

Neotropical Microlepidoptera, XXI:
New Genera and Species of
Oecophoridae from Chile

J. F. GATES CLARKE

SMITHSONIAN CONTRIBUTIONS TO ZOOLOGY • NUMBER 273

SERIES PUBLICATIONS OF THE SMITHSONIAN INSTITUTION

Emphasis upon publication as a means of "diffusing knowledge" was expressed by the first Secretary of the Smithsonian. In his formal plan for the Institution, Joseph Henry outlined 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 theme of basic research has been adhered to through the years by thousands of titles issued in series publications under the Smithsonian imprint, commencing with *Smithsonian Contributions to Knowledge* in 1848 and continuing with the following active series:

Smithsonian Contributions to Anthropology
Smithsonian Contributions to Astrophysics
Smithsonian Contributions to Botany
Smithsonian Contributions to the Earth Sciences
Smithsonian Contributions to the Marine Sciences
Smithsonian Contributions to Paleobiology
Smithsonian Contributions to Zoology
Smithsonian Studies in Air and Space
Smithsonian Studies in History and Technology

In these series, the Institution publishes small papers and full-scale monographs that report the research and collections of its various museums and bureaux or of professional colleagues in the world of science and scholarship. The publications are distributed by mailing lists to libraries, universities, and similar institutions throughout the world.

Papers or monographs submitted for series publication are received by the Smithsonian Institution Press, subject to its own review for format and style, only through departments of the various Smithsonian museums or bureaux, where the manuscripts are given substantive review. Press requirements for manuscript and art preparation are outlined on the inside back cover.

S. Dillon Ripley
Secretary
Smithsonian Institution

SMITHSONIAN CONTRIBUTIONS TO ZOOLOGY • NUMBER 273

Neotropical Microlepidoptera, XXI:
New Genera and Species of
Oecophoridae from Chile

J. F. Gates Clarke



SMITHSONIAN INSTITUTION PRESS

City of Washington

1978

ABSTRACT

Clarke, J. F. Gates. Neotropical Microlepidoptera, XXI: New Genera and Species of Oecophoridae from Chile. *Smithsonian Contributions to Zoology*, number 273, 80 pages, 54 figures, 6 plates, 1978.—The following genera are described as new and their type-species are indicated: *Doina* (*D. lagneia*, n. sp.); *Perzelia* (*P. arda*, n. sp.); *Teresita* (*T. isaura*, n. sp.); *Aliciana* (*A. geminata*, n. sp.); *Lelita* (*L. acmaea*, n. sp.); *Dita* (*D. phococara*, n. sp.); *Atha* (*A. trimacula*, n. sp.); *Afdera* (*Cryptolechia orphnaea* Meyrick); *Corita* (*C. amphichroma*, n. sp.); *Utilia* (*U. florinda*, n. sp.); *Alynda* (*A. sarissa*, n. sp.); *Deia* (*D. lineola*, n. sp.); *Doshia* (*D. miltopeza*, n. sp.); *Altiura* (*A. maculata*, n. sp.); *Muna* (*M. zosteria*, n. sp.); *Lucyna* (*Cryptolechia fenestella* Zeller); *Talitha* (*anomala*, n. sp.); *Irenia* (*I. leucoxantha*, n. sp.); *Revonda* (*R. eschara*, n. sp.); *Despina* (*Borkhausenia rhodosema* Meyrick); *Zymrina* (*Borkhausenia xanthosema* Meyrick); *Eraina* (*E. thamnocephala*, n. sp.); *Retha* (*R. rustica*, n. sp.); *Nedenia* (*N. rhodochra*, n. sp.); *Aniuta* (*A. ochroleuca*, n. sp.); *Osmarina* (*O. argilla*, n. sp.). Thirty-nine (39) species, including generic types, are described as new. Previously described species are placed in this present system as far as possible. The subfamily Metachandinae, new status, is noted.

OFFICIAL PUBLICATION DATE is handstamped in a limited number of initial copies and is recorded in the Institution's annual report, *Smithsonian Year*. SERIES COVER DESIGN: The coral *Montastrea cavernosa* (Linnaeus).

Library of Congress Cataloging in Publication Data

Clarke, John Frederick Gates, 1905—

Neotropical Microlepidoptera, XXI.

(Smithsonian contributions to zoology ; no. 273)

Bibliography: p.

Supt. of Docs. no: SI 1.27:273

1. Oecophoridae. 2. Insects—Classification. 3. Insects—Chile. I. Title. II. Series: Smithsonian Institution. Smithsonian contributions to zoology ; no. 273.

QL1.S54 no. 273 [QL561.043] 591'.08s [595.7'81] 77-608260

Contents

	<i>Page</i>
Introduction	1
Key to the Chilean Genera of Oecophoridae	2
<i>Eraina</i> , new genus	3
<i>Eraina thamocephala</i> , new species	3
<i>Aniuta</i> , new genus	5
<i>Aniuta ochroleuca</i> , new species	5
<i>Aniuta melanoma</i> , new species	7
<i>Mattea</i> Duckworth	7
<i>Mattea phoenissa</i> (Butler)	7
<i>Pisinidea</i> Butler	7
<i>Pisinidea viridis</i> Butler	7
<i>Talitha</i> , new genus	9
<i>Talitha anomala</i> , new species	10
<i>Deia</i> , new genus	10
<i>Deia lineola</i> , new species	12
<i>Macarocosma</i> Meyrick	12
<i>Macarocosma philochrysa</i> Meyrick	12
<i>Perzelia</i> , new genus	12
<i>Perzelia arda</i> , new species	14
<i>Corita</i> , new genus	15
<i>Corita amphichroma</i> , new species	15
<i>Muna</i> , new genus	17
<i>Muna zostera</i> , new species	17
<i>Altiura</i> , new genus	18
<i>Altiura maculata</i> , new species	19
<i>Doina</i> , new genus	19
<i>Doina paralagneia</i> , new species	21
<i>Doina lagneia</i> , new species	21
<i>Doina flinti</i> , new species	24
<i>Doina inconspicua</i> , new species	24
<i>Doina asperula</i> , new species	26
<i>Doina truncata</i> , new species	27
<i>Doina subicula</i> , new species	28
<i>Doina annulata</i> , new species	29
<i>Doina eremnogramma</i> , new species	30
<i>Doina phaeobregma</i> , new species	30
<i>Doina trachycantha</i> , new species	33
<i>Doina glebula</i> , new species	33
<i>Doina increta</i> (Butler), new combination	34
<i>Doina edmondsii</i> (Butler), new combination	34
<i>Doina scariphista</i> (Meyrick), new combination	35
<i>Doshia</i> , new genus	35
<i>Doshia miltopeza</i> , new species	36

	<i>Page</i>
<i>Afdera</i> , new genus	37
<i>Afdera orphnaea</i> (Meyrick), new combination	38
<i>Melaneulia</i> Butler	38
<i>Melaneulia hectate</i> Butler	38
<i>Depressariodes</i> Turati	39
<i>Depressariodes lusciosa</i> (Meyrick), new combination	39
<i>Depressariodes relegata</i> (Meyrick), new combination	39
<i>Gonionota</i> Zeller	40
<i>Gonionota mimulina</i> (Butler), new combination	40
<i>Nedenia</i> , new genus	40
<i>Nedenia rhodochra</i> , new species	40
<i>Revonda</i> , new genus	42
<i>Revonda eschara</i> , new species	42
<i>Despina</i> , new genus	43
<i>Despina rhodosema</i> (Meyrick), new combination	44
<i>Irenia</i> , new genus	44
<i>Irenia curvula</i> , new species	44
<i>Irenia leucoxantha</i> , new species	45
<i>Lucyna</i> , new genus	45
<i>Lucyna fenestella</i> (Zeller), new combination	45
<i>Dita</i> , new genus	48
<i>Dita phococara</i> , new species	48
<i>Dita fasciatipedella</i> (Zeller), new combination	48
<i>Utilia</i> , new genus	49
<i>Utilia luridella</i> (Zeller), new combination	50
<i>Utilia ochracea</i> (Zeller), new combination	51
<i>Utilia falcata</i> , new species	51
<i>Utilia florinda</i> , new species	53
<i>Alynda</i> , new genus	53
<i>Alynda striata</i> , new species	54
<i>Alynda sarissa</i> , new species	55
<i>Alynda cinnamomea</i> , new species	56
<i>Atha</i> , new genus	57
<i>Atha trimacula</i> , new species	57
<i>Retha</i> , new genus	58
<i>Retha rustica</i> , new species	58
<i>Zymrina</i> , new genus	59
<i>Zymrina xanthosema</i> (Meyrick), new combination	60
<i>Callistenoma</i> Butler	60
<i>Callistenoma ustimacula</i> (Zeller)	60
<i>Lelita</i> , new genus	60
<i>Lelita acmaea</i> , new species	60
<i>Teresita</i> , new genus	64
<i>Teresita isaura</i> , new species	64
<i>Aliciana</i> , new genus	64
<i>Aliciana geminata</i> , new species	65
<i>Aliciana albella</i> (Blanchard), new combination	66
<i>Osmarina</i> , new genus	66
<i>Osmarina argilla</i> , new species	67

	<i>Page</i>
<i>Arctopoda</i> Butler	67
<i>Arctopoda maculosa</i> Butler	69
<i>Philomusea</i> Meyrick	69
<i>Philomusea craterias</i> Meyrick	71
<i>Philomusea brachyxista</i> Meyrick	71
<i>Philomusea meniscogramma</i> , new species	71
Literature Cited	73
Plates	74
Neotropical Microlepidoptera Series	80

Neotropical Microlepidoptera, XXI: New Genera and Species of Oecophoridae from Chile

J. F. Gates Clarke

Introduction

The purpose of this paper is to make known certain genera and species that are representative of what appears to be a very large oecophorid fauna and to present these with the hope that my colleagues in the Southern Hemisphere will attempt to relate the Chilean fauna to those, particularly, of Australia and New Zealand. I hope, also, that lepidopterists in Chile will attempt to expand our knowledge of that fauna.

To date, only a comparatively few taxa in the Oecophoridae have been described from Chile. Blanchard (1852) appears to have been the first to describe an oecophorid from Chile when he published *Epigraphia albella*. Zeller (1874) seems to have been next when he described *Cryptolechia ochracea*, *C. fasciatipedella*, *C. luridella*, *C. fenestella*, and *C. ustimacula*. Next, Butler added (1883) *Arctopoda maculosa* (= *Polypseustis cuprea* Dognin, 1908), which he described in the Tortricidae; *Melaneulia hectate* was also described in the Tortricidae. The following species were placed by Butler in the Gelechiidae: *Orthotelia increta*, *Depressaria edmondsii*, *Oecophora minneta*, *Hyperskeles choreutidea*, *Callistenoma ustimacula zelleri*, *Cryptolechia phoenissa*, *Pisinidea viridis*, and *Agriocoma mimulina*. In 1893 Bartlett-Calvert described *Antithesia montana*, without family designation, but which has been placed in the Oecophoridae by Meyrick, and others, and which in fact belongs

in the Tortricidae. In 1915 Meyrick described *Depressaria lusciosa*, subsequently recognized from Chile, and added *Depressaria relegata* (1922a). It was not until 1931 that more Chilean Oecophoridae were described by Meyrick. He added *Borkhausenia rhodosema*, *B. xanthosema*, *B. praesul* (questionably from Chile), *Harpella semnodoxa*, *Macarocosma philochrysa*, *Philomusea craterias* (described from Argentina but present in Chile), *P. brachyoxista*, *Cryptolechia scariphista*, and *C. orphnaea*.

Of the described species I have placed *albella* in *Alicinia*, new genus, *ochracea* and *luridella* in *Utilia*, new genus; *fasciatipedella* in *Dita*, new genus; *fenestella* in *Lucyna*, new genus; *increta*, *edmondsii*, and *scariphista* in *Doina*, new genus; *Cryptolechia phoenissa* was transferred to *Mattea* (Duckworth, 1966); I place *rhodosema* in *Despina*, new genus; *xanthosema* in *Zymrina*, new genus; *praesul* of questionable occurrence in Chile and not treated; *orphnaea* in *Afdera*, new genus; *mimulina* in *Gonionota* Zeller; *lusciosa* was transferred to *Martyrhilda* Clarke by Clarke (1963) and *relegata* to the same genus by Clarke (1965), but herein both are placed in the genus *Depressariodes* Turati.

Of the described species, I am unable to place in this classification the following: *Oecophora minneta*, *Hyperskeles choreutidea*, and *Harpella semnodoxa*.

For the most part the species key to Australian, African, or Indian genera but those genera are described as having ocelli; all the Chilean species lack ocelli. The majority of the Chilean genera, therefore, appear to be endemic. The only tropical American genus that intrudes on the Chilean scene

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

is *Gonionota* Zeller. The genus *Depressariodes* Turati is widespread in the holarctic region and extends down the Andes and to the Juan Fernandez Islands.

Specimens that are deposited in the National Museum of Natural History (NMNH), Smithsonian Institution, Washington, D.C., are listed under the catalog number of the former United States National Museum (USNM).

ACKNOWLEDGMENTS.—Several people have helped in the preparation of this paper. I appreciate the help I have received from my old friend and colleague Dr. John D. Bradley, Commonwealth Institute of Entomology, London, who has repeatedly answered questions concerning certain types in the

British Museum (Natural History); my thanks are due my friend and colleague Dr. Klaus Sattler, British Museum (Natural History), for arranging the loan of several types and other pertinent material housed in the collections of that institution. I wish to thank Jack F. Marquardt and Mrs. Carolyn Hahn, Smithsonian Library, for much help with library materials. My thanks are due several illustrators who have contributed drawings: André del Campo Pizzini (deceased), formerly on the Smithsonian staff, George L. Venable, Elaine Hodges, Lawrence M. Druckenbrod, and Ambrose Nelson, presently staff illustrators. My thanks are also due Victor E. Kranz for the photographs.

Key to the Chilean Genera of Oecophoridae

- | | |
|--|------------------------------|
| 1. Forewing with 1c absent | 2 |
| Forewing with 1c present | 3 |
| 2. Abdominal terga setose | <i>Eraina</i> , new genus |
| Abdominal terga not setose | <i>Aniuta</i> , new genus |
| 3. Abdominal terga not setose | 4 |
| Abdominal terga setose | 20 |
| 4. Veins 7 and 8 of forewing coincident to termen | <i>Mattea</i> Duckworth |
| Veins 7 and 8 of forewing otherwise | 5 |
| 5. Veins 7 and 8 of forewing separate | <i>Pisinidea</i> Butler |
| Veins 7 and 8 of forewing otherwise | 6 |
| 6. Antennal pecten present | 7 |
| Antennal pecten absent | 8 |
| 7. Veins 2 and 3 of forewing stalked | <i>Depressariodes</i> Turati |
| Veins 2 and 3 of forewing separate | <i>Talitha</i> , new genus |
| 8. Vein 7 of forewing to costa | 9 |
| Vein 7 of forewing otherwise | 15 |
| 9. Third segment of labial palpus as long as second | 10 |
| Third segment of labial palpus shorter than second | 12 |
| 10. Forewing with vein 1b simple | <i>Deia</i> , new genus |
| Forewing with vein 1b furcate | 11 |
| 11. Veins 3 and 4 of hind wing stalked | <i>Macarocosma</i> Meyrick |
| Veins 3 and 4 of hind wing connate | <i>Philomusea</i> Meyrick |
| 12. Hind tibia smooth | 14 |
| Hind tibia roughened with hairlike scales | 13 |
| 13. Vein 3 of forewing from well before angle of cell | <i>Perzelia</i> , new genus |
| Vein 3 of forewing from angle of cell | <i>Corita</i> , new genus |
| 14. Labial palpus upturned, exceeding vertex | <i>Muna</i> , new genus |
| Labial palpus porrect, or nearly so | <i>Altiura</i> , new genus |
| 15. Tongue vestigial; labial palpus greatly reduced | <i>Arctopoda</i> Butler |
| Tongue and labial palpus otherwise | 16 |
| 16. Forewing tortriciform | 17 |
| Forewing otherwise | <i>Doina</i> , new genus |
| 17. Vein 7 of forewing to termen | 18 |
| Vein 7 of forewing to apex; termen convex | <i>Doshia</i> , new genus |
| 18. Veins 4 and 5 of forewing connate | <i>Melaneulia</i> Butler |
| Veins 4 and 5 of forewing separate | 19 |
| 19. Third segment of labial palpus less than half the length of second | <i>Gonionota</i> Zeller |
| Third segment of labial palpus more than half length of second | <i>Nedenia</i> , new genus |

20. Vein 7 and 8 of forewing coincident 21
 Vein 7 and 8 of forewing otherwise 22

21. Antennal pecten present; veins 4 and 5 of forewing connate.....*Revonda*, new genus
 Antennal pecten absent; veins 4 and 5 of forewing separate.....*Despina*, new genus

22. Vein 7 of forewing to apex 23
 Vein 7 of forewing to termen or costa 24

23. Scape with well-developed pecten*Irenia*, new genus
 Scape without pecten*Lucyna*, new genus

24. Apex of forewing falcate 25
 Apex of forewing not falcate 27

25. Veins 3 and 4 of hind wing connate 26
 Veins 3 and 4 of hind wing stalked*Dita*, new genus

26. Upper internal vein of forewing well developed*Utilia*, new genus
 Upper internal vein of forewing obsolete*Alynda*, new genus

27. Vein 7 of forewing to costa 28
 Vein 7 of forewing to termen 32

28. Hind tibia roughened with hairlike scales 29
 Hind tibia smooth*Atha*, new genus

29. Veins 3 and 4 of hind wing shortstalked*Retha*, new genus
 Veins 3 and 4 of hind wing connate 30

30. Third segment of labial palpus as long as second.....*Zymrina*, new genus
 Third segment of labial palpus noticeably shorter than second 31

31. Second segment of labial palpus broad, compressed.....*Callistenoma* Butler
 Second segment of labial palpus otherwise*Ajdera*, new genus

32. Hind tibia smooth 33
 Hind tibia roughened with hairlike scales 34

33. Veins 3 and 4 of hindwing stalked*Lelita*, new genus
 Veins 3 and 4 of hindwing connate*Teresita*, new genus

34. Antennal pecten present*Aliciana*, new genus
 Antennal pecten absent*Osmarina*, new genus

***Eraina*, new genus**

TYPE-SPECIES.—*Eraina thamnocephala*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus upturned, exceeding vertex, second segment with some projecting scales at apex; third segment very slender, acute, as long as second. Maxillary palpus slender, free. Head roughened with loosely appressed scales; ocellus absent. Antenna simple; scape without pecten. Forewing costa slightly arched, termen oblique, 12 veins; 1b furcate; 1c absent; 2 remote from 3, 4 nearer to 5 than to 3; 7 and 8 stalked, 7 to costa; 10 much closer to 9 than to 11; 11 from before middle of cell. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate; 5 nearer to 6 than to 4; 6 and 7 subparallel. Hind leg tibia smooth. Abdomen setose.

Male genitalia with gnathos and uncus well developed.

Female genitalia unknown.

Eraina has many characters in common with *Aniuta* but differs from it by the much longer

palpus, the loose scaling at apex of second segment, the furcation of 1b of forewing, and the setose abdomen.

***Eraina thamnocephala*, new species**

FIGURE 1; PLATE 1a

Alar expanse 17–21 mm.

Labial palpus light cream color; third segment sparsely irrorate with fuscous. Antenna light cream color with small fuscous spot on each segment; scape with fine fuscous longitudinal line dorsally. Head and thorax light cream color. Forewing ground color pale cream color; extreme edge of basal fifth of costa fuscous; fuscous discal spots as follows: one in cell at basal third, one slightly beyond in fold, and a transverse pair at end of cell; surface with or without ill-defined clay color patches and sparse fuscous irrorations; around termen a series of 4 or 5 fuscous spots, sometimes confluent; cilia grayish mixed with cream color. Hind wing ocherous white; surface, especially toward margins,

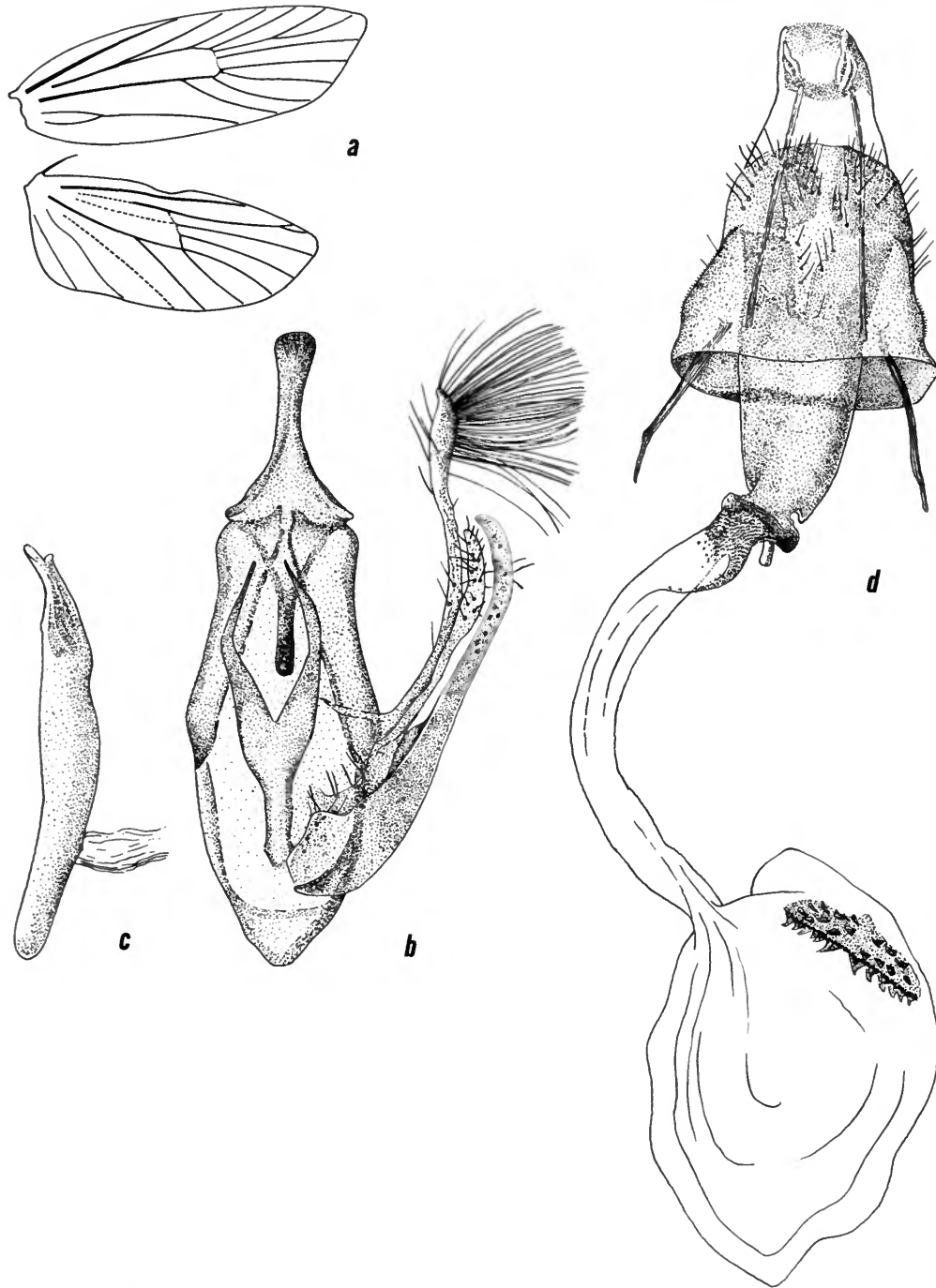


FIGURE 1.—*Eraina thannocephala*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus; *d*, ventral view of female genitalia.

sprinkled with grayish-fuscous scales; outer edge narrow grayish fuscous; cilia mixed grayish-tipped cream and ochereous white. Foreleg cream color; tibia and tarsal segments heavily overlaid fuscous; tarsal segments cream color distally; midleg similar; hind leg suffused grayish fuscous. Abdomen cream color strongly suffused grayish fuscous; setose.

Male genitalia slides USNM 24137, 24241. Harpe narrow; cucullus small, fingerlike; costa extended as a long, fleshy process, swollen distally; sacculus produced as a strongly sclerotized, slender, curved process. Gnathos a slender hook. Uncus broad basally, then narrowed and slightly dilated distally. Vinculum narrowly U-shaped, saccus slightly developed. Tegumen slightly concave laterally. Anellus strongly sclerotized, narrow basally, broader at middle, produced posteriorly as two sharply pointed processes. Aedeagus moderately slender; vesica armed with 4 or 5 weak, bluntly pointed cornuti.

Female genitalia slide USMN 24242. Ostium with ventral lip deeply incised. Antrum granular. Inception of ductus seminalis posterolateral. Ductus bursae partly membranous, anterior two-thirds granular. Bursa copulatrix very finely granular. Signum an oval dentate plate.

HOLOTYPE—USNM 73690.

TYPE-LOCALITY.—Chile, Maule, Pelluhue, 600 m.

Described from the male holotype (2 Dec 1953, L. E. Peña), 13 male and one female paratypes all from the type-locality with same data as holotype.

At first glance *E. thamnophala* reminds one of *Doña lagneia*, new species, but averages paler in color. The two are, of course, generically distinct and can be separated easily on characters of the palpus and genitalia.

Aniuta, new genus

TYPE-SPECIES.—*Aniuta ochroleuca*, new species (by present designation). The gender of this generic name is feminine.

Labial palpus upturned not reaching vertex; second segment slightly roughened beneath; third segment slender, acute, about as long as second. Maxillary palpus minute. Head roughened with loosely appressed scales; ocellus absent. Antenna of male serrulate, female simple; scape without pecten. Forewing costa nearly straight, termen oblique; 12 veins; 1b furcation obsolescent; 1c absent; 2 remote from 3; 3, 4, and 5 equidistant; 7 and 8

stalked, 7 to costa; 10 much closer to 9 than to 11; 11 from before middle of cell. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate (or very short stalked); 5 well removed from 4; 6 and 7 parallel. Hind leg tibia smooth. Abdominal terga not setose.

Male genitalia with gnathos absent.

Female genitalia with signum present.

Aniuta is near *Borkhausenina* but differs from it by the absence of an ocellus, absence of pecten on the scape, and lack of cilia on the flagellum. Moreover, the hind tibia of *Aniuta* is smooth, that of *Borkhausenina* is clothed with long, fine, hairlike scales. In the forewing 1b is furcate in *Borkhausenina* but in *Aniuta* the furcation is obsolescent, one branch being scarcely indicated.

Aniuta ochroleuca, new species

FIGURE 2; PLATE 1c

Alar expanse 12–13 mm.

Labial palpus pale ochereous white; second segment, except apex, fuscous on outer side; third segment fuscous apically. Antenna buffy brown; scape fuscous dorsally. Head white; scales around base of scape fuscous. Thorax ochereous white; tegula white except base fuscous. Forewing ground color ochereous white to white; base of costa fuscous; at apical third of costa a fuscous spot; in middle of cell an oblique fuscous dash and a spot of same color at end of cell; at middle, dorsally, a fuscous suffusion and a shade of similar color around termen; cilia ochereous white with a suffused grayish subbasal line. Hind wing white, pale buff distally; cilia pale buff. Foreleg ochereous white with fuscous suffusion on outer side; midleg similar; hind leg ochereous white with a suggestion of a few obscure grayish spots. Abdomen ochereous white, slightly darker posteriorly; not setose.

Male genitalia slides USMN 24121, 24238. Harpe ample, dorsal and ventral edges nearly parallel; cucullus rounded; sacculus produced distally as a sharp spine. Uncus broad basally, narrowed distally. Vinculum with saccus produced, V-shaped. Tegumen short, broad. Anellus a small rectangular plate with a broad median anterior arm; posterior corners of central plate articulated with elements of transtilla. Aedeagus rather slender except broadened proximally; cornuti absent.

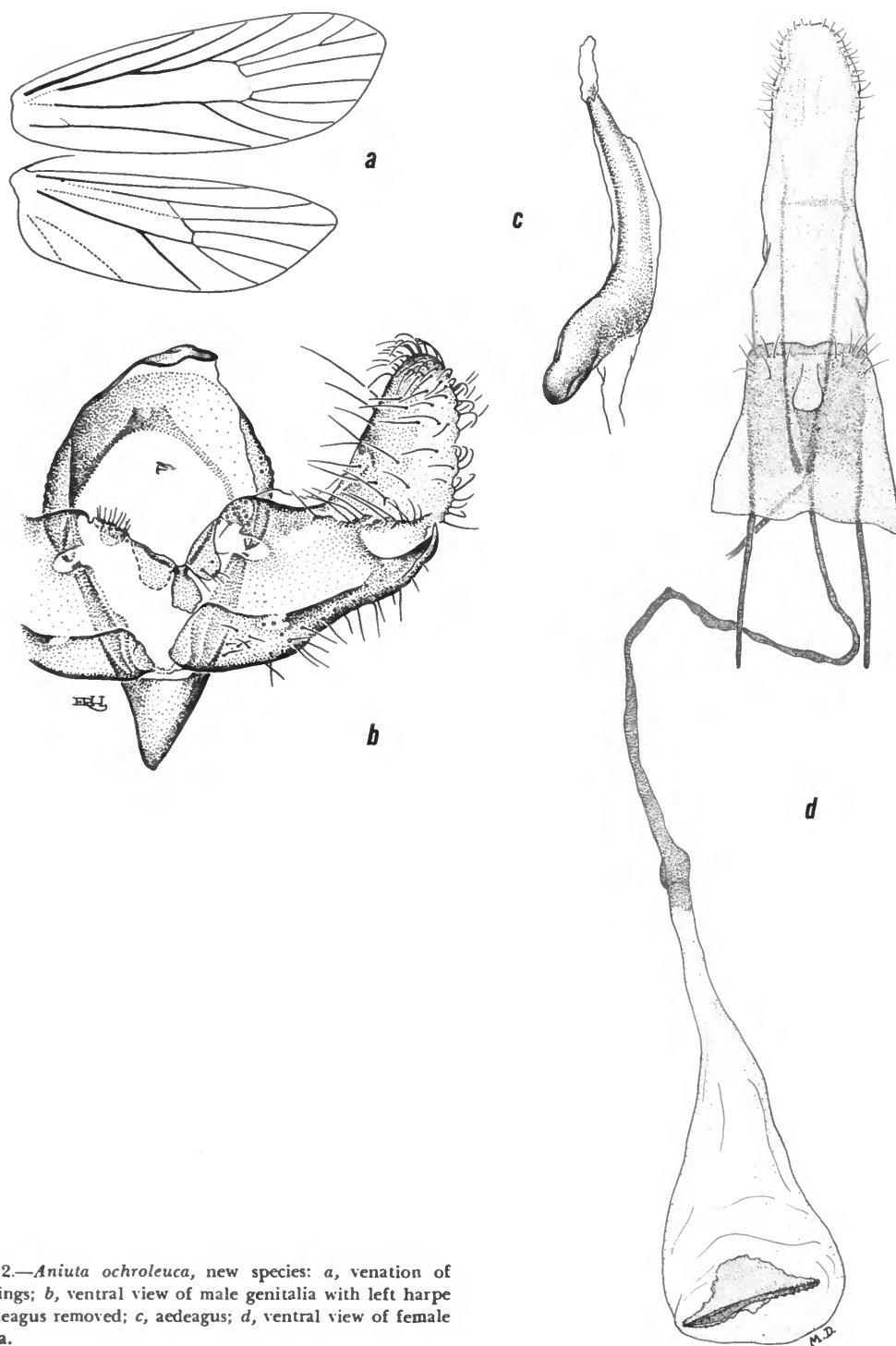


FIGURE 2.—*Aniuta ochroleuca*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus; *d*, ventral view of female genitalia.

Female genitalia slide USNM 24239. Ostium pear shaped. Antrum a sclerotized band. Inception of ductus seminalis near posterior end of ductus bursae. Ductus bursae very slender and sclerotized most of its length. Bursa copulatrix membranous. Signum a large, transverse, triangular, sclerotized plate with serrate anterior edge.

HOLOTYPE.—USNM 73691.

TYPE-LOCALITY.—Llanquihue, Peulla.

Described from the male holotype (9 Mar 1959, J. F. G. Clarke), 2 male and 2 female paratypes as follows: male, Peulla (7 Mar 1959); male, 2 females, Petrohue (10–12 Mar 1959), all from Llanquihue Province, collected by J. F. G. Clarke.

Aniuta melanoma, new species

FIGURE 3; PLATE 1b

Alar expanse 12–14 mm.

Labial palpus light buff; second segment with grayish-fuscous shade on outer side. Antenna pale ochraceous buff with grayish-fuscous annulations; scape fuscous dorsally, light ochraceous buff ventrally. Head light buff, lightly infuscated. Thorax light buff, suffused grayish fuscous; tegula grayish fuscous basally. Forewing ground color grayish fuscous with scattered darker scales; in cell, about middle, and at end of cell, fuscous spots with a fuscous bar between and slightly dorsad; at apical third of costa a fuscous streak and inside that a broken fuscous shade; around apex and along termen a series of indistinct fuscous spots; cilia pale grayish mixed with grayish fuscous. Hind wing pale grayish buff, slightly darker toward margins; cilia pale grayish buff, becoming darker around apex. Foreleg light buff, femur and tibia heavily overlaid fuscous on outer side; tarsal segments banded fuscous; midleg similar but dark markings not so extensive; hind leg light buff with scattered fuscous irrorations. Abdomen grayish fuscous dorsally; ventrally buff with grayish fuscous irroration laterally.

Male genitalia slide USNM 24240. Harpe of about equal width except narrowed before cucullus; cucullus truncate; sacculus extended as a sharply pointed process exceeding cucullus. Gnathos absent. Uncus very weak, short, triangular. Vinculum rounded. Tegumen constricted posteriorly. Anellus tubular, with basal plate and lateral flaps. Aedeagus stout proximally, pointed distally; vesica unarmed.

Female genitalia slide USNM 24218. Ostium small, round, slightly protruding. Antrum not differentiated. Inception of ductus seminalis slightly before ostium. Ductus bursae slender, membranous with slight granulation before bursa copulatrix. Bursa copulatrix finely granular. Signum anterior, a folded plate, the folded edge forming a serrated keel, each outer edge with a median flange.

HOLOTYPE.—USNM 73692.

TYPE-LOCALITY.—Llanquihue, Peulla.

Described from the male holotype (7 Mar 1959, J. F. G. Clarke) and one female paratype with same data except date (8 Mar 1959).

This is similar to *A. ochroleuca* but with less contrasting markings of forewing. Moreover, the extension of sacculus exceeds cucullus in *A. melanoma* but in *A. ochroleuca* the extension of sacculus is curved and does not exceed cucullus.

Mattea Duckworth

Mattea Duckworth, 1966:2, fig. 1, pl. 1: fig. a. [Type-species: *Cryptolechia phoenissa* Butler, 1883:81, pl. 11: figs. 12, 12a; by monotypy and original designation.]

Mattea phoenissa (Butler)

Cryptolechia phoenissa Butler, 1883:81, pl. 11: figs. 12, 12a.—Bartlett-Calvert, 1886:347.

Mattea phoenissa (Butler).—Duckworth, 1966:2, fig. 1, pl. 1: fig. a.

TYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Corral.

The single species *M. phoenissa*, belonging to this genus, exhibits the extraordinary character of having veins 7 and 8 of forewing coincident to termen. I know of no other American oecophorid genus with this character. Previously figured in Duckworth (1966).

Pisinidea Butler

Pisinidea Butler, 1883:83. [Type-species: *Pisinidea viridis* Butler, 1883:83, pl. 11: fig. 10; by monotypy.]

Pisinidea viridis Butler

FIGURE 4

Pisinidea viridis Butler, 1883:83, pl. 11: fig. 10.—Bartlett-Calvert, 1886:347.

Male genitalia slide USNM 24243. Harpe of nearly equal width throughout; cucullus broadly

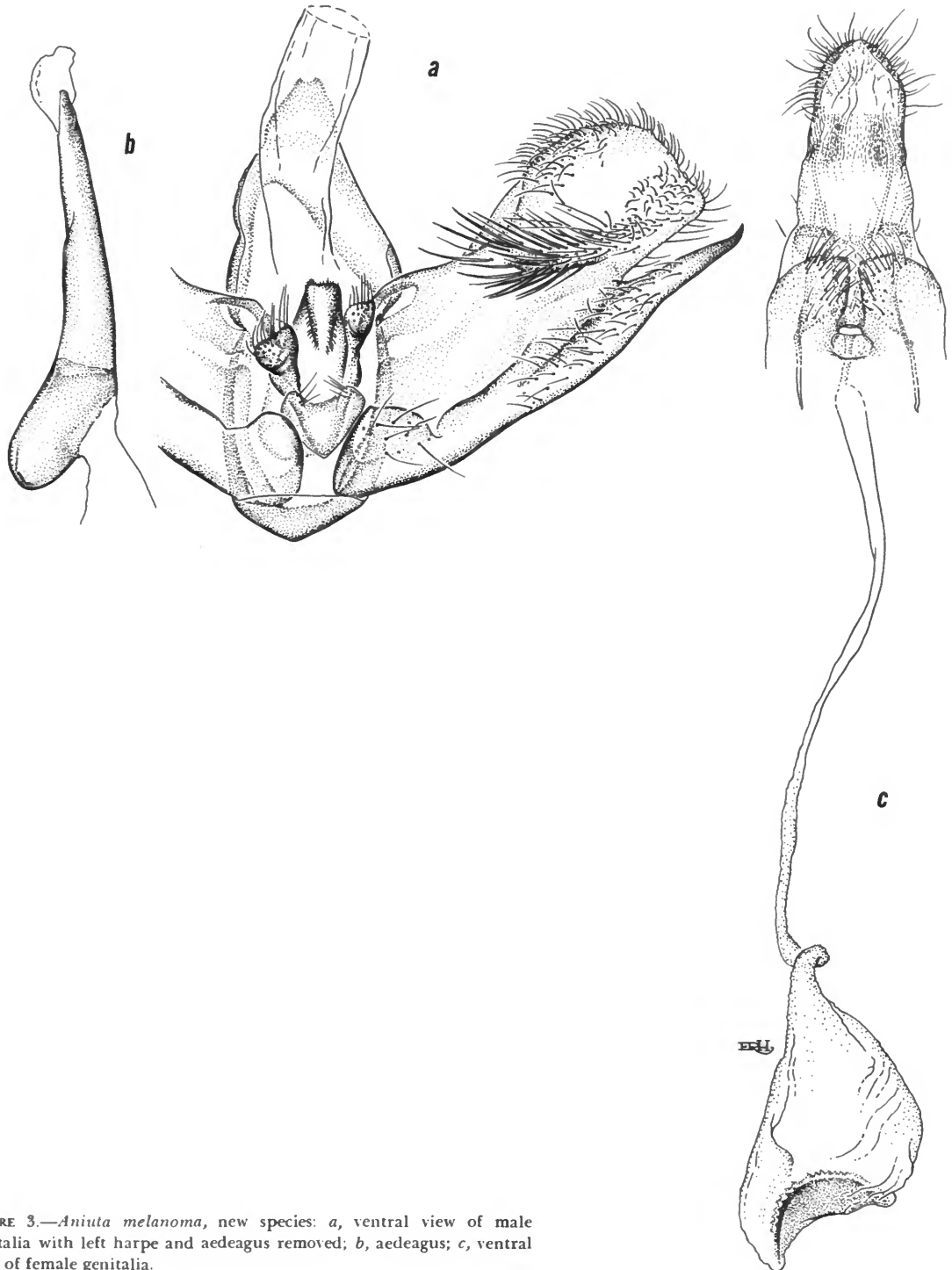


FIGURE 3.—*Aniuta melanoma*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

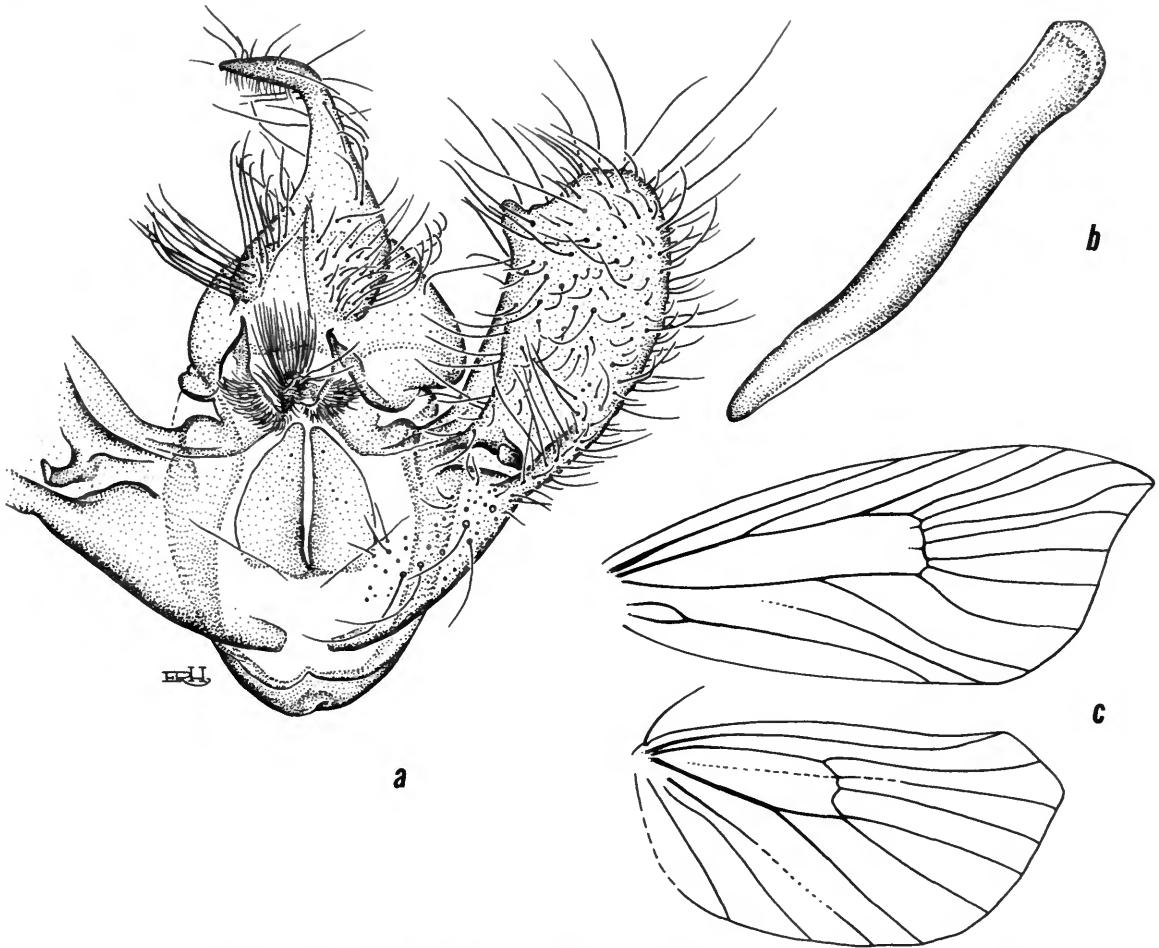


FIGURE 4.—*Pisinidea viridis* Butler: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, venation of right wings.

rounded; sacculus broadly sclerotized; costa sclerotized, terminating distally in a short point; clasper arising in middle of basal third of harpe, directed toward saccular margin. Gnathos absent. Transtilla U-shaped, arms of U pointed distally and profusely clothed with setae basally. Uncus slender, curved, pointed. Vinculum U-shaped; lateral arms broadest at articulation with tegumen. Tegumen hood shaped, broader than long. Anellus a large, divided, sclerotized plate. Aedeagus simple, moderately long; vesica apparently unarmed.

