

TAXONOMIC GUIDE TO THE POLYCHAETES OF THE
NORTHERN GULF OF MEXICO

Volume IV

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CHAPTER 28

Joan M. Uebelacker

FAMILY HESIONIDAE Sars, 1862

INTRODUCTION

Hesionids are small (about 2-50 mm), cylindrical to dorsoventrally flattened worms, somewhat similar in size and appearance to the syllids (Chapter 30). With the exception of the large, robust genera such as Hesione and Leocrates, the body is quite fragile, and usually fragments upon collection. The head region is distinctive, usually with two pairs of eyes, two or three antennae, and two palps on the prostomium, plus 2-8 pairs of tentacular cirri on the first 1-4 segments. Nuchal organs are present as a pair of small, ciliated ridges or lobes along the postectal margins of the prostomium. The tentacular segments are asetigerous and often small; one or more of the anteriormost segments may not be visible dorsally. Setigers are essentially similar throughout the body, with well-defined subbiramous or biramous parapodia having cirriform dorsal and ventral cirri. Branchiae are absent. Notosetae, when present, are simple, often specialized, and usually few in number. Neurosetae are composite uni- or bidentate falcigers, usually with a subapical spine or sheath. Blades generally vary in length from quite long in the upper or middle part of the fascicle, to short in the lower part of the fascicle. The pygidium may bear cylindrical anal cirri and/or a flattened anal lamella. The pharynx is muscular and eversible, with a smooth, papillose or fimbriated margin. Jaws are usually absent, but may occur as one or two small chitinous teeth or ridges.

Hartmann-Schröder (1971:126) split the family into two subfamilies, the Microphthalminae and the Hesioninae. The Microphthalminae are mostly minute, interstitial taxa, characterized by filiform antennae, palps and cirri, and an anal lamella in addition to the anal cirri. The Hesioninae are generally larger, with cirriform, often articulated antennae, palps and cirri, and a pygidium with anal cirri but no lamellae. Among the hesionid genera encountered in the Gulf of Mexico BLM-OCS collections, only Microphthalmus belongs to the Microphthalminae; the remaining genera belong to the Hesioninae.

Fauchald (1977a) placed the family Hesionidae in the order Phyllodocida and suborder Nereidiformia (superfamily Nereididacea according to Pettibone, 1982:9). The Hesionidae appear most closely related to the families Pilargidae and Syllidae.

Thirty or 31 genera are currently recognized in the Hesionidae, of which ten, plus one undescribed genus, occur in Gulf of Mexico BLM-OCS collections. The family consists of 130 or more species; 18 are found on the northern Gulf of Mexico outer continental shelf, including five previously described species, two questionable assignments, and 11 species potentially new to science.

PRINCIPAL DIAGNOSTIC CHARACTERS

The number of pairs of tentacular cirri is usually constant within a genus and is therefore considered of primary importance in assigning

specimens to genus. However, juveniles of Heteropodarke and Gyptis have been reported to have less than the normal generic complement of tentacular cirri (Dorsey, 1978), so this character should be used with some caution, particularly with small specimens. Other features of generic importance include characteristics of the palps (simple or biarticulate), parapodia (biramous or subbiramous), and margin of the pharynx (smooth, papillose or fimbriated); presence or absence of the median antenna, jaws, and notosetae; and morphology of the notosetae.

Species of hesionids are often separated on the basis of setal morphology, both of the notosetae and neurosetae. Notosetae, if present, may be acicular, capillary, pectinate, or furcate, with various modifications such as spikes (Figure 28-30e) or serrations (Figure 28-30d). The setiger on which notosetae first appear is species-specific in some genera such as Gyptis. Neurosetae are normally composite, long-bladed falcigers, but may include highly modified falcigers (Figure 28-12c-e) and composite spinigers (Figure 28-12g) as in Heteropodarke; falcigers with spurred blades (Figure 28-20d) as in Nereimyra; superior and inferior simple setae, particularly on the posterior parapodia of some species; or acicular setae (Figure 28-24e) as in Hesiospina. Other characters such as the presence of a median antenna, eyes, and pigmentation patterns; placement of the median antenna, if present; and relative length of the dorsal cirri, may be used to distinguish species in various genera.

Neurosetal blade-length ratios given herein compare the lengths of the longest to shortest blades within a fascicle, usually in the midbody region. All illustrations of the anterior end are from a dorsal or dorsolateral view. All parapodia illustrated are from the midbody region except as noted.

BIOLOGICAL NOTES

Hesionids are active, non-tubicolous worms common in shallow water and on hard substrates (Fauchald, 1977a:73), but also found in soft sediments and in deep water. Some of the larger forms such as Hesione and Leocrates are common on coral reefs. The minute members of the Microphthalminae are mostly interstitial. Some hesionids may be commensal with terebellids, echinoderms, crustaceans, and sipunculids (Pettibone, 1963:101; Westheide, 1982b:192).

The larger hesionids are carnivorous, feeding on polychaetes and other small invertebrates; some may be surface deposit-feeders, ingesting detritus (Day, 1967:221; Fauchald and Jumars, 1979:217). The interstitial species feed on diatoms, bacteria-rich detritus, copepods and foraminiferans.

Reproduction has been investigated in few species of hesionids. Swarming occurs in Podarke obscura, with egg-laying and fertilization apparently accomplished at the surface during the evening hours in summer months. Microphthalmus sczelkowiei lays eggs in sticky mucus masses early in the year. Nereimyra punctata has large, yolky eggs which develop into yolky, planktonic larvae. The larvae settle to the bottom when they have grown to 7-8 segments; a transitory median antenna and transitory setae on the second and third tentacular segments may appear until the young have reached 18 segments (Pettibone, 1963:103-108). Small interstitial hesionids have reproductive strategies that include copulation. In some species, such as Hesionides arenaria, sexes

are separate. Others, such as Hesionides maxima, Microphthalmus sczelkowi, and M. listensis, are hermaphroditic. Westheide (1967) and Schroeder and Hermans (1975) give more detailed discussions of reproduction in the hesionids.

SPECIES OF HESIONIDAE RECORDED FROM
GULF OF MEXICO BLM-OCS PROGRAMS

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Key to the Genera of Hesionidae from
the Gulf of Mexico BLM-OCS Programs

- 1a. Four pairs of tentacular cirri. Genus A, p. 28-5
- 1b. More than four pairs of tentacular cirri. 2

- 2a. Six pairs of tentacular cirri 3
- 2b. Eight pairs of tentacular cirri 8

- 3a. Notopodia with numerous, long setae 4
- 3b. Notopodia with few (1-3) small setae, or notosetae absent . . . 5

- 4a. Median antenna presentOphiodromus, p. 28-7
- 4b. Median antenna absent.Parahesion*

- 5a. Palps simple. 6
- 5b. Palps biarticulate. 7

- 6a. Notosetae present, usually pectinate (Figures 28-6d, 8c, 10c). . .
.Microphthalmus, p. 28-9
- 6b. Notosetae absent Heteropodarke, p. 28-13

- 7a. Median antenna present; notosetae capillary (Figure 28-16c) or
furcate (Figure 28-18c). Podarke, p. 28-17
- 7b. Median antenna absent; notosetae absentNereimyra, p. 28-21

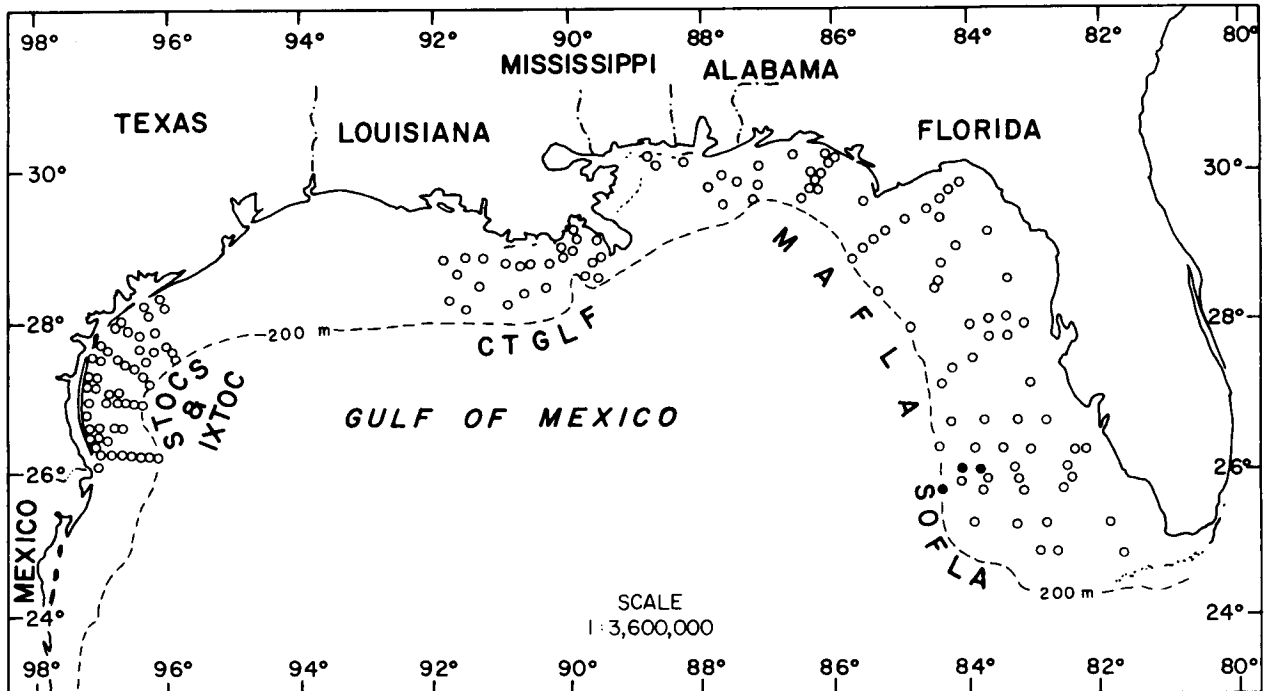


Figure 28-1. Distribution of Hesionid Genus A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

