

## SOME SPECIES OF *ONUPHIS* (POLYCHAETA: ONUPHIDAE) FROM THE ATLANTIC OCEAN

Kristian Fauchald

*Abstract.*—Five new species of *Onuphis* (Polychaeta: Onuphidae) are described. Three, *O. (Nothria) australatlantica*, *O. (N.) heterodentata*, and *O. (N.) lithobiformis* come from southern Atlantic waters; the other two, *O. (Onuphis) declivorum*, and *O. (O.) texana* are from the east coast of the United States.

---

### Introduction

A review of material of onuphids deposited in the collections of the National Museum of Natural History, Smithsonian Institution, has revealed the presence of five previously undescribed species. Part of the material was previously treated by Hartman (1967) in her study of Antarctic polychaetes; other specimens come from benthic surveys along the east coast of the United States.

Generic definitions and terminology are those in Fauchald (1980).

Family Onuphidae Kinberg, 1866

Genus *Onuphis* Audouin and Milne Edwards, 1833

Subgenus *Nothria* Malmgren, 1866

*Onuphis (Nothria) australatlantica*, new species

Fig. 1, Table 1

*Nothria* cf. *conchylega*.—Hartman, 1967:91 (not M. Sars, 1835:61).

*Material examined.*—Antarctic Ocean, off South Shetland Islands, 3768–3816 m, Menzies-trawl, 2 August 1962, *Eltanin* Sta. 129 (17 paratypes, USNM 58296). Antarctic Ocean, off South Shetland Islands, 3138–3239 m, Blake-trawl, 8 September 1963, *Eltanin* Sta. 722 (holotype, USNM 58195, one paratype, USNM 67488).

*Description.*—The holotype is an incomplete specimen with 29 setigers that is 23 mm long and 2.75 mm wide, with parapodia; it is a mature female with large eggs in the body cavity. The body is dorsoventrally flattened with the parapodia attached at the margins. All types are pale pink and lack color patterns. Eyes are absent. The holotype is described in detail below; a summary of information for all types is given in Table 1.

The prostomium (Fig. 1b) is rounded frontally and is wider than long. The frontal palps are shorter than the length of the prostomium. The outer lateral occipital antennae reach setiger 1, the inner lateral antennae reach setiger 4 and the median antenna reaches setiger 7. The occipital ceratophores are short and have up to 3 rings. Branchiae are absent.

The first 2 setigers (Fig. 1a) are enlarged. The first parapodia are directed forward and laterally so that the morphologically anterior face of each parapodium is medial. In the first pair of parapodia (Fig. 1i–j) the flattened, auricular presetal



Fig. 1. *Onuphis (Nothria) australatlantica* (holotype, USNM 58195): a, Anterior end, lateral view; b, Anterior end, dorsal view; c, Pseudocompound hook, second setiger; d, Intrafascicular hook, median setiger; e, Pectinate seta, median setiger; f, Pseudocompound hook, first setiger; g, Second parapodium, anterior view; h, Second parapodium, posterior view; i, First parapodium, posterior view; j, First parapodium, anterior view. All scales are 1 mm except where otherwise indicated.

Table 1.—Summary statistics for *Onuphis (Nothria) australatlantica*.

|                                      | Range | Mean      | SD   | V    | N  |
|--------------------------------------|-------|-----------|------|------|----|
| Occipital antennae                   |       |           |      |      |    |
| Outer lateral reach #                | 1     | invariant |      |      | 19 |
| Inner lateral reach #                | 4–8   | 5.89      | 1.08 | 1.16 | 18 |
| Median reaches #                     | 6–10  | 8.14      | 1.23 | 1.52 | 14 |
| # of rings                           | 2–3   | 2.24      | 0.44 | 0.19 | 19 |
| Ventral cirri cirriform to setiger # |       |           |      |      |    |
|                                      | 2     | invariant |      |      | 19 |
| Pseudocompound hooks to setiger #    | 2–3   | 2.05      | 0.23 | 0.05 | 19 |
| Intrafascicular hooks from setiger # | 9–11  | 9.95      | 0.71 | 0.50 | 19 |

lobe enfolds the dorsal side of the superiormost setae. The digitiform postsetal lobe is directed posteriorly. The tapering dorsal cirrus is about twice as long as the postsetal lobe. The ventral cirrus is similar to the postsetal lobe in size and shape (the postsetal lobe projects posteriorly and is thus foreshortened in Fig. 1i).

The second parapodia (Fig. 1g–h) are shorter than the first and directed laterally. The presetal lobe is less than half as wide as that of the first setiger, but is still distinctly flattened and auricular. The postsetal lobe is about as long as that of the first setiger, but is tapering from the base, rather than digitiform. The dorsal cirrus resembles the one in the first setiger. The ventral cirrus is very short and sharply tapering.

All other parapodia resemble each other; the presetal lobes are completely reduced and the ventral cirri are replaced by glandular pads. The postsetal lobes become increasingly threadlike towards the posterior end, but are distinct in all setigers present; the dorsal cirri also become increasingly slender towards the posterior end.

Pectinate setae, limbate setae, and anterior pseudocompound and intrafascicular hooks are present. Compound spinigers, large hooks, and subacicular hooks are absent. Pectinate setae (Fig. 1e) are present from the second setiger; each seta is distally scoop-shaped and has about 15 teeth. About 12 pectinate setae are present per parapodium in the anterior third of the body. The limbate setae have extremely long shafts with a short, slightly geniculate limbation distally. The pseudocompound hooks of the first setiger (Fig. 1f) are very thick, indistinctly bidentate, and have short, blunt hoods. The hooks of the second setiger are less than half as wide as those of the first setiger (Fig. 1c); the hinge-line is distinct and each hook is clearly bidentate with a short, blunt hood. Pseudocompound hooks are present in the first 2 setigers only. A pair of intrafascicular hooks is present in each setiger from setiger 10. The intrafascicular hooks are oriented parallel to the acicula and the limbate setae, and are about as long as the latter. Each intrafascicular hook is bidentate distally and the head of the hook is tilted so that both teeth are axial.

