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## Research Article

# Notes on the genus *Chilocoristes* Weise (Coleoptera: Chrysomelidae: Alticinae) in Malaysia

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## Abstract

The small Oriental genus of Chrysomelidae, *Chilocoristes* Weise, 1895 in Malaysia was studied. As a result, four new species: *Chilocoristes besar*, *C. justinahae*, *C. moyogensis* and *C. nigromarginatus* n. spp. are described from Sabah. A key to 12 known species occurring in Malaysia is provided.

**Keywords:** *Chilocoristes* Weise, Alticinae, Chrysomelidae, New species, Malaysia

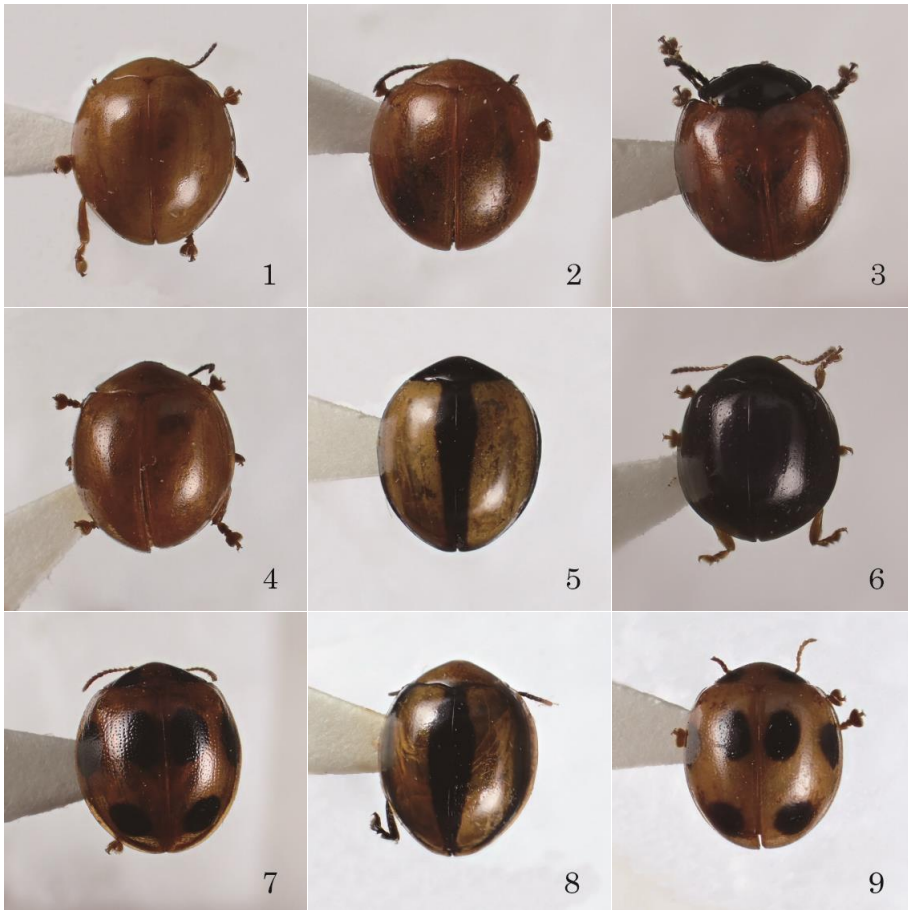
## Introduction

The small Oriental genus *Chilocoristes* was established by Weise in 1895 on the basis of *Argopistes bistrispunctatus* Duvivier from India. The genus is easily distinguished by its body shape, which resembles the coccinelid genus *Chilocorus*, with strongly developed and vertical epipleura of the elytra. This alticine genus belongs to a group which has the third tarsal segment in its entire, not bi-lobed. Further characteristics defining *Chilocoristes* are: body ovate, smaller than 10 mm; vertex evenly convex, without deep furrows along eyes; eyes normal, widely separated; clypeus entire, not emarginate at anterior margin; maxillary palpi with 2 apical segments strongly incrassate; antennae with first segment long, sometimes as long as 2nd to 4th combined; elytral epipleura strongly developed and vertical; hind femora only incrassate; hind tarsi with 1st segment distinctly shorter than half the length of hind tibia; hind tibiae normal without acute process apically.