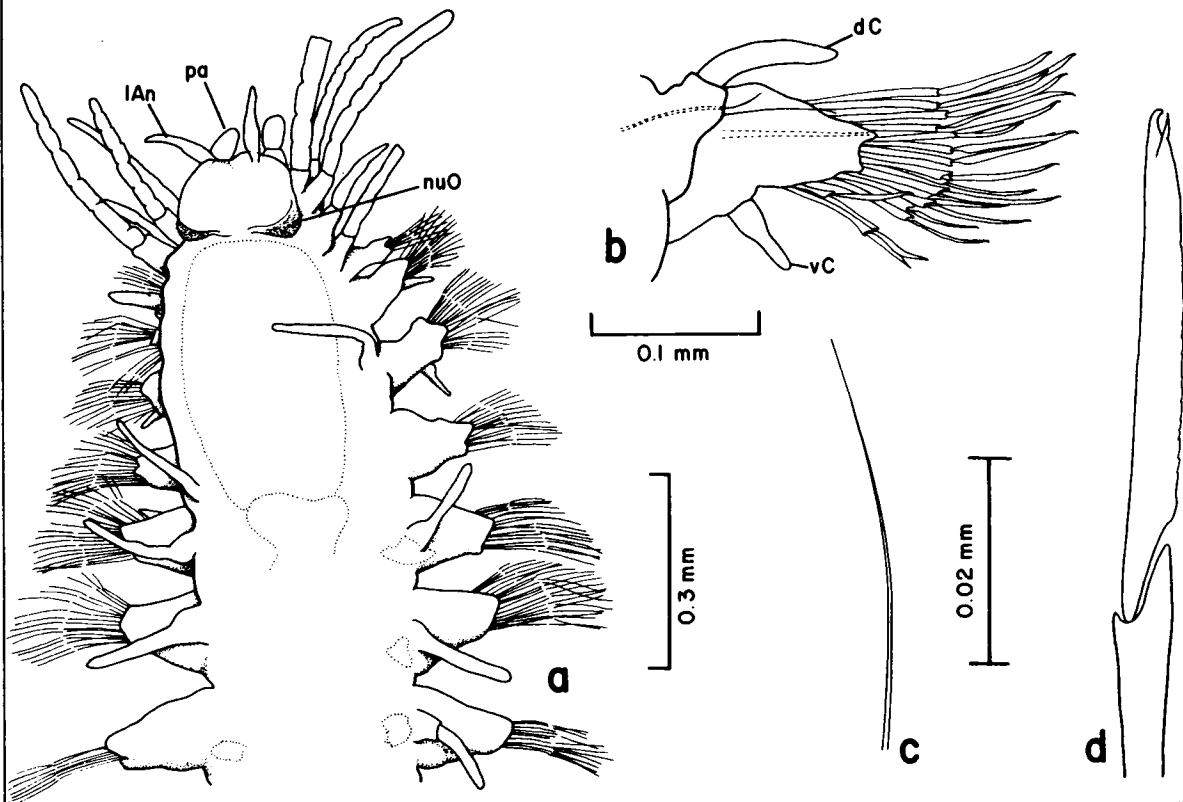


Figure 28-2. Genus A: a, anterior end; b, parapodium (posterodorsal view); c, notoseta; d, lower neuroseta.

- 8a. Notosetae present 9
- 8b. Notosetae absent. 12

- 9a. Notosetae represented by a stout, hooked spine (Figure 28-24c), first appearing around setiger 10 *Hesiospina*, p. 28-25
- 9b. Notosetae capillary, acicular or furcate, first appearing on setigers 2-5. 10

- 10a. Jaws present. *Leocrates***
- 10b. Jaws absent 11

- 11a. Margin of pharynx smooth or papillose (Figure 28-26a). *Gyptis*, p. 28-27
- 11b. Margin of pharynx fimbriated (Figure 28-30a) *Amphiduros*, p. 28-31

- 12a. Palps absent. *Hesione*, p. 28-36
- 12b. Palps present. *Kefersteinia*, p. 28-38

*Not represented in BLM-OCS collections, but known from inshore and estuarine areas of the Gulf of Mexico (Pettibone, 1963:109).

**Not represented in BLM-OCS collections, but found on Gulf of Mexico coral reefs (pers. obs. of author).

Genus A
Figures 28-1, 2a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 12C-11/80 (1 spec., USNM 75329), 33A-7/81 (3 spec., USNM 71775);

MAFLA 2957D-8/77 (2 spec.).

DESCRIPTION:

Length, to 2.0 mm; width, to 0.7 mm. Body minute; complete specimens with up to 20 setigers. Prostomium roughly trapezoidal, widest posteriorly, with subulate lateral antennae, biarticulate palps, and small midanterior facial tubercle (Figure 28-2a). Median antenna absent. Eyes poorly developed or absent. Nuchal organs as large, paired, ciliated patches at postectal corners of prostomium. Four pairs of indistinctly articulated tentacular cirri, dorsal pairs longer and stouter than ventral pairs. Only second tentacular segment visible dorsally. Parapodia subbiramous, notopodia represented by small acicular lobe at base of dorsal cirri, neuropodia well-developed with pointed acicular lobe and conical subacicular lobe (Figure 28-2b). Dorsal cirri short, digitiform, extending slightly beyond tips of neuropodia anteriorly. Ventral cirri shorter, tapered or subulate. Notopodia with 1-3 extremely slender capillary setae (Figure 28-2c) starting on setiger 2. Neuropodial falcigers long-bladed with minutely hooked tip and subapical spine (Figure 28-2d); blades graded in length from upper to lower positions in fascicle, blade-length ratio 2.6-5.5:1. Pygidium rounded with two short, digitiform anal cirri. Pharynx extending to setigers 4-5, margin surrounded by numerous small papillae, jaws not observed. One specimen with sacs of small, round cells (oocytes?) at bases of parapodia.

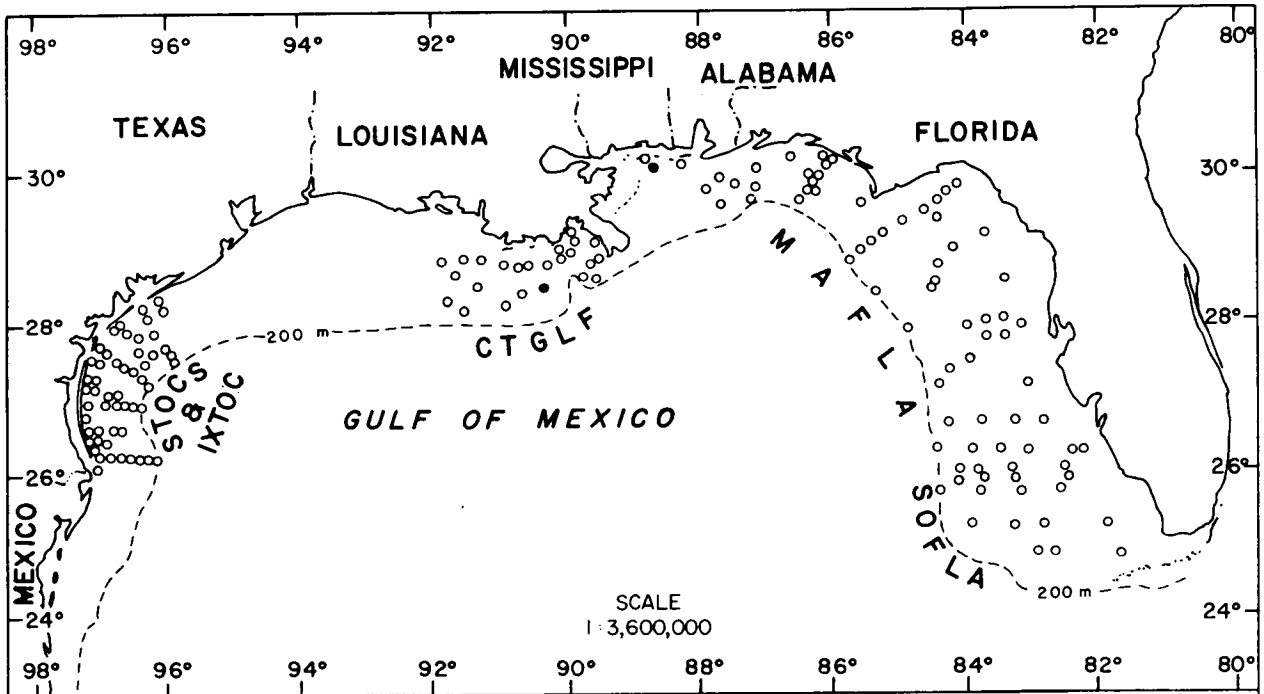


Figure 28-3. Distribution of *Ophiodromus* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