The maxillary formula (examined in the paratype from USNM 67488) is 1+1, 8+10, 3+0, 4+9 and 1+1; the unpaired maxilla III has 2 poorly defined basal teeth and a large distal fang.

The tubes are quadrangular in cross-section. The sides of the tubes that cor-



respond to the dorsal and ventral surface of the worm are somewhat more flattened than the 2 lateral sides. The inner lining is tough; the outer surface is covered with black, volcanic sand and other large particles that are not arranged in a recognizable pattern.

Only one previously described species of *Onuphis* (*Nothria*) combines prolonged first parapodia with a lack of branchiae. *Onuphis* (*N.*) *textor* (Hartman and Fauchald, 1971:78) was described from deep water in the Atlantic Ocean. It is a very small species; a mature female with 15 setigers is about 2.5 mm long, and has extremely long, slender first parapodia projecting well beyond the tip of the prostomium. *Onuphis* (*N.*) *australatlantica* is a much larger and more massive species; a mature female is 23 mm for 29 setigers, and the first parapodia, while enlarged, do not project beyond the tip of the prostomium.

These specimens were originally identified as *Nothria* cf. *conchylega* by Hartman (1967); they differ clearly from *Onuphis* (*Nothria*) *conchylega* Sars, 1835, in that they lack branchiae, present in the latter.

*Etymology*.—The specific name, *australatlantica*, refers to the localities in the southern Atlantic Ocean from which material of the species was collected.

*Distribution*.—*Onuphis* (*N.*) *australatlantica* is known from two localities in abyssal depths in the southern Atlantic Ocean.

*Onuphis* (*Nothria*) *heterodentata*, new species

Fig. 2, Table 2

*Nothria* ?*iridescens*.—Hartman, 1967:91 (in part, not Johnson, 1901:408).

*Material examined*.—South Atlantic Ocean, off Falkland Islands, 587–595 m, rock dredge, 3 December 1962. *Eltanin* Sta. 338 (holotype, USNM 58299, 13 paratypes, USNM 67489).

*Description*.—The holotype is an incomplete specimen with 46 setigers, is 18 mm long and 1.5 mm wide, with parapodia. Other specimens are up to 24 mm long for 55 setigers; none are complete. The anterior end of the specimens is cylindrical; the dorsum is flattened and the ventrum is curved in median and posterior setigers. The holotype (Fig. 2c) has lost the styles on both the inner lateral and median occipital antennae. The outer lateral antennae reach setiger 2 and the ceratophores are distinctly longer than the styles. The inner lateral ceratophores, which are the longest, have up to 13 rings. In the paratypes, the inner lateral antennae reach setiger 7 and the median antenna reaches setigers 4–5 (Table 2). The short frontal palps are ovate; eyes are absent.

Branchiae are present from setiger 2 in the holotype and from setigers 1 or 2 in the paratypes. If branchiae are present from setiger 1, the first branchiae may be missing from one side of the animal. Branchiae are present to the end of all fragments; each is simple and straplike, and flattened, especially in posterior setigers.

The first 2 pairs of parapodia are directed anteriorly. Ventral cirri are cirriform in the first 5 setigers (Fig. 2f) and the postsetal lobes are digitiform in the first 11 setigers. The first 2 parapodia (Fig. 2a) have distinct contraction folds at the bases of the dorsal cirri and rounded presetal and acicular lobes. The postsetal lobes have thickened, pad-shaped bases. Median and posterior parapodia are barely raised ridges with the setae emerging in a crescentic opening ventrally. The ven-

