

Moths of the Guadalcanal Island (Lepidoptera)

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Abstract

The 34 species of Heterocera of Macrolepidoptera in Guadalcanal Is. are recorded and illustrated.

Introduction

The butterflies of Fiji and Solomon Islands were recorded in detail by Kushi-gemati, Kôda & Hirowatari (1983). The present paper deals with the remainder of the 'macrolepidoptera' which are based on material collected by the junior author in Guadalcanal Is., Solomon Islands when he joined the Scientific Expedition of Kagoshima University Research Center for South Pacific, 1982. The systematic order is largely based on that of Inoue et al. (1982), and runs as follows: Pyraloidea (Hyblaeidae); Geometroidea (Uraniidae); Sphingoidea (Sphingidae); Noctuoidea (Arctiidae, Hyspidae, Ctenuchidae, Noctuidae).

Information on the analysis of these species was gained mainly from references to the sources in the literatures such as Butler (1887), Druce (1888), Warren (1926), Robinson (1975) and Holloway (1979). But 7 species in the list remain unidentified, and further examinations of abundant materials are necessary in order that they may be definitely identified.

Enumeration

Family Hyblaeidae

1. *Hyblaea onstellata* Guenée, 1852 (Plate I, figs. 1, 2)

Specimens examined: 2♂♂ & 3♀♀, 6-xii-1982, Honiara, Guadalcanal Is.;
4♂♂, 7-xii-1982, same locality.

Distribution: Indo-Australian region.

This species is very common in this region.

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Family Uraniidae

2. *Lyssa patroclus mutata* (Butler, 1887)

Specimen examined : 1♂, 7-xii-1982, Mbarambou, Guadalcanal Is.

Distribution : Indo-Australian region.

This species is widely distributed in this region.

Family Sphingidae

3. *Angonyx meeki* Rothschild & Jordan, 1903 (Plate I, fig. 3)

Specimen examined : 1♀, 7-xii-1982, Honiara, Guadalcanal Is.

Distribution : Solomon Is.

This species is an endemic species in the Solomon Islands.

4. *Theretra nessus* (Drury, 1773) (Plate I, fig. 4)

Specimen examined : 1♂, 8-xii-1982, Honiara, Guadalcanal Is.

Distribution : Indo-Australian region.

This species is common in this region.

5. *Theretra tryoni* (Miskin, 1891) (Plate I, fig. 5)

Specimen examined : 1♂, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Maluka Is., New Guinea and Solomons.

Family Arctiidae

Subfamily Arctiinae

6. *Rhodogastria astreus novaeguineae* Rothschild, 1925 (Plate I, fig. 6)

Specimens examined : 1♂ & 1♀, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Indo-Australian region.

This is widely distributed species in which all the New Guinean and Solomonian forms are referable to the single subspecies *novaeguineae*.

7. *Rhodogastria crokeri salomonis* Rothschild, 1910 (Plate I, fig. 7)

Specimen examined : 1♀, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : New Guinea, Bismarcks, Solomons and Australia (Queensland).

Subfamily Nyctemerinae

8. *Nyctemera baulus* (Boisduval, 1832) (Plate I, fig. 8)

Specimen examined : 1♂, 30-xi-1982, Honiara, Guadalcanal Is.

Distribution : Indo-Australian region.

This species is common especially in areas of second vegetations and often

flies by day. The larva of *N. baulus* on leaves is recorded as feeding on *Brassica oleracea* L., *Emelia sonchifolia* (L.) and *Crassocephalum crepidioides*. The early stages are described by Robinson (1975).

Family Hypsidae

9. *Asota diana* (Butler, 1887) (Plate II, figs. 9, 10)

Specimens examined: 11♂♂ & 6♀♀, 6-xii-1982, Honiara, Guadalcanal Is.; 3♂♂ & 3♀♀, 7-xii-1982, same locality.

Distribution: Solomon Is.

This species is an endemic species in the Solomon Islands.

10. *Asota* sp. (Plate II, fig. 11)

Specimen examined: 1♀, 6-xii-1982, Honiara, Guadalcanal Is.

Family Ctenuchidae

11. *Euchromia aenone* Butler, 1876 (Plate II, figs. 12, 13)

Specimens examined: 1♂ & 1♀, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution: Solomon Is.

The closest apparent ally of this species is *Euchromia vitiensis* Hampson, 1903 from the Fiji Islands which is larger and having the deep orange colouring of the first abdominal segment. This species is endemic to the Solomon Islands, but moderately common in this area.

12. *Euchromia shortlandica* Swinhoe, 1905 (Plate II, fig. 14)

Specimens examined: 1♂ & 2♀♀, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution: Solomon Is.

The closest apparent ally of this species is *Euchromia creusa* (L., 1758) from New Guinea, E. Australia and New Caledonia in which the first abdominal segment is not banded with deep orange. This species is endemic to the Solomon Islands.

Family Noctuidae

Subfamily Hadeninae

13. *Tiracola plagiata* (Walker, 1857) (Plate II, fig. 15)

Specimen examined: 1♂, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution: Indo-Australian region.

This species is widespread and often common in this region.

Subfamily Amphipyriinae

14. *Mesapamea* sp. (Plate II, fig. 16)

Specimen examined : 1 ♀, 6-xii-1982, Honiara, Guadalcanal Is.

