

## The Genus *Chilocorellus* Miyatake, 1994 (Coleoptera: Coccinellidae) from Laos, with Description of a New Species

Xingmin Wang and Shunxiang Ren\*

Engineering Research Center of Biological Control, Ministry of Education, College of Natural Resources and Environment, South China Agricultural University, Guangzhou, 510642, China.

**Abstract.-** The genus *Chilocorellus* Miyatake is newly recorded from Laos, and a new species *C. seleuyensis* is described and illustrated in detail. A key to the known species of the genus is also given.

**Key words:** Coleoptera, Coccinellidae, *Chilocorellus* Miyatake.

### INTRODUCTION

The genus *Chilocorellus* Miyatake (Coccinellidae: Sticholotidinae) was erected by Miyatake, 1994, with *C. luzonicus* from the Philippines as the type species. This genus is characterized by the moderately transverse pronotum, which lateral margins arcuate towards anterior angles which are strongly round, posterior angles obtusely rounded; the broadly and entirely explanate lateral margins of elytra; the narrow prosternal process, very slender palpi and distinctly appendiculate claws.

*Chilocorellus* is still a monotypic genus, and we discover a second species recently from Laos. In this paper, the new species has been described and illustrated in detail.

### MATERIALS AND METHODS

Materials collected from Laos. All specimens were preserved in 85% ethanol. External morphology was observed with a Zeiss Stermi 2000-cs dissecting stereo microscope. The measurements made with an ocular micrometer are as follows: Body length from apical margin of clypeus to apex of elytra (BL); body width across both elytra at widest part (BW); body height at highest elytral part (BH); head width at widest part (PW); pronotal width at widest part (PW). Male and female genitalia were dissected, cleared in 10%

solution of NaOH by boiling for several minutes, and examined with an Olympus BX51 compound microscope.

Images were photographed using a Qimagin 5.0 RTV digital camera connected to the dissecting microscope, and having a Coolsnap-Procf & CRI Micro\*Color (0.65X C-mount) digital camera connected to another microscope. Image-Pro Plus 5.1 Chinese software was used to capture images from both cameras, and photos were cleaned up and laid out in plates with Adobe Photoshop CS 8.0.

Type specimens designated in the present paper were deposited to the Department of Entomology, South China Agriculture University, Guangzhou, China.

### *Chilocorellus seleuyensis*, new species

#### Type materials (Fig. 1)

Holotype, 1♂, Seleuy, Xam Nua, 1340m, 9. June. 2007, collected by Wang Xingmin; paratypes, 4♂♂, same data as holotype; 1♂, 1♀, Vientiane, 5. Jan. 2006, collected by Chantharath Toulakhom; 1♀, Khammonane, Lakxao, 16. Dec. 2005, collected by Chantharath Toulakhom; 1♂, Nam Phao, Bolikhamxai, 770m, 26. May. 2007, collected by Wang Xingmin.

#### Description

BL, 2.17-2.25mm; BW, 2.00-2.17mm; BH, 1.17-1.20mm.

Body rounded oval, strongly convex, subhemispherical; dorsal surface glabrous (Fig. 1A-C). Dorsal and ventral sides uniformly yellow, without other external markings.

\* Corresponding author: [rensxcn@yahoo.com.cn](mailto:rensxcn@yahoo.com.cn)  
0030-9923/2011/0001-0123 \$ 8.00/0  
Copyright 2011 Zoological Society of Pakistan.

Head small, about 0.35X of elytral width (HW/EW=1: 2.89) (Fig. 1D); surface of head with sparse, thin silvery white pubescence. Punctuation on head fine punctures separated by about 1.0 times a diameter; frons broad, wide about one-half as wide as head, moderately emarginated around antennal insertions; clypeal margin slightly emarginated; eyes moderately large and rather coarsely faceted distinctly notched near antennal insertion; antennae 11-segmented (Fig. 1F), elongate, 1st slightly clavate, curved and constricted near the base, 2nd a little shorter and narrower than 1st, 3rd to 5th distinctly longer than wide, 6th to 8th much shorter, slightly dilated, 9th to 11th narrowly dilated, forming a fusiform club; terminal segment of maxillary palpus slender and strongly obliquely truncate, sharply pointed at apex (Fig. 1H). Labrum narrow, rounded in front, obliquely truncate at apical half (Fig. 1I).