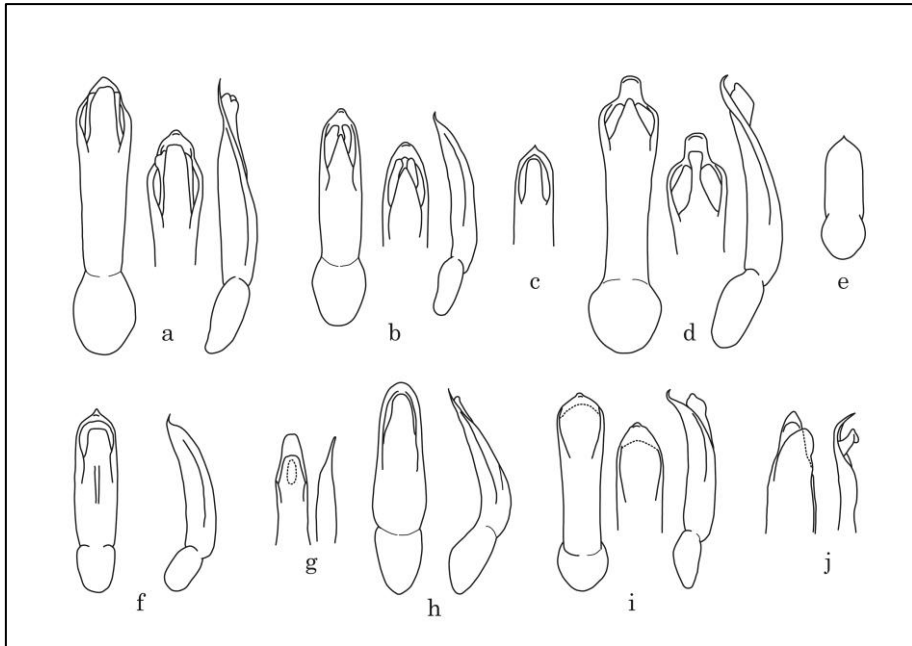
In recent years, Medvedev (1998, 2009, 2011) extensively studied this genus from the Oriental region. Mohamedsaid (2004) listed from Malaysia only 3 species of the genus, namely *Chilocoristes mohamedsaidi* Medvedev, *C. pallidus* (Baly) and *C. punctatus* Weise.

## Result and Discussion

During my survey of the leaf beetle fauna of Malaysia, I found 8 species of the genus from Borneo and 1 species from Peninsular Malaysia. A further 3 species were recorded from Malaysia, of which I could not examine the specimens. These 12 known species from Malaysia, including 4 new species, are treated in this paper. All the holotypes and a series of representative specimens will be deposited in the BORNEENSIS collection of the Institute of Tropical Biology and Conservation (IBTP), Universiti Malaysia Sabah, Kota Kinabalu, Sabah.



**Figure 1.** Habitus of *Chilocoristes* spp.: 1) *C. besar* n. sp. (Holotype); 2) *C. justinahae* n. sp. (Holotype); 3) *C. mohamedsaidi* Medvedev (Lojing, Kelantan); 4) *C. moyogensis* n. sp. (Holotype); 5) *C. nigromarginatus* n. sp. (Holotype); 6) *C. obscurus* Medvedev (Kinabalu Park, HQ, Sabah); 7) *C. septemmaculatus* Chen (Kinabalu Park, HQ, Sabah); 8) *C. trilineatus* Medvedev (Kinabalu Park, HQ, Sabah); 9) *Chilocoristes* sp. nr. *thailandica* Medvedev (Mamut Mine, Sabah)



**Figure 2.** Aedeagus (left: dorsal view, middle: apical portion, right: lateral view) of: **a)** *Chilocoristes besar* n. sp. (Ulu Kimanis, Papar); **b)** *C. justinahae* n. sp. (Manggis subst., Ranau); **c)** *C. mohamedsaidi* Medvedev (after Medvedev, 1998); **d)** *C. moyogensis* n. sp. (Mamut Mine, Ranau); **e)** *C. obscurus* Medvedev (Kinabalu Park, HQ, Sabah); **f)** *C. pallidus* Baly (after Medvedev, 1998); **g)** *C. sabahensis* Medvedev (after Medvedev, 2011); **h)** *C. septemmaculatus* Chen (Kinabalu Park, HQ, Sabah); **i)** *C. trilineatus* Medvedev (Kinabalu Park, HQ, Sabah); **j)** *Chilocoristes* sp. nr. *thailandica* Medvedev (Mamut Mine, Sabah). (a-j: on the same scale)

## Descriptions

*Chilocoristes besar* n. sp. (Figures 1-1, 2a)

**Male.** Body large, ca. 5.0 mm; brownish red, with metathoracic sternum and antennae on 5 or 6 apical segments dark brownish red.

