

Linzer biol. Beitr.	50/2	997-1004	17.12.2018
---------------------	------	----------	------------

A revision of *Pinobius*. II. Three new species from Cambodia and Indonesia, and additional records (Coleoptera: Staphylinidae: Paederinae)

Volker ASSING

A b s t r a c t : Three species of the dolicaonine genus *Pinobius* MACLEAY, 1871 are described and illustrated: *Pinobius acutus* nov.sp. (Cambodia) and *P. rossii* nov.sp. (Cambodia) of the *P. indicus* group, and *P. forcipifer* nov.sp. (Indonesia: Kalimantan Timur) of the *P. major* group. Additional records of six previously described species are reported, among them a new record from Cambodia. The genus now includes a total of 38 described species, 30 of which are represented in the southern Palaearctic, Oriental, and Australian regions.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Pinobius*, Palaearctic region, Oriental region, Australian region, Cambodia, Indonesia, new species, new records.

Introduction

According to a recent revision, *Pinobius* MACLEAY, 1871 of the Dolicaonina is distributed in the Afrotropical, the South Palaearctic, the Oriental, and the Australian regions and previously comprised a total of 35 described species. Twenty-seven of them had been recorded from the Palaearctic, Oriental, and Australian regions (ASSING 2014).

Material examined in the meantime included three new species and additional records of six previously described species.

Material and methods

The material treated in this paper is deposited in the following collections:

MMB.....Moravian Museum Brno (P. Baňar)
 MZUF Museo di Zoologia, Università di Firenze (L. Bartolozzi)
 NME Naturkundemuseum Erfurt (M. Hartmann, assisted by W. Apfel)
 NMP..... National Museum of Natural History, Praha (J. Hájek)
 cAss..... author's private collection
 cMat private collection Jan Matějčíček, Hradec Králové

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss), a Discovery V12 microscope (Zeiss), and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using a digital camera (Nikon Coolpix 995), Axiocam ERc 5s, and Picolay software.

Body length was measured from the anterior margin of the mandibles (in resting position) to the posterior margin of tergite VIII, the length of the forebody from the anterior margin of the mandibles (in resting position) to the posterior margin of the elytra, head length from the anterior margin of the frons to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process, from the apex of the apical structures, or from the apex of the dorsal plate (whichever forms the apex of the aedeagus) to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Results

Pinobius tonkinensis (CAMERON, 1946)

Material examined: Thailand: 2♂♂, 1♀, Lamphun, Ban Lam Chan, Tambon, Phla Tu Pa, light trap, 23.X.2016, leg. Rossi (cAss). Laos: 2♂♂, 1♀, Khammouane prov., Nakai env., 17°34'N, 105°10'E, 500 m, 14-18.IV.2017, leg. Hergovits (MMB, cAss).

Comment: *Pinobius tonkinensis* is one of the most widespread and common species of the genus, its distribution ranging from Myanmar and China to Malaysia and Indonesia (ASSING 2014).

Pinobius robustus (KRAATZ, 1859)

Material examined: Nepal: 1♂, 1♀, Narayani province, Chitwan district, Sauraha, Rapti River near Hotel Riverside, 27°34'N, 84°30'E, 160 m, 7.VII.2009, leg. Weigel (NME, cAss).

Comment: This species has been recorded only from Nepal and India (ASSING 2014).

Pinobius sparsiventris (FAUVEL, 1886)

Material examined: Vietnam: 1♂, Ninh Binh Prov., Cuc Phuong National Park, 20°15'N, 105°43'E, 200 m, at light, 3-5.V.2014, leg. Bartolozzi et al. (MZUF).

Comment: Like *P. tonkinensis*, *P. sparsiventris* is widespread across the Oriental region, from Myanmar to Indonesia and the Philippines (ASSING 2014).

Pinobius brevincisus ASSING, 2014

Material examined: Cambodia: 18♂♂, 26♀♀, Kampong Chhnang prov., Kampong Chhnang env., Domnatpopol near Toul Ompel vill., banks of branch of Tonle Sap lake, 12°14'N, 104°41'E, light trap, 19 & 21.V.2018, leg. Bernardi, Kong & Rossi (cAss); 2♂♂, 3♀♀, Kampong Chhnang prov., Rolea B'ier distr., Chreybak near Ourung vill., 12°11'59"N, 104°37'03"E, light trap, 20 & 23.V.2018, leg. Bernardi, Kong & Rossi (cAss).

