

**Redescription of *Typosyllis magnipectinis* (STORCH, 1967)
from the South China Sea
(Polychaeta: Syllidae)**

With 3 Text-Figures and 1 Table

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Abstract

[LICHER, F. & DING, Z. & FIEGE, D. & SUN, R. (1995): Redescription of *Typosyllis magnipectinis* (STORCH, 1967) from the South China Sea (Polychaeta: Syllidae). – *Senckenbergiana marit.*, 25 (4/6): 107–113, 3 figs., 1 tab.; Frankfurt a. M.]

Typosyllis magnipectinis (STORCH, 1967), redescribed from Hainan Island, South China Sea, is distinguished from other *Typosyllis*-species by the following characters: compound falcigerous chaetae with a considerably enlarged secondary tooth and long serrations proximal to it ("normal falcigers"); much enlarged falcigerous chaetae of similar shape ("enlarged chaetae"); simple dorsal chaetae with bidentate tips; simple ventral chaetae with an enlarged secondary tooth and long serrations proximal to it.

Keywords: Taxonomy, Polychaeta, Syllidae, *Typosyllis*, *Syllis*, China.

Kurzfassung

[LICHER, F. & DING, Z. & FIEGE, D. & SUN, R. (1995): Wiederbeschreibung von *Typosyllis magnipectinis* (STORCH, 1967) aus dem Südchinesischen Meer (Polychaeta: Syllidae). – *Senckenbergiana marit.*, 25 (4/6): 107–113, 3 Abb., 1 Tab.; Frankfurt a. M.]

Die Beschreibung von *Typosyllis magnipectinis* (STORCH, 1967) wird durch einen weiteren Fund von der Insel Hainan (Südchinesisches Meer) vervollständigt. Diese Art unterscheidet sich von anderen *Typosyllis*-Arten durch folgende Merkmalskombination: zusammengesetzte falcigere Borsten mit stark vergrößertem sekundären Zahn und subdistalen langen Härchen ("normal falcigers"); kräftigere, vergrößerte falcigere Borsten ähnlicher Struktur ("enlarged falcigers"), einfache Dorsalborsten mit bidentater Spitze und einfache Ventralborsten mit vergrößertem sekundären Zahn und subdistalen Härchen.

Introduction

During the recently-intensified sampling of the Chinese polychaete fauna, a species of *Typosyllis* with enlarged falcigers was collected by a joint expedition to Hainan Island of the First Institute of Oceanography in Qingdao and the

Biological Department of the University of Osnabrück in October 1991, and again by an expedition to investigate the shallow-water biota of Hainan Island carried out jointly by the Institute of Oceanology, Academia Sinica, Qingdao and

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the Forschungsinstitut Senckenberg, Frankfurt, in March/April 1992. The same species was described by UEBELACKER (1984) as *Typosyllis* sp. A from the Gulf of Mexico.

The present material is assigned to *Syllis* (*Typosyllis*) *magnipectinis* STORCH, 1967, from the Red Sea, which has never been reported since it was described. As this species

was described from an incomplete type, the present authors have undertaken a fuller description based on the Chinese material with a re-evaluation of its geographic range. The holotype has now been deposited in the Senckenberg Museum; the deposition of the Chinese material is cited below.

Material and Methods

Material was fixed either in 70% ethanol or in 4% Formalin diluted with seawater and later transferred to 70% ethanol. For light microscopy, specimens were transferred into glycerol. Observations, drawings, and measurements were made using a LEITZ Diaplan microscope with interference contrast optics and a camera lucida. For SEM investigations, specimens were dehydrated via graded series of ethanol, critical point dried with CO₂, coated with Au-Pd and examined with a CamScan CS 24 SEM. The mea-

surements are from the largest and only complete specimens, with those of the holotype given in parentheses.

The following abbreviations are used: First Institute of Oceanography, Qingdao (FIOQ); Museo Nacional de Ciencias Naturales, Madrid (MNCNM); Senckenberg Museum, Frankfurt (SMF); U.S. National Museum of Natural History, Smithsonian Institution, Washington D.C. (USNM); Zoologisches Museum, Universität Hamburg (ZMH).

Description

Typosyllis magnipectinis (STORCH, 1967), redescribed

Figs. 1-3

1967 *Syllis* (*Typosyllis*) *magnipectinis* STORCH: 106-107, Figs. 4-5.