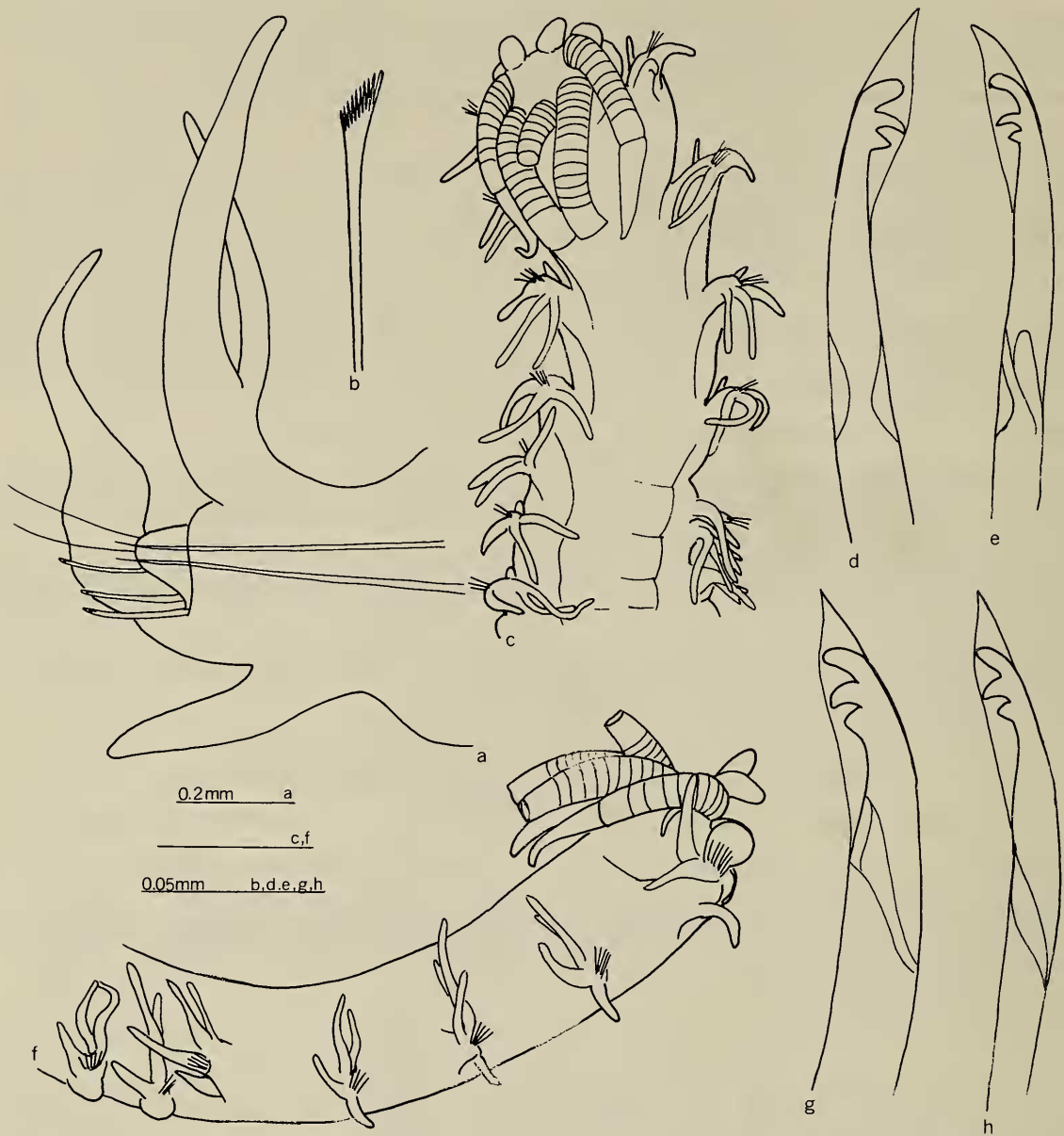


Fig. 2. *Onuphis (Nothria) heterodentata* (holotype, USNM 58299): a, Second parapodium, anterior view; b, Pectinate seta, median setiger; c, Anterior end, dorsal view; d-e, Superior and inferior pseudocompound hook, second parapodium; f, Anterior end, lateral view; g-h, Superior and inferior pseudocompound hooks, third parapodium. All scales are 1 mm except where otherwise indicated.

tral glandular pads that replace the ventral cirri are very large and extend beyond the tips of the subacicular hooks in most setigers.

Limbate and pectinate setae, pseudocompound and subacicular hooks are present. Compound spinigers and large hooks are absent. Limbate setae are most common in anterior parapodia except in the first 2 where only 1 or 2 are present. One or 2 pectinate setae (Fig. 2b) are present in each parapodium; each pectinate seta is slightly oblique distally, forming a  $120^\circ$  angle with the long axis of the seta, and has 13-14 teeth; the 2 marginal teeth are not prolonged. Tridentate pseudocompound hooks (Fig. 2d-e, g-h) with short hoods are present in the first 3 or 4 parapodia. Only a single hook is present in setiger 4. The middle tooth projects beyond the other teeth. The proximal tooth is broadly conical, the middle tooth is curved, nearly beaked, and the distal tooth is thick and abruptly tapering

Table 2.—Summary of statistics of *Onuphis (Nothria) heterodentata*.

|   | Range | Mean      | SD   | V    | N  |
|---|-------|-----------|------|------|----|
| Occipital antennae                        |       |           |      |      |    |
| Outer lateral reach #                     | 2     | invariant |      |      | 12 |
| Inner lateral reach #                     | 5–10  | 7.17      | 2.14 | 4.57 | 6  |
| Median reaches #                          | 3–6   | 4.67      | 1.53 | 2.33 | 3  |
| # of rings                                | 12–13 | 12.20     | 0.42 | 0.18 | 10 |
| Branchiae first present from setiger #    | 1–2   | 1.60      | 0.52 | 0.27 | 10 |
| Ventral cirri cirriform to setiger #      | 5     | invariant |      |      | 14 |
| Pseudocompound hooks present to setiger # | 4     | invariant |      |      | 14 |
| Subacicular hooks present from setiger #  | 12–14 | 12.50     | 0.65 | 0.42 | 12 |

distally. Two bidentate subacicular hooks are present in each parapodium from setiger 12.

The maxillary formula (investigated in 2 paratypes) is 1+1, 9+9, 8–9+0, 7–8+9–10 and 1+1.

*Onuphis (N.) heterodentata* resembles *O. (N.) holobranchiata* Marenzeller (1879:132), *O. (N.) iridescens* (Johnson, 1901:408), *O. (N.) opalina* (Verrill, 1873:102), and *O. (N.) lithobiformis* (see below). All these species have simple branchiae starting on setiger 1 and tridentate pseudocompound hooks exclusively. *Onuphis heterodentata* differs from the other 4 species in that the median tooth of the pseudocompound hooks is larger and projects further than the other 2 teeth; in all the other species the middle tooth is either of the same size as the proximal tooth or intermediate in size between a long distal tooth and a short proximal tooth. The relationships between the other 4 species are discussed below.

*Etymology*.—The specific name refers to the different shapes of the teeth in the pseudocompound hooks.

*Distribution*.—*Onuphis (N.) heterodentata* is known from a single locality in slope-depths off the Falkland Islands.

