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A revision of Palaearctic and Oriental *Rugilus*. VI. Two new species from China, a new synonymy, and additional records (Coleoptera, Staphylinidae, Paederinae)

Volker ASSING

A b s t r a c t : Two species of *Rugilus* LEACH, 1819 from China are described and illustrated: *R. (Rugilus) reuteri* nov.sp. (North Sichuan) and *R. (R.) gryps* nov.sp. (West Sichuan: Gongga Shan). Additional records of 27 previously described species, 18 of the nominal subgenus, seven of *Eurystilicus* FAGEL, 1853, and two without subgeneric assignment, are reported from the Palaearctic and Oriental regions, among them six new country records from Pakistan (3), Lebanon (1), India (1), and Cambodia (1). A new synonymy is proposed: *Rugilus arabs* (SAULCY, 1865) = *R. couloni* (DRUGMAND, 1989), nov.syn. The preoccupied name *Rugilus rugosissimus* ASSING, 2015 is replaced with *R. asperimus* nov.nom. *Stilicus ovicollis* MACLEAY, 1873, a species erroneously transferred to *Rugilus* recently, is reassigned to *Scopaeus* ERICHSON, 1839. New illustrations of the male sexual characters of *R. prodoni* (COIFFAIT, 1982), *R. bagmaticola* ROUGEMONT, 1998, and *R. curvatus* ASSING, 2013 are provided. The distributions of the species of the *R. malaisei* group are mapped. Including the new species, *Rugilus* is now represented in the Palaearctic and Oriental regions by 102 species and one subspecies; 35 species are currently known from China.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Rugilus*, Palaearctic region, Oriental region, China, Sichuan, new species, new synonym, new combination, replacement name, new records, distribution map.

Introduction

According to ASSING (2015), the genus *Rugilus* LEACH, 1819 was represented in the Palaearctic and Oriental regions by 100 species and one subspecies in two subgenera, *Rugilus* sensu strictu and *Eurystilicus* FAGEL, 1853; three of the species are currently listed as *Rugilus* incertae sedis. In the meantime, an additional species has been described from China (HU et al. 2015) and one species was moved from *Scopaeus* ERICHSON, 1839 to *Rugilus* by FRISCH (2016).

As many as 32 species have been reported from China, 25 of the subgenus *Rugilus*, all of them with more or less restricted distributions, except for the Middle Asian *R. capitalis* (GEMMINGER & HAROLD, 1868), and seven species of *Eurystilicus*, five of them widespread, one confined to Sichuan, and one doubtfully recorded from China. The provinces with the greatest diversity of *Rugilus* sensu strictu species are Yunnan (13, 12 exclusive) and Sichuan (7, 5 exclusive), followed by Shaanxi (5), Hubei (3), Jiangxi (1), Gansu (1), Henan (1), Guizhou (1), and Xinjiang (1) (ASSING 2012a, 2012b, 2013, 2015).

The present paper is based on material that has become available since the latest supple-

ment to the revision (ASSING 2015). This material included two undescribed species from the Chinese province Sichuan and additional records of 26 previously described species, 17 of the subgenus *Rugilus*, seven of *Eurystilicus*, and two without subgeneric assignment.

Material and methods

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

- CAS..... Chinese Academy of Sciences, Beijing
 CNC Canadian National Collection of Insects, Arachnides, and Nematodes, Ottawa (A. Brunke)
 MNB Museum für Naturkunde, Berlin (J. Frisch)
 MSNF..... Museo di Storia Naturale, Firenze (L. Bartolozzi)
 NME..... Naturkundemuseum Erfurt (M. Hartmann, assisted by W. Apfel)
 NMP..... National Museum of Natural History, Praha (J. Hájek)
 SDEL..... Senckenberg Deutsches Entomologisches Institut, Müncheberg (L. Behne)
 SMNS..... Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller)
 SMTD Staatliches Museum für Tierkunde, Dresden (O. Jäger)
 ZFMK Zoologisches Forschungsmuseum Alexander Koenig, Bonn (D. Ahrens)
 cAss..... author's private collection
 cFel private collection Benedikt Feldmann, Münster
 cKoc private collection Matuš Kocian, Praha
 cLan private collection Frank Lange, Niedernhausen
 cMat private collection Jan Matějčíček, Hradec Králové
 cSha..... private collection Alexey Shavrin, Daugavpils
 cSme..... private collection Aleš Smetana, Ottawa

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), a photographing device constructed by Arved Lompe (Nienburg), and Axiocam ERc 5s. The map was created using MapCreator 2.0 (primap) software.

Body length was measured from the anterior margin of the mandibles (in resting position) to the abdominal apex, the length of the forebody from the anterior margin of the mandibles 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 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

Rugilus (Rugilus) angustatus (GEOFFROY, 1785)

Material examined: Lebanon: 1 ex., Rayfoun, 33°58'N, 35°42'E, 990 m, mixed oak forest, pitfall trap, III.2015, leg. Reuter (cFel); 1 ex., same data, but 31.III.-9.IV.2016 (cFel); 1♂, same data, but 22.IV.-30.V.2016 (cFel); 1♂, 1 ex., same data, but 30.III.-14.IV.2017 (cFel).

Comment: The above specimens represent the first records of this species from Lebanon.

Rugilus (Rugilus) arabs (SAULCY, 1865)

Stilicus couloni DRUGMAND, 1989: 110 ff., **nov.syn.**

Comment: The original description of *Stilicus couloni* is based on a male holotype and three female paratypes from "Israël: Tel Dan" (DRUGMAND 1989). An earlier attempt of clarifying the status of this doubtful name was unsuccessful because the type material was not found (ASSING 2012a). Recently, however, ANLAŞ (2017) retrieved this type material on the occasion of a visit to the natural history museum in Brussels. He re-described the type material, compared it with *R. orbiculatus* (PAYKULL, 1789), and provided illustrations of external and the male sexual characters. Based on these illustrations, especially those of the aedeagus, *S. couloni* is neither similar nor closely allied to *R. orbiculatus*, but undoubtedly conspecific with *R. arabs*. Remarkably, ANLAŞ (2017) reported specimens of *R. arabs* from Turkey and Lebanon in the same paper, which raises doubts regarding their identity.

