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THREE SPECIES OF MICROPHTHALMUS (POLYCHAETA) NEW TO THE NETHERLANDS

by

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INTRODUCTION

The excellent monograph by Westheide (1967) of the hesionid genera *Hesionides* and *Microphthalmus* provided the means to study these genera in The Netherlands. Until now no species belonging to either of these genera have been recorded from this country. Nevertheless, several species of *Microphthalmus* were found during our ecological studies on the polychaetes of the estuarine area of the rivers Rhine, Meuse, and Scheldt. One of these species, *M. fragilis* Bobretzky, was so far only known from the Mediterranean and the Black Sea. In the present paper three species are recorded and described. The positions of the localities where these species were found are shown on the map (fig. 1). Ecological data will be published later.

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***Microphthalmus fragilis* Bobretzky, 1870**

Microphthalmus fragilis — La Greca, 1950: 9-13.

Material: Geul van Bommenede near buoy GB 16, N. E. of Brouwershaven, island of Schouwen, province of Zeeland; depth 5.5 m; 25 September 1963; grab sample no. 592; leg. P. de Koeijer, C. de Rooy, A. J. J. Sandee, W. J. M. Vader and L. de Wolf; about 30 specimens.

1) Communication no. 77 of the Delta Instituut voor Hydrobiologisch Onderzoek.

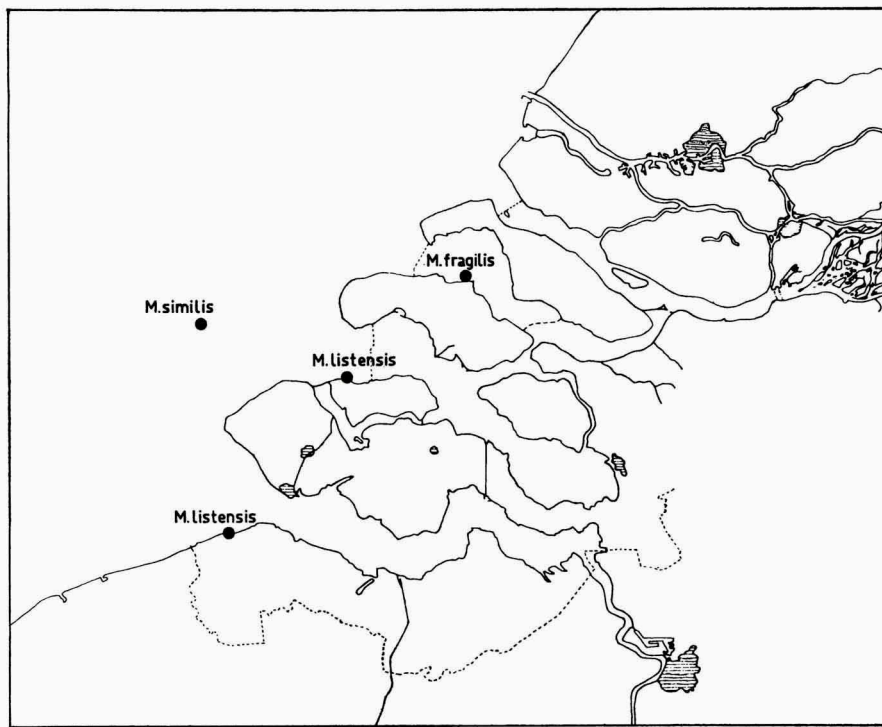


Fig. 1. Localities of three species of *Microphthalmus* in the southwestern part of The Netherlands.

Description. — Specimens of 70 and 75 segments are about 10 mm long. The prostomium bears five tentacles, whereas the three following segments each bear four tentacular cirri. The whole anterior part is very short, the width being greater than the length.

The parapodia consist of a neuropodium and a reduced notopodium. The latter bears a notocirrus which is much longer than the axis of the neuropodium, its length being approximately equal to the body width. The notopodium bears 10 to 14 tapering straight setae, often one or two of these are much shorter than the others. An aciculum with a rounded tip, as described by La Greca, could not be found, but some of the long setae sometimes seem to have a very small rounded tip. One or two curved, comb-like setae, of the same length as the straight setae, may be present. The neuropodium has a distinct main axis and a slightly longer ventral cirrus. The following setae are present in the neuropodium: a short aciculum, largely hidden in the neuropodium, 2 or 3 slightly curved, bidentate, homomorph setae, 11 to 13 straight

heterogomph setae, with bidentate blades, and 5 or 6 straight heterogomph setae, with finely pectinate unidentate blades. The blade of the unidentate heterogomph setae is much more slender than that of the bidentate heterogomph setae.

