INSECTS OF MICRONESIA
Microlepidoptera: Tortricoidea

BY

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Abstract: Of the 67 species and subspecies treated in this paper 32 species and 5 subspecies are described as new. The genitalia and wings of all species from Micronesia are illustrated. Illustrations of heads and wing venation are given for six genera described as new. Food plants are listed when known. Lectotypes for several species are designated and new combinations for some species related to Micronesian taxa are made.

INTRODUCTION

This is the first of an anticipated series of papers dealing with the Microlepidoptera of Micronesia. It is based on the study of a very poor representation of only 1520 specimens of tortricoid moths. The collecting of Microlepidoptera by most of the many collectors involved in the Micronesian survey was very unsatisfactory because of their lack of technical knowledge necessary to the handling of these insects.

It is fortunate, however, that as early as 1936, the late O. H. Swezey made extensive collections of insects in Guam (S. Marianas). This is reflected in the distribution Table 1 which indicates that 40% of the taxa recorded in this report came mainly from his collecting. Henry K. Townes made significant collections through much of Micronesia and reared considerable material. Curtis W. Sabrosky is responsible for nearly all the records from Palau and Yap. It rained much of the time making the collecting of Diptera, his specialty, impossible so, fortunately, he collected Microlepidoptera. My own collecting on Kusaie, though moderately productive, was unsatisfactory because my equipment did not arrive until near the end of my stay on the island. With the aid of modern equipment we now have, all of us could have done better.

As far as Microlepidoptera are concerned, we know (or have on hand in other groups) only a small fraction of the fauna of Micronesia. Of the hundreds of islands in Micronesia only three (Guam, Kusaie, Palau) have yielded to much collecting and, even they have only been scratched. We know comparatively nothing about Ponape, a moderately large and lush island. Truk, with a complex of about 40 islands, six of considerable size, is virtually untouched.

All the records from Truk in this paper (only five) are from one locality, Wena (Moen), which is a stop-over place on the way to Ponape.

If we are ever going to learn about the Microlepidoptera of Micronesia, several young, enterprising Microlepidopterists, with the best available modern equipment, will have to make a serious effort to spend much time in the islands and really find out what is there.

In the three families of the Tortricoidea (Olethreutidae, Tortricidae and Chlidanotidae) treated here, there are many wide-ranging species as can be seen by an examination of the distribution Table 1. Probably as a result of the wide-ranging habits of some species, and certainly from the lack of good collecting, there is a very low endemicity apparent in the Micronesian islands. In this superfamily only 37 taxa (species and subspecies) out of the 67 forms treated, or 55.2% of the fauna, are endemic. This figure is unexpectedly low. As current modern collecting methods are employed, the picture presented here should change radically.

Of the families treated here the Olethreutidae are dominant with 58 species and subspecies, followed by the Tortricidae with 7 species and the Chlidanotidae with two. Although rather widespread, this latter family is rather rare with usually only an occasional specimen being collected. Another tortricoid family, the Phaloniidae (Cochylidae), should be mentioned here because it is singularly absent in Micronesia in spite of its worldwide distribution. At least, no specimens have yet come to hand.

In the Olethreutidae, 22 genera including six new genera, are here recorded. Of the previously described genera, *Cryptophlebia*, *Bactra* and *Cryptaspasma* are widespread, occurring over much of the world. *Dudua*, with six species recorded here, including three new species and one new subspecies, is widely distributed in the warmer regions of the Old World. Of the Tortricidae only one genus, *Adoxophyes*, with six species, is conspicuous in Micronesia. Species of some genera appear to form subspecies on different islands, while others do not. *Heleana physalodes* (Meyrick), for instance, divides readily into subspecies as indicated by genitalic differences; but even without genitalic study the populations can be separated by islands and appear to be constant. Since we have representatives of this species from only four islands, it is impossible to postulate to what extent subspeciation occurs throughout the range. In such genera as *Bactra*, *Cryptophlebia* and *Cryptaspasma* there appears to be no subspeciation, each island having one or more distinct species based on genitalic characters. All species of *Bactra* (except *cerata*) are superficially alike and must be separated by genitalic differences. The species of *Dudua* are closely related and difficult to separate. *D. aprobola* shows so much variation throughout its range that it is difficult to distinguish between *aprobola aprobola* or an apparently

consistently distinct subspecies such as *D. a. kusaiensis*. The few Tortricidae are less troublesome, although *Adoxophyes melia* n. sp., from Guam is an extremely variable species and its limits are difficult to determine.

LOCALITIES ON KUSAIE

Although Gressitt (1954) has given a general discussion of the island floras, it seems appropriate to further detail some of the localities on Kusaie in which I collected in 1953. Also, it is necessary to explain that for the several localities that had no names, I assigned numbers which represent the elevations in feet. These are Hill 750, Hill 541, and Hill 1010 which are shown on my map of the island as illustrated by Gressitt (1954, Fig. 47).

The various publications concerning localities on Kusaie I. contain various names for many of the places, due largely to the occupations by the Spanish, Germans, Japanese, and lastly the Americans. This is due in part, also, to the lack of a written native language and that the various nationals have adapted their own languages to the naming of localities.

The advent of the Americans in 1945 has resulted in the adaptation of the English language and alphabet to the Kusaiean tongue. As nearly as possible, a phonetic spelling is used thus preserving as closely as can be accomplished, the sounds of names of things, places, etc.

In selecting the spelling for the localities discussed below, I consulted with many of the more educated natives to obtain the names and pronunciations and have applied the spelling of these place names as accurately as possible. As often as possible, I selected the native names for localities primarily because if one wants to visit a particular part of the island, mountain or river, inquiry by the name appearing on some of our maps would be useless. For instance, if I were to ask a native how to reach Mt. Buache (Matante) or Mt. Krozer (Fuinkol), my question would be met with blank amazement.

The vegetation in most, if not all, of the high islands of the Caroline group is divided into several, more or less, well-defined, large subdivisions. These are strand vegetation, mangrove, lowland (mostly secondary growth) rain forest and secondary growth of the highlands. Rather than discuss the vegetational features of the above subdivisions separately, the vegetation will be treated under the various localities.

MUTUNLIK. (Gressitt, 1954, Fig. 50b). Collecting dates: from 23 January–3 May. In the illustration Mutunlik is the lowlying point on the right; the higher hill to the right is Hill 541. Most of the collecting at Mutunlik was done at 22 m but also in the lower areas at sea level. The common strand plants here consisted of, as in similar locations, *Wedelia biflora* (L.) DC.,

Ipomea pes-caprae (L.) R. Br., *Vigna marina* (Burm.) Merr., *Pandanus tectorius* Parkinson, *Hibiscus tiliaceus* L., *Derris* sp., *Thespesia populnea* (L.) Sol. ex Correa, and *Cocos nucifera* L. Mixed among these were several grasses and *Cyperus*. Common also in this locality just beyond the strand, are *Artocarpus* (bread fruit), *Musa* (banana), *Carica* (papaya), *Eugenia malaccensis* L. ("apple"), *Caesalpinia pulcherrima* (L.) Sw., numerous ferns, mosses and lichens.

HILL 541. Collecting dates: from 31 January. In Fig. 50b (Gressitt, 1954) this locality is represented by the high ground to the right. The flora is very similar to that at Mutunlik but several other plants found from base to summit include coconut, banana, *Hibiscus* and *Pandanus* sp. Breadfruit, citrus, *Eugenia*, and the vine *Merremia peltata* (L.) Merr., are common on the lower slopes while *Freycinetia* makes its appearance near the summit. Along the well defined and much used path to the top, grasses, ferns, *Derris* and *Wedelia* abound. *Annona muricata* L. (soursop), is occasionally encountered.

PUKUSRIK (Pukesrik) (Gressitt, 1954, Figs. 49a, 50a). Collecting dates: 13–14 February to 30 April. Pukusrik, which means "little arm" in the native language, is situated on the east side of the island at sea level in the mangrove swamp. The passage through the mangrove leads to Funaunpes on the NE tip of the island. In this section of the mangrove swamp an estuarian condition exists similar to that along the north coast. Except at full tide the stream is active. Further indicating the estuarian condition here is one fine stand of *Nipa fruticans* Wurmb. (Nipa palm). The usual dominants, *Sonneratia* and *Rhizophora*, are present with some *Bruguiera* intermixed. The vertical roots of *Sonneratia* (Gressitt, 1954, Fig. 49a) and aerial roots of *Rhizophora* (Gressitt, 1954, Fig. 50a) are clearly shown, these examples growing at the south end of the mangrove and edge of Lelu Harbor. In fig. 49a (Gressitt, 1954) the conspicuous epiphyte *Nephrolepis* may be seen. Other epiphytes and many fungi, including the heavily infested woody fungus *Fomes*, are present. The light trap used may be seen at left center of fig. 50a (Gressitt, 1954). This locality produced numerous Coleoptera particularly Curculionidae and Staphlynidae, Diptera and about a dozen species of Lepidoptera.

FUNAUNPES. Collecting dates: 29 January to 23 March. This locality, essentially strand in character with much coconut and *Pandanus*, is situated on the NE corner of the island with the northern edge opening on a seaward beach.

TAFUNSAK. Collecting dates: 2 February to 23 March. This is actually a continuation of the strand found at Funaunpes. Along the seaward beach (with fringing reef) *Thespesia*, *Messerschmidia* and *Scaevola* form dense thickets. Back of these thickets, sometimes intimately associated with them, are abundant coconut, *Pandanus*, *Wedelia*, *Vigna*, *Ipomea*, various grasses in the more open

swamp. The passage through the mangrove leads to Funaunpes on the NE

spots, taro and *Derris*. Farther inland on the flatland, before reaching the base of Mt. Matante at Tafunsak Falls, *Hibiscus*, tangled with *Merremia*, *Phragmites*, *Ischaemum* and other grasses, *Curcuma*, *Dryopteris*, *Nephrolepis* and various other ferns, citrus and breadfruit are common. Lichens and mosses abound.

WEYE CAVE. Collecting dates: 7 & 10 March. This cave, slightly west of the outskirts of Tafunsak, has a large opening in the face of a high cliff at ground level. There is much detritus piled in front of the cave mouth so that one must climb this mound and then descend to enter. Weye extends about 100 ft. (30.5 m) into the mountain and has a high domed roof, the latter supporting the nests of swiftlets. The cave floor is filled with water several feet deep and the water surface is covered with droppings, thousands of insect fragments and plant parts. The fetid air is evidence of the great amount of organic matter decomposing in the water. One crustacean occurring in large numbers, larvae of one mosquito occurring in countless thousands, and a tiny waterstrider were collected in and on the water. A light trap placed in the cave attracted several species of Diptera, Hemiptera and Coleoptera and one or two species of Lepidoptera, the latter obviously from outside.

YELA CAVE. Collecting dates: 10 and 11 April. This cave, situated on the north coast about a hundred yards from the left bank of the Yela River near its mouth, is about 50 feet deep and has no true "dark zone." The floor of Yela Cave is dry and contains several mounds, one nearly knee-deep, of insect remains egested by the nesting swiftlets. These mounds support Coleoptera and the larva of at least one species of Tineidae (Lepidoptera) not encountered elsewhere. The cave roof is low so it was possible to secure occupied and unoccupied nest of the swiftlets which produced numerous small insects, scavengers and parasites of the avian fauna. A light trap placed in this location, well in from the entrance, produced practically nothing, the insect fauna obviously being negatively phototropic.

YELA RIVER. Collecting dates 10 and 11 April. The river runs for several miles through a long rather flat valley. Near the mouth there is some mangrove vegetation but, on the whole the mesophytic jungle predominates. There are dense tangles of secondary growth well up the river, toward the base of Fuinwukat.

MWOT. Collecting dates: 6 to 10 April. This locality rises abruptly from the beach, is the location of a Mission, and joins two sharp ridges leading to the interior mountains. There is considerable cultivated land here with numerous introduced plants and secondary growth. The Wakap River enters the ocean at the eastern border of the Mission land. The several ridges from the interior which terminate at this point are covered on their lower slopes, with extremely dense growths of *Hibiscus*, vines and ferns.

INMEN. Collecting date: 9 April. This is a seaward beach locality, with typical strand vegetation on the landward side, which produced little of interest.

SAWOKUSA. Collecting date: 9 April. This locality represents the extreme western tip of the island and holds little of entomological interest.

MT. WAKAP. Collecting date: 7 April. This mountain is 1608 feet (490 m) high and derives its name from Margaret Lavinia Walkup, a young missionary who died in 1865. The corruption of her name has been brought about by the native pronunciation and subsequent use of the Roman alphabet. The ridge leading to the top is unusually rough with several deep breaks requiring long descents and repeated ascents. Rocks and roots and thick growth impede progress greatly. The lower slopes of the ridge are covered with dense tangles of *Hibiscus* and vines. At about 700 feet (213 m) the native palm *Ponapea* appears. This tree is a natural reservoir for the red palm scale. One tree was so densely covered it appeared bright red from the ground. After passing through the usual forest of *Ficus*, *Eugenia*, *Derris*, etc., these give way to a forest of dominant tree ferns *Cyathea;* and *Gleichenia*, *Dryopteris*, *Nephrolepis* and other ferns. Numerous epiphytes are present in this extremely wet forest, and the trees are thickly covered with mosses and *Lycopodium*. The summit has the usual thick covering of ferns (chiefly *Gleichenia*), *Lycopodium*, mosses and lichens. *Wedelia* was also observed growing in considerable quantity. Several vines including a species similar to our North American blackberry (*Rubus*?) were present. A light trap, placed at about 1400 feet (427 m) in the fern dominated forest, was extremely productive. The largest quantity of Carabidae was taken here along with numerous Homoptera and Diptera.

FUINWUKAT. Collecting date: 10 April only. Fuinwukat means literally, "above the Wukat". This is sometimes spelled "Fuinwokaat" and is also known as "Mertens". Although only 1526 feet (465 m) in altitude, a rather long hike is necessary to reach the summit. The last 200–300 feet (61–91 m) are particularly steep with very little solid footing in the almost pure growth of fern on the exposed surface. *Freycinetia* grows abundantly on the steep slopes at the top.

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Table 1. Distribution of Micronesian Tortricoidea

	Micronesian Island Groups											Other Localities
				Caroline								
	Bonin	N. Mariana	S. Mariana	Palau	Yap	Caroline Atolls	Truk	Ponape	Kusaie	Marshall	Gilbert	
Olethreutidae												
1. Heleana physalodes physalodes			×									Chagos Is., Solomon Is., India, Ceylon, Austral Is., Fiji, Seychelles
2. H.p. abundantia*									×			
3. H.p. tricia*						×						
4. H.p. elitha*								×				
5. Alcina stenotes*			×									
6. Ruthita argillacea*			×									
7. Duessa pleurogramma*									×			
8. D. atriplaga*			×									
9. D. phaeostropha*		×										
10. Eumarissa leucognoma*			×									
11. E. microphthora				×								Java
12. Icelita tatarana coppelia*			×									
13. I. monela*			×						×	×		
14. I. cirrholepida*				×								
15. I. indentata				×								Solomon Is.
16. Crocidosema plebejana			×									Circumglobal in warmer areas
17. Strepsicrates ejectana			×									Australia, Tasmania, New Zealand, Fiji, Philippines, Rapa, Tahiti, Marquesas
18. Epinotia lantana								× ?				Hawaii, Australia, Mexico
19. Eucosma coniogramma*									×			
20. Cymolomia cyanosticha*									×			
21. Cryptaspasma triopis			×									
22. C. achlyoptera*			×									
23. C. brachyptycha									×			Ceylon, Australia, Summatra
24. C. polysticta*									×			
25. Bactra minima			×					×				Ceylon, India, British Solomon Is., New Georgia
26. B. hostilis	×											Japan
27. B. angulata			×	×	×							Java, E. Borneo N. Moluccan Is.
28. B. venosana			×				×		×			S.E. Asia, Timor, Andaman Is.,

Table 1 (continued)

	Micronesian Island Groups											Other Localities
				Caroline								
	Bonin	N. Mariana	S. Mariana	Palau	Yap	Caroline Atolls	Truk	Ponape	Kusaie	Marshall	Gilbert	
												Ceylon, Java, Borneo, Hawaii, S. Europe, Palestine
29. B. optanias			×					×				Australia, Ceylon, Society Is Java, Austral Is., Sorong, New Guinea, Ajmaru
30. B. cerata				×								Assam, Ceylon, Fiji
31. Herpystis maurodicha*									×			
32. H. theodora*									×			
33. H. mimica*				×								
34. Tritopterna chionostoma				×			×	×				Java
35. Euobraztsovia chionodelta				×	×							Australia, New Guinea, E. Papuan Is., Bismark Is.
36. Dudua aprobola aprobola			×									Indo-Australian Region, Natal, French Polynesia, Formosa
37. D. a. kusaiensis*									×			
38. D. ptarmicopa				×								China, Japan, Formosa
39. D. proxima*								×				
40. D. cellifera								×				Ceylon, India, Malaya, Java, Philippine Is.
41. D. pottsi*							×					
42. D. anisoptera*			×									
43. Statherotis leucaspis									×	×		Laccadive Is., Ceylon, India, China, Seychelles
44. Nenomoshia poetica			×									Ceylon, India, N. Australia
45. Lobesia reprobata*			×									
46. L. cathedra*			×									
47. Cryptophlebia amblyopa*				×								
48. C. ombrodelta			×	×								Australia, India, Borneo, Ceylon, China, Dampier I. Formosa, Japan, Java, Ned. New Guinea, Philippines, Sumatra Thailand

Table 1 (continued)

	Micronesian Island Groups											Other Localities
				Caroline								
	Bonin	N. Mariana	S. Mariana	Palau	Yap	Caroline Atolls	Truk	Ponape	Kusaie	Marshall	Gilbert	
49. C. rhynchias			×									Australia, Ceylon, India, Mauritius, New Hebrides, Samoa Sudest Is.
50. C. peltastica			×									Africa, Seychelles, Madagascar, Mauritius
51. C. callosoma*			×									
52. C. citrogramma*									×			
53. C. atrilinea*				×			×	×	×			
54. C. isomalla			×									Samoa
55. Laspeyresia balanoptycha									×			Ceylon, India
56. L. defensa									×			Fiji
57. L. celiae*					×							
58. L. doria*				×								
Tortricidae												
59. Adoxophyes poecilogramma*									×			
60. A. aurantia*								×				
61. A. fasciculana									×	×		Tonga, Fiji, China, Singapore, Solomon Is., New Hebrides, Papua Is. New Guinea, Sudest Is., Trobriand Is. St. Matthias Is. New Ireland, New Hanover Sunda Is. Molucca Is. Celebes, St. Aignan Is. Philippines
62. A. melia*			×									
63. A. molybdaina*									×			
64. A. balioleuca*									×			
65. Polylopha oachranta			×									
Chlidanotidae												
66. Trymalitis cataracta										×		Eastern Australia, New Guinea, Bismark Archepelago, Siam, Andaman Is., Fiji, Ceylon, Africa
67. T. escharia*			×									

*Described as new.

g, h, Plate 9 which were supplied through the courtesy of the Trustees of the British Museum (Nat. Hist.).

I am very grateful to Dr Marie-Hèlène Sachet for checking the names of the food plants.

The color descriptions are based on Ridgway, 1912, *Color Standards and Color Nomenclature*. All colors and hues are not represented in Ridgway, but I have adhered as closely as possible to his standards. Where necessary I have endeavored to use a more descriptive term.

Sri Lanka is referred to in the text as Ceylon because all records from the literature and on type specimens referred to here are under that name. For the same reason I have retained the old names of newly emergent countries such as Madagascar (Malagasy Republic) etc.

Family OLETHREUTIDAE

Key to the Micronesian Genera of Olethreutidae

1. Hindwing with vein 5 straight, almost parallel with 4 22
   Hindwing with vein 5 bent at base, approximate to 4 2
2. Hindwing with veins 3 and 4 separate or connate 14
   Hindwing with veins 3 and 4 stalked or united 3
3. Forewing with veins 7 and 8 separate 9
   Forewing with veins 7 and 8 stalked or connate 4
4. Forewing smooth 5
   Forewing with raised scale tufts in both sexes ..... **Heleanna***
5. Forewing veins 3 and 4 separate; vein 6 present 6
   Forewing veins 3 and 4 united; vein 6 absent ..... **Alcina***
6. Forewing with veins 7 and 8 stalked 7
   Forewing with veins 7 and 8 connate ..... **Ruthita***
7. Forewing with veins 4, 5, 6, convergent at termen 8
   Forewing with vein 6 well separated from 5 at termen ..... **Duessa***
8. Forewing with vein 5 nearer to 6 than to 4 ..... **Eumarissa***
   Forewing with vein 5 nearer to 4 than to 6 ..... **Icelita**
9. Hindwing with veins 3 and 4 united (part) ..... **Crocidosema**
   Hindwing otherwise 10
10. Termen of forewing distinctly convex ..... **Strepsicrates**
    Termen otherwise 11
11. Forewing veins 3, 4, 5 strongly convergent at termen ..... **Epinotia**
    Forewing veins 3, 4, 5 convergent but not strongly so 12
12. Forewing veins 8 and 9 well separated at base 13
    Forewing veins 8 and 9 closely approximate at base ..... **Cymolomia**
13. Third segment of labial palpus slender, cylindrical (part) ..... **Crocidosema**
    Third segment of labial palpus robust, compressed ..... **Eucosma**
14. Termen of forewing straight, notched or oblique 16
    Termen of forewing convex 15
15. Forewing with costal stigma present ..... **Lobesia**
    Forewing with costal stigma absent ..... **Cryptaspasma**

16. Termen of forewing oblique.....**Bactra**
Termen of forewing straight or notched 17
17. Termen of forewing notched.....18
Termen of forewing straight 19
18. Hindwing with veins 3 and 4 separate.....**Herpystis**
Hindwing with veins 3 and 4 approximate.....**Tritopterna**
19. Forewing with vein 10 nearer to vein 9 than to 11 20
Forewing with veins 9, 10, 11 equidistant.....21
20. Upper internal vein of forewing to base of vein 7; lower internal vein to base of vein 4 .....**Euobraztsovia**
Upper internal vein of forewing to between veins 6 and 7 and lower internal vein to between veins 4 and 5 .....**Dudua**
21. Forewing with veins 7 and 8 stalked.....**Statherotis**
Forewing with veins 7 and 8 separate.....**Nenomoshia***
22. Termen of forewing notched .....**Laspeyresia**
Termen of forewing straight or convex .....**Cryptophlebia**

*Described as new

Subfamily EUCOSMINAE

Genus **Heleanna** Clarke, **new genus**

Type-species: *Rhopobota physalodes* Meyrick, 1910, Trans. Ent. Soc. London, 1910: 368 (by present designation). The gender of the generic name is feminine.

Labial palpus porrect, about as long as head; 2nd segment triangular, expanded dorsally; 3rd segment short, bent downward. Maxillary palpus minute. Head roughened posteriorly, with lateral spreading scales converging dorsally at middle; from vertex over frons a projecting, flattened area of tightly packed scales extending well over labial palpus; ocellus present. Antenna of ♂ serrulate and finely and short ciliated, thickened; in ♀ more slender. Forewing with two rounded tufts of scales astride fold at basal 2/5; in ♂, costal fold and an elongate cluster of modified scales at base of cell, strongly developed; 12 veins; 1c present; 2 from outer 2/5 of cell; 3 from angle; 4 approximate to 3 at base, diverging at termen; 5 about equidistant from 4 and 6; 5 and 6 converging at termen; 7 and 8 stalked, 7 to termen; 9 approximate to the stalk of 7 and 8; upper internal vein from between 10 and 11. Hindwing with 8 veins; 2 from outer 1/3 of cell; 3 and 4 stalked; 5 bent, connate with stalk of 3 and 4; 6 and 7 approximate toward base. Hind leg tibia smooth.

Male: Genitalia with well developed socius; uncus absent.

Female: Genitalia with two signa.

Species of this genus have been associated with *Acroclita* but *Heleanna* differs from *Acroclita* in many features. In *Acroclita* the costal fold is absent in ♂♂, but present in *Heleanna;* vein 2 of forewing is from 3/5 in *Heleanna* and from middle in *Acroclita;* 4 and 5 are widely separated at termen in *Heleanna,* convergent and nearly touching at termen in *Acroclita.* In the hindwing 3 and 4 are connate or approximate and 5 is remote from 4 in *Acroclita* but in *Heleanna* 3 and 4 are stalked and 5 is connate with the stalk of 3 and 4. In the ♂ of *Heleanna* the uncus is absent; present in *Acroclita.* The ♀♀ of both genera have double signa.

The four segregates included here are very closely related. Although variable in color, each of the Micronesian segregates differs from the other in minor details of the genitalia and except for *physalodes*, each is restricted to a single island. Despite the structural differences I consider the Micronesian segregates no more than subspecies of *physalodes*.

Heleanna melanomochla (Meyrick) n. comb., from Formosa (Taiwan), belongs here, but its exact relationship to *physalodes* cannot be determined at this time.

1. Heleanna physalodes physalodes (Meyrick), NEW COMBINATION (Fig. 1; Plate 1, fig. a, b).

Rhopobota physalodes Meyrick, 1910, Trans. Ent. Soc. London **1910:** 368.

Acroclita physalodes: Meyrick, 1929, Trans. Ent. Soc. London **76:** 495.— Fletcher, 1932, Imp. Council Agric. Res. Sci. Monogr. **2:** 20.— Diakonoff, 1950, Bull. Brit. Mus. (Nat. Hist.) Ent. **1**(4): 280.— Bradley, 1957, The Natural History of Rennell Island, British Solomon Islands [19. Microlepidoptera from Rennell and Bellona Islands] **2:** 93.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, **3:** 279, pl. 138, figs. 3–32.

Herpystis physalodes: Diakonoff, 1969, Tijds. voor Ent. **112**(3): 94, pl. 9, fig. 28, pl. 10, figs. 31, 32.

MALE: Genitalia slides JFGC 12278, 12280, 12290: CH 1, CH 2. Harpe slender, curved, sacculus dilated ventrally; cucullus triangular with strong seta ventrally and two similar ones (usually) apically. Socius about 1/2 the length of tegumen, moderately slender, terminating in long stout seta preceded by a series of hair-like setae. Vinculum a broad band expanded on dorsoposterior edge. Tegumen subrectangular rounded posteriorly, with deep median posterior invagination. Anellus subtriangular, with median ventral keel terminating in a cuplike posterior articulation with aedeagus. Aedeagus short, bulbous proximally, straight distally; vesica armed with cluster of long deciduous cornuti.

FEMALE: Genitalia slides JFGC 12279, 12287, 12288. Ostium round, entering a short, oblique, sclerotized cylindrical posterior portion of ductus bursae; lamella postvaginalis moderately sclerotized laterally. Inception of ductus seminalis dorsal, from anterior 1/3 of sclerotized part of ductus bursae. Ductus bursae membranous in anterior 1/3; posterior 2/3 sclerotized except very short membranous section before ostium. Bursa copulatrix membranous; inner surface mostly very finely spiculate but area around signa lightly granular. Signa two sclerotized blades.

Type: British Museum (Natural History). Type-locality: Chagos Is., I. du Coin.

DISTRIBUTION: Chagos Is., Solomon Is., India, Ceylon, Austral Is., Fiji, Seychelles, Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Sumay Road, 4 ♀♀, Apr. & Oct., 1936, Swezey, Rf. *Cordia* fruit; no specific locality, 4 ♂♂, 3 ♀♀, June 1939, Oakley, Guam No. 2347 (Lot 39-14163), Rf. *Barringtonia;* PAA Barge, 1 ♂, Aug. 1939, Oakley; no specific locality, 1 ♀, 1937, Oakley; no specific locality, 1 ♀, Fullaway 1447. SAIPAN: 1/2 mi. E. Tanapag, 1 ♀, Apr. 1945, Dybas. ROTA: Rota, 2 ♂♂, June 1946, Townes 825, at light.

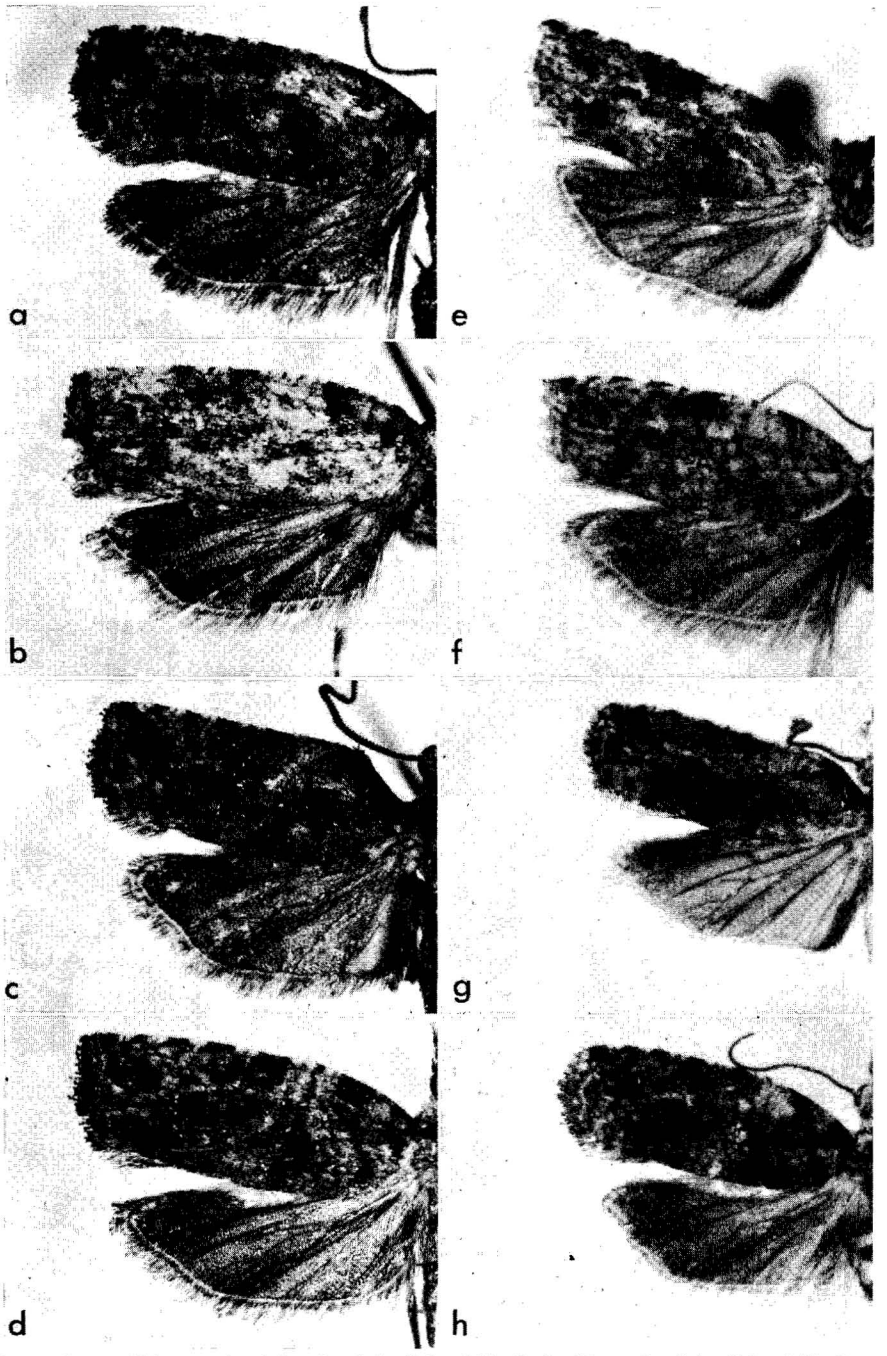

PLATE 1. a, *Heleanna physalodes physalodes* (Meyrick), ♀; b, *H. p. physalodes* (Meyrick), ♀; c, *H. p. abundantia*, n. subsp., ♂ holotype; d, *H. p. abundantia*, n. subsp., ♀ paratype; e, *H. p. tricia*, n. subsp., ♂ holotype; f, *H. p. tricia*, n. subsp., ♀ paratype; g, *H. p. elitha*, n. subsp., ♂ paratype; h, *H. p. elitha*, n. subsp., ♀ paratype.

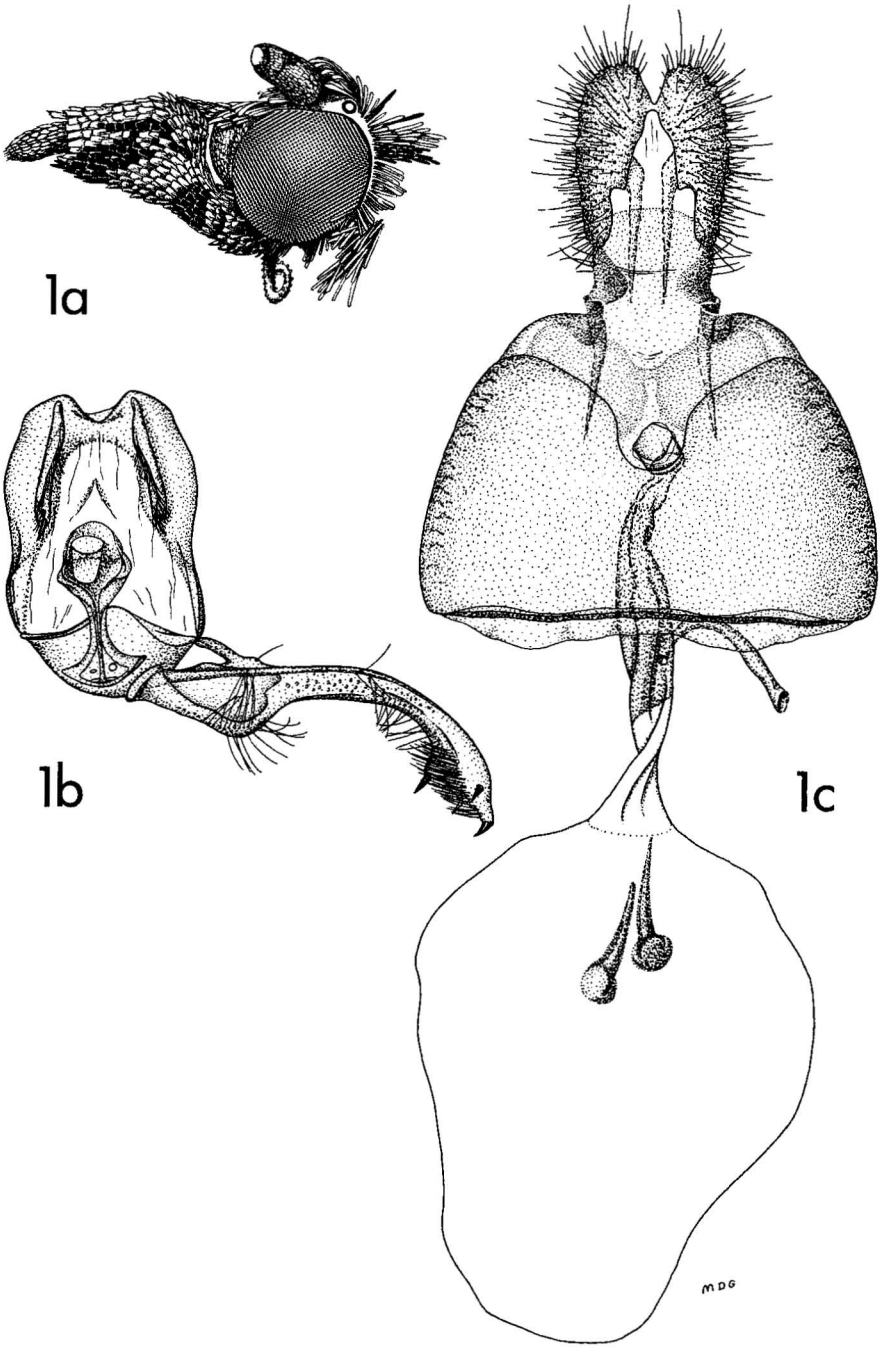

FIGURE 1. *Heleanna physalodes physalodes* (Meyrick): a, lateral aspect of head; b, ventral view of ♂ genitalia with left harpe omitted; c, ventral view of ♀ genitalia.

Food plants: *Barringtonia* sp., (flower buds); *Cordia* sp. fruits.

As indicated under distribution this species has been reported from several localities but the material recorded under this name probably represents several subspecies of *physalodes*, or distinct taxa. Following are described several segregates in this complex each of which is at present known only from a single island or atoll.

2. Heleanna physalodes abundantia Clarke, n. ssp. (Fig. 2; Plate 1, fig. c, d).

Alar expanse 10–14 mm.

Labial palpus light ochraceous buff; 2nd segment with two tiny black dots dorsally, a blackish-fuscous blotch anteriorly and two blackish-fuscous spots on outer side; 3rd segment blackish fuscous basally. Antenna drab with poorly defined fuscous annulations; scape light ochraceous buff with brownish spot basally. Head light ochraceous buff. Thorax light ochraceous buff; anteriorly and at middle transverse fuscous bands; tegula fuscous basally, drab apically. Forewing ground color light buff; costal 1/2 of wing, at base, fuscous; at basal 1/4 of costa a transverse narrow triangular fuscous mark extending to fold, then continuing as a buff-olive, narrow fascia to basal angle; at middle of costa a quadrate fuscous mark followed on costa by four small fuscous spots, the last at apex; at basal 1/3 of dorsum a fuscous blotch extends to middle of cell and encloses two tufts of raised scales, the larger of the two tufts, nearest dorsum, consists of leaden gray scales mixed with a few ochraceous-buff scales; the 2nd cluster, in cell, is largely of ochraceous-buff scales; at end of cell a small fuscous spot, and beyond it, astride veins 6–8, a similarly colored oblique streak; apical 1/3 of wing with several blotches of leaden scales and irregular tawny brown markings; cilia mixed ochraceous buff, buffy olive and fuscous. Hindwing grayish fuscous, slightly paler basally; cilia slightly lighter with fuscous basal line. Foreleg light ochraceous buff; tibia with two fuscous bands on outer side; tarsal segments fuscous annulated; midleg similar; tibia with a proximal fuscous spot and two grayish-fuscous blotches on outer side; tarsal segments annulated grayish fuscous; hindleg light ochraceous buff; tibia with grayish fuscous proximal streak; tarsal segments spotted grayish fuscous. Abdomen grayish fuscous dorsally, light ochraceous buff ventrally.

MALE: Genitalia slides JFGC 10206, 12298, 12299. Harpe long, slender, curved, swollen at sacculus; cucullus triangular, with one stout terminal seta and one ventrally. Socius less than half the length of tegumen. Vinculum a wide, lightly sclerotized band with dorsoanterior median prominence. Tegumen subrectangular, rounded posteriorly and with small, median U-shaped invagination on posterior edge. Anellus triangular; anterior edge convex; ventral median keel expanded posteriorly into cuplike articulation with aedeagus. Aedeagus short; bulbous proximally, spatulate distally; vesica armed with cluster of deciduous cornuti.

FEMALE: Genitalia slides JFGC 10207, 12289; USNM 24005, 24006. Ostium oval, situated at edge of deeply invaginated posterior margin of 7th sternum, lamella postvaginalis strongly sclerotized, pitted. Inception of ductus seminalis dorsal from anterior 2/3 of sclerotized part of ductus bursae. Ductus bursae membranous in anterior 1/3, then sclerotized except for a short membranous section before ostium. Bursa copulatrix membranous; inner surface finely spiculate anteriorly and posteriorly, granular in mid-portion. Signa two sclerotized blades.

Holotype ♂ (US 72559). Type-locality: Kusaie, Pukusrik.

cilia slightly lighter with fuscous basal line. Foreleg light ochraceous buff; tibia with two fuscous

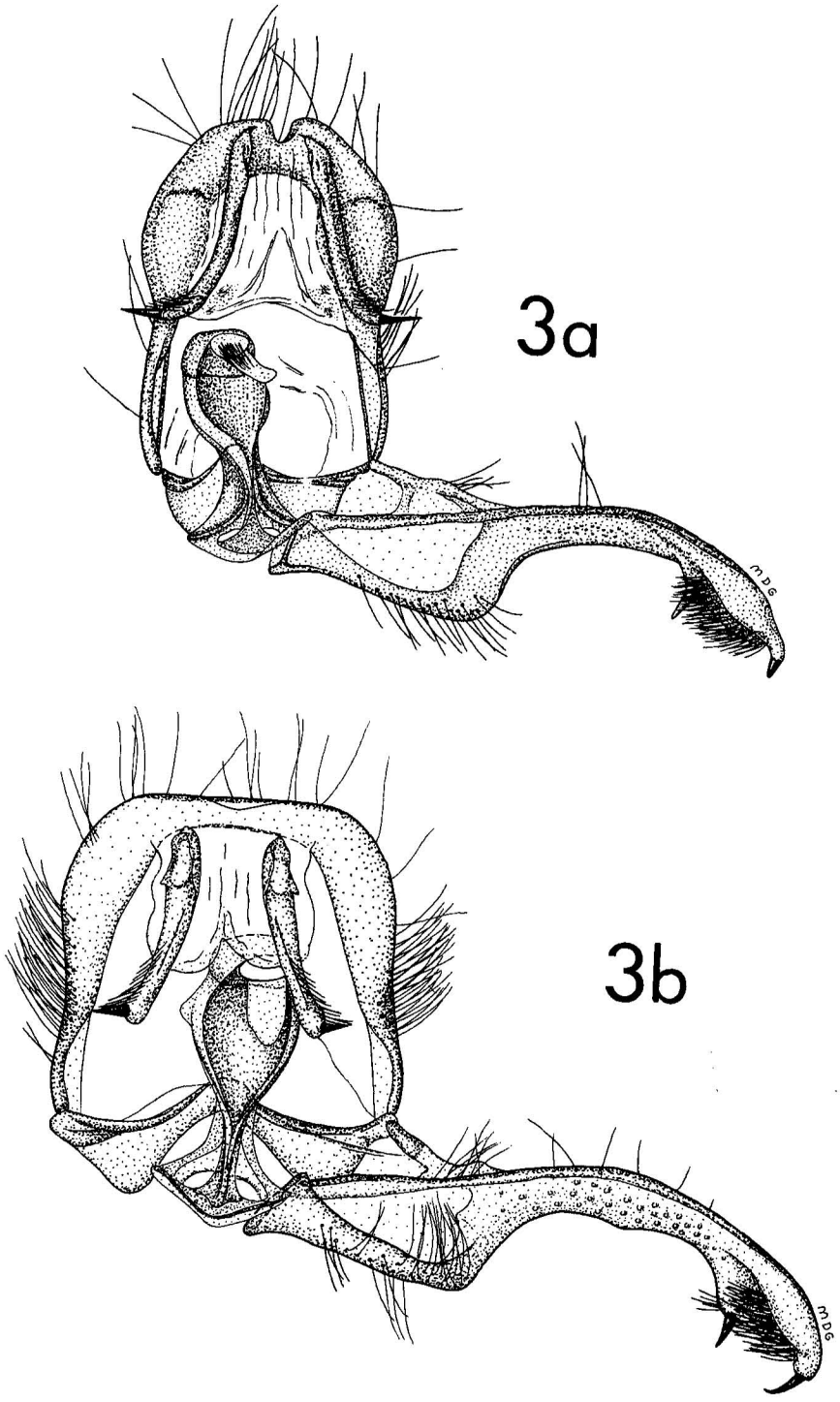

FIGURE 3. a, *Heleanna physalodes tricia*, n. subsp.: ventral view of ♂ genitalia with left harpe omitted. b, *Heleanna physalodes elitha*, n. subsp.: ventral view of ♂ genitalia with left harpe omitted.

end of sclerotized portion of ductus bursae. Ductus bursae narrowly membranous before ostium then sclerotized for 2/3; anterior 1/3 membranous. Bursa copulatrix very finely spiculate on inner surface. Signa two sharply pointed blades.

Holotype ♂ (US 72561). Type-locality: Kapingamarangi Atoll, Hare I.

DISTRIBUTION: Caroline Is. Atolls.

CAROLINE ATOLLS. KAPINGAMARANGI: Hare Is., 2 ♂♂ dan, 6 ♀♀ 3 Aug. 1946, Townes 1491, Rf. ex *Calophyllum inophyllum;* 46-16910.

Food plant: *Calophyllum inophyllum* L.

Described from the ♂ holotype, 1 ♂ and 6 ♀♀ paratypes as listed above.

Of the four segregates of *physalodes* listed here, *tricia* is the smallest; it is also paler than the other segregates in general aspect. The primary difference in the ♂ genitalia is the extraordinarily long and slender socius, terminating in a long, slender seta accompanied by only a few, fine terminal setae. The ♀♀ exhibit a broadly U-shaped excavation on the posterior margin of the 7th sternum.

4. Heleanna physalodes elitha Clarke, n. ssp. (Fig. 3b, 4b; Plate 1, fig. g, h).

Alar expanse 12–15 mm.

Labial palpus ocherous white; on outer side of 2nd segment a conspicuous, irregular, large black mark anteriorly, a small black spot dorsolaterally and a similar one at base; on inner side an ill-defined grayish shade; 3rd segment with a grayish-fuscous spot basally. Antenna drab, narrowly and weakly annulated fuscous. Head ocherous white to grayish, sometimes with median grayish-fuscous shade. Thorax ocherous white to isabella color with anterior and median transverse fuscous fasciae; forewing ground color variable, whitish, so heavily overlaid with isabella color it appears greenish; at basal 1/4 of costa a transverse, rectangular fuscous mark with isabella colored center; at middle of costa a fuscous spot extended transversely as an ill-defined slender fascia; beyond this four small fuscous spots, the terminal one on apex; on dorsum, at basal 1/3, a conspicuous fuscous blotch, with isabella colored center, extending well into cell; on outer edge of dorsal blotch two clusters of mixed white and fuscous raised scales, one cluster on each side of fold; at end of cell a fuscous dash and beyond this another, outwardly oblique, fuscous dash lying across veins 6 to 8; both fuscous marks edged with isabella color; apical 1/3 of wing with several patches of leaden gray scales; cilia mostly mixed fuscous and isabella color with whitish ocherous around tornus. Hindwing grayish fuscous, darker toward apex; cilia pale grayish fuscous with darker subbasal line. Foreleg ocherous white; tibia with a pair of grayish-fuscous bars on outer side; tarsal segments spotted grayish fuscous; midleg similar; tibia with black spot proximally and two grayish blotches on outer side; 1st tarsal segment with grayish longitudinal streak on outer side; hindleg ocherous white; femur with fuscous distal spot; tibia and 1st tarsal segment with grayish suffusion. Abdomen grayish fuscous dorsally, ocherous white ventrally.

MALE: Genitalia slides JFGC 10204, 12281, 12282. Harpe 1.5 × length of tegumen, slender; sacculus dilated; neck of harpe long, slender; cucullus with strong setae ventroanteriorly and ventroposteriorly. Gnathos a slender bar with median posterior projection. Socius 1/2 length of tegumen, terminating in cluster of bristles and a small, very weak outwardly directed spine. Uncus absent. Vinculum a broad V-shaped band. Tegumen nearly as wide as long; posterior edge straight. Anellus diamond-shaped with dilated posterior lobe on

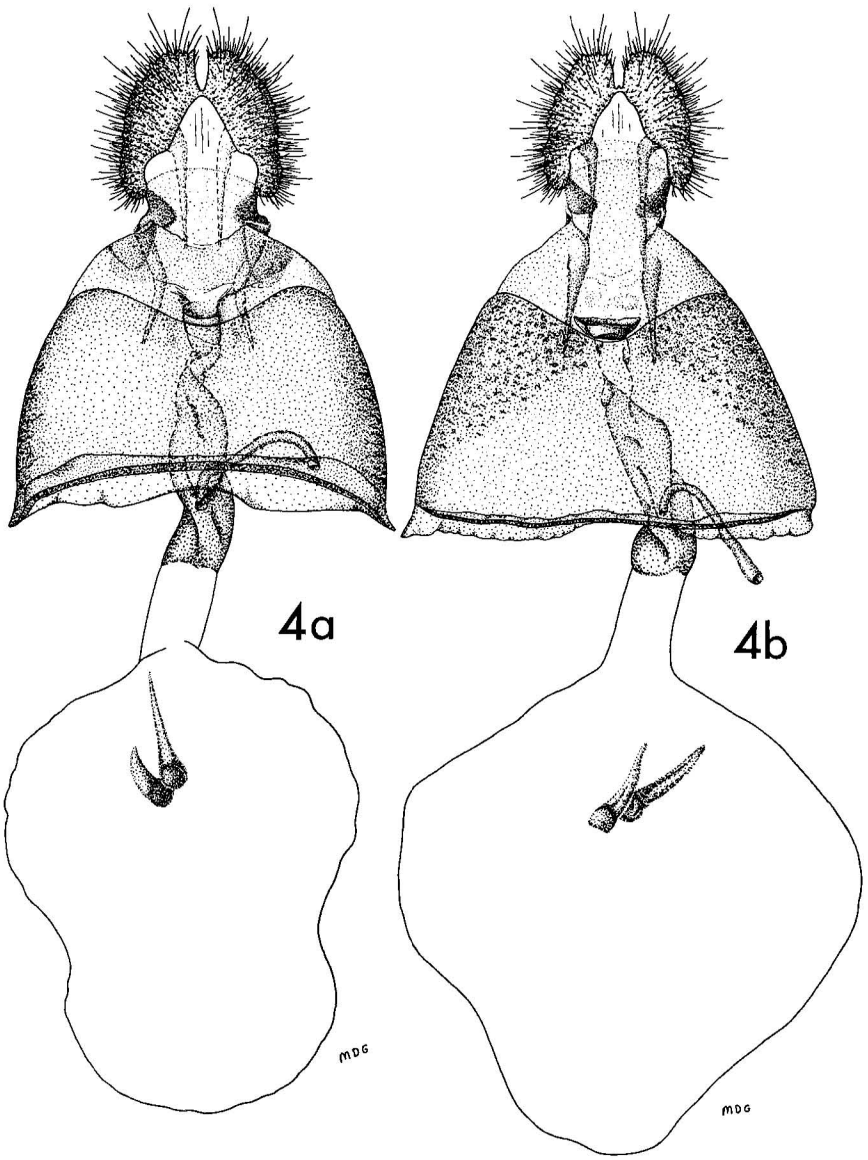

FIGURE 4. a, *Heleanna physalodes tricia*, n. subsp.: ventral view of ♀ genitalia; b, *Heleanna physalodes elitha*, n. subsp.: ventral view of ♀ genitalia.

which aedeagus articulates. Aedeagus relatively small, curved; vesica armed with a cluster of deciduous cornuti.

FEMALE: Genitalia slides JFGC 10205, 12277. Ostium transverse, oval, small; lamella postvaginalis narrowly and transversely sclerotized. Antrum not differentiated. Inception of ductus seminalis dorsal, from anterior portion of sclerotized part of ductus bursae. Ductus

bursae sclerotized from slightly before ostium; anterior 1/3 membranous. Bursa copulatrix with granular inner surface in posterior 2/3, finely spiculate anteriorly. Signa two curved, sclerotized blades. Posterior edge of 7th sternum with shallow emargination.

Holotype ♂ (US 72560). Type-locality: Ponape, Colonia.

DISTRIBUTION: Eastern Caroline Is.

PONAPE. COLONIA: 3 ♂♂, 8 ♀♀ (10–15 Jan. 1953, Clarke).

Food plant: Unknown.

Described from the ♂ holotype, 2 ♂♂ and 8 ♀♀ paratypes as listed above.

The primary features by which *elitha* can be distinguished from the other segregates of this genus are the straight, posterior margin of the tegumen, the short socius with weak terminal spine and the shallow emargination of the posterior margin of the 7th sternum.

The ♂♂ of *elitha* have a darker forewing, especially in the dorsal area, than the specimens of *physalodes* before me. The ♀♀ show more pale green than the ♀♀ of *physalodes*, and have a conspicuous dark dorsal mark at basal 1/3.

Genus **Alcina** Clarke, **new genus**

Type-species: *Alcina stenotes*, new species (by monotypy and present designation). The gender of the generic name is feminine.

Labial palpus porrect, slightly longer than head; 2nd segment with projecting scales anteriorly and ventrally; 3rd segment about 1/2 as long as 2nd, bent downward. Maxillary palpus minute, closely appressed to base of tongue; head rough, with lateral spreading scales converging over middle; vertex with a tuft of scales projecting forward; face roughened with a conspicuous tuft of projecting scales; ocellus present. Antenna serrulate, finely ciliated; antennal notch present in ♂. Thorax smooth. Forewing with costal fold strongly developed in ♂; 11 veins; 1c preserved at margin; 2 from near outer 1/4 of cell; 3 from angle; 4 approximate to 3; 3, 4, and 5 converging at middle of notched termen; 6 absent; 7 and 8 stalked, 7 to termen; 10 nearer to 9 than to 11, the latter obscured by costal fold in ♂. Hind wing with 7 veins; 2 from slightly beyond middle; 3 and 4 coincident from angle; 5 approximate to 3 and 4; 6 and 7 closely approximate toward base; inner margin of hindwing of ♂ folded to enclose an expansible hair-pencil. Hind leg tibia smooth except for a few projecting scales above.

MALE: Genitalia with uncus present; socius mainly indicated by a few fine setae.

FEMALE: Genitalia with two signa.

Obviously, this genus is very closely related to *Hermenias* Meyrick, but differs from it by the absence of vein 6 of forewing and the coincidence of veins 3 and 4 in hindwing. The two genera, *Alcina* and *Hermenias*, each have a costal fold in the forewing, and a pocket, or fold, on the inner margin of the hind wing, of the male.

5. **Alcina stenotes** Clarke, n. sp. (Fig. 5, Plate 2, fig. a, b).

Alar expanse 6–7 mm.

