

## Two new species of *Augyles* SCHIÖDTE from India (Coleoptera: Heteroceridae)

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### Abstract

*Augyles riedeli* sp.n. and *A. haldwaniensis* sp.n. (Coleoptera: Heteroceridae), both from India, are described, figured and compared with similar species.

**Key words:** Coleoptera, Heteroceridae, *Augyles*, taxonomy, new species, India.

### Introduction

During the study of Heteroceridae deposited in the NHML and the NMS I identified two new species from India: *Augyles riedeli* sp.n. and *A. haldwaniensis* sp.n., both of which are described in the present paper. The number of Heteroceridae known from India thus increased to 33 species.

The material is deposited in the following collections:

CSU	Coll. Stanislav Skalický, Ústí nad Orlicí, Czech Republic
NHML	The Natural History Museum, London, England
NMS	Staatliches Museum für Naturkunde, Stuttgart, Germany

### *Augyles riedeli* sp.n.

**Type material:** Holotype ♂ (NMS): "21. VIII. 1987 UDAIPUR RAJASTHAN INDIA L.F. A. RIEDEL leg.", "Littorimus sp. Det. A. Mascagni 95". Allotype ♀ (NMS): same data as holotype. Paratypes: 2 ♀♀, same data as holotype (NMS, CSU).

**DESCRIPTION:** Holotype ♂: Length of body 3.7 mm (to apex of labrum); elytra 2.3 mm long, 1.45 mm wide across shoulders. Ground colour brown, pronotum and elytra without pattern. Labrum and head brown to black, legs pale brown. Body shiny. Labrum as wide as long, laterally curved, anterior angles emarginate, serrate, with dense adjacent setae. Mandibles with acute apex, dorsal subapical tooth only indicated, lateral surface well developed. Antennae missing (in allotype 11-segmented with 7-segmented club). Clypeus without pair of anterior horns, anterior margin broadly emarginate, with dense and short setae. Labrum and head with dense rusty semi-erect setae. Pronotum slightly wider than base of elytra, shape as in Fig. 1; pronotal base completely rimmed. Pronotum regularly granulate with intermixed punctures approximately as large as 0.5 times facet of eye. Setae of pronotum short, adjacent long setae absent. Scutellum triangular, pointed, 1.5 times as long as wide. Elytra with distinct longitudinal ridges; with humeral depressions; granulation and punctation as on pronotum; setae of elytra adjacent, short and whitish. Epipleura without epipleural ridges. Metasternum with post-mesocoxal ridge. Mesosternum with pair of prominent spines in front of each mesocoxa. Protibia with 10 stout spines, meso- and metatibia with uncertain number of thin spines, partly lost (in paratype each meso- and metatibia with eight weak spines). Abdomen with post-metacoxal ridge. Spiculum

gastrale 0.6 mm long; V-shaped, well sclerotized, arms connected apically. Ventral surface sparsely setose, softly granulate. Stridulatory arch marked with striae. Aedeagus pale brown, well sclerotized, oblong, 0.65 mm long, shape as in Fig. 2. Parameres pointed, penis without processus accessorius, supporting sheath without border posteriorly.

Allotype ♀: Length of body 4 mm (to apex of labrum); elytra 2.5 mm long, 1.6 mm wide across shoulders. Ground colour dark brown, pronotum raised laterally. Antennae 11-segmented with 7-segmented club. Pronotum more coarsely granulate, protibia with 10 stout spines, each meso- and metatibia with nine weak spines. Externally similar to male.

**DIFFERENTIAL DIAGNOSIS:** Due to the shape of the aedeagus and other characters such as size and colour, absent elytral and pronotal pattern, 11-segmented antennae and male clypeus without horns, *A. riedeli* sp.n. is related to *A. manfredjaechi* (MASCAGNI, 1995) described from Nepal and recently reported from India, Bangladesh, Burma and China (MASCAGNI & SFORZI 1999). It differs from the latter in the elytral punctation (which is fine in *A. riedeli*), length and colour of setae on elytra (semi-erect and yellowish in *A. manfredjaechi*) and by the structure of male genitalia (see Fig. 2, and MASCAGNI 1995a: Fig. 2).

