

J. F. GATES CLARKE

*Neotropical
Microlepidoptera XIX:
Notes on and
New Species of
Oecophoridae
(Lepidoptera)*

SERIAL PUBLICATIONS OF THE SMITHSONIAN INSTITUTION

The emphasis upon publications as a means of diffusing knowledge was expressed by the first Secretary of the Smithsonian Institution. In his formal plan for the Institution, Joseph Henry articulated a program that included the following statement: "It is proposed to publish a series of reports, giving an account of the new discoveries in science, and of the changes made from year to year in all branches of knowledge." This keynote of basic research has been adhered to over the years in the issuance of thousands of titles in serial publications under the Smithsonian imprint, commencing with *Smithsonian Contributions to Knowledge* in 1848 and continuing with the following active series:

Smithsonian Annals of Flight
Smithsonian Contributions to Anthropology
Smithsonian Contributions to Astrophysics
Smithsonian Contributions to Botany
Smithsonian Contributions to the Earth Sciences
Smithsonian Contributions to Paleobiology
Smithsonian Contributions to Zoology
Smithsonian Studies in History and Technology

In these series, the Institution publishes original articles and monographs dealing with the research and collections of its several museums and offices and of professional colleagues at other institutions of learning. These papers report newly acquired facts, synoptic interpretations of data, or original theory in specialized fields. These publications are distributed by mailing lists to libraries, laboratories, and other interested institutions and specialists throughout the world. Individual copies may be obtained from the Smithsonian Institution Press as long as stocks are available.

S. DILLON RIPLEY
Secretary
Smithsonian Institution

SMITHSONIAN CONTRIBUTIONS TO
ZOOLOGY

NUMBER 95

J. F. Gates Clarke Neotropical
Microlepidoptera XIX:
Notes on and
New Species of
Oecophoridae
(Lepidoptera)

SMITHSONIAN INSTITUTION PRESS
CITY OF WASHINGTON
1971

ABSTRACT

Clarke, J. F. Gates. Neotropical Microlepidoptera XIX: Notes on and New Species of Oecophoridae (Lepidoptera). Smithsonian Contributions to Zoology, number 95, 39 pages, 1971.—*Costoma* Busck (= *Phalarotarsa* Meyrick) (new synonymy); *Gonionota aethoptera*, *aethographa*, *cologramma*, *oxybela*, *charagma*, *hypoleuca*, *argopleura*, *amauroptera*, *gaiophanes*, *hemiglypta*, *eremia*, *insignata*, *menura*, *paravexillata*, *transversa*, *sphenogramma*, *selene*, *poecilia*, *phthiochroma* and *Hypercallia heterochroma* are described. *Gonionota autocrena* (Meyrick), *Gonionota rosacea* (Forbes), new combination; *G. dryodesma* (= *H. dryocrypta*), *H. miltopa* Meyrick (= *Cryptolechia tunicata* Busck), *Phytomimia chlorophylla* Walsingham (= *Phytomimia silvicolor* Meyrick, (new synonymy); *Coptotelia bipunctalis* (Warren), new combination, (= *Coptotelia byrsocyma* (Meyrick)) (new synonymy).

Official publication date is handstamped in a limited number of initial copies and is recorded in the Institution's annual report, Smithsonian Year.

UNITED STATES GOVERNMENT PRINTING OFFICE
WASHINGTON : 1971

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price 50 cents (paper cover)

J. F. Gates Clarke

Neotropical Microlepidoptera XIX: Notes on and New Species of Oecophoridae (Lepidoptera)

Introduction

The purpose of this paper, the nineteenth in this series, is to clarify points of synonymy, both generic and specific, to illustrate previously unfigured species, and to describe an accumulation of new taxa so that their presence in the Neotropical fauna may be made known.

The drawings for this paper were made by Mr. André del Campo Pizzini, staff artist. The photographs were made by Mr. Victor Krantz, Smithsonian Photographic Laboratory.

Genus *Costoma* Busck

Costoma Busck, 1914:23 (Type species: *Costoma basirosella* Busck 1914:24 [by monotypy and original designation]).

Phalarotarsa Meyrick, 1924:101 (Type species: *Phalarotarsa cirrophaea* Meyrick 1924:102 [by monotypy]) (New synonymy).

I have compared the types of both genera, and although *basirosella* and *cirrophaea* are specifically distinct, there is no question about their generic identity.

J. F. Gates Clarke, Department of Entomology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560.

Costoma basirosella Busck

FIGURE 1

Costoma basirosella Busck, 1914:24.—Meyrick 1922:185.

TYPE.—United States National Museum.

TYPE LOCALITY.—Panama, Trinidad River.

DISTRIBUTION.—Panama.

The genitalia of *basirosella* are figured here, for the first time, so that those of the male can be compared with those of *cirrophaea* (see Clarke, 1963: 373, pl. 183: figs. 1–1d).

Costoma cirrophaea (Meyrick), new combination

FIGURE 2

Phalarotarsa cirrophaea Meyrick, 1924:102.—Clarke 1963: 373, pl. 183: figs. 1–1d.

I have already figured this species (1963) where the characters of the male are clearly illustrated. The female genitalia are figured here from a specimen from Bolivia, Prov. del Sara, Dep. Sta. Cruz, 450 m, slide JFGC 12043, and can be compared with those of *basirosella*.

TYPE.—British Museum (Natural History).

TYPE LOCALITY.—Bolivia, Prov. del Sara, Dep. Sta. Cruz.

DISTRIBUTION.—Bolivia.

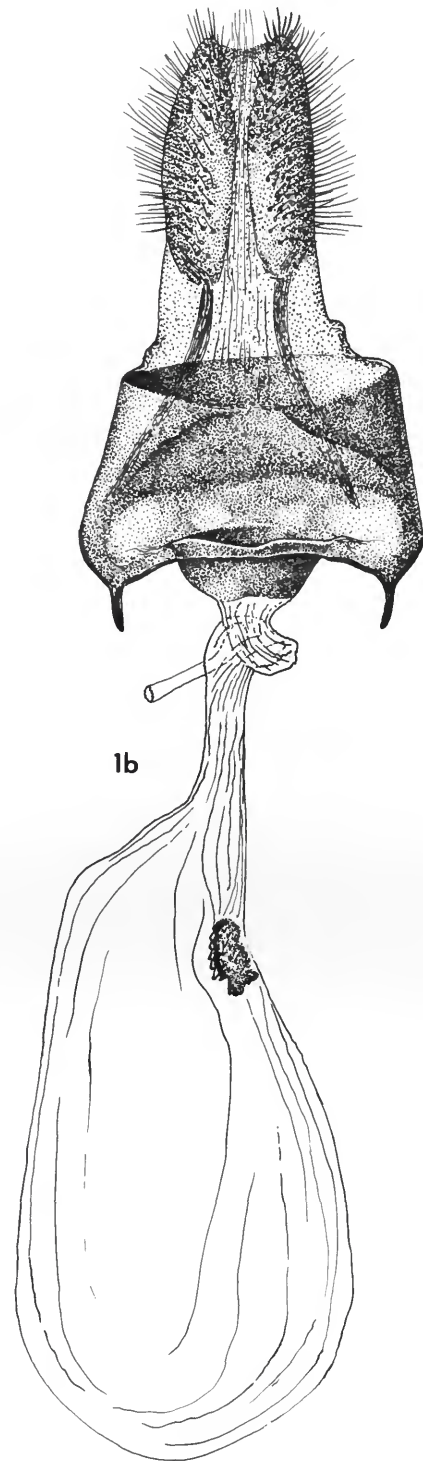
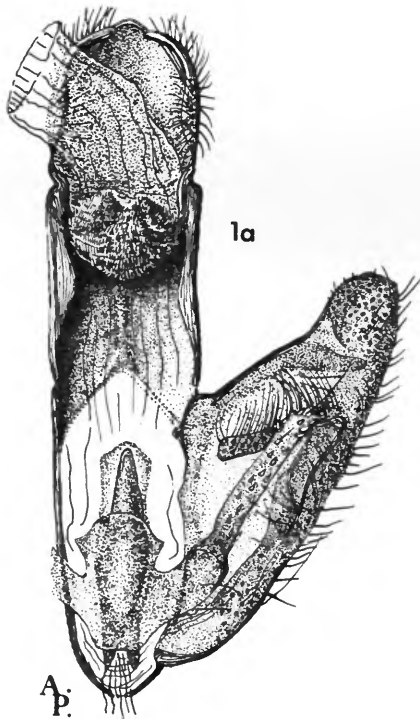
Genus Gonionota Zeller*Gonionota aethoptera*, new species

FIGURE 3; PLATE 1a

Alar expanse 24–25 mm.

Labial palpus light cinnamon brown; second segment with gray apical annulus; third segment suffused gray, apex buff. Antenna light cinnamon brown with faint grayish annulations; scape buff ventrally. Head light cinnamon brown mixed with gray in lateral scale tufts. Thorax light cinnamon brown, scales of crest tipped with dark brown. Forewing ground color light cinnamon brown; scattered gray scales along fold to tornus and irregularly in apical half; termen narrowly blackish from vein 4 to tornus; at apical third of costa a small white spot; at basal third, in cell, two black spots; at end of cell a con-

FIGURE 1.—*Costoma basirosella* Busck, *a*, ventral view of male genitalia with left harpe removed and aedeagus in situ; *b*, ventral view of female genitalia.



spicuous white spot; dorsum with conspicuous dark brown streak; cilia light cinnamon brown. Hindwing light ochereous tawny overlaid with gray scales; cilia pale grayish. Foreleg ochereous white; femur, tibia, and first tarsal segment overlaid light cinnamon tawny; midleg ochereous white with dark gray shade on tibia; tarsal segments yellowish; hindleg ochereous white with grayish suffusion and spots on tibia; tarsal segments yellowish. Abdomen ochereous white, suffused grayish dorsally.

Male genitalia slide JFGC 12113. Harpe broadest basally, gently narrowed toward the rounded cucullus; sacculus broadly sclerotized to slightly beyond middle and terminating in a large setose protuberance. Gnathos a narrow, transverse, oval spined knob. Uncus very narrow basally terminating in widely divergent arms. Vinculum a narrow band. Tegumen rather broad, convex laterally, shorter than harpe. Anellus a very strongly sclerotized, subrectangular plate with a narrow dentate projection posteriorly at each corner. Aedeagus very stout, curved, distally shovel shaped; vesica armed with two sclerotized plates each bearing a cluster of stout cornuti.

Female genitalia slide JFGC 12060. Ostium V-shaped, laterally strongly sclerotized. Antrum a very narrow sclerotized ring. Inception of ductus seminalis at dorsoanterior edge of antrum. Ductus bursae membranous with very finely granular surface, the granular surface continuing as a narrow band to anterior third of the membranous bursa copulatrix. Signum an elongate, sclerotized, dentate plate. Lamella antevaginalis narrow, sclerotized. Lamella postvaginalis membranous with granular surface.

HOLOTYPE.—USNM 71083.

TYPE LOCALITY.—Venezuela, Aragua, Rancho Grande, 1100 m.

DISTRIBUTION.—Venezuela.

Described from the ♀ holotype, one ♂ and 3 ♀ ♀ paratypes all from the same locality as holotype and with following dates, etc., ♂ (16–23. X. 66); ♀ (24–31. X. 66), ♀ (1–5. XI. 66) all collected by S. S. and W. D. Duckworth; ♀ (19. VI. 67), ♀ (22–31. VII. 67), both collected by R. W. Poole.

Under *cologramma* I have pointed out that *aethoptera* and several other species are related to it, but *aethoptera* is a considerably larger moth than *cologramma*, is generally darker in color, with a much darker hindwing.

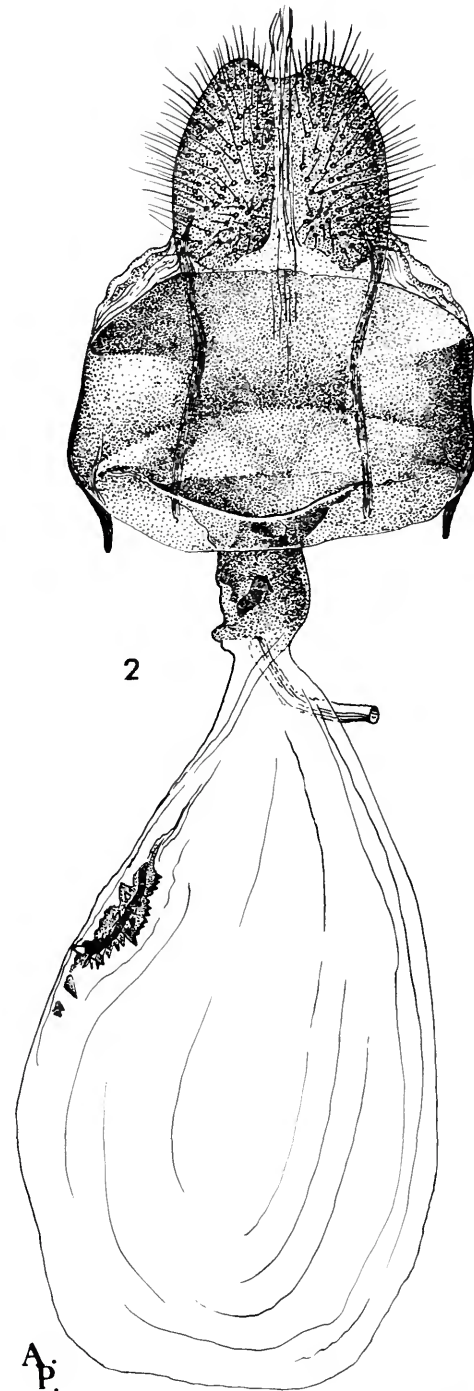


FIGURE 2.—*Costoma cirrophaea* (Meyrick). Ventral view of female genitalia.

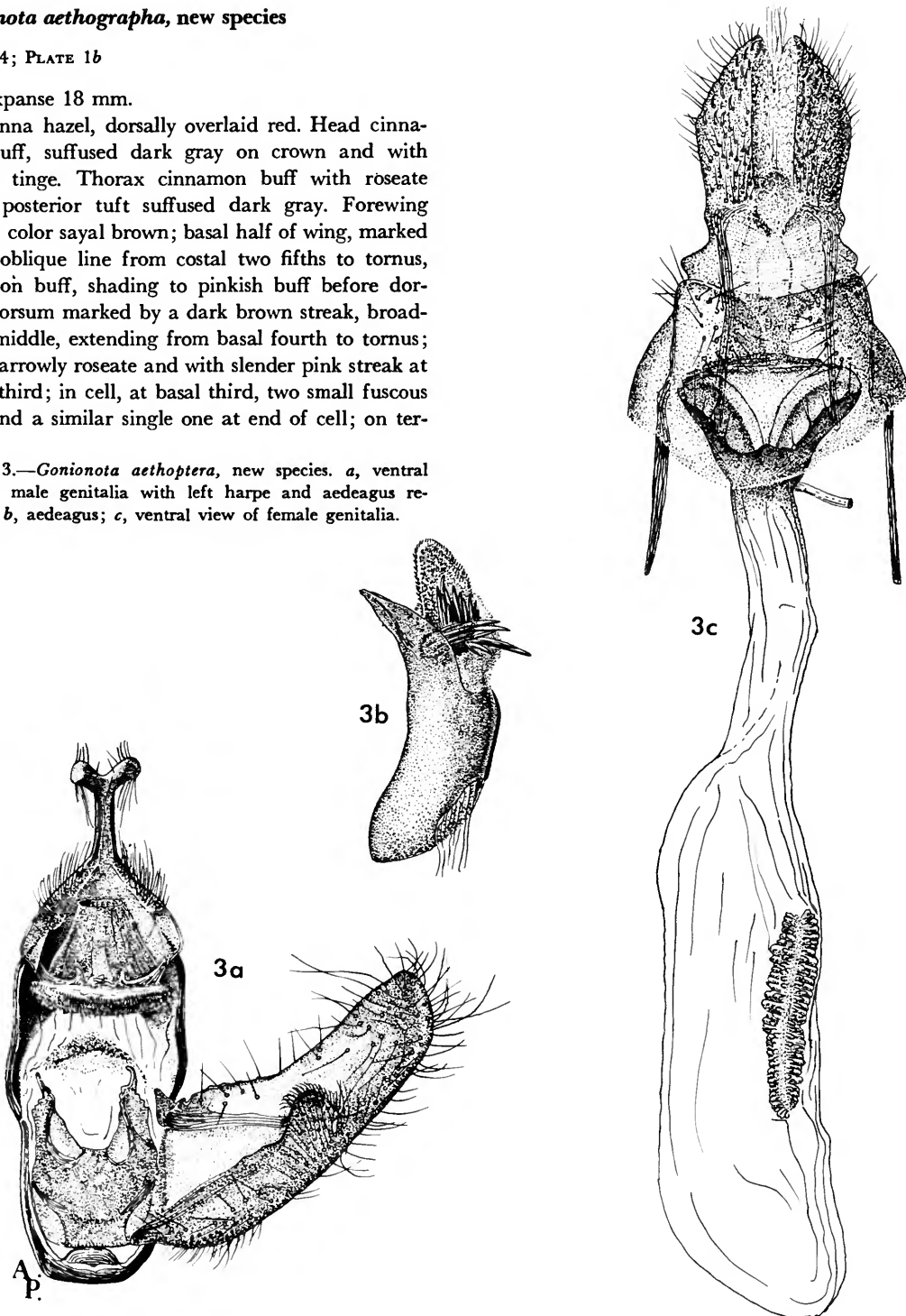
Gonionota aethographa, new species

FIGURE 4; PLATE 1b

Alar expanse 18 mm.

Antenna hazel, dorsally overlaid red. Head cinnamon buff, suffused dark gray on crown and with roseate tinge. Thorax cinnamon buff with roseate tinge; posterior tuft suffused dark gray. Forewing ground color sayal brown; basal half of wing, marked by an oblique line from costal two fifths to tornus, cinnamon buff, shading to pinkish buff before dorsum; dorsum marked by a dark brown streak, broadest at middle, extending from basal fourth to tornus; costa narrowly roseate and with slender pink streak at apical third; in cell, at basal third, two small fuscous spots and a similar single one at end of cell; on ter-

FIGURE 3.—*Gonionota aethoptera*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.



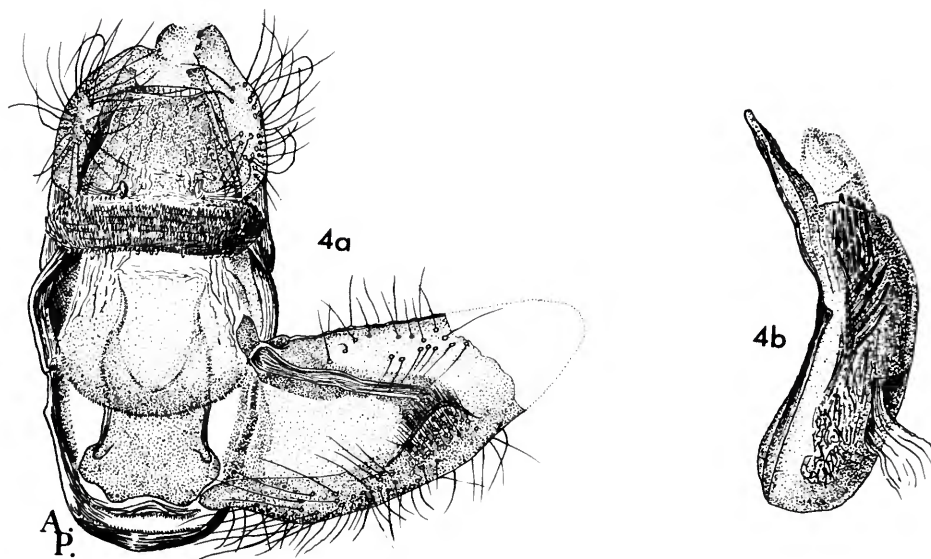


FIGURE 4.—*Gonionota aethographa*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

men, between veins, five ill-defined, fuscous dashes; cilia sayal brown. Hindwing sayal brown; cilia slightly paler. Foreleg shining white, outer side of femur overlaid brown; tibia brown on outer side mixed carmine; first tarsal segment carmine on outer side, remainder cinnamon buff; midleg white; tibia suffused cinnamon and with black spot on outer side; hindleg creamy white. Abdomen clay color, shading to brown dorsoposteriorly; ventrally buff with sparse clay-color irroration.