Labial palpus light drab with a few mouse-gray irrorations; 3rd segment almost wholly

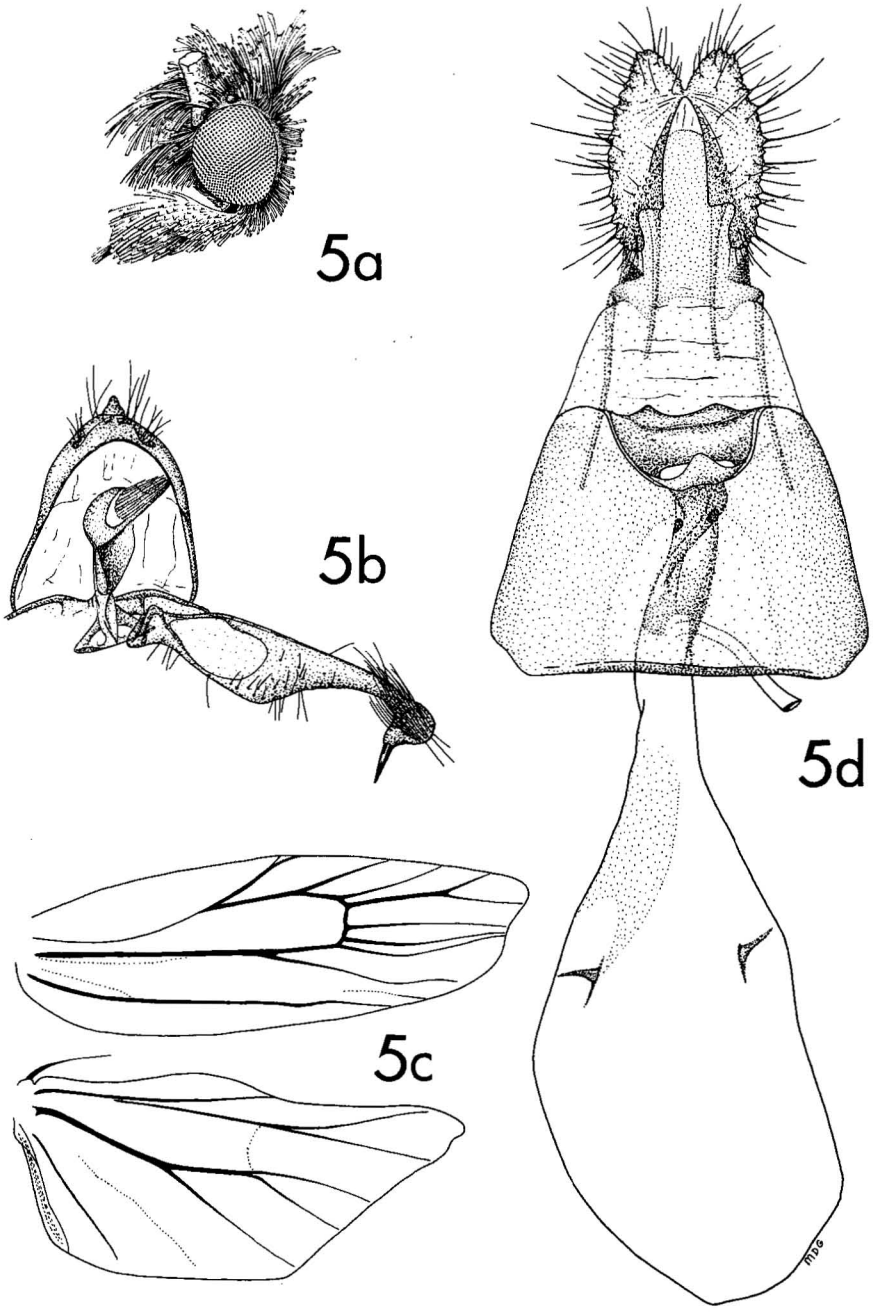

FIGURE 5. *Alcina stenotes*, n. sp.: a, lateral aspect of head; b, ventral view of ♂ genitalia with left harpe omitted; c, venation of right wings of ♂; d, ventral view of ♀ genitalia.

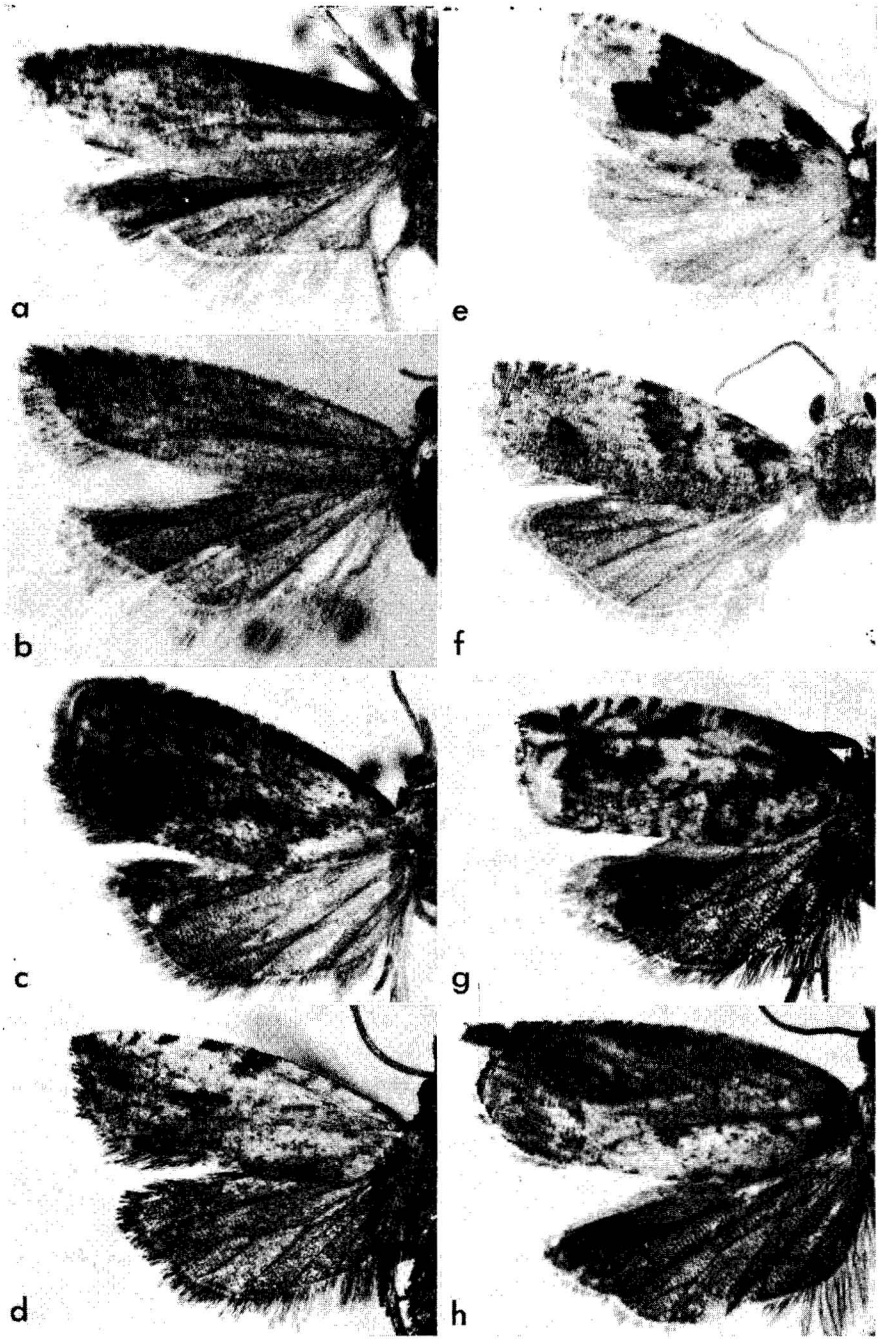

PLATE 2. a, *Alcina stenotes*, n. sp., ♂ paratype; b, *A. stenotes*, n. sp., ♀ paratype; c, *Ruthita argillacea*, n. sp., ♀ holotype; d, *Duessa pleurogramma*, n. sp., ♂ holotype; e, *Duessa atriplaga*, n. sp., ♀ holotype; f, *Duessa phaeostropha*, n. sp., ♀ holotype; g, *Eumarissa leucognoma*, n. sp., ♂ holotype; h, *Eumarissa microphthora* (Meyrick), ♀.

mouse gray. Antenna mouse gray. Head light drab; vertex and face mouse gray. Thorax light drab. Forewing ground color light drab; costal fold of ♂ mouse gray; costa with grayish-fuscous strigulae alternating with some whitish scaling; apex and termen grayish fuscous; cilia drab. Hindwing mouse gray; cilia light drab. Foreleg light drab; tibia and tarsal segments shaded grayish fuscous; midleg similar; hindleg much lighter than fore- and midlegs; tarsal segments spotted with mouse gray. Abdomen drab.

MALE: Genitalia slide USNM 24008. Harpe broad basally, abruptly narrowed to a slender neck; cucullus triangular, apex rounded, ventral projection armed with strong seta. Gnathos mainly indicated by a very narrow, lightly sclerotized band. Uncus small, triangular. Socius minute, mainly indicated by a few fine setae. Vinculum a slender band. Tegumen hoodshaped. Anellus triangular, with posterior extension articulating with aedeagus. Aedeagus short, stout, straight; vesica armed with a cluster of long, slender cornuti.

FEMALE: Genitalia slide USNM 24009. Ventroanterior lip of ostium with median projection; lamella postvaginalis strongly sclerotized. Ostium transverse, oval. Inception of ductus seminalis ventral, at junction of sclerotized and membranous parts of ductus bursae. Ductus bursae irregularly sclerotized in posterior 1/2; anterior 1/2 membranous. Bursa copulatrix membranous except for a very lightly sclerotized area posterolaterally. Signa two, small, thornlike.

Holotype ♂ (US 72585). Type-locality: Guam, Mt. Tenjo.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Mt. Tenjo, 4 ♂♂, 8 ♀♀, 16 May 1936, Usinger.

Food plant: *Styphelia* sp.

Described from the ♂ holotype, 3 ♂♂, and 8 ♀♀ paratypes as listed above. This small, nondescript olethreutid moth shows definite affinity to several species of the genus *Hermenias*, especially to *H. epidola* Meyrick and *H. palmicola* Meyrick. Both of the latter are much larger than *stenotes* but in genitalia they are strikingly similar. The socius of *epidola* is much more highly developed and the cucullar spine of *palmicola* is much longer than that of *stenotes*.

Genus **Ruthita** Clarke, **new genus**

Type-species: *Ruthita argillacea*, new species (by monotypy and present designation). The gender of this generic name is feminine.

Labial palpus 1.5 × as long as head; 3rd segment 1/2 length of 2nd, bent downward. Maxillary palpi vestigial. Head rough; ocellus present. Antenna simple. Forewing smooth, costal fold absent in ♂, apex rounded, termen straight, 12 veins; 1c present; 2 from outer 1/5 of cell; 3 from angle, 3, 4 and 5 approximate; 5 nearer to 4 than to 6; 3, 4 and 5 widely separated at termen; 7 and 8 connate, 7 to costa near apex; 9 much nearer to 8 than to 10; 10 nearer to 9 than to 11. Hindwing with 8 veins; 2 from well before angle; 3 and 4 stalked; 5 closely approximate to stalk of 3 and 4; 6 and 7 closely approximate toward base. Hind tibia slightly roughened above with a few short, stiff scales.

MALE: Genitalia with uncus and gnathos present.

FEMALE: Genitalia with two signa.

Ruthita appears to be near *Agriophanes* Meyrick but differs from it by the

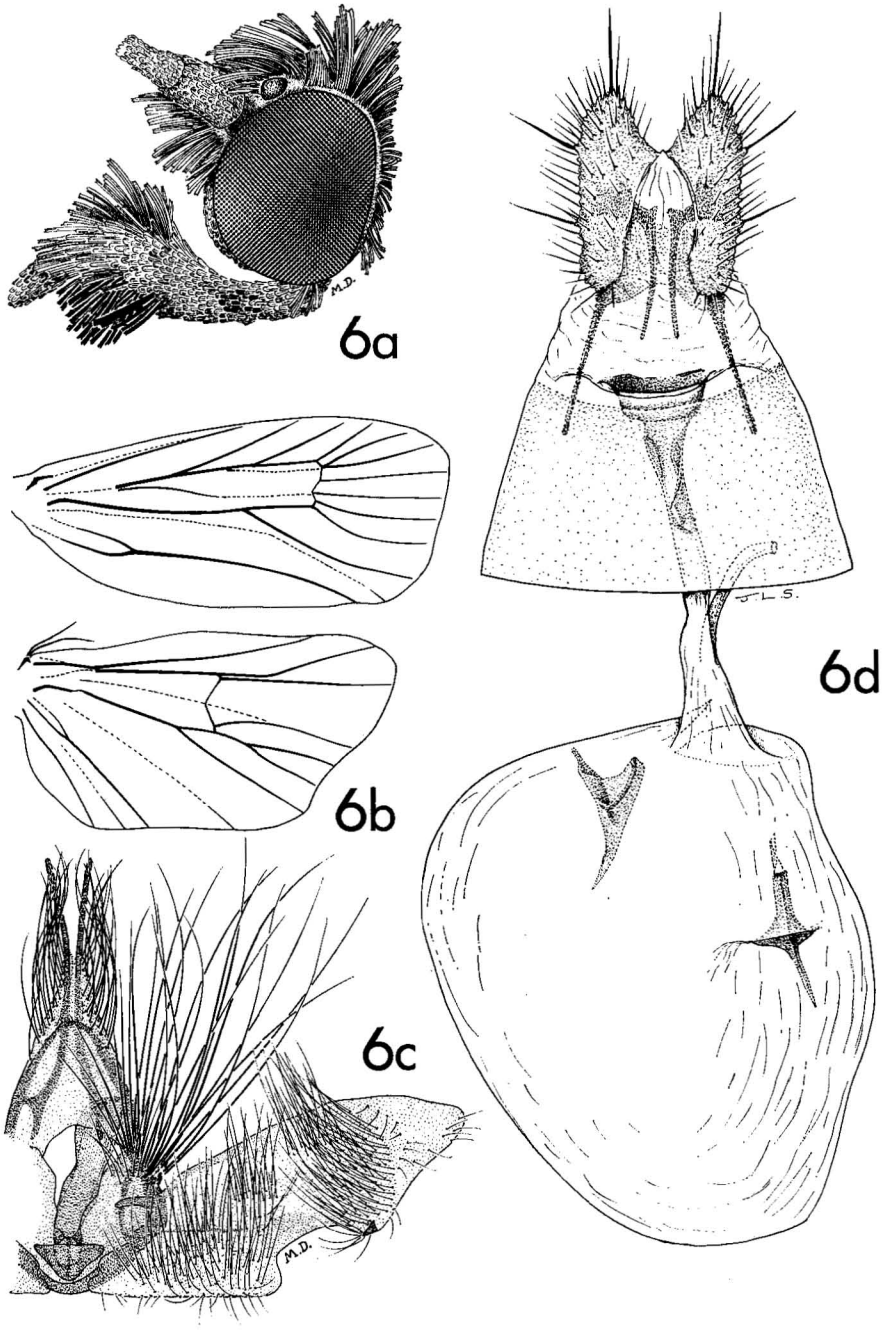

FIGURE 6. *Ruthita argillacea*, n. sp.: a, lateral aspect of head; b, venation of right wings of ♀; c, ventral view of ♂ genitalia with left harpe omitted; d, ventral view of ♀ genitalia.

stalked veins 3 and 4 and separate veins 6 and 7 of hindwing. In *Agriophanes* veins 3 and 4 are coincident and 6 and 7 are stalked in the hindwing.

6. Ruthita argillacea Clarke, n. sp. (Fig. 6; Plate 2, fig. c).

Alar expanse 11 mm.

Labial palpus light cinnamon buff; ventral apical tuft and a few scales subdorsally, black; 3rd segment with an indistinct fuscous dorsal streak. Antenna light ochraceous buff basally, shading to fuscous distally. Head light ochraceous buff, suffused clay color laterally. Thorax clay color; tegula buff posteriorly. Forewing ground color clay color; entire length of costa narrowly marked with blackish fuscous spots alternating with buff strigulae; from outer 2/5 of costa a fine bluish-metallic line extends obliquely to vein 8 and is followed apically with a similar but shorter line; subterminally a short, rectangular, transverse bluish-metallic spot; basal 2/3 of wing finely mottled fuscous, ocelloid patch mixed bluish-metallic and fuscous spots and short dashes; termen narrowly edged blackish fuscous; cilia clay color. Hindwing grayish fuscous; cilia concolorous fading to sordid buff outwardly. Foreleg ocherous white marked with ochraceous buff and fuscous; midleg similar; hindleg ocherous white; tibia suffused grayish; tarsal segments annulated grayish fuscous. Abdomen silvery white ventrally, grayish fuscous dorsally.

MALE: Genitalia slide USNM 24101. Harpe broad, costa strongly arched; cucullus nearly naked distally, bluntly pointed, with ventral spine; ventral edge of harpe deeply excavate before cucullus; ventral edge of sacculus straight. Subscaphium consisting of two parallel, flattened, sclerotized rods. Uncus rounded. Socius fleshy, elongate, extending posteriorly well beyond uncus, clothed with long, slender setae. Vinculum broadly rounded. Tegumen about 2/3 length of harpe, strongly sclerotized laterally. Anellus triangular with long dorsal structure on which aedeagus articulates. Aedeagus irregular, weakly sclerotized.

FEMALE: Genitalia slide JFGC 11556. Ostium transverse, wide, slitlike; lamella postvaginalis membranous. Antrum sclerotized. Inception of ductus seminalis anterolateral from near junction of ductus bursae and bursa copulatrix. Ductus bursae membranous in anterior 3/5. Bursa copulatrix membranous. Signa sharp, thornlike from T-shaped base.

Holotype ♂ (US 72569). Type-locality: Guam, Pt. Oca.

DISTRIBUTION: Southern Mariana Islands.

SOUTHERN MARIANA IS. GUAM: no specific locality, 1 ♀, May 1936, Swezey; Pt. Oca, 1 ♂, 8 June 1945, Bohart & Gressitt.

Food plant: Unknown.

Described from the ♂ holotype and 1 ♀ paratype as listed above. There is nothing with which *argillacea* can be compared favorably, but in wing shape it is similar to *Grapholitha delectana* Snellen. The two are not closely related and *delectana* has vermillion markings in the basal 1/2 of forewing, totally lacking in *argillacea*.

Genus **Duessa** Clarke, **new genus**

Type-species: *Duessa pleurogramma*, n. sp., by present designation. The gender of the generic name is feminine.

Labial palpus porrect, slightly longer than head; distally 2nd segment slightly tufted both dorsally and ventrally; 3rd segment pointed, about 1/4 length of 2nd. Head roughened

parallel, flattened, sclerotized rods. Uncus rounded. Socius fleshy, elongate, extending pos-

with erect scales; ocellus present. Antenna simple but swollen, particularly basally. Forewing with costa slightly arched; ♂ with long, slender costal fold; termen slightly concave between veins 3 and 7, 12 veins; 1b bifurcate at base; 1c strongly preserved at margin; 2 from 3/5; 3–6 approximate at termen, 7 and 8 stalked, 7 to termen; 9, 10 and 11 about equidistant. Hindwing with 7 veins; 2 from 3/5; 3 and 4 united, 5 connate with 3+4; 6 and 7 long stalked. Posterior tibia smooth but slightly swollen.

MALE: Genitalia typically olethreutid, uncus present.

FEMALE: Genitalia with two signa; lamella postvaginalis strongly sclerotized.

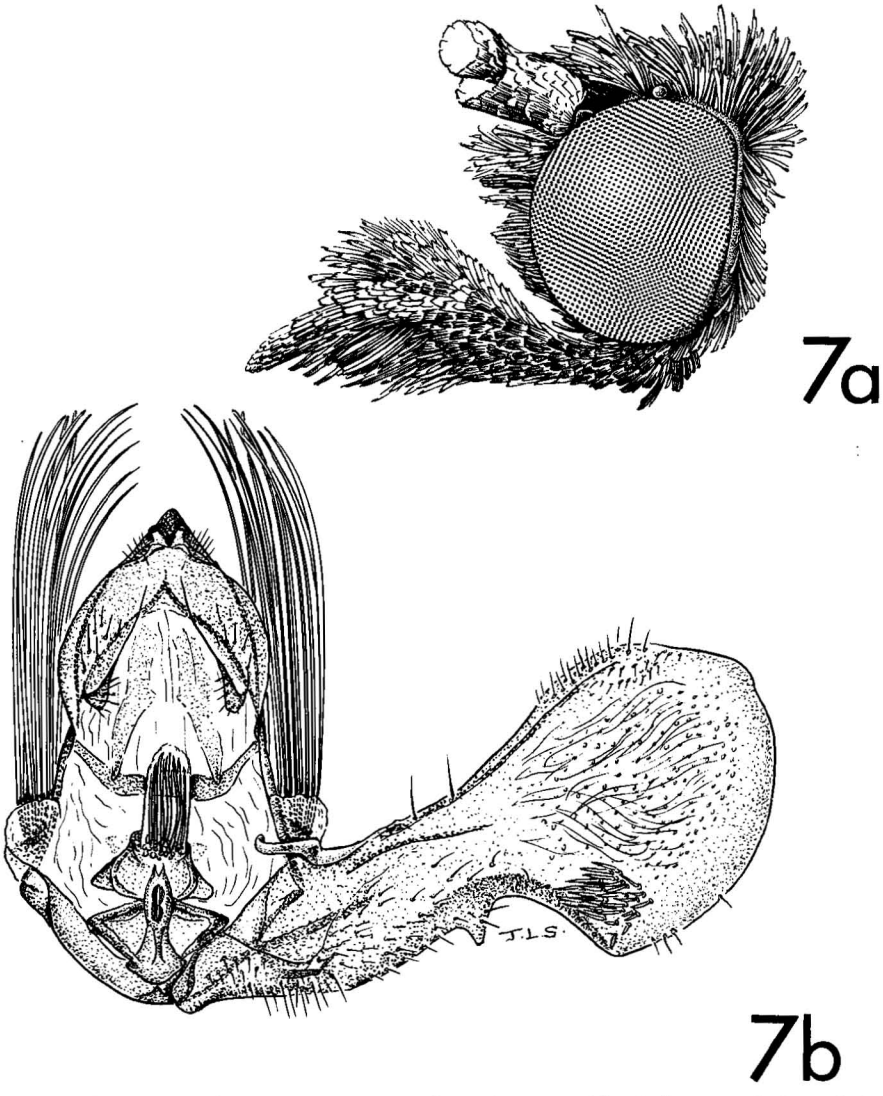

FIGURE 7. *Duessa pleurogramma*, n. sp.: a, lateral aspect of head; b, ventral view of ♂ genitalia with left harpe omitted.

Duessa is similar in most respects to *Epinotia* Hübner, the latter, as it now stands, with many combinations of characters. The sole consistent difference between *Duessa* and *Epinotia* is the united condition of veins 3 and 4 in the hindwing of *Duessa.*

7. Duessa pleurogramma Clarke, n. sp. (Fig. 7; Plate 2, fig. d).

Alar expanse 13–14 mm.

Labial palpus light ochraceous buff suffused grayish ventrally; 2nd segment marked with fuscous basally on outer side. Antenna light ochraceous buff. Head light ochraceous buff. Thorax light buff; tegula brown basally. Forewing ground color light buff suffused irregularly light ochraceous tawny in outer 1/2; extreme base of costa fuscous; at middle of costa an ochraceous-tawny quadrate spot containing black scales, and followed by 3 similar but smaller spots; extreme apex and a narrow terminal line between veins 3–6, blackish fuscous; astride the end of cell a longitudinal black dash surrounded by ochraceous-tawny scales; on dorsum, before middle, a fuscous suffusion; on tornus a few blackish scales; cilia light ochraceous tawny. Hindwing light smoky fuscous; cilia concolorous. Foreleg grayish fuscous; tarsal segments with paler annulations; midleg similar but tibia with pale ochraceous-tawny spot on outer side, and apex buff, hindleg pale buff suffused fuscous on outer side; tarsal segments annulated buff. Abdomen grayish fuscous.

MALE: Genitalia slide JFGC 11528. Harpe narrow with spine-like process from ventral edge of neck; cucullus greatly expanded, with cluster of strong setae from ventral edge. Socius slender, pendant. Uncus narrow, bifid. Vinculum rounded, narrow. Tegumen arched, with strong scale tuft from articulation with costa of harpe. Anellus subtriangular with dorsal rod articulating with aedeagus. Aedeagus stout; vesica armed with dense cluster of slender cornuti.

Holotype ♂ (US 72565). Type-locality: Kusaie, Mutunlik.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Mutunlik, 22 m, 1 ♂, 30 Mch. 1953, Clarke; Mt. Matante, 310 m, 1 ♂, 23 Apr. 1953, Clarke.

Food plant: Unknown.

Described from the ♂ holotype, Mutunlik, 22 m, 30 Mch. 1953, Clarke, and 1 ♂ paratype, Mt. Matante, 310 m, 23 Apr. 1953, Clarke.

The nearest relative to *pleurogramma* is an undescribed species from the Marquesas Is., to be treated in a subsequent paper, which is similarly marked, smaller and with pear-shaped setae on the cucullus.

8. Duessa atriplaga Clarke, n. sp. (Fig. 8; Plate 2, fig. e).

Alar expanse 14 mm.

Labial palpus light buff; 2nd segment slightly infuscated on outer side. Antenna light buff; scape with slight infuscation dorsally. Head light buff. Thorax light buff; on each side, posteriorly, a small fuscous spot; tegula light buff, basally black. Forewing ground color light buff with irregular, pale, ochraceous tawny shading; extreme base of costa black; at basal 1/5 of costa a black, dumbell-shaped blotch extends across fold nearly to dorsum; from slightly beyond basal 1/3, to outer 2/3 of costa a large black mark extends across outer end of cell, narrows and turns outwardly and terminates on tornus; outer part of costa marked with 6 small blackish dots; dorsal edge likewise marked; a slender, transverse black line on terminal

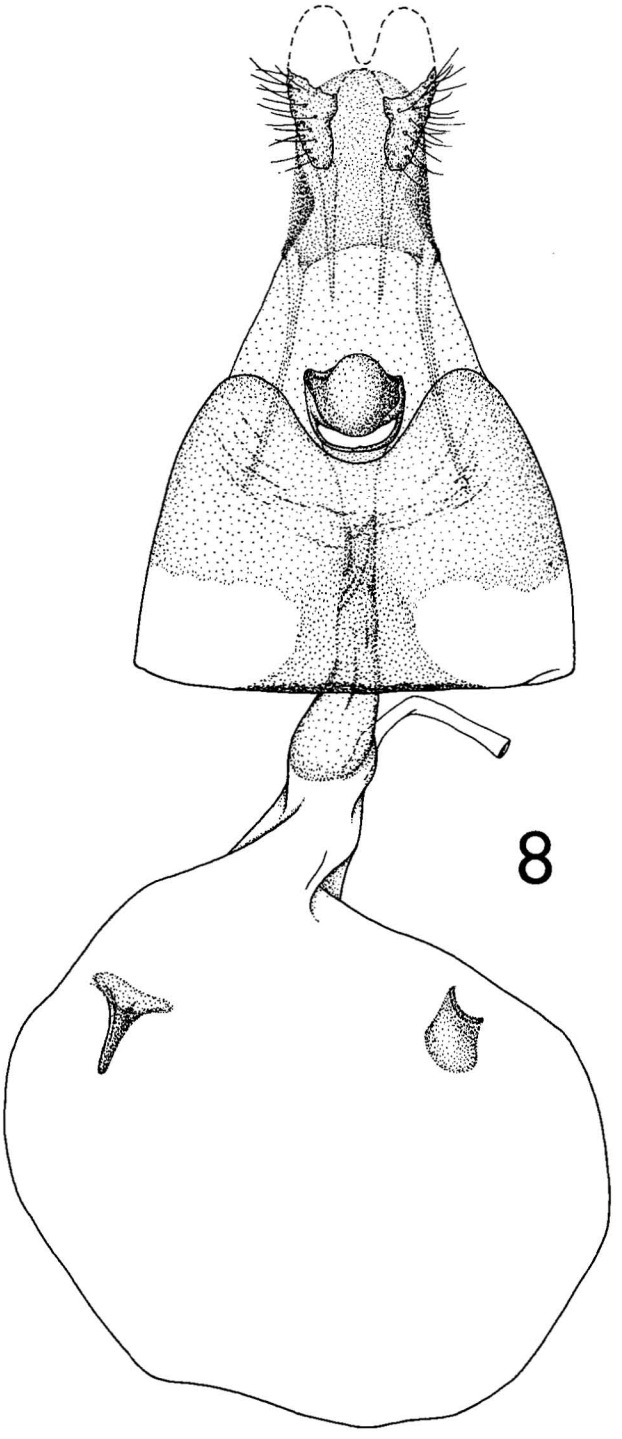

FIGURE 8. *Duessa atriplaga*, n. sp.: ventral view of ♀ genitalia.

edge; cilia buff. Hindwing light smoky fuscous; cilia concolorous. Foreleg buff, heavily overlaid blackish fuscous on outer side; midleg similar to foreleg but tarsal segments paler; hindleg buff with slight infuscation. Abdomen grayish fuscous dorsally, grayish buff ventrally.

FEMALE: Genitalia slide JFGC 12149. Ostium slitlike, transverse; lamella postvaginalis strongly sclerotized. Inception of ductus seminalis dorsolaterally from junction of sclerotized and membranous parts of ductus bursae. Ductus bursae sclerotized in posterior 2/3. Bursa copulatrix membranous, studded with numerous fine spicules. Signa two, short and spatulate.

Holotype ♀ (US 72566). Type-locality: Rota, nr. Sabana.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. ROTA: nr. Sabana, 1 ♀, 21 June 1946, Townes 807, at light. GUAM: Pt. Oca, 1 ♀, 1 June 1945, Bohart & Gressitt, at light.

Food plant: Unknown.

Described from the ♀ holotype and 1 ♀ paratype as indicated above. *D. atriplaga* is closely related to *D. pleurogramma* but is distinguished from it by the much more extensive dark markings.

9. Duessa phaeostropha Clarke, n. sp. (Fig. 9; Plate 2, fig. f).

Alar expanse 10 mm.

Labial palpus sordid white; 2nd segment with a conspicuous grayish-fuscous streak ventrolaterally and an ill-defined grayish spot dorsolaterally before apex; 3rd segment tinged grayish dorsally. Antenna fuscous; scape white with a fuscous spot dorsally before apex. Head white. Thorax drab; tegular with a fuscous blotch about middle, apex mixed white and cinereous. Forewing ground color cinereous mixed with white; base of wing with an irregular fuscous mark extending to 1/3 of costa, and a spur of which crosses fold but does not reach dorsum; from middle of costa a blackish-fuscous edged, narrow fuscous fascia extends obliquely inwardly across fold but does not reach dorsum; at end of cell a blackish edged fuscous spot followed by two transverse silvery gray fasciae, the two fasciae separated by light clay color and the outer silvery gray fascia followed by the same light clay color; on tornus a silvery gray spot; subapically, on costa two fuscous spots separated by a white mark; cilia mixed cinereous and light clay color. Hindwing grayish fuscous with a brassy hue; cilia grayish fuscous basally, cinereous apically. Foreleg sordid white; tibia strongly overlaid fuscous; tarsal segments barred fuscous; midleg sordid white; tibia with two oblique fuscous marks; 1st tarsal segment fuscous; hindleg sordid white, faintly suffused grayish; tibia with a grayish-fuscous mark apically; 1st tarsal segment marked grayish fuscous on outer side. Abdomen drab dorsally, ocherous white ventrally.

FEMALE: Genitalia slide USNM 24077. Ostium broad, slitlike; lamella postvaginalis membranous. Antrum strongly sclerotized. Inception of ductus seminalis ventral at near junction of ductus bursae and bursa copulatrix. Ductus bursae very short, greatly widened, funnel-shaped, where it joins bursae copulatrix. Bursa copulatrix granular around signa, remainder spiculate. Signa thornlike, from granular base.

Holotype ♀ (US 72567). Type-locality: Rota, Rota.

DISTRIBUTION: Northern Mariana Is.

ROTA. ROTA: 1 ♀, 20 Jul. 1946, Townes 805.

Food plant: Unknown.

Described from the unique ♀ holotype as listed above. This is a much

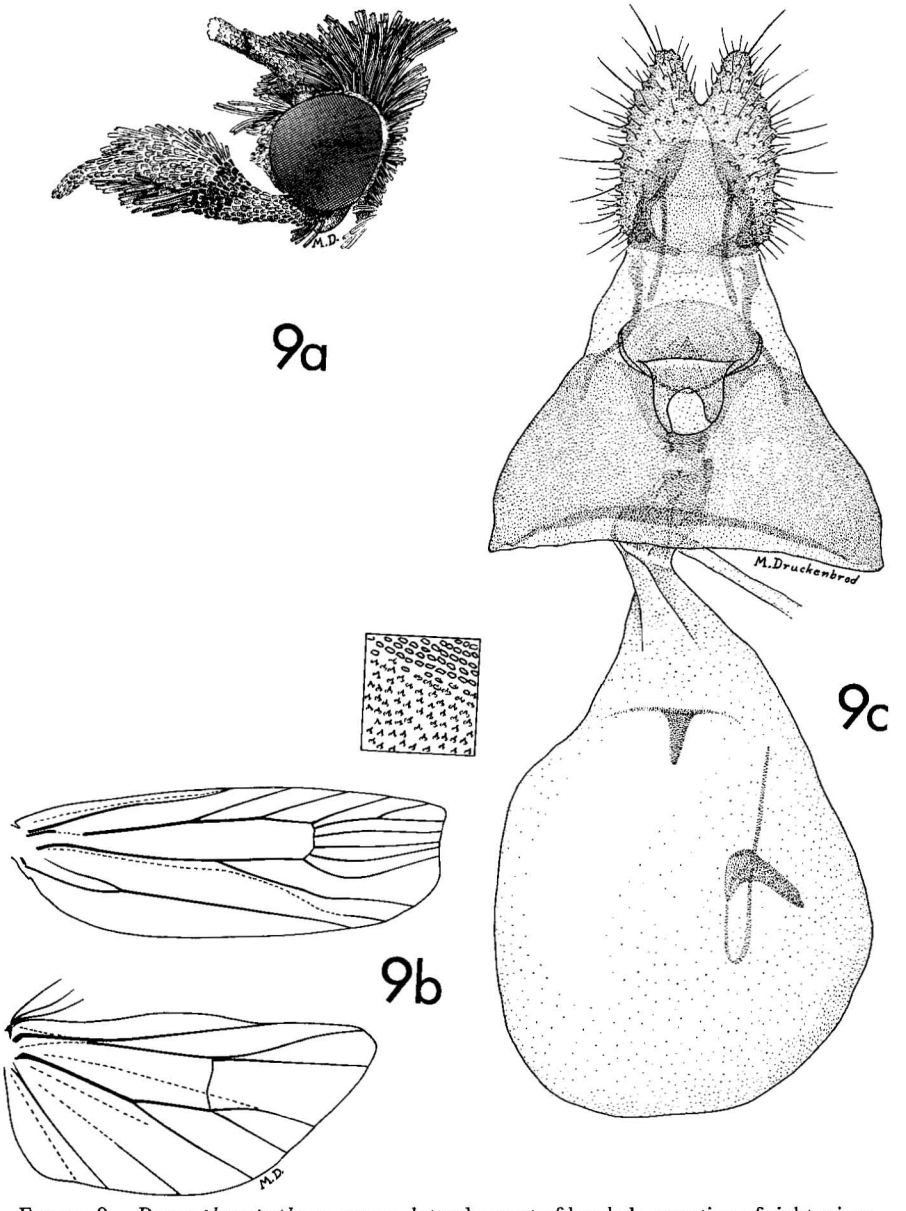

FIGURE 9. *Duessa phaeostropha*, n. sp.: a, lateral aspect of head; b, venation of right wings of ♀; c, ventral view of ♀ genitalia.

smaller species than either *atriplaga* or *pleurogramma*, the other two species I have described above. Moreover, *phaeostropha* lacks the conspicuous, outwardly oblique, dark fascia of the forewing of *atriplaga* and the small costal spot of forewing of *pleurogramma*.

Genus **Eumarissa** Clarke, **new genus**

Type-species: *Eumarissa leucognoma*, new species (by present designation). The gender of this generic name is feminine.

Labial palpus porrect, slightly longer than head; 2nd segment slender, expanded distally; 3rd segment short, about 1/4 length of 2nd. Maxillary palpus minute, ascending. Head loosely scaled, with lateral spreading scale tufts converging dorsally at middle; ocellus present. Antenna simple, somewhat thickened in ♂. Forewing smooth, costal fold absent in ♂; apex falcate; 12 veins; 1c present; 2 from outer 2/3 of cell; 3 from angle, approximate to 4 at base, diverging at termen; 5 nearer to 4 than to 6; 4, 5 and 6 converging at termen; 7 and 8 stalked, 7 to termen; 9 approximate to stalk of 7 and 8; 10 nearer to 9 than to 11, 11 from middle of cell; upper internal vein absent, lower internal vein strong, terminating between veins 4 and 5, but much nearer to 4. Hindwing with 8 veins; 2 from outer 3/5 of cell; 3 and 4 stalked; 5 bent, closely approximate to stalk of 3 and 4; 6 and 7 closely approximate toward base. Hindleg tibia slightly roughened distally.

MALE: Genitalia: Harpe with rudimentary clasper. Socii and gnathos well developed. Uncus absent.

FEMALE: Genitalia: Bursa copulatrix with one small, thornlike signum posteriorly.

This genus is closely related to both *Duessa* and *Icelita*. It differs from *Duessa* by the convergent veins 4, 5, and 6 at the termen of the forewing and from *Icelita* by vein 5 of forewing being nearer to vein 6 than to 4, whereas in the forewing of *Icelita* vein 5 is nearer to 4 than to vein 6.

10. **Eumarissa leucognoma** Clarke, n. sp. (Fig. 10; Plate 2, fig. g).

Alar expanse 11–12 mm.

Labial palpus pale ochraceous buff; 3rd segment with ill-defined, grayish subapical fascia on outer side; 3rd segment tawny apically. Antenna cinnamon buff. Head cinnamon buff; face ocherous white. Thorax cinnamon buff anteriorly, grayish posteriorly. Forewing ground color light buff; from near base of costa an outwardly oblique fuscous fascia, with spot of ground color at center, extends to 1/3 of dorsum; inner angle fuscous; on costa a series of fuscous spots and strigulae with a conspicuous fuscous spot subapically; from center of cell an irregular fuscous dash turning toward tornus subterminally; outer 1/2 of wing irregularly marked with light cinnmaon-buff transverse strigulae; cilia apically fuscous shading through cinnamon buff to pale light buff at tornus. Hindwing drab; cilia concolorous, except paler at apex. Foreleg pale ochraceous buff; tibia cinnamon buff on outer side with faint fuscous markings; tarsal segments annulated fuscous; midleg similar but tarsal segments not so strongly marked; hindleg pale ochraceous buff; tibia and tarsal segments suffused grayish on outer sides. Abdomen pale ochraceous buff ventrally, drab dorsally.

MALE: Genitalia slide JFGC 9499. Harpe ample, widened to form a broadly rounded cucullus; rudimentary clasper triangular, from basal 1/3 of harpe. Gnathos consisting of two separate, compound elements dilated distally. Vinculum broadly rounded. Tegumen about 2/3 the length of harpe. Anellus diamond-shaped, with posterodorsal arm articulating with base of aedeagus. Aedeagus short, dilated basally; cornuti absent.

Holotype ♂ (US 72568). Type-locality: Guam, Mt. Alifan.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Mt. Aliphan, 1 ♂, 21 May 1936,

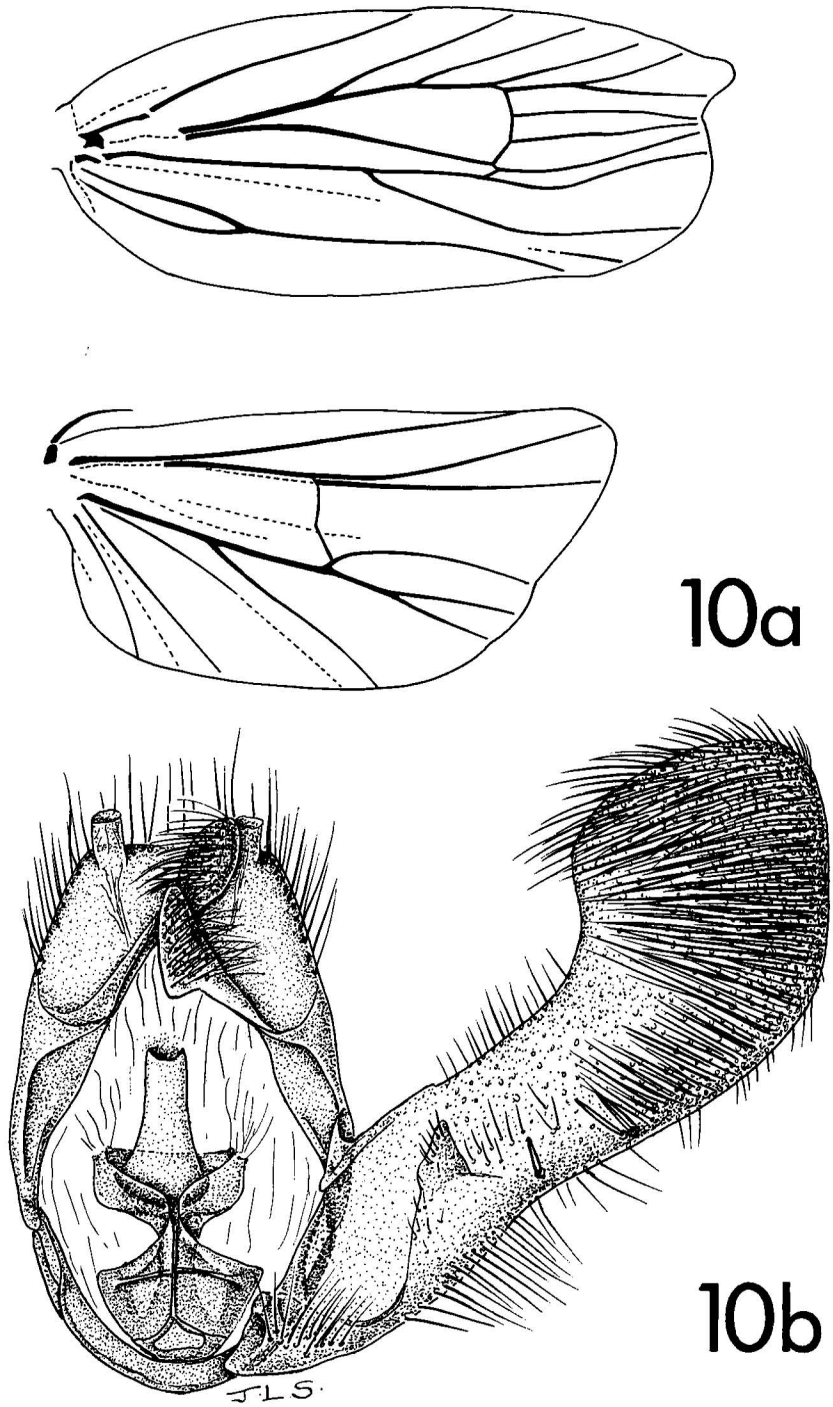

FIGURE 10. *Eumarissa leucognoma*, n. sp.: a, venation of right wings; b, ventral view of ♂ genitalia with left harpe omitted.

Swezey, ex Umbellifer (?); 1 ♂, 15 June 1936, Swezey, ex Umbellifer (?); Pt. Oca, 1 ♂, 30 May 1945, Bohart & Gressitt.

Food plant: Only that listed above as questionable.

Described from the ♂ holotype and 2 ♂♂ paratypes as listed above.

This and the following species have a conspicuous preapical spot on forewing but *leucognoma* lacks the fuscous apex and series of dorsal spots of *microphthora*. Unfortunately, there are only ♂♂ of *leucognoma* and ♀♀ of *microphthora*, so no comparison of the genitalia can be made.

11. Eumarissa microphthora (Meyrick), NEW COMBINATION (Fig. 11; Plate 2, fig. h).

Ancylis microphthora Meyrick, 1936, Exotic Microlepidoptera, **4:** 609.— Diakonoff, Bull. Brit. Mus. (Nat. Hist.) Ent. **1**(4): 282.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, **3:** 292, pl. 145, figs. 3–3c.

FEMALE: Genitalia slide USNM 24056. Ostium crescentic; lodix strongly sclerotized; lamella postvaginalis strongly sclerotized laterally. Antrum a sclerotized ring with central keel. Inception of ductus seminalis from membrane posterior to antrum. Ductus bursae very short, about 1/2 occupied by antrum. Bursa copulatrix membranous except for sclerotized area around signum. Signum a weak, posterolateral, short thorn.

DISTRIBUTION: Western Caroline Is.

PALAU IS. KOROR: Koror, 1 ♀, 30 May 1957, Sabrosky.

Food plant: Unknown.

This species is very similar in superficial appearance to *Acroclita spiladorma* Meyrick, from Java, but is larger, and *spiladorma* lacks the series of black dorsal spots of forewing, and the costal strigulae of *microphthora* are much finer than in that species.

In addition to the above, the following species belong here. Although these species are not at present known from Micronesia they are listed for completeness' sake and to make the new combinations.

Eumarissa clivosa (Meyrick), NEW COMBINATION

Acroclita clivosa Meyrick, 1912, J. Bombay Nat. Hist. Soc. **21:** 855.— Diakonoff, 1950, Bull, Brit. Mus. (Nat. Hist.) Ent. **1**(4): 277.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 271, pl. 134, figs. 2–2b.

DISTRIBUTION: Khasi Hills, Assam.

Eumarissa grypodes (Meyrick), NEW COMBINATION

Acroclita grypodes Meyrick, 1912, J. Bombay Nat. Hist. Soc. **21:** 858.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 272, pl. 135, figs. 4–4a.

Acroclita vulturina Meyrick, 1936, Exotic Microlepidoptera **4:** 610.— Diakonoff, 1950, Bull. Brit. Mus. (Nat. Hist.) Ent. **1**(4): 278.

DISTRIBUTION: Ceylon.

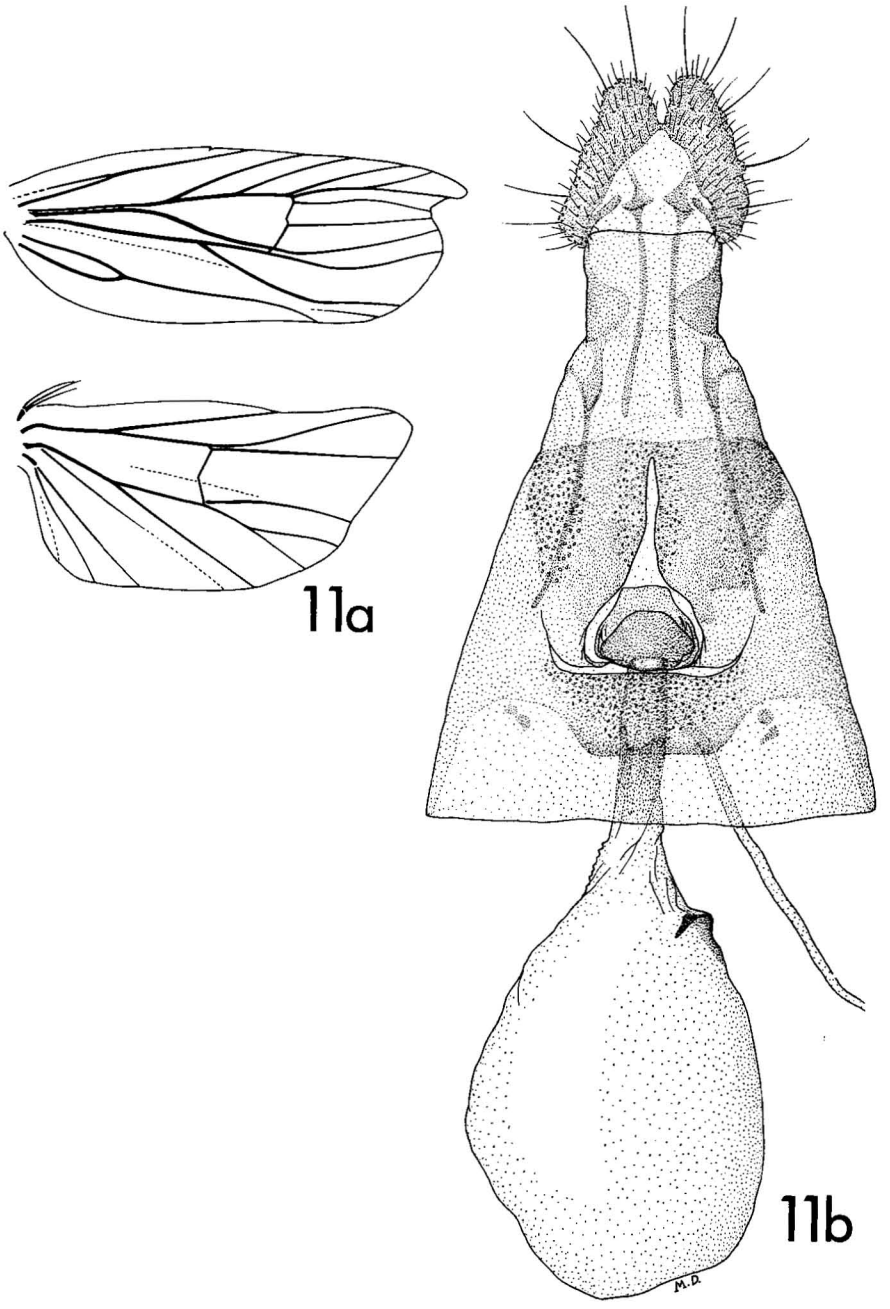

FIGURE 11. *Eumarissa microphthora* (Meyrick): a, venation of right wings of ♀; b, ventral view of ♀ genitalia.

Eumarissa scleropa (Meyrick), NEW COMBINATION

Acroclita scleropa Meyrick, 1912, J. Bombay Nat. Hist. Soc. **21:** 857.— Diakonoff, 1950, Bull. Brit. Mus. (Nat. Hist.) Ent. **1**(4): 280.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 280, pl. 139, figs. 2–2a.

DISTRIBUTION: Ceylon.

Eumarissa symbolias (Meyrick), NEW COMBINATION

Acroclita symbolias Meyrick, 1912, J. Bombay Nat. Hist. Soc. **21:** 857.— Diakonoff, 1950, Bull. Brit. Mus. (Nat. Hist.) Ent., **1**(4): 280.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, **3:** 283, pl. 140, figs. 1–1a.

DISTRIBUTION: Assam.

Genus **Icelita Bradley**

Icelita Bradley, 1957, Nat. Hist. Rennel Island, B-itish Solomon Islands, Danish Sci. Pres, **2:** 90 (Type species: *Icelita tatarana* Bradley, op. cit. 91 [by monotypy and original designation]).

Bradley included in *Icelita* the single species *tatarana* and based his diagnosis on it. I am placing the four following species in this genus and thus the generic description requires slight revision. In the description Bradley states ". . .7 and 8 of the forewing stalked." In two of the species included here (*tatarana* and *monela*) that condition exists but in the other two (*indentata* and *cirrholepida*), veins 7 and 8 are very short stalked or connate. As stated by Bradley "Hind wing with veins 3 and 4 stalked nearly to margin. . ." This is true except for *monela* in which veins 3 and 4 are united. The ♂♂ of all four species have a deep fold along inner margin of hindwing containing a dense hair pencil and all ♂♂ bear a dense anal tuft of thick scales.

This genitalia of the ♂♂ all have in common "the sacculus very strongly developed as a free process distally." The genitalia of the ♀♀ are uniquely uniform in type and all have the inception of the ductus seminalis ventrally from the junction of the membranous and sclerotized parts of the ductus bursae.

12. Icelita tatarana coppelia Clarke, n. ssp. (Fig. 12a, 13a; Plate 3, fig. a, b).

Alar expanse 10–11 mm.