15. *Spodoptera litura* (Fabricius, 1775) (Plate III, fig. 17)

Specimen examined : 1 ♂, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Europe to South East Asia, Australian Region.

The larva of this species is well known to an almost omnivorous pest. Cohic (1956) recorded the larva as feeding on *Alocasia*, *Brassica*, *Capsicum*, *Erythrina*, *Gossypium*, *Musa*, *Nicotina*, *Rosa*, *Solanum*, *Xanthosoma* and *Zea*. Robinson (1975) gave many more host plants for the Fiji Is.

16. *Platysenta praesepta* (Warren, 1912) (Plate III, fig. 18)

Specimen examined : 1 ♂, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Australian Region.

Subfamily Eutelinae

17. *Phlegetonia delatrix* (Guenée, 1852) (Plate III, fig. 19)

Specimen examined : 1 ♀, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Indo-Australian region.

This species is widespread but never very common. Robinson (1975) recorded the larva as feeding on *Myrtus* and *Syzygium*.

Subfamily Stictopterinae

18. *Stictoptera semilunaris* Strand, 1917 (Plate III, figs. 20, 21)

Specimens examined : 2 ♂♂, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Australian Region.

19. *Stictoptera signifera* (Walker, 1857) (Plate III, fig. 22)

Specimen examined : 1 ♂, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Afrotropical and Indo-Australian regions.

20. *Stictoptera* sp. (Plate III, fig. 23)

Specimen examined : 1 ♂, 6-xii-1982, Honiara, Guadalcanal Is.

Subfamily Catocalinae

21. *Eupatula macropus* (Linnaeus, 1768) (Plate III, fig. 24)

Specimen examined : 1 ♂, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Indo-Australian region.

22. *Achaea serva* (Fabricius, 1775) (Plate IV, fig. 25)

Specimens examined : 2♂♂, 7-xii-1982, Honiara, Guadalcanal Is.

Distribution : Indo-Australian region.

This species is widespread but uncommon. The larva is recorded as feeding on *Palaquim*, *Ficus* and *Ricinus*.

23. *Parallelia koroensis* Robinson, 1969 (Plate IV, figs. 26, 27)

Specimens examined : 1♂ & 1♀, 6-xii-1982, Honiara, Guadalcanal Is. ; 1♂, 7-xii-1982, same locality.

Distribution : Solomon Is. and Fiji Is.

This species is a moderately common noctuid restricted to primary montane rain forest.

24. *Parallelia prisca* (Walker, 1858) (Plate IV, figs. 28, 29)

Specimens examined : 8♂♂ & 7♀♀, 6-xii-1982, Honiara, Guadalcanal Is. ; 1♂ & 1♀, 7-xii-1982, same locality.

Distribution : Solomons, New Hebrides, New Caledonia, Fiji, Samoa and Tonga.

This species is commonly associated with primary and secondary forest. The larva is recorded as feeding on *Myrtus*.

25. *Parallelia vitiensis* (Butler, 1886) (Plate IV, fig. 30)

Specimen examined : 1♀, 7-xii-1982, Honiara, Guadalcanal Is.

Distribution : Sulawesi, N. Moluccas, Kei, New Guinea, Witu, Bismarcks and Solomons as well as New Hebrides, New Caledonia, Fiji, Rotuma, Samoa and Tonga.

This species is moderately common.

26. *Parallelia* sp. (Plate IV, fig. 31)

Specimen examined : 1♂, 6-xii-1982, Honiara, Guadalcanal Is.

27. *Thyas miniacea* (Felder, 1875) (Plate IV, fig. 32)

Specimen examined : 1♀, 8-xii-1982, Honiara, Guadalcanal Is.

Distribution : Lesser Sundas, Moluccas, New Guinea, Australia (Northern Territory, Queensland), Bismarcks, and Solomons.

This species is moderately common in lowland forest. Robinson (1975) recorded the larva as feeding on *Quisqualis* and *Terminalia*.

28. *Phyllodes imperialis imperialis* Druce, 1888 (Plate V, fig. 33)

Specimen examined : 1 ♀, 8-xii-1982, Honiara, Guadalcanal Is.

Distribution : New Guinea, Queensland, Bismarcks, Solomons, New Hebrides, New Caledonia and Lifu.

This species is uncommon in these areas.

29. *Phyllodes roseigera* Butler, 1882 (Plate V, fig. 34)

Specimen examined : 1 ♂, 7-xii-1982, Honiara, Guadalcanal Is.

Distribution : Australian Region.

Subfamily Ophiderinae

30. *Adris* sp. (Plate V, figs. 35, 36)

Specimens examined : 2 ♂♂, 6-xii-1982, Honiara, Guadalcanal Is. ; 1 ♀, 7-xii-1982, same locality.

31. *Ischyja ebusa* Swinhoe, 1902 (Plate V, fig. 37)

Specimens examined : 1 ♀, 6-xii-1982, Honiara, Guadalcanal Is. ; 1 ♀, 7-xii-1982, same locality.

Distribution : Solomon Is.

32. *Speiredonia mutabilis* (Fabricius, 1794) (Plate V, fig. 38)

Specimen examined : 1 ♂, 6-xii-1982, Honiara, Guadalcanal Is.

Distribution : Indo-Australian region.

This species is uncommon restricted to montane rain forest.

