Tegumen broad, rounded. Anellus an oval sclerotized plate. Aedeagus more than twice the length of harpe, curved and pointed distally; vesica armed with a long (almost as long as the entire aedeagus), undulating cornutus.

Holotype: U.S. National Museum No. 69749.

Type-locality: Colombia, Antioquia, La Estrella, 1730 m.

Distribution: Known only from the type-locality.

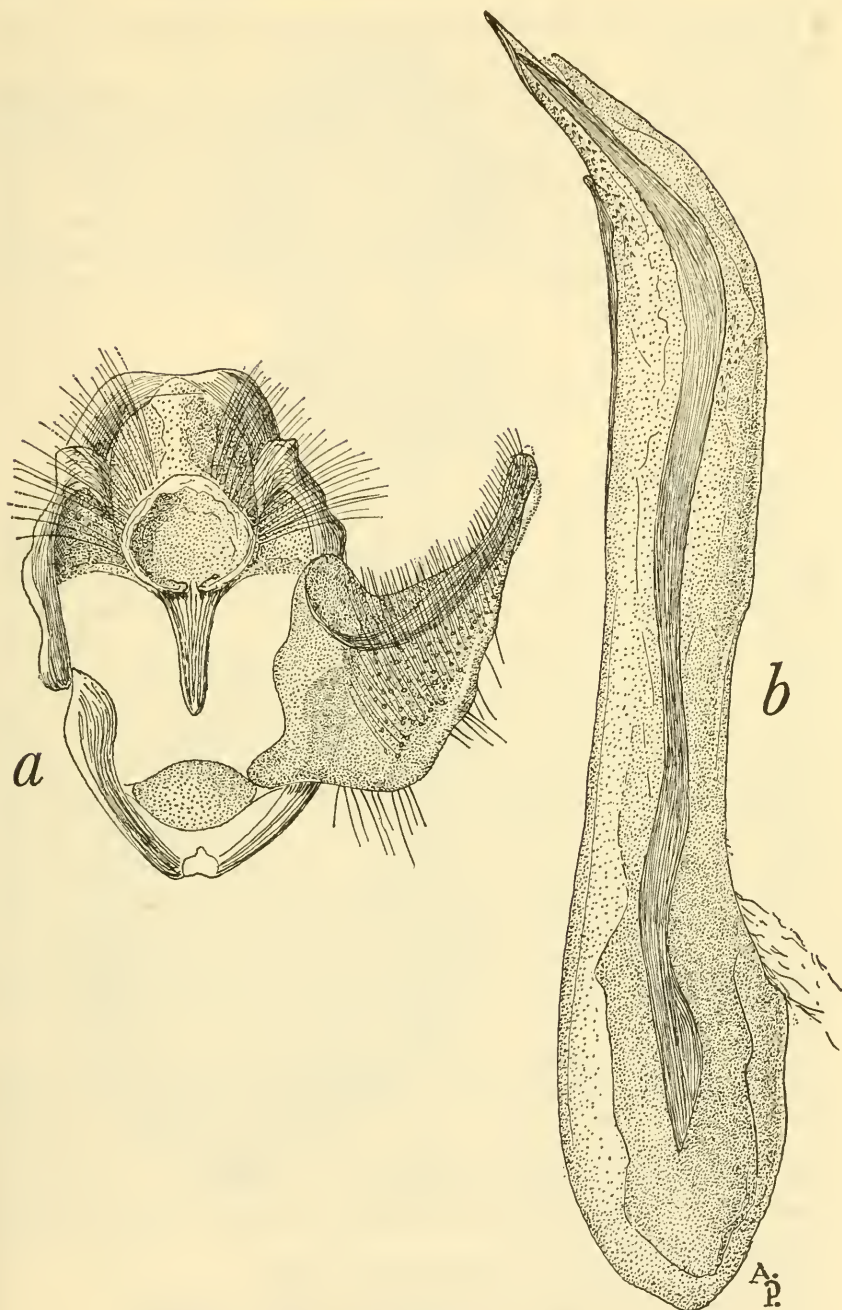


FIGURE 19.—*Phalonidia heterophaea*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

Described from the unique holotype male (13.XII.59, F. Luis Gallego M.).

This species is of particular interest because of the modified sixth sternum and the enormous cornutus, which has been demonstrated elsewhere only in the family by Razowski (1964: 367, figs. 28, 29), where he figures *P. ichthyochroa* (Walsingham) from St. Croix. Razowski's figure 28 does not correspond to other species in *Phalonidia*, nor does it match *heterophaea*. The enormous aedeagus and cornutus, however, relate *heterophaea* and *ichthyochroa*, which will probably require a new genus.

Irazona Razowski

Irazona icogramma, new species

FIGURE 20; PLATE 4 (FIG. 2)

Alar expanse 12–13 mm.

Labial palpus white; second segment tinged ochereous on outer side of basal half. Antenna grayish fuscous; scape white in distal half. Head white. Thorax fuscous. Forewing ground color white; dorsum broadly marked with leaden gray strigulae and blotches; basal patch, except dorsal half, tawny; at outer third of dorsum a conspicuous, large, fuscous spot reaching slightly beyond fold; from middle of costa to tornus an ill-defined, irregular, outwardly oblique, ochraceous-tawny fascia preceded and followed by scattered blackish-fuscous and leaden-gray scales; from apical third of costa, to termen at vein 5, a leaden-gray fascia with spots of ochraceous-tawny and fuscous scales along edges; apex and a spot between veins 2 and 4 similarly colored; costal scales elongate, clay color, at one-third; underside strongly infuscated; cilia light clay color. Hindwing grayish fuscous; cilia a pale grayish with darker subbasal line. Foreleg white, overlaid with grayish fuscous on outer side; midleg white with grayish suffusion on tarsal segments; hindleg white. Abdomen grayish dorsally, white ventrally.

Female genitalia slides JFGC nos. 11221, 11642. Ostium broad. Antrum strongly sclerotized. Inception of ductus seminalis at middle of bursa copulatrix. Ductus bursae short, strongly sclerotized except for small membranous band anterior to antrum. Bursa copulatrix with sclerotized, rounded evagination on right side posteriorly; inner wall clothed with sharp spines; accessory bursa extending beyond bursa copulatrix.

Holotype: U.S. National Museum No. 69750.

Type-locality: Guatemala, Volcan Santa Maria, October.

Distribution: Guatemala.

Described from the female holotype (October) and one ♀ paratype

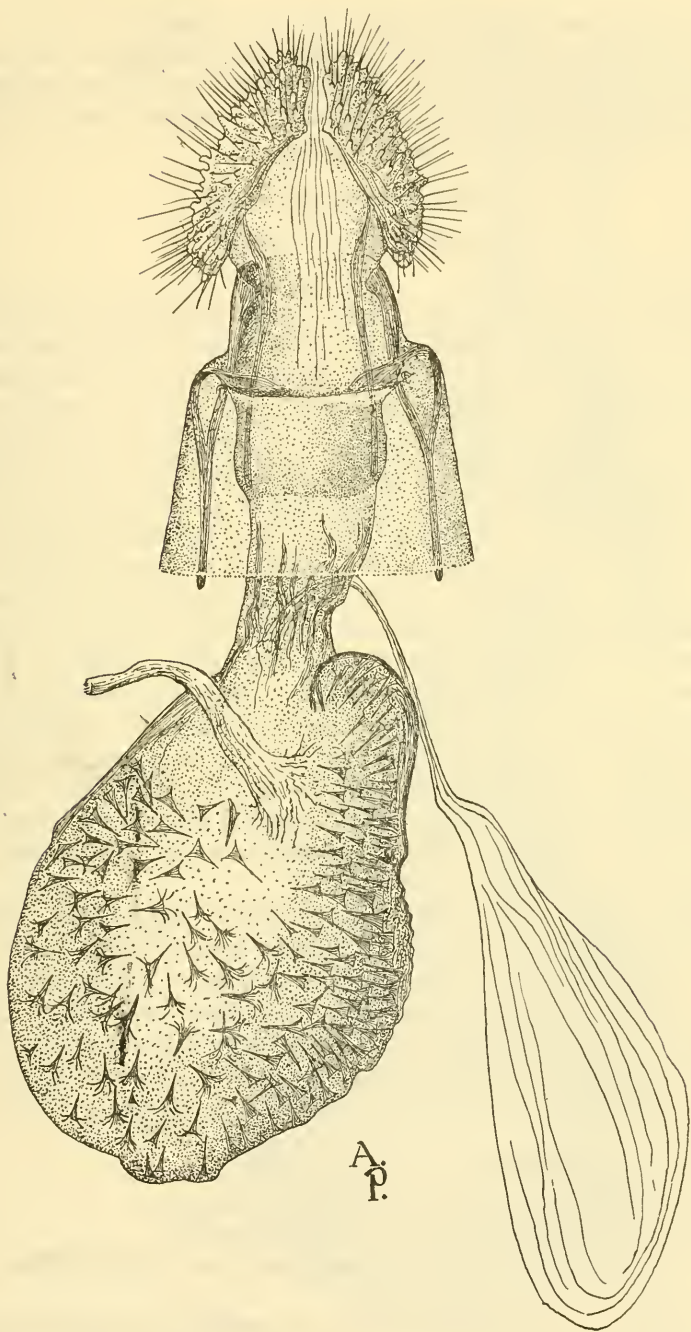


FIGURE 20.—*Irazona icogramma*, new species: ventral view of female genitalia.