Male genitalia slide JFGC 12112. Harpe broadest at base, gently tapered toward cucullus; from base of costa to near middle of harpe, a strong sclerotized bar; sacculus rather narrowly sclerotized, terminating in a small setose protuberance at outer end of sclerotized base. Gnathos a broad, transverse, finely spinose knob. Uncus (missing). Vinculum a narrow band with median anterior convexity. Tegumen slightly longer than aedeagus. Anellus rectangular, slightly broadened proximally, and with deep concavity distally. Aedeagus stout, curved, pointed; vesica armed with two clusters of cornuti, each arising from a small sclerotized plate, and four long, straight cornuti.

HOLOTYPE.—USNM 71084.

TYPE LOCALITY.—Costa Rica, Las Cruces, nr. San Vito.

DISTRIBUTION.—Costa Rica.

Described from the unique ♂ holotype (19–20. III. 65, S. S. and W. D. Duckworth).

Nearest *aethoptera*, this species belongs in the *hydrogramma-cologramma* group. It differs from *aethoptera* in the absence of the conspicuous white spot at end of cell and by the presence of the four strong cornuti in addition to the two clusters.

Gonionota cologramma, new species

FIGURE 5; PLATE 1c

Alar expanse 20 mm.

Labial palpus tawny; second segment with a faint rosy hue and with a few blackish scales apically; third segment with blackish scales toward apex; apex ocherous white. Antenna reddish basally, shading to light brown toward apex and faintly annulated gray; scape reddish dorsally, ocherous white ventrally. Head mixed gray, tawny, and reddish. Thorax tawny with gray dorsal spot posteriorly; tegula tipped ocherous white. Forewing ground color tawny, outer half crossed by numerous, irregular, fine pale lines; costa

narrowly gray mixed with some pink scales; at apical fifth of costa a gray spot; at basal third, in cell, two blackish discal spots, one larger than the other; at end of cell a white spot; around termen a series of short blackish dashes; on fold, about middle a dark brown spot; dorsum with a conspicuous brown stripe; costal area, and from fold to the brown dorsal streak, suffused rosy-pink; cilia tawny. Hindwing buff, somewhat darker toward anal angle. Foreleg ocherous with scattered tawny and pink scales; midleg similar; hindleg ocherous white. Abdomen ocherous white, suffused tawny dorsally.

Male genitalia slide JFGC 12058. Harpe of about equal width to beyond middle, then gently narrowed to a truncate cucullus; sacculus broadly sclerotized, recurved beyond middle. Gnathos a long, narrow, transverse roll. Uncus broad basally, constricted at middle, terminating in two divergent arms. Socii two setose papillae. Vinculum a narrow band. Tegumen about as broad as long, constricted at middle. Anellus a subrectangular plate with a slender pointed

process posteriorly at each corner. Aedeagus stout, curved, apex linguiform; vesica armed with a cluster of short, stout cornuti.

HOLOTYPE.—USNM 71085.

TYPE LOCALITY.—Venezuela, Aragua, Rancho Grande, 1100 m.

DISTRIBUTION.—Venezuela.

Described from the unique ♂ holotype (10–21. II. 69, W. D. Duckworth and R. Dietz).

Superficially *cologramma* is much like *G. hydrogramma* (Meyrick), exhibiting the same type of pale transverse strigulae found in that species, but the pale hindwing of *cologramma* immediately distinguishes it from the latter. In male genitalia the two are strikingly similar, the chief difference being the length of the basal bar of the clasper which extends beyond middle of harpe in *hydrogramma* and terminates at or before middle of harpe in *cologramma*. The cornuti are more numerous in *cologramma* than in *hydrogramma* but must be compared (see Figure 5 and Clarke 1963: pl. 114: fig. 4a).

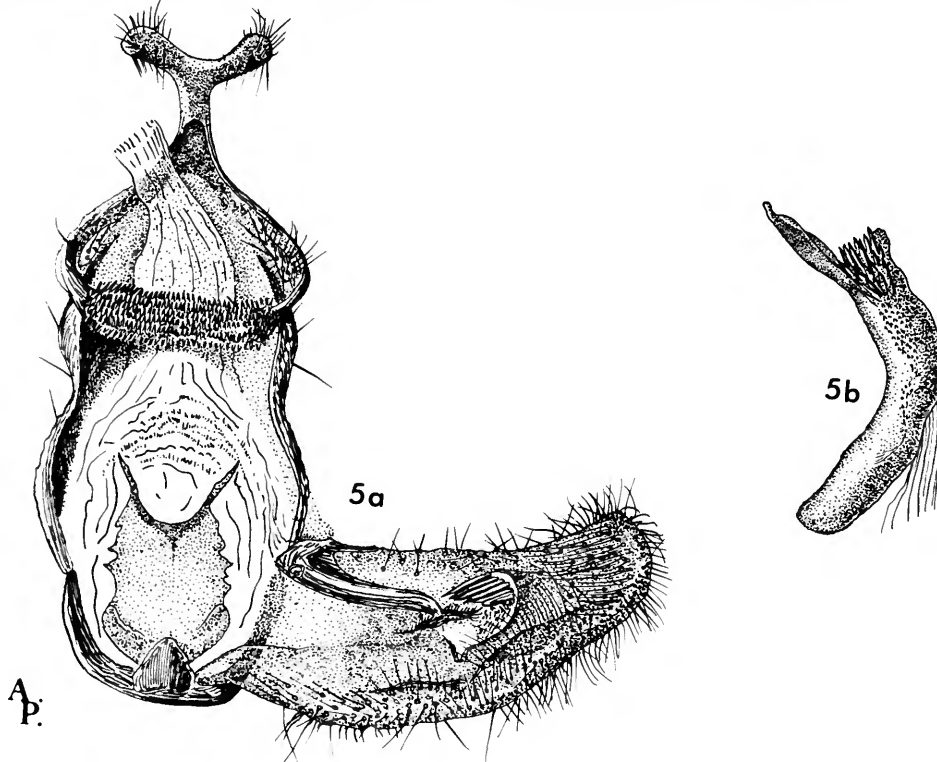


FIGURE 5.—*Gonionota cologramma*, new species. a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.

G. hydrogramma, *anisodes*, *cologramma*, *aethographa* and *aethoptera* constitute a group of similarly colored species all having in common a dark dorsal stripe on the forewing.

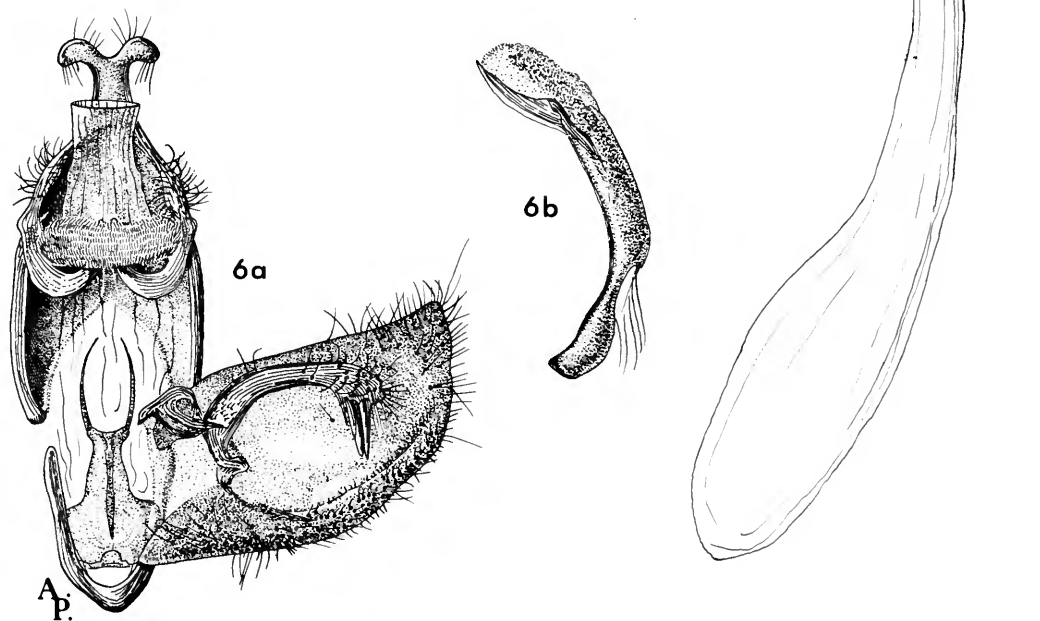
***Gonionota autocrena* (Meyrick), new combination**

FIGURE 6; PLATE 1d

Hypercallia autocrena Meyrick, 1930: (3)575.

Male genitalia slides JFGC 10812, 12071. Harpe of nearly equal width throughout; cucullus bluntly pointed; clasper a curved bar terminating in a cluster of spines and hairlike setae; sacculus rather broadly sclerotized. Gnathos a spined, transverse oval knob. Uncus moderately broad basally, terminating in two divergent points. Socii rather small setaceous swellings at base of uncus. Vinculum U-shaped. Tegumen about as long as harpe. Anellus a sclerotized plate, broad basally, narrowed, and with a long spine at each corner posteriorly. Aedeagus moderately slender, curved, pointed distally.

FIGURE 6.—*Gonionota autocrena* (Meyrick). *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.



Female genitalia slide JFGC 10813. Ostium a deep cup. Genital plate subrectangular, sclerotized. Antrum sclerotized. Inception of ductus seminalis at junction of antrum and membranous portion of ductus bursae. Ductus bursae membranous and with faint and sparse granulations. Bursa copulatrix membranous. Signum absent. Lamella postvaginalis membranous.

TYPE.—Muséum National d'Histoire Naturelle, Paris.

TYPE LOCALITY.—Brazil, Nova Friburgo, Organ Mountain.

DISTRIBUTION.—Brazil.

In addition to the type, I have before me 2 ♂♂, ♀ from Brazil, Nova Teutonia (August 1948) Fritz Plaumann.

The species is clearly referable to *Gonionota* and has not been figured previously.

The following group of three new species, *charragma*, *hypoleuca*, and *oxybela*, belong with and are related to *incisa*, *phocodes* and *lichenista*. It is vir-

tually impossible to separate the six species on superficial characters, especially when the specimens are worn, but the genitalia are distinct (except those of *lichenista* are unknown) and preclude misidentification.

Gonionota oxybela, new species

FIGURE 7; PLATE 1e

Alar expanse 18–20 mm.

Labial palpus a mixture of tawny olive and sayal brown with sparse, black irroration; apex of second segment snuff brown; third segment snuff brown except base and apex. Antenna clay color, spotted and suffused fuscous. Head a mixture of tawny olive and sayal brown. Thorax bister brown with median tawny olive line and sparse ochraceous-tawny irroration. Forewing ground color bister brown with tawny-olive irroration; in outer half of wing considerable ochraceous-tawny scaling; costa ochraceous

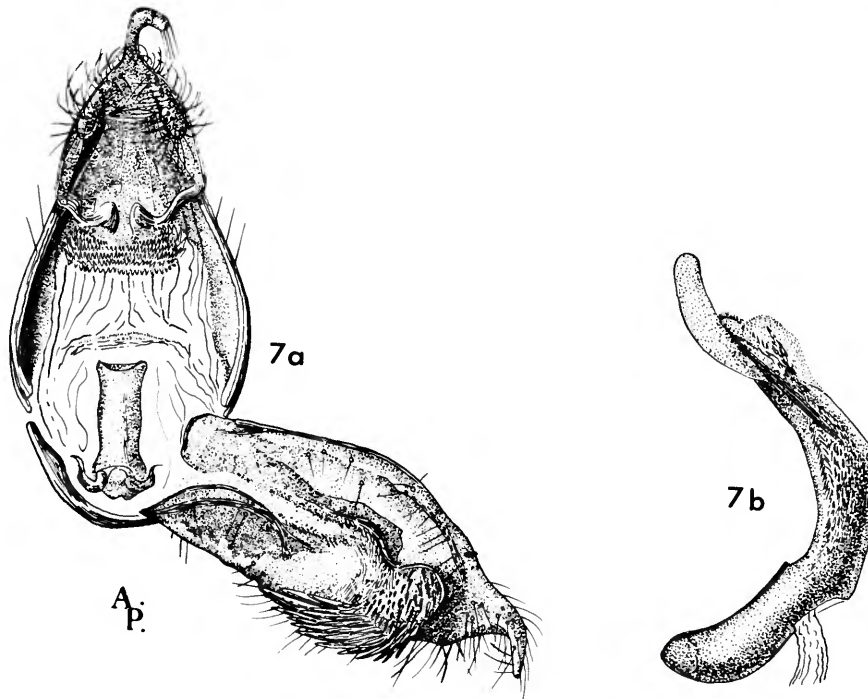


FIGURE 7.—*Gonionota oxybela*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

tawny mixed with tawny olive; from basal third of costa an ill-defined tawny-olive line extends to fold where it continues outwardly to tornus; cilia bistre, those in apical half mixed with ochraceous tawny. Hindwing sepia above; beneath mostly tawny olive with considerable ochraceous tawny along costa; cilia sepia, ochraceous tawny-tipped around termen. Foreleg white; tibia sepia on outer side; tarsal segments shading from sepia to clay color; midleg similar but tarsal segments paler; hindleg femur white with sepia on outer side; tibia ochraceous white with sepia on outer side; spurs white and tibia with white transverse line at middle and apex. Abdomen dorsally sepia with longitudinal, lateral, ochraceous-tawny line; ventrally white except last three segments mixed fuscous, ochraceous tawny, and clay color.

Male genitalia slide JFGC 4010. Harpe oval; cucullus produced as a long, slender process; sacculus with large bulbous, spined process at outer end; from base a dentate keel extends to one third. Gnathos an oval spined knob. Uncus slender, curved, digitate. Vinculum a narrow band with median anterior expansion. Tegumen as long as harpe. Anellus an elongate, rectangular plate with basal protuberance on each side. Aedeagus long, curved; distally linguiform.

HOLOTYPE.—USNM 71086.

TYPE LOCALITY.—Peru, Cuzco Province.

DISTRIBUTION.—Peru.

Described from the ♂ holotype (no date or collector) and 4 ♂♂ paratypes, same data as holotype.

Of the several species to which *oxybela* is related, it is nearest *phocodes* and differs from it mainly by the long, pointed cucullus.

Gonionota charagma, new species

FIGURE 8; PLATE 1f

Alar expanse 16–20 mm.

Labial palpus olive buff irrorate with reddish brown and blackish fuscous; apex of second segment fuscous; third segment blackish fuscous in tuft, apex buff. Antenna light reddish brown spotted grayish fuscous. Head olive buff mixed grayish fuscous. Thorax olive buff strongly suffused fuscous; tegula with scattered reddish brown scales. Forewing ground color fuscous, overlaid and suffused reddish brown; from basal third of costa an ill-defined olive-buff fascia extends to fold then continues to tornus; from apex to vein 2, an ill-defined olive-buff transverse

fascia; cilia fuscous and reddish brown mixed. Hindwing sepia on upper side, underside light tawny olive with olive buff, reddish brown, and grayish-fuscous irrorations; cilia clay color with broad fuscous basal band. Foreleg white, tibia fuscous on outer side; tarsal segments overlaid red brown; midleg white; tibia fuscous on outer side except apically edged white; hindleg similar except tibia with white median annulus and white median spurs. Abdomen fuscous dorsally with reddish-brown scales posterolaterally; ventrally shining white and reddish-brown scaling laterally on terminal segment.

Male genitalia slides JFGC 4015, 10929. Harpe as long as vinculum and tegumen combined, of almost uniform width throughout and only slightly broader at middle; sacculus broadly sclerotized, confluent at outer end with sclerotized rod arising from base of clasper; termination of rod and sacculus armed with a strongly setose bulbous process. Gnathos an oval spined knob. Uncus broad basally, terminating in a knob with shallow distal concavity. Vinculum a narrow band with median anterior process. Tegumen broad basally, narrowed posteriorly. Anellus subrectangular, expanded basally on each side; posterior edge concave. Aedeagus curved, stout, distal end elongate, linguiform; cornuti absent.

Female genitalia slide JFGC 4016. Ostium narrowly V-shaped. Genital plate strongly sclerotized; lamella postvaginalis granular. Antrum narrowly sclerotized. Inception of ductus seminalis dorsal and slightly anterior to antrum. Ductus bursae membranous. Bursa copulatrix membranous. Signum an elongate, diamond-shaped, sclerotized, finely dentate plate.

HOLOTYPE.—USNM 71087.

TYPE LOCALITY.—Brazil, Nova Teutonia.

DISTRIBUTION.—Brazil.

Described from the ♂ holotype (IV.1948, Fritz Plaumann), 3 ♂♂ and one ♀ paratypes from Brazil (Sta. Catharina, Oct. 1–4, 1934, Fritz Hoffmann).

In coloring *charagma* is very similar to *incisa* from Bolivia, but *incisa* is darker, is practically devoid of red-brown scaling and the underside of hindwing is darker and is suffused. In the male genitalia the cucullus of *incisa* is rounded (Clarke 1963, pl. 115: figs. 2–2b) with a short point at outer end of costa. In *incisa* there is also a triangular clasper about the middle of harpe which is absent in *charagma*. The harpe of *charagma* is twice as long as broad but that of *incisa* is less than 1½ times as long as broad.

Gonionota hypoleuca, new species

FIGURE 9; PLATE 1g

Alar expanse 16–22 mm.

Labial palpus first segment white; second segment finely mottled white, chestnut brown and fuscous; apex blackish fuscous; third segment almost wholly blackish fuscous except basal annulus white and apex ocherous white. Antenna buffy brown basally, grayish toward distal end with blackish annulations. Head buffy brown and grayish mixed. Thorax sepia; tegula snuff brown, edged ocherous white. Forewing ground color snuff brown, many of the scales tipped whitish; from basal third of costa a very faint, ill-defined white line, interrupted in cell by a fuscous spot, extends to fold; tornus with an ill-defined fuscous blotch; cilia sepia. Hindwing sepia above, tawny olive, overlaid and suffused grayish fuscous beneath; cilia grayish fuscous with darker basal line. Foreleg white; tibia sepia on outer side; tarsal segments clay color; midleg similar; tibia blackish fuscous on outer side except white basally and distally and a fine white line across

middle; spurs white; hindleg white; femur blackish fuscous on outer side; tibia sepia on outer side, except spurs, a median line and apex white; tarsal segments shading from sepia to clay color. Abdomen sepia dorsally; laterally a longitudinal, cinnamon brown line; ventrally white except terminal segment sepia.