Female genitalia unknown.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—“Chiloe? . . .”

Unfortunately, the abdomen of the single specimen available to me was destroyed when the genitalia slide was prepared in 1929. Dr. John D. Bradley of the Commonwealth Institute of Entomology has examined a specimen in the British Museum and has informed me that the abdomen is not spined. The species is keyed accordingly.

The generic type is the only species I place here.

Talitha, new genus

TYPE-SPECIES.—*Talitha anomala*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus slender, ascending; second segment slightly roughened anteriorly; third segment shorter than third. Maxillary palpus prominent, filiform, free. Head smooth, sidetufts spreading; ocellus absent. Antenna simple (at least in female); scape with pecten. Thorax smooth. Forewing smooth, costa nearly straight, 12 veins; 1b simple; 1c present; 2, 3, and 4 nearly equidistant; 4 much nearer to 5 than to 3; 7 and 8 stalked, 7 to apex; 6, 7 + 8 and 9 equidistant, 10 much nearer to 9 than to 11; 11 from well before middle of cell; upper internal vein well developed. Hind wing with 8 veins; 2, 3, and 4 well separated; 5 approximate to 4; 5, 6, and 7 about equidistant, subparallel. Hind tibia clothed with hairlike scales. Abdominal terga setose.

Female genitalia with signum present.

This is an anomalous genus combining oecophorid and blastobasid characters. In the forewing veins 2 to 10 are bunched toward the outer end of cell but veins 2 and 3 arise from the cell as in the Oecophoridae. The signum is likewise oecophorid.

The setae of the terga are missing in *Talitha* and are not present as a band of setae on the posterior edges of the terga as in the blastobasids.

The genus differs from *Depressariodes* by the separate veins 2 and 3 of forewing and by the bunching of veins 2 to 10.

Talitha anomala, new species

FIGURE 5; PLATE 1d

Alar expanse 23 mm.

Labial palpus blackish fuscous; second segment white basally and speckled with white on inner side; inner side of third segment white. Antenna blackish fuscous; pecten white. Head blackish fuscous streaked with elongate white scales. Thorax blackish fuscous mixed with gray and white scales; tegula white tipped. Forewing ground color blackish fuscous heavily overlaid white; at basal fifth, in cell, a blackish-fuscous spot followed at basal third of cell by a pair of confluent blackish-fuscous spots, these in turn followed by a pair of blackish-fuscous spots on upper vein of cell; at end of cell a transverse broken blackish-fuscous bar extends to tornus; from apex, along termen a short blackish-fuscous bar; cilia grayish mixed with white and blackish-fuscous scales. Hind wing grayish fuscous except cell that is gray devoid of grayish-fuscous

scales; cilia ochreous white. Foreleg sordid white, heavily overlaid blackish fuscous on outer side; midleg similar but with less dark marking; hind leg ochreous white sparsely irrorate with grayish fuscous. Abdomen grayish fuscous dorsally, sordid white ventrally suffused grayish; abdominal terga not setose.

Female genitalia slide USNM 24244. Ostium broadly funnel shaped. Antrum not differentiated. Inception of ductus seminalis well before ostium. Ductus bursae membranous in posterior two-fifths with most of this part with granular inner surface; anterior three-fifths spiraled, membranous. Bursa copulatrix membranous. Signum a triangular dentate plate.

HOLOTYPE.—USNM 73693.

TYPE-LOCALITY.—Santiago, Guatan.

Described from the female holotype (Oct 1952, 1100 m, L. E. Peña) and one female paratype with identical data.

The paratype is slightly larger than the holotype and is not as contrastingly marked.

In general facies *T. anomala* reminds one of the North American *Valentinia glandulella* (Riley) (Blastobasidae) but *T. anomala* lacks the transverse submedian fascia of that species.

Deia, new genus

TYPE-SPECIES.—*Deia lineola*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus slender, recurved but second segment not reaching vertex, very slightly roughened anteriorly; third segment as long as second, slender, acute. Tongue well developed; maxillary palpus slender, appressed to base of tongue. Head rough, sidetufts spreading; ocellus absent. Antenna (female) slightly serrate and finely pubescent; scape without pecten. Thorax smooth. Forewing smooth, costa nearly straight, termen slightly sinuate, oblique, 12 veins; 1b simple; 1c present; 2 remote from 3; 3, 4, and 5 approximate; 7 and 8 stalked from well below angle, both to costa; 9 from angle; 10 much closer to 9 than to 11; 11 from beyond middle of cell; upper internal vein absent. Hind wing with 8 veins; 2 distant from 3; 3 and 4 connate; 5 approximate to 4; 6 and 7 subparallel. Hind tibia roughened with a few loose, long scales. Abdominal terga not setose.

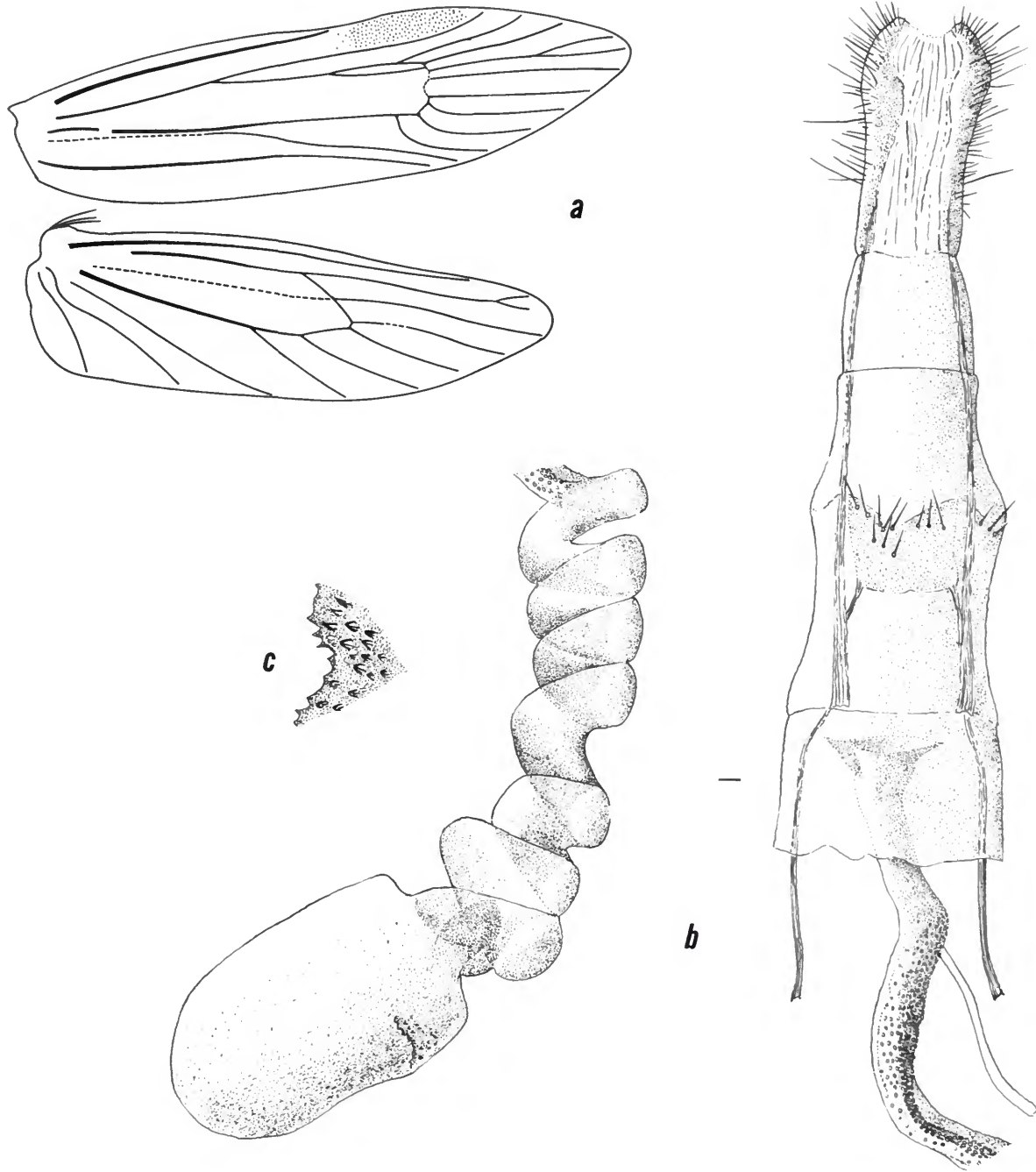


FIGURE 5.—*Talitha anomala*, new species: *a*, venation of right wings; *b*, ventral view of female genitalia; *c*, signum enlarged.

Male genitalia unknown.

Female genitalia without signum.

Deia is similar to *Borkhausenia* but differs from it by the absence of pecten, the absence of an ocellus, having a smoother hind tibia, 1b simple, and vein 2 of forewing remote from 3.

***Deia lineola*, new species**

FIGURE 6; PLATE 1e

Alar expanse 11–12 mm.

Labial palpus white; second segment blackish fuscous in apical half; third segment with blackish scales scattered along anterior edge. Antenna blackish fuscous spotted with white ventrally; scape longitudinally striped white and blackish fuscous. Head olivaceous gray. Thorax blackish fuscous, streaked with olivaceous gray. Forewing ground color blackish fuscous; from middle of costa to dorsum a broad white fascia with scattered blackish-fuscous scales; from apical fourth of costa to tornus a straight, white, transverse line; beyond this line a patch of olivaceous-gray scales; termen narrowly white; cilia gray mixed with olivaceous gray and blackish-fuscous scales basally. Hind wing light gray, somewhat darker toward margins. Foreleg ocherous white; femur and tibia suffused fuscous on outer side; tarsal segments spotted fuscous; mid-leg similar; hind leg ocherous white with slight grayish suffusion on outer side of tibia distally; tarsal segments spotted fuscous on outer side. Abdomen grayish fuscous dorsally; ventrally sordid white.

Female genitalia USNM 24207. Ostium small, funnel shaped. Antrum a sclerotized ring. Inception of ductus seminalis dorsal, at posterior edge of antrum. Ductus bursae membranous except for a sclerotized area at about posterior third. Bursa copulatrix membranous. Signum absent.

HOLOTYPE.—USNM 73694.

TYPE-LOCALITY.—Llanquihue, Petrohue.

Described from the female holotype (10 Mar 1959, J. F. G. Clarke) and three female paratypes with identical data, except one, 12 Mar 1959.

Aside from certain species of *Chionodes* (Gelechiidae) I know of no species with which *D. lineola* can be favorably compared, unless one refers to *Borkhausenia praesul* Meyrick from Argentina. In the case of *B. praesul*, it is a larger moth and the

dark markings of *D. lineola* are more extensive than those of *B. praesul*. Moreover, *B. praesul* lacks the white transverse line at apical fourth of forewing, present in *D. lineola*.

***Macarocosma* Meyrick**

Macarocosma Meyrick, 1931:393. [Type-species: *Macarocosma philochrysa* Meyrick, 1931; by monotypy.]

***Macarocosma philochrysa* Meyrick**

FIGURE 7

Macarocosma philochrysa Meyrick, 1931:393.—Clarke, 1963, 4:314, pl. 154; figs. 1-1c.

Female genitalia slide USNM 24215. Ostium protruding; ventral surface granular. Antrum cylindrical, sclerotized. Inception of ductus seminalis ventral, at about anterior two-thirds of ductus bursae. Dustus bursae very slender, membranous. Bursa copulatrix with finely granular inner surface; signum a long, curved sclerotized rod with serrate edges.

The male genitalia, wings, and wing venation have been figured in Clarke (1963) but the female genitalia are here illustrated for the first time. So far, only the single species of this genus has been discovered.

***Perzelia*, new genus**

TYPE-SPECIES.—*Perzelia arda*, new species (by monotypy and present designation). The gender of the generic name is feminine.

Labial palpus recurved, second segment exceeding vertex, very slightly roughened anteriorly; third segment slender, acute, slightly shorter than second. Tongue well developed; maxillary palpus, minute, free. Head smooth; side tufts spreading; ocellus absent. Antenna simple; scape without pecten. Thorax smooth. Forewing smooth, costa gently arched, termen nearly straight, oblique, 12 veins; 1b furcate; 1c well preserved; 2 remote from 3; 3 arising well before angle of cell; 4 and 5 connate, from angle of cell; 6 nearer to 7 than to 5; 7 and 8 stalked, 7 to costa; 9 nearer to stalk of 7 and 8 than to 10; 10 nearer to 9 than to 11; 11 from middle; upper internal vein absent. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate; 5 nearer

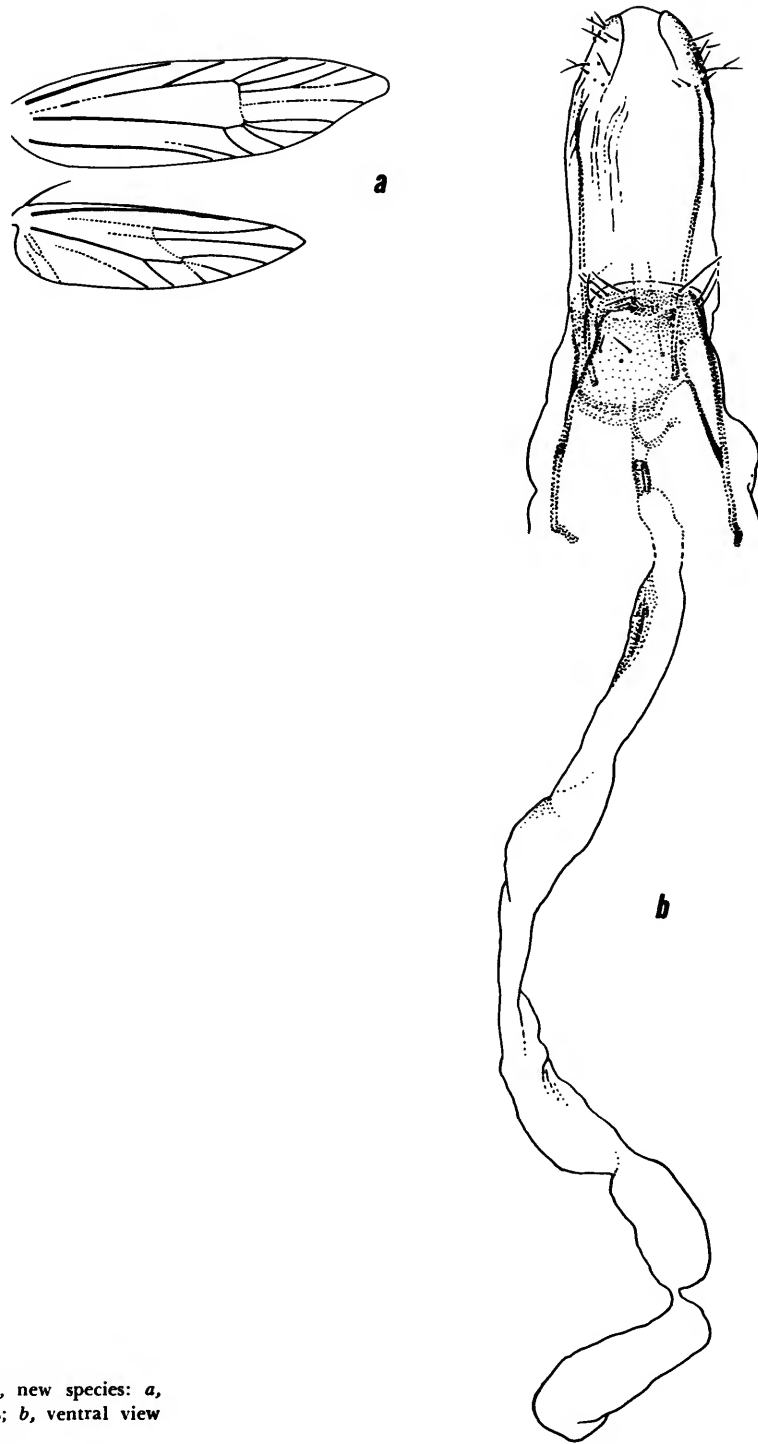


FIGURE 6.—*Deia lineola*, new species: *a*, venation of right wings; *b*, ventral view of female genitalia.

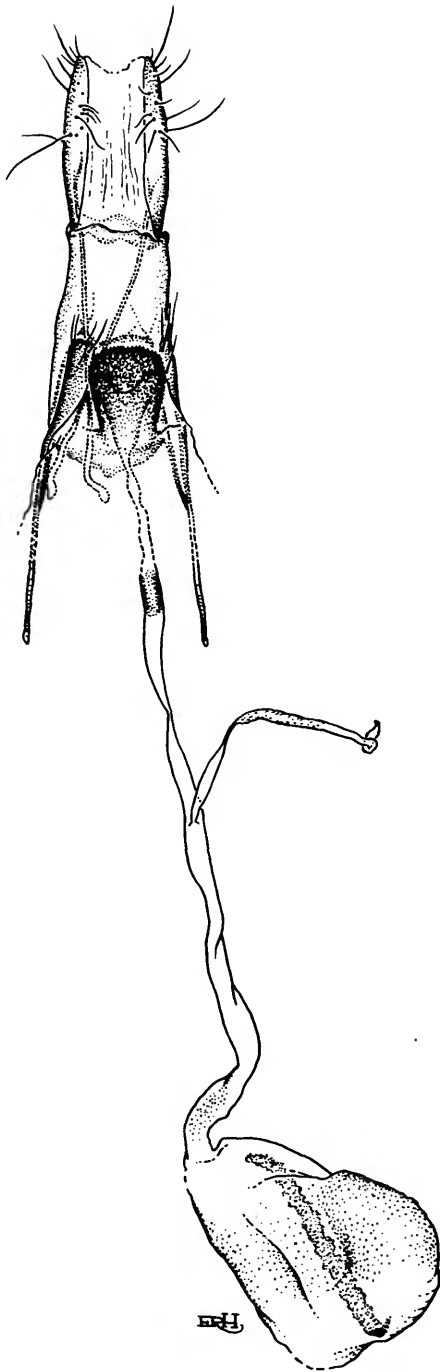


FIGURE 7.—*Macarocosma philochrysa* Meyrick, ventral view of female genitalia.

to 4 than to 6; 6 and 7 subparallel. Hind tibia roughened with hairlike scales. Abdominal terga not setose.

Male genitalia with well-developed uncus and gnathos.

Female genitalia unknown.

In genitalia this genus is close to *Doshia*, new genus, but the position of vein 3 of forewing well before angle in *Perzelia* at once distinguishes it from *Doshia*.

***Perzelia arda*, new species**

FIGURE 8; PLATE 1f

Alar expanse 15–18 mm.

Labial palpus sordid white; second segment with light grayish suffusion anteriorly and on outer side; third segment grayish fuscous anteriorly. Antenna very pale grayish, annulated grayish fuscous; scape sordid white, infuscated dorsally. Head sordid white; face infuscated. Thorax sordid white. Forewing ground color sordid white; basally some pale ochereous suffusion; extreme edge of costa, at base, fuscous; underside of wing strongly overlaid fuscous; some specimens show a few widely scattered grayish-fuscous scales on upper surface of forewing; cilia white. Hind wing pale grayish, darker toward margins; cilia mixed sordid white and grayish. Foreleg sordid white; tibia and tarsal segments grayish fuscous on outer sides; midleg similar; hind leg sordid white. Abdomen sordid white heavily overlaid grayish fuscous dorsally; first segment of male with median eversible scale tuft.

Male genitalia slides USNM 24245, 24246. Harpe broad, tapering rather abruptly to the truncated cucullus; inside costa, near middle of harpe, a cluster of stout, truncated setae; before cucullus, on sacculus, a series of strong, short setae. Gnathos a spined, heart-shaped knob. Uncus large, hood shaped. Vinculum U-shaped. Tegumen subrectangular, slightly longer than uncus. Anellus a subrectangular, sclerotized plate with median posterior projection and a slender digitate process from base on each side. Aedeagus long, curved, pointed; vesica armed with one long, strong cornutus.

HOLOTYPE.—USNM 73695.

TYPE-LOCALITY.—Maule, Pelluhue, 600 m.

Described from the male holotype (2 Dec 1953, L. E. Peña) and 8 male paratypes, all with the same data.

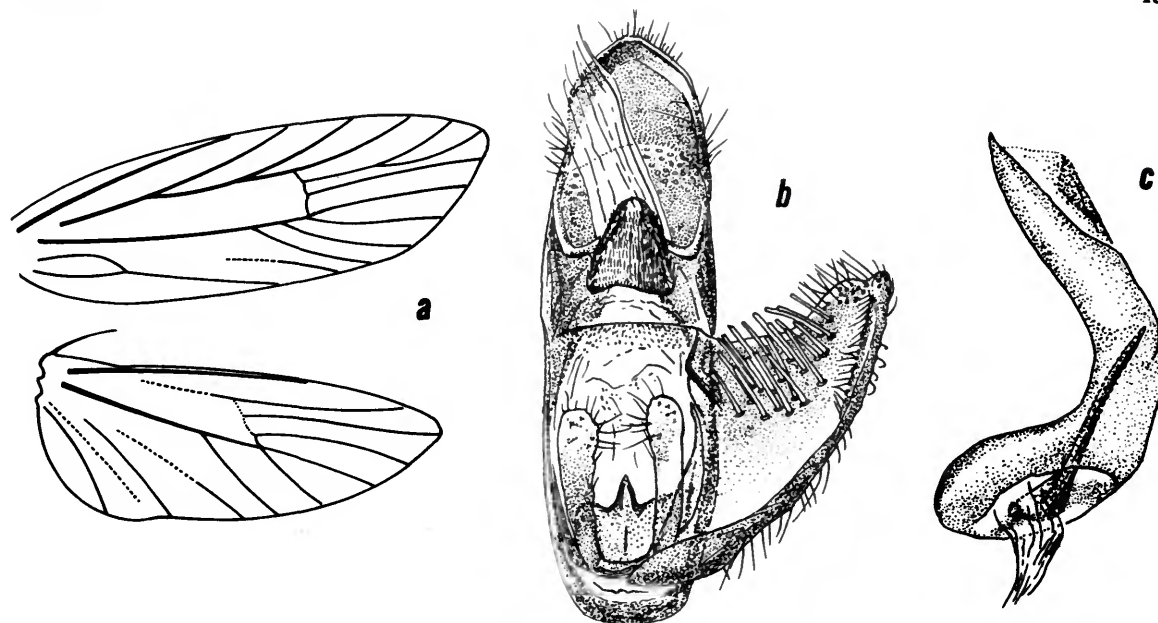


FIGURE 8.—*Perzelia arda*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus.

Perzelia arda is similar to *T. isaura*, new species, but has a much darker hind wing.

Corita, new genus

TYPE-SPECIES.—*Corita amphichroma*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus recurved; second segment exceeding base of antenna, slightly roughened anteriorly; third segment slender, acute, shorter than second. Tongue well developed; maxillary palpus reduced, filiform, free. Head roughened with loosely appressed scales, side tufts spreading; ocellus absent. Antenna of male ciliated, female antenna serrate; scape without pecten. Thorax smooth. Forewing smooth, costa gently arched, apex slightly produced, termen below apex slightly concave, 12 veins, 1b furcate; 1c strongly preserved; 2 distant from 3; 3 from angle of cell; 3, 4, and 5 nearly equidistant, approximate; 7 and 8 stalked, both to costa; 9 much nearer to stalk of 7 and 8 than to 10; 10 nearer to 9 than to 11; 11 from well before middle of cell. Upper internal vein absent. Hind wing with 8

veins; 2 remote from 3; 3 and 4 stalked; 5 about equidistant from 4 and 6; 6 and 7 subparallel. Hind tibia roughened with long hairlike scales. Abdominal terga not setose.

Male genitalia with well-developed uncus and gnathos.

Female with signum present.

This genus appears to be very closely related to the New Zealand *Gymnobathra* Meyrick; in fact the only characters by which *Corita* differs from *Gymnobathra* are the absence of an ocellus and the stalking of veins 3 and 4 in the hind wing. Inasmuch as Meyrick attributed an ocellus to many genera where there is none, we can discount that character and have left only the difference in the condition of veins 3 and 4 in the hind wing.

Corita amphichroma, new species

FIGURE 9; PLATE 1g

Alar expanse 16–19 mm.

Labial palpus second segment clay color; third segment buff. Antenna pale clay color with ill-defined fuscous annulations. Head pale clay color

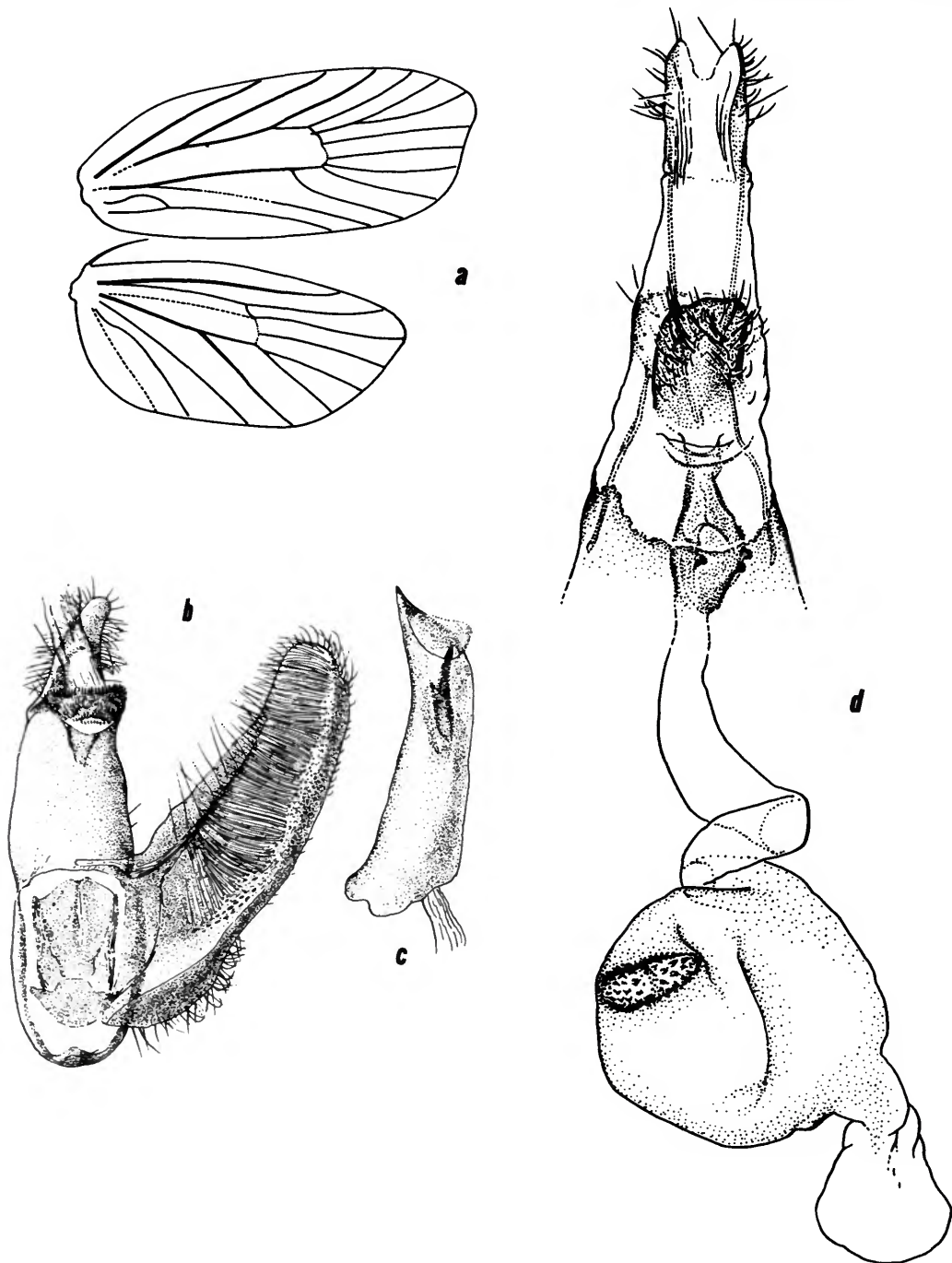


FIGURE 9.—*Corita amphichroma*, new species: a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus; d, ventral view of female genitalia.

laterally and anteriorly; buff dorsally. Thorax clay color. Forewing ground color clay color; three black discal spots, one on fold, one in cell at two-fifths and one at end of cell; costa with two buff spots, one, the smaller of the two slightly before middle, the larger one slightly beyond middle, the latter followed by an ill-defined fuscous blotch; from the outer angle of this blotch an outwardly curved row of small fuscous spots ending at tornus; cilia clay color except a fuscous apical group, the latter preceded and followed by a buff patch. Hind wing ochraceous white; veins and outer margin infuscated; cilia pale grayish fuscous. Foreleg buff; outer side clay color; midleg and hind leg light ochraceous buff. Abdomen ochraceous buff ventrally, pale grayish fuscous dorsally.

Male genitalia slide USNM 24247. Harpe simple, costa strongly sclerotized; cucullus rounded. Gnathos an elongate, triangular spined plate. Uncus narrow, curved, pointed. Vinculum narrowly rounded. Tegumen rather narrow, half as long as harpe. Anellus semitubular, deeply incised posteroventrally. Aedeagus short, stout, distally pointed; vesica armed with a single strong cornutus.

Female genitalia slides USNM 24248, 24249. Ostium cupped, transverse. Antrum very strongly sclerotized, broadly dilated anteriorly and with a dorsal spine at about two thirds. Inception of ductus seminalis dorsal about middle of antrum. Ductus bursae membranous, rather wide with two coils before bursa copulatrix. Bursa copulatrix very finely granular; appendix bursae membranous, small. Signum an oval, dentate plate.

HOLOTYPE.—USNM 73696.

TYPE-LOCALITY.—Centro-Austral.

Described from the female holotype (Jan–Mar 1898, V. Izquierdo), three female and two male paratypes with same data as holotype.

The males have a much darker hind wing than the females but other characters agree.

This species is similar superficially to some species of the genus *Gonionota*, particularly *G. oligarcha* (Meyrick). On the costa of the forewing of *C. amphichroma* there are two pale spots, on the costa of *G. oligarcha* only one. Moreover, *G. oligarcha* lacks the curved row of fuscous spots before termen present on the forewing of *C. amphichroma*. The labial palpus and genitalia immediately separate the two.

Muna, new genus

TYPE-SPECIES.—*Muna zostera*, new species (by monotypy and present designation). The gender of the generic name is feminine.

Labial palpus recurved, exceeding vertex; second segment slightly roughened anteriorly; third segment shorter than second, slender, acute. Tongue well developed; maxillary palpus slender, free. Head smooth, side tufts spreading; ocellus absent. Antenna slightly thickened, pubescent (in male); scape without pecten. Thorax smooth. Forewing smooth, costa arched, termen straight, 12 veins; 1b furcate; 1c very strongly preserved; 2 distant from 3; 3, 4, and 5 equidistant; 7 and 8 stalked, both to costa; 9, 10, and 11 about equidistant; 11 from before middle of cell; upper internal vein preserved. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate; 4, 5, and 6 about equidistant, subparallel. Hind tibia smooth. Abdominal terga not setose.

Male genitalia with oval spined gnathos and hood-shaped uncus.

Female genitalia not available.

In Meyrick's key (1922b) this genus keys to the Indian and African genus *Porthmologa*. *Muna* differs from *Porthmologa*, however, by the absence of an ocellus, the smooth third segment of labial palpus, in vein 2 of forewing being remote from 3, and the smooth hind tibia. Moreover, the forewing of *Porthmologa* is narrow with a very oblique termen while that of *Muna* is tortriciform with a straight termen.

Muna zostera, new species

FIGURE 10; PLATE 1h

Alar expanse 21 mm.

Labial palpus straw color; second segment with ochraceous-tawny blotches on outer side; third segment ochraceous tawny on outer side and anteriorly. Antenna grayish fuscous above, buff ventrally. Head grayish buff. Thorax light cinnamon brown; tegula concolorous. Forewing ground color light cinnamon brown with violaceous tinge; at basal third two ill-defined fuscous spots, one in cell, the other on fold; from three-fifths of costa a broad straw-yellow transverse fascia extends outwardly to middle of wing, then curves inwardly to middle of dorsum; both inner and outer edges of this fascia irregularly marked with cinnamon-buff scales; between outer

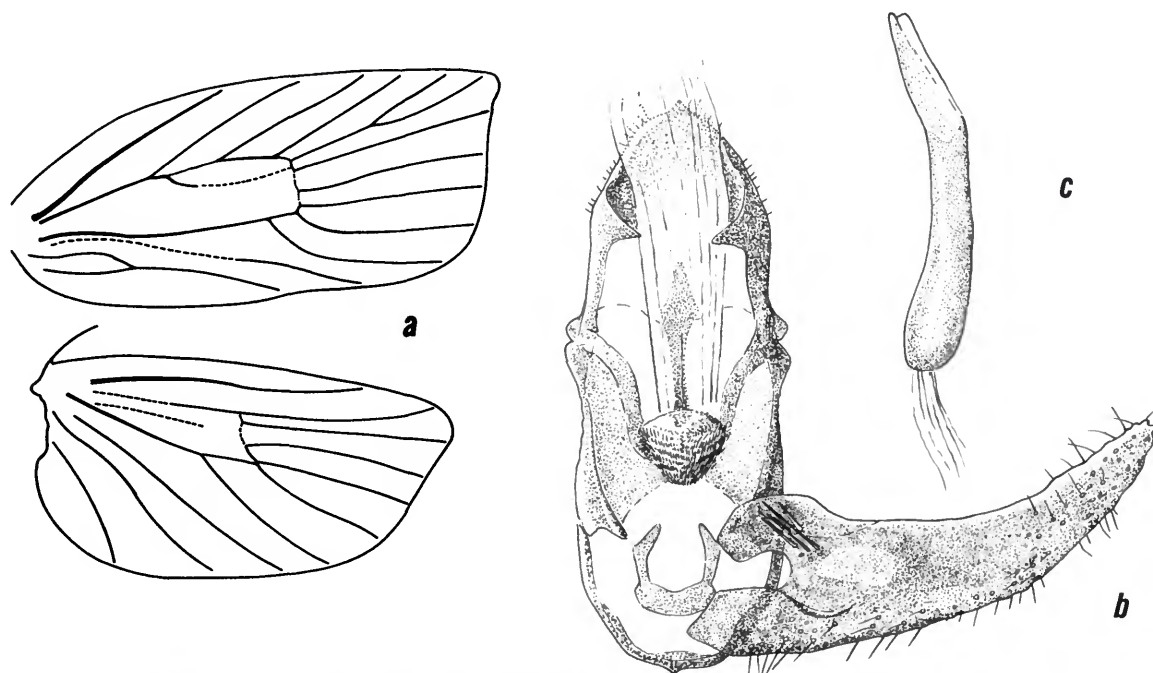


FIGURE 10.—*Muna zostera*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus.

edge of fascia and termen, a series of five ill-defined, grayish-fuscous spots; cilia cinnamon brown mixed with a few straw color scales. Hind wing ochereous white shading to very pale cinnamon brown at apex. Legs ochereous white; foreleg tibia and tarsal segments suffused grayish fuscous on outer side. Abdomen sordid whitish with violaceous tinge.

Male genitalia slide USNM 24250. Harpe long and narrow, with a cluster of strong setae at base near costa; cucullus bluntly pointed; sacculus moderately sclerotized and with a very small point at its outer extremity. Gnathos an elongate, spined plate. Uncus hood shaped with median posterior point; posterior half of surface clothed with very fine, short setae. Vinculum rounded. Tegumen subrectangular, about as long as uncus. Anellus U-shaped. Transtilla a very narrow sclerotized band with a cluster of strong setae on each side. Aedeagus moderately slender, slightly curved; vesica unarmed.

HOLOTYPE.—USNM 73697.

TYPE-LOCALITY.—Chiloe Island, Dalcahue.

Described from the unique male holotype (10–12 Feb 1954, L. E. Peña).

The only species with which *M. zostera* can be compared is *Coptotelia cyathopa* (Meyrick) but *M. zostera* has a complete pale transverse band of forewing and the remaining ground color of *M. zostera* is darker than in *C. cyathopa*.

Altiura, new genus

TYPE-SPECIES.—*Altiura maculata*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus slightly ascending, nearly porrect; second segment slightly tufted anteriorly and posteriorly; third segment slender, acute, less than half the length of second. Tongue well developed; maxillary palpus filiform, free. Head very rough, scales on crown forming a tuft; ocellus absent. Antennae ciliated in male, simple in female; scape without pecten. Thorax smooth. Forewing smooth, costa arched, termen oblique, convex, 12 veins; 1b furcate; 1c strongly preserved; 2 well before 3; 3, 4, and 5 closely approximate; 7 and 8 stalked, 7 to costa; 9 much nearer to stalk of 7 and 8 than

to 10; 11 from before middle; upper internal vein absent. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate or very short stalked; 4, 5, 6, and 7 about equidistant, subparallel. Hind tibia smooth. Abdominal terga not setose.

Male genitalia with uncus and gnathos.

Female genitalia with signum.

Altiura keys to the New Zealand *Izatha* Walker but differs from it by the absence of tufts of scales on the forewing, the slightly ascending labial palpus, and the smooth posterior tibia. In female genitalia there appears to be a close relationship to the South American genus *Gonionota* Zeller.

Altiura maculata, new species

FIGURE 11; PLATE 2a,b

Alar expanses 21–22 mm.

Labial palpus light ochraceous buff; second segment tawny on outer side and on inner side distally; third segment pale ochraceous buff with a faint tawny streak at basal third on inner side. Antenna tawny dorsally, pale ochraceous buff ventrally. Head tawny mixed with ochraceous buff. Thorax ochraceous buff; tegula tawny. Forewing ground color light orange yellow; basal fifth of costa broadly tawny with a violaceous tinge; on middle of costa a similarly colored spot (in male a similar spot at end of cell and a smaller one in cell at one third); cilia orange yellow. Hind wing ochraceous white, cilia concolorous. Legs light ochraceous buff. Abdomen light ochraceous buff; abdominal terga not setose.

Male genitalia slide USNM 24251. Harpe of almost even width throughout; cucullus broadly rounded; sacculus an undulating sclerotized ridge in outer half; at base, inside costa, a small raised ridge. Gnathos broad, spoon shaped, broadly rounded distally. Uncus a half cylinder with a deep U-shaped excavation on posteroventral edge. Vinculum rounded. Tegumen very broad basally, narrowed posteriorly. Anellus a broad, sclerotized, curved plate with a large winglike structure on each side, also from each basal angle a fleshy papilla. Aedeagus stout, curved, relatively short, pointed distally; vesica armed with a single, stout, curved cornutus.

Female genitalia slide USNM 24206. Ostium very small, slitlike, transverse. Antrum a sclerotized ring.

Inception of ductus seminalis lateral, slightly anterior to antrum. Ductus bursae lightly rugose; anterior section before bursa copulatrix sclerotized. Bursa copulatrix very finely granular. Signum a broad dentate plate.

HOLOTYPE.—USNM 73698.

TYPE-LOCALITY.—Santiago Province, Cajon de Maypo, Cordillera, El Canelo.

Described from the female holotype (12–20 Jan 1948, Tito Ramirez) and one male paratype (Peumo, 15 Mar 1951, J. Herrera).

This has nearly the ground color of *Gonionota mimulina* (Butler) but the dark markings of *A. maculata* are much reduced.

