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**The genus *Lacconectus* Motschulsky, 1855, in Thailand,
with a description of two new species
(Coleoptera, Dytiscidae)**

by Michel Brancucci & Valeria Gusich

Abstract. The authors describe two new *Lacconectus* Motschulsky, 1855 species from Thailand, *Lacconectus schawalleri* sp.nov. and *L. khaosokensis* sp.nov. Furthermore, the species described and occurring in that country are discussed. Together with the 2 new species and the 5 new records, 11 species are now known from Thailand and the number of *Lacconectus* species worldwide now is raised to 62.

Key words. Coleoptera – Dytiscidae – *Lacconectus* – new species – Thailand

Introduction

Only 4 species of *Lacconectus* Motschulsky, 1855 have been reported from Thailand: *L. basalis* Sharp, 1882 (widespread), *L. punctatus* Brancucci, 1986 (southern Thailand), *L. heinertzi* Brancucci, 1986 (northern Thailand) and *L. loeinensis* Brancucci, 1987 (central Thailand). Two new species are described here and 5 species are recorded for the first time from that country, giving a total of 11 species of *Lacconectus* now known from Thailand. The two new species described here bring the total number of species worldwide of the genus *Lacconectus* to 62 (KAMIYA 1938; GUÉORGUIEV 1972; VAZIRANI 1977; BRANCUCCI 1986, 1987, 1989, 2002, 2003a, 2003b, 2004; NILSSON 1995; HENDRICH 1998).

Material and methods

The material studied is deposited in the following collections:

NMW Natural History Museum, Vienna
SMNS Staatliches Museum für Naturkunde, Stuttgart
NMB Natural History Museum, Basel

This paper employs the terminology concerning the aedeagus proposed by MILLER & NILSSON (2003).

Taxonomy

Lacconectus basalis Sharp, 1882

Lacconectus basalis Sharp, 1882: 598. – BRANCUCCI (1986): 125.

Material examined. Thailand, Prov. Rayong, Khao Chamao N.P., 12.XII.1990 (5 ex., NMW). N-Thailand, Mae Hong Son, 1000 m, 16–23.VI.1993, leg. Schneider (3 ex., NMW). N-Thailand, Mae Hong Son, Ban Huai Po, 1700 m, 24–30.VI.1993, leg. Schneider (1ex., NMW). Thailand, Chiang Mai Prov., Doi Suthep, 750–800m,

2.XI.1995, leg. Zettel (4) (1 ex., NMW). Thailand, Phrae Prov., Mae Khaem, 15 km E Phrae, ca 350 m, 16.XI.1995, leg. Zettel (16 b) (1 ex., NMW). Thailand, Khon Kaen Prov., Phu Phan Kham N.P., 21.XI.1995, leg. Zettel (20 b) (1 ex., NMW). Thailand, Chiang Mai Prov., W Mae Rim, Mae Sa N.P., 30–31.XI.1995, leg. Zettel (2) (1 ex., NMW).

Remark. *L. basalis* is a very widespread species, distributed from Burma to Malaysia.

Lacconectus strigulifer Zimmermann, 1928

Lacconectus strigulifer Zimmermann, 1928: 386.

Material examined. Thailand, Khao Sok, 18.11.1994, J. Rejsek (2 ex., NMW).

Remark. *L. strigulifer* was described from Burma and has not subsequently been recorded from other countries. This is the first record for Thailand.