Comment: The original description is based on a unique male from Vietnam (ASSING 2014). The above material represents the first records from Cambodia.

Pinobius mastersii MACLEAY, 1871

Material examined: Australia: Northern Territory: 4 exs., 40 km W Katherine, 13°15'S,

130°44'E, 60 m, 28.XI.2008, leg. Bílý (NMP, cAss); 1 ex., 70 km SW Mataranka, 15°19'S, 132°50'E, 190 m, 14.-15.I.2009, leg. Bílý (NMP). Western Australia: 4 exs., Kimberley, Home Valley St., 15°42'S, 129°33'E, 7 m, 30.XI.2008, leg. Bílý (NMP, cAss).

C o m m e n t : This species was previously known from Northern Territory and Queensland, North and Northeast Australia (ASSING 2014). The above material from Kimberley represents the first record from Western Australia.

***Pinobius alatus* (LEA, 1923)**

M a t e r i a l e x a m i n e d : Australia: Northern Territory: 1♀, McDonell National Park, Serpent Gorge, 24°45'S, 132°59'E, 715 m, 5.I.2009, leg. Bílý (NMP); 1♀, Kakadu National Park, Jim Jim Billabong, 12°56'S, 132°33'E, 5 m, 5.-8.XII.2008, leg. Bílý (NMP); 1♀, 40 km W Katherine, 13°15'S, 130°44'E, 60 m, 28.XI.2008, leg. Bílý (cAss); 1♀, Katherine env., 10.-14.I.2004 (cMat).

C o m m e n t : The known distribution of *P. alatus* is confined to Northern Territory and Queensland, North and Northeast Australia (ASSING 2014).

***Pinobius acutus* nov.sp. (Figs 1-4)**

T y p e m a t e r i a l : Holotype ♂: "CAMBODIA - Kampong Chhnang prov., Kampong Chhnang env., Toul Ompel, 12°14'14"N, 104°41'15"E, light trap, 19+21.V.2018, leg. Bernardi, Kong & Rossi / Holotypus ♂ *Pinobius acutus* sp.n., det. V. Assing 2018" (cAss). Paratypes: 1♂, 1♀: same data as holotype (cAss).

E t y m o l o g y : The specific epithet (Latin, adjective) alludes to the apically conspicuously acute median lobe of the aedeagus.