33. *Ericeia* sp. (Plate V, fig. 39)

Specimen examined : 1 ♀, 6-xii-1982, Honiara, Guadalcanal Is.

34. *Tamba* sp. (Plate V, fig. 40)

Specimen examined : 1 ♀, 6-xii-1982, Honiara, Guadalcanal Is.

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We wish to express our sincere thanks to Mr. Shigero Sugi, Tokyo for his useful suggestions. Our grateful thanks are also due to Dr. Kyoichiro Ueda of Kitakyushu Museum of Natural History and Mr. Shinichi Yoshimatsu of Kyushu University, for their kind helps in many respects.

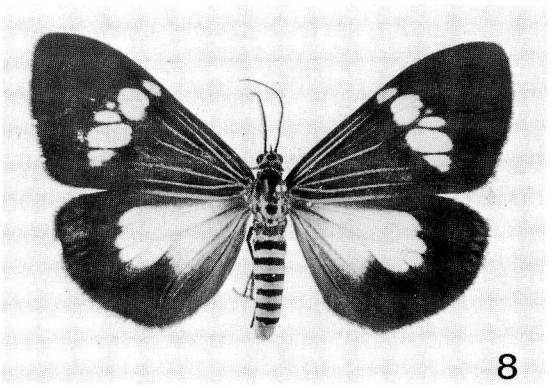
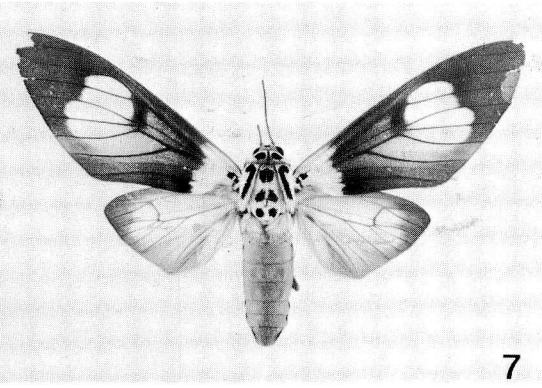
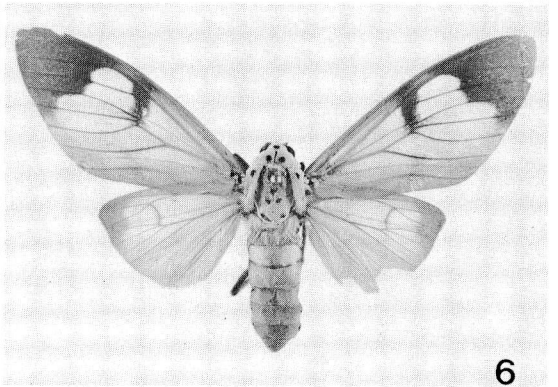
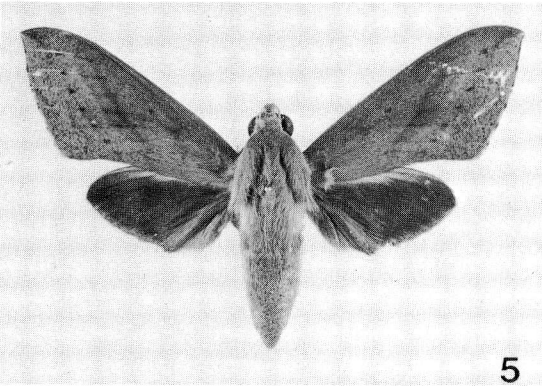
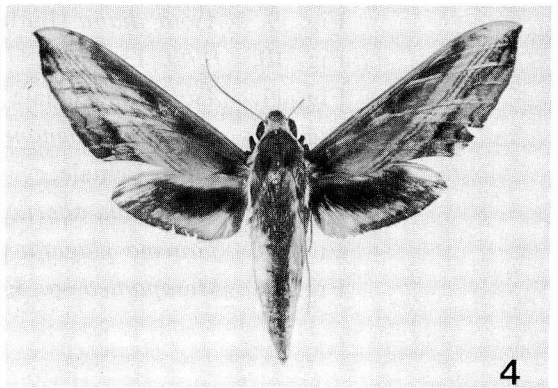
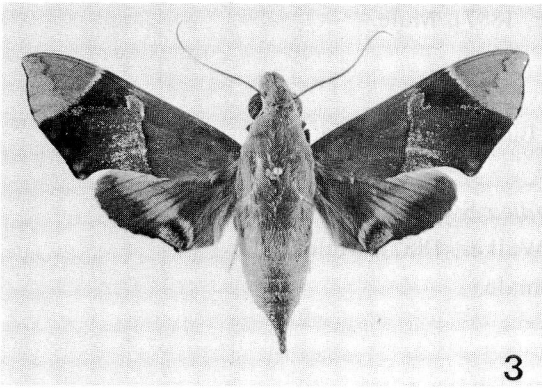
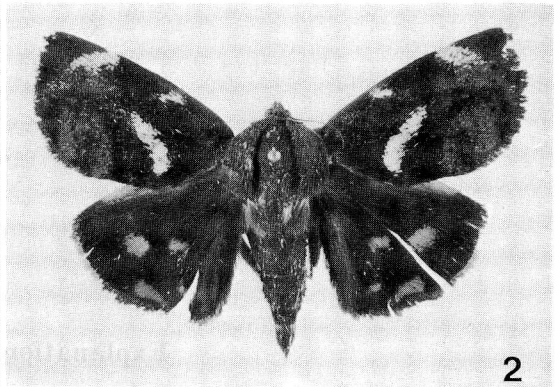
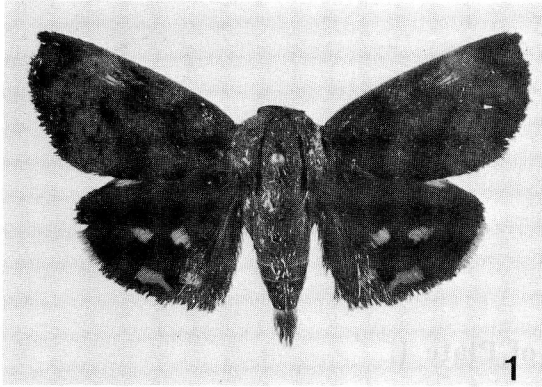
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Explanation of Plate I

