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# Contributions to the Knowledge of the "*Staphylinus*-complex" (Coleoptera, Staphylinidae, Staphylinini) of China

Part 6. On Species Collected Recently in the Meishan Area, Sichuan

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**Abstract** Ocypus (Pseudocypus) sericeomicans BERNHAUER, 1931 is redescribed; Sphaerobulbus nagahatai sp. nov. (Sichuan) and Ocypus (Pseudocypus) imurai sp. nov. (Sichuan) are described. New distributional records are given for Miobdelus inornatus, Miobdelus gracilis, and for Sphaerobulbus bisinuatus.

### Introduction

The paper contains results of the study of the material collected recently in Hong'ya and Ebian counties, Sichuan, People's Republic of China, by Y. IMURA and Y. NAGAHATA. In addition to new distributional records of some previously known species, the material contained also specimens of two undescribed species. One of the new species is similar and closely related to *Ocypus (Pseudocypus) sericeomicans* BERNHAUER, 1931, a species that has not been taxonomically treated since its original description. It is therefore redescribed and illustrated on this occasion, and the lectotype is designated for it.

#### Miobdelus inornatus SMETANA, 2001

Miobdelus inornatus SMETENA, 2001, 188

*New record.* China: [Sichuan]: Hongyaxian [=Hong'ya Xian], near the summit of Wawu-shan, 2600–2650 m, 25. V–2. VI. 2004, Y. Imura & Y. Nagahata leg. (1).

*Comment.* The specimen was taken from pitfall traps, set in a primary *Abies* forest with *Rhododendron* and *Sasa* undergrowth. The species was at present known only from the various mountain ranges of Daxue Shan in the broader vicinity of Kangding.

#### Miobdelus gracilis SMETANA, 2001

#### Miobdelus gracilis SMETANA, 2001, 181

*New record.* China: [Sichuan]: Ebian Yizu Zizixian, Heizhugou 614 Linchang, 2100–2600 m, 29–31. V. 2004, Y. Imura & Y. Nagahata leg. (1).

*Comment.* The specimen was taken from pitfall traps, set in a secondary *Abies* forest with *Rhododendron* and *Sasa* undergrowth. The species was at present known only from the Gongga Shan massive.

#### Sphaerobulbus bisinuatus SMETANA, 2003

Sphaerobulbus bisinuatus SMETANA, 2003, 70

*New record* China: [Sichuan]: Ebian Yizu Zizixian, Heizhugou 614 Linchang, 2100–2600 m, 29–31. V. 2004, Y. Imura & Y. Nagahata leg. (1).

*Comment.* The specimen was taken from pitfall traps, set in a secondary *Abies* forest with *Rhododendron* and *Sasa* undergrowth. The species was so far known only from the area around Dali in west-central Yunnan, and from Daliang Shan in southern Sichuan.

#### Sphaerobulbus nagahatai sp. nov.

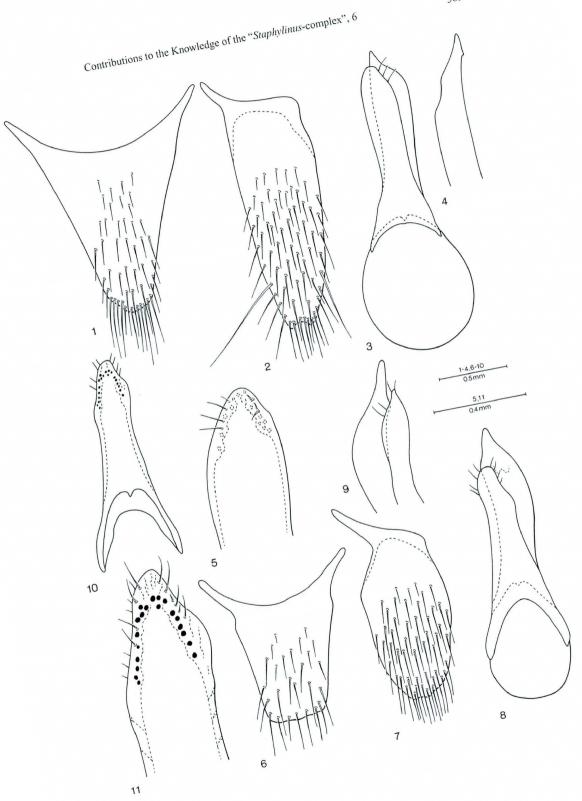
(Figs. 1-5)