Rugilus (Rugilus) orbiculatus (PAYKULL, 1789)

Material examined: Pakistan: 1♂, Islamabad, Hillside road, Margalla Hills, 33°43'N, 73°03'E, 600 m, light trap, 20.VI.-20.VII.2011, leg. Sabatinelli (cMat).

Comment: The above male represents the first record of this widespread and common species from Pakistan.

Rugilus (Rugilus) dilutipes (REITTER, 1884)

Material examined: Greece: 1♀, N Konitsa, Nikanor, 31.V.2014, leg. Bialooki (cKoc); 2♂♂, Peloponnisos, Taygetos, Maganiari Vavaras Bk., 36°58'N, 22°23'E, 15.V.2007, leg. Starke (cFel).

Comment: *Rugilus dilutipes* is common in Greece.

Rugilus (Rugilus) korbi (FAUVEL, 1900)

Material examined: Iran: 1♂, Gilan province, Rezvanshahr county, 37.47°N, 48.82°E, 1150 m, deciduous forest, 9.V.2017, leg. Lange (cAss); 1♀, same data, but 1140 m (cLan).

Comment: The distribution of *R. korbi* ranges from East Azerbaijan to North Iran, where it is not uncommon. For a distribution map see ASSING (2011).

***Rugilus (Rugilus) smetanai* ROUGEMONT, 1998**

Material examined: Nepal: 1♂, SW-Manaslu, Bhara Pokhari Lekh, below Bhara Pokhari Lake, 2500 m, litter sifted, 2.IV.1999, leg. Jäger (SMTD).

Comment: The distribution of this macropterous species is confined to the Annapurna and Manaslu ranges (ASSING 2012a, 2013).

***Rugilus (Rugilus) morvani* (ROUGEMONT, 1987)**

Material examined: Nepal: 2 exs., Kali Gandaki valley, W Lete, 28°37'N, 83°36'E, 2650-2750 m, *Rhododendron-Tsuga* forest, sifted, 28.V.2002, leg. Jäger (SMTD, cAss); 1♂, Dhaulagiri, S-slope, N Banduk vill., 28°28'N, 83°35'E, 1900-2300 m, 6.V.2009, leg. Schmidt (NME).

Comment: *Rugilus morvani*, like *R. smetanai* a macropterous species, is endemic to the Dhaulagiri range (ASSING 2012a, 2013).

***Rugilus (Rugilus) gogonensis* (COIFFAIT, 1978)**

Material examined: Nepal: 1♂, Kongma Danda, Kongma env., 27°39'N, 87°13'E, 3800 m, 14.+25.V.2014, leg. Schmidt (NME).

Comment: The distribution of this species is confined to East Nepal and West Bengal. For previous records see ASSING (2012a, 2013).

***Rugilus (Rugilus) gracilis* (EPPELSHEIM, 1895)**

Material examined: India: 1♂, Uttarakhand, 14 km E Uttarkashi, 30°45'N, 78°34'E, 1450 m, 10.-12.IV. 2012, leg. A. Shavrin (cSha); 1♂, Uttarakhand, Uttarkashi distr., N Gangnani, 30°45'N, 78°34'E, 13.-15.IV. 2012, leg. A. Shavrin (cAss).

Comment: *Rugilus gracilis* is the most widespread Himalayan *Rugilus* sensu strictu species, its distribution ranging across the South Himalaya from Pakistan to West Bengal (ASSING 2012a, 2013, 2014).

***Rugilus (Rugilus) longiparameris* ROUGEMONT, 1998**

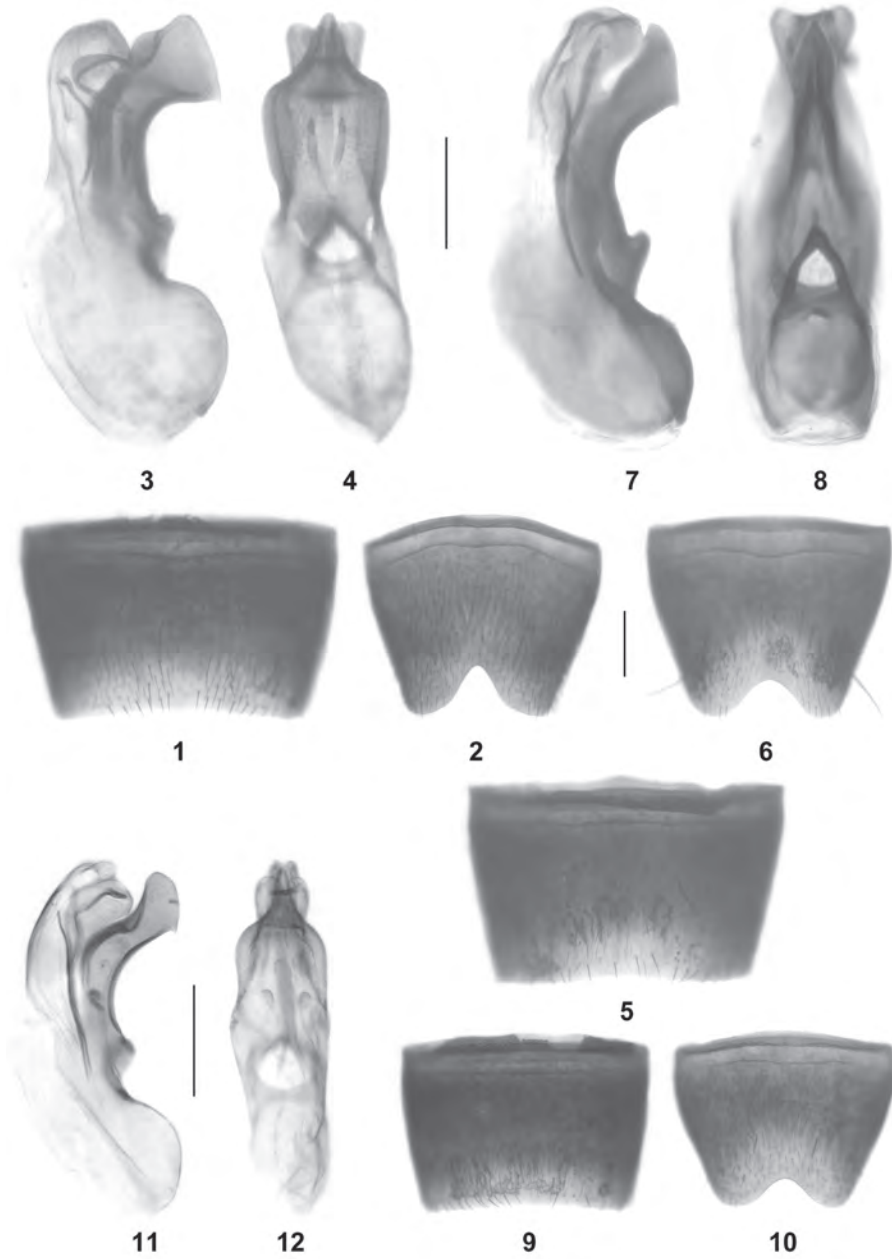
Material examined: Nepal: 16 exs., Arun valley, Tashigaon env., 27°37'N, 87°14'E, 2200-2400 m, 12.+28.-29.V.2014, leg. Schmidt (NME, cAss).