- Fig. 1. *Hyblaea onstellata* Guenée, 1852, Male.
- Fig. 2. *Ditto*, Female.
- Fig. 3. *Angonyx meeki* Rothschild & Jordan, 1903, Female.
- Fig. 4. *Theretra nessus* (Drury, 1773), Male.
- Fig. 5. *Theretra tryoni* (Miskin, 1891), Male.
- Fig. 6. *Rhodogastria astreus novaeguinea* Rothschild, 1925, Female.
- Fig. 7. *Rhodogastria crokeri salomonis* Rothschild, 1910, Female.
- Fig. 8. *Nyctemera baulus* (Boisduval, 1832), Male.

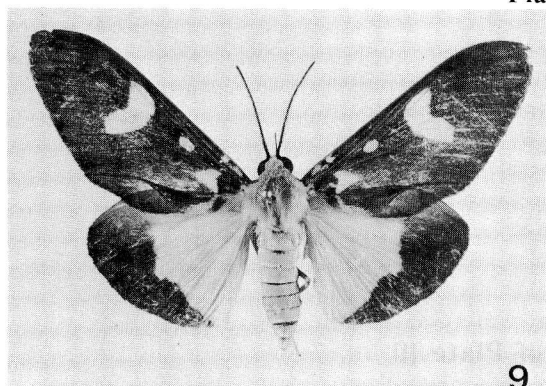
Plate I



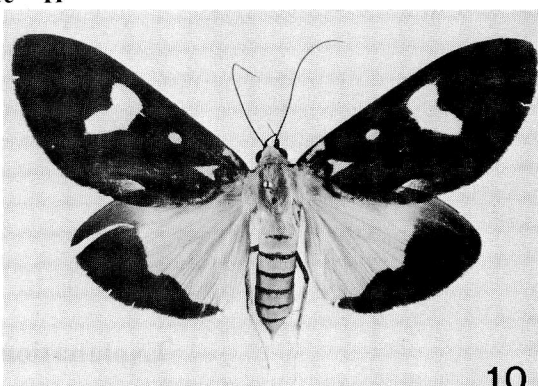
Explanation of Plate II

- Fig. 9. *Asota diana* (Butler, 1887), Male.
- Fig. 10. *Ditto*, Female.
- Fig. 11. *Asota* sp., Female.
- Fig. 12. *Euchromia aenone* Butler, 1876, Male.
- Fig. 13. *Ditto*, Female.
- Fig. 14. *Euchromia shortlandica* Swinhoe, 1905, Female.
- Fig. 15. *Tiracola plagiata* (Walker, 1857), Male.
- Fig. 16. *Mesapamea* sp., Female.