Doina, new genus

TYPE-SPECIES.—*Doina lagneia*, new species (by present designation). The gender of this generic name is feminine.

Labial palpus recurved, second segment reaching or exceeding vertex, smooth; third segment slender, acute, shorter than second. Tongue well developed; maxillary palpus very small, filiform, appressed to base of tongue. Head smooth; side tufts spreading; ocellus absent. Antenna pubescent in male, simple in female, scape without pecten. Thorax smooth. Forewing smooth, costa gently arched, termen nearly straight, slightly oblique, 12 veins; 1b furcate; 1c strongly preserved, 2, 3, 4 approximate; 4 and 5 connate or very closely approximate; 5, 6, 7 nearly parallel; 7 and 8 stalked, 7 to apex, or to termen very slightly below apex; 9 nearer to stalk of 7 and 8 than to 10; 10 nearer 9 than to 11; 11 from middle. Hind wing with 8 veins; 2 distant from 3; 3 and 4 connate or very short stalked; 5 nearer 6 than to 4; 5–8 nearly parallel. Hind tibia smooth or with a few short, loosely appressed scales at base. Abdominal terga not setose.

Male genitalia with well-developed uncus and gnathos.

Female genitalia with signum (except *D. phaeobregma*).

This "genus" is closely related to *Psilocorsis* but differs from it by the absence of the longitudinally striped labial palpus found consistently in *Psilocorsis*, vein 11 of forewing from middle of cell and vein 5 of hind wing nearer to vein 6 than to 4.

The species grouped under *Doina* show some variation. Of the species in which males are known,

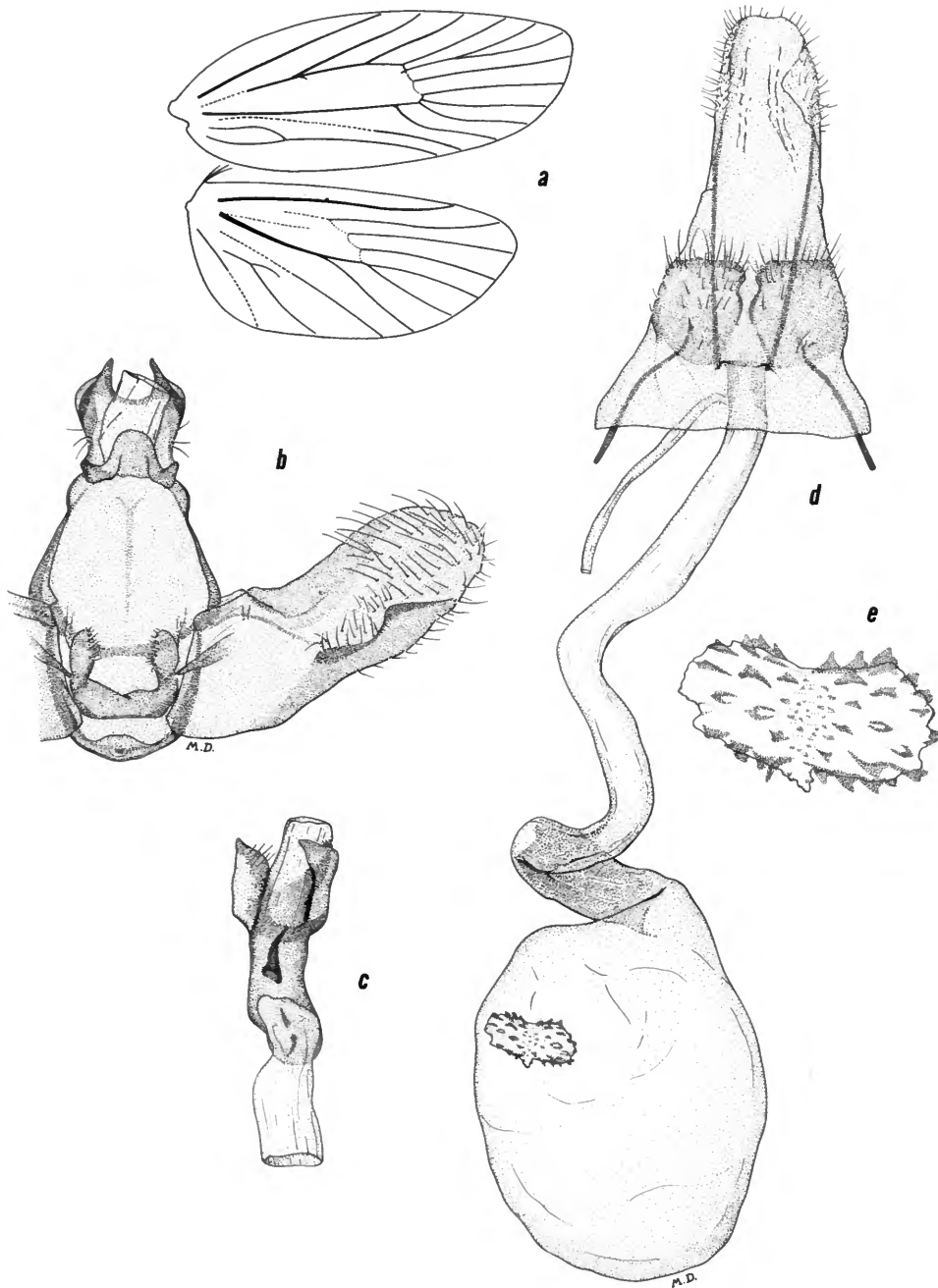


FIGURE 11.—*Altiva maculata*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus with part of anellus attached; *d*, ventral view of female genitalia; *e*, signum, enlarged.

some have a median ventral eversible scale tuft from the first abdominal segment, some do not. Of the known males, six have a cluster of strong setae at the base of harpe, five do not, although in other features they are consistent, except *D. glebula* has a divided uncus and probably requires a different genus, but keys to this group. The known females (except *D. scariphista* and *D. phaeobregma*) have a multibranching signum.

***Doina paralagneia*, new species**

FIGURE 12; PLATE 2c

Alar expanse 18–20 mm.

The description of the following, *D. lagneia*, will suffice for *D. paralagneia* except spot at middle of costa of forewing *D. paralagneia* more conspicuous than in *D. lagneia* and forewing with more of an orange tinge. Foretibia brownish or fuscous. Abdomen with ventromedian pocket containing scale tuft on first and second segments of male.

Male genitalia slides USNM 24122, 24124, 24125. Harpe broad, stubby, simple, scarcely longer than tegumen; cucullus rounded. Gnathos a transverse, oval, spined knob. Uncus as long as tegumen, somewhat truncated distally. Vinculum U-shaped. Tegumen about as broad as long. Anellus a strongly sclerotized subrectangular plate; from each corner, basally, a strongly sclerotized lobe, dilated distally; opposite corners, each with a papilla directed anteriorly. Aedeagus C-shaped; vesica armed with cluster of slender cornuti.

Female genitalia slide USNM 24123. Ostium very small, protruding lamella antivaginalis sclerotized, cupped. Antrum not differentiated. Inception of ductus seminalis from slightly before ostium. Ductus bursae long, looped, and reversed on itself. Bursa copulatrix oval, membranous; appendix bursae present, membranous. Signum a long, branched, sclerotized plate extending full length of bursa copulatrix.

HOLOTYPE.—USNM 73700.

TYPE-LOCALITY.—Centro-Austral.

Described from the male holotype, 2 male paratypes, Centro-Austral (Jan–Mar 1898, V. Izquierdo); male paratype, Arauco, Caramavida (1–6 Jan 1954, L. E. Peña); and one female paratype, Province Cautin, near Pucon (4 Jan 1966, O. Flint and Cekalovic).

This and the following fly together and are, for all intents and purposes, indistinguishable in the field. Even when one has the two side by side the only superficial character that can be used to separate them is the color of the foretibia, which is carmine or carmine-tinged on outer side in *D. lagneia* and brownish or fuscous in *D. paralagneia*. Moreover, the male of *D. paralagneia* has a ventromedian pocket, containing a scale tuft, on the first and second abdominal segments that is lacking in *D. lagneia*. Unfortunately, this character can only be seen in dissected specimens. The male genitalia present excellent characters for separation as can be seen from the figures. The differences between the aedeagi are so striking that there is no difficulty in distinguishing between them. Unfortunately, there is only one female specimen that I have placed with *D. paralagneia* on the color of the foretibia, so no comparison between the two species, based on females, can be made.

***Doina lagneia*, new species**

FIGURE 13; PLATE 2d

Alar expanse 20–22 mm.

Labial palpus light ochraceous buff; second segment overlaid clay color. Antenna brown dorsally, clay color ventrally; scape light ochraceous buff ventrally. Head light buff to light ochraceous buff. Thorax buff to light ochraceous buff, sometimes overlaid and irrorate clay color; tegula with extreme base fuscous. Forewing ground color light ochraceous buff; extreme base of costa fuscous; from midcosta around apex and termen a series of 11 fuscous spots, the last, on tornus, more of a longitudinal streak; at basal third, in cell, a fuscous spot; a similar, but larger, spot on fold and one at end of cell (in some specimens these spots are obscure or absent); surface of wing sparsely irrorate with clay color and fuscous scales; cilia various, clay color, grayish or cinnamon buff, sometimes mixed. Hind wing ochraceous white, darker toward margins; cilia light buff. Foreleg light buff; tibia carmine on outer side; tarsal segments annulated fuscous; midleg light buff; outside of femur, distally, infuscated; tibia shaded with fuscous basally and irrorate with fuscous on outer side; hind leg light buff; terminal four basal segments clouded grayish fuscous. Abdomen light buff to light ochraceous buff; ventrolaterally a few ill-defined grayish-fuscous spots on

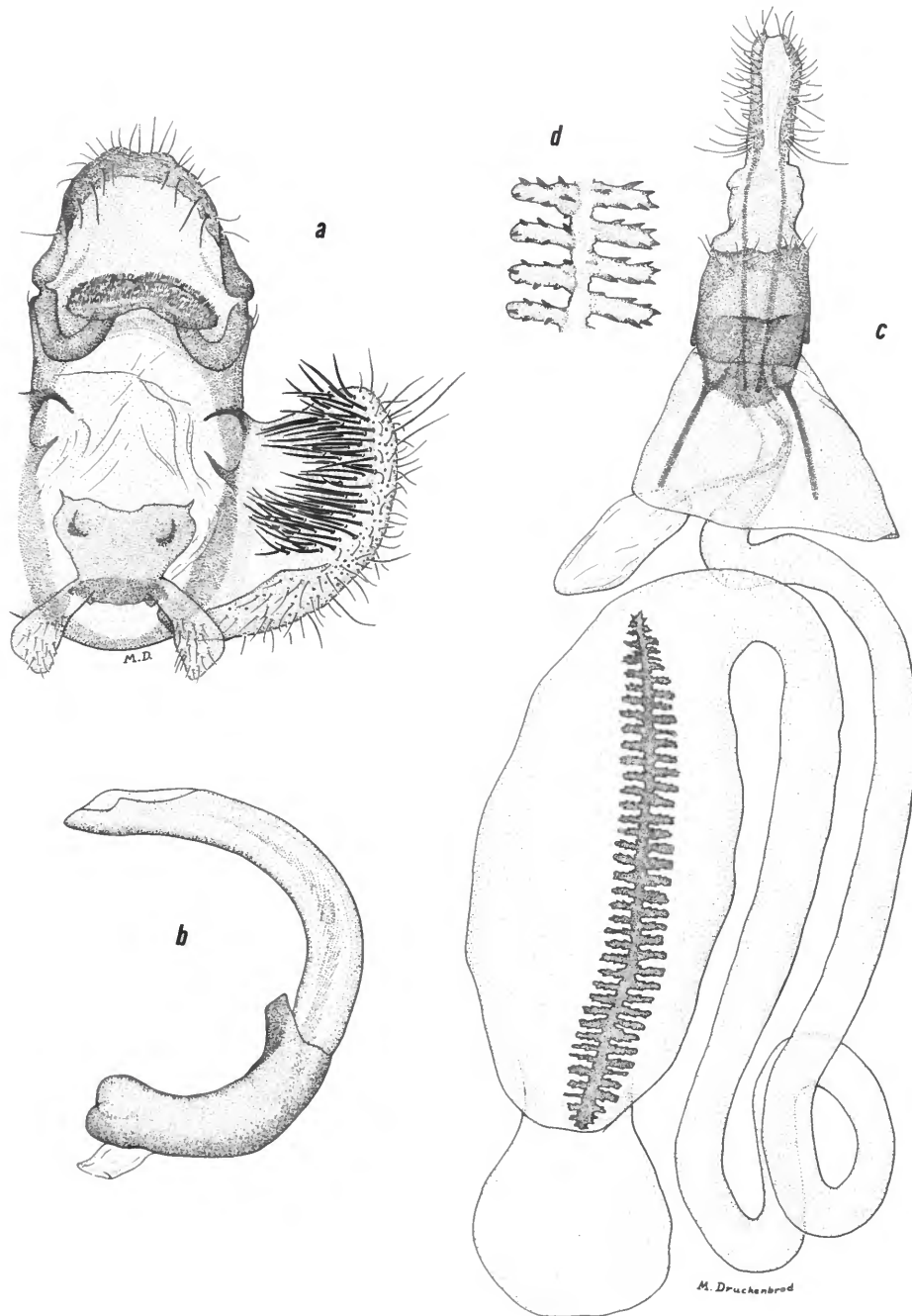


FIGURE 12.—*Doina paralagneia*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia; *d*, detail of signum, enlarged.

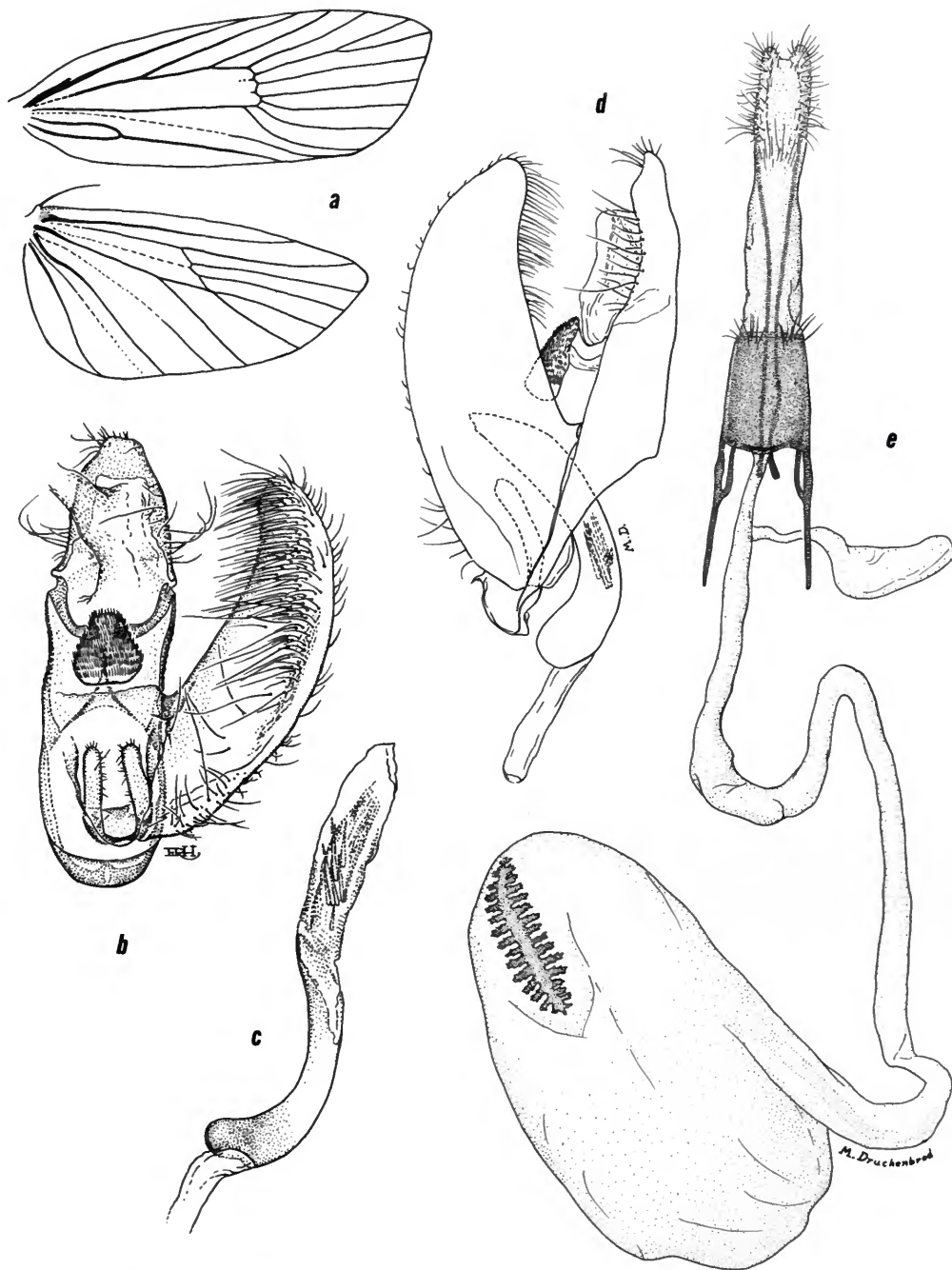


FIGURE 13.—*Doina lagneia*, new species: a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus; d, lateral outline of male genitalia with aedeagus in situ; e, ventral view of female genitalia.

posterior segments; dorsally centers of segments grayish fuscous; abdominal terga not setose.

Male genitalia slides USNM 24126, 24127, 24128, 24136, 24252, 25253. Harpe simple, longer than tegumen and uncus combined; cucullus narrowly rounded. Gnathos a pear-shaped, spined knob. Uncus as long as tegumen, broad basally and bluntly pointed distally. Vinculum U-shaped. Tegumen subrectangular, nearly as broad as long. Anellus a lightly sclerotized plate with a fleshy, finger-like lobe from base on each side. Aedeagus about as long as uncus and tegumen combined, curved, pointed distally; vesica armed with a cluster of long slender cornuti.

Female genitalia slides USNM 24134, 24136. Ostium very small, conical. Antrum not differentiated. Inception of ductus seminalis well before ostium, ventral. Ductus bursae long, membranous, reversed on itself. Bursa copulatrix membranous. Signum posterior, a short multibranching plate. Lamella antevaginalis a narrow sclerotized band.

HOLOTYPE.—USNM 73699.

TYPE-LOCALITY.—Lautara.

Described from the male holotype (Nov 1895, V. Izquierdo), and 11 male and two female paratypes as follows: 9 males, Centro-Austral (Jan–Mar, V. Izquierdo); male, Malleco, Rio Blanco (21–24 Nov 1954, L. E. Peña); male, 2 females, Llanquihue, Petrohue (10 Mar 1959, J.F.G. Clarke).

This is a variable species, one male exhibiting considerable grayish clouding in the basal half of forewing, and a paler, yellowish ground color than is found in most specimens. One female has a pale yellowish ground color to the forewing and conspicuous discal spots.

Under *D. paralagneia*, I have discussed the differences between the two.

Doina flinti, new species

FIGURE 14; PLATE 2c

Alar expanse 22 mm.

Labial palpus light buff; second segment light ochraceous buff on outer side; third segment light ochraceous buff laterally. Thorax light ochraceous buff; tegula paler posteriorly. Forewing ground color light buff; extreme costal edge white; inwardly, narrowly clay color; from middle of costa, around outer end of cell to fold, a clay color blotch;

from basal third of costa an ill-defined clay color fascia extends to dorsum; in middle of cell a fuscous speck; at end of cell a well-defined fuscous spot; cilia light buff suffused basally with light ochraceous buff. Hind wing whitish with slight buff shading terminally; cilia concolorous. Foreleg light buff shaded light ochraceous buff on outer side; midleg similar; hind leg light buff. Abdomen buff; first two segments shaded light ochraceous buff dorsally.

Female genitalia slide USNM 24209. Ostium funicular, rather broad. Antrum not differentiated. Inception of ductus seminalis lateral, slightly before ostium. Ductus bursae finely granular posteriorly, membranous anteriorly, very long, twisted. Bursa copulatrix very finely granular; appendix bursae small, membranous. Signum a branched plated with 8 to 9 branches on a side.

HOLOTYPE.—USNM 73701.

TYPE-LOCALITY.—Province Cautin, near Pucon. Described from the unique female holotype (4 Jan 1966, O. Flint and Cekalovic).

Structurally, *D. flinti* is probably nearest *D. subicula*, new species, but has none of the dark markings of that taxon.

I am pleased to dedicate this species to Dr. Oliver S. Flint, one of the collectors.

Doina inconspicua, new species

FIGURE 15; PLATE 2f

Alar expanse 26–30 mm.

Labial palpus sordid white; second segment heavily overlaid with drab and gray on outer side and anteriorly. Antenna very pale cinereous; scape drab. Head drab. Thorax drab. Forewing ground color light drab; surface of wing irrorate with scattered grayish-fuscous scales; at two-fifths, in cell, an ill-defined, small fuscous discal spot; at end of cell a similar but larger spot; a third similar spot on fold (in some specimens these spots are missing); between end of cell and termen a series of three or four small, ill-defined fuscous spots; along termen, to tornus, a series of seven ill-defined fuscous spots; cilia a mixture of drab and cinereous scales. Hind wing sordid white, the surface toward margins irrorate with fuscous scales; cilia sordid white with narrow drab subbasal and subterminal lines. Foreleg and midleg sordid white, strongly overlaid drab

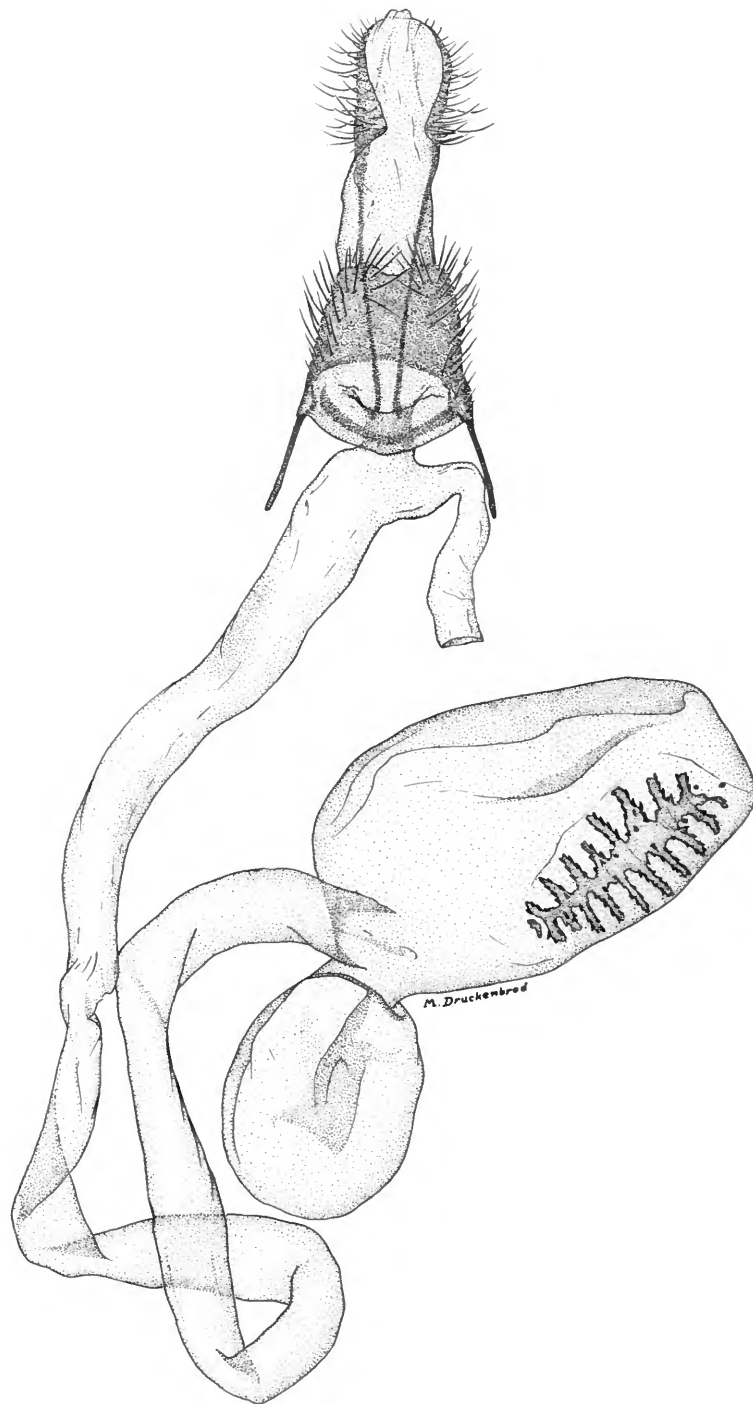


FIGURE 14.—*Doina flinti*, new species, ventral view of female genitalia.

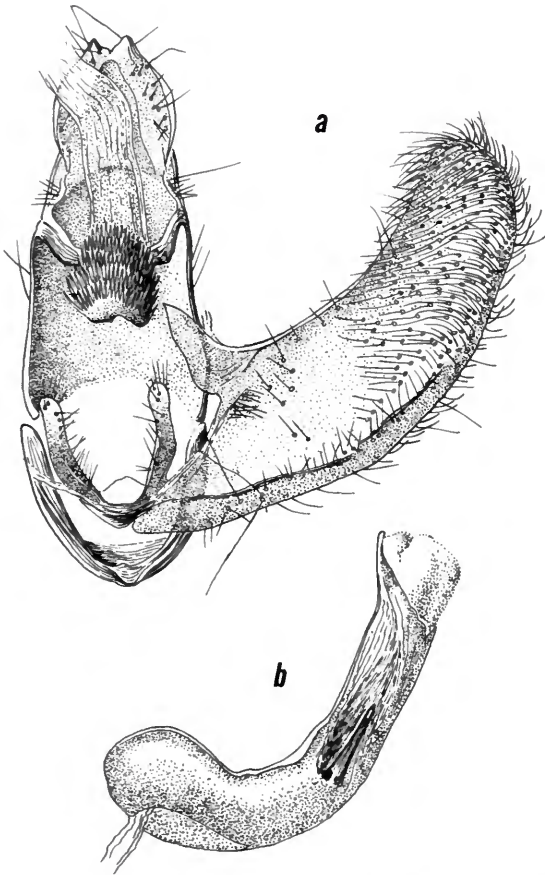


FIGURE 15.—*Doina inconspicua*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed, *b*, aedeagus.

on outer sides; hind leg sordid white mottled drab. Abdomen sordid white heavily overlaid drab and irrorate fuscous; abdomen of male with eversible median scale tuft from first segment.

Male genitalia slide USNM 24254. Harpe elongate, simple, about twice as long as tegumen; cucullus broadly rounded. Gnathos a pear-shaped, spined knob. Uncus very board, posterior edge excavated. Vinculum U-shaped. Tegumen, one-and-a-half times length of uncus. Anellus broadly oval with a pair of digitate processes from base. Aedeagus stout, curved, pointed distally, about as long as harpe; vesica armed with a strong cornutus arising from a rectangular plate.

HOLOTYPE.—USNM 73702.

TYPE-LOCALITY.—Arauco, Caramavida.

Described from the male holotype (25–31 Dec 1953, L. E. Peña), one male paratype with same data (except 1–6 Jan 1954), and one male paratype, Santiago, Guayacan (Oct 1952, 1100 m, L. E. Peña).

This species averages a little large than *D. eremnogramma* and lacks any of the longitudinal dark markings of that species. Moreover, *D. inconspicua* lacks the cluster of stout setae at the base of harpe as in *D. eremnogramma*.

Doina asperula, new species

FIGURE 16; PLATE 2g

Alar expanse 23–24 mm.

Labial palpus sordid white; second segment speckled with grayish-fuscous scales. Antenna grayish with very narrow fuscous annulations; scape fuscous. Head sordid white, laterally edged fuscous. Thorax sordid white infuscated anteriorly. Forewing ground color light cinnamon buff; base of wing a narrow white patch edged outwardly by fuscous; from slightly beyond middle of costa a broad, transverse gray shade extends to dorsum and curves inwardly to basal white patch; outer edge of gray shade marked by an outwardly curved line of black spots; costa, beyond beginning of gray shade and termen, grayish fuscous; cilia a mixture of cinereous and grayish fuscous scales. Hind wing very pale grayish basally, lightly infuscated toward margin; margin narrowly grayish fuscous; cilia sordid white, slightly infuscated. Foreleg ochereous white; tibia and tarsal segments suffused fuscous on outer sides; midleg similar; hind leg ochereous white. Abdomen grayish fuscous dorsally, ochereous white ventrally.

Female genitalia slide 24255. Ostium small, funnel shaped. Antrum not differentiated. Inception of ductus seminalis lateral, slightly anterior to ostium. Ductus bursae membranous. Bursa copulatrix membranous. Signum an elongate, many branched sclerotized plate.

HOLOTYPE.—USNM 73703.

TYPE-LOCALITY.—Maule, Constitución.

Described from the female holotype. (26 Nov 1953, L. E. Peña) and one female paratype with identical data.

Like *D. subicula*, *D. asperula* has a small white patch at base of forewing. In addition, *D. asperula* has a cinnamon buff shade inside basal half of costa, entirely lacking in *D. subicula*.

Doina truncata, new species

FIGURE 17; PLATE 2h

Alar expanse 16-22 mm.

Labial palpus pale buff suffused and irrorate with fuscous on outer surface of second segment; anterior and posterior edges of second segment very pale pink; third segment very sparsely dusted fuscous. Antenna buff, suffused fuscous. Head drab mixed fuscous and cinereous. Thorax light ochraceous buff. Forewing ground color light ochraceous buff shading to ochraceous tawny before a broad light buff terminal area; outer half of wing very sparsely irrorate with fuscous; on costa, just before apex, an ill-defined, tiny fuscous dot; along termen a series of 5 fuscous spots; lying on tornal edge a blackish streak; cilia drab. Hind wing pale grayish

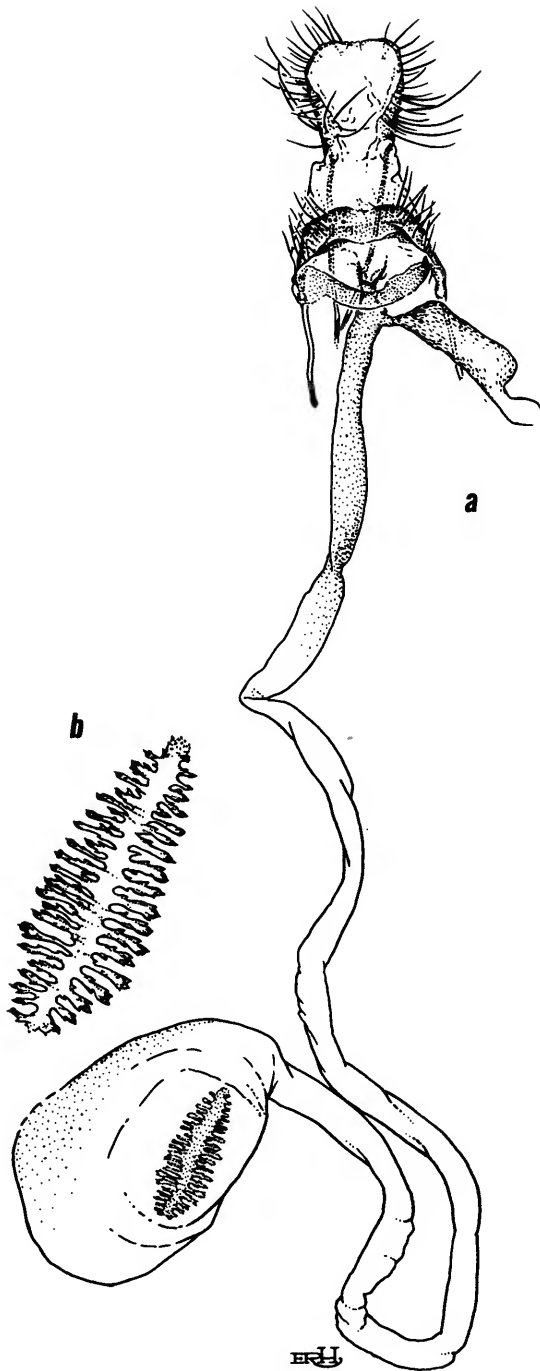


FIGURE 16.—*Doina asperula*, new species: a, ventral view of female genitalia; b, signum, enlarged.

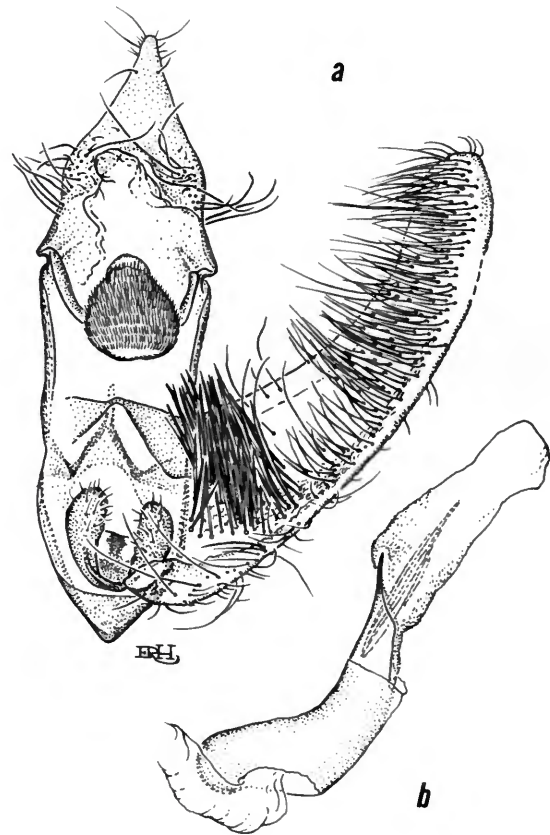


FIGURE 17.—*Doina truncata*, new species: a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.

fuscous, paler basally; on termen three or four ill-defined fuscous spots and apical portion of wing speckled with fuscous. Foreleg pale buff; tibia suffused and irrorate fuscous; 1st tarsal segment with longitudinal orange-ocherous dash; midleg pale buff; femur and tibia suffused and speckled grayish fuscous; hind leg pale buff with a few scattered fuscous scales. Abdomen pale buff, suffused light ochreous posteriorly.

Male genitalia slide USNM 24256. Harpe ample, gently tapered to the rounded cucullus; base of inner surface clothed with a cluster of stout setae. Gnathos a spined knob. Uncus triangular; broad basally, tapering to a point posteriorly. Vinculum narrow U-shaped. Tegumen narrow, about as long as vinculum, finely scobinate laterally. Anellus a small sclerotized plate with large lateral lobes. Aedeagus short, stout, curved, bulbous basally; vesica armed with a few slender cornuti.

HOLOTYPE.—USNM 73704.

TYPE-LOCALITY.—Centro-Austral.

Described from the male holotype (Jan-Mar 1898, V. Izquierdo), and one female paratype (without abdomen), Lautaro (Nov 1895, V. Izquierdo).

The female is more ochraceous orange than the male before the buff terminal area.

In genitalia *D. truncata* is probably nearest to *D. subicula* but the pointed uncus of *D. truncata* immediately distinguishes it from *D. subicula*.

Doina subicula, new species

FIGURE 18; PLATE 3a

Alar expanse 24–25 mm.

Labial palpus fuscous; second segment with longitudinal area and apex buff; third segment apex buff. Antenna fuscous; scape with buff spot dorsally at apex. Head drab, side tufts and frons infuscated. Thorax drab suffused fuscous, tegula fuscous with light ochraceous-buff apex. Forewing ground color fuscous; basal angle light ochraceous buff; on costa, to apex, a series of ill-defined light ochraceous-buff dots; in cell a blackish dash joined at end of cell by a transverse bar of the same color; between cell and termen an ill-defined, outwardly curved series of light ochraceous-buff spots; termen narrowly edged blackish fuscous; cilia drab and fuscous, tipped with sordid buff; underside of costa buff. Hind wing light grayish olive with darker line around outer edge; cilia light grayish olive. Foreleg

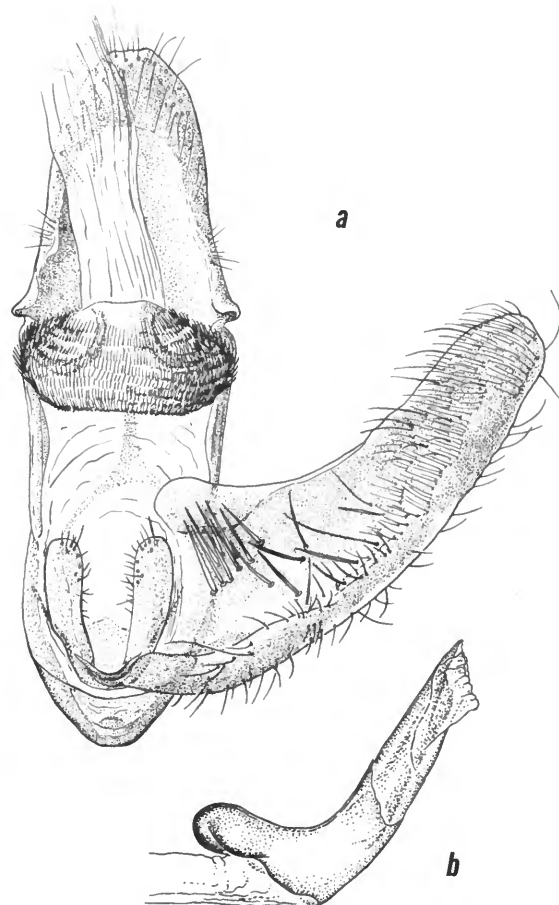


FIGURE 18.—*Doina subicula*, new species: a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.

buff overlaid fuscous on outer side; tarsal segments annulated buff; midleg similar but tibia with two buff annuli; hind leg buff with some infuscation on tibia and tarsal segments. Abdomen buff with median fuscous line dorsally and series of four indistinct fuscous spots laterally.

Male genitalia slide USNM 24257. Harpe ample, tapering slightly to rounded cucullus; base of inner surface clothed with cluster of stout setae; sacculus narrowly sclerotized. Gnathos a broad, transverse, subtriangular spined knob. Uncus as long as tegumen, hood shaped, narrowed posteriorly. Vinculum U-shaped. Tegumen nearly as broad as long, lightly scobinate laterally. Anellus a small, sclero-

tized plate with large flattened lateral lobes. Aedeagus stout, pointed, strongly curved, and bulbous basally; vesica with elongate roughened area.

HOLOTYPE.—USNM 73705.

TYPE-LOCALITY.—Chile, Llanquihue, Peulla.

Described from the male holotype (7 Mar 1959, J.F.G. Clarke) and one male paratype with identical data.

The nearest relative of this is *D. phaeobregma*, from which it is distinguished by the darker ground color and the presence of the light ochraceous-buff basal angle absent in *D. phaeobregma*. The male genitalia are similar but the gnathos of *D. subicula* is short and broad, that of *D. phaeobregma* long and narrow.

***Doina annulata*, new species**

FIGURE 19; PLATE 3b

Alar expanse 24 mm.

Labial palpus fuscous, narrowly buff on the inside posteriorly. Antenna light gray color, the light clay color almost obscured by fuscous annulations; scape fuscous except for buff apex posteriorly. Head grayish clay color. Thorax mixed clay color and fuscous. Forewing ground color light clay color; from extreme base of costa to fold a short black, transverse dash; from fold to costa basal two-thirds of wing marked with fuscous and black scales, especially along fold and between end of cell and costa; in middle of cell a black dash followed at end of cell by a similarly colored L-shaped mark; before termen three ill-defined fuscous blotches; around apex, along termen to tornus, a series of fuscous dashes forming almost a continuous narrow line; cilia clay color mixed with fuscous. Hind wing olive buff with narrow grayish-fuscous terminal line; cilia similarly colored with a grayish-fuscous sub-basal band. Foreleg buff heavily overlaid fuscous; midleg similar; hind leg buff with slight infuscation on outer side. Abdomen pale grayish with slight yellowish tinge; first segment almost wholly infuscated dorsally, other segments with only slight infuscation; ventrally buff, somewhat infuscated posteriorly.

Male genitalia slide USNM 24258. Harpe broadest at base, tapering gradually to a narrowly rounded cucullus; near base, in middle, a cluster of stout setae. Gnathos a broadly triangular spined knob. Uncus broadly hood shaped, slightly longer

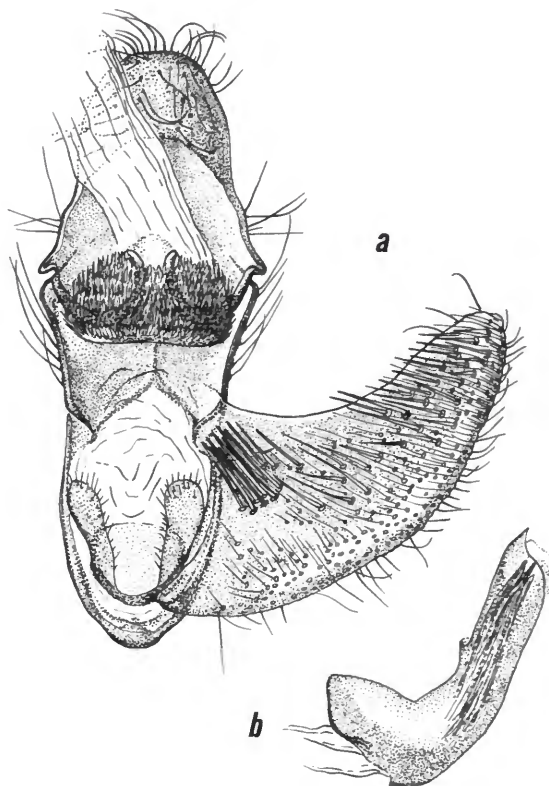


FIGURE 19.—*Doina annulata*, new species: a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.

than tegumen. Vinculum narrowly U-shaped. Tegumen short, less than half the length of harpe, broader posteriorly than anteriorly. Anellus a sclerotized plate with a fleshy lobe on each side at base. Aedeagus robust, sharply bent, pointed distally; vesica armed with a cluster of long strong setae.