Male genitalia slides JFGC 11539, 12047. Harpe very broad, short; cucullus bluntly pointed; sacculus

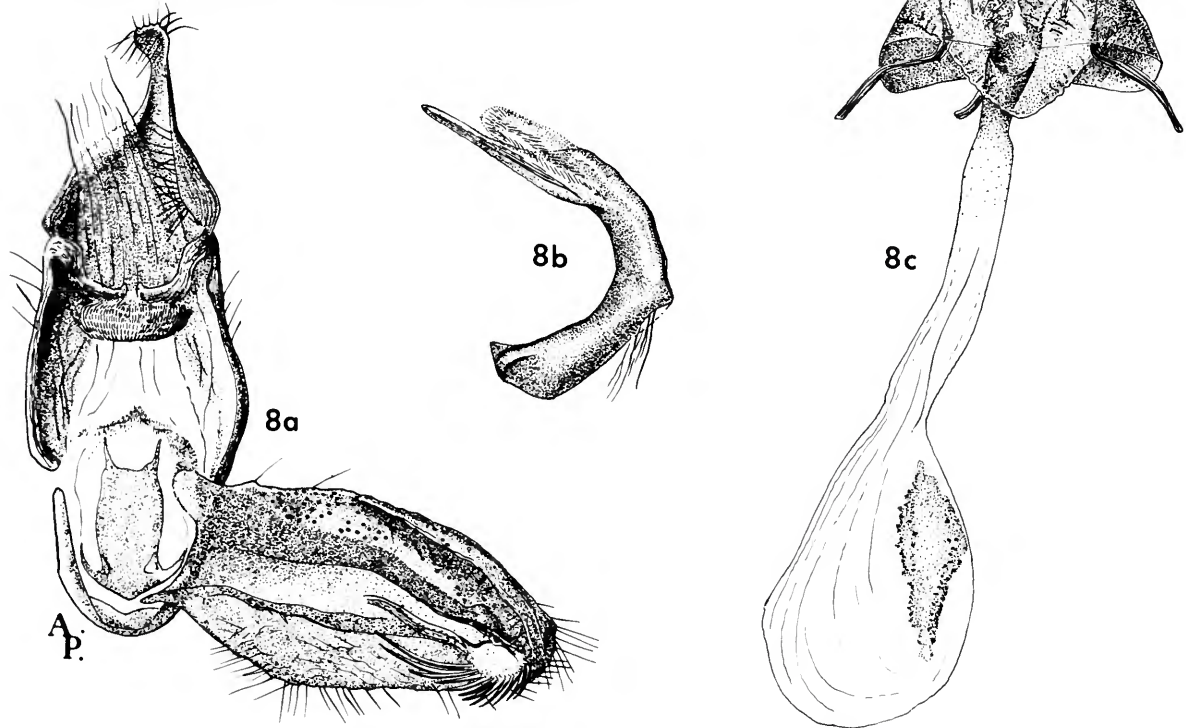
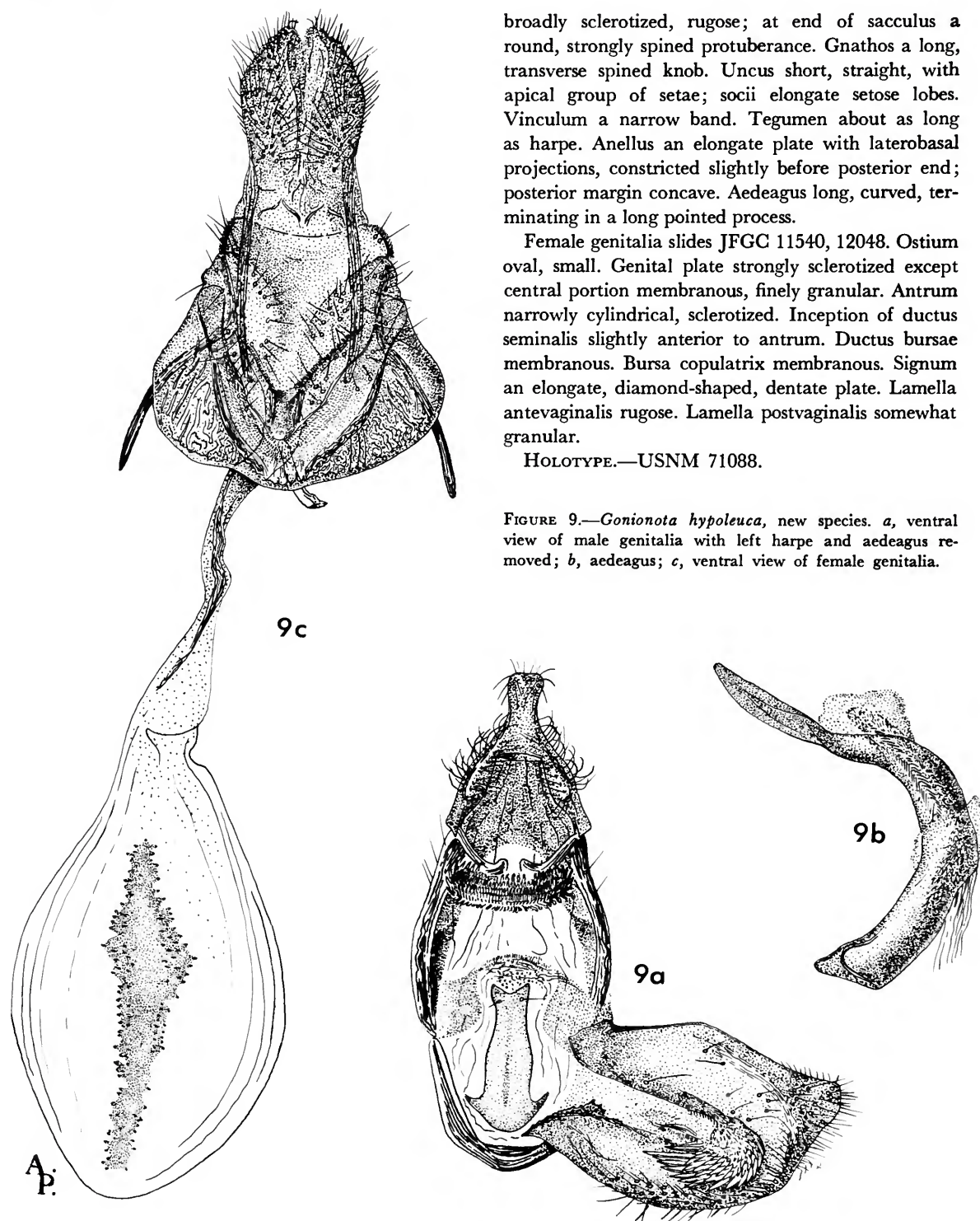


FIGURE 8.—*Gonionota charagma*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.



broadly sclerotized, rugose; at end of sacculus a round, strongly spined protuberance. Gnathos a long, transverse spined knob. Uncus short, straight, with apical group of setae; socii elongate setose lobes. Vinculum a narrow band. Tegumen about as long as harpe. Anellus an elongate plate with laterobasal projections, constricted slightly before posterior end; posterior margin concave. Aedeagus long, curved, terminating in a long pointed process.

Female genitalia slides JFGC 11540, 12048. Ostium oval, small. Genital plate strongly sclerotized except central portion membranous, finely granular. Antrum narrowly cylindrical, sclerotized. Inception of ductus seminalis slightly anterior to antrum. Ductus bursae membranous. Bursa copulatrix membranous. Signum an elongate, diamond-shaped, dentate plate. Lamella antevaginalis rugose. Lamella postvaginalis somewhat granular.

HOLOTYPE.—USNM 71088.

FIGURE 9.—*Gonionota hypoleuca*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

TYPE LOCALITY.—Venezuela, Aragua, Rancho Grande, 1100 m.

Described from the ♂ holotype (11–15. Jan. '66, S. S. and W. D. Duckworth) 11 ♂♂ and 4 ♀♀ paratypes, same locality and collectors (11–25. Jan. '66; 24–31. X. '66; 1–5. XI. '66).

As pointed out above, all members of this group are similar but *hypoleuca* appears to be the nearest to the Peruvian *phocodes* from which it differs by the abundance of white in the labial palpus. In genitalia the harpe of *phocodes* is very broad and shorter in proportion to its length than that of *hypoleuca*, and from the base of sacculus there is a long spatulate process in *phocodes* which is absent in *hypoleuca*. I do not know the female of *phocodes* and can draw no comparison with it.

***Gonionota argopleura*, new species**

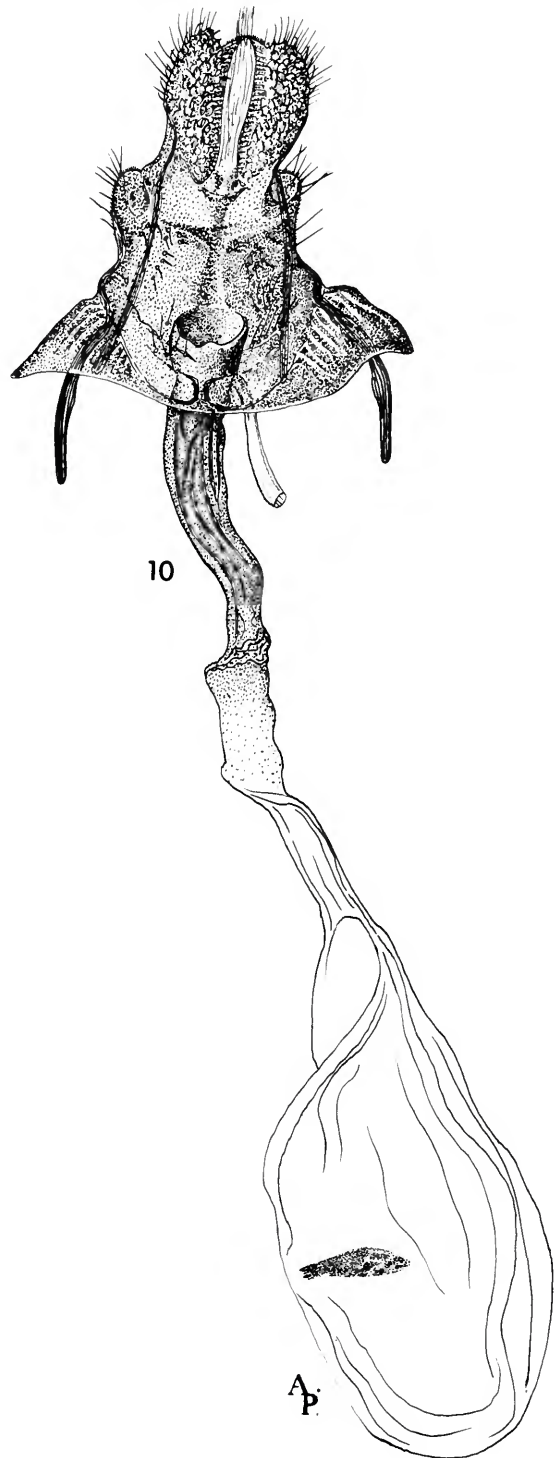
FIGURE 10; PLATE 1*h*

Alar expanse 22 mm.

Labial palpus sordid whitish; second segment speckled with tawny olive and clay color and shading to snuff brown at apex; third segment snuff brown except posterior edge and apex. Antenna tawny olive, suffused grayish. Head and thorax tawny olive, the scales tipped whitish. Forewing ground color fawn; basal half of costa white, shading to gray, then merging with ground color; apical third of costa white with a dark brown spot near inner end; on termen a large ochraceous buff blotch between veins 4 and 7; in cell, at basal two fifths, an ill-defined dark gray spot; on middorsum a dark brown shade; cilia tawny olive. Hindwing buff basally, shading to olive buff toward margins; cilia buff. Foreleg light cinnamon buff; midleg similar; tibia with gray spot at base of spurs; hindleg ochereous white overlaid cinnamon buff on outer side. Abdomen light grayish brown with white scales mixed.

Female genitalia slide JFGC 10859. Ostium crescentic. Genital plate strongly sclerotized, rugose laterally and with two ridges converging anterior to ostium. Antrum sclerotized. Inception of ductus seminalis at anterior edge of antrum. Ductus bursae sclerotized posteriorly, ribbed. Bursa copulatrix membranous. Signum a narrow, oval, sclerotized transverse plate.

FIGURE 10.—*Gonionota argopleura*, new species. Ventral view of female genitalia.



HOLOTYPE.—USNM 71089.

TYPE LOCALITY.—Brazil, Santa Catharina.

DISTRIBUTION.—Brazil.

Described from the unique ♀ holotype (Sept. 26, '34; Fritz Hoffmann).

In some respects *argopleura* is similar to the Colombian *eurydryas* but the sinuation of the costa is beyond middle in *argopleura* and the latter lacks any indication of the pale transverse striae of *eurydryas*; also, *eurydryas* lacks the large ochraceous-buff blotch before termen, found in *argopleura*.

Gonionota amauroptera, new species

FIGURE 11; PLATE 2b

Alar expanse 16–20 mm.

Labial palpus ocherous white on inner side, irrorate with fuscous and hazel; second segment hazel on outer side with white-tipped fuscous scales in posterior tuft; third segment similarly marked, with whitish apex. Antenna gray, somewhat paler apically; scape whitish ventrally. Head hazel, scales white tipped and appearing gray. Thorax hazel; dorsally marked with yellow. Forewing ground color hazel; costa narrowly reddish, extreme edge whitish; at basal fifth an indistinct, transverse, fuscous fascia and a similar outwardly oblique one at two fifths; at apical third of costa a wedge-shaped spot varying from white to reddish; in cell at basal third a pair of minute black discal spots; at end of cell a black-edged white spot, obsolete in one specimen; base of dorsum yellow becoming orange rufous toward tornus; on termen an ill-defined row of fuscous spots; cilia grayish fuscous.

Hindwing ocherous white basally, shading to pale brownish apically; underside with sharply defined row of blackish dashes around termen between veins; cilia ocherous white to pale brownish at apex. Foreleg ocherous white, shaded with hazel and reddish on outer side; midleg similar; hindleg ocherous white irrorate with fuscous on outer side. Abdomen pale buff; dorsally an ill-defined, longitudinal, median brownish suffusion; ventrally and laterally a longitudinal row of small brownish to black spots.

Male genitalia slides JFGC 10890, 12034, 12035. Harpe broadest near base, gently tapered to the pointed cucullus; clasper a cluster of curved spines terminating before middle of harpe. Gnathos a rather narrow, subrectangular, tranverse spined knob. Uncus

a broadly based slender stalk terminating in widely divergent arms. Socii elongate setaceous ridges. Vinculum narrowly U-shaped. Tegumen shorter than harpe, dilated laterally. Anellus a narrow sclerotized plate, expanded basally and with a curved spinous process from each corner posteriorly. Aedeagus rather slender, strongly bent, apex linguiform; vesica with small granular patches.

Female genitalia slide JFGC 12033. Ostium transverse, broad, ventral lip setaceous. Genital plate sclerotized, with median granulations; lamella postvaginalis finely granular. Antrum sclerotized. Inception of ductus seminalis dorsal, at junction of antrum and membranous portion of ductus bursae. Bursa copulatrix membranous. Signum a large, longitudinal, diamond-shaped dentate plate in posterior half of bursa copulatrix.

HOLOTYPE.—USNM 71090.

TYPE LOCALITY.—Argentina, Tucumán, Ciudad Universitaria, Cerro San Javier, 800 m.

DISTRIBUTION.—Argentina.

Described from the ♂ holotype (17. II. 1959, J. F. G. Clarke) 3 ♂♂ and one ♀ paratypes from the type locality (17–20. II. 1959, Clarke).

In wing shape, with costa and dorsal margin nearly parallel, *amauroptera* is similar to *notodontella*, the type of this genus. In genitalia, however, it is as near *lecithitis* as anything else but the vesica lacks the strong cornutus of that species and signum is strongly developed in *amauroptera*.

Among the five specimens before me no two are alike. One specimen is indeed similar in coloring to *notodontella*, the holotype shows a dark ternal blotch, another is spotted, and two show considerable yellow coloring.

Gonionota gaiophanes, new species

FIGURE 12; PLATE 2c

Alar expanse 21 mm.

Labial palpus buff mixed with gray; second segment brownish posteriorly. Antenna brown; scape buff with some brown scaling anteriorly. Head buff suffused clay color. Thorax clay color, scales buff tipped. Forewing ground color clay color, strongly overlaid sayal brown and weakly mottled with fuscous; in ternal area an ill-defined fuscous blotch; on termen from apex to tornus, six fuscous trans-

verse dashes; from basal third to apical third costa narrowly yellowish; cilia concolorous with wing; underside of costal area strongly buff scaled, irrorate with fuscous and with two fuscous spots at two fifths and middle. Hindwing pale clay color with conspicuous fuscous shade between 2nd and 3rd anals. Foreleg buff shaded clay color on outer side; midleg similar to foreleg but more lightly shaded; hindleg similar to midleg. Abdomen buff suffused clay color ventrally.

Female genitalia slide JFGC 12082. Ostium transverse, crescentic. Genital plate subrectangular; lamella antevaginalis very finely scobinate. Antrum sclerotized. Inception of ductus seminalis slightly anterior to antrum. Ductus bursae membranous. Bursa copulatrix membranous. Signum small, cruciform, each lateral element with 4 or 5 teeth.

HOLOTYPE.—USNM 71091.

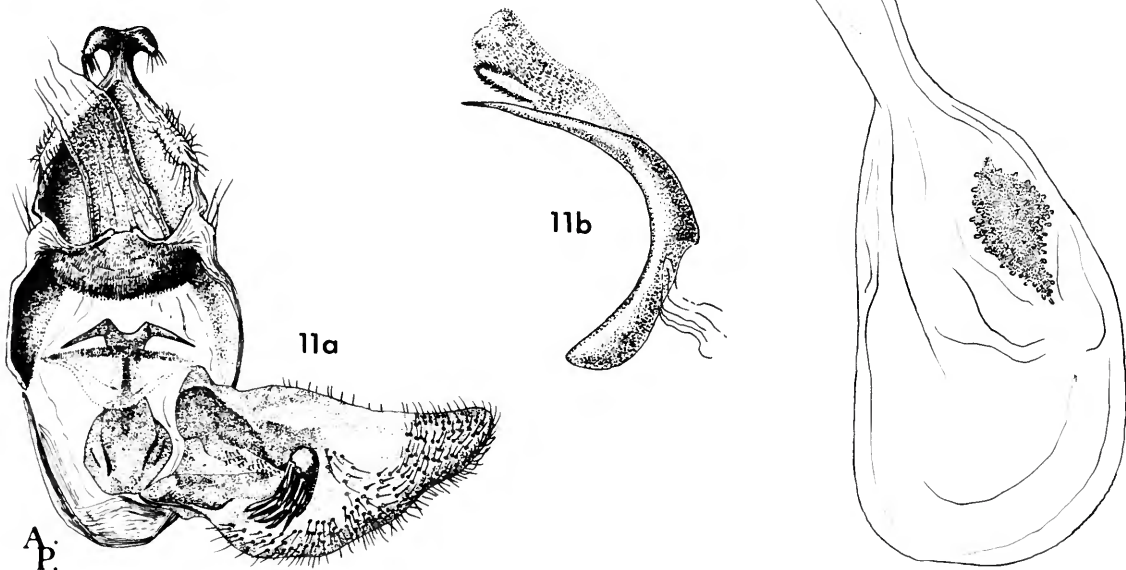
TYPE LOCALITY.—Brazil, New Bremen.

DISTRIBUTION.—Brazil.

Described from the unique ♀ holotype (7. II. 1936, Fritz Plaumann).

In superficial appearance *gaiophanes* is similar to *aethoptera* but lacks the dark dorsal band of the

FIGURE 11.—*Gonionota amauroptera*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.



latter species. The small but conspicuous white spot at the end of cell in *aethoptera* is absent in *gaiophanes*.

***Gonionota hemiglypta*, new species**

FIGURE 13; PLATE 2d

Alar expanse 17–21 mm.