#### *Onuphis (Nothria) lithobiformis*, new species

Fig. 3

*Nothria ?iridescens*.—Hartman, 1967:91 (in part, not Johnson, 1901:408).

*Material examined*.—South Atlantic Ocean, off Falkland Islands, from 53°08'S, 59°23'W to 53°07'S, 59°21'W, 578–567 m, Menzies-trawl, 3 December 1962, *Eltanin* Sta. 340 (holotype, USNM 58300, 4 paratypes, USNM 67490). South Atlantic Ocean, Straits of Magellan, from 53°48'S, 70°53'W to 53°45'S, 70°53'W, 485 m, Blaketrawl, 6 February 1964, *Eltanin* Sta. 963 (2 paratypes, USNM 58301).

*Description*.—All specimens are incomplete; the holotype consists of 58 setigers, is 21 mm long and 1.20 mm wide, with parapodia. The anterior part of the body (Fig. 3e) is cylindrical and the median and posterior parts are dorsally flattened. Color patterns and eyes are absent. The prostomium (Fig. 3a) is a short, rounded lobe (not clearly visible in the illustration) with a pair of triangular frontal



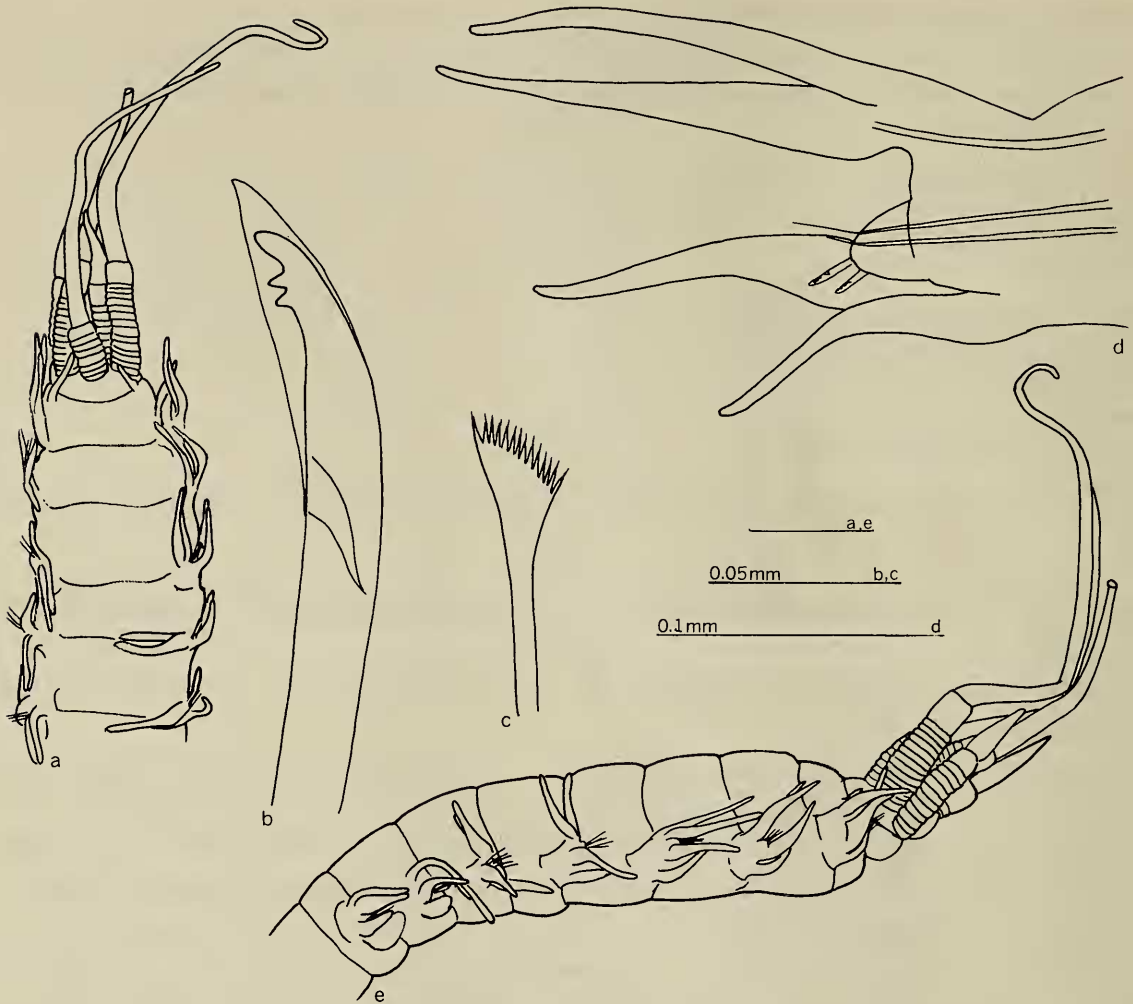


Fig. 3. *Onuphis (Nothria) lithobiformis* (holotype, USNM 58300): a, Anterior end, dorsal view; b, Pseudocompound hook, third parapodium; c, Pectinate seta, median parapodium; d, Third parapodium, anterior view; e, Anterior end, lateral view. All scales are 1 mm except where otherwise indicated.

palps. The ceratophores of the occipital antennae are all strongly ringed and reach well beyond the edge of the prostomium. The inner lateral ceratophores are the longest and have up to 13 rings. The outer lateral antennae reach setiger 2, the inner lateral antennae reach setigers 8–12 and the median antenna reaches setigers 3–7. The outer lateral ceratostyle is clearly shorter than its ceratophore.