Comment: The above specimens represent the first record since the original description, which is based on type material from two localities near Tashigaon and one near Sheduwa in Khandbari District, East Nepal (ROUGEMONT 1998).

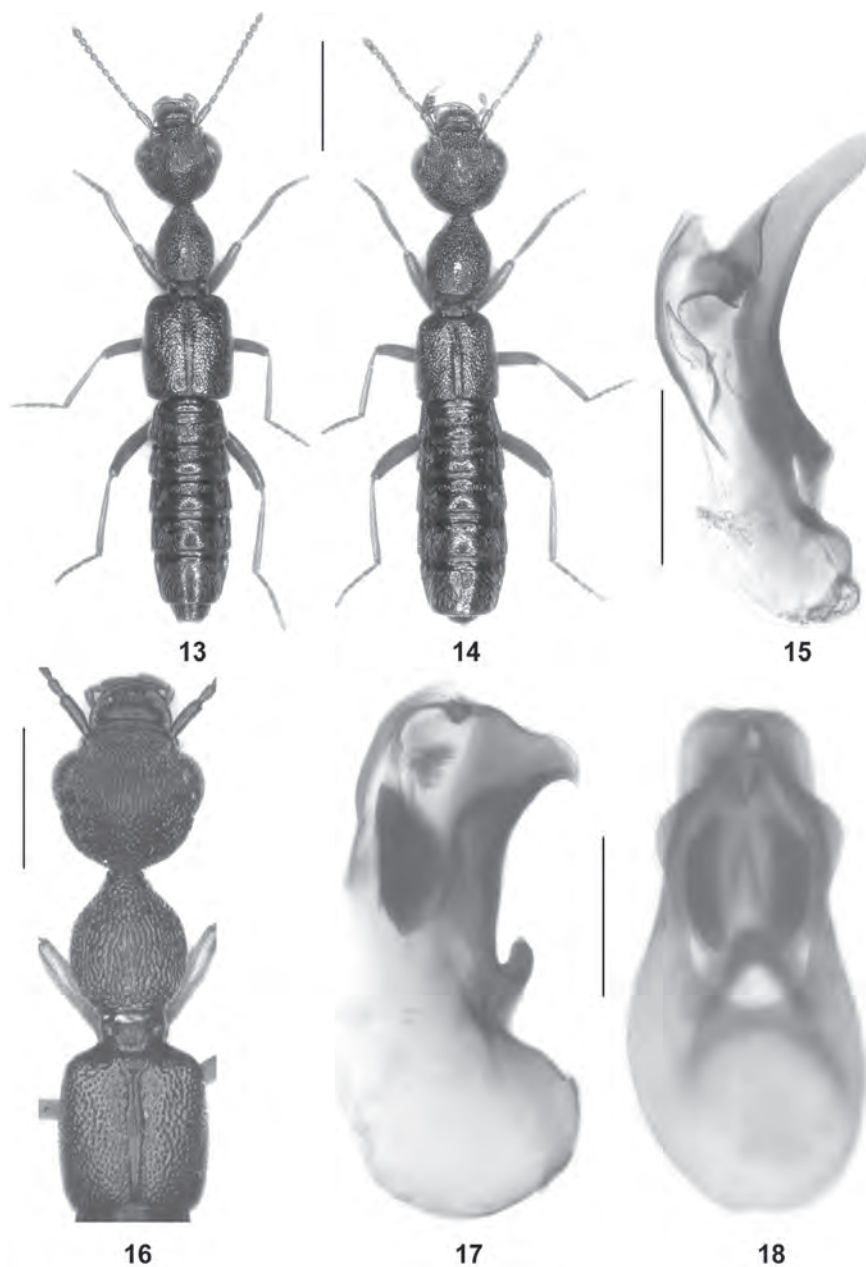
***Rugilus (Rugilus) prodoni* (COIFFAIT, 1982) (Figs 1-4)**

Material examined: Nepal: 1♂, Dolakha District, E Ting Sang La, 3100 m, 12-13.VI.2000, leg. Schawaller (SMNS).

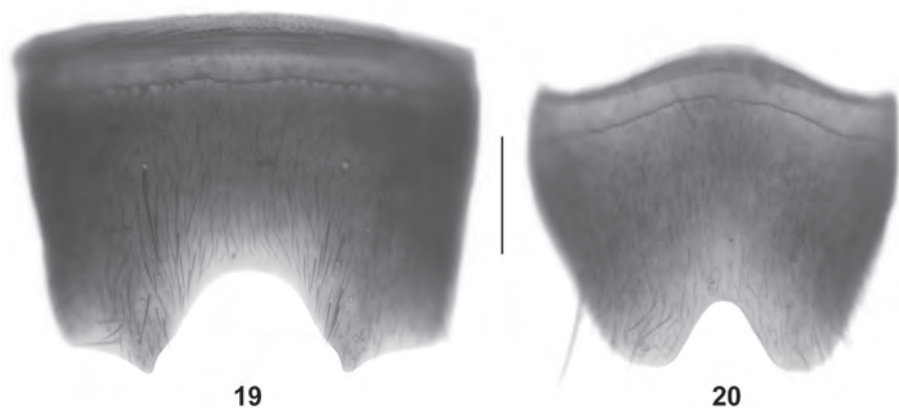
Comment: This species had been recorded from only two localities in Bagmati province (ROUGEMONT 1998). The above male was erroneously recorded as *R. bagmaticola* by ASSING (2012a). ROUGEMONT (1998) provided rough sketches of the aedeagus. For photos of the male primary and secondary sexual characters see Figs 1-4.