Labial palpus ferruginous; second segment fuscous dorsally and apically; third segment fuscous at middle with carmine scales at base and preapically; apex yellowish. Antennal ferruginous basally, shading to brown toward apex; segments each with tiny fuscous spot. Head yellow with ferruginous, carmine-tipped spreading scales laterally. Thorax yellow mixed with carmine; tegula ferruginous, tipped with yellow and carmine. Forewing ground color yellow with dorsal half strongly overlaid carmine; costal half ferruginous at base, this color becoming attenuated toward apex; extreme costal edge narrowly whitish; at basal third, in cell, a small black dot followed at end of cell by a similar dot; termen and cilia, from vein 7 to tornus, ferruginous. Hindwing ochraceous tawny; cilia yellowish white with ochraceous tawny suffusion. Foreleg ocherous white; femur overlaid ferruginous on outer side; tibia carmine shaded; midleg ocherous white; hindleg ocherous white with small ill-defined fuscous spot at middle and another near distal end of tibia. Abdomen grayish dorsoanteriorly, ferruginous posterodorsally; ocherous white ventrally, sparsely irrorate with black laterally.

Male genitalia slide JFGC 10820. Harpe narrowest at base, dilated at middle, terminating in a broadly rounded cucullus; from inside middle of costa, a conspicuous cluster of fine setae; clasper short, terminating in ventrally directed spines; from basal third a stout curved spine; sacculus with small flap at middle. Gnathos an oval spined knob. Uncus broad basally with widely separated curved lateral arms. Vinculum a narrow band. Tegumen about as long as broad. Anellus an elongate plate with deep excavation on each side and terminating in a pair of widely divergent slender spines. Aedeagus moderately slender, curved, pointed.

Female genitalia slide JFGC 10821. Ostium broad, transverse, oval, with crenulate ventral edge. Genital plate a narrow sclerotized band. Antrum sclerotized. Inception of ductus seminalis at anterior edge of antrum. Ductus bursae membranous. Bursa copula-



FIGURE 12.—*Gonionota gaiophanes*, new species. Ventral view of female genitalia.

trix membranous. Signum a small, quadrate, dentate plate.

HOLOTYPE.—USNM 71092.

TYPE LOCALITY.—Brazil, Nova Teutonia.

DISTRIBUTION.—Brazil.

Described from the ♂ holotype and one ♀ paratype (IV. '48, Fritz Plaumann).

This species is similar to *G. vivida* (Meyrick) from Bolivia but can be distinguished easily by the widely separated arms of the uncus. In *vivida* the uncus arises as a broadly based stalk, divided apically as in many other members of *Gonionota*.

Gonionota eremia, new species

FIGURE 14; PLATE 2e

Alar expanse 16–19 mm.

Labial palpus auburn with dark suffusion at base of second segment. Antenna light auburn; scape auburn. Head auburn, scales tipped pale cinereous. Thorax auburn, tegula tipped grayish. Forewing ground color auburn; at apical third of costa a small whitish streak; at basal third, in cell, a minute fuscous spot; at end of cell a pale, buff spot; between veins 11 and 12 opposite base of 11, a minute fuscous

spot; dorsum narrowly fuscous; cilia grayish auburn. Hindwing fuscous, the scales loosely attached; cilia grayish fuscous with pale basal line. Foreleg white; femur and tibia auburn on outer side; tarsal segments suffused fuscous; mid- and hindlegs white suf-

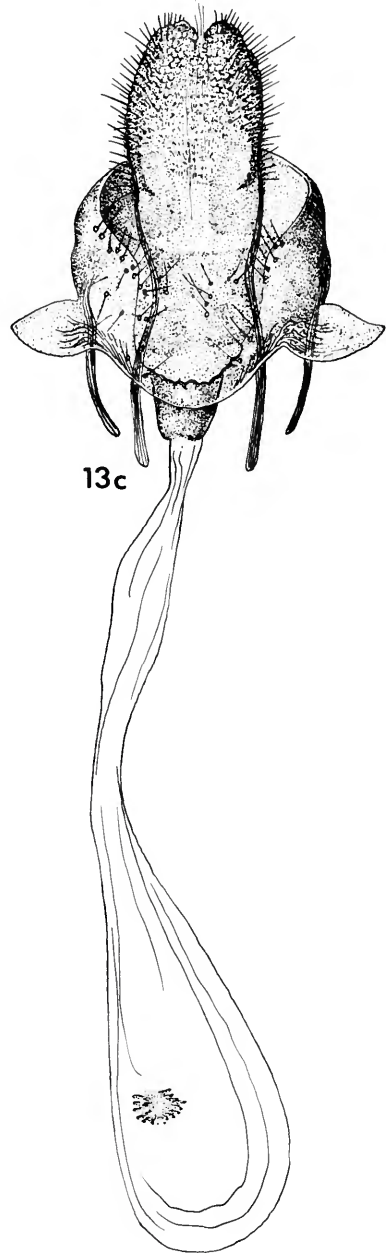
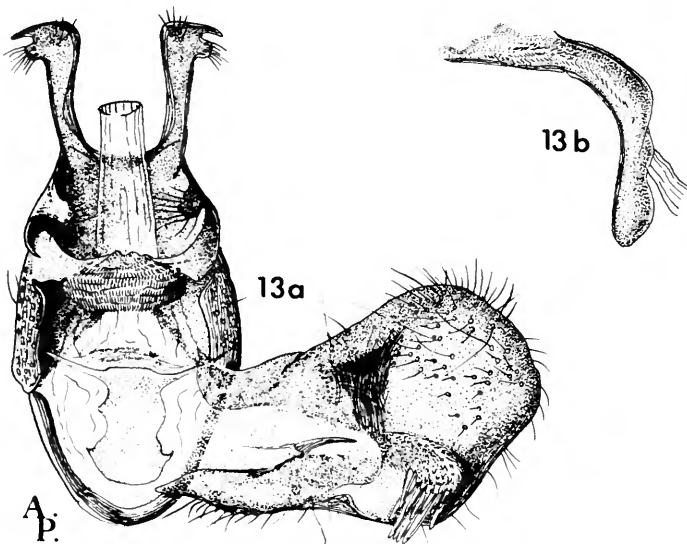


FIGURE 13.—*Gonionota hemiglypta*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.



fused fuscous; abdomen grayish fuscous above, white ventrally.

Male genitalia slide JFGC 5091. Harpe less than twice as long as broad, deeply hollowed to accommodate a stout, elongate, spined clasper; sacculus broadly sclerotized; cuculus broad, blunt. Gnathos a transverse, spined oval knob. Uncus very broad, deeply cleft on posteromedian line; socii small setose papillae. Vinculum a narrow band. Tegumen broad, rectangular, not sharply differentiated from uncus. Anellus a broad plate basally, constricted posteriorly, and terminating in two slender lateral processes. Aedeagus moderately short, slightly curved, simple.

Female genitalia slide JFGC 5092. Ostium cup-shape, ventral side sclerotized. Genital plate cordiform, sclerotized. Antrum broadly sclerotized. Inception of ductus seminalis at anterior edge of antrum. Ductus bursae membranous. Bursa copulatrix membranous. Signum an oval dentate plate.

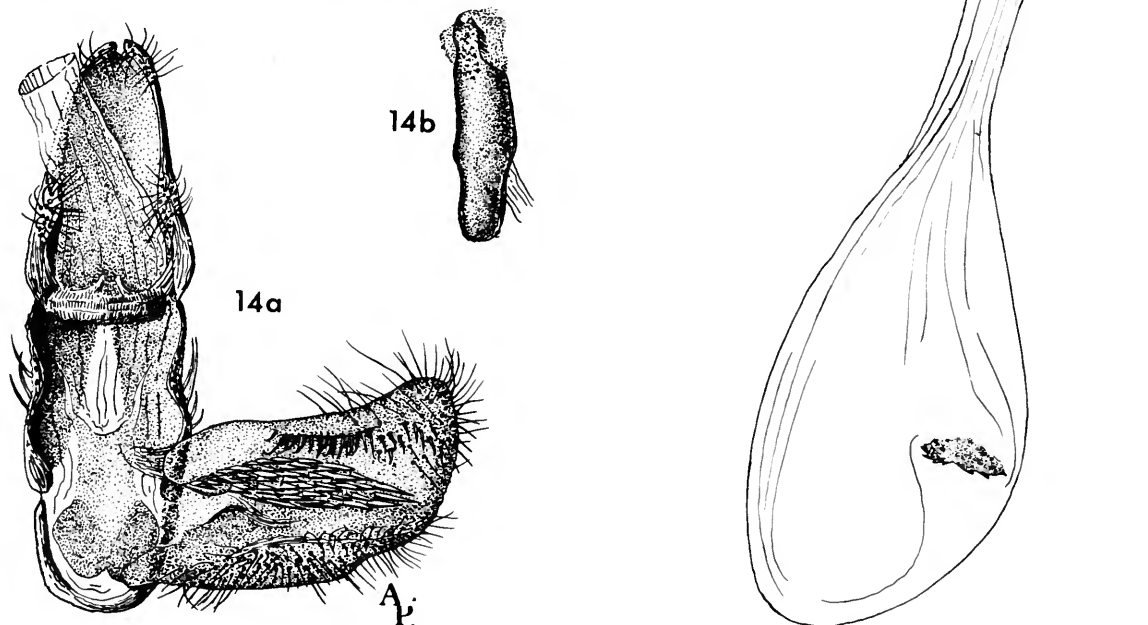
HOLOTYPE.—USNM 71093.

TYPE LOCALITY.—French Guiana, Cayenne.

DISTRIBUTION.—French Guiana, British Guiana.

Described from the ♂ holotype (no date; Wm. Schaus) and one ♀ paratype, British Guiana, Bar-

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



tica District, Kalacoon (20. X. 1920; no collector indicated).

In genitalia *eremia* is near *G. teganitis* Meyrick but differs widely in the nature of the clasper which is short in *teganitis* and nearly as long as the harpe in *eremia*. The presence of the dark dorsal edge places *eremia* near *aethoptera* and *aethographa*, both described herein.

Gonionota dryodesma (Meyrick)

Hypercallia dryodesma Meyrick, 1916:(1)552.

Gonionota dryodesma (Meyrick), Clarke 1963:(4)230, pl. 112: figs. 4, 4a.

Hypercallia dryocrypta Meyrick, 1931:(4)121. (New synonymy).

In Meyrick's description of the forewing of *dryodesma* he states "8 and 9 out of 7"; but in the case of *dryocrypta* he wrote "9 out of 7." The types of both have identical venation with 9 out of the stalk of 7 and 8. A male from Venezuela matches the type male of *dryodesma* and a female, collected in Venezuela at the same time as the male, matches the type of *dryocrypta*.

In addition to the types, I have before me a ♂ and ♀, Venezuela, Aragua, Rancho Grande, 1100 m (21–25. Jan. '66, S. S. and W. D. Duckworth); ♀, Costa Rica, Turrialba (VII. 15–19.65, P. J. Spangler).

TYPES.—British Museum (Natural History) (*dryodesma*); U. S. National Museum (*dryocrypta*).

TYPE LOCALITIES.—French Guiana, St. Jean, Rio Maroni (*dryodesma*); Guatemala, Cayuga (*dryocrypta*).

DISTRIBUTION.—French Guiana, Venezuela, Guatemala, Costa Rica.

Gonionota insignata, new species

FIGURE 15; PLATE 2f

Alar expanse 16–18 mm.

Labial palpus ocherous white on inner side with slight reddish suffusion and fuscous irrorations; remainder suffused reddish and profusely irrorate with fuscous and gray; posterior tuft of second segment mixed with much gray. Antenna gray with minute fuscous spots at ends of segments; scape suffused reddish. Head grayish ocherous. Thorax dull ochraceous orange, paler posteriorly. Forewing ground color ochraceous orange irregularly blotched with grayish

fuscous, especially on dorsum; at basal third, in cell, a fuscous spot, largely obscured by the irregular grayish fuscous blotching; at end of cell a white discal spot; subterminally, from inside apex to tornus, a series of 7 or 8 small fuscous spots; costa with some scattered white scales and at apical third a pale, wedge-shaped mark preceded by an ill-defined fuscous spot; cilia grayish fuscous mixed with some white-tipped scales.

Hindwing ocherous white, slightly darker apically; cilia ocherous white becoming darker toward apex. Foreleg ocherous white, strongly marked reddish and fuscous on outer side; midleg ocherous white with a few grayish spots on outer side; hindleg ocherous white with sparse grayish fuscous irroration. Abdomen sordid white infuscated dorsally; ventrally white but tawny posteriorly.

Male genitalia slides JFGC 5093, 5094. Harpe short, broadest at middle by a pronounced expansion of sacculus; from base of sacculus to near middle a low, free ridge; at junction of sacculus and a bar from base of costa, a small knob armed with a cluster of stout recurved setae. Gnathos an oval spined knob. Uncus broad basally, somewhat narrowed at middle, terminating in a flat knob. Vinculum a narrow ring. Tegumen about as long as harpe, widest at base. Anellus a sclerotized plate, widest above base, posterior edge deeply concave with a long, slender spine at each corner. Aedeagus curved, moderately stout; distal end spatulate.

HOLOTYPE.—USNM 71094.

TYPE LOCALITY.—Ecuador, Environs de Loja.

DISTRIBUTION.—Ecuador.

Described from the ♂ holotype and two ♂♂ paratypes from the same locality ("10–86, Dognin Collection").

In general aspect *insignata* is similar to *ioleuca* but the ground color of the latter is much grayer than that of the former.

This is a variable species with the blotched effect producing an irregular, broad, median area in the holotype, absent in the paratypes, but one of them with the blotched dorsal half of forewing.

Gonionota menura, new species

FIGURE 16; PLATE 2g

Alar expanse 24 mm.

Labial palpus ocherous white, heavily overlaid

PLATES

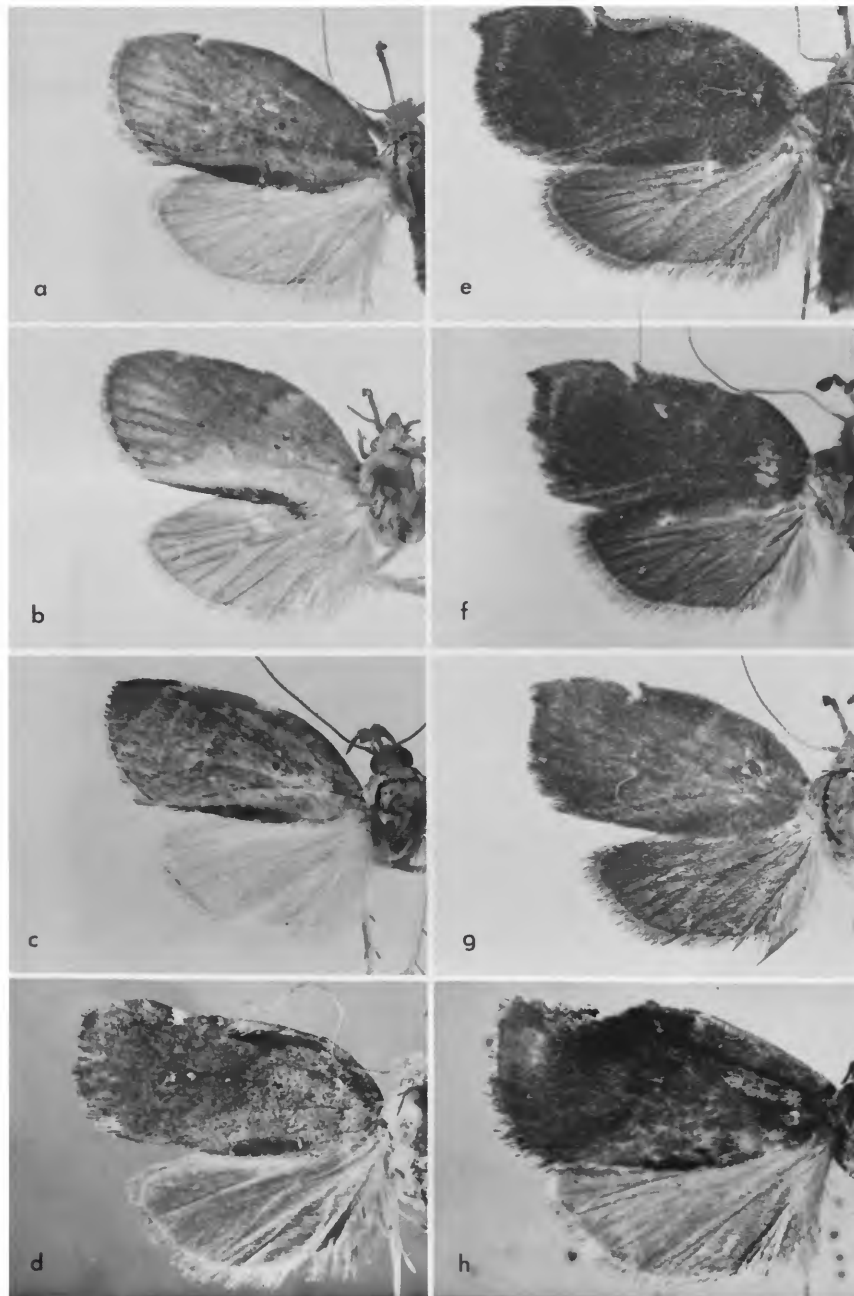


PLATE 1.—*a*, *Gonionota aethoptera*, new species; *b*, *G. aethographa*, new species; *c*, *G. cologramma*, new species; *d*, *G. autocrena* (Meyrick); *e*, *G. oxybela*, new species; *f*, *G. charagma*, new species; *g*, *G. hypoleuca*, new species; *h*, *G. argopleura*, new species.

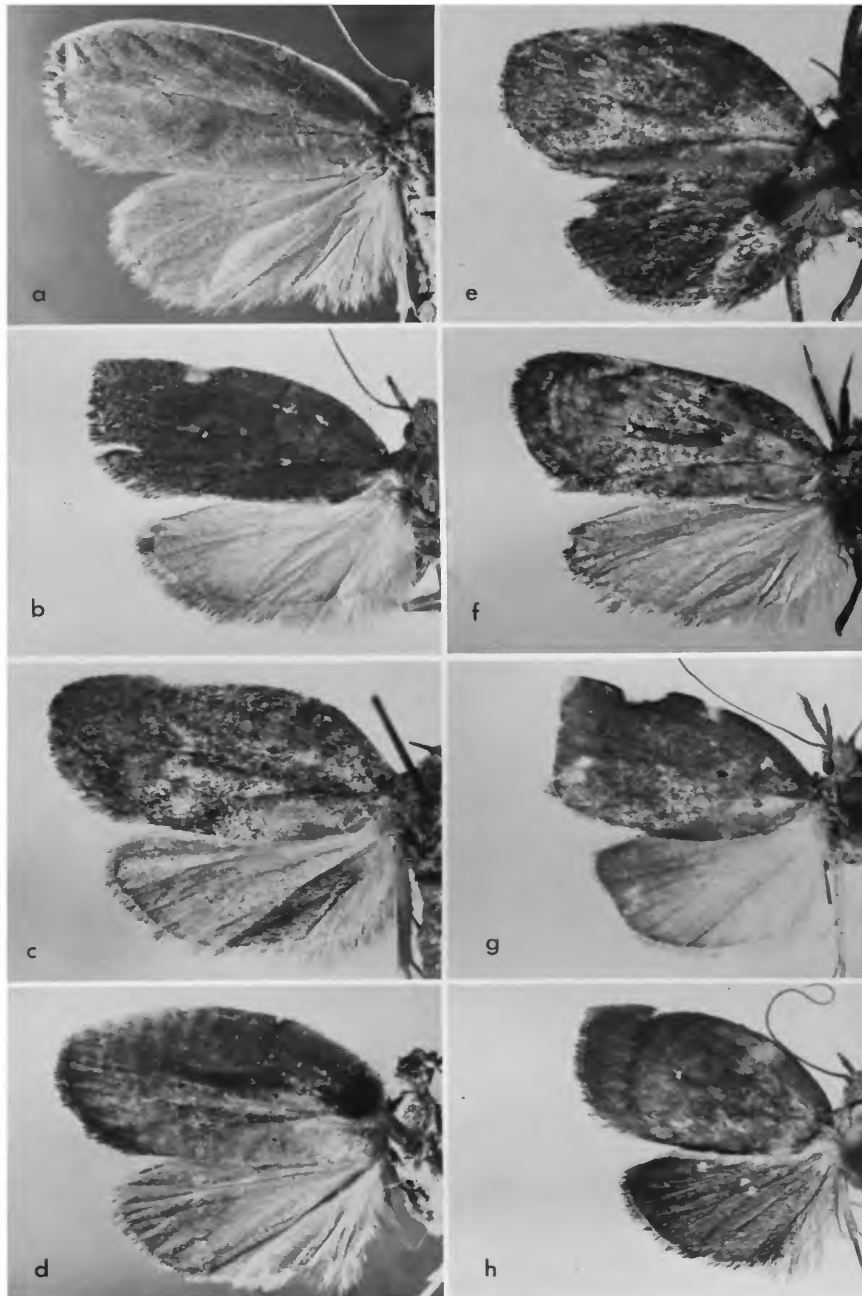


PLATE 2.—*a*, *Gonionota phthiochroma*, new species; *b*, *G. amauroptera*, new species; *c*, *G. gaiophanes*, new species; *d*, *G. hemiglypta*, new species; *e*, *G. eremia*, new species; *f*, *G. insignata*, new species; *g*, *G. menura*, new species; *h*, *G. paravexillata*, new species.