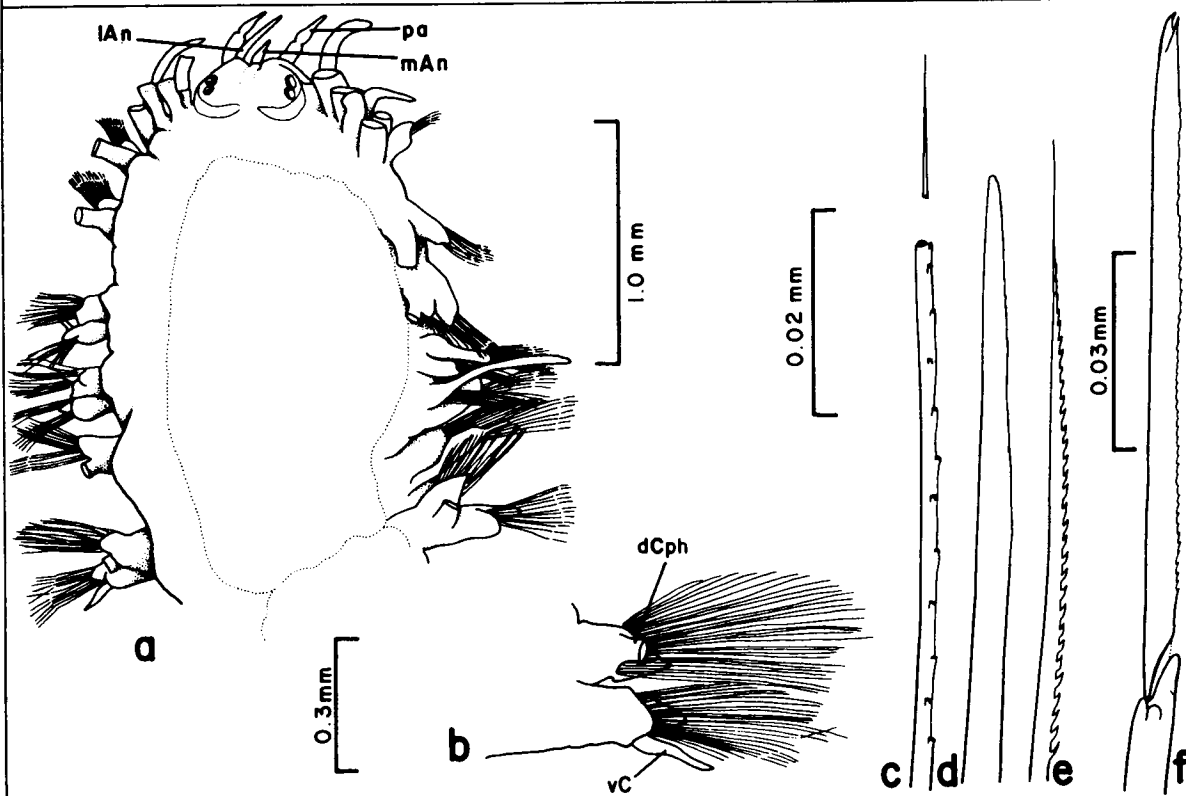


Figure 28-4. *Ophiodromus* sp. A: a, anterior end; b, anterior parapodium (posterodorsal view); c, upper notoseta; d, acicular notoseta; e, lower notoseta; f, neuroseta.

REMARKS: These specimens resemble the genus Hesiocaeca Hartman, 1965, known from the west Atlantic. They differ from the latter in lacking a median antenna and in having notosetae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Three records off southwestern Florida (Figure 28-1); deep water, 90-180 m; fine sand, silty fine sand.

Genus Ophiodromus Sars, 1861

TYPE SPECIES: Nereis flexuosa Delle Chiaje, 1825.

REFERENCES:

Fauvel, 1923:242.

Hartmann-Schröder, 1971:129.

Fauchald, 1977a:76.

DIAGNOSIS: Prostomium with three antennae and biarticulate palps. Six pairs of tentacular cirri. Parapodia biramous, with well-developed notopodia and numerous capillary notosetae. Pharynx with fimbriated margin, jaws absent.

Ophiodromus sp. A
Figures 28-3, 4a-f

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2638G-11/77 (2 spec.); CTGLF 03-5/78 (1 spec.).

DESCRIPTION:

Length, 4.8+ mm; width, to 1.4 mm. Body stout anteriorly; all specimens incomplete with up to 16 setigers. Prostomium broadly rounded posteriorly, narrower anteriorly, with two pairs of large, lentigerous eyes (Figure 28-4a). Lateral antennae cirriform, similar in length to palps. Median antenna about half length of lateral antennae. Dorsal tentacular cirri long, smooth, cirriform; ventral tentacular cirri short, smooth or indistinctly articulated. Parapodia well-developed, biramous starting on setiger 3, notopodia forming large triangular lobes beneath dorsal cirrophores (Figure 28-4b). Dorsal cirri smooth, slender, shorter than body width. Neuropodia with tapered ventral cirri extending beyond conical presetal lobe. Notosetae long, numerous, of three kinds: 1) upper notosetae most numerous, fine, hair-like, with two alternating lateral rows of short, blunt spines (Figure 28-4c); 2) 1-2 stouter, acicular setae (Figure 28-4d) in middle of fascicle; and 3) lower notosetae fine, hair-like, with minute coarse serrations near tip (Figure 28-4e). Neuropodial falcigers numerous, long-bladed, with minutely hooked tip and subapical spine (Figure 28-4f), blade-length ratio 6:1. Pharynx extending to setigers 5-7, margin covered with numerous fine, hair-like fimbriae.

REMARKS: These specimens resemble Ophiodromus flexuosus (Delle Chiaje, 1825), but differ from the latter in having several kinds of notosetae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two records in central Gulf off Mississippi and eastern Louisiana (Figure 28-3); shallow water, 24-30 m; sandy silt, sandy clayey silt.

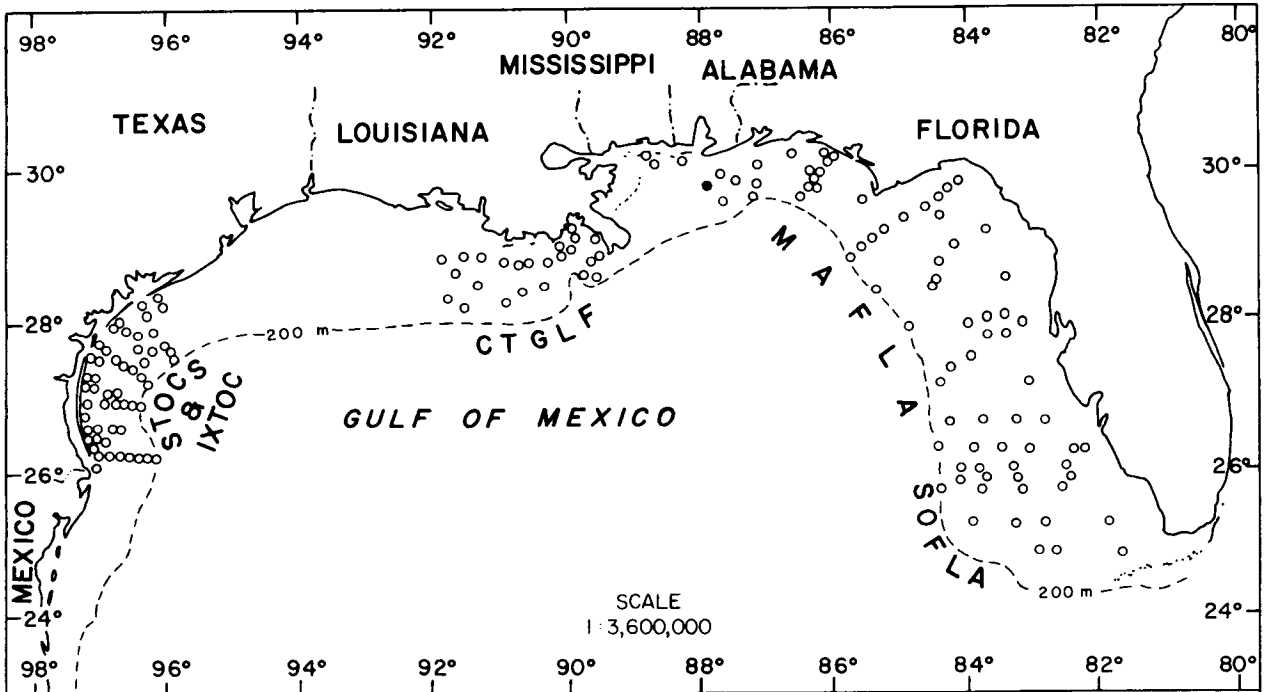


Figure 28-5. Distribution of *Microphthalmus* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

