

# Redescription of *Cercyon hungaricus* ENDRÖDY-YOUNGA and *C. grandis* CASTELNAU (Coleoptera: Hydrophilidae)

F. HEBAUER

## Abstract

*Cercyon hungaricus* ENDRÖDY-YOUNGA, 1967 and *C. grandis* CASTELNAU, 1840 (Coleoptera: Hydraenidae) are redescribed and illustrated. *Cercyon hungaricus* is recognised as a member of the European *C. tristis-granarius* group. *Cercyon grandis* is known from Madagascar and represents the type species of the subgenus *Clinocercyon* d'ORCHYMONT, 1942.

**Key words:** Coleoptera, Hydrophilidae, *Cercyon hungaricus*, *Cercyon grandis*, redescription.

## Introduction

The original description of *Cercyon hungaricus* ENDRÖDY-YOUNGA caused some confusion. ENDRÖDY-YOUNGA (1967) described the new species superficially within a key (indicated as 2.1 – 2.4 mm in length) from Balatonlelle, Siófok and Zamárdi (Hungary). Later, ENDRÖDY-YOUNGA (1969, 1970), the formal description followed (indicated length: 2.5 – 2.7 mm!) with designation of the holotype (male) from Balatonlelle, and the allotype (female) from the Kisbalaton, paratypes from Siófok (NE Balaton) and Lillafüred (SW Miskolc). Except of the latter record all localities are situated around Lake Balaton. GIDÓ & SZÉL (1998) mention another record from Barcsi Ösborókásban near the border of Slovenia (see also CSABAI, GIDÓ & SZÉL 2002). Now another recent record of a single male (length: 2.3 mm) which I have just before me, extends the known distribution of this species from southern Balaton to northern Slovenia (Fig. 14).

Little is known about the habitat preference of this species. Concerning the Kisbalaton record ENDRÖDY-YOUNGA (1967) indicates "ditch, sifted". Like many other *Cercyon* LEACH, 1817 this species probably inhabits floating plant detritus at the shores of lakes and ditches. Further records are desirable to clarify its ecology.

The following redescription and illustration intends to facilitate the recognition of this little known species, which is rather similar to the more widespread *C. tristis* (ILLIGER) and probably sometimes confused with it in the past.

There are two reasons, that have prompted me to redescribe *Cercyon grandis* CASTELNAU. The first reason is the fact that the original description of this (and most of the early described) species is rather poor, sometimes failing to identify structural characters, that enable the delimitation of that species from later described, similar ones. Moreover dissection and illustration of details were not usual formerly. The second reason is the importance of this species as the type of the subgenus *Clinocercyon* d'ORCHYMONT, the more so as there are no recent records available to facilitate comparison. D'ORCHYMONT (1942) based his diagnosis of the subgenus *Clinocercyon* on the oblique epipleura observed in this and a few other *Cercyon* spp. without a detailed description or a commentary on further characters of the type species.

Some other Hydrophilidae, especially those of the genus *Cercyon* and all rare species earlier described on the basis of a single (sometimes female) specimen urgently need a redescription and illustration of modern taxonomically relevant characters.

### *Cercyon (Cercyon) hungaricus* ENDRÖDY-YOUNGA, 1967

*Cercyon hungaricus* ENDRÖDY-YOUNGA 1967: 67; 1969: 223; 1970: 75. Hungary, Lake Balaton, Balatonlelle.

MATERIAL EXAMINED: **Holotype** ♂: HUNGARY: "Balatonlelle, Peregi" (aedeagus damaged). **Allotype** ♀: "Kisbalaton Teich [= pond], Zalavár, Diássziget, gesiebt [= sifted], 20.III.1950, Kaszab et Székessy". **Paratypes**: 2 exs.: "Siófok, Lichtneckert"; 1 ex.: "Lillafüred, Peregi". All in Természettudományi Múzeum, Budapest. 1 ♂: SLOVENIA: "SLO Hotiza, Mura, 26.3.1997, B. Drovenik leg.". Coll. B. Drovenik, Ljubljana.

