

**Description of *Hydrocassis hebaueri* sp.n. from Laos,
with faunistic notes on *Hydrocassis* DEYROLLE & FAIRMAIRE
and *Ametor* SEMENOV
(Coleoptera: Hydrophilidae)**

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Abstract

Hydrocassis hebaueri sp.n. is described from Laos and assigned to the *H. scapha*-group of species. It is compared with related species. The aedeagus and elytral cross-section are illustrated and the type locality is mapped. Faunistic data are presented for *Hydrocassis scapulata* DEYROLLE & FAIRMAIRE, *H. uncinata* Ji & SCHÖDL, *H. metasternalis* SCHÖDL & Ji, *Ametor rugosus* (KNISCH) and *A. rudesculptus* SEMENOV. *Hydrocassis metasternalis* and *H. uncinata* are both recorded from Thailand for the first time.

Key words: Hydrophilidae, *Hydrocassis*, *Ametor*, new species, Laos, Thailand, taxonomy, faunistics.

Introduction

During an expedition to Laos, carried out by several Slovak colleagues, a new *Hydrocassis* DEYROLLE & FAIRMAIRE of the *H. scapha*-group of species was discovered. *Hydrocassis hebaueri* sp.n. represents the fifth species in this group. It is distinct by some remarkable characters hitherto unknown in the genus.

Additionally, distributional data of several species of *Hydrocassis* and *Ametor* SEMENOV, which were recently collected at various sites in China and Thailand, are given.

Abbreviations and Acknowledgements

The material used for the current paper is deposited in the following institutions:

CASS = Chinese Academy of Sciences, Institute of Applied Ecology, Shenyang (L. Ji); MNS = Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller); NME = Naturkundemuseum, Erfurt (M. Hartmann); NMW = Naturhistorisches Museum Wien.

Additional abbreviations:

CWBS = China Water Beetle Survey (for more information see JÄCH & Ji 1995).

EI = Elytral index: elytral length / width of both elytra.

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Taxonomy

Hydrocassis hebaueri sp.n.

TYPE MATERIAL: **Holotype** ♂ (NMW): "LAOS centr. Prov. Bolikhamsai BAN NAPE, Kaew Nua-P. 18.4.-1.5.. 1998 leg. E.Jendek & O.Sausa \ *Hydrocassis* sp. det. F. Hebauer \ ex coll. Hebauer". **Paratype** ♂ (NMW): "LAOS centr., Bolikhamsai prov. BAN NAPE - Kaew Nua Pass, 18.4.-1.5.1998, alt. 600 ± 100 m, N 18°22.3, E 105°09.1 (GPS) M. Strba & R. Hergovits leg.". Unfortunately the aedeagus of the paratype was lost during preparation.

TYPE LOCALITY: 10 km NE Ban Nape village, Bolikhamsai province, Laos. The specimens were collected at light. They probably emerged from a nearby river.

DIAGNOSIS: Holotype, ♂: 6.7 x 4.5 mm; paratype, ♂ 6.6 x 4.5 mm. Female unknown. Body outline subcircular. Head, pronotal disc and scutellum black with metallic sheen; lateral pronotal margins and elytra yellowish brown, the latter with irregular dark patches.

Head and pronotum very densely and regularly covered with coarse punctures of equal size, entirely without minute regular punctation; only pronotal base with scattered smaller punctures.

Head black, labrum and lateral frontal margins brighter; densely covered with distinct coarse, partly setiferous punctation; frons near eyes and lateral frontal margins with slight rugosity.

Pronotum somewhat less but still densely and evenly covered with coarse punctures of same size as on head; with very sparsely and irregularly distributed even coarser impressions; pronotum anteriorly and laterally distinctly margined; lateral margins serrate, distinctly so on anterior half; basal corners of pronotum angulate; along sides yellowish to reddish.

Elytra exceptionally short (EI 1.0, in both holotype and paratype), covered with minute regular punctation; elytral punctural striae well impressed, intervals smooth and shining between punctures; coarse punctures on alternate interstices missing; sides of elytra outside of striae 9 - 10 somewhat explanate, in cross-section elytra "helmet-like" (Fig. 2); lateral margins markedly serrate; elytral apices slightly diverging at suture; ground-colour of elytra yellowish, covered with a regular pattern of darker spots.

Ventral surface blackish brown. Mentum rugosely punctate. Prosternum keeled longitudinally; with a strong antero-median tooth-like projection. Mesosternum and Metasternum as in other species.