Head finely punctate; frontal tubercles strongly oblique, well demarcated on both anterior and posterior margins; clypeus with median carina and lateral edges obtusely raised; antennae widened on 7 apical segments; 1st segment slightly shorter than 2nd to 4th combined. Prothorax rather roundly narrowed anteriorly on lateral margins; disc densely covered with distinct large and small punctures, of which interspaces almost as wide as diameter of large punctures; both the anterior and posterior angles rounded. Elytra covered with large and small punctures, of which interspaces are distinctly wider than the

diameter of large ones; large punctures with tendency to arrange themselves in longitudinal rows; lacking longitudinal rows of larger punctures near lateral margins. Fifth visible abdominal sternite weakly tri-lobed apically, and median longitudinal dark line weakly marked. Aedeagus gradually widened from subapical constriction to apical 1/6th, thence narrowed to rounded triangular apical process; ventral side with distinct longitudinal depression medially on apical 1/3; apical process straight in lateral view (Figure 2a).

**Female.** Body 5.0-6.0 mm; antennae with 1st segment distinctly shorter than 2nd to 4th combined; 5th visible abdominal sternite simply produced at posterior margin.

**Holotype.** Male, Ulu Kimanis substation, Papar, Sabah, Malaysia, 26-28.II.2010, H. Takizawa leg. (IBTP). **Paratypes.** 2♀, data same as the holotype; 1♀, Crocker Range Park, Headquarters\*, Keningau, Sabah, 9.VIII.2008, H. Takizawa leg.; 1♀, Kg. Guramboi, Jln. Tambunan, Penampang, Sabah, 15.III.2009, H. Takizawa leg.; 1♂1♀, Muaya waterfall, Kg. Muaya, Sipitang, 7-9.III.2009, H. Takizawa leg. \*Headquarters area

**Host.** *Smilax* sp. (Liliaceae).

**Distribution.** Borneo (Sabah).

**Remarks.** This species is similar to *C. pallidus* Baly (unspotted form), but is easily distinguished from the latter by the shape of the aedeagus, which is distinctly widened from the basal constriction to the subapical area.

The species is distinguished from similarly coloured *C. justinahae* and *moyogensis* n. spp. by the body being slightly larger, the pronotum roundly narrowed on the lateral margins, and the aedeagus straight at the apex in lateral view. The species is found feeding on leaves of *Smilax* sp. along trails in secondary forests at an altitude of 100 to 1,000m.

Its specific name comes from a Malay adjective meaning “large” which refers to its body size.

*Chilocoristes justinahae* n. sp. (Figures 1-2, 2b)

**Male.** Body small, ca. 4 mm; brownish red with antennae blackish brown on 6 apical segments.

Head with vertex finely punctate; frontal tubercles obliquely situated, with both the anterior and posterior margins well demarcated; clypeus narrowly triangular, with median and lateral edges narrowly keeled; antennae short, widened and thickly pubescent on apical 6 segments; 1st segment almost as long as 2nd to 4th combined; 4th weakly widened, shorter than 5th. Pronotum rather roundly narrowed anteriorly on lateral margins; posterior angles broadly rounded, anterior ones roundly thickened; disc densely punctate, with their interspaces narrower than

diameter of punctures at median portion. Elytra densely covered with large and smaller punctures; larger punctures with tendency to arrange themselves longitudinally; two rows of punctures present below humerus along imaginary limits of expanded epipleuron; with distinct punctures near lateral margin; 5th visible abdominal sternite weakly produced at posterior margin, slightly depressed along median line. Aedeagus subparallel-sided, widened at sub-basal portion, gently narrowed on apical 1/5, broadly rounded at apex with roundly triangular apical process which is strongly curved upward (Figure 2b).

**Female.** Body ca. 4mm; similar to males; 5th visible abdominal sternite rather flat, gently arched on apical margin.

**Holotype.** Male, Manggis substation, Ranau, Sabah, Malaysia, 9-10.XII.2009, H. Takizawa leg. (IBTP). Paratypes: 1♂1♀, Poring Park, Ranau, Sabah, 29-30.IX.2007, H. Takizawa leg.