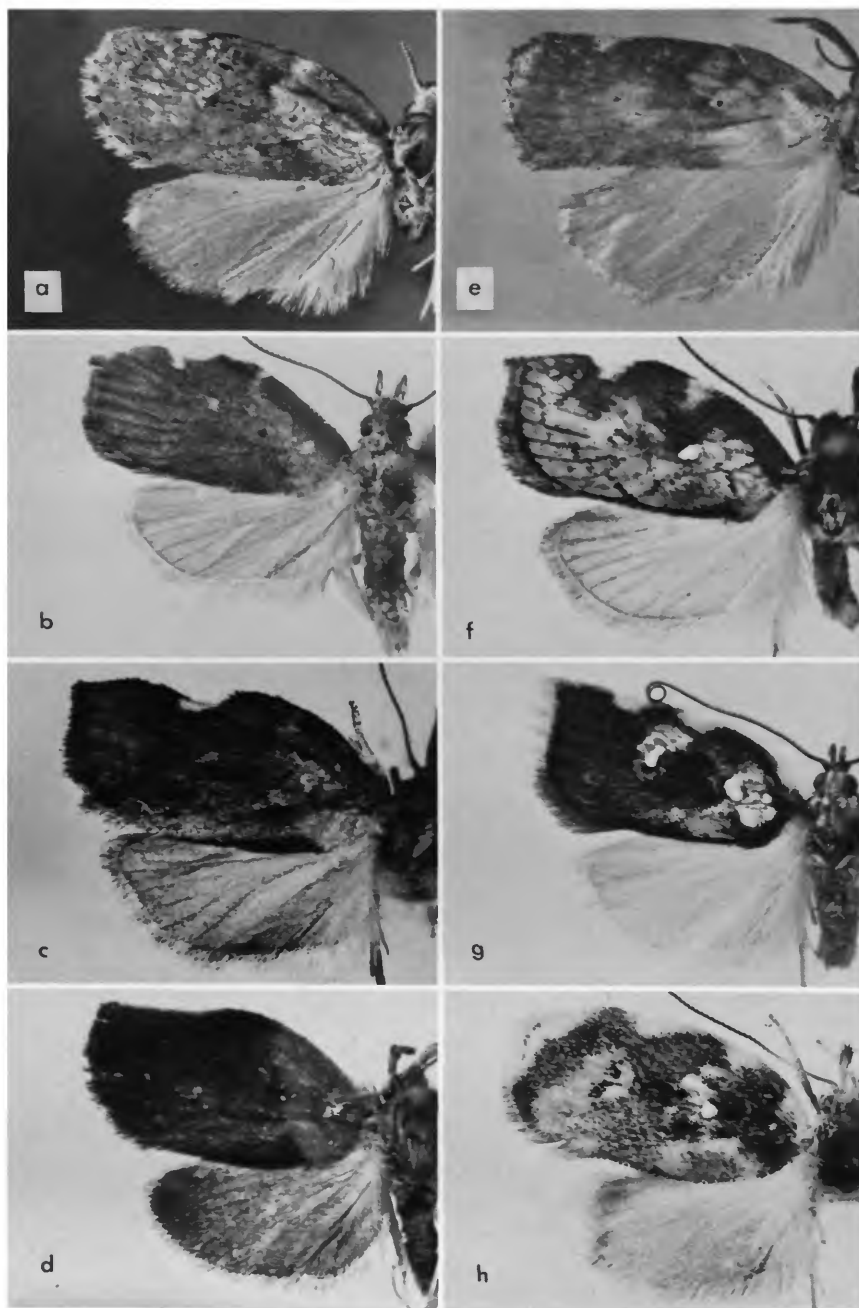


PLATE 3.—a, *Gonionota transversa*, new species; b, *G. sphenogramma*, new species; c, *G. selene*, new species; d, *G. leucoparpa* (Meyrick); e, *G. lecithitis* (Meyrick); f, *G. poecilia*, new species; g, *G. rosacea* (Forbes); h, *Hypercallia heterochroma*, new species.

with amber brown and carmine scales; third segment with apex broadly ochereous white. Antenna light amber brown with darker annulations. Head ochereous white obscured by amber brown and carmine. Thorax amber brown, spotted faintly with carmine. Forewing ground color amber brown; basal third faintly blotched with carmine; slightly before middle of costa a small, ochereous white, quadrate spot edged with carmine; at outer third costa excavated and bordered with a white, carmine-edged, lunate mark; remainder of costa very narrowly edged fuscous; in cell at basal third a fuscous spot surrounded by a few carmine scales; discal spot at end of cell obsolete; between end of cell and termen an ill-defined, transverse row of fuscous spots; cilia amber brown.

Hindwing ochereous white basally, shading to brown at apex; cilia matching. Foreleg ochereous white overlaid with amber brown and carmine on outer side; midleg similar; hindleg ochereous white with scattered amber brown and carmine irrorations; spurs brown tipped. Abdomen ochereous white, ventrally irrorate with tawny, fuscous, and brown.

Female genitalia slide JFGC 12126. Ostium wide, broadly funnel shaped. Lamella postvaginalis granu-

lar. Antrum not differentiated. Inception of ductus seminalis lateral, from a small membranous area at posterior two thirds of ductus bursae. Ductus bursae strongly sclerotized for most of its length with an expanded area anteriorly on left side. Bursa copulatrix membranous. Signum an elongate oval, sclerotized, dentate plate.

HOLOTYPE.—USNM 71095.

TYPE LOCALITY.—Panama, Cerro Campana, nr. Chica.

DISTRIBUTION.—Panama.

Described from the ♀ holotype (2-5. IV. 65, S. S. and W. D. Duckworth).

In coloring and pattern *menura* is similar to *isastra* and *insulana* but *isastra* has a much grayer hindwing; *insulana* is a smaller insect than *menura* and has a proportionately narrower forewing. The heavily sclerotized ductus bursae of *menura* further distinguishes it from *insulana*.

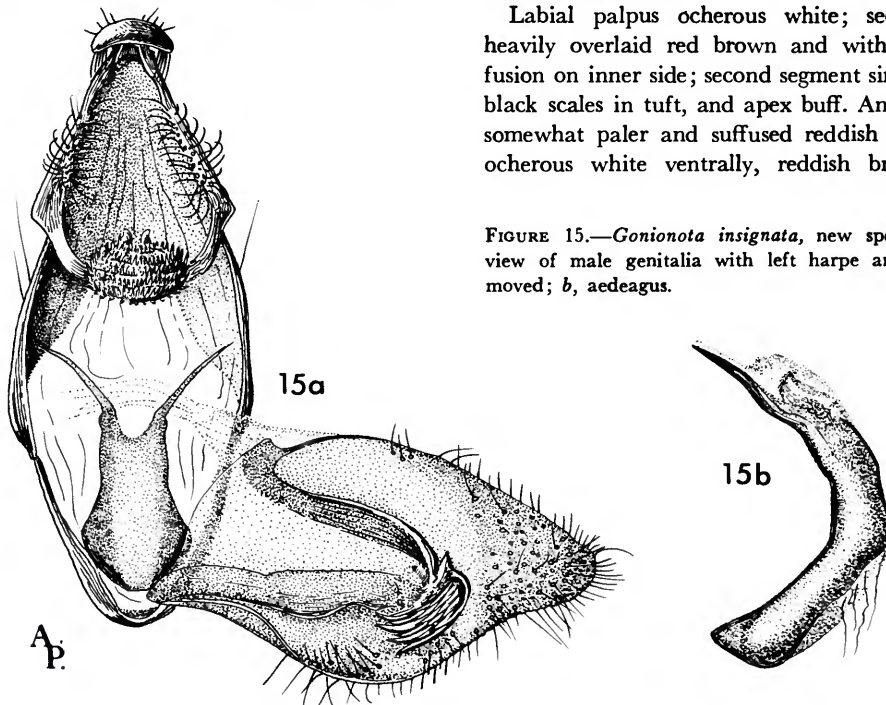
Gonionota paravexillata, new species

FIGURE 17; PLATE 2h

Alar expanse 17 mm.

Labial palpus ochereous white; second segment heavily overlaid red brown and with carmine suffusion on inner side; second segment similar with few black scales in tuft, and apex buff. Antenna fuscous, somewhat paler and suffused reddish basally; scape ochereous white ventrally, reddish brown dorsally.

FIGURE 15.—*Gonionota insignata*, new species. a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.



Head a mixture of reddish and yellowish white-tipped scales. Thorax a mixture of snuff brown, orange, and scarlet; base of tegula snuff brown. Forewing ground color snuff brown; from basal third of costa a broad scarlet fascia curves inwardly and broadens to base of wing; the scarlet band is mixed with orange and a few sepia scales across fold; the fascia is bordered outwardly by an ill-defined sepia line; on costa, just beyond apical third, a sharply defined, small white triangle from which arises an ill-defined, outwardly curved, narrow, sepia fascia which extends to dorsum at tornus; at end of cell a small white dot preceded and followed by a few fuscous scales; dorsum narrowly edged fuscous; cilia sepia. Hindwing snuff brown, slightly darker toward apex, buff between cell and costa; cilia sepia with grayish tips. Foreleg ochreous white; femur grayish fuscous on outer side; tibia snuff brown with reddish hue on outer side; first tarsal segment with scarlet dash; midleg ochreous white; tibia grayish fuscous on outer side; hindleg ochreous white with faint grayish suffusion on tibia and tarsal segments. Abdomen sepia dorsally, light buff ventrally.

Male genitalia slide JFGC 12140. Harpe broadest about middle; cucullus rounded; clasper with distal, free, spined arm extending to edge of cucullus; sacculus recurved ventrally slightly beyond middle. Gnathos a transverse, spined oval knob. Uncus a long, slender stalk with widely divergent terminal arms. Vinculum U-shaped. Tegumen as long as harpe, moderately narrow, slightly dilated laterally. Anellus a rectangular plate with long spinous process from each corner posteriorly. Aedeagus stout, curved, distally an upturned point; vesica armed with a cluster of stout cornuti.

HOLOTYPE.—USNM 71096.

TYPE LOCALITY.—Venezuela, Aragua, Rancho Grande, 1100 m.

DISTRIBUTION.—Venezuela.

Described from the unique ♂ holotype (21–25 Jan. 1966. S. S. and W. D. Duckworth).

As the name suggests, this species is very similar to *vexillata* but may be distinguished readily by the genitalia. The terminal spines of the clasper of *vexillata* are directed inward and toward sacculus but in *paravexillata* they are directed toward cucullus. The cornuti of *vexillata* consist of two groups in linear arrangement but in *paravexillata* there is one large cluster.

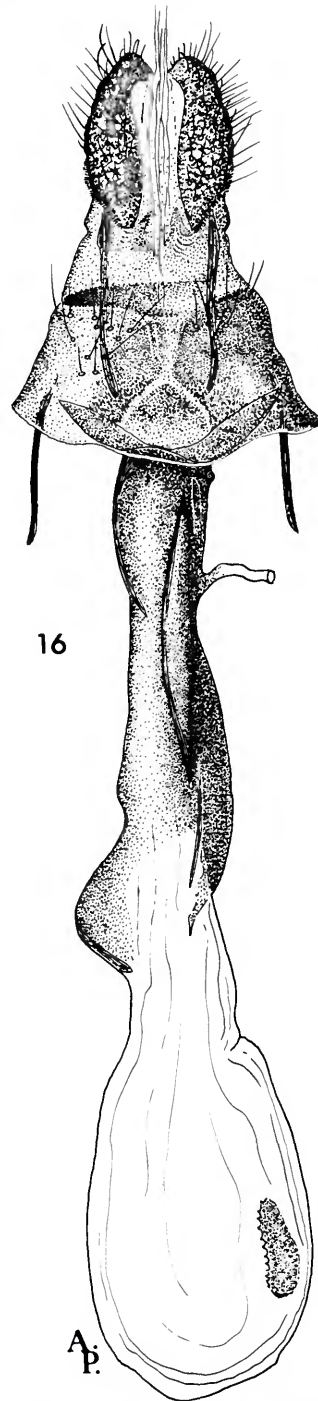


FIGURE 16.—*Gonionota menura*, new species. Ventral view of female genitalia.

Gonionota transversa, new species

FIGURE 18; PLATE 3a

Alar expanse 17–19 mm.

Labial palpus buff; second segment irrorate with tawny and fuscous; posterior tuft fuscous; third segment with a broad fuscous median annulus. Antenna dresden brown with paler annulations; scape dresden brown dorsally, buff ventrally. Head buff; frons and laterally dresden brown; dorsally mixed with scattered ochraceous-orange scales. Thorax buff mixed with ochraceous-orange and dresden brown. Forewing ground color dresden brown; basal third of wing, except rectangular patch of ground color on costa, buff, mixed with ochraceous orange and fuscous; outer third of wing buff but this color nearly obscured by darker blotches and irrorations; on costa, at apical third, a buff spot; in cell, at one third, a pair of small fuscous discal spots; at end of cell a similar, but smaller, spot; cilia dresden brown. Hindwing ochereous white, slightly darker toward margins; cilia ochereous white at anal angle, becoming darker toward apex. Foreleg ochereous white; femur and tibia fuscous on outer side; tarsal segments suffused ochraceous orange; midleg ochereous white with small fuscous spot on tibia; hindleg ochereous white with a few scattered grayish scales. Abdomen grayish dorsally; ventrally buff.

Male genitalia slides JFGC 4631, 12131. Harpe of nearly equal width throughout; cucullus broadly rounded; clasper terminating in a small cluster of stout spines (one example with one large and two small ones). Gnathos a pear-shaped spined knob. Uncus a broadly based curved stalk, distally bilobed. Vinculum U-shaped. Tegumen arched, shorter than harpe. Anellus a subrectangular, sclerotized plate; at each corner posteriorly a flattened projection. Aedeagus stout, curved, pointed distally; vesica armed with one large cluster of stout cornuti and two groups of granulations.

HOLOTYPE.—USNM 71097.

TYPE LOCALITY.—Brazil, Castro Paraná.

DISTRIBUTION.—Brazil.

Described from the ♂ holotype and 3 ♂♂ paratypes with identical data (no date; Wm. Schaus Coll.).

Although *transversa* is similar to *ioleuca*, and is from the same locality, the former can be distinguished immediately from the latter by the genitalia. In *ioleuca* the spined part of the clasper extends to the end of cucullus but in *transversa* the clasper is weak and has only a few curved spines about middle of harpe. Moreover the vesica of *transversa* is armed with a large cluster of stout cornuti, a feature absent in *ioleuca*.

Gonionota sphenogramma, new species

FIGURE 19; PLATE 3b

Alar expanse 17–18 mm.

Labial palpus brown; second segment grayish posteriorly; third segment apex yellowish. Antenna

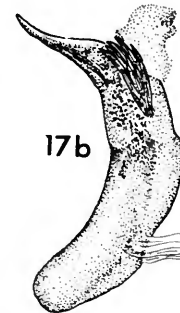
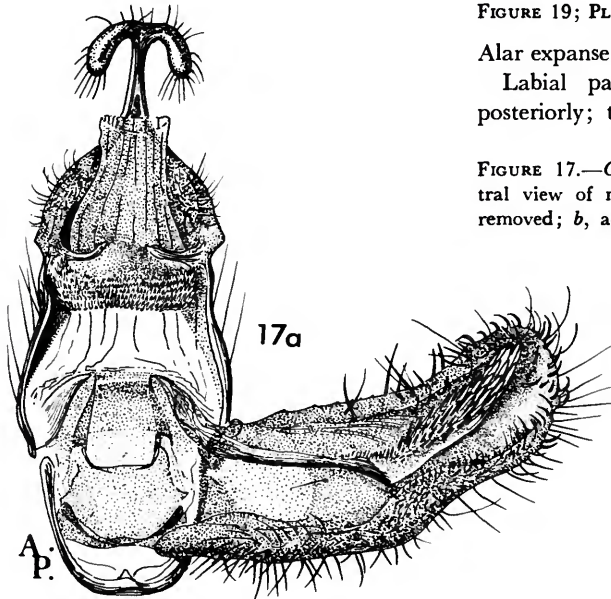


FIGURE 17.—*Gonionota paravexillata*, new species. a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.

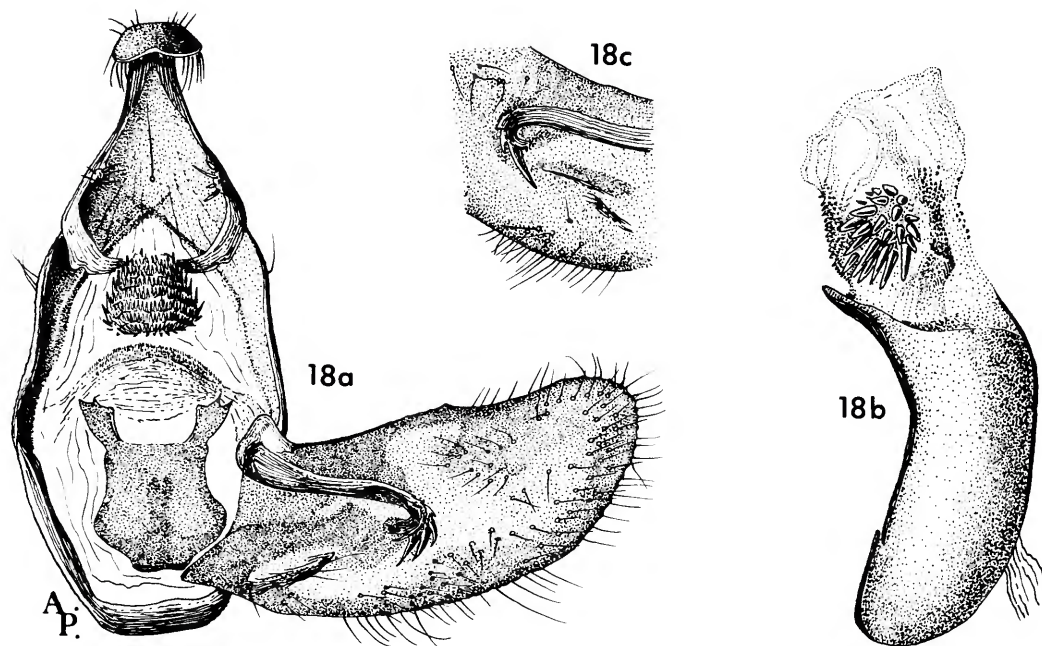


FIGURE 18.—*Gonionota transversa*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, variation in clasper.

brown, faintly and narrowly annulated fuscous. Head light brown, scales tipped grayish. Thorax brown and gray mixed. Forewing ground color brown with pronounced gray dusting, particularly in basal half; at basal two fifths of costa a small white spot preceded by dark gray; basal third of costa yellowish; costa at middle, dark gray, recurved, and followed outwardly by a shallow excavation, the latter white, broadened outwardly into a wedge-shaped mark, edged yellowish; on costa, preceding apex, a slender white streak; discal spot at basal third dark gray, at end of cell white; tornus dusted dark gray; cilia concolorous except dark gray from vein 5 to tornus. Hindwing light gray suffused brownish toward margins; cilia pale brownish buff basally, sordid white apically, and with a gray subbasal line. Foreleg ocherous white; femur brown on outer side; tibia brown on outer side with carmine apically; 1st tarsal segment carmine on outer side; midleg similar to foreleg but with two brownish spots on tibia; hindleg ocherous with ill-defined, small brownish markings. Abdomen ocherous white, infused brownish dorsally; irrorate with scattered brown scales laterally.

