

Taxonomic Reports on the *Catops hilleri* Species Group (Coleoptera, Leiodidae, Cholevinae), (I)

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Abstract *Catops fujitaniorum* M. NISHIKAWA, 1997, a member of the *Catops hilleri* species group, is recorded for the first time from Gifu Pref., Honshu, Japan. Some morphological differences between *C. fujitaniorum* and *C. hilleri* KRAATZ, 1877 are shown with some figures of important features.

The genus *Catops* PAYKULL, 1798 belongs to the subfamily Cholevinae of the family Leiodidae. This genus is the largest within the subfamily, and with about 120 species have been known to occur worldwide (NEWTON, 1998). In Japan, 24 species of *Catops* have been recorded until now (JEANNEL, 1936; NISHIKAWA & LAFER, 2000; PERREAU, 2000; HOSHINA, 2006).

SZYMCZAKOWSKI (1964) established the *Catops hilleri* species group comprising 12 oriental species which have male profemora with a projection on anterior margins, female abdominal sternite 8 is emarginated at apical margins, and so on. Among the 24 *Catops* species from Japan, eight species are presently recognised as members of the *C. hilleri* species group (PERREAU, 2000). However, the taxonomy of this group includes many problems at specific level. For example, they are very similar each other, accordingly it is very difficult to determine species.

Recently, we had an opportunity to examine three unidentified specimens of *Catops* collected by flight intercept traps (FIT) from Gifu Pref., Honshu, Japan. Our careful examinations showed that those specimens are identified as *Catops fujitaniorum* M. NISHIKAWA, 1997, a member of the *C. hilleri* species group. In this part of the taxonomic reports, we redescribe this species newly recorded from Gifu Pref., and diagnostically showed morphological differences between *C. fujitaniorum* and *C. hilleri* KRAATZ, 1877 with some figures of important features. The morphological terminology mainly follows PECK and COOK (2007).

Before going further, we wish to express our sincere thanks to Mr. Kentarô TOYOSHIMA (Gifu Pref.) for his kind offering of the valuable specimens.