Figs 1-12: *Rugilus prodoni* (1-4), *R. bagmaticola* (5-8), and *R. curvatus* (9-12): (1, 5, 9) male sternite VII; (2, 6, 10) male sternite VIII; (3-4, 7-8, 11-12) aedeagus in lateral and in ventral view. Scale bars: 0.2 mm.



Figs 13-18: *Rugilus reuteri* (13-15) and *R. gryps* (16-18): (13) male habitus; (14) female habitus; (15, 17-18) aedeagus in lateral and in ventral view; (16) forebody. Scale bars: 13-14, 16: 1.0 mm; 15, 17-18: 0.2 mm.



Figs 19-20: *Rugilus gryps*: (19) male sternite VII; (20) male sternite VIII. Scale bar: 0.2 mm.



Fig. 21: Type locality of *Rugilus reuteri*. Foto: Christoph Reuter.

***Rugilus (Rugilus) bagmaticola* ROUGEMONT, 1998 (Figs 5-8)**

Material examined: Nepal: 1♂, Kathmandu, South slope of Mount Shivapuri, 27°48'33"N, 85°23'25"E, 2400-2600 m, 2.VI.2016, 27°49'N, 85°23'E, leg. Schmidt (NME).

Comment: The previous records of *R. bagmaticola* from the Annapurna range (ASSING 2012a) refer to *R. curvatus* and *R. prodoni* (see above). The male primary and

secondary sexual characters of *R. bagmaticola* are illustrated in Figs 5-8. The illustration of the aedeagus provided by ASSING (2012a: figure 36) refers to *R. prodoni*.

***Rugilus (Rugilus) curvatus* ASSING, 2013 (Figs 9-12)**

Material examined: Nepal: 2 exs., Annapurna, Sikles range, Nyauli Kharka S Sikles, 2400 m, 21.-24.IV.1996, leg. Schmidt (SDEI, cAss).

Comment: *Rugilus curvatus* is endemic to the Annapurna range (ASSING 2013, 2015). The above specimens were erroneously recorded as *R. bagmaticola* by ASSING (2012a). The male secondary sexual characters of one of the above specimens are illustrated in Figs 9-12.

***Rugilus (Rugilus) confluens* ASSING, 2012**

Material examined: China: 9♂♂, 15♀♀, Sichuan, NW Heishui, 32°11'N, 102°40'E, 3430 m, 14-20.VI.2018, leg. Reuter (cFel, cAss, MNB).

Comment: The distribution of the wing-dimorphic *R. confluens* includes Gansu and Sichuan, with a female-based record reported also from Northwest Yunnan (ASSING 2012a, 2013). For a distribution map see ASSING (2013). The above specimens, all of them wingless, were collected with pitfall traps.

***Rugilus (Rugilus) reticulatus* ASSING, 2012**

Material examined: China: 1♀, Shaanxi, Qinling Shan, 34°01'N, 107°52'E, 1700-2200 m, sifted, 17.V.2011, leg. Grebennikov (cSme).

Comment: The above female was collected together with the material of *R. reticulatus* recorded by ASSING (2015). In all, 71 specimens of this wing-dimorphic species have been studied so far, 16 (22.5 %) of which are males.

***Rugilus (Rugilus) reuteri* nov.sp. (Figs 13-15, 21)**

Type material: Holotype ♂: "China, N-Sichuan, Huanglong Shan, 2611 m, Sanluogou vill., 32°46'50"N, 103°55'25"E, 15-17.VI.2018, leg. Reuter / Holotypus ♂ *Rugilus reuteri* sp. n., det. V. Assing 2018" (cAss). Paratypes: 1♂, 3♀♀: same data as holotype (cFel, cAss).

E t y m o l o g y: This species is dedicated to Christoph Reuter (Hamburg), who collected the type series.

Description: Body length 4.9-5.8 mm; length of forebody 2.9-3.0 (♂♂) and 2.8-3.2 mm (♀♀). Habitus as in Figs 13-14. Coloration: body blackish; elytra with weak metallic hue; legs and antennae reddish.

Head approximately 1.05 times as broad as long, broadest across eyes; lateral margins behind eyes converging towards posterior constriction in almost straight line in dorsal view, posterior angles obsolete; punctation moderately coarse, very dense, areolate, and partly confluent. Eyes large and bulging, as long as distance from posterior margin of eyes to posterior constriction, or nearly so. Anterior margin of labrum with two teeth on either side of the median incision.

Pronotum small in relation to head, approximately 1.25 times as long as broad and 0.65 times as wide as head; midline with more or less distinct glossy longitudinal patch in posterior portion; punctation similar to that of head.

Elytra and hind wings sexually dimorphic (Figs 13-14); punctures dense, moderately coarse, and of variable size; interstices without microsculpture. Metatarsomere I approximately as long as the combined length of II and III.

Abdomen: tergites III-VI with moderately pronounced impressions anteriorly, these impressions with coarse, dense and irregular punctation; punctation of remaining tergal surfaces fine and dense; interstices on tergites III-VI with extremely shallow microsculpture visible only at high magnification (100 x), on tergite VII with slightly more distinct microreticulation; posterior margin of tergite VII with fully developed (♂♂) or rudimentary (♀♀) palisade fringe.

♂: elytra long (Fig. 13), approximately 1.15 times as long as pronotum; hind wings fully developed; sternite VII not distinctly modified; sternite VIII with moderately deep and rather broad posterior excision; aedeagus 0.55-0.58 mm long and shaped as in Fig. 15.

♀: elytra (Fig. 14) short, 0.84-0.94 times as long as pronotum; hind wings reduced.

Comparative notes: Based on the similar external (including the sexual wing dimorphism) and male sexual characters, *R. reuteri* is closely allied to *R. gansuensis* ROUGEMONT, 1998 (Gansu, Shaanxi), *R. daxuensis* ASSING, 2012 (Sichuan), and *R. emeimontis* ASSING, 2015 (Sichuan). It is externally identical to *R. daxuensis* and additionally distinguished from the other two species as follows:

from *R. gansuensis* by smaller body size, smaller and shorter male elytra, paler legs, and a less deep and broader posterior excision of the male sternite VIII;

from *R. emeimontis* by smaller body size, smaller and shorter male elytra, paler legs, a smaller and narrower pronotum with a less pronounced median glossy band on the pronotum, denser and more distinct punctation of the abdomen, and a less deep and broader posterior excision of the male sternite VIII.