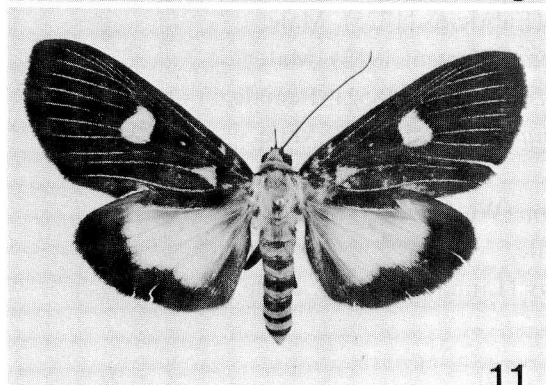
Plate II



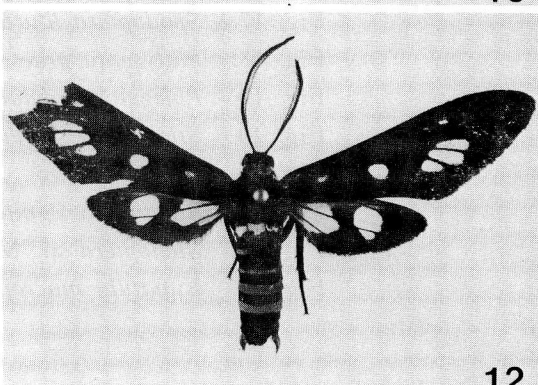
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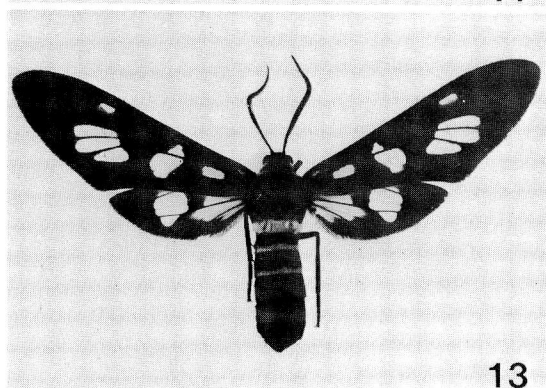
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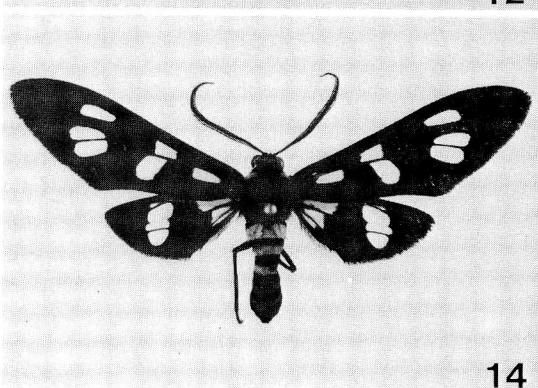
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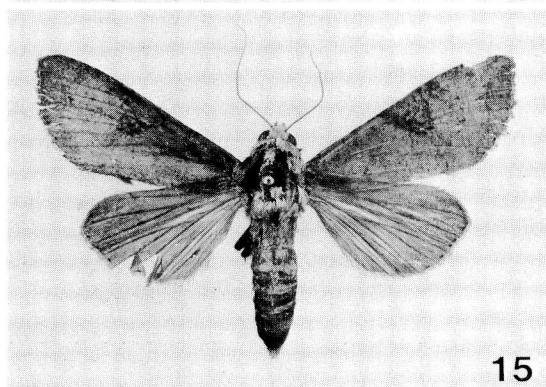
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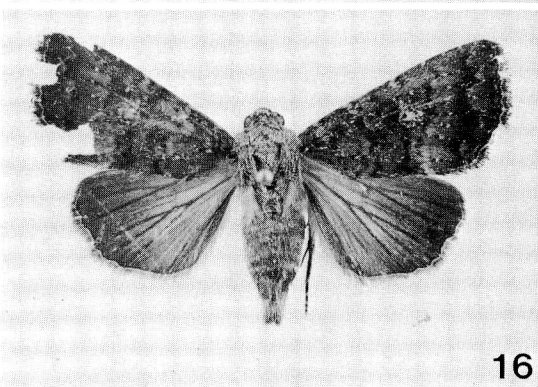
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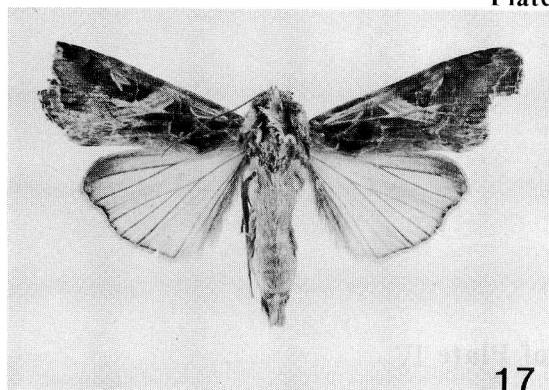


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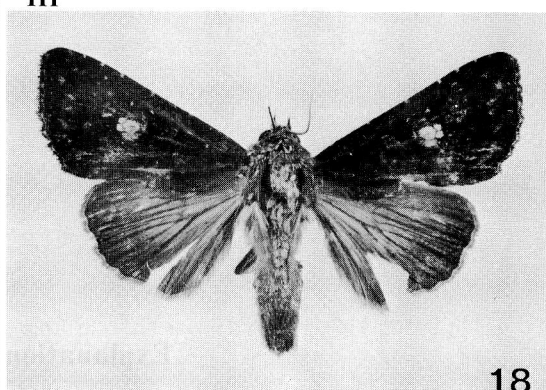
Explanation of Plate III

- Fig. 17. *Spodoptera litura* (Fabricius, 1775), Male.
- Fig. 18. *Platysenta praesepta* (Warren, 1912), Male.
- Fig. 19. *Phlegetonia delatrix* (Guenée, 1852), Female.
- Fig. 20. *Stictoptera semilunaris* Strand, 1917, Male.
- Fig. 21. *Ditto*, Male.
- Fig. 22. *Stictoptera signifera* (Walker, 1857), Male.
- Fig. 23. *Stictoptera* sp., Male.
- Fig. 24. *Eupatula macropus* (Linnaeus, 1768), Male.

