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**Contributions to the knowledge of the Quediina
(Coleoptera: Staphylinidae: Staphylinini) of China.
Part 53. Genus *Indoquedius* BLACKWELDER, 1952. Section 2**

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Abstract: The type material of *Indoquedius juno* (SHARP, 1874) and of its synonym *Indoquedius aculeus* ZHAO & ZHOU, 2010 has been studied and the details are made available here. Geographical distribution of *I. juno* is given. *Indoquedius frater* is described as new based on specimens from Yunnan. *Indoquedius jendeki* is for the first time recorded from Laos. Additional faunistic and bionomic data on some previously described species are presented.

Key words: Coleoptera: Staphylinidae, Staphylininae, Staphylinini, Quediina, *Indoquedius*, type material, taxonomy, synonymy, new species, geographical distribution, mainland China, Palearctic Region.

Introduction

This is the fifty-third of a series of papers dealing with the Quediina of People's Republic of China. It deals with the species of the genus *Indoquedius* BLACKWELDER, 1952. It presents the results of the study of the type material of *I. juno* (SHARP, 1874) and its synonym *Indoquedius aculeus* ZHAO & ZHOU, 2010. A preliminary note of this synonymy was published recently. One new species: *I. frater* nov.sp. is described based on specimens from Yunnan. This brings the number of species of *Indoquedius* known to occur in mainland China to 16. New distributional data of several already described species are given.

Materials and methods

The acronyms used in the text when referring to the deposition of the specimens are as follows:

- ASCAleš Smetana collection, deposited at The National Museum of Nature and Science, Tsukuba, Japan
 MSC.....Michael Schülke collection, Berlin, Germany
 NMW.....Naturhistorisches Museum, Wien, Austria (H. Schillhammer)
 SNUCDepartment of Biology, Shanghai Normal University, Shanghai, People's Republic of China (J. Hu and L. Tang)

VAC..... Volker Assing collection, Hannover, Germany

Label data for holotype and allotype are quoted exactly as they appear on the label.

Results

Indoquedius jun SHARP, 1874

jun SHARP, 1874: 24 (*Quedius*; description); SHARP 1889: 29 (*Quedius*); BERNHAUER & SCHUBERT 1916: 425 (*Quedius*; catalogue); SCHEERPELTZ 1933: 1445 (*Quedius*; catalogue); KORGE 1963: 87 (*Quedius*; subgenus *Indoquedius*); NAKANE 1963: 94 (*Quedius*; characters; habitus); SMETANA 1988: 300 (*Indoquedius*); HERMAN 2001: 3080 (*Indoquedius*; catalogue); SMETANA 2004: 656 (*Indoquedius*; catalogue)

aculeus ZHAO & ZHOU, 2010: 31 (*Indoquedius*; description); SMETANA 201a: (*Indoquedius*; synonym of *jun*)

Type material. *Quedius jun*. Type locality. Japan, Yamato.

Type specimen. Holotype, female (by monotypy), in BMNH, labelled as follows: Holo-type [round label with red margin] / 358 / *Quedius Juno* type D.S. [Sharp's handwriting] / Japan. G. Lewis. 1910 – 320. / HOLOTYPE *Quedius jun* Sharp, 1874: 24 det. R. G. Booth 2009".

Indoquedius aculeus ZHAO & ZHOU, 2010

Type locality. China, Sichuan, Wolong, Wulidun, 2270 m.

Type specimens. Holotype, male, in IZAS: "**Sichuan Wolong Wulidun 2270 m RenGongLuo YieSongLin, Bei Yo, 2004.VII.7-10. Yu Xiao Dong**. RG 13-4 Chinese Academy of Science, Animal Science [in Chinese] / *Indoquedius* nr. *Sikkimensis* Cam A. Solodovnikov det. 2009 / *Indoquedius* ? liuae Zheng & Wang A. Solodovnikov det. 2009 / HOLOTYPE [red label] / *Indoquedius aculeus* Zhao & Zhou identified by [in Chinese]: Zong-Yi Zhao, 2010". Secondary: 7 PT (IZAS). Note: bold print applied here – see Comments.