For illustrations of *R. gansuensis*, *R. daxuensis*, and *R. emeimontis* see ASSING (2012a, 2015).

Distribution and natural history: The type locality (Fig. 21) is situated in the Huanglong Shan, North Sichuan, China. The specimens were collected with pitfall traps in a shady moist forest at the foot of a rock wall at an altitude of approximately 2610 m (REUTER pers. comm.).

***Rugilus (Rugilus) gonggaicus* ASSING, 2012**

Material examined: China: 1♂, 6♀♀, Sichuan, Gongga Shan, 29°52'N, 102°02'E, 3620 m, sifted, 12.VI.2011, leg. Grebennikov (CAS, cSme, cAss).

Comment: This species is endemic to the Gongga Shan. Only eleven (10.5 %) in a total of 105 specimens studied thus far are males (ASSING 2012a, 2015).

***Rugilus (Rugilus) emeiensis* ASSING, 2012**

Material examined: China: Sichuan: 5♀♀, Emei Shan, 29°33'N, 103°21'E, 2290 m, sifted, 16.VI.2010, leg. Grebennikov; 4♂♂, 9♀♀, Emei Shan, 29°33'N, 103°20'E, 2340 m, sifted, 17.VI.2010, leg. Grebennikov; 1♂, 21♀♀, Emei Shan, 29°33'N, 103°21'E, 2440 m, sifted, 18.VI.2010, leg. Grebennikov (material in CAS, cSme, cAss); 11♀♀, Emei Shan, Taiziping Temple, 29°32'N, 103°20'E, 2820 m, mixed forest with *Abies* and bamboo undergrowth, sifted, 8.&10.VI.2014, leg. Hájek & Růžička (NMP, cAss); 2♂♂, 1♀, Emei Shan, Jieyingdian Temple, 29°32'N, 103°20'E, 2480 m, bamboo and mixed forest, sifted, 7.VI.2014, leg. Hájek & Růžička (NMP, cAss); 1♀, Emei Shan, Jieyingdian Temple, 29°32'N, 103°20'E, 2420 m, secondary mixed

forest above temple, sifted, 10.VI.2014, leg. Hájek & Růžicka (NMP); 1♀, same data, but 8.VI.2014 (NMP); 1♀, Emei Shan, Leidongping env., 29°33'N, 103°20'E, 2410 m, bamboo, debris sifted, 9.VI.2014, leg. Hájek & Růžicka (NMP); 1♀, SSW Chengdu, Emei Shan, 2200-3000 m, pitfall trap, 22.-26.VI.2016, leg. Reuter (cFel).

C o m m e n t : Like most other Chinese representatives of the nominal subgenus, this endemic of the Emei Shan is subject to a sexual wing dimorphism (males macropterous; female brachypterous) and a biased sex ratio. Previously, only two in a total of 45 specimens studied were males (ASSING 2012a, 2012b, 2014, 2015). Including the new material, the sex ratio now stands at 0.1 (9 males: 94 females).

***Rugilus (Rugilus) schuelkei* ASSING, 2012**

M a t e r i a l e x a m i n e d : China: Y u n n a n : 3♂♂, 20♀♀, Haba Shan, 27°22'N, 100°06'E, 3270 m, sifted, 29.VI.2012, leg. Grebennikov; 1♀, Haba Shan, 27°21'N, 100°06'E, 4070 m, sifted, 28.VI.2012, leg. Grebennikov; 1♀, Haba Shan, 27°22'N, 100°07'E, 3360 m, sifted, 29.VI.2012, leg. Grebennikov (material in CAS, cSme, cAss).

C o m m e n t : The known distribution is confined to several localities in the environs of Zhongdian (ASSING 2012a, 2012b, 2015). This species, too, is subject to a sexual wing-dimorphism (males macropterous; females brachypterous) and a biased sex ratio. The ratio in the material studied up to today is 0.25 (13 males: 53 females).

***Rugilus (Rugilus) meilixuensis* ASSING, 2012**

M a t e r i a l e x a m i n e d : China: Y u n n a n : 5♂♂ [1 macropterous], 20♀♀, 15 km W Deqin, Mingyong, 28°27'N, 98°45', 3290 m, sifted, 29.VI.2012, leg. Grebennikov; 5♂♂ [2 macropterous], 17♀♀, 15 km W Deqin, Mingyong, 28°27'N, 98°45', 3260 m, sifted, 29.VI.2012, leg. Grebennikov (material in CAS, cSme, cAss).

C o m m e n t : All known records of *R. meilixuensis* are from the Meili Xue Shan (ASSING 2012a, 2012a, 2013). The above material confirms an earlier hypothesis (ASSING 2012a) that the males are indeed wing-dimorphic. Thus, this species is subject to a sexual wing-trimorphism (males macropterous or brachypterous with the elytra not dilated posteriorly; females brachypterous with the elytra shorter than in brachypterous males and dilated posteriorly). The sex ratio in the material studied up to today is 0.25 (11 males: 44 females); four males are macropterous, the remainder brachypterous.

***Rugilus (Rugilus) asperimus* nov.nom.**

Rugilus rugosissimus ASSING, 2015: 78 ff.; preoccupied.

C o m m e n t : Al Newton kindly drew my attention to the homonymy of *Rugilus rugosissimus* ASSING, 2015 with *Stilicis rugosissimus* FAGEL, 1953. The preoccupied name is here replaced with nomen novum *R. asperimus*.

***Rugilus (Rugilus) gryps* nov.sp. (Figs 16-20, Map 1)**

T y p e m a t e r i a l : Holotype ♂: "China: Sichuan Prov., Moxi env., Hailuoguo valley, Gonghe vill., 1715 m, 29°37'27"N, 102°06'28"E, / 17.-21.VI.2014, at light, in front of hotel, ruderals and gardens close to margin of mixed forest, J. Hájek, J. Růžicka & M. Tkoč leg. / Holotypus ♂ *Rugilus gryps* sp. n., det. V. Assing 2015" (NMP).

E t y m o l o g y : The specific epithet (Latin: griffin, also griffon or gryphon, a mythical creature with the head and wings of an eagle) is a noun in apposition. It alludes to the shape of the ventral process of the aedeagus, which somewhat resembles the beak of an eagle in lateral view.