Branchiae are present from the first setiger in most specimens. The occurrence of branchiae on the first 3 setigers may be irregular; in the holotype branchiae are absent on the second setiger on one side and first present from the third setiger on the other side. Branchiae are present to the end of all the specimens; each branchia is simple and straplike and reaches nearly halfway across the dorsum in median and posterior setigers.

The first parapodia (Fig. 3d) have rounded acicular lobes; the presetal lobes follow the outlines of the acicular lobes closely. Distinct contraction folds are present at the bases of the dorsal cirri. Digitiform postsetal lobes are present in the first 11–12 setigers. Cirriform ventral cirri are present in the first 4 or 5 setigers; setigers 5–6 have shortened, blunt cirri; all following setigers have glandular pads replacing the ventral cirri.

Limbate and pectinate setae, pseudocompound and subacicular hooks are present. Compound spinigers and large hooks are absent. Limbate setae are present in all setigers, but are most numerous in anterior setigers. Each of the pectinate setae (Fig. 3c) is distally oblique and has about 12 teeth; there are 1 or 2 pectinate setae in a parapodium in median and posterior setigers. Tridentate pseudocompound hooks (Fig. 3b) with short, blunt hoods are present in the first 4 setigers. The 2 proximal teeth are similar in size and orientation in all hooks; both teeth are narrowly conical with blunt tips. Bidentate subacicular hooks are present from setigers 9–15.

The maxillary formula (investigated in one paratype from USNM 67490) is 1+1, 6+8, 4+0, 6+9 and 1+1; in the unpaired maxilla III the distal tooth is a large fang, separated from the other 3 teeth by nearly half the length of the maxilla.

The holotype had a flimsy tube, consisting of a thin, fragile inner lining sparsely covered with sand-grains.

*Onuphis* (*N.*) *lithobiformis* resembles *O.* (*N.*) *holobranchiata* Marenzeller (1879:132), *O.* (*N.*) *iridescens* (Johnson, 1901:408), *O.* (*N.*) *opalina* (Verrill, 1873:102), and *O.* (*N.*) *heterodentata*, new species (see above) in that all 5 species have simple branchiae present from the first setiger and have tridentate pseudocompound hooks exclusively. The differentiation of *O. heterodentata* from the other 4 species was indicated above. *Onuphis holobranchiata* differs from the remaining 3 species in that it has the outer lateral ceratophores longer than the other ceratophores and in that it has digitiform postsetal lobes at least through setiger 33. The inner lateral ceratophores are the longest in the other 3 species and none of them have digitiform postsetal lobes in more than 16 setigers. The middle tooth of the pseudocompound hooks is by far the widest, and is bluntly conical in *O. opalina* and *O. iridescens*; the proximal and the middle tooth are of the same size and shape in *O. lithobiformis*, in which no teeth are bluntly conical.

*Etymology.*—The general shape of the body resembles that of a centipede, *Lithobius* being the name of a well-known genus in that group.

*Distribution.*—*Onuphis lithobiformis* is known from upper slope-depths in the southern Atlantic Ocean.

*Onuphis* (*Onuphis*) *declivorum*, new species

Fig. 4

*Material examined.*—Atlantic Ocean, off New Jersey, 38°45.2'N, 73°01.0'W, 350 m, *R.V. Pierce* Sta. J1-BLM-04B (holotype, USNM 57639).

*Description.*—The holotype is an incomplete specimen with 39 setigers, is 17 mm long and 1.6 mm wide, with parapodia. The specimen is a female with large oocytes in the body-cavity. The body is cylindrical throughout and lacks a color pattern. Eyes are absent.

The prostomium (Fig. 4a) is shorter than wide and has a pair of elongate frontal palps directed ventrally. The 5 occipital ceratophores are all longer than the length of the prostomium. The maximal number of rings is 5 and the rings are limited to the proximal half of each ceratophore. The inner lateral and median ceratostyles had loosened from the ceratophores, but were retained in a mucus coat surrounding the specimen. They are all of the same length and would have



