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Luciola lambkinae Keller and Ballantyne,
new replacement name for *Luciola roseicollis* Pic, 1935
(Coleoptera: Lampyridae)

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Abstract. Two different species descriptions for *Luciola roseicollis* by Pic (Coleoptera: Lampyridae) are compared, and a replacement name, *Luciola lambkinae* Keller and Ballantyne *nomen novum*, for *Luciola roseicollis* Pic, 1935 is proposed.

Key words. Firefly, *nomen novum*, Luciolinae

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Introduction

In McDermott's (1966) catalog of the family Lampyridae two citations are listed under the heading *Luciola roseicollis* Pic, 1933. Both articles include descriptions of *L. roseicollis* and also the statement that they are new species (Pic 1933, 1935). After comparing both descriptions OK contacted LB with the suspicion that the descriptions are about two different species.

Materials and Methods

We translated the original descriptions by Pic (1933, 1935) to compare both descriptions and LB referenced her notes on the Asian luciolines to find any other species Pic could have been looking at while describing either species.

Taxonomy

Luciola lambkinae Keller and Ballantyne, *nomen novum*

Luciola roseicollis Pic 1935: 6. McDermott 1966: 112 *partim*; Fu et al. 2010: 15 *partim* (nec *Luciola roseicollis* Pic 1933: 109).

Type. Male. CHINA as Kina S Kansu. MNHN. Labelled: 1. Handwritten roseicollis n sp; 2. handwritten voisin de calceata; 3. Red card printed TYPE; 4. Printed Sven Hedins Exp. Ctr. Asien Dr Hummel; 5. Printed Kina S. Kansu.

Etymology. The species is named for Christine Lambkin (Queensland Museum, South Brisbane, Australia). Dr. Lambkin has been collaborating with LB since 2000 trying to make sense of the Australopacific and Asian lucioline fauna. This is a small honor for 21 years of shared interest and collaboration.

Diagnosis. Rosy pink pronotum; narrow anterior dark marking may reflect retraction of fat body in this area and the dark color is probably the dark head showing through the transparent cuticle; mesoscutellum dingy yellow;

elytra black and subparallel-sided; most of ventral surface (and head) black except for brown femora of hind legs (interpretation of other legs not possible), and white light organ occupying all of the terminal two abdominal ventrites except for a narrow median posterior yellowish portion; lateral margins of light organ in ventrite 7 converge posteriorly, and posterior margin truncate, with very slight broad emargination.

Remarks. This specimen was not dissected and thus reliable assignment to any genus is not possible. We have assigned it to the genus *Luciola sensu lato*, a category Ballantyne et al. (2019) used for Luciolinae species still not investigated nor assigned to any genus. This category is one of convenience and has no taxonomic standing. Pic (1935) highlighted the very slight emargination of the posterior margin of the ventrite 7 light organ (“ultimo truncato aut paulo emarginato”) and considered the species close to the similarly colored *Luciola cerata* Olivier differing in the pinkish pronotal tint with an anterior dark marking. *Luciola cerata* was redescribed from a lectotype designation by Fu and Ballantyne (2008) and subsequently assigned to the genus *Abcondita* by Ballantyne et al. (2013). It is only known from Taiwan.

***Luciola roseicollis* Pic, 1933**

Luciola roseicollis Pic 1933: 109. McDermott 1966: 112 *partim*. Fu et al. 2010: 15 *partim*.

Type. Not located.

Diagnosis. In the absence of any reliably identified specimens this diagnosis is based on Pic’s original description. 7 mm long. With thorax rosy red, mesoscutellum yellow; elytra black; having a distinct costa (“in disco distincte costatis”).

