

Two new genera of Coccinellini from Taiwan (Coleoptera: Coccinellidae)

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Abstract. Two new Coccinellidae genera, *Miyataketentou* gen. nov. and *Nobuotentou* gen. nov., are established for Taiwanese species, *Sospita quadrivittata* Miyatake, 1965 and *Propylea shirozui* Sasaji, 1982, respectively.

INTRODUCTION

The Taiwanese coccinellid fauna comprises 198 species including many endemic species (Yu & Pang 1997). *Sospita quadrivittata* Miyatake, 1965 and *Propylea shirozui* Sasaji, 1982 are known only from this island. These two species were detailed by the original authors. However, they are distinguishable from *Sospita* Mulsant, 1846 and *Propylea* Mulsant, 1846 by the characters of the head, pronotum, mesosternum, and genitalia. In the present work, two new genera are established and compared with related genera.

MATERIAL AND METHODS

The acronyms used in the text when referring to the deposition of the specimens are as follows:

TKC Takanobu Kitano collection, Shizuoka, Japan;
EUC Ehime University, Matsuyama, Japan.

DESCRIPTIONS

Genus *Miyataketentou* gen. nov.

(Figs. 1, 3, 5, 6)

Type species: *Sospita quadrivittata* Miyatake, 1965.

Description. Body ovate, weakly convex above. Head (Fig. 1) transverse, deeply sunk into prothorax. Eyes moderate in size; minimum frontal width between eyes wider than the width of eye. Antennae rather long, longer than head width, 11-segmented: scape weakly tumid; pedicel small, 2/3 times as long as scape; 3rd to 8th filiform, progressively shorter; 9th to 10th slightly dilated apicad; 11th as long as 10th, rounded at apex. Labrum transverse, without notch at apex. Pronotum transverse; anterior margin weakly emarginate; posterior corners moderately developed. Scutellum triangular, longer than wide. Prosternal process

with marginal carina. Hypomera weakly concave. Anterior margin of mesosternum carinate, rather shallowly emarginate. Elytral epipleura horizontal, gently tapering apicad. Legs slender, somewhat long; femora somewhat stout, without projections; tibiae slender, simple; tibial spurs present on middle and hind legs; tarsi 4-segmented; claws with small and slender basal tooth. Abdomen with incomplete femoral lines and recurved lateral lines. Antero-central margin of female 5th visible abdominal sternite (Fig. 6) protruding posteriorly. Male genitalia relatively stout; siphon stout and short; outer branch of siphonal capsule large; inner branch of siphonal capsule almost reduced; siphonal apex (Fig. 5) with short flagellum, covered with membrane. Female genitalia (Fig. 3) with a large infundibulum.

Differential diagnosis. This genus resembles *Harmonia* Mulsant, 1846 in having the rather shallowly emarginate mesosternum, the short and stout siphon of male genitalia, and the large infundibulum of female genitalia. However, this genus is distinguished from *Harmonia* by the long antennae and the presence of tibial spurs. Furthermore, this genus somewhat resembles *Sospita* Mulsant, 1846 and *Myzia* Mulsant, 1846, but this genus is distinguished from *Sospita* and *Myzia* by the anterior margin of the pronotum and the short and stout siphon of male. Yu & Wang (2001) treated *Sospita quadrivittata* as a member of *Calvia* Mulsant, 1846. However, this genus is distinguished from *Calvia* by having shallowly emarginate mesosternum, the short siphon of male genitalia, and the developed infundibulum of female genitalia.

Etymology. The specific epithet is dedicated to Mutsuo Miyatake who described the type species of this genus. Tentou means ladybugs in Japanese. The gender is feminine.

***Miyataketentou quadrivittata* (Miyatake, 1965) comb. nov.**

Sospita quadrivittata Miyatake, 1965: 62 (type locality: Taiwan, Mt. Shinbajin near Mt. Nan-hu-ta Shan, I-lan Hsien).

Sospita (Myzia) quadrivittata: Iablokoff-Khnzorian, 1979: 58; Sasaji, 1982: 4; 1988: 43.

Calvia quadrivittata: Yu & Wang, 2001: 3.

