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Distributional notes on the genus *Platynectes* Régimbart, 1879, in Laos with the description of a new species (Coleoptera: Dytiscidae)

by Michel Brancucci & Khosada Vongsana

Abstract. A new species of *Platynectes* Régimbart, 1879 is described from Laos. It is the third species to be recorded from that country. All of the following belong to the subgenus *Gueorguievtes* Vazirani: *Platynectes major* Nilsson, 1998, *Platynectes njai* Brancucci, 2008 and the species described here, *Platynectes nageli* sp.nov. ŠTASTNÝ'S (2003) key is modified. Female of *P. njai* is described for the first time. Further distributional notes for the species hitherto known from Laos are given.

Key words. Coleoptera – Dytiscidae – *Platynectes* (*Gueorguievtes*) – Laos – new species

Introduction

Since the review of the genus *Platynectes* Régimbart, 1879 in Laos (BRANCUCCI 2008), more localities have been visited. Among the material from these localities, we found a new species collected in Central Laos. This is the third species known to occur in that country. While *P. (G.) major* Nilsson, 1998 is very widespread, in contrast *P. (G.) njai* Brancucci, 2008 and *P. (G.) nageli* sp.nov. are much more restricted in their distribution. Furthermore we are able to give more distributional notes for the hitherto known species from Laos.

Material

The material examined during this study is deposited in the Natural History Museum of Basel, Switzerland (NMB), in the Národní Muzeum Praha, Czech Republic (NMPC) and in the Entomological Laboratory, Ehime University, Japan (ELEU).

Taxonomy

Platynectes (Gueorguievtes) nageli sp.nov.

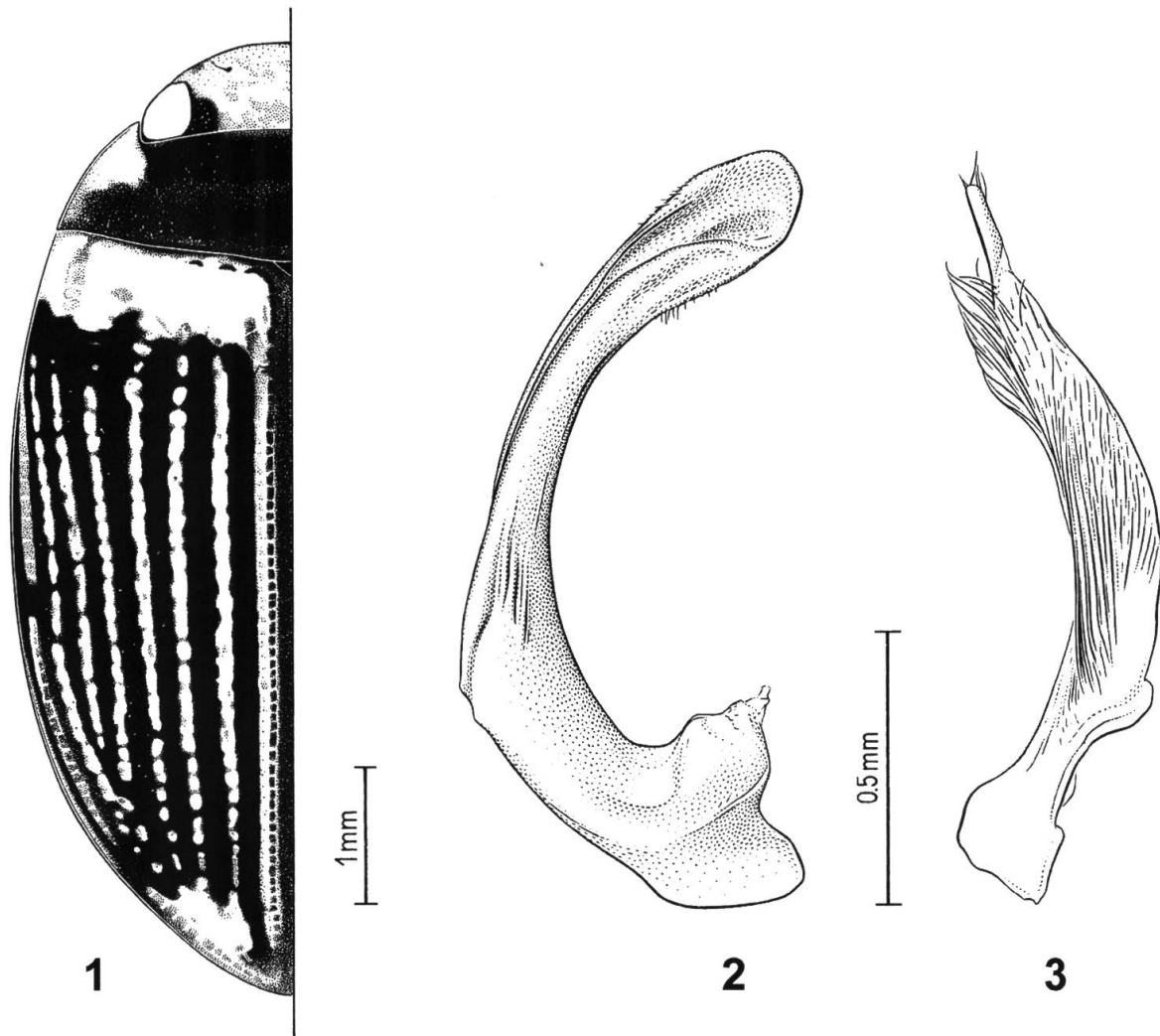
(Figs 1–3)