HOLOTYPE.—USNM 73706.

TYPE-LOCALITY.—Centro-Austral.

Described from the male holotype (Jan–Mar 1898, V. Izquierdo).

The markings of *D. annulata* are similar to those of *Cryptolechia veniflua* Meyrick, but are more sharply defined; and *D. annulata* is a much smaller insect. In genitalia *D. annulata* and *D. subicula*, new species, are very closely related but the vesica of *D. annulata* is armed with a cluster of strong cornuti, absent in *D. subicula*.

Doina eremnogramma, new species

FIGURE 20; PLATE 3c

Alar expanse 28–31 mm.

Labial palpus sordid white speckled with grayish fuscous. Antenna grayish; scape fuscous dorsally. Head cinereous mixed with a few fuscous scales. Thorax cinereous with fuscous lateral line and grayish suffusion centrally; tegula fuscous. Forewing ground color cinereous; from base of wing, between veins 11 and 12, a fuscous line extends to almost middle of costa; between veins 9 and 10 and 10 and 11, short fuscous streaks; similar but ill-defined lines between other veins; from apical third of costa, around apex and along termen to tornus, a series of 11 fuscous streaks; in cell a fuscous longitudinal streak and a grayish-fuscous shade; on fold, at about two-fifths, a short fuscous streak; apical two-fifths of wing lightly infuscated; cilia mixed cinereous and grayish fuscous. Hind wing sordid white, lightly infuscated and sparsely irrorate with small grayish-fuscous scales. Foreleg sordid white; femur, tibia, and tarsal segments heavily overlaid fuscous on outer sides; midleg sordid white; femur fuscous apically; tibia and tarsal segments lightly infuscated; hind leg ochreous white, irrorate grayish fuscous; tarsal segments lightly suffused grayish fuscous. Abdomen sordid white dorsally with slight grayish suffusion; ventrally irrorate with grayish fuscous.

Male genitalia slide USNM 24259. Harpe simple, with rounded cucullus; at base a cluster of short, stout setae. Gnathos spined, reniform. Uncus as long as tegumen, hood shaped, bluntly pointed distally. Vinculum U-shaped. Tegumen subrectangular. Anellus a rectangular plate, with a strong, curved blade extending beyond base of harpe on each side. Aedeagus stout, strongly curved, pointed; vesica armed with a single, long cornutus.

Female genitalia slide USNM 24260. Ostium small, funnel shaped. Antrum undifferentiated. Inception of ductus seminalis slightly before ostium. Ductus bursae broad, slightly sclerotized and looped posteriorly, remainder membranous. Bursa copulatrix membranous. Signum a long, multibranching, sclerotized plate.

HOLOTYPE.—USNM 73707.

TYPE-LOCALITY.—Arauco, Caramavida.

Described from the male holotype (1–6 Jan 1954,

L. E. Peña) and one female paratype, Maule, Constitución (16 Nov 1953, L. E. Peña).

In male genitalia *D. eremnogramma* appears to be nearest *D. trachycantha* but the gnathos of *D. eremnogramma* is reniform, that of *D. trachycantha* is split into two separate elements. The two blade-like structures on each side of the anellus immediately separate *D. eremnogramma* from any near relatives.

Doina phaeobregma, new species

FIGURE 21; PLATE 3e

Alar expanse 20–23 mm.

Labial palpus brussels brown; inner surface of second segment with narrow buff longitudinal streak; third segment buff with anterior edge fuscous for entire length. Antenna buff with bronze cast ventrally, semiannulated grayish fuscous dorsally; scape fuscous. Head drab, vertex violaceous. Thorax light brussels brown. Forewing ground color light brussels brown; extreme edge of costa rufous; from apical half of costa, around termen to tornus, twelve tiny salmon-buff spots; in middle of cell a fuscous spot; on fold a similarly colored, larger spot; at end of cell a short fuscous transverse dash; subterminally, from vein 2 to vein 7 a series of five fuscous spots, each preceded inwardly by buff scales; termen narrowly edged fuscous; underside of costa and longitudinal streaks between the veins, buff; cilia light brussels brown. Hind wing very pale grayish fuscous; cilia buff with some very pale grayish fuscous at apex. Foreleg buff; outer sides of tibia and tarsal segments brussels brown; midleg similar; hind leg buff with slight grayish suffusion on outer side. Abdomen grayish fuscous dorsally, buff ventrally; laterally, a series of four blackish spots in posterior half; with paired ventral hair pencil from first sternum.

Male genitalia slides USNM 24261, 24262. Harpe long, slender; cucullus rounded; sacculus very narrowly sclerotized; at base, on inner surface, a patch of strong setae. Gnathos a spined knob. Uncus almost as long as tegumen, sharply pointed. Vinculum subtriangular. Tegumen narrow, about two-thirds the length of the harpe; scobinate laterally. Anellus a narrow transverse plate with large, flat, lateral lobes. Aedeagus stout, slightly curved; apex sharply pointed; base bulbous; cornuti absent.

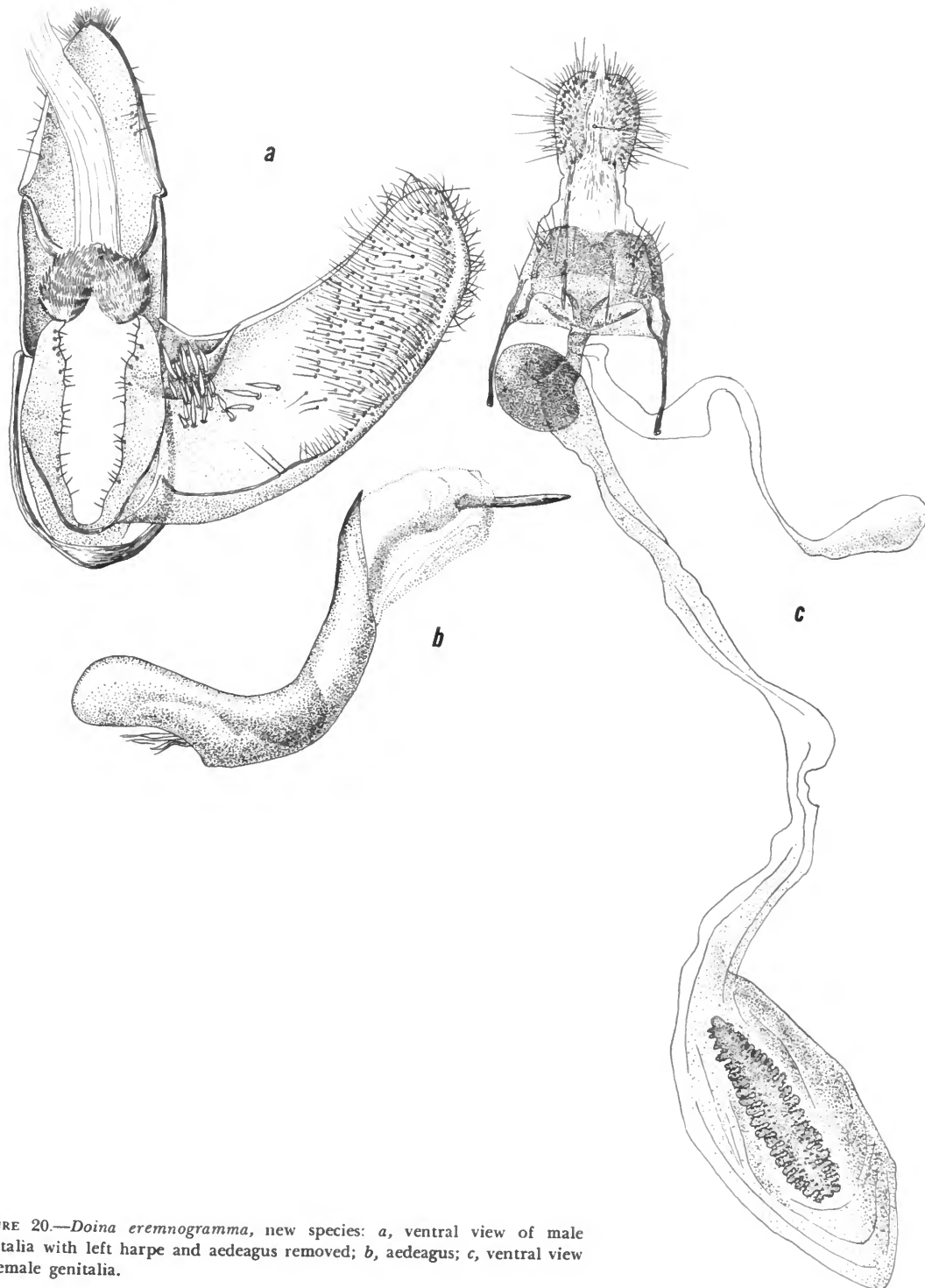


FIGURE 20.—*Doina eremnogramma*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

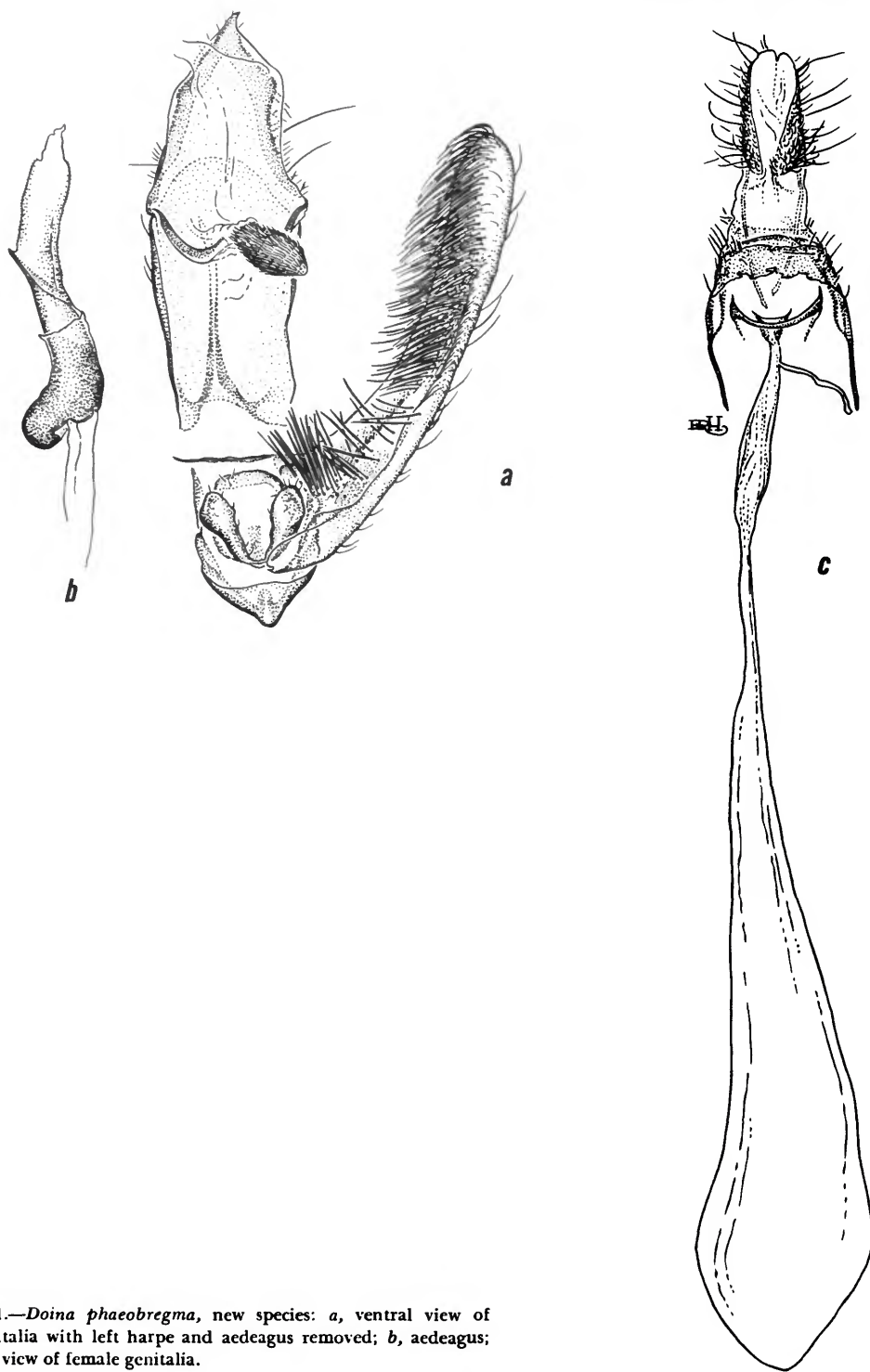


FIGURE 21.—*Doina phaeobregma*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

Female genitalia slide USNM 24263. Ostium funnel shaped; lamella postvaginalis a broadly sclerotized transverse band; lamella antevaginalis a very narrow sclerotized band. Antrum not differentiated. Inception of ductus seminalis slightly anterior to ostium. Ductus bursae membranous. Bursa copulatrix membranous. Signum absent.

HOLOTYPE.—USNM 73708.

TYPE-LOCALITY.—Centro-Austral.

Described from the male holotype (Jan–Mar 1898, V. Izquierdo), 11 male and 1 female paratypes with same data as holotype; two males (Chile, V. Izquierdo).

In male genitalia *D. phaeobregma* is very near *D. truncata* but with a more sharply pointed uncus. Moreover, *D. phaeobregma* lacks the buff terminal area found in *D. truncata*. The absence of a signum at once separates *D. phaeobregma* from all other species of this group.

Doina trachycantha, new species

FIGURE 22; PLATE 3d

Alar expanse 26 mm.

Labial palpus buff; second segment with tawny suffusion on outer side; third segment pale tawny. Antenna buff, strongly overlaid tawny. Head buff, mixed tawny. Thorax buff mixed with tawny; tegula tawny proximally. Forewing ground color buff; tawny suffusion along costa; surface of wing sprinkled with tawny irrorations; in middle of cell a slender fuscous streak; at end of cell a small fuscous spot followed by tawny; from just before apex, on costa, around tornus, a series of small fuscous spots between the veins; cilia mixed buff and tawny. Hind wing very pale cinereous with slight grayish suffusion; cilia sordid white. Foreleg buff; femur and tibia suffused tawny on outside, tibia with a streak of carmine; tarsi almost wholly tawny; midleg similar; hind leg buff. Abdomen pale brassy yellow strongly overlaid anterodorsally with fuscous, less so posterodorsally; ventrally ochreous white; on each side ventrolaterally a row of two or three fuscous spots.

Male genitalia slide USNM 24264. Harpe about twice length of tegumen, of nearly equal width throughout; cucullus rounded; at base, just inside sacculus, a cluster of sharply pointed stout setae. Gnathos a pair of spined knobs. Uncus as long

as tegumen, rather narrow, bluntly pointed distally. Vinculum U-shaped. Tegumen about as long as broad; outer surface granular. Anellus a broadly crescentic plate with a fleshy lobe on each side at base. Aedeagus stout, curved, pointed; vesica armed with a pair of pear-shaped cornuti.

HOLOTYPE.—USNM 73709.

TYPE-LOCALITY.—Centro-Austral.

Described from the unique male holotype (Jan–Mar 1898, V. Izquierdo).

This species is nearest *D. eremnogramma*, new species, but the setal cluster of harpe of *D. trachycantha* is much nearer sacculus than in *D. eremnogramma* and the latter has a single long cornutus, not two as in *D. trachycantha*. The genitalia, with double gnathos, is atypical but on all other characters the species belongs here.

Doina glebula, new species

FIGURE 23; PLATE 3f

Alar expanse 20 mm.

Labial palpus sordid white, shaded and dusted with fuscous on outer side. Antenna grayish fuscous with very narrow paler annulations; scape fuscous. Head a mixture of grayish and white-tipped fuscous scales. Thorax a mixture of fuscous and grayish scales. Forewing ground color drab; costa marked with a series of short fuscous dashes and spots; at apical third two of the costal spots are longer than the remainder and are conspicuous; at basal third, in cell, a transverse fuscous dash; at end of cell an oblique transverse fuscous dash followed by a patch of brownish scales and between this and costa a grayish-fuscous suffusion forming an indistinct blotch; surface of wing with scattered fuscous irrorations; cilia composed of grayish white-tipped scales. Hind wing pale grayish fuscous; cilia sordid white with a darker subbasal line. Foreleg sordid white heavily overlaid fuscous; midleg similar; hind leg sordid white; tibia with slight grayish suffusion. Abdomen pale cinereous, dorsally overlaid with fuscous except posterior edges of segments; ventrally irrorate with fuscous.

Male genitalia slide USNM 24265. Harpe broadest at middle and heavily clothed with fine setae; cucullus rounded. Gnathos a broad, finely spined knob. Uncus divided. Vinculum rather narrowed distally and rounded. Tegumen about half as long

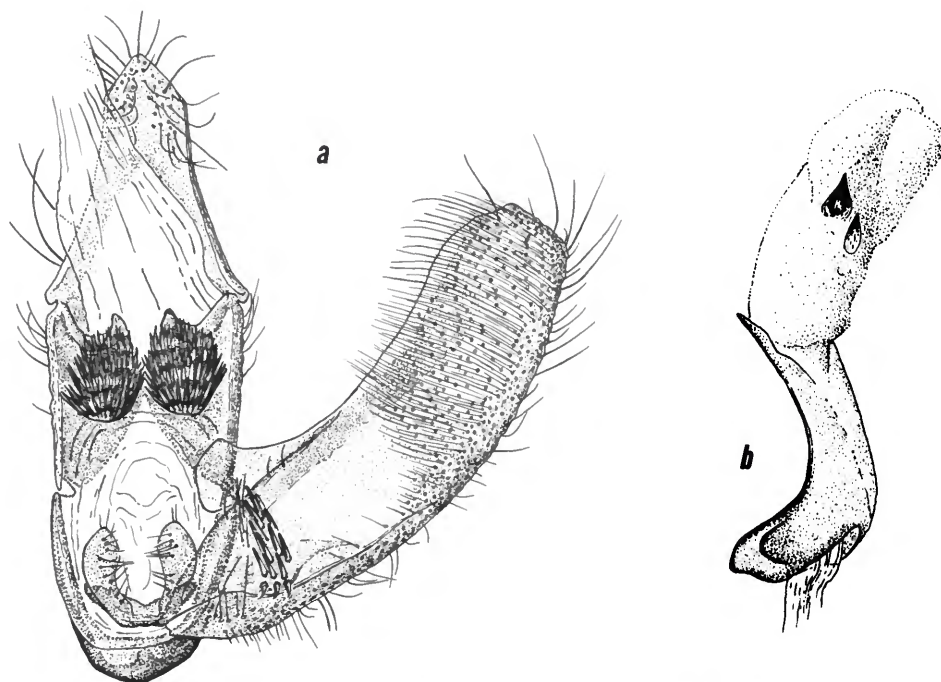


FIGURE 22.—*Doina trachycantha*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

as harpe; rectangular. Anellus a round plate with fleshy lobe basolaterally. Aedeagus rather stout, curved, pointed distally; vesica armed with one strong cornutus.

HOLOTYPE.—USNM 73710.

TYPE-LOCALITY.—Santiago, Rio Colorado.

Described from the unique male holotype (10 Apr 1953, L. E. Peña).

Although atypical by reason of its divided uncus, *D. glebula* nevertheless keys to this group. A different generic designation is indicated here but in the absence of more material I leave *D. glebula* in this genus.

Superficially, *D. glebula* resembles closely darker examples of the North American *Agonopterix argillacea* (Walsingham), but is immediately distinguishable structurally.

Doina increta (Butler), new combination

FIGURE 24; PLATE 6b

Orthotelia increta Butler, 1883:75.—Bartlett-Calvert, 1886:346.

Cryptolechia increta Butler.—Meyrick, 1922b:197.

Male genitalia slide BM 12693. Harpe ample, of nearly equal width throughout; cucullus broadly rounded; sacculus lightly sclerotized. Gnathos a spined curved plate. Uncus hood shaped, as long as tegumen. Vinculum a U-shaped band. Tegumen about as long as width of harpe. Anellus an oval sclerotized plate with elongate basolateral lobes. Aedeagus stout, strongly curved; vesica armed with a cluster of three or four cornuti.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—“Corral, Valdivia.”

Butler described *D. increta* in the Gelechiidae but Meyrick (1922b:197) placed it correctly in the Oecophoridae. So far, the species is known only from Butler's type.

Doina edmondsii (Butler), new combination

Depressaria edmondsii Butler, 1883:76.

Depressaria Edmondsii Butler.—Bartlett-Calvert, 1886:346.—Meyrick, 1922b:177.—Gaede, 1939:322.

TYPE.—British Museum (Natural History).

TYPE-LOCALITY.—“Mountains of the hacienda of Cauquenes.”

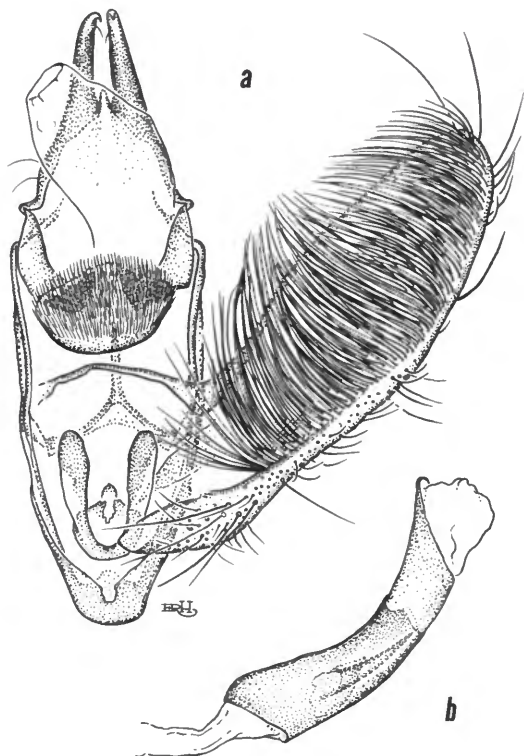


FIGURE 23.—*Doina glebula*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

According to my notes *D. edmondsii* has genitalia with a spined gnathos, and harpe and other features like other species of *Doina*. This species is certainly not a *Depressaria*.

***Doina scariphista* (Meyrick), new combination**

FIGURE 25; PLATE 6a

Cryptolechia scariphista Meyrick, 1931:396.—Gaede, 1939:393.—Clarke, 1963:170, pl. 82: fig. 1-1c.

Female genitalia slide JFGC 4732 [in British Museum (Natural History)]. Ostium transverse, oval. Antrum narrowly sclerotized. Inception of ductus seminalis dorsal, slightly before ostium. Ductus bursae rather long, slender, membranous. Bursa copulatrix membranous, finely spiculate. Signum a small, elongate, sclerotized, branched plate.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Castro, Chiloe Island.

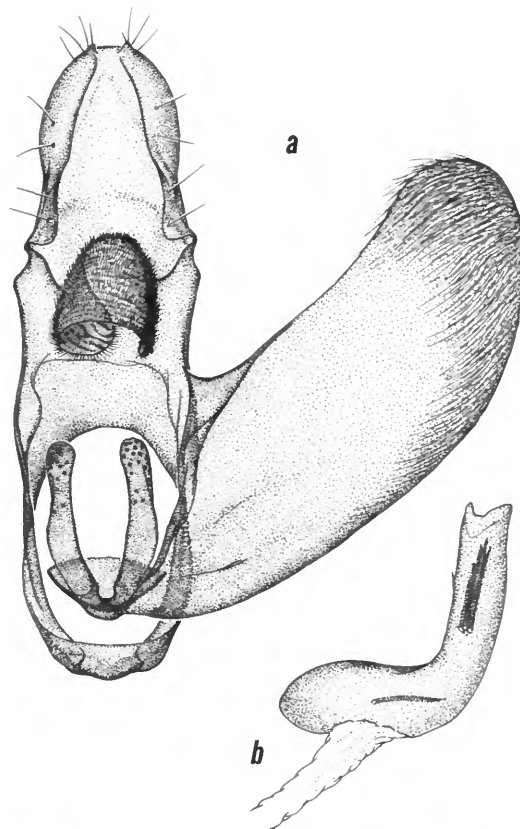


FIGURE 24.—*Doina increta* (Butler): *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

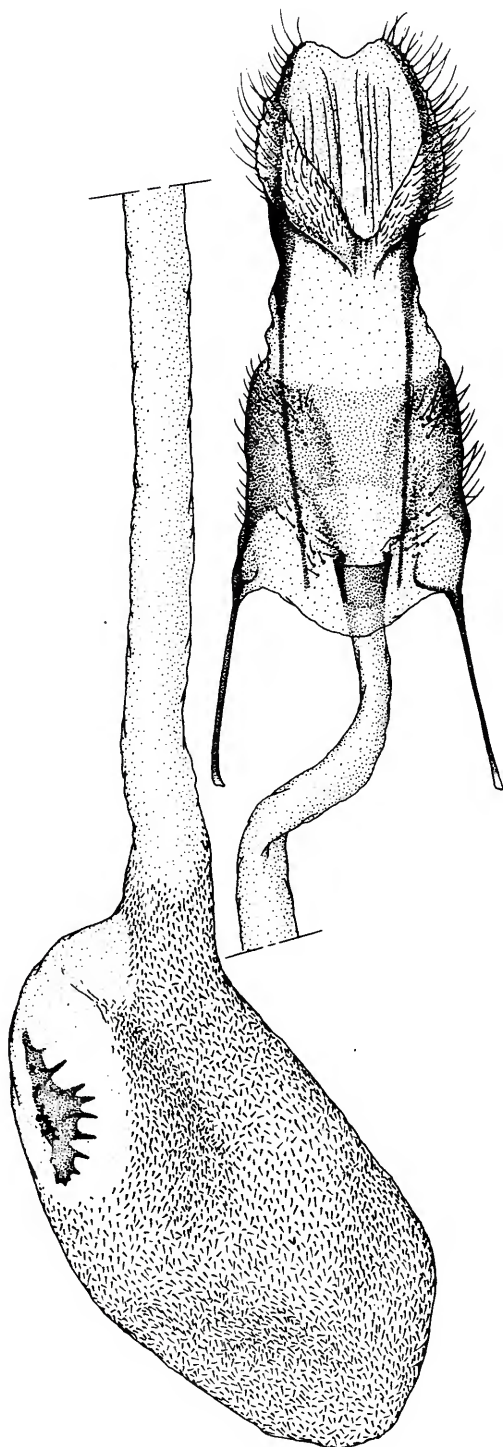
This species is known only from the unique type in the British Museum.

The female genitalia are somewhat atypical but on other characters *D. scariphista* clearly belongs with other members of this genus. In the figure in Clarke (1963) the signum is obscured by long cornuti, of which there are at least five.

***Doshia*, new genus**

TYPE-SPECIES.—*Doshia miltopeza*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus compressed, recurved, second segment reaching base of antenna, roughened slightly anteriorly; third segment shorter than second. Tongue well developed; maxillary palpus small, free. Head rough, side tufts spreading; ocellus ab-



sent. Antenna slightly thickened, simple; scape without pecten. Thorax smooth. Forewing smooth, costa sinuate, termen convex, oblique, 12 veins; 1b furcate; 1c strongly preserved; 2, 3, and 4 approximate, about equidistant; 5 nearer to 6 than to 4; 7 and 8 stalked, 7 to apex; 10 nearer to 9 than to 11; upper internal vein obsolete. Hind wing with 8 veins; 2 remote from 3; 3 and 4 very short stalked or connate; 5 nearer to 6 than to 4; 7 and 8 subparallel. Hind tibia smooth. Abdominal terga not setose.

Male genitalia with well-developed gnathos and uncus.

Female genitalia unknown.

Doshia miltopeza, new species

FIGURE 26; PLATE 3g

Alar expanse 20 mm.

Labial palpus ochraceous tawny; first segment white ventrally, reddish tawny dorsally; second segment cinnamon buff on inner side. Antenna ochraceous tawny; scape buff ventrally. Head cinnamon buff. Thorax cinnamon buff, tegula slightly darker. Forewing ground color cinnamon buff; extreme costal edge white, bordered inwardly by a russet-vinaceous line; at costal two-thirds the slender white edge of costa broadens to form a white spot, and beyond this two small russet-vinaceous spots invade the white of costa; basal third of wing marked with numerous, very small, fuscous dots and outer third of wing similarly marked, the spots following the veins; apical half of cilia white, the cilia preceded by a narrow fuscous shade at base; remainder of cilia slightly paler than ground color; underside of costa broadly white, marked with russet-vinaceous spots. Hind wing grayish fuscous; cilia sordid white; underside of hind wing whitish, spotted with fuscous. Foreleg white; femur shaded with russet on outer side; tibia shaded with carmine on outer side; midleg similar; hind leg white. Abdomen brownish buff dorsally, creamy white ventrally.

Male genitalia slide USNM 24266. Harpe broadest at base, tapering to a bluntly pointed cucullus; at base, inside costa a group of short, stout setae and beyond this group a less dense cluster of setae.

FIGURE 25.—*Doina scariphista* (Meyrick): ventral view of female genitalia.

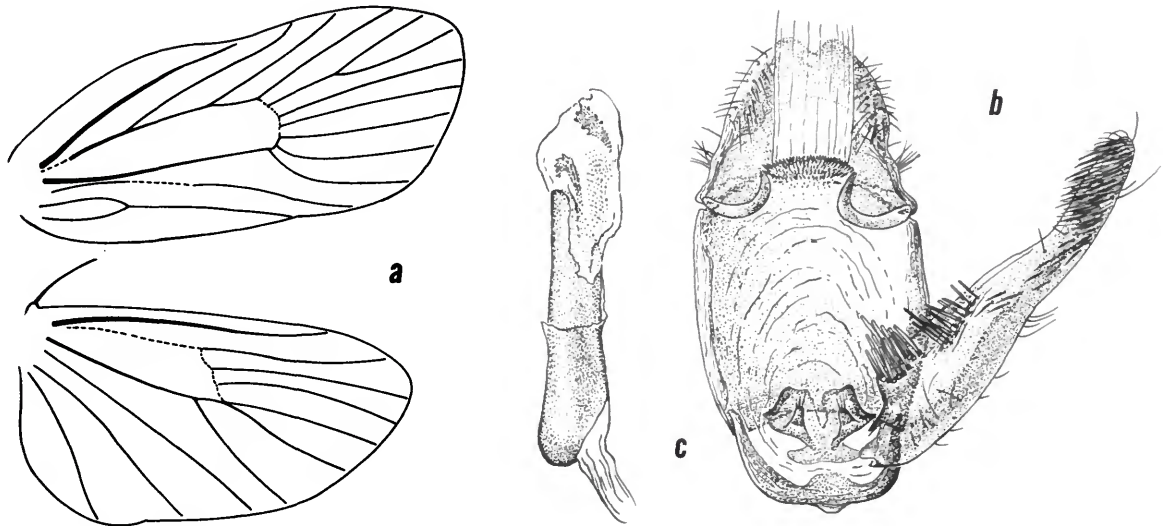


FIGURE 26.—*Doshia miltopeza*, new species: a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus.

Gnathos a spined disc. Uncus very broad, hood shaped, with posteromedian excision. Vinculum rounded. Tegumen broad as long. Anellus broadly semicylindrical with a short papilla on each side basally. Aedeagus nearly straight, stout; vesica armed with two small, sclerotized plates with serrate edges.

HOLOTYPE.—USNM 73711.

TYPE-LOCALITY.—San Ignacio.

Described from the unique male holotype (Nov 1892, V. Izquierdo).

This species is similar in coloring to a few species of *Gonionota*, but particularly to the darker specimens of *G. insulana* Clarke. The white costal spot of *D. miltopeza* is nearer the middle of costa than that of *G. insulana*, and the veins of the hind wing of *D. miltopeza* show ill-defined spots above, conspicuous beneath, absent in the hind wing of *G. insulana*.

Afdera, new genus

TYPE-SPECIES.—*Cryptolechia orphanaea* Meyrick, 1931:397 (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus recurved, second segment reaching, or slightly exceeding, base of antenna, very slightly

roughened anteriorly; third segment shorter than second, slender, acute. Tongue well developed; maxillary palpus filiform, free. Head rather smooth with closely appressed scales; side tufts spreading; ocellus absent. Antenna of male finely and short ciliated; antenna of female finely serrate; scape without pecten. Thorax smooth. Forewing smooth, costa gently arched, termen slightly convex, oblique, 12 veins; 1b furcate; 1c weakly preserved at margin; 2 remote from 3; 3, 4, and 5 equidistant and approximate; 7 and 8 stalked, both to costa; 9 much nearer the stalk of 7 and 8 than to 10; 10 nearer 9 than to 11; 11 from before middle of cell. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate; 5 nearer 6 than to 4; 6 and 7 subparallel. Hind leg roughened with hairlike scales. Abdominal terga not setose.

Male genitalia with uncus and gnathos well developed.

Female genitalia with signum present, but minute.

Admittedly close to *Cryptolechia* Zeller, *Afdera* differs primarily by a well-developed, recurved extension of the sacculus and an unarmed aedeagus. Meyrick's diagnosis of *Cryptolechia* is vague and contains a large number of unrelated forms belonging to several well-known and distinct genera. *Afdera* differs from *Corita* primarily by the condi-

tion of veins 3 and 4 of hind wing, which are connate in *Afdera* and stalked in *Corita*.

Afdera orphnaea (Meyrick), new combination

FIGURE 27

Cryptolechia orphnaea Meyrick, 1931:397.—Clarke, 1963:166, pl. 80: figs. 1-1a.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Llanquihue, Casa Pangué.

The species is apparently common. Arauco, Caranavida (January) Arauco, Cordillera de Nahuelbuta, Pichinahuel (January) collected by L. E. Peña and "Centro-Austral" (Jan-Mar) V. Izquierdo.

The figure of the male genitalia in Clarke, cited above, was made from a damaged specimen; the genitalia of the male are refigured here (slide USNM 24267).

Melaneulia Butler

Melaneulia Butler, 1883: 70. [Type-species: *Melaneulia hecate* Butler, 1883; by monotypy.]

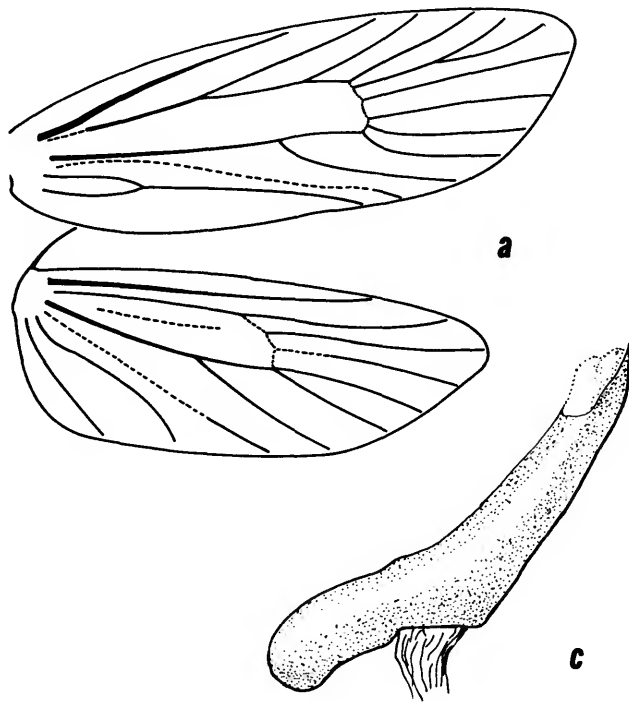


FIGURE 27.—*Afdera orphnaea* (Meyrick): a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus.

Melaneulia hecate Butler

FIGURE 28

Melaneulia hecate Butler, 1883: 70.—Bartlett-Calvert, 1886: 344.

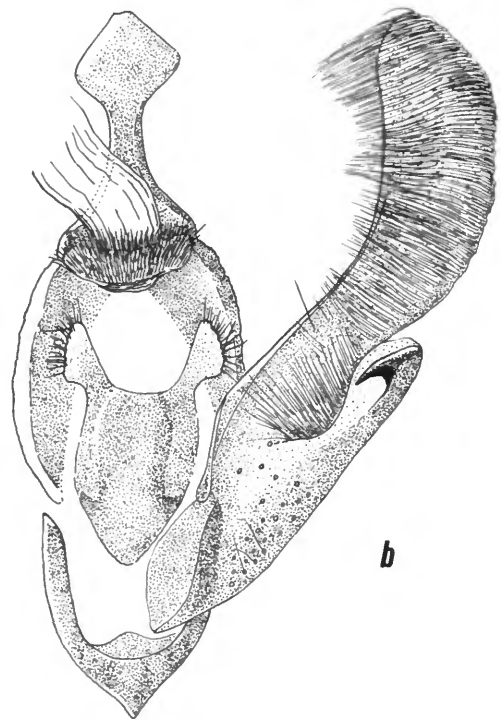
Cryptolechia hecate (Butler).—Meyrick, 1922b:197.

Male genitalia slides USNM 24269, 24270. Harpe ample, broadest at base; cucullus narrowly rounded; sacculus narrowly sclerotized and continued terminally across harpe as a broad, flattened clasper. Gnathos a broad spined knob with small median point. Uncus broad, hoodlike. Vinculum rounded. Tegumen quadrate, about half as long as harpe. Anellus a pear-shaped plate with a spiny ridge on each side from base. Aedeagus slightly curved, bulbous proximally, pointed distally; vesica unarmed.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Valdivia.

The genus remains monobasic. In addition to the type in the British Museum (Natural History) there



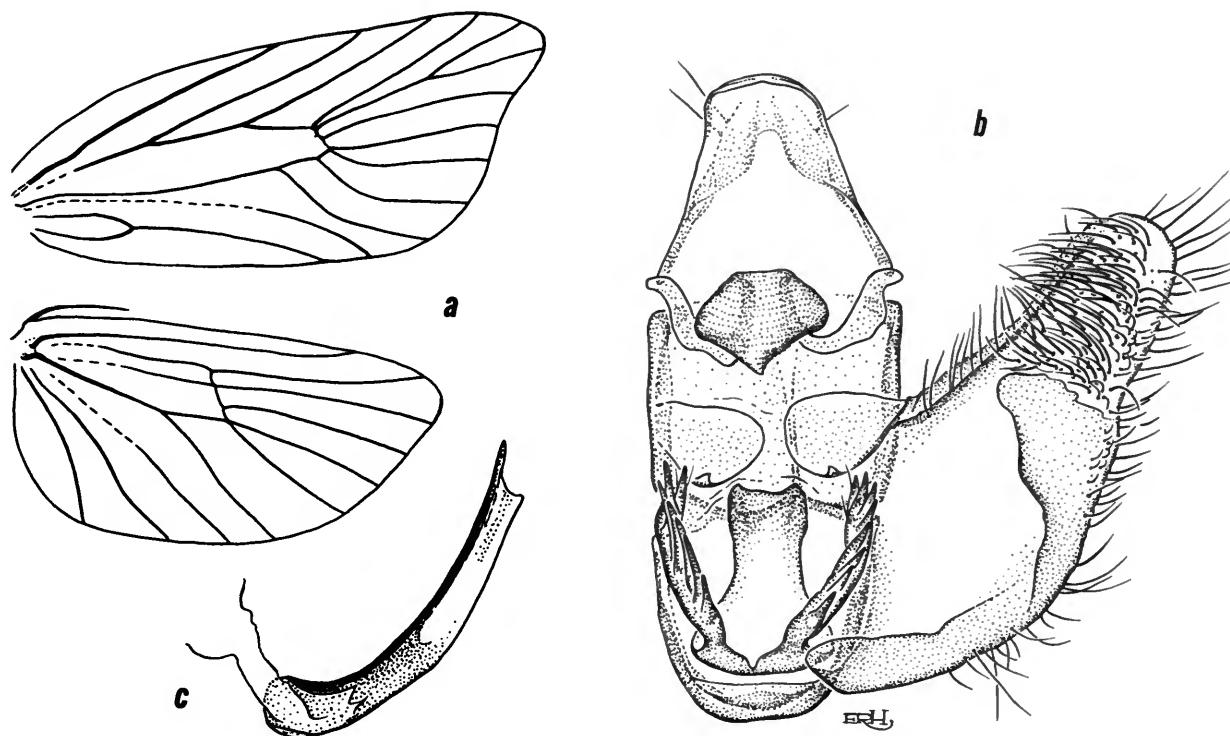


FIGURE 28.—*Melaneulia hecate* Butler: a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus.

are two males in the National Museum of Natural History.

Butler described *M. hecate* as a tortricid but it is indeed oecophorid.

Depressariodes Turati

Martyrhilda Clarke, 1941:125, pl. 2: fig. 17, pl. 6: fig. 44, pl. 10: figs. 67, 67a, pl. 16: fig. 100. [Type-species: *Depressaria canella* Busck, 1904: 764; by original designation.]

Depressariodes Turati, 1924:175. [Type-species: *Depressariodes marmaricellus* Turati, 1924, by monotypy; *D. marmaricellus* Turati is a synonym of *Depressaria fuscicostella* Christoph, 1887.]

Depressariodes Turati, Hannemann, 1976:209 [synonymy].