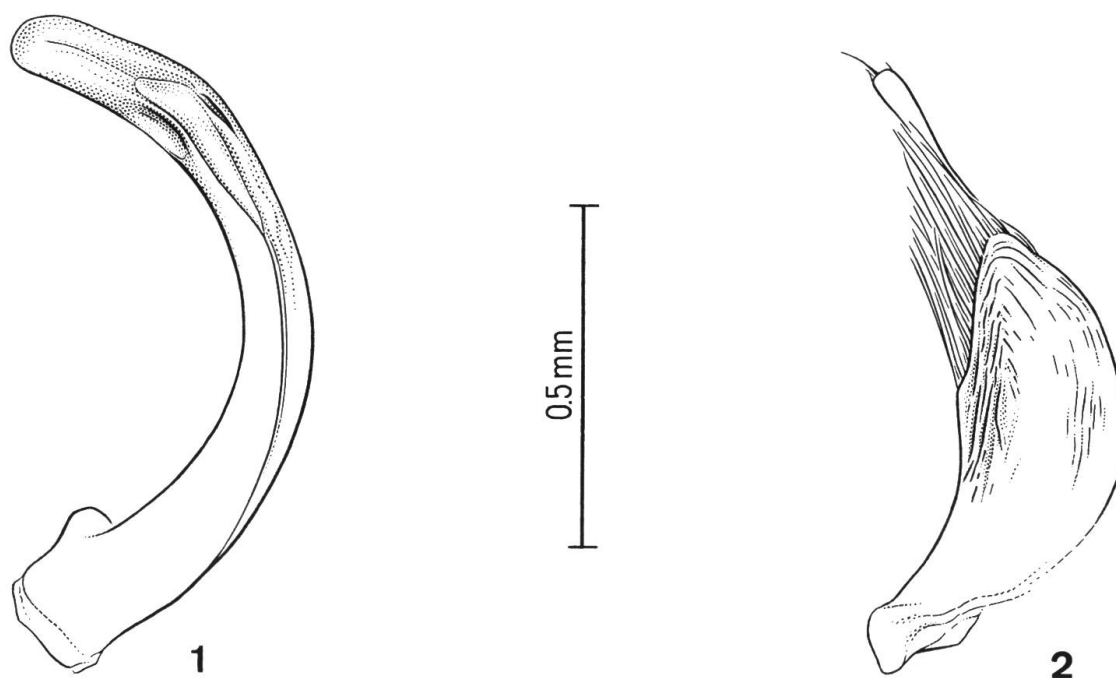
Distribution. Burma and S-Thailand.

Lacconectus fulvescens Motschulsky, 1855 (Figs 1–2)

Lacconectus fulvescens Motschulsky, 1855: 83.

Material examined. South Thailand, Khao Sok rainforest, 38 km E Takua Pa, 21.XI.1996, J. Rejsek (3 ex. NMW, 1 ex. NMB).

Remark. This species was previously known from India (Orissa) and from Burma. The specimens mentioned here represent a new record for Thailand. Laterall views on the aedeagus and left paramere are in Figs 1 and 2.



Figs 1–2. *Lacconectus fulvescens* Motschulsky: 1, aedeagus in lateral view; 2, left paramere.

Distribution. India (Orissa), Burma, Thailand.

***Lacconectus fallaciosus* Brancucci, 1986**

Lacconectus fallaciosus Brancucci, 1986: 114.

Material examined. South Thailand, Khao Sok rainforest, 38 km E Takua Pa, 21.XI.1996, J. Rejsek (1 ex., NMW).

Remark. This species was described from Burma (Pegu) and recorded from Tenasserim, and so its occurrence in southern Thailand was to be expected. This is a first record for Thailand.

Distribution. Burma and Thailand.

***Lacconectus merguiensis* Brancucci, 1986**

Lacconectus merguiensis Brancucci, 1986: 117.

Material examined. Thailand, Khao Sok, 18.I.1994, J. Rejsek (4 ex., NMW).

Remark. *Lacconectus merguiensis* was described from Burma (Tenasserim: Mergui and Moulmein). This is the first record of the species from Thailand.

Distribution. Burma (Tenasserim) and southern Thailand.

***Lacconectus schillhammeri* Brancucci, 2003**

Lacconectus schillhammeri Brancucci, 2003a: 104.

Material examined. Thailand, Chiang Mai Prov. Doi Suthep N.P., 900–1100 m, 5.XI.1995, leg. Zettel (7) (1 ex., NMW ; 1 ex. NMB).

Remark. Described from a single locality in Central Laos. A new record for Thailand.

Distribution. Central Laos and Central Thailand.