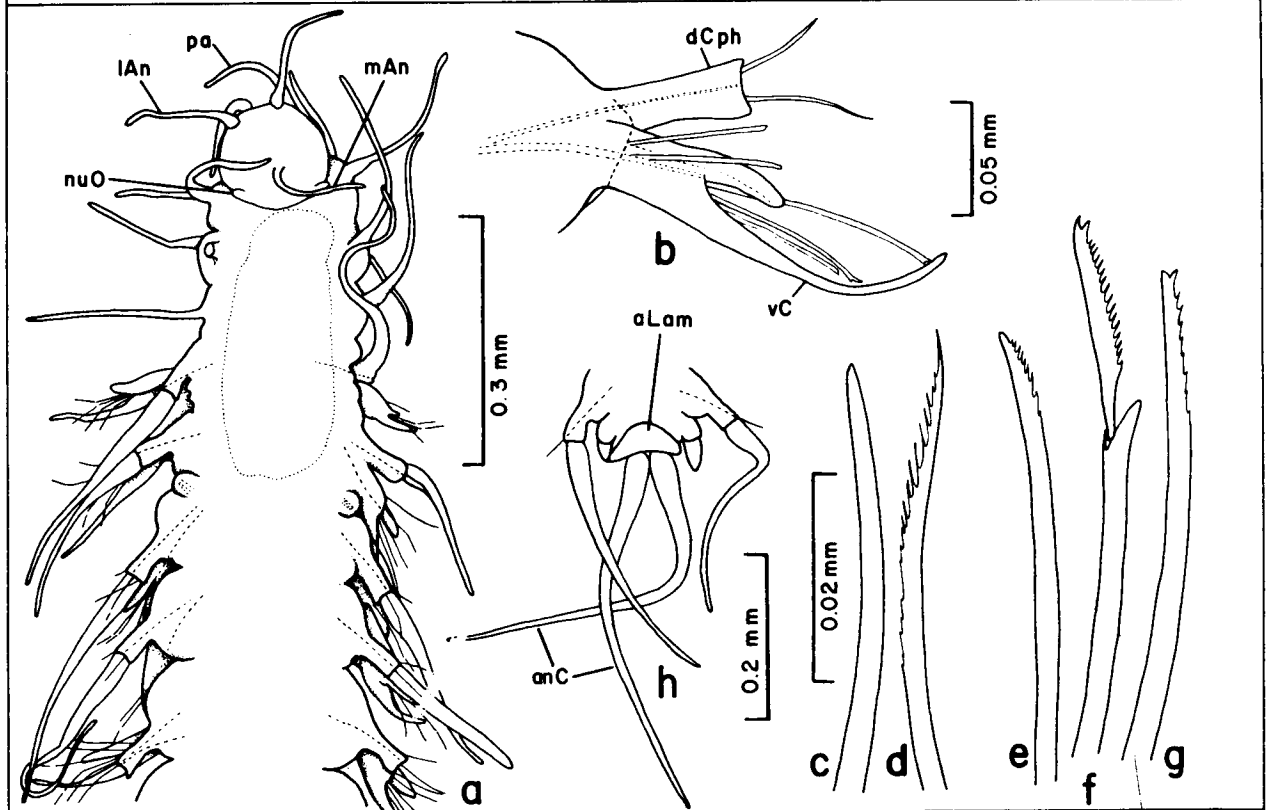


Figure 28-6. *Microphthalmus* sp. A: a, anterior end; b, posterior parapodium (anterior view); c, acicular notoseta; d, pectinate notoseta; e, superior simple neuroseta; f, composite neuroseta; g, inferior simple neuroseta; h, posterior end (dorsal view).

Genus *Microphthalmus* Meczniow, 1865

TYPE SPECIES: *Microphthalmus scelkowi* Meczniow, 1865.

REFERENCES:

- Fauvel, 1923:249.
Pettibone, 1963:102.
Hartmann-Schröder, 1971:137.
Fauchald, 1977a:76.
Westheide, 1977a:106-108.

DIAGNOSIS: Prostomium with 2-3 filiform antennae and simple, filiform palps. Median antenna, when present, attached medially on prostomium. Six pairs of tentacular cirri. Parapodia subbiramous, usually with few notosetae. Pygidium with anal cirri and lamella. Pharynx with papillose margin, jaws absent. Typically interstitial.

Key to the Gulf of Mexico Species of *Microphthalmus*

- 1a. Neuropodia with simple and composite setae (Figure 28-6e-g), notopodia with acicular and pectinate setae (Figure 28-6c,d)
. ***Microphthalmus* sp. A**, p. 28-9
- 1b. Neuropodia with composite setae only, notopodia with pectinate setae only 2
- 2a. Median antenna absent; first few setigers with specialized neurosetae (Figure 28-8d). ***Microphthalmus hamosus***, p. 28-11
- 2b. Median antenna present; first few setigers without specialized neurosetae 3
- 3a. Body with distinct brown pigment bands anteriorly; dorsal cirri not extending beyond neurosetae. ***Microphthalmus scelkowi****
- 3b. Body with diffuse pigment; dorsal cirri extending well beyond neurosetae (Figure 28-10a,b). ***Microphthalmus* sp. C**, p. 28-13

*Not found in BLM-OCS collections, but two specimens observed from offshore Louisiana.

***Microphthalmus* sp. A**
Figures 28-5, 6a-h

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:
MAFLA 2640C-2/78 (1 spec.).

DESCRIPTION:

Length, 2.6 mm; width, 0.4 mm. Body minute, slender, complete with 19 setigers and one achaetous preanal segment. Prostomium rounded, with median antenna arising dorsally on posterior half. Antennae and palps similar in length. Eyes absent. Nuchal organs as small, rounded lobes along posterior margin of prostomium (Figure 28-6a). Tentacular cirri filiform, all three tentacular segments distinct dorsally. Parapodia subbiramous from setiger 1; notopodia poorly developed, with notosetae arising from dorsal cirrophore. Dorsal cirri long, subulate. Neuropodia with prolonged, digitiform acicular lobe and long, slender ventral cirri (Figure 28-6b). Notosetae including one upper acicular spine

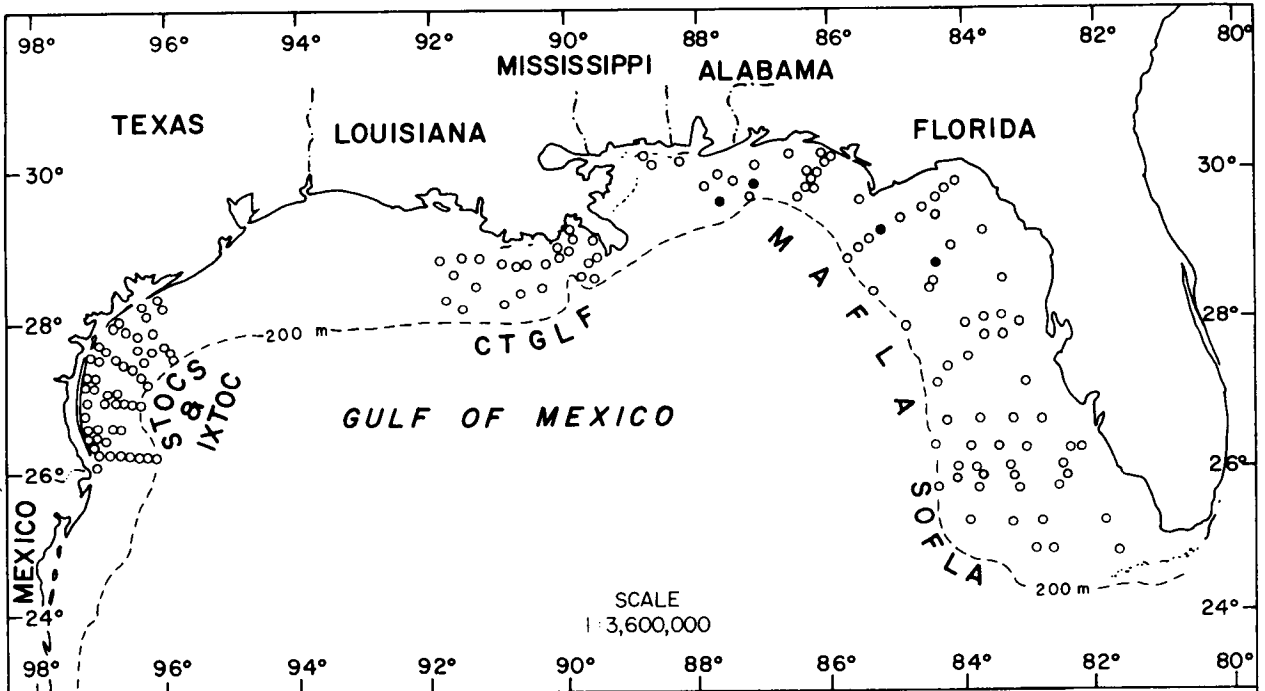


Figure 28-7. Distribution of *Microphthalmus hamosus* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

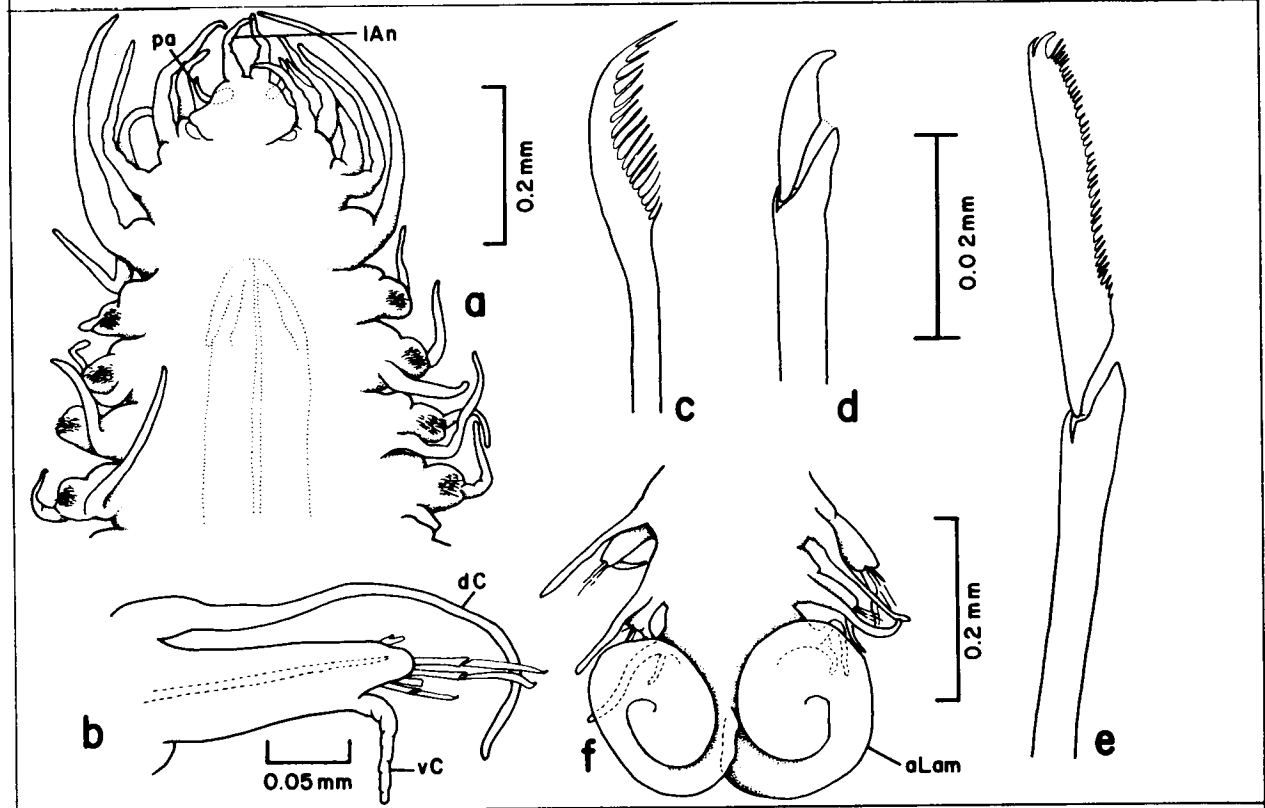


Figure 28-8. *Microphthalmus hamosus*: a, anterior end; b, parapodium (anterior view); c, notoseta; d, modified neuroseta from anterior region; e, neuroseta from midbody region; f, posterior end (dorsal view).

