

A New Species of the Genus *Dircaeomorpha* (Coleoptera,  
Melandryidae) from Taiwan

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**Abstract** A new species, *Dircaeomorpha satoi*, is described as the first representative of the genus *Dircaeomorpha* from Taiwan.

The genus *Dircaeomorpha* FAIRMAIRE, 1896 was established monotypically on the basis of *D. clavicornis* FAIRMAIRE, 1896. This genus can be distinguished from the other related genera, *Dircaea* FABRICIUS, 1798 and *Phloeotrya* STEPHENS, 1832 by having the antennae somewhat flattened and more or less thickened apically. Up to the present, the genus *Dircaeomorpha* is represented by the following four species occurring in Asia: *D. clavicornis* FAIRMAIRE, 1896 from “Pedong” (Padang), Java, *D. vitalisi* (PIC, 1914) from Cambodia, *D. validicornis* (LEWIS, 1895) from Japan and *D. elegans* SASAJI, 1974 from Japan and Korea.

Through the courtesy of the late Dr. Masataka SATÔ, Nagoya, Japan, the first author unexpectedly received five specimens of an unknown *Dircaeomorpha* collected in Taiwan. Furthermore, two additional specimens in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo (hereinafter referred to as “NSMT”) were brought forth through Dr. S. NOMURA. Our subsequent examination based on these specimens revealed that they belonged to a new species closely related to the Japanese species, *Dircaeomorpha elegans*. This new species will be described and

illustrated in the following lines in relation to the allied species.

Before going further, we wish to express our hearty thanks to the late Dr. Masataka SATÔ (Nagoya) who was one of the greatest coleopterologists in Japan and produced many brilliant contributions to the taxonomy of not only aquatic beetles but also cantharids, lampyrids and many other families. We are also grateful to Prof. Nobuo OHBAYASHI and Assoc. Prof. Masahiro SAKAI for their supervision to the fist author at Ehime University, to Dr. Shûhei NOMURA (NSMT), Dr. Kiyoshi ANDO (Osaka Pref.), Mr. Katsumi AKITA (Mie Pref.), Mr. Atsushi KATÔ (Osaka Pref.), Mr. Shigeo TSUYUKI (Kanagawa Pref.), and Mr. KOZO MIZUNO (Kyoto Pref.) for their kindness in giving information or a chance to examine the materials used in this study, and to Mr. Yuji KATAYAMA (Ehime Univ.) for preparing a photo.

*Dircaeomorpha satoi* H. ISHIKAWA, TOYOSHIMA et LEE, sp. nov.

[Japanese name: Taiwan-higebuto-nagakuchiki]

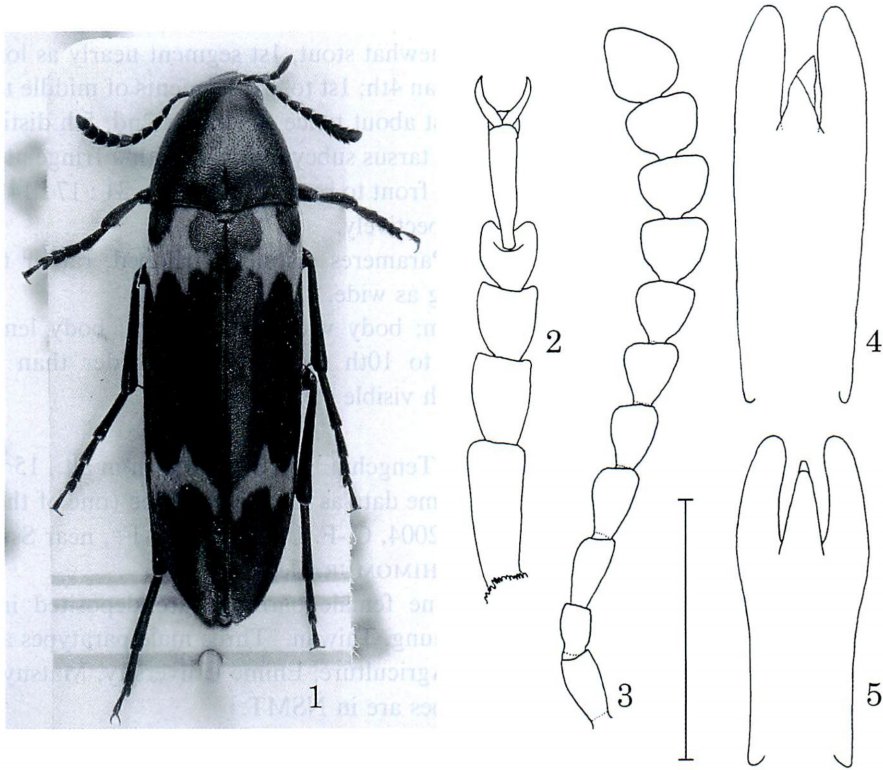
(Figs. 1-4)

**Male.** Body length 8.8-11.6 (11.6 in holotype) mm; body width 2.7-3.5 (3.5 in holotype) mm; body length / body width 3.3-3.4 (3.3 in holotype).

Body elongated cylindrical, parallel-sided in median 1/2, strongly tapered posteriad and somewhat weakly tapered anteriorly. Color black, with iridescent luster on dorsum; elytra decorated with two pairs of distinct orange markings; clypeus and mouth parts with a reddish tinge except for mandibles and maxillary palpi; dorso-basal portion of mandibles, anterior margin of terminal segment of maxillary palpi, apex of terminal segment of antennae, apical portions of 4th and 5th tarsal segments and claws more or less tinged with reddish.

