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# A revision of *Nazeris*. IV. New species from China, Taiwan, and Thailand, and additional records (Coleoptera: Staphylinidae: Paederinae)

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#### Abstract

Twelve species of *Nazeris* Fauvel, 1873 are described and illustrated: *N. formidabilis* **n. sp.** (China: Sichuan: Luoji Shan), *N. luojicus* **n. sp.** (China: Sichuan: Luoji Shan), *N. luojicus* **n. sp.** (China: Sichuan: Xichang env.), *N. iaculatus* **n. sp.** (China: Sichuan: Xiling Xue Shan), *N. tricuspis* **n. sp.** (China: Sichuan: Xiling Xue Shan), *N. vulongicus* **n. sp.** (China: Sichuan: Xiling Xue Shan), *N. tricuspis* **n. sp.** (China: Sichuan: Xiling Xue Shan), *N. tricuspis* **n. sp.** (China: Sichuan: Xiling Xue Shan), *N. vulongicus* **n. sp.** (China: Yunnan: Yulongxue Shan), *N. inaequalis* **n. sp.** (China: Jiangxi: Jinggang Shan), *N. proiectus* **n. sp.** (China: Jiangxi: Jinggang Shan), *N. tricuspis* **n. sp.** (Taiwan: Kaohsiung Hsien), and *N. reticulatus* **n. sp.** (Taiwan: Kaohsiung Hsien). The type localities of the new species are mapped. Additional records of 17 species and subspecies are reported from the West Palaearctic region (five species), China (six species), Taiwan (two species), South Korea (one species), and Japan (three subspecies). The Palaearctic genus now includes 183 species and seven subspecies. In China it is represented by 103 described species, with the greatest diversity in Yunnan (34 species) and Sichuan (22 species), and in Taiwan by 21 species and one subspecies.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Nazeris*, Palaearctic region, Oriental region, China, Taiwan, Thailand, new species, new records, distribution.

# Zusammenfassung

Zwölf Arten der Gattung Nazeris Fauvel, 1873 werden beschrieben und abgebildet: N. formidabilis n.sp. (China: Sichuan: Luoji Shan), N. luojicus n. sp. (China: Sichuan: Luoji Shan), N. emeianus n. sp. (China: Sichuan: Emei Shan), N. abbreviatus n. sp. (China: Sichuan: Umgebung Xichang), N. iaculatus n. sp. (China: Sichuan: Xiling Xue Shan), N. tricuspis n. sp. (China: Sichuan: Xiling Xue Shan), N. tricuspis n. sp. (China: Sichuan: Xiling Xue Shan), N. inaequalis n. sp. (China: Jiangxi: Jinggang Shan), N. proiectus n. sp. (China: Jiangxi: Jinggang Shan), N. bicuspis n. sp. (China: n. sp. (China: Jiangxi: Jinggang Shan), N. bicuspis n. sp. (Nord-Thailand), N. alesianus n. sp. (Taiwan: Kaohsiung Hsien) und N. reticulatus n. sp. (Taiwan: Kaohsiung Hsien). Die geographische Lage der Typuslokalitäten wird anhand einer Karte illustriert. Weitere Nachweise von 17 Arten und Unterarten werden aus der Westpaläarktis (fünf Arten), China (sechs Arten), Taiwan (zwei Arten), Südkorea (eine Art) und Japan (drei Unterarten) gemeldet. Die paläarktische Gattung umfasst nunmehr 183 Arten und sieben Unterarten. In China ist sie mit 103 beschriebenen Arten und in Taiwan mit 21 Arten und einer Unterart vertreten; die chinesischen Provinzen mit der höchsten Diversität sind Yunnan (34 Arten) und Sichuan (22 Arten).

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#### **1** Introduction

The distribution of *Nazeris* Fauvel, 1873 is essentially confined to the Palaearctic region sensu SMETANA (2004), with few species recorded also from the adjacent northern parts of the Oriental region (North Vietnam, northern Thailand). The genus previously included a total of 171 species and seven subspecies, eleven of them distrib-

uted in the West Palaearctic, eight in the northern Oriental region (seven in Vietnam and one in Thailand), and the remainder in the East Palaearctic. In the latter region, the greatest diversity has been recorded from China (94 species), followed by Japan (25 species and six subspecies), Taiwan (19 species and one subspecies), the Himalaya (13 species; eleven from Nepal and two from North India), and South Korea (one species) (ASSING 2009, 2013a, 12

2013b). In China, the provinces with the greatest number of described species are Yunnan (33 species) and Sichuan (16 species) (Assing 2013b). For further details on the natural history of *Nazeris* species see Assing (2009, 2013a, 2013b).

The present paper is based on material that has become available – or was found among unidentified Paederinae – since the latest contributions to the fauna of the West and East Palaearctic regions (Assing 2009, 2013b). An examination of this material yielded as many as twelve species new to science and numerous additional records.

# Acknowledgements

I am indebted to the colleagues indicated in the material section for the loan of material under their care. Special thanks go to ALEŠ SMETANA (Ottawa) for the generous permission to retain the holotypes of two species and a male of *N. imitator*, as well as to PETER HLAVÁČ (Prague) and TOMÁS LACKNER (Brno) for the kind gift of *Nazeris* material from South China and Japan, respectively. JIA-YAO HU (Shanghai) provided information on *N. brunneus* and *N. parabrunneus*.

#### 2 Material and methods

The material treated in this study is deposited in the following public institutions and private collections:

cAss	author	c nrivat	e collection
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cSha	private collection	ALEXEY	SHAVRIN,	Daugavpils

- cSme private collection ALEŠ SMETANA, Ottawa
- cWun private collection PAUL WUNDERLE, Mönchengladbach
- HNHM Hungarian Natural History Museum, Budapest (Gy. MAKRANCZY)
- MHNG Muséum d'Histoire Naturelle, Genève (G. CUCCODORO)
- NHMB Naturhistorisches Museum Basel (M. GEISER, I. ZÜRCHER)
- NME Naturkundemuseum Erfurt (M. HARTMANN)
- NMP National Museum of Natural History, Praha (J. HÁJEK) SDEI Senckenberg Deutsches Entomologisches Institut,
- Müncheberg (L. BEHNE)
- SMNS Staatliches Museum für Naturkunde, Stuttgart (W. SCHAWALLER)
- ZMUC Zoological Museum, University of Copenhagen (A. SOLODOVNIKOV)

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). A digital camera (Nikon Coolpix 995) was used for the photographs. 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. The individual labels of type specimens are separated by slashes; they are cited in the original spelling and format, except that slashes were replaced with commas and that capitalized geographic names of countries are given in standard format (i. e., "China" rather than "CHINA"). Moreover, the following adaptations were made according to the general format requirements of the journal: names of persons (except authors of species) in small capitals, scientific names of genera and species in italics, dates with the months always in Roman numbers.

# **3 Results**

# 3.1 General results

The material examined is represented by 29 species and subspecies. Twelve species are newly described; they are distributed in the Chinese provinces Sichuan (six species), Jiangxi (two species), and Yunnan (one species), in Taiwan (two species), as well as in northern Thailand (one species). The latter represents the second species recorded from Thailand. Including the new species, the genus now includes 183 described species and seven subspecies. In China it is now represented by 103 species, with the greatest diversity in Yunnan (34 species) and Sichuan (22 species).

Additional records of 17 previously described species and subspecies are reported, five of them from the West Palaearctic, six from China, two from Taiwan, one from South Korea, and three from Japan.

#### 3.2 Additional records

# Nazeris ibericus Koch, 1940

#### Material examined

**Spain:** Andalucía: 1 ex., Cádiz, Canuto Garganta del Medio, 15 km NE Alcalá de los Gazules, 36°32'N, 5°38'W, 450 m, stream bank, litter of *Rhododendron ponticum*, 2.II.1999, leg. ZERCHE (SDEI); 1 ex., Cádiz, 8 km E Tarifa, S Mirador del Estrecho, 36°03'N, 5°33'W, 310 m, palm and shrub litter, 10.II.1999, leg. ZERCHE (SDEI); 3 exs., Cádiz, 20 km NW Tarifa, Sierra de la Plata, 36°06'N, 5°44'W, 170 m, stony pasture, under stones, 26.XII.2009, leg. Assing & WUNDERLE (cAss, cWun); 2 exs., Cádiz, 25 km NNW Ubrique, Puerto de Galis, 36°34'N, 5°36'W, 400 m, W-exposed oak forest with *Rhododendron*, sifted, 28.XII.2009, leg. Assing (cAss); 1 ex., Cádiz, 20 km NNE Tarifa, Pto. de Ojén, 36°11'N, 5°34'W, 190 m, loamy pasture, under stones, 30.XII.2009, leg. Assing (cAss); 1 ex., Cádiz, 5 km NE Tarifa, 170 m, 36°02'N, 5°34'W, pasture, under stone, 27.XII.2009, leg. WUNDERLE (cWun).

**Morocco**:  $\hat{1} \bigcirc$ , W Sebta, Punta Leona, 35°54'N, 5°29'W, 30 m, *Pistacia*, 9.V.2009, leg. BEHNE (SDEI).

#### Comment

*Nazeris ibericus* is the most widespread and common representative of the genus in the West Mediterranean, its distribution ranging from Asturias and the north of Castilla-León, across Galicia and most of Portugal to Algarve, Andalucía, and northern Morocco in the south (Assing 2009).

#### Nazeris jaenicus Assing, 2009

#### Material examined

Spain: 2 exs., Andalucía, Jaén, Sierra Magina, Cerro Magina, 2000–2100 m, 26.–28.III.2010, leg. SHAVRIN & ANISHCHENKO (cSha, cAss).

