

## *Augyles cherryae* sp.n. from India, and two new faunistic records (Coleoptera: Heteroceridae)

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### Abstract

*Augyles cherryae* sp.n. (Coleoptera: Heteroceridae) from India (Uttar Pradesh) is described and illustrated. *Augyles kolibaci* SKALICKÝ, 1998 is recorded for the first time from Pakistan, and *Heterocerus virgatus* MAMITZA, 1933 is recorded for the first time from Uttar Pradesh.

**Key words:** Coleoptera, Heteroceridae, *Augyles*, India, Uttar Pradesh, Pakistan, taxonomy, new species, new records.

### Introduction

To date, only two species of Heteroceridae, *Augyles grohmanni* (MASCAGNI, 1997) and *A. pucholti* SKALICKÝ, 2001 (both recorded from Agra), are definitely known from Uttar Pradesh (SKALICKÝ 2001). In addition, *Micilus minutissimus* (SAHLBERG, 1900) was recorded from Uttar Pradesh (Sharda River) by PACHECO (1964); but at that time, Uttarakhand was still part of Uttar Pradesh, and, since no detailed locality was mentioned, it remains unclear whether this species was collected in Uttarakhand or Uttar Pradesh. All other species which were erroneously listed for Uttar Pradesh by MASCAGNI (2003, 2006) actually have not been found within the present boundaries of Uttar Pradesh so far.

In 2013 I collected three species of Heteroceridae from a single locality at the town of Agra (Uttar Pradesh, India): one species of *Augyles* SCHIÖDTE, 1866, which is new to science and described herein; one species of *Heterocerus* FABRICIUS, 1792, which is new for Uttar Pradesh; and a second species of *Augyles*, which could not be identified, because all four specimens are females. In addition, one species of *Augyles* is here recorded from Pakistan for the first time.

All specimens are deposited in CSU (Coll. S. Skalický, Ústí nad Orlicí, Czechia).

Separate labels are indicated by double slashes; locality data are cited verbatim between “quotation marks”. Author’s explanatory remarks are given in square brackets.

### *Augyles cherryae* sp.n.

TYPE MATERIAL: **Holotype** ♂ (CSU): “INDIA Uttarpradēś Āgra, xi. 2013 27°11'26.4"N 78°01'34.1"E, Skalický S. lgt.” // “Collection in a lamp shade on the coast of the Jamuna river”. **Paratype** ♀ (CSU): same data as holotype.

DESCRIPTION: Holotype ♂: Total length 2.85 mm (incl. labrum); elytra 1.60 mm long, 1.20 mm wide across shoulders. Ground colour dark brown, elytra with orange spots as in Fig. 1; labrum, clypeus, antennae, and legs pale brown to rusty brown, ventral surface brown. Labrum (Fig. 2) small, visible part about two times as wide as long, apex emarginated, softly serrate in median portion, surface finely granular, without larger intermixed punctures; setae fine, with intermixed dense longer erect setae. Mandibles (Fig. 3) short and robust, lateral margins well developed, with series of stout spines. Prostheca densely and finely bristled, without prosthecal notch. Clypeus oblong, without anterior horns; finely granular, setae short, semierect. Head finely granular, with long erect setae above eyes. Antennae 11-segmented, with 7-segmented

club, scape triangular, with sparse and long setae. Pronotum 1.80 times as wide as long, as wide as base of elytra; lateral margins almost parallel, antero-lateral angle of pronotum broadly rounded, pronotal base completely rimmed. Surface of pronotum finely granular, without larger punctures, granules approximately half a diameter of the eye facets. Setae of pronotum yellow, sparse, short. Scutellum triangular, anterior corners rounded, posterior corners pointed, surface roughly granular. Elytra without longitudinal furrows, without scutellar depressions, humeral depressions shallow, extending obliquely almost to the basal fourth of the elytra. Surface of elytra shiny, micropunctate with coarse dense granules approximately 1.5 times as large as eye facets; setae short, semierect, yellowish and sparse. Epipleural ridge absent. Mesoventrite neither spinose nor tuberculate in front of each mesocoxa. Transverse ridge of mesoventrite thick, U-shaped. Post-metacoxal line present. Stridulatory arch marked without visible striae. Meta-ventrite with post-mesocoxal ridge. Protibia with eight stout spines along the lateral margin, and with two small caudo-apical spines, meso- and metatibia with thin spines.

Spiculum gastrale 0.55 mm long; V-shaped as in Fig. 4, arms narrow, firmly connected apically. Aedeagus 0.45 mm long, parameres long, pointed, completely fused, curved laterally, firmly connected with phallobase. Supporting sheath without border posteriorly; penis with internal sac, and with sclerotized processus accessorius at its tip (Figs. 5–8).

Paratype ♀: Total length 3.15 mm (incl. labrum); elytra 1.75 mm long, 1.05 mm wide across shoulders. Pronotum slightly wider than base of elytra. Externally similar to male.

**DIFFERENTIAL DIAGNOSIS:** Due to the shape of its aedeagus, *Augyles cherryae* sp.n. is related to *A. kolibaci* SKALICKÝ, 1998. It differs from the latter in the ground colour and elytral pattern (dark, pale brown with darker pattern in *A. kolibaci*), shape of the labrum (visible part almost square in *A. kolibaci*), length/width ratio of the elytra (1:1.35 in *A. cherryae*, 1:1.70 in *A. kolibaci*), and in the morphology of the male genitalia (see Figs. 5–8, and SKALICKÝ 1998: figs. 1–3).