1984 *Syllis* (*Typosyllis*) sp. A. - UEBELACKER: 30-134, Figs. 30-126 (USNM 65692, 75306). [Not *Syllis* (*Typosyllis*) sp. A. - UEBELACKER: 30-134 (USNM 75308, 75312)].

Material examined: *Typosyllis* (*Syllis*) *magnipectinis* (STORCH, 1967): Red Sea, Gifatin Island group, 27°16'N, 33°56'E, coarse sand zone (holotype, incomplete specimen, SMF 4509). - South China Sea, Hainan Island, Sanya, 18°14'N, 109°30'E, 2-5 m depth, sand beach (1 complete specimen, ZMH P-22030; 1 incomplete specimen, FIOQ). - Hainan Island, Dadonghai, 29.3.92 (1 cs, SMF-SEM 57). - *Syllis* (*Typosyllis*) sp. A: Gulf of Mexico: MAFLA 2528C-8/77 (1 specimen, USNM 65692); SOFLA 2E-11/80 (2 specimens, USNM 75308; 2 specimens, USNM 75312); SOFLA 4A/C-7/81 (2 specimens, USNM 75306).

Other material examined: *Syllis ortizi* SAN MARTIN, 1992: Cuba, off Punta Pedernales, Isla de la Juventud, 50 m, coarse calcareous sand, (holotype, MNCNM 16.01/800; paratype, MNCNM 16.01/801).

Locus typicus: Red Sea, Gifatin Island group.

Description: Body cylindrical and elongate. Largest and complete specimen (ZMH P-22030), 97 chaetigers; length, 20.6 mm excluding palps and anal cirri; width in anterior region including parapodia, 0.5 mm (excluding parapodia, 0.3 mm). Colour: Cream white, partly transparent in ethanol, without colour pattern.

Prostomium rounded (Figs. 1A, 3A), with two patches of cilia anterolaterally. Two pairs of eyes in trapezoidal arrangement and an additional pair of ocular specks near the anterior margin. Palps 2x longer than wide (as long as wide in holotype) and not fused. Three articulated antennae; the median with 24-26 articles (35 in holotype),

inserted in the middle of the prostomium; lateral ones shorter, with 16-20 articles (17-20 in holotype). Articles usually somewhat wider than long (articulation not distinct at base in holotype). Large, ciliated nuchal organs between prostomium and tentacular segment.

Peristomium half as long as following chaetigers. Two pairs of articulated tentacular cirri, similar in shape to antennae; dorsal cirri with 28-30 articles (28-38 in holotype); ventral cirri with 16-20 articles.

Parapodia uniramous (Fig. 1C-D). Notopodia with articulated long dorsal cirri, decreasing in length posteriorly, similar in shape to antennae and tentacular cirri. Number of articles in dorsal cirri as follows (chaetiger/number of articles): 1/42-50, 2/18, 3/30, 4/42, 5/17, 6/30, 7/17, 8/15, 9/37. Dorsal cirri alternate in length regularly posterior to chaetiger nine. Articles in the anterior and median parts wider than long; in the posterior part, longer than wide.

In anterior part (chaetigers 1 to 9) neuropodial lobe with a bundle of falcigerous chaetae, with 7-10 normal falcigers (decreasing in number posteriorly) (Fig. 2A-B), with secondary tooth ca. the same size as distal tooth. Blades subdistally serrated along the cutting edge, with gradation of about 1:1.3. Shafts serrated subdistally. One acuminate acicula with blunt tip.

In median part following proventriculus (chaetigers 10-90), dorsal bundles with three to seven normal falcigers, similar in shape and gradation to anterior chaetae (Fig. 2C-D, F-G). Ventral bundles with 1-3 enlarged falcigers (Figs. 2E, H; 3B), with thick shafts, ca. 2x thicker than shafts of normal falcigers, and with thick blades with short, bent distal tooth and a prominent subtriangular secondary tooth, more than 5x larger than the distal tooth, blade with 7-9 long and spine-like serrations, curved and directed distally. Two aciculae, of similar shape as anterior aciculae (Figs. 2I, 3C).

