

Description of a new species of *Crossotus* Audinet-Serville, 1835 from Saudi Arabia (Coleoptera, Cerambycidae)

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Abstract. *Crossotus asiricus* **sp. nov.** from Saudi Arabia. an unmistakable species with specific ecological requirements.

Introduction

There are 7 species plus 2 subspecies, of *Crossotus* Audinet-Serville, 1835 in the Arabian Peninsula, which can be divided into several groups based on their morphological similarity (Sudre *et al.* 2007). The new species described herein was compared with the following species: *Crossotus subocellatus subocellatus* (Fairmaire, 1886); *C. sublineatus* Gestro, 1892; *C. katbeh* Sama, 2000; *C. arabibus* Gahan, 1896; and *C. kadleci* Sama & Sudre, 2010.

Material and methods

Specimens of the new species were obtained by rearing larvae from wood imported from the type locality. The wood was placed in plastic boxes with perforated lids. The natural conditions of the region from which the wood came were simulated to preserve the larvae, especially temperature and humidity. The photographs of the specimens were taken with a Canon EOS 350D digital camera and a Sigma 105 mm macro lens. Composite images were created using the software Image Stacking Software Combine ZP. Microstructures of dissected parts were observed under the DNT DigiMicro Profi USB microscope. Each photograph was taken as several partially focused images and afterwards composed in the Helicon Focus 3.20.2 Pro software. The photographs were modified using Adobe Photoshop CC.

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Specimens examined, including type material, are deposited in the following collections:

LS - collection of Lukáš Skořepa (Dačice, Czech Republic)

NMPC - collection of National Museum (Prague, Czech Republic)

DS - collection of David Šanc (Plzeň, Czech Republic)

Results

Crossotus asiricus sp. nov.

Figs 1-4

Description. Habitus of male holotype is shown in Fig. 1, and that of female in Fig. 2. Body length ranges from 10 to 15 mm. Integument black, grey pubescence is supplemented by a scattered mixture of white, golden brown, and black pubescence. Sides of prothorax with long, conical tubercle located about middle, and small blunt projection between anterior margin and central tubercle. Pronotum with slightly elevated gibbosities. Scutellum almost square, covered with dense pubescence, white on edges and golden brown or black on remaining surface. Elytra strongly arched, slightly narrowed towards apex; sparsely punctuated and densely covered mainly with grey pubescence, with longitudinal, irregular golden-brown pubescent lines and maculae, with arched, transverse dark-brown pubescent band on posterior half of elytra (Figs 3-4), irregular areas with whitish pubescence, and four basally located tufts of blackish setae on each elytron (two close to scutellum, one near humerus and the most prominent one located centrobasally). Antennae longer than body in males and slightly shorter than body in females; with dense, grey to ashy pubescence on the antennal segments, which becomes sparser towards the end of the segments, especially on the more distant ones.

Differential diagnosis. *Crossotus asiricus* sp. nov. must be compared with the species occurring in the same geographical region: *Crossotus subocellatus subocellatus*, *C. sublineatus*, *C. katbeh*, *C. arabibus*, and *C. kadleci*. Compared to these and other similar species native to Africa, *C. asiricus* differs by the distinct four tufts of black hairs on each elytron and by two distinct conical

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projections on each side of the pronotum. None of the species described in Sudre et al. (2007), who describes all known species of the genus *Crossotus*, correspond to the above-mentioned character. It also differs in size and relatively stable overall grey-gold coloration.

Type material. Holotype (♂) (Fig. 1): Saudi Arabia, (19°37'1.889"N, 41°54'49.997"E), Wadi Murharash, 15 km NW Sabt Al Alaya, 19.v.2024, ex. *Vachellia*, lar., L. Skořepa lgt. (NMPC); Paratypes: same data as holotype (4♂♂, 7♀♀) (LS); (4♂♂, 8♀♀) (DS); 1♂, Saudi Arabia, (20°10'21.235"N, 41°18'41.685"E), 4 km NE of Musaylah, 21.v.2024, ex. *Vachellia*, lar., L. Skořepa lgt. (LS); 1♂, 3 ♀♀, Saudi Arabia, (20°50'27.677"N, 40°46'19.201"E), 13 km NW Missan, ex. *Vachellia*, lar., L. Skořepa (LS).

Discussion. At first glance, the new species is clearly different from the known species of *Crossotus*, both from the Arabian Peninsula and from Africa. In body size, it is comparable to *C. strigifrons* (Fairmaire, 1886). This species is morphologically distinct; however, it can exhibit colour forms similar to *C. asiricus*.

Biology. Like most species of the genus, *C. asiricus* develops in the wood of trees from the genera *Vachellia*. Females lay eggs in smaller dead branches with a diameter of approximately 5 to 45 mm. The species was found mainly in locations above 1000 m a. s. l. in the Asir Mountains in Saudi Arabia.

Etymology. This species is named after the Asir Mountains in the southwestern Arabian Peninsula. The species name is therefore composed of the words Asir (mountain range) and icus (belonging to).

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Figs 1-4. *Crossotus asiricus* **sp. nov.**: 1. Dorsal view habitus of male holotype; 2. Dorsal view of female paratype; 3. Lateral view habitus of male holotype; 4. Lateral view habitus of female paratype

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