#### Comment

The above specimens represent the first record of this species since the original description, which is based on a single male from the Sierra Almadén, Jaén (Assing 2009).

#### Nazeris ammonita Saulcy, 1865

#### Material examined

Turkey: Hatay: 1 ex., Kızıldağ, SE Arsuz, 36°21'N, 35°57'E, 445 m, 10.IV.2009, leg. BRACHAT & MEYBOHM (cAss); 2 exs., Kızıldağ, SE Arsuz, 36°22'N, 35°56'E, 230 m, 10.IV.2009, leg. BRACHAT & MEYBOHM (cAss); 1 ex., Kızıldağ, E Madenli, 36°25'N, 36°06'E, 910 m, 11.IV.2009, leg. BRACHAT & MEYBOHM (cAss); 3 exs., Kızıldağ, Madenli, 36°25'N, 36°07'E, 1120 m, 11.IV.2009, leg. BRACHAT & MEYBOHM (cAss); 1 ex., Soğukoluk, 36°30'N, 36°09'E, 800 m, 12.IV.2009, leg. BRACHAT & MEYBOHM (cAss); 2 exs., Şenköy, 36°04'N, 36°09'E, 730 m, 13.IV.2009, leg. Вкаснат & Меувонм (cAss); 1 ex., Şenköy, 36°02'N, 36°07'E, 920 m. 13.IV.2009. leg. BRACHAT & MEYBOHM (cAss): 1 ex., Harbiye, 36°08'N, 36°08'E, 200 m, 13.IV.2009, leg. BRACHAT & MEYBOHM (cAss); 2 exs., Kızıldağ, Teknepinar, 36°11'N, 35°59'E, 400 m, 14.IV.2009, leg. BRACHAT & MEYBOHM (cAss); 1 ex., Kızıldağ, W Teknepinar, Çamlılyayla, 36°13'N, 35°57'E, 360 m, 14.IV.2009, leg. BRACHAT & MEYBOHM (cAss).

**Israel**: 1 ex., Mt. Carmel, Ein Oren, leaf litter, 21.III.1998, leg. ORBACH (ZMUC).

#### Comment

The distribution of *N. ammonita* is confined to the Middle East, from central southern Anatolia in the north to Israel in the south. It is mapped in ASSING (2009). The above specimens from Hatay are partly teneral.

# Nazeris turcicus Assing, 2001

# Material examined

Turkey: Antalya: 2 exs., 25 km E Alanya, Beldibi, 800– 1200 m, 8.V.1996, leg. HARTMANN (NME, cAss); 1 ex., Alanya district, Alanya, Dim Çay valley, Öteköy, 300 m, 3.IV.1996, leg. HARTMANN (NME).

#### Comment

This rare species has been recorded only from few localities in Antalya, Mersin, and Hatay provinces, southern Turkey. For a distribution map see Assing (2009).

#### Nazeris pallidipes Reitter, 1888

#### Material examined

**Russia:** Krasnodar: 8 exs., Mezmai env., Temnolesskaia, 750 m, 12.VI.1999, leg. SMETANA (cSme, cAss); 3 exs., same data, but 7.VI.1999 (cSme); 15 exs., Krasnodar Kr., Mezmai env., Temnolesskaia, 800 m, 8.VI.1999, leg. SMETANA (cSme, cAss); 3 exs., same data, but 18.VI.1999 (cSme, cAss); 1 ex., Mezmai env., Temnolesskaia, 850 m, 19.VI.1999, leg. SMETANA (cSme); 3 exs., same data, but 9.VI.1999 (cSme); 1 ex., Guama near Mezmai, 1000 m, 10.VI.1999, leg. SMETANA (cSme).

#### Comment

*Nazeris pallidipes* is endemic to the West Caucasus. For a distribution map see AssiNG (2009).

Nazeris shaanxiensis Hu & Li, 2010

#### Material examined

#### Comment

*Nazeris shaanxiensis* is rather common in the environs of the Taibai Shan, a mountain in the Qinling Shan range (Assing 2013a).

# Nazeris angulatus Assing, 2013

#### Material examined

**China: Hubei:** 1  $\bigcirc$ , Shennongjia Natural Reserve, 1700–2500 m, 1.–5.VII.1998, leg. BOLM (NHMB).

# Comment

The known distribution of this species ranges from the environs of Chongqing to Da Shennongjia in the western Daba Shan (Assing 2013a).

#### Nazeris ruani Hu, Li & Zhao, 2007

#### Material examined

China: Sichuan:  $1 \overset{\circ}{,} 2 \overset{\circ}{,} 2 \overset{\circ}{,} \varphi$ [ $\overset{\circ}{,} \varphi$ ], Xiling Xue Shan, 100 m, 30.VII.1996, leg. KURBATOV (MHNG);  $1 \overset{\circ}{,} Xiling Xue Shan, 1300 m, 30.VII.1996, leg. KURBATOV (cAss).$ 

#### Comment

The distribution of this species is more extensive than that of most other Chinese *Nazeris* species. It was previously recorded from the Emei Shan and Labahe (Assing 2013b).

# Nazeris giganteus Watanabe & Xiao, 1997

### Material examined

**China: Yunnan:**  $2 \Im \Im$ ,  $5 \Im \Im$ , Diancang Shan, above Dali, 2000–2200 m, 4.–17.IV.1999, leg. SCHAWALLER (SMNS, CASS).

#### Comment

Unlike the closely related *N. ruani*, *N. giganteus* appears to have a very restricted distribution. It has been recorded only from the Diancang Shan (Assing 2013b).

## Nazeris parabrunneus Hu, Li & Zhao, 2011

#### Type material examined

Paratypes:  $1 \Diamond, 1 \heartsuit$ : "China: Zhejiang Prov., Suichang County, Jiulong Shan / 500–700 m, 31.VII.2006, LI JIN-WEN & SHEN SHAN-JIA leg. / [Paratype] *Nazeris parabrunneus* Hu, Li & Zhao, 2011, SHNU Collections" (cAss).

#### Additional material examined

China: Fujian:  $2 \Im \Im, 5 \Im \Im$ , Wuyi Shan Nat. Res., Sangang env., 900 m, 30.V.–12.VI.2001, leg. HLAVÁČ & COOTER (cAss); 1  $\Im$ , Wuyi Shan Nat. Res., Guadun hill, 900 m, 1.–2.VI.2001, leg. HLAVÁČ & COOTER (cAss).

# Comment

The original description of *N. parabrunneus* is based on 17 type specimens from the Jiulong Shan [approx. 28°21'N, 118°53'E] in southwestern Zhejiang province (Hu et al. 2011). The material from Fujian was collected in the Wuyi Shan Natural Reserve in Fujian near Sangang and in Guadun hill, some 135 km to the southwest of the type locality. A comparison of this material with the above type material revealed some differences in the shape of the male sternite VII (posterior margin slightly more produced in the middle) and in the shape of the dorso-lateral apophyses. However, these differences are so slight that they are attributed to intra- rather than interspecific variation.

#### Nazeris brunneus Hu, Zhao & Zhong, 2006

# Material examined

China: Jiangxi:  $2 \Im \Im$ ,  $5 \Im \Im$ , Wuyi Shan Nat. Res., Huanggang Shan, 1800–2050 m, 5.VI.2001, leg. HLAVÁČ & COOTER (cAss).

#### Comment

The original description of *N. brunneus* is based on five type specimens from "Mt. Wuyi (alt. 950 m), Jiangxi Province" (Hu et al. 2006). An examination of the aedeagus of the above males revealed that the dorso-lateral apophyses are somewhat more slender (particularly in lateral view) than those illustrated for the type material by Hu et al. (2006). However, the extent of intraspecific variation of

*N. brunneus* is unknown. Thus, until evidence suggesting otherwise is available, the above specimens are considered conspecific with the type material.

#### Nazeris imitator Ito, 1996

#### Material examined

**Taiwan**: 1 ♂, Nantou Hsien, Meifeng, 2130 m, 2.V.1998, leg. Sметала [T196] (cAss).

# Comment

The above male represents the first record since the original description, which is based on a unique male from "Near Tsuifeng (2,200 m), Nantou Hsien" (ITO 1996a).

# Nazeris centralis Ito, 1996 (Figs. 80–90)

# Type material examined

Holotype  $\Im$ : "Taiwan Nantou Hsien, Shanlinchi, 1650 m 16.V.1990, A. SMETANA [T60] / Holotypus *Nazeris centralis* T. ITO sp. nov." (cSme). – Paratype  $\Im$ : same data as holotype (cSme).

#### Additional material examined

**Taiwan**:  $1 \triangleleft, 1 \supsetneq$ , Chiayi Hsien, Alishan, Road 18, km 84, 2100 m, decaying stump, 8.I.2009, leg. Vit (cAss).

# Comment

The original description is based on four type specimens from "Shanlinchi (1,650 m), Nantou Hsien, Taiwan" (ITO 1996b). The male sexual characters of the holotype are illustrated in Figs. 87–90.

The above male from the Ali Shan (Figs. 80–86) differs from the holotype by the slightly broader posterior excision of the male sternite VIII, as well as by the slightly longer and weakly sinuate dorso-lateral apophyses of the aedeagus. However, since these differences are only slight and the Alishan is separated from the type locality by a distance of only approximately 14 km, they are attributed to intra- rather than interspecific variation.

#### Nazeris rutilicorpus Cho, 2001

#### Material examined

South Korea:  $1 \triangleleft 1 \triangleleft 1 \triangleleft 2$ , Jeollabuk-do, Deogyu-san, Gucheondong stream to Osujagul cave, 6 km SSW Sugyeongdae, temple,  $35^{\circ}51'N$ ,  $127^{\circ}46'E$ , 950 m, wet muddy leaf litter at base of rock, flotation, 14.IX.2010, leg. MAKRANCZY (HNHM, cAss).