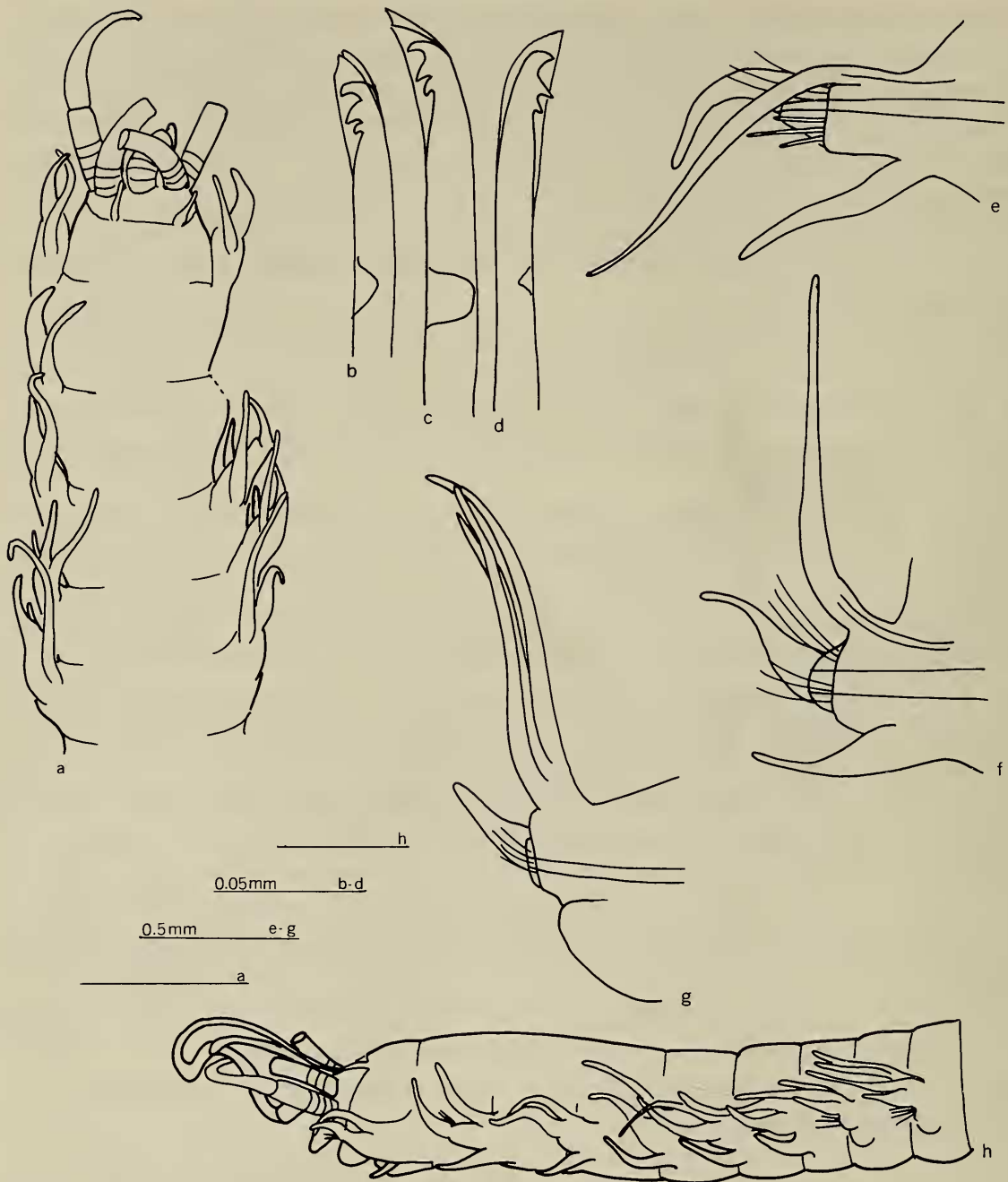


Fig. 4. *Onuphis* (*Onuphis*) *declivorum* (holotype, USNM 57639): a, Anterior end, dorsal view; b–d, Inferior, median and superior pseudocompound hooks, second parapodium; e, Second parapodium, anterior view; f, Sixth parapodium, anterior view; g, Ninth parapodium, anterior view; h, Anterior end, lateral view. All scales are 1 mm except where otherwise indicated.

reached about setiger 6, if attached. The outer lateral ceratostyles are about as long as their ceratophores; the outer lateral antennae reach setiger 2.

The peristomium bears a pair of short, slender peristomial cirri. The first 5 pairs of parapodia (Fig. 4h) are directed forward and slightly ventrally. The parapodial bases are well developed in the first 3 parapodia and become reduced posteriorly. In the first several parapodia (Fig. 4e–f) the acicular lobes are evenly rounded distally and have a contraction fold running across the frontal face at about the bases of the dorsal cirri. The postsetal lobes are at least as long as the base of the parapodium and are tapered. Ventral cirri are long and digitiform in

the first 6 parapodia and abruptly replaced by glandular pads from setiger 7. The dorsal cirri increase in length from the first through the fifth setiger where they are longer than half the width of the body. From about setiger 10 they remain of about the same length, but become increasingly slender posteriorly. The postsetal lobes decrease in size from the first setiger, but are distinct as short, conical tubercles, even in the last setigers present.

Branchiae are present from setiger 7 to the end of the fragment. The first branchia is simple; all others are branched (Fig. 4g) with up to 4 long, slender branchial filaments. The filaments are as long as the dorsal cirri or longer in all except the first branchial setiger.

Limbate and pectinate setae, pseudocompound and subacicular hooks are present. Compound spinigers and large hooks are absent. Tridentate pseudocompound hooks (Fig. 4b–d) with short hoods are present in the first 5 setigers; all teeth are short and very strongly curved. Bidentate subacicular hooks are present from setiger 18. Each pectinate seta is distally transverse and has about 15 teeth. Limbate setae are present in all setigers, but are especially prominent in superior fascicles in anterior parapodia.

The structure of the maxillae was not observed in the single specimen available.

*Onuphis (O.) declivorum* resembles *O. (O.) acapulcensis* Rioja (1944:139), *O. (O.) aucklandensis* Augener (1924:418), and *O. (O.) vexillaria* Moore (1911:266). All 4 species have branched branchiae starting from an anterior setiger other than the first and have tridentate pseudocompound hooks exclusively. Of the 4 species, *O. vexillaria* has large hooks in some anterior setigers; the other 3 species lack such hooks. The 3 remaining species can be differentiated on a set of characters. *Onuphis acapulcensis* has branchiae from setiger 6 with up to 12 branchial filaments, the occipital ceratophores are strongly ringed, and ventral cirri are cirriform in 5 setigers. *Onuphis aucklandensis* has branchiae from setiger 2 with up to 5 branchial filaments, the occipital ceratophores are strongly ringed, and ventral cirri are cirriform in the first 7 setigers. *Onuphis declivorum* has branchiae from setiger 7 with up to 4 filaments, the occipital ceratophores are poorly ringed, and ventral cirri are cirriform in the first 6 setigers. These differences are well-supported by numerical studies on material of 2 of the other species with which *O. declivorum* was compared (*O. aucklandensis* and *O. vexillaria*).

*Etymology*.—*declivorum*, living on the slope, refers to the depth at which the holotype was collected.

*Distribution*.—*Onuphis declivorum* is known from one locality in the Atlantic Ocean off New Jersey in upper slope-depths.