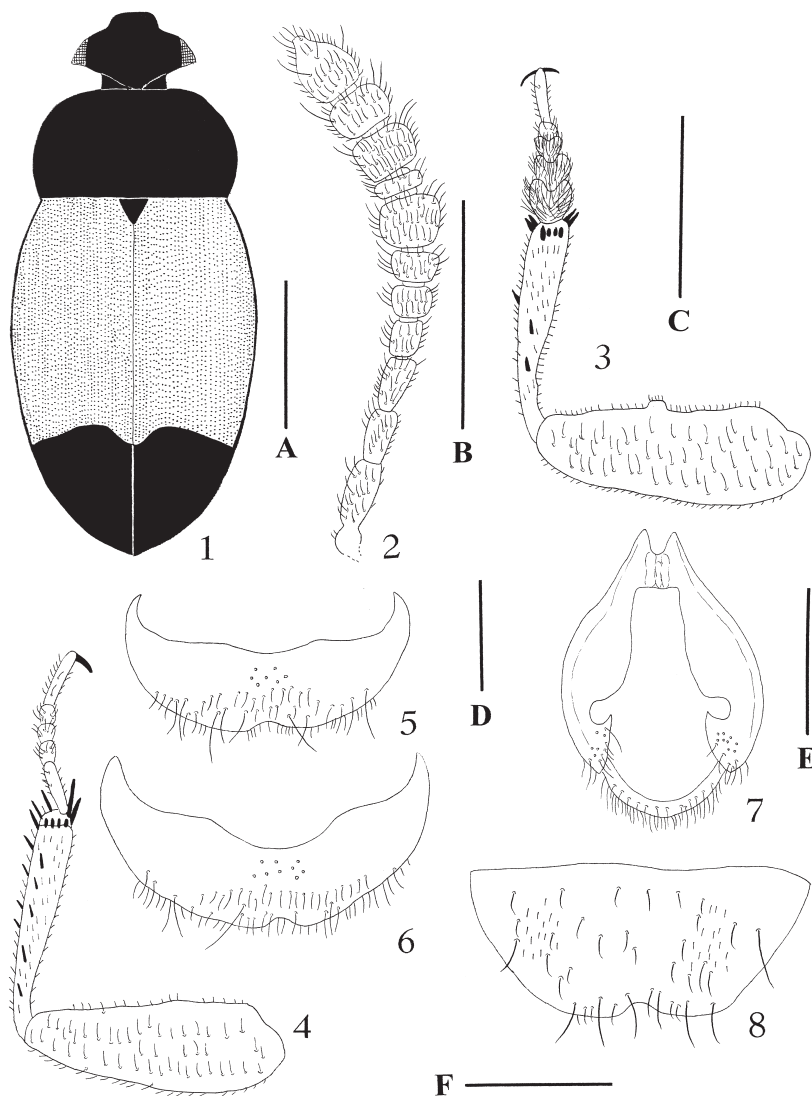
Catops fujitaniorum M. NISHIKAWA, 1997

[Japanese name: Chikuma-chibishidemushi]

(Figs. 1–5, 7–10)

Catops fujitaniorum NISHIKAWA, 1997: 117; PERREAU, 2000: 125; PERREAU, 2004: 137; ZINCHENKO & LYUBECHANSKII, 2008: 340; ZINCHENKO, 2010: 90; PERREAU, 2015: 186.

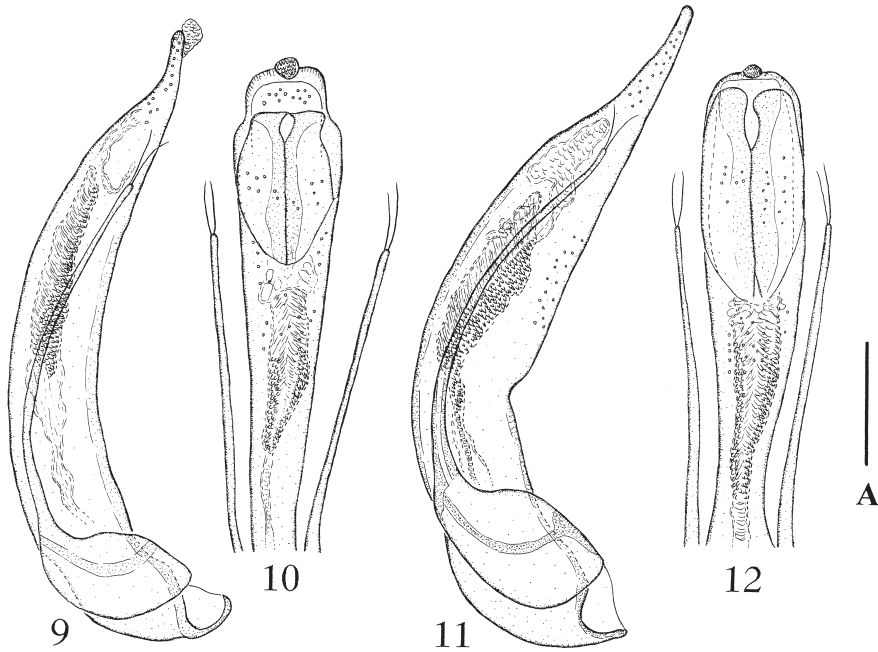
Redescription. Male and female. Coloration. Head, pronotum, and scutellum black; elytra bicolorous (Fig. 1), ca. apical 1/4 and external margins black and other parts yellowish brown; antennomeres 1–6 brown; antennomeres 7–10 and basal half of antennomere 11 dark brown; apical half of antennomere 11 light brown; legs brown; mesoventrite and metaventrite dark brown; abdominal ven-



Figs. 1–5, 7, 8. *Catops fujitaniorum* M. NISHIKAWA; 6, *C. hilleri* KRAATZ. — 1, Body; 2, antenna; 3, male fore leg; 4, ditto in female; 5 & 6, male abdominal sternite 8; 7, genital segment; 8, female abdominal sternite 8. Scale A, 1 mm for fig. 1; scale B, 0.5 mm for fig. 2; scale C, 0.5 mm for figs. 3, 4; scale D, 0.2 mm for figs. 5, 6; scale E, 0.2 mm for fig. 7; scale F, 0.2 mm for fig. 8.

trites light brown.