Description: Body length 6.2 mm; length of forebody 3.8 mm. Coloration: head, pronotum, and abdomen blackish-brown; elytra dark-brown with slight bronze hue; legs dark-yellowish, with the apices of the meso- and metafemora indistinctly and narrowly darker; antennae pale-reddish, with antennomere I slightly darker red.

Head (Fig. 16) weakly transverse, 1.04 times as broad as long, broadest across eyes; margins behind eyes smoothly curving towards posterior constriction in dorsal view, posterior angles obsolete; punctuation coarse, largely longitudinally confluent. Eyes large and bulging, approximately 0.7 times as long as distance from posterior margin of eyes to posterior constriction. Anterior margin of labrum with two basally fused teeth on either side of the median incision.

Pronotum (Fig. 16) 1.15 times as long as broad and 0.75 times as wide as head; midline without impunctate, glossy band; punctuation similar to that of head.

Elytra (Fig. 16) 0.97 times as long as pronotum and with pronounced humeral angles; punctuation dense, moderately coarse, and defined; interstices glossy. Hind wings present. Metatarsomere I slightly longer than the combined length of II and III.

Abdomen approximately 0.9 times as broad as elytra; tergites III-VI with moderately pronounced impressions anteriorly, these impressions with coarse, dense and irregular punctuation; punctuation of remaining tergal surfaces fine and dense; interstices without distinct microsculpture; posterior margin of tergite VII with palisade fringe.

♂: sternite VII (Fig. 19) strongly transverse, approximately 1.4 times as broad as long, with shallow median impression, posterior margin with deep and broad excision, on either side of this excision acutely produced; sternite VIII (Fig. 20) approximately 1.15 times as broad as long, posterior excision 0.2 times as deep as length of sternite; aedeagus (Figs 17-18) small in relation to body size, 0.6 mm long, and of compact shape.

Comparative notes: Based on the similarly derived modifications of the male sternite VII (with large and nearly semi-circular posterior excision), the similarly derived morphology of the aedeagus (small, but robust; ventral process short and forming an angle with the basal portion; internal sac with large black sclerites), as well as the similar external characters, *R. gryps* belongs to the *R. malaisei* group, which previously included five species: *R. asperrimus* ASSING, nov.nom. (Guizhou), *R. wuyicus* ASSING, 2012 (Jiangxi), *R. desectus* ASSING, 2012 (Yunnan), *R. aquilinus* ASSING, 2012 (Sichuan), and *R. malaisei* (SCHEERPELTZ, 1965) (Burma). It is distinguished from them as follows:

from *R. asperrimus* and *R. wuyicus* by smaller size, a more slender body, paler antennae, a much less transverse head, much longer elytra, the presence of hind wings, the presence of a palisade fringe at the posterior margin of tergite VII, a deeper posterior excision of the less transverse male sternite VII and more acute projections on either side of this excision, and a slightly smaller aedeagus with a ventral process of slightly different shape,

from *R. wuyicus* additionally by the more confluent punctuation of the head and pronotum;

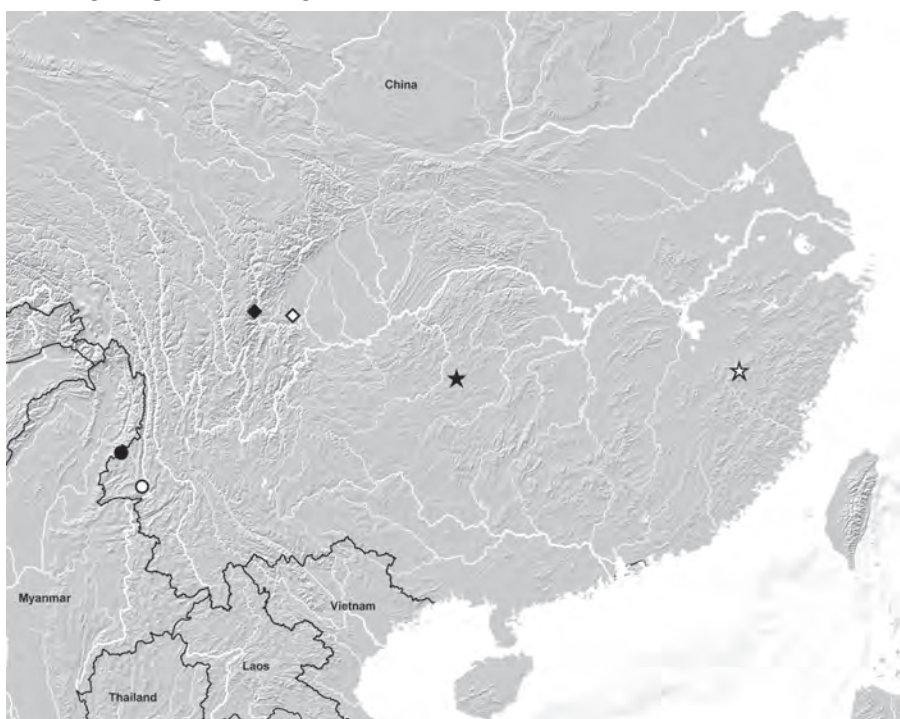
from *R. malaisei* by smaller size, a more slender head with larger and more bulging eyes, a more slender pronotum, a less transverse male sternite VII with a deeper posterior excision of different shape, and by the slightly different shape of the ventral process of the aedeagus;

from *R. desectus* by a slightly smaller body with a less transverse head and a more slender pronotum, a less deep posterior excision of the male sternite VII, and the completely different shape of the ventral process of the aedeagus;

from *R. aquilinus* by somewhat paler legs and antennae, a less transverse head, relatively longer elytra, a less transverse male sternite VII with a deeper posterior excision of different shape, and by the slightly different shape of the ventral process of the aedeagus.

For illustrations of the external and male sexual characters of *R. asperimus*, *R. wuyicus*, *R. aquilinus*, *R. desectus*, and *R. malaisei* see ASSING (2012a, 2012b, 2015). The distributions of the species of the *R. malaisei* group are illustrated in Map 1.

Distribution and natural history: The type locality is situated to the southeast of the Gongga Shan in Sichuan, China (Map 1). The holotype was collected with a light trap near the margin of a mixed forest at an altitude of 1715 m.



Map 1: Distributions of the species of the *Rugilus malaisei* group: *R. malaisei* (black circle); *R. desectus* (white circle); *R. gryps* (black diamond); *R. aquilinus* (white diamond); *R. asperimus* (black star); *R. wuyicus* (white star).