#### Comment

*Nazeris rutilicorpus* is the sole representative of the genus recorded from Korea.

#### Nazeris hasegawai dewanus Ito, 1992

#### Material examined

Japan: Honshu:  $1 \diamondsuit, 1 \heartsuit, 1$  ♀, Fukushima-ken, Aizu-Wamatsu, 16.IV.2006, leg. LackNer (cAss);  $1 \heartsuit,$  Fukushima-ken, Bandai, Kógen, 1000 m, 15.IV.2006, leg. LackNer (cAss).

# Comment

The description of *N. hasegawai dewanus* is based on type material from Iide-san in southwestern Amagata Prefecture (ITO 1992). The above specimens represent the first records of this subspecies and of the genus from Fukushima Prefecture.

Nazeris okinawanus okinawanus Ito, 1986

#### Material examined

Japan: Ryukyu Islands: 1 &, Okinawa-Honto, Yanbaru forest, sifted, 30.I.2011, leg. Lackner (cAss).

# Comment

This subspecies is endemic to Okinawa Island, Ryukyu Islands, Japan. Its distribution is mapped by ITO (1994).

#### Nazeris okinawanus amamianus Ito, 1994

#### Material examined

Japan: Ryukyu Islands:  $1 \bigcirc$ , Tokunoshima Island, Amagidake, primary forest, sifted, 27.IV.–7.V.2013, leg. LackNer (cAss).

# Comment

This subspecies is endemic to Tokunoshima Island, Ryukyu Islands, Japan (Ito 1994).

# 3.3 Descriptions of new species

# Nazeris formidabilis n. sp. (Figs. 1–8, 67)

# Type material

Holotype  $\Im$ : "China S Sichuan, S Xichang Mt. Luoji, 2300–2500 [m] litter, 16.–24.VII.96 KURBATOV / Holotypus  $\Im$  Nazeris formidabilis sp. n. det. V. Assing 2013" (MHNG).

P a r a t y p e s : 3  $\overline{\Diamond}\overline{\Diamond}$ , 2  $\mathbb{Q}\mathbb{Q}$ : same data as holotype (MHNG, cAss).

# Etymology

The specific epithet (Latin, adjective) alludes to the formidable size and the remarkably glossy appearance of this species.

# Description

Large species; body length 7.7–8.8 mm; length of forebody 4.0–4.2 mm. Habitus as in Fig. 1. Coloration: body black and shiny; legs and antennae yellowish, with antennomeres I and II somewhat darker.

Head (Fig. 2) of distinctive shape, distinctly oblong, approximately 1.15 times as long as broad, and posteriorly strongly produced; posterior angles obsolete; punctation coarse, but not umbilicate, and moderately dense; interstices somewhat narrower than diameter of punctures, but distinct, without microsculpture, glossy. Eyes moderately convex and approximately one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna 2.1–2.2 mm long.

Pronotum (Fig. 2) slender, 1.20–1.25 times as long as broad and approximately 0.9 times as broad as head; punctation somewhat less coarse and less dense than that of head, rather sparse in posterior portion; interstices partly even broader than diameter of punctures, distinctly so in posterior portion, without microreticulation, glossy; posterior half of midline mostly broadly impunctate and more or less distinctly elevated.

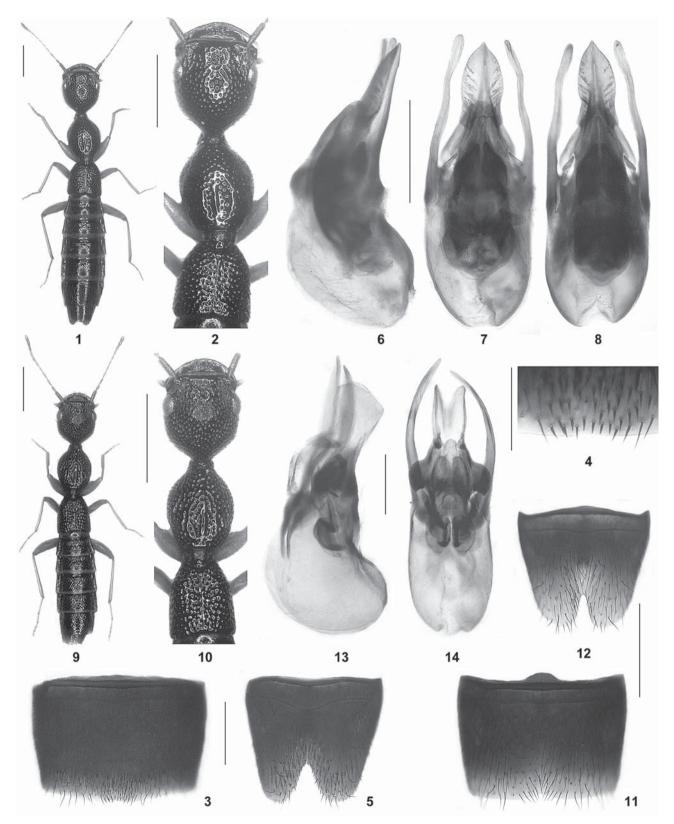
Elytra (Fig. 2) rather slender, approximately 0.55 times as long as pronotum; humeral angles completely obsolete; punctation coarse and dense, much denser than that of head and pronotum. Hind wings completely reduced. Legs long and slender; metatarsomere I elongated, nearly as long as the combined length of II–V.

Abdomen 1.25–1.30 times as broad as elytra; punctation moderately coarse and dense in anterior portions of tergites III–VI, somewhat finer and sparser in posterior portions of tergites III–VI, sparse and fine on tergites VII– VIII; interstices with shallow, but distinct microsculpture; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII obtusely angled in the middle.

♂: sternite VII (Fig. 3) moderately transverse, with cluster of distinctly modified, short and stout black setae in postero-median portion (Fig. 4), posterior margin weakly convex in the middle; sternite VIII (Fig. 5) weakly transverse, with rather deep and V-shaped posterior excision, its depth nearly one third the length of sternite; aedeagus (Figs. 6–8) approximately 1.4 mm long; ventral process slender, ventrally sharply edged in apical half, apically acute; dorso-lateral apophyses long and slender, apically not distinctly dilated, and just reaching apex of ventral process.

# Comparative notes

This highly distinctive species is readily identified by numerous characters: large body size, the distinctly oblong and posteriorly strongly produced head without posterior angles, a forebody with distinct shine and moderately dense punctation, long and slender legs with



**Figs. 1–14**. *Nazeris formidabilis* (1–8) and *N. luojicus* (9–14). – **1**, **9**. Habitus. **2**, **10**. Forebody. **3**, **11**. Male sternite VII. **4**. Posteromedian portion of male sternite VII. **5**, **12**. Male sternite VIII. **6–8**, **13–14**. Aedeagus in lateral and in ventral view. – Scale bars: 1.0 mm (1-2, 9-10), 0.5 mm (3, 5–8, 11–12), 0.2 mm (4, 13–14).

an elongated metatarsomere I, the chaetotaxy of the male sternite VII, the shape of sternite VIII, and the morphology of the aedeagus. Based on external characters (large and slender body, oblong head, long and slender legs), *N. formidabilis* may be most closely allied to *N. magnus* Hu, Li & Zhao, 2007 from the Erlang Shan and an undescribed species (*Nazeris* sp. 1 in Assing 2013b) from the Xiaoxiang Ling. It is distinguished from both of them by the much less dense punctation of the whole body and the much more shiny forebody alone. For illustrations of the habitus and the male sexual characters of *N. magnus* see Hu et al. (2007).

# Distribution and natural history

The type locality is situated in the Luoji Shan  $[27^{\circ}26'N, 102^{\circ}24'E]$ , some 50 km to the south-southeast of Xichang, Sichuan (Fig. 67). The specimens were sifted from leaf litter at an altitude of 2300-2500 m.

# Nazeris luojicus **n. sp.** (Figs. 9–14, 67)

# Type material

Holotype ♂: "China S Sichuan, S Xichang Mt. Luoji, 2300–2500 [m] litter, 16.–24.VII.96 KURBATOV / Holotypus ♂ *Nazeris luojicus* sp. n. det. V. ASSING 2013" (MHNG).

Paratypes:  $1 \triangleleft, 1 \heartsuit$ : same data as holotype (MHNG, cAss).

#### Etymology

The specific epithet is an adjective derived from the name of the mountain (Luoji Shan), where the species was discovered and where it is probably endemic.

# Description

Species of moderate size; body length 5.8–6.3 mm; length of forebody 3.0–3.2 mm. Habitus as in Fig. 9. Coloration: body black; legs and antennae yellowish.

Head (Fig. 10) oblong, approximately 1.1 times as long as broad; punctation very dense, very coarse, and distinctly umbilicate; interstices forming narrow ridges, without microsculpture. Eyes distinctly convex and at least one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna approximately 1.7 mm long.

Pronotum (Fig. 10) slender, 1.20–1.25 times as long as broad and approximately 0.85 times as broad as head; punctation very dense and even coarser than that of head, partly confluent; midline narrowly impunctate and more or less distinctly elevated in posterior half; interstices without microsculpture and glossy.

Elytra (Fig. 10) rather slender, 0.60–0.65 times as long as pronotum; humeral angles completely obsolete; punctation approximately as coarse and as dense as that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs rather long and slender; metatarsomere I elongated, not much shorter than the combined length of II–V.

Abdomen approximately 1.2 times as broad as elytra; punctation coarse and dense on tergites III–VI, finer and sparser on tergites VII and VIII; interstices without microsculpture and glossy; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII strongly convex.