Type locality. Nam Kading NBCA, Bolikhamsay Prov., Laos.

Type material. Holotype ♂ (NMB): “LAOS, Bolikhamsay Prov., Nam Kading NBCA, Tad Paloy campsite, 280–400 m, 18°21–23' N / 104°09' E, 7.–12. VII. 2010, M. Brancucci & M. Geiser leg.” [white printed label]. “Holotype *Platynectes (Gueorguievtes) nageli* sp.n. Brancucci & Vongsana des. 2010” [red printed label]. 6 paratypes with same data as holotype (1 ♂ and 5 ♀; NMB). All specimens are provided with a red printed paratype label.

Description. Body broad oval, flattened, dark brown to black with testaceous markings on the whole surface (Fig. 1).

Head testaceous, broadly dark brown on posterior half of eye margin. Reticulation consisting of medium-sized polygonal meshes, irregular in size and incomplete, with



Figs 1–3. *Platynectes nageli* sp.nov.: 1 – habitus; 2 – median lobe of aedeagus in lateral view; 3 – left paramere.

1–2 small punctures on their insides, seldom more. Row along eye margin, clypeal grooves and grooves beside eyes well impressed, punctures medium-sized and not or only slightly confluent. Antennae ferruginous brown, joints elongate, the fifth 2.4 times as long as broad.

Pronotum dark brown, shining, with the anterior angles broadly testaceous and with two median transverse bands, lateral to the midline; they are ferruginous brown and hardly visible. Reticulation consisting of polygonal meshes, irregular in size and often incomplete, particularly on disc; meshes with 1 to 2 small punctures on their inside surfaces; punctures irregular in size. Anterior row of punctures broad, complete; punctures medium-sized, not confluent, occupying the inner of the meshes. Posterior row broadly interrupted at middle; punctures medium-sized but sparse and not confluent. Latero-basal part with some larger punctures. Lateral margin distinctly bordered; the

furrow ending shortly before anterior border. A few medium-sized and distant punctures present along lateral margin.