Distribution. The species was until recently known only from Japan, but it was quite recently recorded without any details from the provinces Chongqing, Hebei, Hubei, Shaanxi and Sichuan of Peoples Republic of China, and from Russian Far East by SMETANA. Detailed records are presented here: CHINA: **Chongqing**: Chengkou Coun., East Daba Shan, lower Huang'an- Gou, 31.51.227N 109.07.174E, 2039 m, 22-23.IV.2008, Huang hao & Xu Wang leg., 1 spec. (SNUC); He b e i: pass Chengde-Chifeng, 41°6'N 118°2'E, 30-31. 5, 2002, J. Turna leg., 19 spec. (ASC, NMW). **Hubei**: Daba Shan, creek valley 8 km NW Muyuping, 31°29'N 110°22'E, 1540 m, (edge of small creek), 18.VII.2001, [16], Wrase leg., 1 spec. (ASC); S env. Muyuping, 31°45'N 110°4'E, up to 1100 m, 15.-17.VI.2002, J. Turna leg., 1 spec. (NMW); **Shaanxi**: Qinling Shan, 6 km E Xunyangba, 1000-1300 m, 23.V.- 13.VI. 2000, C. Holzschuh leg., 2 spec. (ASC, NMW); Qinling Shan, pass on rd. Zhouzhi-Foping, 105 km SW Xi'an, N slope, 1700 m, 33°46'N 107°58'E, [C 01-02], M. Schülke leg., 2 spec. (MSC); Zhouzhi Coun., Houzhezi, Qinling, West Sangogli Gou, 33.50.613N 107.48.524E, 1336 m, 17.-19.V.2008, Huang Hao & Xu Wang leg., 2 spec. (SNUC). **Sichuan**: Aba Tibet. Aut. Pref., Weizhou Co., Quionglai Shan, Wolong valley, 40 km W Dujiangyan, 1500 m, 31°03'N 103°12E (brook bank), 14.VII.1999, D. W. Wrase, 1 spec. (ASC). **Russian Far East**: "Sibiria or. Ussurijskij r. S Dudovij Kas. Skali 13. 5. 1985", 1 spec. (NMW); Benekovskye env., 10 km W or NW, 159-160 m, 1.-8.VII.2014, 43.17N 133.76 E, Jendek, Machálik, Souša leg., 1 spec. (ASC).

C o m m e n t s . When describing *Indoquedius aculeus*, ZHAO & ZHOU (l.c.) failed to list all label data attached to the holotype specimen. They only provided those that are printed in bold under Type specimens above.

***Indoquedius frater* nov.sp. (Figs 1-6)**

T y p e l o c a l i t y . China: Yunnan: SE Pingbian, 22° 54'31''N 103° 41'44''E, 2100 m.

T y p e m a t e r i a l . Holotype (♂) and allotype (♀): CHINA: "CHINA [22a]- Yunnan, SE Pingbian, primary forest, 22° 54'31''N 103° 41'44''E, 2100 m, 28.VIII.2014 V. Assing". Holotype in ASC, allotype in VAC.

D e s c r i p t i o n . Body entirely black; maxillary and labial palpi piceous-black, with last segment paler, antennae black, with last four segments milky white., legs black with paler tarsi. Head rounded, slightly wider than long (ratio 1.17); eyes very large and convex, tempora about half as long as eyes seen from above (ratio 0.50); two punctures along medial margin of each eye between anterior and posterior frontal punctures; posterior frontal puncture situated close to posteriomedial margin of eye, separated from it by distance slightly shorter than diameter of puncture; one puncture between it and posterior margin of head; temporal puncture small, situated closer to posterior margin of eye than to posterior margin of head, two fine punctures posteriomedial of it, tempora impunctate; surface of head without microsculpture. Antenna long, hardly thickened toward apex, segment 3 markedly longer than segment 2 (ratio 1.57), following segments distinctly longer than wide but becoming gradually shorter toward antennal apex, last segment asymmetrically acuminate, slightly longer than preceding segment. Pronotum feebly wider than at midline long (ratio 1.11), broadly rounded at base, narrowed anteriorly, transversely convex, lateral pronotal groove smooth, without microsculpture; dorsal rows each with three punctures, sublateral rows absent; large lateral puncture separated from lateral pronotal groove by distance about equal to diameter of puncture; anterior angles of pronotum impunctate; surface of pronotum without microsculpture. Scutellum large, coarsely and densely punctuate and setose. Elytra moderately long, at base slightly narrower than pronotum at widest point, at suture vaguely (ratio 1.08), at sides slightly (ratio 1.12) longer than pronotum at midline; punctuation coarse and dense, transverse interspaces between punctures shorter than diameters of punctures, surface between punctures without microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) with distinct whitish apical seam of palisade fringe; tergite 2 (in front of first fully visible tergite) impunctate; punctuation of abdominal tergites considerably finer than that on elytra, moderately dense, about evenly covering each tergite, but becoming gradually sparser toward apex of abdomen; pubescence black; surface between punctures with excessively fine microsculpture of transverse striae.