(Figure 28-6c) and one lower pectinate seta (Figure 28-6d) per parapodium. Neurosetae of three kinds: 1) superior simple seta, serrate near tip (Figure 28-6e); 2) three composite falcigers with coarsely serrate, bidentate blades all similar in length (Figure 28-6f); 3) inferior simple seta with bifid tip and serrations below tip (Figure 28-6g). Pygidium with smoothly rounded anal lamella and two long, subulate anal cirri (Figure 28-6h). Pharynx extending to setiger 2. Copulatory structures (?) present between setigers 2 and 3. Parapodial glands observed in setigers 6, 7, 9, and 11-17, with apparent sperm sacs in setigers 8 and 10.

REMARKS: According to the phylogenetic scheme presented by Westheide (1977a:112-113), this specimen most closely approaches Microphthalmus aciculata Hartmann-Schröder, 1962. However, it differs from the latter in lacking eyes, and in having pectinate notosetae, simple neurosetae, and fewer composite neurosetae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Single record off Alabama (Figure 28-5); 35 m; medium sand.

Microphthalmus hamosus Westheide, 1982
Figures 28-7, 8a-f

Microphthalmus hamosus Westheide, 1982b:189, figs. 1-3.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 14E-5/74 (2 spec.), 2316G-8/76 (1 spec., USNM 71778), 2424A-2/78 (1 spec.).

Supplementary Material:

Gulf of Mexico--off Tampa Bay, Florida, IEC Sta. 723TB 003-004, Jan. 1980, 27°37.1'N, 82°54.0'W, 12 m, sand (1 spec.).

DESCRIPTION:

Length, to 7.2 mm (previously reported to 8.6 mm); width, to 0.9 mm (previously reported to 0.75 mm). Body broad, dorsoventrally flattened, tapering abruptly anteriorly and gradually posteriorly. Complete specimens with up to 64 setigers. Prostomium triangular, with subulate lateral antennae arising midanteriorly (Figure 28-8a). Palps inserted anteroventrally. Eyes and median antenna absent. Nuchal organs as small, rounded lobes near posterolateral borders of prostomium. Tentacular segments distinct dorsally, tentacular cirri subulate, third dorsal pair longest. Parapodia subbiramous (Figure 28-8b), notopodia small, with one (occasionally two) small pectinate setae (Figure 28-8c). Dorsal cirri slender, extending past tips of neurosetae. Neuropodia elongate, with blunt to conical acicular lobe, ventral cirri arising near tip. Neurosetae of first 4-6 setigers with short, smooth, hooked blades (Figure 28-8d), barely protruding from tips of neuropodia. Neurosetae of subsequent segments longer, with finely serrate, minutely bidentate blades (Figure 28-8e), blade-length ratio 2.3-4.8:1. Pygidium with two large, flattened, spiraled anal lamellae (Figure 28-8f); anal cirri not observed. Pharynx extending to setigers 10-14.

REMARKS: Westheide (1982b:191) noted a commensal relationship between M. hamosus and the sipunculid Sipunculus nudus. He postulated that several morphological features of M. hamosus, including relatively large body size, loss of the median antenna, dorsolaterally directed anterior neuropodial hooks, flat dorsum, and a suction cup-shaped anal lamella

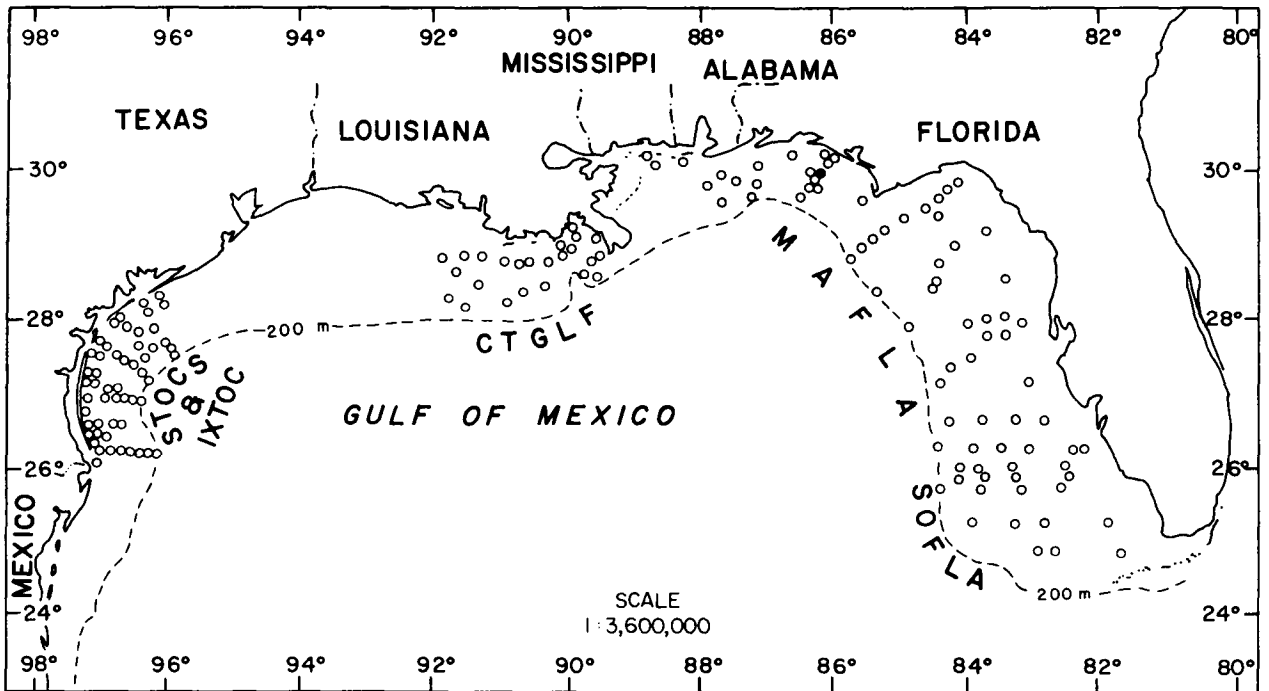


Figure 28-9. Distribution of *Microphthalmus* sp. C on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

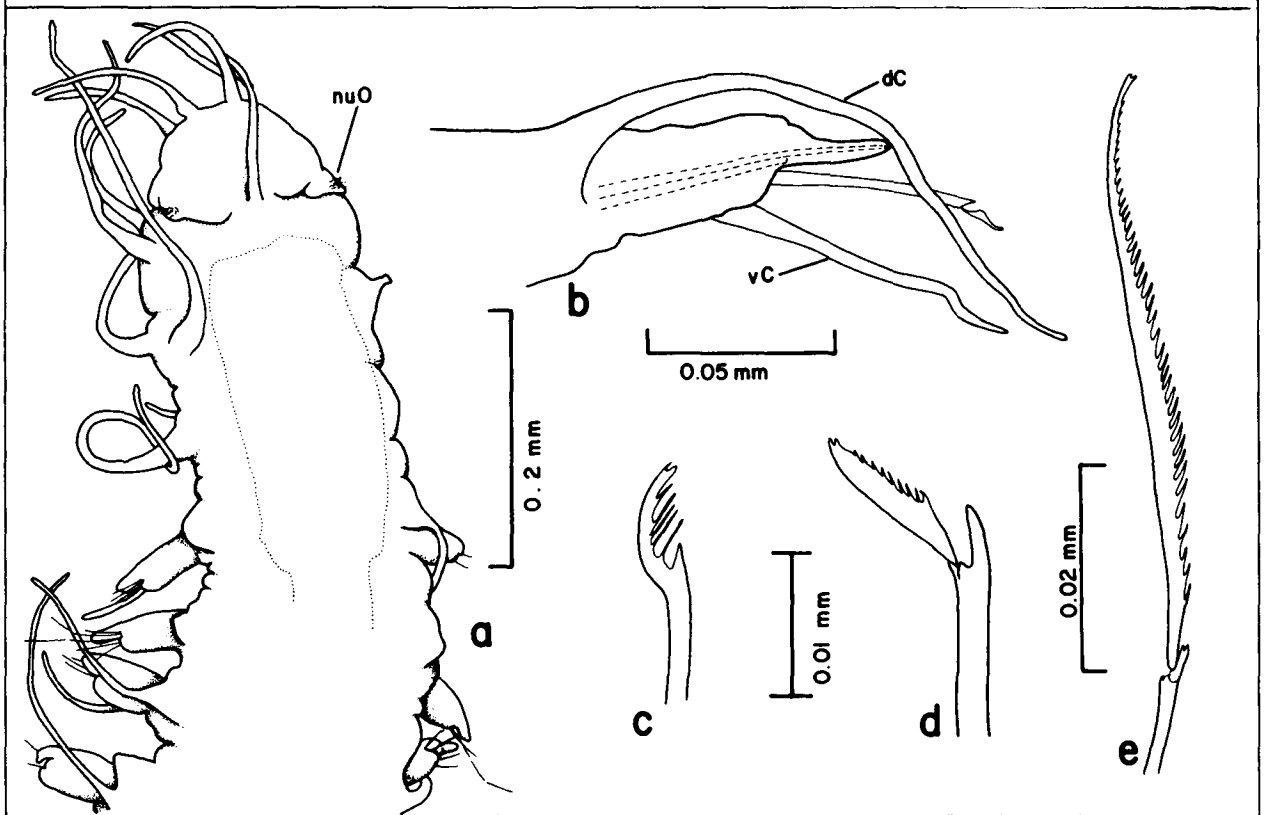


Figure 28-10. *Microphthalmus* sp. C: a, anterior end; b, parapodium (posterodorsal view); c, notoseta; d, short-bladed neuroseta; e, long-bladed neuroseta.

with possible adhesive glands, represent evolutionary adaptations for attachment to a host in a commensal relationship.