Labial palpus inner surface pale buff; 2nd segment brownish drab and tawny mixed except for buff apex preceded by a fuscous dot. Antenna tawny, fuscous annulated. Head pale grayish tawny. Thorax light tawny with an ill-defined transverse grayish-tawny band. Forewing ground color pale cinereous variously overlaid and marked tawny; basal 2/5 of costa light buffy olive marked with short fuscous bars; outer 3/5 of costa with streaks of ground color alternating with fuscous bars and dashes; toward inner extremities of the fuscous bars and dashes they are tawny; from basal 2/5 of costa an outwardly oblique tawny

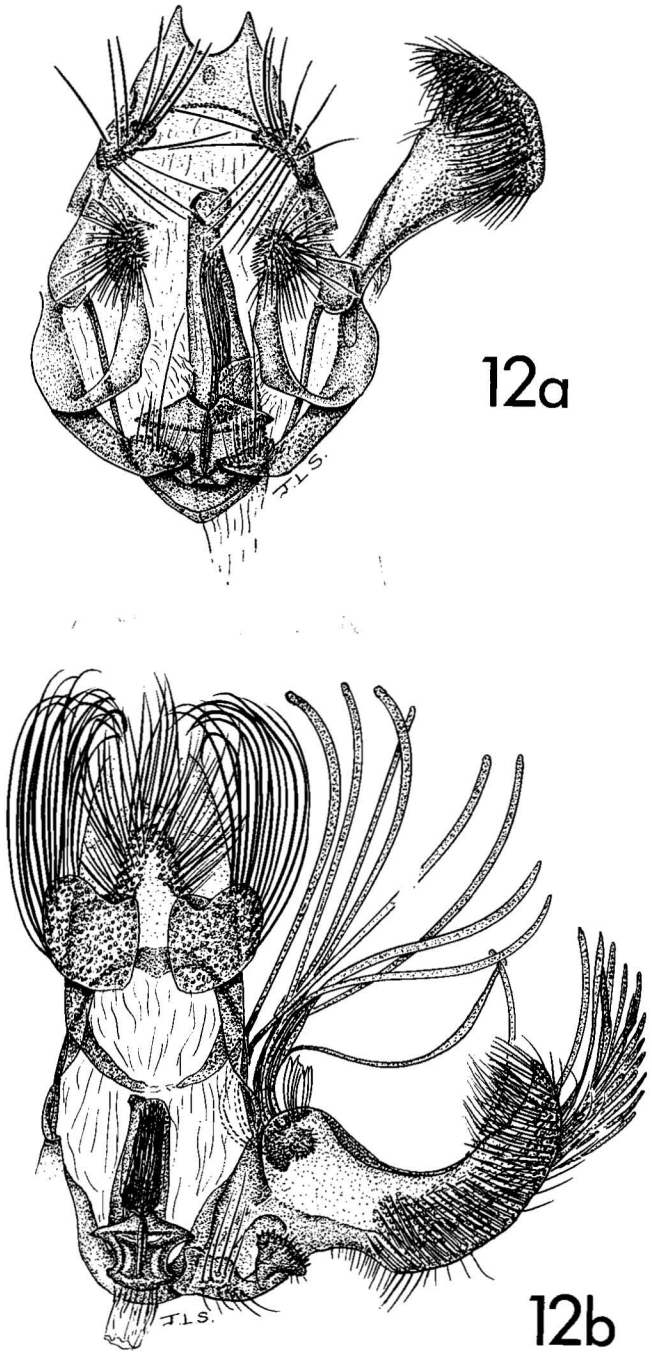

FIGURE 12. a, *Icelita tatarana coppelia*, n. subsp.: ventral view of ♂ genitalia with left harpe omitted; b, *Icelita monela*, new species: ventral view of ♂ genitalia with left harpe omitted.

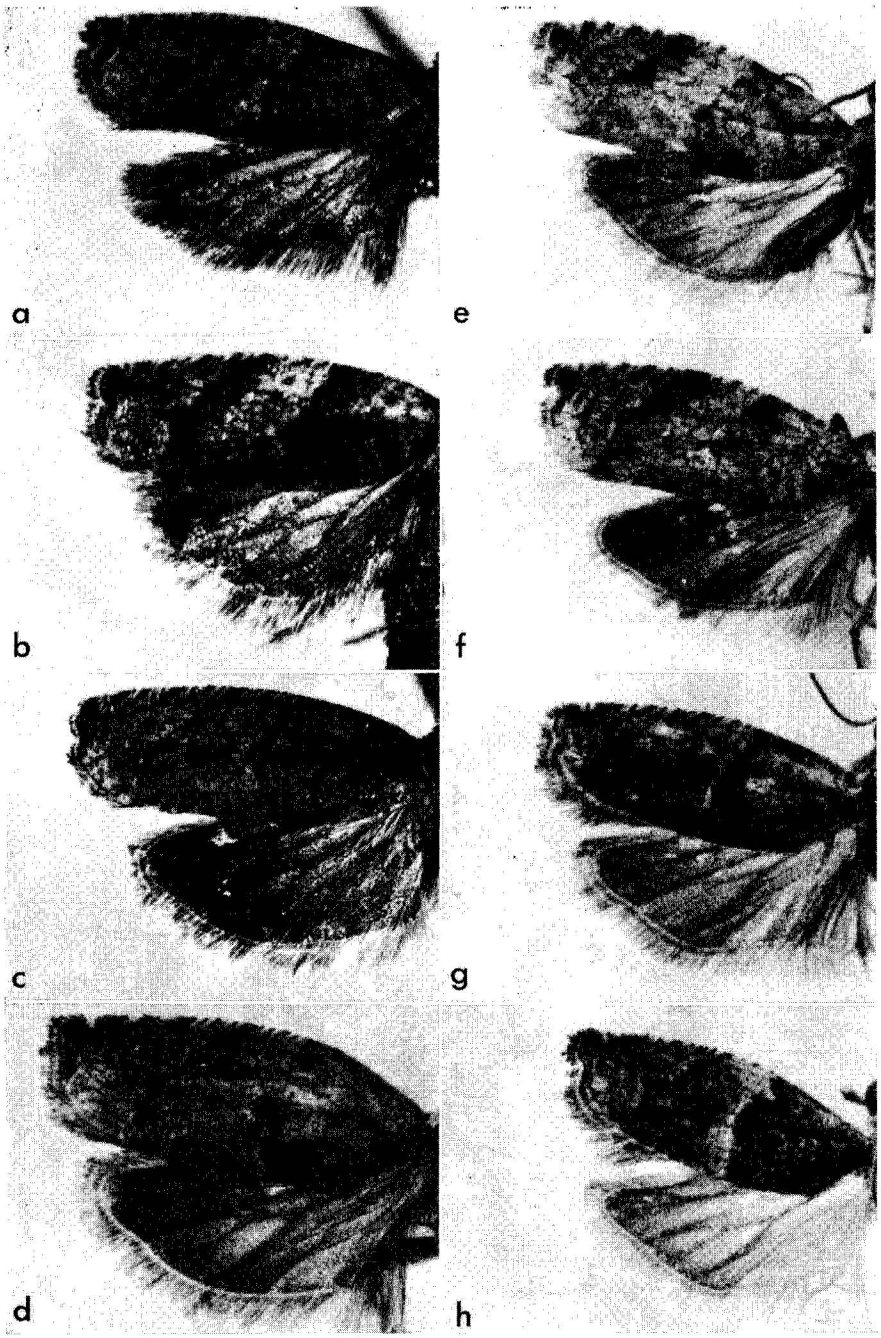

PLATE 3. a, *Icelita tatarana coppelia,* n. subsp., ♂ holotype; b, *I. t. coppelia,* n. subsp., ♀ paratype; c, *I. monela,* n. sp., ♂ paratype; d, *I. monela,* n. sp., ♀ holotype; e, *I. cirrholepida,* n. sp., ♂ holotype; f, *I. cirrholepida,* n. sp., ♀ paratype; g, *I. indentata* (Bradley), ♂; h, *I. indentata* (Bradley), ♀.

transverse fascia extends to middle of cell where it turns inwardly to middle of dorsum; where transverse fascia changes direction a short fuscous transverse dash; in dorsal 1/2 of basal 2/5 three pairs of alternating tawny bars; from middle of costa to tornus, an irregular, sometimes broken tawny transverse fascia crossed at bases of veins 7 and 8 by an irregular, black longitudinal streak; from apex to slightly beyond middle of termen a broad transverse, tawny band; some white irroration inside terminal band; cilia pale tawny mixed whitish. Hindwing fuscous, paler and semihyaline toward base; cilia somewhat paler with a dark subbasal line. Foreleg buff, irrorate with fuscous; tarsal segments annulated fuscous; midleg similar but tibia with two broad fuscous bands; hindleg with tibia and tarsal segments suffused grayish fuscous on outer side. Abdomen grayish fuscous dorsally, grayish buff ventrally.

MALE: Genitalia slides JFGC 9505, 11504. Harpe with very small setaceous patch at extreme base, followed beyond by an outwardly curved process from sacculus, the apex of which is heavily clothed with setae; neck of harpe narrow; cucullus dilated. Uncus broad, deeply excised posteriorly. Vinculum narrow, rounded. Tegumen broad and short. Anellus a subtriangular plate with long dorsal keel on which aedeagus articulates. Aedeagus as long as harpe, evenly tapered to a point distally.

FEMALE: Genitalia slide JFGC 11503. Ostium round, ventral edge crenulate. Inception of ductus seminalis from a short, membranous segment of ductus bursae at anterior 1/4. Ductus bursae sclerotized except for membranous portion at anterior 1/4; anterior to membranous section, ductus bursae greatly broadened; posterior 3/4 ribbonlike with bend at middle. Bursa copulatrix lined with a reticulum of fine lines and small points. Signa two saberlike blades. Lamella antevaginalis with sclerotized cups on each side of ostium.

Holotype ♂ (US 72562). Type-locality: Guam, Piti.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Piti, 2 ♂♂ (incl. holotype), 15 Sept. 1936, Rf. *Intsia bijuga*, Swezey; Piti, 1 ♀, 26 Jul. 1936, at light, Swezey; Pt. Oca, 1 ♂ and 3 ♀♀, 2–14 June 1945, light trap, Bohart & Gressitt; "Island Guam," 1 ♂, no date, Fullaway 1438.

Food plant: *Intsia bijuga* A. Gray.

Described from the ♂ holotype, 1 ♂ paratype same data as holotype; 2 ♂♂ and 3 ♀♀ paratypes as listed above.

This is a variable species. Two of the four specimens show a broad, almost white area between the two tawny transverse fascia of the forewing, one has a whitish base and one lacks the black streak at the bases of veins 7 and 8.

I have compared *coppelia* with typical *tatarana* but the former is lighter in color and the clasper is shorter. Moreover, the median transverse line of *tatarana* is evenly curved, not angulate as in *coppelia*.

13. Icelita monela Clarke, n. sp. (Fig. 12b, 13b; Plate 3, fig. c, d).

Alar expanse 10–11 mm.

Labial palpus pale ochraceous buff; 2nd segment light ochraceous buff on outer side with slight infuscation about middle. Antenna light ochraceous buff with narrow brown annulations. Head light ochraceous buff. Thorax light ochraceous buff shaded with fuscous dorsally; tegula light ochraceous buff. Forewing ground color light ochraceous buff; from basal 1/3 of costa an outwardly oblique mixed ochraceous-tawny and fuscous transverse line extends to

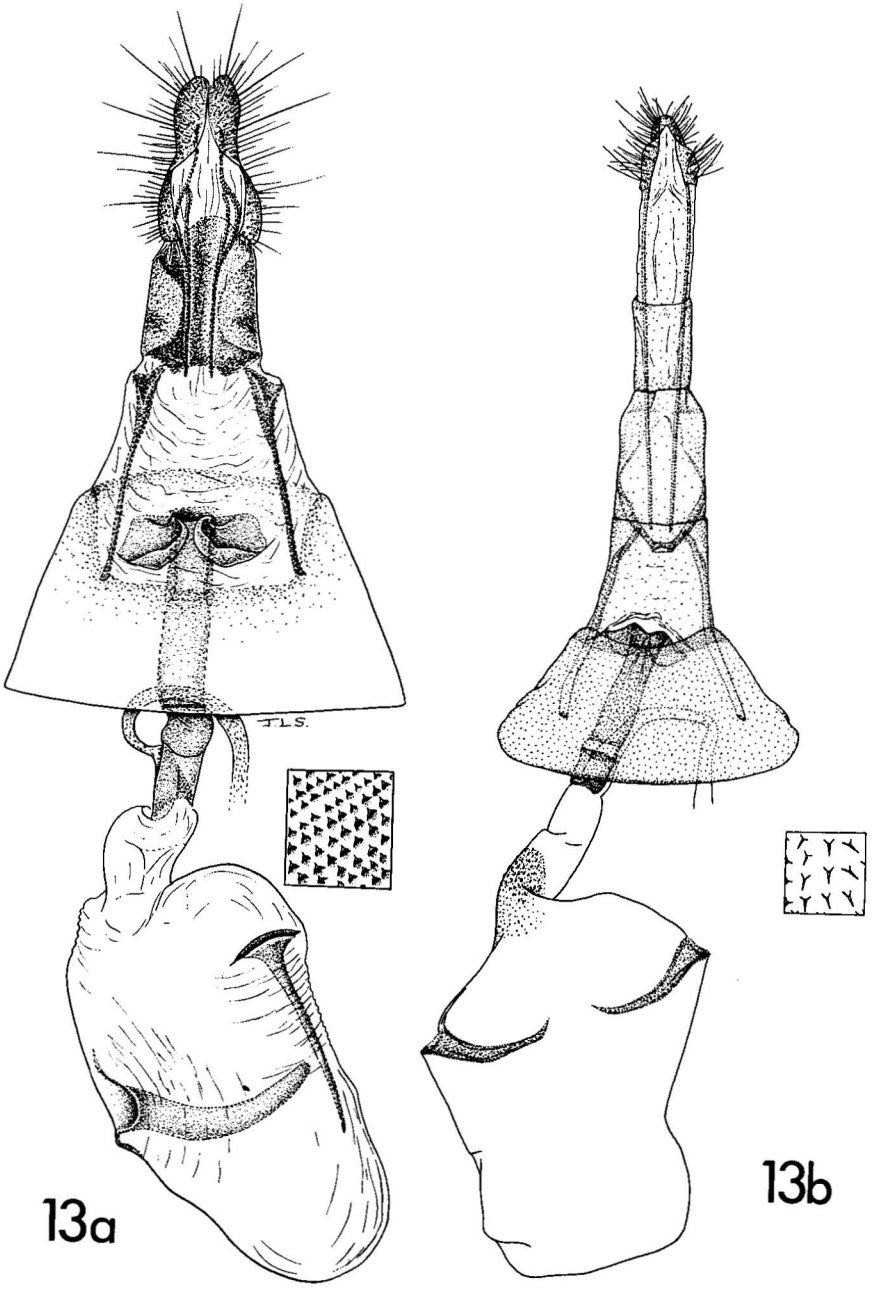

FIGURE 13. a, *Icelita tatarana coppelia*, n. subsp.; ventral view of ♀ genitalia with detail of wall of bursa copulatrix to right; b, *Icelita monela*, n. sp.: ventral view of ♀ genitalia with detail of bursa copulatrix to right.

fold, about middle of wing, then continues inwardly to slightly before mid-dorsum; from slightly beyond mid-costa a transverse, outwardly oblique, mixed ochraceous-tawny and fuscous fascia broadens to end of cell then continues to tornus; fascia with scattered whitish scales and at end of cell a short, slender, blackish-fuscous longitudinal dash; outer 1/2 of costa marked with alternating whitish and mixed ochraceous-tawny and fuscous dashes and strigulae; apical area infuscated ochraceous tawny preceded by scattered whitish scales; cilia mixed pale ochraceous tawny and fuscous with a very slender subbasal line. Hindwing grayish fuscous, paler basally in ♀; in ♂ a long pocket on inner margin containing a tuft of black hairlike scales. Foreleg pale ochraceous buff with very fine and sparse whitish and fuscous speckling on tibia and tarsal segments; midleg similar; hindleg femur light buff; tarsal segments faintly annulated grayish. Abdomen gray dorsally; ventrally light buff; anal tuft buff ventrally, grayish fuscous dorsally.

MALE: Genitalia slides CH 3; JFGC 12261. Harpe broad basally, abruptly narrowed beyond a short sacculus, strongly curved to a slender cucullus; from middle of sacculus a short, curved process, dilated distally, outer edge clothed with stout setae; basal ventral edge of sacculus clothed with setae; from neck of harpe, on outer side, a conspicuous tuft of long scales and on outer side, near base and inside costa, a tuft of short scales. Uncus discoidal, flat, anterior edge excised; ventral edge clothed with long slender setae the ends of which are recurved. Socius large, reniform, with strong tuft of scales from outer posterior edge. Vinculum V-shaped. Tegumen weak, about 1/2 length of harpe. Anellus subrectangular, concave laterally and anteriorly with strong dorsal keel articulating with aedeagus. Aedeagus moderately stout, produced as a slender process on left side distally; vesica armed with a dense bundle of long cornuti (absent in 1 specimen).

FEMALE: Genitalia slides JFGC 11502, 12262, 12263. Ostium transverse, anterior edge broadly V-shaped; lamella antevaginalis consisting of 2 sclerotized plates on each side of ostium, their inner edges joined posteriorly; lamella postvaginalis membranous. Antrum flattened dorsoventrally, sclerotized, extending about 3/5 total length of ductus bursae and with a fold near anterior end. Inception of ductus seminalis at junction of membranous and sclerotized parts of ductus bursae; ductus bursae membranous in anterior 2/5 with patch of spines on inner surface at junction with bursa copulatrix. Bursa copulatrix membranous; inner surface studded with small, short spines over most of its area; posteriorly a few weak ridges. Signa 2 long, thornlike processes.

Holotype ♀ (US 72564). Type-locality: Kusaie, Mutunlik.

DISTRIBUTION: Southern Mariana Is., Eastern Caroline Is., Marshall Is.

SOUTHERN MARIANA IS. GUAM: 1 ♂, 18 June 1939, Oakley; Sumay, 1 ♂, 27 Feb. 1939, Oakley.

KUSAIE: Mutunlik, 22 m, 2 ♀♀, 24 Jan., 19 Feb., 1953, Clarke.

MARSHALL IS. AILINGLAPALAP: Bigatyelang Is., 1 ♀, 25 Aug. 1946, Townes 1861.

Food plant: Unknown.

Described from the ♀ holotype (24 Jan. 1953, Clarke), 2 ♂♂ and 2 ♀♀ paratypes as listed above.

In *monela* veins 3 and 4 of the hindwing are united, not longstalked as in the other three species, but I consider the coincident condition of these veins

with a fold near anterior end. Inception of ductus seminalis at junction of membranous and

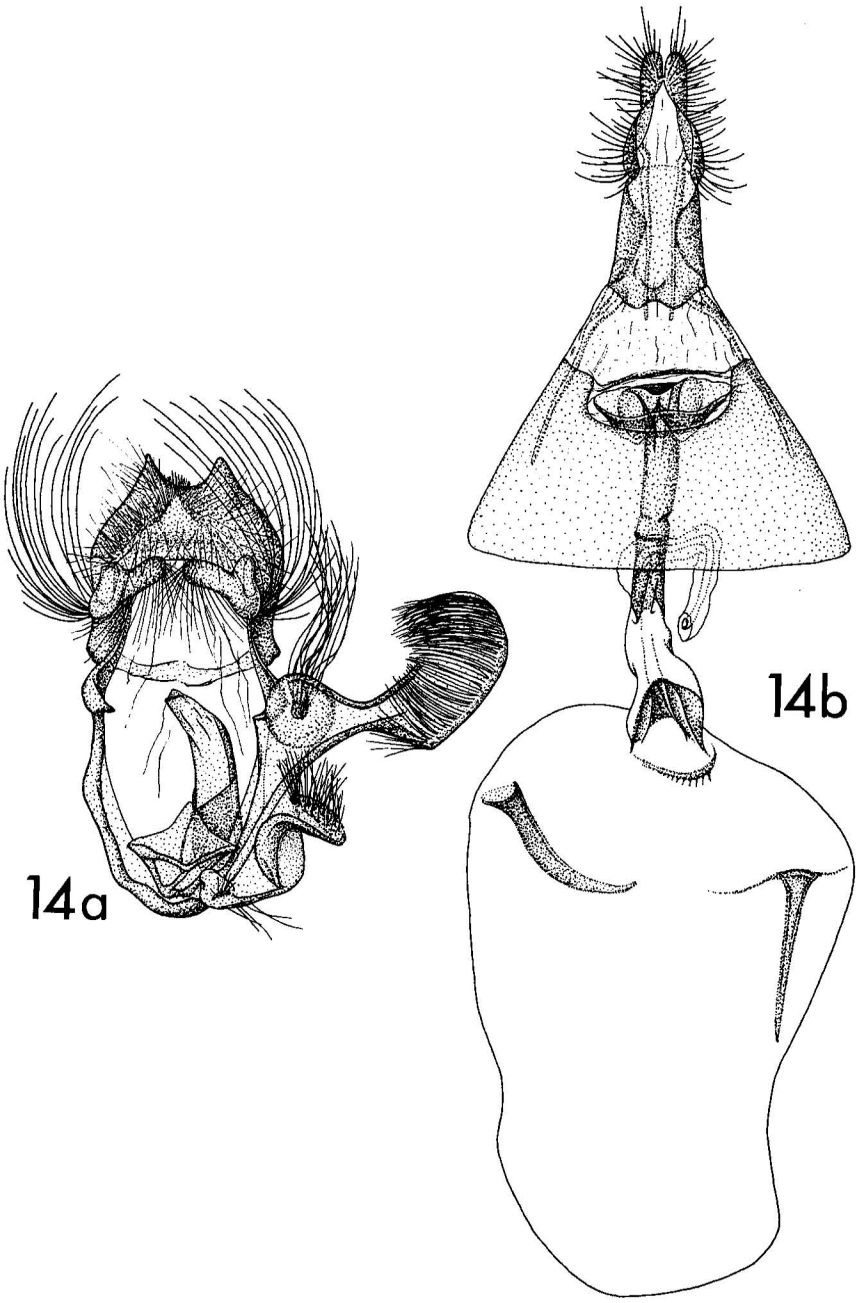

FIGURE 14. *Icelita cirrholepida*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

only specific in this case. The ♂ genitalia place *monela* closest to *tatarana* but the female genitalia suggest closer affinity with *indentata.*

14. Icelita cirrholepida Clarke, n. sp. (Fig. 14; Plate 3, fig. e, f).

Alar expanse 10–11 mm.

Labial palpus buff; 2nd segment with broad, grayish-fuscous band on outer side; 3rd segment with grayish apex. Antenna cinnamon buff, narrowly annulated fuscous; scape fuscous. Head with vertex dusky drab, frons buff and posteriorly avellaneous. Thorax pinkish buff with grayish suffusion; at middle a transverse dusky-drab line; tegula dusky drab anteriorly with a few dusky-drab scales posteriorly. Forewing ground color buff; on costa at basal 1/5 a blackish-fuscous spot followed at basal 1/3 by a similar mark; the latter forms the point of origin of an ill-defined, broken, outwardly oblique line which terminates on fold about middle of wing, as a blackish-fuscous dot, then continues inwardly to middle of dorsum where it terminates as an indistinct grayish-fuscous spot; basal 1/3 of dorsum with a conspicuous blackish-fuscous blotch; from outer 3/5 of costa to tornus an irregular, light, clay color transverse line beginning as a blackish-fuscous mark on costa and interrupted at end of cell by a longitudinal, blackish-fuscous dash; beyond this irregular line a pale vinaceous-fawn band paralleling it, the latter, in turn, bordered outwardly by a slender, irregular clay-color line; between this and a clay-color apical area a band of pale vinaceous-fawn scales; on outer 1/5 of costa 4 small fuscous dots and a conspicuous blackish-fuscous spot slightly before apex; cilia mixed clay color and buff. Hindwing grayish fuscous, paler basally in ♀; in ♂ a conspicuous patch of dark ivory yellow modified scales bordered by a streak of blackish hairlike scales; cilia much lighter than wing, grayish, with a grayish-fuscous basal line. Foreleg buff; femur and tibia suffused grayish fuscous on outer side; tarsal segments annulated fuscous; midleg buff; tibia with 2 grayish-fuscous bands on outer side; tarsal segments banded fuscous; hindleg buff; apex of femur fuscous; tibia with gray dorsal streak for almost its entire length; tarsal segments grayish banded. Abdomen silvery gray dorsally; ventrally buff; anal tuft conspicuous, silvery gray.

MALE: Genitalia slides JFGC 12257, 12264. Harpe very broad basally, abruptly narrowed to a slender neck and continued as a curved cucullus; on outer side at base, just inside costa, a tuft of long scales; from outer side of harpe, at base of cucullus, a deciduous hair pencil; base of sacculus with a strong, recurved process clothed distally with strong setae. Uncus thick, fleshy, deeply concave posteriorly, clothed with setae. Socius reniform, setaceous and with a scale tuft from outer anterior edge. Vinculum very narrow, U-shaped. Tegumen fleshy, short, much involved with uncus. Anellus subtriangular with stout dorsal keel articulating with aedeagus. Aedeagus curved, stout, sharply pointed; vesica armed with a cluster of long cornuti.

FEMALE: Genitalia slide JFGC 12258. Ostium transverse, ventroanterior edge broadly U-shaped; lamella antevaginalis consisting of a sclerotized cup on each side, the 2 joined on their inner edges posteriorly; lamella postvaginalis lightly sclerotized, with a slender sclerotized bar immediately posterior to ostium. Antrum flattened, sclerotized, with fold about middle. Inception of ductus seminalis at junction of sclerotized and membranous portions of ductus bursae. Ductus bursae membranous anterior to antrum then lightly sclerotized and dilated at junction with bursa copulatrix. Bursa copulatrix membranous, studded with fine, small spicules and with crescentic, dentate sclerite at junction with ductus bursae. Signa two long, curved, slender sclerotized thornlike processes.

Holotype ♂ (US 72563). Type-locality: Palau Is., Koror I., Koror.

DISTRIBUTION: Palau Is.

PALAU. KOROR: Koror, 5 ♂♂, 1 ♀, 24–25 Apr. 1957, Sabrosky.

Food plant: Unknown.

Described from the ♂ holotype (25 Apr. 1957, Sabrosky), 4 ♂♂ and 1 ♀ paratypes all from the type locality.

This species is somewhat variable but the markings and coloring are more or less well defined in all specimens. The pattern of this species, which shows a weakly defined basal patch and a conspicuous dark spot on basal 1/3 of dorsum of forewing, easily distinguishes it from the other, more contrastingly marked species of the genus. The ♂♂ of *cirrholepida* are further distinguished from the males of the other species of the genus by the patch of yellowish, modified scales of the hindwing.

15. Icelita indentata (Bradley), NEW COMBINATION (Fig. 15; Plate 3, fig. g, h).

Spilonota indentata Bradley, 1957, The Natural History of Rennell Island, British Solomon Islands **2:** 89.

Holotype: British Museum (Natural History). Type-locality: Rennell Island, Tingoa.

DISTRIBUTION: Solomon Is., Palau Is.

PALAU. KOROR: Koror, 2 ♂♂ and 2 ♀♀, 24, 25 Apr. 1957, Sabrosky.

Food plant: Unknown.

Bradley (1957) tentatively assigned *indentata* to *Spilonota* but stated ". . .the structure of the genitalia, the shape of the forewing and the identation below the apex as well as general facies and coloration indicate strong affinities with the new genus [*Icelita*] described below." The additional specimens of the four species here included in the genus adequately confirm, in my opinion, Bradley's suspicions. The short-stalked or connate condition of veins 7 and 8 of forewing can easily arise in a genus in which 7 and 8 are generally long stalked. Bradley (1957) figured the wings and genitalia of *indentata* but they are figured here again for completeness' sake.

Genus **Crocidosema** Zeller

Crocidosema Zeller, 1847, Isis von Oken, **40:** 721. (Type species: *Crocidosema plebejana* Zeller, ibid. [by monotypy]).

16. Crocidosema plebejana Zeller (Fig. 16; Plate 4, fig. e).

Crocidosema plebejana Zeller, 1847, Isis von Oken **40:** 721.— Lederer, 1859, Wien Ent. Monat. **3:** 367.— Staudinger & Wocke, 1871, Catalog des Lepidopteren des Europaischen Faunengebiets, 2 (Microlepidoptera): 263, No. 1269.— Ragonot, 1894, Ann. Soc. Ent. France **63:** 221, No. 1221.— Staudinger & Rebel, 1901, Catalog der Lepidopteren **2:** 110, No. 1968.— Amsel, 1936, Veröff. Deuts, Kolon.-U. Uebersee, Mus. Bremen **1**(3): 351.— Rebel, 1940, Soc. Sci. Fenn. Comm. Biol. **8**(1): 36, 55.— Bradley, 1961, Bull.

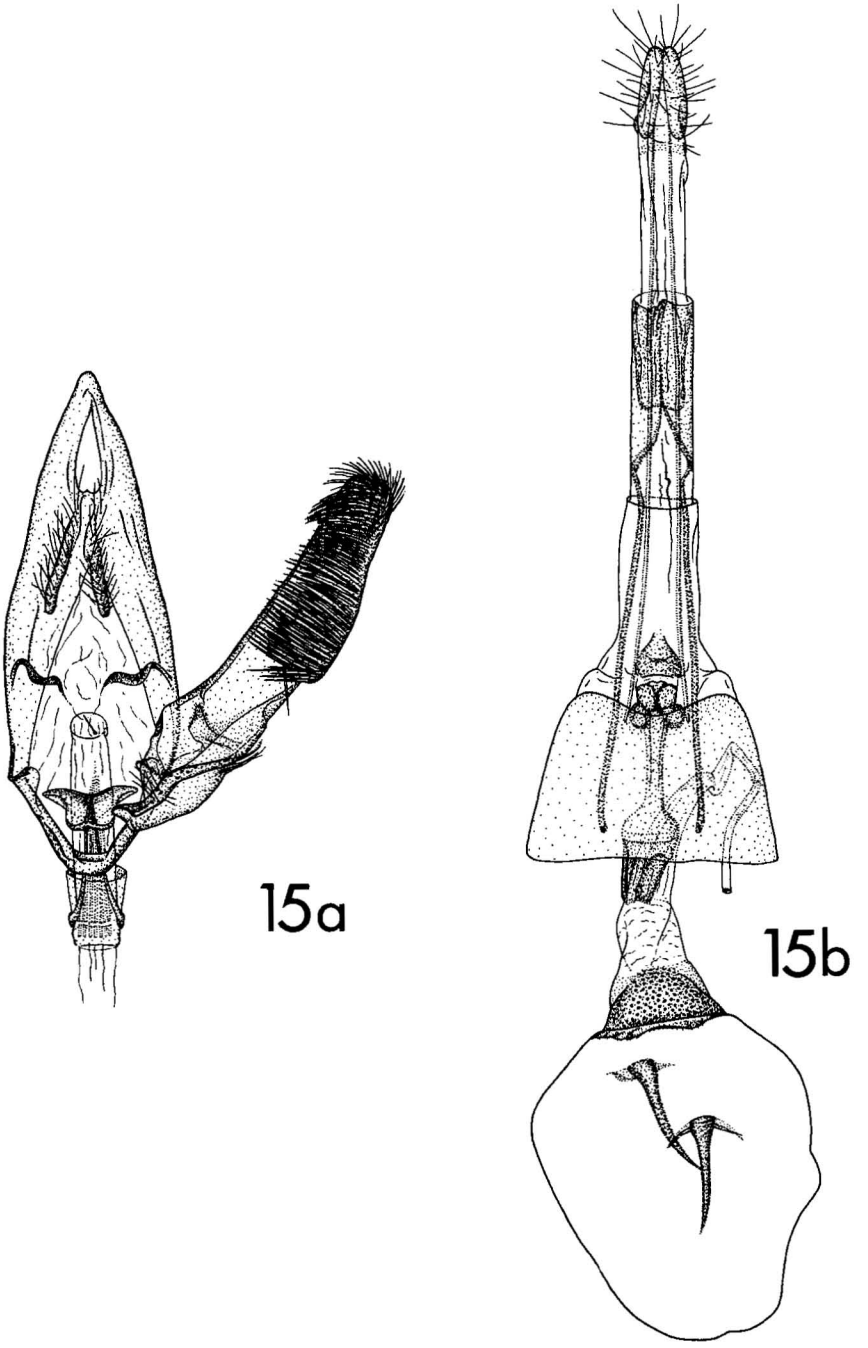

FIGURE 15. *Icelita indentata* (Bradley): a, ventral view of ♂ genitalia with left harpe removed; b, ventral view of ♀ genitalia.

Brit. Mus. (Nat. Hist.) **10**(4): 121.— Agenjo, 1963, Graellsia. Revista de Entomólogos Españoles **20**(1–3): 5.— Clarke, 1971, Smithsonian Cont. Zool. No. **56:** 126, fig. 104, pl. 17a, b.

Crocidosema plebeiana: Walsingham, 1892, Proc. Zool. Soc. London, 1891: 506, 544; 1897, ibid., 127; 1907, Fauna Hawaiiensis, 1 (Part 5, Microlepidoptera): 675, pl. 10, fig. 15; 1907, Proc. Zool. Soc. London, 1907: 1002.— Meyrick, 1908, Proc. Zool. Soc. London, 1908: 720.— Spuler, 1910, Die Schmetterlinge Europas, **2:** 273, pl. 85, fig. 45.— Fletcher, 1921, Mem. Dept. Agric. India, Ent. Ser. **6**(2): 52.— Heinrich, 1921, J. Agric. Res. **21**(11): 822, pls. 99, fig. A; 102, fig. C, D; 103, fig. E; 105, fig. G; 106, fig. B; 108, fig. A-D.— Heinrich, 1923, U. S. Nat. Mus. Bull. **123:** 190, fig. 10, 29, 29a, 325.— Meyrick, 1924, Trans. Ent. Soc. London **1924:** 546.— Gurney, 1925, Rev. Appl. Ent. **13** (Ser. A., pt. 5): 231.— Ballard, 1925, Rev. Appl. Ent. **13** (Ser. A., pt. 10): 521.— Willcocks, 1925, Sultanic Agric. Soc. Cairo, Bull. **1:** 29, 335.— Swezey, 1926, B. P. Bishop Mus. Bull. **31:** 75.— Meyrick, 1926, Trans. Ent. Soc. London **74:** 273.— Bottimer, 1926, J. Agric. Res. **33**(9): 817.— Meyrick, 1927, Insects of Samoa, part III, Lepidoptera, fasc. **2:** 72.— Hopkins, 1928, Rev. Appl. Ent. **16** (Ser. A, pt. 1): 47.— Hudson, 1928, The Butterflies and Moths of New Zealand, 248, pl. 49, fig. 10.— Meyrick, 1929, Trans. Ent. Soc. London **76:** 494.— Forbes, 1930, N. Y. Acad. Sci. **12** (pt. 1): 91.— Meyrick, 1930, Ann. Naturhist. Mus. Wien **44:** 225.— Heinrich, 1931, Proc. U. S. Nat. Mus. **79** (13): 11, pl. 7, fig. 23.— Forbes, 1931, J. Dept. Agric. Porto Rico **4**(4): 350.— Bedford, 1931, Rev. Appl. Ent. **19** (Ser. A, pt 6): 391; 1932, 20 (Ser. A, pt. 11): 622.— Fletcher, 1932, Imp. Council Agric. Res. Sci. Monogr. **2:** 20.— Cowland, 1933, Rev. Appl. Ent. **21** (Ser. A, pt. 11): 583.— Meyrick, 1934, Pacif. Ent. Surv. Publ. **6** (article 22): 109; 1934, Pacif. Ent. Surv. Publ. **7** (article 28): 346.— McDunnough, 1939, Check List Lepidoptera of Canada and the United States of America, part **2:** 50, No. 7101.— Swezey, 1942, Proc. Haw. Ent. Soc. **11**(2): 211.— Wells, 1943, Rev. Appl. Ent. **31** (Ser. A, pt. 6): 265.— Thompson, 1945, Catalogue of the parasites and predators of insect pests, Sec. 1 (pt. 6): 163.— Russo, 1947, Rev. Appl. Ent. **35** (Ser. A, pt. 12): 420.— El Zoheiry & Asem, 1952, 9th Internat. Cong. Ent. Trans. **1** (Sect. 6): 472, pls. 1, 2, 3; 1953, Rev. Appl. Ent. **41** (Ser. A, pt. 8): 229.— Swezey, 1954, B. P. Bishop Mus. Spec. Pub. **44:** 196.— Clarke, 1958, Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 319, pl. 158, fig. 1–1a, 2–2a.— Kamel & Shazli, 1959, Soc. Ent. d'Egypte Bull. **43:** 193, fig. 1A-G, 2A-H.— MacKay, 1959, Can. Ent. **91** (suppl. 10): 91, fig. 79.— Kimball, 1965, Arthropods of Florida and neighboring land areas (Lepidoptera of Florida) **1:** 261.— Huggins, 1966, Ent. Rec. J. Variation **78**(11): 256.

Crocidosema plebiana [*sic*!]: Willcocks, 1916, Insect Pests of Egypt **1**(1): 310, f. vii, fig. 5, 6.— Swezey, 1942 (1941), Proc. Haw. Ent. Soc. **11**(2): 211.— Linsley & Usinger, 1966, Proc. Calif. Acad. Sci. **33**(7): 163.

Eucosma plebeiana: Walsingham, 1914, *in* Godman & Salvin, Biologia Centrali-Americana, 42 (Lepidoptera-Heterocera 4): 231.— Meyrick, 1914, Suppl. Ent. **3:** 48.— Philpott, 1923, Trans. N. Z. Institute **54:** 151.

Crocidosema ptiladelpha Meyrick, 1917, Trans. Ent. Soc. London, **1917:** 18.

Crocidosema synneurota Meyrick, 1926, Trans. Ent. Soc. London **74:** 276.

Proteopteryx blackburnii Butler, 1881, Ann. Mag. Nat. Hist. Ser. 5, **7:** 393; ibid., *var.* 394.

Penthina altheana Mann, 1855, Verh. k. k. zool.- bot. Ver. Wien **5:** 555.

Grapholitha altheana: Lederer, 1858, Wien. Ent. Monat. **3:** 343.— Heinemann, 1863, Die Schmetterlinge Deutschlands und der Schweiz, part 2, **1**(1): 241.

Steganoptycha altheana: Staudinger & Wocke, 1871, Catalog der Lepidoptern des Euro-

paischen Faunengebiets, 2 (Microlepidoptera): 260, No. 1221.

Stechanoptycha [*sic.*] *altheana:* Hartmann, 1879, Mitt. Münch. Ent. Ver. **3:** 191, No. 1221.

Steganoptycha signatana Walsingham (*not* Douglas), 1894, Trans. Ent. Soc. London **1894:** 537, 541.

Grapholitha peregrinana Möschler, 1866, Berlin Ent. Zeits. **1866:** 139.

Steganoptycha obscura Wollaston, 1879, Ann. Mag. Nat. Hist. Ser. 5, **3:** 341.

Paedisca lavaterana Milliére, 1863, Icones **1:** 290, pl. 34, fig. 9–13.

Types: British Museum (Natural History) (*ptiladelpha*, *synneurota*, *blackburnii*, *plebejana*); Vienna Museum (?) (*altheana*). Type-localities: "Syracuse, 10 May" (*plebejana*); Ecuador (*ptiladelpha*) Albemarle, Galapagos Islands

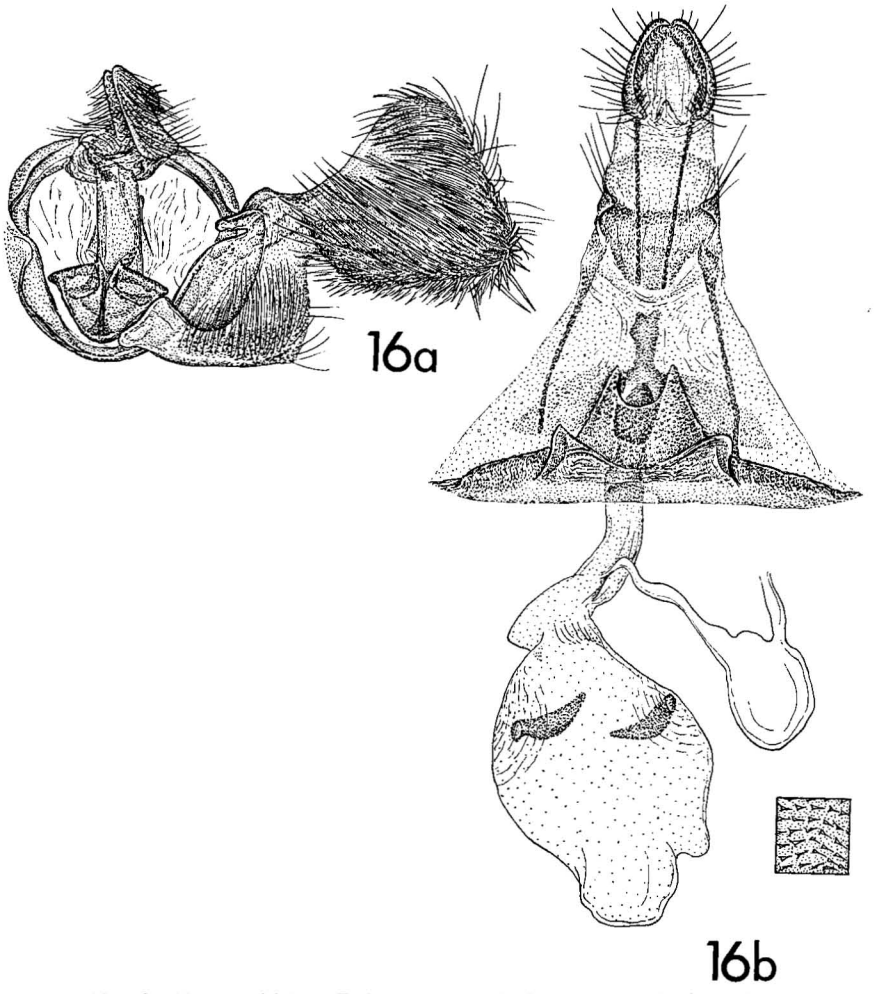

FIGURE 16. *Crocidosema plebejana* Zeller: a, ventral view of ♂ genitalia with left harpe removed; b, ventral view of ♀ genitalia with detail of wall of bursa copulatrix to right.

(*synneurota*); Hawaiian Islands (*blackburnii*); Madeira (*signatana*); ? (*altheana*).

DISTRIBUTION: Circumglobal in the warmer areas.

SOUTHERN MARIANA IS. ROTA: Rota, 1 ♂, 1 ♀, June 1946, Townes 825 and July 1946, Townes 805, at light.

MARSHALL IS. ENIWETOK: Engebi Is., 1 ♂, May 1946, Townes 110.

Food plants: Malvaceous plants, particularly *Althea;* also recorded from *Eucalyptus* and *Crataegus.*

The two specimens of the "hollyhock moth" recorded from Rota agree almost exactly with the Rapa population (Clarke, 1971), as does the Eniwetok specimen.

Until more material, from many localities, has been brought together and a thorough study has been made, I am retaining all the populations under one name. Acutually, I believe the differences are only local expressions of one variable species.

Genus **Strepsicrates** Meyrick

Strepsiceros Meyrick, 1881, Proc. Linn. Soc. N. S. W., **6:** 678. (Type-species: *Sciaphila ejectana* Walker, 1863, List of the specimens of lepidopterous insects in the collection of the British Museum **28:** 350 [subsequent designation by Fletcher, 1929: 211]). (praeocc.).

Strepsicrates Meyrick, 1888, Trans. N. Z. Inst. **20:** 73. (substitute name).

17. **Strepsicrates ejectana** (Walker) (Fig. 17; Plate 4, fig. a, b).

Sciaphila ejectana Walker, 1863, List of the specimens of lepidopterous insects in the collection of the British Museum **28:** 350.

Strepsiceros ejectana: Meyrick, 1881, Proc. Linn. Soc. N. S. W. **6:** 681.

Strepsicrates ejectana: Diakonoff, 1968, U. S. Nat. Mus. Bull. **257:** 84, figs. 75, 552.

Spilonota ejectana: Meyrick, 1911, Proc. Linn. Soc. N. S. W. **36:** 299.

Sciaphila servilisana Walker, 1863, List of the specimens of lepidopterous insects in the collection of the British Museum **28:** 356.

Sciaphila saxana Walker, 1863, List of the specimens of lepidopterous insects in the collection of the British Museum **28:** 357.

Conchylis ligniferana Walker, 1863, List of the specimens of lepidopterous insects in the collection of the British Museum **28:** 363.

Spilonota holotephras Meyrick, 1924, Exotic Microlepidoptera **3:** 67; 1927, Insects of Samoa and other Samoan Terrestrial Arthropoda. Part III. Lepidoptera, Fasc. 2, p. 71 (Microlepidoptera); 1929, Trans. Ent. Soc. London **76:** 495; 1932, Exotic Microlepidoptera **4:** 307.— Viette, 1949, Pacif. Science **3**(4): 320.— Swezey, 1942, Proc. Haw. Ent. Soc. **11**(2): 210.

Eucosma eumarodes Meyrick, 1924, Exotic Microlepidoptera **3:** 68.

Strepsicrates holotephras: Clarke, 1958, Catalogue of the Type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 596, pl. 292, figs. 1–1a; 2–2b; 1971, Smithsonian Contr. Zool. **56:** 128, fig. 105, pl. 16, figs. c, d.

Meyrick synonymized his genus *Strepsicrates* with *Spilonota* Stephens, but

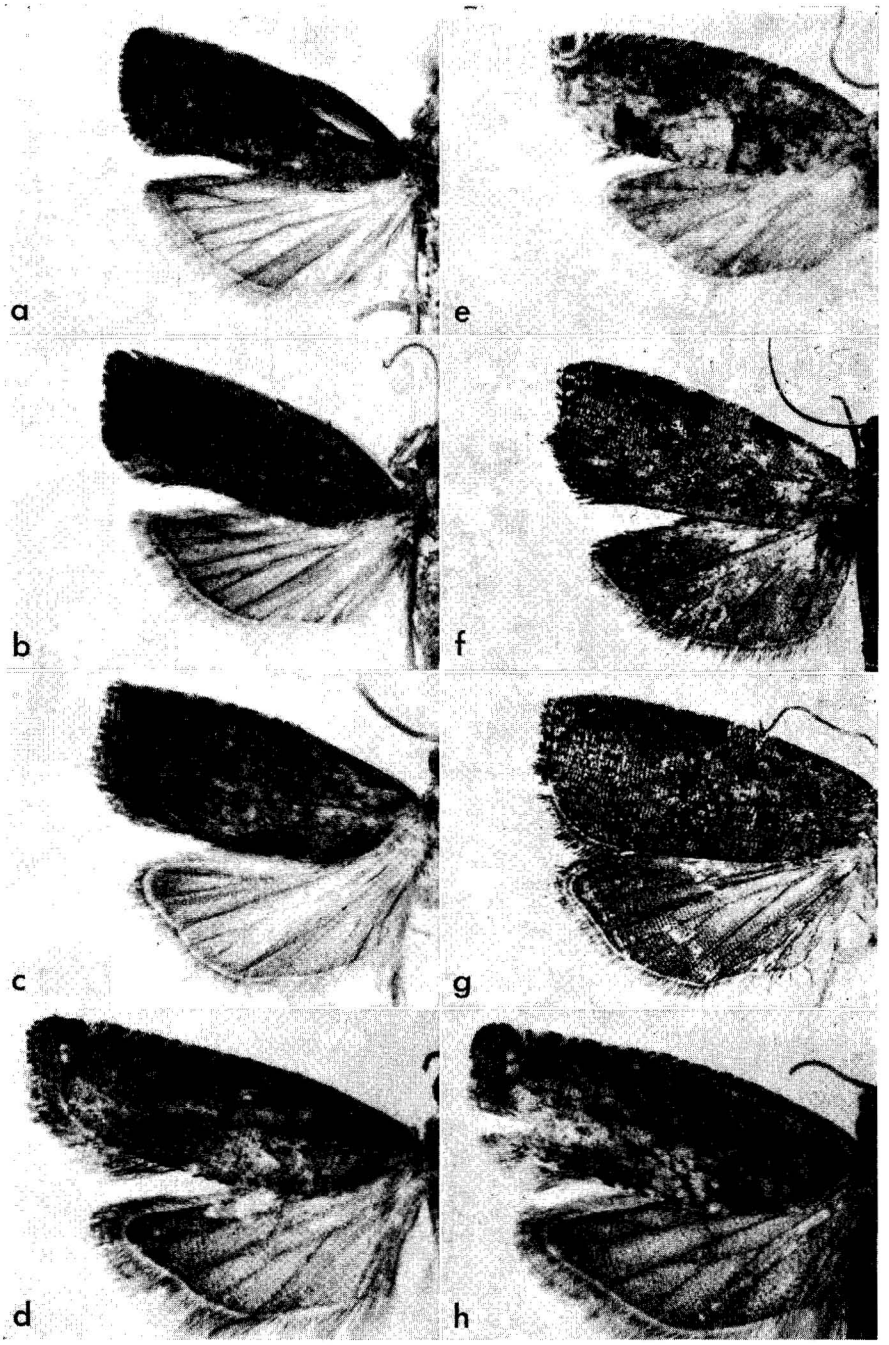

PLATE 4. a, *Strepsicrates ejectana* (Walker) ♂; b, *S. ejectana* (Walker), ♀; c, *Eucosma coniogramma*, n. sp., ♂ holotype; d, *Epinotia lantana* (Busck), ♂; e. *Crocidosema plebejana* Zeller, ♂; f, *Cymolomia cyanosticha*, n. sp., ♂ holotype; g, *C. cyanosticha*, n. sp., ♀ paratype; h, *Epinotia lantana* (Busck), ♀.

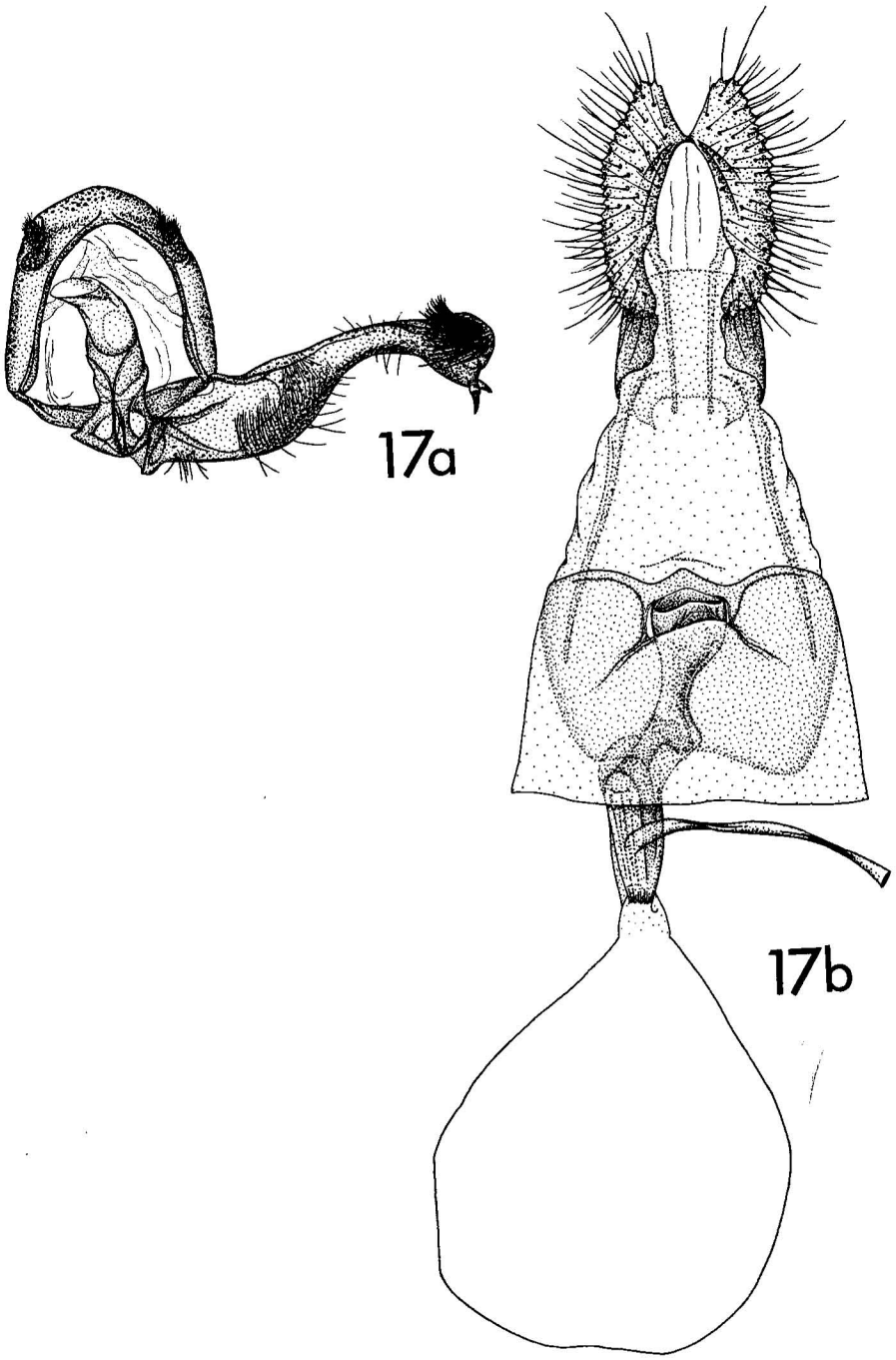

FIGURE 17. *Strepsicrates ejectana* (Walker): a, ventral view of ♂ genitalia with left harpe removed; b, ventral view of ♀ genitalia.

I am keeping them separate on the characters of the costal fold and the tufts of raised scales on the forewing, not found in the north temperate genus *Spilonota*.

Types: British Museum (Natural History). Type-localities: Fiji, Lautoka (*holotephras*): Fiji, mountains near Lautoka (*eumarodes*).

DISTRIBUTION: Samoa, Fiji, Marquesas (Nuka Hiva, Hiva Oa, Tahuata), Tahiti, Rapa, Southern Mariana Is., Australia, Tasmania, New Zealand, Philippine Islands.

SOUTHERN MARIANA IS. GUAM: Agana, 3 ♂♂, 3 ♀♀, May 1936, ex guava, Swezey; Piti, 2 ♂♂, 4 ♀♀, May & Sept. 1936, ex guava, Swezey; Commander Marianas Hill, ♂, Mch. 1949, Maehler; no specific locality, 4 ♂♂, 2 ♀♀, no date, Fullaway. SAIPAN: Kannate, Edtot, 3 ♂♂, 4 ♀♀, June 1946, Townes 872.

Food plants: *Psidium guajava* L., *Psidium littorale* Raddi, *Eugenia jambos* L., *Metrosideros collina* var.? *villosa* A. Gray, *Eucalyptus citriodora* Hook., *Kunzea capitata* Reichb., *Darwinia fascicularis* Rudge, *Leptospermum ericoides* A. Rich. (all Myrtaceae).