Male genitalia slide JFGC 12083. Harpe broadest before middle, then tapered to the bluntly pointed cucullus; from base of costa a slender strongly sclerotized bar to middle of harpe continued as a long free arm nearly to cucullus, bulbous at base, and armed with stout setae; sacculus swollen and with a prominent ridge in distal half. Gnathos a transverse, oval spined knob. Uncus broad, divided, and setose distally. Socii low, setose prominences. Vinculum a narrow band. Tegumen moderately broad, narrowed posteriorly. Anellus a pear-shaped plate with posterolateral hooks. Aedeagus stout, curved, sharply pointed.

Female genitalia slide JFGC 12084. Ostium transverse, slitlike. Genital plate subcordiform, rugose, strongly setose. Antrum broadly sclerotized. Inception of ductus seminalis slightly anterior to antrum. Ductus bursae membranous. Bursa copulatrix membranous. Signum a longitudinal, oval, dentate plate.

HOLOTYPE.—USNM 71098.

TYPE LOCALITY.—Venezuela, Aragua, Rancho Grande, 1100 m.

DISTRIBUTION.—Venezuela.

Described from the ♂ holotype (16–19. I. 66, S. S. and W. D. Duckworth), 4 ♂♂ (11–25. I. 1966), and one ♀ paratypes (31. X. 1966) all collected by S. S. and W. D. Duckworth.

This species is very near *G. anelicta* (Meyrick) from Bolivia, but has a much paler hindwing. Unfortunately, the type of *anelicta* has no abdomen (Clarke 1963:229, pl. 111: fig. 3), so no comparison of the genitalia can be made.

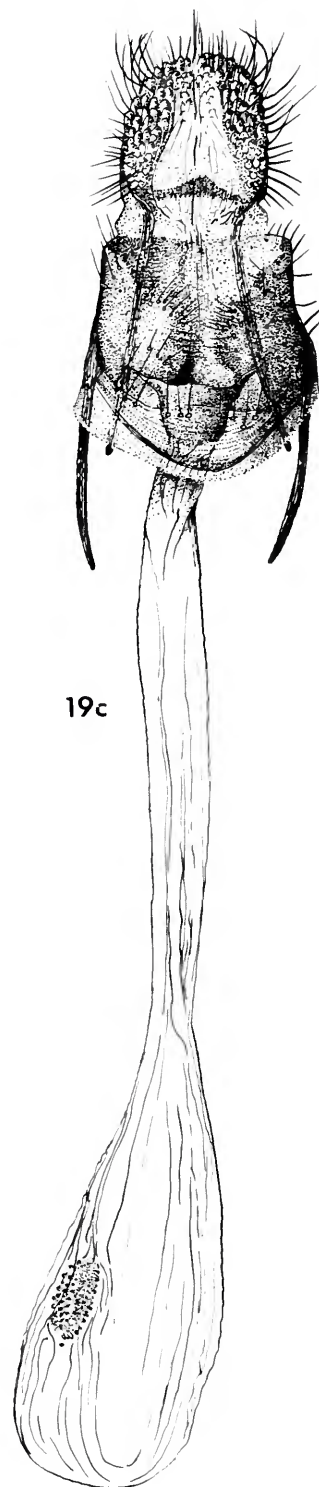
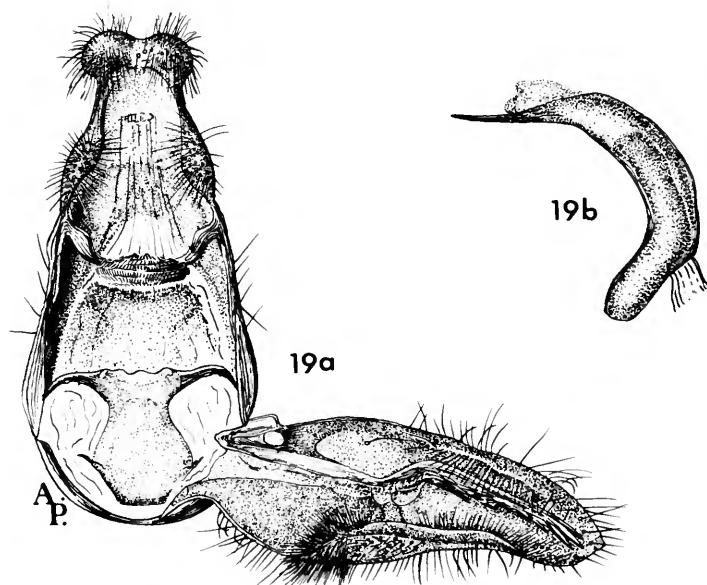
***Gonionota selene*, new species**

FIGURE 20; PLATE 3c

Alar expanse 20 mm.

Labial palpus gray brown; second segment with some ochreous white on inner side; third segment apex ochreous white. Antenna gray but browner toward base and ochreous white ventrally; scape brownish dorsally, ochreous white ventrally. Head gray brown, scales tipped whitish. Thorax light chrome yellow with median longitudinal brown line; tegula brown anteriorly. Forewing ground color russet; at base of dorsum a light chrome yellow blotch extending across fold and bordered on outer edge

FIGURE 19.—*Gonionota sphenogramma*, new species. a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus; c, ventral view of female genitalia.



with a short fuscous dash; costa gray brown except at two thirds a white, wedge-shaped mark; at two fifths of costa a short chrome yellow transverse fascia not reaching middle of wing; at end of cell a small fuscous dot; dorsum, beyond the chrome yellow basal blotch, broadly fuscous to termen at vein 3; dark dorsal area overlaid avellaneous in central part; from apex to vein 5 an ill-defined, quadrate chrome yellow area; cilia russet. Hindwing whitish ochereous, basally shading to pale brown at apex and grayish fuscous in anal area; cilia sordid white mixed grayish brown. Foreleg ochereous white; femur gray brown on outer side; tibia russet on outer side; midleg similar but lighter and speckled; hindleg whitish ochereous; tibia and tarsal segments speckled brown and gray. Abdomen ochereous white with a few rust-colored scales mixed; ventrally finely irrorate with fuscous.

Female genitalia slide JFGC 10935. Ostium crescent shaped; posteroventral edge convex. Genital plate rather narrow, U-shaped; lamella postvaginalis membranous. Antrum subrectangular, sclerotized. Inception of ductus seminalis slightly anterior to antrum. Ductus bursae finely granular, moderately short. Bursa copulatrix membranous. Signum a large diamond-shaped, dentate, sclerotized plate.

HOLOTYPE.—USNM 71099.

TYPE LOCALITY.—Brazil, Santa Catharina.

DISTRIBUTION.—Brazil.

Described from the unique ♀ holotype (21 Jan. '36, Fritz Hoffmann).

Superficially *selene* resembles *incalescens* but where the wedge-shaped white costal mark is situated there is a deep excavation of costa in *selene* which is absent in *incalescens*. The outer discal spot is white in *incalescens* but fuscous in *selene* and the prominent crimson coloring of *incalescens* is absent in *selene*. Although the detailed differences seem great, the moths look strikingly similar to the naked eye.

Gonionota leucoporpa (Meyrick), new combination

FIGURE 21; PLATE 3d

Hypercallia leucoporpa Meyrick, 1926:313.—Clarke 1963: 293, pl. 143: fig. 4.

Male genitalia slide JFGC 12052. Harpe broadest slightly before middle, abruptly narrowed to cucullus; clasper terminating about middle of harpe in a cluster of fine spines. Gnathos a transverse, spined oval knob. Uncus a broadly based rather wide stalk ter-

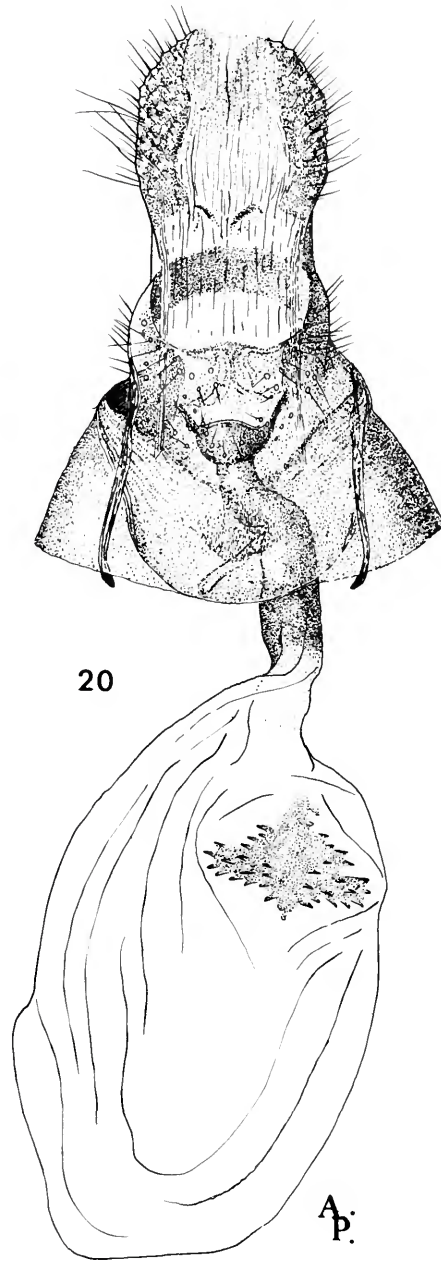


FIGURE 20.—*Gonionota selene*, new species. Ventral view of female genitalia.

minating in two blunt divergent points. Socii indicated by setaceous, raised, broad ridges. Vinculum U-shaped. Tegumen about two thirds the length of harpe. Anellus a sclerotized oval plate with a pair of divergent pointed processes posteriorly. Aedeagus moderately slender, curved, distal end upturned; cornutus a small sclerotized plate.

Female genitalia slide JFGC 12053. Ostium slitlike, transverse. Genital plate sclerotized, produced anteriorly, narrowed laterally. Antrum sclerotized, short. Inception of ductus seminalis at junction of antrum and membranous portions of ductus bursae. Ductus bursae membranous with minute granulations. Bursa copulatrix membranous. Signum a very small, irregular sclerotized plate.

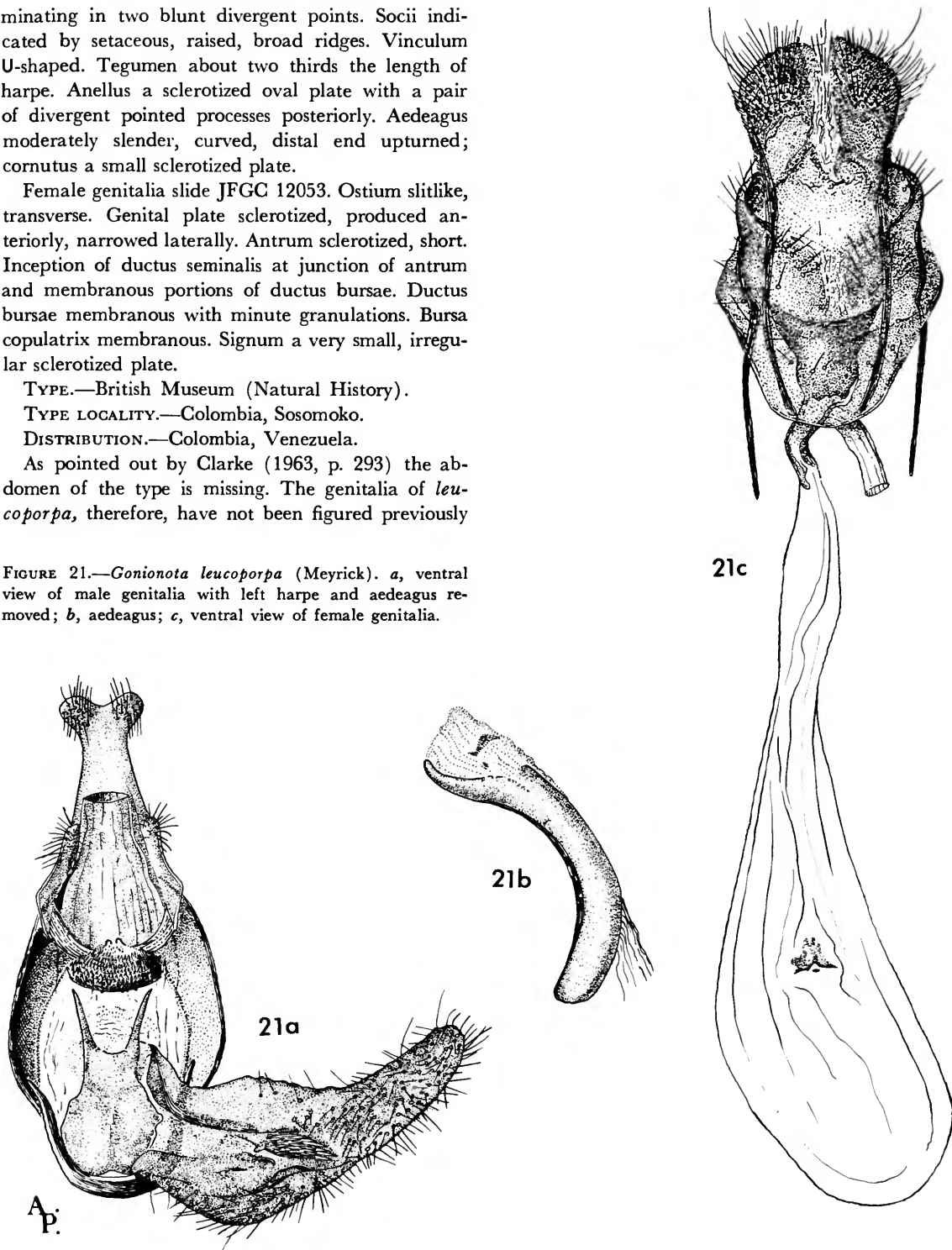
TYPE.—British Museum (Natural History).

TYPE LOCALITY.—Colombia, Sosomoko.

DISTRIBUTION.—Colombia, Venezuela.

As pointed out by Clarke (1963, p. 293) the abdomen of the type is missing. The genitalia of *leucorpora*, therefore, have not been figured previously

FIGURE 21.—*Gonionota leucorpora* (Meyrick). *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.



and are figured here from specimens from Venezuela, Aragua, Rancho Grande, 1100 m, 11-19. Jan. 1966, S. S. and W. D. Duckworth.

***Gonionota lecithitis* (Meyrick)**

FIGURE 22; PLATE 3e

Coptotelia lecithitis Meyrick, 1912:703.—Clarke 1963:238, pl. 116: figs. 4-4b.

Male genitalia slides JFGC 4007, 12213. Harpe broadest about middle; cucullus rounded; clasper terminating in a cluster of curved spines. Gnathos an oval spined knob. Uncus a broadly based stalk dilated posteriorly. Socii, small, narrow setaceous ridges. Vinculum U-shaped. Tegumen two thirds the length of harpe. Anellus a broad plate basally, narrowed posteriorly, terminating in two divergent points. Aedeagus moderately stout, curved distally ending in a small peak; vesica armed with a strongly barbed cornutus.

Female genitalia slide JFGC 4008. Ostium round, ventral edge irregular. Genital plate narrow. Antrum somewhat thickened. Inception of ductus seminalis

at anterior edge of antrum. Ductus bursae membranous, short. Bursa copulatrix membranous. Signum faintly indicated.

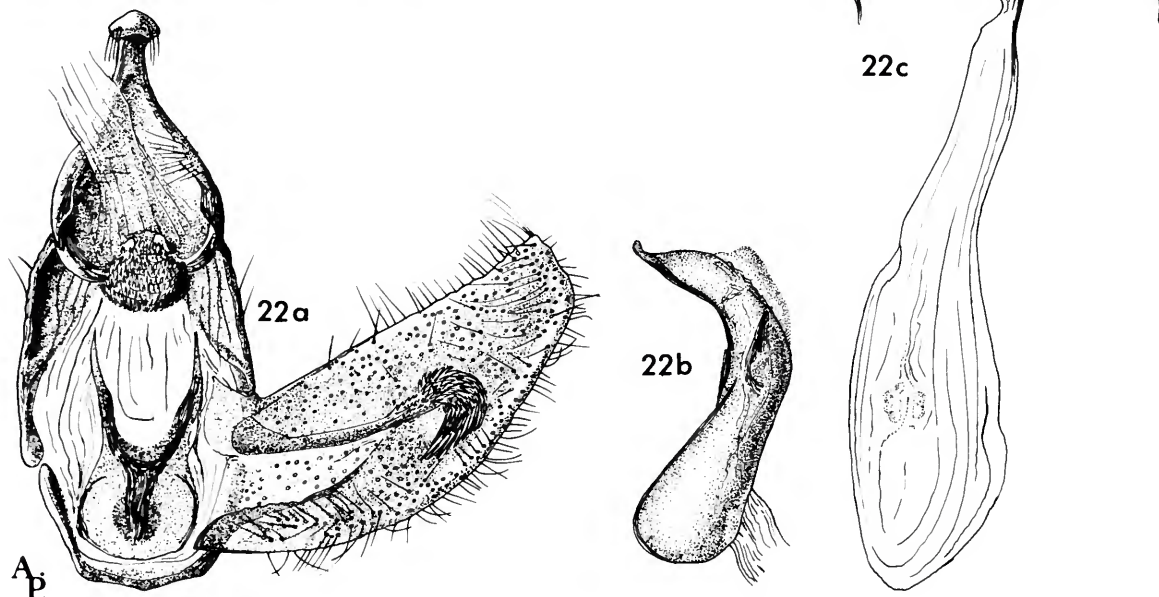
TYPE.—British Museum (Natural History).

TYPE LOCALITY.—Argentina, Paraná.

DISTRIBUTION.—Argentina.

The illustration in Clarke (1963) is inadequate. The cucullus appears pointed in the photograph and is the result of pressure on the genitalia. Moreover the barbed cornutus and the small peak at the distal end of the aedeagus do not show in Figure 4a. The female has not been illustrated previously and is in-

FIGURE 22.—*Gonionota lecithitis* (Meyrick). *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.



cluded for the sake of completeness. It is figured from a specimen from Tucumán, Argentina.

***Gonionota poecilia*, new species**

FIGURE 23; PLATE 3f

Alar expanse 16–19 mm.