Elytra dark brown to black with a broad transverse basal band and eight very narrow longitudinal testaceous striae as well as a distinct apical spot; only the sutural and lateral longitudinal striae are complete, all the others do not extend anteriorly to the basal band, but are distinctly interrupted before it. Reticulation consisting on anterior half of distinctly impressed but incomplete polygonal meshes with 1–2 very minute punctures within them and with larger punctures at the intersections. Meshes becoming more and more complete posteriorly but less impressed behind; they are small and distinctly polygonal in apical half. Sutural row of punctures with a few widely spaced medium-sized punctures along whole length. Discal and sublateral rows of punctures hardly visible among the coarse sculpture and broadly interrupted before base; punctures small and widely spaced, not strongly grouped.

Underside ferruginous brown to dark brown, legs ferruginous brown. Sternites I–III each with a shallow testaceous spot at sides. Prosternal process lanceolate but rather short, broadly bordered along anterior half, flattened, smooth with numerous minute punctures, elongate-oval, 1.7 times longer than broad, broadly bordered along middle part, ending in a sharp point, flattened. Metasternal wings long and narrow, surface finely covered with minute punctures. Metacoxal lines subparallel, interrupted before reaching metasternum. Sternites covered with weakly impressed elongate meshes. Last abdominal sternite with deep and strongly impressed longitudinal furrows lateral to the midline. Metafemora with a dense bush of setae at distal posterior angles. Metatibia smooth, only with supplementary rows of setae along outer margin. Protarsi and mesotarsi distinctly dilated with numerous rounded pads. Anterior claws subequal, the outer somewhat shorter.

Median lobe of aedeagus, in lateral view, slightly curved, broadened on apical fourth with numerous very short setae on posterior border of apical part, broadly rounded at apex (Fig. 2). Parameres narrow, strongly elongate (Fig. 3).

♀. Similar to ♂. Microsculpture of dorsal side usually somewhat more impressed, in one of ♀ the meshes on elytra are elongate, giving the surface a semi matt lustre. Pro and mesotarsa not dilated and without rounded pads. Anal sternite broadly rounded with some superficial furrows and with numerous punctures of different sizes on whole surface

Measurements: Holotype ♂: TL: 7.0 mm, TL-h: 6.4 mm, TW: 4.0 mm. Paratypes: TL: 6.5–6.9 mm (6.72 mm, n= 6), TL-h: 6.1–6.3 mm (6.2 mm, n= 6), TW = 3.9–4.0 (3.97 mm, n= 6).

Distribution. Central Laos, Bolikhamsay.

Biology. Found in a small pond formed by a small stream at only 300 m altitude in a slightly degraded primary monsoon forest.

Etymology. This species is dedicated to Prof. Peter Nagel, University of Basel, Department of Environmental Sciences for his help and assistance in our Laos Project.

Differential diagnosis. This species also belongs to the subgenus *Platynectes* (*Gueorguievtes*) and it has eight testaceous longitudinal bands on the elytra. However, it is distinct from almost all other known species because of the distinctly broader basal

testaceous band and its larger size. From *P. ranongensis* Štátný it can be easily distinguished by the distinctly impressed reticulation on the base of the elytra, which is absent in *P. ranongensis*, by its somewhat larger size and by the structure of the aedeagus.

***Platynectes (Gueorguievtes) njai* Brancucci, 2008**

Platynectes (Gueorguievtes) njai Brancucci, 2008: 21.

Additional material studied. LAOS, Houa Phan Prov., Phou Pan, Ban Saleui, Xam Neua, 27.IV.2007, Yûji, Katayama (1 ex., ELEU; 1 ex., NHMB)

Description of ♀. Similar to ♂. Microsculpture of dorsal side distinctly more impressed, the meshes on elytra are elongate, giving the surface a matt lustre. Pro and mesotarsi not dilated and without rounded pads. Anal sternite broadly rounded with some short furrows and numerous medium-sized punctures on posterior half.

Distribution. NE Laos, Hua Phan.

***Platynectes (Gueorguievtes) major* Nilsson, 1998**

Platynectes dissimilis major Nilsson, 1998: 114. – NILSSON (2001): 42.

Platynectes major Nilsson, 1998: ŠTÁSTNÝ (2003): 233.