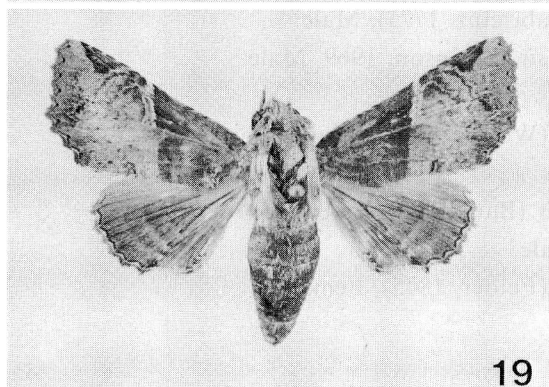
Plate III



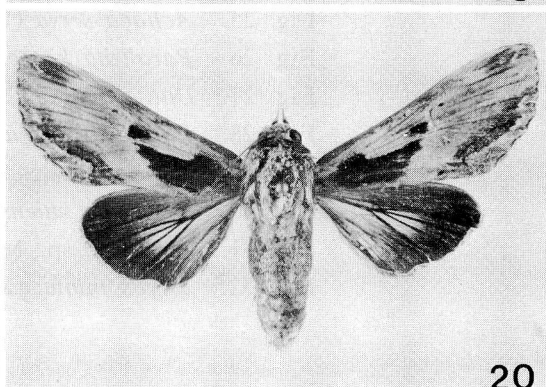
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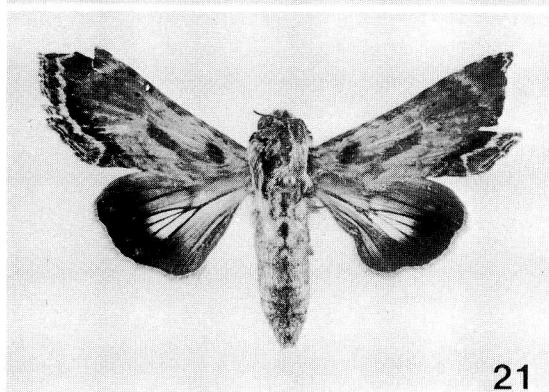
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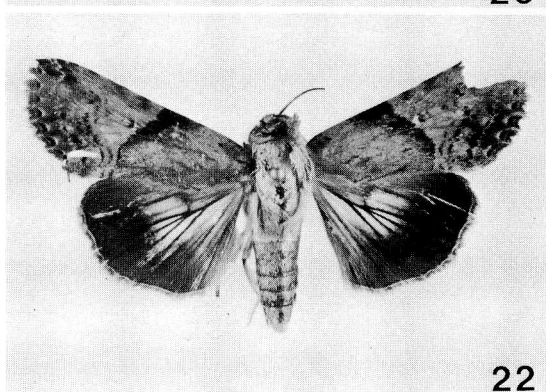
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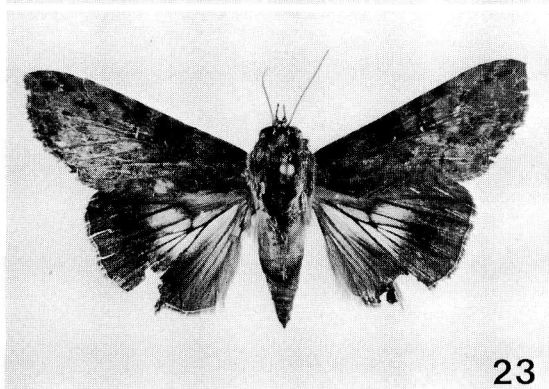
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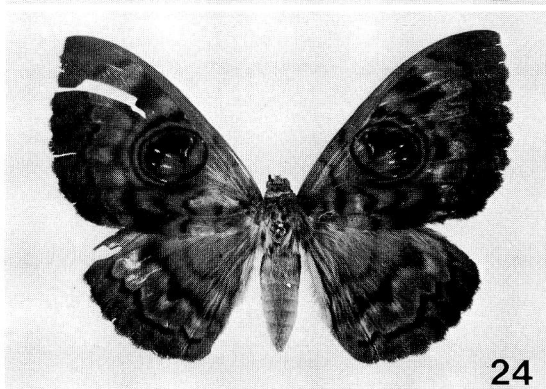
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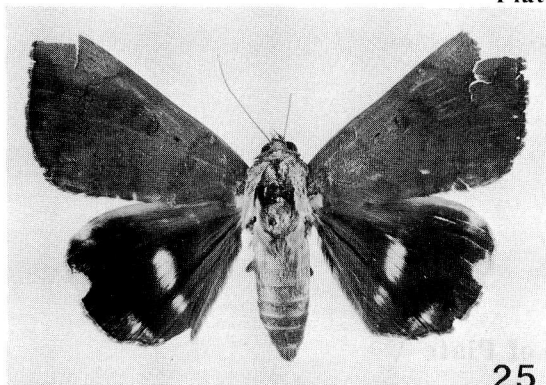


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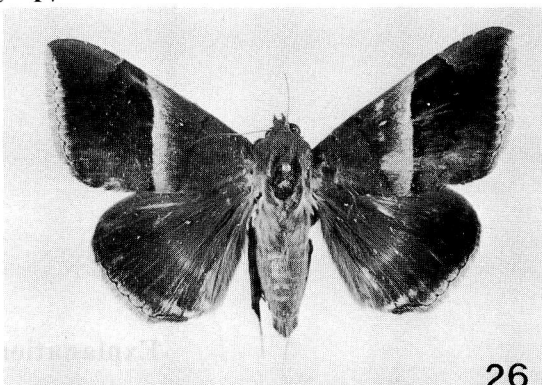
Explanation of Plate IV

- Fig. 25. *Achaea serva* (Fabricius, 1775), Male.
Fig. 26. *Parallelia koroensis* Robinson, 1969, Male.
Fig. 27. *Ditto*, Female.
Fig. 28. *Parallelia prisca* (Walker, 1858), Male.
Fig. 29. *Ditto*, Female.
Fig. 30. *Parallelia vitiensis* (Butler, 1886), Female.
Fig. 31. *Parallelia* sp., Male.
Fig. 32. *Thyas miniacea* (Felder, 1875), Female.