Genus **Epinotia** Hübner

Epinotia Hübner, 1825, Verzeichnisz bekannter Schmettlinge [*sic*!], 377. (Type-species: *Epinotia similana* Hübner, 1 c. [subsequent designation by Fernald, 1908: 8].

18. **Epinotia lantana** (Busck) (Fig. 18; Plate 4, fig. d, h).

Crocidosema lantana Busck, 1910, Proc. Ent. Soc. Wash. **12:** 132.— Swezey, 1910, Proc. Haw. Ent. Soc. **2**(3): 141; 1912, **2**(4): 165; 1915, **3**(2): 69; 1918, **3**(5): 383.— Giffard, 1922, Proc. Haw. Ent. Soc. **5**(1): 30.— Swezey, 1923, Proc. Haw. Ent. Soc. **5**(2): 304.— Williams, 1927, Proc. Haw. Ent. Soc. **6**(3): 463.— Swezey, 1929, Proc. Haw., Ent. Soc. **7**(2): 281; **7**(3): 422; 1936, **9**(2): 198; **9**(3): 360; 1943, **12**(1): 145.

Crocidosema lantanae: Bridwell *not* Busck, 1919, Proc. Haw. Ent. Soc. **4**(1): 22, 115.

Eucosma lantana: Walsingham, 1914, *in* Godman & Salvin, Biologia Centrali-Americana **42** (Lepidoptera-Heterocera, 4): 233.

Epinotia lantana: Heinrich, 1923, U. S. Nat. Mus. Bull. **123:** 190; 1931, Proc. U. S. Nat. Mus. **79**(13): 10, pl. 6, fig. 19, pl. 7, fig. 25.— Gressitt, 1954, Insects of Micronesia Introduction **1:** 190.— Common, 1957, Proc. Linn. Soc. N. S. W. **82**(2) No. 384: 230, figs. 1, 2.— Krauss, 1953, Proc. Haw. Ent. Soc. **15**(1): 124; 1954, **15**(2): 263.— McKay, 1959, Can. Ent. **91** (Suppl. 10): 102, fig. 91.

Eucosma polyphaea Turner, 1926, Trans. Roy. Soc. S. Austral. **50:** 138.

Eucosma tornocosma Turner, 1946, Trans. Roy. Soc. S. Austral. **70**(2): 205.

Eucosma phaedropa Turner, 1946, Trans. Roy. Soc. S. Austral. **70**(2): 209.

Type: U. S. National Museum. Type-locality: Tantalus, Oahu, Hawaiian Islands.

DISTRIBUTION: Hawaii, Australia, Mexico, Eastern Caroline Is.

PONAPE: Colonia?

18. Epinotia lantana (BUSCK) (FIG. 18; PLATE 4, FIG. D, H).

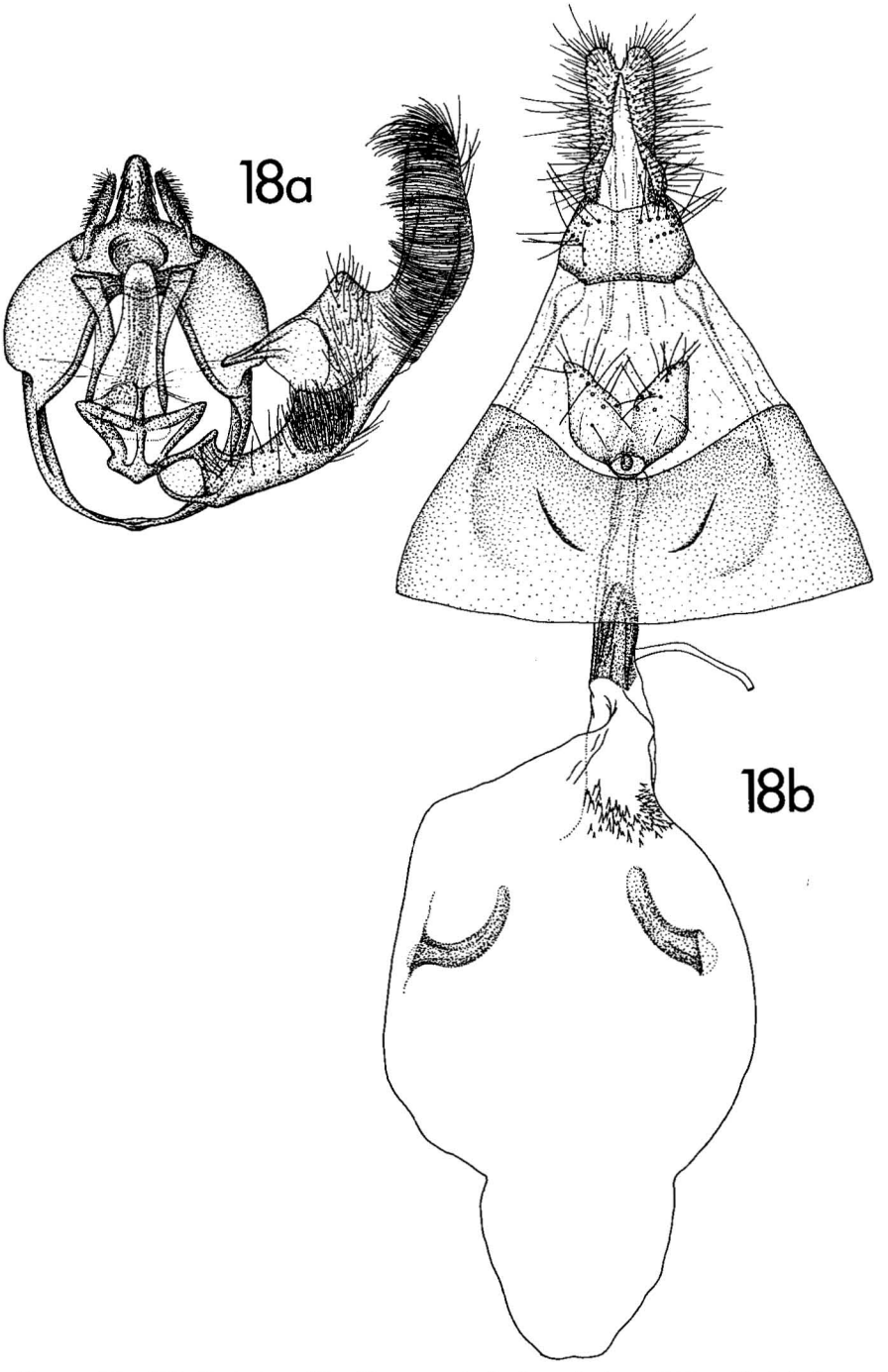

FIGURE 18. *Epinotia lantana* (Busck): a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

Food plant: *Lantana camara* Linn.

Gressitt (1954: 190) stated, "Several insects which feed on the weed *Lantana camara* were sent to Ponape from Hawaii in 1948 and 1949. Of these, . . .the olethreutid moth *Epinotia lantana* (Busck) became established and [is] doing well in controlling lantana." Although I spent two weeks collecting on Ponape in 1953 I never saw this moth, and there are no specimens of this species in the Micronesian collection.

The genitalia are figured from Hawaiian specimens, and are included here to aid in the determination of Busck's species in the event that it is recovered in Micronesia.

Genus **Eucosma** Hübner

Eucosma Hübner, 1823, Zutrage zur Sammlung Exotischer Schmettlinge [*sic*!] Bestehende in Bekundigung Einzelner Fliegmuster neuer oder rare Nichteuropäisher Gattungen **2:** 28 (Type-species: *Eucosma circulana* Hübner, 1823. [Subsequent designation by Fernald, 1908, The Genera of the Tortricidae and their types, 4]).

19. **Eucosma coniogramma** Clarke, n. sp. (Fig. 19; Plate 4, fig. c).

Alar expanse 12–17 mm.

Labial palpus cinereous; second segment light grayish olive on outer side; third segment dark mouse gray except center on inner side. Antenna drab with narrow fuscous annulations. Head drab. Thorax grayish fuscous; apex of tegula light grayish olive. Forewing ground color grayish fuscous with ill-defined darker mottling; outer 1/2 of costa marked with alternating buff and fuscous strigulae; from middle of costa an ill-defined, outwardly oblique, narrow fuscous fascia extends to end of cell; on fold, at basal 1/3, a fuscous blotch; apical 1/3 of costal area marked with 2 or 3 outwardly oblique leaden-gray fascia; astride veins 4, 5 and 6, inside termen, a patch of leaden metallic scales and a similar spot on vein 3 inside tornus; cilia grayish fuscous; basal line narrow, fuscous. Hindwing grayish fuscous; cilia concolorous. Foreleg grayish buff; femur and tibia grayish fuscous on outer side; tarsal segments broadly fuscous annulated; midleg similar but tarsal segments not as dark; hindleg suffused grayish. Abdomen grayish buff ventrally; grayish fuscous dorsally.

MALE: Genitalia slides JFGC 11507, 12268. Harpe more than 2 × as long as tegumen; cucullus broadly oval; posterior edge armed with 5 or 6 stout setae. Gnathos a narrow band. Uncus weak, triangular. Vinculum rounded. Tegumen as wide as long. Anellus a truncated triangle with short dorsal keel articulating with aedeagus. Aedeagus stout, dilated basally; vesica armed with a cluster of deciduous cornuti.

FEMALE: Genitalia slide JFGC 11508. Ostium pear-shaped, broad anteriorly; lamella postvaginalis a smooth, narrowly sclerotized band. 8th sternum strongly, but narrowly, sclerotized on anterior edge. Colliculum sclerotized, dilated anteriorly. Inception of ductus seminalis dorsal, from junction of membranous and sclerotized parts of ductus bursae. Ductus bursae membranous in anterior 1/2. Bursa copulatrix finely spiculate on inner surface. Signa two short, wide blades.

Holotype ♂ (US 72573). Type-locality: Kusaie, Pukusrik.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Pukusrik, 1 m, 7 ♂♂, 4 ♀♀ 9–14 Feb. 1953, Clarke.

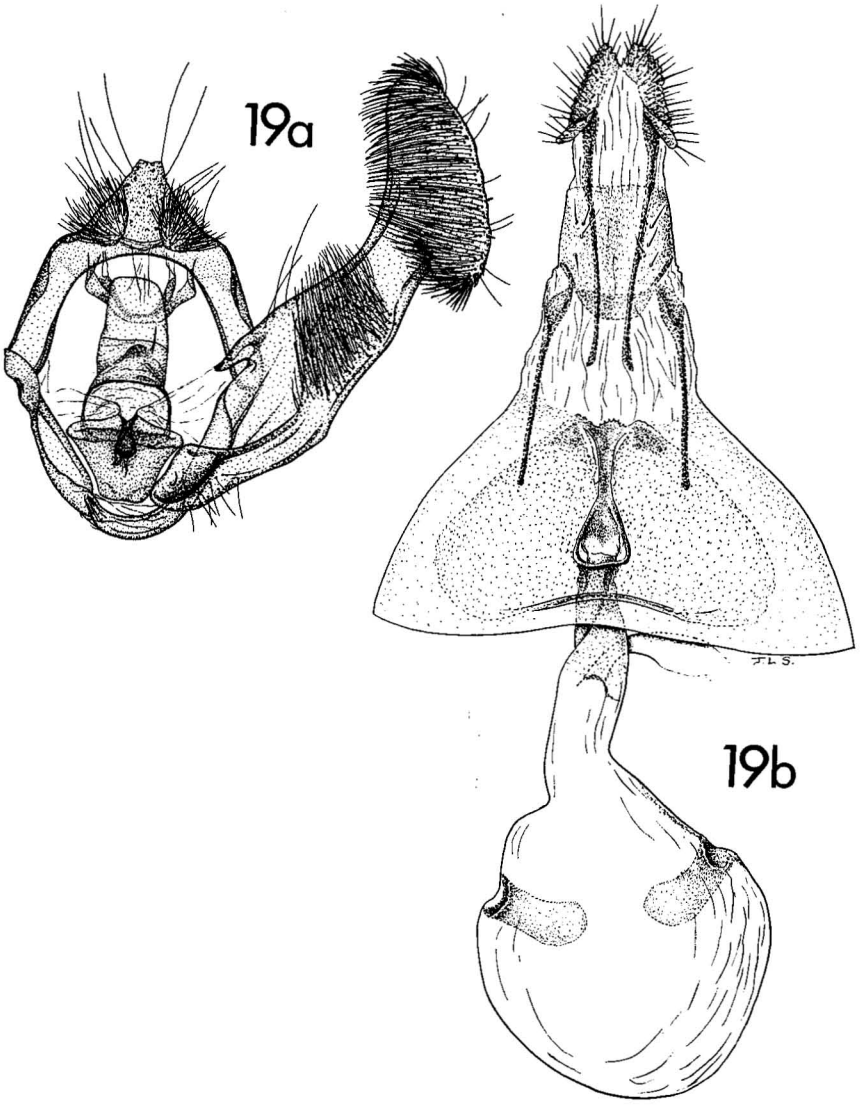

FIGURE 19. *Eucosma coniogramma*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

Food plant: Unknown.

Described from the ♂ holotype (14 Feb.), 6 ♂♂ and 4 ♀♀ paratypes as listed above.

There are no described species of *Eucosma* from Micronesia with which

coniogramma can properly be compared but the ♂ genitalia of this species are virtually indistinguishable from those of the Palearctic *E. expallidana* (Haworth).

Genus **Cymolomia** Lederer

Cymolomia Lederer, 1859, Wiener Ent. Monatschr. **3:** 374 (Type-species: *Ph. T.* (*Sciaphila*?) *hartigiana* Ratzeburg, 1840, Die Forst-Insecten...2: 230, pl. 12, fig. 11 [by monotypy]).

20. Cymolomia cyanosticha Clarke, n. sp. (Fig. 20; Plate 4, fig. f, g).

Alar expanse 12–14 mm.

Labial palpus sordid white; 2nd segment blackish fuscous on outer side and ventrally; 3rd segment wholly blackish fuscous. Antenna fuscous. Head blackish fuscous with purplish iridescence. Thorax blackish fuscous, with some grayish-tipped scales posteriorly; tegula blackish fuscous with grayish-tipped scales posteriorly. Forewing ground color blackish fuscous; basal 1/5 (basal patch) metallic steel blue; from slightly before middle of costa to middle of dorsum, a slightly convex, irregular, metallic steel-blue fascia; outer 1/3 of wing marked with several metallic steel-blue spots; in outer 1/2 of wing some sparse, fine white irroration; 2–3 fine white spots on extreme costa; cilia fuscous with darker basal line. Hindwing fuscous; cilia concolorous. Foreleg shining gray; tarsal segments fuscous; midleg similar but tibia fuscous on outer side and tarsal segments spotted white; hindleg, ♀, gray; tarsal segments darker and white annulated; ♂, strongly modified, broadened by heavy scales, compressed, shining grayish fuscous; femur with tuft of fine, hairlike scales from ventral pocket; tibia greatly expanded with compressed, dense scales and with white hair-pencil from inner surface; tarsal segments annulated white and 1st tarsal segment with fringe of white hairlike scales. Abdomen fuscous dorsally, grayish fuscous ventrally.

MALE: Genitalia slide JFGC 10223. Harpe about 3 × as long as broad; cucullus about 1/2 total length and armed with strong setae on ventral edge; small spine cluster from raised short ridge near base; ventral edge of neck with conspicuous blunt projection edged basally with line of setae. Gnathos, long, slender, straplike. Uncus slender, bluntly pointed, clothed with fine hairlike setae. Vinculum rounded. Tegumen about 2/3 length of harpe. Anellus subquadrate with lateral projection posteriorly. Aedeagus very broad basally tapering to a blunt point.

FEMALE: Genitalia slide JFGC 10337. Ostium small, oval, with an oval, sclerotized granular patch on each side; lamella postvaginalis strongly sclerotized, subtriangular with flattened, curved, strongly sclerotized band on each side. Antrum slender, sclerotized. Inception of ductus seminalis from junction of ductus bursae and bursa copulatrix. Ductus bursae membranous for 1/2 its length. Bursa copulatrix membranous but inner wall granulated. Signa two flat, short, sclerotized processes.

Holotype ♂ (US 72574). Type-locality: Kusaie, Hill 1010, 300 m.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Hill 1010, 300 m, 7 ♂♂, 13 Apr. 1953, Clarke; Mutunlik, 22 m, 1 ♂, 1 ♀; 1 Mch., 18 Mch. 1953, Clarke.

Food plant: Unknown.

Described from the ♂ holotype (Hill 1010, 300 m, 13 Apr. 1953), 6 ♂♂, 1 ♀ paratypes.

C. cyanosticha is near the European *C. hartigiana* Ratzeburg but lacks the

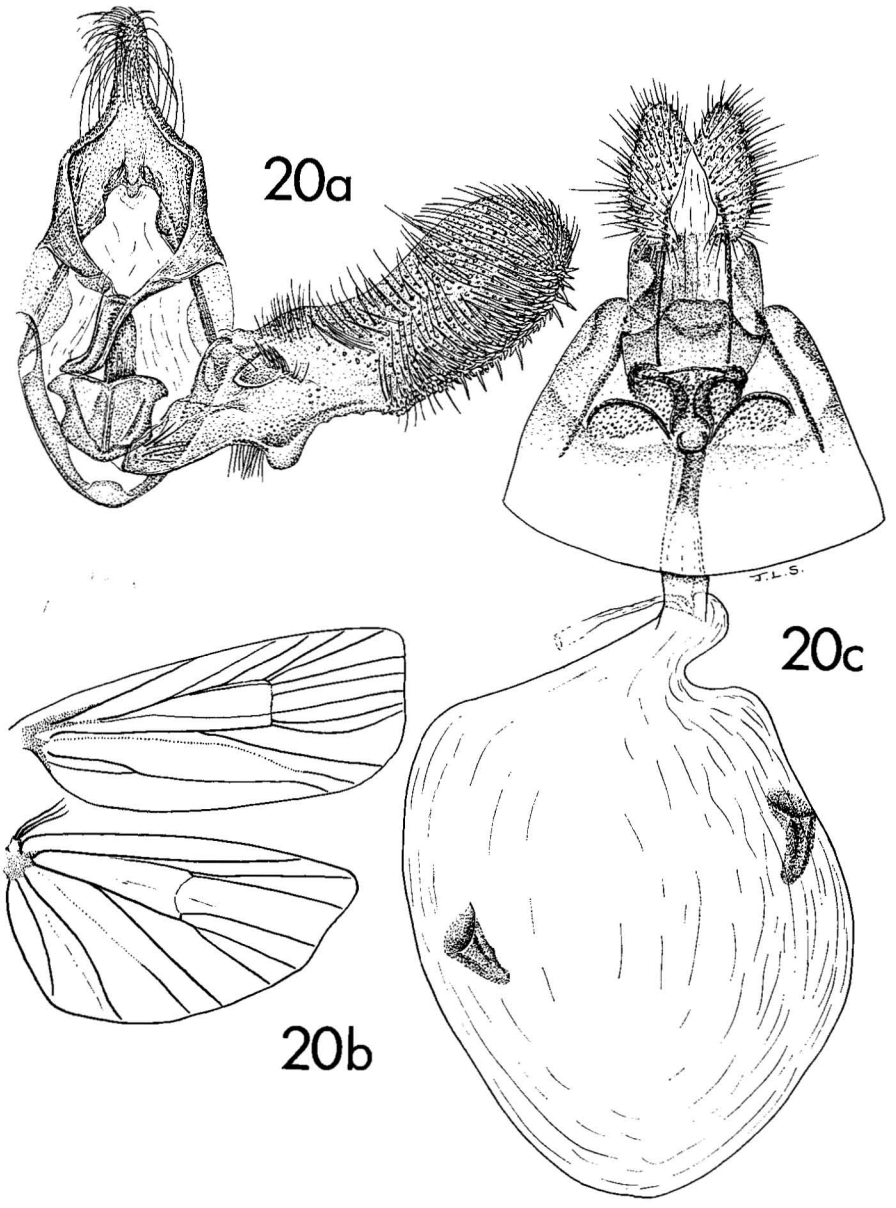

FIGURE 20. *Cymolomia cyanosticha*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted; b, venation of right wings of ♀; c, ventral view of ♀ genitalia.

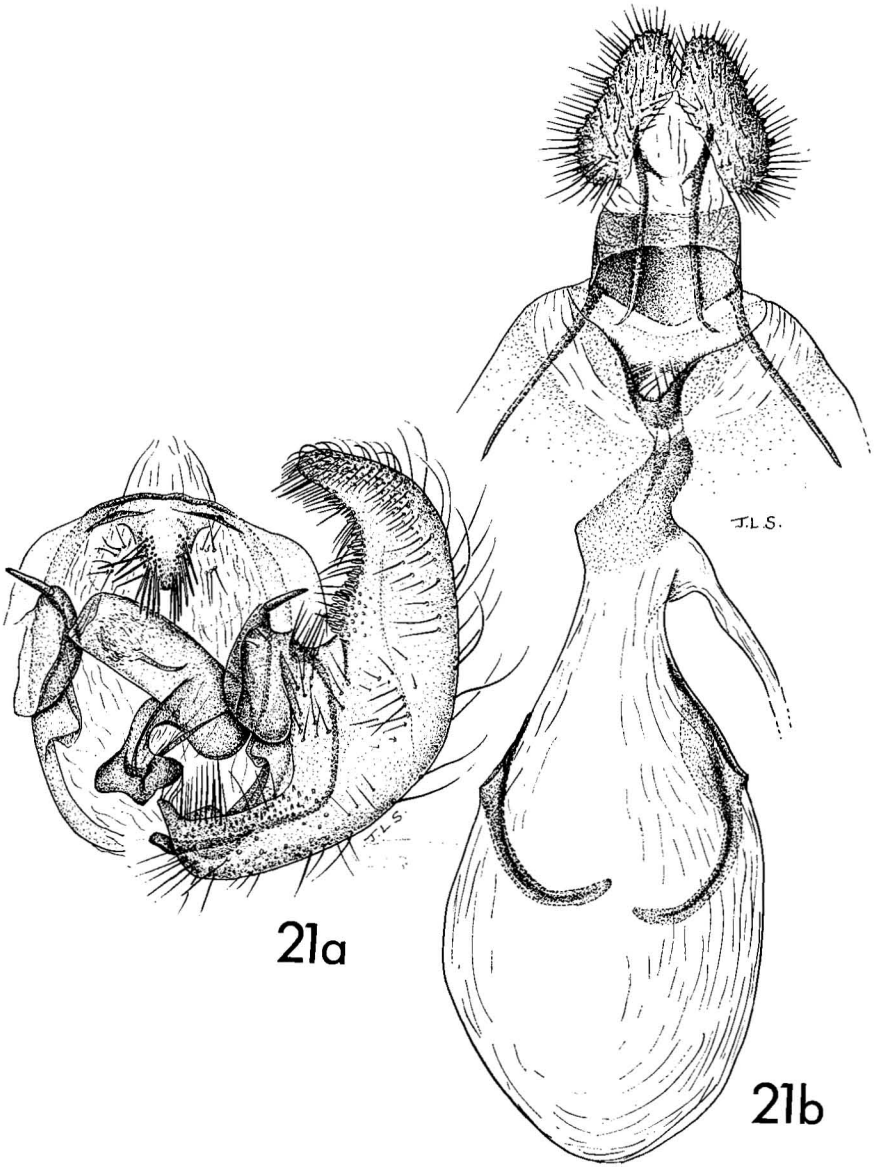

FIGURE 21. *Cryptaspasma triopis* Diakonoff: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

pale central area of the forewing of that species. Moreover, *hartigiana* has none of the metallic blue scaling of *cyanosticha.*

Subfamily OLETHREUTINAE

Genus **Cryptaspasma** Walsingham

Cryptaspasma Walsingham, 1900, Ann. Mag. Nat. Hist. ser. 7, **5:** 463. (Type-species: *Penthina? lugubris* Felder, Reise Novara, Lepidoptera **5:** pl. 138, fig. 32 [by original designation]).

21. Cryptaspasma triopis Diakonoff (Fig. 21; Plate 5, fig. a, b).

Cryptaspasma (*Allobrachygonia*) *triopis* Diakonoff, 1959, Zool. Verh., No. **43:** 32, pl. 5, fig. 34.

Type: US 73095. Type-locality: Guam, Commander Marianas' Hill.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. Guam: Commander Marianas' Hill, 10 ♂♂, 3 ♀♀, Mch. 1949, Maehler, 49-12171.

Food plant: Unknown.

Although in the original description of this species the type was stated to be in the British Museum (Natural History), it is, in fact, in the U. S. National Museum.

Male genitalia figured from the holotype, slide AD 2765. Female genitalia figured from slide JFGC 9504.

22. Cryptaspasma achlyoptera Clarke, n. sp. (Fig. 22; Plate 5, fig. c).

Alar expanse 16 mm.

Labial palpus grayish fuscous; 2nd segment drab on inner surface. Antenna grayish fuscous, scape blackish fuscous. Head fuscous. Thorax blackish fuscous with light purplish tinge. Ground color of forewing blackish fuscous with short strigulae and bars ill-defined, somewhat lighter than ground color; on middle of fold, at end of cell and on tornus, ill-defined brown blotches; at end of cell small, but distinct, ocherous white spot; cilia grayish fuscous. Hindwing grayish fuscous, paler toward base; cilia fuscous. Foreleg blackish fuscous; femur grayish fuscous on outer side; tibia and tarsal segments annulated buff; midleg similar; hindleg drab with some infuscation on tibial spurs and tarsal segments. Abdomen grayish fuscous, paler ventrally.

Female: Genitalia slide JFGC 11529. Ostium conical, ventral surface spiculate. Antrum greatly enlarged, sclerotized. Inception of ductus seminalis lateral, from near posterior edge of antrum. Ductus bursae very short, membranous. Bursa copulatrix membranous with finely granular inner surface. Signa two large, hollow, sclerotized hooks. Lamella antevaginalis a narrow band; lamella postvaginalis two subtriangular areas nearly joined at middle.

Holotype ♀ (US 72575). Type-locality: Guam, Ritidian.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. Guam: Ritidian, 1 ♀, 7 Aug. 1945, Gressitt.

Food plant: Unknown.

Described from the unique ♀ holotype.

In ♀ genitalia *achyloptera* is very near *triopis* but the signa of the former are

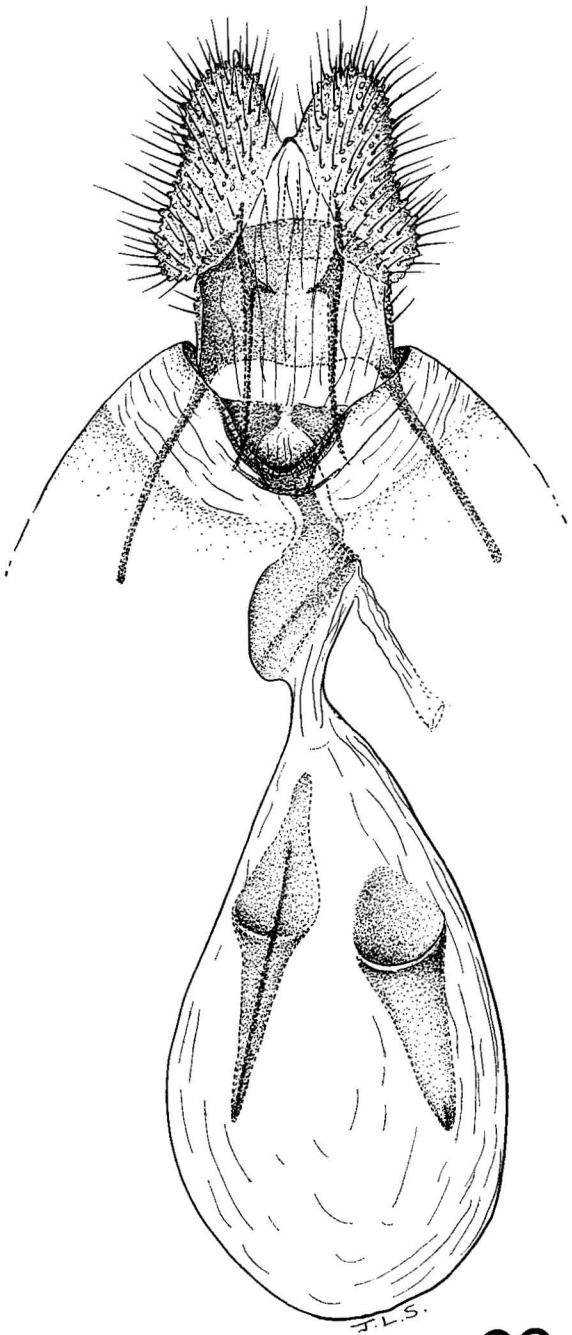

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FIGURE 22. *Cryptaspasma achlyoptera*, n. sp.: ventral view of ♀ genitalia.

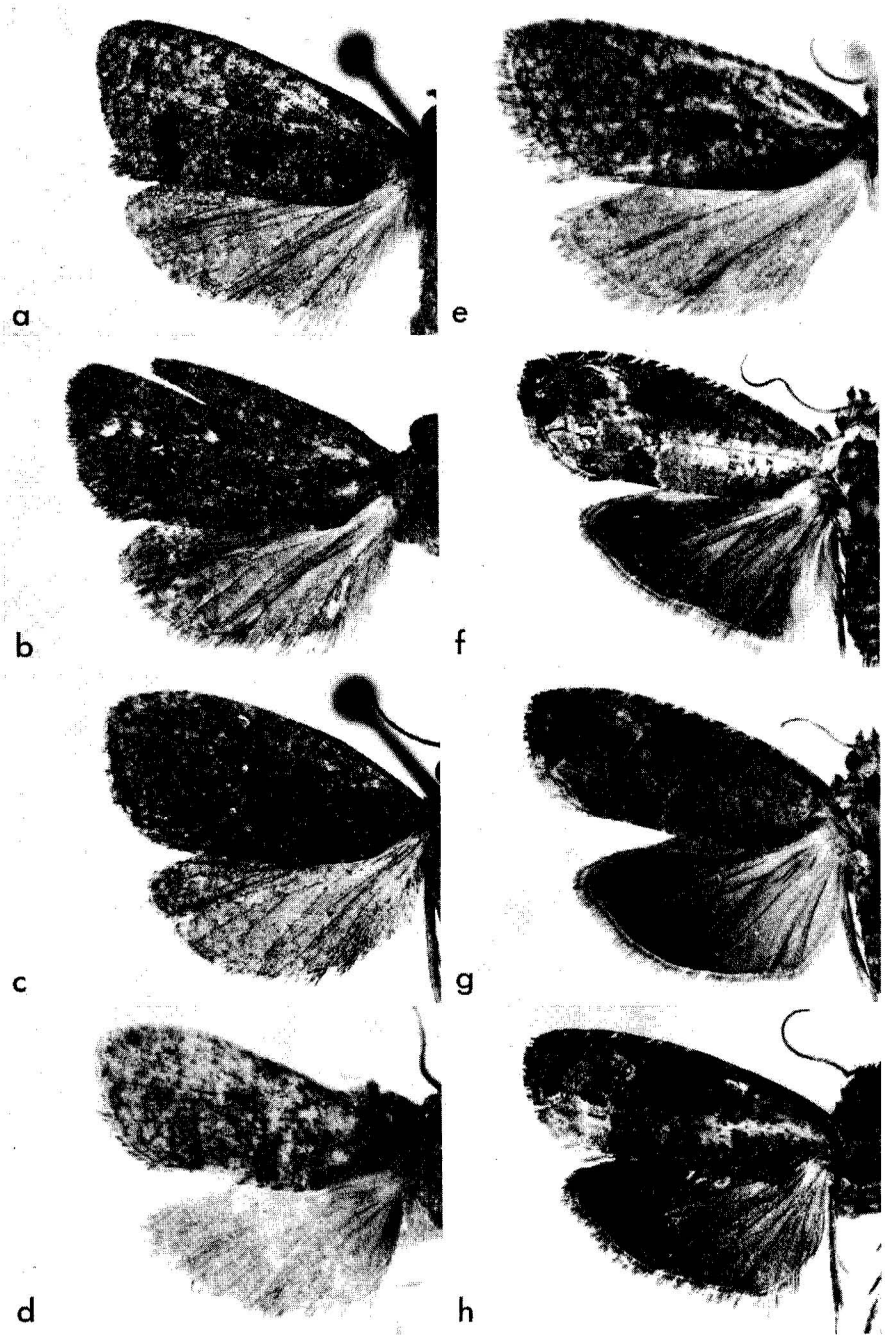

PLATE 5. a, *Cryptaspasma triopis* Diakonoff, ♂ holotype; b, *C. triopis* Diakonoff, ♀; *C*, *Cryptaspasma achlyoptera*, n. sp., ♀ holotype; d, *Cryptaspasma brachyptycha* (Meyrick); e, *Cryptaspasma polysticta*, n. sp., ♀ holotype; f, *Dudua aprobola aprobola* (Meyrick), ♂; g, *D. a. aprobola* (Meyrick); ♀; h, *D. a. aprobola* (Meyrick), ♀.

proportionately much larger than those of the latter. Moreover, this is a smaller species in which there is none of the dark mottling of *triopis*.

23. Cryptaspasma brachyptycha (Meyrick) (Fig. 23; Plate 5, fig. d).

Eucosma brachyptycha Meyrick, 1911, Proc. Linn. Soc. N. S. W. **36:** 246; 1912, J. Bombay Nat. Hist. Soc. **21:** 869.— Clarke, 1955, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **1:** 69.

Cryptaspasma brachyptycha: Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 323, pl. 160, figs. 1–1a.

Cryptaspasma (*Allobrachygonia*) *brachyptycha:* Diakonoff, 1959, Zool. Verh., No. **43:** 16, fig. 1e, pl. 3, fig. 16, pl. 4, fig. 26–28.

Lectotype: British Museum (Natural History). Lectotype-locality: Ceylon, Kegalla.

DISTRIBUTION: Australia, Ceylon, Sumatra, Eastern Caroline Is.

KUSAIE: So. slope Mt. Matante, 308 m, 1 ♂, Mch. 1953, Clarke; Hill 1010, 300 m, 1 ♂, Feb. 1953, Clarke.

Food plant: Unknown.

The two specimens from Kusaie vary greatly in size, the smaller one being barely 13 mm, and the larger one 17 mm.

The discovery of *brachyptycha* on Kusaie greatly extends its range. In the genus, *brachyptycha* alone has the brush of scales at the base of costa of the forewing combined with an anal fold, with modified scales, on the hindwing.

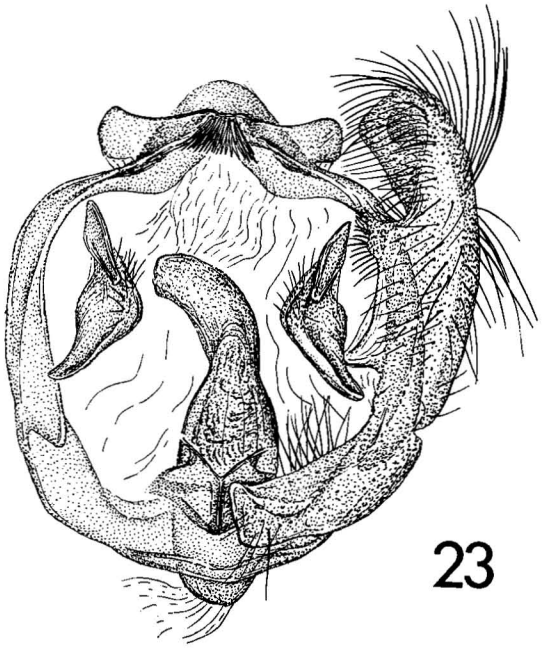

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FIGURE 23. *Cryptaspasma brachyptycha* (Meyrick): ventral view of ♂ genitalia with left harpe omitted.

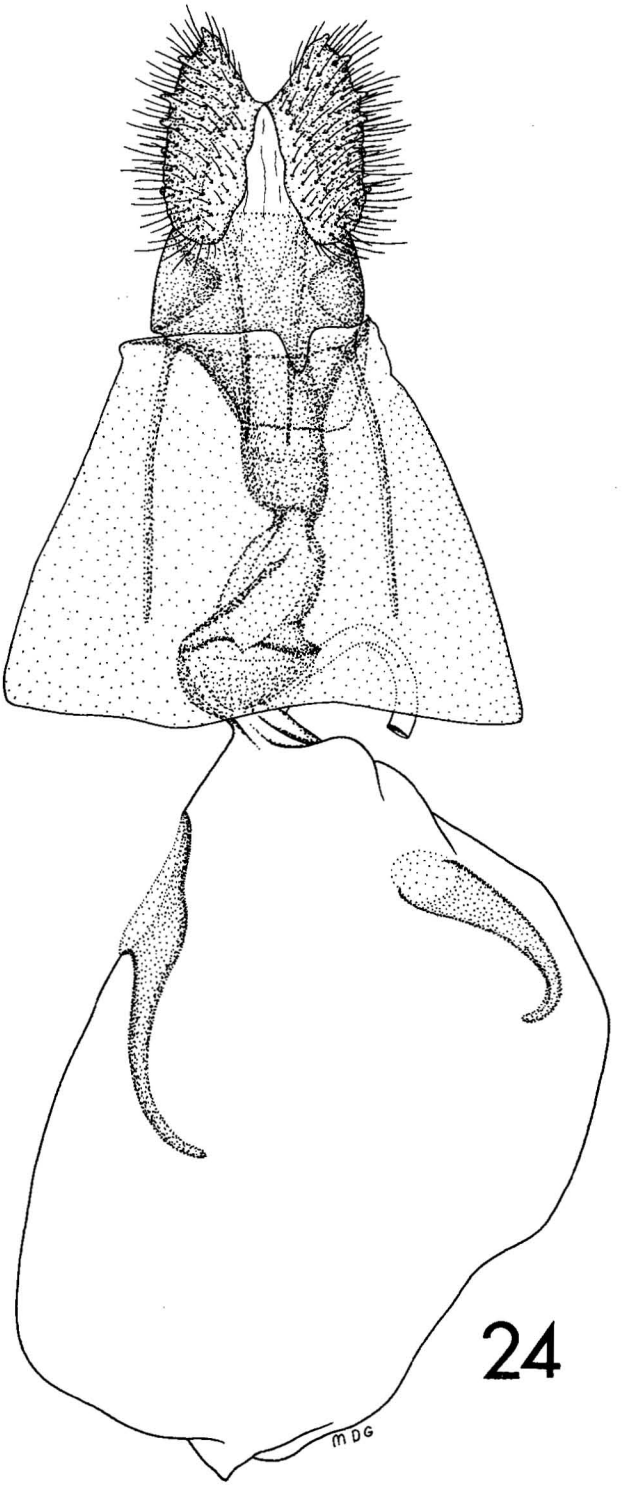


FIGURE 24. *Cryptaspasma polysticta*, n. sp.: ventral view of ♀ genitalia.

Moreover, the ♂ genitalia are quite different from anything else in the genus so there is no doubt about the identity of the two specimens.

24. Cryptaspasma polysticta Clarke, n. sp. (Fig. 24; Plate 5, fig. e).

Alar expanse 15 mm.

Labial palpus grayish fuscous. Antenna fuscous; scape slightly paler. Thorax grayish fuscous; tegula tipped with leaden scales. Forewing ground color grayish fuscous, mottled with small spots of leaden scales; median section of wing with large, ill-defined brownish shade; at end of cell a tiny, ill-defined buff spot; underside of forewing mottled; cilia grayish fuscous with slightly darker basal line. Hindwing drab, underside mottled; cilia grayish drab. Foreleg fuscous; tarsal segments with narrow, paler annulations; midleg similar to foreleg but a little paler; hindleg pale gray on inner side, darker on outer surface. Abdomen grayish fuscous.

FEMALE: Genitalia slide JFGC 12248. Ostium strongly sclerotized, deeply funnel-shaped; ventral edge of ostium V-shaped; lamella postvaginalis membranous. Inception of ductus seminalis dorsal, at junction of sclerotized and membranous portions of ductus bursae. Ductus bursae sclerotized for most of its length with only a short membranous section connecting with bursa copulatrix. Bursa copulatrix membranous, very finely and weakly granular posteriorly. Signa two, long, curved sclerotized hooks.

Holotype ♀ (US 72576). Type-locality: Kusaie, Mt. Matante, 330 m.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Mt. Matante, 330 m, 2 ♀♀, 1 Feb. 1953, Clarke.

Food plant: Unknown.

Described from the ♀ holotype and 1 ♀ paratype with identical data as listed above.

This and *achyloptera* are very similar species, the latter with a broader forewing than that of *polysticta*, with darker ground color and hindwing with more of a brownish cast. The genitalia are distinctive, the ostium of *polysticta* deeply funnel-shaped, that of *achyloptera* broadly conical. Actually, the descriptions of these two species might be interchanged depending on condition of the specimens and the interpretation of the colors. The two, when seen together, are distinct.

Genus **Bactra** Stephens

Bactra Stephens, 1834, Illus. British Ent. Haust. **4:** 124 (Type-species: *Tortrix lanceolana* Hübner, 1800, Saml. Eur. Schmett. Tort., fig. 80 [by original designation]).

25. Bactra minima Meyrick (Fig. 25; Plate 6, fig. b).

Bactra minima Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 586.— Diakonoff, 1950, Brit. Mus. (Nat. Hist.) Ent. Bull. **1**(4): 288, pl. 6, fig. 25; 1956, Leyden Rijksmus. Nat. Hist. Zool. Verh. **29:** 55, figures 52, 53; 1959, Comm. Toezicht op het Beeher, Artis-Bibliot. Bijdr. tot de Dierk., 29, 186.— Sankaran & Srinath, 1966, Commonwealth Inst. Biol. Control Tech. Bull. No. **7:** 140.

Bactra phaeopis Meyrick, 1911, Proc. Linn. Soc. N. S. W. **36:** 254.— Diakonoff, 1953, Microlepidoptera of New Guinea **2:** 89.

Bactra microtripta Meyrick, 1927, Insects of Samoa, 3, Lepidoptera, **2:** 75.

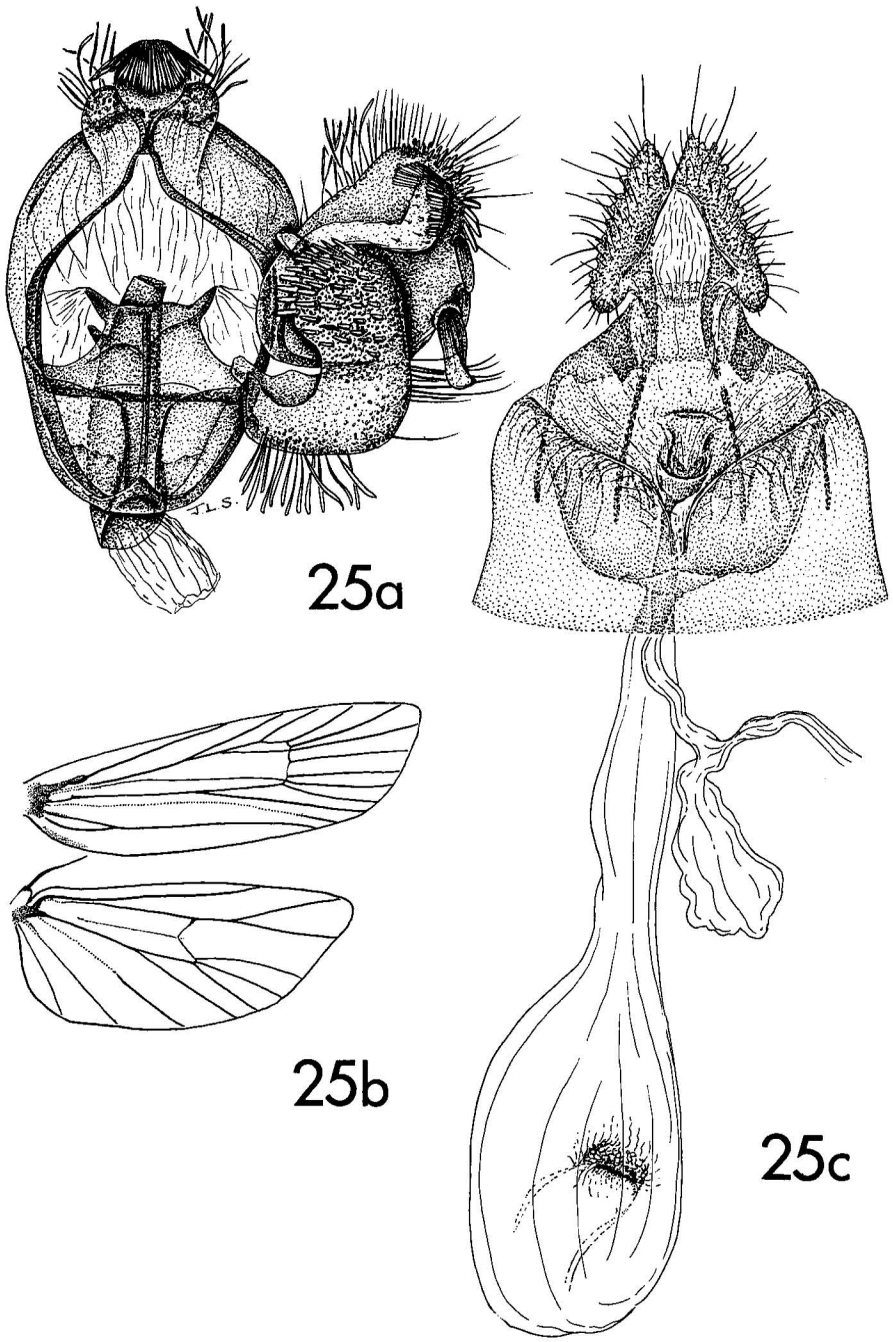


FIGURE 25. *Bactra minima* Meyrick: a, ventral view of ♂ genitalia with left harpe omitted; b, venation of right wings of ♂; c, ventral view of ♀ genitalia.

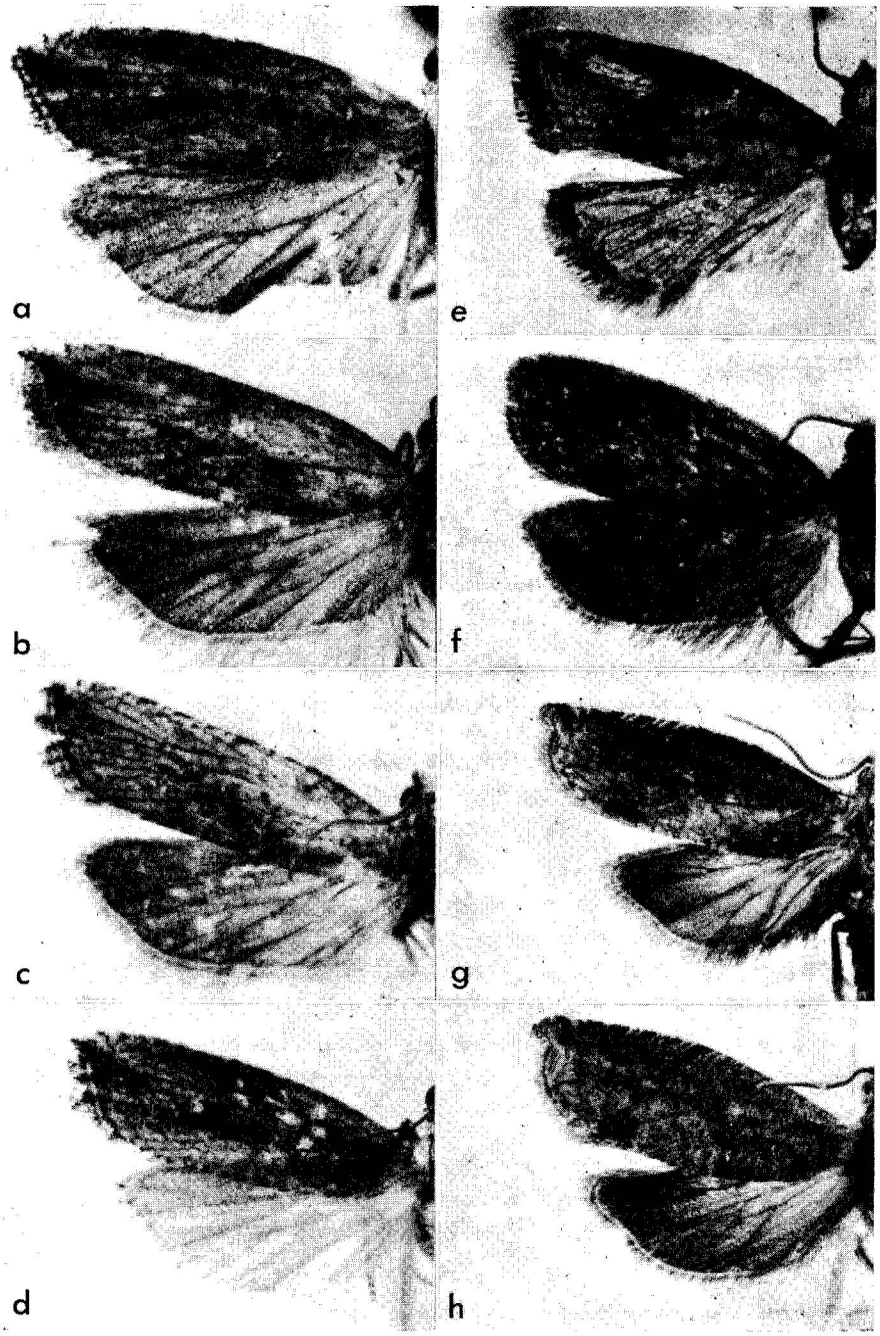


PLATE 6. a, *Bactra optanias* Meyrick, ♂; b, *B. minima* Meyrick, ♀; c, *B. hostilis* Diakonoff, ♂; d, *B. venosana* (Zeller), ♀; e, *B. angulata* Diakonoff, ♂; f, *B. cerata* (Meyrick), ♂; g, *Laspeyresia balanoptycha* (Meyrick), ♂; h, *L. balanoptycha* (Meyrick), ♀.

Type: British Museum (Natural History). Type-localities: Barberyn Is., Ceylon (*minima*); Sudest Island, New Guinea (*phaeopis*): Samoa (*microtripta*).

DISTRIBUTION: Ceylon, India, Sudest Is. (New Guinea), British Solomon Is., New Georgia, Southern Mariana Is., Eastern Caroline Is.

SOUTHERN MARIANA IS. ROTA: Rota, 6 ♂♂, 16 ♀♀, June–July 1946, Townes lot #688, 805, 825. GUAM: Agana, 1 ♂, 1 ♀, May 1936, Swezey; no exact locality or date, 2 ♀♀, Fullaway. SAIPAN: ♀, Oct., Lange.

TRUK: Wena (Moen), ♀, Civilian Administration Area, Feb. 1949, Potts.

PONAPE: Colonia, ♂, 2 ♀♀, Jan. 1953, Clarke.

Food plant: "Nut grass" *Cyperus rotundus* L.

Diakonoff (1956: 55) lists *phaeopis* as a synonym of *minima* but (1950: 288), he states that *phaeopis* lacks signa. Our ♀ specimens of *minima* definitely have a signum (see figure 25), the ♂♂, corresponding to the ♀♀, agree in genitalia with other known ♂♂ of this species. I have retained the synonymy of Diakonoff but it seems to me *phaeopis* should be recognized as distinct from *minima*.

The genitalia are figured from a ♂ and a ♀ from Rota, Rota ♂ slide JFGC 9510; ♀ slide JFGC 12115.

26. Bactra hostilis Diakonoff (Fig. 26; Plate 6, fig. c).

Bactra (*Nanobactra*) *hostilis* Diakonoff, 1956, Zool. Verhandel., No. **29:** 57, figs. 55, 56; 1964, No. **70:** 75, fig. 59.

Bactra (*Nanobactra*) *leonina* Diakonoff, 1959, Bijdr. tot de Dierk. **29:** 185, fig. 8.

Type: US 73097. Type-locality: Japan, Honshiu, Funakoshi, Yokosuka.

DISTRIBUTION: Japan, Bonin Is.

BONIN: Chichi Jima, Futami-ko, 2 ♂♂, 1 ♀, May 1956, Clagg; Chichi Jima, Omura, "Camp Beach," 2 ♂♂, Apr. 1958, Snyder.

Food plant: Unknown.

Undoubtedly this Japanese species has been introduced into the Bonin Is. and has successfully established itself. Diakonoff (1956: 57) described *hostilis* in detail, and I am not repeating the description here, but I am figuring the ♂ and ♀ genitalia which are drawn from slides USNM 24024 and 24033 respectively.

27. Bactra angulata Diakonoff (Fig. 27; Plate 6, fig. e).

Bactra (*Chiloides*) *angulata* Diakonoff, 1956, Zool. Verh. Mus. Leiden, No. **29:** 21, fig. 23, 26–27.

DISTRIBUTION: Java, East Borneo, North Moluccan Is., Palau Is., Southern Mariana Is.

SOUTHERN MARIANA IS. SAIPAN: 2 ♂♂, 2 ♀♀, Oct. 1947, Lange.

PALAU. KOROR: 1 ♂, Nov. 1947, Dybas; 2 ♂♂, Jan. May, 1953, Beardsley. BABELTHUAP: Ulimang, 1 ♂, Dec. 1947, Dybas.