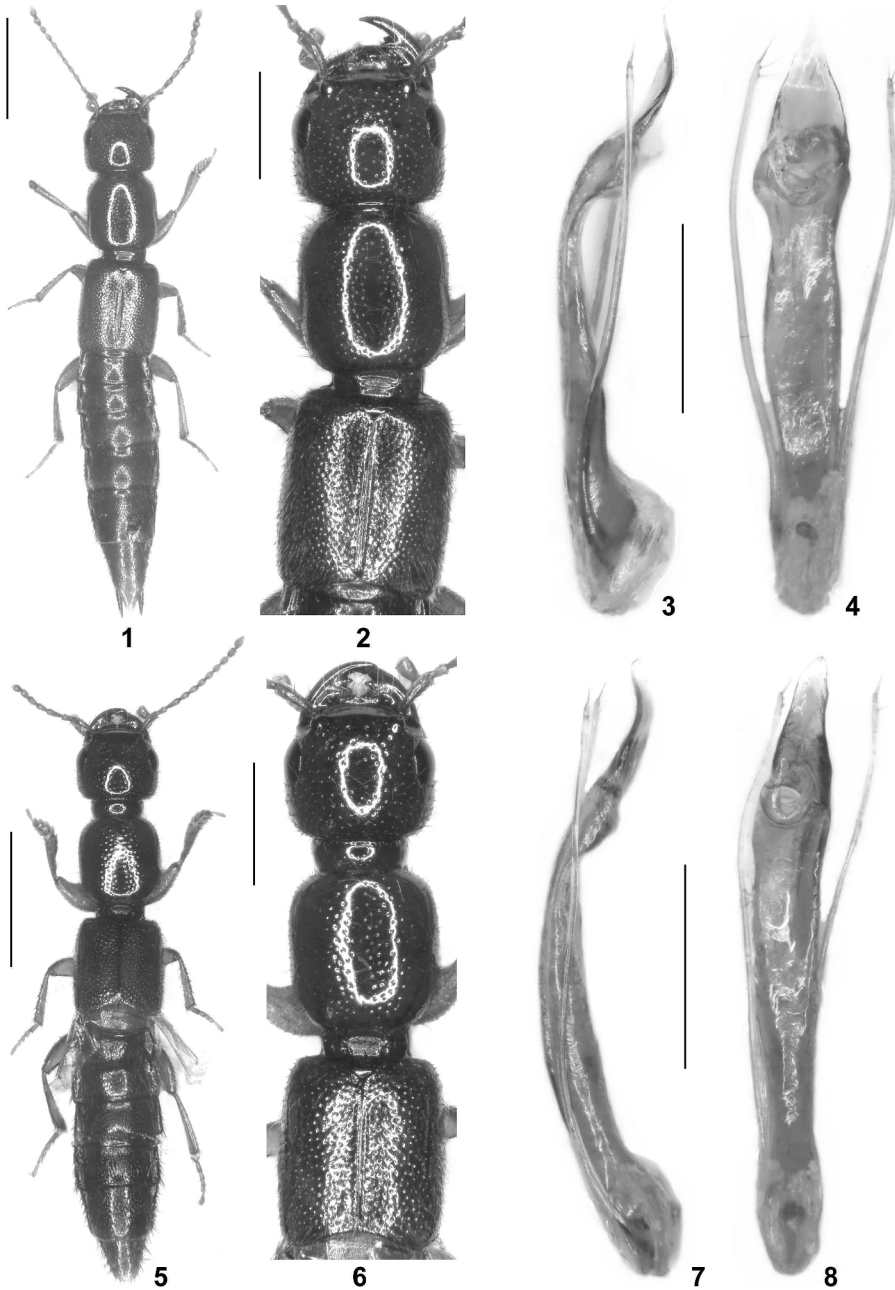
D e s c r i p t i o n : Body length 9.1-10.8 mm; length of forebody 4.9-5.3 mm. Habitus as in Fig. 1. Coloration: head and pronotum reddish-brown to dark-brown; elytra reddish with the anterior portion diffusely darker; abdomen reddish-brown to dark-brown; legs yellowish-red; antennae dark-reddish.

Head (Fig. 2) 1.17-1.22 times as broad as long, broadest across eyes, relatively larger in the two males than in the female; lateral margins behind eyes subparallel or weakly tapering posteriad in dorsal view; punctation moderately coarse and moderately dense, somewhat sparser in median dorsal portion; interstices without microsculpture except for sparse and irregularly distributed micropunctation. Eyes slightly longer than postocular region in dorsal view. Antenna approximately 2.5 mm long.

Pronotum (Fig. 2) approximately 1.05 times as long as broad and 0.9-1.0 times as broad as head; lateral margins subparallel; punctation relatively fine and moderately dense; interstices without micropunctation or other microsculpture; midline with moderately broad impunctate band.