This is a widespread genus occurring in the palaeartic region, in the nearctic region from Alaska to Mexico, and down the length of the Andes with one species in the Juan Fernandez Islands.

There are two described species of this genus

from Chile: *Depressariodes lusciosa* (Meyrick), new combination, and *Depressariodes relegata* (Meyrick), new combination.

Depressariodes lusciosa (Meyrick), new combination

Depressaria lusciosa Meyrick, 1915:211; 1922b:177.

Martyrhilda lusciosa (Meyrick).—Clarke, 1963:326, pl. 160: figs. 2-2b.

This species was described from Peru but ranges into Chile.

Depressariodes relegata (Meyrick), new combination

Depressaria relegata Meyrick, 1922a:268.

Martyrhilda relegata (Meyrick).—Clarke, 1965:78, figs. 78, 79.

The range of *M. relegata* is apparently confined to Masatierra in the Juan Fernandez Islands.

Gonionota Zeller

Hypercallia (*Gonionota*) Zeller, 1877:381. [Type-species: *Hypercallia* (*Gonionota*) *notodontella* Zeller, 1877; subsequent designation by Meyrick, 1922b, p. 161.]

***Gonionota mimulina* (Butler), new combination**

FIGURE 29

Agriocoma mimulina Butler, 1883:83, pl. 11: fig. 9.
Hypercallia mimulina (Butler).—Bartlett-Calvert, 1886:347.—
 Meyrick, 1922b:163 (No. 57).—Gaede, 1939:261.
Agriocoma mimulina araucana Bartlett-Calvert, 1893:831.

HOLOTYPE.—British Museum (Natural History) (*A. mimulina*); (*A. m. araucana*).

TYPE-LOCALITIES.—Valparaiso (*A. mimulina*); Araucania (*A. m. araucana*).

In the National Museum of Natural History there are specimens from Malleco and Maule provinces.

So far this is the only species known in the Chilean fauna clearly referable to this genus. Male genitalia figured from slide USNM 24271.

***Nedenia*, new genus**

TYPE-SPECIES.—*Nedenia rhodochra*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus slender, recurved, exceeding vertex; second segment smooth, third segment acute, shorter than second. Tongue well developed; maxillary palpus filiform, well developed, free. Head smooth centrally, with loose scales laterally and posteriorly; ocellus absent. Antenna finely pubescent and slightly thickened in male, simple in female; scape without pecten. Thorax with small, posteromedian tuft. Forewing smooth, costa arched, termen straight; 12 veins; 1c very strongly preserved; 2 remote from 3; 3, 4, and 5 about equidistant; 7 and 8 stalked, 7 to termen; 6, stalk of 7 and 8, and vein 9 about equidistant; 10 slightly nearer 9 than 11; 11 from slightly before middle of cell. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate; 5 well removed from 4. Hind leg tibia slightly roughened above and beneath with short, hairlike scales. Abdominal terga not setose.

Male genitalia with uncus and gnathos present; socius absent.

Female genitalia with two signa.

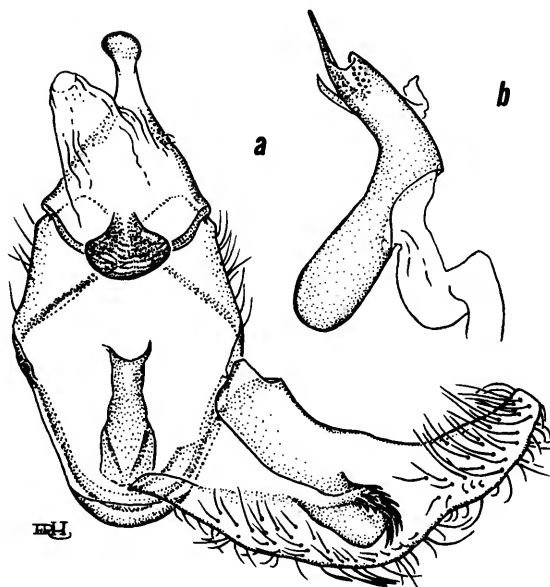


FIGURE 29.—*Gonionota mimulina* (Butler): a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.

In Meyrick's key, this genus runs to the Australian genus *Machetis* Meyrick but differs from it by the absence of an ocellus, lacks the second segment of labial palpus thickened with dense appressed scales, and posterior tibia not clothed with very long hairs. Moreover, *Nedenia* is a broader winged genus with much shorter cilia on hind wing.

***Nedenia rhodochra*, new species**

FIGURE 30; PLATE 3h

Alar expanse 18–22 mm.

Labial palpus buff; second segment argillaceous anteriorly and coral red posteriorly on outer side; on inner side a slight tinge of coral red anteriorly; third segment apical third brown. Antenna light ochraceous buff basally, shading to brown distally; scape narrowly brown apically. Head buff. Thorax buff; thoracic tuft mixed coral red and yellow scales. Forewing ground color buff; extreme edge of costa narrowly coral red and yellow; at extreme base of costa a small, outwardly oblique blackish dash; at basal third scattered blackish scales form an ill-defined blackish dash; at apical two-thirds a conspicuous triangular vinaceous-brown spot with

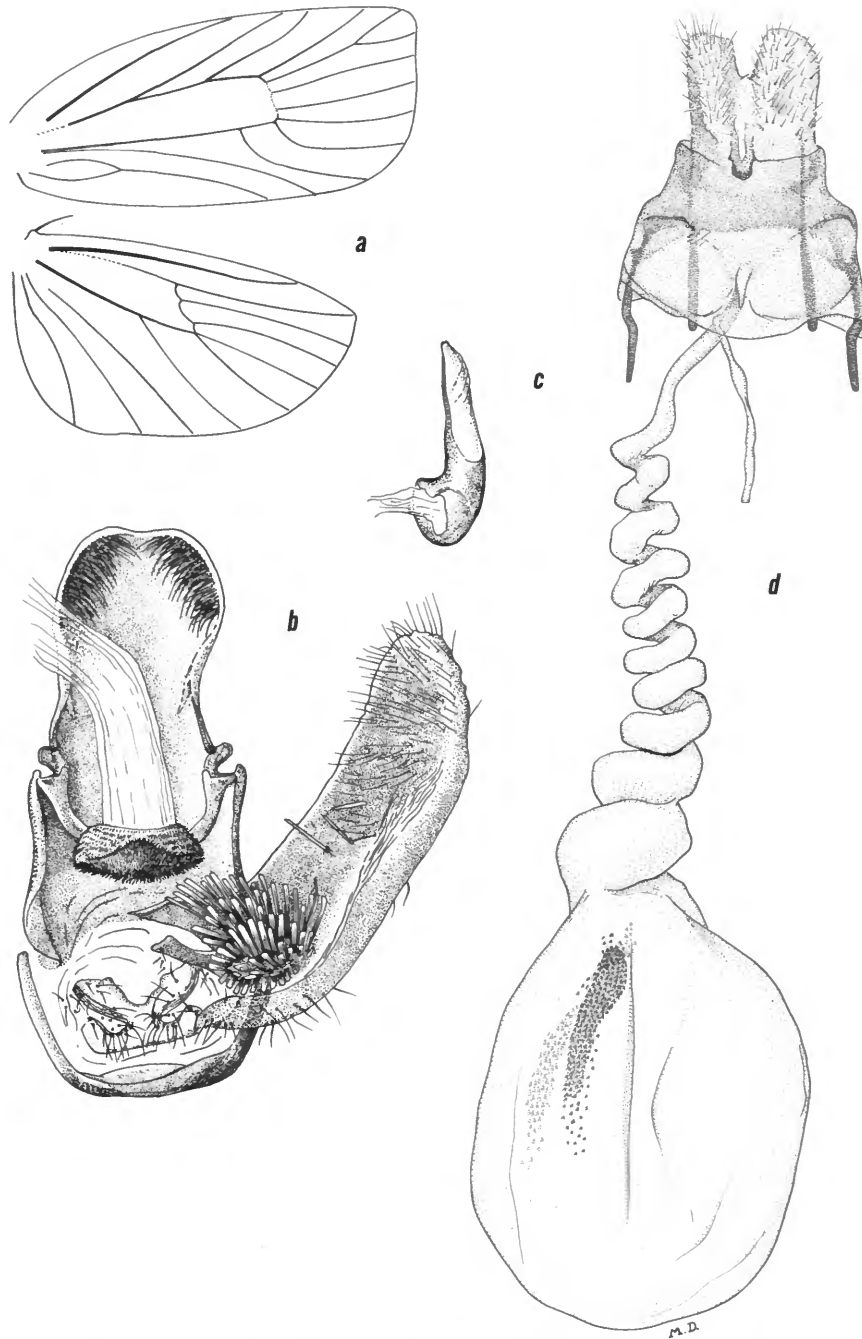


FIGURE 30.—*Nedenia rhodochra*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus; *d*, ventral view of female genitalia.

its base on costa; in cell and on fold some scattered blackish scales; on dorsum a vinaceous brown suffusion; in female extreme dorsal edge blackish fuscous; cilia vinaceous brown except yellowish around tornus. Hind wing whitish to pale buff; cilia concolorous except around apex and termen yellowish. Foreleg buff; femur and tibia coral red on outer side; basal segments suffused fuscous; midleg pale buff; tibia with blackish dash proximally; tarsal segments with coral red scattered scales; hind leg pale buff; tarsal segments slightly darker. Abdomen buff; terga not setose.

Male genitalia slide USNM 24237, 24275, 24188. Harpe simple, cucullus rounded; basally a cluster of very strong, short setae. Gnathos a broad spinulate lobe. Uncus broad, hood shaped, with strong setae laterally on ventral surface. Vinculum U-shaped, narrow. Tegmen short, rectangular, about two-thirds length of uncus. Anellus rectangular, deeply incised laterally. Aedeagus short, curved, bulbous basally; cornuti at most very small, spinulate.

Female genitalia slide USNM 24274, 24189. Ostium very small, elongate. Antrum not differentiated. Inception of ductus seminalis slightly anterior to ostium. Ductus bursae long, membranous, spiraled. Bursa copularis membranous; signa two elongate, scobinate patches.

HOLOTYPE.—USNM 73712.

TYPE-LOCALITY.—Llanquihue, Petrohue.

Described from the male holotype (12 Mar 1959, J. F. G. Clarke) 11 male and 3 female paratypes as follows: 4 males, Llanquihue, Petrohue (11–12 Mar 1959); male Peulla (8 Mar 1959) J. F. G. Clarke; 3 males, 3 females Malleco, Rio Blanco, 1050–1300 m, (21/24 Nov 1954) L. E. Peña; 4 males, Centro-Austral (Jan–Mar 1898) V. Izquierdo.

This species reminds one somewhat of the European *Carcina quercana* (Fabricius) but is immediately distinguished by the shorter antennae.

Revonda, new genus

TYPE-SPECIES.—*Revonda eschara*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus slender, recurved, slightly exceeding vertex; second and third segments of about equal length; second segment slightly roughened anteriorly. Maxillary palpus minute. Head smooth,

side tufts spreading; ocellus absent. Antenna ciliated in male; scape with well-developed pecten. Thorax smooth. Forewing smooth, costa nearly straight, stigma present, 11 veins; 1c strongly preserved; 2 remote from 3; 3 near 4; 4 and 5 connate; 7 and 8 coincident to costa; 9 nearer to 7 + 8 than to 10; 11 from two-fifths. Hind wing with 8 veins; 2 remote from 3; 3 and 4 stalked; 5 connate with stalk of 3 and 4. Hind tibia smooth. Abdominal terga setose.

Male genitalia with uncus and gnathos present; socius indicated by a few weak setae.

Female unknown.

Revonda is near *Despina* but the antennal pecten is present in *Revonda*, absent in *Despina* and veins 4 and 5 of forewing are connate in *Revonda*, separate in *Despina*.

Revonda eschara, new species

FIGURE 31; PLATE 4a

Alar expanse 17–21 mm.

Labial palpus creamy white; second segment fuscous on outer side and anteriorly in basal half; apex of third segment fuscous. Antenna grayish fuscous; scape with pecten. Head ochereous white. Thorax ochereous white; base of tegula blackish fuscous. Forewing ground color ochereous white; on costa three blackish fuscous spots, one at base, one at middle, and one slightly before apex; dorsal two-thirds of wing lightly shaded grayish; from end of cell a longitudinal shade, somewhat darker than the grayish dorsal shade; on fold, at two-fifths, a loose aggregation of fuscous scales forming an ill-defined longitudinal dash; at end of cell, a fuscous spot; scattered over surface irregularly placed fuscous scales; cilia pale grayish buff. Hind wing gray; cilia grayish buff. Foreleg ochereous white; tibia and tarsal segments strongly overlaid blackish fuscous; midleg similar; hind leg ochereous white shaded with gray. Abdomen ochereous white ventrally, grayish dorsally and laterally; terga setose.

Male genitalia slides USNM 24194, 24276. Harpe simple, broadest about middle, tapering to a narrowly rounded cucullus. Gnathos long, slender, hooked at distal end. Uncus triangular, pointed distally. Vinculum U-shaped with slender median projection. Tegumen as broad as long. Anellus a small sclerotized plate with two digitate basal processes, Aedeagus moderately stout, slightly



FIGURE 31.—*Revonda eschara*, new species: a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus.

curved, sharply pointed; vesica armed with a single strong cornutus.

HOLOTYPE.—USNM 73713.

TYPE-LOCALITY.—Arauco, Cordillera de Nahuelbuta, Pichinahuel, 11–1400 m.

Described from the male holotype (23–31 Jan 1954, L. E. Peña) and one male paratype with identical data.

Strikingly similar to *Oecophora minnetta* Butler (Figure 54) but the harpe of *R. eschara* is simple, that of *O. minnetta* with a strong clasper. The aedeagus of *O. minnetta* is slender and armed with a longitudinal series of teeth; the aedeagus of

R. eschara is short and unarmed and the vesica has a single cornutus. The anellus of *R. eschara* lacks the series of strong setae found in *O. minnetta*. The females of both species are unknown.

Despina, new genus

TYPE-SPECIES.—*Borkhausenia rhodosema* Meyrick, 1931:390 (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus slender, recurved; second segment smooth; third segment slightly shorter than second, acute. Maxillary palpus minute. Head slightly

roughened with closely appressed scales; ocellus absent. Antenna of male very short ciliated; antennal pecten absent. Thorax smooth. Forewing smooth, pointed, costa nearly straight, 11 veins; 1c strongly preserved; 2 remote from 3; 3, 4, and 5 nearly equidistant; 7 and 8 coincident to costa; 9 nearer to 7 + 8 than to 10; 11 from middle of cell. Hind wing with 8 veins; 2 remote from 3; 3 and 4 very short stalked; 5 nearer to 6 than 4. Hind tibia smooth. Abdominal terga setose.

Male genitalia with simple harpe. Gnathos and uncus well developed. Socius absent.

Female unknown.

Despina is nearest *Revonda* but differs from it by the absence of antennal pecten, absence of the stigma of forewing, veins 4 and 5 of forewing well separated whereas in *Revonda* they are connate, and vein 5 of hind wing is well separated from 4, not connate.

The male genitalia have been adequately figured in Clarke (1963, pl. 62: figs. 1-1b).

Despina rhodosema (Meyrick), new combination

Borkhausenia rhodosema Meyrick, 1931:390.—Clarke, 1963, 4:130, pl. 62: figs. 1-1b.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Llanquihue Province, Ensenada.

This is the only species referable to this genus, and it has been figured previously by Clarke (1963).

Irenia, new genus

TYPE-SPECIES.—*Irenia leucoxantha*, new species (by present designation). The gender of this generic name is feminine.

Labial palpus slender, recurved, exceeding vertex; third segment shorter than second. Maxillary palpus well developed, free. Head smooth; side tufts spreading; ocellus absent. Antenna ciliated in male, simple in female; scape with well-developed pecten. Thorax smooth. Forewing smooth, costa arched, 12 veins; 1b furcate; 2 distant from 3; 3 farther from 4 than 4 is from 5; 7 and 8 stalked, 7 to apex; 9 nearer to stalk of 7 and 8 than to 10; 11 from before middle of cell. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate. Hind tibia clothed with long, hairlike scales. Abdominal terga setose.

Male genitalia with uncus and gnathos present; socius indicated by a few weak setae. Cornuti absent.

Female genitalia with signum present.

Irenia is near *Revonda* but veins 7 and 8 of forewing are stalked, not coincident as in *Revonda*.

Irenia curvula, new species

FIGURE 32; PLATE 4c

Alar expanse 21 mm.

Labial palpus fuscous. Antenna pale ochraceous buff. Head light ochraceous tawny. Thorax ochraceous tawny. Forewing ground color ochraceous buff; costa, especially toward apex, sayal brown; cilia light clay color. Hind wing straw color with slight brownish suffusion toward apex; cilia concolorous with ground color. Foreleg straw color heavily overlaid fuscous; midleg similar; hind leg straw color; tibia with slight fuscous suffusion ventrally toward apex; tarsal segments heavily infuscated. Abdomen sparsely scaled dorsally, ochraceous buff; ventrally light brown with coppery luster.

Male genitalia slide USNM 24277. Harpe very broad basally, slightly longer than tegumen; cucullus divided into a costal lobe and ventral lobe, the latter terminating as a short, pointed, recurved hook. Gnathos spatulate, broader distally than proximally. Uncus broad basally, tapering to mid-

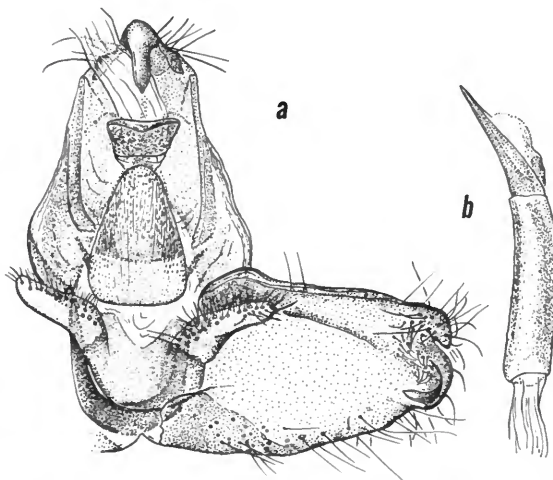


FIGURE 32.—*Irenia curvula*, new species: a, ventral view of male genitalia with left harpe and aedeagus removed; b, aedeagus.

dle, terminating as a long pointed median process. Vinculum U-shaped. Tegumen broad basally, narrower at base of uncus. Anellus a broad, rectangular plate, fused with base of harpe, posterior edge deeply concave and with a fleshy, digitate, setaceous lobe on each side. Aedeagus slender, slightly curved, sharply pointed distally; vesica unarmed.

HOLOTYPE.—USNM 73715.

TYPE-LOCALITY.—Arauco, Caramavida.

Described from the unique male holotype (1/6 Jan 1954, L. E. Peña).

In general appearance similar to *Aliciana geminata*, new species, but with a distinctly brown costa, a character not found in *A. geminata*.

Irenia leucoxantha, new species

FIGURE 33; PLATE 4b

Alar expanse 18–20 mm.

Labial palpus brown; second segment with apex and scattered scales white; base of third segment white. Antenna brown; apex of scape white. Head clay color; face white. Thorax clay color anteriorly, shading to ochraceous buff posteriorly. Forewing ground color orange yellow; extreme edge of costa white; surface of wing with a few widely scattered black scales; cilia orange yellow except suffused brownish in tornal area. Hind wing pearl white, cilia concolorous. Foreleg brown; midleg ochraceous buff; hind leg ochraceous buff; spurs brown.

Male genitalia slides USNM 24139, 24278. Harpe broad basally, and thick; cucullus narrow, rounded; sacculus strongly sclerotized, produced, terminating in a very long, slender, recurved sclerotized process. Gnathos spoon shaped. Transtilla fleshy, with a weak lobe on each side. Uncus broad basally, triangular, strongly sclerotized distally. Vinculum U-shaped with median process. Tegumen broad basally, narrowed distally. Anellus narrow, V-shaped to U-shaped basally, fused with base of harpe and transtilla. Aedeagus slender, produced apically as a long, strongly sclerotized point.

Female genitalia USNM 24142. Ostium slitlike, transverse, ventral lip slightly convex. Antrum not differentiated. Inception of ductus seminalis from near opening of ostium. Ductus bursae membranous. Bursa copulatrix half membranous, half weakly granular. Signum a minute dentate plate.

HOLOTYPE.—USNM 73714.

TYPE-LOCALITY.—Maule, Constitución.

Described from the female holotype (26 Nov 1953, L. E. Peña), and two male paratypes as follows: male, Arauco, Pillem-Pilli (15 Jan 1954, L. E. Peña); male, Arauco, Pichinahuel, Cordillera de Nahuelbuta, 11–1400 m. (23–31 Jan 1954, L. E. Peña).

Although similar to *I. curvula*, new species, *I. leucoxantha* is a smaller and much paler species. The long, curved process from the sacculus of *I. leucoxantha* immediately distinguishes it from *I. curvula*.

Lucyna, new genus

TYPE-SPECIES.—*Cryptolechia fenestella* Zeller, 1875:439 (by monotypy and present designation). The gender of the generic name is feminine.

Labial palpus slightly ascending but not strongly recurved; second segment nearly twice as long as third, smooth; third segment slender with small tuft posteriorly at middle. Tongue well developed; maxillary palpus reduced, filiform, free. Head smooth, side tufts spreading; ocellus absent. Antenna simple (at least in female); scape without pecten. Thorax smooth. Forewing with slightly raised tufts of scales at end of cell and on fold, opposite; costa gently arched, termen strongly oblique, 12 veins; 1b furcate, 1c strongly preserved; 2 remote from 3; 3, 4, and 5 approximate and equidistant; 7 and 8 stalked, 7 to apex; 6 and 9 approximate to the stalk of 7 and 8; 10 nearer to 9 than to 11; 11 from middle of cell; upper internal vein absent. Hind wing with 8 veins; 2 remote from 3; 3 and 4 stalked; 5, 6, and 7 equidistant, subparallel. Hind tibia clothed with long scales dorsally. Abdominal terga setose.

Male genitalia not available.

Female genitalia with signum.

Lucyna shows affinity to *Gonionota* Zeller, but differs from it by the setose abdominal terga, and vein 7 to apex, not to termen as in *Gonionota*. Moreover, the termen in *Lucyna* is much more oblique than that of *Gonionota* and forewing is narrower.

Lucyna fenestella (Zeller), new combination

FIGURE 34

Cryptolechia fenestella Zeller, 1874:439, pl. 12: fig. 9.

Machimia fenestella (Zeller).—Zeller, 1877:259.

Hypercallia fenestella (Zeller).—Bartlett-Calvert, 1886:346.—

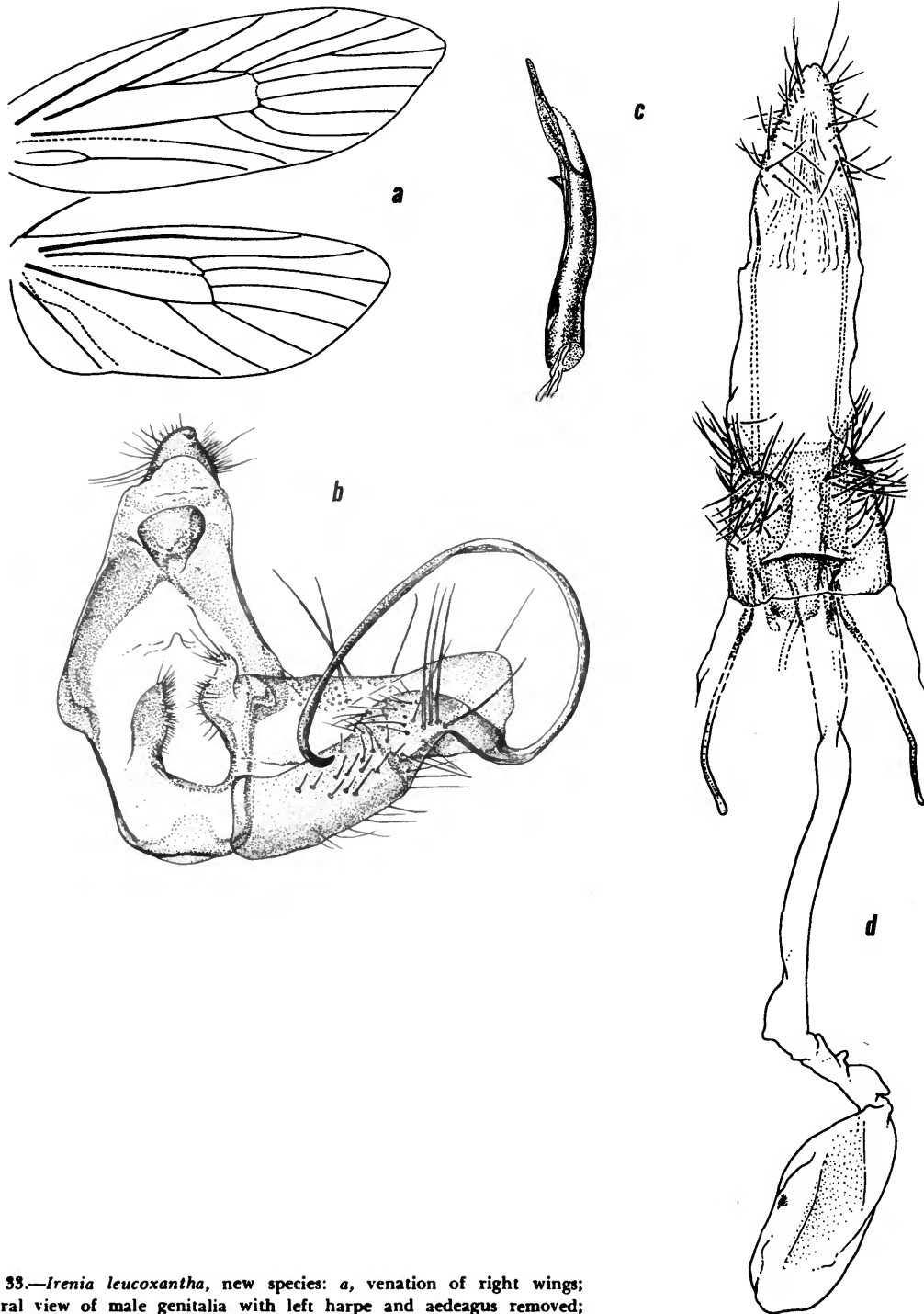


FIGURE 33.—*Irenia leucoxantha*, new species: a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus; d, ventral view of female genitalia.

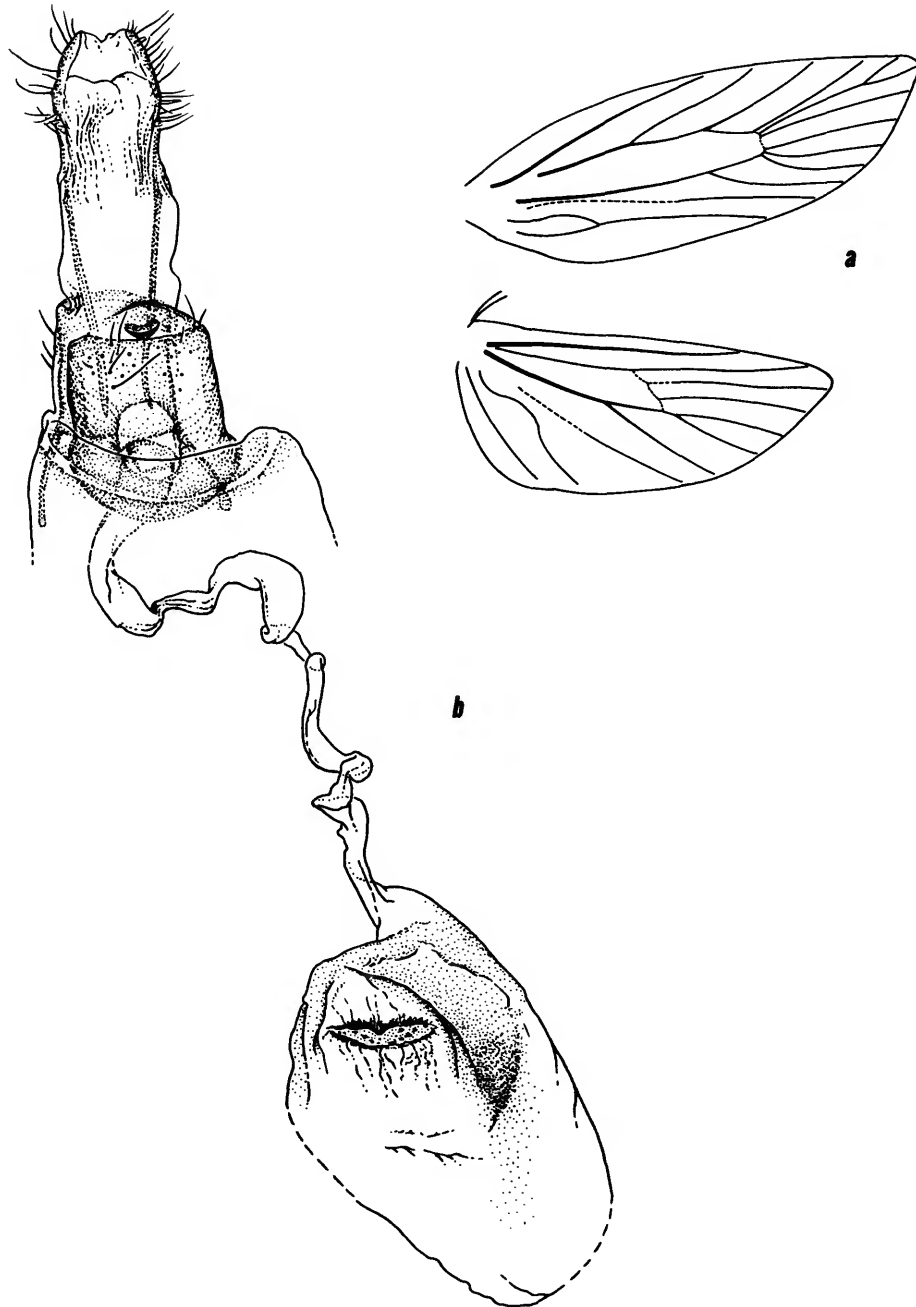


FIGURE 34.—*Lucyna fenestella* (Zeller): *a*, venation of right wings; *b*, ventral view of female genitalia.

Meyrick, 1922b:163 [as synonym of *thyridopa* Meyrick].
Coptotelia thyridopa Meyrick, 1912:701.
Hypercallia thyridopa (Meyrick).—Meyrick, 1922b:163.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Valparaiso.

Lucyna fenestella resembles species of the genus *Coptotelia* but is a very much narrower-winged species with a very oblique termen.

Dita, new genus

TYPE-SPECIES.—*Dita phococara*, new species [by monotypy and present designation]. The gender of this generic name is feminine.

Labial palpus upturned; second segment slightly roughened ventrally toward apex; third segment shorter than second, acute. Tongue well developed; maxillary palpus filiform, free. Head roughened with loosely appressed scales; ocellus absent. Antenna ciliated (in male); scape with pecten. Thorax smooth. Forewing smooth, costa slightly arched, apex falcate, termen nearly straight below apex, oblique, 12 veins; 1b furcate; 1c well preserved; 2 rather remote from 3; 3, 4, and 5 approximate, nearly equidistant; 7 and 8 stalked, 7 to termen; 9 nearer to stalk of 7 and 8 than to 10; 10 nearer to 9 than to 11; 11 from middle. Hind wing with 8 veins; 2 remote from 3; veins 3 and 4 short stalked; 4 to 7 equidistant. Hind tibia roughened by hairlike scales. Abdominal terga setose.

Male genitalia with uncus and gnathos well developed.

Female genitalia unknown.

This genus is apparently very closely related to the Australian and African *Tanyzancla* Meyrick, from which it differs mainly by the upturned labial palpus.

Dita phococara, new species

FIGURE 35; PLATE 4d

Alar expanse 20 mm.

Labial palpus sordid white irrorate and overlaid grayish fuscous on outer side. Antenna grayish fuscous; scape sordid white ventrally. Head gray, mixed with sordid white. Thorax cinnamon brown. Forewing ground color buckthorn brown; costa, from base to apical fifth, cinnamon brown; from

apical fifth of costa a transverse cinnamon brown shade extends to dorsum, where it is broadest; in center of cell a small cinnamon brown spot and at end of cell a sordid white dot; cilia mixed buckthorn brown and cinnamon brown. Hind wing grayish fuscous; cilia considerably lighter. Foreleg sordid white; femur cinnamon brown; tibia and tarsal segments grayish fuscous, the latter faintly annulated sordid white; midleg similar; hind leg sordid white, suffused and blotched grayish. Abdomen fuscous dorsally, somewhat paler ventrally.

Male genitalia USNM 24201. Harpe rectangular, cucullus forming a point on costal edge and fleshy portion fused to an extension of the sacculus; extension of sacculus heavily sclerotized, terminating in a clawlike appendage. Gnathos very large, as broad as long. Uncus stout, triangular, pointed distally. Vinculum U-shaped. Tegumen as broad as long. Anellus a small sclerotized plate with a long, curved, pointed dorsoposterior process. Aedeagus moderately slender, pointed; vesica armed with a series of graduated cornuti.

HOLOTYPE.—USNM 73716.

TYPE-LOCALITY.—Llanquihue, Rio Maullin.

Described from the unique male holotype (6 Jan 1966, O. Flint and Cekalovic).

This species is similar to *C. fasciatipedella* but is darker, has a conspicuous white spot at end of cell, and a postmedian dark shade absent in *C. fasciatipedella*. The figures illustrate adequately the genitalic differences.

Dita fasciatipedella (Zeller), new combination

FIGURE 36; PLATE 6c

Cryptolechia fasciatipedella Zeller, 1874:437, pl. 12: fig. 7.—Butler, 1883:80.—Bartlett-Calvert, 1886:347.

Machimia fasciatipedella (Zeller).—Zeller, 1877:259.

Hypercallia fasciatipedella (Zeller).—Meyrick, 1922b:163.—Gaede, 1939:259.

Male genitalia slide BM 12510. Harpe almost as broad as long, divided; costa divided distally, the costal arm much broader than inner arm and clothed with setae; sacculus very broadly expanded distally, terminating in an inner hook and short outer digitate process. Gnathos bluntly pointed distally, with a patch of setae posteriorly. Uncus broad basally, pointed distally. Vinculum U-shaped.

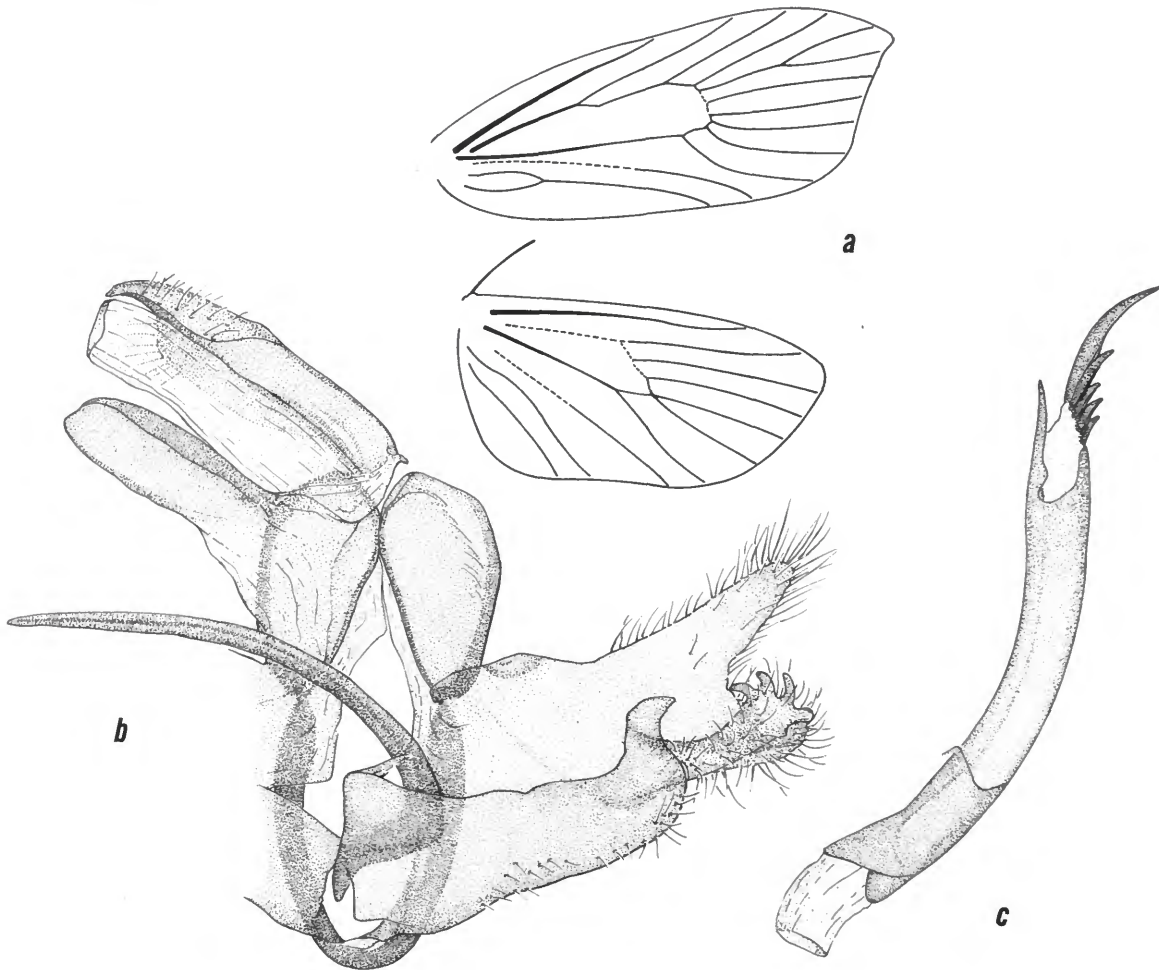


FIGURE 35.—*Dita phococara*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus.

Tegumen twice as broad as long. Anellus a narrow, folded plate with a long, curved median process. Aedeagus slender, curved, distal third much attenuated; vesica unarmed.

Female genitalia unknown.

TYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Valparaiso.

The moth clearly keys to *Dita* and the genitalia correspond with those of *D. phococara*, new species. The species does not belong in *Cryptolechia*, *Machimia* or *Hypercallia* in all of which genera it has previously been placed.

Utilia, new genus

TYPE-SPECIES.—*Utilia florinda*, new species (by present destination). The gender of this generic name is feminine.

Labial palpus slender, recurved, exceeding vertex; second segment slightly roughened anteriorly; third segment slightly shorter than second, acute, slightly roughened anteriorly. Maxillary palpus well developed, free. Head slightly roughened, side tufts spreading; ocellus absent. Antenna ciliated, finely and sparsely so in female; pecten present. Forewing smooth, costa arched, apex falcate, 12 veins;

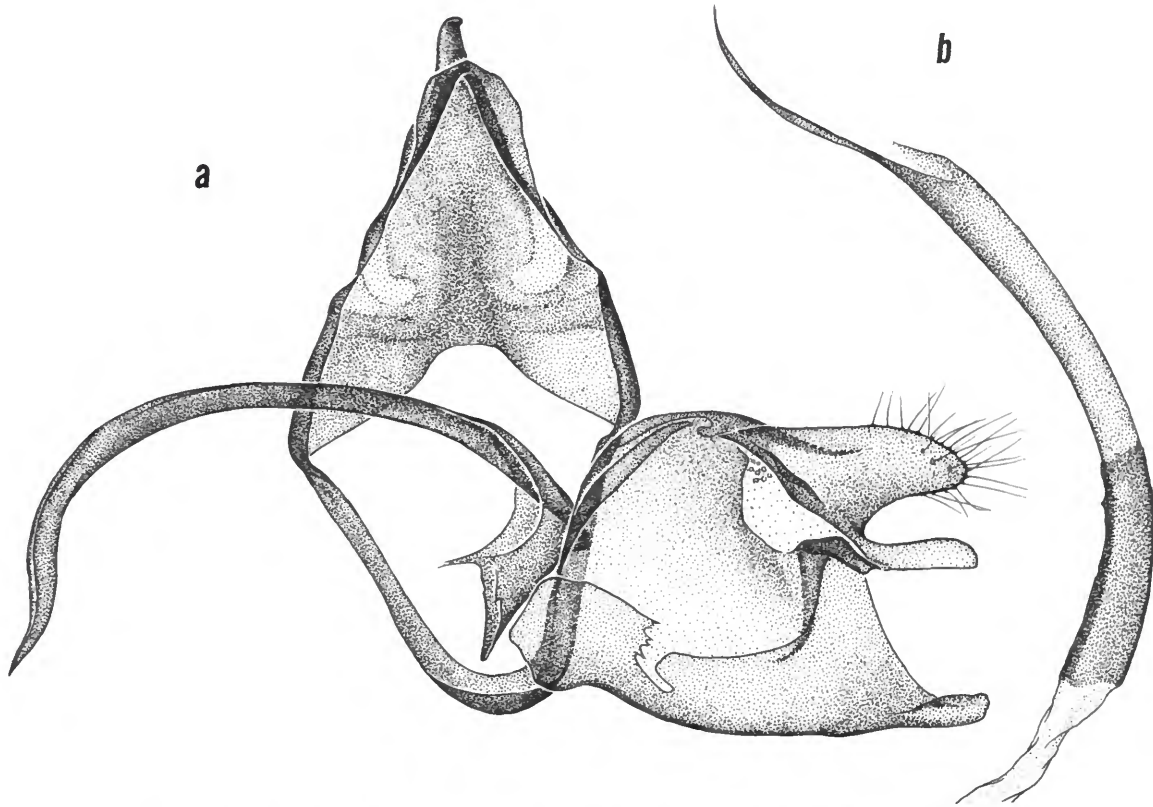


FIGURE 36.—*Dita fasciatipedella* (Zeller): *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

1b furcate; 1c well preserved; 2 remote from 3; 3, 4, and 5 well separated (or connate); 7 and 8 stalked, 7 to termen; 9 much nearer to stalk of 7 and 8 than to 10; 10 much nearer to 9 than to 11; 11 from well before middle of cell; upper internal vein present. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate; 5 nearer to 6 than to 4; 5, 6, and 7 equidistant, subparallel. Hind tibia slightly roughened with short, stiff scales. Abdominal terga setose, the setae fine and easily deciduous.