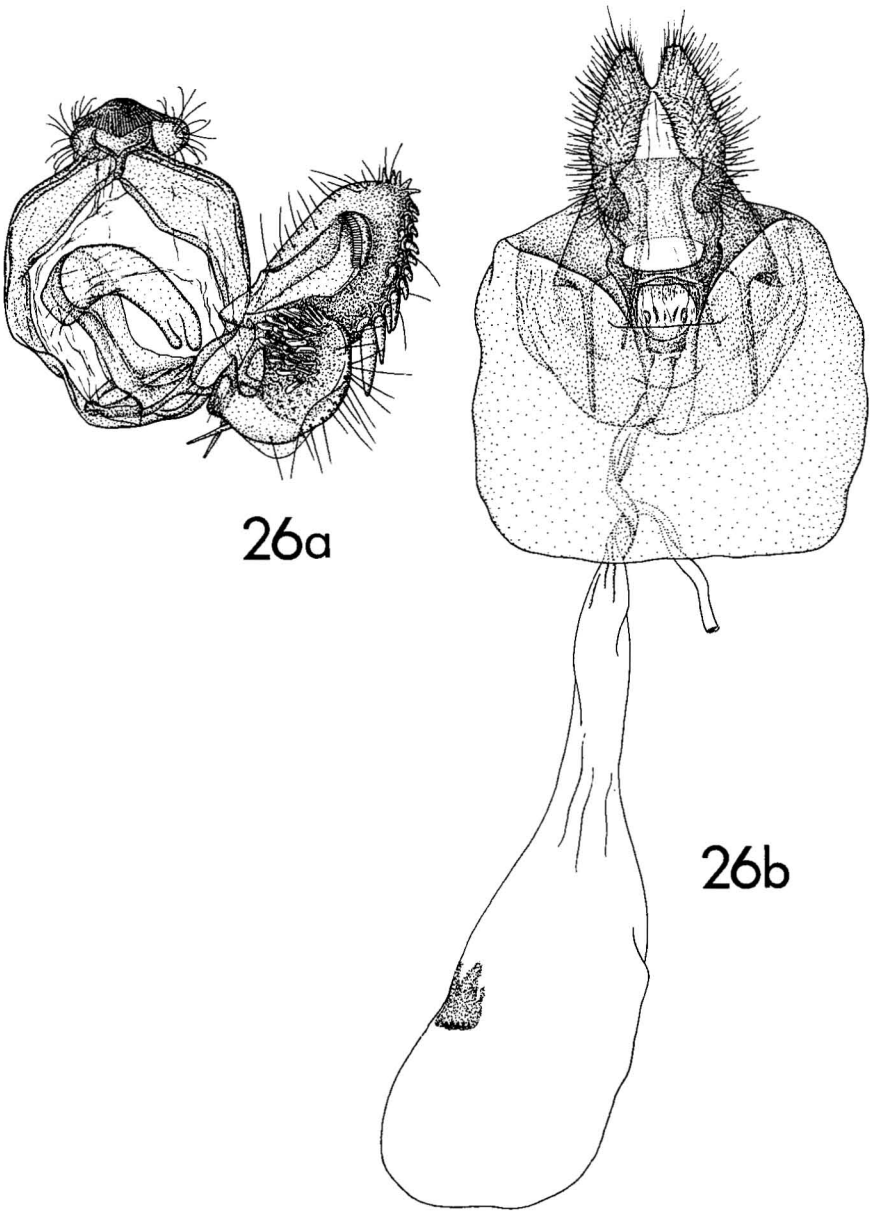


FIGURE 26. *Bactra hostilis* Diakonoff: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

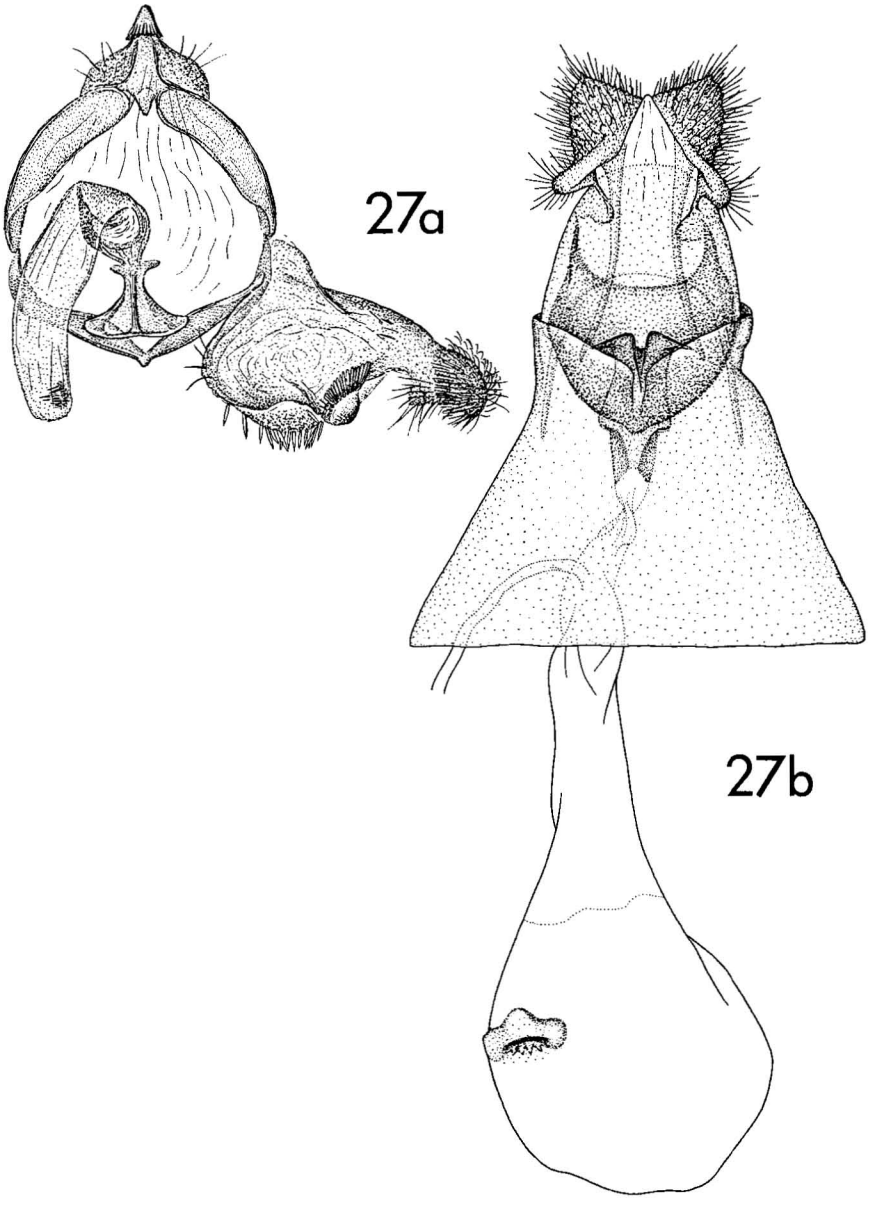


FIGURE 27. *Bactra angulata* Diakonoff: a, ventra view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

YAP. YAP: Colonia, 1 ♂, 1 ♀, Jul.–Aug. 1950, Goss.

Type: Rijksmuseum van Natuurlijke Historie, Leiden. Type-locality: East Borneo, Balikpapan, Mentawi River.

Food plant: Unknown.

The ♂ genitalia are figured from a specimen from Koror, Palau Is. (30 Nov. 1947 H. S. Dybas), slide AD 1936. The ♀ genitalia are figured from a specimen from Yap. I., slide USNM 24023.

28. Bactra venosana (Zeller) (Fig. 28; Plate 6, fig. d).

Phoxopteris venosana Zeller, 1847, Isis von Oken **40**(10): 738.

Aphelia venosana: Herrich-Schaffer, 1849, Systematische Bearbeitung..., **4:** 244.

Bactra venosana: Rebel, 1901, *in* Staudinger & Rebel, Cat. Lepidopteren palaearktischen Faun. **2:** 113.— Kennel, 1910, *in* Spuler, Schmetterlinge Europas **2:** 273; 1910, Palaearktischen Tortriciden, 472, pl. 18, fig. 73.— Diakonoff, 1967, U. S. Nat. Mus. Bull. **257:** 63, 64, 302, 420, fig. 536.

Bactra (Chiloides) venosana: Diakonoff, 1956, Zool. Verh. **29:** 33, figures 31-33; 1959, Bijdr. tot de Dierk. **29:** 184; 1963, Ann. Naturhist. Mus. Wien **66:** 474; 1964, Zool. Verh. **70:** 33.

Bactra truculenta Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 586; 1922, Exotic Microlepidoptera **2:** 521; 1934, *in* Caradja, Deuts. Ent. Zeit. Iris **48:** 33 (Canton); 1935, Materialien zu einer Microlepidopteren Fauna des Chinesischen Provinzen Kiangsu, Chekiang und Hunan, 57.— Fletcher & Ghosh, 1920, Rept. Proc. 3rd Ent. Meeting, Pusa, 363, 367, 394.— Fletcher, Mem. Dept. Agric. India. Ent. **6:** 53.— Swezey, 1927, Proc. Haw. Ent. Soc. **6:** 349.— Diakonoff, 1950, Bull. Brit. Mus. (Nat. Hist.) Ent. **1**(4): 289.— Clarke, 1955, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **1:** 319; ibid., 1958, **3:** 315, pl. 156, fig. 4–4a.

Bactra (Chiloides) truculenta: Diakonoff, 1956, Zool. Verh. **29:** 27, fig. 28–30; Nutuurf. Gesell. *in* Basel. Verh. **67**(1): 61; Ent. Ber. **16**(8): 147; 1959, Bijdr. tot de Dierk., **29:** 184, pl. fig. 4.

Bactra scythropa Meyrick, 1911, Proc. Linn. Soc. N. S. W. **36:** 254.— Diakonoff, 1950, Bull. Brit. Mus. (Nat. Hist.) Ent. **1**(4): 289.

Bactra geraropa Meyrick, 1931, Exotic Microlepidoptera **4:** 147.— Diakonoff, 1950, Bull. Brit. Mus. (Nat. Hist.) Ent. **1**(4): 287, 289.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 308, pl. 153, figures 4–4b.

Types: British Museum (Natural History). Type-localities: Formosa, Taihoku (*geraropa*): Timor, Dilli (*scythropa*); North Coorg, Dibidi (*truculenta*): Sicily (*venosana*).

DISTRIBUTION: SE Asia, Timor, Ceylon, Andaman Is., Java, Borneo, Hawaii, South Mariana Is., Eastern Caroline Is., South China, Formosa, Fiji, Philippine Is., North Africa, Asia Minor, South Europe.

SOUTH MARIANA IS. SAIPAN: 1/2 mi. E. of Tanapag, 1 ♀, Mar. 1945, Dybas.

TRUK: Wena (Moen), 0–100 m, 1 ♀, July 1946, at light, Townes 1443; Wena (Moen), Civilian Administrative Area, 1 ♀, Feb. 1949, Potts.

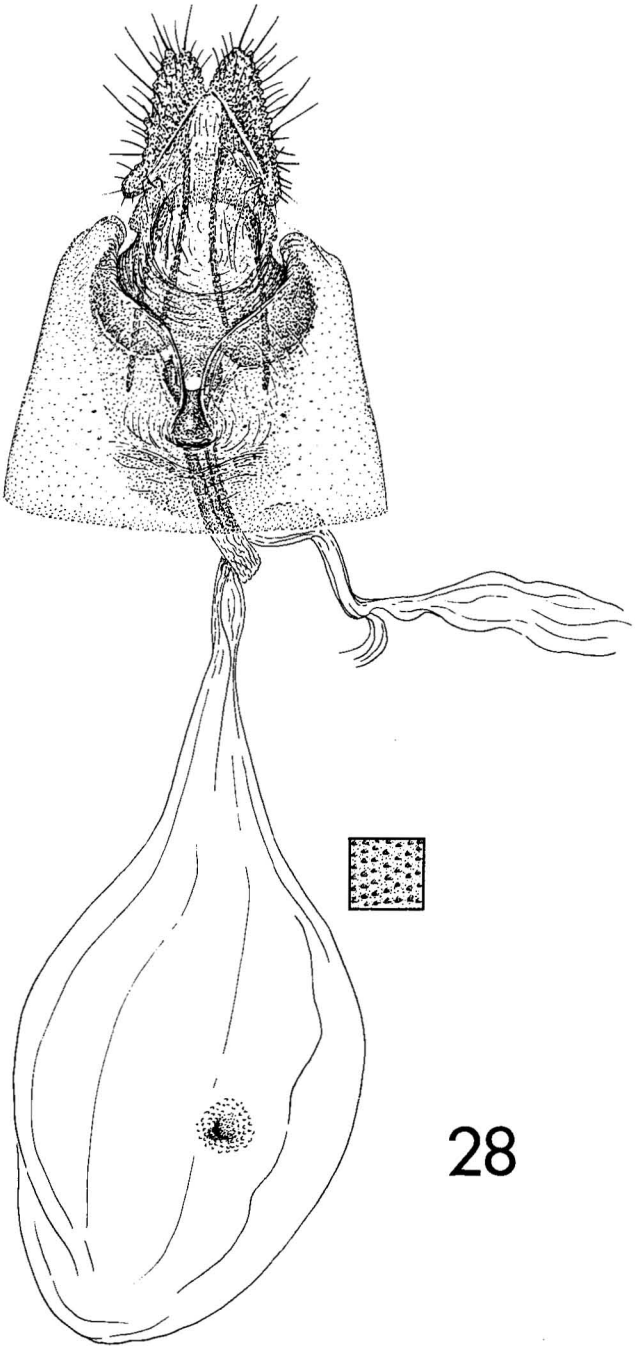


FIGURE 28. *Bactra venosana* (Zeller): ventral view of ♀ genitalia.

PONAPE: Colonia, 2 ♀♀, Jan. 1953, Clarke.

KUSAIE: Mutunlik, 22 m, 1 ♂, Jan. 1953, Clarke.

Food plant: *Cyperus rotundus* L.

As pointed out by Diakonoff (1967) this species has been introduced into several localities for control of the weed "nut grass," *Cyperus rotundus*. Apparently it has been spread accidentally, also, which accounts for its wide range from temperate to tropical zones.

The ♀ genitalia are figured from the specimen from Truk, Wena (Moen) (31 July 1946, Townes lot #1443), Slide AD 1986. Male not figured.

29. Bactra optanias Meyrick (Fig. 29; Plate 6, fig. a).

Bactra optanias Meyrick, 1911, Proc. Linn. Soc. N. S. W. **36:** 253; 1911, Trans N. Z. Institute **43:** 89.— Hudson, 1928, The Butterflies and Moths of New Zealand, 248, pl. 45, fig. 30.

Bactra litigatrix Meyrick, 1929, Trans. Ent. Soc. London **76:** 495.— Clarke, 1955, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **1:** 190; ibid., 1958, **3:** 312 pl. 155, fig. 3–3a.— Clarke, 1971, Smithsonian Contr. Zool. **56:** 133, fig. 108, pl. 17, fig. e, f, g, h.

Bactra passercula Turner, 1916, Trans. Roy. Soc. S. Austral. **40:** 527.

Bactra monochorda Diakonoff, 1950, Brit. Mus. (Nat. Hist.) Ent. Bull. **1**(4): 288, pl. 5, figure 20.

Bactra (Chiloides) excelsa Diakonoff, 1956, Zool. Verh. **29:** 39, fig. 42, 44; 1956, k. Nederl. Akad. van Wet. Proc. Series C, Biol. & Med. Sci. **59**(4): [528]; 1959, Bijdr. tot de Dierk. **29:** 104, figure 17.

Bactra (Chiloides) optanias: Diakonoff, 1964, Zool. Verh. **70:** 40.

Types: British Museum (Natural History) (*optanias*, *monochorda*, *litigatrix*); Rijksmuseum van Natuurlijke, Leiden (*excelsa*). Type-localities: Australia (*optanias*, *passercula*), West Java, Bandung, 750 m (*excelsa*); Ceylon, Maskeliya (*monochorda*); Tahiti, Fautaua (*litigatrix*).

DISTRIBUTION: Australia, Java, Tahiti, Caroline Is., Southern Mariana Is., Rapa, North New Guinea, Vogelkop Peninsula, Sorong, Arfak Mts., Ajamaru.

SOUTHERN MARIANA IS. GUAM: Sasa, 1 ♂, June 1936, Swezey; 2 ♂♂, no date, Fullaway; Agana, 1 ♂, May 1936, Swezey.

TRUK: Wena (Moen), 1 ♂, 5 ♀♀, July 1946, Townes lot 1443; Wena (Moen), 2 ♂♂, Mch. 1949, Potts.

Food plant: Unknown.

Male genitalia figured from a specimen from Truk, Wena (Moen) (AD 5374). Female genitalia figured from a specimen from Truk, Wena (Moen) (AD 1993).

I follow the synonymy of Diakonoff (1964) with which I agree fully. Although there is some variation in the genitalia there is no doubt about the identity of the elements of the widely separated populations.

30. Bactra cerata (Meyrick) (Fig. 30; Plate 6, fig. f).

Polychrosis cerata Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 587.

optanias, *passercula*), West Java, Bandung, 750 m (*excelsa*); Ceylon, Maskeliya

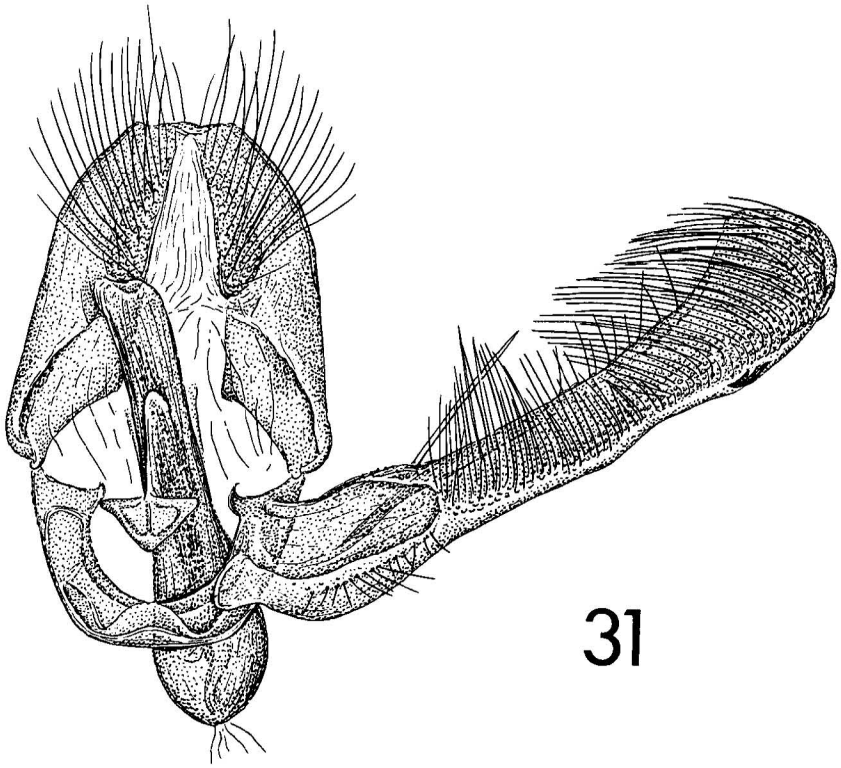


FIGURE 31. *Herpystis maurodicha*, n. sp.: ventral view of ♂ genitalia with left harpe omitted.

Herpystis Meyrick, 1911 (November), Proc. Linn. Soc. N. S. W. **36**(2): 244 (Type-species: *Herpystis avida* Meyrick, l. c. p. 245 [by monotypy]), praeocc.

Fletcher (1929: 107) cited the type-species of *Herpystis* as *H. avida* Meyrick following the later Meyrick paper but apparently he was unaware of the earlier use of the name as cited above. The type was cited correctly by Clarke (1958: 427).

31. Herpystis maurodicha Clarke, n. sp. (Fig. 31; Plate 7, fig. a).

Alar expanse 9 mm.

Labial palpus ocherous white; 2nd segment fuscous on outer side. Antenna grayish olive; apex of scape ocherous white. Head grayish olive. Thorax ocherous white suffused fuscous anteriorly and with a fuscous bar across middle; tegula fuscous basally, ocherous white posteriorly. Forewing ground color ocherous white; base of costa fuscous; from costa, at about 2/5, a backish-fuscous band widens and extends to dorsal edge; at 3/5 of costa a blackish-fuscous, rectangular patch extends half way across end of cell; 3 oblique, wedge-shaped dashes between rectangular patch and apex; apex blackish fuscous; at end of cell a small rectangular blackish-fuscous spot and a similarly colored broad dash on tornus, these two markings followed by a transverse leaden gray bar, the latter edged by a fine yellowish line; beyond

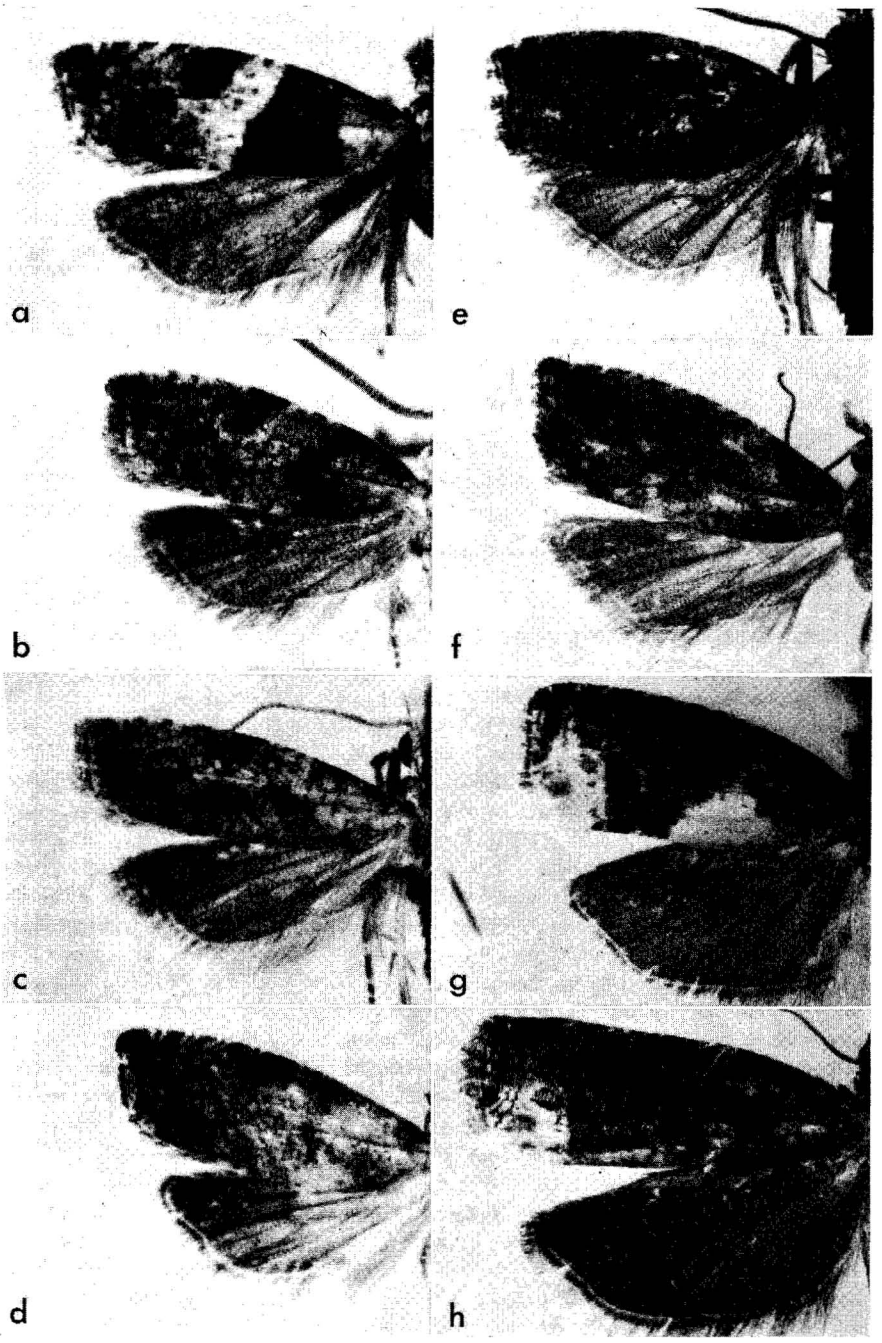


PLATE 7. a, *Herpystis maurodicha*, n. sp., ♂ holotype; b, *H. theodora*, n. sp., ♂ holotype; c, *H. theodora*, n. sp., ♀ paratype; d, *H. mimica*, n. sp., ♀ holotype; e, *Tritopterna chionostoma* Meyrick, ♂; f, *T. chionostoma* Meyrick ♀; g, *Euobraztsovia chionodelta* Meyrick, ♂; h, *E. chionodelta* Meyrick, ♀.

the leaden gray bar several small blackish fuscous and leaden gray marks; cilia gray with a blackish-fuscous basal line. Hindwing smoky gray, somewhat darker toward apex; cilia smoky gray. Foreleg grayish fuscous; tarsal segments annulated ocherous white; midleg similar to foreleg; hindleg grayish olive, tarsal segments annulated ocherous white. Abdomen grayish fuscous dorsally; ventrally buff, suffused grayish.

MALE: Genitalia slide JFGC 12129. Harpe long, slender; cucullus slightly dilated, with stout seta from ventral edge near base; from near base of costa a long, strong seta. Uncus absent; socius long, fleshy. Vinculum rounded. Tegumen broad, strongly sclerotized. Anellus triangular, with long posterior arm articulating with aedeagus. Aedeagus as long as tegumen and vinculum combined, dilated proximally; vesica armed with cluster of long cornuti.

Holotype ♂ (US 72570). Type-locality: Kusaie, Mutunlik.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Mutunlik, 22 m, 2 ♂♂, 21 Apr. 1953; 6 Feb. 1953 Clarke.

Food plant: Unknown.

Described from the ♂ holotype and 1 ♂ paratype.

At first glance *maurodicha* reminds one of *Olethreutes ancosema* (Meyrick) but is at once distinguished from it by the complete blackish-fuscous band, reaching from costa to dorsum of the forewing. Moreover, *maurodicha* is a much smaller moth.

32. Herpystis theodora Clarke, n. sp. (Fig. 32; Plate 7, fig. b, c).

Alar expanse 6–9 mm.

Male, labial palpus grayish fuscous; 2nd segment olive buff anteriorly; 3rd segment olive buff on outer side. Antenna dark olive buff with slight brassy hue. Head olive buff. Thorax dark olive with scattered fuscous scales; base of tegula fuscous. Forewing ground color dark olive buff; basal 1/2 of costa grayish fuscous; on costa, slightly beyond middle, a conspicuous fuscous blotch; on dorsum, at basal 1/3, a large fuscous blotch extends transversely into cell and contains 3 ill-defined gray and tawny strigulae; at end of cell a short, longitudinal fuscous bar narrows and extends to tornus, the whole marked with gray and tawny scales; beyond the costal spot and longitudinal bar an irregular, outwardly curved fascia of leaden-gray scales; in apical 1/3 of costa two outwardly oblique streaks of mixed fuscous and tawny scales; at apex a fuscous spot; subtermen narrowly leaden gray preceded by a transverse series of five short, longitudinal fuscous dashes mixed with tawny; termen narrowly fuscous; cilia mixed tawny and fuscous. Hindwing grayish fuscous; cilia paler with a grayish-fuscous subbasal line. Fore- mid- and hindlegs grayish fuscous; tarsal segments with ill-defined buff annulations. Abdomen grayish fuscous in ♂; grayish fuscous dorsally, buff ventrally in ♀. Female similar to ♂ but forewing largely marked with cinnamon scaling as in *mimica;* dorsal blotch of forewing ill-defined or absent; costal blotch reduced; hindwing paler than in ♂, especially toward base. Caudal margin of 6th abdominal sternum of ♀ without sclerotized bar.

MALE: Genitalia slides JFGC 10359, 12250, USNM 24007. Harpe elongate, narrow, cucullus rounded outwardly, densely clothed with long setae, angulate on ventral edge and with short, sharp spine on ventral inner angle; middle of harpe clothed with dense setae. Socius digitate, set in a depression. Vinculum broadly rounded. Tegumen broad, fleshy, rounded posteriorly. Anellus subtriangular with a broad, very lightly sclerotized dorsoposterior keel articulating with aedeagus. Aedeagus as long as vinculum and tegumen combined; vesica armed with one very long, strong cornutus and a bundle of cornuti about 1/2 length of aedeagus.

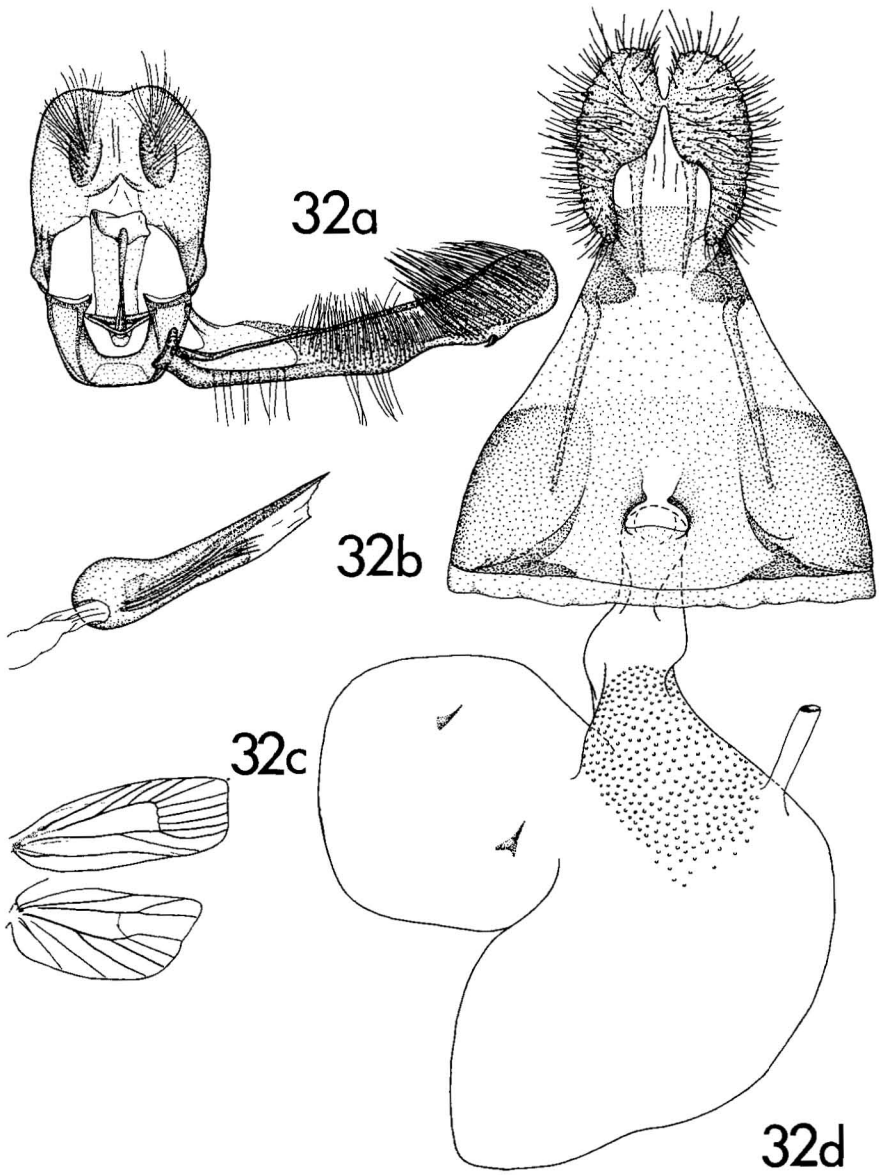


FIGURE 32. *Herpystis theodora*, n. sp.: a, ventral view of ♂ genitalia with aedeagus removed and left harpe omitted; b, aedeagus, c, venation of right wings of ♂; d, ventral view of ♀ genitalia.

FEMALE: Genitalia slides JFGC 11531, 12249, 12251. Ostium broadly and oval; lamella postvaginalis lightly sclerotized. Antrum not differentiated. Inception of ductus seminalis posterolaterally from right lobe of bursa copulatrix. Ductus bursae short, strongly sclerotized except for short section adjoining bursa copulatrix. Bursa copulatrix bilobed with granular inner surface posteriorly. Signa two tiny thornlike processes in lateral left lobe of bursa.

Holotype ♂ (US 72572). Type-locality: Kusaie, Mutunlik.

DISTRIBUTION: Eastern Caroline Is.

TRUK: Wena (Moen); 1 ♂, 7 ♀♀, 30 m, June 1946, at light Townes lot 452.

PONAPE: Colonia, 1 ♂, 1 ♀, 13 & 16 Jan., Clarke.

KUSAIE: Hill 541, 165 m, 18 & 29 Apr. 1953; Hill 1010, 300 m, 1 ♂, 3 ♀♀, 13 Apr. 1953; Malem River, 1 ♂, 27 Apr. 1953; Mt. Matante, 330 m, 5 ♂♂, 5 ♀♀, 23 Apr. 1953; Mt. Wakap, 400 m, 1 ♀, 7 Apr. 1953; Mutunlik, 22 m, 11 ♂♂, 40 ♀♀, 24 Jan.–30 Apr. 1953; Mwot, 1 ♂, 1 ♀, 8–10 Apr. 1953; Pukusrik, 1 m, 1 ♀, 2 Apr. 1953; S. slope Mt. Matante, 3 ♂♂, 4 Mar. 1953; all collected by Clarke.

Food plant: Unknown.

Described from the ♂ holotype and 103 ♂♂ and ♀♀ paratypes as listed above.

The ♂ of *H. rusticula* is not known but we can draw the inference that the species is dimorphic as is *theodora*. We cannot, therefore, make a comparison of the male of *theodora* with *rusticula* but the females can be distinguished easily by the absence of a sclerotized bar on the caudal edge of the 6th sternum of abdomen in *theodora* and the presence of that bar in *rusticula;* that of *rusticula* is straight. The ♂ genitalia of *theodora* are similar to those of *H. cuscutae* Bradley (1968: 615) but differ by having only one strong seta on ventral margin of harpe, whereas *cuscutae* has two.

33. Herpystis mimica Clarke, n. sp. (Fig. 33; Plate 7, fig. d).

Alar expanse 7.5–9.5 mm.

Labial palpus buff; 2nd segment fuscous on outer side except dorsally at apex; 3rd segment fuscous on outer side except at tip. Antenna pale ochraceous buff with brownish annulations. Head pale ochraceous buff. Thorax pale ochraceous buff; irrorate with scattered fuscous scales; tegula pale ochraceous buff, basally fuscous. Forewing ground color pale ochraceous buff; on costa, slightly beyond middle, a conspicuous, black, subquadrate spot preceded and followed by paired, outwardly oblique whitish strigulae; between the pairs of strigulae, oblique cinnamon bars preceded by leaden scales; ground color more or less overlaid with cinnamon scales; at end of cell a short, longitudinal, black dash and a similar one on tornus, these followed by a transverse leaden gray bar; at apex a blackish triangular spot; between the transverse leaden gray bar and a similar, shorter subterminal bar, a series of five, short, transverse fuscous dashes; on dorsal edge a series of small, fuscous spots; cilia blackish fuscous. Hindwing dusky drab, paler toward base; cilia concolorous. Foreleg buff; femur and tibia suffused grayish fuscous; tarsal segments annulated fuscous; midleg similar but tibia fuscous on outer side; hindleg buff, suffused grayish; four tarsal segments each

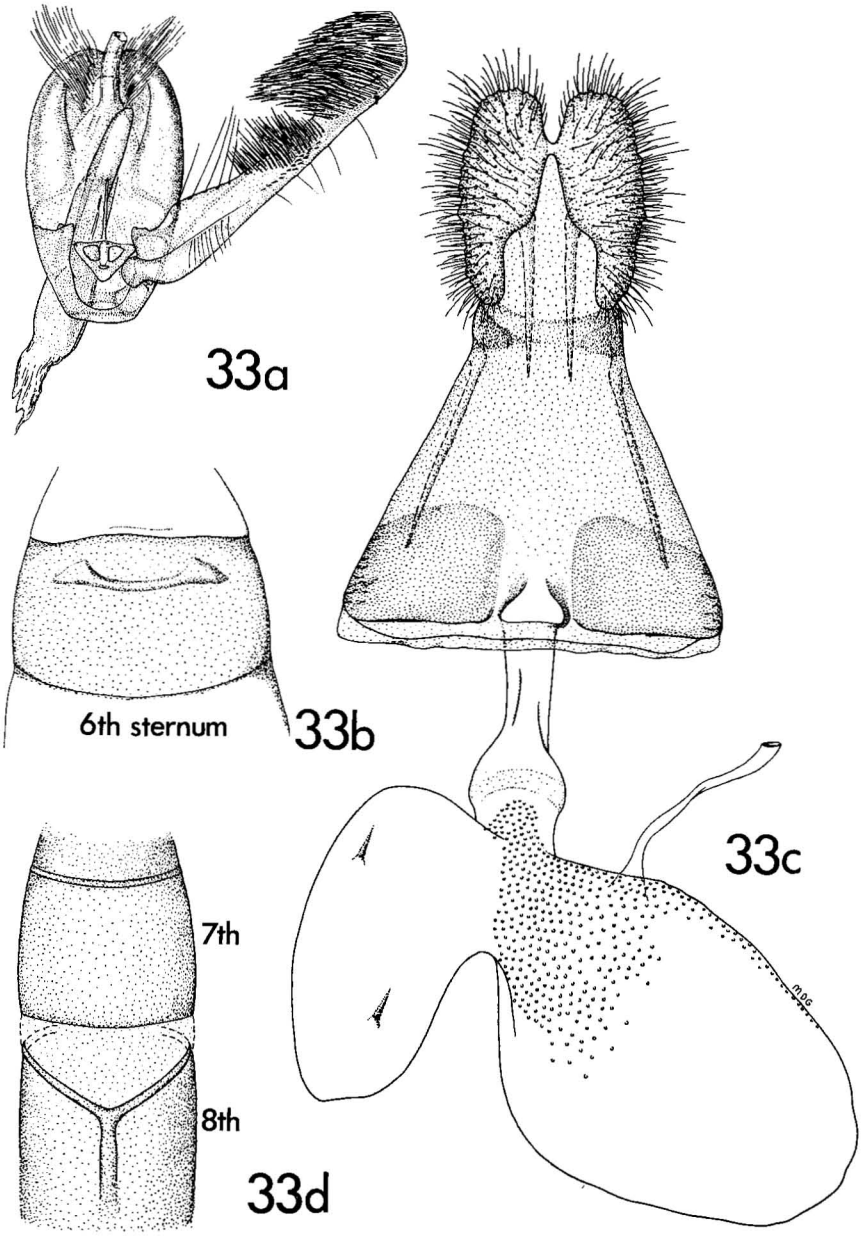


FIGURE 33. *Herpystis mimica*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted; b, 7th sternum of ♀; c, ventral view of ♀ genitalia; d, 7th and 8th terga of ♂.

marked with a grayish fuscous spot. Abdomen dorsally mummy brown, ventrally light buff, laterally slightly infuscated; caudal margin of 6th abdominal sternum of ♀ with sclerotized bar dilated laterally.

MALE: Genitalia slide USNM 24078. Harpe elongate, slender, slightly dilated basally; cucullus subtriangular with distal edge nearly straight; ventral edge with one stout, short spine. Uncus absent or vestigial. Socius slender, digitate, set in a depression. Vinculum rounded. Tegumen thick, fleshy, rounded posteriorly. Anellus triangular with a strong posterior keel articulating with aedeagus. Aedeagus as long as vinculum and tegumen combined; and with a slender sclerotized bar from middle to apex; vesica armed with one slender cornutus.

FEMALE: Genitalia slides JFGC 12266; USNM 24079. Ostium transverse, oval; ventroanterior edge membranous; a sclerotized subtriangular patch on each side; lamella postvaginalis lightly sclerotized. Antrum not differentiated. Inception of ductus seminalis from posterior edge of right lobe of bursa copulatrix. Ductus bursae membranous posteriorly; anterior 1/2 swollen, lightly sclerotized, and granular at junction with bursa copulatrix. Bursa copulatrix consisting of two pouches; right side with granular inner surface posteriorly; left side containing two, very small, thornlike signa.

Holotype ♀ (US 72571). Type-locality: Palau Is., Koror Is., Koror.

DISTRIBUTION: Western Caroline Is.

PALAU. KOROR: Koror, 1 ♀, 29 May 1957, Sabrosky.

YAP. YAP: Colonia, 3 ♂♂, 7 ♀♀, Jul.–Aug. (no specific dates), Goss.

Food plant: Unknown.

Described from the ♀ holotype, 3 ♂♂ & 7 ♀♀ paratypes as listed above.

Like *theodora* the sexes are dimorphic but the ♂♂ of *mimica* do not differ so much from the ♀♀ as in the case of the former. In *mimica* the ♂♂ have an ill-defined transverse fascia at basal 1/3 of forewing which is lacking in the ♀. The ♂ genitalia show an affinity to *theodora* having a single stout spine on the ventral edge of the cucullus. The ventral edge of harpe is straight in *mimica*, emarginate in *theodora* and the latter has many cornuti, the former only one.

This insect is very nearly related to *H. rusticula* Meyrick as indicated by the transverse sclerotized bar on the caudal margin of the 6th abdominal sternum of the ♀; but in *rusticula* this bar is of nearly equal width throughout its length, not dilated laterally as in *mimica*. In *mimica* the ostium is bordered by a subtriangular sclerotized patch on each side, but in *rusticula* the ostium is broadly margined ventroanteriorly (Clarke, 1958, 3: pl. 212, fig. 1e).

Genus **Tritopterna** Meyrick

Tritopterna Meyrick, 1921, Zool. Meded., **6:** 151. (Type-species: *Tritopterna chionostoma* Meyrick, l. c. 152 [by monotypy]).

The genus is widely distributed in the Western Pacific being found in Java, Samoa, Rapa, Marquesas Islands and the Carolines.

34. Tritopterna chionostoma Meyrick (Fig. 34; Plate 7, fig. e, f).

Tritopterna chionostoma Meyrick, 1921, Zool. Meded. **6:** 152.

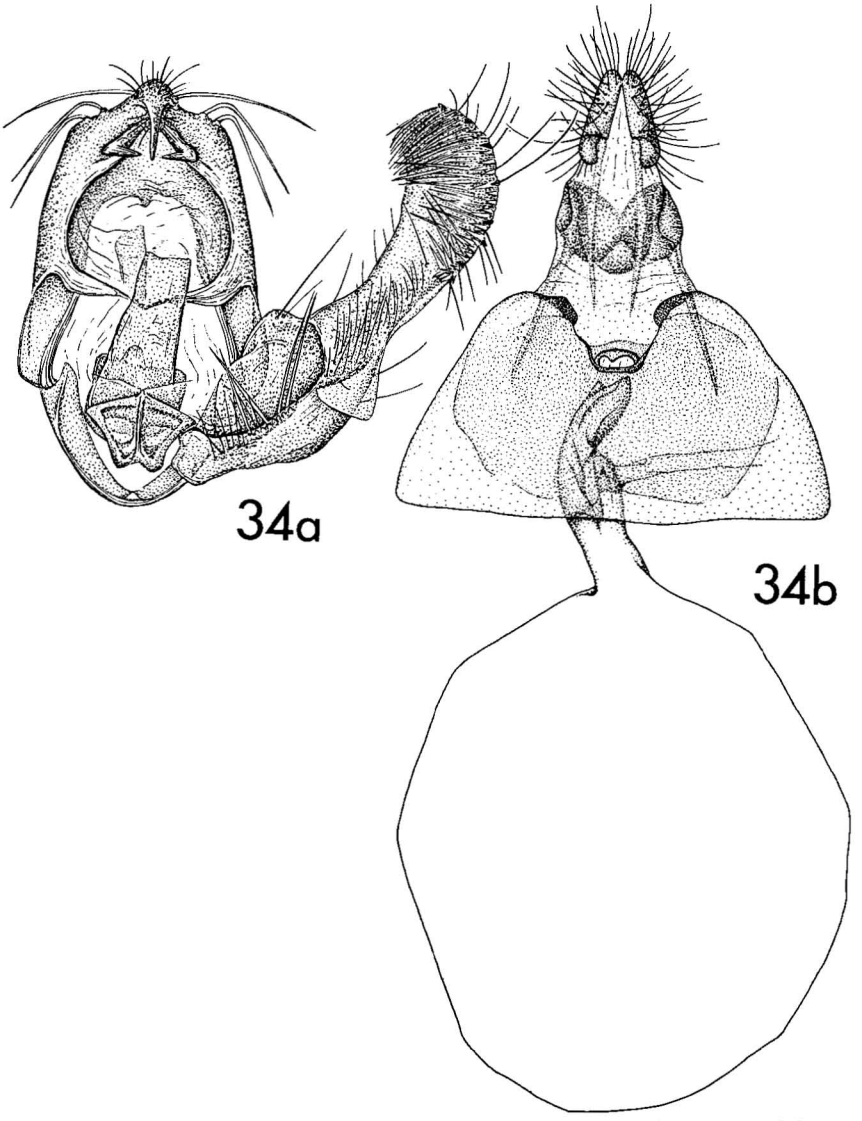


FIGURE 34. *Tritopterna chionostoma* Meyrick: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

Type: Rijksmuseum van Natuurlijke, Leiden. Type-locality: Java, Buitenzorg.

DISTRIBUTION: Java, Caroline Is.

TRUK: Wena (Moen), 3 ♂♂, June 1946, 30 m; July 1946, 0–30 m, at light, Townes lot 452, 1443.

PONAPE: Colonia, 3 ♂♂, 2 ♀♀, Jan. 1953, Clarke.

PALAU. KOROR: Koror, 1 ♂, May 1957, at light, Sabrosky; 1 ♀, Jan.–May, light trap, Beardsley.

Food plant: Unknown.

The snow-white inner surface of the labial palpus immediately distinguishes *chionostoma* from other species of this genus.

The ♂ and ♀ genitalia are figured from specimens from Ponape. Slides JFGC 12127 (♂) and 12128 (♀).

Genus **Euobraztsovia** Diakonoff

Euobraztsovia Diakonoff, 1966, Zool. Verh., No. **85:** 39 (Type-species: *Argyroploce chionodelta* Meyrick, 1911, Proc. Linn. Soc. N. S. W. **36:** 275 [by monotypy and original designation]).

The character used in the key to separate *Euobraztsovia* and *Dudua*, the positions of the internal veins of forewing at outer end of cell, is indeed a tenuous one, but appears to be supported by the differences in both ♂ and ♀ genitalia. Only two specimens, a ♂ and a ♀, of *Euobraztsovia chionodelta* (Meyrick) are available for study but in characters agree with Diakonoff's diagnosis.

35. Euobraztsovia chionodelta (Meyrick) (Fig. 35; Plate 7, fig. g, h).

Argyroploce chionodelta Meyrick, 1911, Proc. Linn. Soc. N. S. W. **36:** 275.— Clarke, 1955, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **1:** 84.— Diakonoff, 1966, Zool. Verh., No. **85:** 8, Fig. 12, 13.

Euobraztsovia chionodelta: Diakonoff, 1966, Zool. Verh. **85:** 41, figs. 12–13, 57; 1973, The South Asiatic Olethreutini, 475, figs. 699–703.

Lectotype: ♂, "Geraldton, Queensland, A. J. T., 11.00" in Meyrick's handwriting, hereby designated. Type-locality: Geraldton, Queensland.

DISTRIBUTION: Australia, New Guinea, East Papuan Is., Bismark Is., Western Caroline and Palau Islands.

PALAU. BABELTHUAP: Melekeiok, 1 ♀, May 1957, Sabrosky.

YAP. YAP: Colonia, 1 ♂, Jul. 1950, Goss.

Food plant: Unknown.

Of the lectotype Dr Ian F. B. Common wrote (in litt. 2 Aug. 1972) "In 1966 I selected one of the two original specimens in the BM collection as the future lectotype of *chionodelta*, but this has not been designated. The label data of this specimen is 'Geraldton, Queensland AJT, .11.00' in Meyrick's handwriting, and the specimen is a male. Incidentally, Geraldton was an early name for the present town of Innisfail in Northern Queensland. It seems that the name was changed early this century because of the possible confusion with Geraldton, Western Australia.

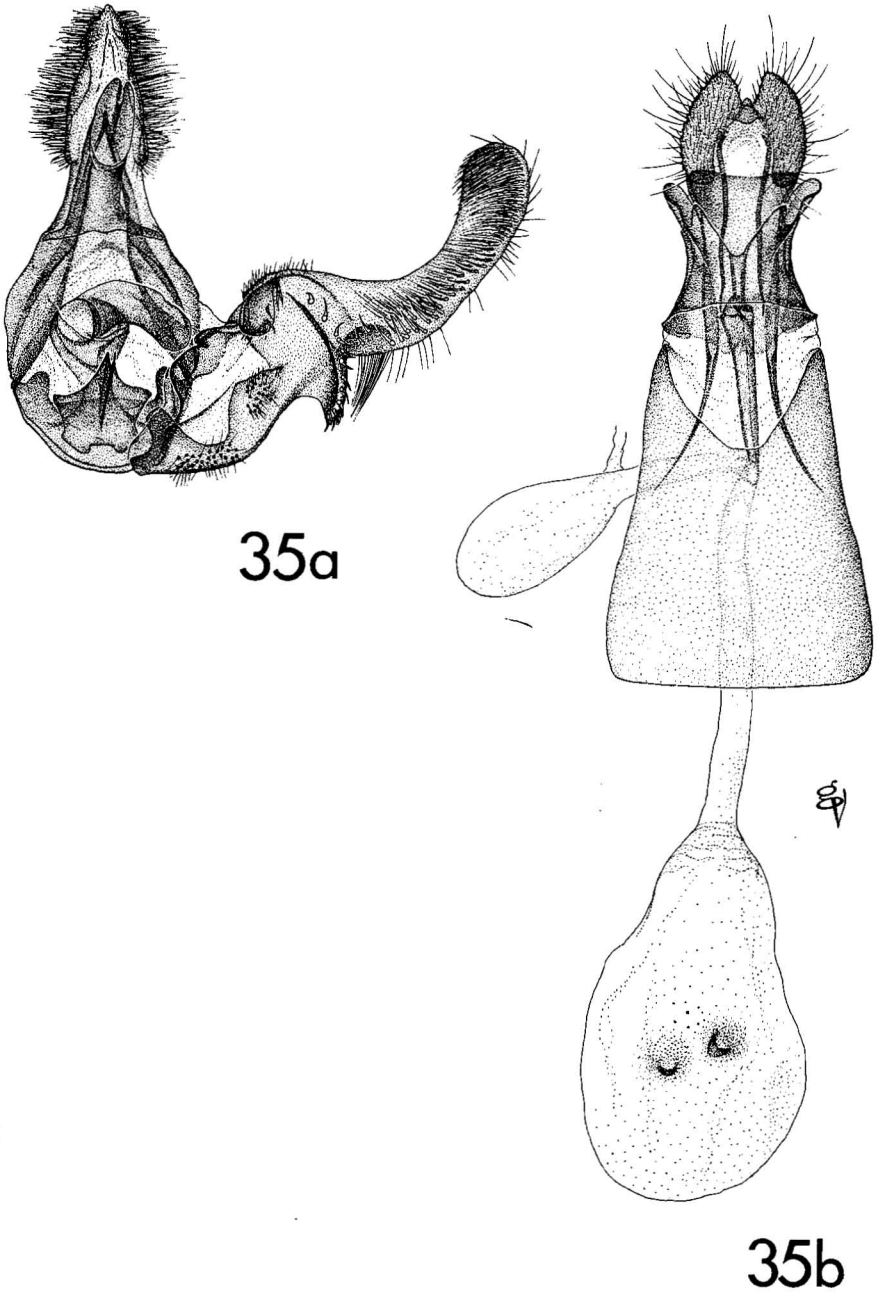


FIGURE 35. *Euobraztsovia chionodelta* (Meyrick): a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

"I would be only too happy if you would designate the lectotype of this species in your paper. Unfortunately, I have not studied the genitalia, although Diakonoff figures the genitalia of both sexes. He does not say if the figures were of the specimen in the BM selected by me as the future lectotype. This specimen, like the second syntype of Meyrick, is in the BM."

In connection with the lectotype of *chionodelta* Dr John D. Bradley, Commonwealth Institute of Entomology wrote (in litt. 13 December, 1972) "The specimen labeled as Lectotype of *Euobraztsovia chionodelta* (Meyrick) is a male and bears the data label 'Geraldton, Queensland, A.J.T. .11.00' in Meyrick's handwriting. The abdomen is *in situ;* genitalia not dissected. It also bears a label 'LECTOTYPE, I.F.B. Common, VII, 1954. *Argyroploce chionodelta* Meyrick.'

"The second specimen (syntype) does not appear to have come to the BM with the Meyrick collection; its whereabouts is not known to me. There are, however, 5 other specimens labeled as *chionodelta* from Meyrick's coll., 2 of them come from New Hanover, and 3 from St. Mathias."

I have also examined the type, and despite the fact that it has not been dissected, I am satisfied that the Micronesian specimens are correctly identified.

Genus **Dudua** Walker

Dudua Walker, 1864, List of the specimens of lepidopterous insects in the collection of the British Museum **33:** 1000. (Type-species: *Dudua hesperialis* Walker, ibid. [by monotypy]).

Diakonoff (1971: 190) synonymized *Platypeplus* with *Dudua* and (p. 191) transferred *aprobola* to the latter genus. Again (1973: 406–429), he made several other transfers and described more new species.

36. Dudua aprobola aprobola (Meyrick) (Fig. 36; Plate 5, fig. f, g, h).

Eccopsis aprobola Meyrick, 1886, Trans. Ent. Soc. London **1886:** 275.