The colour of *A. manfredjaechi* was described as "chestnut" but quite black specimens are also known and in some specimens the elytra are provided with longitudinal ridges.

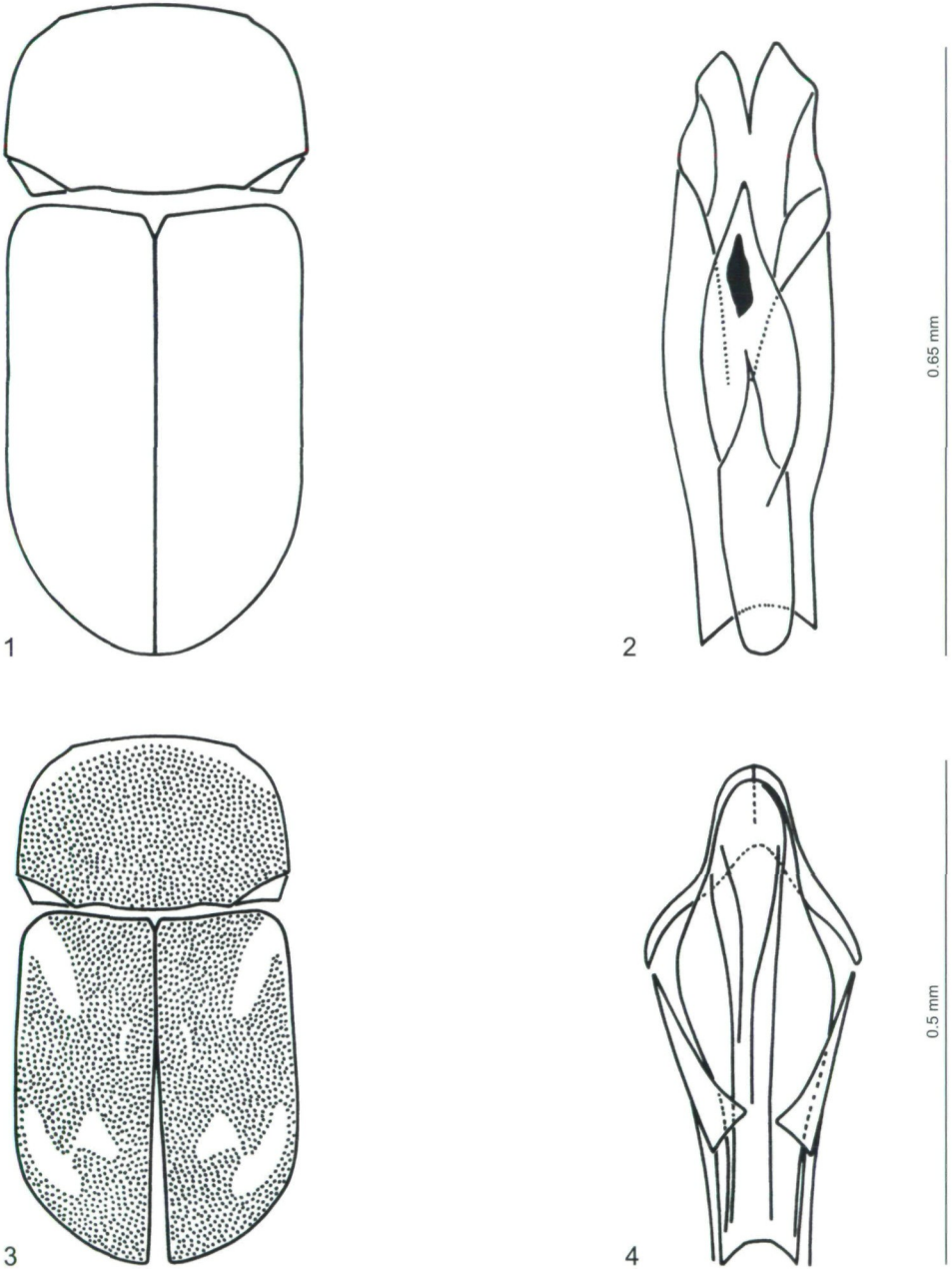
**DISTRIBUTION:** So far known only from the type locality.

