

**Contributions to the knowledge of the “Staphylinus-complex” (Coleoptera:
Staphylinidae: Staphylinini) of China.
Part 24. The genus *Sphaerobulbus* Smetana, 2003. Section 4**

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**Taxonomy, new species, geographical distribution, Coleoptera, Staphylinidae, Staphylinini, Staphylinina,
Sphaerobulbus, Palaearctic, China**

Abstract. *Sphaerobulbus cardinalis* sp. nov. is described as new, based on specimens from Sichuan and Yunnan. Faunistic data on several species of *Sphaerobulbus* are given, and a checklist of the species of *Sphaerobulbus* is presented.

INTRODUCTION

This is the fourth paper dealing with the species of the genus *Sphaerobulbus* Smetana, 2003. *Sphaerobulbus cardinalis* is described as new, based on specimens from Sichuan and Yunnan. New distributional records of already described species are presented. *Sphaerobulbus ornatus* Smetana, 2006 is recorded for the first time from Sichuan.

ACRONYMS

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

ASC Collection of Aleš Smetana, Ottawa, Canada;
NMP National Museum, Praha, Czech Republic;
NMW Naturhistorisches Museum, Wien, Austria.

RESULTS

***Sphaerobulbus bisinuatus* Smetana, 2003**

Sphaerobulbus bisinuatus Smetana, 2003: 70.

New record. CHINA: Sichuan: Sichuan SanYa (Eryizuxian), 2723 m, 28° 43.374' N 101° 56.972' E, 11.vi.2005, leg. R. Sehnal & M. Trýzna, 1 ♂, (NMW).

Comment. The species is at present known from Sichuan and Yunnan.

***Sphaerobulbus rex* Smetana, 2005**

Sphaerobulbus rex Smetana, 2005: 56.

New records. CHINA: Sichuan: N-Sichuan Micang Shan, Daba, 1350- 1450 m, 32° 40'N 106° 55'E, 21.v.- 12.vi. 2008, leg. J. Turna, 3 ♂♂, 2 ♀♀, (ASC, NMW); Hubei: W-Hubei, MUYUPING NW env., 1600 m, 31° 27' N 110° 22'E, 3.v.- 15.vii. 2006, Jaroslav Turna leg., 1 ♀, (NMW).

Comment. The species is at present known from Hubei, Shaanxi and Sichuan.

***Sphaerobulbus ornatus* Smetana, 2006**

Sphaerobulbus ornatus Smetana, 2006a: 45.

New record. CHINA: Sichuan; Micang Shan, 20 km N Shangliang, 1530 m, 32° 43' N 106° 51' E, 7.v.-13.vii.2006, Jaroslav Turna leg., 1 ♂, 1 ♀, (ASC, NMW).

Comment. This is the first record of this species from Sichuan. It was previously known from Shaanxi.

***Sphaerobulbus biplagiatus* Smetana, 2006**

Sphaerobulbus biplagiatus Smetana, 2006a: 43.

New record. CHINA: Yunnan: NW-Yunnan Bai Ma Xue Shan 35 km S Deqen, 4300-4800 m, 24.vi.1998, S. Murzin, 1 ♀, (ASC).

Comment. This is the second known specimen of this species, known at present only from Yunnan.