♂: sternite VII (Fig. 11) moderately transverse and with unmodified pubescence, posterior margin weakly concave in the middle; sternite VIII (Fig. 12) transverse, approximately 1.15 times as broad as long, posterior excision very narrowly V-shaped and approximately one third as deep as length of sternite; aedeagus (Figs. 13–14) approximately 0.85 mm long; ventral process laterally compressed, ventrally sharply edged, and with semi-membranous apical portion; dorso-lateral apophyses long, slender, and weakly curved in ventral view, apically not dilated, and distinctly extending beyond apex of ventral process.

#### Comparative notes

As can be inferred particularly from the similar male secondary sexual characters and, above all, from the similarly derived morphology of the aedeagus, *N. luojicus* undoubtedly belongs to the *N. hailuogouensis* group, which was previously represented in Sichuan by four species from the Gongga Shan, Erlang Shan, and the Daxue Shan (Assing 2013b). It is best distinguished from them by the shorter dorso-lateral apophyses (in relation to the ventral process) and by the shape of the ventral process of the aedeagus in lateral view. For illustrations of the other species of the *N. hailuogouensis* group see Assing (2013b).

# Distribution and natural history

The type locality, the Luoji Shan, is identical to that of *N. formidabilis* (Fig. 67). The specimens were sifted from leaf litter at an altitude of 2300–2500 m.

# Nazeris emeianus n. sp. (Figs. 15–21, 67)

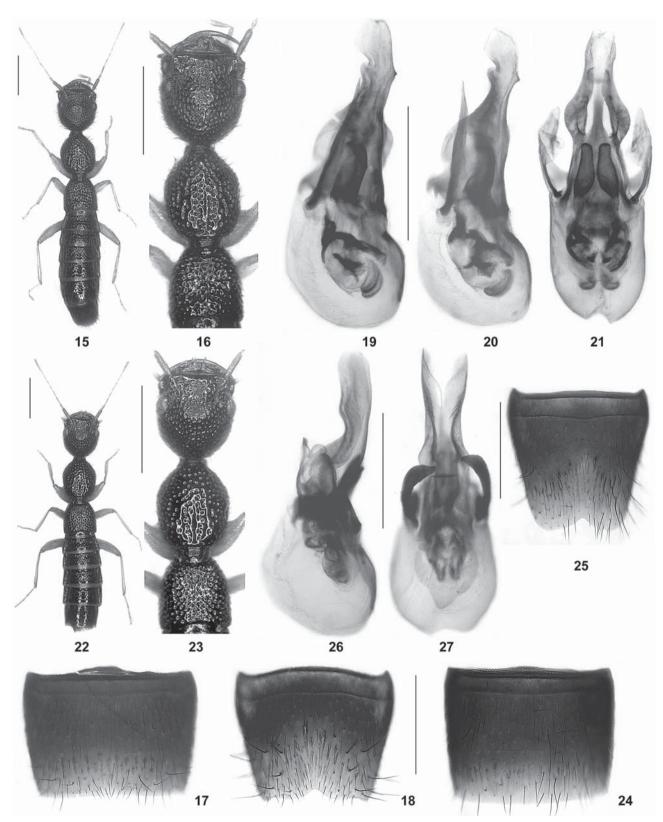
# Type material

Holotype ♂: "China: Sichuan, Emei Shan, Wannian, 1050 m, 19.–30.III.1990, leg. W. SCHAWALLER / Holotypus ♂ *Nazeris emeianus* sp. n. det. V. ASSING 2013" (MHNG).

P a r a t y p e s :  $2 \sqrt[3]{3}$ , 3 PQ: same data as holotype (SMNS, cAss).

#### Etymology

The specific epithet is an adjective derived from the name of the mountain (Emei Shan), where the species was discovered and where it is probably endemic.



**Figs. 15–27**. *Nazeris emeianus* (15–21) and *N. abbreviatus* (22–27). – **15**, **22**. Habitus. **16**, **23**. Forebody. **17**, **24**. Male sternite VII. **18**, **25**. Male sternite VIII. **19–21**, **26–27**. Aedeagus in lateral and in ventral view. – Scale bars: 1.0 mm (15–16, 22–23), 0.5 mm (17–21, 24–27).

# Description

Species of moderate size; body length 5.5–6.5 mm; length of forebody 3.2–3.3 mm. Habitus as in Fig. 15. Coloration: body black; legs and antennae yellowish.

Head (Fig. 16) weakly oblong, 1.01–1.06 times as long as broad; punctation very dense, very coarse, and distinctly umbilicate; interstices forming narrow ridges, without microsculpture. Eyes distinctly convex, approximately one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna approximately 2.0 mm long.

Pronotum (Fig. 16) slender, 1.15–1.20 times as long as broad and approximately 0.85 times as broad as head; punctation even coarser, but somewhat less dense than that of head; midline with narrow impunctate band of variable length; interstices without microsculpture and glossy.

Elytra (Fig. 16) approximately 0.55 times as long as pronotum; humeral angles completely obsolete; punctation approximately as coarse and as dense as that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, longer than the combined length of II and III, but distinctly shorter than the combined length of II–V.

Abdomen approximately 1.2 times as broad as elytra; punctation coarse and dense on tergites III and IV, somewhat sparser on tergite V, fine and sparse on tergites VI–VIII; interstices without microsculpture and glossy; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII distinctly convex.

♂: sternite VII (Fig. 17) moderately transverse and with unmodified pubescence, posterior margin indistinctly concave; sternite VIII (Fig. 18) transverse, approximately 1.2 times as broad as long, posterior excision conspicuously small and shallow; aedeagus (Figs. 19–21) long in relation to body size, 1.1–1.2 mm long; ventral process laterally compressed, of highly distinctive shape both in lateral and in ventral view, and with weakly sclerotized apex; dorso-lateral apophyses of highly distinctive shape, short, apically obliquely truncate, lamellate, and dilated.

# Comparative notes

The highly distinctive male sexual characters (conspicuously small and shallow posterior excision of the male sternite VIII; shapes of the ventral process and of the dorso-lateral apophyses of the aedeagus), immediately distinguish *N. emeianus* from all other congeners known from China. Based on the similar external characters and the similar general morphology of the aedeagus (long in relation to body; elongated ventral process; short and apically dilated dorso-lateral apophyses), *N. emeianus* is closely allied to the sympatric *N. truncatus* Zheng, 1992 and *N. bilamellatus* Assing, 2013. Aside from these two species, *N. canaliculatus* Zheng, 1992 and *N. ruani* had been recorded from the Emei Shan. The new species additionally differs from *N. ruani* by much smaller body size, distinctly coarser punctation of the forebody, much coarser and sparser punctation of the abdomen, and by shorter elytra, from *N. truncatus* by slightly larger body size, less dense punctation of the pronotum and the elytra, coarser and denser punctation of the anterior abdominal tergites, and the absence of microsculpture on the abdomen, and from *N. bilamellatus* by the more densely punctate pronotum, the denser and much more coarsely punctate abdomen, and the absence of microsculpture on the abdomen.

# Distribution and natural history

The type locality is situated in the Emei Shan in western Sichuan (Fig. 67) at an altitude of 1050 m.

# Nazeris abbreviatus n. sp. (Figs. 22–27, 67)

# Type material

Holotype 3: "China S Sichuan, env. Xichang 1600 m, litter, 28.VII.96, leg. S. Kurbatov / Holotypus 3 Nazeris abbreviatus sp. n. det. V. Assing 2013" (MHNG).

# Etymology

The specific epithet (Latin, adjective: shortened) alludes to the conspicuously short dorso-lateral apophyses of the aedeagus.

#### Description

Species of moderate size; body length 5.8 mm; length of forebody 3.0 mm. Habitus as in Fig. 22. Coloration: body black; legs and antennae yellowish.

Head (Fig. 23) oblong, 1.07 times as long as broad; punctation very dense, very coarse, and distinctly umbilicate; interstices forming narrow ridges, without microsculpture. Eyes distinctly convex and slightly more than one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna 1.7 mm long.

Pronotum (Fig. 23) 1.17 times as long as broad and 0.92 times as broad as head; punctation dense, non-umbilicate, slightly coarser and much deeper than that of head, partly confluent; midline narrowly impunctate in posterior half; interstices without microsculpture and glossy.

Elytra (Fig. 23) short, 0.55 times as long as pronotum; humeral angles obsolete; punctation denser and slightly less coarse than that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, not much shorter than the combined length of II–V.

Abdomen 1.15 times as broad as elytra; punctation coarse and dense on tergites III–V, distinctly sparser and somewhat finer on tergite VI, and very fine and very sparse on tergite VII; interstices without microsculpture and

glossy; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

♂: sternite VII (Fig. 24) moderately transverse and with unmodified pubescence, posterior margin indistinctly convex; sternite VIII (Fig. 25) approximately as broad as long, posterior excision conspicuously broad and shallow, only 0.08 times as deep as length of sternite; aedeagus (Figs. 26–27) slender, 1.3 mm long; ventral process long and slender, laterally somewhat compressed, with semi-membranous apical portion, and apically deeply bifid; dorso-lateral apophyses conspicuously short and strongly curved in ventral view, apically not dilated, far from reaching apex of ventral process.

# Comparative notes

*Nazeris abbreviatus* is characterized particularly by the broad and shallow posterior excision of the male sternite VIII, as well as by the conspicuous morphology of the aedeagus (long and slender ventral process; very short dorso-lateral apophyses). The male sexual characters do not suggest a closer relationship to any of the other *Nazeris* species known from Sichuan.

# Distribution and natural history

The holotype was sifted from leaf litter in the environs of Xichang, southern Sichuan (Fig. 67), at an altitude of 1600 m.

