

# ANIMALS FROM PUMP-WATER IN GEULHEM (SOUTH LIMBURG)

by J. H. STOCK  
(Zoologisch Museum Amsterdam)

In a previous paper (Stock, 1961) attention was called to the presence of a varied fauna in the ground-water of the southern part of the Dutch province of Limburg. The occurrence of different subterranean aquatic animals was not very surprising, since the classical investigations of Lereuth have shown their existence in the valley of the Meuse and its tributaries in Belgium. Samples taken in 1961 have proved that especially the groundwater obtained with the aid of normal pumps possesses a very remarkable fauna. It just suffices to pump a certain quantity of water through a plancton net. Usually some 200 liters will suffice. The value of this kind of sampling may be demonstrated by a list of the animals obtained by straining a somewhat larger quantity of water, viz. about 2000 liters, from a single pump. This pump is situated in the valley of the Geul, a tributary of the Meuse, in the small village of Geulhem (community Berg & Terblijt), just in front of the entrance of a marl quarry called the „Kloostergroeve”. This pump, especially in great demand to the numerous tourists and to that end no doubt provided with a board announcing that its water is under governmental control, has yielded the following subterranean aquatic animals:

- Two species of amphipods, *Niphargus k. kochianus* Bate and *Crangonyx subterraneus* Bate;
- two species of copepods, *Acanthocyclops (Rhenocyclops) sensitivus* (Graeter & Chappuis) and *Diacyclops languidoides* (Lillj.);
- one species of flatworm (a triclad turbellarian), *Dendrocoelum boettgeri* An der Lan.

All these species are new to the Dutch fauna; the first two (the amphipods) have been recorded already in my earlier paper. For the identification of the 2 species of copepods, I am indebted to Dr. H. V. Herbst (of Krefeld-Hülserberg, Germany); for that of the triclad to Dr. H. An der Lan (of Innsbruck, Austria).

*Acanthocyclops sensitivus* was known from springs in Switzerland and Great Britain. In the latter country, Gurney (1933) found it associated with typical troglobionts as *Niphargus spec.* and *Asellus cavaticus* Schiödt. The Dutch sample contained 2 ♀♀, 4 ♂♂ and 6 copepodids of this species.

*Diacyclops languidoides* is a collective noun for a number of „variable subspecies” (Husmann, 1956) which are numerous in subterranean waters. The species has, according to Husmann, been found in such conditions in Germany, Yugoslavia, Hungary and France. Three females of it were found in the pump of the Kloostergroeve.

*Dendrocoelum boettgeri* was recently described by An der Lan (1955) from pump-water in the Weser-valley (Germany). Husmann (1956) published more details concerning the localities in the Weser and Leine valleys, as well as the accompanying fauna.

The pump of the Kloostergroeve yielded 3 specimens, none of them sexually mature. Consequently, the identification must be accepted with some reserve but its author, Dr. An der Lan, considered the likelihood very large that the Dutch specimens were identical with the German material. *D. boettgeri* has in adult state a length of about 1 cm, but differs at first sight clearly from our common Dutch species, *D. lacteum*, in being completely blind.

## REFERENCES:

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# MACROLEPIDOPTERA IN MIDDEN-LIMBURG (1961)

door A. W. P. MAASSEN

Na een prachtig voorjaar volgden een zeer natte zomer en herfst, niet bepaald gunstig voor de vangst van lepidoptera!