DIAGNOSIS: Total length: 2.1 – 2.3 mm; total width: 1.5 mm. Body shape not nearly so convex as in *C. tristis* (ILLIGER) (and allies) (Fig. 10). Colour black, anterior clypeal margin narrowly reddish, lateral pronotal margin vaguely reddish, legs yellowish red, maxillary palpi and antennae yellowish [in *C. tristis* dark], antennal club yellowish brown.

Similar in ventral morphology (Fig. 11) to *C. tristis*, but metasternal elevation relatively shorter and mesosternal tablet larger, ca. 1.7 x as long as wide [in *C. tristis* ca. 1.8 x as long as wide], widest behind the middle, with a small concavity in anterior half. Mentum as in *C. tristis* but a little more shining, with rather obsolete microsculpture and indistinct punctation. Prosternum slightly larger than in *C. tristis*, but otherwise similarly raised and with similarly thick median carina; prosternal process with similar apical notch. Antennal cavities of the same size as in *C. tristis*. Punctation of mesosternal tablet and raised metasternal tablet coarser than in *C. tristis*, shining and glabrous, without distinct microsculpture; the two raised portions separated by a similar gap; raised metasternal portion of similar shape, but a little wider, raised to some level as in *C. tristis*, with a small anteromedian projection (as in *C. tristis*). Epipleura as in *C. tristis*. Metepisterna of same dimensions as in *C. tristis*. Lateral portions of metasternum + metepisterna + abdominal ventrites as in *C. tristis*: i.e., microgranulate, dull, finely and densely pubescent, impunctate. Legs as in *C. tristis* (same type of setation, sculpture, punctation and dimension).

Dorsal face: Head and pronotum as in *C. tristis*; without microsculpture, moderately finely and densely punctate; eyes of same size, clypeus finely margined, truncate anteriorly. Elytra (Fig. 12) with 9 well developed striae, distinct to apex; these very finely punctate (finer than in *C. tristis*) but more impressed, especially posteriorly; striae 1 – 5 almost reaching base; 6th and, particularly, 7<sup>th</sup> – 9<sup>th</sup> more abbreviated anteriorly (almost as in *C. tristis*). A 10<sup>th</sup> stria is barely visible (present as a very short rudiment a little before middle) [in *C. tristis* the 10<sup>th</sup> stria is well developed!]. Entire elytral surface dull (more dull than in *C. tristis*) with strong, isodiametric microreticulation (as in *C. tristis*, but more pronounced); elytral interstices very finely punctate (finer than in *C. tristis*), each puncture with a fine yellowish hair; interstices slightly convex anteriorly; fairly strongly convex apically (interstices flat in *C. tristis*).

Striae 1+2 separate to apex, stria 3 connected with 9, stria 4 almost connected with 9, stria 6 connected with 7+8, stria 7 connected with 8, stria 8 connected with 7, 6 and 5 (in that order).

Aedeagus: Median lobe elongate tongue-shaped, shortly narrowed before apex, about as long as the parameres (13b); the latter basally wide, strongly narrowed distally, with apically slightly widened membrane, strongly curved to midline, concave on inner face (Fig. 13a). 9<sup>th</sup> sternite not reduced, middle sclerite tongue-shaped (Fig. 13c).

DISCUSSION: Among the European *Cercyon* this species is somewhat related to the *C. tristis-granarius* group of *Cercyon* (based on prosternal and meso-metasternal morphology, as well as the type of elytral microsculpture). It is easily recognized by the much more depressed body

shape, the distinctly impressed nine elytral striae (rather than 10 non-impressed), the large mesosternal tablet, short metasternum and pubescent elytra.

DISTRIBUTION: Hungary, Slovenia (Fig. 14).