# Nazeris iaculatus n. sp. (Figs. 28–33, 67)

# Type material

Holotype  $\mathcal{S}$ : "China Sichuan, Xiling Mt. 1300 m litter, 30.VII.96, leg. S. KURBATOV / Holotypus  $\mathcal{S}$  Nazeris iaculatus sp. n. det. V. Assing 2013" (MHNG).

#### Etymology

The specific epithet is an adjective derived from the Latin noun iaculum (spear) and alludes to the shape of the ventral process, which somewhat resembles a spear-head.

# Description

Species of moderate size; body length 6.1 mm; length of forebody 3.1 mm. Habitus as in Fig. 28. Coloration: body dark-brown; legs and antennae yellowish.

Head (Fig. 29) oblong, 1.1 times as long as broad; punctures very dense, large, but shallow, and distinctly umbilicate; interstices forming narrow ridges, without microsculpture. Eyes distinctly convex and slightly more than one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna 1.7 mm long. Pronotum (Fig. 29) 1.28 times as long as broad and 0.86 times as broad as head; punctation dense, non-umbilicate, coarser and much deeper than that of head, partly confluent; midline narrowly impunctate in posterior half; interstices without microsculpture and glossy.

Elytra (Fig. 29) short, 0.56 times as long as pronotum; humeral angles obsolete; punctation denser than, and nearly as coarse as that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, noticeably shorter than the combined length of II–V.

Abdomen 1.2 times as broad as elytra; punctation coarse and dense on tergites III–V, sparser and slightly finer on tergite VI, and even sparser and finer on tergite VII; interstices without microsculpture and glossy; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

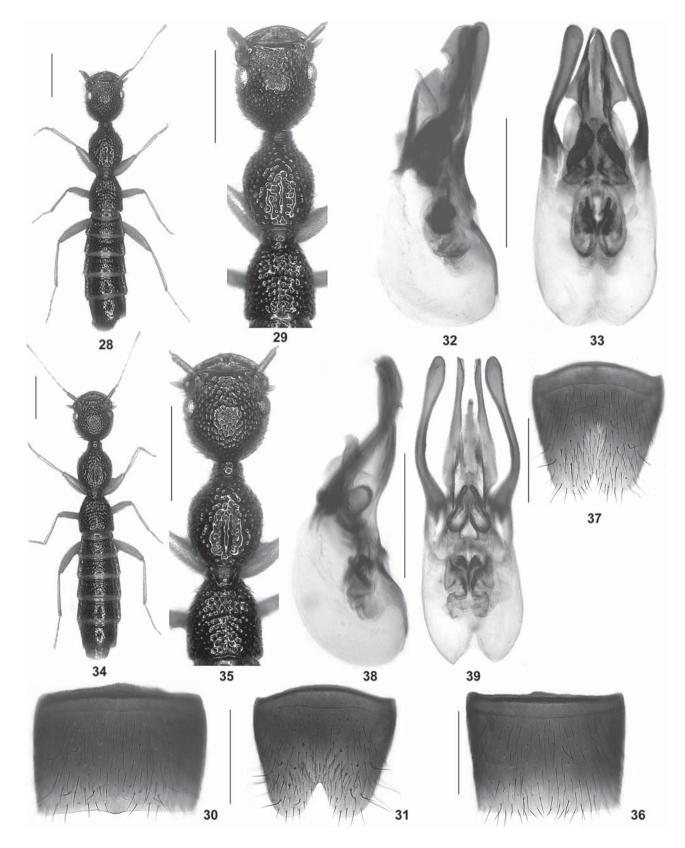
♂: sternite VII (Fig. 30) moderately transverse and with unmodified pubescence, posterior margin with blunt projection in the middle; sternite VIII (Fig. 31) weakly transverse, posterior excision V-shaped, 0.25 times as deep as length of sternite; aedeagus (Figs. 32–33) rather large in relation to body size, 1.1 mm long; ventral process shaped like a spear-head in ventral view; dorso-lateral apophyses long and club-shaped, apically just reaching apex of ventral process.

# Comparative notes

Nazeris iaculatus is characterized particularly by the blunt median projection of the posterior margin of the male sternite VII, as well as by the distinctive shape of the ventral process of the aedeagus. Based on the relatively large aedeagus with moderately long dorso-lateral apophyses, as well as on the similar shapes of the male sternite VII and VIII, the species may belong to the N. truncatus group, which was previously represented in Sichuan by six species from the Emei Shan, Gongga Shan, Erlang Shan, Xiaoxiang Ling, and Wolong (Assing 2013b). However, unlike these species, N. iaculatus does not have an apically bi- or trifid ventral process of the aedeagus. From the sympatric and syntopic N. tricuspis, N. iaculatus is readily distinguished by the distinctly umbilicate punctation of the head and by the different male sexual characters.

# Distribution and natural history

The species is probably endemic to the Xiling Xue Shan [ca.  $30^{\circ}54'N$ ,  $103^{\circ}14'E$ ], western Sichuan (Fig. 67), where the holotype was sifted from litter at an altitude of 1300 m, together with two paratypes of *N. tricuspis*.



**Figs. 28–39**. *Nazeris iaculatus* (28–33) and *N. tricuspis* (34–39). – **28**, **34**. Habitus. **29**, **35**. Forebody. **30**, **36**. Male sternite VII. **31**, **37**. Male sternite VIII. **32–33**, **38–39**. Aedeagus in lateral and in ventral view. – Scale bars: 1.0 mm (28–29, 34–35), 0.5 mm (30–33, 36–39).

# Nazeris tricuspis **n. sp.** (Figs. 34–39, 67)

# Type material

H o l o t y p e 3: "China Sichuan, Xiling Mt. 1600–2400 [m], litter 30.VII.–4.VIII.96, leg. S. KURBATOV / Holotypus 3 Nazeris tricuspis sp. n. det. V. ASSING 2013" (MHNG).

Paratypes: 1 $\Im$ : same data as holotype (cAss); 2 $\Im$  $\Im$ : "China Sichuan, Xiling Mt. 1300 m litter, 30.VII.96, leg. S. KURBATOV" (MHNG).

#### Etymology

The specific epithet (Latin, adjective: trifid) alludes to the conspicuous shape of the ventral process of the aedeagus in ventral view.

#### Description

Species of moderate size; body length 6.0–6.5 mm; length of forebody 2.9–3.2 mm. Habitus as in Fig. 34. Coloration: head and pronotum reddish to reddish-brown; elytra dark-brown; abdomen dark-reddish to blackishbrown, either of uniform coloration or with VII–VIII darker than segments III–VI; legs and antennae yellowish.

Head (Fig. 35) weakly oblong, 1.01–1.05 times as long as broad; punctation dense and coarse, but not distinctly umbilicate; interstices forming moderately narrow ridges, without microsculpture. Eyes distinctly convex, approximately one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna 1.7–1.8 mm long.

Pronotum (Fig. 35) approximately 1.2 times as long as broad and 0.85 times as broad as head; punctation dense, non-umbilicate, somewhat coarser and deeper than that of head, partly confluent; midline narrowly impunctate and more or less distinctly elevated in posterior half; interstices without microsculpture and glossy.

Elytra (Fig. 35) approximately 0.6 times as long as pronotum; humeral angles obsolete; punctation similar to that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, distinctly shorter than the combined length of II–V.

Abdomen approximately 1.25 times as broad as elytra; punctation coarse and dense on tergite III, coarse and moderately dense on tergites IV–V, sparse and moderately fine on tergite VI, and sparse and fine on tergites VII–VIII; interstices without microsculpture and glossy; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

♂: sternite VII (Fig. 36) moderately transverse and with unmodified pubescence, posterior margin truncate; sternite VIII (Fig. 37) approximately as long as broad, posterior excision V-shaped, small, 0.15 times as deep as length of sternite; aedeagus (Figs. 38–39) long in relation to body size, 1.3 mm long; ventral process of distinctive shape, apically trifid, with the lateral apices very long and slender, and the median apex much shorter; dorso-lateral apophyses long and club-shaped, apically reaching apex of ventral process.

# Comparative notes

Based on the similar male secondary sexual characters and particularly the similarly derived shape of the aedeagus (trifid ventral process; long and slender dorso-lateral apophyses), *N. tricuspis* undoubtedly belongs to the *N. truncatus* group (see the comparative notes in the section on *N. iaculatus*). It is best distinguished from other representatives of this group by the morphology of the aedeagus. For characters separating it from the sympatric and syntopic *N. iaculatus* see the comparative notes in the preceding section.

# Distribution and natural history

Like *N. iaculatus*, *N. tricuspis* is probably endemic to the Xiling Xue Shan, Sichuan (Fig. 67). The specimens were sifted from litter at altitudes between 1300 and 2400 m, partly together with the holotype of *N. iaculatus*.

# Nazeris yulongicus n. sp. (Figs. 40–45, 67)

#### Type material

Holotype &: "Yunnan 2900–3500 m, 27.01N 100.12E 1993, Yulongshan mts., 24–26.V., Vít KUBÁŇ leg. / Holotypus & *Nazeris yulongicus* sp. n. det. V. Assing 2013" (NHMB).

P a r a t y p e  $\$ : same data as holotype (cAss).