Aedeagus (Figs. 1a, b): Parameres simple, medial face distinctly sinuate in dorsal view, without tooth-like process; outer face only slightly sinuate, distal third of parameres distinctly narrowed, their apices rounded. Median lobe (penis) evenly narrowed from base to apex; median lobe with accessory ventral plate, inserted at about middle of penis, in ventral view wider than latter and surpassing apex of median lobe. Corona as in other *Hydrocassis* species, situated at about half of penis length.

DISCUSSION & DIFFERENTIAL DIAGNOSIS: *Hydrocassis hebaueri* sp.n. is here included in the *H. scapha*-group of species (SCHÖDL & JI 1995, JI & SCHÖDL 1999). The male is genitally readily separated from all other members of the species-group (and from all other congeners as yet known) by the presence of a distinct ventral plate; hitherto it is the only species to my knowledge with such a feature. Furthermore, *H. hebaueri* differs from all other members of the *H. scapha*-group by the following external characters: 1. the very dense and very regular coarse punctation on head and pronotum (*H. imperialis* and *H. scapha* with somewhat irregularly distributed coarse punctation, *H. pseudoscapha* with more scattered, irregular coarse punctation and *H. sichuana* with very scattered coarse punctation); 2. there is no secondary, evenly distributed minute punctation on head and pronotum (secondary minute punctation present in all other members of the group); 3. the entire absence of coarse punctures on alternate elytral

interstices (coarse punctation on alternate elytral interstices always present in all other species of the *H. scapha*-group at least to some extent).

Apart from these characters, the elytral index (EI 1.0) is the shortest in the group.

DISTRIBUTION (Fig. 3): The new species is known only from the type locality.

ETYMOLOGY: I have the pleasure in naming this new species for PD Dr. Franz Hebauer, an outstanding German hydrophilidologist, who kindly donated the holotype to the NMW.

Faunistic notes

Hydrocassis scapulata DEYROLLE & FAIRMAIRE

CHINA: SE Sichuan, Jinpo Shan, 29°01'N 107°14'E, 1800 m a.s.l., 27.VI.1998, leg. Smetana (NMW).

Hydrocassis uncinata Ji & SCHÖDL

THAILAND: N-Thailand, Nan, Doi Phu Ka NP, 1400 m a.s.l., nr. Huai Nam Dan vill., 3.I.1999, leg. Mazzoldi (NMW). - (first record for Thailand).

CHINA: YÜNNAN: ca. 100 km NNE Kunming, Liangwang Shan, ca. 2300 m a.s.l., 3.XI.1999, leg. Jäch & al. CWBS 349 (NMW, CASS); *ibid.*, leg. Jäch & Schönmann CWBS 350 (NMW); Xishuangbanna, ca. 10 km NW Menglun, ca. 700 – 800 m a.s.l., 7.XI.1999, leg. Jäch & al. CWBS 360 (NMW, CASS); Xishuangbanna, ca. 50 km NW Mengla, 9.XI.1999, leg. Wang & Wei CWBS 370 (NMW, CASS); Xishuangbanna, ca. 20 km W Jinghong, 11.XI.1999, leg. Jäch & al. CWBS 374 (NMW, CASS); Xishuangbanna, pass between Jinghong – Mengyang, ca. 1100 m a.s.l., 12.XI.1999, leg. Jäch & al. CWBS 379 (NMW); Simao Prefecture, 25 km SW Simao, Zhu Shan, ca. 1000 m a.s.l., 17.XI.1999, leg. Schönmann & Wang CWBS 392 (NMW, CASS); Gejiu Prefecture, 15 km S Gejiu, Tou Dao Shui, ca. 1700 m a.s.l., 23.XI.1999, leg. Schönmann & Wang CWBS 399 (NMW, CASS); *ibid.*, 24.XI.1999, leg. Schönmann & Wang CWBS 404 (NMW, CASS); Gejiu Prefecture, ca. 30 km S Gejiu, Tian Ba Shi env., ca. 1300 m a.s.l., 23.XI.1999, leg. Schönmann & Wang CWBS 400, 401 (NMW, CASS); Chuxiong Prefecture, 15 km W Lufang, ca. 1500 m a.s.l., 27.XI.1999, leg. Schönmann & Wang CWBS 408 (NMW, CASS); Chuxiong Prefecture, Da Shui Go river near Ban Jiu, 10 km N Yipinglang, ca. 1700 m a.s.l., 27.XI.1999, leg. Schönmann & Wang CWBS 409 (NMW, CASS).

Hydrocassis metasternalis SCHÖDL & Ji

THAILAND: N-Thailand, Chiang Mai, Doi Inthanon National Park, 2390 m a.s.l., 27.XII.1998, leg. Mazzoldi (NMW). - (first record for Thailand).

