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***Sedlacekvia kincheгаensis*, a new species of a charismatic genus from Australia, with notes on its systematics (Coleoptera, Cleridae)**

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Abstract

Sedlacekvia kincheгаensis sp. nov., a new member of the hitherto monotypic genus *Sedlacekvia* Winkler, 1989 is described from an arid region of New South Wales, Australia. As the genus has not been associated with any subfamily of Cleridae yet, its classification within Clerinae and phylogenetic relation with *Odontophlogistus* Elston, 1923 (Cleridae: Clerinae) is proposed.

Key words: Coleoptera, Cleroidea, Cleridae, Clerinae, Australia, Northern Territory, New South Wales

Introduction

Sedlacekvia Winkler, 1989 is a charismatic, monotypic, genus of Cleridae from Australia. The type species, *S. tanamica* Winkler, 1989, was collected only once by the late Josef (Joe) Sedlacek, a renowned Australian beetle collector of Czech origin, using a Malaise trap at two Northern Territory locations. The only specimens thus far known are the 25 specimens that constitute the type series, all of which are males. The huge, macrocerous antennae and apparent absence of tarsal lobes (i.e., pulvilli) of *S. tanamica* made subfamily assignment of the genus difficult and Winkler could only tentatively assign it to Hydnocerinae.

A new species of *Sedlacekvia* is described herein and the genus morphologically compared to *Odontophlogistus* Elston. The systematic position of these genera is discussed.

Methods

The bodies of softened beetles were briefly boiled in 10% KOH solution. After examination, all small body parts (legs, male copulatory organs and parts of abdominal segments VIII, IX) were mounted in a drop of dimethyl hydantoin formaldehyde on a card and pinned below the specimens. The male copulatory organs of *S. tanamica* are preserved in Caedax and also pinned together with the specimen.

Ink drawings were made using a camera lucida and a compound microscope (Olympus BX41). Detailed photographs of small, semi-transparent body parts were also taken with the Olympus BX41 fitted with an Olympus C5060 digital camera. Other photographs of specimens were taken with the Leica Z16Apo. Body parts were measured with LAS 3.6.0 software. QuickPhoto Camera 2.3 with DeepFocus 3.1 module and LAS 3.6.0 programs were used to stack certain images.

A satellite map showing the collecting locality of the new species was saved from Google Earth 7.1.1.1888.

Abbreviations: ANIC (Australian National Insect Collection, Canberra, ACT, Australia), MMB (Moravian museum, Brno, Czech Republic).

Material examined. Ten paratypes of *Sedlacekvia tanamica* Winkler, 1989 were available for the study (9 MMB, 1 ANIC): “Yendumu x.79 / Centr. Aust.” (ca 22°17’S-131°48’E, Northern Territory, Australia) and “Humpty Doo / N.T.” (ca 12°34’S-131°06’E, Northern Territory, Australia), all Josef Sedlacek coll.

differ in (1) wing venation in medial field (wedge cell and cross-vein MP3-MP4 present in *Odontophlogistus*; see Fig. 2N), (2) antennae with 11 antennomeres and loose 3-segmented club in *Odontophlogistus* (Figs 1G, H). Regarding the distinctly elongate galea of *Odontophlogistus*, I suppose anothophilous behaviour including feeding on pollen grains to be likely behaviour, which corresponds to the finding of pollen grains in the gut of *S. kincheagensis* **sp. nov.**

A phylogenetic relationship of the both genera to the Australian clerid fauna is not known and it should be further studied. Elston himself (1922, 1923) expressed doubts about relation of *Odontophlogistus* and *Phlogistus* Gorham, 1876 although he had originally described two species within the latter genus (Elston 1922). In spite of similar names, these genera seem morphologically distant. The single unidentified *Odontophlogistus* specimen included in a recent preliminary molecular phylogeny of Cleridae (Gunter *et al.* 2013) was positioned in the vicinity of Australian species of *Opilo* Latreille and *Olesterus* Spinola in the tree.



FIGURE 5. Satellite photograph of the site where *Sedlacekia kincheagensis* **sp. nov.** was found. (The picture saved from Google Earth 7.1.1.1888.)

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