***Rugilus (Eurystilicus) ceylanensis* (KRAATZ 1859)**

Material examined: **Pakistan:** 2 exs., Islamabad, E7 Hillside road, 33°43'N, 73°03'E, 600 m, 1-15.IX.2012, leg. Sabatinelli (cMat, cAss); 1 ex., same data, but 15.IX.2011 (cMat). **India:** 1 ex., border Assam-Arunachal Pradesh, Bhalukpong, 27°01'N, 92°39'E, 150 m, flight interception trap, 1-8.V.2012, leg. Dembický (ZFMK). **Indonesia:** 4♂♂, Jawa Barat, Mount Halimun, 19-25.VIII.2009, leg. Majer (cAss); 1 ex., North Sumatra, Berastagi env., Sibayak Mt., 3°14'N, 98°30'E, 1800 m, 4-5.II.2001, leg. Kočárek (NMP).

C o m m e n t : *Rugilus ceylanensis* is the most widespread species of the genus, its vast distribution ranging from the Himalaya to the Philippines, Australia, Hawaii, and North America (ASSING 2012a, 2012b, 2013, 2014, 2015). The above specimens from Islamabad represent the first records from Pakistan.

***Rugilus (Eurystilicus) simlaensis* (CAMERON 1931)**

M a t e r i a l e x a m i n e d : Taiwan: 1 ex., Fenchihu, 1400 m, 3.VI.1977, leg. Klapperich (CNC); 2♀, Hualien, Guanyuan, 24°11'N, 121°20'E, 2460 m, pine forest, sifted, 1.VIII.2018 (cFel); 1♂, 1♀, Nantou, Ren'ai, 24°01'N, 121°12'E, 1950 m, deciduous forest, litter sifted, 27.VII.2018, leg. Hetzel (cFel, cAss).

C o m m e n t : The distribution of *R. simlaensis* ranges from the Himalaya across China to Laos, Thailand, and Taiwan (ASSING 2012a, 2012b, 2013, 2014, 2015).

***Rugilus (Eurystilicus) velutinus* (FAUVEL, 1895)**

M a t e r i a l e x a m i n e d : Nepal: 1 ex., Gandaki prov., Gorkha distr., Khorlabesi, 28°15'N; 84°53'E, 880 m, light trap, 10.V.2013, leg. Mattern (NME). India: 2 exs., Arunachal Pradesh, Etalin env., 28°37'N, 95°53'E, 700 m, flight interception trap, 12.-25.V.2012, leg. Dembický (ZFMK); 2♀, Uttarakhand, 14 km E Uttarkashi, 30°45'N, 78°34'E, 1450 m, 10.-12.IV.2012, leg. Shavrin (cAss). China: 1 ex., Sichuan, Emei Shan, Qingyin Temple, 29°34'N, 103°23'E, 700-1000 m, dead wood and rotten banana, 6.-10.VI.2014, leg. Hájek, Růžicka & Tkoč (NMP); 1 ex., Yunnan, Xishuangbanna, 23 km NW Jinghong, Na Ban env., 22°09'N, 100°40'E, 730 m, malaise trap, 10.X.2008, leg. Weigel (NME). Vietnam: 1 ex., Hoa Binh province, Pa Co Hang Kia Nature Reserve, 900 m, at light, 5-7.VI.2013, leg. Bartolozzi et al. (MSNF); 1 ex., Lao Cai province, Van Ban district, Van Ban Nature Reserve, 1000 m, at light, 23-26.V.2011, leg. Bartolozzi et al. (MSNF).

C o m m e n t : *Rugilus velutinus* is common and widespread in the southern East Palaearctic and Oriental regions. For a distribution map see (ASSING 2013).

***Rugilus (Eurystilicus) rufescens* (SHARP, 1874)**

M a t e r i a l e x a m i n e d : Russia: 1 ex., Maritime province, Khanka lake, 3.-8.VI.2008, leg. Vakhrushev et al. (cSha); 1 ex., Primorskiy Kray, Novocuguevka, 15.-20.VII.1990, leg. Boukal (cKoc).

C o m m e n t : Like the three preceding species, *R. rufescens* is widespread in the East Palaearctic region, its distribution extending from India to Japan and Singapore (ASSING 2012a, 2013, 2014, 2015).

***Rugilus (Eurystilicus) bifidus* ASSING, 2012**

M a t e r i a l e x a m i n e d : India: 2 exs., border Assam-Arunachal Pradesh, Bhalukpong, 27°01'N, 92°39'E, 150 m, flight interception trap, 1.-8.V.2012, leg. Dembický (ZFMK, cAss).

C o m m e n t : This species had been recorded from Myanmar and China (ASSING 2012a). The above specimens represent the first records from India.

***Rugilus (Eurystilicus) japonicus* WATANABE, 1961**

M a t e r i a l e x a m i n e d : Thailand: 1♂, Chiang Rai, Wiangpapao Distr., Huam Nam Guen, 1250 m, 21-22.II.2017, leg. Rossi & Bernardi (cAss). Vietnam: 4 exs., Cúc Phutong National Park, 20.32°N, 105.62°E, 360 m, sifted, 19.VI.2017, leg. Brunke et al. (CNC, cAss); 1 ex., Cúc Phutong National Park, 20.29°N, 105.67°E, 260 m, 19.VI.2017, leg. Brunke et al. (CNC).

C o m m e n t : *Rugilus japonicus* is widespread from Sri Lanka across most of the

Oriental and southern East Palaearctic regions to South Japan and the Philippines (ASSING 2012a, 2015).

***Rugilus (Eurystilicus) seriatus* (CAMERON, 1930)**

Material examined: Indonesia: 3♂♂, Jawa Barat, Mount Halimun, 19-25.VIII.2009, leg. Majer (cAss).

Comment: *Rugilus seriatus* is widespread, but not common in the Oriental region (Indonesia, Malaysia, Philippines) (ASSING 2012a).

***Rugilus lucens* ASSING, 2012**

Material examined: Nepal: 2♀♀, 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 rarely recorded species is currently known only from Nepal, Laos, and Thailand (ASSING 2012a, 2013, 2014).