CHINA: YÜNNAN: ca. 100 km NNE Kunming, Liangwang Shan, ca. 2300 m a.s.l., 3.XI.1999, leg. Jäch & al. CWBS 349 (NMW); *ibid.*, leg. Jäch & Schönmann CWBS 350 (NMW); Chuxiong Prefecture, 30 km N Lufang, Wu Tai Shan F.P., ca. 2150 m a.s.l., 26.XI.1999, leg. Schönmann & Wang CWBS 405, 407 (NMW, CASS).

Discussion: The specimens from both Liangwang Shan and Doi Inthanon differ externally from the type series by a distinctly coarser punctation on head and pronotum (compare descriptions in SCHÖDL & Ji 1995).

Ametor rugosus KNISCH

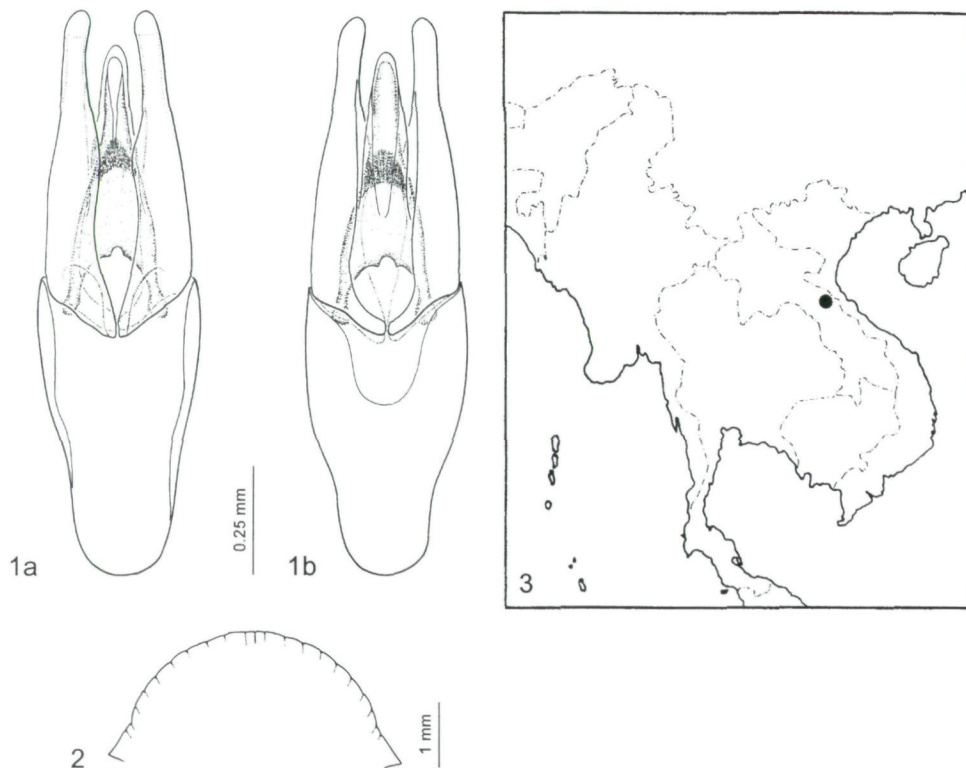
NEPAL: Prov. Karnali, Jumla, Tila River, 2300 m a.s.l., 29.IV.1995, leg. Weigel (NMW, NME); Prov. Karnali, Jumla, Tatopani, Tila River, 2200 m a.s.l., 24.V.1995, leg. Weigel (NME, NMW).

CHINA: YÜNNAN: above Dali, 2000 - 2200 m a.s.l., 4. - 17.IV.1999, leg. Schawaller, leg. Jäger (MNS, NMW); ca. 100 km NNE Kunming; Liangwang Shan, ca. 2300 m a.s.l., 3.XI.1999, leg. Jäch & al. CWBS 349 (NMW).

Ametor rudesculptus SEMENOV

NEPAL: Prov. Karnali, Jumla, Tila River, 2300 m a.s.l., 24.V.1995, leg. Hartmann (NME, NMW).

CHINA: YÜNNAN: above Dali, 2000 - 2200 m a.s.l., 4. - 17.IV.1999, leg. Schawaller, leg. Jäger (MNS, NMW).



Figs. 1 - 2: *Hydrocassis hebaueri* sp.n.; 1) aedeagus in a) dorsal view, b) ventral view; 2) cross section of elytra near middle.

Fig. 3: Geographical distribution (type locality) of *Hydrocassis hebaueri* sp.n.

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