

***Anisotoma alesi* sp. nov. (Coleoptera: Leiodidae: Leiodinae: Agathidiini) from China**

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Taxonomy, new species, description, Leiodidae, Leiodinae, *Anisotoma*, China

Abstract. *Anisotoma alesi* sp. nov. from China (Yunnan) is described and distinguished from similar species.

INTRODUCTION

Species of the genus *Anisotoma* Panzer, 1797 are widely distributed in Nearctic, Neotropic and Palaearctic ecozones (Wheeler 1979, 1980). Altogether there are known 56 species with 27 species occurring in the Palaearctic. Among them, 8 species are known from China. One species new to science is added in this paper.

MATERIAL AND METHODS

Thanks to the courtesy of Aleš Smetana (Ottawa, Canada) and Michael Schülke (Berlin, Germany) I had a chance to study an interesting Chinese species of the genus *Anisotoma* Panzer, 1797 that was recognized as a species new to science.

Abbreviations:

MSBC private collection of Michael Schülke, Berlin, Germany;
ZSPC private collection of Zdeněk Švec, Prague, Czech Republic.

The material examined was compared with the type and other material of the genus *Anisotoma* deposited in the author's collection. The material mentioned in this paper is deposited in the collections of MSBC and in ZSPC.

Unless otherwise stated, the description of the new species is based on the holotype only. The measurements of total body length were taken from all the specimens examined. Specific measurements of the individual body parts were taken from the holotype only. They were measured to the first decimal place of millimetre. The description of the variability is based on paratype specimens.

The dissected male and female genitalia were mounted in gum Arabic on the same label or on a transparent label added to the same pin as the relevant specimen. Each type specimen is indicated by a red label added to the same pin bearing the status of the specimen (holotypus or paratypus, respectively), its name, name of the author and year of the designation.

DESCRIPTION

Anisotoma alesi sp. nov.

(Figs 1-3)

Type material. Holotype (♀): “China: N-Yunnan, Diqing Tibet / Aut. Pr. Zhongdian Co. Xue Shan / near lake, 23 km S Zhongdian / 27°37.1' N 99°38.5' E, 3895 m / 15.vi.2005 A. Smetana [C161]”, (ZSPC); paratypes (♀): “China-N Yunnan [C2005-08] / Diqing Tibet Aut. Pref. / Deqin Co. Baima Shan, E-side / pass 12 km SE Deqin, 4085 m / 28°23.86' N 98°59.04' E, small / creek valley *Rhododendron*, *Salix* / leaf litter, moss, dead wood sifted / 10.vi.2005, M. Schülke [C2005-08]”, (MSBC); (♂) “China: N-Yunnan [C 2005-16] / Nujiang Lisu Aut. Pref., Gongshan Co. / Gaoligong Shan, side valley / 3000-3050 m 27°47.90' N 98°30.19' E / conif. forest with *Rhododendron*, broad / leaved bushes, litter, moss, dead wood / sifted along creek and snowfields / 21.vi.2005, M. Schülke [C2005-16]”, (ZSPC).

Description. Length of body 2.1-2.4 mm, in holotype 2.3 mm. Length of body parts in holotype: head 0.3 mm, pronotum 0.5 mm, elytra 1.5 mm. Maximum width of body parts in holotype: head 0.6 mm at eyes, pronotum 1.2 mm at base, elytra 1.4 mm at anterior third; width at elytral base 1.1 mm.

Oval (Fig. 1). Head black, with small very feebly expressed reddish spot, pronotum yellow, with narrow darker margins, elytra brown. Legs brown except yellow tarsi, antennomeres I-VI yellow, rest of antennomeres yellow-brown. Dorsum without microreticulation. Brown, ventrally with yellowish prosternum.

Head. Distinctly punctured, punctures separated by about 1-4 times their own diameter. Clypeus with depression on each side. Ratio of length of antennomeres III:II=1.1; width ratio of antennomeres X:XI=1.1.