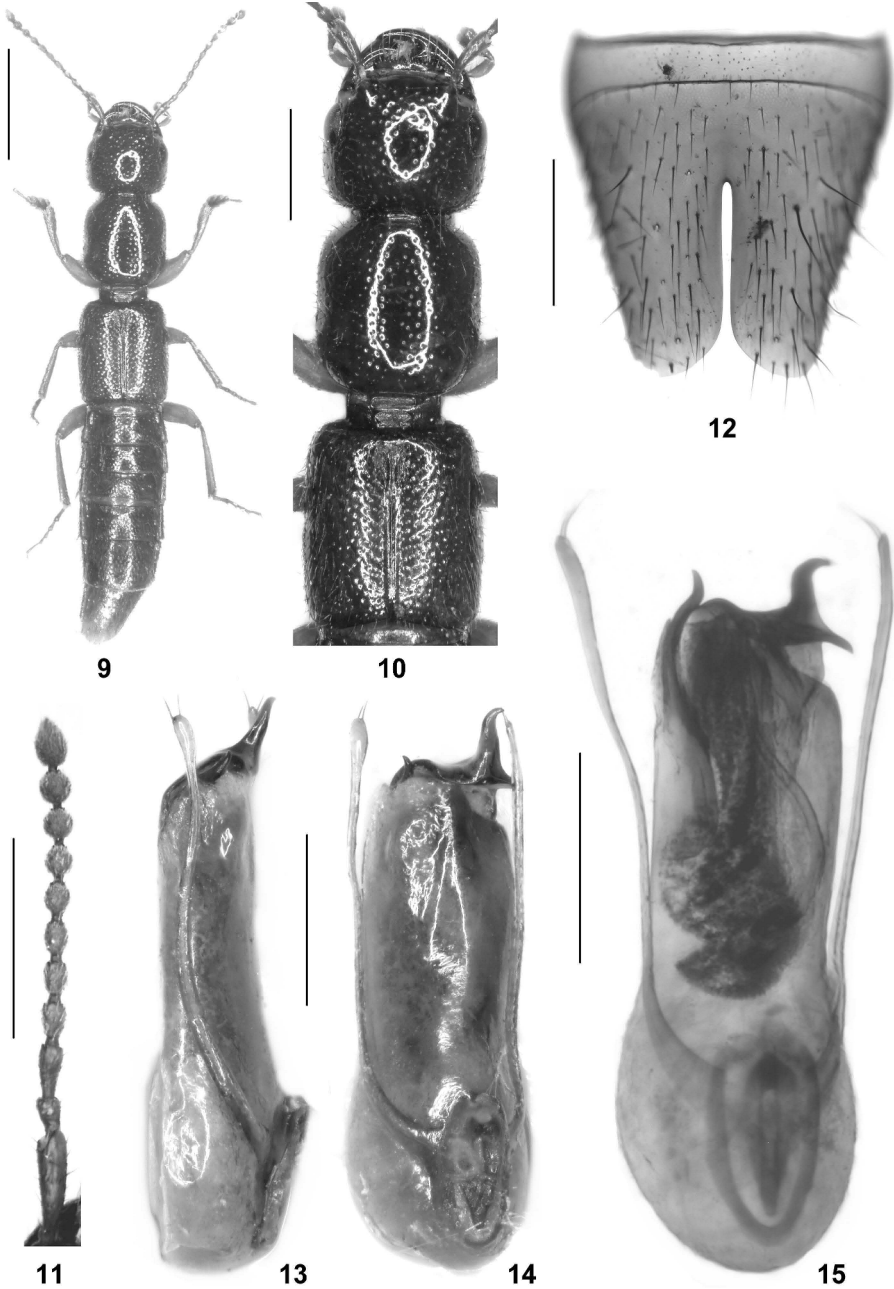
Elytra (Fig. 2) approximately as long as, or slightly longer than pronotum; punctation dense; interstices without microsculpture. Hind wings fully developed. Metatarsomere I slightly longer than the combined length of II and III.

Abdomen narrower than elytra; punctation fine and rather dense; interstices with fine microsculpture; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII strongly convex.



Figs 1-8: *Pinobius acutus* nov.sp. (1-4) and *P. rossii* nov.sp. (5-8): (1, 5) habitus; (2, 6) forebody; (3-4, 7-8) aedeagus in lateral and in ventral view. Scale bars: 1, 5: 2.0 mm; 2, 6: 1.0 mm; 3-4, 7-8: 0.5 mm.

1001



Figs 9-15: *Pinobius forcipifer* nov.sp.: (9) habitus; (10) forebody; (11) antenna; (12) male sternite VIII; (13-14) aedeagus in lateral and in ventral view; (15) aedeagus in transparent light in ventral view. Scale bars: 9: 2.0 mm; 10-11: 1.0 mm; 12-15: 0.5 mm.

♂: protarsomeres I-IV strongly dilated; sternite VII unmodified; sternite VIII with narrow and deep posterior excision; aedeagus (Figs 3-4) 1.6 mm long, slender, and slightly asymmetric; median lobe of distinctive shape, with acute and transparent apex, in lateral view strongly curved and lamellate apically; parameres thin, of subequal length, not reaching apex of median lobe, and apically with four setae.

♀: protarsomeres I-IV strongly dilated, only slightly less so than in male.

Comparative notes: Based on the external and male sexual characters, *P. acutus* belongs to the *P. indicus* group (see ASSING 2014). It is reliably distinguished from other species of this group only by the distinctive shape of the aedeagus.