**Host.** Unknown.

**Distribution.** Borneo (Sabah).

**Remarks.** This smaller species looks like *C. punctatus* Weise from Borneo, but is easily distinguished from the latter by bi-coloured antennae. The species is characterized by a brownish red dorsum and by the subparallel-sided aedeagus. It was found, so far, at hills of 300 to 700m altitude. Its host plant is still unknown.

Its specific name is dedicated to Ms. Justinah Parantis, a researcher on butterflies, of the Poring Substation, Ranau, who accompanied me to the Manggis substation in December, 2009.

*Chilocoristes mohamedsaidi* Medvedev, 1998 (Figures 1-3, 2c)

*Chilocoristes mohamedsaidi* Medvedev, 1998, Russian Entomology Journal, 7: 151 (Malaysia: Pahang)

Body 3.8-4.5 mm; reddish, with head posteriorly, antennae, pronotum and legs black; vertex distinctly punctate; pronotum covered with moderately dense punctures; elytra confusedly punctate; aedeagus subparallel-sided, with apex ending in acute triangle (Figure 2c).

Specimens examined. 1 ex., Lojing, Gua Musang, Kelantan, Malaysia, 10.VII.2008, H. Takizawa leg.

**Host.** Unknown.

**Distribution.** Peninsular Malaysia (Pahang, Kelantan).

**Remarks.** On account of the dorsal colouration, this species is easily distinguished from other congeners of the genus. Medvedev (1998) gave a figure of the aedeagus.

*Chilocoristes moyogensis* n. sp. (Figures 1-4, 2d)

**Male.** Body 4.2-4.5 mm; brownish red with antennae on 6 apical segments black; metathoracic sternum dark brownish red.

Head smooth; frontal tubercles obliquely situated and well demarcated on both anterior and posterior margins; clypeus transversely triangular, rather short, weakly edged on lateral margins; antennae widened on 7 apical segments; 1st segment shorter than 2nd to 4th combined. Pronotum as in *C. justinahae* n. sp.; disc densely covered with large and smaller punctures; anterior angles round, posterior angles rounded but smaller; lateral margin straight. Elytra covered with large and smaller punctures; large punctures with weak tendencies to arrange themselves in longitudinal rows; 2 rows of large punctures present along imaginary limits of epipleuron; metathoracic sternum densely punctate, with weak transverse wrinkles medially; 5th visible abdominal sternite weakly tri-lobed, with dark brownish longitudinal line medially. Aedeagus gently widened posteriorly from sub-basal constriction, then almost subparallel-sided on apical half, widest before apex; apex strongly produced in subquadrate shape, with roundly triangular apical process, which is strongly curved upward at apex (Figure 2d).

**Female.** Body 4.0-5.0mm; similar to males; 5th visible abdominal sternite archedly produced at apical margin, without dark median longitudinal line.

**Holotype.** Male, Mamut Mine, Ranau, Sabah, Malaysia, 21.VII.2011, H. Takizawa leg. (IBTP). Paratypes. 1♀, Kg. Moyog, Jln. Tambunan, Penampang, Sabah, 3.V.2014, H. Takizawa leg.; 1♀, ditto, 8.V.2010, H. Takizawa leg.; 1♂1♀, Kundasang, Ranau, Sabah, 16.VIII.2008, H. Takizawa leg.

**Host.** *Smilax* sp. (Liliaceae).

**Distribution.** Borneo (Sabah).

**Remarks.** This reddish brown species, with the apical 7 antennal segments black, is closely similar to *C. pallidus* Baly (unspotted form), but is easily distinguished from the latter by the shape of the aedeagus with subquadrate apical process.

This species is similar to *C. justinahae* n. sp., but is slightly larger, with metathoracic sternum much more densely punctate, antennae with 1st segment shorter than 2nd to 4th combined. Furthermore, the aedeagus is differently shaped with distinct subquadrate apical process. The species is found feeding on leaves of *Smilax* sp. along trails in forest at 100-1,300m altitude.

Its specific name refers to one of the collected localities, Kg. Moyog near Donggongon, Penampang.

*Chilocoristes nigromarginatus* n. sp. (Figures 1-5)

**Female.** Body large, 5 mm; black with dirty yellow elytra which are margined with black; sutural and lateral margins rather widely black; antennae brown on four basal segments.

