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**Two new species of *Hyphydrus* from the far east and  
the description of the female of *H. celebensis* BISTRÖM  
(Coleoptera: Dytiscidae)<sup>1</sup>**

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**Abstract:** *Hyphydrus schoedli* n. sp. from Sumatra, *H. ceramensis* n. sp. from Ceram and the previously unknown female of *H. celebensis* BISTRÖM 1983 are described. All species belong to the species group *H. signatus* as defined by Biström.

**Key words:** Coleoptera, Dytiscidae, *Hyphydrus* species group *H. signatus*, two new species, far east.

### 1. Introduction

Collections of Dr. Manfred Jäch and Stephan Schödl (Nat.-hist. mus., Vienna) in Sumatra and Ceram revealed two new species of *Hyphydrus* which are described below. Material found by the same collectors in Sulawesi included also the previously unknown female of *H. celebensis* BISTRÖM which is mentioned here.

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<sup>1</sup> (BISTRÖM: Contribution to the study of Dytiscidae 56)

## 2. Description of species

### *Hyphydrus schoedli* n. sp.

**Type locality:** Vicinity of Prapat, N-Sumatra, Indonesia.

**Type material:** Holotype, ♂ : N-Sumatra, near Prapat, in the direction of Lumban Julu, ca. 1000 m, rain forest river, 3-5 m, leg. Schödl, 17.2.1990 (13), (Nat.-hist. mus., Vienna). – Paratypes (1 ♂; 3 ♀♀): Same data as holotype but three of them are leg. Jäch (1 ex. Zool. mus., Helsinki, 1 ex. coll. Wewalka, 2 exx. Nat.-hist. mus., Vienna).

**Remarks and diagnosis:** The new species belongs doubtlessly to a group of species, which are closely related to each other and also quite difficult to distinguish. The group contains of *H. sumatrae* RÉGIMBART, *H. pulchellus* CLARK, *H. jacobsoni* BISTRÖM, *H. boettcheri* BISTRÖM and *H. fangensis* BISTRÖM & SATO. *H. schoedli* n. sp. is probably closest to *H. sumatrae* and *H. fangensis* and it is separated from them by totally darkened and more enlarged male pro- and mesotarsus. The new species has also generally more extensive, dark elytral colour pattern. Minor but often still useful differences exist also in the shape of the penis. For comparison, see BISTRÖM (1982) and BISTRÖM & SATO (1988).

**Description** (diagnostically important differences from description of *H. fangensis* are only recognized)

Length of body: 3,72-4,16 mm, breadth 2,56-2,62 mm. Habitus (Fig. 1).

Head: Head posterior to eyes and at eyes somewhat darkened.

Pronotum: Almost unicoloured dark; laterally only slightly paler than medially. Scattered, indistinct reticulation may be discerned.

Elytra: Submat to mat. Elytral colour pattern (Fig. 1).

Legs: Tarsi black to blackish ferruginous. Pro- and mesotarsus somewhat enlarged (Fig. 2). Protochanter incised and provided with a long, somewhat curved process (Fig. 3).

Male genitalia: Figs. 4-6.

Female: Frontal outline of head rounded. Tarsi paler, only partly darkened. Pro- and mesotarsus quite narrow. Spermatheca (Fig. 7).

**Biology:** Running water.

***Hyphydrus ceramensis* n. sp.**

**Type locality:** Env. Manusela, Ceram, Indonesia.

**Type material:** Holotype, ♂: Ceram, env. Manusela, 700-900 m, spring fed pool 2 m<sup>2</sup>, leg. Jäch, 16-18.2.1989 (10) (Nat.-hist. mus. Vienna). – Paratypes: 1 ♀, same data as holotype (Zool. mus., Helsinki); 1 ♀, Ceram, Hatuolo-Manusela, 600-700 m, leg. Jäch, 16.2.1989 (coll. Wewalka).

**Remarks and diagnosis:** A distinct species which is attributed to the species group *H. signatus* as defined by BISTRÖM (1982) although male protrochanters are not incised. The location in this particular species group is predominantly based on genital characters exhibited by the new species.

*H. ceramensis* n. sp. is separated from other species by the combination of the following characters: Body almost totally dark; basal segment of pro- and mesotarsus strongly enlarged in male; male protrochanters not incised; apical incision of penis broad. *H. ceramensis* n. sp. is probably closest related to *H. loriae* REGIMBART, so far known from Papua New Guinea. The two species are easily separated by clear difference in body size (length of *H. loriae* 3.0-3.1 mm). From *H. facilis* (Angola), also characterized by simple male protrochanters, the new species is separated by difference in appearance of the elytral punctation (in *H. facilis* distinctly of two different kinds) and also by differences in genitalic features of males. The new species together with *H. loriae* and *H. facilis* form possibly a subgroup in the species group *H. signatus*. The combining feature is the simple protrochanter, exhibited by the three species. In this case a reduction of an incised protrochanter would represent a synapomorphy, but on the other hand a separate reduction cannot be excluded. This question needs further investigation. (For comparison, see BISTRÖM 1982 and 1987)

**Description** (only diagnostically important differences from redescription of *H. loriae* in BISTRÖM (1982) are recognized)

Length of body: 3,84-4,00 mm, breadth 2,52-2,64 mm. Habitus (Fig. 8).