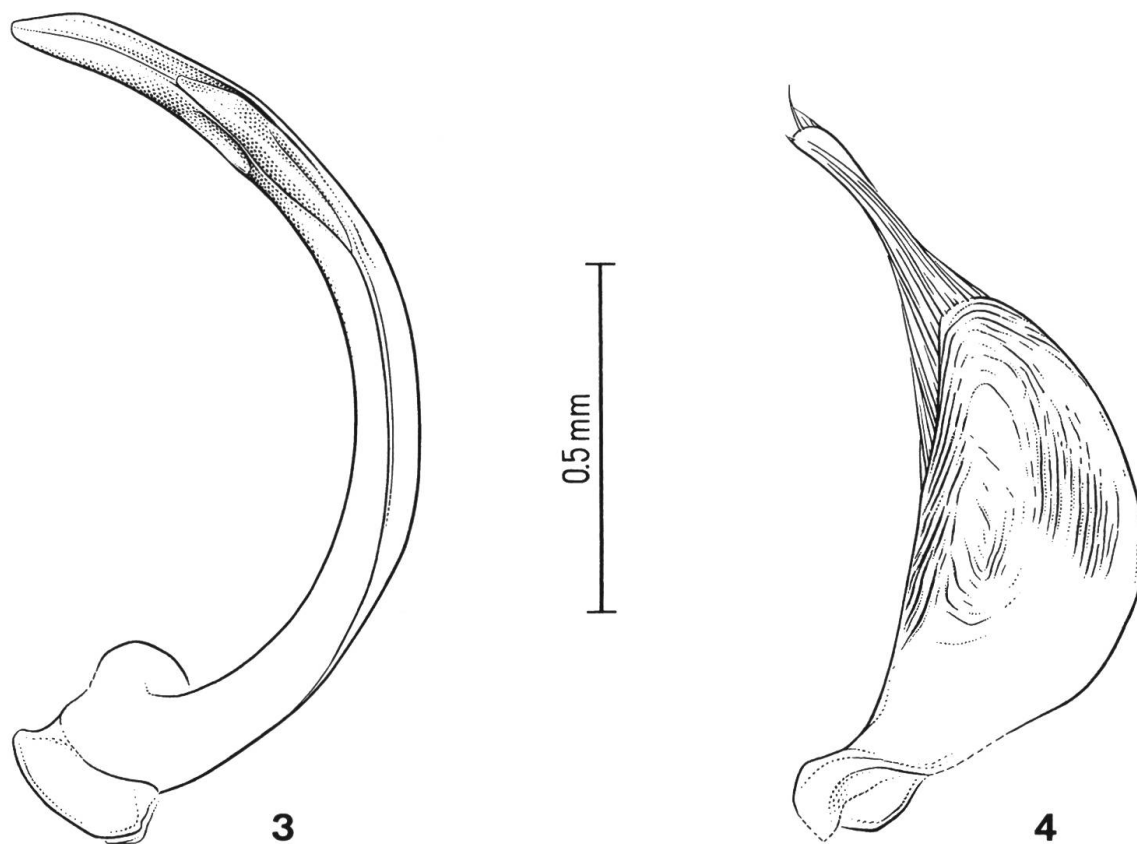
***Lacconectus schawalleri* sp.nov. (Figs 3–4)**

Type material. Holotype ♂: N-Thailand, Doi Phu Kha N.P., 50km NE Nan, 28.VI.–1.VII.1997, J. Rejsek (SMNS).

Description. Body oval, shining, ferruginous-brown, dark brown alongside eyes, on disc of pronotum and along epipleura.

Head ferruginous-brown, broadly darker alongside eyes, semi-matt. Surface sculpture consisting of small polygonal and well-impressed meshes and of minute punctures. Clypeal grooves, a row of deep punctures alongside eyes and a transverse depression beside eyes well-marked. Antennae testaceous; joints short, the fifth 1.4 times as long as broad.