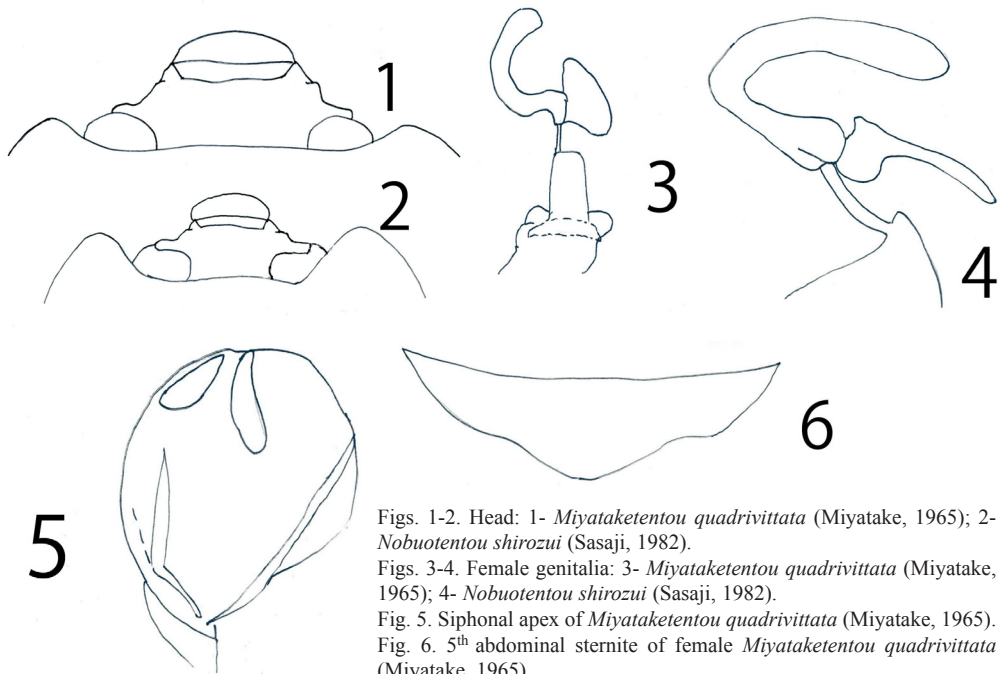
Material examined: 3 spec., Taiwan, Mt. Anmashan, alt. ca. 2142 m, Taitung, 2.VII.2005 (light trap), S.-T. Hisamatsu leg., (EUC); 3 spec., same date, alt. 2230- 2600 m, 16.VI.1989, M. Satô leg. (EUC); 1 spec., Taiwan, Liyuan, Taitung, alt. ca. 1793 m, 7.VII.2005 (light trap), S.-T. Hisamatsu leg., (EUC); 1 spec., Taiwan, Tayuling, 15.VIII.1973, Y. Kiyoyama leg., (EUC); 1 spec., Taiwan, Tzuen, 1990 m, Hualien Hsien, 26.VI.1989, M. Satô leg., (EUC); 4 spec., Taiwan, Kuanyuan, Hualien Hsien, 25.VI.1989, M. Satô leg., (EUC); 11 spec., Taiwan, Sanlinchiu-shanchung-Chika-shanchuang, Mt. Shuehshan, Taichung Hsien, 2.VII.1989, M. Satô leg., (EUC).

Genus *Nobuotentou* gen. nov.

(Figs. 2, 3)

Type species: *Propylea shirozui* Sasaji, 1982: 13.

Description. Body broadly oval, moderately convex above. Head (Fig. 2) transverse, deeply sunk into prothorax; minimum frontal width 1/3 times as wide as head. Eyes large. Antennae 11-segmented; scape weakly tumid; pedicel small, 2/3 times as long as scape; 3rd to 8th



Figs. 1-2. Head: 1- *Miyataketentou quadrivittata* (Miyatake, 1965); 2- *Nobuotentou shirozui* (Sasaji, 1982).
 Figs. 3-4. Female genitalia: 3- *Miyataketentou quadrivittata* (Miyatake, 1965); 4- *Nobuotentou shirozui* (Sasaji, 1982).
 Fig. 5. Siphonal apex of *Miyataketentou quadrivittata* (Miyatake, 1965).
 Fig. 6. 5th abdominal sternite of female *Miyataketentou quadrivittata* (Miyatake, 1965).

filiform; 9th to 10th slightly dilated apicad; 11th somewhat larger than 10th, rounded at apex. Labrum transverse, without notch. Pronotum transverse; anterior margin emarginate; sides simply tapering apicad; posterior corners moderately developed. Scutellum triangular, wider than long. Prosternal process with marginal carina. Hypomera weakly concave. Anterior margin of mesosternum shallowly emarginate. Elytral epipleura shallowly concave. Legs: femora simple, without projections; tibiae slender, simple; tibial spurs present on middle and hind legs; tarsi 4-segmented; claws with basal tooth. Abdomen with incomplete femoral lines and recurved lateral lines. Male genitalia: siphon moderately long, slender; apical flagellum somewhat short; siphonal capsule small; inner branch of siphonal capsule as large as outer one. Median lobe and lateral lobes of tegmen slender. Female genitalia (Fig. 3) without infundibulum.

Differential diagnosis. The genus rather resembles *Propylea* Mulsant, 1846 in having the rounded antennal apex, the developed posterior corners of pronotum, the shallowly emarginate mesosternum, and the slender male genitalia. However, it is distinguished from *Propylea* by its large eyes and absence of spurs of middle and hind tibiae. The genus is proposed to include one species, *Propylea shirozui* Sasaji. Yu & Pang (1997), and Yu (2010) treated *Propylea shirozui* as a member of *Phrynocaria* Timberlake, 1943. The new genus is distinguished from *Phrynocaria* by having the moderately convex body, the developed posterior corners of pronotum, the shallowly emarginate mesosternum, and the slender tegmen of male genitalia.

Etymology. The specific epithet is dedicated to Nobuo Ohbayashi who provided me with specimens of the type species. Tentou means ladybugs in Japanese. The gender is feminine.

***Nobuotentou shirozui* (Sasaji, 1982) comb. nov.**

Propylea shirozui Sasaji, 1982: 13 (type locality: Sungkang, Nantou Hsien, Formosa); 1988: 46.
Phrynocaria shirozui: Yu & Pang, 1997: 11; Yu, 2010: 83.

Material examined: 1 spec., Taiwan, Sungkang, 5.V.1973, Y. Kiyoyama leg., (EUC); 1 spec., same, 10.IV.1973, Y. Kiyoyama leg., (EUC); 2 spec., same, 10.VII.1973; 3 spec., Taiwan, Sungkang-Meifeng (2041-2127), Nantow Co., 18.V.1969, S. Hisamatsu leg., (EUC); 2 spec., same, 19.V.1969, S. Hisamatsu leg., (EUC); 1 spec., Taiwan, near Meifeng, Nantou, 1.V.1977, W. Suzuki leg., (EUC); 4 spec., Taiwan, Anmashan, 25-28.VI.2002, N. Ohbayashi leg., (TKC).

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