Male genitalia with well-developed uncus and gnathos. Aedeagus coiled proximally; vesica armed. Female genitalia with signum.

Utilia is similar to *Alynda* but is broader winged and has the upper internal vein of forewing well developed.

I place the following four species here.

Utilia luridella (Zeller), new combination

FIGURE 37

Cryptoechia luridella Zeller, 1874:438, pl. 12: fig. 8.—Butler, 1883:81.

Cryptolechia (Machimia) luridella (Zeller).—Zeller, 1877:259.

Hypercallia luridella (Zeller).—Bartlett-Calvert, 1886:347.—Meyrick, 1922b:163.—Gaede, 1939:260.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Valparaiso.

The female genitalia of *U. luridella* and *U. ochracea* are similar, as can be seen by a comparison of the figures; the chief differences between them are the wider ostium and larger signum of *U. luridella*.

Female genitalia figured from slide USNM 24279.

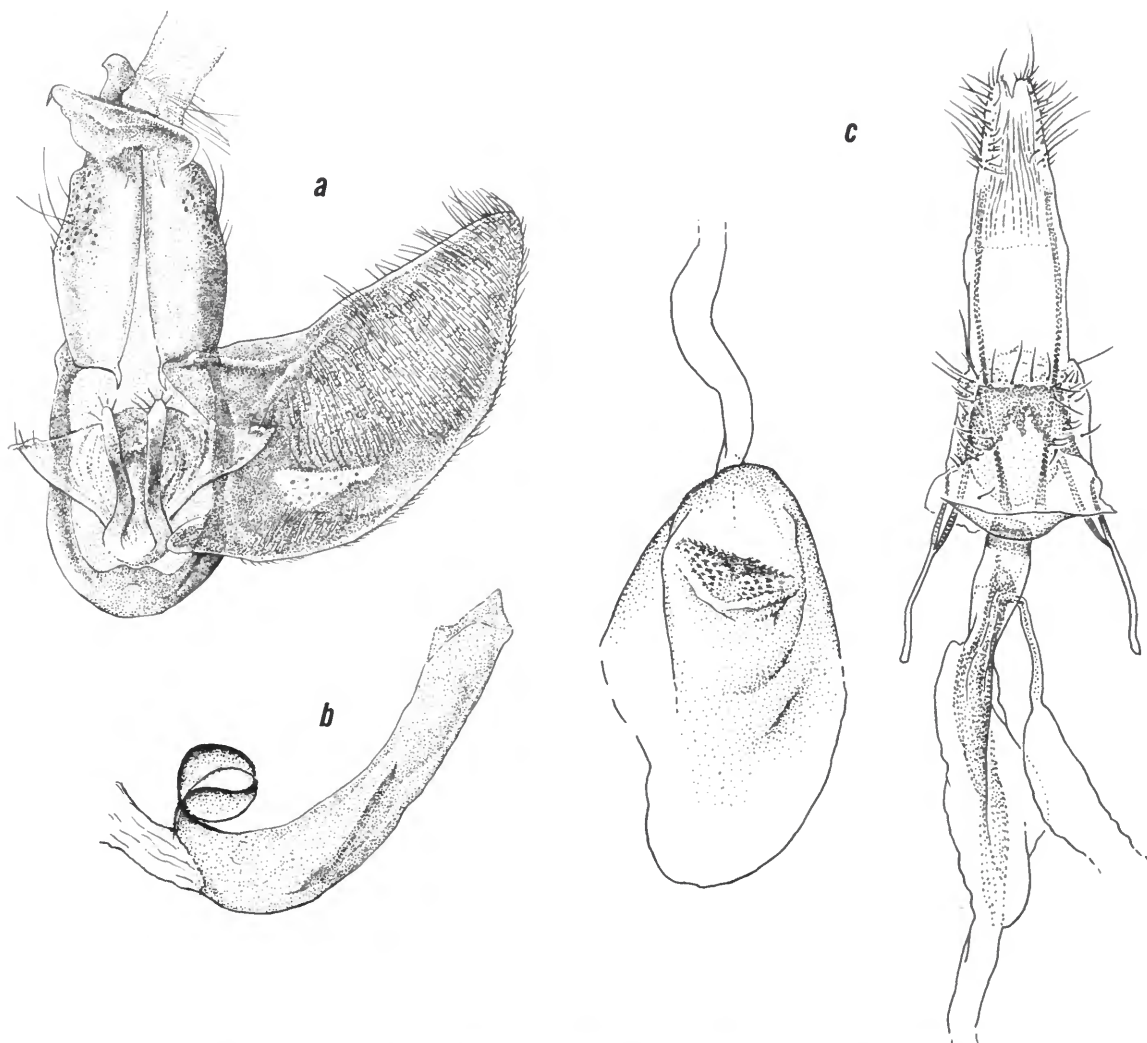


FIGURE 37.—*Utilia luridella* (Zeller): *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

***Utilia ochracea* (Zeller), new combination**

FIGURE 38

Cryptolechia ochracea Zeller, 1874:436, pl. 12: fig. 6.—Butler, 1883:80.

Cryptolechia (*Machimia*) *ochracea* (Zeller).—Zeller, 1877:259.

Hypercallia ochracea (Zeller).—Bartlett-Calvert, 1886:347.—Meyrick, 1922b:163.—Gaede, 1939:261.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Valparaiso.

This is similar to *U. luridella* Zeller but is considerably darker. The genitalia of this species have

not been figured previously.

Obviously, *U. ochracea* is larviparous as can be seen from the unborn larva in the duct.

Male genitalia figured from slide USNM 24280. Female genitalia figured from slide USNM 24281.

***Utilia falcata*, new species**

FIGURE 39; PLATE 4f

Alar expanse 24 mm.

Labial palpus ochereous white; third segment

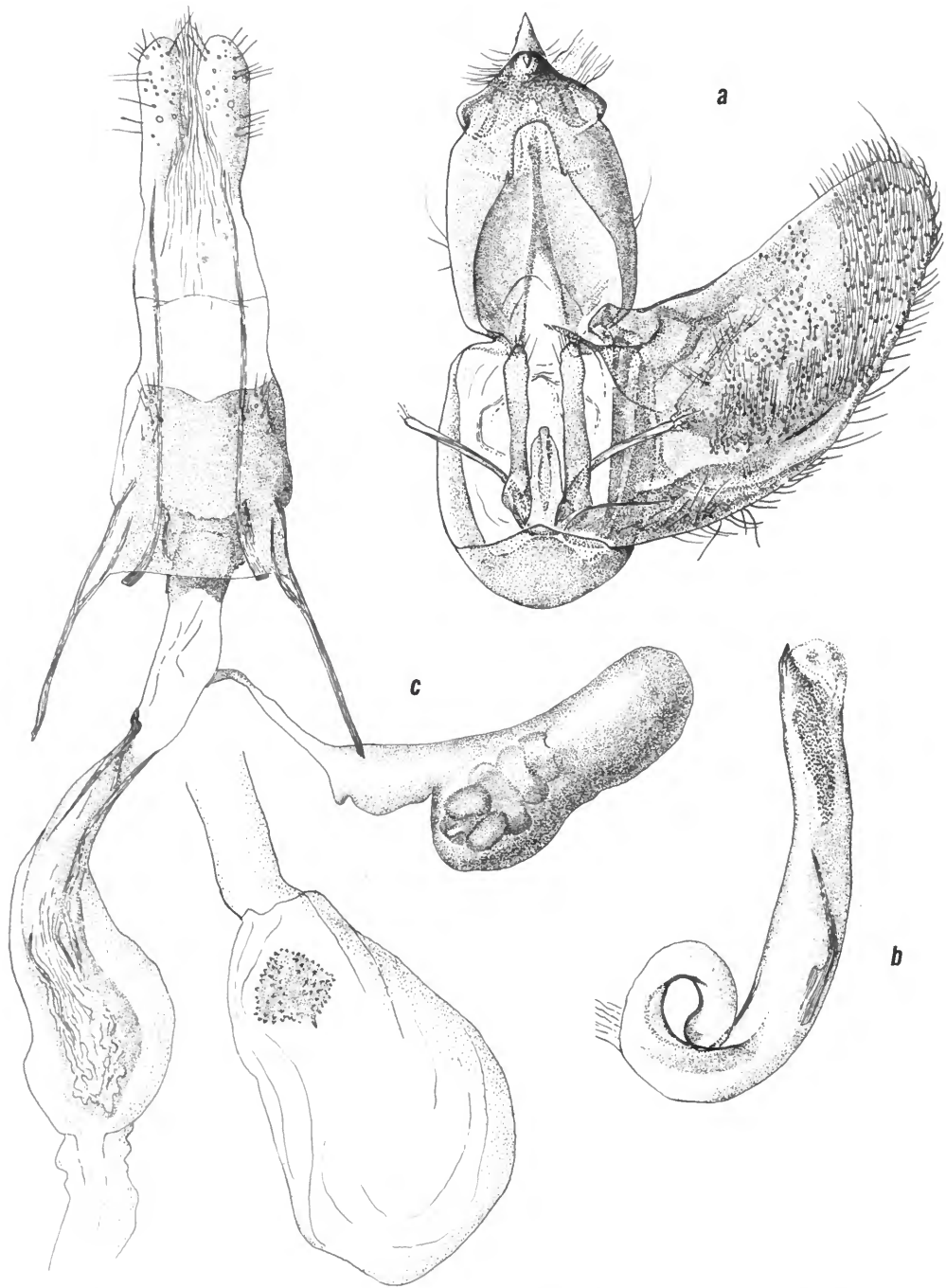


FIGURE 38.—*Utilia ochracea* (Zeller): *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

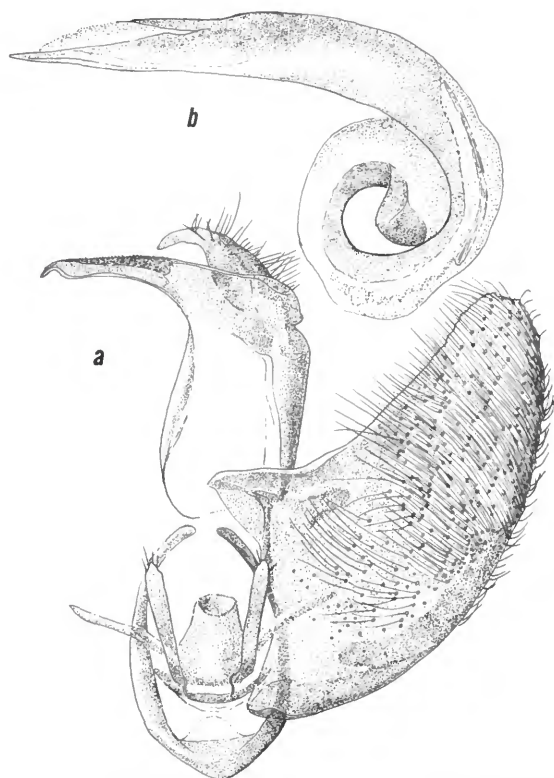


FIGURE 39.—*Utilia falcata*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

slightly darker. Antenna ochreous white; scape light ochraceous buff. Head, thorax, and forewing ground color pale ochraceous buff; well inside termen a line of four tiny, ill-defined, single brownish scales; at basal two-fifths in cell a single brownish scale and on fold a similar mark; cilia concolorous with ground color. Hind wing ochreous white; cilia concolorous. Foreleg, middle, and hind leg ochreous white; foretibia and tarsal segments shaded with brown. Abdomen sordid whitish with pale ochreous suffusion.

Male genitalia slide USNM 24282. Harpe ample, broadest at base; sacculus moderately sclerotized; cucullus rounded. Gnathos very long, narrowly triangular, sharply pointed, granular posteriorly. Uncus short, pointed, curved. Vinculum rounded. Tegumen narrow, about half the length of harpe. Anellus a pear-shaped sclerotized plate. Aedeagus robust, coiled proximally, pointed distally. Vesica armed with a long, slender cornutus.

HOLOTYPE.—USNM 73717.

TYPE-LOCALITY.—Centro-Austral.

Described from the male holotype (Jan–Mar 1898, V. Izquierdo).

This is the smallest of the four species I place in this genus. It has a narrower forewing than *U. luridella* or *U. ochracea*, and the apex is more produced. It is probably most closely related to *U. florinda*.

Utilia florinda, new species

FIGURE 40; PLATE 4c

Alar expanse 24–26 mm.

Labial palpus buff, third segment slightly darker than second. Antenna buff with grayish suffusion. Head buff. Thorax pale yellow orange. Forewing ground color pale yellow orange; in middle of cell an ill-defined ochraceous-buff spot; at end of cell a similar, larger spot; cilia concolorous with ground color of forewing. Hind wing very pale buff; cilia buff. Legs buff with slight tawny shading on outer sides. Abdomen buff.

Male genitalia slide USNM 24283. Harpe ample, broad basally, simple, tapered to a bluntly pointed cucullus. Gnathos very broad basally, triangular, pointed distally. Uncus narrowly triangular, pointed distally. Vinculum U-shaped, somewhat thickened basally. Tegumen about as long as width of harpe at base. Anellus subrectangular, slightly broader proximally than distally; distal edge deeply excavated; from each basal corner a digitate process. Aedeagus robust, strongly curved; vesica armed with a single slender cornutus.

HOLOTYPE.—USNM 73718.

TYPE-LOCALITY.—Araucania.

Described from the male holotype (1 Mar 1892, V. Izquierdo) and one male paratype with identical data.

The two species, *U. falcata* and *U. florinda*, are very closely related but the latter is a larger moth, the apex of forewing is not so pointed, and vein 5 of forewing of *U. florinda* is well separated from vein 4, not connate as in *U. falcata*.

Alynda, new genus

TYPE-SPECIES.—*Alynda sarissa*, new species (by present designation). The gender of this generic name is feminine.

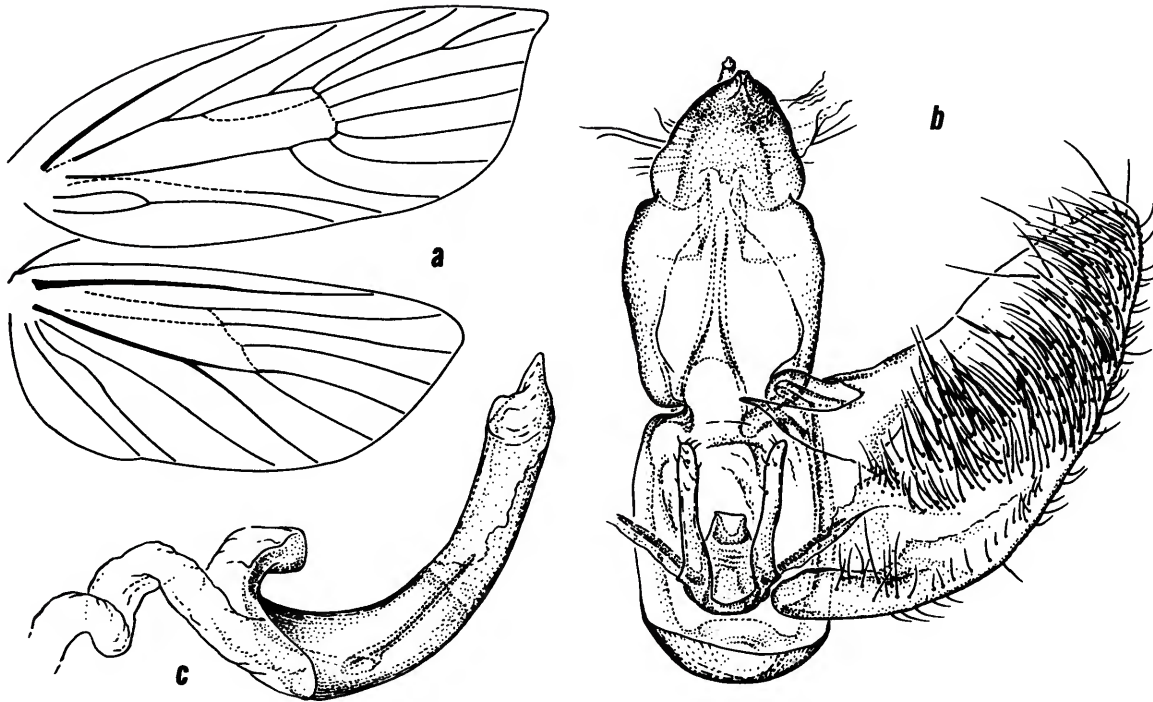


FIGURE 40.—*Utilia florinda*, new species: *a* venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus.

Labial palpus very slender, ascending; second segment reaching base of antenna, smooth; third segment shorter than second, slender, acute. Tongue well developed; maxillary palpus filiform, free. Head with loosely appressed scales, side tufts spreading; ocellus absent. Antenna ciliated (in male); scape with well-developed pecten. Thorax smooth. Forewing smooth, costa slightly arched, termen slightly concave, oblique, 12 veins; 1b furcate; 1c well preserved at margin; 2 distant from 3; 3 and 4 well separated; 5 and 6 nearly parallel; 7 and 8 stalked, 7 to termen; 9 nearer to stalk of 7 and 8 than to 10; 10 nearer to 9 than to 11; 11 from before middle of cell. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate; 5 nearer to 4 than to 6; 6 and 7 subparallel. Hind tibia roughened by hairlike scales. Abdominal terga setose.

Male genitalia with uncus and gnathos well developed. Vesica armed.

Female genitalia unknown.

Alynda keys to the Australian *Philobota* Meyrick in Meyrick's key (1922b) but differs from it by vein 2 of forewing distant from 3, vein 11 from before middle of cell and second segment of labial palpus being smooth.

Alynda striata, new species

FIGURE 41; PLATE 5a

Alar expanse 19 mm.

Labial palpus ochraceous buff; second and third segments grayish on outer sides. Antenna grayish fuscous; scape ochraceous buff ventrally. Head gray on crown; face ochraceous buff. Thorax a mixture of ochraceous buff and ochraceous tawny; tegula ochraceous tawny basally, ochraceous buff distally. Forewing ground color ochraceous buff; extreme edge of costa basally grayish fuscous; from basal fourth of costa an irregular, outwardly oblique, cinnamon brown fascia extends to dorsum well before tornus; between veins 8 to 11 cinnamon

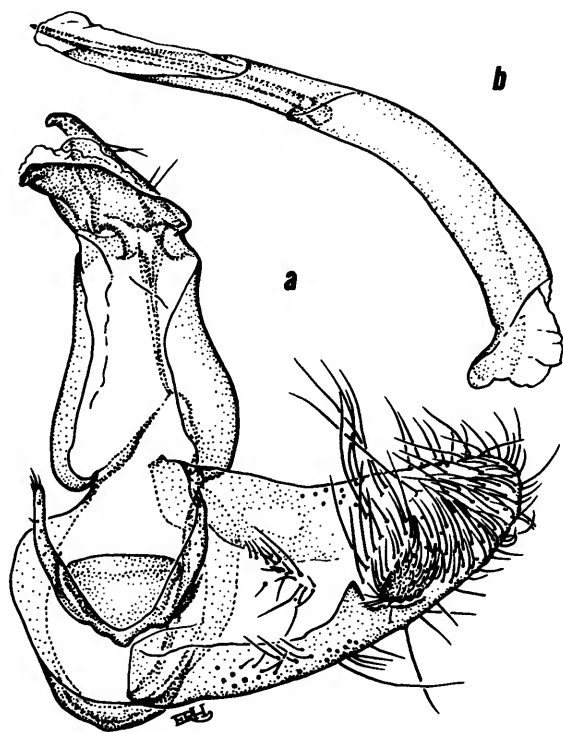


FIGURE 41.—*Alynda striata*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

brown streaks edged with pinkish scales; at end of cell a cinnamon brown blotch narrows and extends to apex; along termen a cinnamon brown line; pink scales scattered over wing surface; cilia ochraceous salmon basally, orange yellow distally. Hind wing gray with some fuscous scaling around margins and apically. Foreleg ochraceous buff heavily overlaid grayish fuscous on outer side; midleg similar but infuscation not so dark; hind leg ochraceous buff. Abdomen gray dorsally, sordid ochereous white ventrally.

Male genitalia slide USNM 24202. Harpe broad basally, tapering to a narrowly rounded cucullus; sacculus moderately sclerotized and with a conical process near its distal end. Gnathos thick, triangular, elongate, pointed distally. Uncus narrow, triangular, pointed. Vinculum U-shaped. Tegumen dilated basally, narrowed before base of uncus. Anellus broadly triangular with digitate process from base on each side. Aedeagus moderately

slender, slightly curved; vesica armed with a single, long, slender cornutus.

HOLOTYPE.—USNM 73719.

TYPE-LOCALITY.—Arauco, Caramavida.

Described from the unique male holotype (1–6 Jan 1954, L. E. Peña).

The three species of this genus show very close affinity, but the outer two-thirds of the forewings of *A. cinnamomea* and *A. sarissa* are nearly unmarked, while that of *A. striata* exhibits longitudinal streaking.

Alynda sarissa, new species

FIGURE 42; PLATE 5b

Alar expanse 20 mm.

Labial palpus cinnamon buff; second segment cinnamon brown on outer side; third segment almost wholly cinnamon brown with buff apex. Antenna cinnamon brown. Head cinnamon buff. Thorax cinnamon buff. Forewing ground color light capucine orange; basal fourth of costa buckthorn brown; from outer end of dark costal shade a transverse, outwardly oblique fascia of the same color extends to dorsum well before tornus; along termen a narrow pinkish shade mixed with buckthorn brown; cilia (except apical cilia) light orange yellow; apical cilia buckthorn brown. Hind wing straw color, apically slightly darker; cilia concolorous. Foreleg cinnamon buff heavily overlaid fuscous on outer side; midleg similar but lighter; hind leg buff. Abdomen ochereous white, shading to ochraceous buff posteriorly and ochraceous ventrally.

Male genitalia slide USNM 24284. Harpe ample, cucullus rounded; at base of cucullus ventrally, a cluster of fine, long setae; sacculus rather heavily sclerotized with a truncated protuberance near distal end. Gnathos elongate, triangular, pointed. Uncus pointed. Vinculum U-shaped. Tegumen dilated in basal half, narrowed posteriorly. Anellus triangular, broadest posteriorly; from base, on each side, a digitate process. Aedeagus slender, curved; vesica armed with a single, very long, slender cornutus.

HOLOTYPE.—USNM 73720.

TYPE-LOCALITY.—Centro-Austral.

Described from the unique male holotype (Jan–Mar 1898, V. Izquierdo). The relationship of *A. sarissa* is discussed under *A. striata*.

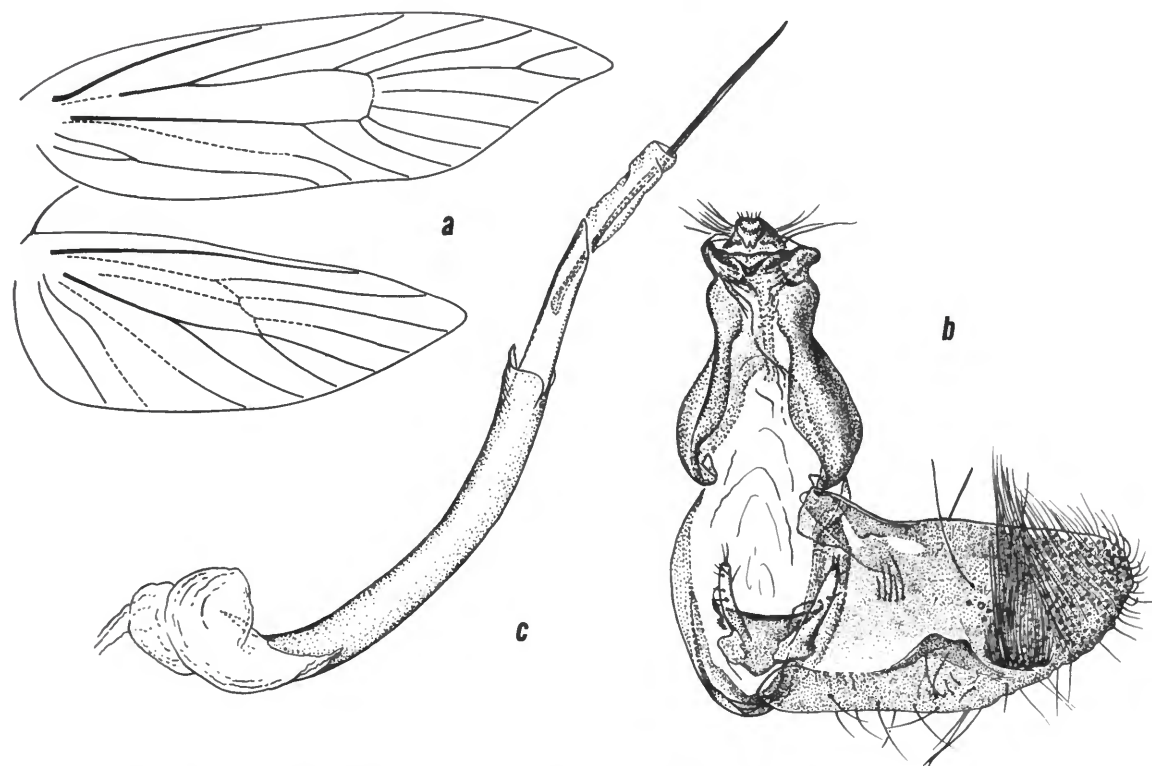


FIGURE 42.—*Alynda sarissa*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus.

***Alynda cinnamomea*, new species**

FIGURE 43; PLATE 5c

Alar expanse 23 mm.

Labial palpus pale maize yellow; second segment somewhat darker below apex and cinnamon on outer side; third segment cinnamon. Antenna cinnamon buff with darker annulations; scape pale maize yellow. Head with face pale maize yellow; vertex mixed cinnamon. Thorax cinnamon. Forewing ground color pale maize yellow; basal half strongly overlaid cinnamon; in middle of cell an obscure brownish spot and opposite it, on fold, a similar dot; at end of cell a brownish suffusion suggesting an ill-defined outer discal spot; cilia pale maize yellow. Hind wing pale maize yellow; cilia concolorous. Foreleg cinnamon buff; midleg warm buff with slight cinnamon suffusion on outer side; hind leg warm buff. Abdomen dull ochreous yellow.

Male genitalia slide USNM 24285. Harpe ample; costal and ventral edges nearly parallel; cucullus pointed; saccus strongly sclerotized, produced distally into a long, sharply pointed, curved process nearly reaching end of cucullus. Gnathos broad basally, distal end truncate with a point on each side. Uncus nearly rectangular, slightly wider basally. Vinculum narrow. Tegumen slightly broader posteriorly than anteriorly. Anellus oval. Aedeagus stout, curved, bulbous basally; vesica armed with a cluster of three long, curved, fused cornuti.

HOLOTYPE.—USNM 73721.

TYPE-LOCALITY.—Llanquihue, Petrohue.

Described from the unique male holotype (10 Mar 1959, J. F. G. Clarke).

The genitalia of *A. cinnamomea* are atypical, differing from those of both *A. sarissa* and *U. falcata* by the long extension of the saccus and the peculiar, broad gnathos.

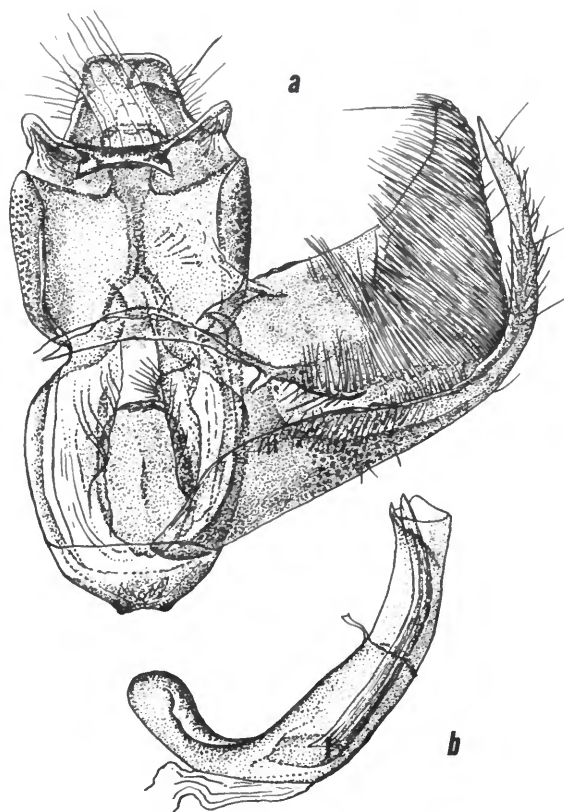


FIGURE 43.—*Alynda cinnamomea*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus.

Atha, new genus

TYPE-SPECIES.—*Atha trimacula*, new species (by monotypy and present designation). The gender of this genus is feminine.

Labial palpus recurved, second segment exceeding base of antenna, smooth; third segment shorter than second, slender, acute. Tongue well developed; maxillary palpus small, free. Head roughened with loosely appressed scales; ocellus absent. Antenna simple; scape without pecten. Thorax smooth. Forewing smooth, costa very slightly arched, termen straight, 12 veins; 1b furcate; 1c preserved at margin; 2 remote from 3; 3 from before angle; 4 and 5 approximate; 6 much nearer 7 than to 5; 7 and 8 stalked, both to costa; 9 approximate to the stalk of 7 and 8; 10 nearer to 9 than to 11; 11 from about middle of cell. Upper internal vein absent. Hind

wing with 8 veins; 2 remote from 3; 3 and 4 connate; 5 nearer to 6 than to 4; 6 and 7 subparallel. Hind tibia smooth. Abdominal terga setose.

Male genitalia with uncus well developed; gnathos absent.

Female genitalia unknown.

Atha and *Afdera*, new genus, are closely related with almost identical venation, but *Atha* has a smooth hind tibia and the male lacks a gnathos. *Afdera* has a rough hind tibia and has a well-developed gnathos.

Atha trimacula, new species

FIGURE 44; PLATE 4g

Alar expanse 16 mm.

Labial palpus light buff; second segment with grayish-fuscous irroration on outer side and posteriorly. Antenna light buff with grayish-fuscous annulations; scape grayish fuscous dorsally, light buff ventrally. Head a mixture of grayish fuscous and buff. Thorax grayish fuscous; tegula grayish fuscous mixed with light buff. Forewing ground color light buff overlaid with grayish fuscous, largely obscuring the lighter ground color; at basal two-fifths, in cell, a conspicuous, outwardly oblique, fuscous spot; a similar longitudinal blotch on fold at basal two-fifths; across end of cell an oblique fuscous spot; cilia grayish fuscous. Hind wing light grayish fuscous, paler basally; cilia grayish fuscous. Foreleg light buff; femur and tibia suffused grayish fuscous; tarsal segments annulated grayish fuscous; midleg and hind leg similar. Abdomen grayish fuscous dorsally; posterior edge of each segment sordid whitish; ventrally light buff with row of fuscous blotches ventrolaterally.

Male genitalia slide USNM 24286. Harpe of about equal width for most of its length but ventral edge emarginate before cucullus; cucullus pointed, distal end of saccus recurved, extending as clasper at least to middle of harpe. Gnathos absent. Uncus very long, slender, curved. Vinculum V-shaped with well-developed saccus. Tegumen a moderately narrow ring. Anellus U-shaped with well-developed posterolateral lobes. Aedeagus moderately stout, slightly curved, armed with a series of teeth anterolaterally; vesica armed with a single, stout cornutus.

HOLOTYPE.—USNM 73722.

TYPE-LOCALITY.—Llanquihue, Peulla.

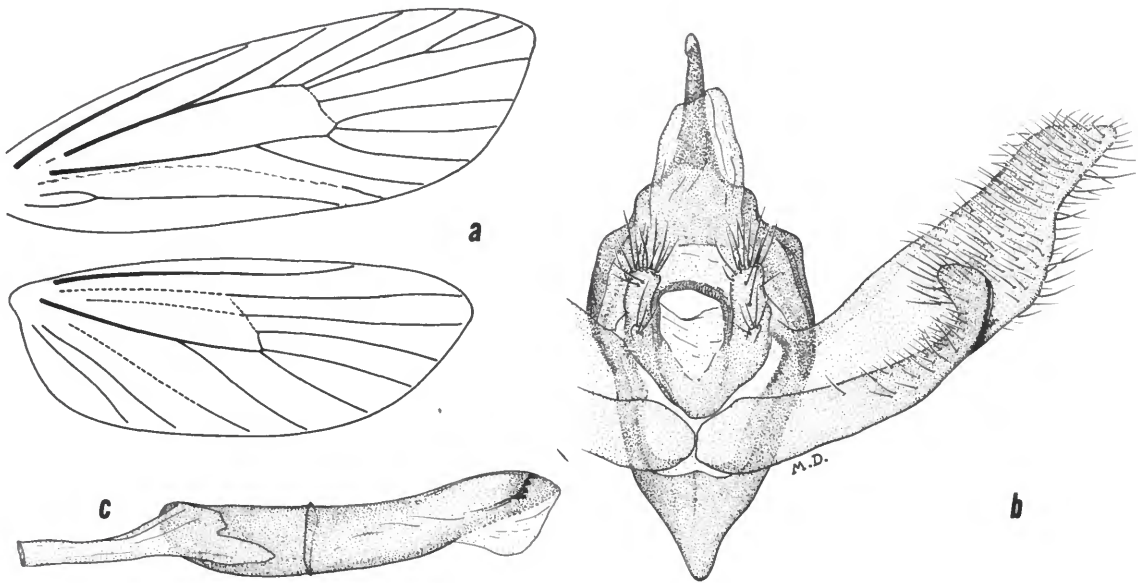


FIGURE 44.—*Atha trimacula*, new species: a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus.

Described from the unique male holotype (9 Mar 1959, J. F. G. Clarke).

The markings of the forewing are similar to those of *Pseudodoxia pachnocomma* Meyrick, but are more conspicuous and the moths are quite different structurally.

Retha, new genus

TYPE-SPECIES.—*Retha rustica*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus slender, recurved, exceeding vertex; second segment slightly roughened anteriorly; third segment acute, shorter than second. Tongue well developed; maxillary palpus minute, free. Head roughened dorsally, side tufts spreading; ocellus absent. Antenna fasciculate ciliate (at least in male); scape with pecten. Thorax smooth. Forewing smooth, costa nearly straight, termen oblique, 12 veins; 1c present; 2 remote and 3 from before angle; 4 and 5 very nearly connate; 7 and 8 stalked, 7 to costa; 9 very closely approximate to the stalk of 7 and 8; 10 much nearer to 9 than to 11; 11 from basal third. Hind wing with 8 veins; 2 remote; 3 and 4 short stalked from angle; 5, 6, and 7 about

equidistant. Hind tibia clothed with long hairlike scales dorsally. Abdominal terga setose (the setae readily deciduous).

Male genitalia with uncus and gnathos present.

Female genitalia unknown.

Retha rustica, new species

FIGURE 45; PLATE 4h

Alar expanse 13–16 mm.

Labial palpus second segment blackish fuscous in basal half, buff in distal half; third segment blackish fuscous, apex buff. Antenna fuscous; apex of scape buff. Head brownish buff; face buff. Thorax brownish buff mottled fuscous. Forewing ground color buff, streaked and spotted with fuscous; base of wing blackish fuscous except for a streak of ground color inside costa; in middle of cell a blackish-fuscous blotch and a similarly colored crescentic blotch at end of cell; at two-thirds of costa a blackish-fuscous streak; from costa, well before apex, an irregular, transverse fuscous line extends to termen, then along termen to tornus; cilia buff to brownish buff with a few fuscous scales mixed. Hind wing pale silvery gray; cilia buff to very pale gray. Foreleg buff, heavily overlaid fuscous; midleg similar

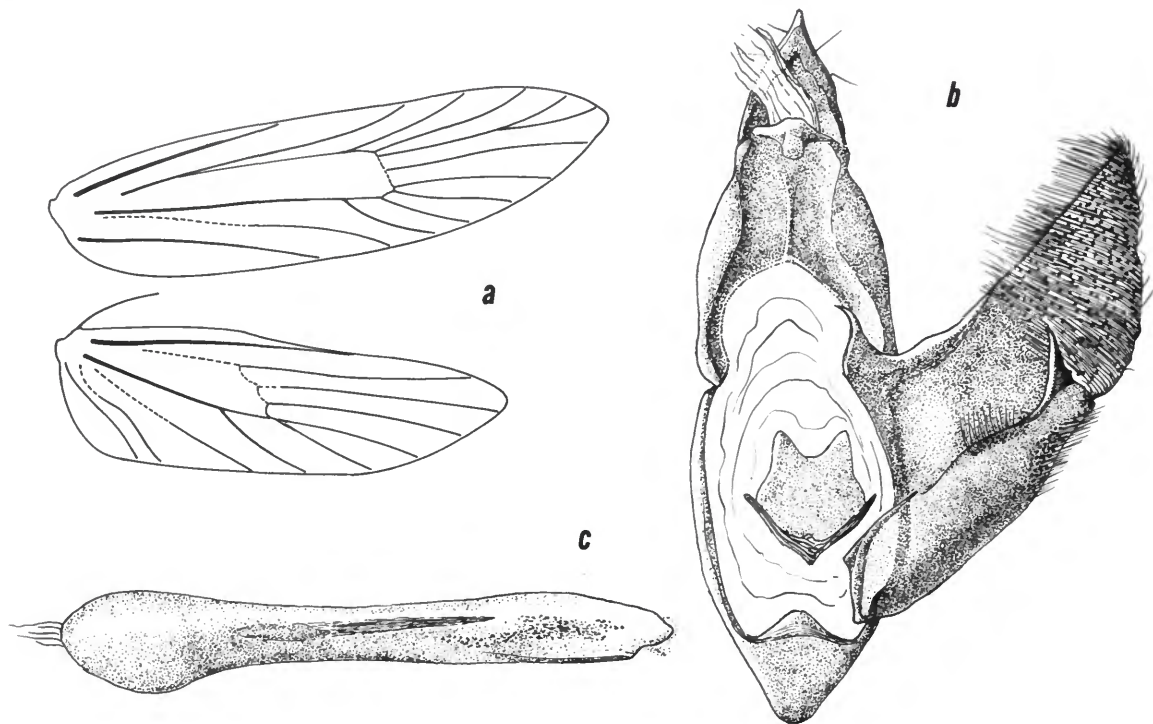


FIGURE 45.—*Retha rustica*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus.

but buff annulations distally on tibia and tarsal segments; hind leg buff with slight infuscation on outer side. Abdomen buff; posterior six segments grayish fuscous laterally; abdominal terga setose.

Male genitalia slide USNM 24287. Harpe broad basally, tapering to a pointed cucullus; sacculus strongly sclerotized, terminating in a sharply pointed clasper. Gnathos elongate, pointed. Uncus triangular, pointed distally. Vinculum U-shaped with well-developed saccus. Tegumen arched, about twice as long as uncus. Anellus subrectangular; posterior edge deeply excavated. Aedeagus nearly straight, swollen proximally and distally; vesica armed with a single slender cornutus.

HOLOTYPE.—USNM 73723.

TYPE-LOCALITY.—Llanquihue, Petrohue.

Described from the male holotype and one male paratype with identical data (10 Mar 1959, J. F. G. Clarke); one male paratype, Province Cautin, Villarrica (4, 5 Jan 1966, Flint and Cekalovic), and two male paratypes, Province Magallanes, Puente Arenas (9–15 Jan 1966, Flint and Cekalovic).

Zymrina, new genus

TYPE-SPECIES.—*Borkhausenia xanthosema* Meyrick, 1931:390 (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus upturned, exceeding vertex, slender, sickle shaped, second segment smooth; third segment as long as second, acute. Maxillary palpus reduced, closely appressed to base of tongue. Head smooth; ocellus absent. Antenna simple; scape with strong pecten. Forewing narrow, costa nearly straight, apex pointed; 12 veins; 1b furcate; 2 well before 3; 4, and 5 approximate and equidistant; 7 and 8 stalked, 7 to costa; 10 much closer to 9 than to 11; 11 from beyond middle of cell. Hind wing with 8 veins; 2 from well before angle; 3 and 4 connate; 5 nearer to 6 than to 4; 6 and 7 subparallel. Hind tibia clothed with long, hairlike scales. Abdominal terga setose.

Male genitalia with uncus and gnathos well developed.

Female genitalia with signum.

Zymrina is near *Borkhausenia* but differs from it by the absence of antennal cilia in the male, by having a simple harpe without clasper, and vein 11 of forewing arising well beyond middle of cell.

***Zymrina xanthosema* (Meyrick), new combination**

FIGURE 46

Borkhausenia xanthosema Meyrick, 1931:390—Clarke, 1963, 4:130, pl. 62: figs. 4–4b.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Llanquihue Province, Puerto Mont.

Only two specimens of this species are known; a male in the British Museum (Natural History) figured by Clarke (1963) and a female in the National Museum of Natural History. At present *B. xanthosema* is the only species referable to *Zymrina*.