(July), Schaus and Barnes, from the same locality.

Similar in appearance to *Irazona cognata* (Walsingham) but generally darker and with a much darker hindwing. No comparison of the genitalia can be made because *cognata* is represented by a male and *icogramma* is known only from females.

Irazona turbula, new species

FIGURE 21; PLATE 4 (FIG. 3)

Alar expanse 16 mm.

Labial palpus white; second segment with slight buff suffusion on outer side. Antenna grayish fuscous with some white scaling dorso-basally; scape white. Head white. Thorax white, suffused grayish. Forewing ground color white; dorsum broadly marked with wood-brown and gray bars, all confluent; basal patch, from one-fifth of costa to dorsum, grayish fuscous; on costa, slightly beyond middle, a pale grayish blotch with two small, darker gray spots on extreme costal edge; at end of cell a short, irregular, longitudinal grayish dash with a small spot of fuscous scales at outer end; from costa, slightly before apex, to vein 6 an outwardly oblique gray bar narrowly edged with grayish-fuscous and yellowish scales; extreme apex narrowly gray; between end of cell and subapical bar several irregular, faintly gray transverse strigulae; costal scales elongate beyond basal patch and also beyond middle; underside moderately infuscated; cilia pale gray at apex, white around termen and tornus. Hindwing grayish fuscous, paler basally; cilia sordid white to pale gray with darker subbasal line. Foreleg ochereous white suffused grayish fuscous on outer side; midleg similar to foreleg; hindleg ochereous white. Abdomen gray; first to third segments paler ventrally.

Female genitalia slide JFGC no. 11641. Ostium broad, slitlike. Antrum not developed. Ductus seminalis from center of right side of bursa copulatrix. Ductus bursae membranous in posterior half; anterior half ornamented with very fine sclerotized ridges. Bursa copulatrix irregularly ornamented with very fine sclerotized ridges and with a small sclerotized evagination posteriorly; accessory bursa not extending beyond end of bursa copulatrix; lamella antevaginalis crescentic.

Holotype: U.S. National Museum No. 69751.

Type-locality: Guatemala, Volcan Santa Maria.

Distribution: Known only from the type-locality.

Described from the unique female holotype (July, Schaus and Barnes).

Similar to *icogramma* but without the conspicuous subtornal spot and with a short subapical, transverse fascia. The female genitalia are similar, and the close relationship is indicated by the sclerotized



A. P.

FIGURE 21.—*Irazona turbula*, new species: ventral view of female genitalia.

evagination from the posterior side of the bursa copulatrix. The ornamentation of the inner wall of the bursa copulatrix differs, being composed of fine spines in *icogramma* and fine ridges in *turbula*.

Irazona ademonia, new species

FIGURE 22; PLATE 4 (FIG. 4)

Alar expanse 16 mm.

Labial palpus white; second segment tinged ochraceous buff on outer side; third segment gray apically. Antenna grayish fuscous; scape grayish buff basally, white apically. Head white with some grayish scales posterolaterally. Thorax grayish fuscous, paler posteriorly; tegula pale grayish posteriorly. Forewing ground color white; dorsum broadly marked leaden gray and white mixed; basal patch, from basal fifth of costa to dorsum, grayish-fuscous; on dorsum, before tornus, a ring of fuscous scales surrounding a leaden-gray area; on costa, at middle, a pale leaden-gray spot edged posteriorly and anteriorly with buff; between dorsal and costal spots several pale gray spots and short dashes mixed with buff; subapically, from costa to vein 4, a curved, pale leaden-gray transverse fascia edged with buff; apex narrowly grayish fuscous; costal scales elongate beyond basal patch and beyond midcostal spot; underside moderately infuscated; cilia mixed gray and white. Hindwing grayish fuscous; cilia very pale gray with darker subbasal line. Foreleg ocherous white, suffused fuscous on outer side; midleg ocherous white with slight fuscous suffusion on outer side of tibia; hindleg ocherous white. Abdomen gray; ventrally first three segments paler.

Female genitalia slide JFGC no. 11640. Ostium very broad; anterior edge concave. Antrum broadly sclerotized. Inception of ductus seminalis from center of bursa copulatrix ventrally. Ductus bursae lightly sclerotized except for narrow membranous area anterior to antrum. Bursa copulatrix ornamented with fine spines and with a strongly sclerotized bulge dorsoanteriorly on right side. Accessory bursa not extending beyond anterior end of bursa copulatrix.

Holotype: U.S. National Museum No. 69752.

Type-locality: Costa Rica, La Florida, 500 feet.

Distribution: Known only from the type-locality.

Described from the female holotype (William Schaus).

This species is very near *turbula* but the latter lacks the subternal dorsal ring, and the subapical fascia is much longer in *ademonia* than in *turbula*; the forewing of *ademonia* is broader than that of *turbula*.

Further differences may be seen in the genitalia, particularly in the position of the sclerotized swelling, or evagination, from the bursa copulatrix. The characters of the ductus bursae are widely different, also, as may be seen by a comparison of the figures.

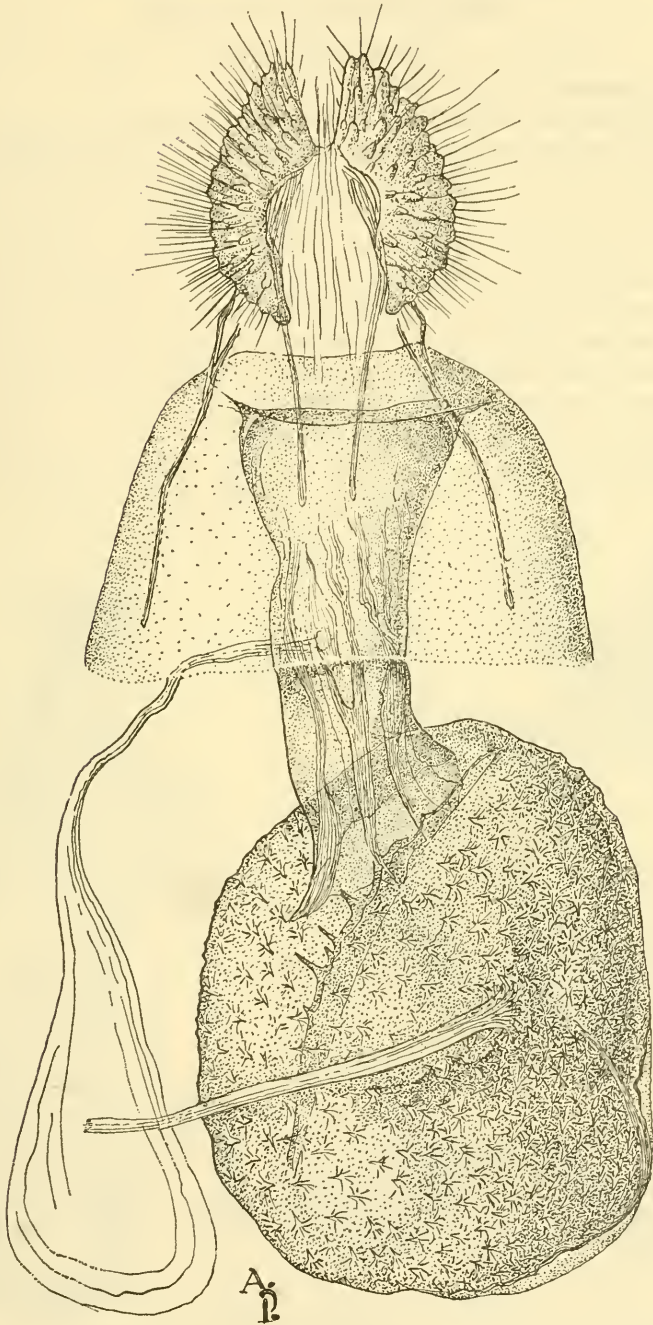


FIGURE 22.—*Irazona ademonia*, new species: ventral view of female genitalia.

Irazona melanoleuca, new species

FIGURE 23; PLATE 1 (FIG. 8)

Alar expanse 21-22 mm.

