

CHECK LIST OF THE RUTELINAE
(COLEOPTERA, SCARABAEIDAE)
OF OCEANIA

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BERNICE P. BISHOP MUSEUM
OCCASIONAL PAPERS
VOLUME XI, NUMBER 2

HONOLULU, HAWAII
PUBLISHED BY THE MUSEUM
1935

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BIOLOGY

The Rutelinae are plant feeders. In *Parastasia* the beetle (imago) visits flowers, and the grub (larva) lives in dead trunks of more or less hard wood. In *Anomala* the beetle is a leaf feeder, and the grub lives in the earth, feeding on the roots of living plants. In *Adoretus* the beetle feeds on flowers and leaves; the grub lives in the earth and feeds upon the roots of living plants. In some species of *Anomala* and *Adoretus*, both beetles and grubs are noxious to cultivated plants, and it has been observed that eggs or young grubs of these species have been transported in the soil-wrapping around roots or parts of roots of such plants as the banana, cassava, and sugar cane.

DISTRIBUTION

With the exception of two species, the Rutelinae found on the continent of Australia (including Tasmania) belong to the subtribe Anoplognathina. The first exception is *Anomala* (*Aprosterna*) *antiqua* Gyllenhal (*australasiae* Blackburn), found in northeast Queensland in cultivated places near the coast. This species is abundant from British India and southeast China in the west to New Guinea in the east, stated to be noxious here and there to cultivated plants. It was probably brought to Queensland by brown or white men, as either eggs or young grubs in soil around roots of bananas, cassava, or sugar cane. The second exception is *Mesystoechus ciliatus* Waterhouse, belonging to the tribe Rutelini, a few specimens being found at Moreton Bay near Brisbane. The systematic position of this species is somewhat doubtful, as only the male sex is known and the biology (ecology and earlier stages) is quite unknown. The subtribe Anoplognathina with 14 genera and 86 species is restricted to continental Australia (including Tasmania) with the one exception of *Anoplognathus insularis* Ohaus, found rarely on Mount Alexander

and Sattelberg, south New Guinea, and closely related to *Anoplognathus punctulatus* Oliff, common in Queensland.

With the exception of *Anoplognathus insularis* Ohaus, the species of the subfamily Rutelinae recorded from the Oceanic islands belong to the genera *Parastasia*, *Anomala*, *Malaia*, and *Adoretus*, all characteristic of Malaysia and eastern Asia.

In the tribe Rutelini 15 species, all belonging to the genus *Parastasia*, have been found in New Guinea and the islands east and southeast of it. Two of these 15 species, *P. bimaculata* and *P. confluens*, live also west of New Guinea, throughout Malaysia to the Andaman and Nicobar Islands. The grubs of these two species have been found in coconut trees, and it is possible that they have been transported in drifting tree trunks or carried by man in firewood.

In the tribe Anomalini, *Malaia* with 1 species and *Anomala* with 17 species are recorded as found in New Guinea and Oceanic islands. I do not believe that Boisduval's record of *Malaia nigrita* Boisduval in Vanikoro, Santa Cruz Islands, is correct. Though the species is abundant in different localities in Celebes, I have no certain record of its presence east of this island. In the genus *Anomala* two species, *A. anoguttata* Burmeister and *A. antiqua* Gyllenhal, are widely distributed and evidently transported with cultivated plants.

In the tribe Adoretini, four species of the genus *Adoretus* have been found in Oceania, three of which were surely imported with cultivated plants, becoming bad cultivated-plant pests there.

In earlier times, when the landway was not yet interrupted by the sea, Rutelinae went from southeast Asia by way of Malaysia to New Guinea, and farther east to the Solomon Islands, Santa Cruz Islands, and New Hebrides, and from here south to New Caledonia, east to Fiji and Tonga. The one species of *Adoretus* in Samoa and the two species of Rutelinae in Hawaii are imported pests of cultivated plants. No Rutelinae have been recorded from the other islands of Oceania.