*Description.* In all characters very similar to *S. bisinuatus* SMETANA, 2003, but different as follows:

Size slightly smaller than average specimens of *S. bisinuatus*, body form slightly narrower. Head shorter and wider, with less rounded posterior angles, more distinctly wider than long (ratio 1.28, corresponding ratio in *S. bisinuatus* 1.18), eyes flatter and slightly smaller, tempora considerably longer than eyes from above (ratio 2.5), punctation of dorsal side of head similar, but distinctly finer. Antennae similar, but shorter and slightly more slender. Punctation of pronotum distinctly finer. Elytra shorter, at suture distinctly (ratio 0.66) at sides appreciably (ratio 0.83) shorter than pronotum at midline (corresponding ratios in *S. bisinuatus* 0.77 and 0.88), punctation of elytra finer and slightly sparser.

Male. Sternite 8 with obtusely triangular medioapical emargination, similar to that of *S. bisinuatus*. Genital segment with sternite 9 narrower, with longer basal portion, less densely setose and with one strong, very long seta at each lateral margin

Figs. 1–11 (on p. 305). — 1–5. Sphaerobulbus nagahatai: 1, tergite 10 of male genital segment; 2, sternite 9 of male genital segment; 3, aedoeagus, ventral view; 4, apical portion of median lobe, lateral view; 5, apical portion of underside of paramere. — 6–11. Ocypus sericeomicans: 6, tergite 10 of male genital segment; 7, sternite 9 of male genital segment; 8, aedoeagus, ventral view; 9, apical portion of aedoeagus, lateral view; 10; underside of paramere; 11, apical portion of underside of paramere.



near apex (Fig. 2). Tergite 10 more attenuate toward apex, as in Fig. 1. Aedoeagus (Figs. 3, 4) similar to that of *S. bisinuatus*, but apical portion of median lobe narrower with sharper apex; paramere distinctly not reaching apex of median lobe (about reaching apex of median lobe in *S. bisinuatus*), with not pigmented sensory peg setae and apical setae as in Fig. 5.

Female unknown.

Length 16.5-17.5 mm.

*Type material*. Holotype (male); China: "China: Sichuan, Ebian Yizu Zizixian, Heizhugou 614 Linchang Lake Dadujuanchi alt. 2400–2500 m, 29–31 V 2004 Y. Imura & Y. Nagahata leg." In the collection of the National Science Museum (Natural History), Tokyo.

Paratype. China: [Sichuan]: same data as holotype,  $1\delta$ , in the SMETANA collection, Ottawa, Canada.

*Geographical distribution. Sphaerobulbus nagahatai* is at present known only from the type locality in Sichuan.

*Bionomics.* The specimens of the original series were taken from pitfall traps, set in a secondary *Abies* forest with *Rhododendron* and *Sasa* undergrowth.

*Recognition and comments.* The aedoeagus of S. *nagahatai* is very similar to that of *S. bisinuatus*; however, the differences seem to be constant and when combined with the distinct ektoskeletal differences described above, there is no doubt that *S. nagahatai* is specifically different.

Most of the previously known species of the genus *Sphaerobulbus* occur in Yunnan, only one of them (*S. bisinuatus*) also in southern Sichuan (Daliang Shan) and one (*S. abdominalis* SMETANA, 2003) occurs only in southern Sichuan (pass near Muli). The presence of *S. nagahatai* in Ebian county in central Sichuan represents a significant extension of the distributional range of the genus *Sphaerobulbus* northward.