Labial palpus white; second segment fuscous on outer side of basal half. Antenna fuscous; basal half of scape white. Head white. Thorax fuscous; tip of tegula white. Forewing ground color white, variously suffused and marked with gray; basal sixth of costa blackish fuscous continuing across fold, forming a dark, triangular basal patch containing some leaden gray scaling; from middle of costa a broad gray blotch to cell where, in some specimens, it becomes confluent with a blackish-fuscous band, the latter extending to dorsum well before tornus; on costa, between basal patch and gray blotch, 3 or 4 short gray dashes; from outer fourth of costa to vein 5 a rectangular patch of mixed gray and blackish fuscous continued from its outer extremity as a narrow, curved, fuscous line, to tornus; apical area beyond the rectangular patch spotted with fuscous and

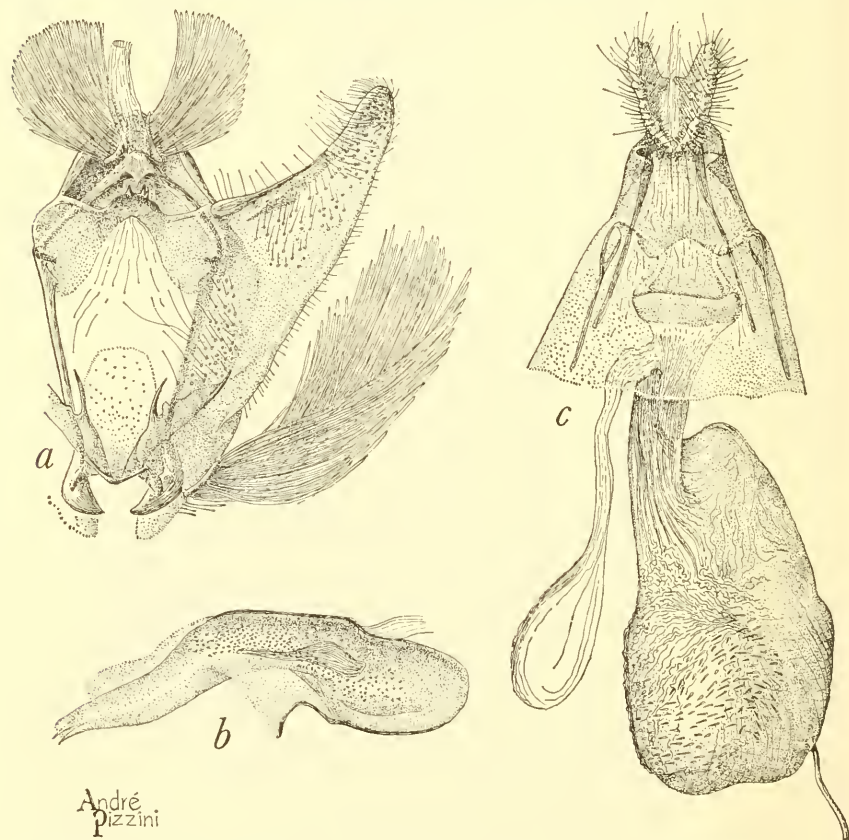


FIGURE 23.—*Irazona melanoleuca*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

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gray; cilia white with broad gray basal band. Hindwing grayish fuscous, paler basally; cilia gray with darker basal band. Foreleg white on inner side, fuscous outwardly; tarsal segments narrowly banded white; midleg white, suffused with fuscous on outer side of femur and tibia; tarsus with spots of fuscous; hindleg ochereous white, faintly marked with grayish. Abdomen white, suffused grayish dorsally and ventrally.

Male genitalia slide JFGC no. 11211. Harpe triangular, very broad basally; cucullus bluntly pointed; sacculus with a sharp, curved spine near base on inner side and a conspicuous hairpencil on outer side. Uncus a very short, digitate process. Transtilla widely expanded laterally; median area narrowed and armed with a few sharp teeth. Vinculum not coalesced at middle; lateral elements curved and thickened anteriorly. Tegumen short and broad. Anellus an elongate, sclerotized plate. Aedeagus stout basally, curved, terminating in a point; vesica armed with a single slender cornutus, dilated basally.

Female genitalia slides JFGC nos. 11624, 11212. Ostium broad, slitlike, posteroventral edge slightly convex. Inception of ductus seminalis dorsally from about middle of bursa copulatrix. Ductus bursae broad, short, ornamented with sclerotized ribs that extend into bursa copulatrix posteriorly; signum absent. Accessory bursa not reaching beyond anterior end of bursa copulatrix.

Holotype: U.S. National Museum No. 69732.

Type-locality: Mexico, Pue.

Distribution: Mexico.

Food plant: *Pinus* species.

Described from the male holotype and 2 ♀♀ paratypes all with identical data (January 1960. Guevara. Rf. *Pinus*).

There appears to be no known close relative of this species except the following, newly described *platina*.

Irazona platina, new species

FIGURE 24; PLATE 2 (FIG. 5)

Alar expanse 16 mm.

Labial palpus fuscous; third segment white on inner side. Antenna fuscous; scape white. Head white. Thorax fuscous with some white posteriorly. Forewing ground color silvery white with pale greenish-yellow reflections; basal fifth of costa, to fold, fuscous; on midcosta a broad, truncated triangular mark extends across end of cell; on costa, between midcostal mark and apex, two grayish-fuscous spots; on dorsum before tornus an elongate, transverse triangular spot preceded and followed by small fuscous dashes; from apex, along termen, a broad fuscous band interrupted by white spots; underside of forewing fuscous; cilia mixed ochraceous buff and fuscous. Hind-

wing sordid white with a fuscous shade around termen and mottled with fuscous inwardly. Foreleg fuscous; tarsal segments narrowly banded with white; midleg similar to foreleg; hindleg ochereous white faintly irrorate with fuscous. Abdomen removed before description.

Male genitalia slide 63-Obr., 1963. Harpe triangular, very broad basally; cucullus narrow, bluntly pointed. Socii two broad, fleshy lobes. Uncus a short, digitate process. Transtilla very broadly expanded laterally, constricted before middle, then expanded; median section armed with many sharp teeth. Vinculum not coalesced. Tegumen about as long as harpe. Anellus a deeply concave plate, fused with base of harpe by a long sclerotized rod, the latter dentate along most of its length. Aedeagus stout, curved, terminating in a pair of sharp points; vesica armed with one large and numerous spiculate cornuti.

Holotype: U.S. National Museum No. 69738.

Type-locality: Costa Rica, Mount Poas.

Distribution: Costa Rica.

Described from the unique male holotype (May).

In appearance similar to *melanoleuca*, but the dark basal patch does not extend across the wing as in that species, and there are pale yellow-green reflections, absent in *melanoleuca*. The genitalia of *platina* lack the strong hairpencil that is present in *melanoleuca*, and the median area of the transtilla is much broader and armed with many spines. The fused anellus and harpe are a distinguishing character of *platina*.

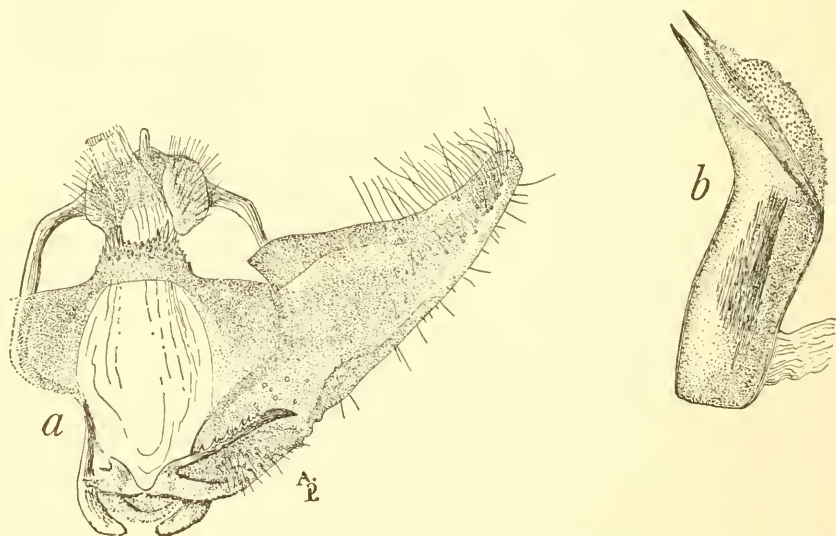


FIGURE 24.—*Irazona platina*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

*Lasiothyris Meyrick**Lasiothyris dysmorphia*, new species

FIGURE 25; PLATE 2 (FIG. 6)

Alar expanse 14 mm.

Labial palpus pale buff with fuscous irroration on outer side. Antenna grayish, finely spotted with fuscous basally; scape pale buff with fuscous irroration dorsally. Head pale brown, mixed with buff laterally; face buff. Thorax buff, mixed with pale brown and fuscous; tegula brown, narrowly edged with buff. Forewing ground color pale buff, irregularly irrorate with fuscous and spotted with pale brown; from basal fifth of costa almost to inner angle an ill-defined, brown, basal patch; from slightly beyond middle of costa to dorsum a poorly defined, irregular, brown, transverse fascia that extends narrowly along dorsum to basal third; at apical fifth of costa a quadrate brown blotch; apical area mottled brown; underside strongly infuscated; cilia mixed buff, brown, and fuscous. Hindwing pale buff, slightly shaded fuscous and with fuscous irroration around anal angle; costal hairpencil of male with black spot near outer end. Foreleg buff; femur and tibia fuscous on outer side; tarsal segments broadly banded with fuscous; midleg similar to foreleg; hindleg buff; femur with slight fuscous marking basally on outer side; tibia with sparse fuscous scaling at bases of spurs. Abdomen grayish with some heavy fuscous scaling dorsally; ventrally ochereous white, irrorate with grayish fuscous; anal tuft ochereous white.

Male genitalia slides JFGC nos. 11233, 11628. Harpe very broad basally, abruptly narrowed toward cucullus; cucullus expanded into two widely separated parts; sacculus produced into a long, curved point, the latter preceded by a dense patch of long, stiff setae and a sharp longitudinal ridge. Uncus absent or only faintly indicated. Socii fused along median line, flattened, and with a circular terminal excavation. Vinculum coalesced, broad. Transtilla arched and with double-keeled, median process fused distally. Tegumen very short, arched. Anellus a U-shaped, sclerotized plate. Aedeagus long, slender, curved, terminating in a blunt point; vesica armed with a single, short cornutus.

Holotype: U.S. National Museum No. 69739.

Type-locality: Bolivia, Cochabamba, Incachaca. Tropical cloud area, 2100 m.

Distribution: Known only from the type-locality.