FAMILY SCARABAEIDAE

SUBFAMILY RUTELINAE

TRIBE RUTELINI

- Parastasia assimilis** Ohaus: 28*, p. 126. Solomon Islands: Alu.
- Parastasia bimaculata** Guérin: 16. Solomon Islands. Occurs from Malakka to Bougainville Island.
- Parastasia confluens** Westwood: 50. Occurs from the Andaman Islands to New Guinea.
- Parastasia dolens** Fairmaire: 9. Fiji.
- Parastasia guttulata** Fairmaire: 10, p. 9. Duke of York Island.
- Parastasia helleri** Ohaus 27, p. 25. New Guinea.
- Parastasia inconstans** Fairmaire: 9. Tonga: Niuafoou.
- Parastasia lutea** Ohaus: 36. New Guinea.
- Parastasia marginata** Boisduval: 4, p. 187, pl. 6, fig. 17 (*Caelidia*). New Guinea.
- Parastasia marmorata** Gestro: 14, p. 187. Duke of York Island.
- Parastasia montrouzieri** Fairmaire: 10, p. 9. Duke of York Island.
- Parastasia montrouzieri** variety **apicalis** Ohaus: 32. New Guinea.
- Parastasia montrouzieri** variety **infuscata** Ohaus: 32. St. Aignan Island.
- Parastasia montrouzieri** variety **ruficollis** Ohaus: 32. St. Aignan Island.
- Parastasia montrouzieri** variety **simplicipes** Ohaus: 27, p. 14. Solomon Islands. Louisiade Archipelago.
- Parastasia montrouzieri** subspecies **australis** Ohaus: 28, p. 128; 31, p. 507. Cairns Island.

* Numbers refer to the bibliography, p. 8.

Parastasia nigromaculata Blanchard: 2, p. 216 (*Caelidia*). New Guinea.

Parastasia novoguineensis Ohaus: 27, p. 22. New Guinea.

Parastasia percheroni Montrouzier: 23, p. 271 (*Cyclocephala*). New Hebrides, Loyalty Islands, and New Caledonia.

Parastasia rufolimbata Blanchard: 2, p. 217. Solomon Islands: St. George.

TRIBE ANOMALINI

Anomala (Aprosterna) antiqua Gyllenhal: 17, p. 196 = **australasiae** Blackburn: 1. New Guinea. Australia: Queensland. Occurs from Malakka to Queensland; transported with cultivated plants.

Anomala (Anomala) aeneiventris Fairmaire: 10, p. 6. Duke of York Island.

Anomala aeneiventris variety **fuscipennis** Ohaus: 33, p. 108. Occurs from Amboina throughout New Guinea to Duke of York Island.

Anomala aeneotincta Fairmaire: 10, p. 7. New Britain.

Anomala aerea Blanchard: 2, p. 192. New Guinea?

Anomala bonguana Ohaus: 34, p. 64. New Guinea.

Anomala dorsosignata Ohaus: 34, p. 45. New Guinea.

Anomala fuscoviridis Blanchard: 2, p. 192. New Guinea.

Anomala hebridarum Ohaus: 34, p. 84. New Hebrides.

Anomala ministrans Ohaus: 34, p. 42. New Guinea.

Anomala miokana Ohaus: 34, p. 56, Duke of York Island.

Anomala novoguineensis Ohaus: 34, p. 55. New Guinea.

Anomala ohausiana Burgeon: 6. New Guinea.

Anomala pygidialis Kirsch: 21. New Guinea.

Anomala ronana Ohaus: 34, p. 50. Ron Island.

Anomala sublustris Ohaus: 34, p. 50. New Guinea.

Anomala uncinata Ohaus: 34, p. 50. Fergusson Island.

Anomala (Euchlora) anoguttata Burmeister: 7, p. 280. Occurs from Luzon to the Solomon Islands, and is transported with cultivated plants.

Phyllopertha (Exomala) orientalis Waterhouse: 49; 24; 25. Hawaii. Imported from Japan as young grubs with sugar cane.

Malaia nigrita Boisduval: 4, p. 191, pl. 6, fig. 16. Santa Cruz Islands: Vanikoro? Hitherto known only from Celebes.

TRIBE ANOPLIGNATHINI

Anoplognathus insularis Ohaus: 27, p. 33. New Guinea.

TRIBE ADORETINI

Adoretus (Adoretus sensu stricto) ohausi Heller: 19. New Guinea.

Adoretus versutus Harold: 18; 30, p. 220. Synonyms: *bangalorensis* Brenske (5); *insularis* Fairmaire (11); *vestitus* Boheman (3); *vitiensis* Nonfried (26). Biology: 20; 31; 12; 22; 44; 45; 46; 47; 48; 15. The eggs and young grubs of this species have been transported with cultivated plants from British India and Ceylon to the Seychelles, Mauritius, St. Helena, Java, Fiji, Tonga, and Samoa.