Head with narrow frontal carina not reaching anterior margin; vertex punctate; frontal tubercles obliquely situated; antennae widened on 7 apical segments. Pronotum evenly convex, densely covered with weak punctures, roundly narrowed from base to apex; both angles distinctly rounded. Elytra densely covered with weak punctures, with a row of strong punctures below humerus to basal 2/3; another widely spaced punctate row present in middle of lateral black margin. Abdomen with 5th visible sternite evenly arched at posterior margin.

**Holotype.** Female, Gunung Alab, Crocker Range Park, Tambunan, Sabah, Malaysia, 29.VII.2011, H. Takizawa leg. (IBTP).

**Host.** Unknown.

**Distribution.** Borneo (Sabah).

**Remarks.** This new species is uniquely characterized by its colouration, viz. black body with dirty yellowish elytra, which are margined with black. *C. trilineata* Medvedev from Sabah has elytra with black stripes at suture and laterally, but has frontal tubercles broader and situated less obliquely. Its specific name refers to the colouration of elytra.

*Chilocoristes obscurus* Medvedev, 2011 (Figures 1-6, 2e)

*Chilocoristes obscurus* Medvedev, pp. 92 in Telnov (ed.) Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea, Vol. 1 (Zoological Institute, St. Petersburg: Mt. Kinabalu, Sabah).

Body small, 2.5-3.5 mm; black, with antennae, legs and venter reddish brown; meso- and metasternum, and 1st abdominal segment partially blackish.

Head with antennal grooves well developed; antennae with 1st segment long, longer than 2nd to 4th segments combined; pronotum rather densely and finely punctate, almost straight on lateral margins; elytra with eleven regular rows of punctures, with interstices finely and sparsely punctulate; expanded lateral area with larger punctures; aedeagus subparallel-sided, gently narrowed distally on apical 1/8, with a small apical tooth, which is bent upward (Figure 2e).

Specimens examined. 1 ex., Kinabalu Park, HQ, Ranau, 20-24.II.2009, H. Takizawa leg.; 3 exs., ditto, 14.III.2012, H. Takizawa leg.; 6 exs., ditto, 23-25.III.2010, H. Takizawa leg.; 1 ex., 26.III.2016, H. Takizawa leg.; 2 exs., ditto, 2.V.2014, H. Takizawa leg.; 3 exs., 27-28.V.2008, H. Takizawa leg.; 1 ex., 13.VI.2010, H. Takizawa leg.; 2 exs., ditto, 8.VII.2010, H. Takizawa leg.; 1

ex., ditto, 20.VII.2011, H. Takizawa leg.; 2 exs., ditto, 19-20.VIII.2008, H. Takizawa leg.; 1 ex., ditto, 11.IX.2007, H. Takizawa leg.; 1 ex., ditto, 17-19.X.2008, H. Takizawa leg.; 1 ex., ditto, 28.IX.2008, H. Takizawa leg.; 1 ex., ditto, 7.XI.2015, H. Takizawa leg.; 2 exs., ditto, 16-17.XI.2007, H. Takizawa leg.; 2 exs., ditto, 15-16.XII.2014, H. Takizawa leg.; 1 ex., ditto, 23-24.XII.2008, H. Takizawa leg.; 1 ex., Gn. Alab, Crocker Range Park, Tambunan, 6.IV.2016, H. Takizawa leg.

**Host.** a species of undetermined fern.

**Distribution.** Borneo (Sabah).

**Remarks.** This small species is a montane species, feeding on a species of undetermined fern at the open understorey of undisturbed forest. Though the expanded and vertical epipleuron of elytra is suggestive of the present genus, its food plant is exceptional for this genus, of which members usually feed on *Smilax* spp. Elytra are also exceptionally furnished with regular punctate striae. Elytra with punctate striae and feeding on ferns are suggestive of an affinity to the genus *Schenklingia*. Furthermore, the antennae are a characteristic with the first segment longer than the three following combined. Thus, it may be better to place this species in the latter genus. The genus *Schenklingia*, however, is not well defined in regards to the Bornean species at present and will be the theme of another paper.

*Chilocoristes punctatus* Weise, 1895

*Chilocoristes punctatus* Weise, 1895, Deutsches entomologische Zeitschrift, 1895: 337 (Borneo)

Body including antennae wholly reddish yellow brown, ca. 4 mm; frontal tubercles well demarcated; pronotum densely covered with distinct small punctures; elytra with strong punctures in longitudinal rows, with interstices sparsely punctate.