Described from the male holotype (27.VIII-5.IX.56. L. Peña), and one ♂ paratype with the same data.

The extraordinary male genitalia immediately distinguish *dysmorphia* from any of the related species. It appears to be more closely

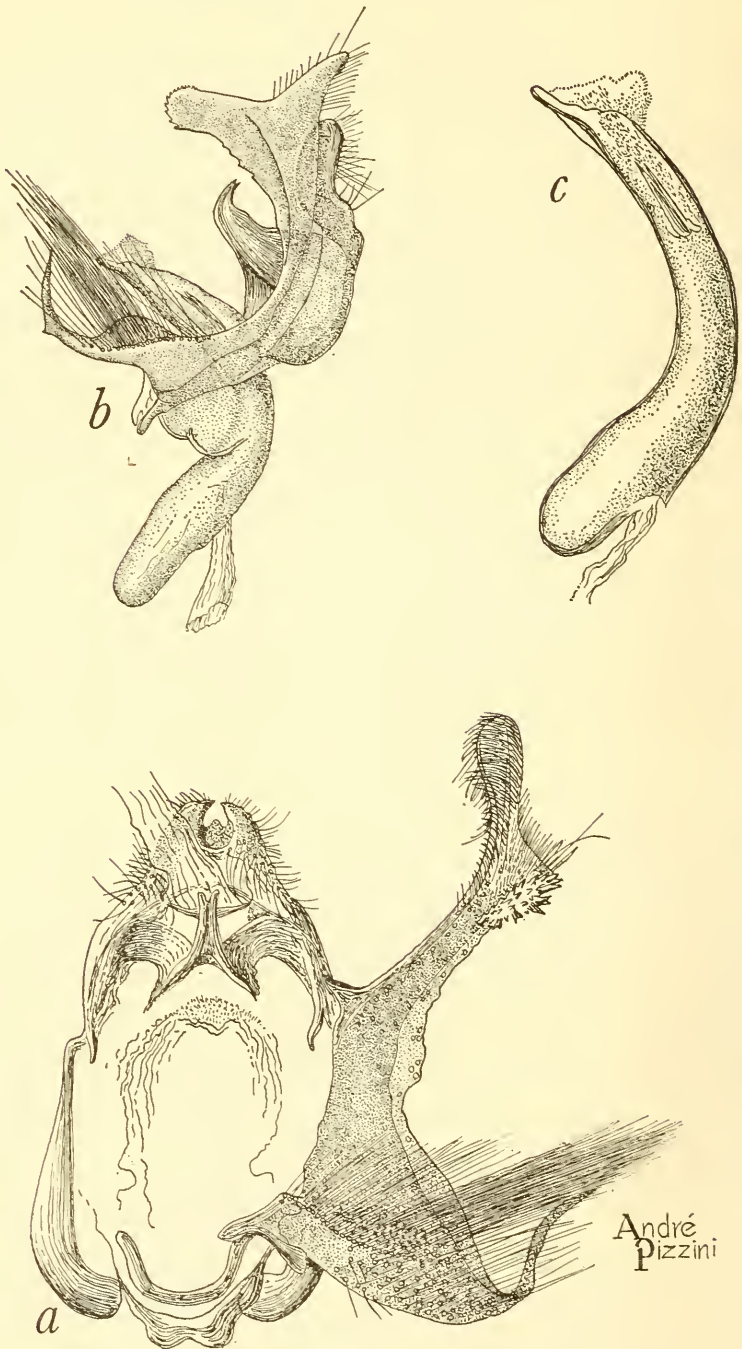
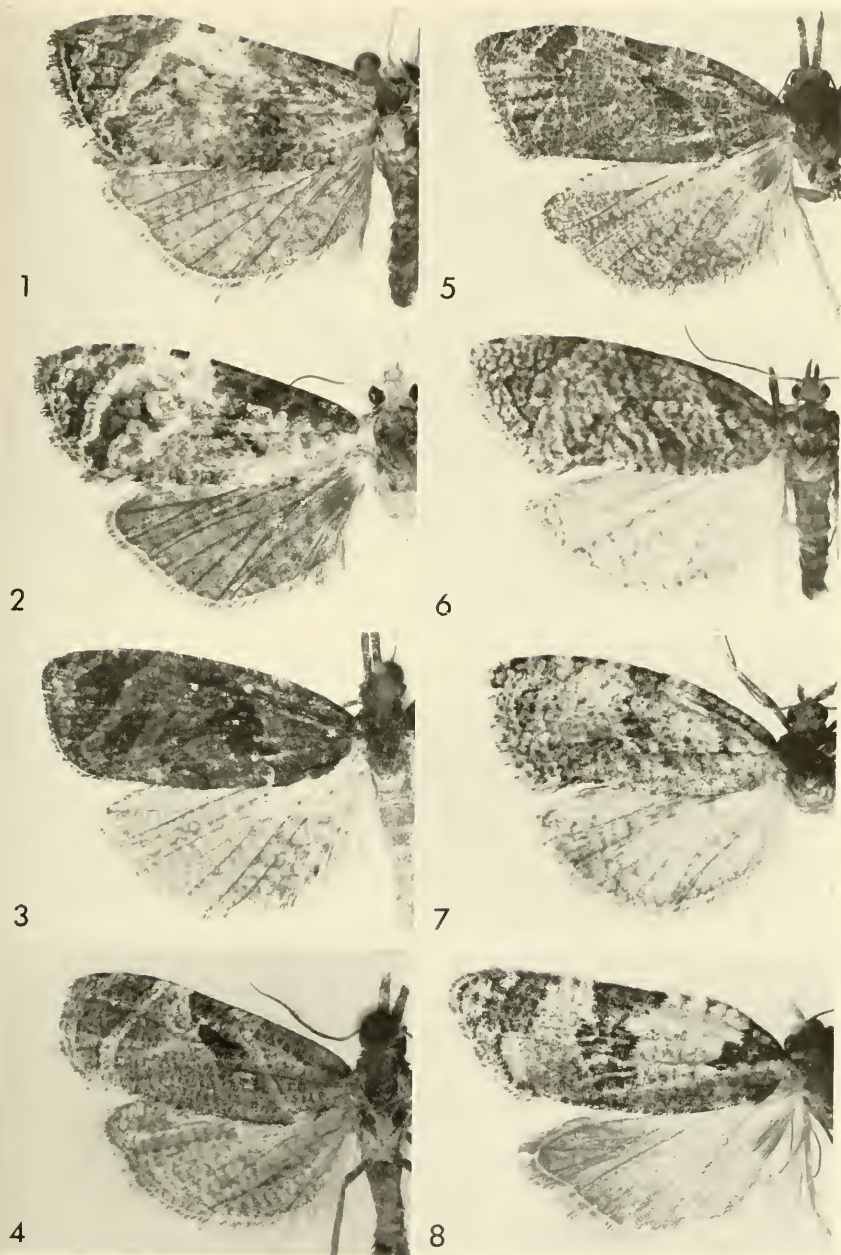
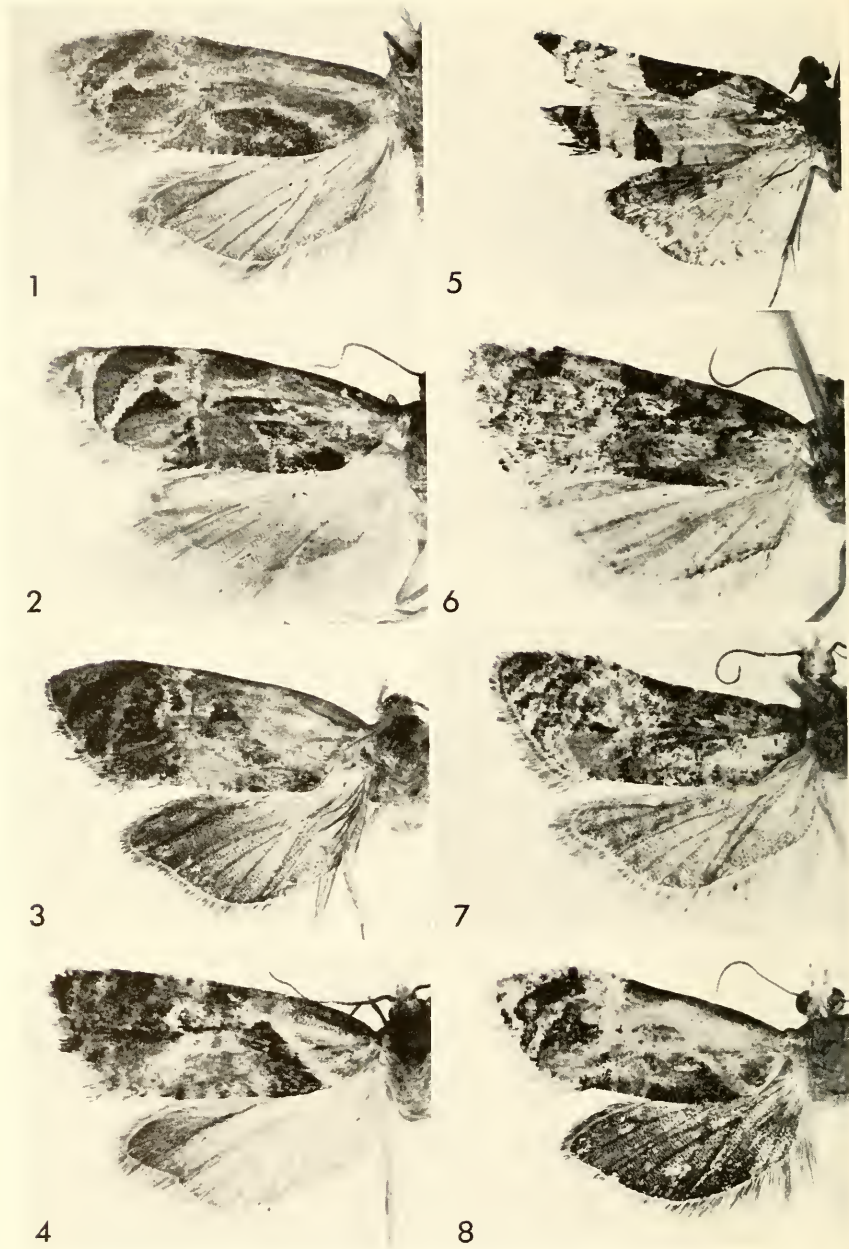