**Head:** Frontal outline slightly rounded. Quite shiny, only with scattered, fine reticulation.

**Pronotum and elytra:** Main colour blackish to blackish ferruginous. Elytra with minute pale areas (Fig. 8).

Legs: Blackish to dark ferrugineous. Pro- and mesotarsus distinctly enlarged (Fig. 9).

Male genitalia: Figs. 10-12.

Female: Whole body submat to mat, with dense reticulation. Pro- and mesotarsus quite slender, not distinctly enlarged. Spermatheca (Fig. 13).

B i o l o g y : Spring fed pool.

### Female description of *H. celebensis* BISTRÖM

*Hyphydrus celebensis* BISTRÖM 1983, Ann. Ent. Fenn. 49: 120

Material studied: Indonesia, N. Sulawesi, Gunung Ambang NSG, leg. Jäch, 20.4.1992 (13), (1 ♀, Nat.-hist. mus., Vienna). The specimen was sampled together with a male of *H. celebensis* (also deposited in Vienna).

Length of body: 3.84 mm, breadth 2.44 mm.

Head and pronotum: Slightly mat, entirely quite distinctly microsculptured.

Elytra: Submat, but without distinct reticulation.

Legs: Pro- and mesotarsus basally only indistinctly enlarged. Protochanters not incised; at base of profemur distinctly flattened.

Ventral side: Apical sternite transversely not distinctly depressed.

Spermatheca as in Fig. 14. Shape of spermatheca coincides with the shape, characteristic for the species group *H. signatus* to which *H. celebensis* is associated.

R e m a r k : The male sampled together with the female measured 4.40 mm in body-length and 2.88 mm in breadth.

### 3. Zusammenfassung

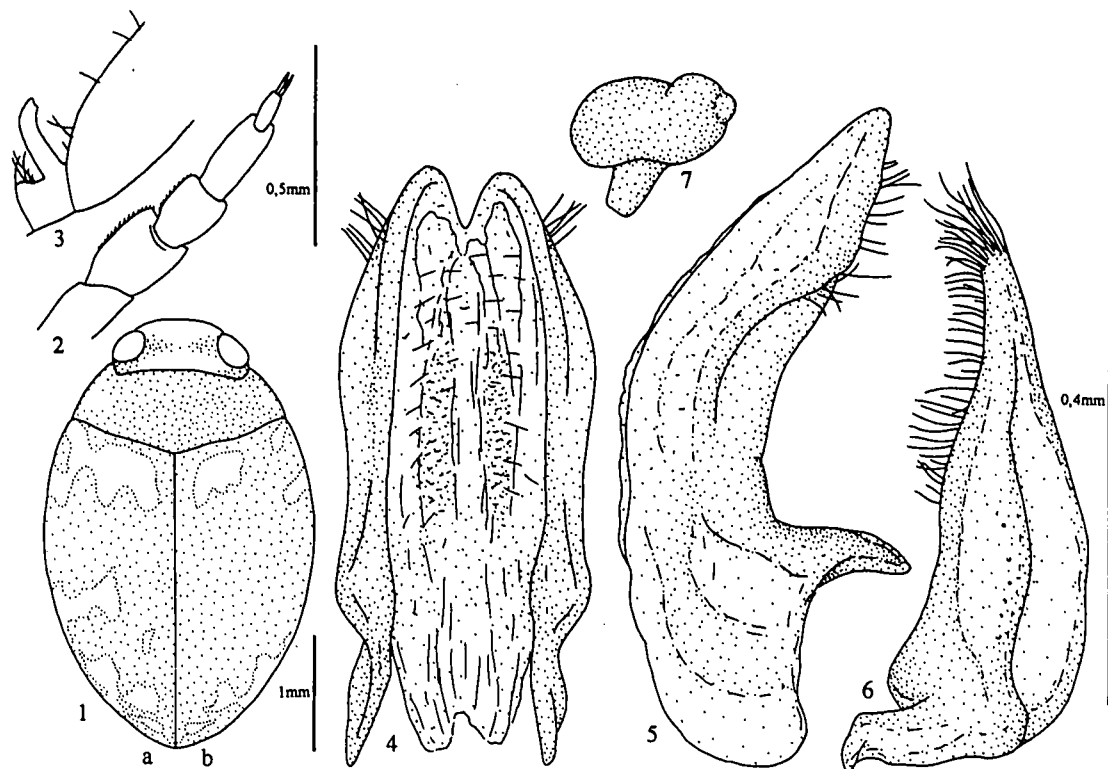
Zwei neue Arten der Gattung *Hyphydrus*, *H. schoedli* n. sp. aus Sumatra und *H. ceramensis* n. sp. aus Ceram sowie das bisher unbekannte Weibchen von *H. celebensis* BISTRÖM 1983 werden beschrieben. All Arten gehören zur Spezies-Gruppe *H. signatus* nach BISTRÖM.