**ETYMOLOGY:** The new species is named after my beloved cat Cherry.

**BIONOMICS:** All heterocerid specimens from this locality were found dead inside a glass lamp, along with Culicidae, Chironomidae, other Diptera and Heteroptera.

The Jamuna River and its shoreline are strongly polluted at this locality. Even after trampling the mud for two hours, no arthropods were collected, except for a few small spiders. Possibly, the heterocerids had flown to the lamp from another location or were locally present prior to the river's heavy pollution.

### *Augyles kolibaci* SKALICKÝ, 1998

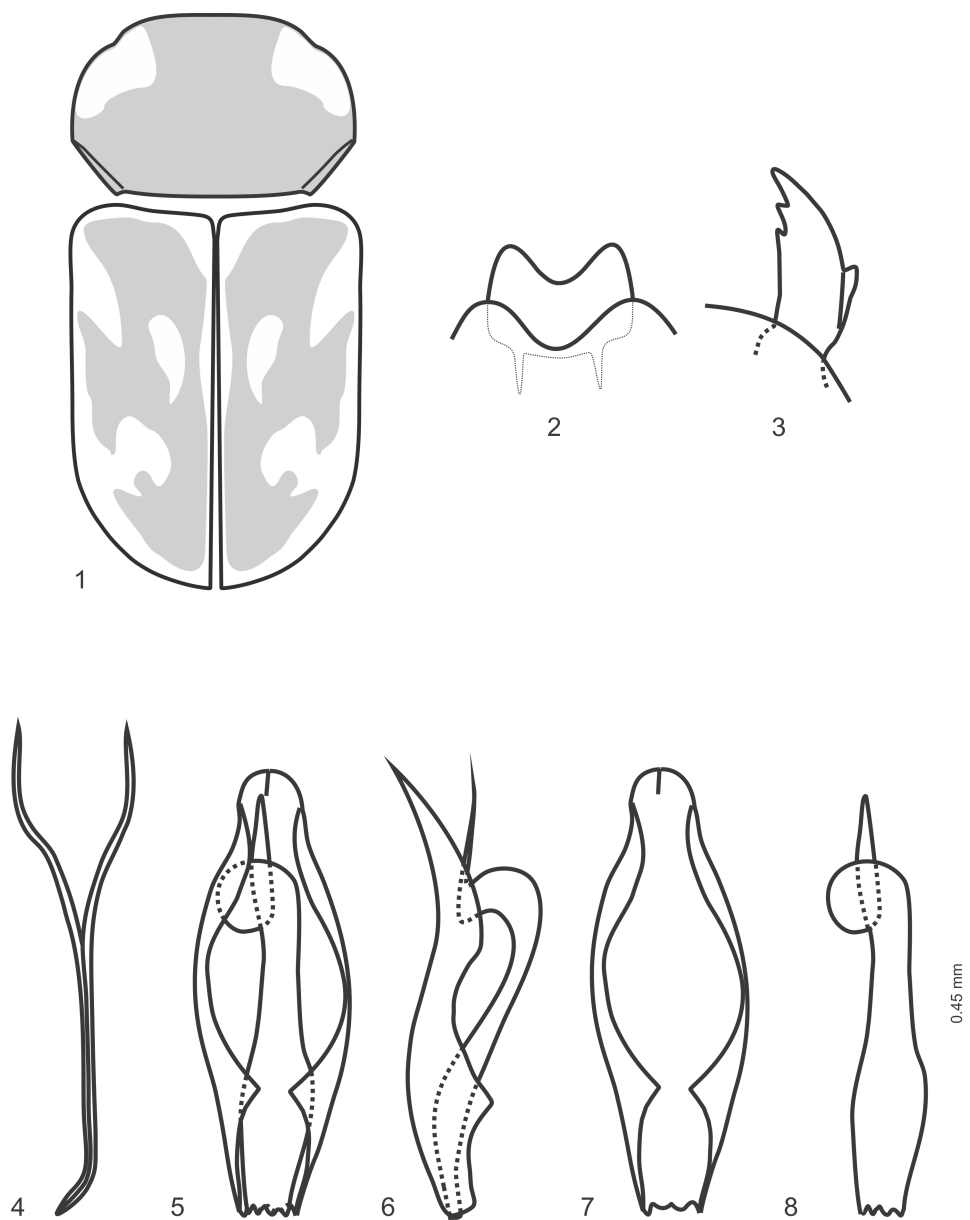
Material examined: PAKISTAN: 2 ♂♂ (CSU): "Sialkot, Paňdžáb, near Ravi Link Canal, V.1989, F. Fietsen [leg.]".

This species was so far known only from Nepal (MASCAGNI 2016). First record for Pakistan.

### *Heterocerus virgatus* MAMITZA, 1933

Material examined: 6 ♂♂, 12 ♀♀ (CSU): "INDIA Uttarpradés Ágra, xi. 2013 27°11'26.4"N78°01'34.1"E, Skalický S. lgt." // "Collection in a lamp shade on the coast of the Jamuna river".

*Heterocerus virgatus* is widely distributed in the Oriental Region, including India. SKALICKÝ (2010) recorded it also from Kyrgyzstan. It is here recorded from Uttar Pradesh for the first time.



Figs. 1–8: *Augyles cherryae* sp.n., holotype: 1) pronotum and elytra, dorsal view; 2) labrum, dorsal view; 3) left mandible, dorsal view; 4) spiculum gastrale, dorsal view; 5) aedeagus, dorsal view; 6) same, lateral view; 7) phallobase, dorsal view; 8) penis, dorsal view. Figs. 1–3 not to scale.

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