Male. First four segments of front tarsus markedly dilated, subbilobed, each densely covered with tenent setae ventrally; segment 2 wider than apex of tibia (ratio 1. 21), segment 4 narrower than preceding segments. Sternite 8 with one long seta at each side, with inconspicuous, shallow. arcuate medioapical emargination, small triangular area before emargination flattened and smooth (Fig. 1). Genital segment with tergite 10 wide, markedly narrowed toward emarginated apex, setose as in Fig. 2; sternite 9 with short basal portion, apical portion deeply emarginated apically, with transparent "mirror" at each lateral margin, setose as in Fig. 3. Aedoeagus (Figs. 4, 5) quite similar to that of *I. jendeki*, but markedly larger and more elongate, paramere markedly longer, particularly

the subparallelsided apical portion; internal sac similar to that of *I. jendeki*, but composed of much finer spine-like elements.

Female. First four segments of front tarsus markedly dilated, not appreciably different from those of male. Genital segment with tergite 10 wide, markedly narrowed toward deeply emarginate apex, setose as in Fig. 6.

Length 12.0-12.4 mm.

E t y m o l o g y . The specific epithet is the Latin noun *frater*, *-tris*, m (brother) in apposition. It denotes the close similarity of the species to *I. jendeki*.

G e o g r a p h i c a l D i s t r i b u t i o n . *Indoquedius frater* is at present known only from the type locality in southern Yunnan.

B i o n o m i c s . The two specimens of the original series were taken in a "primary forest", but no details are available.

R e c o g n i t i o n a n d c o m m e n t s . *Indoquedius frater* is obviously closely related and similar to *I. jendeki*, as documented by the similar sclerites of both the male and female genital segments, and by the shape of the aedoeagus, but it may be externally easily distinguished by the uniformly deep black coloration of the body, by the more robust body shape, and by the coarser punctuation of both the elytra and abdominal tergites.

***Indoquedius klapperichi* SMETANA, 2014**

klapperichi SMETANA, 2014: 178 (*Indoquedius*; description)

N e w r e c o r d s . CHINA: Yunnan: SE Pingbian, 22° 54'31''N 103° 41'44''E, 2100 m, 28.VIII.2014, [CH 14-22a], M. Schülke, 2 spec. (ASC, MSC); same, but V. Assing, 3 spec. (ASC, VAC).

C o m m e n t s . The specimens were collected in a primary subtropical broadleaved forest by sifting forest floor litter.

These are the first records of *I. klapperichi* from Yunnan; the species was previously known only from the holotype taken in Fujian.

***Indoquedius bicoloris* SMETANA, 2014**

bicoloris SMETANA, 2014: 184 (*Indoquedius*; description; habitat)

N e w r e c o r d s . CHINA: Yunnan: mt. W Xundian, 25° 34'44''N 103° 09'17''E, 2200 m, 15.VIII.2014, [CH 14-08], M. Schülke, 2 spec. (ASC, MSC); same, but 25° 34'58''N 103° 08'42''E, 15/16.VIII.2014, [C 14-09/09a], 12 spec. (ASC, MSC); same, but V. Assing, 13 spec. (ASC, VAC).

Specimens were collected in a mixed forest with alder, pine and shrubs by sifting litter, twigs and roots. The species is at present known only from Yunnan.

***Quedius bicornutus* ZHAO & ZHOU, 2010**

bicornutus ZHAO & ZHOU, 2010: 33 (*Indoquedius*; description); SMETANA 2014: 170 (*Indoquedius*; characters; male characters illustrated; faunal records: Shaanxi, Sichuan, Yunnan; habitat).

N e w r e c o r d s . CHINA: Yunnan: NE Kunming, 25° 09'07''N 102° 53'46''E, 2280 m, 11.VIII.2014, [CH 14-04], M. Schülke, 1 spec. (MSC); same, but 25° 08'40''N 102° 53'48''E, 2290 m, 11.VIII.2014, [CH 14-05], M. Schülke, 3 spec. (ASC, MSC); same, but V. Assing, 7 spec.

(ASC, VAC); same, but 25° 08'35"N 102° 53'49"E, 2320 m, 13.VIII.2014, [CH 14-06], 2 spec. M. Schülke (MSC); same, but V. Assing, 3 spec. (ASC,VAC) same, but 25° 09'07 N 102° 53'46"E, 2280 m, 11.VIII.2014, 3 spec., V. Assing (ASC, VAC); mountain NW Wuding, 25° 36'53"N 102° 18'59"E, 2190 m, 17.VIII.2014 [CH 14-10], M. Schülke, or V. Assing, 2 spec. (ASC, MSC); same, but, 25° 38'45"N 102° 06'55"E, 2390 m, 1.IX.2014, V. Assing, 5 spec. VAC); mountain W Gejiu, 23° 24'13"N 103° 07'28"E, 1190 m, 23.VIII.2014, [CH14-20/20a,b], M. Schülke, 5 spec. (ASC, MSC); same, but 23° 17'14"N 103° 08'41" E, 1860 m, 21.VIII.2014, V. Assing, 3 spec. (VAC); mountain W Yuxi, 24° 27'11"N 102° 29'58"E, 2250 m, 31.VIII.2014, V. Assing, 5 spec. (ASC, VAC); mts W Dongchuan, 26° 06'08 N 102° 54'46"E, 14.VIII.2014, V. Assing, 1 spec. (VAC).