Additional material studied. LAOS, Hua Phan prov., Xam Neua, Water Fall 5 km W of Ban Saleui, 1350m, 5.V.2002, M. Satô (1 ex., NHMB). Hua Phan prov., Phou Pane Mt., 20°13'N, 104°00'E, 1350–1500 m, 1.–16.vi.2009, M. Brancucci leg. (25 ex., NHMB). Hua Phan prov., Phou Pane Mt., 20°12–13'N, 103°59.5–104°01'E, 1340–1870 m, 10.–16.vi.2009, M. Brancucci & local collectors leg. (1 ex., NHMB). Xieng Khouang prov., 30km NE Phonsavan : Ban Na Lam → Phou Sane Mt., 19°37–8'N 103°20'E, 1300–1500 m, 10.–30.v.2009, M.Brancucci leg. (7 ex., NHMB) . Saisombun, Nam Ja River, 19–21.III.2005, M. Satô (1 ex., ELEU). Saisombun, Mt. Phu Bia, 21.III.2005, M. Satô (6 ex., ELEU; 1 ex., NMHB). Champasak Prov., Dong Hua Xao NBCA, Tad Fane, 900m, 15°10' N / 106°07' E, 2.VI.2010, M. Geiser & D. Hauck leg. (3 ex., NHMB). Attapeu prov., Annam Highlands Mts., Dong Amphan NBCA, ca. 1160 m, Nong Fa [crater lake] env., 15°05.9'N, 107°25.6'E, 30.iv–6.v.2010, Jiří Hájek leg. 31 ex., NMPC)
N. THAILAND: Doi Inthanon, Maeo Khun Klang, 1350 m, 19.X.1983, M. Sakai (1ex., ELEU)
N. VIETNAM: Pass north of Mt. Phang Si Pang, 9.X.1994, M. Satô (1 ex., ELEU; 1 ex. NHMB)

Remarks. As stated in BRANCUCCI (2008) this species seems to be widely distributed in Laos and, as the localities cited here demonstrate, it is not restricted to northern Laos.

Distribution in Laos: Louang Prabang, Phongsaly, Houa Phan, Xieng Khouang, Champasak and Attapeu.

***Platynectes* sp.**

Material examined. ♀: “N. Vietnam, Pass north of Mt. Phang Si Pang, 9.X.1994, M. Satô” (1 ex., ELEU).

Remarks. This specimens undoubtedly belongs to a new species.

Modification of ŠŤASTNÝ'S key (2003)

- 8 Median lobe in lateral view markedly bent ventrally in apical 1/5 and broadly rounded at apex 8a
- Median lobe in lateral view more or less regularly curved, rounded at apex. China *P. nanlingensis* ŠŤastný
- 8a Length: 6.5–7.2 mm. Elytra with a broad subbasal testaceous band. 8b
- Length: 7.8 mm. Elytra with subbasal testaceous band narrow and interrupted sublaterally *P. njai* Brancucci
- 8b Length: 6.5–7.0 mm. Subbasal testaceous band interrupted laterally. Laos *P. nageli* sp.nov.
- Length: 6.9–7.2 mm. Subbasal testaceous band not interrupted laterally. Thailand, Yünnan *P. mazzoldi* ŠŤastný

Checklist of species of *Platynectes* Régimbart recorded from Laos

- P. (Gueorguievtes) major* Nilsson, 1998: Prov. Louang Prabang, Phongsaly, Houa Phan, Xieng Khouang, Champasak and Attapeu
- P. (Gueorguievtes) njai* Brancucci, 2008: Prov. Houa Phan
- P. (Gueorguievtes) nageli* sp.nov.: Prov. Bolikhamsay

Conclusion

Although much collecting has been carried out in Laos, the present study shows that there is still a great deal more to be done. *Platynectes major* Nilsson is undoubtedly widely distributed in Laos, at least at altitudes between 900 and 2100 m, but only a few specimens have so far been collected. Further collecting in Laos, particularly at different altitudes will surely reveal many more interesting species.

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