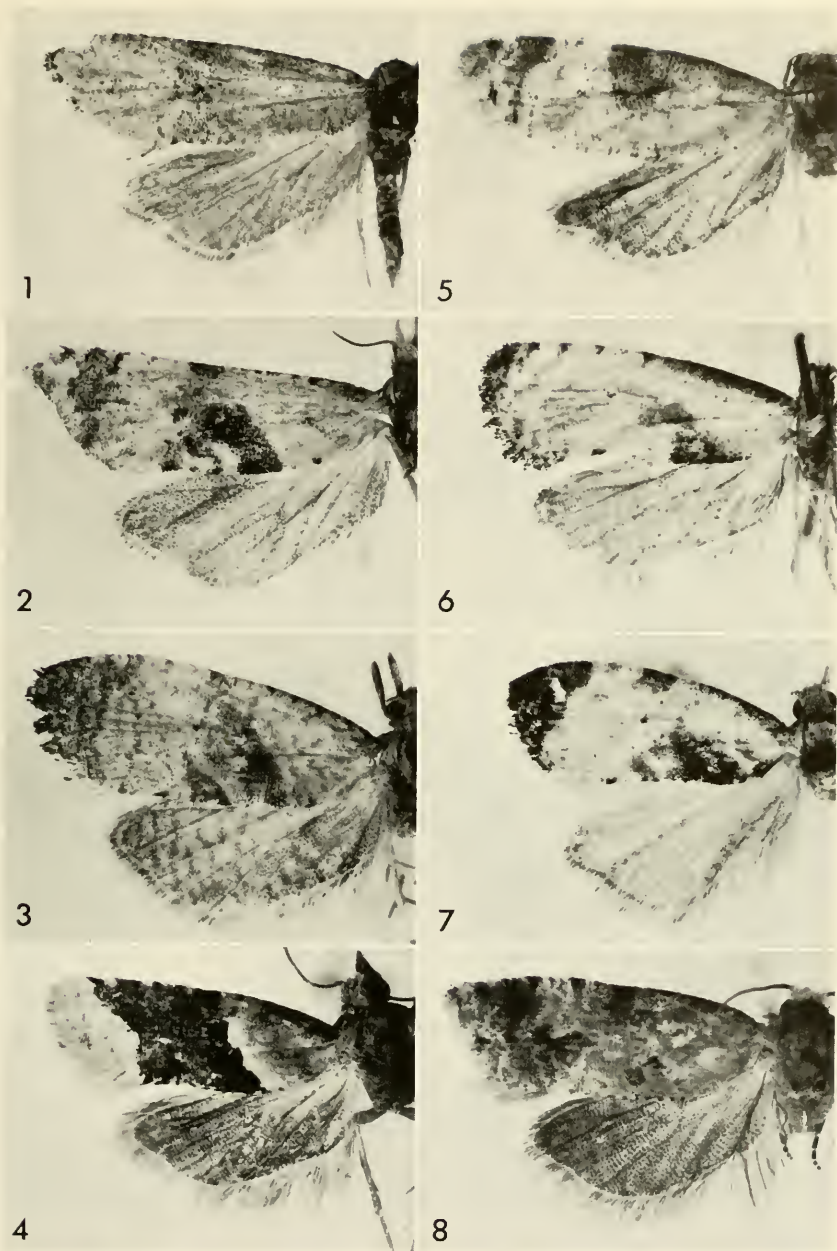
FIGURE 25.—*Lasiothyris dysmorphia*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, lateral aspect of male genitalia with aedeagus in situ; *c*, aedeagus.



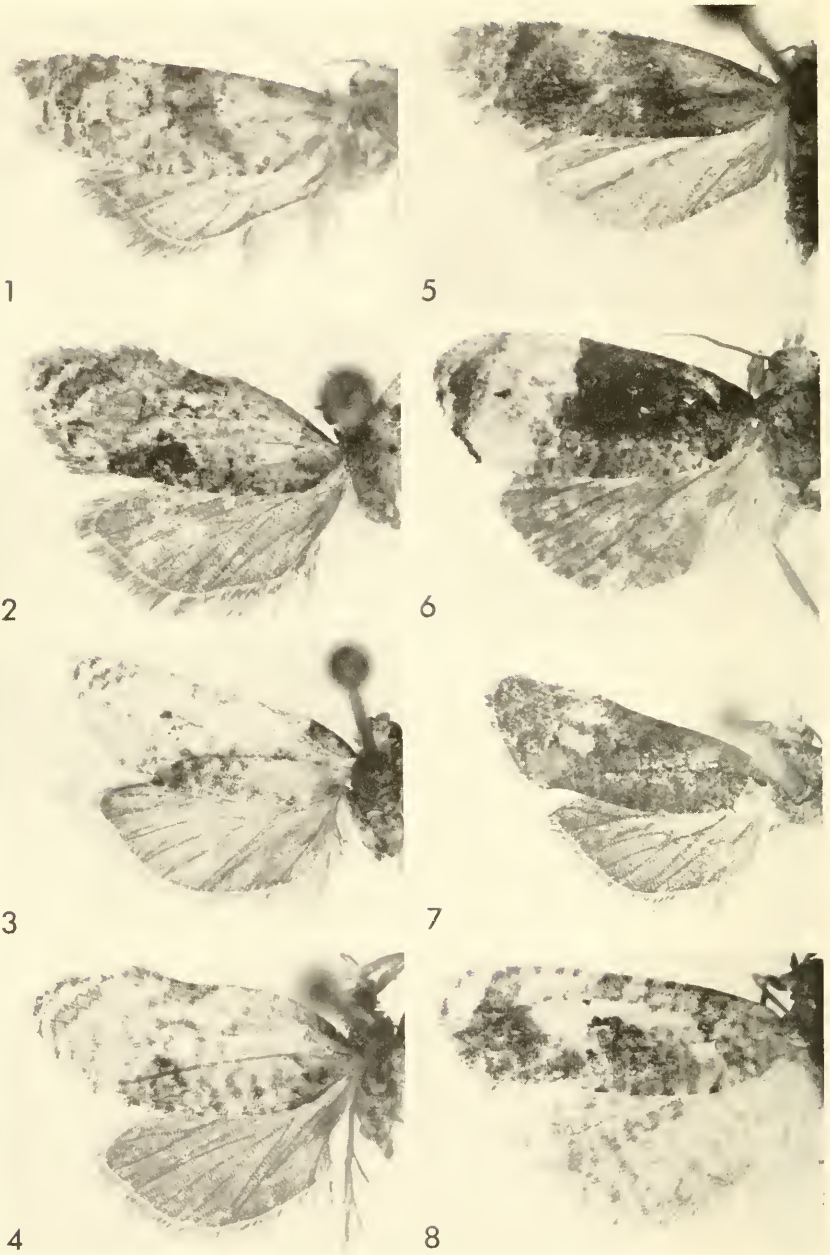
FIGURES 1-8.—1, *Hysterosia turialba* Busck, Guatemala, Volcan Santa Maria; 2, *Hysterosia alplitopa*, new species (paratype), Venezuela, Aragua, Rancho Grande; 3, *Hysterosia iodes*, new species (holotype), Guatemala, Volcan Santa Maria; 4, *Hysterosia melasma*, new species (paratype), Guatemala, Chejel; 5, *Hysterosia gigantea* Busck (type), Mexico, Mexico City; 6, *Phalonia embrihopa* Meyrick, Colombia, Cauca, Páramo de Puracé, Lake San Rafael; 7, *Phalonia embrihopa* Meyrick, Colombia, Nariño, Volcan Galeras; 8, *Irazona melanoleuca*, new species (paratype), Mexico, Pue.



FIGURES 1-8.—1, *Amallectis anaxia*, new species (holotype), Guatemala, Volcan Santa Maria; 2, *Amallectis peñai*, new species (holotype), Bolivia, Cochabamba, Incachaca; 3, *Amallectis nephelodes*, new species (holotype), Bolivia, Cochabamba, Incachaca; 4, *Amallectis domna*, new species (holotype), Colombia, Nariño, Volcan Galeras; 5, *Irazona platina*, new species (holotype), Costa Rica, Mount Poas; 6, *Lasiothyris dysmorphia*, new species (paratype), Bolivia, Cochabamba, Incachaca; 7, *Phalonia tornosema*, new species (paratype), Guatemala, Volcan Santa Maria; 8, *Amallectis frangula*, new species (holotype), Brazil, Nova Teutonia.