Distribution and natural history: The type locality is situated near Kampong Chhnang in the estuary of the effluent of Tonle Sap lake, Cambodia. The specimens were collected with a light trap, together with *P. brevincisus* and *P. rossii*.

***Pinobius rossii* nov.sp. (Figs 5-8)**

Type material: Holotype ♂: "CAMBODIA - Kampong Chhnang prov., Kampong Chhnang env., Toul Ompel, 12°14'14"N, 104°41'15"E, light trap, 19+21.V.2018, leg. Bernardi, Kong & Rossi / Holotypus ♂ *Pinobius rossii* sp.n., det. V. Assing 2018" (cAss).

Etymology: This species is dedicated to Walter Rossi (L'Aquila), in appreciation for the generous gift of all the *Pinobius* material treated in the present paper.

Description: Body length 8.5 mm; length of forebody 4.5 mm. Habitus as in Fig. 5. Coloration: forebody dark reddish-brown; abdomen dark-reddish with segments VI and VII somewhat infusate; reddish-brown to dark-brown; legs dark-yellowish; antennae pale-reddish.

Head (Fig. 6) 1.15 times as broad as long, broadest across eyes; lateral margins behind eyes weakly tapering posteriorly in dorsal view; punctation moderately coarse and moderately sparse, somewhat sparser in median dorsal portion; interstices without microsculpture except for scattered micropunctation. Eyes somewhat longer than postocular region in dorsal view. Antenna approximately 2.3 mm long.

Pronotum (Fig. 6) 1.07 times as long as broad and approximately as broad as head; lateral margins weakly convex in dorsal view; punctation similar to that of head; midline with moderately broad impunctate band.

Elytra (Fig. 6) approximately as long as pronotum; punctation dense; interstices without microsculpture. Hind wings fully developed. Metatarsomere I approximately as long as the combined length of metatarsomeres II and III.

Abdomen narrower than elytra; punctation fine and rather dense; interstices with fine microsculpture; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII strongly convex.

♂: protarsomeres I-IV strongly dilated; sternite VII unmodified; sternite VIII with narrow and deep posterior excision; aedeagus (Figs 7-8) 1.5 mm long, slender, and asymmetric; median lobe of distinctive shape, strongly curved in lateral view, somewhat asymmetric in ventral view, and with transparent apex; parameres thin, of subequal length, not reaching apex of median lobe, and apically with four setae.

♀: unknown.

Comparative notes: Like *P. acutus*, *P. rossii* belongs to the *P. indicus*

group and, based on the similar modifications of the aedeagus (slender, strongly curved, and somewhat asymmetric median lobe with a transparent apex), it is evidently closely allied to *P. acutus*. It is reliably distinguished from other species of the *P. indicus* group only by the distinctive shape of the aedeagus. It additionally differs from the syntopic *P. acutus* and *P. brevincisus* as follows:

from *P. acutus* by smaller size, a relatively smaller and less transverse head, and by coarser and less dense punctuation of the pronotum;

from *P. brevincisus* by slightly larger size and slightly longer elytra.

Distribution and natural history: The type locality and other collection data are identical to those of *P. acutus*.

***Pinobius forcipifer* nov.sp. (Figs 9-15)**

Type material: Holotype ♂: "Indonesia, E Kalimantan, ca. 55 km W of Balikpapan, PT Fajar Surya Swadaya (area), 01°18.3'S, 116°21.0'E, 100 m, J. Hájek, J. Schneider & P. Votruba leg. / border of *Acacia mangium* plantation and primary rainforest, stream and waterfall [sic], puddles, individually collecting, + light trap / Holotypus ♂ *Pinobius forcipifer* sp. n., det. V. Assing 2015" (NMP). Paratypes: 2♂♂, 2♀♀, same data as holotype (NMP, cAss).

Etymology: The specific epithet (from forceps: pliers, forceps) is an adjective alluding to the shape of the apex of the dorsal plate.

Description: Body length 9.5-10.0 mm; length of forebody 4.9-5.4 mm. Habitus as in Fig. 9. Coloration: head and pronotum dark-brown; elytra reddish to dark-reddish, with the anterior and lateral portions darker; abdomen dark-brown with reddish apex (segments VIII-X); legs pale-brown; antennae dark-reddish.