#### 4. References

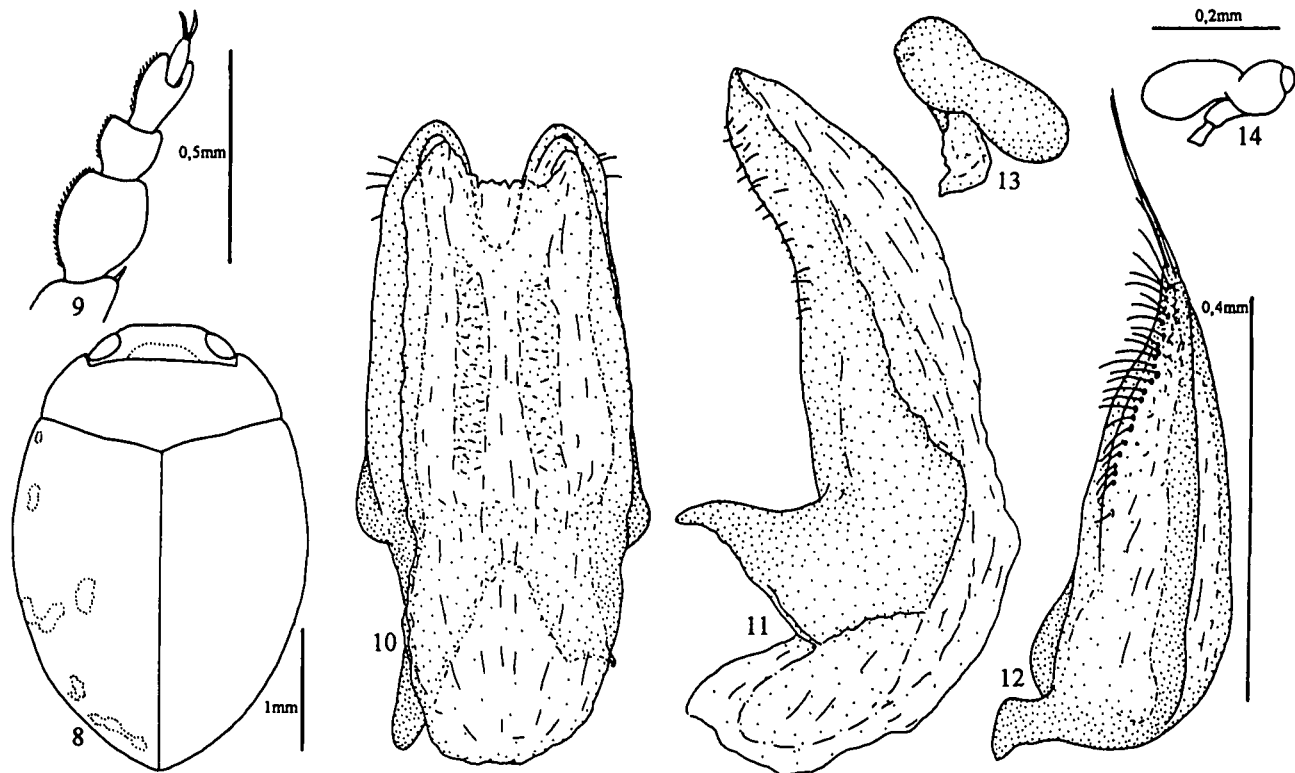
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Figs. 1-7. *Hyphydrus schoedli* n. sp. – 1: habitus and elytral colour pattern of a: holotype, b: female paratype; – 2: male protarsus. – 3: male prothrochanter. – 4: penis, dorsal aspect. – 5: penis, lateral aspect. – 6: paramere. – 7: spermatheca.



Figs. 8-13. *Hyphydrus ceramensis* n. sp. – 8: habitus and elytral colour pattern. – 9: male protarsus. – 10: penis, dorsal aspect. – 11: penis, lateral aspect. – 12: paramere. – 13: spermatheca.  
Fig. 14: *H. celebensis* BISTRÖM, spermatheca.