Pronotum about 0.59X of elytral width (PW/EW=1: 1.70), moderately transverse, lateral margins arcuate towards anterior angles which are strongly round, posterior angles obtusely rounded. Pronotal punctures slightly finer than those on head, separated by 1.0-1.2 times a diameter. Scutellum very small, roughly triangular. Elytral distinctly wider at base than pronotum, strongly convex; humeral calli rather prominent; lateral margins broadly and entirely explanate; humeral angles obtuse but not rounded; dorsal surface glabrous, punctuation on elytra slightly larger than those on head, each with a row of large punctures along the external side and with a row of gross punctures forming sutural striae expanding to apex of elytra.

Prosternum with median portion including prosternal process narrow, slightly dilated anteriorly, lateral portions relatively wide, slightly depressed, prosternal hypomeron not foveate for antennal club (Fig. 1E). Mesosternum relatively narrow between coxae, quadrate, a little wider than long. Metasternum moderately elevated with a fine median furrow, surface of median portion long and dense golden pubescent. Elytral epipleura very broad and gradually narrower behind the level of hind coxae, strongly descending externally so as to entirely obscure the retracted legs when viewed from side, very feebly foveate for the femoral tips of hind legs. Abdomen with five visible sternites

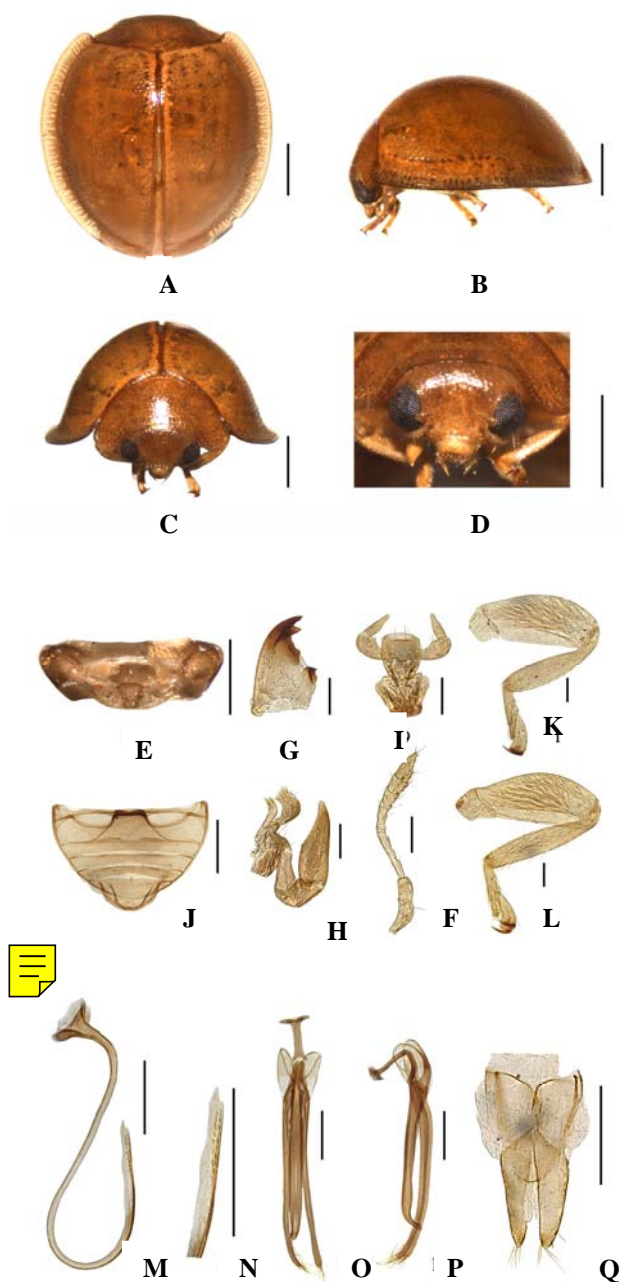


Fig. 1. *Chilocorellus seleuyensis*, new species A, Dorsal habitus; B, lateral habitus; C, anterior habitus; D, head. E, Prosternum; F, abdomen; G, antenna; H, mandible, left; (9) maxilla, right; I, labium; J, front leg; K hind leg; M-P, male genitalia: M, siphon; N, apex of siphon; O, tegmen, ventral lateral view; P, tegmen, lateral ventral view; Q, female genitalia: hemisternite. Scale bars: A-E, J, 0.5 mm; F-I, K, L, 0.1 mm; M-Q, 0.3 mm.

(Fig. 1J); postcoxal line of 1st abdominal sternite incomplete. Legs moderate in length, not expanding beyond the external boundary of the body; femora broad, especially so in fore pair and slightly expanded on the outer side to form a shallow channel for the reception of slender tibia (Figs. 1K,L); tarsi 4-segmented, claws simple and slender and simply curved and with dilated into a broad tooth at basal half.

Male genitalia: Siphon very slender, extremely long, strongly curved, with a large siphonal capsule (Fig. 1M); apex of siphon partly membranous, simple, with many teeth (Fig. 1N); median lobe of tegmen slender in ventral view, almost parallel at basal 9/10, and gradually narrowing to apex, apex blunt (Fig. 1O); median lobe in lateral view strongly curved at posterior 1/6, apex blunt (Fig. 1P); parameres very slender, longer than median lobe, about 1.25X of median lobe length.