Female genitalia figured from slide USNM 24214.

***Callistenoma* Butler**

Callistenoma Butler, 1883:79. [Type-species: *Cryptolechia ustimacula* Zeller, 1874:440, pl. 12, fig. 10; by monotypy.]

***Callistenoma ustimacula* (Zeller)**

FIGURE 47; PLATE 6d

Cryptolechia ustimacula Zeller, 1874:440, pl. 12: fig. 10.

Callistenoma ustimacula (Zeller).—Bartlett-Calvert, 1886:346.

Machimia ustimacula (Zeller).—Zeller, 1877:259.

Hypercallia ustimacula (Zeller).—Meyrick, 1922b:162.—Gaede, 1939:263.

Gonionota ustimacula (Zeller).—Clarke, 1971: 35.

Callistenoma ustimacula zelleri Butler, 1883:80.

Male genitalia slide BM 12508. Harpe of nearly equal width throughout; cucullus bluntly rounded; sacculus broadly and strongly sclerotized; extension of sacculus slender, strongly sclerotized, parallel to outer margin of harpe. Gnathos spatulate distally. Uncus moderately short, pointed. Vinculum U-shaped with short median projection. Tegumen about half the length of harpe. Anellus a subquadrate plate with setaceous posterolateral lobes. Aedeagus short, stout, curved, pointed distally; cornutus very strong, thornlike.

Female genitalia slide USNM 24233. Ostium protruding. Sterigma strongly sclerotized, posterior margin sinuate. Antrum sclerotized. Inception of

ductus seminalis dorsolateral, slightly before ostium. Ductus bursae posterior fourth sclerotized, anterior three-fourths spiraled, membranous. Bursa copulatrix very finely granular. Signum an oval, dentate plate.

HOLOTYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Valparaiso.

As can be seen by the synonymy, this species has had an uncertain history. When I placed *U. ustimacula* in *Gonionota* (1971) I had no male and no specimens with complete labial palpi. The species is, in fact, quite distinct from species of *Gonionota* and belongs in a different section of the family.

***Lelita*, new genus**

TYPE-SPECIES.—*Lelita acmaea*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus recurved; second segment scarcely reaching base of antenna, slightly roughened anteriorly; third segment acute, slender, shorter than second. Tongue well developed; maxillary palpus filiform, appressed to base of tongue. Head smooth, clothed with closely appressed scales; sidetufts spreading; ocellus absent. Antenna simple (female); scape with weak pecten. Thorax smooth. Forewing smooth, costa nearly straight; termen straight, oblique, 12 veins; 1b furcate; 1c well preserved; 2 to 5 nearly equidistant; 5 and 6 well separated, parallel; 7 and 8 stalked, 7 to termen; 9 nearer to stalk of 7 and 8 than to 10; 11 from before middle of cell; upper internal vein absent. Hind wing with 8 veins; 2 remote from 3; 3 and 4 short stalked; 5 nearer to 6 than to 4; 6 and 7 subparallel. Hind tibia smooth. Abdominal terga setose.

Male genitalia unknown.

Female genitalia without signum.

Perhaps most closely related to *Teresita* from which it differs by the stalking of veins 3 and 4 of hind wing and the relatively shorter second segment of labial palpus which does not reach base of antenna.

***Lelita acmaea*, new species**

FIGURE 48; PLATE 5d

Alar expanse 12.5 mm.

Labial palpus second segment light ochraceous buff with a few scattered blackish scales anteriorly;

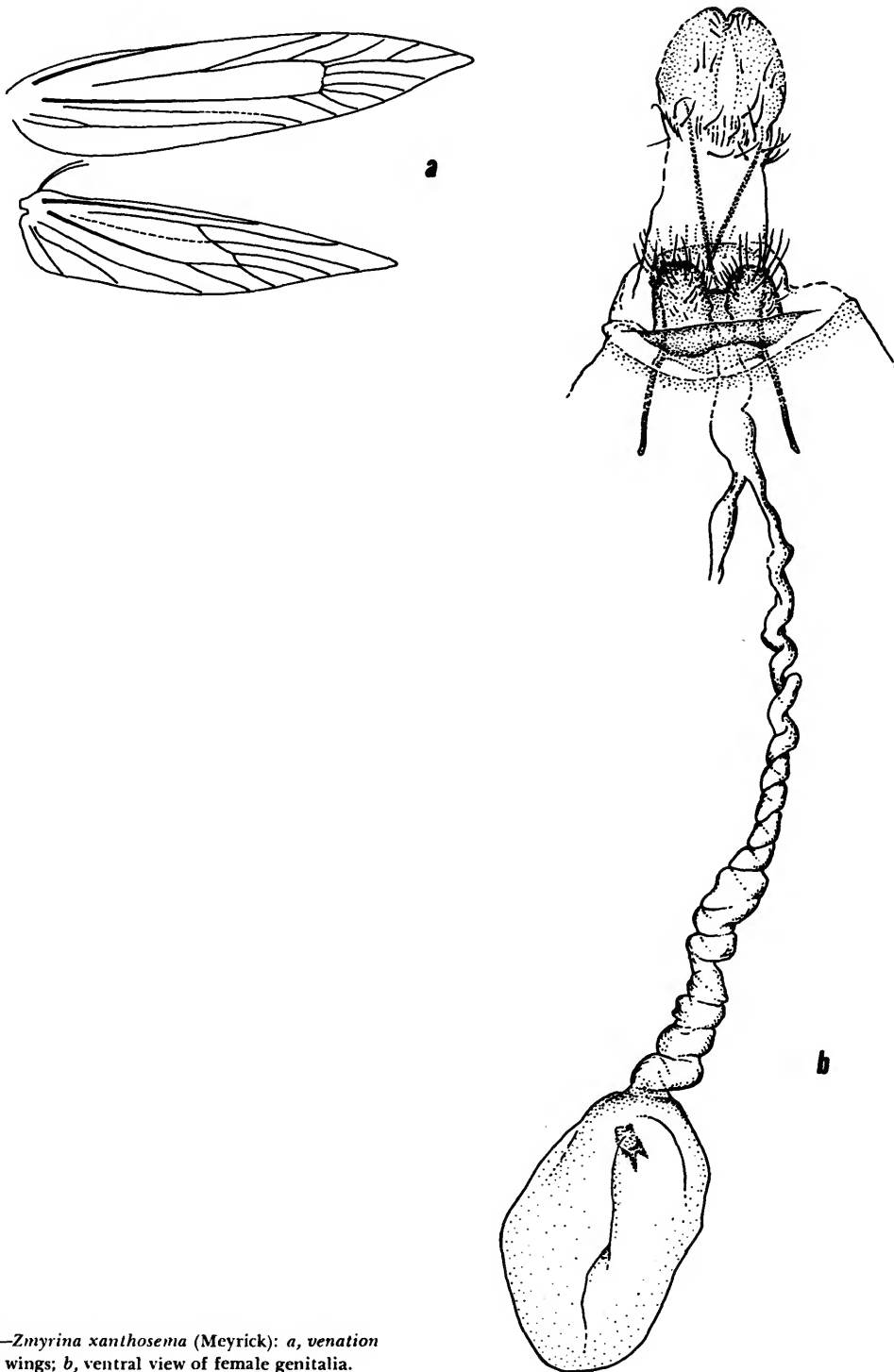


FIGURE 46.—*Zmyrina xanthosema* (Meyrick): *a*, venation of right wings; *b*, ventral view of female genitalia.

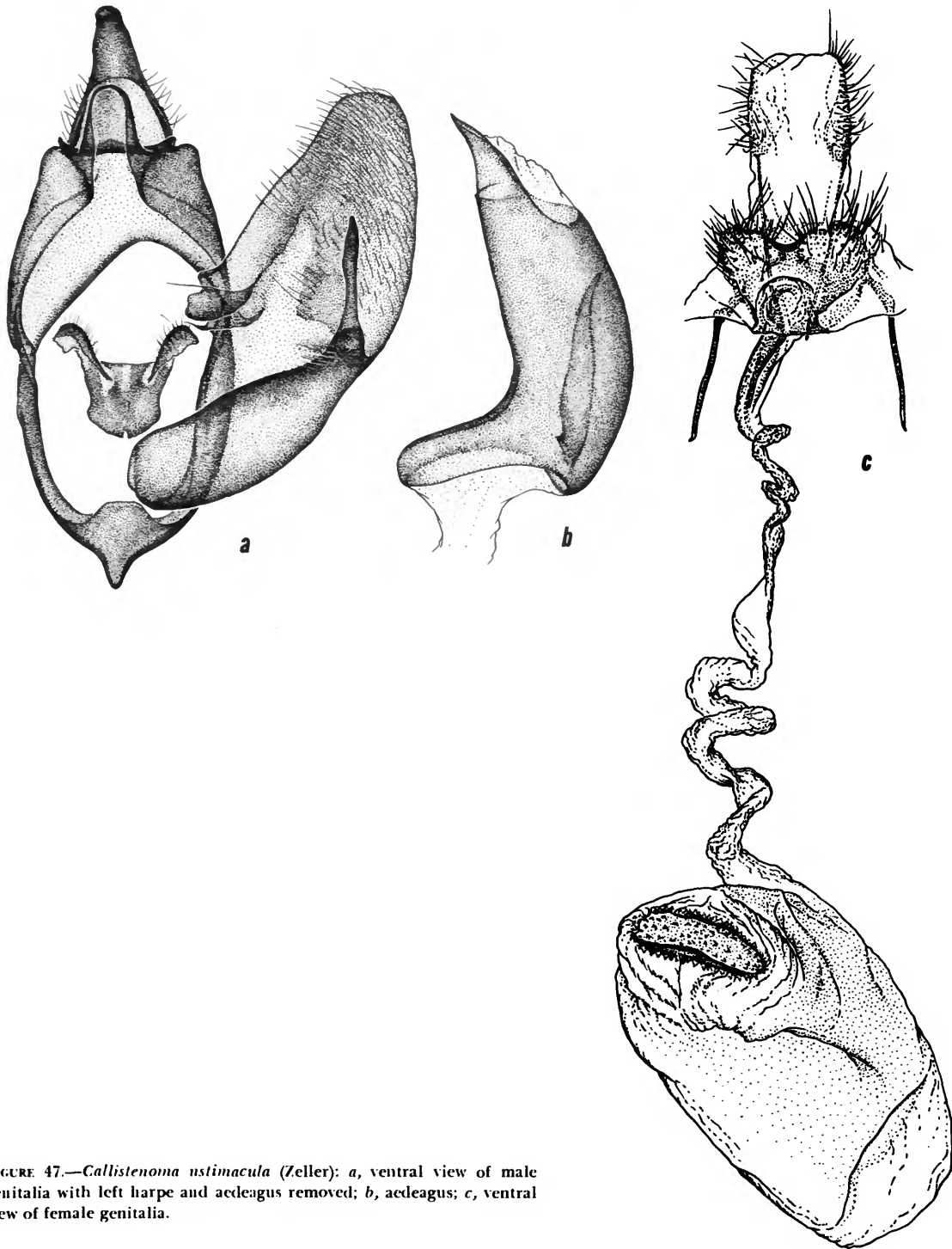


FIGURE 47.—*Callistenoma ustimacula* (Zeller): *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia.

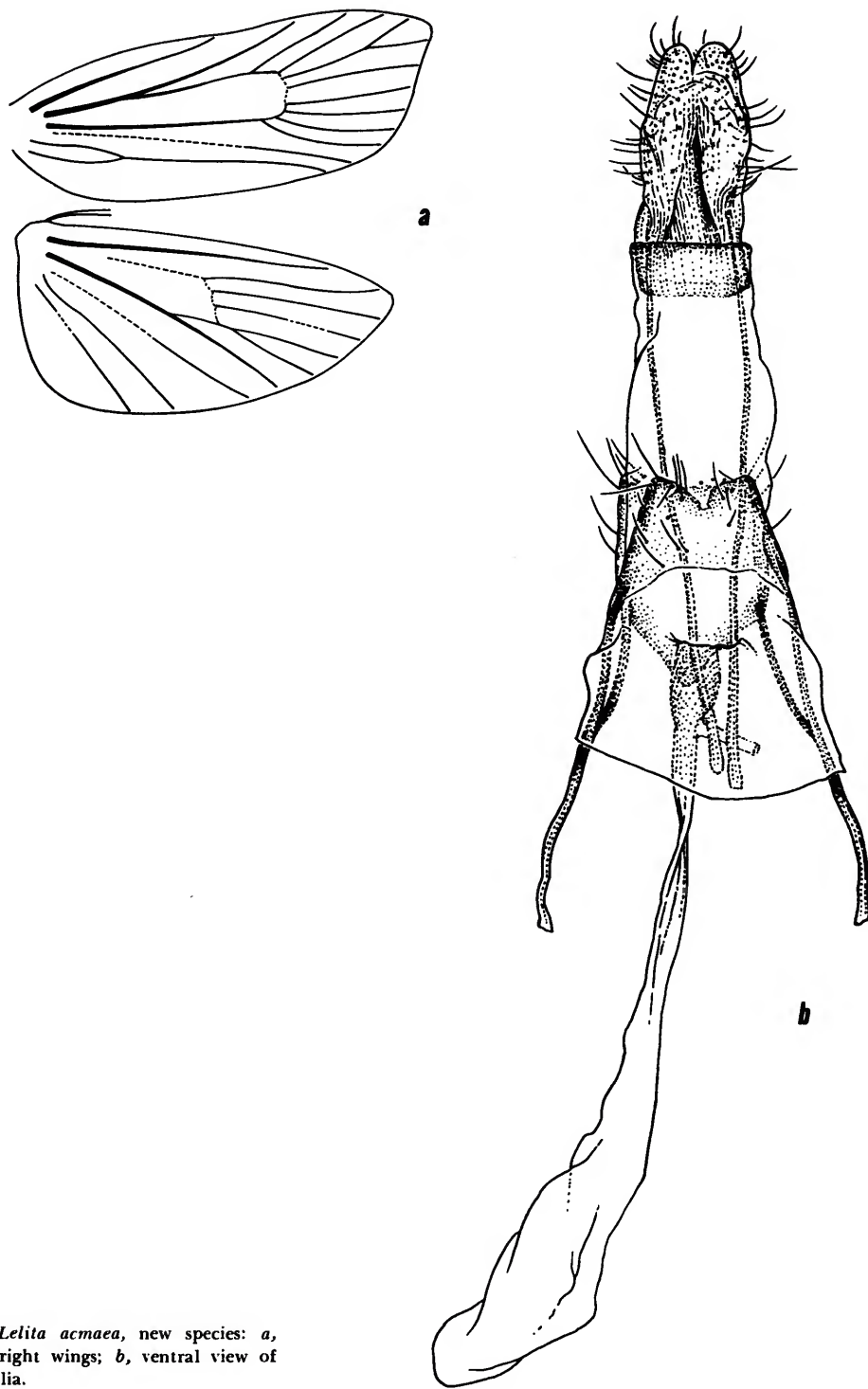


FIGURE 48.—*Lelita acmaea*, new species: *a*, venation of right wings; *b*, ventral view of female genitalia.

third segment almost wholly fuscous. Antenna blackish fuscous. Head shining blackish fuscous; face with a few ochraceous orange scales; collar ochraceous orange. Thorax blackish fuscous. Forewing ground color blackish fuscous; at apex a triangular, ochraceous-orange patch; base of triangle edged with black scales; cilia blackish fuscous. Hind wing fuscous; cilia concolorous. Legs blackish fuscous. Abdomen shining blackish fuscous dorsally; somewhat leaden colored ventrally.

Female genitalia slide USNM 24203. Ostium transverse, slitlike. Antrum not differentiated. Inception of ductus seminalis dorsal, slightly anterior to ostium. Ductus bursae membranous, somewhat enlarged anterior to ostium. Bursa copulatrix membranous. Signum absent.

HOLOTYPE.—USNM 73724.

TYPE-LOCALITY.—Llanquihue, Peulla.

Described from the unique female holotype (9 Mar 1959, J. F. G. Clarke).

Teresita, new genus

TYPE-SPECIES.—*Teresita isaura*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus recurved; second segment reaching vertex, smooth; third segment slender, acute, shorter than second. Tongue well developed; maxillary palpus minute, free. Head roughened with loosely appressed scales; sidetufts spreading; ocellus absent. Antenna ciliated (male); scape with well-developed pecten. Thorax smooth. Forewing smooth, costa gently arched; termen nearly straight, slightly oblique, 12 veins; 1b furcate; 1c well preserved; 2 remote from 3; 3, 4, and 5 approximate, about equidistant; 7 and 8 stalked, 7 to termen; 9 approximate to stalk of 7 and 8; 10 nearer to 9 than to 11; 11 from before middle; upper internal vein absent. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate, 4, 5, and 6 about equidistant. Hind tibia smooth. Abdominal terga setose.

Male genitalia with well-developed uncus and gnathos.

Female genitalia unknown.

Teresita keys to the Australian *Philobota* Meyrick, but the second segment of labial palpus is not thickened with appressed scales, the ocellus is absent, the posterior tibia is smooth, and vein 11 of forewing arises from before middle.

Teresita isaura, new species

FIGURE 49; PLATE 5e

Alar expanse 25 mm.

Labial palpus light ochraceous buff; second segment suffused russet on basal two-thirds; third segment russet apically. Antenna light ochraceous buff, segments spotted russet. Head pale ochraceous buff. Thorax cinnamon buff; tegula slightly lighter. Forewing ground color light ochraceous buff; extreme base of costa cinnamon buff; from near end of cell to tornus an ill-defined cinnamon buff fascia; cilia buff and light ochraceous buff, darker toward apex. Hind wing ochreous white, darker toward margins; cilia concolorous. Foreleg light ochraceous buff; tibia and tarsal segments fuscous on outer side; midleg similar; hind leg light ochraceous buff. Abdomen first three segments whitish dorsally, remainder pale dull ochreous.

Male genitalia slide USNM 24288. Harpe simple, narrowed to the truncated cucullus. Gnathos a long triangular process, spined basally. Uncus broad basally, triangular, terminating in a sharply pointed hook. Vinculum U-shaped. Tegumen as broad as long, with prominent rounded process posterolaterally. Anellus heart shaped, with posterior, fleshy lobe on each side. Aedeagus stout, curved, sharply pointed distally; vesica apparently without cornuti.

HOLOTYPE.—USNM 73725.

TYPE-LOCALITY.—Malleco, Rio Blanco, 1050–1300 m.

Described from the unique male holotype (21–24 Feb 1954, L. E. Peña).

Unfortunately this species is known only from the unique male holotype.

This species is similar in appearance to *Utilia florinda*, new species, but *U. florinda* is paler in color and lacks the cinnamon buff fascia of forewing of *T. isaura*.

Aliciana, new genus

TYPE-SPECIES.—*Aliciana geminata*, new species (by present designation). The gender of this generic name is feminine.

Labial palpus recurved; second segment scarcely reaching base of antenna, slightly roughened anteriorly; third segment slender, acute, less than half the length of second. Tongue well developed; maxillary palpus reduced, free. Head clothed with

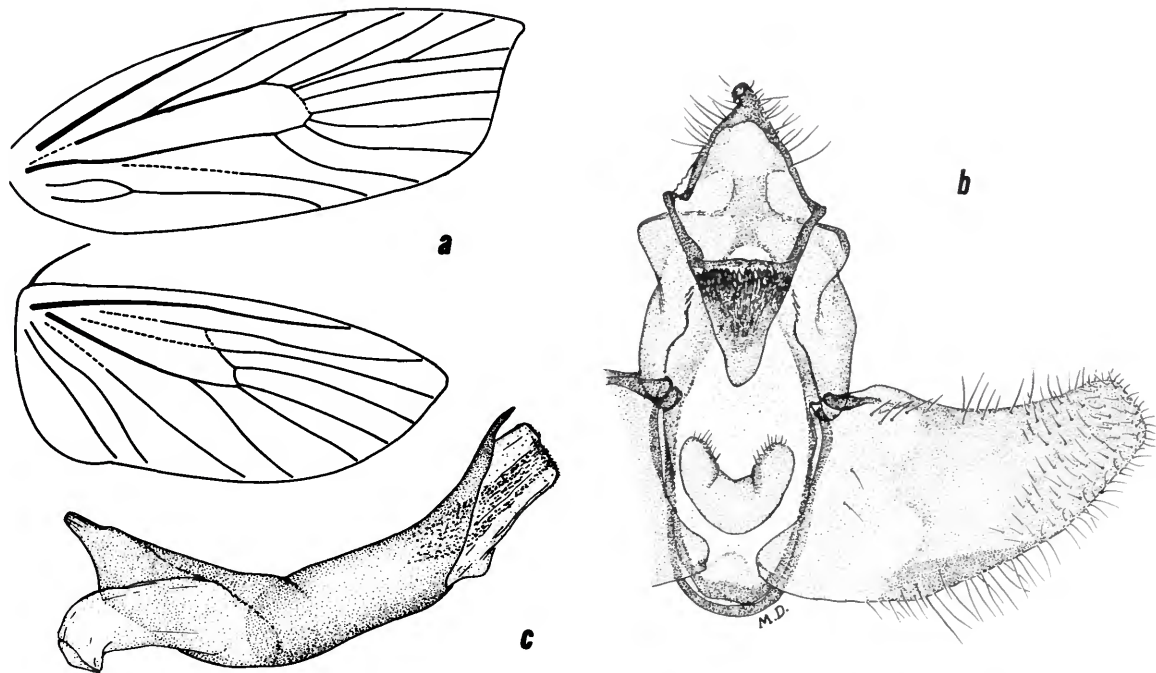


FIGURE 49.—*Teresita isaura*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus.

closely appressed scales; sidetufts spreading; ocellus absent. Antenna ciliated (male); scape with very strong pecten. Thorax smooth. Forewing smooth, costa gently arched; termen nearly straight, oblique, 12 veins; 1b furcate; 1c well preserved; 2 removed from 3; 3 and 4 well separated; 4 and 5 approximate; 5 and 6 parallel; 7 and 8 stalked, 7 to termen; 9 nearer to stalk of 7 and 8 than to 10; 10 nearer to 9 than to 11; 11 from before middle; upper internal vein absent. Hind wing with 8 veins; 2 remote from 3; 3 and 4 connate; 5 nearer to 4 than to 6; 6 and 7 subparallel. Hind tibia profusely covered with hairlike scales. Abdominal terga setose.

Male genitalia with well-developed uncus and gnathos.

Female genitalia unknown.

Aliciana, like several others in the Chilean fauna, keys to an Australian genus, in this case to *Trachyxysta*. *Aliciana*, however, differs from *Trachyxysta* by the absence of ocelli, vein 2 of forewing remote from 3 and the terminal segment of labial

palpus is longer than one-third of second; however, the close relationship between the two genera cannot be ignored.

Aliciana geminata, new species

FIGURE 50; PLATE 5f

Alar expanse 22 mm.

Labial palpus white; second segment irregularly mottled fuscous on outer side and anteriorly; third segment fuscous anteriorly. Antenna grayish fuscous except scape and three basal segments of flagellum white. Head dull ochraceous buff posteriorly; vertex and face creamy white. Thorax dull ochraceous buff, paler posteriorly. Forewing ground color pale orange buff; extreme edge of costa black basally; surface of forewing sparsely irrorate with black and gray scales especially in costal half; cilia pale orange buff except apical cilia infuscated. Hind wing pale ochraceous buff, slightly more yellowish toward margins; cilia pale straw yellow. Foreleg femur

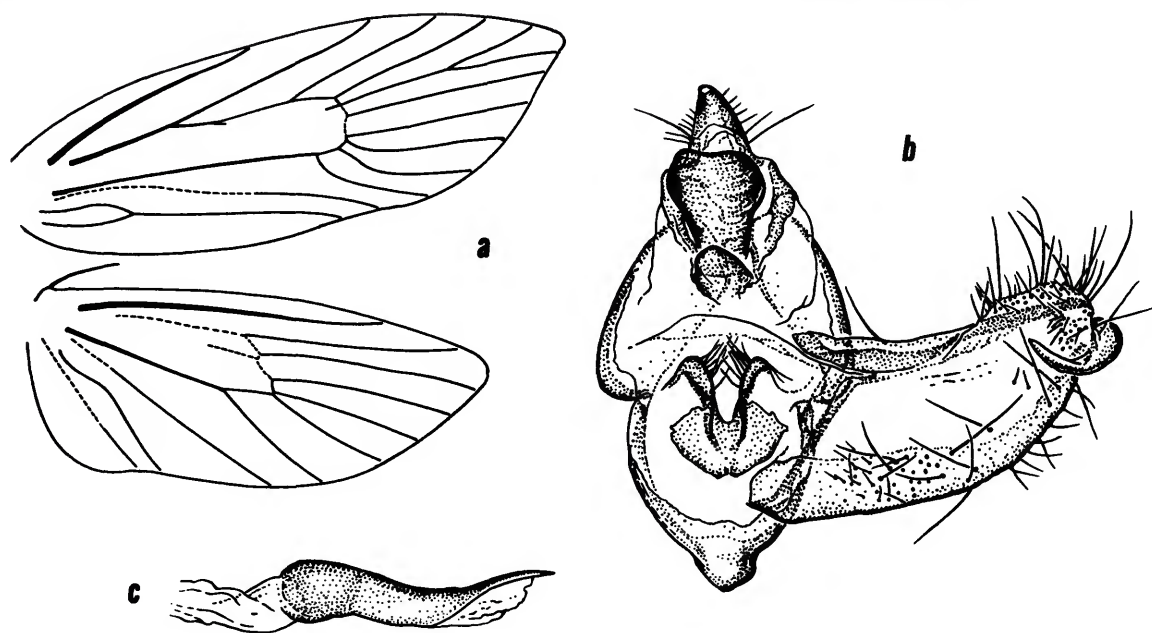


FIGURE 50.—*Aliciana geminata*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus.

light ochraceous buff suffused fuscous; tibia and tarsal segments white, heavily overlaid fuscous; mid-leg white, blotched with fuscous; hind leg light buff; tarsal segments irregularly marked fuscous. Abdomen whitish ochraceous; above sparsely scaled and densely setose; ventrally sparsely irrorate with fuscous.

Male genitalia slides USNM 24220, 24289. Harpe with costa and sacculus strongly sclerotized; the latter terminating in a recurved hook; cucullus fleshy. Gnathos spoon shaped. Uncus triangular; distal half strongly sclerotized, pointed. Vinculum U-shaped with strong median process. Tegumen broadly arched. Anellus oval, fused with elements of transtilla. Aedeagus short, produced distally as a long, sharp point; vesica unarmed.

HOLOTYPE.—USNM 73726.

TYPE-LOCALITY.—Malleco, Rio Blanco, 1050–1300 m.

Described from the male holotype (21–24 Feb 1954, L. E. Peña) and one male paratype with identical data.

This species is similar to *I. leucoxantha* in appearance but is a larger and slightly darker moth. The genitalia separate them immediately.

Aliciana albella (Blanchard), new combination

Epigraphia albella Blanchard, 1852:107.—Clarke, 1967:2, fig. 1.

HOLOTYPE.—Museum Nationale d'Histoire Naturelle, Paris.

TYPE-LOCALITY.—"Chile."

In my key *A. albella* clearly runs to *Aliciana*, but because of the extremely long aedeagus of *A. albella*, as compared to that of *A. geminata*, I place *A. albella* here with some misgiving. As previously stated (Clarke, 1967:2) the holotype of *A. albella* (and only specimen known) is very much covered with mold and it is difficult to see characters, but until such time as additional material becomes available the species can be placed here.

Osmarina, new genus

TYPE-SPECIES.—*Osmarina argilla*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus recurved, exceeding vertex, somewhat roughened anteriorly; third segment nearly as long as second, very slender, acute. Tongue well

developed, maxillary palpus very small, appressed to base of tongue. Head rough; ocellus absent. Antenna serrate in male, simple in female; scape without pecten. Thorax smooth. Forewing smooth; costa gently arched, termen straight, slightly oblique, 12 veins; 1b furcate; 1c present; 2 remote from 3; 3, 4, and 5 approximate; 6 much nearer to 7 than to 5; 7 and 8 stalked, 7 to termen slightly below apex; 9 approximate to the stalk of 7 and 8; 10 nearer to 9 than to 11; 11 from slightly before middle of cell. Hind wing with 8 veins; 2 distant from 3; 3 and 4 connate; 5 nearer to 6 than 4; 5, 6, and 7 about equidistant. Hind tibia roughened with hairlike scales. Abdominal terga setose.

Male genitalia with strongly developed gnathos and transtilla.

Female genitalia without signum.

Osmarina argilla, new species

FIGURE 51; PLATE 5g

Alar expanse 17–19 mm.

Labial palpus buff; second segment dull clay color on outer side. Antenna brown. Head clay color, mixed anteriorly with buff scales. Thorax clay color, suffused fuscous. Forewing ground color clay color overlaid with brown scales; at basal third, in cell, a fuscous dot followed at end of cell by a pair of similarly colored spots; in fold a similar small spot (spots obscure in some specimens); costa narrowly pale buff; between the outer pair of discal spots and termen, a pale clay-colored, irregular, transverse line (ill-defined in some specimens); along termen a narrow broken fuscous line; cilia a mixture of dull brown and buff. Hind wing grayish; cilia gray and buff mixed. Foreleg buff, tibia and tarsus brown on outer sides; tarsal segments suffused brownish on outer side; midleg similar; hind leg buff; tibia suffused grayish on outer side; tibial spurs fuscous, tipped buff. Abdomen brown dorsally; posterior margins edged buff; ventrally buff anteriorly, brownish posteriorly.

Male genitalia slides USNM 24290, 24291. Harpe broad basally, with median constriction; sacculus strongly sclerotized, from base, near costa, a slender sclerotized transverse bar giving rise to a pointed process distally. Gnathos divided into two curved, pointed processes. Transtilla with two flattened,

elongate elements profusely clothed with setae. Uncus broad, short, and weakly sclerotized. Vinculum U-shaped. Tegumen very short, less than a third the length of harpe. Anellus a subrectangular plate with a curved, sclerotized process from each posterolateral corner. Aedeagus moderately stout, curved, pointed; vesica unarmed.

Female genitalia slide USNM 24292. Ostium crescentic. Antrum very lightly sclerotized. Inception of ductus seminalis dorsal, slightly before ostium. Ductus bursae finely granular in mid-section. Bursa copulatrix membranous. Signum absent.

HOLOTYPE.—USNM 73727.

TYPE-LOCALITY.—Centro-Austral.

Described from the male holotype (Jan–Mar 1898, V. Izquierdo), 12 males and one female paratypes with same data as holotype, and one male paratype, Maule, Pellhue (2 Dec 1953, L. E. Peña).

This species is similar to *Doina phaeobregma*, new species, but is smaller, has a pale subterminal line, absent in *D. phaeobregma*, and as can be seen from the illustrations, is structurally quite different.

Arctopoda Butler

Arctopoda Butler, 1883:66. [Type-species: *Arctopoda maculosa* Butler, 1883:67, pl. 11: fig. 5, female; by monotypy.]

Polypseustis Dognin, 1908:33. [Type-species: *Polypseustis cuprea* Dognin, 1908; by monotypy and original designation.]

This genus is peculiar because of the vestigial tongue and greatly reduced labial palpus, but the venation and genitalia clearly place it in the Oecophoridae. *Arctopoda maculosa* is closely related to species of the genus *Pseudodoxia* and the larva is a casemaker as are those of members of that genus. The larva of *A. maculosa*, however, feeds on avocado (at least specimens in USNM are so labeled), not on lichens or mosses as do the larvae of species of *Pseudodoxia*. Diakonoff (1947, 1951) has illustrated the cases: larvae and pupae of *Pseudodoxia* species from Java and the striking similarity of the larva and case of *Arctopoda* to those of *Pseudodoxia* leave no doubt about their relationship.

The more than 40 species of *Pseudodoxia* are found in India, Ceylon, Assam, and Java.

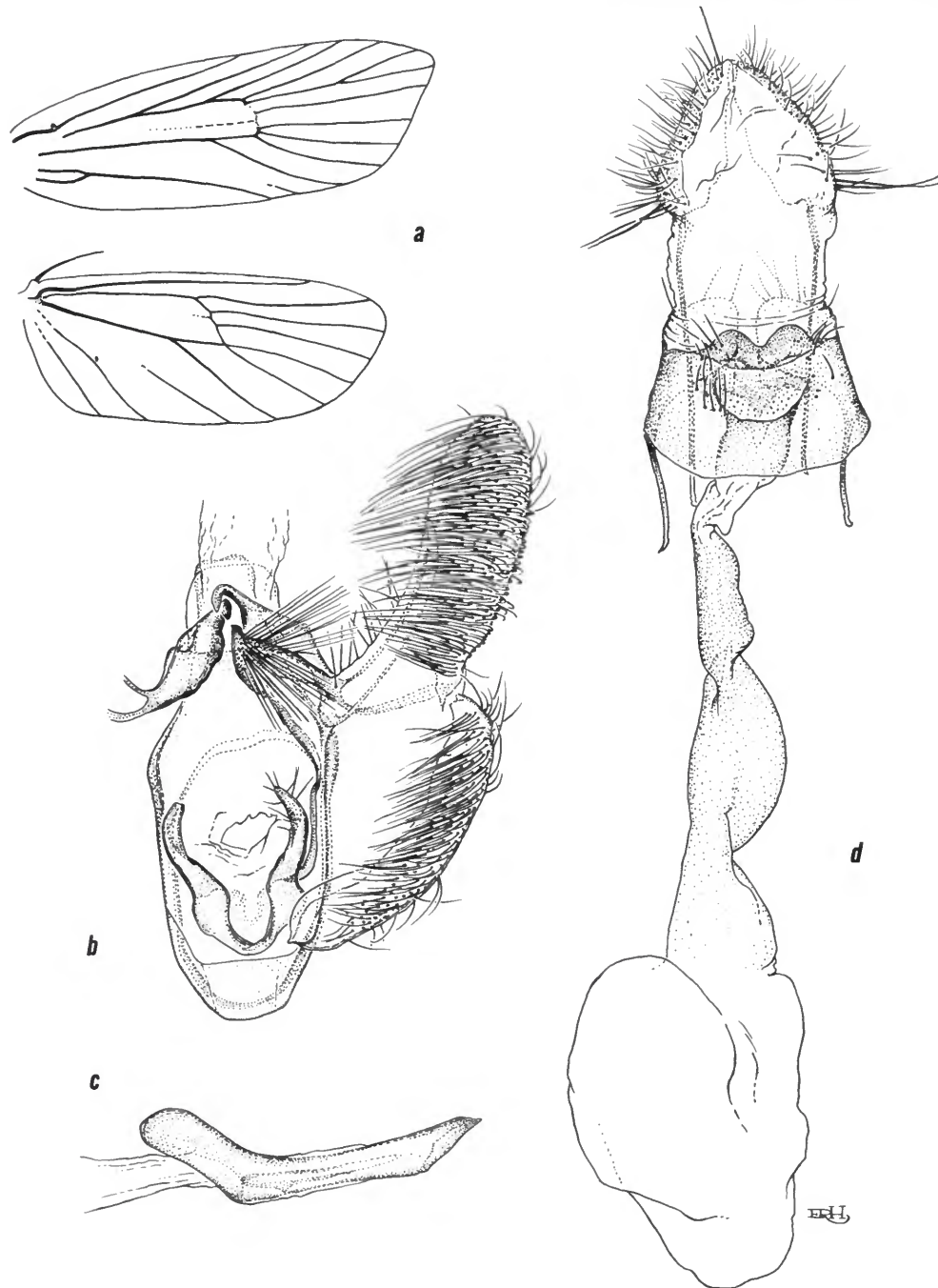


FIGURE 51.—*Osmarina argilla*, new species: *a*, venation of right wings; *b*, ventral view of male genitalia with left harpe and aedeagus removed; *c*, aedeagus; *d*, ventral view of female genitalia.

Arctopoda maculosa Butler

FIGURE 52

Arctopoda maculosa Butler, 1883:67, pl. 11: fig. 5, female.—Bartlett-Calvert, 1886:344; 1893, pl. 2: fig. 2.—Meyrick, 1922b:138.

Polypseustis cuprea Dognin, 1908:33.

Male genitalia slides 24293, 24294, 24295, 24296, 24297, 24298. Harpe almost as broad as long; basal half strongly sclerotized; sacculus heavily sclerotized and produced distally as a blunt, flattened process; cucullus rounded. Gnathos elongate, sharply pointed. Uncus triangular, pointed. Vinculum rounded. Tegumen quadrate, nearly as broad as long. Anellus a quadrate plate with a digitate process from each posterior corner. Aedeagus nearly straight, slightly dilated proximally; vesica armed with a single cornutus.

Female genitalia slides USNM 24299, 24300. Ostium transverse, slitlike. Antrum rugose. Inception of ductus seminalis slightly before antrum. Ductus bursae membranous, short, slightly longer than bursa copulatrix. Bursa copulatrix membranous. Signum absent.

HOLOTYPE.—British Museum (Natural History) (*A. maculosa*); National Museum of Natural History, Smithsonian Institution (*P. cuprea*).

TYPE-LOCALITIES.—Las Zorras (*A. maculosa*); Valdivia (*P. cuprea*).

The following genus and species deserve special attention since the species belongs to a group previously known from Africa, Mascarene Islands, Mauritius, India, China, and Ceylon (Sri Lanka). For this group Meyrick proposed the family Metachandidae (1911:275) and based his family on the absence of vein 7 in the forewing and the absence of vein 6 in the hind wing. The characters on which Meyrick based his family are not always as interpreted by him: Six genera (Clarke, 1965:439-468), *Ancylometis*, *Cenarchis*, *Chanystis*, *Metachanda*, *Stereoptila*, and *Therapnis*, lack vein 7 in forewing as stated but all of these except *Therapnis* have vein 6 in the hind wing. *Semnocosma* Meyrick (1924:548) and *Protochanda* both have vein 7 of forewing present and *Semnocosma* has vein 6 of hind wing present. Because of the signum, however, it is doubtful that *Semnocosma* belongs in this group. According to Meyrick, *Daemonarcha* (1918:

27), has both 7 of forewing and 6 of hind wing absent. I have not seen the type of this genus (*cyprophanes* Meyrick). Obviously, then, except in two cases, Meyrick's family characters break down.

Hodges (1974:97) has reduced the family Metachandidae to synonymy in the Oecophoridae in the tribe Oecophorini, subfamily Oecophorinae. Although I do not dispute the family association, I would place this group as a subfamily *Metachandinae*, new status, of the Oecophoridae based on the strikingly different signum, as far as I know, found nowhere else in the Oecophoridae.

Philomusea Meyrick

Philomusea Meyrick, 1931:394. [Type-species: *Philomusea craterias* Meyrick, 1931; by original designation.]

Following is a rediagnosis of this genus.

Labial palpus recurved, exceeding vertex; second and third segments of about equal length; second segment roughened anteriorly; third segment acute. Tongue well developed; maxillary palpus minute, free. Head smooth; ocellus absent. Antenna simple but slightly serrulate distad; pecten absent. Thorax smooth. Forewing smooth, costa nearly straight, termen rounded, 12 veins; 1b furcate, 1c strongly preserved; 2 from well before angle; 3, 4, and 5 equidistant; 6 to apex; 7 and 8 long stalked, 7 to costa; 9 nearer to stalk of 7 and 8 than to 10; 11 from two-fifths of cell. Hind wing with 8 veins; 2 remote; 3 and 4 short stalked from angle of cell; 5 nearer to stalk of 3 and 4 than to 6. Hind tibia roughened with hairlike scales, especially at spurs. Abdominal terga not setose.

Male genitalia with well-developed gnathos and reduced uncus. Vesica with cornutus.

Female genitalia with well-developed signum.

Philomusea is closely related to *Cenarchis* Meyrick, from Rodriguez Island in the Mascarene group, in the Indian Ocean, but differs from it by having veins 7 and 8 of forewing stalked, not coincident, and by having veins 3 and 4 of hind wing short stalked, not coincident as in *Cenarchis*. Moreover, vein 6 of hind wing is well developed in *Philomusea*, not weakly so as in *Cenarchis*. Because of the retention of vein 7 (stalked with 8) of forewing and vein 6 of hind wing this might be considered the most primitive genus of the group.

