

TUDIES ON THE FAUNA OF CURAÇAO, ARUBA,
ONAIRE AND THE VENEZUELAN ISLANDS: No. 15.

**HIRUDINEA OF THE GENUS HELOBDELLA
FROM CURAÇAO AND VENEZUELA**

by

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Two species of leeches only have been collected by dr HUMMELINCK in 1936–1937, but these are important as they evidently prove the occurrence in warm tropical waters of species hitherto only recorded from non-tropical areas.

Helobdella scutifera is distinguished from *H. stagnalis* by AUTRUM, 1936, p. 26 and 34, though PAWLOWSKY (cf. AUTRUM 1939, Bronns Kl. u. Ordn., Hirudineae 2, p. 500) considered them synonymous. AUTRUM (l. c. p. 500 and footnote) remarks that *H. stagnalis* is not known from tropical localities, supposing the habitats in Ecuador, Brasil and Paraguay perhaps to be non-tropical because of their particular position. Our material, however, shows affinities to both species and tends to affirm the identity of *H. stagnalis* and *H. scutifera*. It is important to know that our habitat was really tropical, the temperature measured being 28°–31° C.

The other specimens can only be identified with *Helobdella fusca*, a species, according to AUTRUM, 1936 (p. 29), up till now known from colder waters and wells only. Our specimens were found at 29°–32° C.

The material has been deposited in the Zoological Museum of Amsterdam.

***Helobdella scutifera* Blanchard**

? ***H. stagnalis* (L.)**

H. AUTRUM, 1936, Hirudineae, in: Bronns Kl. u. Ordn., Teil 1, p. 26 and 24.

PARAGUANÁ (Venezuela): Stat. 108, Estanque de Moruy, 18.II.1937; dimensions of waterbody about $100 \times 30 \times ?3$ m; stagnant; permanent; probably natural in origin; bottom with clayish mud, sand and rock, with limestone and hornblende-rock in neighbourhood; vegetation greatly consisting of algae, with *Chara* and *Najas*; water slightly turbid, nearly colourless, 28° – 31° C, pH 8,7–8,9. — 6 specimens, preserved in alcohol and formaline.

The animals partly agree with AUTRUM's description, l.c. The eyes are separated, though often lying quite near one another. The dorsal plate lies between the 12th and 13th, between the 13th and 14th, or between the 14th and 15th annulus. The mouth lies in the centre of the anterior sucker or somewhat more anterior. Behind the anus are found two postanal annuli or one broad one. As far as can be ascertained the genital pores are separated by one annulus, as usual in both species.

If the dorsal plate is situated between the 12th and 13th annulus, the male pore is found between the 24th and 25th, and the female pore between the 25th and 26th. This is in accordance with their position in *H. stagnalis*.

The (preserved) animals are all unicoloured, viz. entirely black, entirely yellowish brown or entirely brown, without any pattern. In this they agree with *H. stagnalis*. The specimens are more or less contracted, 4–6 mm in length.

Hence we have many reasons to consider *H. scutifera* and *H. stagnalis* synonymous.

Helobdella fusca (Castle)

H. AUTRUM, 1936, Hirudineae, in: Bronns Kl. u. Ordn., Teil 1, p. 28.

CURAÇAO: Stat. 78, Tanki Monpos, Hato, 11.X.1936; dimensions of waterbody about $20 \times 15 \times 1\frac{1}{2}$ m; stagnant; permanent; probably natural in origin; bottom with mud, debris and leaf-decay, with limestone, shale and sandstone in neighbourhood; vegetation greatly consisting of algae, with *Echinodorus*, *Stemodia* and *Hippomane*; water slightly turbid, yellowish brownish-green, 29° – 32° C, pH 8,1–8,3. — 10 specimens, preserved in alcohol and formaline, partly treated with Bouins fixative. — A photograph of this locality may be found in the 4th paper of this series, *Studies 2* tab. IIIb.

The specimens correspond to AUTRUM's description, though, in accordance with MOORE's remarks about their great variability, they differ in pattern and in the position of the papillae. Some of them are unicoloured, without a pattern. The length varies from 4–8 mm.

AUTRUM, 1936 (p. 29), remarks, „In kälteren Gewässern, Quellen“, but, as already stated above, our animals were found in water of 29° – 32° C.