**ETYMOLOGY:** Dedicated to Mr. A. Riedel (Germany) who collected the type series.

### *Augyles haldwaniensis* sp.n.

**Type material:** Holotype ♂ (NHML): "Haldwani Dist. Kumaon, India. H. G. C.", "H. G. Champion Coll. B.M. 1953-156.", "Heterocerus nov. sp. Det. Charpentier 1984". Aedeagus and spiculum gastrale mounted on separate celluloid sheets.

**DESCRIPTION:** Holotype ♂: Length of body 3.5 mm (from apex of labrum); elytra 1.8 mm long, 1.4 mm wide across shoulders. Labrum, head and antennae rusty-brown, mandibles brown. Eyes black. Pronotum and elytra brown to black, anterior margin of pronotum rusty-brown, elytra with rusty-brown pattern, shape as in Fig. 3. Legs light brown without darker margins. Ventral surface and abdomen light brown. Epipleura rusty-brown. Labrum as wide as long, rounded laterally, anterior margin emarginate with dense short setae. Mandibles short, with acute apex, without dorsal subapical tooth. Head finely granulated with dense setae. Clypeus without a pair of anterior horns, anterior margin emarginate. Antennae 11-segmented with 7-segmented club. Pronotum slightly wider than base of elytra, pronotal base completely rimmed; surface finely granulated, without larger intermixed punctures; setae fine, adjacent without longer erect setae. Scutellum pointed, triangular. Elytra without longitudinal ridges, with humeral depression, short (width : length = 1 : 1.28). Diameter of punctures of elytra approximately 2.5 times as coarse as punctures of pronotum. Setae of elytra short, semi-erect whitish. Ventral surface sparsely adjacent setose, finely granulated. Epipleural ridges absent. Metasternum with post-mesocoxal ridge. Transverse ridge of mesosternum U-shaped with larger tip in front of each mesocoxa and a series of small notches besides it. Stridulatory arch marked with striae. Tibiae with dense adjacent long setae. Protibia with 10 stout spines, meso- and metatibia each with nine weak spines. Post-metacoxal line present. Spiculum gastrale V-shaped, well sclerotized, arms connected apically. Aedeagus (Fig. 4) 0.5 mm long, well sclerotized. Parameres converging towards rounded apex, connected with phallobasis by membrane; supporting sheath without border posteriorly; penis without processus accessorius.



Figs 1 - 4: 1-2) *Augyles riedeli* sp.n., holotype: 1) pronotum and elytra, dorsal view; 2) aedeagus, dorsal view; 3-4) *A. haldwaniensis* sp.n., holotype: 3) pronotum and elytra, dorsal view; 4) aedeagus, dorsal view. Figs. 1 and 3 not to scale.

**DIFFERENTIAL DIAGNOSIS:** Due to the shape of the aedeagus *A. haldwaniensis* sp.n. is near to *A. anulatus* known in two subspecies: *A. a. anulatus* (MASCAGNI, 1991) described from Cambodia (MASCAGNI 1991) and occurring also in Vietnam and Thailand (MASCAGNI 1995b, SKALICKÝ 1999) and *A. a. vendulae* SKALICKÝ, 2000 from Thailand. The main differences are in the width/length ratio of elytra (elytra shorter in *A. haldwaniensis* sp.n.), elytral and pronotal pattern and in the morphology of the male genitalia (see Figs. 3-4; MASCAGNI 1991: Figs. 1, 2; SKALICKÝ 2000: Figs. 14-16).

The single specimen (holotype) was prepared and designated as a new species by R. Charpentier in 1984, but remained unpublished.

**DISTRIBUTION:** So far known only from the type locality.

**ETYMOLOGY:** The name of the new species refers to its type locality.

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