### *Onuphis (Onuphis) texana*, new species

#### Fig. 5

*Material examined*.—Gulf of Mexico, off Brownsville, Texas, 26°16'29.6"N, 97°10'16.3"W, 13 m, slightly silty sand (87% sand), coll. Thomas Calnan, sta. 243 (holotype, USNM 67491, 2 paratypes, USNM 67492).

*Description*.—All 3 specimens are incomplete. The holotype consists of 39 setigers, is 10.8 mm long and 0.75 mm wide, with parapodia. The anterior part of the body is cylindrical, the posterior part is dorsally flattened. The anterolateral edges of each of the first 10 setigers has a dark brown, nearly black, pigment bar, visible from both the dorsal and the ventral side. The peristomium has a pair of

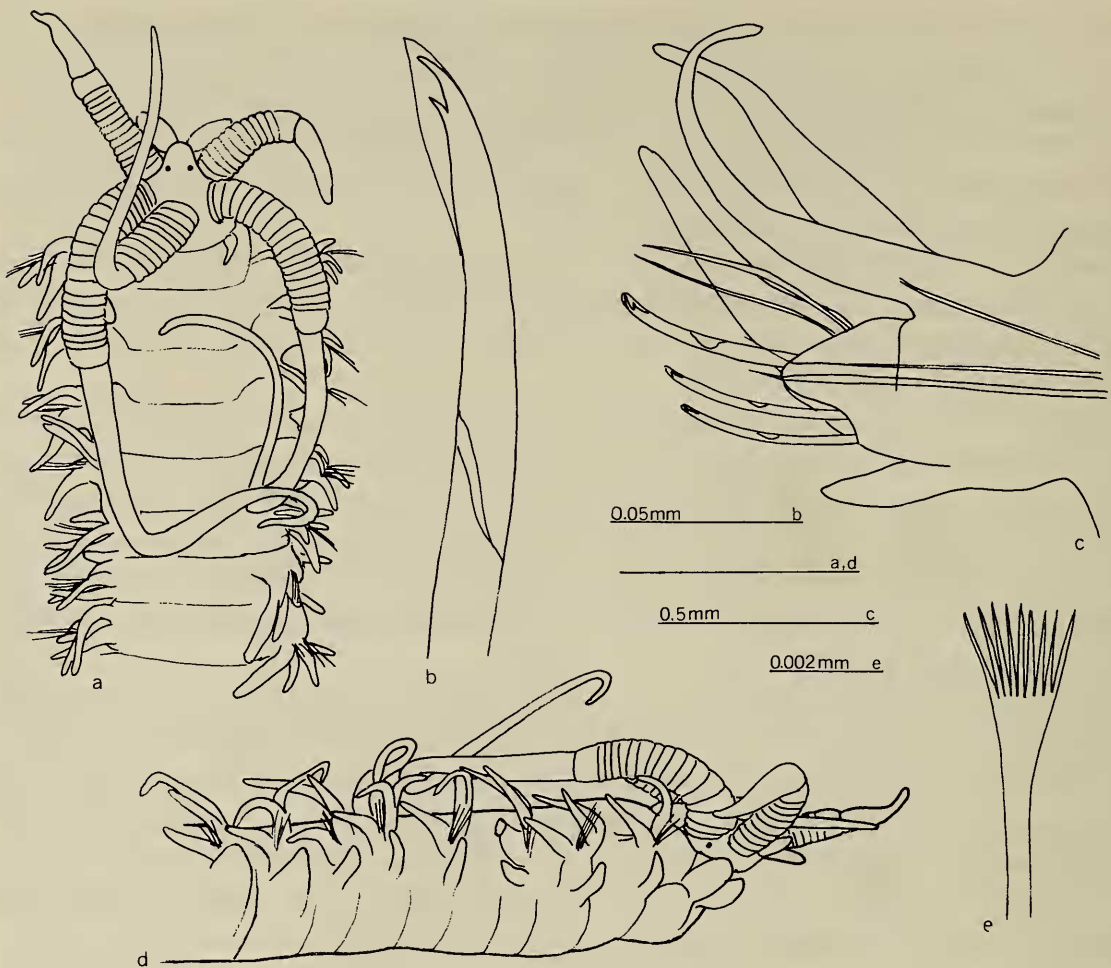


Fig. 5. *Onuphis (Onuphis) texana* (holotype, USNM 67491): a, Anterior end, dorsal view; b, Pseudocompound hook, second parapodium; c, Second parapodium, anterior view; d, Anterior end, lateral view; e, Pectinate seta, median parapodium. All scales are 1 mm except where otherwise indicated.

dark brown lateral bars, and each of the ceratophores has 3 equally spaced brown rounded spots.

The prostomium (Fig. 5a) is narrowed anteriorly and has a pair of ovate frontal palps. A pair of black eyespots is near the frontal bases of the outer lateral occipital antennae and another, larger and somewhat diffuse pair of eyespots (Fig. 5d) is near the outer base of the inner lateral occipital antennae. All ceratophores reach well beyond the edge of the prostomium. The inner lateral ceratophores are the longest and have up to 18 rings. The styles of the outer lateral antennae are much shorter than their ceratophores; the outer lateral antennae reach setiger 2. The inner lateral antennae reach setigers 10–12 and the median antenna reaches setiger 5 in all 3 specimens.

Branchiae are present from the first setiger to the end of the fragment. The first 18–20 pairs are simple, the next 10 pairs are bifid and, in the last several segments, either 2 or 3 branchial filaments are found in an irregular arrangement.