FIGURES 1-8.—1, *Lasiothyris hemitephras*, new species (holotype), Mexico, Tehuacan; 2, *Cochylis mendora*, new species (paratype), Chile, Santiago Prov., Cajon de Maypo, Cordillera, El Canelo; 3, *Cochylis laetitia*, new species (holotype), Argentina, Tucumán, Ciudad Universitaria; 4, *Cochylis caesiata*, new species (holotype), Venezuela, Aragua, Rancho Grande; 5, *Phtheochroa arrhostia*, new species (holotype), Peru, Cusco, Machu Picchu; 6, *Carolella asthenia*, new species (holotype), Guatemala, Palín; 7, *Phalonia charma*, new species (holotype), Argentina, Tucumán, Ciudad Universitaria; 8, *Carolella molybdina*, new species (paratype), Mexico, S.L.P., Tamazunchale.



FIGURES 1-8.—1, *Phalonidia heterophaea*, new species (holotype), Colombia, Antioquia, La Estrella; 2, *Irazona icogramma*, new species (holotype), Guatemala, Volcan Santa Maria; 3, *Irazona turbula*, new species (holotype), Guatemala, Volcan Santa Maria; 4, *Irazona ademonia*, new species (holotype), Costa Rica, La Florida; 5, *Lasiothyris diamphidia*, new species (paratype), Peru, Cusco, Machu Picchu; 6, *Cochylis serena*, new species (paratype), Brazil, Nova Teutonia; 7, *Phalonidia vesta*, new species (holotype), Venezuela, Aragua, Rancho Grande; 8, *Cochylis constantia*, new species (holotype), Peru, Cusco, Machu Picchu.

related to *diamphidia* than any of the others but is easily separated by the genitalia.

Lasiothyris diamphidia, new species

FIGURE 26; PLATE 4 (FIG. 5)

Alar expanse 12–14 mm.

Labial palpus ochereous white; second segment shaded with buff and irrorate with brown on outer side; apex of third segment fuscous. Antenna grayish, speckled fuscous dorsobasally; scape ochereous white with fine fuscous irrorations. Head ochereous white, mixed with pale brown laterally and on crown. Thorax light brown, slightly suffused fuscous; tegula ochereous white posteriorly. Forewing ground color ochereous white suffused with buff; basal fifth light clay color, forming an ill-defined basal patch; costa finely strigulated with fuscous; from middle of costa to dorsum an inwardly oblique, clay color, transverse fascia, wider on dorsum than on costa and mixed with blackish-fuscous scales on dorsum and on dorsal half of inner margin; on tornus a large, tawny blotch, irrorate with blackish fuscous; from apical fourth of costa a tawny fascia outwardly oblique and attenuated to vein 4; subapically, on costa, a tawny spot; apical portion of wing with ill-defined, light clay color, transverse dashes and scattered blackish-fuscous scales; underside strongly infuscated except on apical half of costa; cilia buff mixed with gray-tipped scales. Hindwing ochereous white with grayish-fuscous shading at anal angle and on inner margin; apex with some short grayish-fuscous strigulae; cilia light buff with grayish subbasal line. Foreleg ochereous white; femur and tibia heavily irrorate with grayish fuscous on outer side; tarsal segments almost wholly overlaid fuscous; midleg similar to foreleg but tarsus less strongly marked; hindleg ochereous white; femur lightly irrorate with grayish fuscous on outer side. Abdomen grayish fuscous dorsally; buff, with fuscous irroration ventrally.

Male genitalia slide JFGC no. 11657. Harpe on right side broad, tapered to a rounded cucullus; sacculus strongly sclerotized, produced outwardly and clothed with stout, long setae; sclerotization of sacculus extended to middle of harpe into two thickened lumps. Left harpe moderately broad basally, abruptly narrowed into a slender terminal portion; from base of sacculus a long, hooked process. Uncus minutely developed and fused with bases of socii. Socii fused along median line, except at distal end. Vinculum coalesced and intimately associated with anellus. Tegumen nearly as long as harpe. Anellus a long U-shaped plate fused with aedeagus. Aedeagus long, rather slender open S-shaped, terminating in a sharp point; vesica unarmed.

Female genitalia slide JFGC no. 11658. Ostium asymmetrical;

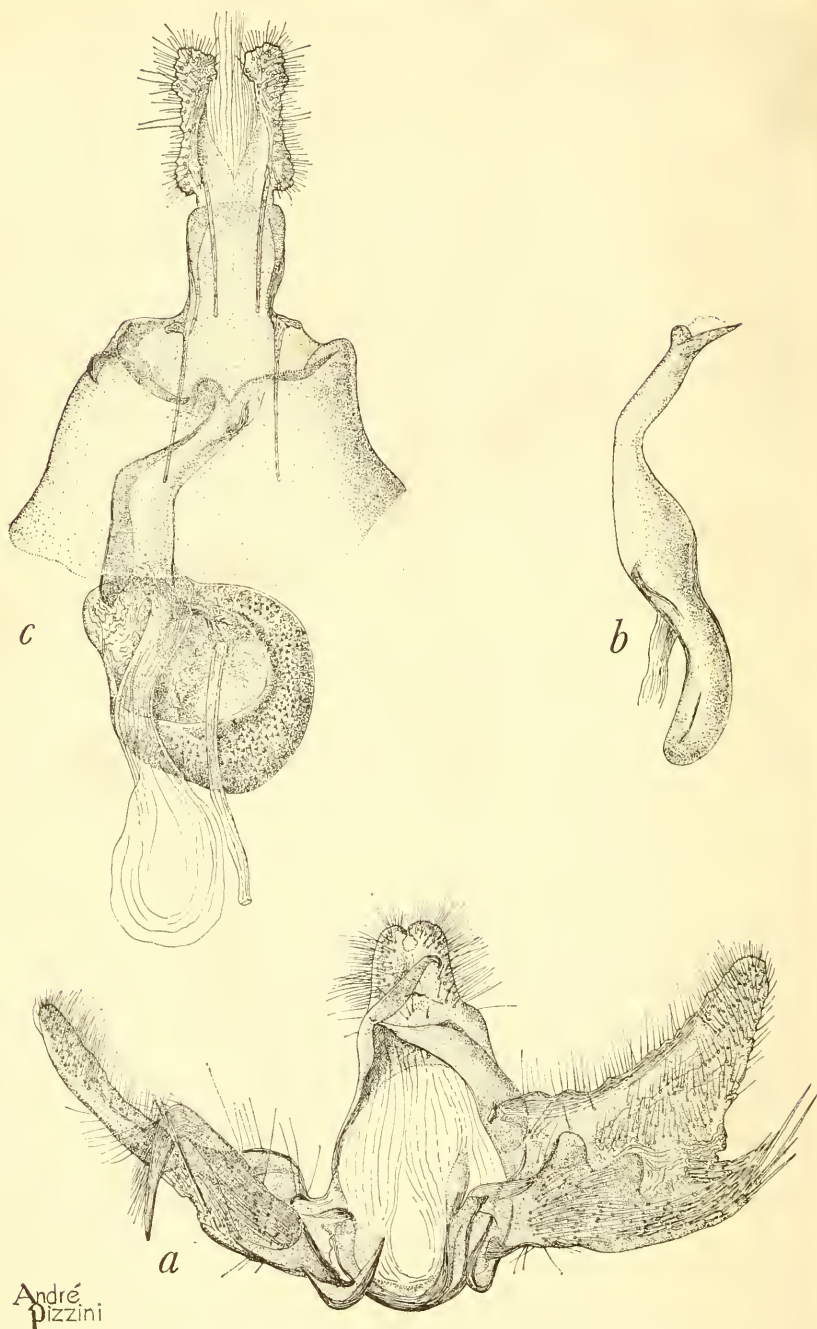


FIGURE 26.—*Lasiothyris diamphidia*, new species: *a*, ventral view of male genitalia with aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

anterior edge V-shaped, solidly fused with posterior margin of seventh sternum. Antrum not differentiated. Inception of ductus seminalis from middle of bursa copulatrix. Ductus bursae bent, sclerotized for its entire length. Accessory bursa arising at juncture of ductus bursae and bursa copulatrix. Bursa copulatrix heavily sculptured from juncture with ductus bursae to beyond middle; anteriorly and laterally clothed with a mass of short, stout spines.

Holotype: U.S. National Museum No. 69753.

Type-locality: Peru, Cusco, Machu Picchu.

Distribution: Known only from the type-locality.

Described from the male holotype (5.II.1959, J. F. G. Clarke), and 2 ♀ ♀ paratypes all from the same locality. The females are dated "6.II.1959."

This species is superficially very similar to *Phalonia sublimis* Meyrick but differs widely in the genitalia. The female genitalia of *diamphidia* are solidly fused with the posterior margin of the seventh sternum, those of *sublimis* are not; moreover, the ostium of *diamphidia* is markedly asymmetrical, that of *sublimis* is not. The male of *sublimis* is not known, but the male genitalia of *diamphidia* are unusually asymmetrical and the long aedeagus is fused to the anellus. I know of no other phaloniid with such marked asymmetry in the male genitalia.

Lasiothyris hemitephras, new species

FIGURE 27; PLATE 3 (FIG. 1)

Alar expanse 16–18 mm.