*Etymology.* Patronymic, the species has been named in honor of Mr. Yoshiyuki NAGAHATA, Yonezawa, one of the collectors of the new species.

### Ocypus (Pseudocypus) sericeomicans (Bernhauer, 1931)

(Figs. 6-12)

Staphylinus (Ocypus) sericeomicans BERNHAUER, 1931, 2 Ocypus (Pseudocypus) sericeomicans: SMETANA & DAVIES, 2000, 45

*Description.* Entirely black, dull; head, pronotum and to lesser extent elytra, with very faint, purplish, silky lustre; maxillary and labial palpi dark brunneous, antennae piceous, with first three segments variably paler, rather reddish brunneous and with outer segments gradually becoming paler; legs entirely testaceobrunneous; pubescence of dorsal side of body, including abdominal tergites, uniformly piceous. Head of rounded quadrangular shape, with rounded posterior angles, wider than long (ratio 1.23), eyes small and rather flat, tempora markedly longer than eyes from above (ratio 1.95), dorsal surface of head very finely, superficially punctate and pubescent, inter-

spaces between punctures on disc distinctly larger than diameters of punctures, punctation gradually becoming slightly denser and coarser toward posterior and lateral margins, vague, narrow impunctate midline present on posterior half of head; interspaces between punctures with fine submeshed microsculpture. Dorsal side of neck with punctation similar to that on head, but somewhat denser. Antenna slender, moderately long, segment 3 slightly longer than segment 2 (ratio 1.15), segments 4 to 7 longer than wide, becoming gradually shorter, outer segments slightly longer than wide to about as long as wide, last segment shorter than two preceding segments combined. Pronotum slightly longer than wide (ratio 1.11), almost parallel-sided, narrow marginal groove disappearing downwards at about anterior third of pronotal length; disc with entire, narrow, impunctate midline; punctation, pubescence and microsculpture on interspaces between punctures similar to that on head. Scutellum finely punctate and setose, surface with very fine, rudimentary submeshed microsculpture. Elytra quite short, slightly depressed at base, somewhat dilated posteriad, at suture considerably (ratio 0.42), at sides distinctly (ratio 0.80) shorter than pronotum at midline; punctation fine, moderately dense, finely asperate, interspaces between punctures with dense, relatively coarse submeshed microsculpture. Wings each reduced to minute, non-functional stump. Abdomen with fifth visible tergite lacking pale apical seam of palisade setae; tergite 2 (in front of first visible tergite) entirely, moderately densely and finely punctate and pubescent; all tergites finely, moderately densely punctate, punctation somewhat sparser than that on elytra, gradually becoming sparser toward apex of abdomen; interspaces with microsculpture similar to that on elytra, but appreciably finer.

Male. Sternite 8 with rather wide and deep, obtusely triangular medioapical emargination, small triangular area before emargination flattened and smooth. Genital segment with sternite 9 rather short and wide, with moderately long, tapered basal portion, vaguely sinuate apically (Fig. 7). Tergite 10 wide, sparsely setose, only moderately narrowed toward apex, apex widely arcuate to subtruncate (Fig. 6). Aedoeagus (Figs. 8–11) in general elongate, narrow, shaped as in Fig. 8; median lobe with apical portion somewhat curved toward left, with acute triangular apex, on face adjacent to paramere with two indistinct lobes far below apex (paramere removed); paramere situated on median lobe markedly asymmetrically, shaped as in Figs. 8, 10, apical portion markedly asymmetrical, with narrowly arcuate apex by far not reaching apex of median lobe; underside of paramere with moderately numerous sensory peg setae, situated on apical portion as shown in Figs. 10, 11; with two apical setae at each lateral margin close to apex and two similar setae on each side far below them (Fig. 11).

Female. Tergite 10 of genital segment as in Fig. 12, extensively pigmented apically, with narrowly arcuate apex, very sparsely setose.

Length 13.0–17.0 mm.

*Type material.* BERNHAUER (1931, 2) described the species from at least two specimens, apparently females, since he did not mention the male secondary sexual characters in the original description.