The first 2 pairs of parapodia are directed forward. The acicular lobe (Fig. 5c) is conical and the presetal lobe follows the outline of the acicular lobe closely, except on the ventral side where it leaves the bases of the setae exposed. The postsetal lobes are digitiform in the first 10 setigers; thereafter they are reduced



to short, truncate knobs that remain distinct in the remainder of the fragments. Ventral cirri are cirriform in the first 6 setigers and are replaced by transversely elongated glandular pads in all setigers thereafter.

Limbate and pectinate setae, pseudocompound hooks, and subacicular hooks are present. Compound spinigers and large hooks are absent. Limbate setae are present in all setigers, but are most common in anterior setigers, starting at setiger 3. Median and posterior setigers each have a single, narrow pectinate seta (Fig. 5d) which is distally transverse and has 8–10 teeth. Bidentate pseudocompound hooks (Fig. 5b) with short, blunt hoods are present in the first 2 setigers only. Bidentate subacicular hooks are first present from setiger 10.

The maxillary formula (investigated in one paratype) is 1+1, 8+9, 9+0, 5+9 and 1+1.

Tubes were absent.

*Onuphis (O.) texana* resembles *O. (O.) dibranchiata* Willey (1905:272) in having poorly developed branched branchiae present from the first setiger; it differs in that it has exclusively bidentate pseudocompound hooks; *O. (O.) dibranchiata* has both bi- and tridentate kinds. Other species of *Onuphis* with branched branchiae present from the first setiger include *O. (O.) chinensis* Uschakov and Wu (1962b:118) and *O. (O.) fukianensis* Uschakov and Wu (1962a:93); again both can be separated from *O. (O.) texana* by having both bi- and tridentate pseudocompound hooks.

A unique feature of *O. (O.) texana* appears to be the presence of pseudocompound hooks in only 2 setigers; in all other species of *Onuphis* such hooks are present in at least 3 setigers.

*Etymology*.—The species is known from off Brownsville, Texas, hence *texana*.

*Distribution*.—The species is known from a single locality in shelf-depths in the Gulf of Mexico.

#### Acknowledgments

I would like to thank Mr. Thomas R. Calnan, Bureau of Economic Geology, University of Texas at Austin, for sending me the interesting material from the Texan coast and for securing permission to publish the description. The type-material of *Onuphis (Onuphis) declivorum* was collected during the offshore investigations of the Bureau of Land Management, U.S. Department of Interior. I would like to thank my colleague, Dr. Meredith L. Jones, for advice and for a critical review of the manuscript.

#### Literature Cited

- Augener, H. 1924. Papers from Dr. Th. Mortensen's Pacific Expedition 1914–16. XVIII. Polychaeta II. Polychaeten von Neuseeland I. Errantia.—Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening, Copenhagen 75:241–441.
- Fauchald, K. 1980. Onuphidae (Polychaeta) from Belize, Central America, with notes on related taxa.—Proceedings of the Biological Society of Washington 93(3):797–829.
- Hartman, O. 1967. Polychaetous annelids collected by the USNS *Eltanin* and *Staten Island* cruises, chiefly from Antarctic Seas.—Allan Hancock Monographs in Marine Biology 2:1–387.
- , and K. Fauchald. 1971. Deep-water benthic polychaetous annelids off New England to Bermuda and other North Atlantic areas (Part 2).—Allan Hancock Monographs in Marine Biology 6:1–327.

- Johnson, H. P. 1901. The Polychaeta of the Puget Sound region.—Proceedings of the Boston Society for Natural History 29:381–437.
- Marenzeller, E. von. 1879. Suedjapanische Anneliden I.—Denkschrifte der Mathematisch-Naturwissenschaftliche Classe der Kaiserlichen Akademie der Wissenschaften, Wien 41(2):109–152.
- Moore, J. P. 1911. The polychaetous annelids dredged by the U.S.S. *Albatross* off the coast of southern California in 1904. III. Euphrosynidae to Goniadidae.—Proceedings of the Academy of Natural Sciences of Philadelphia 63:234–318.
- Rioja, E. 1944. Estudios anelidológicos XI. Notas sobre algunas especies de poliquetos de las costas mexicanas del Pacífico.—Anales Instituto Biología, México 15:139–145.
- Sars, M. 1835. Beskrivelser og Jagttagelser over nogle mærkelige eller nye i Havet ved den Bergenske Kyst levende Dyr af Polypernes, Acalephernes, Radiaternes, Annelidenes og Molluskernes Classer, med en kort Oversigt over de hidtil af Forfatteren sammesteds fundne Arter og deres Forekommen. Bergen, xii and 81 pp.
- Uschakov, P. V., and B. L. Wu. 1962a. [Preliminary report on the Polychaetes from Chekian and Fukian, China].—Studia Marine Sinica [Hai Yang K'o Hsueh Chi K'an] 1(1):89–108.
- , and ———. 1962b. [The Polychaetes from the Yellow Sea. VI. Additions to Errantia].—Studia Marina Sinica [Hai Yang K'o Hsueh Chi K'an] 2(2):110–134.
- Verrill, A. E. 1873. Results of recent dredging expeditions on the coast of New England.—American Journal of Science, New Haven (3) 5:98–106.
- Willey, A. 1905. Supplementary report XXX. Report on the Polychaeta collected by Professor Herdman, at Ceylon in 1902.—Report to the Government of Ceylon on the Pearl Oyster Fisheries of the Gulf of Manaar by W. A. Herdman, D.Sc., F.R.S., P.L.S. with Supplementary Reports upon the Marine Biology of Ceylon by Other Naturalists 4:243–324.

Department of Invertebrate Zoology, National Museum of Natural History,  
Smithsonian Institution, Washington, D.C. 20560.