

NOTES ON CHRYSOMELIDAE OF THE PALAU ISLANDS (INSECTA, COLEOPTERA)

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Introduction

The chrysomelid fauna of the Caroline Islands has been studied by CHUJO (1943), GRESSITT (1955, 1957) and SAMUELSON (1973). So far 30 species belonging to 6 subfamilies are enumerated from the islands. These are characterized by a high degree of endemism in subfamilies Cryptocephalinae, Eumolpinae, Alticinae and Hispinae, whereas subfamilies Galerucinae and Cassidinae are composed of widely distributed species. During the Kagoshima University Expedition to Palau Is. in 1995, 7 chrysomelid species were collected, two of which were recorded from the Caroline Islands for the first time and are assumed to be accidentally introduced into this area recently.

Enumeration

Subfamily Cryptocephalinae

1. *Coenobius glochidionis* GRESSITT, 1955
Malakal Is. 1 ex. 29.x.1995, KOROR, K. KUSIGEMATI leg.
Host. *Glochidion ramiflorum* FORST, *Theobroma cacao* L. (after GRESSITT, 1955)
Distribution. Micronesia (Palau Is.)

Subfamily Galerucinae

2. *Aulacophora indica* (GMELIN, 1790)
Babeldaob Is. 3 exs. 26.x.1995, Magerbekebekur, Melekeok (on cucumber), K. KUSIGEMATI leg.; 1 ex. 27.x.1995, Magerbekebekur, Airai, K. KUSIGEMATI leg. Malakal Is. 1 ex. 29.x.1995, KOROR, K. KUSIGEMATI leg.
Host. Cucurbitaceae (after GRESSITT, 1955)
Distribution. S. E. Asia to Samoa, W. Micronesia
This species has been recorded as *A. similis* OLIVIER in Micronesia, which was synonymized with widely distributed *A. indica* (GMELIN) by KIMOTO (1989).
3. *Aulacophora nigripennis* MOTSCHULSKY, 1860
Koror Is. 1 ex. 25.x.1995, Malakal Harbour (collected on light trap), K. KUSIGEMATI leg.
Host. Cucurbitaceae
This species is known from Japan, Taiwan, China, Korea and E. Siberia and is divided into 3 subspecies: subsp. *nigripennis* widely distributed in Japan, Taiwan, China, Korea and E. Siberia, subsp. *insularis* OHNO from Izu Islands, Japan and subsp. *nitidipennis* CHUJO from Ryukyu Islands. The present specimen with blackish elytra and light yellowish abdomen belongs undoubtedly to the nominate subspecies. Since this medium-sized species feeding on cucurbit

plant was unrecorded by previous authors, it is reasonable to speculate its recent introduction to this island.

Subfamily Alticinae

4. *Altica jussiaeae* GRESSITT, 1955

Malakal Is. 14 exs. 29.x.1995, Koror, K. KUSIGEMATI leg.

Host. *Jussiaea erecta* L. (after GRESSITT, 1955)

Distribution. Micronesia (Marianas: Guam, W. Carolines)

5. *Apthona bicolorata* JACOBY, 1904

Koror Is. 1 ex. 19.x.1995, Koror, K. KUSIGEMATI leg.

Host. *Euphorbia* sp. (after SAMUELSON, 1973)

Distribution. Micronesia, New Guinea, Solomons, New Hebrides (Vanuatu).

6. *Chaetocnema (Tlanoma)* sp.

Babeldaob Is. 24 exs. 16, 23.x.1995, Elauesachel, Aimeliik (on sweet potato), K. KUSIGEMATI leg.; 49 exs. 26.x.1995, Ngerngesang, Melekeok (on sweet potato), K. KUSIGEMATI leg. Malakal Is. 8 exs. 24, 29.x.1995, Koror, K. KUSIGEMATI leg. Peleliu Is. 11 exs. 20.x.1995, Ngelengchau, K. KUSIGEMATI leg.

TAIWAN: 160 exs. 13.x.1995, Sanhsia, Nantou Hsien (on *Ipomoea aquatica*), L. Y. CHOU leg.

JAPAN: 2 exs. 23.iv.1993, Wadamari, Okinoerabu-jima, Kagoshima-ken (on *Ipomoea batata*), A. TANAKA leg.; 8 exs. 7.ix.1989, Nakatane, Tanegashima, Kagoshima-ken (on *Ipomoea batata*), A. TANAKA leg.

This species is somewhat similar to *C. concinna* MARSHAM, which is widely distributed in Palearctic region and generally feeds on plants of Chenopodiaceae, Polygonaceae and Compositae. The latter is, however, clearly distinguished from present species by a larger body size, the head with a narrow interantennal carina and by the cylindrical spermatheca (Fig. 1). *Chaetocnema etjennei* JOLIVET from Reunion Is. in Mauritius Is. is very close to this species, but this species has the head and pronotum distinctly reticulated. This species was recently found in Ryukyu Islands (Tanega-shima Is. and Okinoerabu Is.), central Taiwan and here recorded for the first time from Palau Is. So far as is known, this species feeds on sweet potatoes on Tanega-shima Is. and Palau Is. and on *Ipomoea aquatica* in Taiwan. This species, too, seems accidentally introduced into this area and is in the process of enlarging its distribution from a still

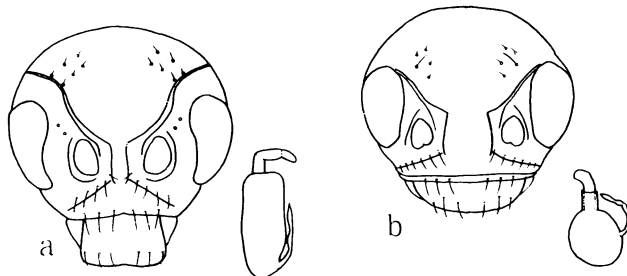


Fig. 1. Head and spermatheca of *Chaetocnema concinna* from Kyushu, Japan (a) and *Chaetocnema* sp. from Palau Is. (b).

unknown original area. Since examined specimens from these areas are all females, this species may reproduce parthenogenetically. All these facts focus on the necessity of specific determination, studies on biology and further spreading.

Host. *Ipomoea batata* (L.) LAM., *I. aquatica* FORSK.

Distribution. Taiwan, Ryukyu Is., Palau Is.

Subfamily Cassidinae

7. *Cassida circumdata* HERBST, 1790

Babeldaob Is. 18 exs. 23.x.1995, Elauesachel, Aimeliik (on sweet potato), K. KUSIGEMATI leg.; 9 exs. 26.x.1995, Ngerngesang, Melekeok (on sweet potato), K. KUSIGEMATI leg. Malakal Is. 5 exs. 24, 29.x.1995, Koror (on sweet potato), K. KUSIGEMATI leg.

Host. *Ipomoea batata* (L.) LAM.

Distribution. Micronesia, S. E. Asia to S. China, Taiwan, Ryukyu Is., Japan (Kyushu).

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