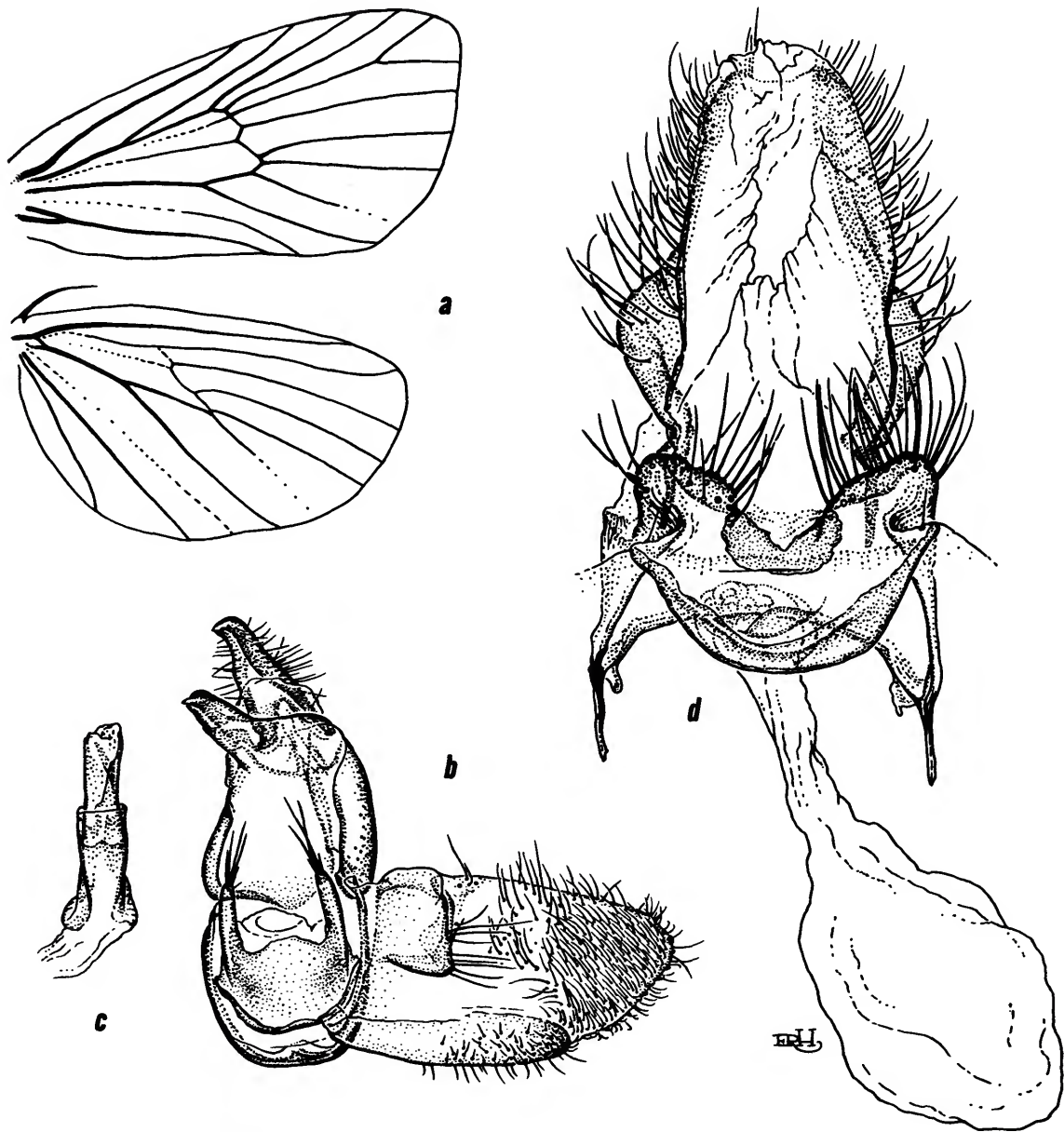


FIGURE 52.—*Arctopoda maculosa* Butler: a, venation of right wings; b, ventral view of male genitalia with left harpe and aedeagus removed; c, aedeagus; d, ventral view of female genitalia.

***Philomusea craterias* Meyrick**

Philomusea craterias Meyrick, 1931:394.—Gaede, 1939:365.—Clarke, 1963:381, pl. 187: figs. 1-1d.

TYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Argentina, Terr. Rio Negro, Lake Correntoso.

This was described from Argentina, but I have a series of males and females from Chile, Llanquihue Province, Peulla (1-9 Mar 1959, J. F. G. Clarke).

***Philomusea brachyista* Meyrick**

Philomusea brachyista (Meyrick), 1931:395.—Gaede, 1939:365.—Clarke, 1963:382, pl. 188: figs. 1-1b.

TYPE.—British Museum (Natural History).

TYPE-LOCALITY.—Southern Chile, Llanquihue Province, Casa Pangue.

I include *P. brachyista* here only because it is recorded from Chile, and was described as a *Philomusea*, but it is not congeneric with *P. craterias*, the type of *Philomusea*, and will probably require a new genus.

***Philomusea meniscogramma*, new species**

FIGURE 53; PLATE 5h

Alar expanse 14 mm.

Labial palpus clay color; third segment with a fine blackish-fuscous anterior longitudinal line running entire length of segment. Antenna blackish fuscous; scape with some clay-colored scaling ventrally. Head blackish fuscous with clay color scaling around margins. Thorax blackish fuscous. Forewing ground color fuscous; from near base of costa an outwardly curved, lunate black line extends to fold and for a short distance along it; inner edge of this black line bordered by ochraceous buff and ochraceous tawny scales; outer edge bordered by ochraceous tawny; between the outer end of the lunate black line and costa black spot containing a few scattered ochraceous tawny scales; at end of cell a conspicuous black spot edged with ochraceous buff and white scales, and beyond the black spot a patch of ochraceous tawny; cilia fuscous mixed with ochraceous tawny. Hind wing fuscous apically, somewhat

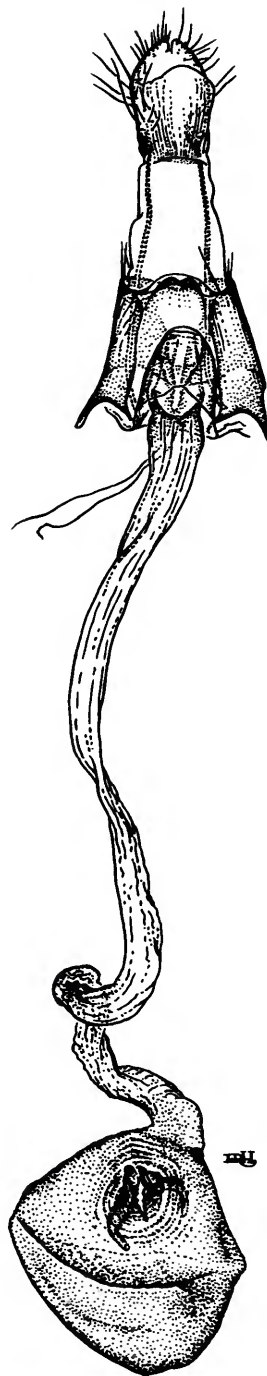


FIGURE 53.—*Philomusea meniscogramma*, new species: ventral view of female genitalia.

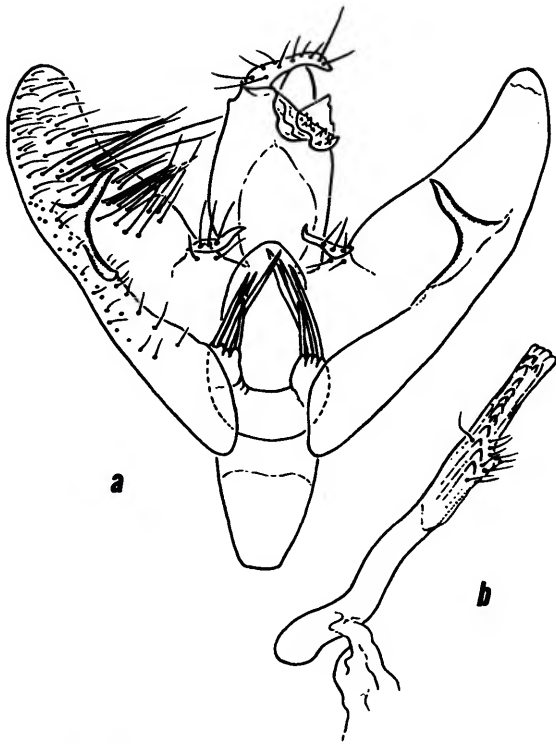


FIGURE 54.—*Oecophora minnetta* Butler: *a*, ventral view of male genitalia with aedeagus removed; *b*, aedeagus. (After drawing by Dr. John D. Bradley.)

lighter basally; cilia fuscous. Foreleg clay color; femur and tibia blackish fuscous on outer side; tarsal segments marked with blackish fuscous; mid-leg similar but tibia with median ochraceous buff tuft of scales; hind leg similar to foreleg but with ochraceous buff annulus at each pair of spurs. Abdomen blackish fuscous dorsally, posterior margins of segments edged with pale grayish scales laterally; ventrally a median longitudinal buff streak.

Female genitalia slide USNM 24205. Ostium very small, round, at the end of a protruding dome-shaped extension of ductus bursae lying in a concavity of the eighth sternum. Antrum moderately sclerotized. Inception of ductus seminalis dorsal, well before ostium. Ductus bursae membranous, with longitudinal striae on inner surface. Bursa copulatrix granular. Signum horseshoe shaped, with well-developed capitulum.

HOLOTYPE.—USNM 73728.

TYPE-LOCALITY.—Llanquihue, Puerto Varas.

Described from the unique female holotype (5 Mar 1959, J. F. G. Clarke).

This reminds one of the North American *Agonopterix hyperella* Ely but *P. meniscogramma* is a darker species and the lunate mark is nearer the base of forewing in the latter species.

Literature Cited

- Bartlett-Calvert, W.
 1886. Catálogo de los Lepidópteros Rhopalóceros i Heteróceros de Chile. *Anales de la Universidad de Chile* (Santiago), 69:311-352.
 1893. Nuevos Lepidópteros de Chile. *Anales de la Universidad de Chile*, 84:813-834, plates 1, 2.
- Blanchard, Emilio
 1852. Lepidoptera. In Gay, *Historia física and política de Chile*, 7:106-110.
- Busck, August
 1904. Tineid Moths from British Columbia, with Descriptions of New Species. *Proceedings of the United States National Museum*, 27(1375):745-778.
- Bulter, Arthur G.
 1883. Heterocerous Lepidoptera Collected in Chile by Thomas Edmunds, Esq. *Transactions of the Entomological Society of London*, 1883:49-90, plate 11.
- Clarke, J. F. Gates
 1941. Revision of the North American Moths of the Family Oecophoridae, with Descriptions of New Genera and Species. *Proceedings of the United States National Museum*, 90(3107): i-viii + 33-286, plates 1-48.
 1955-1970. *Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) Described by Edward Meyrick*. 1:i-viii, 1-332, plates 1-4 (1955); 2:1-531, plates 1-263 (1955); 3:1-600, plates 1-298 (1958); 4:1-521, plates 1-252 (1963); 5:1-581, plates 1-283 (1965); 6:1-537, plates 1-267 (1969); 7:1-531, plates 1-265 (1969); 8:1-261, plates 1-60, index (1970).
 1965. Microlepidoptera of the Juan Fernandez Islands. *Proceedings of the United States National Museum*, 117 (3508):1-105, figures 1-111, plate 1.
 1967. Neotropical Microlepidoptera XIV: Chilean Microlepidoptera Described by Emilio Blanchard. *Proceedings of the United States National Museum*, 122(3591):1-8, figures 1-5.
 1971. Neotropical Microlepidoptera, XIX: Notes on and New Species of Oecophoridae (Lepidoptera): *Smithsonian Contributions to Zoology*, 95:1-39, 26 figures, 3 plates.
- Diakonoff, A.
 1947. Case Bearing Lepidoptera, I. *Treubia*, 19(1):75-81, plates 1, 2.
 1951. Case Bearing Lepidoptera, III. *Idea*, 8(3-4):83-91, figures 1-15.
- Dognin, Paul
 1908. Hétérocères Nouveaux de L'Amérique du Sud. *Anales de la Société Entomologique de Belgique*, 52:17-33.
- Duckworth, W. Donald
 1966. Systematic Position of Two Taxa Erroneously Placed in the Family Stenomidae (Lepidoptera). *Proceedings of the United States National Museum*, 119 (3540):1-6, figures 1, 2, plate 1.
- Gaede, M.
 1939. In Bryk, *Lepidopterorum Catalogus*, 92:209-476. s' Gravenhage: W. Junk.
- Hannemann, H. J.
 1976. Depressarien aus der Sammlung E. Turati. *Deutsche Entomologische Zeitschrift*, new series 23(1-3):207-211.
- Hodges, Ronald W.
 1974. The Moths of North America North of Mexico, Gelechioidea. *Oecophoridae*, 6(3):1-X + 1-142, figures 1-32, plate A, plates 1-7.
- Meyrick, E.
 1887. XIII, Descriptions of Some Exotic Microlepidoptera. *Transactions of the Entomological Society of London*, 1887(III):269-280.
 1911. The Percy Sladen Trust Expedition to the Indian Ocean in 1905, No. XII: Tortricina and Tineina. *The Transactions of the Linnean Society of London*, series 2, Zoology, 14(2):263-307.
 1912. Descriptions of South American Micro-Lepidoptera. *Transactions of the Entomological Society of London*, 1911(4):673-718.
 1915. Descriptions of South American Micro-Lepidoptera. *Transactions of the Entomological Society of London*, 1915:201-256.
 1918. Descriptions of South African Micro-Lepidoptera. *Annals of the Transvaal Museum*, 6(2):7-59.
 1922a. In Skottsberg, *The Natural History of Juan Fernandez and Easter Island*, 3(2):129-287, plates 6-10.
 1922b. Lepidoptera-Heterocera: Family Oecophoridae. In Wytzman, *Genera Insectorum*, 180:1-224, 6 plates (color).
 1924. XXVI, Micro-Lepidoptera of Rodriguez. *Transactions of the Entomological Society of London*, 1924:544-557.
 1931. Micro-Lepidoptera from South Chile and Argentina. *Anales del Museo Nacional de Historia Natural* (Buenos Aires), 36:377-415.
- Turati, Emilio
 1924. Spedizione Lepidotterologica in Cirenaica 1921-1922. *Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale in Milano*, 63:21-191, plates 1-6.
- Zeller, P. C.
 1874. Lepidoptera der Westküste Amerikas. *Verhandlungen der Kaiserlich-Königlichen zoologisch-botanischen Gesellschaft in Wien*, 24:423-441, plate12.
 1877. Exotic Microlepidoptera. *Horae Societatis Entomologicae Rossicae*, 13(1-2):3-388, plates 1-6.

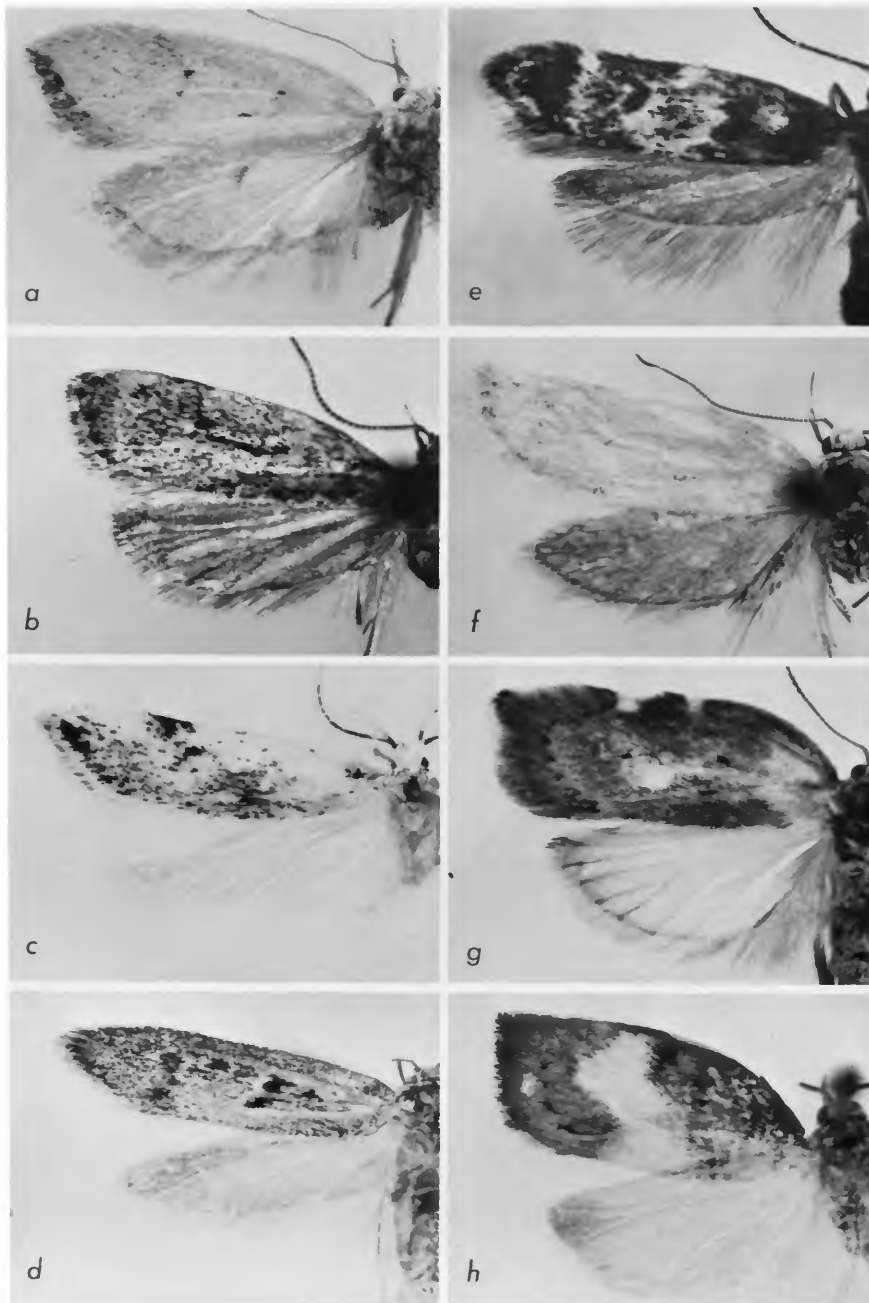


PLATE 1.—*a*, *Eraina thamncephala*, new species, ♂ holotype; *b*, *Aniuta melanoma*, new species, ♂ holotype; *c*, *A. ochroleuca*, new species, ♀ paratype; *d*, *Talitha anomala*, new species, ♀ holotype; *e*, *Deia lineola*, new species, ♀ paratype; *f*, *Perzelia arda*, new species, ♂ paratype; *g*, *Corita amphichroma*, new species, ♂ paratype; *h*, *Muna zostera*, new species, ♂ holotype.

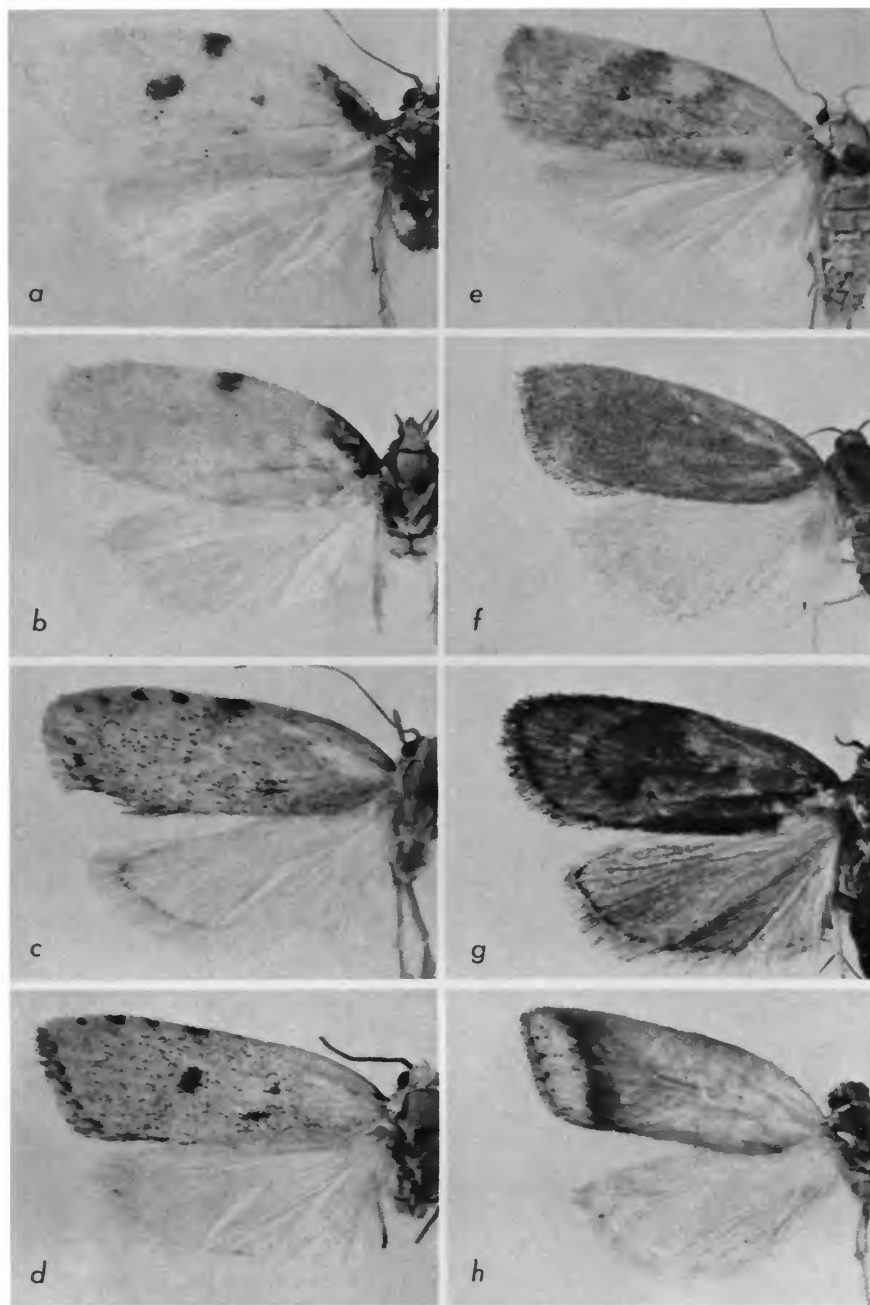


PLATE 2.—*a*, *Aliiura maculata*, new species, ♂ paratype; *b*, *A. maculata*, new species, ♀ holotype; *c*, *Doina paralagneia*, new species, ♂ holotype; *d*, *D. lagneia*, new species, ♂ holotype; *e*, *D. flinti*, new species, ♀ holotype; *f*, *D. inconspicua*, new species, ♂ paratype; *g*, *D. asperula*, new species, ♂ holotype; *h*, *D. truncata*, new species, ♀ paratype.

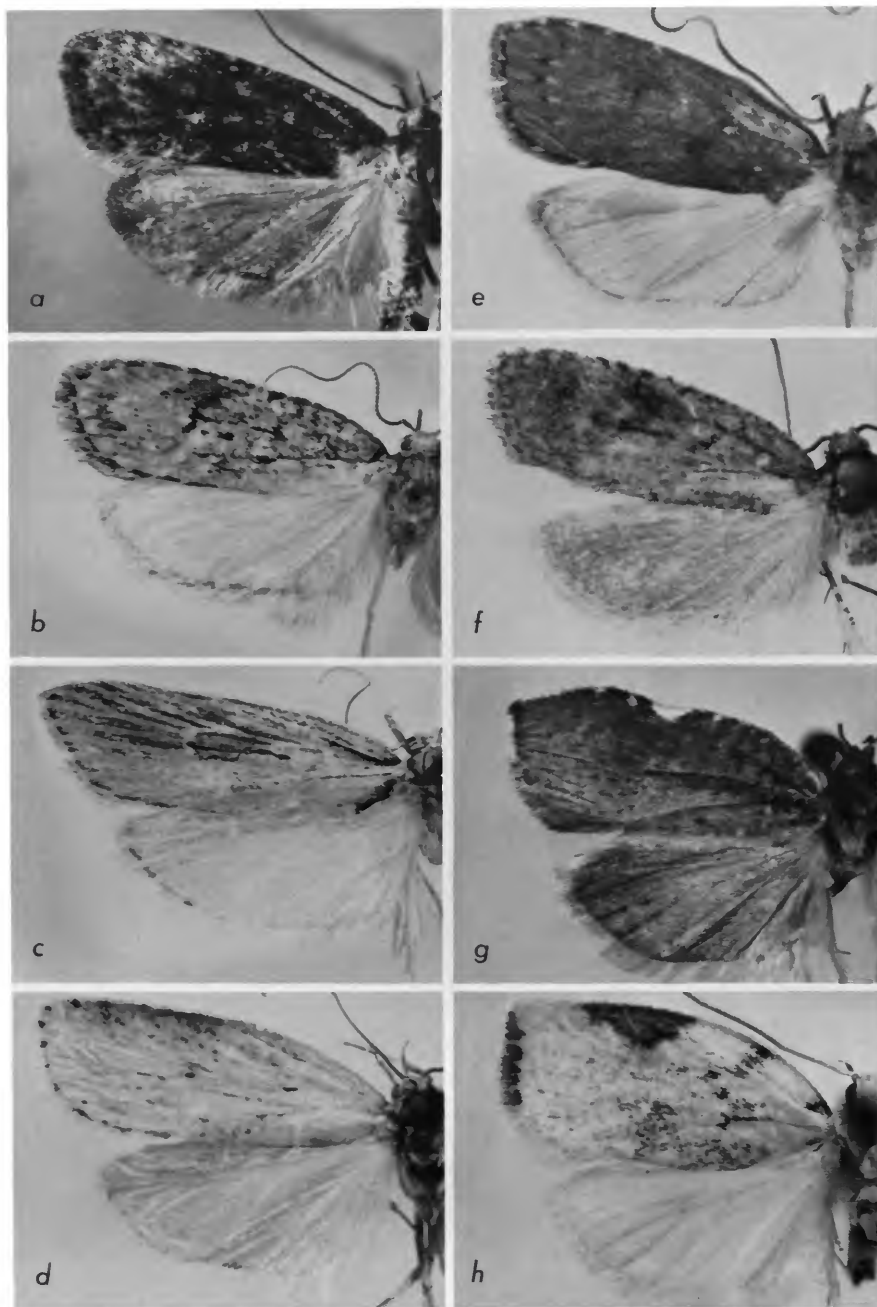


PLATE 3.—*a*, *Doina subicula*, new species, ♂ holotype; *b*, *D. annulata*, new species, ♂ holotype; *c*, *D. eremnogamma*, new species, ♀ paratype; *d*, *D. trachyantha*, new species, ♂ holotype; *e*, *D. phaeobregma*, new species, ♂ holotype; *f*, *D. glebula*, new species, ♂ holotype; *g*, *Doshia miltopeza*, new species, ♂ holotype; *h*, *Nedenia rhodochra*, new species, ♂ holotype.

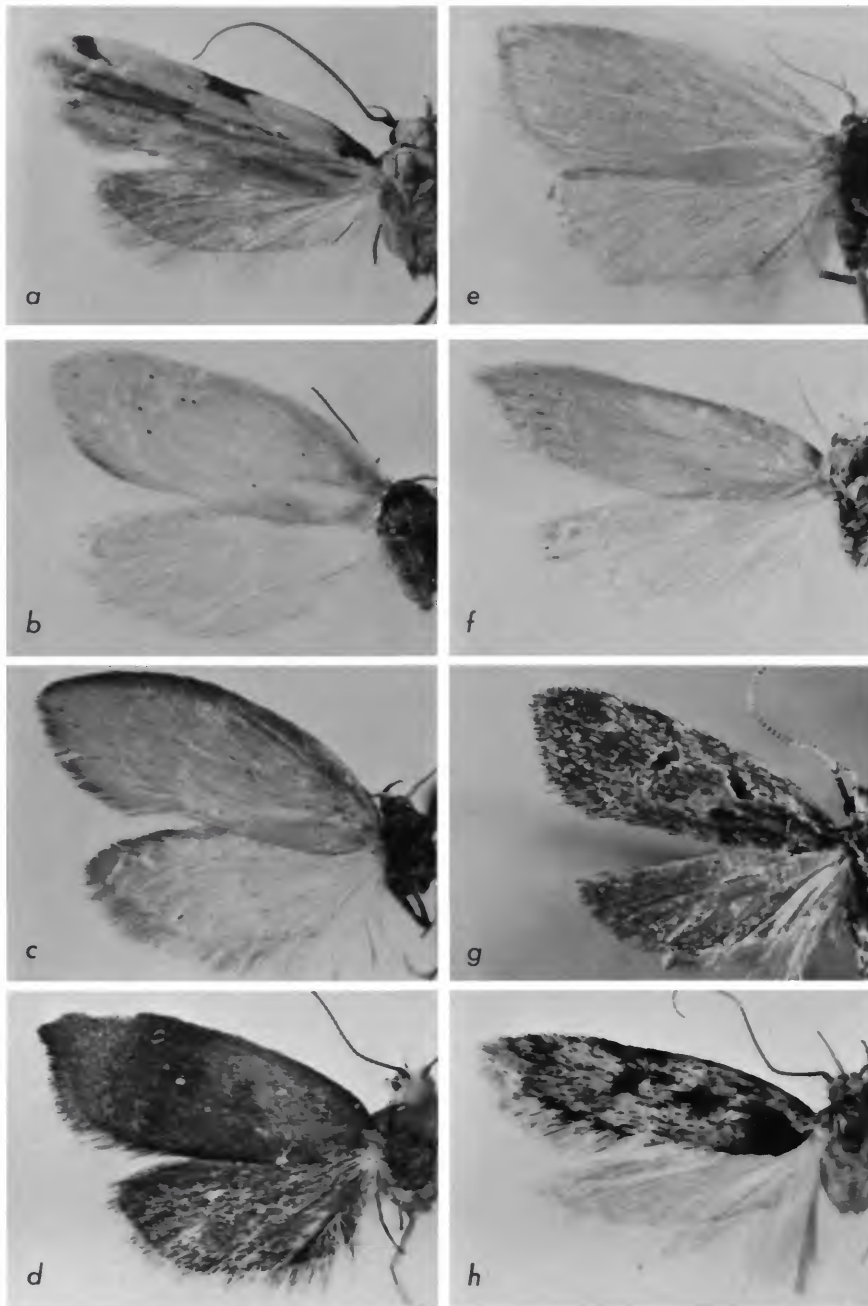


PLATE 4.—*a*, *Revonda eschara*, new species, ♂ paratype; *b*, *Irenia leucoxantha*, new species, ♀ holotype; *c*, *I. curvula*, new species, ♂ holotype; *d*, *Dita phococara*, new species, ♂ holotype; *e*, *Utilia florinda*, new species, ♂ holotype; *f*, *U. falcata*, new species, ♂ holotype; *g*, *Atha trimacula*, new species, ♂ holotype; *h*, *Retha rustica*, new species, ♂ holotype.

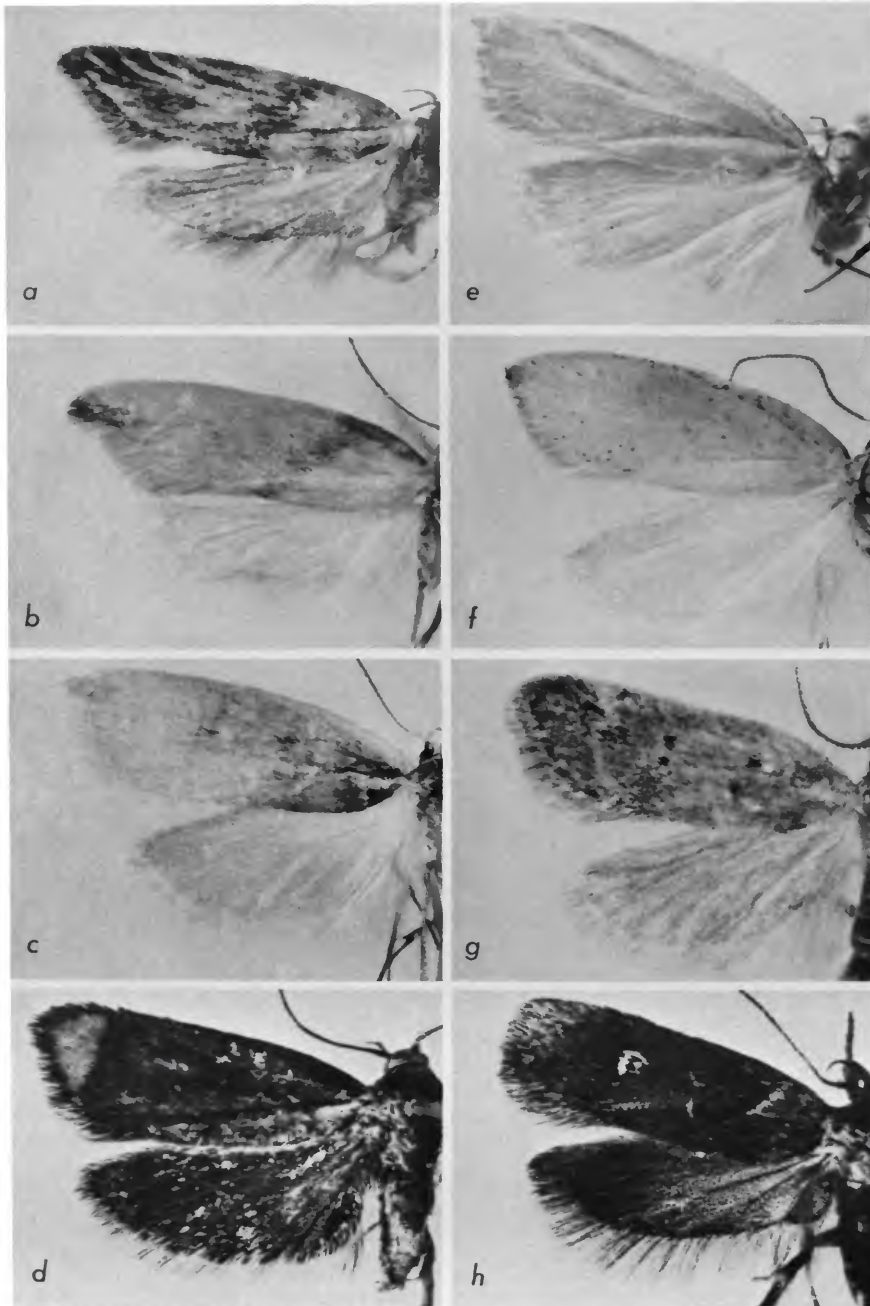


PLATE 5.—*a*, *Alynda striata*, new species, ♂ holotype; *b*, *A. sarissa*, new species, ♂ holotype; *c*, *A. cinnamomea*, new species, ♂ holotype; *d*, *Lelita acmaea*, new species, ♀ holotype; *e*, *Teresita isaua*, new species, ♂ holotype; *f*, *Alicinia geminata*, new species, ♂ holotype; *g*, *Osmarina argilla*, new species, ♂ holotype; *h*, *Philomusea meniscogramma*, new species, ♂ holotype.

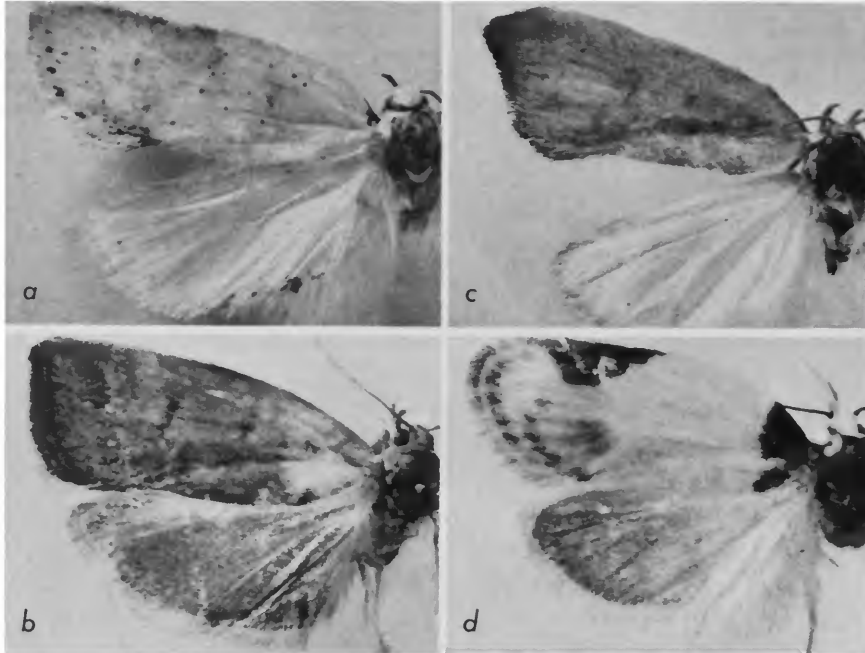


PLATE 6.—*a*, *Doina scariphista* (Meyrick), ♀ holotype; *b*, *Doina increta* (Butler), ♂ holotype; *c*, *Dita fasciatipedella* (Zeller), ♂ holotype; *d*, *Callistenoma ustimacula* (Zeller), ♂.

Neotropical Microlepidoptera Series

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

Proceedings of the United States National Museum

<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	Obratsov	The Tortricid Genus <i>Proeulia</i>	1964	116	3501
VI	Clarke	The Genera <i>Orsostricha</i> and <i>Palinorsa</i>	1964	116	3502
VII	Obratsov	The Tortricid Genus <i>Pseudomeritastis</i>	1966	118	3527
VIII	Duckworth	The Stenomid Genus <i>Falculina</i>	1966	118	3531
IX	Obratsov	The Tortricid Genus <i>Pseudatteria</i>	1966	118	3535
X	Duckworth	Taxa Erroneously Placed in Stenomidae	1966	119	3540
XI	Obratsov	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	1968	125	3660

Smithsonian Contributions to Zoology

XVIII	Duckworth	Oecophorid Genus <i>Peleopoda</i>	1970		48
XIX	Clarke	Notes and New Species of Oecophoridae	1971		95
XX	Duckworth	Revision of the Genus <i>Setiostoma</i>	1971		106

REQUIREMENTS FOR SMITHSONIAN SERIES PUBLICATION

Manuscripts intended for series publication receive substantive review within their originating Smithsonian museums or offices and are submitted to the Smithsonian Institution Press with approval of the appropriate museum authority on Form SI-36. Requests for special treatment—use of color, foldouts, casebound covers, etc.—require, on the same form, the added approval of designated committees or museum directors.

Review of manuscripts and art by the Press for requirements of series format and style, completeness and clarity of copy, and arrangement of all material, as outlined below, will govern, within the judgment of the Press, acceptance or rejection of the manuscripts and art.

Copy must be typewritten, double-spaced, on one side of standard white bond paper, with 1 $\frac{1}{4}$ " margins, submitted as ribbon copy (not carbon or xerox), in loose sheets (not stapled or bound), and accompanied by original art. Minimum acceptable length is 30 pages.

Front matter (preceding the text) should include: **title page** with only title and author and no other information, **abstract page** with author/title/series/etc., following the established format, **table of contents** with indents reflecting the heads and structure of the paper.

First page of text should carry the title and author at the top of the page and an unnumbered footnote at the bottom consisting of author's name and professional mailing address.

Center heads of whatever level should be typed with initial caps of major words, with extra space above and below the head, but with no other preparation (such as all caps or underline). Run-in paragraph heads should use period/dashes or colons as necessary.

Tabulations within text (lists of data, often in parallel columns) can be typed on the text page where they occur, but they should not contain rules or formal, numbered table heads.

Formal tables (numbered, with table heads, boxheads, stubs, rules) should be submitted as camera copy, but the author must contact the series section of the Press for editorial attention and preparation assistance before final typing of this matter.

Taxonomic keys in natural history papers should use the aligned-couplet form in the zoology and paleobiology series and the multi-level indent form in the botany series. If cross-referencing is required between key and text, do not include page references within the key, but number the keyed-out taxa with their corresponding heads in the text.

Synonymy in the zoology and paleobiology series must use the short form (taxon, author, year:page), with a full reference at the end of the paper under "Literature Cited." For the botany series, the long form (taxon, author, abbreviated journal or book title, volume, page, year, with no reference in the "Literature Cited") is optional.

Footnotes, when few in number, whether annotative or bibliographic, should be typed at the bottom of the text page on which the reference occurs. Extensive notes must appear at the end of the text in a notes section. If bibliographic footnotes are required, use the short form (author/brief title/page) with the full reference in the bibliography.

Text-reference system (author/year/page within the text, with the full reference in a "Literature Cited" at the end of the text) must be used in place of bibliographic footnotes in all scientific series and is strongly recommended in the history and technology series: "(Jones, 1910:122)" or ". . . Jones (1910:122)."

Bibliography, depending upon use, is termed "References," "Selected References," or "Literature Cited." Spell out book, journal, and article titles, using initial caps in all major words. For capitalization of titles in foreign languages, follow the national practice of each language. Underline (for italics) book and journal titles. Use the colon-parentheses system for volume/number/page citations: "10(2):5-9." For alinement and arrangement of elements, follow the format of the series for which the manuscript is intended.

Legends for illustrations must not be attached to the art nor included within the text but must be submitted at the end of the manuscript—with as many legends typed, double-spaced, to a page as convenient.

Illustrations must not be included within the manuscript but must be submitted separately as original art (not copies). All illustrations (photographs, line drawings, maps, etc.) can be intermixed throughout the printed text. They should be termed **Figures** and should be numbered consecutively. If several "figures" are treated as components of a single larger figure, they should be designated by lowercase italic letters (underlined in copy) on the illustration, in the legend, and in text references: "Figure 9 \underline{b} ." If illustrations are intended to be printed separately on coated stock following the text, they should be termed **Plates** and any components should be lettered as in figures: "Plate 9 \underline{b} ." Keys to any symbols within an illustration should appear on the art and not in the legend.

A few points of style: (1) Do not use periods after such abbreviations as "mm, ft, yds, USNM, NNE, AM, BC." (2) Use hyphens in spelled-out fractions: "two-thirds." (3) Spell out numbers "one" through "nine" in expository text, but use numerals in all other cases if possible. (4) Use the metric system of measurement, where possible, instead of the English system. (5) Use the decimal system, where possible, in place of fractions. (6) Use day/month/year sequence for dates: "9 April 1976." (7) For months in tabular listings or data sections, use three-letter abbreviations with no periods: "Jan, Mar, Jun," etc.

Arrange and paginate sequentially EVERY sheet of manuscript—including ALL front matter and ALL legends, etc., at the back of the text—in the following order: (1) title page, (2) abstract, (3) table of contents, (4) foreword and/or preface, (5) text, (6) appendixes, (7) notes, (8) glossary, (9) bibliography, (10) index, (11) legends.