C o m m e n t s . Specimens were taken in mixed forests with alder, oak and pine by sifting forest floor litter, mushrooms and dead wood. Note that all collecting sites are well below 3000 m. The species is at present known from Shaanxi, Sichuan and Yunnan.

***Indoquedius jendeki* SMETANA, 2014**

jendeki SMETANA, 2014: 176 (*Indoquedius*; description)

N e w r e c o r d . LAOS: Hua Phan prov., Ban Saluei, Phou Pan, 20° 12'N 104° 01'E, 1.-31.V.2011, 1500-1900 m, Holzschuh leg., 2 spec. (ASC, NMW).

C o m m e n t . This is the first record of this species from Laos. It was previously known only from Yunnan in mainland China.

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Zusammenfassung

Typusmaterial von *Indoquedius juno* (SHARP, 1878) und *Indoquedius aculeus* ZHAO & ZHOU, 2010 wird präsentiert. Eine neue Art von Yunnan: *Indoquedius frater* nov.sp. wird beschrieben und abgebildet. *Indoquedius jendeki* SMETANA, 2014 wird zum erstenmal von Laos gemeldet. Für fünf Arten werden weitere Nachweise aus China angeführt.

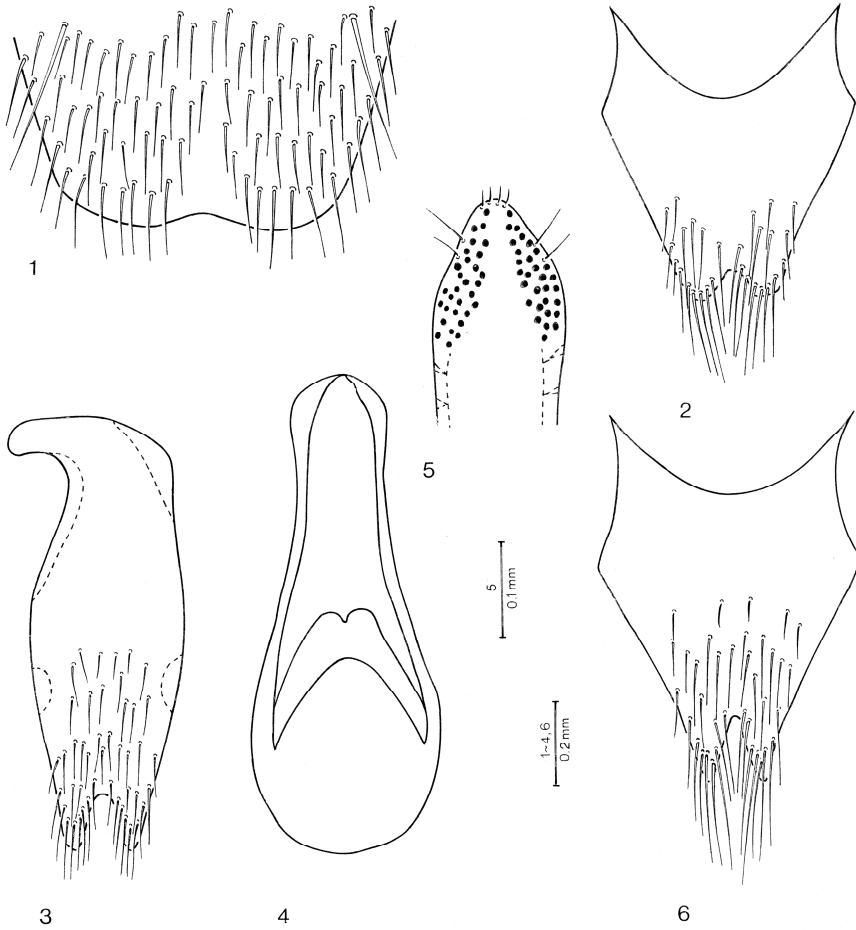
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Figs 1-6. *Indoquedius frater* sp. nov. (1) apical portion of male sternite 8; (2) tergite 10 of male genital segment; (3) sternite 9 of male genital segment; (4) aedoeagus, ventral view; (5) apical portion of ventral side of paramere with sensory peg setae; (6) tergite 10 of female genital segment.

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