Labial palpus light ochraceous buff; second segment irrorate with ochraceous tawny; posterior tuft grayish fuscous; third segment similar but irrorate with reddish scales and apex ochraceous white. Antenna buff with grayish fuscous annulations; scape grayish fuscous dorsally, buff ventrally. Head light avelaneous. Thorax sayal brown mixed with scarlet and orange yellow. Ground color of forewing sayal brown; dorsal two thirds mostly scarlet and orange-yellow blotches and spots set off by a fuscous reticulum; on basal third of dorsum a triangular spot of ground color, its base on dorsal edge; on basal third of costa an orange yellow triangle containing scarlet scales; a similarly colored wedge-shaped mark on outer third of costa; at basal third, in cell, a large white spot followed at end of cell by a similar, but smaller, spot; subterminally an outwardly curved row of fuscous dashes from vein 9 to vein 1c; terminal edge from apex around tornus to base of dorsum narrowly fuscous; cilia sayal brown.

Hindwing ochraceous white, basally shading to clay color toward margins; termen narrowly dark clay color; cilia ochraceous white at anal angle becoming darker toward apex. Foreleg light ochraceous buff; femur and tibia sayal brown on outer side, mid- and hindlegs light ochraceous buff; very sparsely irrorate with brownish. Abdomen deep olive buff dorsally, light ochraceous buff ventrally, irrorate with brown and fuscous scales.

Male genitalia slide JFGC 12015. Harpe broadest before middle, gradually tapered to a narrow, bluntly pointed cucullus; clasper a sclerotized rod terminating in a free knob clothed with one large and numerous small spines. Gnathos an oval spined knob. Uncus broad, flattened, dilated distally; socii short, digitate setaceous processes. Vinculum narrowly rounded. Tegumen about two thirds the length of harpe, broad basally. Anellus pear shape; from each corner, posteriorly, a long spine. Aedeagus strongly bent, sharply pointed distally; vesica unarmed.

Female genitalia slide JFGC 12085. Ostium slit-

like. Genital plate very broad, rounded anteriorly; lamella antevaginalis and lamella postvaginalis membranous, granular. Antrum strongly sclerotized for a short distance inside ostium. Inception of ductus seminalis lateral, at junction of antrum and membranous part of ductus bursae. Ductus bursae membranous. Bursa copulatrix membranous, very finely granular posteriorly. Signum an elongate, sclerotized, dentate plate.

HOLOTYPE.—USNM 71101.

TYPE LOCALITY.—Venezuela, Aragua, Rancho Grande, 1100 m.

DISTRIBUTION.—Venezuela.

Described from the ♂ holotype, 12 ♂♂ and 7 ♀♀ paratypes, all from the same locality (January, October, and November dates, 1966, S. S. and W. D. Duckworth) and one ♀ (22–30. VI. 1967, R. W. Poole).

Superficially, *poecilia* resembles *festicola* more than it does anything else presently assigned to the genus, but is easily distinguished by the genitalia. In *festicola* there is a long, pointed process, parallel to costa, from base of harpe and a strongly recurved clasper from basal third of harpe (Clarke 1963: pl. 114: fig. 1b), both absent in *poecilia*. The vesica of *festicola* is armed, that of *poecilia* unarmed. The uncus is broad and flattened in *poecilia*, stalked in *festicola*. The female genitalia of *festicola* are unknown, so cannot be compared with *poecilia*.

***Gonionota rosacea* (Forbes), new combination**

FIGURE 24; PLATE 3g

Hypercallia rosacea Forbes, 1931:4 (4):379, pl. 42: fig. 18.

Male genitalia slides JFGC 12050, 12051. Harpe oval, terminating in a bluntly pointed cucullus; clasper expanded dorsally into a large, dentate disc with a flattened curved process from base nearly reaching ventral edge of harpe. Gnathos a transverse, elongate spined knob. Uncus a broadly based, short stalk with short divergent arms apically. Socii indicated mainly by a few setae. Vinculum U-shaped. Tegumen about two thirds the length of harpe, convex laterally. Anellus broad basally, narrowed, and with a long spine from each side posteriorly. Aedeagus slightly curved, apically digitate; vesica armed with one beaklike curved cornutus with a spined plate at base.

TYPE.—Cornell University, Ithaca, New York.

TYPE LOCALITY.—Haiti.

DISTRIBUTION.—Cuba, Haiti, Dominican Republic.

There are two specimens before me from the Dominican Republic (Jarabacoa, 3–4 June 1969 and Convento, 12 km. S. of Contanza, 6–13 June 1969, both collected by Flint and Gomez) which

extends the range of this beautiful species.

So far the species is known only from males.

The genitalia of *rosacea* have not been figured previously. The enormously dilated clasper distinguishes *rosacea* from any other species of *Gonionota* known to me.

Gonionota phthiochroma, new species

FIGURE 25; PLATE 2a

Alar expanse 23 mm.

Antenna very pale grayish, basally shading to buff apically; dorsally, near base a slight carmine suffusion; scape grayish fuscous dorsally, white ventrally. Head grayish fuscous, anteriorly shading through ochraceous salmon to buff posteriorly. Thorax ochraceous salmon anteriorly, ochraceous tawny posteriorly; tegula ochraceous tawny anteriorly, ochraceous salmon and buff posteriorly. Forewing ground color costal two fifths ochraceous buff, dorsal three fifths ochraceous salmon; extreme edge of costa ochraceous white; basal fifth of wing, inside costa ochraceous salmon and ochraceous tawny; in

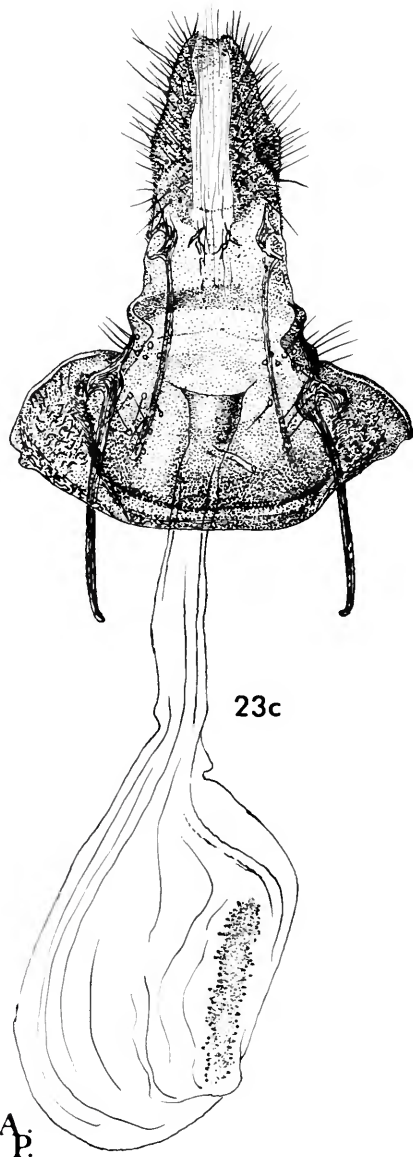
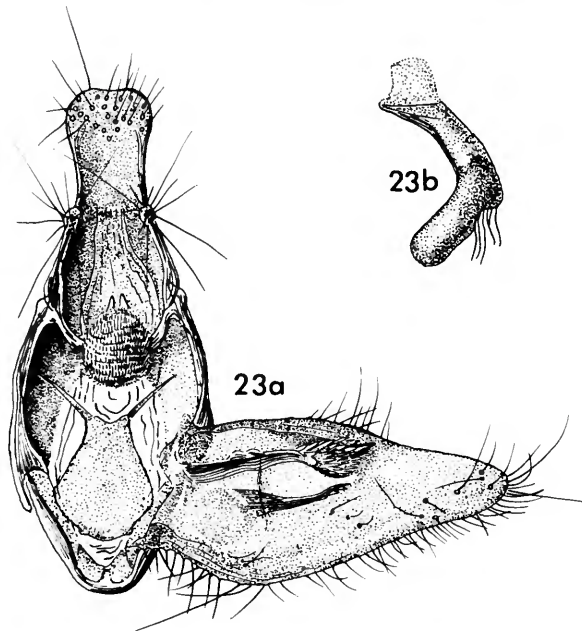


FIGURE 23.—*Gonionota poecilia*, new species. a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus; c, ventral view of female genitalia.



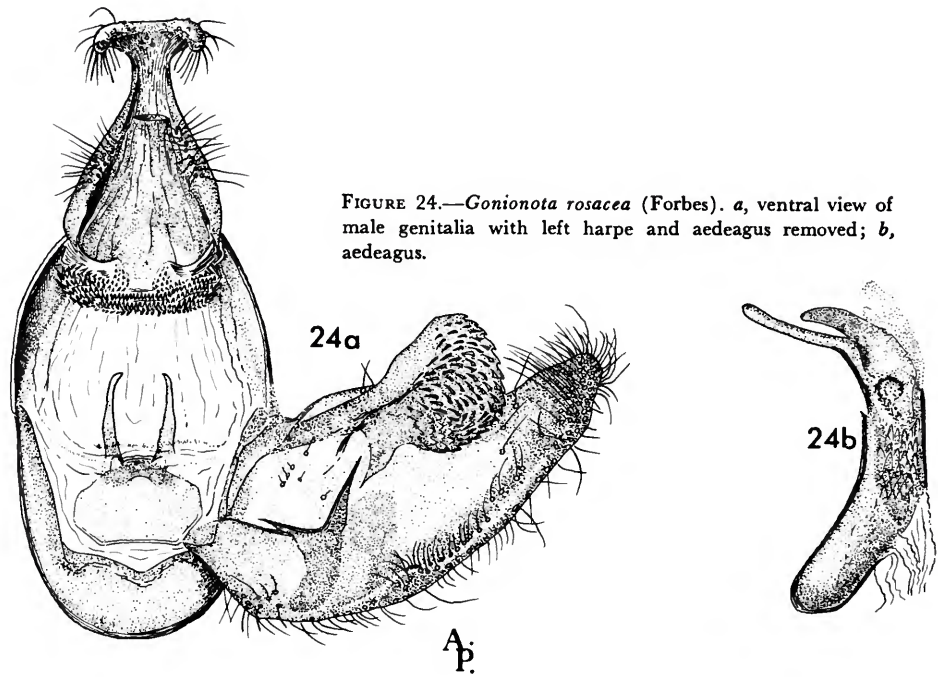


FIGURE 24.—*Gonionota rosacea* (Forbes). *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

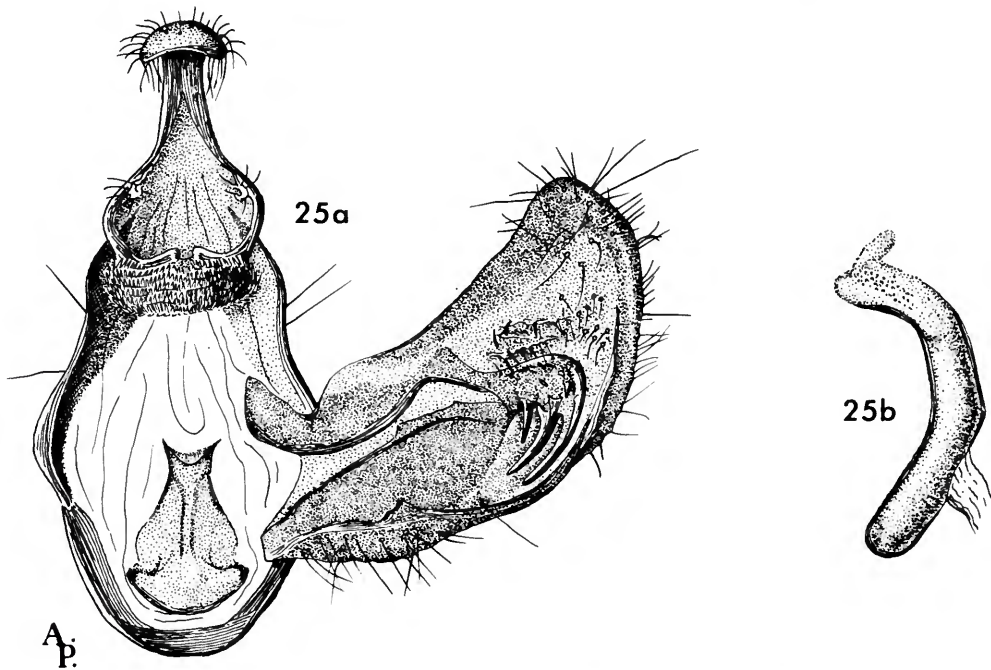


FIGURE 25.—*Gonionota phthiochroma*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

cell, at basal third a minute black spot and a similar one at end of cell; outer half of wing with a few scattered black scales; cilia ochraceous tawny at apex, shading to ochraceous salmon and buff around termen to tornus; costal two fifths, underside, heavily suffused fuscous. Hindwing ochereous white, slightly darker and with a pink tinge apically; cilia very pale brownish at apex, shading to ochereous white around termen to base; underside sparsely irrorate fuscous and with a series of conspicuous fuscous spots around termen. Foreleg ochereous white; outer side of femur and tibia ochraceous tawny; mid- and hindlegs ochereous white with sparse fuscous irroration. Abdomen ochereous white, dorsoposteriorly shading to buff; a pair of brownish spots ventroanteriorly and black spots posterolaterally.

Male genitalia slide JFGC 12212. Harpe twice as long as broad; cucullus rounded; clasper stout, terminating in three large and three small recurved spines. Gnathos a transverse oval spined knob. Uncus a broadly based stalk with short divergent arms apically. Socii small, setaceous papillae. Vinculum broadly U-shaped. Tegumen about two thirds the length of harpe, dilated basally. Anellus an elongate sclerotized plate, broadest basally, narrowed distally. Aedeagus moderately slender, curved, distal end linguiform; vesica unarmed except for a few granulations.

HOLOTYPE.—USNM 71102.

TYPE LOCALITY.—Bolivia, Cochabamba, Incahaca, Tropical cloud area, 2100 m.

DISTRIBUTION.—Bolivia.

Described from the unique ♂ holotype (27-VIII-5. IX. 56, L. Peña).

The nearest relative of *phthiochroma* is *isophylla* Meyrick from Peru but *phthiochroma* lacks any trace of the "reddish gray" hindwing described for *isophylla*. Moreover the fuscous suffusion of the costal two fifths of the forewing of *phthiochroma* is absent in *isophylla*. The male genitalia of the two are strikingly similar, showing the obvious close relationship, but the curved spines at the end of clasper of *isophylla* are longer than those of *phthiochroma*.

The following species, including those described in the foregoing pages, are now assigned to the Genus *Gonionota*:

- acrocossa* (Meyrick) 1912, Transactions of the Entomological Society of London, 1911:703—COLOMBIA
aethographa, new species—COSTA RICA
aethoptera, new species—VENEZUELA
amauroptera, new species—ARGENTINA
amphicrena (Meyrick) 1912, Transactions of the Entomological Society of London, 1911:703—COLOMBIA
anelicta (Meyrick) 1926, Exotic Microlepidoptera, 3:312—BOLIVIA
anisodes (Meyrick) 1916, Exotic Microlepidoptera, 1:552—FRENCH GUIANA
argopleura, new species—BRAZIL
autocrena (Meyrick) 1930, Exotic Microlepidoptera, 3:575—BRAZIL
bourquini Clarke 1964, Proceedings of the United States National Museum, 115(3480):70, fig. 4, pl. 2: figs. 4, 5—ARGENTINA, BRAZIL
börquiniella (Kohler) 1940, An. Soc. Cient. Argentina, 128:369, fig. 1, new combination—ARGENTINA
captans (Meyrick) 1931, Exotic Microlepidoptera, 4:121, new combination—BRAZIL
charagma, new species—BRAZIL
citronota (Meyrick) 1932, Exotic Microlepidoptera, 4:279, new combination—BRAZIL
cologramma, new species—VENEZUELA
comastis Meyrick 1909, Transactions of the Entomological Society of London, 1909:25—PERU
constellata (Meyrick) 1912, Transactions of the Entomological Society of London, 1911:701—COLOMBIA
contrastata Clarke 1964, Proceedings of the United States National Museum, 115(3480):64, figs. 2a-d; pl. 1: fig. 4; 2: fig. 2—PERU
cristata Walsingham 1912, in Godman and Salvin, Biologia Centrali-Americana, 42 (Lepidoptera-Heterocera, 4):129—PANAMA
determinata Clarke 1964, Proceedings of the United States National Museum, 115(3480):68, fig. 3; pl. 1: fig. 5; 2: fig. 3—BRITISH GUIANA, VENEZUELA
dissita Clarke 1964, Proceedings of the United States National Museum, 115(3480):67, fig. 2e; pl. 3: fig. 5—TRINIDAD
dryodesma (Meyrick) 1916, Exotic Microlepidoptera, 1:552—FRENCH GUIANA
 [= *dryocrypta* (Meyrick)]—GUATEMALA
eremia, new species—FRENCH GUIANA
erotopis (Meyrick) 1926, Exotic Microlepidoptera, 3:315—BOLIVIA
erythroleuca (Meyrick) 1928, Exotic Microlepidoptera, 3:473—PERU
eurydryas (Meyrick) 1926, Exotic Microlepidoptera, 3:314—COLOMBIA
euthyrsa (Meyrick) 1930, Exotic Microlepidoptera, 3:577—ECUADOR
excavata Clarke 1964, Proceedings of the United States National Museum, 115(3480):79, fig. 6e; pl. 1: fig. 2; 3: fig. 3—MEXICO

- extima* Clarke 1964, Proceedings of the United States National Museum, 115(3480):76, fig. 5b, pl. 1: fig. 1; 3: fig. 2—COSTA RICA
- festicola* (Meyrick) 1924, Exotic Microlepidoptera, 3:104—PERU
- fimbriata* Clarke 1964, Proceedings of the United States National Museum, 115(3480):82, figs. 7c-e; pl. 1: fig. 3; 3: fig. 1—PANAMA
- gaiophanes*, new species—BRAZIL
- habristis* (Meyrick) 1914, Exotic Microlepidoptera, 1:189—BRITISH GUIANA
- hemiglypta*, new species—BRAZIL
- hydrogramma* (Meyrick) 1912, Transactions of the Entomological Society of London, 1911:702—COLOMBIA
- hypoleuca*, new species—VENEZUELA
- hyptiotes* Clarke 1964, Proceedings of the United States National Museum, 115(3480):80, fig. 7f; pl. 3: fig. 6—MEXICO
- incallescens* (Meyrick) 1914, Exotic Microlepidoptera, 1:192—COLOMBIA
- incisa* Meyrick 1909, Transactions of the Entomological Society of London, 1909:27—BOLIVIA
- incontigua* Clarke 1964, Proceedings of the United States National Museum, 115(3480):74, fig. 5a; pl. 2: fig. 6—VENEZUELA
- insignata*, new species—ECUADOR
- insulana* Clarke 1968, Proceedings of the United States National Museum, 125(3654):5, fig. 3, pl. 2—DOMINICA
- intonans* (Meyrick) 1933, Exotic Microlepidoptera, 4:368—ARGENTINA
- ioleuca* (Meyrick) 1912, Transactions of the Entomological Society of London, 1911:703—ARGENTINA
- isastra* (Meyrick) 1926, Exotic Microlepidoptera, 3:312—COLOMBIA
- isodryas* (Meyrick) 1921, Exotic Microlepidoptera, 2:389—BRAZIL
- isophylla* Meyrick 1909, Transactions of the Entomological Society of London, 1909:25—PERU
- lecithitis* (Meyrick) 1912, Transactions of the Entomological Society of London, 1911:703—BRAZIL
- leucoporpa* (Meyrick) 1926, Exotic Microlepidoptera, 3:313—COLOMBIA
- lichenista* (Meyrick) 1926, Exotic Microlepidoptera, 3:312—COLOMBIA
- melobaphes* Walsingham 1912, in Godman and Salvin, Biologia Centrali-Americana, 42 (Lepidoptera-Heterocera, 4):129, pl. 4: fig. 27—COSTA RICA, PANAMA
- menura*, new species—PANAMA
- militaris* (Meyrick) 1914, Exotic Microlepidoptera, 1:191—COLOMBIA
- mitis* (Meyrick) 1914, Exotic Microlepidoptera, 1:190—PERU
- notodontella* Zeller 1877, Horae Societatis Entomologicae Rossicae, 13:381, pl. 5: fig. 132—COLOMBIA
- oligarcha* (Meyrick) 1913, Transactions of the Entomological Society of London, 1913:178—PERU
- oriphanta* (Meyrick) 1928, Exotic Microlepidoptera, 3:473—COLOMBIA
- oxybela*, new species—PERU
- paravexillata*, new species—VENEZUELA
- peripherea* Clarke 1964, Proceedings of the United States National Museum, 115(3480):77, figs. 6c, d; pl. 3: fig. 4—ECUADOR
- persistis* (Meyrick) 1914, Exotic Microlepidoptera, 1:191—PERU
- phocodes* Meyrick 1909, Transactions of the Entomological Society of London, 1909:27—PERU
- phthiochroma*, new species—BOLIVIA
- pialea* (Meyrick) 1921, Exotic Microlepidoptera, 2:389—BRAZIL
- poecilia*, new species—VENEZUELA
- praecivis* (Meyrick) 1921, Exotic Microlepidoptera, 2:389—PERU
- prolectans* (Meyrick) 1926, Exotic Microlepidoptera, 3:314—COLOMBIA
- pyrocausta* (Meyrick) 1931, Exotic Microlepidoptera, 4:121—COLOMBIA
- pyrrhotrota* (Meyrick) 1932, Exotic Microlepidoptera 4:280, new combination—BOLIVIA
- rhacina* Walsingham 1912, in Godman and Salvin, Biologia Centrali-Americana, 42 (Lepidoptera-Heterocera 4):130, pl. 4: fig. 29—GUATEMALA
- rosacea* (Forbes) 1931, Journal of the Department of Agriculture of Porto Rico, 4(4):379, pl. 42: fig. 18—CUBA, HAITI, DOMINICAN REPUBLIC
- satrapis* (Meyrick) 1914, Exotic Microlepidoptera, 1:191—COLOMBIA
- saulopsis* Meyrick 1909, Transactions of the Entomological Society of London, 1909:28—PERU
- selene*, new species—BRAZIL
- sphenogramma*, new species—VENEZUELA
- teganitis* Meyrick 1909, Transactions of the Entomological Society of London, 1909:26—PERU
- transversa*, new species—BRAZIL
- uberrima* (Meyrick) 1914, Exotic Microlepidoptera, 1:190—PERU
- ustimacula* (Zeller) 1875, Verhandlungen der K.K. Zoologisch-botanischen Gesellschaft in WIEN, 24:440, pl. 12: fig. 10 (= *zelleri* Butler)—CHILE
- vexillata* (Meyrick) 1913, Transactions of the Entomological Society of London, 1913:179—PERU
- vivida* (Meyrick) 1924, Exotic Microlepidoptera, 3:103—BOLIVIA

Genus *Coptotelia* Zeller

Coptotelia bipunctalis (Warren), new combination

Hyphyena bipunctalis Warren, 1889:232.