Adoretus (Lepadoretus) inicus Burmeister: 8; 30, p. 227. Biology: 37 (*umbrosus*); 43; 39 (*tenuimaculatus*); 13; 41 (*umbrosus*); 42; 40; 38 (*umbrosus*). Transported from south China, Formosa, Java, Timor to Hawaii.

TRIBE GENIATINI

Leucothyreus insularis Boheman: 3, p. 56; 29; 35. Recorded from Tahiti, but surely living only at Puna Island, Ecuador.

BIBLIOGRAPHY

1. BLACKBURN, THOMAS, Notes on Australian Coleoptera: Linn. Soc. New South Wales, Proc., ser. 2, vol. 7, p. 113, 1892.
2. BLANCHARD, C. E., Catalogue de la Collection Entomologique, Coléoptères: Mus. d'Hist. Naturelle, Paris, 1850.
3. BOHEMAN, C. H., Coleoptera: Kgl. Svenska Freg. Eugen. Resa, Col., 1858.
4. BOISDUVAL, J. B., Coleoptera: Voy. Astrolabe, vol. 2, 1835.
5. BRENSKE, E., Diagnoses Melolonthidarum novarum ex Bangalore: Indian Mus., Notes, vol. 5, p. 38, pl. 4, figs. 1-2, 1900.
6. BURGEON, L., Rutelidae: in Résultats Scientifiques du Voyage aux Indes Orientales Néelandaises, Mus. Roy. Hist. Nat. Belg., Mém., Hors. Ser., vol. 4, fasc. 4, p. 79, 1932.
7. BURMEISTER, C. H. C., Handbuch der Entomologie, vol. 4, pt. 1, 1844.
8. BURMEISTER, C. H. C., Handbuch der Entomologie, vol. 4, pt. 2, p. 532, 1855.
9. FAIRMAIRE, LÉON, Descriptions des Coléoptères nouveaux ou peu connus du musée Godeffroy: Mus. Godeffroy, Jour., vol. 14, p. 93, 1879.
10. FAIRMAIRE, LÉON, Essai sur les Coléoptères de l'Archipel de la Nouvelle Bretagne: Soc. Ent. Belg., Ann., vol. 27, pp. 1-58, 1883.
11. FAIRMAIRE, LÉON, Matériaux pour la faune Coléoptérique de la région Malgache: Soc. Ent. Belg., Ann., vol. 41, p. 105, 1897.
12. FRIEDRICH, K., Ueber Adoretus vestitus Boheman als Schädling in Samoa, und seine früheren Stände: Zeit. wiss. Ins. biol. Berlin, vol. 10, pp. 41-47, 1914.
13. FULLAWAY, D. T., Insects of cotton in Hawaii: Hawaiian Agr. Exp. Sta., Bull. 18, p. 11, 1909.
14. GESTRO, RAFFAELLO, Diagnosi di alcune nuove specie di coleotteri raccolte nella regione Austro-Malese dei Sig. Dott. O. Beccari, L. M. D'Albertis, e A. A. Bruijn: Mus. Civ. Stor. Nat. Genova, Ann., vol. 8, 1876.
15. GREENWOOD, WILLIAM, The food plants of hosts or some Fijian insects: Linn. Soc. New South Wales, Proc., vol. 54, p. 347, 1929.
16. GUÉRIN-MÉNÉVILLE, F. E., Voy. Delessert, vol. 2, p. 41, pl. 11, fig. 2, 1843.
17. GYLLENHAL, LEONHARD: Genera et species Curculionidum: in Schönherr, Synonymia Insectorum, vol. 1, pt. 3, 1817.
18. HAROLD, EDGAR VON, Coleopterologische Hefte, vol. 5, p. 124, 1869.
19. HELLER, KARL, Coleoptera: Nova Guinea, Zool. Exp., vol. 9, p. 638, fig. 2, 1914.
20. JEPSON, F. P., Report on economic entomology: Fiji Dept. Agr., Circ. Paper no. 25, pp. 54, 76, 83, 1911.
21. KIRSCH, THEODOR, K. Zool. Mus. Dresden, Mitt., vol. 2, p. 135, 1877.
22. KNOWLES, C. H., Annual Report, Dept. Agr. Fiji, p. 17, 1916.
23. MONTROUZIER, PÈRE, Essai sur la faune entomologique de la Nouvelle-Calédonie: Soc. Ent. France, Ann., ser. 3, vol. 8, 1860.
24. MUIR, FREDERICK, Note and exhibition of *Anomala orientalis*: Hawaiian Ent. Soc., Proc., vol. 2, p. 219, 1912.
25. MUIR, FREDERICK, Report, Division Ent., Terr. Hawaii, p. 120, 1913.