***Sphaerobulbus nigrita* (Smetana, 2003)**

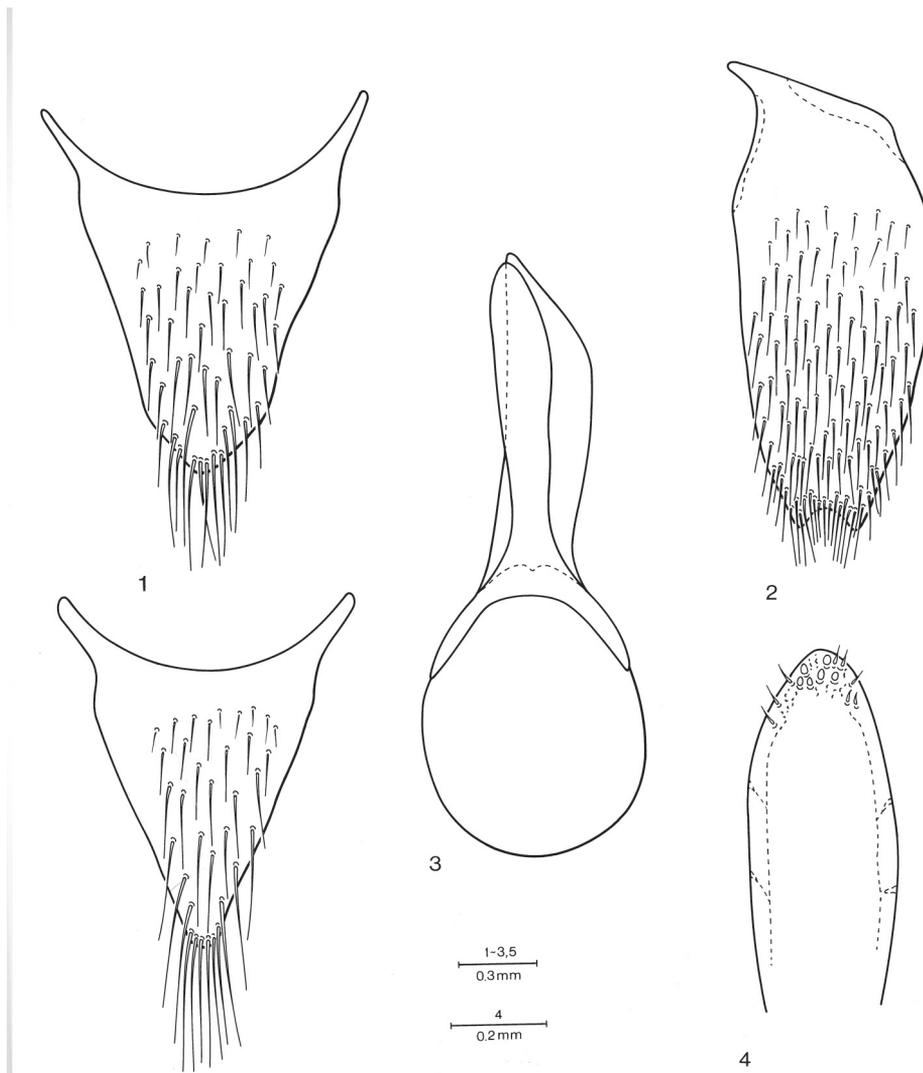
Ocychinus nigrita Smetana, 2003: 104.

Comment. The species has been transferred to the genus *Sphaerobulbus* by Smetana, 2010, based mainly on the configuration of the aedeagus.

***Sphaerobulbus alpinus* (Smetana, 2003)**

Ocychinus alpinus Smetana, 2003: 108.

Comment. The species has been transferred to the genus *Sphaerobulbus* by Smetana, 2010, based mainly on the configuration of the aedeagus.



Figs. 1-5. *Sphaerobulbus cardinalis* sp. nov.: 1- tergite 10 of male genital segment; 2- sternite 9 of male genital segment; 3- aedeagus, ventral view; 4- apical portion of underside of paramere with sensory peg setae; 5- tergite 10 of female genital segment.