PREVIOUSLY REPORTED HABITAT: Intertidal to 6 m; sand with gravel and shell fragments; on Sipunculus nudus.

GULF OF MEXICO BLM-OCS OCCURRENCE: Several stations off northwestern Florida (Figure 28-7); 27-75 m; medium sand, silty fine sand.

DISTRIBUTION: North Carolina, Gulf of Mexico.

Microphthalmus sp. C

Figures 28-9, 10a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2531H-11/77 (1 spec.), 2531E-2/78 (1 spec.).

DESCRIPTION:

Length, 1.8+ mm; width, 0.3 mm. Body minute, slender, with diffuse golden-brown pigmentation; both specimens incomplete with up to 21 setigers. Prostomium oval with median antenna arising near posterior border (Figure 28-10a). Antennae and palps similar in length. Eyes absent. Nuchal organs as small, rounded lobes at postectal margins of prostomium. Tentacular cirri filiform, dorsal ones longer than ventral ones; tentacular segments distinct dorsally. Parapodia subbiramous (Figure 28-10b); notopodia small, with single, minute, obscure pectinate seta (Figure 28-10c). Dorsal cirri filiform, extending beyond tips of neurosetae. Neuropodia elongate, with prolonged, digitiform acicular lobe. Ventral cirri filiform, usually about half length of dorsal cirri. Neurosetae all composite with long extension of shaft-head bifid; blades short (Figure 28-10d) to long (Figure 28-10e), faintly serrate, minutely bidentate; blade-length ratio up to 6:1. Most setal blades broken or missing. Pharynx extending to setigers 1-2.

REMARKS: Lack of posterior ends makes placement of these specimens difficult. They appear most similar to Microphthalmus sczelkowi Meczniow, 1865, from which they differ in lacking distinct dark pigment bands anteriorly, and in having longer dorsal cirri.

GULF OF MEXICO BLM-OCS OCCURRENCE: Single station off northwestern Florida (Figure 28-9); 45 m; coarse sand.

Genus Heteropodarke Hartmann-Schröder, 1962

TYPE SPECIES: Heteropodarke heteromorpha Hartmann-Schröder, 1962.

REFERENCES:

Hartmann-Schröder, 1962:117.

Fauchald, 1977a:76.

Dorsey, 1978:82.

DIAGNOSIS: Prostomium with four eyes, three antennae, and simple palps. Six pairs of tentacular cirri (but see "REMARKS" below). Parapodia subbiramous, notosetae absent. Pharynx with papillose margin, jaws absent.

REMARKS: The number of tentacular cirri has been reported to be size-related, varying from 2-8 pairs. Most Gulf of Mexico specimens examined have six pairs regardless of body size; a few individuals questionably have four or five pairs.

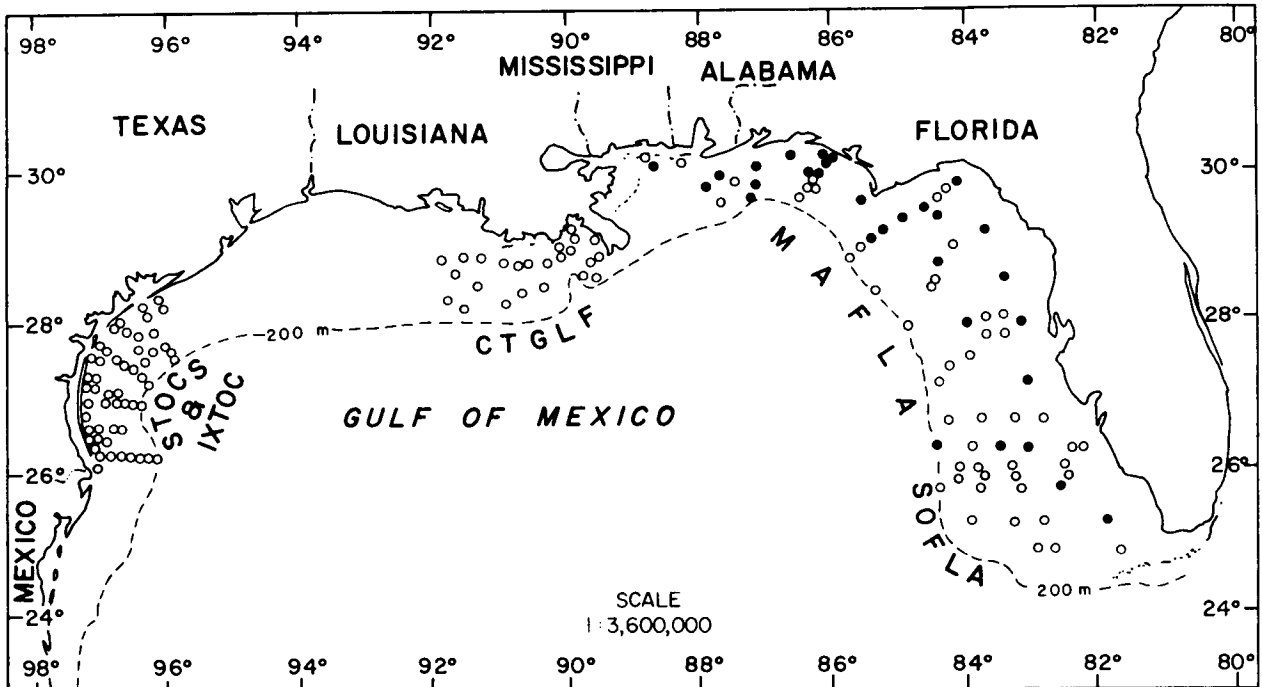


Figure 28-11. Distribution of *Heteropodarke* cf. *heteromorpha* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

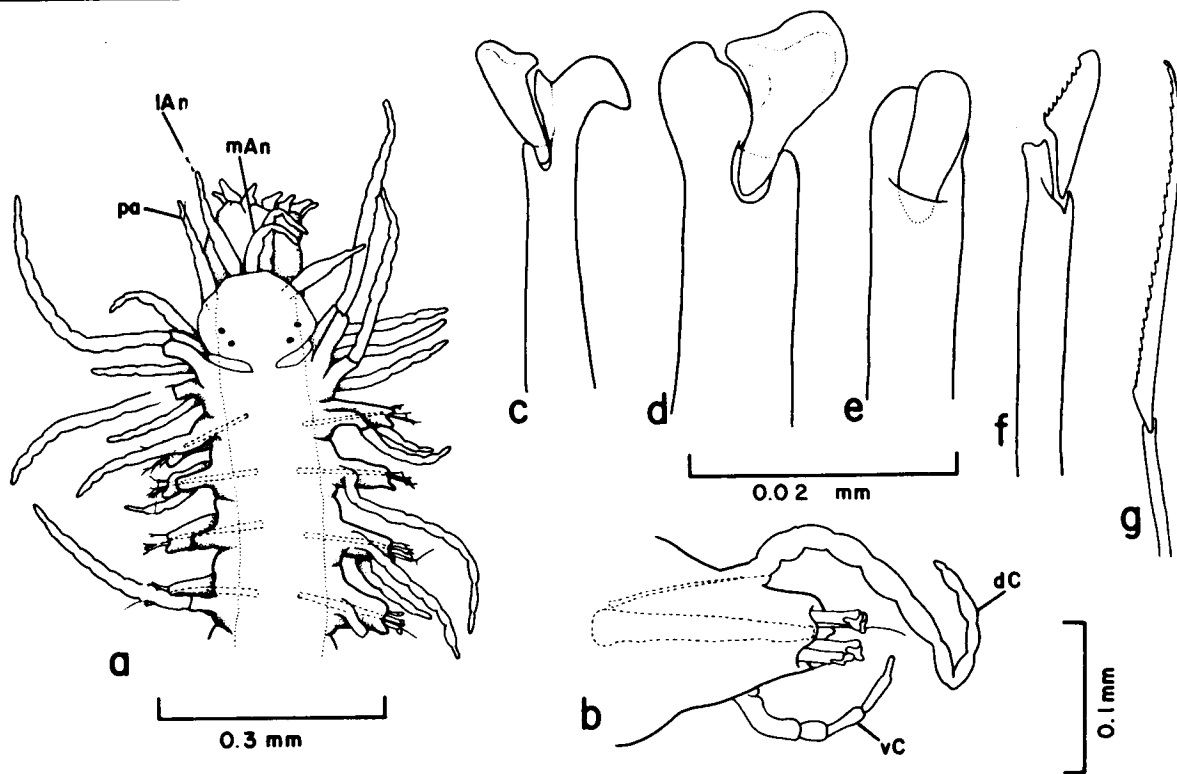


Figure 28-12. *Heteropodarke* cf. *heteromorpha*: a, anterior end; b, parapodium (anterior view); c, neuroseta from setiger 2; d, e, neurosetae from midbody region; f, neuroseta from posterior region; g, spinigerous neuroseta.

Key to the Gulf of Mexico BLM-OCS Species of Heteropodarke

- 1a. Neurosetae of midbody region as thick, blunt, short-bladed falcigers (Figure 28-12d,e). . Heteropodarke cf. heteromorpha, p. 28-15
- 1b. Neurosetae of midbody region as slender, pointed, serrate falcigers (Figure 28-14d) Heteropodarke sp. A, p. 28-17

Heteropodarke cf. heteromorpha Hartmann-Schröder, 1962
Figures 28-11, 12a-g

Heteropodarke heteromorpha Hartmann-Schröder, 1962:118, pl. 5, fig. 30, pl. 6, figs. 31-34.

