



## Notes on *Lycocerus kiontochananus* (Pic, 1921) and description of two new species of *Lycocerus* Gorham from China (Coleoptera, Cantharidae)

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### Abstract

The *Lycocerus kiontochananus* species complex is revised; *L. perroudi* (Pic, 1937) **stat. rev.**, originally in *Cantharis*, is resurrected from synonymy with *L. kiontochananus* (Pic, 1921); *L. atropygidialis* (Pic, 1937) **stat. nov.**, originally in *Cantharis*, is upgraded from *Cantharis perroudi* var. *atropygidialis* Pic, 1937 and resurrected from synonymy with *L. kiontochananus*; *L. kejvali* Švihla, 2004 **syn. nov.** is considered as a junior synonym with *L. kiontochananus*. The male of *L. perroudi* and the female of *L. jendeki* Švihla, 2005 are described for the first time. Two new species are described under the names of *L. metalliceps* **sp. nov.** (China: Sichuan) and *L. hainanus* **sp. nov.** (China: Hainan).

**Key words:** Coleoptera, Cantharidae, *Lycocerus*, resurrection, new status, synonym, new species, China

### Introduction

During our study of the genus *Lycocerus* Gorham, 1889, we experienced difficulties with identification of *L. kiontochananus* (Pic, 1921), because several species share similar appearance to the latter, such as *L. pubescens* (Wittmer, 1983), *L. hansii* (Švihla, 2004), *L. naokii* (Okushima & Imasaka, 2000), *L. kejvali* Švihla, 2004, *L. jendeki* Švihla, 2005 and *L. nigrigenus* Y. Yang & X. Yang, 2013, which are all within the *L. kiontochananus* species complex as defined herein.

After our examination of the types of the above species, and further study on the additional material from different localities, we concluded that *Cantharis perroudi* Pic, 1937 and *C. perroudi* var. *atropygidialis* Pic, 1937 should be resurrected from synonymy with *L. kiontochananus*, also the latter should be upgraded to specific rank, however *L. kejvali* is considered to be a junior synonym of *L. kiontochananus*. Clarifying the taxonomic status of these species, we describe two new species from China under the names of *L. metalliceps* **sp. nov.** and *L. hainanus* **sp. nov.**

The *L. kiontochananus* species complex now comprises ten species, which are all distributed in China, except for one species (*L. jendeki*) whose distribution extends to northern Laos and a second species (*L. naokii*) that extends to Japan (Ryukyus).

### Material and method

The aedeagi and the abdominal sternite VIII of female were dissected under a stereoscopic microscope, cleared in 10% KOH solution for several minutes, then placed in a droplet of glycerol and examined under a compound light microscope. Photographs of the type specimens were taken with a Canon 450D camera equipped with an EF 100mm f/2.8 USM lens. Line drawings were made with the aid of camera lucida attached to a Leica MZ12.5 stereomicroscope, and edited in the CorelDRAW 12 and Adobe Photoshop 8.0.1.

present with two slightly distinct longitudinal costae near inner margins. Legs slender, pro- and meso-outer tarsal claws each with a tooth at base.

Abdominal sternite IX long-triangular. Aedeagus (Figs. 26–28): ventral process of each paramere thin and nearly straight, with apices rounded and slightly widened in lateral view, distinctly shorter than dorsal plate, dorsal plate with inner angle distinctly extended and bordered, bent ventrally, outer angle rectangular, outer margin sinuate, inner surface with a longitudinal ridge extending from apical margin where surrounding apex of laterophyse; laterophyse with apex tapered, longer than ventral process of each paramere.

**Female** (Fig. 7). Similar to the males, but eyes less protruding, antennae (Fig. 19) shorter and narrower, extending to basal one-third length of elytra when reclined, antennomeres V–XI without grooves, pronotum slightly wider than long, disc indistinctly convex, legs with pro- and meso-outer claws each with a tooth at base, abdominal sternite VIII (Fig. 34) wide, with a small middle and two large lateral emarginations at posterior margin, the middle one distinctly shallower than lateral ones, the part between middle and lateral emarginations acute at apex.

Body length: 8.5–10.0 mm; width: 2.0–2.2 mm.

**Distribution.** China (Hainan).

**Diagnosis.** This new species is similar to *L. metalliceus* sp. nov. in the tarsal claws, but can be distinguished from the latter by the filiform antennae, antennomeres V–XI each with a longitudinal groove along outer margin in male; pronotum with black and pale yellow pubescence; aedeagus: dorsal plate of each paramere with a longitudinal ridge on inner surface; abdominal sternite VIII of female with the portion between middle and lateral emarginations of posterior margin acute at apex respectively.

**Etymology.** The specific name is derived from its type locality: Hainan, China.

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