***Sphaerobulbus cardinalis* sp. nov.**
(Figs. 1-5)

Type material. Holotype (♂): CHINA: Sichuan: “CHINA: W-Sichuan, 3727 m W of Zi’er, 4.6.2006, 28° 21.113’N 101° 29.384’ E, leg. R. Sehnal & M. Tryzna”, (NMW). Allotype (♀): CHINA: Sichuan: “Ch - S Sichuan, 26-27.vi.1998, road Xichang-Yanyuan, pass 15 km SW

PINGCHUAN, 27.33N 101.49E, cca 3200 m, Jaroslav Turna leg.”, (NMW). Paratypes: (1 ♂, 1 ♀): CHINA: [Sichuan]: same data as allotype, (ASC); (1 ♀): “Ch - S Sichuan, 28-29. vi.1998, 27.45N, 101.13E, pass 20 km S MULI (BOWA), mixed forest, cca 3500 m, Jaroslav Turna leg.”, (NMW); (3 ♂♂): “China Yunnan sept., Yulongshan Ganheizi, 3-3500 m, 18-23. vii.1990, D. Král lgt., (ASC, NMP).

Description. Head, pronotum and elytra black with bluish-purple hue, abdomen piceous; maxillary and labial palpi testaceous, antennae piceous with first three segments rufobrunneous, legs testaceous. Head of rounded quadrangular shape, with entirely rounded, inapparent posterior angles, slightly wider than long (ratio 1.19), eyes small, rather flat, tempora considerably longer than eyes from above (ratio 1.75); dorsal surface of head densely, moderately finely punctate and pubescent, punctation becoming sparser toward clypeus, but markedly denser toward posterior and lateral margins; narrow impunctate midline present on posterior half, but disappearing well before posterior margin of head; interspaces between punctures with extremely fine, rudimentary microsculpture; dorsal side of neck with punctation finer and denser than that on head. Antenna moderately long, segment three longer than segment two (ratio 1.25) segments four to eight longer than wide, gradually becoming shorter, segments nine and ten as long as wide, last segment shorter than two preceding segments combined. Pronotum slightly longer than wide (ratio 1.10), parallelsided, with broadly rounded base, narrow marginal groove disappearing downward at about anterior third of pronotal length; disc of pronotum with entire impunctate midline; punctation and pubescence similar to that on head, but in general finer, interspaces between punctures with microsculpture similar to that on head. Scutellum entirely, finely and densely punctate and pubescent, interspaces between punctures with rudimentary, extremely fine microsculpture. Elytra relatively long, at suture about as long as, at sides slightly longer than pronotum at midline (ratio 1.11); punctation very fine and very dense, punctures slightly asperate, surface of elytra appearing rather dull; pubescence black, very dense. Abdomen with fifth visible tergite with distinct, pale apical seam of palisade setae; tergite two (in front of first visible tergite) sparingly punctate and pubescent close to apical margin; posterior basal line on first three visible tergites, bisinuate; all tergites very finely and densely, evenly punctate and pubescent, punctation markedly finer than that on elytra, simple, punctation and pubescence on sixth visible tergite markedly sparser than that on preceding tergites; pubescence of tergites black.

Male. Sternite 8 with moderately wide and deep, obtusely triangular medioapical emargination. Male genital segment with tergite 10 as in Fig. 1, with slightly differentiated apical portion, with numerous long setae at and near apical margin, rest of tergite moderately densely setose. Sternite 9 with small, narrow, acutely triangular basal portion, apex of apical portion markedly emarginate (Fig. 2). Aedoeagus as in Figs. 3-4; median lobe almost parallelsided in middle portion, with short, asymmetrically located, triangular apical portion with acute apex; paramere situated on median lobe asymmetrically, shaped as in Figs. 3-4, with narrowly arcuate apex not quite reaching apex of median lobe; underside of paramere with about six minute, not pigmented sensory peg setae situated below apex of paramere, and with several minute apical setae, situated as in Fig. 4; internal sac with V-shaped sclerite.

Female. Genital segment with tergite 10 relatively narrow, markedly narrowed toward narrowly arcuate apex, with numerous long setae at apex and on apical portion, in general sparingly setose (Fig. 5).

Length 16.0-17.5 mm (abdomens extended).

Geographical distribution. *Sphaerobulbus cardinalis* is at present known from several localities in southern Sichuan, and from Yulong Xueshan (Ganheizi is a pass in that range) in northern Yunnan.