# Etymology

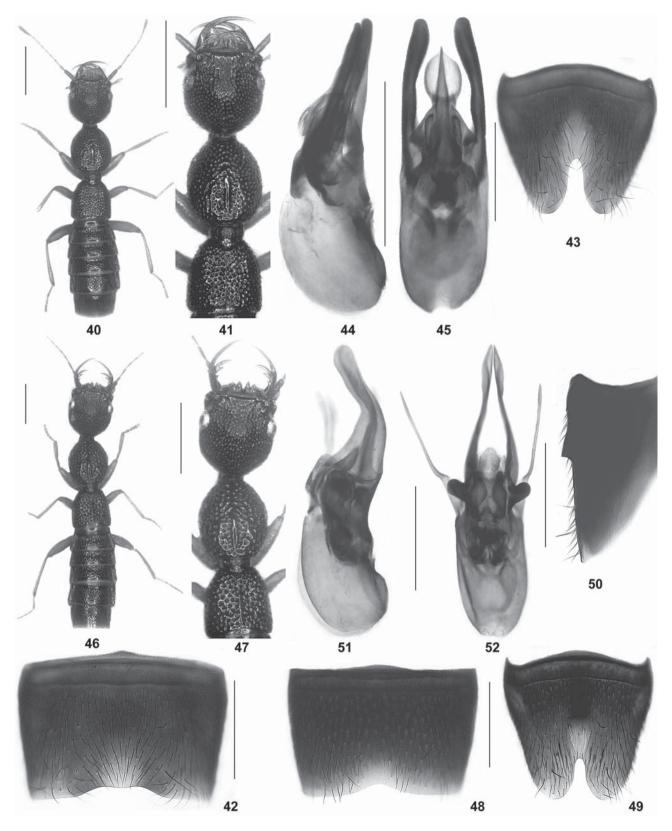
The specific epithet is an adjective derived from the name of the mountain where the species was discovered.

# Description

Species of moderate size; body length 6.2–7.0 mm; length of forebody 3.4–3.6 mm. Habitus as in Fig. 40. Coloration: body blackish-brown to blackish; legs and antennae yellowish.

Head (Fig. 41) weakly oblong, approximately 1.05 times as long as broad; punctation dense, moderately coarse, and distinctly umbilicate; interstices forming narrow ridges, without microsculpture. Eyes distinctly convex, approximately one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna 1.7–1.9 mm long.

Pronotum (Fig. 41) 1.16–1.17 times as long as broad and approximately 0.9 times as broad as head; punctation dense, non-umbilicate, somewhat coarser and deeper than that of head, partly confluent; midline with short and moderately broad impunctate band posteriorly; interstices without microsculpture and glossy.



**Figs. 40–52**. *Nazeris yulongicus* (40–45) and *N. bicuspis* (46–52). – **40**, **46**. Habitus. **41**, **47**. Forebody. **42**, **48**. Male sternite VII. **43**, **49**. Male sternite VIII. **44–45**, **51–52**. Aedeagus in lateral and in ventral view. **50**. Male sternite VIII in lateral view. – Scale bars: 1.0 mm (40-41, 46-47), 0.5 mm (42-45, 48-52).

Elytra (Fig. 41) approximately 0.55 times as long as pronotum; humeral angles obsolete; punctation slightly less coarse and somewhat less defined than that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, distinctly shorter than the combined length of II–V.

Abdomen approximately 1.2 times as broad as elytra; punctation rather coarse and dense on tergites III–V, slightly less dense on tergite VI, rather fine and moderately dense on tergite VII; interstices with or without extremely shallow traces of microsculpture and glossy; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

♂: sternite VII (Fig. 42) distinctly transverse and with unmodified pubescence, with shallow, but rather extensive median impression, posterior margin with distinct broad concavity in the middle; sternite VIII (Fig. 43) weakly transverse and shallowly depressed in the middle, posterior excision rather narrow and deep, approximately 0.35 times as deep as length of sternite; aedeagus (Figs. 44–45) 0.9 mm long; ventral process slender and apically acute in ventral view, lateral portions of apex weakly sclerotized; dorso-lateral apophyses rather long, stout, almost straight, and strongly sclerotized, distinctly extending beyond apex of ventral process.

# Comparative notes

As can be inferred particularly from the shapes and chaetotaxy of the male sternite VII and VIII, as well as from the morphology of the aedeagus, N. yulongicus undoubtedly belongs to the N. cangicus group, the most speciose group of Nazeris in Yunnan. Among the species of this group, N. yulongicus is most similar to N. cangicus Assing, 2013 (Diancang Shan), N. aculeatus Assing, 2013 (Jizu Shan), N. lanuginosus Assing, 2013 (Laobie Shan), and N. peniculatus Assing, 2013 (mountain range to the north of Er Hai). It is distinguished from all of them particularly by the shape and chaetotaxy of the male sternite VII and by the shapes and relative lengths of the ventral process and the dorso-lateral apophyses of the aedeagus. For illustrations of the external and male sexual characters of other species of the N. cangicus group see Ass-ING (2013b). The new species differs from the sympatric and externally extremely similar N. alpinus Watanabe & Xiao, 1997, the only other Nazeris species known from the Yulongxue Shan, by the different shape and chaetotaxy of the male sternite VII (N. alpinus: postero-median portion with denser pubescence; posterior margin with very small median excision), the posteriorly more deeply and narrowly incised male sternite VIII, as well as by the completely different morphology of the aedeagus (N. alpinus: ventral process conspicuously broad in ventral view; dorso-lateral apophyses not reaching apex of ventral process).

#### Distribution and natural history

The type locality is situated in the Yulongxue Shan in northern Yunnan (Fig. 67) at an altitude between 2900 and 3500 m.

# *Nazeris bicuspis* **n. sp.** (Figs. 46–52, 67)

# Type material

Holotype ♂: "Thailand, Chiang Mai Prov., Pha Hom Pok Mt., 1900–2200 m, 20°02'35"N, 99°08'45"E, L. DEMBICKÝ leg., 23.–30.IV.2009 / Holotypus ♂ *Nazeris bicuspis* sp. n. det. V. Assing 2013" (NHMB).

P a r a t y p e  $\mathbb{Q}$ : same data as holotype (cAss).

# Etymology

The specific epithet (Latin, adjective) alludes to the remarkably bifid ventral process of the aedeagus.

# Description

Species of moderate size; body length 6.6–6.8 mm; length of forebody 3.7–3.8 mm. Habitus as in Fig. 46. Coloration: body dark-brown to blackish; legs yellow-ish; antennae pale-reddish, with antennomere I somewhat darker.

Head (Fig. 47) 1.06–1.10 times as long as broad; punctation dense, moderately coarse, and umbilicate; interstices forming narrow ridges, without microsculpture. Eyes distinctly convex, approximately one third as long as distance from posterior margin of eye to posterior constriction in dorsal view, or slightly longer. Antenna 2.0– 2.1 mm long.

Pronotum (Fig. 47) approximately 1.2 times as long as broad and 0.9 times as broad as head; punctation dense, non-umbilicate, and much coarser than that of head; midline with rudiment of narrow impunctate band posteriorly; interstices without microsculpture and glossy.

Elytra (Fig. 47) approximately 0.55 times as long as pronotum; humeral angles obsolete; punctation similar to that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, longer than the combined length of II and III, but distinctly shorter than the combined length of II–V.

Abdomen approximately 1.2 times as broad as elytra; punctation coarse and dense on tergite III, gradually slightly decreasing in density towards tergite VII, interstices without microsculpture; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII convex.

♂: sternite VII (Fig. 48) moderately transverse, with very sparse pubescence in postero-median portion, posterior margin broadly concave; sternite VIII (Fig. 49) weakly transverse, middle with conspicuous oblong tubercle anteriorly (Fig. 50), behind this tubercle with shallow impression without pubescence, posterior excision narrowly U-shaped and 0.25 times as deep as length of sternite; aedeagus (Figs. 51–52) long and slender, 1.4 mm long; ventral process long and completely divided into two slender, apically slightly dilated processes; at base of ventral process with a conspicuous process on either side; dorso-lateral apophyses long and thin, not reaching apex of ventral process.

# Comparative notes

Only one species had been recorded from Thailand, *N. siamensis* Rougemont, 1988, described from Doi Inthanon (Chiang Mai). According to ROUGEMONT (1988), this species is larger (7.0-7.5 mm) and of dark-brown coloration. Moreover, the posterior excision of the male sternite VIII is narrower, and the aedeagus is of completely different morphology (ventral process much shorter, less slender, and not bifid; dorso-lateral apophyses stouter and with conspicuous process in the middle). For schematic drawings of the male sternite VIII and the aedeagus of *N. siamensis* see ROUGEMONT (1988).

# Distribution and natural history

The type locality is situated in the extreme north of Thailand (Fig. 67), very close to the border with Myanmar, at an altitude of 2200 m.

# Nazeris inaequalis n. sp. (Figs. 53–59, 67)

# Type material

Holotype &: "China: Jiangxi prov. [MF12], Jinggangshan Mts., Huyagta, 26°29.9'N, 114°07.3'E, 1490 m, 28.IV.2011, Igt. FIKAČEK, HAJEK, KUBEČEK, JIA, SONG & ZHAO / large accumulation of moist leaf litter at the side of a stream in the dense bush / Holotypus & Nazeris inaequalis sp. n. det. V. Assing 2013" (NMP).

P a r a t y p e s :  $1 \stackrel{\circ}{\circ}$ : same data as holotype (cAss);  $1 \stackrel{\circ}{\circ}$ : "China: Jiangxi prov. [MF13], Jinggangshan Mts., Pingshuishan, 26°30.4'N, 114°06.9'E, 1590 m, 28.IV.2011, lgt. FIKÁČEK, HÁJEK, KUBEČEK, JIA, SONG, ZHAO / sifting: moist leaf litter in a sparse forest with bamboo + of mosses (partly *Sphagnum*) in a dried up fen in a low *Azalea* forest" (NMP).

# Etymology

The specific epithet (Latin, adjective) alludes to the remarkably differently shaped apices of the ventral process of the aedeagus.

#### Description

Species of moderate size; body length 6.3–6.8 mm; length of forebody 3.2–3.3 mm. Habitus as in Fig. 53. Coloration: body black; legs and antennae yellowish, with antennomere I somewhat darker.