***Rugilus pygmaeus* (KRAATZ, 1859)**

Material examined: Pakistan: 2 exs., Islamabad, E7 Hillside road, 33°43'N, 73°03'E, 600 m, 1-15.IX.2012, leg. Sabatinelli (cMat, cAss). Cambodia: 2 exs., Mondol Kiri Prov., 12°30'N, 107°12'E, 600 m, 22-26.I.2006, leg. Bečvář & Fouque (cMat, cAss).

Comment: This rare minute species had been recorded from North India, Sri Lanka, Thailand, Vietnam, Malaysia, and the Indonesian island Timor (ASSING 2012a, 2013, 2014, CAMERON 1931). The above specimens represent the first records from Pakistan and Cambodia.

***Scopaeus ovicollis* (MACLEAY, 1873), recomb.**

Comment: This Australian species was originally described in *Stilicus* BERTHOLD, 1827, today a synonym of *Rugilus*, and subsequently moved to *Scopaeus* ERICHSON, 1839. Recently, FRISCH (2016) moved it to *Rugilus* again, based merely on vague circumstantial evidence; the type material of *S. ovicollis* is lost. The original description does not contain conclusive information other than that the species is very small (body length 2.65 mm) and thus of similar size as numerous *Scopaeus* species. The Australian *Rugilus* fauna, which was reviewed by ROUGEMONT (1995), is remarkably poor and only includes two extremely widespread species. Both of them are of significantly greater size. Since, in consequence, the generic assignment proposed by FRISCH (2016) is undoubtedly erroneous, *S. ovicollis* is transferred to *Scopaeus* again.

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Zusammenfassung

Zwei Arten der Gattung *Rugilus* LEACH, 1819 aus China werden beschrieben und abgebildet: *R. (Rugilus) reuteri* nov.sp. (Nord-Sichuan) und *R. (R.) gryps* nov.sp. (West-Sichuan: Gongga Shan). Weitere Nachweise von 27 Arten, 18 der Untergattung *Rugilus*, sieben der Untergattung *Eurystilicus* FAGEL, 1853 sowie zwei keiner Untergattung zugeordneter Arten, werden aus der Paläarktis und der Orientalis gemeldet, darunter sechs Erstnachweise aus Pakistan (3), Libanon (1), Indien (1) und Kambodscha (1). Ein Name wird synonymisiert: *Rugilus arabs* (SAULCY, 1865) = *R. couloni* (DRUGMAND, 1989), nov.syn. Der präokkupierte Name *Rugilus rugosissimus* wird durch *R. asperrimus* nov.nom. ersetzt. *Stilicus ovicollis* MACLEAY, 1873, eine irrtümlich zu *Rugilus* gestellte Art, wird wieder in die Gattung *Scopaeus* ERICHSON, 1839 transferiert. Die männlichen Sexualmerkmale von *R. prodoni* (COIFFAIT, 1982), *R. bagmaticola* ROUGEMONT, 1998 und *R. curvatus* ASSING, 2013 werden abgebildet. Die Verbreitung der Arten der *R. malaisei*-Gruppe wird anhand einer Karte illustriert. Einschließlich der neuen Arten ist *Rugilus* derzeit mit 102 Arten und einer Unterart in der Paläarktis und der Orientalis vertreten; davon wurden 35 Arten aus China nachgewiesen.

References

- ANLAŞ S. (2017): Notes on the genus *Rugilus* LEACH, 1819 in the Palearctic Region (Coleoptera: Staphylinidae: Paederinae). — Türkiye Entomoloji Dergisi **41** (2): 197-202.
- ASSING V. (2011): On the Staphylinidae (Coleoptera) of Iran. II. New species and additional records, with special reference to the Paederinae, Xantholinini, and Aleocharinae. — Stuttgarter Beiträge zur Naturkunde Serie A, Neue Serie **4**: 137-183.
- ASSING V. (2012a): The *Rugilus* species of the Palearctic and Oriental regions (Coleoptera: Staphylinidae: Paederinae). — Stuttgarter Beiträge zur Naturkunde A, Neue Serie **5**: 115-190.
- ASSING V. (2012b): A revision of Palearctic and Oriental *Rugilus* LEACH, 1819. II. Three new species from China and additional records (Coleoptera: Staphylinidae: Paederinae). — Koleopterologische Rundschau **82**: 137-149.
- ASSING V. (2013): A revision of Palearctic and Oriental *Rugilus*. III. Five new species from the Palearctic region and additional records (Coleoptera: Staphylinidae: Paederinae). — Linzer Biologische Beiträge **45** (1): 171-190.
- ASSING V. (2014): A revision of Palearctic and Oriental *Rugilus*. IV. Three new species from Nepal and additional records (Coleoptera: Staphylinidae: Paederinae). — Linzer Biologische Beiträge **46** (1): 449-459.
- ASSING V. (2015): A revision of Palearctic and Oriental *Rugilus*. V. Two new species from China and additional records (Coleoptera: Staphylinidae: Paederinae) (Insecta: Coleoptera). — Linzer Biologische Beiträge **47** (1): 73-82.
- CAMERON M. (1931): The fauna of British India including Ceylon and Burma. Coleoptera. Staphylinidae. Volume 2. — London, Taylor and Francis: viii + 1-257.
- DRUGMAND D. (1989): Contribution à la connaissance des Staphylinidae d'Israël (Coleoptera). I. Sous-familles des Paederinae Ganglbauer, 1895 et des Xantholininae Jeannel et Jarrige, 1849 [sic]. — Bulletin et Annales de la Société Royale Belge d'Entomologie **125**: 103-113.
- FRISCH J. (2016): On the Scopaeina MULSANT & REY of Australasia (Staphylinidae, Paederinae): type revisions and new biogeographic data. — Soil Organisms **88** (1): 55-88.
- HU J.-Y., SONG C.-Z. & LI L.-Z. (2015): A new species and additional records of *Rugilus* LEACH from Quinling, China (Coleoptera, Staphylinidae, Paederinae). — ZooKeys **505**: 147-152.

ROUGEMONT G. DE (1995): Review of the Australian species of the subtribe Stilicina (Coleoptera: Staphylinidae: Paederinae). — *Elytron* **9**: 87-113.

ROUGEMONT G. DE (1998): *Rugilus* LEACH, subg. *Tetragnathostilicus* SCHEERPELTZ: Addenda (Coleoptera, Staphylinidae). — *Linzer Biologische Beiträge* **30** (2): 579-593.

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