Bionomics. The specimens of the original series were taken from pitfall traps, but almost nothing is known about the habitat the traps were set in, except for the note "mixed forest" for the specimens taken at a pass 20 km S Muli (Bowa).

Recognition and comments. *Sphaerobulbus cardinalis* may be easily recognized by the bluish-purple hue of the forebody, in combination with the testaceous legs. It cannot be confused with any other *Sphaerobulbus* species known to occur on the territory of mainland China at present.

The holotype is missing the last segment of left antenna.

Etymology. The specific epithet is the Latin adjective *cardinalis*, -e (principal, chief). It refers to the appearance of the species.

CHECKLIST OF THE SPECIES OF THE GENUS *SPHAEROBULBUS*

<i>alpinus</i> (Smetana, 2003) (<i>Ocychinus</i>)	Tibet
<i>bicolor</i> Smetana, 2005b	Sichuan
<i>biplagiatus</i> Smetana, 2006a	Yunnan
<i>bisinuatus</i> Smetana, 2003	Sichuan, Yunnan
<i>abdominalis</i> Smetana, 2003	
<i>brezinai</i> Smetana, 2003	Yunnan (Yulongxue Shan)
<i>cardinalis</i> sp. nov.	Sichuan, Yunnan
<i>murzini</i> Smetana, 2003	Yunnan (Baimaxue Shan)
<i>angustiarum</i> (Smetana, 2006b) (<i>Ocychinus</i>)	
<i>nagahatai</i> Smetana, 2005a	Sichuan
<i>nigrata</i> (Smetana, 2003) (<i>Ocychinus</i>)	Qinghai, Yunnan
<i>ornatus</i> Smetana, 2006a	Shaanxi, Sichuan
<i>pusio</i> Smetana, 2005b	Sichuan
<i>rex</i> Smetana, 2005b	Hubei, Shaanxi, Sichuan
<i>yulongmontis</i> Smetana, 2003	Yunnan (Yulongxue Shan)
<i>yunnanus</i> Smetana, 2003	Yunnan (Dianchang Shan)

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REFERENCES

- SMETANA A. 2003: Contributions to the knowledge of the genera of the “*Staphylinus*-complex” (Coleoptera: Staphylinidae) of China. Part 4. Key to Chinese genera, treatment of the genera *Collocypus* gen. n., *Ocychinus* gen. n., *Sphaerobulbus* gen. n., *Aulacocypus* and *Apecholinus*, and comments on the genus *Protocypus*. *Folia Heyrovskyana* 11: 57-135.
- SMETANA A. 2005a: Contributions to the knowledge of the genera of the “*Staphylinus*-complex” (Coleoptera: Staphylinidae) of China. Part 6. On species collected recently in the Meishan area, Sichuan. *Elytra* 33: 303-311.
- SMETANA A. 2005b: Contributions to the knowledge of the genera of the “*Staphylinus*-complex” (Coleoptera: Staphylinidae) of China. Part 7. The genus *Sphaerobulbus* Smetana 2003. Section 2. *Zootaxa* 1006: 53-64.
- SMETANA A. 2006a: Contributions to the knowledge of the genera of the “*Staphylinus*-complex” (Coleoptera: Staphylinidae) of China. Part 13. The genus *Sphaerobulbus* Smetana 2003. Section 3. *Zootaxa* 1318: 41-47.
- SMETANA A. 2006b: Contributions to the knowledge of the genera of the “*Staphylinus*-complex” (Coleoptera: Staphylinidae) of China. Part 14. The genus *Ocychinus* Smetana 2003. Section 2. *Zootaxa* 1317: 35-40.
- SMETANA A. 2010: Contributions to the knowledge of the genera of the “*Staphylinus*-complex” (Coleoptera: Staphylinidae) of China. Part 23. The genus *Ocychinus* Smetana 2003. Section 3. *Elytra* 38: 65-70.

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