**Host.** Unknown.

**Distribution.** Borneo, Philippines.

**Remarks.** No specimen was examined. The original description is somewhat vague with regard to the elytra, "die Fld. mit stärkeren, gereihten Punkten und in den großen Zwischenräumen sparsam punktiert" [in German]. I am not sure whether this applies to the disc or the expanded area of elytra. However, the entirely yellowish brown antennae well characterizes this species.

*Chilocoristes sabahensis* Medvedev, 2011

*Chilocoristes sabahensis* Medvedev, 2011, pp. 92 in Telnov (ed.) Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea, vol.1 (Mt. Kinabalu, Sabah).



Body small, ca. 3.2 mm; fulvous with five black spots on elytra; antennae black on 5th to 10th segments; elytra with a large subquadrate humeral spot, and with sutural spots on both elytra united, confusedly punctate, with 4 or 5 rather regular rows of punctures in outer part; aedeagus subparallel-sided and short, ending in a sharp triangular tooth (Figure 2g).

**Host.** unknown.

**Distribution.** Borneo (Sabah).

**Remarks.** This species was described on the basis of a single male specimen collected at Mt. Kinabalu. No specimen was examined by me. However, this species is well characterized by its fulvous body with 5 black spots on the elytra, especially by the disposition of large humeral spot.

*Chilocoristes septemmaculatus* Chen, 1934 (Figures 1-7, 2f)

*Chilocoristes pallidus* var. *septemmaculatus* Chen, 1934. Stylops 3(4): 73 (Quap, Sarawak); Medvedev, 2011, pp. 95, in Telnov (ed.) Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea, vol. 1.

Body large, 4.5-5.5 mm; brownish red, with a pair of spots on pronotum, and 3 pairs of spots on elytra black; elytra with mid-lateral spots situated in line of sutural spots; antennae wholly reddish brown; thoracic sterna largely blackish to dark brown; abdomen more or less dark brown on median portion; sometimes dark area restricted to first and last visible sternites; fore and middle femora basally blackish brown, hind one largely blackish brown; antennae wholly reddish brown; aedeagus strongly curved in lateral view, subparallel-sided on apical half in dorsal view, with apex roundly produced; apex with minute tip curved upward (Figure 2h).

Specimens examined. 1 ex., Kinabalu Park, HQ, Ranau, Sabah, 22-23.I.2010, H. Takizawa leg.; 1 ex., ditto, 23.III.2010, H. Takizawa leg.; 1 ex., ditto, 25.III.2010, H. Takizawa leg.; 1 ex., ditto, 23-25.III.2010, H. Takizawa leg.; 1 ex., ditto, 2.IV.2016, H. Takizawa leg.; 3 exs., ditto, 8.VII.2010, H. Takizawa leg.; 3 exs., ditto, 20.VII.2011, H. Takizawa leg.; 1 ex., 15.XII.2014, H. Takizawa leg.; 3 exs., 23-24.XII, 2008, H. Takizawa leg.; 1 ex., Mesilau, Ranau, Sabah, 11.IX.2007, H. Takizawa leg.; 1 ex., Kundasang, Ranau, Sabah, 28.XII.2008, H. Takizawa leg.; 1 ex., Kg. Tarian - Inobong, Salt trail, Penampang, 14.XI.2009, H. Takizawa leg.

**Host.** *Smilax* sp. (Liliaceae).

**Distribution.** Borneo (Sabah).

**Remarks.** This species is closely similar to the maculated type of *C. pallidus*, but is distinguished from the latter by frontal tubercles weakly demarcated posteriorly, by much denser punctuation on elytra. Further the aedeagus is simply rounded at apex, and strongly curved in lateral view.

This seems to agree with *C. quinquemaculatus* (sensu Medvedev, 1998) from Java and Vietnam, especially in the disposition of elytral spots. The population in Sabah is characteristic, with sutural spots of the elytra always separated from each other, while the nominate form from Sarawak has both the sutural spots fused together. Nevertheless, the shape of its aedeagus agrees well with that of *quinquemaculatus* (sensu Medvedev). I tentatively treat the population in Sabah as *C. septemmaculatus* Chen. This species might prove to be identical with *quinquemaculatus* (sensu Medvedev), although Weise's *quinquemaculatus* is characterized according to the original description by 5 black spots on the dorsum, viz. 2 basal ones on the pronotum and 3 more arranged in a single row on the elytra. Its relation to the present species remains unclear.