Argyroploce aprobola: Meyrick, 1910, Rec. Indian Mus. **5** (Part 4): 218; 1911, Proc. Linn. Soc. N. S. W. **36:** 275; 1911, Trans. Linn. Soc. London **14** (Part 2): 269; 1914, Suppl. Ent. **3:** 49.— Fletcher, 1917, Proc. Second Ent. Meeting, 219, 230, 267.— Rao, 1920, Mem. Dept. Agric. India **5:** 282.— Fletcher, 1921, Mem. Dept. Agric. India (Ent. Series) **6**(2): 57, 200.— Meyrick, 1926, Trans. Ent. Soc. London **74:** 273; 1927, Insects of Samoa, Part III, Lepidoptera, fasc. **2:** 72; 1928, Trans. Ent. Soc. London **76:** 496.— Joannis, 1930, Ann. Ent. Soc. France **99:** 719.— Fletcher, 1932, Imperial Council Agric Res. (Scientific Monogr. No. 2): 27, pl. 18, figs. 1–3.— Viette, 1949, Pacif. Sci. **3**(4): 320.— Kalshoven, 1950, Plagen Cultuurgew. Indonesia **1:** 394.— Diakonoff, 1953, Verh. Ned. Akad. Wet. Nat. Ser. 2, **49**(3): 106.— Roonwal & Bhasin, 1954, Indian Forest Bull. No. **171**(1): (new ser.), Ent., pt. **2:** 51, 73.— Diakonoff, 1960, Beitr. sur. Ent. **10**(1/2): 133.— Liu, 1964, Acta Ent. Sinica **13**(2): 145.

Platypeplus aprobola: Walsingham, 1887, *in* Moore, The Lepidoptera of Ceylon **3:** 495, pl. 208, fig. 2.— Fletcher, 1929, Mem. Dept. Agric. India (Ent. Series) **11:** 179.— Clarke, 1958, Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural

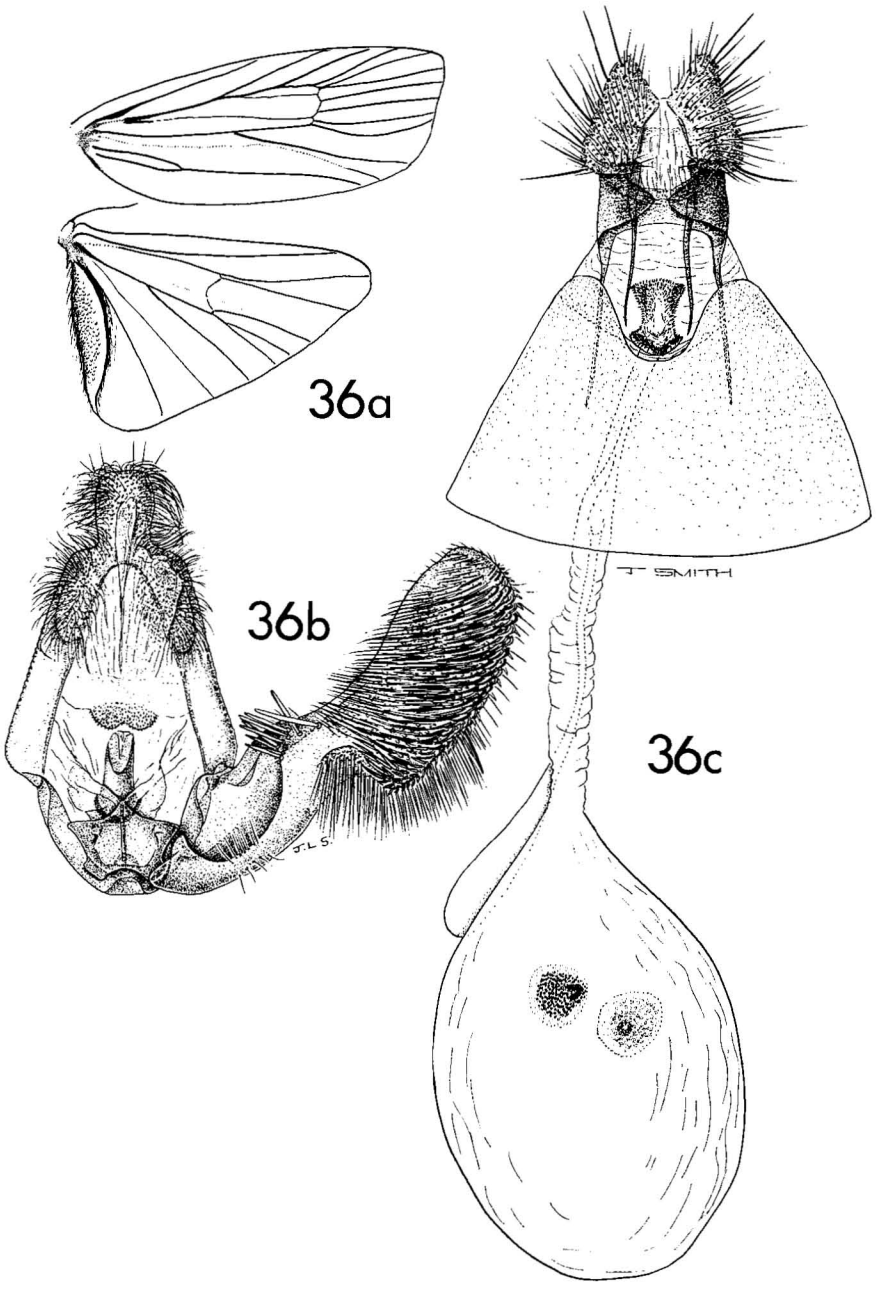


FIGURE 36. *Dudua aprobola aprobola* (Meyrick): a, venation of right wings of ♂; b, ventral view of ♂ genitalia with left harpe omitted; c, ventral view of ♀ genitalia.

History) described by Edward Meyrick **3:** 572, pl. 285, figs. 1–1a.— Diakonoff, 1961, Ann. Soc. Ent. France **130:** 68, fig. 24.— Clarke, 1971, Smithsonian Cont. Zool. **56:** 129, fig. 107, pl. 18 figs. a, b; pl. 29 fig a.

Hedya (Platypeplus) aprobola: Diakonoff, 1968, U. S. Nat. Mus. Bull. **257:** 46, fig. 523.

Dudua aprobola: Diakonoff, 1971, Veroff. Zool. Staatssamml. München **15:** 191; 1973, The South Asiatic Olethreutini, 418.

Temnolopha metallota Lower, 1901, Trans. Roy. Soc. S. Austral., 25 (Part 2): 73.

Types: British Museum (Natural History), (*aprobola*): South Australian Museum, Adelaide, (*metallota*) (?). Type-localities: Tonga (*aprobola*): Cooktown, Queensland (*metallota*).

DISTRIBUTION: Throughout the Indo-Australian Region to the South Pacific Is. including the Society Is. (Tahiti, Raiatea), Austral (Tubuäi) Is. (Rurutu, Raivavae, Rapa) north to China and Formosa; also Natal.

SOUTHERN MARIANA IS. Saipan, 2 ♀♀, no date or exact locality, Townes lot 892. GUAM: 3 ♂♂, no specific locality, Mch. 1939, Oakley, Guam No. 1789 [39-7172]; 1 ♀, no specific locality or date, Fullaway 1442; Agana, 2 ♂♂, Aug. 1936, Swezey, ex *Ficus* leaf; Fadian, 1 ♀, Aug. 1936, Swezey, ex "pavao"; Piti, 1 ♂, 5 ♀♀, Jul. and Aug. 1936, Swezey; Pt. Oca, 2 ♂♂, 1 ♀, Dec. 1945, Gressitt; Pt. Ritidian, 3 ♂♂, Aug. 1945, Gressitt; Commander Marianas' Hill, 14 ♀♀, Mch. 1949, Maehler [49-11771].

ELLICE IS: FUNAFUTI: Funafala, 3 ♂♂, 2 ♀♀, Jun. 1972, Manser.

Food plants: *Psidium guajava* L., *Metrosideros collina* (Forster) A. Gray var. ? *glaberrima* A. Gray; *M. c.*? *villosa* (L. f.) A. Gray, *Eugenia jambos* L. (all Myrtaceae): *Mangifera indica* L. (Anacardiaceae); *Rosa, Lantana camara* L., *Dahlia, Nephelium litchi* Cambess. *Cassia tora* L., *Polyalthia longifolia* Benth. & Hook., *Lagerstroemia flos-reginae* Retz. *Loranthus, Salix tetrasperma* Roxb.; *Schleichera trijuga* Willd. *Bidens pilosa* L. (Compositae). *Ficus* sp. The *Bidens* record is based on a specimen reared from a pupa found in a folded leaf and appears to have been an accidental use of the leaf for pupation only.

As pointed out by Clarke (1971: 131) moths of the Rapa population of *aprobola* rarely come to light. This is true of those from Tahiti. The Guam, Saipan and Ellice Islands examples, however, except those reared, were light collected. Also, the Guam and Saipan specimens are equal to the type in size whereas the moths from Rapa, Tahiti, and Ellice Islands average considerably larger. I have examined 13 preparations of genitalia, but in structure, the various populations are indistinguishable.

37. Dudua aprobola kusaiensis Clarke, n. ssp. (Fig. 37; Plate 8, fig. a).

Alar expanse 11–17 mm.

Labial palpus pale ochraceous buff on inner surface, ochraceous tawny on outer side, overlaid blackish fuscous especially toward base. Antenna cinnamon buff; scape and few basal

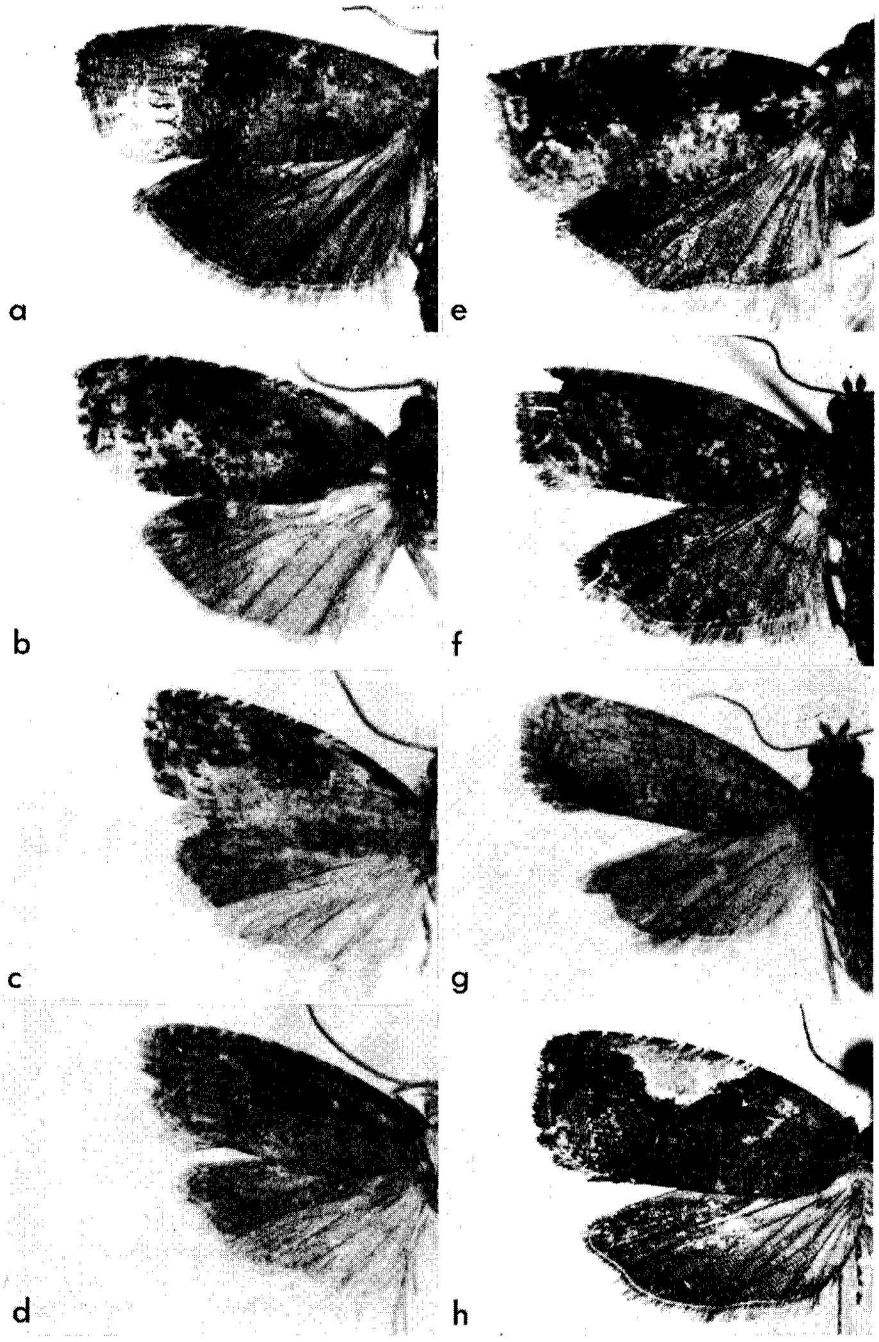


PLATE 8. a, *Dudua aprobola kusaiensis*, n. subsp., ♀ paratype; b, *Dudua ptarmicopa* (Meyrick), ♂; c, *D. cellifera* (Meyrick); ♂; d, *D. pottsi*, n. sp., ♂ holotype; e, *D. anisoptera*, n. sp., ♂ holotype; f, *D. anisoptera*, n. sp., ♀ paratype; g, *D. anisoptera*, n. sp., ♀ paratype, extreme form; h, *Statherotis leucaspis* (Meyrick), ♂.

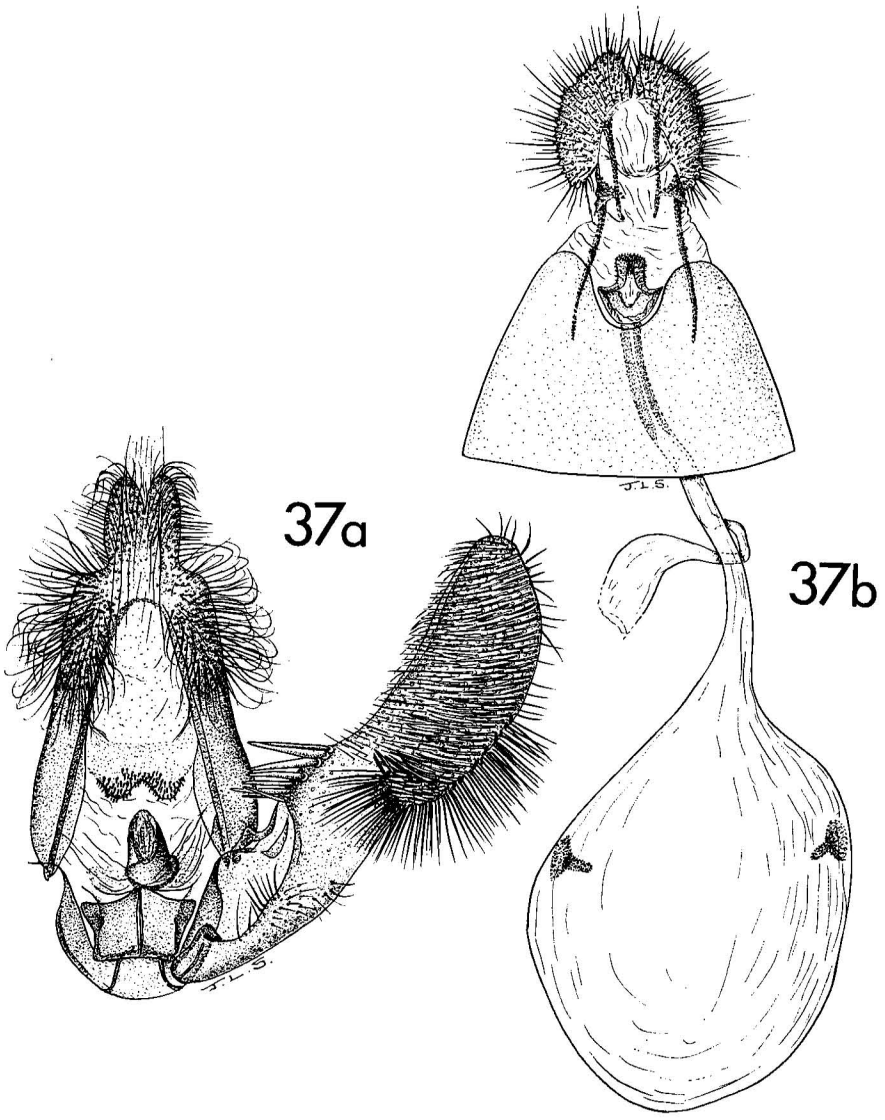


FIGURE 37. *Dudua aprobola kusaiensis*, n. subsp.: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

segments black with bluish iridescence dorsally. Head black anteriorly with blue iridescence; posteriorly grayish. Thorax gray, tips of scales whitish; posterior tuft black. Forewing ground color leaden gray; costa blackish fuscous interrupted by four pairs and a single white strigulae; from mid-costa a broad transverse olive-brown fascia extends to fold, where it narrows, then continues to dorsum before tornus; on mid-dorsum an ill-defined vinaceous-buff spot; in basal 1/2 of wing, in some specimens, along fold, some buff scales mixed with short olive-brown transverse dashes; between the two outer pairs and outer single costal

strigulae, some tawny streaks; outer 1/4, in tornal area, white; costal outer 1/4 fuscous marked with transverse parallel lines of single white scales; at outer 1/5 a line of 6 or 7 black, slender, short, longitudinal dashes paralleling veins; on termen, between veins 3 and 4, a tawny spot; cilia blackish fuscous at apex shading to buff and white at tornus. Hindwing grayish fuscous, somewhat paler basally; cilia grayish, darker around apex. Foreleg grayish; tarsal segments blackish fuscous, annulated buff; midleg similar but tibial spurs buff; hindleg buff, suffused grayish on outer side. Abdomen grayish fuscous dorsally; ventrally ochraceous-buff with median row of fuscous spots.

MALE: Genitalia slide JFGC 10211. Harpe of nearly equal width throughout; ventral edge of cucullus convex; inner ventral edge of cucullus armed with short, stout setae; costa of harpe, near base armed with a series of 8 or 9 long, strong setae. Gnathos (?) bilobed, spined. Uncus a broad, truncate lobe. Vinculum rounded, with median dorsal lobe. Tegumen about 3/4 length of harpe, somewhat broader basally than posteriorly; sides nearly straight. Anellus subrectangular with posterior median bar articulating with aedeagus. Aedeagus short, stout.

FEMALE: Genitalia slide JFGC 10212. Ostium V-shaped surrounded by a strongly sclerotized, irregular thick collar joined to a posterior rectangular, granular process. Antrum sclerotized. Inception of ductus seminalis from membranous portion of ductus bursae about midway between bursae copulatrix and antrum. Bursa copulatrix membranous, finely granular. Signa two slender cones.

Holotype ♂ (US 72577). Type-locality: Kusaie, Mutunlik.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Hill 541, 110–165 m, ♂, 3 ♀♀, 11 Mch.–18 Apr. 1953; Hill 1010, 330 m, 8 ♂♂, 2 ♀♀, 4 Feb.–13 Apr. 1953; Lelu Id., 100 m, 3 ♂♂, 18 Feb. 1953; Mutunlik, 22 m, 15 ♂♂, 14 ♀♀, 24 Jan.–25 Apr. 1953; S. slope Mt. Matante, 308 m, 4 ♂♂, 2 ♀♀, 11 and 20 Feb. 1953, all collected by Clarke.

Food plant: Unknown.

Described from the ♂ holotype (Mutunlik, 14 Feb. 1953, Clarke), 30 ♂♂, 21 ♀♀ paratypes as listed above.

To all intents and purposes the genitalia of *kusaiensis* and the nominal race are indistinguishable. The Kusaie race however differs markedly in appearance having a complete, transverse, dark fascia and a very white tornal area of the forewing (compare figures). Another interesting difference is one of habit: *kusaiensis* flies at night and comes to light readily (all specimens were, in fact, taken at light), but *aprobola* usually flies in the afternoon.

38. Dudua ptarmicopa (Meyrick) (Fig. 38; Plate 8, fig. b).

Argyroploce ptarmicopa Meyrick, 1936, Exotic Microlepidoptera **4:** 612.

Olethreutes ptarmicopa: Inoue, 1954, Check List of the Lepidoptera of Japan. **1:** 105 (no. 586).

Platypeplus ptarmicopa: Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 575, pl. 286, figs. 2–2a.

Dudua ptarmicopa: Diakonoff, 1973, The South Asiatic Olethreutini, 427.

Lectotype: British Museum (Natural History). Type-locality: Formosa, Taihoku.

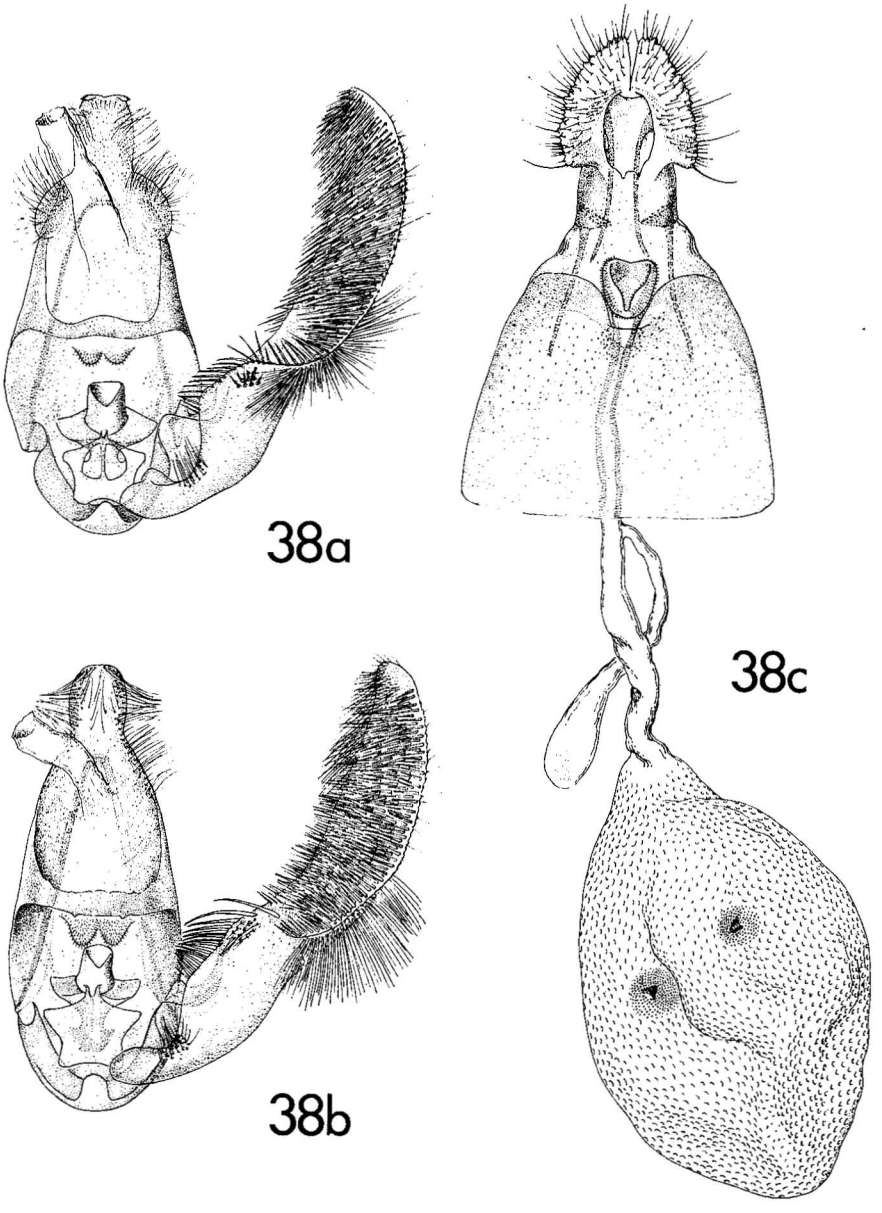


FIGURE 38. *Dudua ptarmicopa* (Meyrick): a, ventral view of ♂ genitalia (var.) with left harpe omitted; b, ventral view of ♂ genitalia with left harpe omitted; c, ventral view of ♀ genitalia.

DISTRIBUTION: China, Japan, Formosa, Palau Islands.

PALAU: Koror, 3 ♂♂, Jan.–May, 1953, light trap, Beardsley.

Food plant: Unknown.

The 3 ♂♂ from Koror average slightly smaller than the series of typical *ptarmicopa* we have from Taiwan, and there is a little more white scaling in the tornal area of our Koror examples. The ♂ genitalia are somewhat atypical also as can be seen by the figures (38a, 38b) but I do not think the differences are specific. Moreover, there is insufficient material at hand, and no ♀♀ of the Koror population so, for the present, I am considering the Koror specimens as a variation of *ptarmicopa* with incipient speciation obvious.

39. Dudua proxima Clarke, n. sp. (Fig. 39; Plate 9e).

Alar expanse 14 mm.

Labial palpus buff; 2nd segment with supramedial brown bar on outer side; 3rd segment fuscous basally. Antenna clay color. Head buff; pale clay color anteriorly. Thorax buff; centrally almost wholly fuscous; basal 1/2 of tegula mottled fuscous and buff. Forewing ground color buff, variously spotted with fuscous and leaden scales; basal patch indicated by an irregular, broken, outwardly curved fuscous line; center of basal patch mottled with fuscous and ocherous scales; from costa, a broad, ill-defined fascia of ground color extends transversely and broadens at dorsum and is obscured by grayish and fuscous mottling; beyond and bordering this light fascia an outwardly oblique fuscous band extends to outer part of cell, then turns abruptly across cell to vein 2; this fuscous band is bordered by a leaden gray fascia in costal 1/2; ocelloid patch leaden gray with median transverse bar tawny, the tawny bar crossed by 4 longitudinal, fuscous streaks; costa narrowly marked by numerous small fuscous spots and striae; cilia a mixture of buff, tawny and fuscous scales. Hindwing fuscous with slight brassy luster; cilia grayish fuscous. Foreleg and midleg buff, sparsely irrorate with fuscous; hindleg buff. Abdomen buff ventrally, grayish fuscous dorsally.

FEMALE: Genitalia slide USNM 24105. Ostium round, protruding; strongly ciliate; ventral lip deeply cleft. Antrum sclerotized, elongate. Inception of ductus seminalis dorsal from about middle of ductus bursae. Ductus bursae membranous in anterior 1/2. Bursa copulatrix spiculate. Signa two small sclerotized, scobinate plates, each with a short central spine.

Holotype ♀ (US 72586). Type-locality: Ponape, Colonia.

DISTRIBUTION: Eastern Caroline Islands.

PONAPE: Colonia, 1 ♀, Jan. 1953, Clarke.

Food plant: Unknown.

Described from the unique ♀ holotype.

This is very close to *ptarmicopa* but lacks any of the white tornal marking. Moreover, the ostial opening of *proxima* is narrow and small, that of *ptarmicopa* much broader.

40. Dudua cellifera (Meyrick) (Fig. 40; Plate 8, fig. c).

Polychrosis cellifera Meyrick, 1912, J. Bombay Nat. Hist. Soc. **21:** 869.— Fletcher, 1920, Mem. Dept. Agric. India, Ent. ser. **6:** 53; 1932, Imp. Council Agric. Res., Sci. Mon. No. **2:** 25, pl. 16, figs. 1–4.— Clarke, 1955, Catalogue of type specimens of Microlepidoptera in the

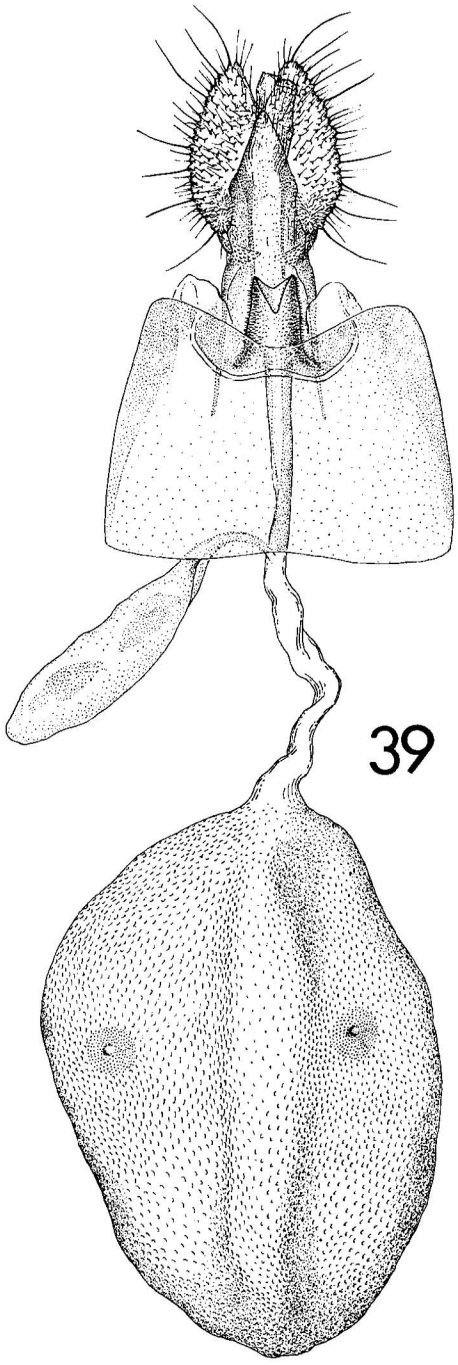


FIGURE 39. *Dudua proxima*, new species: ventral view of ♀ genitalia.

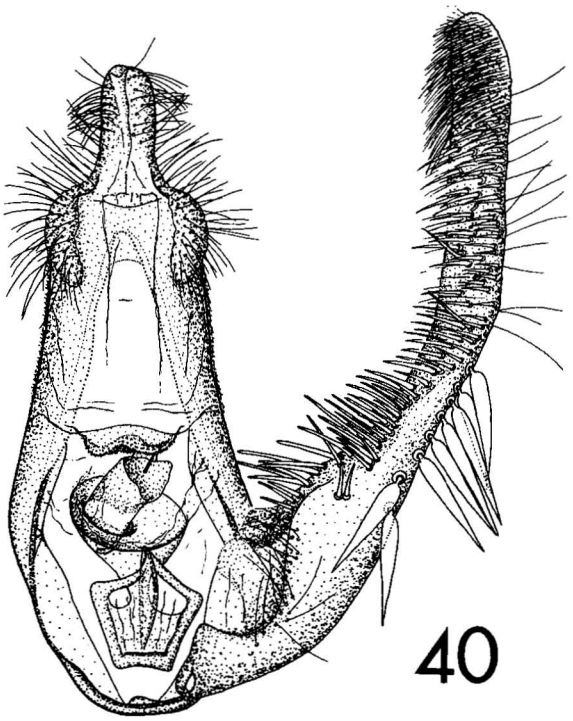


FIGURE 40. *Dudua cellifera* (Meyrick): ventral view of ♂ genitalia with left harpe omitted.

British Museum (Natural History) described by Edward Meyrick **1:** 78.

Olethreutes cellifera: Clarke, 1958, Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 495, pl. 246, figs. 1–1b, 2–2b.

Hedya (Cellifera) cellifera: Diakonoff, 1968, U. S. Nat. Mus. Bull. **257:** 47, figs. 73, 95, 525.

Argyroploce codonectis Meyrick, 1927, Exotic Microlepidoptera **3:** 339; 1931, op. cit. **4:** 129.— Fletcher, 1932, Imp. Council Agr. Res., Sci. Mon. No. **2:** 28.— Clarke, 1955, Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, **1:** 95.

Lasiognatha cellifera: Diakonoff, 1973, The South Asiatic Olethreutini, 431, fig. 632.

Lectotype: British Museum (Natural History) (*cellifera*): holotype (*codonectis*). Type-localities: Ceylon (*cellifera*); Malay States, Kuala Lumpur (*codonectis*).

DISTRIBUTION: Ceylon, Malay States, India, Java, Sumatra, Celebes, Philippine Is., Eastern Caroline Is.

PONAPE: Colonia, 1 ♂, Jan. 1953, Clarke.

Food plants: *Eugenia malaccensis* L., *E. aquea* Burm. f, *E. jambolana* Lam., *Jambosa vulgaris* DC. (all Myrtaceae).

Similar to *D. tectigera* (Meyrick), in pattern but the dark, elongate triangle of forewing is less well-defined in *cellifera*. The genitalia of *cellifera* place it

British Museum (Natural History) described by Edward Meyrick **1:** 78.

near *D. scaeaspis* (Meyrick) but the latter lacks the series of strong setae on ventral edge of harpe.

Diakonoff (1973: 429) proposed the new genus *Lasiognatha* for *cellifera, mormopa* (Meyrick), *deceptor* (Diakonoff) and described as new, *quartaria*. He states, "The genus . . . differs [from *Dudua*] chiefly by the peculiar signum and the presence of aciculate or bristly gnathos, together with well-developed socii." On the basis of the signa of *cellifera* and *mormopa* he seems justified, but his *quartaria* has a single signum similar to those of species of the genus *Dudua*. Moreover, the socii are well-developed and the gnathos is aciculate as in *Dudua* and for this reason I am retaining *cellifera* in *Dudua*.

41. Dudua pottsi Clarke, n. sp. (Fig. 41; Plate 8, fig. d).

Alar expanse 14 mm.

Labial palpus ochraceous buff; 2nd segment suffused fuscous on outer side; 3rd segment grayish fuscous. Antenna ochraceous buff; scape grayish fuscous. Head pale cinnamon buff anteriorly, pale ochraceous buff posteriorly. Thorax pale ochraceous buff; anterior edge and base of tegula grayish fuscous; posterior median tuft light cinnamon buff. Forewing ground color cinnamon buff; in costal 1/2 of wing a clay color triangle, its apex at base of wing, extends to end of cell; outer costal edge of triangle marked by an S-shaped leaden-gray line; basal 1/3 of costa narrowly fuscous followed outwardly by a quadrate, light ochraceous buff spot; in outer 1/3 of cell scattered fuscous scales; between end of cell and termen a series of six ill-defined, short fuscous longitudinal dashes paralleling veins; on extreme dorsal edge a series of 6 small fuscous spots; cilia cinnamon buff mixed with a few scattered fuscous scales. Hindwing grayish fuscous, paler toward base; cilia pale ochraceous buff. Foreleg buff

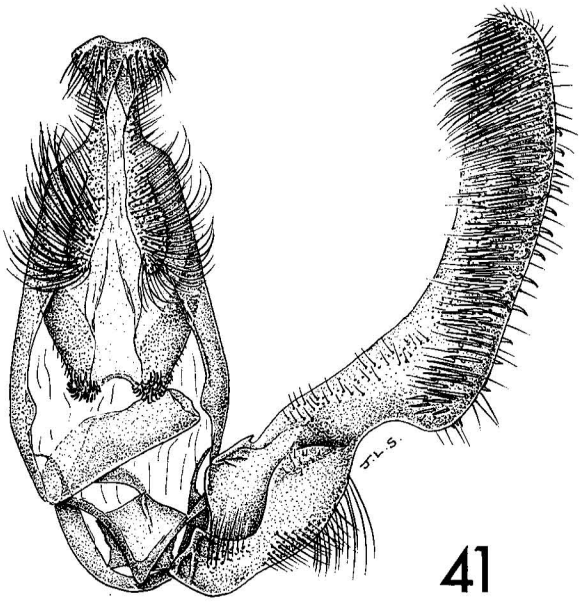


FIGURE 41. *Dudua pottsi*, new species: ventral view of ♂ genitalia with left harpe omitted.

suffused fuscous on outer side; tarsal segments fuscous on outer side; midleg similar to foreleg; hindleg buff. Abdomen grayish fuscous dorsally; ventrally buff.

MALE: Genitalia slide AD 5375. Harpe slender, cucullus about 2/3 length of entire harpe; ventral edge of harpe deeply concave at 1/3; strong spine clusters absent. Gnathos bilobed, setaceous. Uncus dilated distally. Vinculum rounded. Tegumen slender, sides gently convex. Anellus a subrectangular, sclerotized plate with posterior arm articulating with aedeagus. Aedeagus short, stout.

Holotype ♂ (US 72579). Type-locality: Truk, Wena (Moen).

DISTRIBUTION: Eastern Caroline Is.

TRUK: Wena (Moen), 1 ♂, Civil Administration Area, 6 Mch. 1949, Potts.

Food plant: Unknown.

Described from the unique ♂ holotype as listed above.

In pattern *pottsi* most nearly resembles *D. tectigera* (Meyrick) from Java, but the ground color of the latter is much paler than that of the former. Moreover, at ventral corner of cucullus and at base of harpe dorsally of *tectigera* there are heavy spine clusters which are absent in *pottsi*. The uncus of *pottsi* is distally dilated, that of *tectigera* is narrowed.

42. Dudua anisoptera Clarke, n. sp. (Fig. 42; Plate 8, fig. e, f, g).

Alar expanse 12–14 mm.

Labial palpus fuscous; 2nd segment with cinnamon buff apical annulus; 3rd segment apex cinnamon buff. Antenna cinnamon buff with faint, narrow, brown annulations. Head cinnamon buff and fuscous mixed. Thorax a mixture, from creamy white to cinnamon buff, marked by fuscous; posterior tuft fuscous and buff. Forewing ground color buff but so strongly overlaid with dark markings that it is nearly obliterated; costa with a buff or white quadrate spot at 2/5 containing three small spots on extreme costal edge; basal patch fuscous, outwardly angulate from costal 1/3 and dorsal 1/5 and confluent at its outer extremity with a fuscous blotch, the latter arising on costa and extending transversely across 2/3 width of wing; on costa, beyond the quadrate spot, four pairs of outwardly oblique strigulae; between large central fuscous blotch and termen a roughly X-shaped mark overlaid with cinnamon buff; on termen, from veins 5–7 a transverse, oval, buff ring with fuscous scales in center; dorsal area of wing largely covered with cinnamon buff scales; dorsal edge of wing marked with a series of 8 small fuscous dots; cilia mostly cinnamon buff, those at extreme apex fuscous. Hindwing grayish fuscous, slightly paler basally; cilia sordid white with a slightly darker, fine subbasal line. Foreleg buff; femur and tibia suffused fuscous on outer side; tarsal segments annulated blackish fuscous; midleg similar but tibia with a median buff bar; hindleg buff, tarsal segments each with a blackish fuscous spot on outer side. Abdomen fuscous dorsally; yellowish white ventrally with a median row of small blackish spots.

MALE: Genitalia slides JFGC 9500, 9506, 11501, 11533. Harpe broad basally, abruptly narrowed before middle; cucullus slightly dilated; ventral edge of harpe armed with a series of stout setae at middle; from ventral edge of harpe, before cucullus a line of stout setae curves toward costa at basal 1/3. Gnathos bilobed, spined. Uncus bifid. Vinculum a moderately broad band. Tegumen about 4/5 the length of harpe. Anellus subrectangular, from posterior edge an arm, broadens to a cup-shaped element enveloping aedeagus. Aedeagus short, slightly curved; vesica free of cornuti in four examples examined.

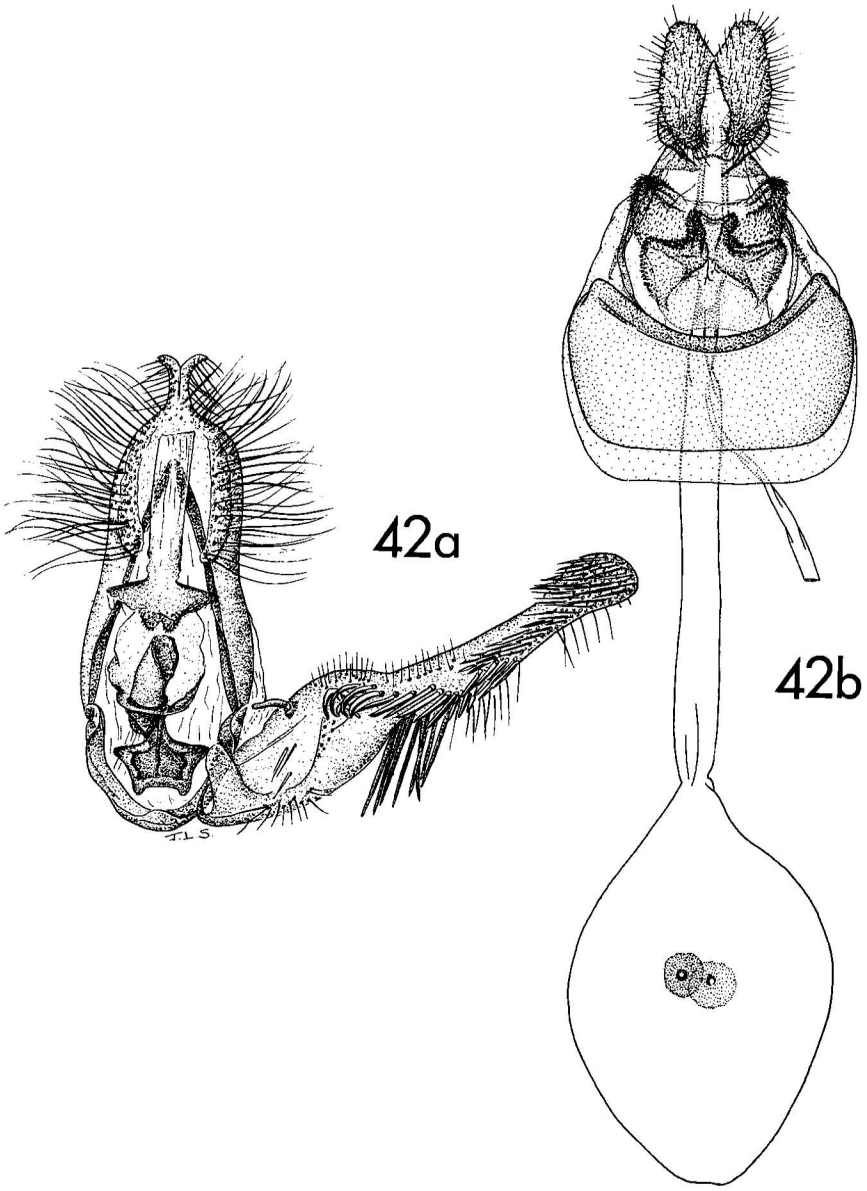


FIGURE 42. *Dudua anisoptera*, new species: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

FEMALE: Genitalia slide JFGC 12291. Ostium V-shaped with lateral, strongly sclerotized, spinulate pyramidal processes; dorsal to this a sclerotized, spinulate curved plate. Antrum lightly sclerotized. Inception of ductus seminalis ventral, from anterior edge of antrum. Ductus bursae membranous. Bursa copulatrix membranous with finely granular inner surface. Signa

two small cones arising from granular discs.

Holotype ♂ (US 72580). Type-locality: Guam, Mt. Chachao.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Piti, 2 ♂♂, 6 ♀♀, 1 May & 21 Sept. 1936, Swezey: Pt. Oca, 1 ♂, 1 June 1945, Gressitt.

Food plant: *Glochidion* sp.

Described from the ♂ holotype (16 May 1936, Swezey), 3 ♂♂ and 6 ♀♀ paratypes as listed above.

This is an extremely variable species, most ♀ specimens of which are similar to that shown in (Pl. 8, fig. f) but these, in common with the ♂ holotype, have a well-marked white or buff costal spot. The specimen shown (Pl. 8, fig. g) is atypical, lacking the white costal spot and having the forewing surface covered with longitudinal lines of small whitish dots.

Genus **Statherotis** Meyrick

Statherotis Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 591. (Type-species: *Statherotis decorata* Meyrick, ibid [by monotypy]).

43. **Statherotis leucaspis** (Meyrick) (Fig. 43; Plate 8, fig. h).

Eucosma leucaspis Meyrick, 1902, *in* Gardiner, The Fauna and Geography of the Maldive and Laccadive Archipelagoes **1:** 26; 1906, J. Bombay Nat. Hist. Soc. **17:** 136.

Argyroploce leucaspis: Meyrick,. 1911, Trans. Linn. Soc. London **14**(2): 270; 1917, Proc. Second Ent. Meeting (India), 229.— Fletcher, 1920, Mem. Dept. Agric., in India **6**(2): 60.— Diakonoff, 1949, Bijdr. tot de Dierk. **28:** 135.

Olethreutes leucaspis: Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 524, pl. 261, figs. 4–4a.— Liu, 1964, Acta Ent. Sinica **13**(2): 145.

Statherotis leucaspis: Diakonoff, 1967, U. S. Nat. Mus. Bull. **257:** 55.

Type: British Museum (Natural History). Type-locality: Laccadive Is., Minicoy (Minikoi).

DISTRIBUTION: Maldive and Laccadive Is., Ceylon, China, India, Solomon Is., Caroline and Marshall Is.

CAROLINE ATOLLS. FARAULEP: Faraulep I., 1 ♂, Sept. 1952; Pigue I., 1 ♀, Sept. 1952, Krauss.

MOKIL ATOLL: 1 ♂, Jan. 1953, Gressitt.

KUSAIE: Hill 1010, 300 m, 5 ♂♂, Apr. 1953, Clarke; Hill 541, 165 m, 1 ♂, 1 ♀, Apr. 1953, Clarke; Mwot, 1 ♂, Apr. 1953, Clarke.

MARSHALL IS. JALUIT: Imrodj Is., 1 ♂, 3 ♀♀, Aug. 1946, Townes lot 1851. AILINGLAPALAP: Bigatyeland Is., 2 ♀♀, Aug. 1946, Townes lot 1861.

Food plant: *Nephelium litchi* Cambess.

The specimens from Kusaie show considerable lavender shading in the pale costal spot of the forewing, illustrated in fig. h, plate 8, but this may result

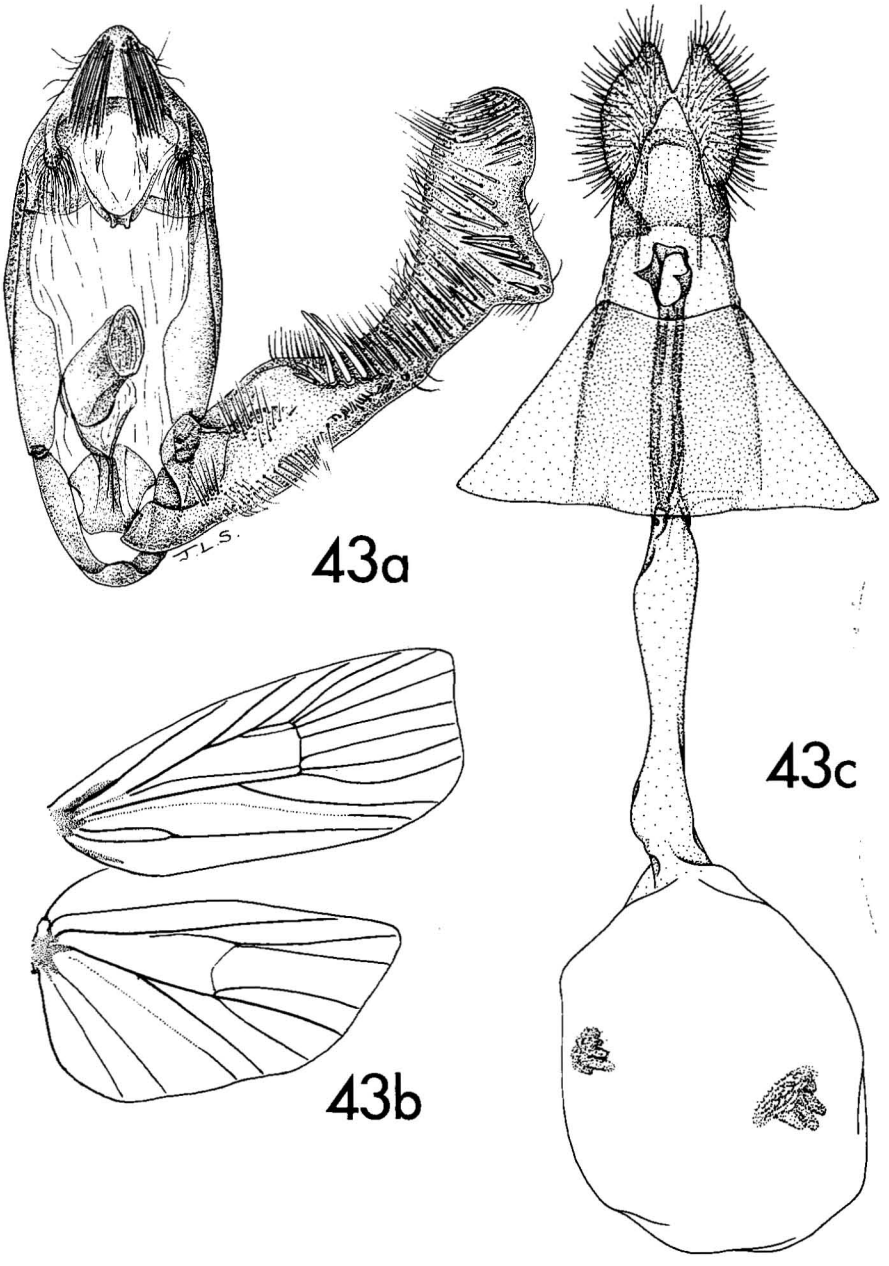


FIGURE 43. *Statherotis leucaspis* (Meyrick): a, ventral view of ♂ genitalia with left harpe omitted; b, venation of right wings of ♂: c, ventral view of ♀ genitalia.

from the condition of the specimens. Of Meyrick's *leucaspis* he states ". . .triangular white costal patch extending to beyond 3/4 of costa, tinged posteriorly towards costa with rosy-ochereous." It is quite possible that the coloring in the costal patch in his specimens had faded. Also, the difference in coloration may represent racial development. The genitalia of all specimens I have seen are indistinguishable from each other.

S. decorata Meyrick, *S. discana* (Felder) and *S. leucaspis* are closely related, but both *decorata* and *discana* have black scaling on the underside of the forewing and upper side of the hindwing of the ♂ which is lacking in the ♂ of *leucaspis*. The genitalia of the three are similar.

The genitalia are figured from specimens from Kusaie; ♂♂, slides JFGC 10216, 10338; ♀, slides JFGC 12217, 10339.

Genus **Nenomoshia** Clarke, **new genus**

Type-species: *Argyroploce poetica* Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 437 (by present designation). The gender of this genus is feminine.

Labial palpus porrect, slightly longer than head; 2nd segment at least 5 × as long as 3rd, somewhat roughened beneath. Maxillary palpus hardly perceptible. Head roughened on vertex and posteriorly; face smooth; ocellus present. Antenna (♂) simple, but slightly thickened proximally. Forewing with 12 veins; 2 from 2/3; 3 from angle; 4 nearer to 3 than to 5; 5 and 6 parallel; 7 and 8 separate, 7 to termen; 10 about equidistant from 9 and 11; 11 from middle. Hindwing with 8 veins; 2 from about 3/5; 3 and 4 connate; 5 approximate to 4 at base; 6 and 7 separate. Hindleg tibia smooth.

MALE: Genitalia with socius well developed; uncus present but reduced.

FEMALE: Not available.

Apparently this genus is closely related to *Statherotis* Meyrick, but differs from it by the reduced uncus, well developed socius and separate veins 7 and 8 of forewing.

The following species belong here, but have not been found in Micronesia:

Nenomoshia aeraria (Meyrick), NEW COMBINATION
Argyroploce aeraria Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 605.

Nenomoshia callicratis (Meyrick), NEW COMBINATION
Argyroploce callicratis Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 605.

Nenomoshia miltographa (Meyrick), NEW COMBINATION
Eucosma miltographa Meyrick, 1907, J. Bombay Nat. Hist. Soc. **18:** 138.

44. Nenomoshia poetica (Meyrick), NEW COMBINATION (Fig. 44; Plate 9, fig. f).

Argyroploce poetica Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 437; 1911, Proc. Linn. Soc. N. S. W. **36**(2): 282.— Fletcher, 1920, Mem. Dept. Agric., in India **6**(2): 61.

base; 6 and 7 separate. Hindleg tibia smooth.

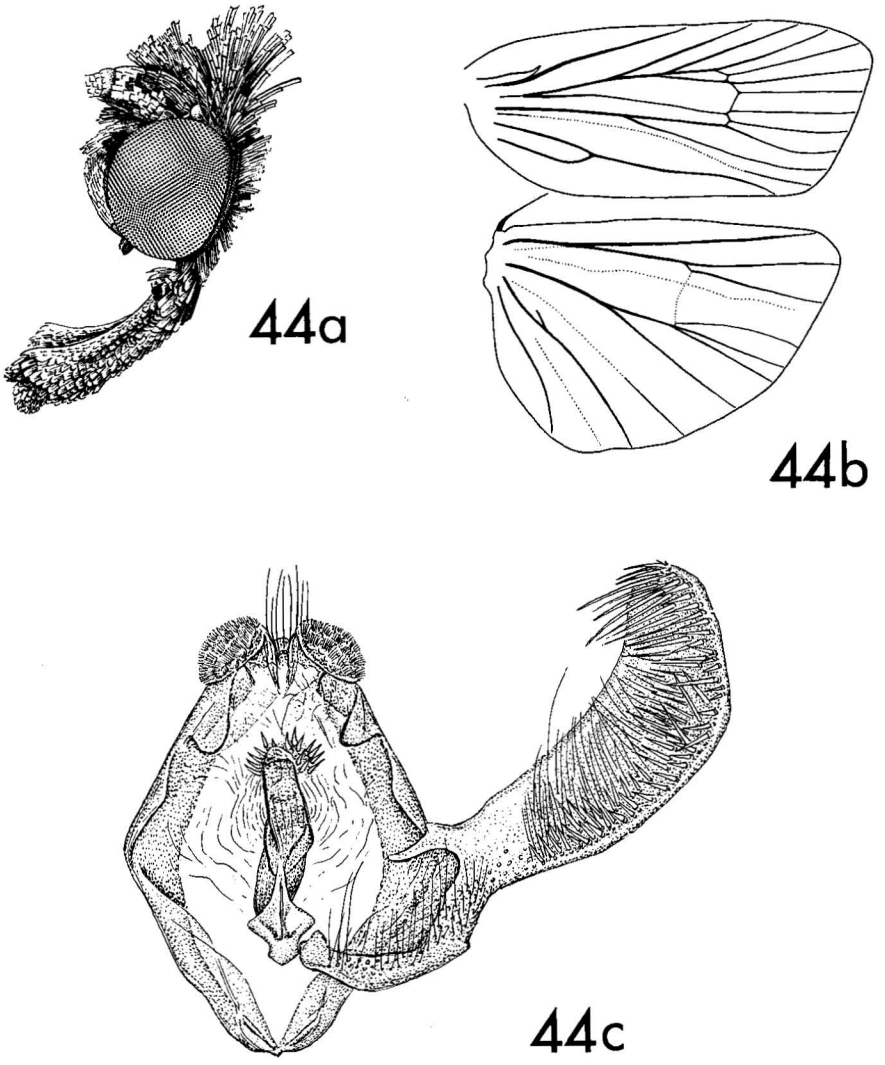


FIGURE 44. *Nenomoshia poetica* (Meyrick): a, lateral aspect of head; b, venation of right wings of ♂; c, ventral view of ♂ genitalia with left harpe omitted.