Head (Fig. 54) approximately as long as broad; punctation dense, coarse, and non-umbilicate; interstices narrow, but distinct, without microsculpture. Eyes strongly convex, approximately one third as long as distance from posterior margin of eye to posterior constriction in dorsal view, or slightly longer. Antenna approximately 2 mm long.

Pronotum (Fig. 54) short and broad, approximately 1.11 times as long as broad and approximately 0.93 times as broad as head; punctation dense, non-umbilicate, similar to that of head or somewhat coarser and/or sparser; midline with short rudiment of an impunctate band posteriorly; interstices without microsculpture and glossy.

Elytra (Fig. 54) approximately 0.6 times as long as pronotum; humeral angles obsolete; punctation similar to, or slightly less coarse than that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, but distinctly shorter than the combined length of II–V.

Abdomen 1.15–1.20 times as broad as elytra; punctation rather coarse and dense on tergites III–IV, slightly less dense on tergite V, finer and sparser on tergites VI– VIII; interstices with or without extremely shallow, nearly obsolete traces of microsculpture and glossy; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex.

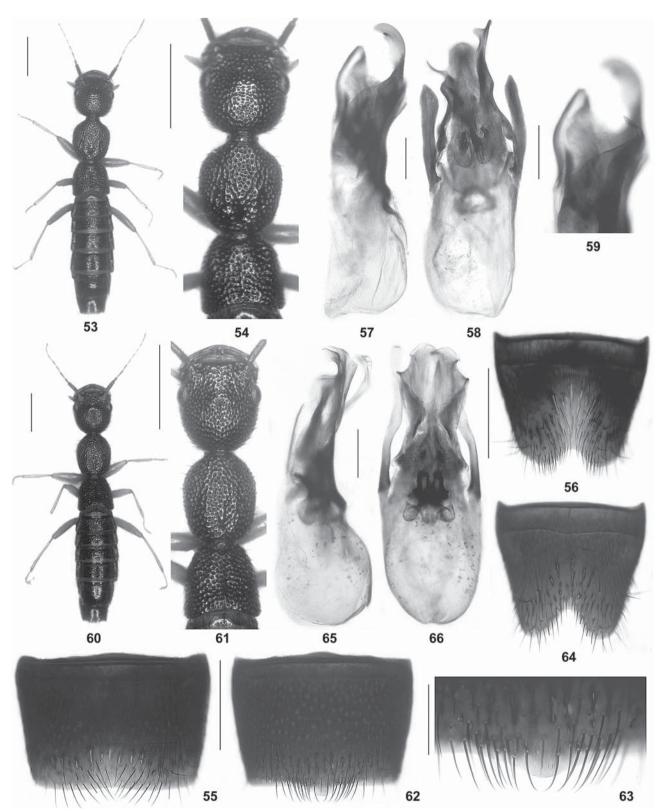
♂: sternite VII (Fig. 55) distinctly transverse, with sparse long setae in posterior portion, posterior margin very weakly concave; sternite VIII (Fig. 56) weakly transverse, posterior excision broad and not very deep, margins of this excision with dense long setae; aedeagus (Figs. 57–59) large in relation to body size, 1.3–1.4 mm long, and of very distinctive morphology; ventral process distinctly asymmetric, apically with two conspicuous processes, the left process (ventral view) short, lamellate, and with spine-shaped dorso-apical process, the right process long, subapically strongly curved (ventral view) and bifid; dorso-lateral apophyses stout, club-shaped, distinctly dilated apically, and strongly sclerotized, not even reaching the shorter of the apices of the ventral process.

# Comparative notes

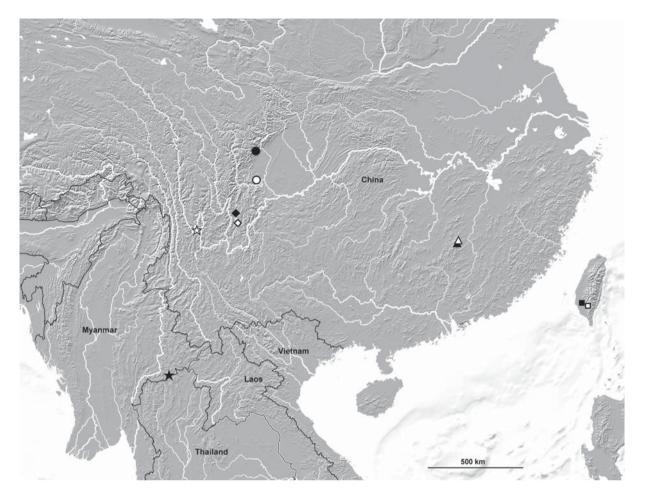
*Nazeris inaequalis* is readily distinguished from all its congeners particularly by the highly distinctive morphology of the aedeagus, above all the asymmetric ventral process with two apical processes of conspicuous shapes. For additional characters separating it from the geographically close *N. proiectus* see the comparative notes in the following section.

## Distribution and natural history

The type specimens were discovered in two localities in the Jinggang Shan range in the west of Jiangxi province,



**Figs. 53–66**. *Nazeris inaequalis* (53–59) and *N. proiectus* (60–66). – **53**, **60**. Habitus. **54**, **61**. Forebody. **55**, **62**. Male sternite VII. **56**, **64**. Male sternite VIII. **57–58**, **65–66**. Aedeagus in lateral and in ventral view. **59**. Left apex of ventral process of aedeagus in lateral view. **63**. Postero-median portion of male sternite VII. – Scale bars: 1.0 mm (53–54, 60–61), 0.5 mm (55–56, 62, 64), 0.2 mm (57–59, 63, 65–66).



**Fig. 67**. Geographic position of the type localities of *Nazeris iaculatus* and *N. tricuspis* (filled circle), *N. emeianus* (open circle), *N. abbreviatus* (filled diamond), *N. formidabilis* and *N. luojicus* (open diamond), *N. yulongicus* (open star), *N. bicuspis* (filled star), *N. inaequalis* (filled triangle), *N. proiectus* (open triangle), *N. alesianus* (open square), and *N. reticulatus* (filled square).

Southeast China, close to the border with Hunan province (Fig. 67). They were sifted from moist leaf litter near a stream and in an *Azalea* forest with bamboo at elevations of 1490 and 1590 m.

# Nazeris proiectus n. sp. (Figs. 60–67)

# Type material

Holotype &: "China: Jiangxi prov. [MF02], Jinggangshan Mts., Shuangxikou (river valley), 24.IV.2011, 26°31.4'N, 114°11.3'E, 411 m, FIKÁČEK, HÁJEK, JIA & SONG / sifting: moist leaf litter in the sparse forest along the stony river / Holotypus & *Nazeris proiectus* sp. n. det. V. Assing 2013" (NMP).

# Etymology

The specific epithet (Latin, adjective) refers to the convex median projection of the posterior margin of the male sternite VII.

#### Description

Species of moderate size; body length 6.3 mm; length of forebody 3.2 mm. Habitus as in Fig. 60. Coloration: body black; legs and antennae yellowish, with antennomere I somewhat darker.

Head (Fig. 61) 1.05 times as long as broad; punctation dense, coarse, and non-umbilicate; interstices narrow, but distinct, without microsculpture. Eyes strongly convex, slightly more than one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna 2 mm long.

Pronotum (Fig. 61) approximately 1.18 times as long as broad and 0.9 times as broad as head; punctation dense, non-umbilicate, on average somewhat coarser than that of head; midline with short rudiment of an impunctate band posteriorly; interstices without microsculpture and glossy.

Elytra (Fig. 61) 0.57 times as long as pronotum; humeral angles obsolete; punctation similar to that of pronotum; interstices without microsculpture and glossy. Hind wings

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completely reduced. Legs moderately long and slender; metatarsomere I elongated, but somewhat shorter than the combined length of II–V.

Abdomen 1.18 times as broad as elytra; punctation rather coarse and dense on tergites III–V, somewhat less dense on tergite VI, fine and less dense on tergite VII, fine and rather sparse on tergite VIII; interstices without microsculpture and glossy; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII strongly convex.

 $3^{\circ}$ : sternite VII (Fig. 62) distinctly transverse, posterior margin with convex median projection, on either side of this projection with dense long setae (Fig. 63); sternite VIII (Fig. 64) transverse and with broadly V-shaped posterior excision; aedeagus (Figs. 65–66) 1.15 mm long, and of distinctive morphology; ventral process symmetric, constricted in the middle, sharply edged in apical half, basally and subapically with a dentate projection in ventral view, apex of ventral process bent dorsad in lateral view; dorso-lateral apophyses slender and bisinuate in ventral view, weakly sclerotized in apical portion, extending beyond apex of ventral process.

# Comparative notes

This species differs from the geographically close *N. inaequalis* particularly by the more slender habitus (oblong head, more oblong pronotum), by the median projection of the male sternite VII, the shape of the posterior excision of the male sternite VIII, and by the morphology of the smaller aedeagus (ventral process symmetric, much broader and apically not distinctly bifid; dorso-lateral apophyses much more slender, longer, bisinuate, not dilated apically, and weakly sclerotized).

# Distribution and natural history

The type locality is situated in the Jinggang Shan range in the west of Jiangxi province, southeast China (Fig. 67). The holotype was sifted from forest leaf litter near a stream at an altitude of approximately 410 m.

# Nazeris alesianus **n. sp.** (Figs. 67–73)

# Type material

H o l o t y p e ♂: "Taiw. Kaohsiung Hs., Rd. abv. Tona For. Sta., km 16–17, 1700–1800 m, 28.IV.98, А. Sметама [T190] / Holotypus ♂ *Nazeris alesianus* sp. n. det. V. Assing 2013" (cAss).