This is a montane species, collected at Kinabalu Park, Headquarters area (1500-1800m altitude), Kundasang (1300m), Mesilau (1700-1800m) and Gunung Alab (1600-1700m), but also collected at the Kg. Tarian - Inobong area of the Crocker Range Park (500-600m). The species was found feeding on leaves of *Smilax* sp. at Kinabalu Park and Gunung Alab.

Chen described another taxon from Sarawak in 1934, *Chilocoristes pallidus* var. *nigrofasciatus* Chen, which is characterized by a spot and a longitudinal stripe on each elytron. Medvedev (2011) suggested that it may be a good species. Since I have never seen such specimens, I refrain from giving any decision on its status.

*C. pallidus* Baly was cited in the list of Mohamedsaid from Borneo, based on these two varieties. Though this species does not actually occur in Borneo, a figure of the aedeagus is shown for the sake of reference (Figure 2f).

*Chilocoristes trilineatus* Medvedev, 2007 (Figures 1-8, 2i)

*Chilocoristes trilineatus* Medvedev, 2007, Stuttgarter Beiträge zur Naturkunde, Serie A, No. 702: 14 (Sapulut, Sabah)

**Male.** Body large, 4.2-5.0mm; yellowish brown; antennae blackish brown on 3rd to 9th segments, yellowish white on 2 apical segments; elytra with 3 black narrow stripes, common sutural one reaching apex, lateral one occupying 2 or 3 lateral longitudinal punctate striae not reaching apical margin; tibiae and tarsi infusate.

Head with frontal tubercles rather transverse and convex; frontal carina indistinct anteriorly; clypeus distinctly granulate; antennae rather slender, almost half as long as body. Pronotum almost impunctate, roundly narrowed anteriorly on lateral margins; anterior angles broadly rounded; the posterior obscure. Elytra finely punctate, with 3 punctate-striae laterally, starting below humerus, not reaching apical 1/3rd. Aedeagus gently narrowed from base,

subparallel-sided medially, gently narrowed on apical 1/4 to obtuse apex; apex with a small tooth which is acutely curved upward (Figure 2i).

**Female.** Body 4.5-5.5 mm; last visible abdominal sternite rather flat, with apical margin rather straight medially.

Specimens examined. 1 ex., Peak, 26 km to Keningau, Jln. Kimanis, Papar, Sabah, 24.III.2012, H. Takizawa leg.; 1 ex., ditto, 24.VIII.2013, H. Takizawa leg.; 1 ex., ditto, 5.XII.2014, H. Takizawa leg.; 1 ex., Gunung Alab, Crocker Range Park, Tambunan, Sabah, 15-16.I.2008, H. Takizawa leg.; 1 ex., ditto, 21-23.III.2010, H. Takizawa leg.; 1 ex., ditto, 25.V.2008, H. Takizawa leg.; 2 exs., ditto, 17.VI.2007, H. Takizawa leg.; 1 ex., ditto, 8.VII.2010, H. Takizawa leg.; 2 exs., ditto, 18.VIII.2007, H. Takizawa leg.; 1 ex., Bundu Tuhan, Kundasang, Ranau, Sabah, 17.I.2007, H. Takizawa leg.; 1 ex., Kinabalu Park, HQ, Ranau, Sabah, 18-20,23.I.2008, H. Takizawa leg.; 2 exs., ditto, 1.II.2010, H. Takizawa leg.; 1 ex., ditto, 20-26.II.2009, H. Takizawa leg.; 3 exs., ditto, 31.III-1.IV.2016, H. Takizawa leg.; 1 ex., ditto, 23-25.VII.2008, H. Takizawa leg.; 1 ex., ditto, 27.VII.2007, H. Takizawa leg.; 2 exs., 19-20.VIII.2008, H. Takizawa leg.; 1 ex., ditto, 27.IX.2007, H. Takizawa leg.; 2 exs., Mesilau, Kundasang, Ranau, Sabah, 11.IX.2007, H. Takizawa leg.

**Host.** *Smilax* sp. (Liliaceae).

**Distribution.** Borneo (Sabah).

**Remarks.** This species is uniquely characterized by its dorsal colouration, that is, yellowish brown body with 3 black stripes on elytra. This is, too, a montane species and is so far collected at Kg. Bundu Tuhan (1200-1300m), 26 km peak, Jln. Kimanis (1300m), Gunung Alab (1600-1900m), Mesilau (1600-1800m) and Kinabalu Park, Headquarters area (1600-1800m). Beetles are found feeding on leaves of *Smilax* sp. in the understorey of undisturbed forests almost year round.