Elytra ornamented with two pairs of orange maculations; basal pair located at basal 1/5 except for sutural and humeral portions, asteriform with trisinuate posterior margin, and similar in shape to that of *D. elegans*; apical pair sinuate, located at apical 1/3, delimited at suture and almost reaching lateral margin.

Head about 0.6 times as wide as the width of pronotum. Clypeus trapezoidal, four times as wide as long, with three longitudinal carinae on disc, depressed at antero-lateral marginal area; anterior margin almost straight, fronto-clypeal suture slightly curved posteriorly. Labrum nearly equal to clypeus in length. Eyes subelliptical, slightly emarginate at antennal insertions, interocular distance about 0.6 times as wide as the width of head across eyes. Terminal segment of maxillary palpi subcultriform, about twice as long as wide. Antennae somewhat longer than pronotal length; 1st to 3rd segments weakly clavate, 1st about 1.7 times as long as wide, 2nd the shortest and narrowest, 2nd to 10th gradually becoming larger and wider, 3rd about 1.5 times as long as 2nd, 4th shorter than 3rd, 5th to 8th each slightly shorter or nearly equal to 4th, 8th to 10th each wider than long, 9th and 10th each shorter than 8th, 11th oval, distinctly longer and slightly narrower than 10th.



Figs. 1–5. *Dircaeomorpha* spp., ♂. — 1–4, *Dircaeomorpha satoi* sp. nov.; 5, *D. elegans*. — 1, Habitus (holotype); 2, front tarsus; 3, antenna; 4–5, parameres. Scale: 2–3, 1 mm; 4–5, 0.5 mm.

Pronotum about 0.8 times as long as wide, weakly narrowed apicad, depressed at the middle of bisinuate basal margin; pubescence decumbent, somewhat sparser than that on elytra; discal mesal portion and a pair of circular areas behind the middle not punctate.

Scutellum weakly narrowed apicad, with posterior margin evenly rounded.

Elytra moderately slender, conjointly about 2.6 times as long as wide, and 3.3–3.4 times as long as pronotal length; pubescence decumbent and bicolored, black one arising from black integument and orange one forming maculations restricted on orange integument.

Mesosternum convex and roughly punctate at center, with a short longitudinal keel at anterior 1/5; mesosternal process acutely triangular, less than 1/2 of mesosternal length.

Metasternum mesally depressed throughout, with a shallow groove in posterior 4/5. Abdomen with 5th visible sternite notched at the middle of apex.

Legs slender; all tibiae fringed at each apex with two tibial spurs, of which the outer



one is shorter than the inner one; front tibial spurs short and somewhat stout; middle and hind tibial spurs slender; front tarsi somewhat stout, 1st segment nearly as long as 2nd and 3rd combined, 3rd slightly longer than 4th; 1st to 3rd segments of middle tarsus subcylindrical, with a fringe at each apex, 1st about twice as long as 2nd, 5th distinctly longer than 3rd; 1st to 2nd segments of hind tarsus subcylindrical, with a fringe at each apex; relative lengths of tarsal segments from front to rear as follows:— 31 : 17 : 14 : 13 : 24, 24 : 12 : 8 : 5 : 11 and 31 : 13 : 5 : 10, respectively.

Male genitalia as shown in Fig. 4. Parameres distinctly trilobed, rather thick, nearly parallel-sided, about 2.9 times as long as wide.

*Female.* Body length 11.8–15.4 mm; body width 3.5–4.9 mm; body length / body width 3.1–3.4. Antennae with 5th to 10th segments each wider than long. Abdomen without a notch at the apex of 5th visible sternite.

*Distribution.* Taiwan.

*Type series.* Holotype: ♂, Kaohsiung, Tengchih (藤枝), 1,650 m in alt., 15~16-VI-2005, C.-F. LEE leg. Paratypes: 3♂♂, same data as for the holotype (one of them is slide-mounted); 1♀, Nantou, Shitou, 11-V-2004, C.-F. LEE leg.; 1♂, 1♀, near Ssuling, 900 m alt., Taoyuan Pref., 6-IV-1981, T. SHIMOMURA leg.

*Type depository.* The holotype and one female paratype are deposited in the National Museum of Natural Science, Taichung, Taiwan. Three male paratypes are in the Entomological Laboratory, Faculty of Agriculture, Ehime University, Matsuyama, Japan and one male and one female paratypes are in NSMT.

*Etymology.* The specific name is dedicated to the late Dr. M. SATÔ who gave us material for this study and constant encouragement.

*Remarks.* *Dircaeomorpha satoi* sp. nov. exceedingly resembles *D. elegans* in morphological characteristics, but they are distinguishable by the following features: paramera of male genitalia thickened and subparallel-sided in *D. satoi* (Fig. 4), constricted at sides near the middle in *D. elegans*; 5th segment of middle tarsi apparently longer than 3rd in *D. satoi*, approximately equal to 3rd in *D. elegans*; clypeus subequal in mesal length to labrum in *D. satoi*, shorter than labrum in *D. elegans*.

## 要 約

石川春子・豊嶋亮司・李 奇峰：台湾産 *Dircaeomorpha* 属の1新種。—— *Dircaeomorpha* 属はアジアから4種が知られているが、新たに台湾から1新種が発見された。本種タイワンヒゲブトナガクチキ *D. satoi* は、日本と朝鮮半島に分布する *D. elegans* に酷似するが、中脚第5付節が第3節より長いこと、頭盾の長さが上唇とほぼ同じであることなどで区別できる。なお、本新種の種小名は故佐藤正孝博士に献名した。

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