### *Cercyon (Clinocercyon) grandis* CASTELNAU, 1840

*Cercyon grandis* CASTELNAU 1840: 62. Madagascar.

*Cercyon (Clinocercyon) grandis* CASTELNAU; d'ORCHYMONT 1942: 2.

MATERIAL EXAMINED: **Syntype** ♂: "Tananarive Madag.", "Kniz det. grandis", "Coll. A. Kniz, TOPOTYPUS", "Coll. A. d'Orchymont"; 4 exs. in Institut royal des Sciences naturelles de Belgique.

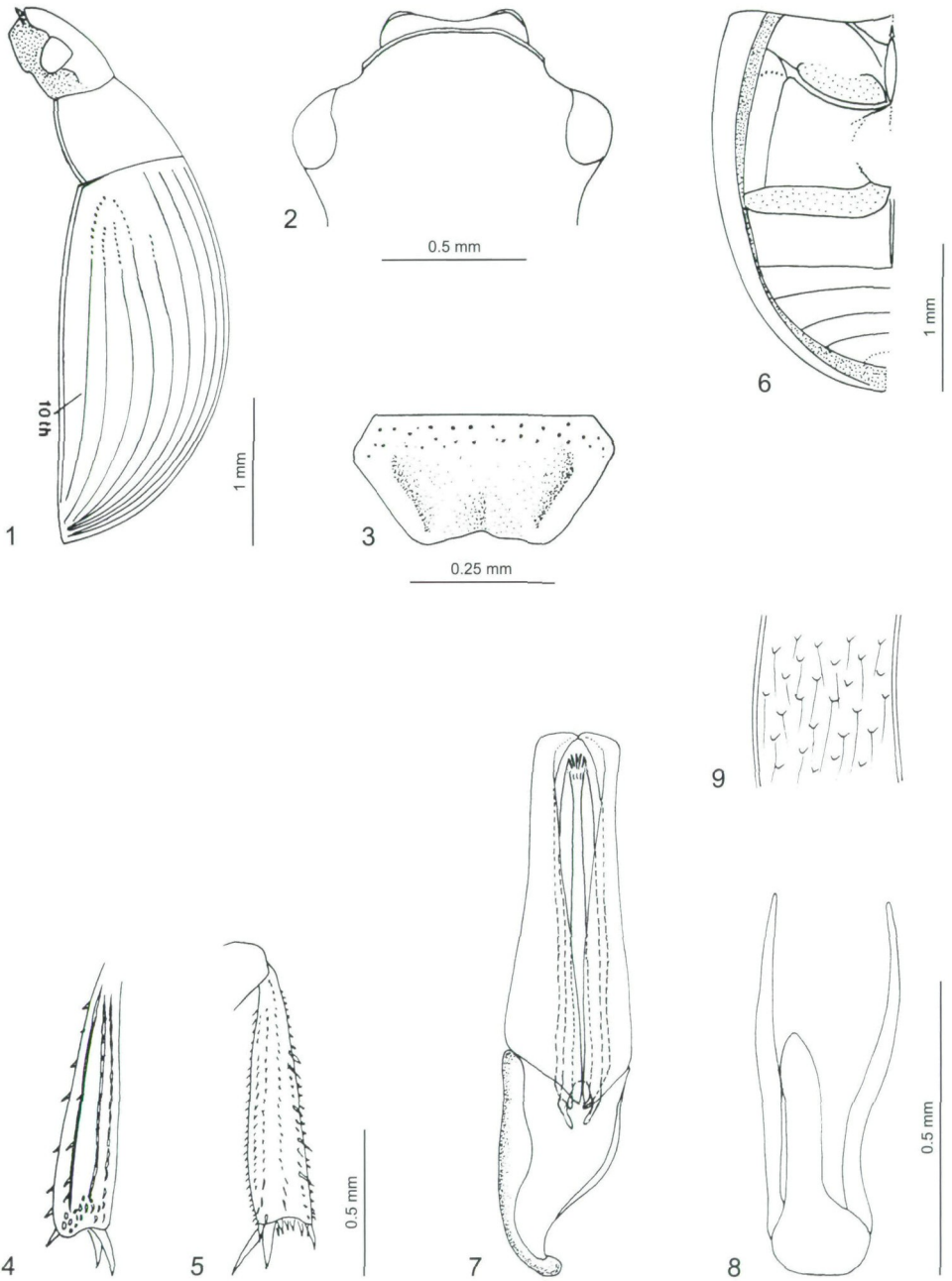
DIAGNOSIS: Total length: 3.75 mm; total width: 2.50 mm. Dark reddish brown, moderately shining, without microsculpture on dorsal face. Appendages yellowish red (antennal club slightly darker). Head and pronotum rather finely and densely punctate. Clypeal margins not deflexed. Posterior tentorial pits distinct, but very small. Lateral margins of pronotum beaded (posterior margin neither beaded or with row of punctures). Mentum with (slightly transverse) microreticulation, impunctate, except for very fine punctation in posterior quarter, moderately impressed anteromedially. Maxillary palpi rather slender; antennal club a little more than twice as long as wide. Elytral punctation fine, each puncture with an extremely thin decumbent hair (Fig. 9). Elytral striae fine but sharply impressed, finely punctate, obsolete anteriorly (especially outer striae). Striae deeper apically. Interstices slightly convex, more so posteriorly and laterally. Prosternum of normal length, antennal grooves becoming more obsolete beyond notosternal suture, moderately tectiform, carinate (carina ending anteriorly in a minute tubercle). Mesosternal tablet elongate oval, pointed anteriorly and posteriorly, ca. 5 x as long as wide. Metasternum with moderately raised middle portion which is shiny and smooth and with very fine punctation. Punctation moderately dense medially, sparser on a vaguely defined area on each side, then again denser. Anterior portion of mid metasternum (like lateral portion) dull, with fine granulate microsculpture and very fine pubescence; without anterolateral arcuate ridge; without femoral lines. First ventrite only with median carina; all ventrites impunctate, dull; fifth ventrite with more shining area apically. Epipleura strongly oblique. Anterior tibia with well defined tarsal groove below in apical half; middle and hind tibiae with rows of strong spines (Figs. 4, 5). All tarsi with distinct yellowish pubescence below.