*Chilocoristes* sp. near *thailandicus* Medvedev (Figures 1-9, 2j)

**Male.** Body large, ca. 5 mm; brownish red, with a pair of black spots on pronotum and 3 pairs of black spots on elytra; metathoracic sternum dark brown; antennae, abdomen and legs reddish brown.

Frontal tubercles well demarcated on both anterior and posterior margins; elytra with mid-lateral black spots distinctly behind the level of anterior margin of sutural spots; aedeagus weakly curved in lateral view, with apex produced and strongly curved upward in shape of obtuse triangle (Figure 2j).

**Female.** Unknown.

Specimens examined. 1 ex., Mamut Mine, Ranau, Sabah, 21.VII.2011, H. Takizawa leg.

**Host.** Unknown.

**Distribution.** Borneo (Sabah).

**Remarks.** This species is very close to *C. thailandicus* Medvedev, but the pronotum is rather weakly rounded on the lateral margins. Its aedeagus is strongly curved upwards at the apex. Since the single specimen examined is teneral with its aedeagus distorted, I refrain from identifying this specimen until I examine further material.

This species is also similar to *C. septemmaculatus* Chen in colouration, but is clearly distinguished from the latter by the frontal tubercles which are well demarcated, elytra with different position of lateral spots and by the aedeagus being strongly and broadly curved upward at apex.

## Conclusion

In conclusion, the 12 known species of the genus *Chilocoristes* from Malaysia are distinguished by the following key.

### Key to Malaysian species of the genus *Chilocoristes* Weise

1. Elytra confusedly punctate; yellowish to reddish brown, sometimes with black spots, stripes or margins ----- 2
  - Elytra regularly punctate-striate; body black with abdomen, antennae and legs reddish brown ----- *Chilocoristes obscurus* Medvedev
2. Body largely yellowish to reddish brown, with/without black markings ----- 3
  - Body black; yellowish elytra narrowly margined with black ----- *Chilocoristes nigromarginatus* n. sp.
3. Elytra with black markings ----- 4
  - Elytra without black markings ----- 8
4. Elytra with three longitudinal black stripes; aedeagus as in Fig. 2i ----- *Chilocoristes trilineatus* Medvedev
  - Elytra with black spots ----- 5
5. Elytra with a median spot and a black stripe ----- *Chilocoristes pallidus* var. *nigrofasciatus* Chen
- Elytra with black spots only ----- 6

6. Elytra with 5 black spots; antero-lateral spot situated at humeral area; sutural spots on both elytra fused into a common large spot; pronotum without black markings ----- *Chilocoristes sabahensis* Medvedev
- Elytra each with 3 black spots; sutural spots generally separated from each other; pronotum with 2 black spots ----- 7
7. Elytra densely punctate, with mid-lateral spots situated in line of sutural spots; aedeagus round at apex as in Fig. 2h ----- *Chilocoristes septemmaculatus* Chen
- Elytra sparsely punctate, with mid-lateral spots situated distinctly behind the level of sutural ones; aedeagus with apical process curved upward as in Fig. 2j ----- *Chilocoristes* sp. near *thailandicus* Medvedev
8. Pronotum and head posteriorly black; elytra largely red with lateral margin infuscate; frontal carina not reaching to anterior margin ----- *Chilocoristes mohamedsaidi* Medvedev
- Pronotum and head yellowish to reddish brown ----- 9
9. Antennae dark to blackish brown on apical 4 or 6 segments ----- 10
- Antennae entirely yellowish brown ----- *Chilocoristes punctatus* Weise
10. Pronotum rather straightly narrowed anteriorly on lateral margins; aedeagus widened to apex, with subquadrate apical process as in Fig. 2d ----- *Chilocoristes moyogensis*, n. sp.
- Pronotum roundly narrowed anteriorly on lateral margins ----- 11
11. Body slightly larger, 5mm in length; aedeagus gently widened to apical 1/6th as in Fig. 2a ----- *Chilocoristes besar*, n. sp.
- Body smaller, 4mm in length; aedeagus subparallel-sided as in Fig. 2b ----- *Chilocoristes justinahae* n. sp.

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