Labial palpus ocherous white; second segment sparsely and minutely irrorate with fuscous. Antenna pale grayish fuscous; scape ocherous white. Head ocherous white; laterally and on crown, light buff. Thorax ocherous white; tegula buff anteriorly. Forewing ground color cinereous; from mid-dorsum to costal edge of cell, a transverse ochraceous-buff shade; apical third ochraceous buff, irregularly and sparsely spotted with cinereous; underside rather strongly infuscated; cilia cinereous with a dark gray basal line. Hindwing light grayish fuscous; cilia ocherous white with a gray subbasal line. Foreleg ocherous white marked with cinereous; midleg similar to foreleg; hindleg ocherous white. Abdomen pale grayish fuscous dorsally, ocherous white ventrally.

Female genitalia slides JFGC no. 11222, 11717. Ostium wide, asymmetrical. Antrum not differentiated. Inception of ductus seminalis from left side of bursa copulatrix. Ductus bursae short, very broad, strongly sclerotized, with two longitudinal, folded ridges ventrally. Bursa copulatrix mostly membranous; accessory bursa

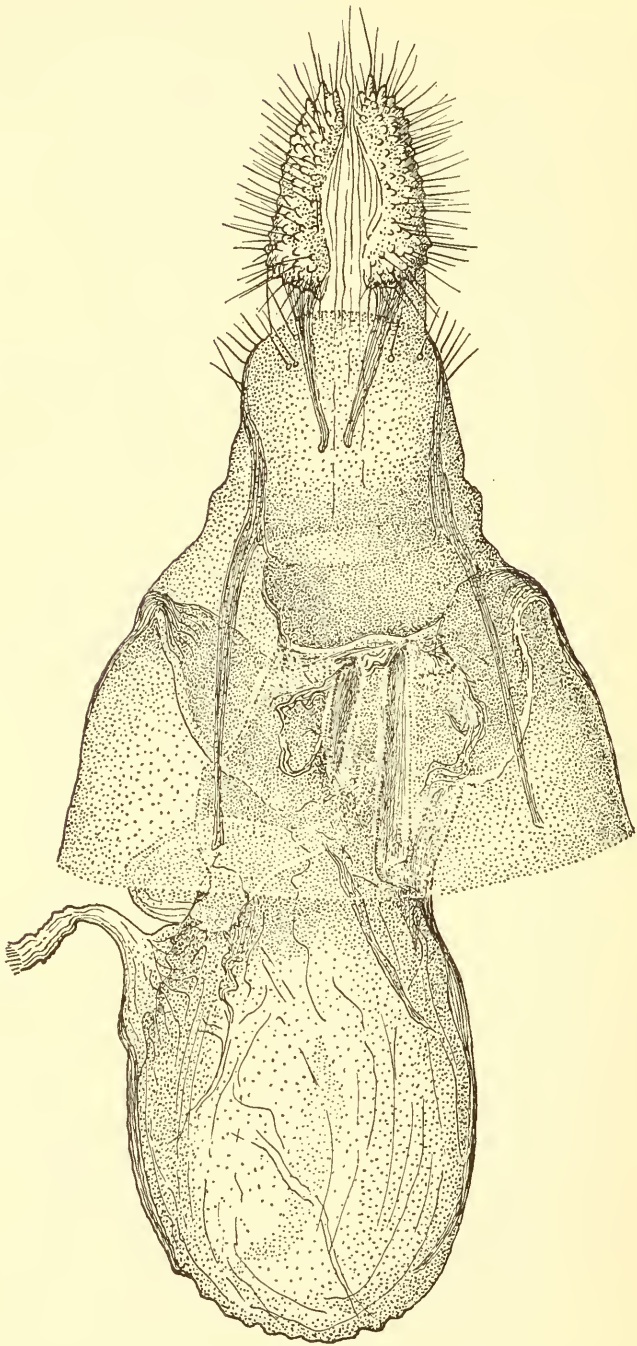


FIGURE 27.—*Lasiothyris hemitephras*, new species: ventral view of female genitalia.

very small, from dorsal, median surface of ductus bursae.

Holotype: U.S. National Museum No. 69741.

Type-locality: Mexico, Tehuacan.

Distribution: Mexico.

Described from the female holotype (October 10) and three ♀ paratypes all from the same locality (September 12).

I have placed *hemitephras* in *Lasiothyris* on the basis of the asymmetrical and much involved genitalia. Males are not known but probably, when discovered, will approach *diamphidia* in the form of the genitalia.

There are no species that are similar to *hemitephras* in coloring or maculation. Superficially, the forewing of *hemitephras* appears pale gray in the basal three-fifths and ochraceous buff in the apical two-fifths.

Carolella Busck

Carolella molybdina, new species

FIGURE 28; PLATE 3 (FIG. 8)

Alar expanse 11–14 mm.

Labial palpus creamy white; second segment with slight infuscation basally on outer side. Antenna gray; scape creamy white. Head creamy white with ochereous suffusion laterally. Thorax ochraceous buff with dull fuscous suffusion; tegula paler posteriorly. Forewing ground color yellow ocher; on vein 1b three small spots of leaden gray scales, and between the basal two, touching cell, a fuscous spot; costa mostly leaden gray with short, transverse fasciae of this color at one-sixth, one-third, midcosta, and at apical third, the last continued outwardly and obliquely as a line to vein 4, then inwardly, obliquely, to tornus; several groups of leaden-gray scales between this fascia and apex; outer third of wing, between the lead-colored lines and spots, fuscous, mixed with tawny; on middle of costa a fuscous patch edged inwardly with tawny; underside fuscous, with a few whitish spots on outer half of costa; cilia alternating groups of buff and leaden-gray scales. Hindwing fuscous; paler basally; cilia light gray with a broad grayish-fuscous subbasal line. Foreleg creamy white; femur and tibia heavily overlaid with fuscous on outer side; tarsal segments broadly banded with fuscous; midleg similar to foreleg; hindleg ochereous white; tibia suffused fuscous dorsally; tarsus broadly banded with fuscous. Abdomen grayish fuscous; ventrally segments edged with ochereous white posteriorly.

Male genitalia slide JFGC no. 9624. Harpe broad, rectangular, almost as wide as long; cucullus truncate; sacculus dilated basally.

Transtilla narrow with long median projection. Uncus short, broad. Vinculum U-shaped, coalesced. Tegumen short, narrow. Anellus a U-shaped plate. Aedeagus long, slender, curved, pointed; vesica armed with a single long, slender cornutus.

Female genitalia slides JFGC nos. 11636, 11682. Ostium very wide; anterior margin concave. Antrum constricted but not differentiated from ductus bursae. Inception of ductus seminalis at juncture of ductus bursae and bursa copulatrix. Ductus bursae sclerotized; on each side a longitudinal fold. Bursa copulatrix mostly membranous with fine sculpturing and ventrally, a large, sclerotized fold. Accessory bursae arising in a depression on the left side of bursa copulatrix.

Holotype: U.S. National Museum No. 69746.

Type-locality: Mexico, S. L. P., Tamazunchale.

Distribution: Mexico.

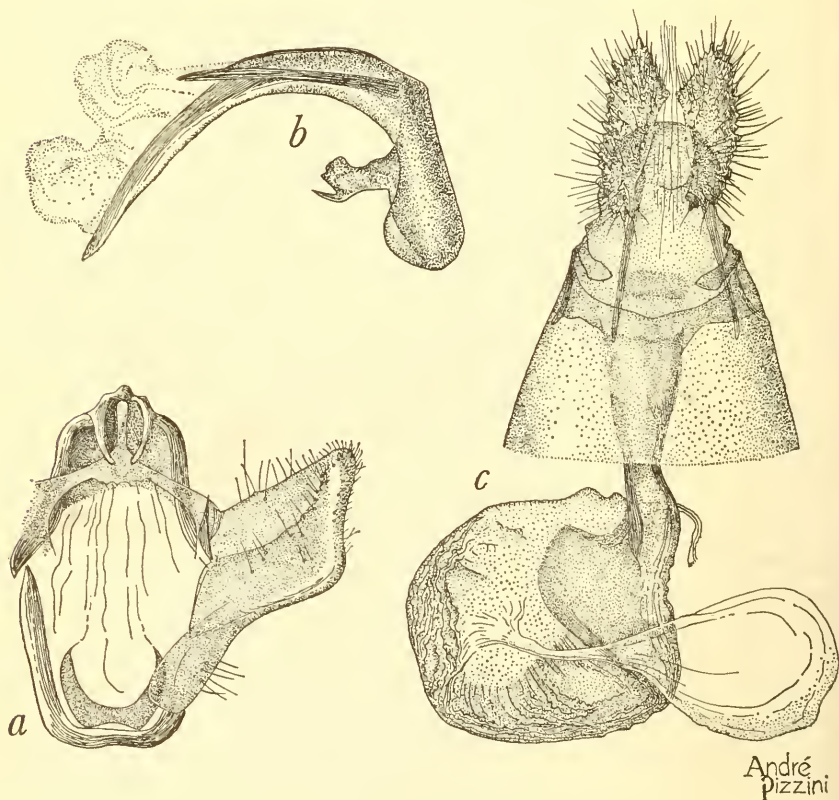


FIGURE 28.—*Carolella molybdina*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

André
Pizzini

Described from the female holotype (6 Jan. 1948, Leary), 2♀♀ and one ♂ paratypes; ♂, same locality as holotype (1.IV.47, Chapman); ♀, "Mexico" (5.IV.54, Baker and Allen); ♀, San Luis Potosi (23.IV.47, Chapman).