Head (Fig. 10) moderately transverse, approximately 1.15 times as broad as long; lateral margins behind eyes subparallel in dorsal view; punctures of variable sizes and moderately dense, somewhat sparser in median dorsal portion; interstices without microsculpture, except for indistinct micropunctures. Eyes weakly convex and approximately as long as postocular region in dorsal view. Antenna (Fig. 11) 2.6-2.8 mm long; antennomeres IV-VI weakly oblong; VII approximately as long as broad; VIII-X weakly transverse.

Pronotum (Fig. 10) weakly oblong, approximately 1.05 times as long as broad and as broad as head; punctuation similar to that of head; interstices without microsculpture; midline moderately broadly impunctate.

Elytra (Fig. 10) nearly as long as pronotum; punctuation defined, denser than that of pronotum. Hind wings fully developed. Metatarsomere I slightly longer than the combined length of metatarsomeres II and III.

Abdomen narrower than elytra; punctuation fine and rather dense; interstices with shallow microreticulation; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII strongly convex posteriorly.

♂: protarsomeres I-IV strongly dilated; sternite VII not distinctly modified; sternite VIII (Fig. 12) approximately as broad as long, posterior incision narrow and deep, its depth approximately 0.6 times the length of sternite; aedeagus (Figs 13-15) 1.6-1.7 mm long (measured from apex of dorsal plate), dorso-ventrally flattened, and asymmetric; ventral process apically obliquely bisinuate in ventral view; dorsal plate apically with a conspicuous and asymmetric bifid process; parameres slender and of subequal length, apically

extending approximately to apex of dorsal plate, left paramere (ventral view) somewhat dilated apically; internal sac with a long, rather stout, strongly sclerotized, and somewhat S-shaped apical structure on the left (ventral view) and a slightly shorter, more slender, weakly sclerotized, and simply curved structure in more basal position on the right.

♀: protarsomeres I-IV strongly dilated, only slightly less so than in male.

Comparative notes: *Pinobius forcipifer* belongs to the *P. major* group and is distinguished from all its congeners particularly by the conspicuous shape of the dorsal plate of the aedeagus. Regarding its male sexual characters, it is most similar to *P. firmilobatus* ASSING, 2014 (Southeast Asia from Thailand to Borneo) and *P. baculatus* ASSING, 2014 (Java, Sumba), from which it additionally differs by a slightly less robust habitus with a less transverse head and a more distinctly oblong pronotum, by relatively shorter, more slender, less strongly sclerotized, and differently shaped parameres (*P. firmilobatus*), and by a deeper posterior incision of the male sternite VIII (*P. baculatus*).

Distribution and natural history: The type locality is situated in Kalimantan Timur, southeastern Borneo. The specimens were collected at the border between an *Acacia mangium* plantation and a primary rainforest at an altitude of 100 m.

Acknowledgements

I am indebted to the colleagues indicated in the material section for the loan of material and in particular to Walter Rossi (L'Aquila) for the generous gift of numerous Staphylinidae from Cambodia. Benedikt Feldmann (Münster) proof-read the manuscript.

Zusammenfassung

Drei Arten der Gattung *Pinobius* MACLEAY, 1871 werden beschrieben und abgebildet: *Pinobius acutus* nov.sp. (Kambodscha) und *P. rossii* nov.sp. (Kambodscha) aus der *P. indicus*-Gruppe sowie *P. forcipifer* nov.sp. (Indonesien: Kalimantan Timur) aus der *P. major*-Gruppe. Weitere Nachweise von sechs Arten werden gemeldet, darunter ein Erstnachweis aus Kambodscha. Die Gattung enthält derzeit 38 beschriebene Arten, von denen 30 in der südlichen Paläarktis, der Orientalis und der Australis vorkommen.

Reference

ASSING V. (2014): A revision of the species of *Pinobius* MACLEAY, 1871 of the Oriental, Palaearctic, and Australian Regions (Coleoptera: Staphylinidae: Paederinae). — Koleopterologische Rundschau **84**: 115-191.

Author's address:

Dr. Volker ASSING
Gabelsbergerstr. 2
D-30163 Hannover, Germany
E-mail: vassing.hann@t-online.de