Hypercallia brysocyma Meyrick, 1921: (2)388; 1922: 180:163, no. 55.—Gaede, in Bryk 1939: 92:256. (New synonymy).

Coptotelia brysocyma (Meyrick), Clarke 1951: 11:350, pl. 5: figs. 4-4b; 1963: 4:149, pl. 71: figs. 1-1b.

I have compared carefully the slide of the genitalia

of *byrsocyma* (JFGC 4622) with that of *bipunctalis* (JFGC 4632) and am convinced of the above synonymy.

TYPES.—British Museum (Natural History).

TYPE LOCALITIES.—Brazil, R. Juruá (*bipunctalis*); Brazil, Obidos (*byrsocyma*).

DISTRIBUTION.—Brazil.

Genus *Hypercallia* Stephens

Hypercallia miltopa (Meyrick)

Coptotelia miltopa Meyrick, 1912:700.

Cryptolechia tunicata Busck, 1914:29. (New synonymy).

Hypercallia miltopa (Meyrick), 1922:163, pl. 6: fig. 101.—Clarke 1963:294, pl. 144: figs. 3–3b.

Machimia tunicata (Busck), Meyrick 1922:82.

The specific synonymy here is clear but the generic position of *miltopa* is uncertain. In all probability, when the generic limits of the South American species have been established, a new genus will be required for this species and its congeners.

TYPES.—U.S. National Museum (*tunicata*); British Museum (Natural History) (*miltopa*).

TYPE LOCALITIES.—Panama, Porto Bello (*tunicata*); Colombia, San Antonio (*miltopa*).

DISTRIBUTION.—Colombia, Panama.

Hypercallia heterochroma, new species

FIGURE 26; PLATE 3h.

Alar expanse 19–21 mm.

Labial palpus yellow; second segment edged with brown anteriorly, in distal half, and apically; third segment buff with sparse carmine scaling anteriorly. Antenna pale yellow; basal seventh with blackish fuscous, dorsoanterior longitudinal line; beyond this faintly marked fuscous and remainder blackish fuscous annulated; at basal two fifths a few carmine spots. Head yellow with light carmine blotch posteriorly. Thorax brown with large black spot posteriorly; tegula edged outwardly with yellow and carmine scales. Ground color of forewing brown sparsely irrorate pale yellow; base of costa and two triangular spots, one at basal third, the second at two thirds of costa, yellow; apex from coastal four fifths to vein 4, yellow; around apex to vein 5, a slender, broken, brown line; costa brown mixed with scarlet, where ground color intrudes between the yellow costal markings; these markings edged scarlet;

from the yellow costal mark at basal third a zigzag scarlet mark extends to middle of wing; on dorsum an inwardly curved scarlet mark extends from basal fifth to near middle; beyond end of cell a large oval scarlet blotch, with a conspicuous, transverse, narrow series of black scales, extends to tornus; at basal third, in cell, a conspicuous fuscous-edged white spot; at end of cell a very small, ill-defined whitish spot; cilia from apex to vein 4, yellow, remainder brown. Hindwing yellowish white, basally shading to grayish then pink toward termen; costa and apex gray; cilia mixed pale yellow and gray. Foreleg femur and tibia ochereous white, the tibia scarlet on outer side; tarsal segments pale yellow; first tarsal segment scarlet on outer side; midleg pale yellow to ochereous white; hindleg ochereous white. Abdomen ochereous white suffused pale grayish dorsally.

Male genitalia slide JFGC 12086. Harpe simple, broadest before middle; sacculus sharply angulate; cucullus, narrow, truncate. Gnathos a wide, transverse, oval spined knob. Uncus broad, stout, terminating in a small, sparsely setose protuberance. Vinculum a moderately broad band, considerably widened at middle. Tegumen wide, short, constricted posteriorly. Anellus subrectangular, deeply excavate posteriorly, and with a large, fleshy, setose lobe on each side posteriorly. Aedeagus stout, nearly straight, narrowed distally; vesica armed with one strong, thornlike cornutus.

Female genitalia slide JFGC 12087. Ostium cup shaped. Genital plate wide, moderately sclerotized. Antrum greatly swollen, very lightly sclerotized. Inception of ductus seminalis lateral and slightly anterior to antrum. Ductus bursae membranous but showing some slightly thickened longitudinal striations. Bursa copulatrix membranous. Signum a tiny sclerotized thornlike plate.

HOLOTYPE.—USNM 71103.

TYPE LOCALITY.—Venezuela, Aragua, Rancho Grande, 1100 m.

DISTRIBUTION.—Venezuela.

Described from the ♂ holotype (July 22–31, 1967) and one ♀ paratype from the same locality (June 22–30, 1967), both collected by R. W. Poole.

I have placed this species in *Hypercallia* temporarily so that it can be associated with its nearest relative *miltopa*, the latter already assigned to that genus. Eventually *miltopa*, *heterochroma*, and their congeners will be placed in a new genus.

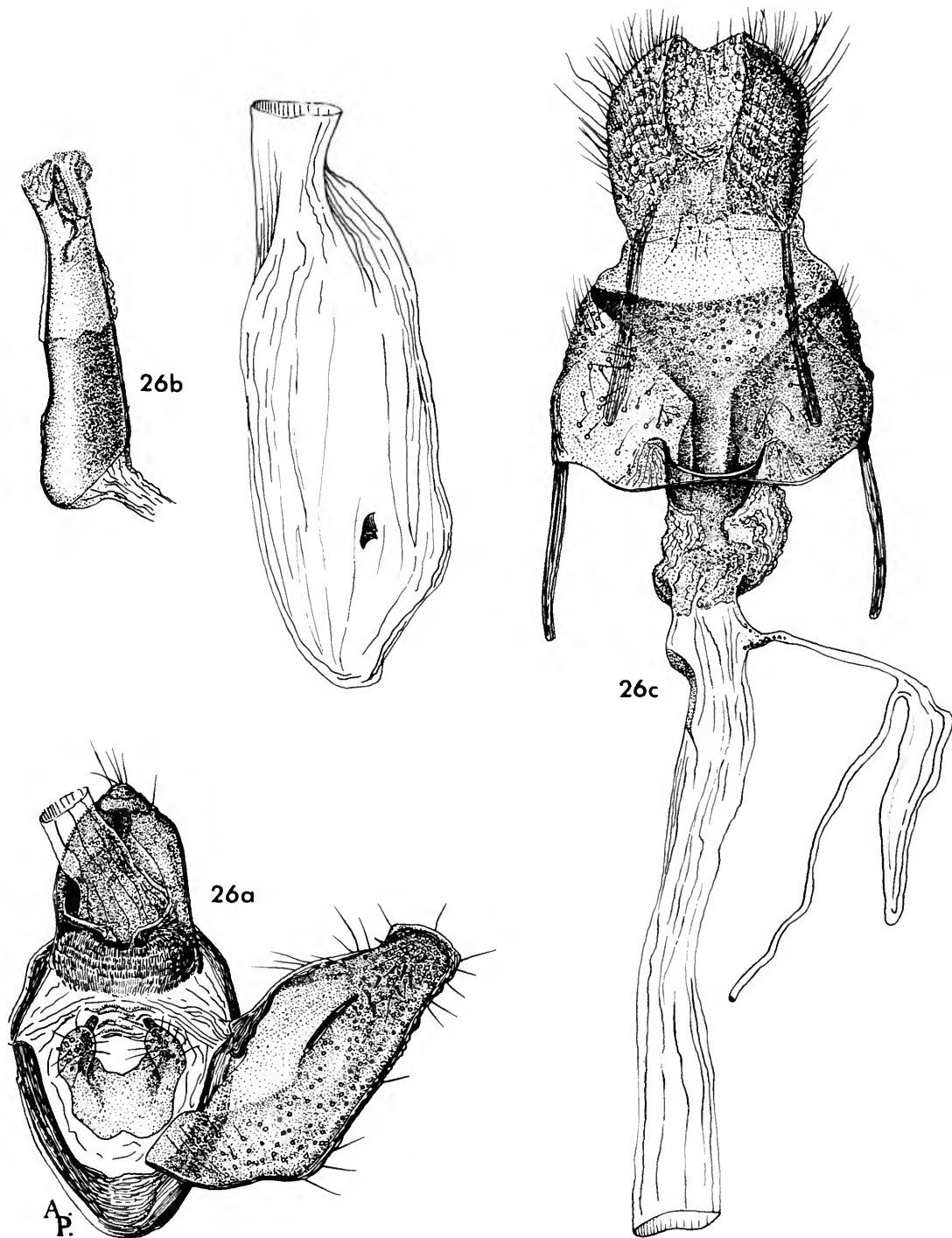


FIGURE 26.—*Hypercallia heterochroma*, new species. *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia with bursa copulatrix to left.

Although very closely related to *mitopa*, *heterochroma* can be distinguished easily by its scarlet blotches on the forewing and the absence of the large, white discal dash found in *mitopa*.

Genus *Phytomimia* Walsingham

Phytomimia chlorophylla Walsingham

Phytomimia chlorophylla Walsingham, 1912:134.

Phytomimia silvicolor Meyrick, 1932:279. (New synonymy).

I have examined Meyrick's type of *silvicolor* in the Naturhistorisches Museum, in Vienna, and Walsingham's type of *chlorophylla* in the British Museum (Natural History). The genitalia of the types, and additional material before me from Mexico and Costa Rica, all agree.

TYPES.—British Museum (Natural History) (*chlorophylla*); Naturhistorisches Museum, Vienna (*silvicolor*).

TYPE LOCALITIES.—Mexico, Guerrero, Venta de Zopilote (*chlorophylla*); Panama, Lino, 2,650 feet (815 m) (*silvicolor*).

DISTRIBUTION.—Mexico, Guatemala, Panama.

Literature Cited

Busck, August

1914. New Genera and Species of Microlepidoptera from Panama. *Proceedings of the United States National Museum*, 47:1-67.

Clarke, J. F. Gates

1951. The Moths of the Genus "Coptotelia" Zeller. *De Acta Zoologica Lilloana*, 11:335-352, plates 1-5.
1963. *Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural His-*

tory) described by Edward Meyrick, 4:1-521, plates 1-252. London, England. British Museum (Natural History).

Forbes, Wm. T. M.

1931. Supplementary Report on the Heterocera or Moths of Porto Rico. *The Journal of the Department of Agriculture of Porto Rico*, 4:339-394, plates 42-47.

Gaede, M.

1939. In Bryk, *Lepidopterorum Catalogus. Oecophoridae*. 92:209-476. 's-Gravenhage: W. Junk.

Meyrick, E.

1912. XXX. Descriptions of South American Microlepidoptera. *Transactions of the Entomological Society of London*, 1911:673-718.
1916. *Exotic Microlepidoptera*, 1:547-577. Taylor and Francis. London.
1921. *Exotic Microlepidoptera*, 2:385-400. Taylor and Francis. London.
1922. In Wytzman, *Genera Insectorum. Lepidoptera Heterocera. Oecophoridae*, 180:1-200, plates 1-6.
1924. *Exotic Microlepidoptera*, 3:97-112. Taylor and Francis. London.
1926. *Exotic Microlepidoptera*, 3:305-320. Taylor and Francis. London.
1930. *Exotic Microlepidoptera*, 3:561-576. Taylor and Francis. London.
1931. *Exotic Microlepidoptera*, 4:113-128. Taylor and Francis. London.
1932. *Exotic Microlepidoptera*, 4:273-288. Taylor and Francis. London.

Walsingham, Lord (Thomas de Grey)

- 1909- In Godman and Salvin, *Biologia Centrali-Americana* 42. (*Lepidoptera-Heterocera*, 4):i-xii, 1-24 (1909); 25-40 (1910); 41-112 (1911); 113-168 (1912); 169-224 (1913); 225-392 (1914); 393-482 (1915); figures 1-30, plates 1-10. London.

Warren, William

1889. VIII. On the Pyralidina Collected in 1874 and 1875 by Dr. J. W. H. Trail in the Basin of the Amazons. *Transactions of the Entomological Society of London*, 1889:227-295.

Neotropical Microlepidoptera Series
in Proceedings of the United States National Museum

(Papers are prepared with the aid of National Science Foundation Grants.)

| <i>Paper</i> | <i>Author</i> | <i>Subject</i> | <i>Year</i> | <i>Volume</i> | <i>Number</i> |
|--------------|---------------|---|-------------|---------------|---------------|
| I, II | Clarke | Blastodacnidae and Aegeriidae | 1962 | 113 | 3457 |
| 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 |
| IX | Obraztsov | The tortricid genus <i>Pseudatteria</i> | 1966 | 118 | 3535 |
| X | Duckworth | Taxa erroneously placed in Stenomidae | 1966 | 119 | 3540 |
| XI | Obraztsov | The tortricid genus <i>Idolatteria</i> | 1966 | 119 | 3543 |
| XII | Duckworth | The stenomid genus <i>Lethata</i> | 1967 | 122 | 3585 |
| XIII | Duckworth | The stenomid genus <i>Loxotoma</i> | 1967 | 122 | 3590 |
| XIV | Clarke | Chilean Microlepidoptera described by Blanchard | 1967 | 123 | 3591 |
| XV | Duckworth | The stenomid genus <i>Thioscelis</i> | 1967 | 123 | 3620 |
| XVI | Clarke | New species of Oecophoridae | 1968 | 125 | 3654 |
| XVII | Clarke | New species of Phaloniidae in Smithsonian Contributions to Zoology | 1968 | 125 | 3660 |
| XVIII | Duckworth | Oecophorid genus <i>Peleopoda</i> | 1970 | | 48 |

Publication in Smithsonian Contributions to Zoology

Manuscripts for serial publications are accepted by the Smithsonian Institution Press subject to substantive review, only through departments of the various Smithsonian museums. Non-Smithsonian authors should address inquiries to the appropriate department. If submission is invited, the following format requirements of the Press should govern the preparation of copy.

Copy must be typewritten, double-spaced, on one side of standard white bond paper, with 1½" top and left margins, submitted in ribbon copy with a carbon or duplicate, and accompanied by the original artwork. Duplicate copies of all material, including illustrations, should be retained by the author. There may be several paragraphs to a page, but each page should begin with a new paragraph. Number all pages consecutively, including title page, abstract, text, literature cited, legends, and tables. A manuscript should consist of at least thirty pages, including typescript and illustrations.

The *title* should be complete and clear for easy indexing by abstracting services. Taxonomic titles will carry a final line indicating the higher categories to which the taxon is referable: "(Hymenoptera: Sphecidae)." Include an *abstract* as an introductory part of the text. Identify the *author* on the first page of text with an unnumbered footnote that includes his professional mailing address. A *table of contents* is optional. An *index*, if required, may be supplied by the author when he returns page proof.

Two *headings* are used: (1) text heads (boldface in print) for major sections and chapters and (2) paragraph sideheads (caps and small caps in print) for subdivisions. Further headings may be worked out with the editor.

In *taxonomic keys*, number only the first item of each couplet; if there is only one couplet, omit the number. For easy reference, number also the taxa and their corresponding headings throughout the text; do not incorporate page references in the key.

In *synonymy*, use the short form (taxon, author, date, page) with a full reference at the end of the paper under "Literature Cited." Begin each taxon at the left margin with subsequent lines indented about three spaces. Within a taxon, use a period-dash (.—) to separate each entry. Enclose with square brackets any annotation in or at the end of the taxon. For *synonymy* and *references within the text*, use the author-date system: "(Jones 1910)." Use the colon system for page references: "(Jones 1910:122)," and abbreviate further data: "(Jones 1910:122, fig. 3, pl. 5: fig. 1)."

Simple *tabulations* in the text (e.g., columns of data) may carry headings or not, but they should not contain rules. Formal *tables* must be submitted as pages separate from the text, and each table, no matter how large, should be pasted up as a single sheet of copy.

Use the *metric system* instead of (or in addition to) the English system.

Illustrations (line drawings, maps, photographs, shaded drawings) usually can be intermixed throughout the printed text. They will be termed *Figures* and should be numbered consecutively; however, if a group of figures is treated as a single figure, the individual components should be indicated by lowercase italic letters on the illustration, in the legend, and in text references: "Figure 9*b*." Submit all legends on pages separate from the text and not attached to the artwork. An instruction sheet for the preparation of illustrations is available from the Press on request.

In the *bibliography* (usually called "Literature Cited"), spell out book, journal, and article titles, using initial caps with all words except minor terms such as "and, of, the." (For capitalization of titles in foreign languages, follow the national practice of each language.) Under-score (for italics) book and journal titles. Use the colon-parentheses system for volume number and page citations: "10(2):5-9." Spell out such words as "figures," "plates," "pages."

For *free copies* of his own paper, a Smithsonian author should indicate his requirements on "Form 36" (submitted to the Press with the manuscript). A non-Smithsonian author will receive fifty free copies; order forms for quantities above this amount, with instructions for payment, will be supplied when page proof is forwarded.