Food plant: "Orchid plants."

Carolella asthenia, new species

FIGURE 29; PLATE 3 (FIG. 6)

Alar expanse 12 mm.

Labial palpus shining white on inner side, ocherous white on outer side. Antenna pale brown; scape white. Head white. Thorax white; tegula pale gray anteriorly. Forewing ground color creamy white; basal half of costa grayish fuscous edged with clay color on inner margin; in apical third of costa three small grayish-fuscous spots; on basal third of dorsum a fuscous blotch confluent with a clay-colored, outwardly oblique blotch that extends into middle of cell; at the end of a small fuscous dot; apical third lightly strigulated with pale ochraceous buff; extreme apex grayish fuscous; underside suffused fuscous; cilia gray, irrorate with fuscous. Hindwing very pale grayish fuscous; cilia light gray with slightly darker basal band. Foreleg ocherous with light fuscous suffusion on outer side of femur and tibia; midleg similar to foreleg; tarsus fuscous annulated; hindleg ocherous white.

Male genitalia slide JFGC no. 11616. Harpe broad basally, unornamented; cucullus rounded. Transtilla lightly sclerotized laterally with a long bluntly pointed median process. Socii long, slender, digitate,

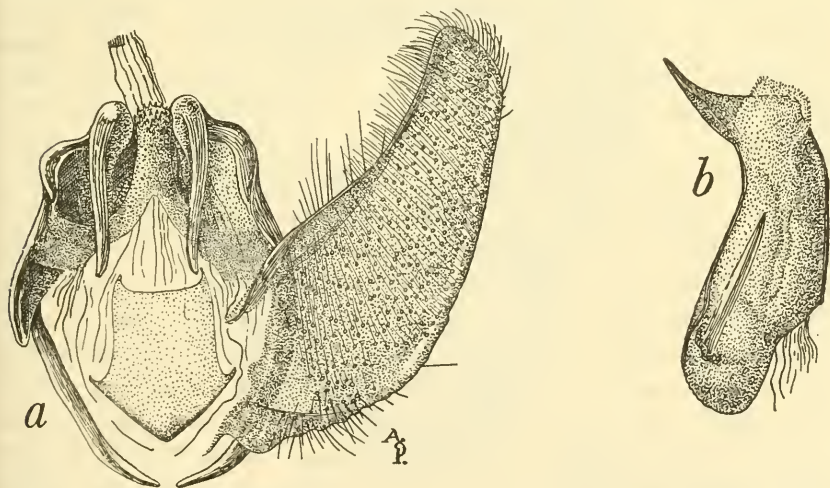


FIGURE 29.—*Carolella asthenia*, new species: a, ventral view of male genitalia with aedeagus removed; b, aedeagus.

terminating in a point. Vinculum weak, not coalesced. Tegumen broad; truncate posteriorly. Anellus an elongate, lightly sclerotized, curved plate. Aedeagus stout, abruptly curved at distal third, sharply pointed; vesica armed with a single cornutus about half the length of aedeagus.

Holotype: U.S. National Museum No. 69747.

Type-locality: Guatemala, Palin.

Distribution: Known only from the type-locality.

Described from the unique male holotype. (July. Schaus and Barnes).

On the basis of the male genitalia I am placing this species in *Carotella*, but on habitus it is far removed from the North American members of the genus. In *asthenia* the apex of the median projection of the transtilla is spinous but in the type of the genus, *Pharmacis sartana* Hubner, it is smooth. The aedeagus of *asthenia* is less stocky than that of *sartana* and the cornutus is more slender.

Phtheochroa Stephens

Phtheochroa arrhostia, new species

FIGURE 30; PLATE 3 (FIG. 5)

Alar expanse 10–11 mm.

Labial palpus white; second segment light ochraceous buff, irrorate with fuscous on outer side. Antenna light grayish fuscous, whitish dorsobasally; scape creamy white. Head creamy white; posteriorly and laterally ochereous white. Thorax ochereous white with light infuscation anteriorly. Forewing ground color creamy white; basal patch small, primarily indicated by a small grayish-fuscous spot on costa at basal fifth, continued transversely to fold, then inwardly to dorsum as a pale, ill-defined buff line; on middle of costa a large grayish-fuscous blotch continued to middle of cell; at apical third, on costa, a grayish-fuscous spot continued transversely and outwardly to vein 5 as a grayish-buff fascia; at end of cell a small fuscous spot followed outwardly by an ill-defined, irregular, transverse, pale buff fascia; from vein 5 around termen and tornus and along dorsum, a series of short, fine, fuscous strigulae; underside strongly infuscated except along costa; cilia mixed buff and white. Hindwing sordid white shading to and mottled with grayish fuscous at apex and outer margins; cilia sordid white with gray subbasal band. Foreleg creamy white; femur and tibia irrorate with fuscous on outer side; tarsus broadly banded with grayish fuscous; midleg similar to foreleg;

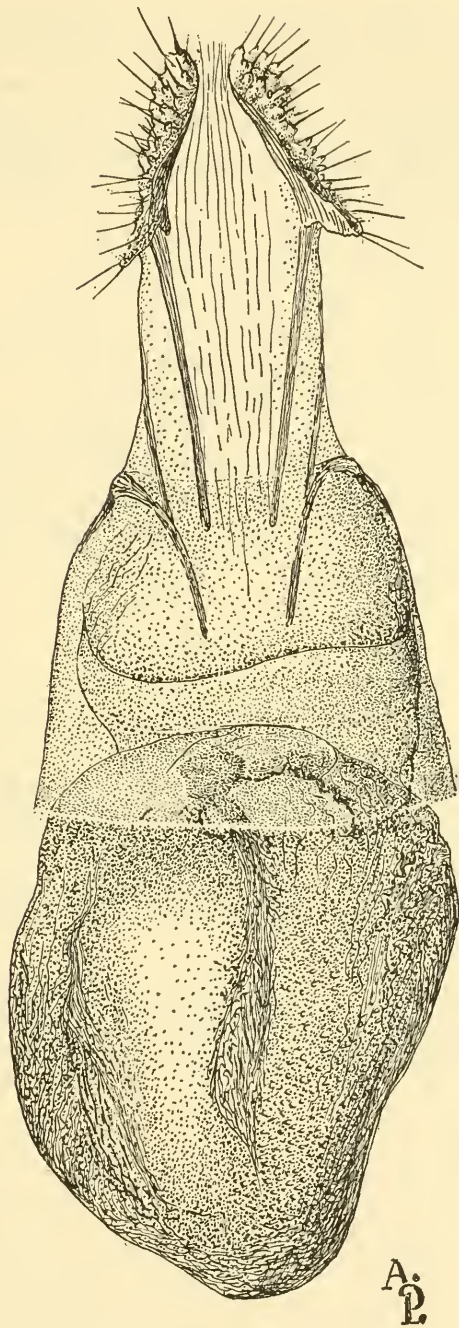


FIGURE 30.—*Phtheochroa arrhostia*, new species: ventral view of female genitalia.

hindleg ochereous white with sparse, grayish-fuscous irroration. Abdomen grayish fuscous dorsally; ventrally ochereous white.

Female genitalia slide JFGC no. 11615. Ostium very wide, slitlike. Antrum narrowly sclerotized. Ductus bursae scarcely definable. Bursa copulatrix with serrate sclerotized area, where it joins ductus bursae, and an elongate, sclerotized portion dorsally; lamella post-vaginalis broad, lightly sclerotized.

Holotype: U.S. National Museum No. 69748.

Type-locality: Peru, Cusco, Machu Picchu, 2385 m.

Distribution: Peru.

Described from the female holotype (5.III.1959, J. F. G. Clarke), and one ♀ paratype with the same data.

In placing *arrhostia* in *Phtheochroa* I do so with some hesitation, but there is no other available genus that has a female approaching this. Hubner's *rugosana*, the type of the genus, exhibits the broad ostial opening as in *arrhostia*, but the latter has much more sculpturing in the bursa copulatrix.

Selected References

BUSCK, AUGUST

1939. A generic review of the family Phaloniidae with descriptions of two new genera and one new species. Bull. Southern California Acad. Sci., vol. 38, pt. 2, pp. 98-111.

CLARKE, J. F. GATES

1963. Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, vol. IV, 521 pp., 252 pls.

RAZOWSKI, JÓZEF

1964. Studies on the Cochylidae (Lepidoptera), pt. X: The genitalia of the types of the Cochylidae described by Walsingham. Ann. Zool. Polska. Akad. Nauk, vol. 22, no. 16, pp. 356-385.

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<i>paper</i>	<i>author</i>	<i>subject</i>	<i>year</i>	<i>volume</i>	<i>number</i>
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III	Clarke	<i>Gonionota melobaphes</i> and relatives	1964	115	3480
IV	Duckworth	A new genus of Stenomidae	1964	116	3497
V	Obraztsov	The tortricid genus <i>Proeulia</i>	1964	116	3501
VI	Clarke	The genera <i>Orsotricha</i> and <i>Palinorsa</i>	1964	116	3502
VII	Obraztsov	The tortricid genus <i>Pseudomeritastis</i>	1966	118	3527
VIII	Duckworth	The stenomid genus <i>Falculina</i>	1966	118	3531
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X	Duckworth	Taxa erroneously placed in Stenomidae	1966	119	3540
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