Olethreutes poetica: Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 539, pl. 268, figs. 2–2a.

Eucosma mosaica Meyrick, 1907, J. Bombay Nat. Hist. Soc. **18:** 138 (*preoccupied*).

Type: British Museum (Natural History). Type-locality: Southern India, Palni Hills.

DISTRIBUTION: India, Ceylon, Southern Mariana Is., Northern Australia.

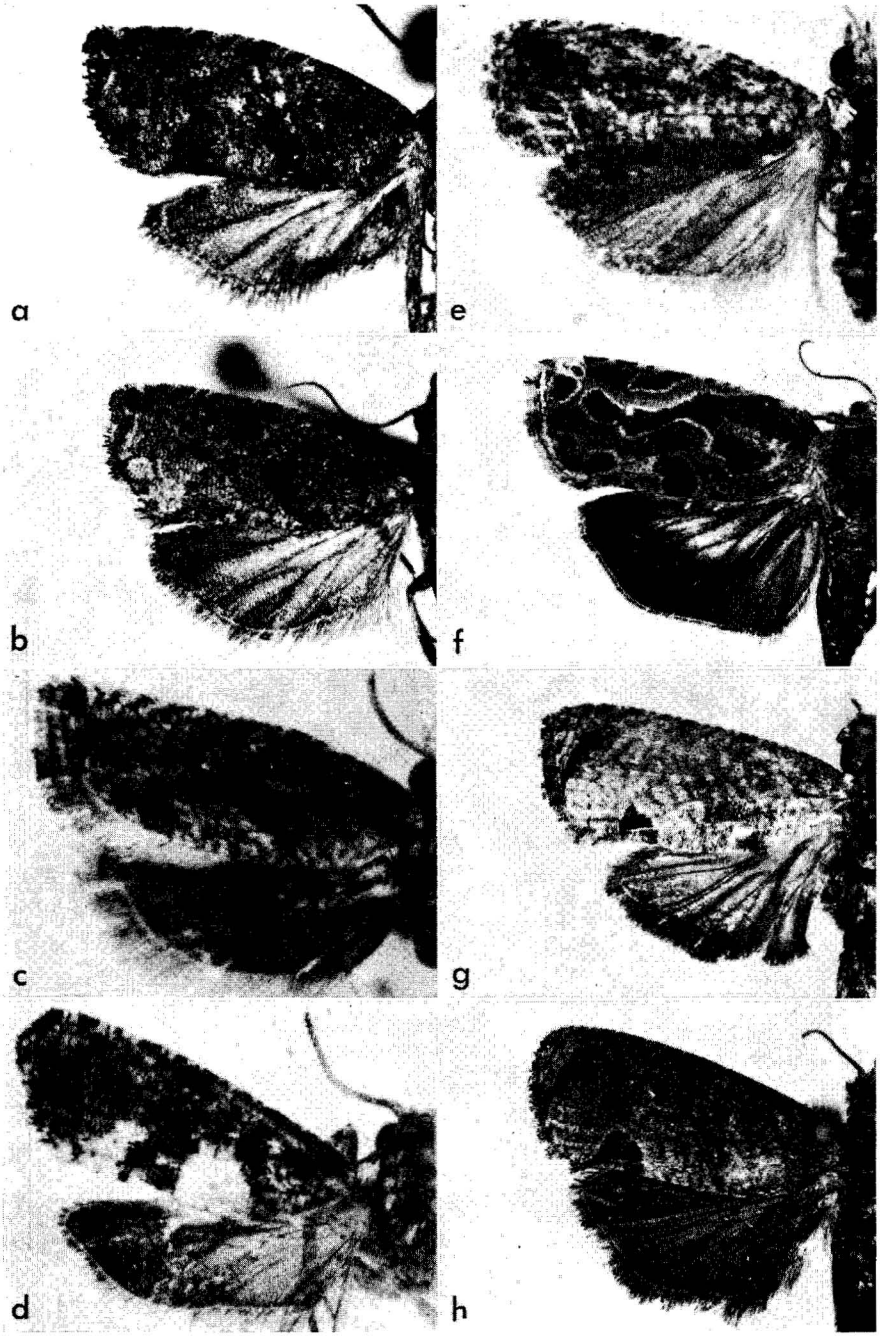


PLATE 9. a, *Laspeyresia defensa* (Meyrick), ♂; b, *L. defensa* (Meyrick), ♀; c, *Cryptophlebia isomalla* (Meyrick), ♂; d, *Lobesia reprobata*, n. sp., ♂ holotype; e, *Dudua proxima*, n. sp., ♀ holotype; f, *Nenomoshia poetica* (Meyrick), ♂; g, *Cryptophlebia peltastica* (Meyrick), ♂; h, *C. peltastica* (Meyrick), ♀.

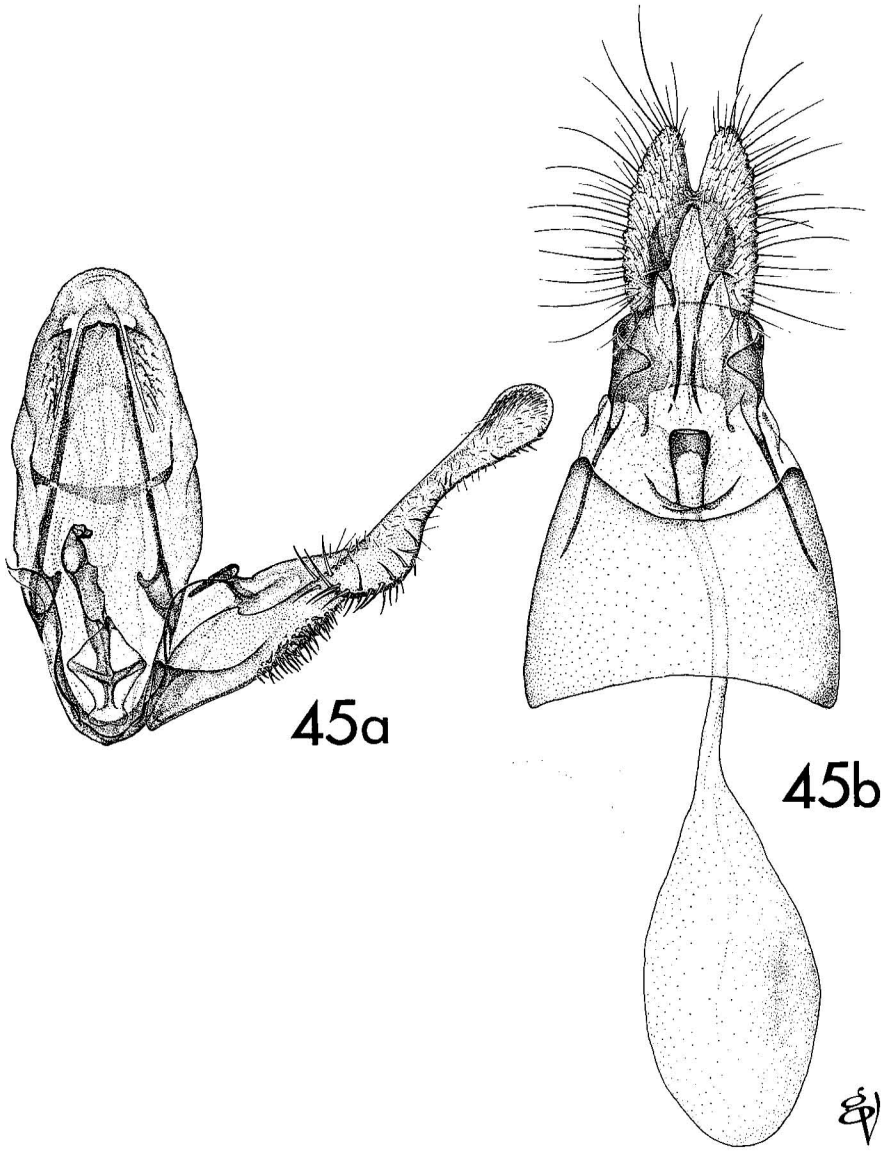
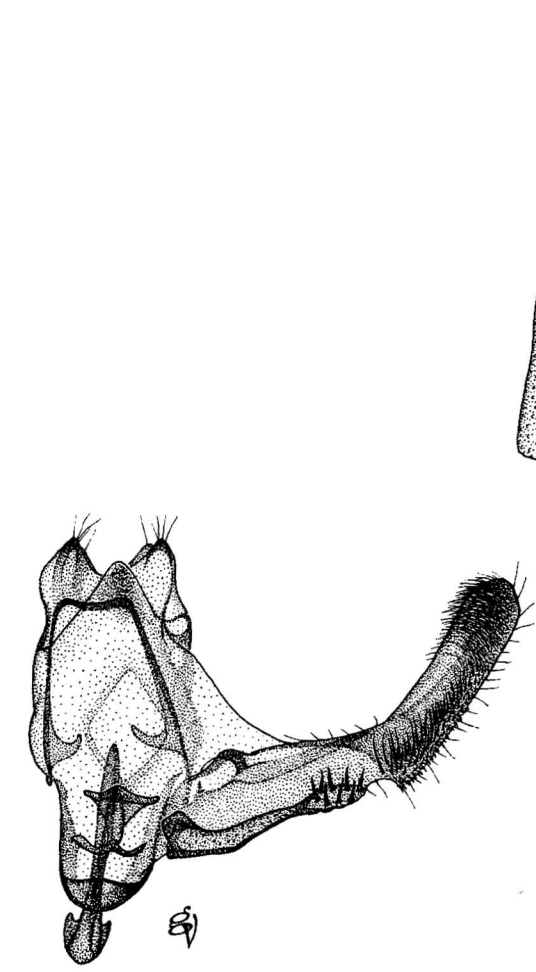


FIGURE 45. *Lobesia reprobata*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia. *Lobesia cathedra*, n. sp.: c, ventral view of ♂ genitalia with left harpe omitted; d, ventral view of ♀ genitalia.



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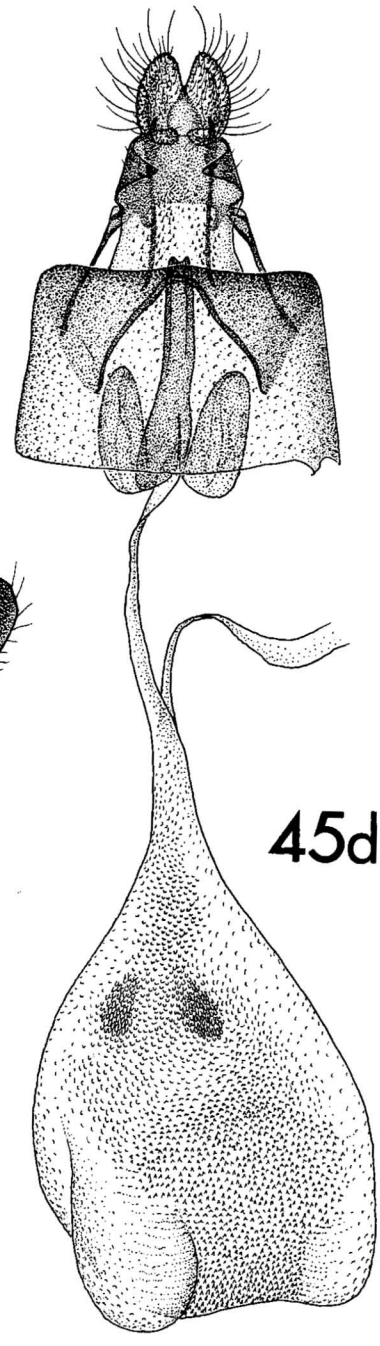


45d

SOUTHERN MARIANA IS. GUAM: Pt. Ritidian, 3 ♂♂, Aug. 1945, Bohart & Gressitt.

Food plant: *Polyalthia longifolia* Benth. and Hook.

Undoubtedly this striking species was accidentally introduced into Guam.

Genus **Lobesia** Guenée

Lobesia Guenée, 1845, Ann. Soc. Ent. France, Ser. 2, **3:** 297. (Type-species: *Tortrix permixtana* Hübner [1796–1799], Sammlung Europäischer Schmetterlinge, Tortrices, pl. 12, Fig. 75 [subsequent designation by Fernald, 1908: 33].

45. **Lobesia reprobata** Clarke, n. sp. (Fig. 45a, b; Plate 9, fig. d).

Alar expanse 8–9 mm.

Labial palpus buff; 2nd segment marked with fuscous and light ochraceous buff on outer side; 3rd segment light ochraceous buff. Antenna buff annulated fuscous; scape with an ill-defined small fuscous spot apically. Head light ochraceous buff. Thorax buff to light ochraceous buff; anteriorly, and posterior tuft fuscous; base and apex of tegula fuscous. Forewing ground color buff, mottled fuscous and ochraceous buff; from basal 1/4 of costa a narrow fuscous transverse fascia extends outwardly to fold, then inwardly to dorsum; from middle of costa to dorsum a broad transverse, fuscous fascia, somewhat broader on dorsum than on costa; both bands have ochraceous-buff scales scattered over the surface, and between the fasciae in ♂ on dorsum a creamy-white spot extends to cell; on tornus a smaller, similarly colored spot; extreme edge of costa marked with tiny buff spots; apex strongly marked fuscous; cilia fuscous, buff and ochraceous buff mixed. Hindwing grayish basally (nearly transparent), fuscous apically; cilia grayish fuscous. Foreleg buff irrorate with fuscous; tarsal segments marked blackish fuscous; midleg buff; tibia and tarsal segments suffused light ochraceous buff marked with blackish fuscous; hindleg buff very lightly suffused fuscous. Abdomen grayish fuscous dorsally, buff ventrally, irrorate with fuscous posteriorly.

MALE: Genitalia slide USNM 24080. Harpe elongate, cucullar 1/2 nearly spatulate, somewhat dilated distally; sacculus narrow, clothed in outer 1/2 with stout setae. Gnathos a narrow band. Uncus absent (or represented by a rounded extension of tegumen). Vinculum U-shaped. Tegumen about 2/3 the length of harpe. Anellus diamond-shaped. Aedeagus slender, hooked distally.

FEMALE: Genitalia slide USNM 24081. Ostium protruding, round. Antrum not differentiated. Inception of ductus seminalis from posterior 2/3 of ductus bursae. Ductus bursae membranous. Bursa copulatrix membranous. Signum absent.

Holotype ♀ (US 72587). Type-locality: Guam, Pt. Oca.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Pt. Oca, 1 ♂ and 1 ♀, 3, 4 June 1945, Bohart & Gressitt.

Food plant: Unknown.

Described from the ♀ holotype (4 June 1945, Bohart & Gressitt) and 1 ♂ paratype as listed above.

Similar to the Indian *L. serangodes* (Meyrick) but easily distinguished by the two dorsal whitish spots of forewing which are absent in *serangodes*.

than on costa; both bands have ochraceous-buff scales scattered over the surface, and between

46. Lobesia cathedra Clarke, n. sp. (Fig. 45c, d; Plate 11, fig. a).

Alar expanse 8–10 mm.

Labial palpus light ochraceous buff; 2nd segment mottled with blackish fuscous on outer side; base of 3rd segment blackish fuscous. Antenna light ochraceous buff; distal 1/2 brown annulated; scape with brown spot anteriorly. Head light ochraceous buff. Thorax light ochraceous buff; in one specimen strongly infuscated; tegula shaded brownish basally. Forewing ground color buff with numerous brown transverse strigulae dorsally; from base to

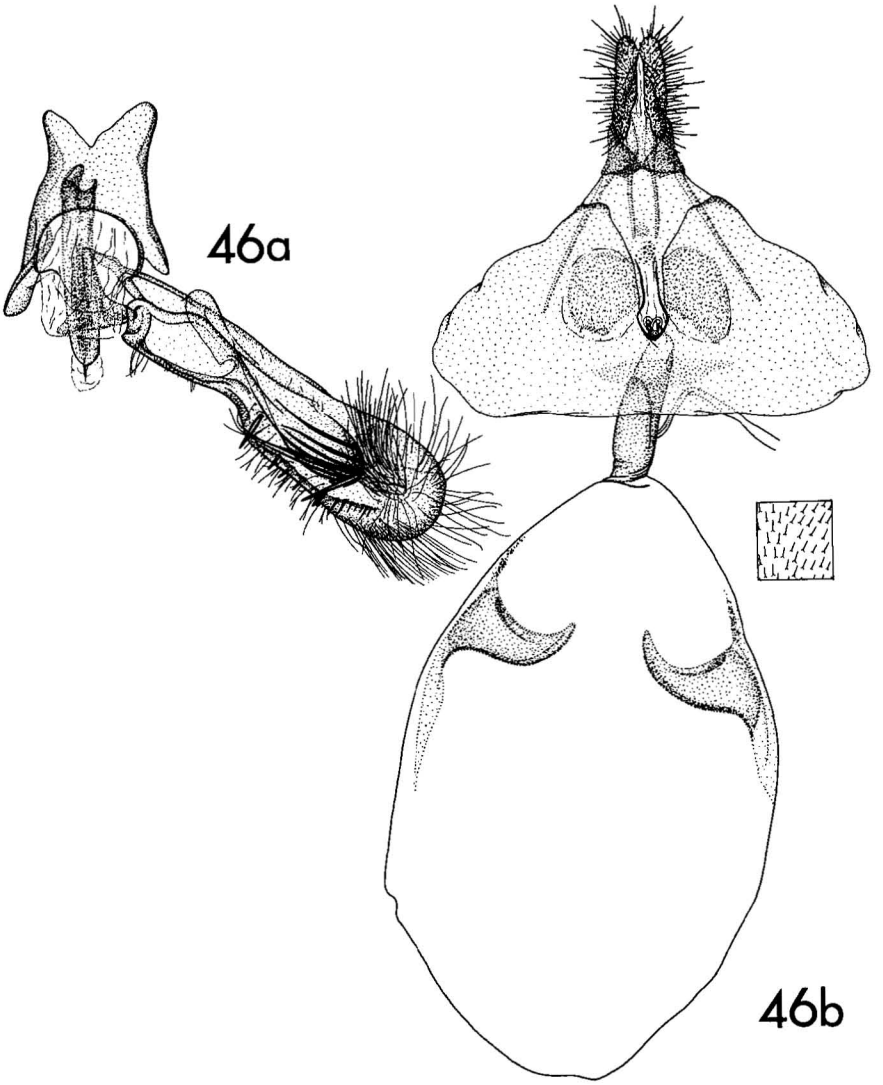


FIGURE 46. *Cryptophlebia amblyopa*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

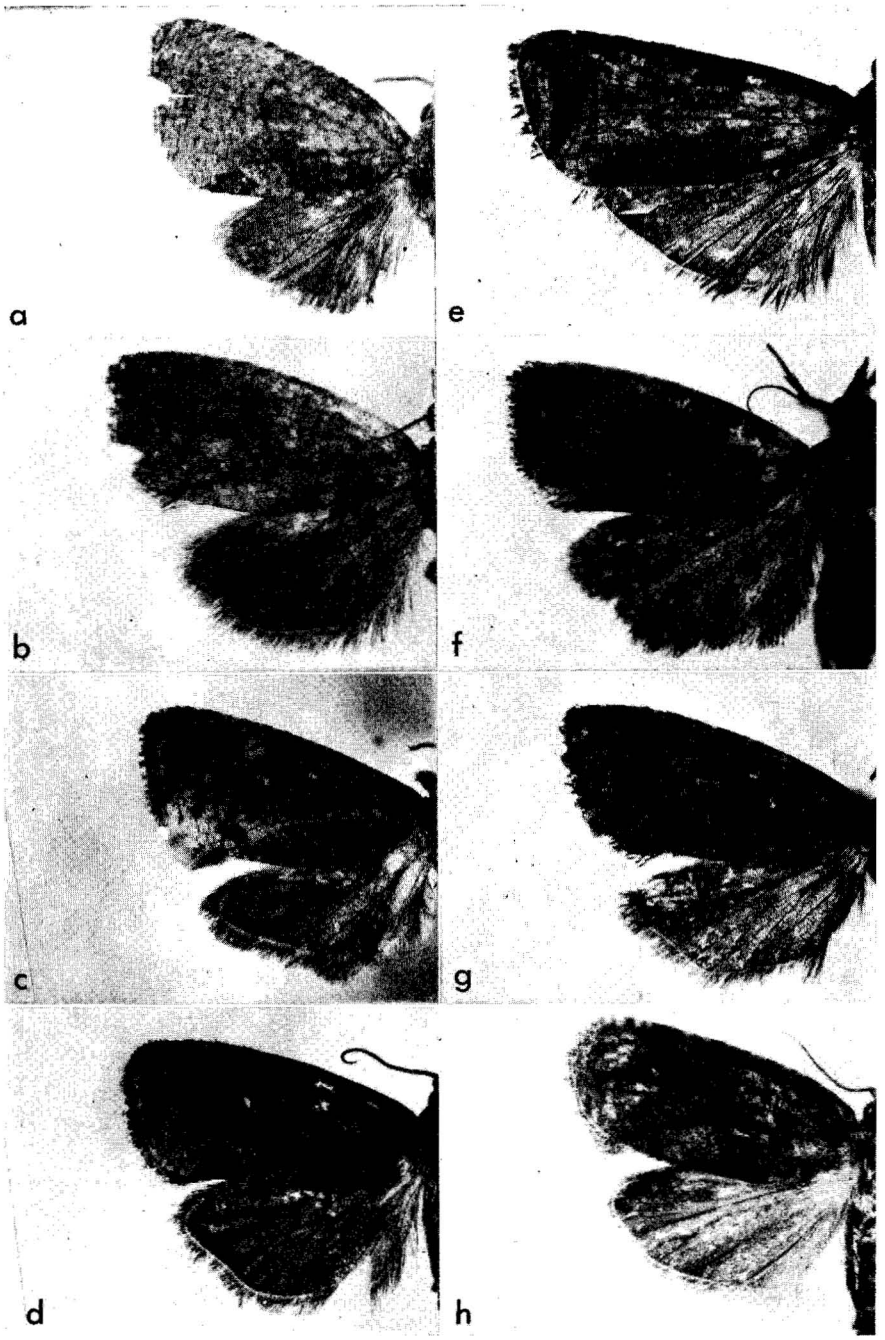


PLATE 10. a, *Cryptophlebia amblyopa*, n. sp., ♂ holotype; b, *C. amblyopa*, n. sp., ♀ paratype; c, *C. ombrodelta* (Lower), ♂; d, *C. ombrodelta* (Lower), ♀; e, *C. rhynchias* (Meyrick), ♂; f, *C. callosoma*, n. sp., ♀ holotype; g, *C. citrogramma*, n. sp., ♀ holotype; h, *C. atrilinea*, n. sp., ♀ paratype.

FEMALE: Genitalia slide JFGC 12270. Ostium round with a narrow encircling ring extending into lamella postvaginalis; a strongly sclerotized oval patch on each side of ostial area. Antrum narrowly sclerotized. Inception of ductus seminalis from right side of ductus bursae at junction with bursa copulatrix. Ductus bursae membranous. Bursa copulatrix membranous; inner surface very finely spiculate. Signa two stout, curved, flattened hooks.

Holotype ♂ (US 72581). Type-locality: Palau Is., Koror.

DISTRIBUTION: Palau Is.

PALAU IS. KOROR: Koror, 5 ♂♂, Jan.–May, light trap, Beardsley; Koror, 1 ♀, 25 Apr. 1957, Sabrosky.

YAP. YAP: Colonia, 3 ♂♂, Jul. Aug. 1950, Goss.

Food plant: Unknown.

Described from the ♂ holotype, 7 ♂♂ and 1 ♀ paratypes as listed above.

Perhaps the species most nearly related to *amblyopa* is the Philippine *tetraploca* but *amblyopa* is only about 1/2 the size of that species. In the ♂ genitalia of *amblyopa*, on the inner surface at the middle of the bulbous cucullus, there is a long, thick seta arising in the middle of a cluster of five or six long, strong setae. Near base of cucullus, just inside the ventral edge is another very thick seta, and beyond it, along the edge is a series of short strong setae. None of these features is present in *tetraploca*. There is no ♀ specimen of *tetraploca* available for comparison.

Because of the configuration of the ♂ genitalia, the vinculum has turned through 90° in mounting. The V-shaped part of the vinculum, at top of illustration, is ventral.

48. Cryptophlebia ombrodelta (Lower) (Fig. 47; Plate 10, fig. c, d).

Arotrophora (?) *ombrodelta* Lower, 1898, Proc. Linn. Soc. N. S. W. **23:** 48.— Diakonoff, 1953, Verh. Ned. Akad. Wet., Nat. Ser. 2, **49**(3): 157.

Cryptophlebia ombrodelta: Bradley, 1952, Bull. Ent. Res. **43**(4): 679–689, fig. 1, pl. 24–25.— Inoue, 1954, Check List of the Lepidoptera of Japan **1:** 109.— Tindale, 1955, Trans. Roy. Soc. S. Austral. **78:** 97–98, fig. 1.— Diakonoff, 1957, Tijdschr. v. Ent. **100**(2): 139, figs. 11–15, 20, 22.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **3:** 327, pl. 162, figs. 2–2a.— Thomas, 1958, Tijdschr. v. Ent. **101**(3/4): 224.— Inoue, et al., 1959, Iconographia Insectorum Japonicorum **1:** 261, pl. 175, fig. 17.— MacKay, 1959, Can. Ent. **91**(Suppl. 10): 81.— Diakonoff, 1960, Beitr. zur Ent. **10**(1–2): 133.— Obraztsov, 1961, Tijds. v. Ent. **104**(5): 67.— Bradley, 1962, Brit. Mus. (Nat. Hist.) Ent. Bull. **4:** 123.— Davis, 1962, Proc. Haw. Ent. Soc., 1961, **18**(1): 2.— Liu, 1964, Acta Ent. Sinica **13**(2): 145.— Diakonoff, 1968, U. S. Nat. Mus. Bull. **257:** 90, figs. 559–60; 1971, Veroff. Zool. Staatssamml. München **15:** 176.

Argyroploce lasiandra Meyrick, 1909, J. Bombay Nat. Hist. Soc. **19:** 592.— Beardsley, 1965, Proc. Haw. Ent. Soc. for 1964, **19**(1): 15.— Shiroma, 1965, Proc. Haw. Ent. Soc. for 1964, **19**(1): 20, 29.

Cryptophlebia carpophaga Walsingham, 1899, Indian Museum Notes, **4:** 105, pl. 7, fig. 1.— Stebbing, 1902, Dept. Notes Ins. that Affect Forestry (Calcutta) **1:** 117.— Walsingham, 1907, Fauna Hawaiiensis **1:** 680.— Maxwell-Lefroy, 1909, Indian Insect Life. 531, pl.

28, figs. 1, 12.— Meyrick, 1910, Records Indian Mus., **5**(4): 218.— Fletcher, 1921, Memoirs Dept. Agric. India **6:** 55, pl. 13, fig. 1.— de Joannis, 1929, Ann. Soc. Ent. France **98:** 719.— Clarke, 1951, J. Wash. Acad. Sci. **41**(9): 229.

Argyroploce carpophaga: Swezey & Zimmerman, 1946, Proc. Haw. Ent. Soc. **12**(3): 629, fig. 1.— Gressitt, 1954, Insects of Micronesia **1:** 172.

Types: South Australia Museum (*ombrodelta*): British Museum (Natural History) (*carpophaga*). Type-localities: Australia (*ombrodelta*); India (*carphophaga*).

DISTRIBUTION: Australia, Borneo, Caroline Is., Ceylon, China, Dampier I., Formosa, India, Japan, Java, Mariana Is., Netherlands New Guinea, Philippine Islands, Sumatra, Thailand.

SOUTHERN MARIANA IS. SAIPAN: no exact locality, 11 ♂♂, 2 ♀♀, Oct.–Nov. 1947, Lange; 1.2 mi. E. of Tanapag, 12 ♂♂, 4 ♀♀, Apr., May 1945, Dybas. ROTA: near Sabana, 4 ♂♂, 4 ♀♀, June 1946, Townes lots 688, 807, 841. GUAM: Piti, 5 ♂♂, 7 ♀♀, June, Jul. 1936, Swezey; no specific locality, 10 ♂♂, 17 ♀♀, Apr. to Sept., Oakley; no specific locality, 3 ♂♂, Fullaway; Pt. Oca, 4 ♂♂, 2 ♀♀, May, June 1945, Bohart & Gressitt; 2 ♂♂, Jan. 1945, Bohart; Ritidian, 1 ♂, Aug. 1945, Gressitt; Dedeo, 1 ♀, May 1936, Swezey; Barrigada, 1 ♂, 1 ♀, June 1936, Swezey. TINIAN: no specific locality, 3 ♂♂, 3 ♀♀, Mch. 1946, Hadden.

PALAU. KOROR: Palau, 1 ♂, at light, Jul. 1946, Townes lot 1243; Koror, 2 ♂♂, 1 ♀, light trap, Jan., May 1953, Beardsley.

Food plants: String beans, "Klu", *Cassia fistula* L., *C. laevigata* Willd., *C. alata* L., *C. sophera* L., *C. bicapsularis* L., *C. occidentalis* L., *Adenanthera pavonina* L., *Pithecellobium dulce* (Roxb.) Benth., *Bauhinia hirsuta* Vog., *B. purpurea* L., *B. malabarica* Roxb., *Caesalpinia sappan* L., *Acacia farnesiana* (L.) Willd., *Phaseolus lunatus* L., *Glycine max* (L.) Merr., *Sesbania aculeata* Pers., *S. grandiflora* (L.) Pers., *Feronia* sp., *Aegle marmelos* (L.) Correa, *Tamarindus indica* L., Orange, *Feronia elephantum* Correa, *Parkinsonia aculeata* L., *Cocoloba uvifera* (L.) L., *Filicium decipiens* (W. & A.) Thw., coconut, *Prosopis juliflora* DC., *Nephelium Litchi* Cambess., *Acacia* spp.

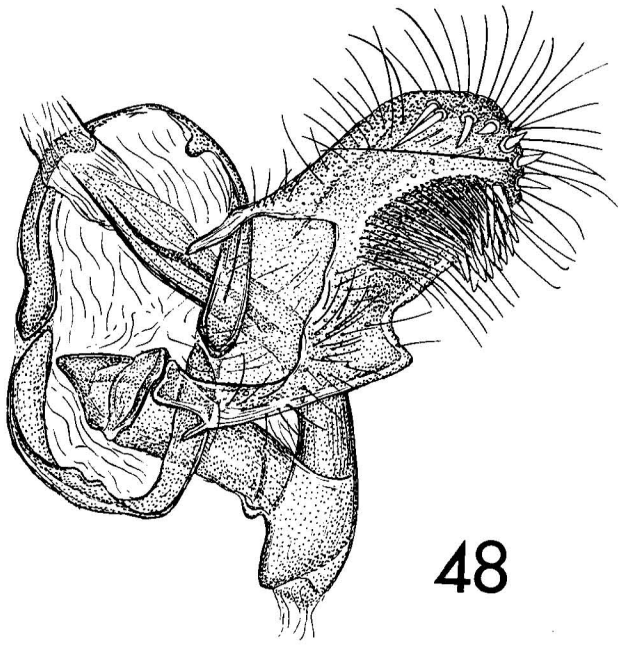
This widespread species is common on Guam where it has attained some degree of economic importance as a pest of string beans. Almost any legume provides suitable food for the larva which feeds in the pods.

The genitalia are figured from specimens from Saipan, ♂ JFGC slide 10374; ♀ 10375.

49. Cryptophlebia rhynchias (Meyrick) (Fig. 48; Plate 10, fig. e).

Platypeplus rhynchias Meyrick, 1905, J. Bombay Nat. Hist. Soc. **16:** 586.

Argyroploce rhynchias: Meyrick, 1929, Trans. Ent. Soc. London **76:** 496.— Fletcher, 1932, Imperial Council of Agricultural Research (India) Scientific Monograph No. **2:** 31.— Swezey, 1942, Proc. Haw. Ent. Soc. **11**(2): 211.



48

FIGURE 48. *Cryptophlebia rhynchias* (Meyrick): ventral view of ♂ genitalia with left harpe omitted.

Olethreutes rhynchias: Williams, 1949, Mauritius Dept. Agric. Rept. for 1949, No. **25:** 64 (pub. July 1951).

Cryptophlebia rhynchias: Bradley, 1953, Bull. Ent. Res. **43**(4): 687, fig. 6; pl. 24, fig. 6; pl. 25, fig. 6, 6a.— Clarke, 1958, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, **3:** 327, pl. 162, fig. 3–3a.

Type: British Museum (Natural History). Type-locality: Ceylon, Yatitantota.

DISTRIBUTION: Australia, Ceylon, India, Southern Mariana Is., Mauritius, New Hebrides, Samoa, Sudest Is.

SOUTHERN MARIANA IS. GUAM: Commander Marianas Hill, 1 ♂, Mch. 1949, Maehler.

Food plants: *Canavalia* (fruits): *Erythrina; Cajanus cajan* (L.) Millsp. (pigeon pea stem borer).

Male genitalia figured from a specimen from Guam. Slide JFGC 10082.

50. Cryptophlebia peltastica (Meyrick) (Plate 9, fig. g, h).

Argyroploce peltastica Meyrick, 1921, Ann. Transvaal Mus. **8:** 57; 1930, Trans. Ent. Soc. London **78:** 311.— Ghesquière, 1940, Mus. du Congo Belge, Ann. Zool. Ser. **3**(2), **7**(1): 104.— Diakonoff, 1949, Bijdr. tot de Dierk. **28:** 135.— Taylor, 1951, J. Ent. Soc. South Africa **14**(2): 124.— Viette, 1951, Mem. Inst. Sci. Madagascar, Ser. A. Biol. Anim. **5**(2): 343.— Hepburn & Bishop, 1954, Union S. Africa Dept. Agric. Bull. **333** (Ent. Ser. 41): 15.

Cryptophlebia rhynchias: Bradley, 1953, Bull. Ent. Res. **43**(4): 687, fig. 6; pl. 24, fig. 6; pl. 25, fig.

Cryptophlebia peltastica: Bradley, 1953, Bull. Ent. Res. **43**(4): 682, fig. 2, pl. 24, fig. 2, pl. 25, figs. 2, 2a.— Williams, 1953, Bull. Ent. Res. **43**(4): 700, fig. 5b.— Diakonoff, 1969, Tijds, v. Ent. **112**(3): 91, pl. 8, figs. 24, 25.

Pseudogalleria peltastica: Paulian & Viette, 1955, Mem. Inst. Sci. Madagascar, Ser. E. Ent. **6:** 163, fig. 21, 22.

Type: Transvaal Museum. Type-locality: Pondoland.

DISTRIBUTION: Africa (Belgian Congo, Eritrea, Nyasaland, Pondoland, Durban), Seychelles, Madagascar, Mauritius, Southern Mariana Is.

SOUTHERN MARIANA IS.: "Guam".

Food plants: *Canavalia ensiformis* (L.) DC., *Delonix regia* (Boj.) Raf., *Caesalpinia pulcherrima* (L.) Sw., *Schotia speciosa* Jacq., *Ceratonia siliqua* L., *Tamarindus indica* L., *Bauhinia* sp., orange, *Nephelium litchi* Cambess., *Gleditzia tricanthos* L., *Piptadenia* sp.

I have seen no specimens of this species from Micronesia. The inclusion of *poltastica* is based on Bradley's (1953: 682) record which is entirely reliable. Unquestionably, the species has been introduced in commerce.

51. Cryptophlebia callosoma Clarke, n. sp. (Fig. 49; Plate 10, fig. f).

Alar expanse 22–23 mm.

Labial palpus cacao brown; 2nd segment buff on inner surface; apex of 3rd segment buff; the whole with violaceous reflections. Antenna cinnamon, annulated cacao brown; scape cacao brown. Head cacao brown with vinaceous tawny laterally. Thorax cacao brown and vinaceous tawny mixed; apex of tegula cinnamon. Forewing ground color cacao brown, the whole shiny in certain lights; basal 1/4 of wing strongly overlaid cinnamon; from middle of costa a transverse cinnamon fascia extends outwardly to middle of cell, broadens and continues to dorsum; from 3/5 of costa an outwardly curved cinnamon fascia extends to tornus; apex strongly overlaid cinnamon; throughout the cinnamon fasciae short, shining strigulae and transverse dashes of cacao brown; underside of costa cacao brown and vinaceous tawny with violaceous tint; cilia cacao brown and grayish fuscous mixed. Hindwing fuscous; cilia concolorous with darker subbasal line except apical cilia cacao brown. Foreleg buff; outerside of femur, tibia and tarsal segments cacao brown; midleg similar; hindleg buff, lightly suffused cacao brown. Abdomen grayish fuscous dorsally, ventrally buff, strongly suffused cacao brown.

FEMALE: Genitalia slide JFGC 10083. Ostium elongate. Lamella antevaginalis sclerotized; lamella postvaginalis slightly granular. Antrum moderately sclerotized. Inception of ductus seminalis lateral from anterior part of membranous section of ductus bursae. Ductus bursae narrow posteriorly, broadened anteriorly. Bursa copulatrix membranous, very finely spiculate. Signa two short, curved blades.

Holotype ♀ (US 72583). Type-locality: Guam, Pt. Oca.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Pt. Oca, near Agana, 1 ♀, 12 May 1945, Bohart & Gressitt; Pt. Ritidian, 1 ♀, 9 Aug. 1945, Gressitt.

Food plant: Unknown.

In ♀ genitalia *callosoma* is very near *ombrodelta* but differs from it chiefly by the membranous anterior portion of the ductus bursae. The adult of

Labial palpus cacao brown; 2nd segment buff on inner surface; apex of 3rd segment buff;

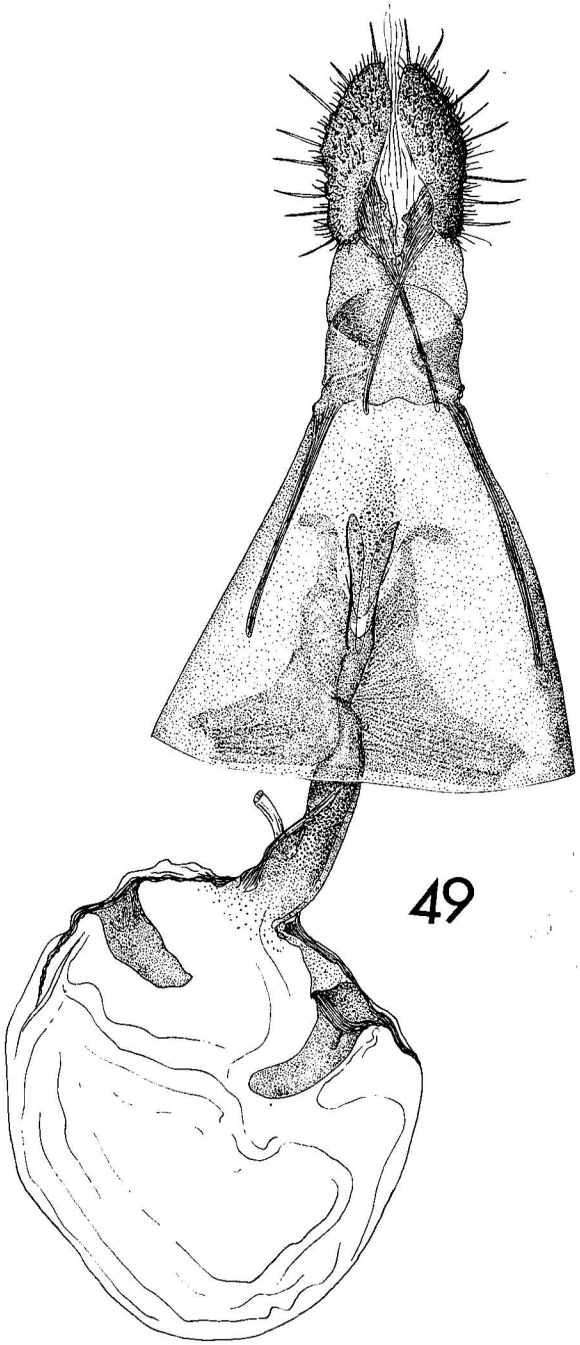


FIGURE 49. *Cryptophlebia callosoma*, n. sp.: ventral view of ♀ genitalia.

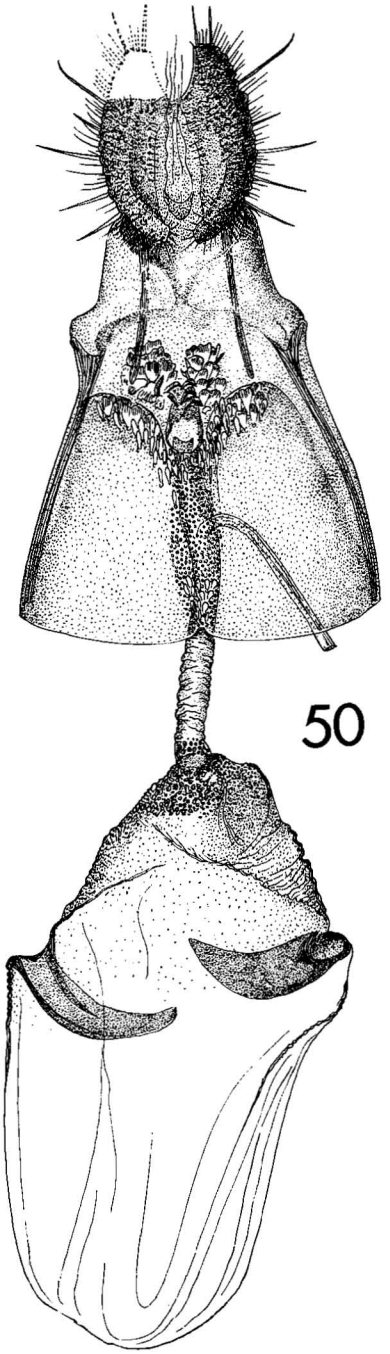


FIGURE 50. *Cryptophlebia citrogramma*, n. sp.: ventral view of ♀ genitalia.

callosoma is much lighter than *ombrodelta* and lacks the conspicuous dark tornal spot of forewing although it is faintly indicated.

52. Cryptophlebia citrogramma Clarke, n. sp. (Fig. 50; Plate 10, fig. g).

Alar expanse 18 mm.

Labial palpus grayish fuscous; inner surface of second segment pale grayish. Antenna fuscous annulated blackish fuscous; scape blackish fuscous. Head grayish fuscous laterally mixed with orange-rufous scales. Thorax grayish fuscous; on each side anteriorly an orange-rufous spot; posterolaterally similar spots. Forewing ground color grayish fuscous; slightly beyond middle of costa a blackish-fuscous rectangular spot; beyond this rectangular spot several small blackish-fuscous marks alternating with ocher red, mixed with vinaceous; basal 1/3 of wing outlined by fuscous except for an orange-rufous spot on dorsum; from the rectangular costal spot an irregular fuscous blotch extends to cell then bends inwardly to fold and continues to dorsum, mixed with orange-rufous scales; on tornus a black mark edged with buff and orange rufous; at apical 1/5 an irregular fuscous blotch extends to vein 2, its terminal part a slender bent line; subterminal line mixed fuscous and orange rufous; cilia mixed fuscous, white-tipped gray, and orange rufous. Hindwing fuscous; cilia concolorous, some cinereous-tipped. Foreleg light clay color; femur fuscous on outer side; tibia similar; tarsal segments fuscous annulated; midleg similar; hindleg pale clay color, slightly infuscated. Abdomen grayish fuscous.

FEMALE: Genitalia slide JFGC 10222. Ostium horseshoe-shaped, broadest anteriorly; lamella antevaginalis granular, lamella postvaginalis a small sclerotized area. Antrum sclerotized for a short distance. Inception of ductus seminalis slightly anterior to antrum; ductus bursae membranous, finely reticulated anteriorly. Bursa copulatrix membranous with fine reticulum; at junction of bursa copulatrix and ductus bursae a granular band. Signa two curved blades.

Holotype ♀ (US 72582). Type-locality: Kusaie, Hill 541.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Hill 541, 165 m, 1 ♀, 18 Apr. 1953, Clarke.

Food plant: Unknown.

Described from the unique ♀ holotype. This species is very closely related to *C. encarpa* (Meyrick) but the latter lacks the scattered orange-rufous markings of *citrogramma*.

53. Cryptophlebia atrilinea Clarke, n. sp. (Fig. 51; Plate 10, fig. h).

Alar expanse 15–21 mm.

Labial palpus light ochraceous buff; outer side of 2nd segment marked with black and a few dull reddish scales. Antenna light ochraceous buff spotted with fuscous; 1st segment of flagellum and scape black. Head light ochraceous buff; crown tawny; posterolaterally a black spot. Thorax a mixture of light ochraceous buff, gray and brown with a few reddish scales; laterally beneath base of forewing a black spot. Forewing ground color light ochraceous buff almost entirely obscured by gray and light brown; basal angle gray; costa obscurely marked by fuscous spots and some reddish scales; basal 1/3 of wing marked with scattered black scales; in middle 1/3 of wing, in cell, a conspicuous, longitudinal black streak followed beyond cell by a gray blotch; apical 1/3 irregularly marked with small black spots and dashes; cilia a mixture of light ochraceous buff, gray and light brown with a very slender black subbasal line. Hindwing fuscous; cilia a shade lighter with a dark subbasal line. In ♂, hindwing with longitudinal glandular fold in cell containing a yellowish, bristly hair pencil. Foreleg light

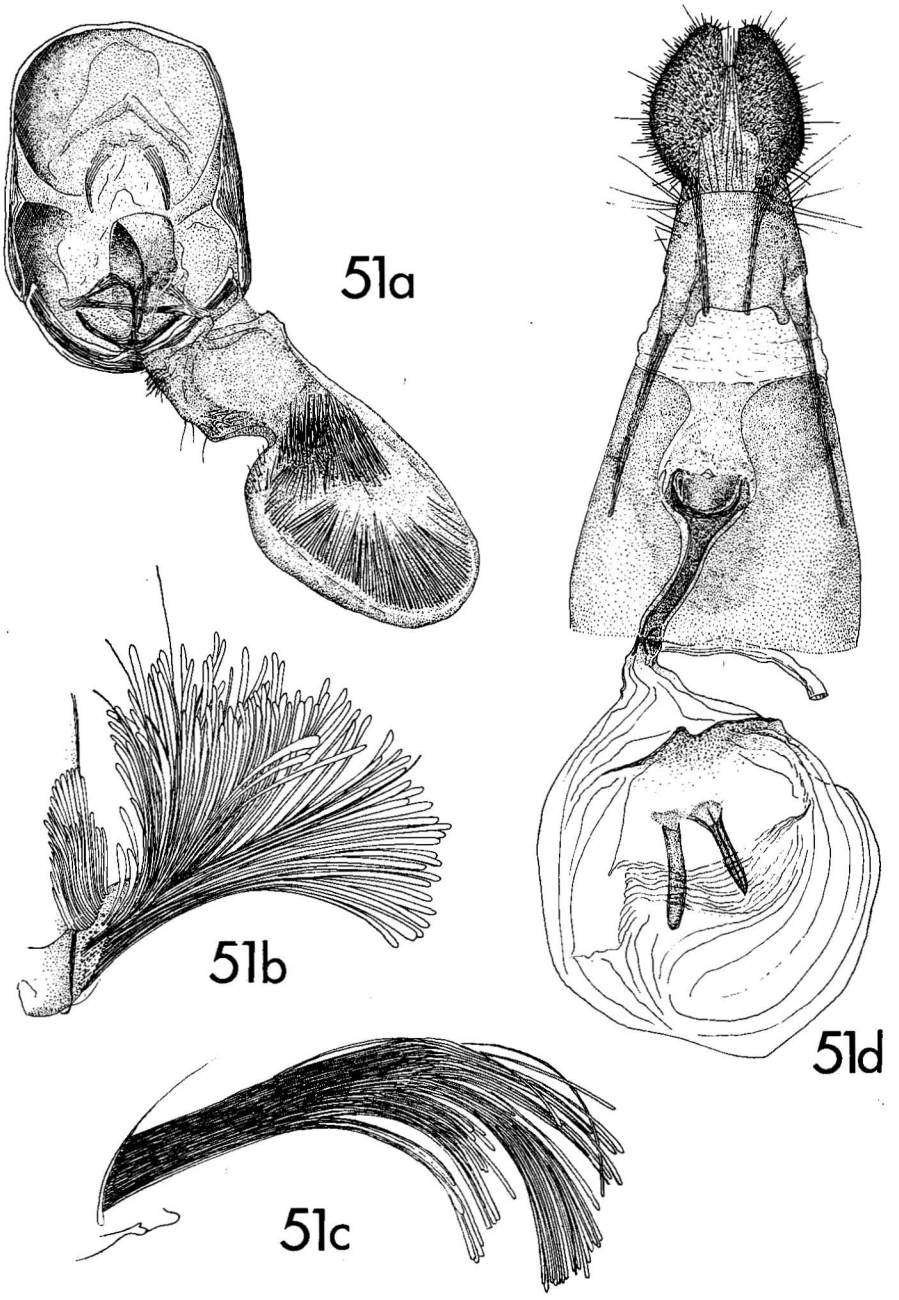


FIGURE 51. *Cryptophlebia atrilinea*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted; b, paired tuft from 1st pleuron; c, paired scale tuft from intersegmental membrane between 8th sternum and vinculum; d, ventral view of ♀ genitalia.

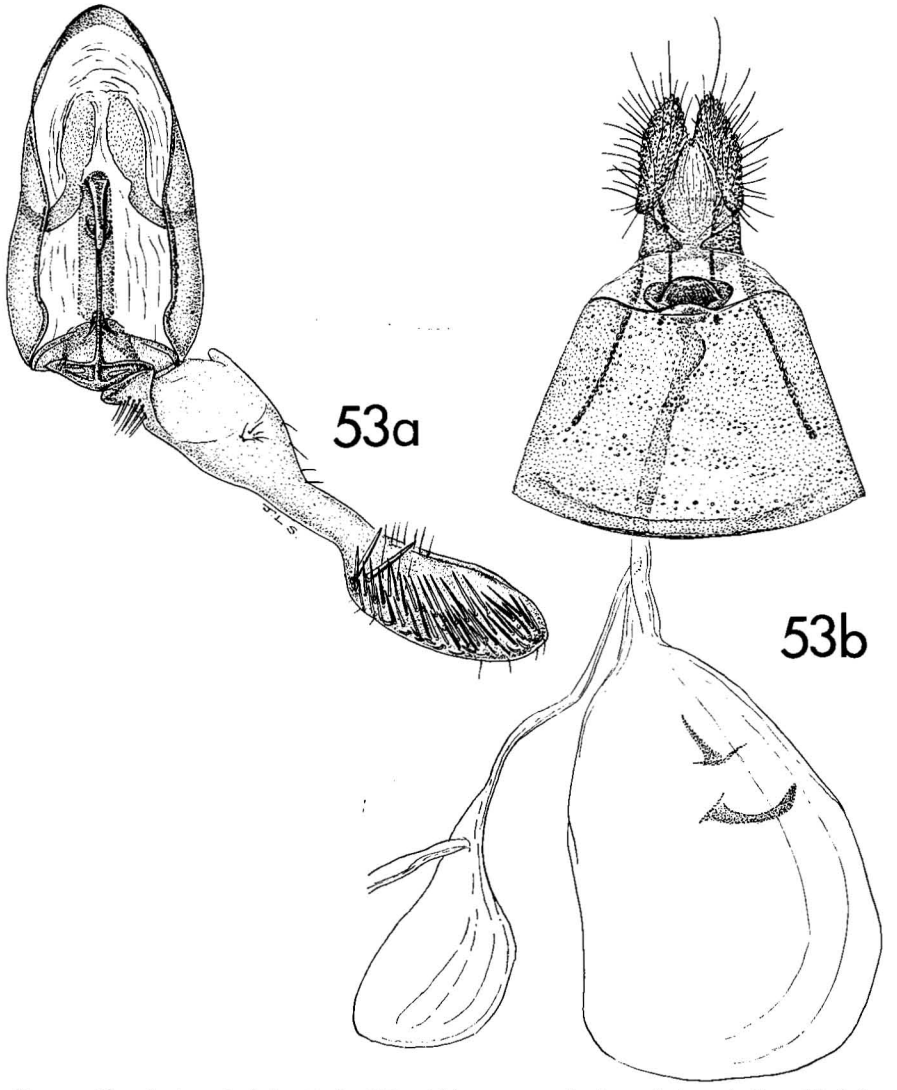


FIGURE 53. *Laspeyresia balanoptycha* (Meyrick): a, ventral view of ♂ genitalia with left harpe omitted; b, ventral view of ♀ genitalia.