#### Etymology

This species is dedicated to ALES SMETANA (Ottawa), who collected the holotypes of this and the following species, and who, through numerous field trips and publications, significantly contributed to our current knowledge of the staphylinid fauna of Taiwan.

# Description

Species of moderate size; body length 5.7 mm; length of forebody 3.2 mm. Habitus as in Fig. 68. Coloration: body blackish-brown; legs and antennae yellowish, with antennomere I somewhat darker.

Head (Fig. 69) as long as broad; punctation dense and coarse, not umbilicate; interstices forming moderately narrow ridges, without microsculpture, and glossy. Eyes distinctly convex, approximately one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna 1.8 mm long.

Pronotum (Fig. 69) 1.14 times as long as broad and 0.89 times as broad as head; punctation dense, non-umbilicate, on average slightly coarser than that of head; midline without impunctate band; interstices without microsculpture and glossy.

Elytra (Fig. 69) 0.6 times as long as pronotum; humeral angles obsolete; punctation similar to that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, longer than the combined length of II and III, but somewhat shorter than the combined length of II–V; metafemora posteriorly with approximately eight long and erect setae.

Abdomen 1.22 times as broad as elytra; punctation dense and rather coarse on tergite III, gradually becoming finer towards posterior tergites, fine on tergites VII and VIII; interstices without microsculpture; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII convex.

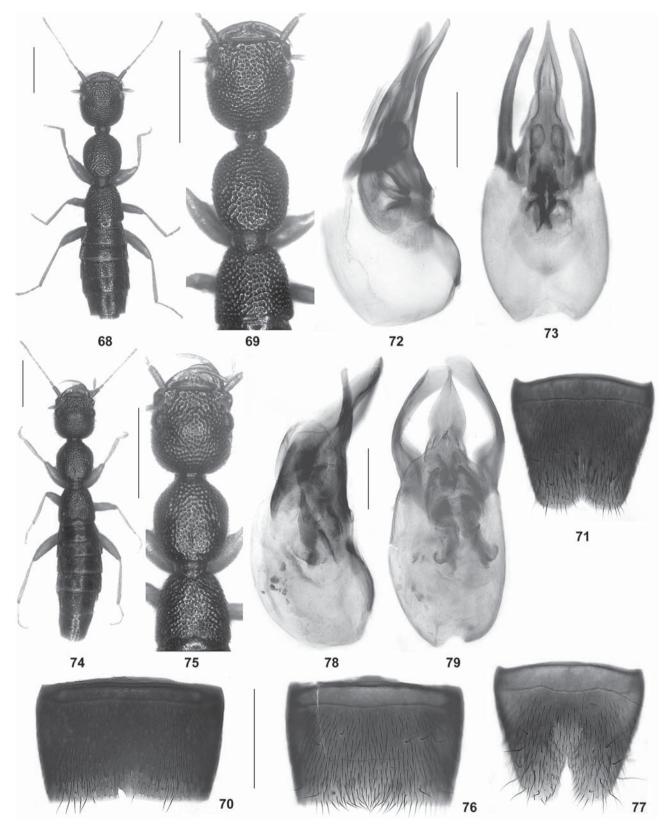
♂: sternite VII (Fig. 70) distinctly transverse, pubescence long near posterior margin, otherwise unmodified, posterior margin very weakly concave in the middle; sternite VIII (Fig. 71) approximately as long as broad, posterior excision very shallow; aedeagus (Figs. 72–73) 0.85 mm long; ventral process slender, basally slightly constricted, and apically very acute in ventral view, nearly straight in lateral view; dorso-lateral apophyses long and slender, but not reaching apex of ventral process.

# Comparative notes

Based on the presence of a row of long and erect setae on the metafemur, on the very shallow posterior excision of the male sternite VIII, as well as on the similar general morphology of the aedeagus, *N. alesianus* is most closely related to *N. femoralis* Ito, 1985 from Fenchihu in Chiayi Hsien, from which it differs by the distinctly longer and more slender ventral process and the longer dorso-lateral apophyses of the aedeagus. For illustrations of *N. femoralis* see Ito (1985).

# Distribution and natural history

The type locality is situated in the environs of Tona Forest Station [approximately 22°55'N, 120°43'E] in



**Figs. 68–79**. *Nazeris alesianus* (68–73) and *N. reticulatus* (74–79). – **68**, **74**. Habitus. **69**, **75**. Forebody. **70**, **76**. Male sternite VII. **71**, **77**. Male sternite VIII. **72–73**, **78–79**. Aedeagus in lateral and in ventral view. – Scale bars: 1.0 mm (68–69, 74–75), 0.5 mm (70–71, 76–77), 0.2 mm (72–73, 78–79).

Kaohsiung Hsien, southern Taiwan (Fig. 67), at an altitude of 1700–1800 m.

# Nazeris reticulatus n. sp. (Figs. 67, 74–79)

# Type material

Holotype ♂: "Taiwan: Kaohsiung, Kueiko, 20-VII-1990, col. W. B. YEH / Holotypus ♂ *Nazeris reticulatus* sp. n. det. V. Assıng 2013" (cAss).

# Etymology

The specific epithet is a Latin adjective and alludes to the presence of microreticulation on the head and pronotum.

# Description

Species of moderate size; body length 5.6 mm; length of forebody 2.9 mm. Habitus as in Fig. 74. Coloration: body dark-brown with the abdominal apex dark-reddish; legs and antennae yellowish, with antennomere I somewhat darker.

Head (Fig. 75) as long as broad and with rather marked posterior angles; punctation dense and coarse, not umbilicate; interstices forming moderately narrow ridges, with shallow microreticulation and subdued shine. Eyes distinctly convex, noticeably more than one third as long as distance from posterior margin of eye to posterior constriction in dorsal view. Antenna relatively short, 1.5 mm long.

Pronotum (Fig. 75) 1.15 times as long as broad and 0.9 times as broad as head; punctation dense, non-umbilicate, approximately as coarse as that of head; midline with a narrow rudiment of an impunctate band posteriorly; interstices with shallow microreticulation and subdued shine.

Elytra (Fig. 75) 0.6 times as long as pronotum; humeral angles obsolete; punctation less coarse and shallower than that of pronotum; interstices without microsculpture and glossy. Hind wings completely reduced. Legs moderately long and slender; metatarsomere I elongated, longer than the combined length of II and III, but distinctly shorter than the combined length of II–V.

Abdomen approximately 1.2 times as broad as elytra; punctation coarse and dense in anterior impression of tergite III, somewhat finer and sparser on remainder of tergite III, and relatively fine and only moderately dense on tergites IV–VIII; interstices with shallow microsculpture; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII convex.

♂: sternite VII (Fig. 76) moderately transverse, pubescence weakly modified, in posterior portion dense, long, and dark, but not forming a distinct cluster, posterior margin truncate; sternite VIII (Fig. 77) weakly transverse, 1.05 times as broad as long, posterior excision narrow and approximately 0.25 times as deep as length of sternite; aedeagus (Figs. 78–79) 0.9 mm long; ventral process somewhat spear-shaped in ventral view and weakly curved in lateral view; dorso-lateral apophyses broadly lamellate and long, extending beyond apex of ventral process.

# Comparative notes

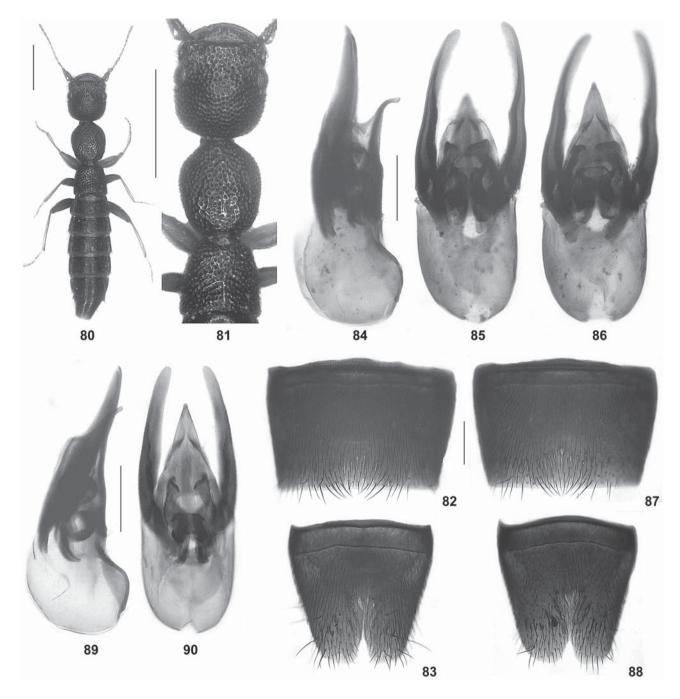
*Nazeris reticulatus* is distinguished from *N. alesianus*, the only other representative of the genus known from Kaohsiung Hsien, by the less coarse punctation of the whole body, the presence of microsculpture on head, pronotum, and abdomen, by the shorter antennae, the different head shape (posterior angles more marked), the relatively larger eyes, the less transverse male sternite VII with longer pubescence posteriorly, the weakly transverse male sternite VIII with a much deeper and narrower posterior excision, as well as by the different shapes of the ventral process and the dorso-lateral apophyses of the aedeagus.

# Distribution and natural history

The type locality is situated at 23°05'N, 120°25'E in Kaohsiung Hsien, southern Taiwan (Fig. 67). Additional data are not available.

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Figs. 80–90. *Nazeris centralis* from the Ali Shan (80–86) and holotype (87–90). – 80. Habitus. 81. Forebody. 82, 87. Male sternite VII. 83, 88. Male sternite VIII. 84–86, 89–90. Aedeagus in lateral and in ventral view. – Scale bars: 1.0 mm (80–81), 0.2 mm (82–90).

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