Female genitalia: Genital plate of hemisternite elongate, about 5.5 times as long as wide, each with several long terminal setae (Fig. 1Q); spermatheca sclerotised.

Distribution. Laos (Xam Nua, Vientiane, Bolikhamxai).

#### Remarks

This species is similar to *C. luzonicus* in general appearance, but it is easily distinguished from the latter as follows: the elytra of *C. seleuyensis* without any spots, its surface with a row of gross punctures forming sutural striae expanding to apex of elytra while the elytra of *C. luzonicus* with a longitudinal oval spots, its surface without gross punctures.

This species is also similar to *Synonychomorpha immaculata* Poorani, 2003 in the color pattern of body which have dorsal and ventral sides uniformly yellow and without other external

markings, but can be easily distinguished as follows: prosternal process narrow, slightly dilated anteriorly; apex of siphon partly membranous, simple, with many teeth; and parameres longer than median lobe, median lobe in lateral view strongly curved at posterior 1/6 (the latter prosternal process broad and quadrate; apex of siphon simple, without many teeth; and parameres shorter than median lobe, median lobe in lateral view almost straight).

#### KEY TO THE SPECIES OF *CHIROCORELLUS* MIYATAKE

1. Dorsal and ventral sides uniformly yellow, elytra without other external markings .... *C. seleuyensis* new species
- Dorsal and ventral sides yellowish, elytra with a longitudinal oval spots ..... *C. luzonicus* Miyatake

#### ACKNOWLEDGMENTS

The authors sincerely thank Prof. Hongwei Chen and Dr. Shaukat Ali of College of Natural Resources and Environment, South China Agricultural University, Guangzhou, China for their useful comments on the manuscript. The research was supported by the National Natural Science Foundation of China (2006FY120100).

#### REFERENCES

- MIYATAKE, M., 1994. Revisional studies on Asian genera of the subfamily Sticholotidinae (Coleoptera: Coccinellidae). *Mem. Coll. Agric., Ehime Univ.*, **38**: 223-292.
- POORANI, J., 2003. A new species of the genus *Synonychomorpha* Miyatake (Coleoptera: Coccinellidae) from south India. *Zootaxa*, **212**: 1-6.
- ŚLIPPIŃSKI, S. A., 2004. Revision of the Australian Coccinellidae (Coleoptera). Part 2. Tribe Sticholotidini. *Annls Zool. (Warsaw)*, **54**: 389-402.

(Received 2 January 2010, revised 31 January 2010)