Pronotum. Distinctly punctured, punctures smaller and finer than those on head, separated by about 3-6 times their own diameters. Posterior angles acute, rounded in dorsal view, obtuse, rounded in lateral view. Lateral margins flat roundly tapered anteriorly dorsally seen, straight tapered anteriorly in lateral view.

Elytra. With 9 complete, feebly expressed less regular rows of punctures separated by about 1 time their own diameter. Rows less detectable laterally and apically. Intervals with punctures similar to those in rows tending to arrange in 1-2 irregular rows. Elytral suture confined in apical two thirds of elytral length.

Legs. Tarsal formula 5-4-4 in female, 5-5-4 in male. Male pro- and mid- tarsomeres I-III feebly dilated.

Meso- and metaventrite. Without specific characters.

Genitalia. Spermatheca as in Fig. 2, aedeagus as in Fig. 3.

Variability. Female paratype with distinct reddish spot on head, pronotum entirely yellow, elytra brown-black. Elytral rows hardly detected. Male paratype without clypeal depressions, without reddish spot on head, with entirely yellow pronotum and black elytra. Elytral rows indistinct.

Differential diagnosis. *Anisotoma alesi* sp. nov. is similar to *Anisotoma galoisi* Portevin, 1908 and *A. pseudobecvari* Angelini et Švec, 1995 by the size of body, type of elytral punctuation having vague and only partly expressed elytral rows of punctures, lack of



Figs 1-3. *Anisotoma alesi* sp. nov.: 1- dorsal aspect of the holotype; 2- spermatheca; 3- aedeagus dorsally. Scale= 0.1 mm in Fig. 2; 0.5 mm in Fig 3.

pronotal microsculpture, the same tarsal female formula and similar shape of the genitalia. It differs mainly by the colour of dorsum. *Anisotoma alesi* is bicolored, with dark head and elytra while the pronotum is yellowish. *Anisotoma galoisi* and *A. pseudobecvari* are unicolored dark reddish brown. Beside it differs from *A. pseudobecvari* by the head lacking microsculpture, while clypeus of *A. pseudobecvari* is microsculptured. From *A. galoisi* it also differs by the shape of its spermatheca, which is globular in its basal portion with long, first straight, then in the middle rectangularly bent proximal portion in *Anisotoma alesi* while the basal part of spermatheca of *A. galoisi* is drop-like shaped with proximal portion bent in an arc without straight part (see Angelini F. & De Marzo L. 1988, Fig. 45). *A. alesi* is similar also to *A. schneideri* Angelini et Švec, 1994 by the bicolored dorsum. It differs by smaller size of body (the size of body of *A. schneideri* is 4.2-4.3 mm), by pointed apex of aedeagus, which is emarginate in *A. schneideri* and by non twisted spermatheca.

Remark. Given the fact that there are some important differentiating characters occurring in *Anisotoma* females of Old World - the tarsal formula and shape of the spermatheca, a female specimen was designated here as the holotype of *Anisotoma alesi*, despite that generally the usual way is to designate a male specimen for this purpose. The other reason is the common male tarsal formula and shape of aedeagus in more *Anisotoma* species (*Anisotoma pseudobecvari*, *A. galoisi*, *A. martensi* Angelini et De Marzo, 1994, *A. becvari* Angelini et Švec, 1994; *A. besucheti* Angelini et De Marzo, 1988).

Name derivation. The new species is named in honour of Aleš Smetana.

ACKNOWLEDGEMENTS. I am pleased to express my sincere thanks to my entomological friends and colleagues Aleš Smetana and Michael Schülke for providing an interesting leiodid material from China.

REFERENCES

- WHEELER Q. D. 1979: Slime mold beetles of the genus *Anisotoma* (Leiodidae): classification and evolution. *Systematic Entomology* 4: 251-309.
- WHEELER Q. D. 1980: Studies on Neotropical slime mold /beetle relationships, Part 1: Natural history and description of a new species of *Anisotoma* from Panama (Coleoptera: Leiodidae). *Proceedings of the Entomological Society of Washington* 83: 493-498.

Received: 2.8.2012
Accepted: 15.8.2012