The pygidium is slightly bilobed; the margin is provided with small papillae. On each side an urite is present, which are about $2\frac{1}{2}$ times as long as the pygidium.

Discussion. — The heterogomph setae with unidentate blades may have been overlooked by La Greca. On the other hand I could not find the curved, homogomph, unidentate bristle described by this author. The differences between the description of La Greca and the present material do not seem to be sufficiently important to consider the two forms taxonomically distinct. They all concern characters that are difficult to observe.

Distribution. — Until now *M. fragilis* was only known from the Black Sea and the Mediterranean near Naples (La Greca, 1950).

***Microphthalmus listensis* Westheide, 1967**

Microphthalmus listensis Westheide, 1966: 203-209 (nomen nudum); Westheide, 1967: 142-146, figs. 76-78; Hartmann-Schröder & Stripp, 1968: 11-13.

Material: Beach near the Verdrongen Zwarte Polder, N.W. of Nieuwvliet, Zeeuws-Vlaanderen, province of Zeeland; about 1 m above mean low water level; 13 August 1968; leg. J. Nieuwenhuize and A. J. J. Sandee; 4 specimens. Beach near the Anna-Friso-Polder, N.W. of Wissenkerke, island of Noord-Beveland, province of Zeeland; about 1 m above mean low water level; 29 October 1968; leg. A. J. J. Sandee; 10 specimens.

Description of an apparently juvenile specimen from the Verdrongen Zwarte Polder. — The length is about 700 μ . The colour is transparent whitish with two small reddish-brown eye-spots. The prostomium is rounded anteriorly and bears four tentacles. An unpaired median tentacle was not observed, but it may be present. The three segments behind the prostomium have four long and slender tentacular cirri each. These are gradually tapering and have a length of 1 to $1\frac{1}{2}$ times the width of the anterior segments. Nine setigerous segments are present.

Each parapodium bears a very long and slender dorsal cirrus, the length of which is $1\frac{1}{2}$ to 2 times the width of the setigerous segments, and a slightly shorter ventral cirrus, which is somewhat longer than the longest setae. In the middle segments the reduced notopodium bears three setae: a short aciculum with a rounded tip, a longer, tapering, straight bristle, and a slightly curved bristle with a finely pectinate distal part. The neuropodium bears a fairly long aciculum and up to six slightly curved heterogomph setae.

The blade of these setae shows a fine dentation. The last two segments have a reduced number of bristles.

The pygidium is triangular with rounded angles (an artefact?) and has a long urite with an inflated basal part on each side.

Discussion. — This specimen very much resembles the specimen depicted in fig. 77 of Westheide's monograph. I did not find any difference from the description by Westheide.

Distribution. — This species was known from the islands Sylt and Heligoland (Westheide, 1966, 1967), and from the vicinity of Scharhörn (Hartmann-Schröder & Stripp, 1968), all on the North Sea coast of Germany.

***Microphthalmus similis* Bobretzky, 1870**

Microphthalmus similis — La Greca, 1950: 13-14; Westheide, 1966: 206-208; Westheide, 1967: 133-134; Hartmann-Schröder & Stripp, 1968: 10-11.

Material: North Sea, off the island of Schouwen, 51°40'35"N 3°22'52"E; depth 19.8 m; 1 July 1966; grab sample no. 1462; leg. D. Eisma, J. Nieuwenhuize, W. J. L. Robër, and W. J. Wolff; 2 specimens.

Description. — Two specimens were available for description, one of 40 segments and one of at least 36 segments. The total length of each specimen is about 6 mm. The prostomium bears five tentacles and the next three segments each bear four tentacular cirri. Two small red eye-spots are present.

The parapodia consist of a neuropodium and a reduced notopodium. The notopodium bears a cirrus which is much longer than the main axis of the neuropodium, it measures about 1½ times the body width. Two types of setae are present in the notopodium: a stout tapering aciculum and a long, curved (comb-like?) bristle. The neuropodium bears up to 7 heterogomph bristles with bidentate blades, 2 homogomph bidentate bristles, often a short and a long one, and one homogomph aciculum.

The pygidium is rounded and its margin is provided with papillae.

Discussion. — The only difference from the descriptions by La Greca (1950) and by Westheide (1967) is that in the notopodium of the present specimens the aciculum is pointed instead of having a rounded tip. This difference is probably not very important.

Distribution. — *M. similis* was known from the Black Sea, from the Mediterranean near Naples and near Leghorn (Livorno), and from the North Sea. The North Sea records are by Westheide (1966, 1967) from Sylt, and by Hartmann-Schröder & Stripp (1968) from the vicinity of Neuwerk and from Wangerooge, all these localities lying in the German Bight.

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