Aedeagus with basal piece ca. a third the length of the parameres, twisted basally; median lobe almost parallel-sided, obtusely pointed apically, as long as the parameres; the latter strongly narrowed from base to apex, slightly concave on outer face, apices strongly curved to midline (Fig. 7). Ninth sternite not reduced, middle sclerite narrowly tongue-shaped (Fig. 8).

DISTRIBUTION: Madagascar.

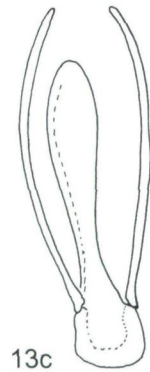
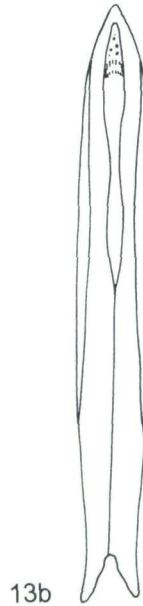
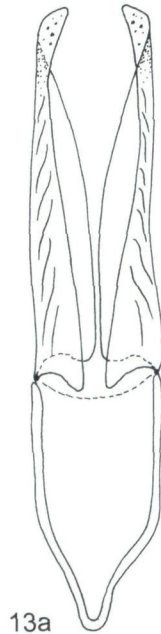
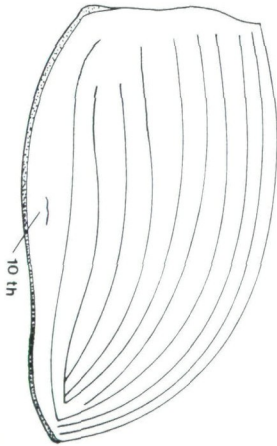
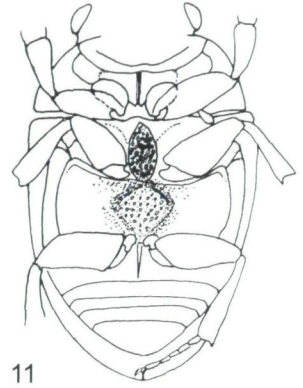
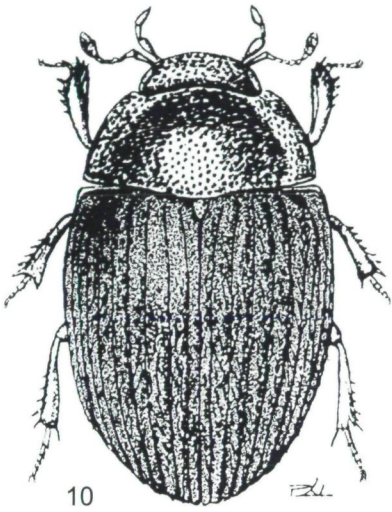
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Figs. 1 – 6: *Cercyon grandis*; 1) body shape (lateral view); 2) head; 3) mentum; 4) left hind tibia, dorsal; 5) left hind tibia, ventral (showing rows of spines); 6) underside.

Figs. 7 – 9: *Cercyon grandis*; 7) aedeagus; 8) genital segment; 9) elytral punctation with extremely fine setae (schematic, one interstice on middle elytral portion).



0.25 mm

Figs. 10 - 13: *Cercyon hungaricus*; 10) general habitus (after CSABAI, GIDÓ & SZÉL 2002, modified), 11) underside, 12) left elytron, lateral, 13) aedeagus (Hotiz), a) parameres, b) median lobe, c) genital segment.

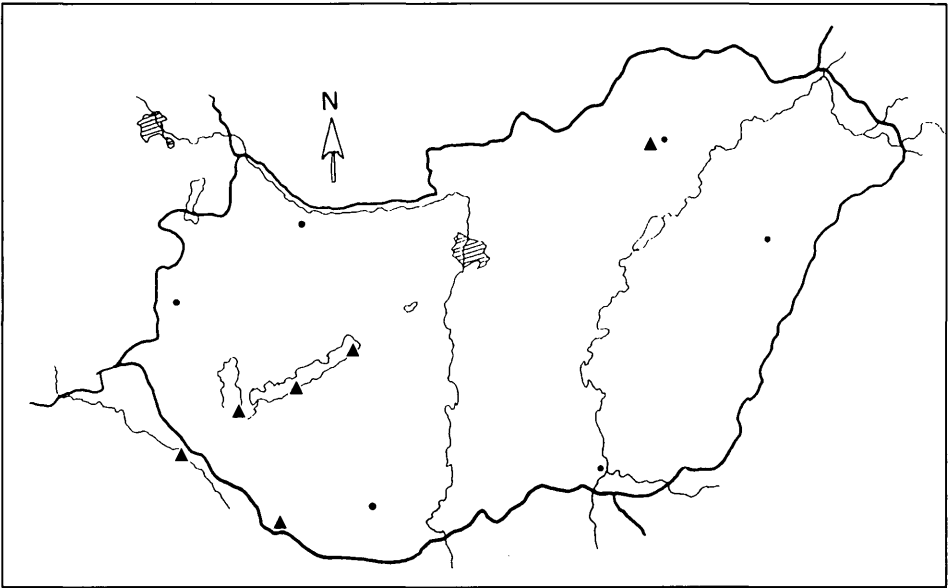


Fig. 14: Distribution of *Cercyon hungaricus*.

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Dr. Franz HEBAUER  
Ulrichsberg 7, D-94539 Grafing, Germany

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