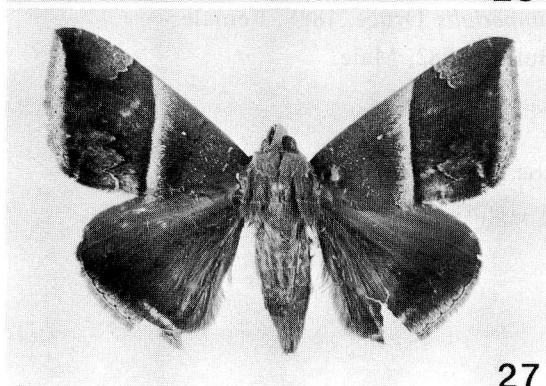
Plate IV



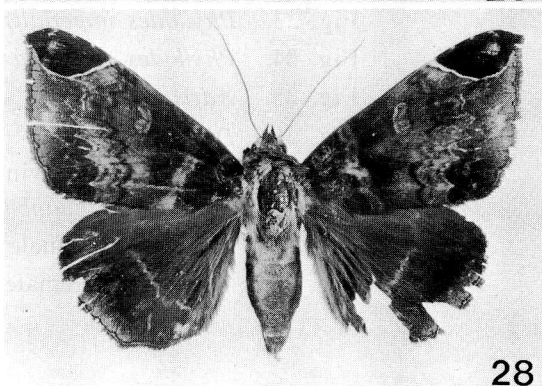
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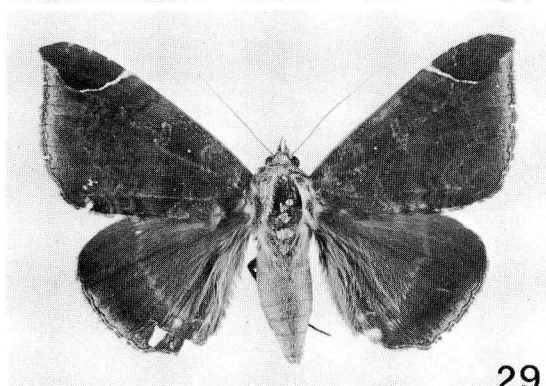
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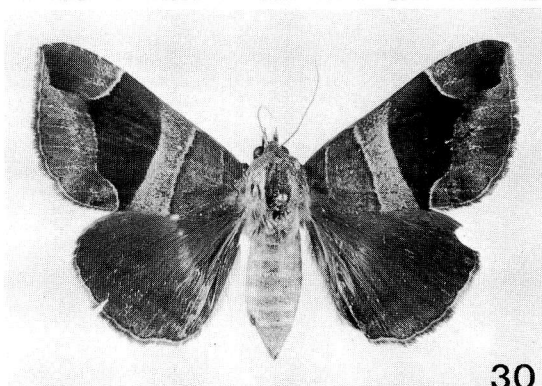
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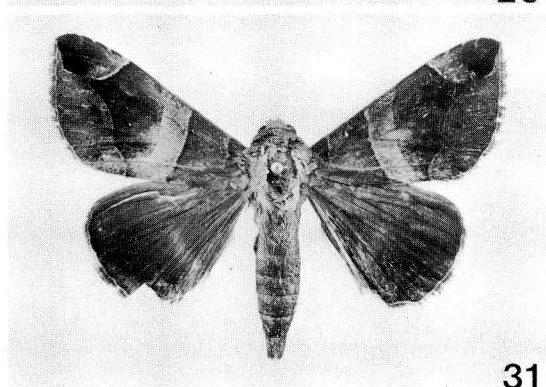
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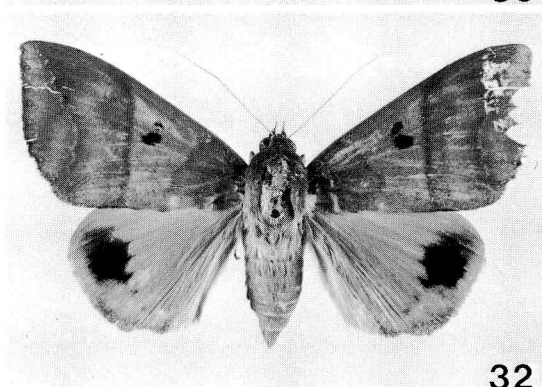
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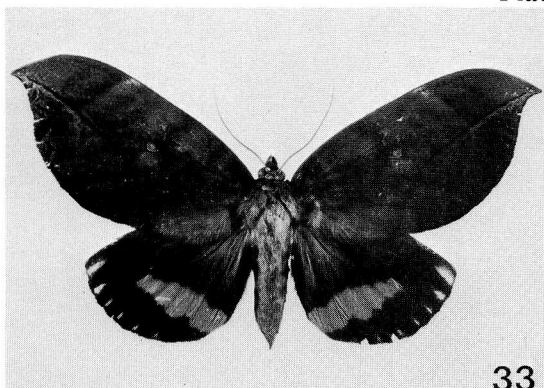