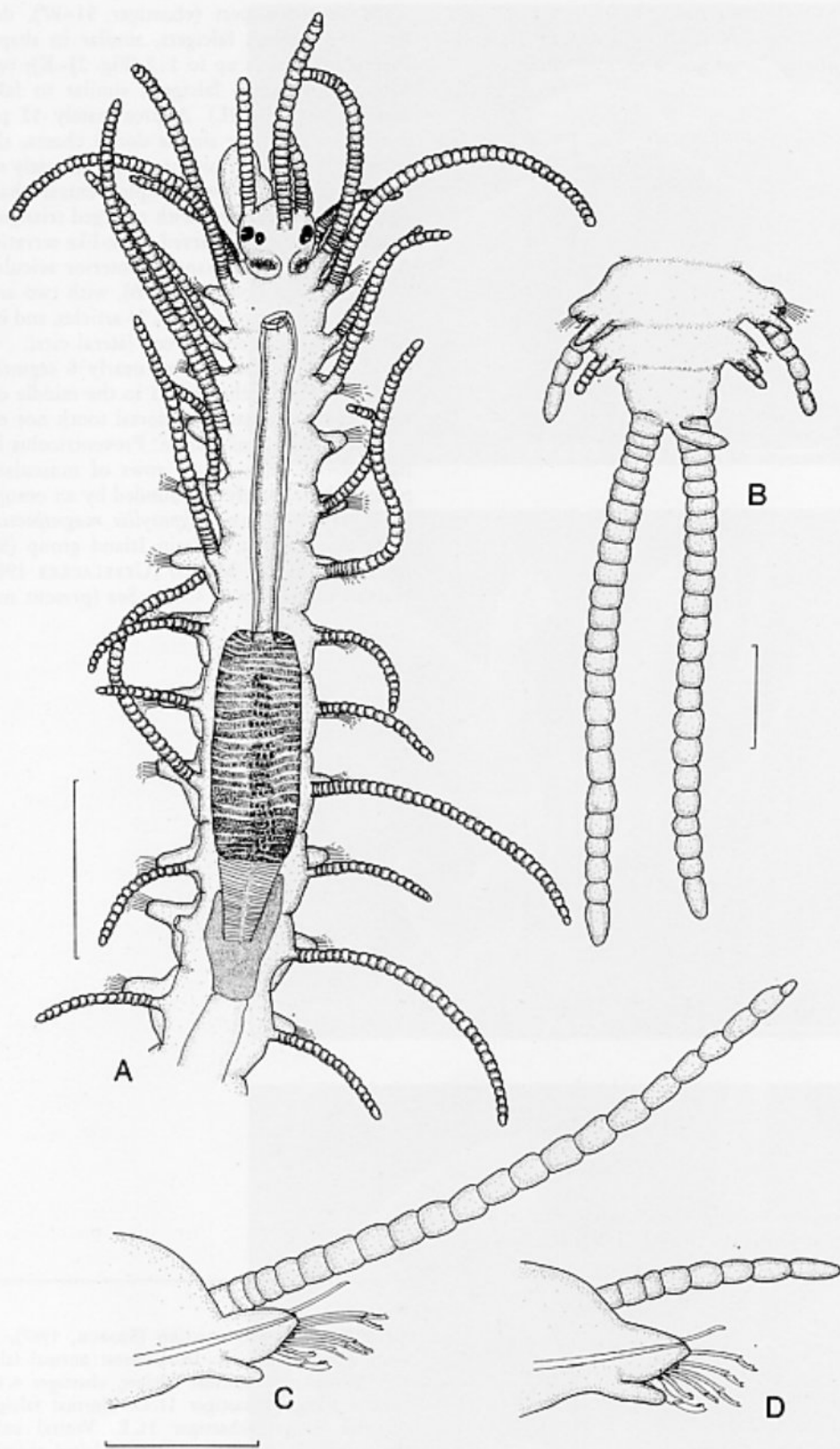


Fig. 1. *Typosyllis magnipectinis* (STORCH, 1967), Hainan Island, South China Sea. - A. Anterior end, dorsal view. B. Posterior end, ventral view. C. Parapodium of chaetiger 87, posterior view. D. Parapodium of chaetiger 88, posterior view. - Scales A: 500 μm ; B: 200 μm ; C-D: 100 μm .