I was able to study one female specimen from the BERNHAUER collection, deposited in the Field Museum of Natural History, Chicago, Illinois. It is labelled as follows: "Omihsien" [hand written] / "1923 4" [yellow label] / "Szetschwan Kia-Ting Exp. Stöttner" / "Staphylinus sericeomicans Brnh. n.sp." / "sericeomicans Brnh. Typus" [yellow label] / "Chicago NHMus M. BERNHAUER collection".

The specimen is slightly teneral. It is in relatively good shape, last segment of right front tarsus and left antenna, except for first three segments, as well as the right maxillary palpus, are missing. To stabilize the nomenclature of the species group to which *O. sericeomicans* belongs, the specimen is hereby designated as the lectotype; the label "LECTOTYPE Staphylinus sericeomicans BERNHAUER, A. Smetana des. 2004" has been attached to the pin with the beetle.

Additional material. CHINA: [Sichuan]: Emei Shan, 3,000 m, 29°32'N 103° 21'E, 17.VII.1996, [C 64], A. Smetana, J. Farkač, P. Kabátek (2); same data, but 17–19.VII.96, [C 66] (13); Emei-Shan, 2,100–2,300 m, Thunder Cave, 9–12.VII.95, W. Heinz (1). All specimens in the SMETANA collection, Ottawa, Canada.

*Geographical distribution. Ocypus sericeomicans* is at present known only from Emei Shan in Sichuan. The locality "Kia-Ting" of the original specimens is now Leshan, a city close to Emei Shan. It is quite possible that those specimens actually came from Emei Shan, or its foot hills.

*Bionomics*. The specimens bearing the code C 64 were taken in an old coniferous forest with undergrowth of rhododendrons and various bushes by sifting various forest floor debris. The specimens bearing the code C 66 were taken from pitfall traps set in a similar habitat.

*Recognition and comments.* Ocypus sericeomicans, may be fairly easily recognized, together with the following new species, by the faint but readily observable, purplish, silky lustre of the forebody, combined with the entirely testaceobrunneous legs. It differs from *O. imurai* by the male sexual characters, particularly by the different aedoeagus (Figs. 8, 15, 10, 17).

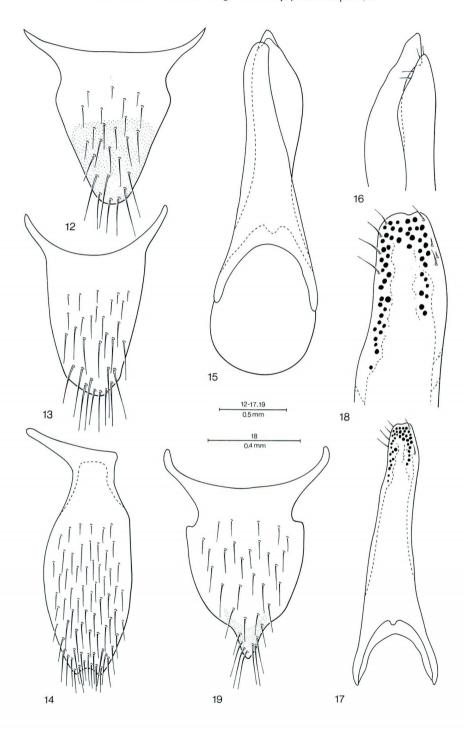
### Ocypus (Pseudocypus) imurai sp. nov.

(Figs. 13-19)

*Description.* In all characters similar to *O. sericeomicans* and different mainly by male sexual characters. Apex of abdomen becoming indefinitely paler in most specimens.