Body 3.0–3.8 mm in length, ca. 2.3× as long as wide (Fig. 1); head ca. 0.58× as long as wide, ca. 0.55× as long as and 0.60× as wide as pronotum, and microreticulate; setal socket punctures of head very minute; antennomeres 1–4 and 11 longer than wide; remaining antennomeres each wider than long (Fig. 2); antennomere 11 ca. 1.2× as long as wide (Fig. 2); pronotum ca. 0.63× as long as wide, ca. 0.36× as long as and 0.87× as wide as elytra, widest at ca. basal 2/5 (Fig. 1), and microreticulate;



Figs. 9 & 10. *Catops fujitaniorum* M. NISHIKAWA; 11 & 12, *C. hilleri* KRAATZ. — 9, 11, Aedeagus, lateral view; 10, 12, ditto, ventral view. Scale A, 0.2 mm for figs. 9–12.

setal socket punctures of pronotum very minute; elytra ca. 2.3× as long as wide (Fig. 1), widest at ca. basal 1/3 (Fig. 1), and microreticulate; setal socket punctures of elytra very minute; hind wings fully developed; fore legs showing sexual dimorphism (Figs. 3 and 4); middle and hind legs similar shapes to other species of the genus *Catops*.

M a l e. Antennomeres 5–9 slightly depressed on ventral sides, the bottom of each depression rough and cribrate with near 20 small pits; profemora with a small projection at ca. half of anterior margins (Fig. 3); protibiae relatively sharply narrowed from ca. basal 2/5 towards base at internal margins (Fig. 3); tarsomeres 1–3 of protarsi notably expanded (Fig. 3); ventrite 8 weakly emarginated at both anterior and posterior margins (Fig. 5); genital segment as shown in Fig. 7; aedeagus slender in general (Fig. 9); median lobe feebly curved and bluntly pointed at apex in lateral view (Fig. 9) and sharply narrowed at both sides near apex in ventral view (Fig. 10); parameres bearing two fine apical setae, and feebly curved as median lobe in lateral view (Fig. 9).

F e m a l e. Antennomeres 5–9 not depressed, smooth, and without small pits on ventral sides; profemora without projections at anterior margins (Fig. 4); protibiae simply and gradually narrowed from apex towards base (Fig. 4); tarsomeres 1–3 of protarsi not expanded (Fig. 4); abdominal sternite 8 weakly curved inwardly at ca. middle of apical margins (Fig. 8).

Distribution. Japan: Honshu (Nagano Pref. and Gifu Pref.) and Hokkaido (Rishiri Is.); Russia (Russian Far East and Altai Mountains).

Specimens examined. 2 ♂♂, Kurumishima (alt. 1,800 m), Asahi-chô, Takayama City, Gifu Pref., Honshu, Japan, 14.IX.2012, K. TOYOSHIMA leg. (FIT); 1 ♀, 5.X.2012, same data as former male specimens except for the date (FU).

Differential diagnosis. *Catops fujitaniorum* is very similar to *C. hilleri* KRAATZ, 1877 in appear-

ance, but can be separated from it by having male antennomeres 5–9 depressed beneath, male ventrite 8 weakly emarginate at anterior margin (Fig. 5) and median lobe of aedeagus relatively slender and weakly curved in lateral view (Fig. 9), and sharply narrowed near apex at both sides in ventral view (Fig. 10). In contrast, *C. hilleri* has male antennomeres 6–9 depressed beneath, ventrite 8 relatively distinctly emarginate (Fig. 6) at anterior margin, and median lobe relatively robust and sharply curved (Fig. 11), and almost straight at both sides near apex (Fig. 12).

要 約

保科英人・林 靖彦：タマキノコムシ科チビシデムシ亜科 *Catops hilleri* 種群（鞘翅目）に関する分類学上の報告，(I)。——— *Catops hilleri* 種群に属する *Catops fujitaniorum* M. NISHIKAWA, 1997 (和名：チクマチビシデムシ) を岐阜県高山市より初記録した。また、本種と酷似する *Catops hilleri* KRAATZ, 1877 (和名：ヒレルチビシデムシ) との形態的区別点を初めて明記するとともに、その違いを図示した。

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