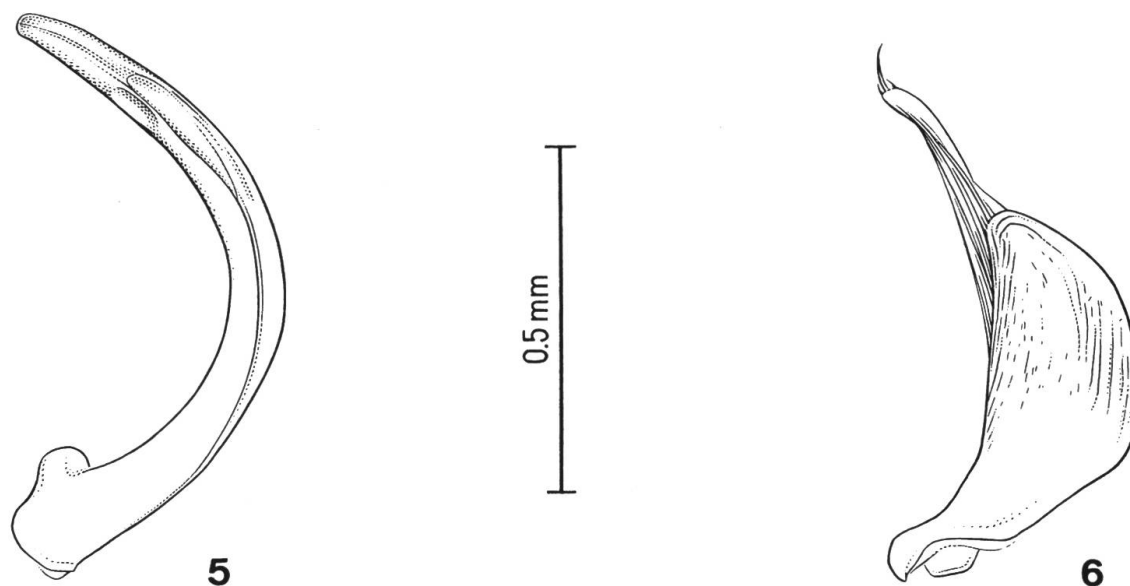
Pronotum dark brown, broadly testaceous at sides, semi-matt. Microsculpture consisting of small, polygonal and well-impressed meshes and of minute punctures;



Figs 3–4. *Lacconectus schawalleri* sp.nov.: 3, aedeagus in lateral view; 4, left paramere.

meshes and punctures becoming progressively more impressed and coarse towards sides. Longitudinal median suture short and weakly impressed. Anterior and lateral rows consisting of medium-sized punctures. Punctures at middle of each latero-basal quarter large and partly coalescent. Lateral margins finely bordered, furrow narrowly interrupted before reaching the anterior border.

Elytra shining, testaceous, dark brown at base and alongside epipleura. Epipleura ferruginous at base, dark ferruginous-brown on rest of surface. Elytra with a weakly shagreened lustre. Reticulation superficial, consisting of fine but distinct meshes at extreme base, soon changing to a fine striolation and finally disappearing before middle. Puncturation consisting of small punctures separated by barely visible petal-like meshes. Sutural row of punctures very incomplete, consisting of a few large punctures in apical part. Discal and sublateral rows broadly interrupted before base; punctures medium-sized and sparse, irregularly distributed in apical third. Interspaces with some sparse punctures on apical half; in the second one the punctures are present as far as the base.



Figs 5–6. *Lacconectus khaosokensis* sp.nov.: 5, aedeagus in lateral view; 6, left paramere.

Underside dark brown, the prosternal and metacoxal processes and the last sternite brown-ferrugineous. Prosternal process elongate, 1.6 times as long as broad, strongly bordered at sides and broadly rounded at apex. Metacoxal lines represented only by some larger punctures at their mid-length. Sternites 3, 4 and 5 each with a few sparse, medium-sized punctures. Anal sternite microreticulate with a short row of punctures on both sides of the middle. Posterior margin finely bordered and broadly rounded.

Total length: 4.6 mm; width: 2.5 mm.