SOUTHERN MARIANA IS. GUAM: Inarajan, 4 ♂♂, 2 ♀♀, Jul. 1936, Swezey.

YAP. YAP: Colonia, 5 ♂♂, 9 ♀♀, Jul.–Aug. 1950, Goss.

KUSAIE: Hill 1010, 300 m, 2 ♂♂, 1 ♀, Feb. & Apr. 1953; Mt. Matante, 380 m, 1 ♂, Feb. 1953; S. slope Mt. Matante, 308 m, ♀, Apr. 1953; Mutunlik, 22 m, 7 ♂♂, 11 ♀♀, Jan.–Apr. 1953, all Clarke.

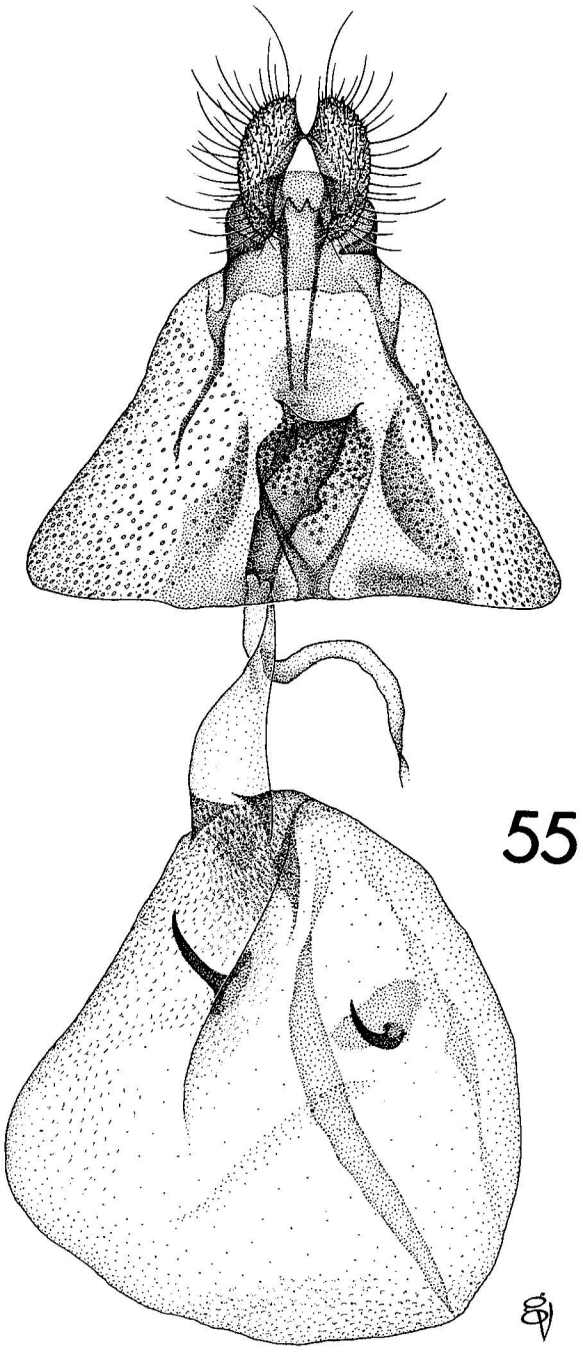


FIGURE 55. *Laspeyresia celiae*, n. sp.: ventral view of ♀ genitalia.

Labial palpus light buff. Antenna scape buff; flagellum gray, spotted with buff in basal portion. Head buff, suffused brownish. Thorax grayish fuscous lightly mottled. Forewing ground color gray; from middle of costa an outwardly oblique fuscous fascia extends to tornus where it widens into a large blotch; fascia outwardly margined with leaden-metallic scales; beyond the metallic margin of scales apical area finely irrorate with buff-tipped gray scales; this area crossed by an angulate leaden-metallic line; subterminal line fuscous; costa marked with a series of cinereous and fuscous dashes, the apical series of light marks more buff in color; at basal 2/5 of dorsum a fuscous blotch followed by a leaden-metallic patch, the latter with 2 transverse dashes in middle; cilia mostly gray, a few tipped with buff. Hindwing fuscous; cilia gray with a narrow fuscous basal line. Foreleg gray; femur overlaid buff; tarsal segments buff annulated; mid- and hindlegs similar but tibiae finely speckled grayish buff. Abdomen grayish fuscous dorsally, gray ventrally with some buff scaling posteriorly.

FEMALE: Genitalia slide USNM 24100. Ostium oval. Sterigma with median sclerotized inverted pear-shaped area and an angulate sclerotized area on each side. Antrum strongly sclerotized. Inception of ductus seminalis lateral from anterior 1/3 of ductus bursae. Ductus bursae membranous in anterior 2/3. Bursa copulatrix membranous, except strongly granular at junction with ductus bursae. Signa two slender curved spines arising from oval sclerotized bases.

Holotype ♀ (US 73098). Type-locality: Yap Is., Yap I., Colonia.

DISTRIBUTION: Western Caroline Is.

YAP IS. YAP: Colonia, 1 ♀, 21 June 1957, Sabrosky.

Food plant: Unknown.

Described from the unique ♀ holotype as indicated above. In costal markings this and *L. anticipans* Meyrick, from Southern India are similar, but the dark dorsal and tornal markings of *celiae* immediately distinguish it from that species.

58. Laspeyresia doria Clarke, n. sp. (Fig. 56; Plate 11, fig. c).

Alar expanse 9 mm.

Labial palpus very pale olive buff, 2nd segment apically, and 3rd segment, infuscated. Antenna pale olive buff faintly annulated fuscous. Head ochraceous buff. Thorax pale olive buff suffused fuscous. Forewing ground color fuscous; basal 1/2 of costa narrowly mottled with grayish; apical 1/2 of costa marked with a series of short white streaks, subterminal area of wing with small, scattered, whitish irrorations and an outwardly curved row of small, ill-

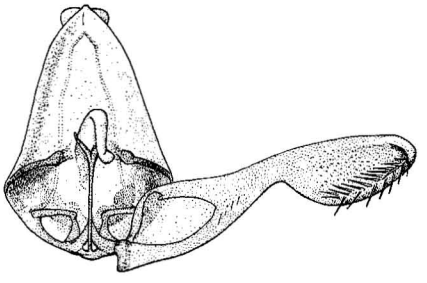


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FIGURE 56. *Laspeyresia doria*, n. sp.: ventral view of ♂ genitalia with left harpe omitted.

SPECIES.

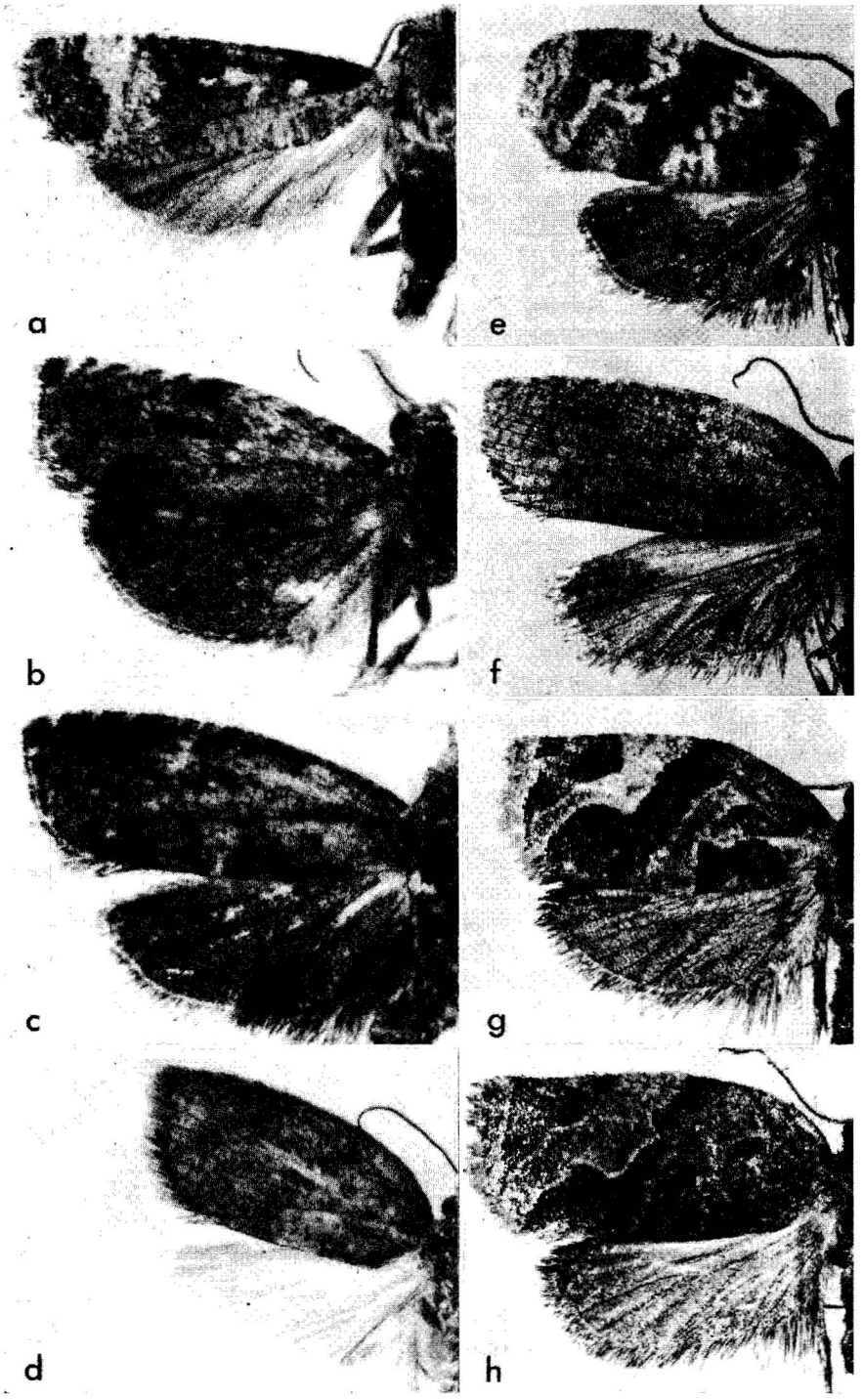

PLATE 11. a, *Lobesia cathedra*, n. sp., ♀ paratype; b, *Laspeyresia celiae*, n. sp., ♀ holotype; c, *Laspeyresia doria*, n. sp., ♂ holotype; d, *Adoxophyes aurantia*, n. sp., ♀ holotype; e, *A. poecilogramma*, n. sp., ♂ holotype; f, *A. poecilogramma*, n. sp., ♀ paratype; g, *A. fasciculana* (Walker), ♂; h, *A. fasciculana* (Walker), ♀.

defined blackish dots; between veins 6 & 7, at termen on both upper and lower sides of wing, a small white spot; cilia grayish fuscous with a narrow fuscous basal line. Hindwing olive brown; cilia grayish with an olive brown basal line. Foreleg buff, femur and tibia suffused grayish on outer side; tarsal segments marked grayish fuscous on outer side; midleg and hindleg missing. Abdomen grayish fuscous dorsally, paler ventrally; 1st sternum cupshaped and lined with a series of long, heavy scales arising on anterior edge; 8th pleuron modified with long, spinelike process, and below it a group of thick modified scales.

MALE: Genitalia slide USNM 24104. Harpe very slender, much constricted before cucullus; cucullus narrowly rounded distally. Uncus vestigial. Tegumen weak, arched with flap from posterodorsal edge. Anellus triangular, with long, sclerotized bar posteriorly on which aedeagus articulates. Aedeagus slender, pointed; vesica armed with a few weak spicules.

Holotype ♂ (US 73099). Type-locality: Palau, Babelthuap, Ngarhelong.

DISTRIBUTION: Western Caroline Is.

PALAU: Babelthuap, Ngarhelong, 1 ♂, 1 May 1957, Sabrosky.

Food plant: Unknown.

Described from the unique ♂ type as cited above.

The simple genitalia of *doria* place it very near the Indian *L. endrosias* Meyrick. The fuscous head, palpus and thorax, compared with the pale olive buff of the same structures of *doria* immediately separate *endrosias* from the latter.

FAMILY TORTRICIDAE
SUBFAMILY TORTRICINAE
Genus **Adoxophyes** Meyrick

Adoxophyes Meyrick, Proc. Linnean Soc. N. S. W. **6:** 429. (Type-species: *Adoxophyes heteroidana* Meyrick, ibid. [by monotypy]).

59. Adoxophyes poecilogramma Clarke, n. sp. (Fig. 57; Plate 11, fig. e, f).

Alar expanse 12–18 mm.

Labial palpus (♂) light buff, shading to pale orange yellow distally; 2nd segment with oblique brownish streak on outer side, the streak extending across base of 3rd segment. Antenna flagellum light brown with fuscous spot on each segment; scape buff basally and ventrally, ochraceous buff dorsally; apex brown. Head ochraceous buff; frons cadmium orange. Thorax buff yellow mixed with cadmium orange; tegula buff yellow basally; apical 1/2 cadmium orange. Forewing ground color buff yellow; costal fold ochraceous buff with leaden-gray scales basally; in basal 1/5 a broad leaden-gray, transverse blotch from inside costa extending to dorsum; from slightly before middle of costa a broad leaden-gray, outwardly oblique fascia extends transversely to dorsum where it becomes narrow; from apical 1/3 of costa two transverse leaden-gray blotches extend to vein 7; astride veins 4 and 5, to 6, a leaden-gray transverse bar; on tornus a similar, less distinct bar of same color; all the leaden gray markings are edged with cadmium orange the latter color filling in the spaces between the leaden gray markings with a coarse cadmium orange reticulum; cilia light ochraceous buff mixed with pale yellowish. Hindwing pale, shining grayish fuscous somewhat paler toward costa; cilia very pale gray with darker subbasal line. Foreleg light buff; tarsal segments ochraceous buff on outer side, sparsely marked with fuscous spots; midleg similar but with grayish suffusion dorsally on

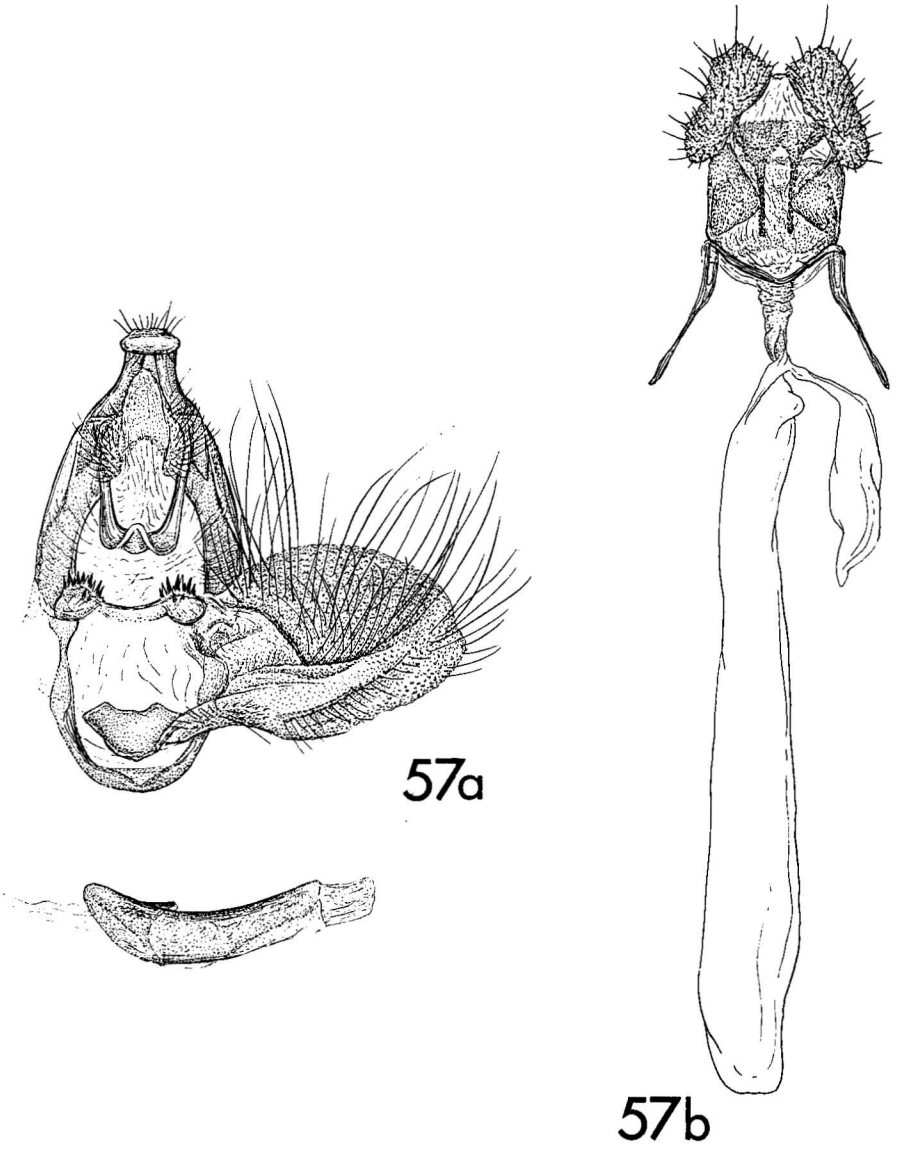

FIGURE 57. *Adoxophyes poecilogramma*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted and with aedeagus below; b, ventral view of ♀ genitalia.

tibia; hindleg light buff with slight grayish suffusion on tibia and tarsal segments. Abdomen grayish fuscous dorsally, buff ventrally.

Labial palpus (♀) buff; 2nd segment pale orange yellow outwardly in apical 2/3 with a longitudinal brownish streak ventrally; 3rd segment pale orange yellow. Antenna similar to ♂ but a little lighter. Head pale orange yellow; frons light cadmium orange. Thorax pale orange yellow suffused and mottled pale cadmium orange. Forewing ground color pale

orange yellow completely covered with indefinite pale cadmium yellow reticulum and mottling, but with no definite markings as in ♂. Hindwing and cilia grayish but paler than in ♂. Legs and abdomen as in ♂, but lighter in hue.

MALE: Genitalia slide JFGC 12122. Harpe nearly as broad as long; costa strongly arched; cucullus broadly rounded. Gnathos a strong hook. Socius fleshy, pendant. Transtillar lobes armed with strong setae. Uncus thick, curved, flattened distally. Vinculum rounded. Tegumen as long as harpe. Anellus subtriangular. Aedeagus about as long as harpe, rather stout, lightly sclerotized.

FEMALE: Genitalia slide JFGC 12123. Ostium broadly funnel shaped. Antrum sclerotized. Inception of ductus seminalis ventrolateral, from junction of ductus bursae and bursa copulatrix. Ductus bursae very short, sclerotized posteriorly. Bursa copulatrix membranous, long, slender, scarcely differentiated from ductus bursae. Signum absent.

Holotype ♂ (US 73100). Type-locality: Kusaie, Hill 1010, 300 m.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Hill 1010, 300 m, 2 ♂♂, 4 Feb. 1953; 27 ♂♂, 6 ♀♀, 13 Apr. 1953; S slope Mt. Matante, 300 m, 1 ♂, 20 Feb. 1953, 1 ♀, 23 Apr. 1953, all Clarke.

Food plant: Unknown.

Described from the ♂ holotype and 29 ♂♂ and 7 ♀♀ paratypes as listed above.

The dimorphism of this species is very striking, the males being so contrastingly marked and the females being almost unicolorous.

The two species *poecilogramma* and *aurantia*, are very closely related based on the absence of the signum in both species (no ♂♂ of *aurantia* are available) but the ♀♀ of *poecilogramma* may be distinguished easily from *aurantia* by the absence of the purplish metallic markings of that species.

60. Adoxophyes aurantia Clarke, n. sp. (Fig. 58; Plate 11, fig. d).

Alar expanse 15–18 mm.

Labial palpus orange buff; 2nd segment apically and 3rd segment slightly darker. Antenna orange buff; flagellum with faint mars yellow annulations; scape apically mars yellow. Head ochraceous orange. Thorax ochraceous orange; tegula ochraceous orange, apex somewhat paler. Forewing ground color orange buff overlaid, and with a coarse reticulum of ochraceous orange; from basal 1/5 of costa, obliquely to dorsum, an ill-defined transverse fascia composed of ill-defined ochraceous orange and purplish-metallic scales; from basal 1/3 of costa to dorsum, just before tornus, a similar but distinct oblique fascia; from apical 1/3 of costa to vein 4, an oblique line of purplish-metallic spots; between the median and outer fasciae scattered purplish-metallic spots; on apical 1/3 of costa a series of 3 or 4 grayish spots; cilia orange buff. Hindwing ocherous white, more yellowish toward margins and with a grayish suffusion in anal sector; cilia pale yellowish. Foreleg light orange buff; tarsal segments ochraceous orange on outer side; midleg similar but tibia suffused ochraceous orange on outerside; hindleg light buff. Abdomen buff with very slight infuscation dorsally.

FEMALE: Genitalia slide USNM 24020. Ostium broadly funnel-shaped. Antrum sclerotized. Inception of ductus seminalis ventrolateral, from junction between the ductus bursae and bursa copulatrix. Ductus bursae very short, scarcely differentiated from bursa copulatrix. Bursa copulatrix membranous except for slightly rugose anterior portion. Signum absent.

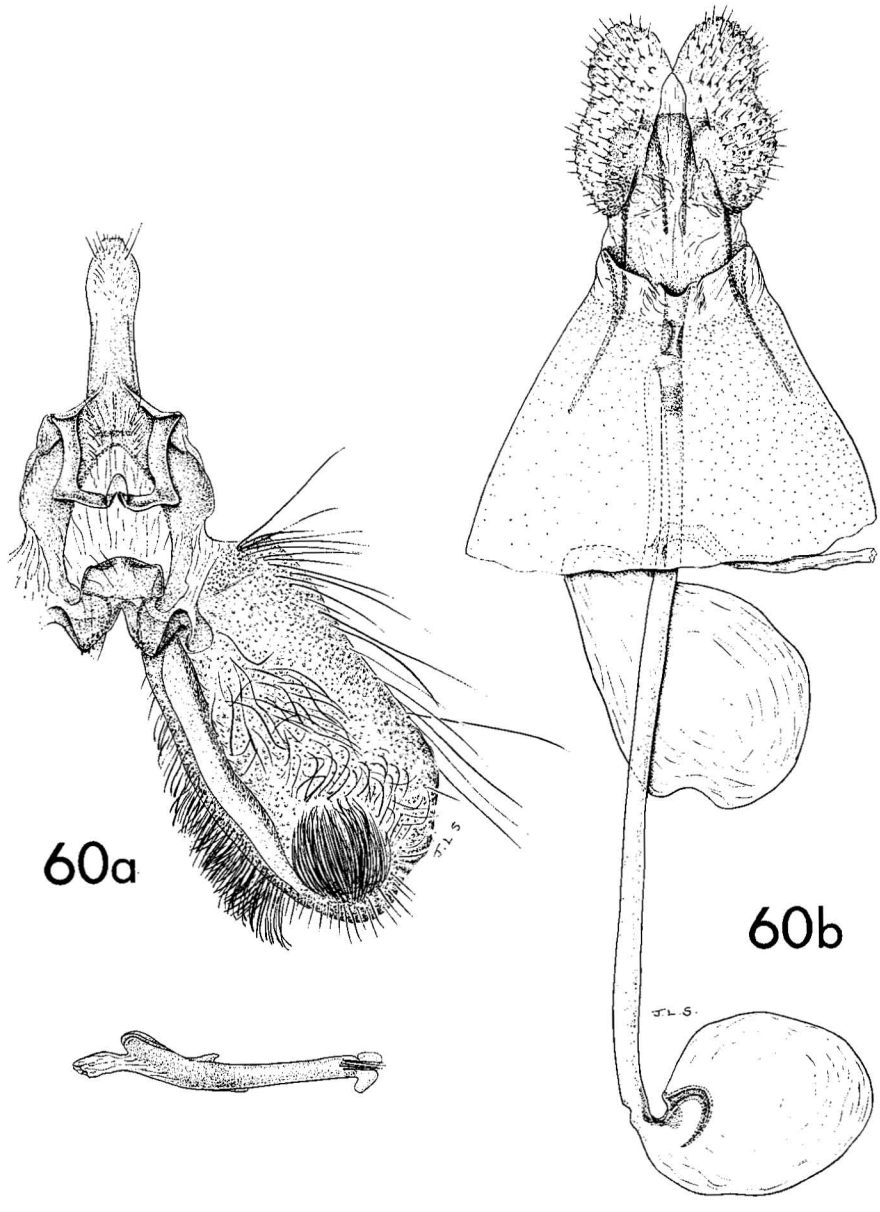

FIGURE 60. *Adoxophyes melia*, n. sp.: a, ventra view of ♂ genitalia with aedeagus below and left harpe omitted; b, ventral view of ♀ genitalia.

Holotype ♂ (US 73102). Type-locality: Guam, Fadian.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. SAIPAN: (no specific locality) 3 ♀♀, 19 Oct. 1947, Lange; Kannat & Edtot, 1 ♀, reared ex *Phyllanthus* sp., 27 June 1946, Townes 873 (46-16910); Mt. Tapotchau, 1 ♂, 25 Feb. 1949, Maehler (49-5878); 1/2 mi. E. of Tanapag, 1 ♀, 1 May 1945, at light, Dybas; Rota; Nr. Sabana, 1200 ft., 1 ♂, 1 ♀, 21 June 1946, at light, Townes 807; Rota, 1 ♀, 20 Jul. 1946, at light, Townes 805. GUAM: (no specific locality or date) 2 ♀♀ "ex roselle", Fullaway 1438; 1 ♂, 3 ♀♀, on *Dioscorea alata*, 27 Oct. 1938, Oakley 1438 (38-18266); 2 ♀♀, on collards, 26 Oct. 1938, Oakley 1441 (38-18352); 1 ♀, on cabbage, 3 Mch. 1938, Oakley 1432 (38–18351); 1 ♂ on string beans, 2 Oct. 1938, Oakley 1426 (38-18261); Barrigada, 1 ♀ ex "luluhut", 6 Jul. 1936, Swezey; Fadian, 3 ♂♂ ex *Colubrina*, ex *Mallotus*, ex sweet potato, 19 Aug. 1936, Swezey; Machanao, ex *Elaeocarpus*, 4 June 1936, Swezey; Merizo, 1 ♂, ex rose, 14 May 1936, Swezey; Mt. Tenjo, 1 ♀, 3 May 1936, Swezey; Orote pen., 1 ♂, ex *Barringtonia*, 2 Aug. 1936, Swezey; 1 ♂, 1 ♀, ex *Premna*, 24 May 1936, Swezey; 1 ♂, 1 ♀, ex *Urera* (?), 24 May 1936, Swezey; 1 ♀, ex *Colubrina*, 2 Aug. 1936, Swezey; 1 ♀, ex *Phyllanthus*, 19 Jul. 1936, Swezey; 1 ♀, ex *Ipomoea*, 2 Aug. 1936, Swezey; Piti, 2 ♂♂, ex *Pithecellobium*, 28 June & 22 Jul. 1936, Swezey; 1 ♂, 2 ♀♀, 21 June, 26 & 28 Jul. 1936, at light, Swezey; Pt. Oca., 4 ♂♂, 3 ♀♀, 15 May–5 June 1945, Bohart & Gressitt; 3 ♂♂, 1 ♀, 8 Jan. & 26 June 1945, Bohart; Ritidian, 1 ♂, 1 ♀, 9 Aug. 1945, Gressitt; Yigo, 1 ♀, ex "luluhut", 18 Oct. 1936, Swezey.

Food plants: *Dioscorea alata* L., cabbage, collards, "luluhut", *Colubrina*, *Mallotus*, *Elaeocarpus*, sweet potato, *Barringtonia*, *Premna*, *Urera* (?), *Phyllanthus* and *Pithecellobium*.

Described from the ♂ holotype (19 Aug. 1936, Swezey), 21 ♂♂, 28 ♀♀ paratypes as listed above.

This is an extremely variable species for which I can find no structural differences between the various color forms (Plate 12, Fig. c, d, e, f, g, h), and it has been confused with *A. angustilineata* (Walsingham). Dr John D. Bradley of the British Commonwealth Institute of Entomology (in litt.), has this to say about it: "Walsingham takes his description of *angustilineata* from what he states to be a male with abdomen missing. There are four other specimens (all females) one of which he chose to be associated with the type. The so-called male type and the female type specimens were previously not fully spread and it was impossible to properly examine them, but I now find that male type is in fact a female, and I don't think there can be any doubt that is a different species from the female associated with it. The other three specimens are superficially much lighter in coloration than the two "types" and

resemble the Guam specimens. The female specimen associated with the type could be our recent discovery *A. orana* (Fr.), the genitalia are very like those of that species. However, that is presumably not important since the identity of *angustilineata* must be based on the specimen cited by Walsingham as a "male" type and from which the description seems to have been taken. In which case I think you can safely assume that your Guam specimens are not *angustilineata.*"

63. Adoxophyes balioleuca Clarke, n. sp. (Fig. 61; Plate 13, fig. a).

Alar expanse 13 mm.

Labial palpus buff; 2nd segment with slight grayish suffusion on outer side; 3rd segment tinged light ochraceous buff. Antenna light ochraceous buff; most segments with ill-defined brownish spot dorsally. Head light ochraceous buff. Thorax light ochraceous buff. Forewing ground color buff; most of outer 2/3 thirds of wing bister, edged inwardly by a clay color line and with clay color irrorations scattered over the bister surface; on middle of costa, invading the bister area, a large triangular blotch of the ground color; on middle of dorsum a pronounced quadrate spot of ground color edged outwardly and inwardly with light ochraceous buff; on basal 2/5 of dorsum a bister blotch; cilia buff. Hindwing ocherous white suffused grayish toward margins, more strongly so in anal sector. Legs buff; tarsal segments of foreleg suffused grayish on outside. Abdomen buff, infuscated dorsally, particularly posteriorly.

MALE: Genitalia slide USNM 24019. Harpe about as long as tegumen; costa arched; cucullus bluntly pointed. Gnathos curved, with blunt median point. Socius very weak, slender. Transtillar lobe rather small with about 6 spines posteriorly. Uncus curved, only slightly dilated distally. Vinculum rounded. Tegumen broad basally, narrowed posteriorly. Anellus an oval plate with posteromedian excavation. Aedeagus short, stout, slightly curved. Vesica with no evidence of cornuti.

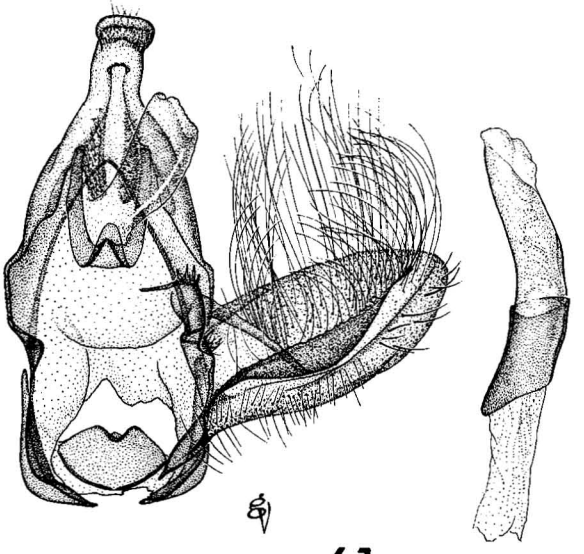

FIGURE 61. *Adoxophyes balioleuca*, n. sp.: ventral view of ♂ genitalia with left harpe omitted and aedeagus to right.

MALE: Genitalia slide USNM 24019. Harpe about as long as tegumen; costa arched;

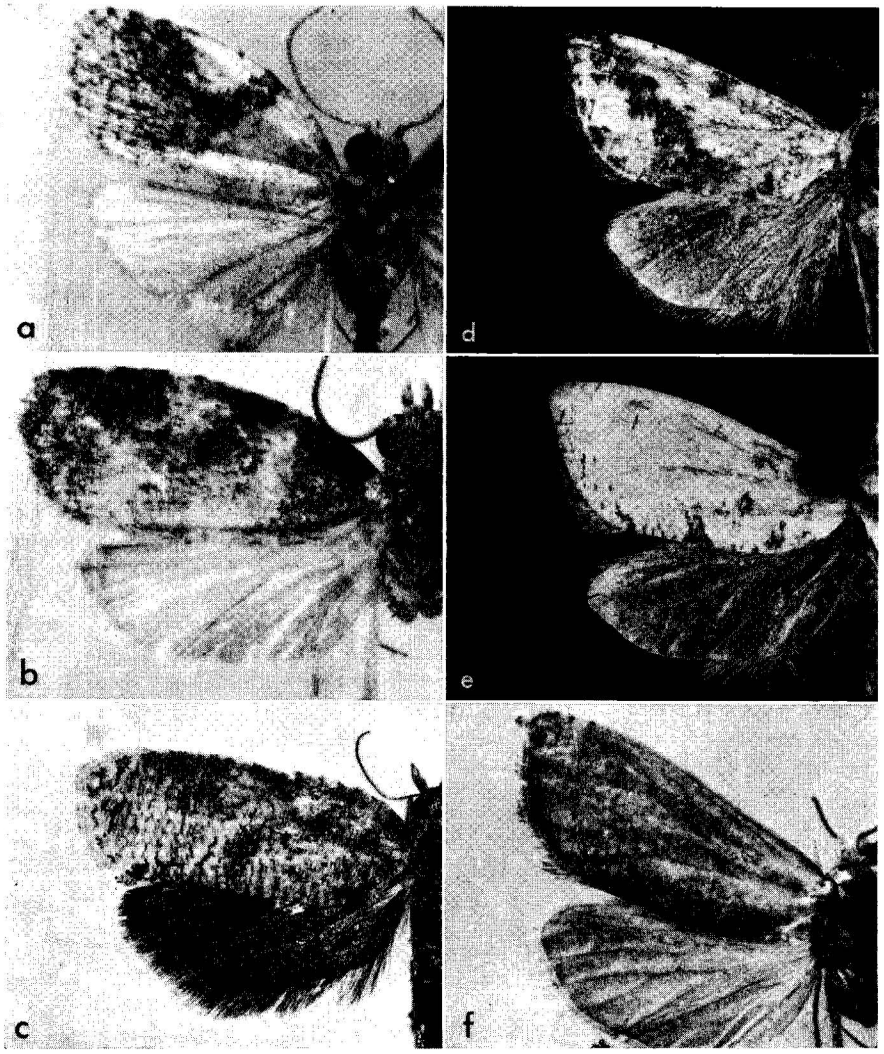

PLATE 13. a, *Adoxophyes balioleuca*, n. sp., ♂ holotype; b, *A. molybdaina*, n. sp., ♂ holotype; c, *Polylopha oachranta* Diakonoff, ♀ paratype; d, *Trymalitis cataracta* Meyrick, ♀; e, *T. escharia*, n. sp., ♂ paratype; f, *T. escharia*, n. sp., ♀ paratype.

Holotype ♂ (US 73103). Type-locality: Ponape, N. slope Tamatamansakir.

DISTRIBUTION: Eastern Caroline Islands.

PONAPE: N. slope Tamatamansakir, 1 ♂, 19 Jan. 1953, Clarke.

Food plant: Unknown.

Described from the ♂ holotype as indicated above. Probably the closest relative of *balioleuca* is *templana*, but the latter species has a conspicuous cluster of cornuti which is absent in *balioleuca*. Moreover, the transtillar lobes are much larger and more heavily spined, and the median point of gnathos is much more slender in *templana* than in *balioleuca*.

64. Adoxophyes molybdaina Clarke, n. sp. (Fig. 62; Plate 13, fig. b).

Alar expanse 11 mm.

Labial palpus buff; 2nd and 3rd segments shaded light cinnamon buff on outer side. Antenna flagellum cinnamon buff with fuscous spot on each segment dorsally; scape light ochraceous buff. Head light ochraceous buff; frons light cinnamon buff. Thorax cinnamon buff with scattered clay color scales. Forewing ground color buff heavily overlaid cinnamon buff; from near base of costa an outwardly oblique leaden-metallic fascia extends to cell, thence straight across to dorsum at basal fifth; from basal two fifths of costa a similar outwardly oblique fascia extends to cell then turns straight through cell and fades out between veins 2 and 3; between these two fascia a transverse blotch of leaden-metallic scales in cell; beyond the outer transverse fascia, and parallel to it, a row of leaden-metallic spots; in apical 1/3, from costa to vein 6, a triangular area with apex on vein 6, containing a series of leaden-metallic spots; in subterminal area several leaden-metallic spots between veins 2 and 5; cilia cinnamon buff. Hindwing sordid buff slightly suffused grayish toward margins, especially in

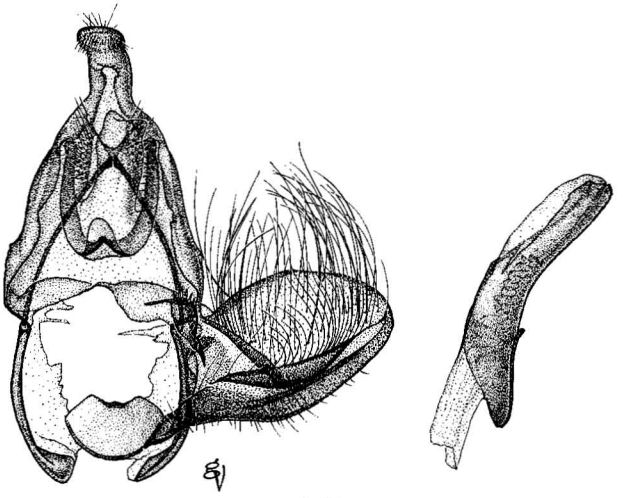

FIGURE 62. *Adoxophyes molybdaina*, new species: ventral view of ♂ genitalia with left harpe omitted and aedeagus to right.

anal sector. Foreleg buff; tibia and tarsal segments marked grayish fuscous on outer side; midleg and hindleg buff. Abdomen buff, dorsally infuscated.

MALE: Genitalia slide USNM 24151. Harpe broadest at middle, costa strongly arched; cucullus bluntly pointed; ventral edge sclerotized. Gnathos narrowly U-shaped, bluntly pointed. Socius a narrow fleshy lobe. Uncus strongly curved, slightly dilated distally. Vinculum rounded. Tegumen broadest at base, gently narrowed to base of uncus. Anellus broadly oval. Aedeagus rather stout, curved; vesica (in single specimen available) unarmed.

Holotype ♂ (US 73104). Type-locality: Ponape, Colonia.

DISTRIBUTION: Eastern Caroline Is.

PONAPE: Colonia, 1 ♂, 7 Jan. 1953, Clarke.

Food plant: Unknown.

Described from the unique ♂ holotype.

Like *poecilogramma*, there is considerable leaden scaling on the forewing but *molybdaina* does not have the pronounced, well developed fasciae of that species and is a much smaller insect.

SUBFAMILY POLYORTHINAE

Genus **Polylopha** Lower

Polylopha Lower, 1901, Trans. R. Soc. S. Austral. **25:** 71. (Type-species: *Polylopha epidesma* Lower, ibid. [by monotypy]).

65. Polylopha oachranta Diakonoff (Fig. 63; Plate 13, fig. c).

Polylopha oachranta Diakonoff, 1974, Zool. Verh., Leiden. No. **131:** 72, fig. 59.

Holotype: (US 73105). Type-locality: Saipan I., 1/2 mi. E. of Tanapag.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. Saipan I., 1/2 mi. E. Tanapag, 2 ♀♀, Apr. 1945, Dybas.

Food plant: Unknown.

This is the only polyorthine known from Micronesia, a member of a subfamily that is common in South America, less so in the Oriental Region.

FAMILY CHLIDANOTIDAE

This small family, presumably an unsuccessful one, consists of eight genera and less than a dozen described species. It is widespread, occurring from Africa and Australia all the way west and north to the Southern Mariana Is. Most of the species and genera occur in Ceylon (Sri Lanka).

Genus **Trymalitis** Meyrick

Trymalitis Meyrick, 1905, J. Bombay Nat. Hist. Soc. **16:** 590. (Type-species: *Trymalitis margarias* Meyrick, ibid. [by monotypy]).

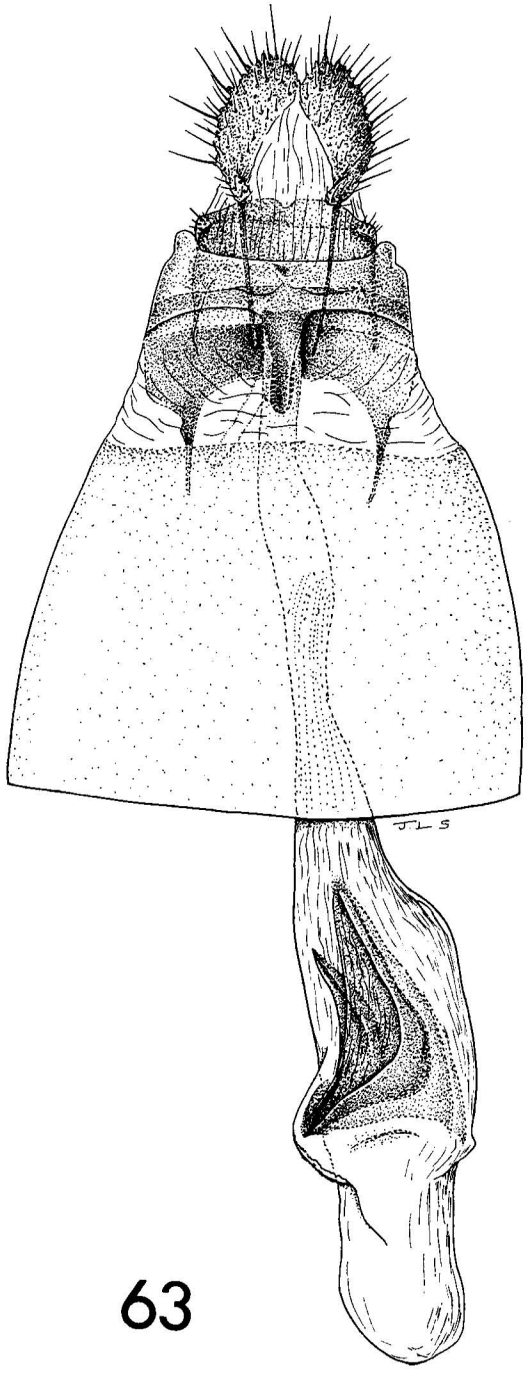

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FIGURE 63. *Polylopha oachranta* Diakonoff: ventral view of ♀ genitalia.

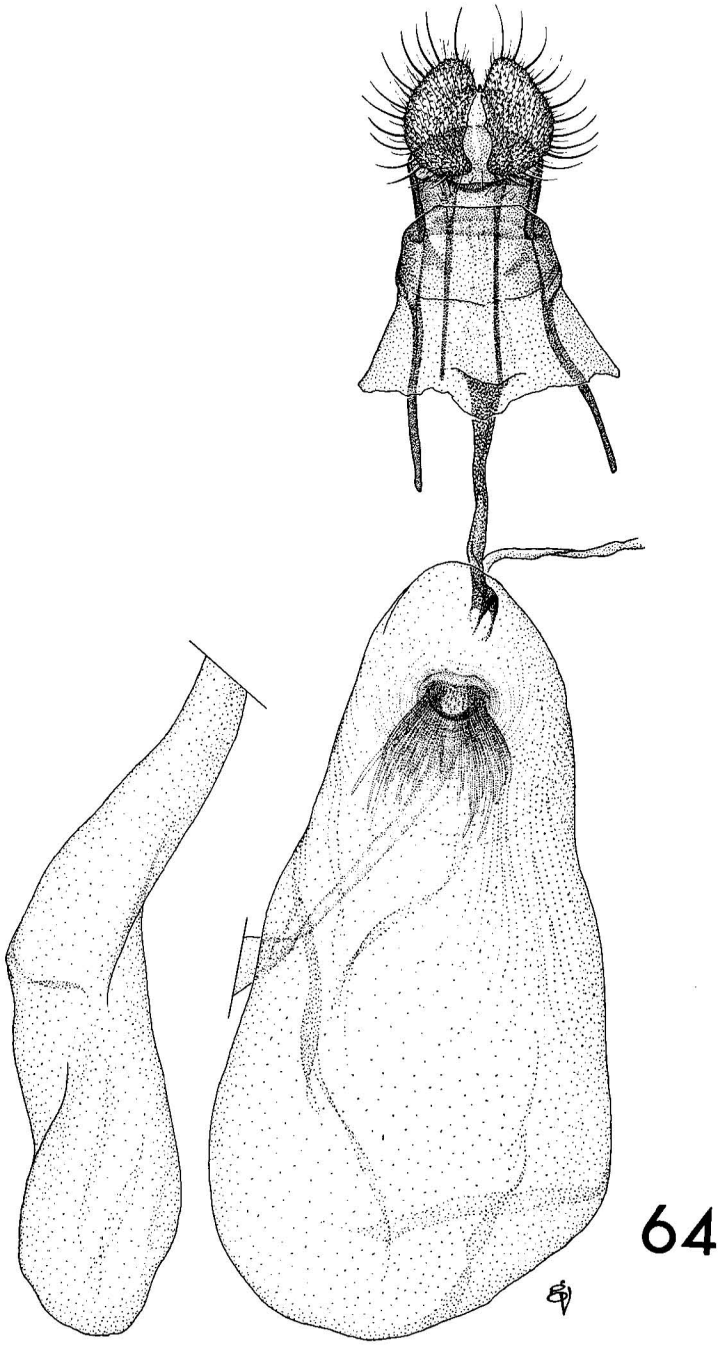

FIGURE 64. *Trymalitis cataracta* Meyrick: ventral view of ♀ genitalia with part of accessory bursa to left.

66. Trymalitis cataracta Meyrick (Fig. 64; Plate 13, fig. d).

Trymalitis cataracta Meyrick, 1907, J. Bombay Nat. Hist. Soc. **18:** 153.— Bradley, 1957, The Natural History of Rennell Island British Solomon Islands **2:** 97.— Clarke, 1963, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **4:** 80, pl. 38, figs. 2–2b.

Trymaltis [*sic*!] *optima* Meyrick, 1911, Proc. Linn. Soc. N. S. W. **36:** 294.

Trymalitis optima: Fletcher, 1931, Catalogue Ins. India **22:** 13.— Diakonoff, 1948, Treubia **19**(3): 523.— Clarke, 1963, Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick **4:** 80, pl. 38, figs. 3–3c.— Diakonoff, 1963, Naturf. Gesell. in Basel, Verhandl. **74**(1): 143.

Trymalitis macarista Meyrick, 1934, Exotic Microlepidoptera **4:** 489.

Holotypes: In the British Museum (Natural History). Type-localities: Ceylon (*cataracta*); Fiji (*optima, macarista*).

DISTRIBUTION: Eastern Australia, New Guinea, Bismark Archipelago, Siam, Andaman Is., Fiji, Ceylon, Africa, Eastern Caroline Is.

KUSAIE, Mt. Matante, 330 m, 1 ♀, Apr. 1953, Clarke.

Food plant: Unknown.

Although this is a widespread species, apparently it is not common. All the collecting done in Micronesia has produced only the single specimen referred to above. This single record, however, greatly extends the range of *cataracta*, if of a truly established population.

Female genitalia figured from slide USNM 24152.

67. Trymalitis escharia Clarke, n. sp. (Fig. 65; Plate 13, fig. e, f).

Alar expanse 15–19 mm.

Labial palpus white, with brown longitudinal streak on outer side of 2nd segment subdorsally. Antenna sordid white. Head, thorax and forewing ground color white; basal 1/4 of costa narrowly edged black; at basal 1/3 and at middle of dorsum, and on tornus, bister spots, the largest at middle of dorsum (these spots are ill-defined and suffused in ♀); subterminally a few scattered small bister dots; cilia sordid white. Hindwing pale brown; cilia white with grayish subbasal band. Legs white; foretibia suffused brownish on outer side. Abdomen white, suffused brownish dorsally.

MALE: Genitalia slides JFGC 9921; USNM 24057. Harpe as long as tegumen and vinculum combined, broad; costa nearly straight, ventral margin strongly arched; cucullus broadly rounded. Transtilla a broad, convex plate with deep median excision. Uncus curved, broadly expanded distally and clothed with fine setae. Rhamus long, slender, bent sharply distally. Socius very weak, slender, setose. Vinculum broadly rounded. Tegumen as broad as long. Anellus a subrectangular plate with deeply concave posterior edge and with a long, semitubular arm articulating with aedeagus. Aedeagus long, slender; vesica armed with a series of four slender cornuti, three of which are strongly curved.

FEMALE: Genitalia slides JFGC 9922; USNM 24058. Ostium transverse, slit-like; on each side of ostial opening a long seta. Antrum broad, irregular, swollen. Inception of ductus seminalis at junction of ductus bursae and bursa copulatrix. Ductus bursae membranous in anterior 1/3. Bursa copulatrix membranous; accessory bursa arising from a strongly sclerotized circular base, the latter armed with a comb of long spines which constitute the signum

Holotype ♂ (US 73106). Type-locality: Guam, Ritidian.

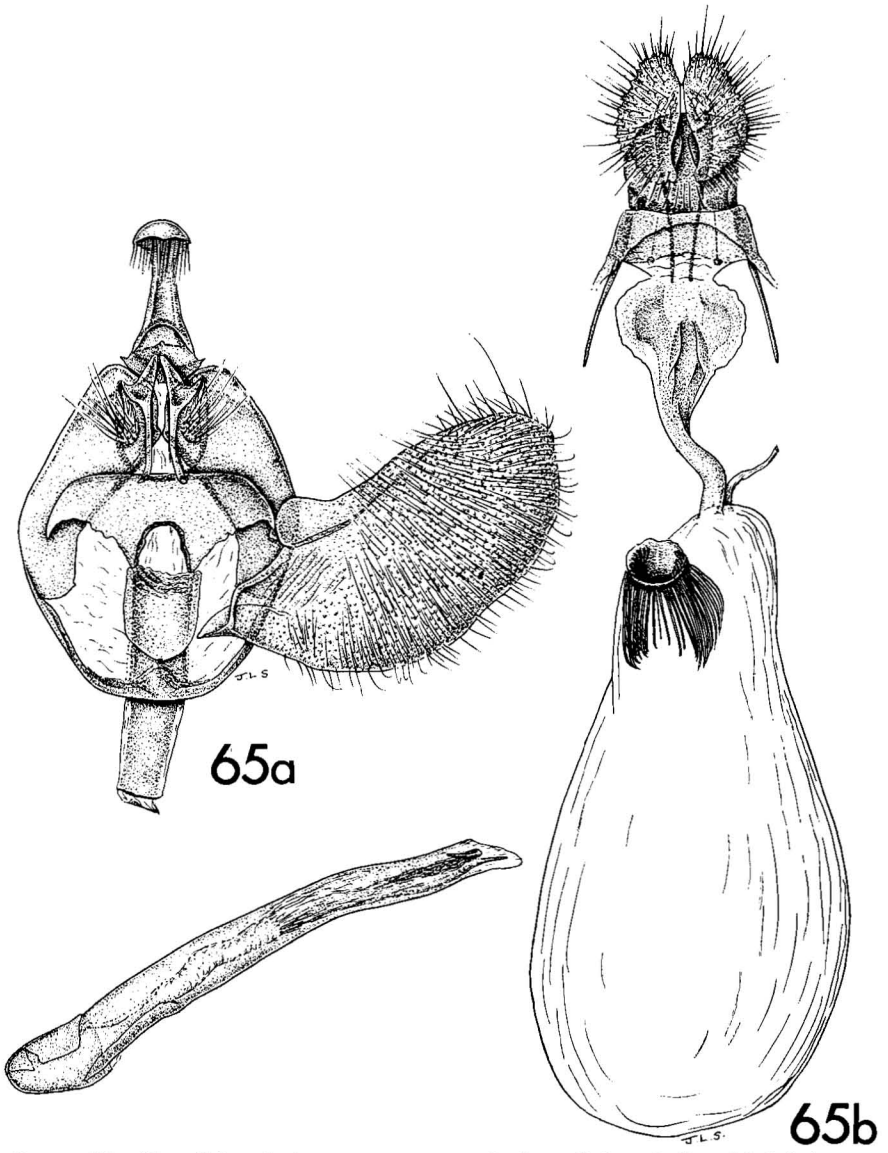

FIGURE 65. *Trymalitis escharia*, n. sp.: a, ventral view of ♂ genitalia with left harpe omitted and aedeagus below; b, ventral view of ♀ genitalia with accessory bursa omitted.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Commander Marianas' Hill, 2 ♂♂, 1 ♀, Jan. 1949, Maehler; Pt. Oca, ♂, 8 June 1945, Bohart & Gressitt, at light; Ritidian, 5 ♂♂, 2 ♀♀, 2–9 Aug. 1945, Gressitt; no specific locality,

1 ♀, 22 Jan. 1945, Wagner Jr.

Food plant: Unknown.

Described from the holotype ♂, 7 ♂♂ and 4 ♀♀ paratypes as listed above.

Although close to *cataracta* this species lacks the pronounced dark markings of that species. Moreover, *cataracta* lacks the curved cornuti of *escharia* and the ductus bursae of *cataracta* is narrow and granular, not irregular and swollen as in *escharia*.

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Bradley, J. D. 1953. Some important species of the Genus *Cryptophlebia* Walsingham, 1899, with descriptions of three new species (Lepidoptera: Olethreutidae). Bull. Ent. Res. **43**(4): 679–89, figs. 1–8, plates 24, 25.

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