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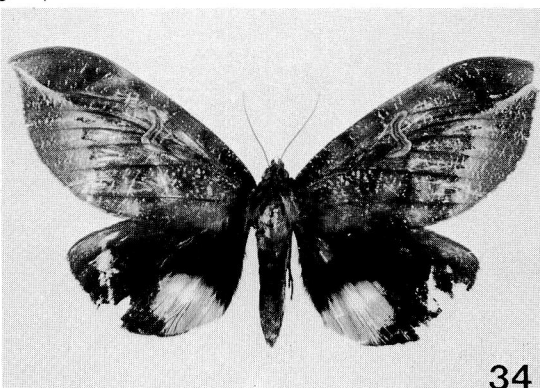
Explanation of Plate V

- Fig. 33. *Phyllodes imperialis imperialis* Druce, 1888, Female.
- Fig. 34. *Phyllodes roseigera* Butler, 1882, Male.
- Fig. 35. *Adris* sp., Male.
- Fig. 36. *Ditto*, Female.
- Fig. 37. *Ischyja ebusa* Swinhoe, 1902, Female.
- Fig. 38. *Speiredonia mutabilis* (Fabricius, 1794), Male.
- Fig. 39. *Ericeia* sp., Female.
- Fig. 40. *Tamba* sp., Female.

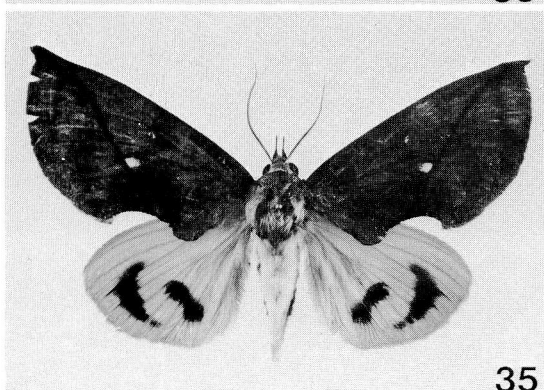
Plate V



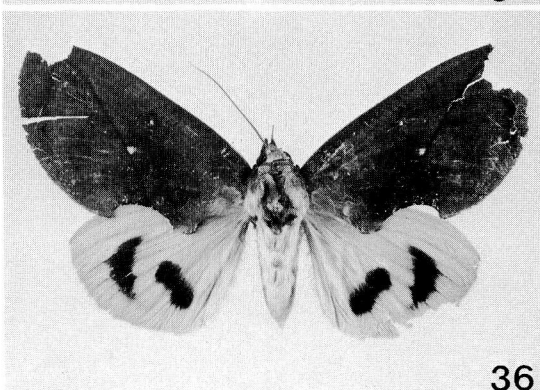
33



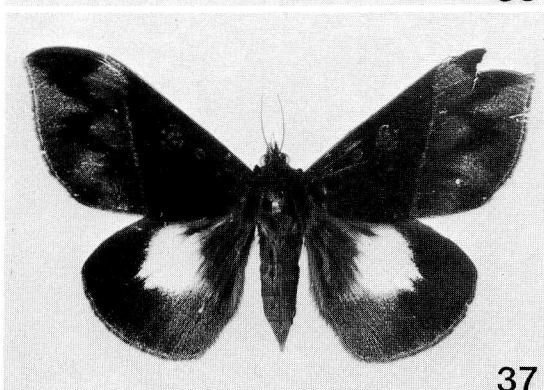
34



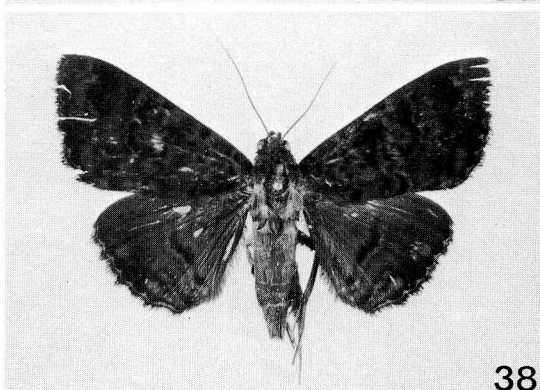
35



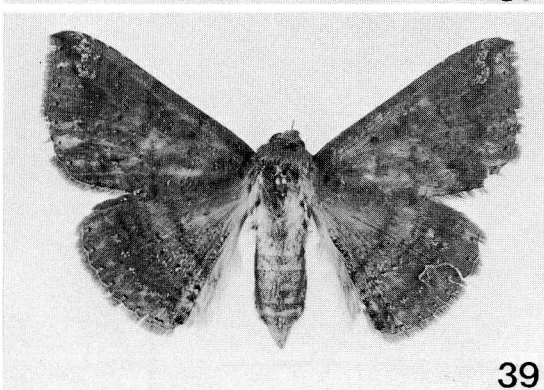
36



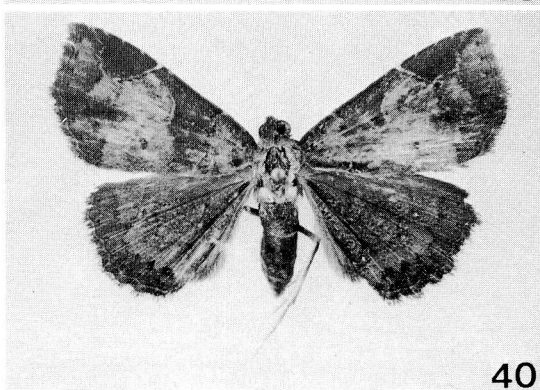
37



38



39



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