Male. Medioapical emargination of sternite 8 narrower, less deep and more arcuate. Sternite 9 of genital segment similar to that of *P. sericeomicans*, but narrower

Figs. 12–19 (on p. 309). — 12. Ocypus sericeomicans: tergite 10 of female genital segment. — 13–19. Ocypus imurai: 13, tergite 10 of male genital segment; 14, sternite 9 of male genital segment; 15, aedoeagus, ventral view; 16, apical portion of aedoeagus, lateral view; 17, underside of paramere; 18, apical portion of underside of paramere; 19, tergite 10 of female genital segment.



and longer, distinctly emarginate apically (Fig. 14). Tergite 10 longer and narrower, arcuate apically (Fig. 13). Aedoeagus (Figs. 15–18) similar to that of *O. sericeomicans*, but markedly larger, with triangular apical portion wider, on face adjacent to paramere with V-shaped carina close to apex; paramere markedly longer, apical portion much less asymmetrical with apex minutely sinuate, apex reaching distinctly closer to apex of median lobe; sensory peg setae on underside of paramere markedly more numerous, apical setae situated as in Fig. 18.

Female. Tergite 10 of genital segment of different shape, with slightly differentiated apical portion, with pigmented portion limited to actual apex, sparsely setose (Fig. 19).

Length 14.0–18.0 mm.

*Type material.* Holotype (male) and allotype (female); China: "China: Sichuan, Hongyaxian [=Hong'ya Xian], Near the summit of Wawu-shan, alt. 2600–2650 m, 25.V.–2.VI. 2004, Y. Imura & Y. Nagahata leg." Holotype in the collection of the National Science Museum (Natural History), Tokyo; allotype in the SMETANA collection, Ottawa, Canada.

Paratypes: China: [Sichuan]: same data as holotype, 9♂♂, 13♀♀ in the SMETANA collection, Ottawa, Canada.

*Geographical distribution. Ocypus imurai* is at present known only from the type locality in Wawu Shan, Hong'ya county, Sichuan.

*Bionomics.* The specimens of the original series were taken from pitfall traps set in an *Abies* forest with *Rhododendron* and *Sasa* undergrowth.

*Recognition and comments. Ocypus imurai* may be easily distinguished from *O. sericeomicans* by the different aedoeagus, particularly by the markedly different paramere, as well as by the distinctive shape of tergite 10 of the female genital segment.

*Etymology*. Patronymic, the species was named in honor of Dr. Yûki IMURA, Yokohama, the renowned Carabini specialist and one of the collectors of the original series of the new species.

#### Acknowledgments

I thank Dr. Shun-Ichi UÉNO for making me aware of the interesting material this paper is based on, and Dr. Munetoshi MARUYAMA who kindly sent the material to me and allowed me to keep all specimens, except holotypes, in my collection. Mr. Yoshiyuki NAGAHATA provided the bionomic data; his help was highly appreciated. Mr. Go SATO, Agriculture and Agri-Food Canada, Ottawa, carefully finished the line drawings.

A. SMETANA: 中国産ダイミョウハネカクシ属群に関する知見. 6. 四川省眉山地域で新たに発

見された種. — 中国四川省洪雅县の瓦屋山と峨边彝族自治县の黒竹沟で,井村有希および 永幡嘉之の両氏によって採集されたダイミョウハネカクシ属群の資料は,5種に分類され,そ のうちの2種が新種だったので,Sphaerobulba nagahatai および Ocypus (Pseudocypus) imurai とい う新名を与えて記載し,残りの3既知種をこの地域から新たに記録した.また, O. imuraiの同定に不可欠な峨眉山固有のO. (P.) sericeomicans (BERNHAUER)を,基準標本と若干 の追加標本に基づいて再記載した.

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## Lectotype Designation of *Ohomopterus kiiensis* (Coleoptera, Carabidae)

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*Ohomopterus kiiensis* was originally described by NAKANE and IGA (1953) as a subspecies of *Apotomopterus yaconinus* based on totally 17 specimens from various localities in the Kii Peninsula, without designation of the holotype. In this article, I am going to designate the lecto-type of this taxon which is regarded as an independent species after IMURA *et al.* (2005). I thank Dr. Masahiro ÔHARA and Mr. Kiyoyuki MIZUSAWA for their kind cooperation.