Heteropodarke heteromorpha--Dorsey, 1978:82, fig. 1a-c.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 20B-4/81 (1 spec., USNM 90628), 20-7/81 (9 spec., USNM 71776); MAFLA 2422D-7/76 (1 spec.), 2422E-7/76 (1 spec.), 2423D-7/76 (1 spec.), 2424B-7/76 (8 spec.), 2424D-7/76 (6 spec., USNM 90629), 2530A-6/75 (3 spec.), 2640F-11/77 (1 spec.), 2852D-8/77 (2 spec.), 2960C-11/77 (1 spec.).

DESCRIPTION:

Length, 12.4+ mm (previously reported to 3.6 mm); width, to 0.6 mm (previously reported to 0.3 mm). Body slender, thread-like; all specimens incomplete with up to 74 setigers. Prostomium rounded, with four small eyes in trapezoidal arrangement on posterior half (Figure 28-12a). Antennae similar in length, pseudoarticulate, arising close together at anterior edge of prostomium. Palps similar and arising ventrolateral to antennae. Nuchal organs as paired ridges along postectal margins of prostomium. Tentacular cirri pseudoarticulate, numbering six pairs (questionably four or five pairs on a few specimens). First tentacular segment not visible dorsally. Parapodia subbiramous (Figure 28-12b), dorsal cirrophore with slender notoaciculum. Neuropodium supported by stout aciculum. Dorsal and ventral cirri faintly to distinctly articulated. Falcigers of first three setigers having shaft-heads with large, hooked protuberance; and short, bluntly rounded blades (Figure 28-12c). Falcigers becoming thick and golden in color, with blunt shaft-heads and blades (Figure 28-12d,e), beginning on setiger 4 and continuing to setigers 18-33 (number of setigers bearing thick falcigers increasing with size of specimen). Subsequent falcigers more slender, with short, lightly serrate, hook-tipped blades (Figure 28-12f). Slender, lightly serrate, composite spiniger (Figure 28-12g) present in all fascicles from setiger 3. Pharynx with ten triangular marginal papillae; extending back to setigers 19-37, slightly beyond point where thick falcigers are replaced by slender ones. One specimen with eggs in posterior region from about setiger 50.

REMARKS: These specimens differ from H. heteromorpha in having the slender falcigers more highly modified, especially on the first three setigers.

PREVIOUSLY REPORTED HABITAT: Fine to coarse sand, shell and stones, 3-98 m.

GULF OF MEXICO BLM-OCS OCCURRENCE: Numerous occurrences in northeastern Gulf (Figure 28-11); 10-168 m; coarse to fine-very fine sand, silty fine to very fine sand, sandy silt.

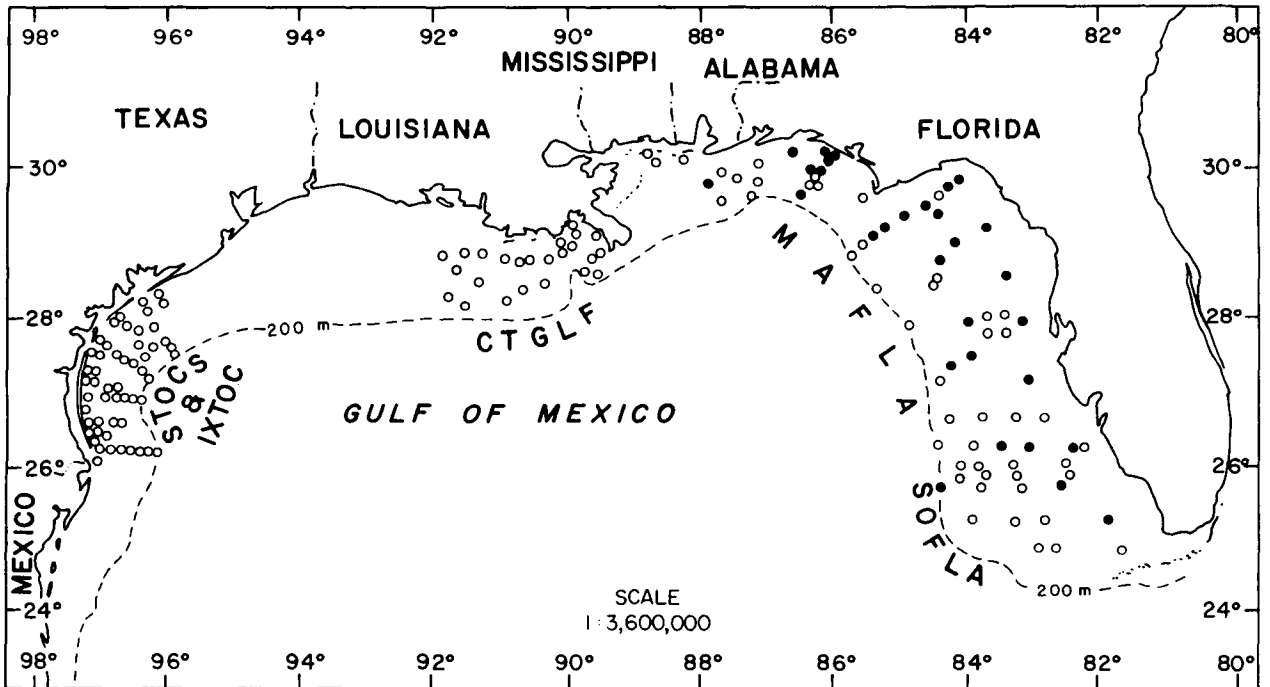


Figure 28-13. Distribution of *Heteropodarke* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

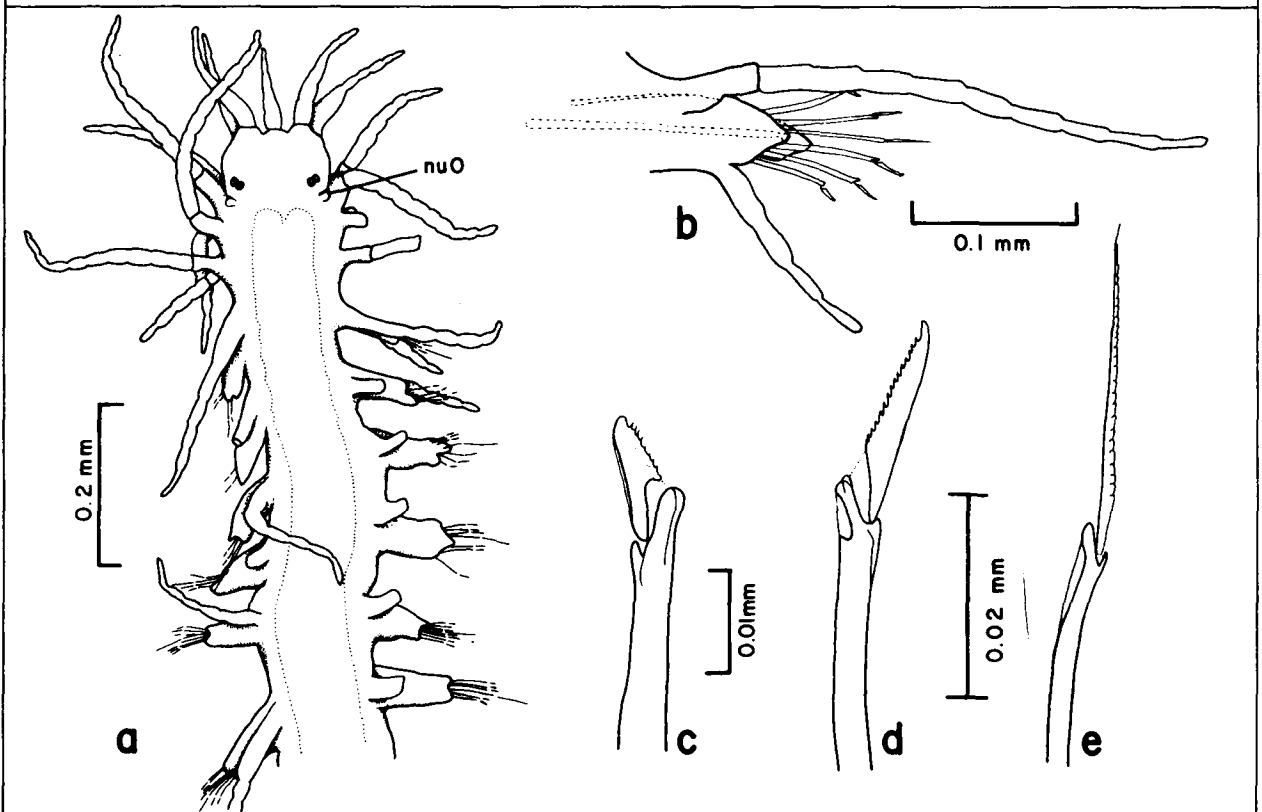


Figure 28-14. *Heteropodarke* sp. A: a, anterior end; b, parapodium (posterior view); c, neuroseta from anterior region; d, neuroseta from midbody region; e, spinigerous neuroseta.

DISTRIBUTION: New Caledonia, Peru, California, ?Gulf of Mexico.

Heteropodarke sp. A
Figures 28-13, 14a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 20E-8/81 (3 spec., USNM 75323), 20-7/81 (2 spec., USNM 71777); MAFLA 2104A-5/75 (1 spec.), 2211H-7/76 (1 spec.), 2211J-7/76 (1 spec.), 2316J-11/77 (1 spec.), 2318J-11/77 (1 spec.), 2422H-7/76 (1 spec.), 2422I-7/76 (1 spec.), 2528C-8/77 (1 spec.), 2528K-8/77 (2 spec.), 2530E-1/76 (2 spec.), 2531G-8/77 (1 spec.), 2853-8/77 (4 spec., USNM 90630).