♂. Aedeagus, in lateral view, evenly curved, almost constant in width, narrowly rounded at apex (Fig. 3); in ventral view, also thin and strongly twisted. Left paramere broad (Fig. 4).

♀. Unknown.

Distribution. Northern Thailand.

Differential diagnosis. This species is closely related to *L. pseudonicolasi* Brancucci, 2003 but can easily be distinguished by the darker colouration of the head, pronotum and margins of elytra and by the aedeagus which is, in lateral view, narrowly rounded at apex and strongly twisted in dorsal view.

Derivatio nominis. Species named after Wolfgang Schawaller of the Museum für Naturkunde, Stuttgart.

***Lacconectus khaosokensis* sp.nov.** (Figs 5–6)

Type material. Holotype ♂: South Thailand, Khao Sok rain forest, 38 km E Takua Pa, 21.11.1996, J. Rejssek (NMW).

Description. Body oval, glossy, completely testaceous.

Head testaceous, semi-matt. Surface sculpture consisting of small polygonal and well-impressed rounded meshes and of minute punctures, particularly numerous on disc. Clypeal grooves, a row of deep punctures alongside eyes and a transverse depression beside eyes well-marked. Antennae testaceous; joints short, the fifth 1.5 times as long as broad.

Pronotum testaceous, shining. Microsculpture consisting of small, polygonal and well-impressed meshes and of minute punctures; meshes and punctures becoming progressively more impressed and coarse towards sides. Longitudinal median suture very short and barely visible. Anterior and lateral rows and punctures at the middle of each latero-basal quarter consisting of medium-sized punctures. Lateral margins finely bordered, furrow narrowly interrupted before reaching the anterior border.

Elytra testaceous, shining, narrowly dark brown alongside epipleura on posterior half. Epipleura testaceous, brown posteriorly. Reticulation consisting of small polygonal and superficial meshes at extreme base; these soon give way to a fine striolation that disappears by about posterior 1/3. Puncturation consisting of very minute punctures. Sutural row of punctures with a few medium-sized punctures posteriorly. Discal and sublateral rows almost complete; punctures grouped and reaching almost base. Some large punctures visible in the 2nd and 3rd interspaces, particularly posteriorly.

Underside testaceous, uniform in colour. Prosternal process short, 1–3 time as long as broad, distinctly bordered at sides and broadly rounded at apex. Metacoxal lines represented by only 3 larger punctures at their mid-length. Sternites 3, 4 and 5 each with a few sparse, medium-sized punctures. Anal sternite smooth, at most superficially shagreened, with a short row of punctures on both sides of the middle. Posterior margin finely bordered and broadly rounded.

Total length: 4.2 mm; width: 2.3 mm.

♂. Aedeagus, in lateral view, strongly and abruptly curved, almost constant in width, narrowly rounded at apex (Fig. 5); in ventral view, it is also thin and evenly tapered up to apex. Left paramere broad (Fig. 6).

♀. Unknown.

Distribution. Southern Thailand.

Differential diagnosis. This species is closely related to *L. merguiensis* but can be easily distinguished by the uniformly testaceous colour, by the microreticulation of the elytra, which is distinctly smaller and which disappears by the anterior third, by the puncturation of the elytra, which is evenly distributed, and by the aedeagus which is, in lateral view, evenly tapered in apical part.

Derivatio nominis. Named after the locality Khao Sok, where the holotype was collected.

Conclusions

The discovery of two species new for science and 6 new for Thailand shows how poorly the Dytiscidae of that country are known. This gives a total of 11 species for Thailand, whereas only 4 were previously known. Apart from *L. basalis* Sharp, which is widespread, the other 6 species were described from neighbouring countries, 2 from Burma (*L. fallaciosus* Brancucci, *L. merguiensis* Brancucci), 2 from Burma and India (*L. strigulifer* Zimmermann, *L. fulvescens* Motschoulsky), 1 from Vietnam, Cambodia, Laos (*L. punctatus* Brancucci) and 1 from Laos (*L. schillhammeri* Brancucci).

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