Remarks. Pic’s (1933) description relied on color patterns but he did highlight the presence of a (?single) elytral costa or ridge which is a feature of the genus *Curtos* Motschulsky (see Ballantyne et al. 2019) and indicated the similarity of this species to *Luciola impolita* Olivier, which has subsequently been assigned to *Curtos*. *Curtos* is also known to have distinctive dorsal punctation but Pic described the elytral punctation as “minute et dense punctatis”. We are unable to interpret what Pic intended in his description of the elytral apices as “depressis”.

Assignment to the genus *Luciola sensu lato* is made under the same provisions as outlined above.

Fu et al. (2010) confused the issue in referring to *Luciola roseicollis* Pic, 1933. While their description of color patterns followed the 1933 format, they incorrectly referenced Pic’s (1933) description of the abdomen as possibly being that of a female. Pic (1935) had described the abdomen as truncated and slightly emarginate which suggested a female.

Results and Discussion

After comparing the descriptions we concluded that Pic described two different species. We were able to study and diagnose a type specimen from Pic (1935) but are unable to identify the 1933 specimen apart from surmising it probably belongs to the genus *Curtos*.

Luciola roseicollis Pic, 1935 is a primary homonym and requires a new name based on the International Code of Zoological Nomenclature (ICZN 1999, Articles 23.3.5 and 60.3). Here we propose *Luciola lambkinae* Keller and Ballantyne, *nomen novum*, to replace *L. roseicollis* Pic, 1935.

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Literature Cited

- Ballantyne LA, Fu X-H, Lambkin CL, Jeng M-L, Faust LF, Wijekoon WMCD, Li D, Zhu T. 2013.** Studies on south-east Asian fireflies: *Abscondita*, a new genus with details of life history, flashing patterns and behaviour of *Abs. chinensis* (L.) and *Abs. terminalis* (Olivier) (Coleoptera: Lampyridae: Luciolinae). *Zootaxa* 3721(1): 1–48.
- Ballantyne LA, Lambkin CL, Ho JZ, Jusoh WFAW, Nada B, Nak-Eiam S, Thancharoen A, Wattanachaiyingcharoen W, Yiu V. 2019.** The Luciolinae of S. E. Asia and the Australopacific region: A revisionary checklist (Coleoptera: Lampyridae) including description of three new genera and 13 new species. *Zootaxa* 4687(1): 1–174.
- Fu X-H, Ballantyne LA. 2008.** Taxonomy and behaviour of lucioline fireflies (Coleoptera: Lampyridae: Luciolinae) with redefinition and new species of *Pygoluciola* Wittmer from mainland China and review of *Luciola* LaPorte. *Zootaxa* 1733(1): 1–44.
- Fu X-H, Ballantyne LA, Lambkin CL. 2010.** *Aquatica* gen. nov. from mainland China with a description of *Aquatica wuhana* sp. nov. (Coleoptera: Lampyridae: Luciolinae). *Zootaxa* 2530(1): 1–18.
- ICZN [International Commission of Zoological Nomenclature]. 1999.** International Code of Zoological Nomenclature, Fourth Edition, adopted by the International Union of Biological Sciences. International Trust for Zoological Nomenclature; London. xxix + 306 p.
- McDermott FA. 1966.** Lampyridae. p. 1–149. In: Steel WO (ed.). *Coleopterorum Catalogus Supplementa, pars 9*. Uitgeverij Dr. W. Junk; Gravenhage, Netherlands. 149 p.
- Pic M. 1933.** Malacodermes exotiques. *L'Échange. Revue Linnéenne* 49(451): 109–112.
- Pic M. 1935.** Schwedisch-chinesische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas, unter Leitung von Dr. Sven Hedin und Prof. Sii Ping-chang. Insekten gesammelt vom schwedischen Arzt der Expedition Dr. David Hummel 1927–1930. 16. Coleoptera. 2. Helmidae, Dermestidae, Anobiidae, Cleridae, Malacodermata, Dascillidae, Heteromera (ex. p.), Bruchidae, Cerambycidae, Phytophaga (ex. p.). *Arkiv för Zoologi* 27A(2): 1–14.

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