26. NONFRIED, A. F., Beiträge zur Kenntniss einiger neuen exotischen Coleopterenspezies: Deutsche Ent. Zeit., p. 268, 1891.
27. OHAUS, FRIEDRICH, Phaenomeridae: Stett. Ent. Zeit., vol. 59, 1898.
28. OHAUS, FRIEDRICH, Ruteliden der alten Welt: Deutsche Ent. Zeit., 1901.
29. OHAUS, FRIEDRICH, Die Ruteliden meiner Sammelreisen in Südamerika: Deutsche Ent. Zeit., p. 406, 1908.
30. OHAUS, FRIEDRICH, Ueber einige mit Kulturpflanzen verschleppte Adoretiden: Ent. Blätter, vol. 8, 1912.
31. OHAUS, FRIEDRICH, Revision der Adoretini: Deutsche Ent. Zeit., p. 149, 1912.
32. OHAUS, FRIEDRICH, Beitrag zur Kenntnis der Ruteliden, XI: Deutsche Ent. Zeit., p. 507, 1913.
33. OHAUS, FRIEDRICH, Beitrag zur Kenntnis der Ruteliden, XII: Stett. Ent. Zeit., vol. 76, 1915.
34. OHAUS, FRIEDRICH, Beitrag zur Kenntnis der Ruteliden, XIII: Stett. Ent. Zeit., vol. 77, 1916.
35. OHAUS, FRIEDRICH, Neue Geniatinen: Stett. Ent. Zeit., vol. 78, p. 25, 1917.
36. OHAUS, FRIEDRICH, Beitrag zur Kenntnis der Rutelinen, XXIV: Deutsche Ent. Zeit., p. 237, 1926.
37. RILEY, C. V., and HOWARD, L. O., Insect Life, vol. 6, 1893.
38. SCHWARZ, L. A., Kais. Biol. Anst. f. Land-u. Forstwiss., Berlin, Mitt., p. 110, 1912.
39. SHARP, DAVID, Coleoptera: Fauna Hawaiiensis, vol. 3, p. 402, 1908.
40. SWEZEY, O. H., Miscellaneous notes: Hawaiian Ent. Soc., Proc., vol. 2, p. 194, 1913.
41. TERRY, F. W., Notes on some insects observed in south China which are also common in Hawaii: Hawaiian Ent. Soc., Proc., vol. 2, p. 91, 1910.
42. TERRY, F. W., Note and exhibition of *Adoretus tenuimaculatus*: Hawaiian Ent. Soc., Proc., vol. 2, p. 178, 1912.
43. VAN DINE, D. L., Insect enemies of tobacco in Hawaii: Hawaiian Agr. Exp. Sta., Bull. 10, 1905.
44. VEITCH, ROBERT, Notes on the more important insects in sugar-cane plantations in Fiji: Bull. Ent. Research, vol. 10, p. 29, 1919.
45. VEITCH, ROBERT, The white grubs of the sugar-cane soils of Fiji: Agr. Report no. 5, Sydney, 1922.
46. VEITCH, ROBERT, Establishment in Fiji of a parasite of white grubs: Agr. Circular, Dept. Agr., Fiji, vol. 5, no. 1, p. 67, 1925.
47. VEITCH, ROBERT, and GREENWOOD, WILLIAM, The food plants or hosts of some Fijian insects: Linn. Soc. New South Wales, Proc., vol. 46, p. 501, 1924.
48. VEITCH, ROBERT, and GREENWOOD, WILLIAM, The food plants or hosts of some Fijian insects: Linn. Soc., New South Wales, Proc., vol. 49, pt. 2, p. 157, 1924.
49. WATERHOUSE, C. O., Lamellicorn coleoptera of Japan: Ent. Soc. London. Trans., p. 108, 1875.
50. WESTWOOD, J. O., On the Australian genus *Cryptodus* and upon *Parastasia*, the Australian representative of the Rutelidae: Ann. Mag. Nat. Hist., vol. 8, p. 303, 1841.