DESCRIPTION:

Length, to 5.2 mm; width, to 0.4 mm. Body slender, thread-like; single complete specimen with 39 setigers plus one achaetous preanal segment. Prostomium rectangular, with two pairs of small, lentigerous, contiguous eyes near posterior margin (Figure 28-14a). Antennae subulate, smooth to pseudoarticulate, arising at anterior margin of prostomium; median antenna shorter than lateral antennae. Palps similar and arising ventrolateral to lateral antennae. Nuchal organs as small lobes at postectal corners of prostomium. Six pairs of pseudoarticulate tentacular cirri. Parapodia subbiramous (Figure 28-14b), dorsal cirrophores with single slender notoacicula. Neuropodia with conical presetal lobes and short, rounded postsetal lobes. Neuroacicula of middle setigers not enlarged as in Heteropodarke cf. heteromorpha. Dorsal and ventral cirri pseudoarticulate. Falcigers of first 8-10 setigers with sheathed, blunt-tipped blades (Figure 28-14c). Blades of subsequent falcigers not sheathed, with pointed tips (Figure 28-14d). Single, slender, lightly serrate, composite spiniger present in all fascicles from setiger 1 (Figure 28-14e). Pharynx extending back to setigers 10-15, with about nine marginal papillae.

REMARKS: Heteropodarke sp. A differs from H. heteromorpha mainly in lacking the thick, modified falcigers of the anterior and middle setigers.

GULF OF MEXICO BLM-OCS OCCURRENCE: Numerous occurrences in northeastern Gulf (Figure 28-13); 10-189 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey silt.

Genus Podarke Ehlers, 1864

TYPE SPECIES: Podarke agilis Ehlers, 1864.

REFERENCES:

Fauvel, 1923:244.

Ushakov, 1955:197.

Fauchald, 1977a:77.

DIAGNOSIS: Prostomium with three antennae and two biarticulate palps. Six pairs of tentacular cirri. Parapodia subbiramous, notosetae few. Pharynx with or without marginal papillae, jaws absent.

REMARKS: Fauchald (1977a:77) considered the taxonomic status of Podarke to be confused, with the genus not significantly distinct from Ophiodromus Sars, 1862. Many authors have recognized the former as a synonym of the latter. The concept of Fauvel (1923:232) is followed here, in which the two genera are considered distinct, Podarke having poorly developed

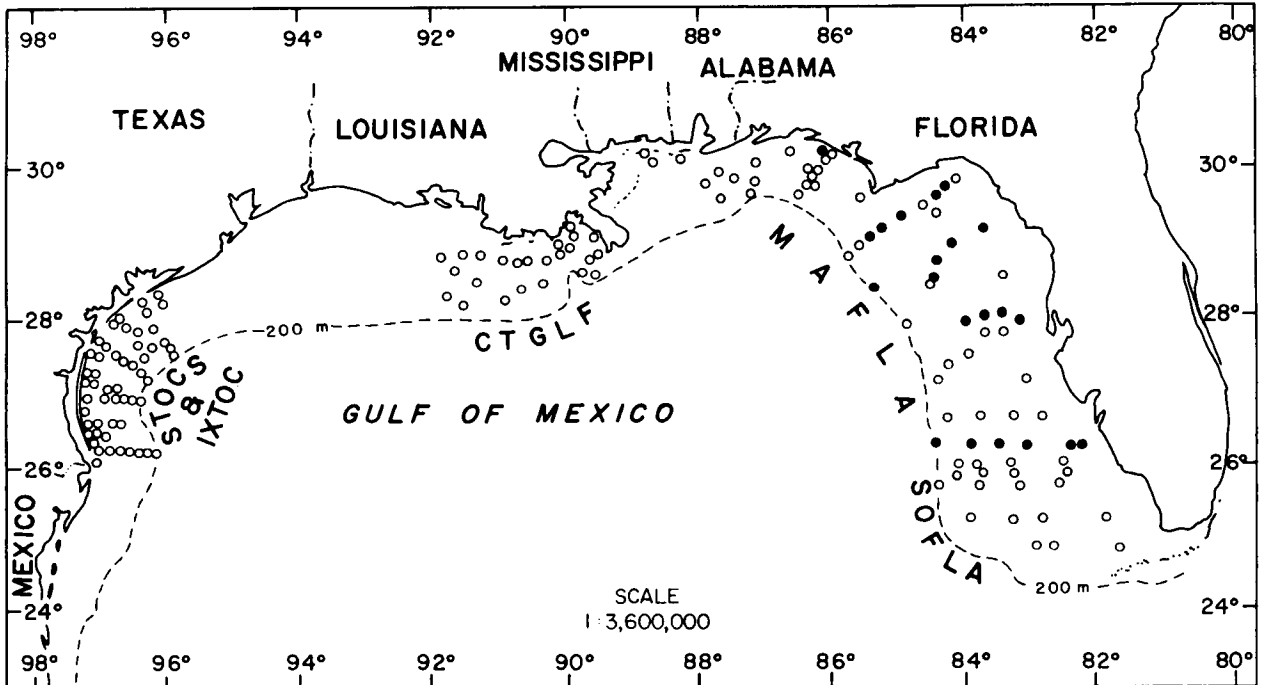


Figure 28-15. Distribution of *Podarke* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-DCS monitoring programs.

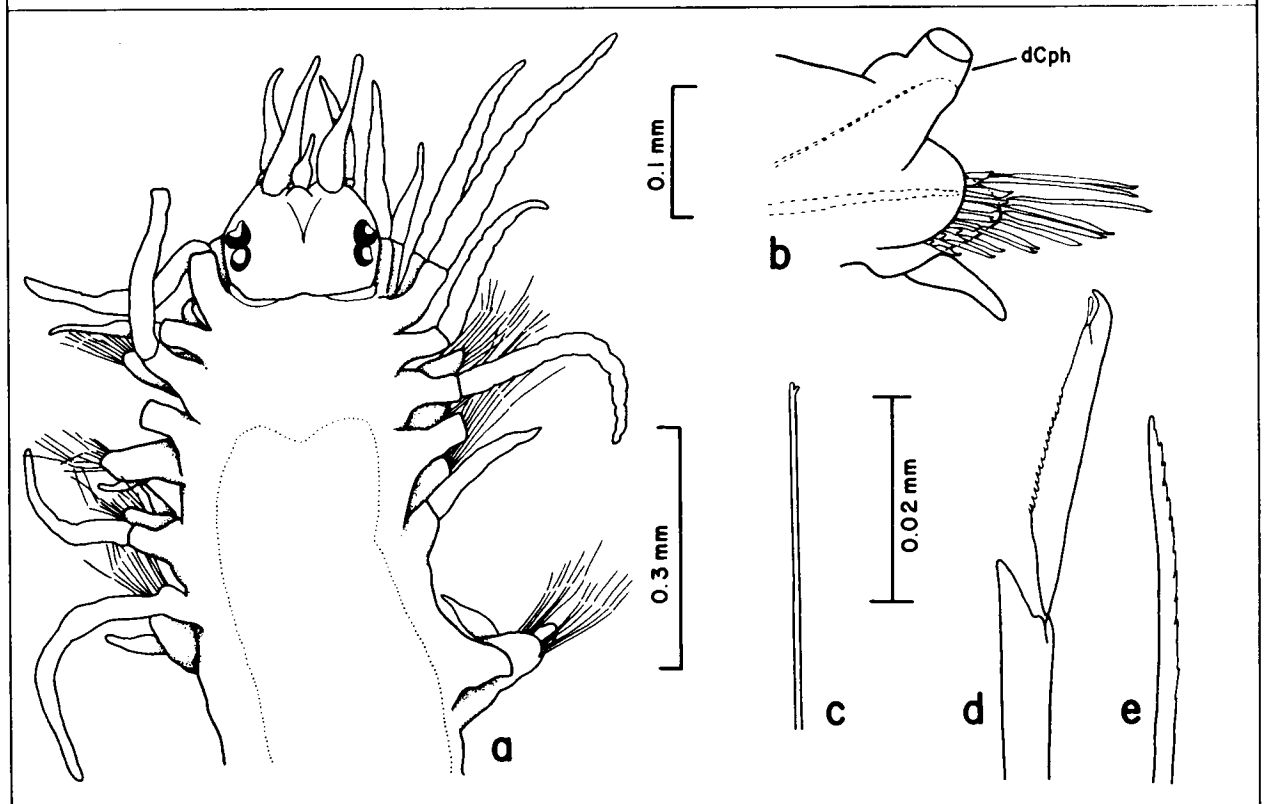


Figure 28-16. *Podarke* sp. A: a, anterior end; b, parapodium (posterodorsal view); c, notoseta; d, lower composite neuroseta from midbody region; e, simple neuroseta from posterior region.

notopodia with few notosetae, and Ophiodromus having well-developed notopodia with numerous notosetae.

Key to the Gulf of Mexico BLM-OCS Species of Podarke

- 1a. Notosetae capillary on middle and posterior parapodia (Figure 28-16c) Podarke sp. A, p. 28-19
- 1b. Notosetae furcate throughout (Figure 28-18c)
. Podarke obscura, p. 28-19

Podarke sp. A
Figures 28-15, 16a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2207C-7/76 (1 spec.), 2313J-11/77 (1 spec., USNM 90631), 2318K-8/76 (1 spec.).

DESCRIPTION:

Length, to 4.6 mm; width, to 0.7 mm. Body slender; one specimen nearly complete with 28 setigers. Prostomium pentagonal, indistinctly bilobed, with two pairs of large, lentigerous, contiguous eyes (Figure 28-16a). Antennae subulate, arising anteriorly on prostomium, lateral antennae much longer than median antenna. Palps with long styles arising on short bases below lateral antennae. Nuchal organs as narrow ridges along postectal margins of prostomium. Tentacular cirri indistinctly articulated. Parapodia with stout dorsal cirrophores supported by single slender acicula; neuropodia with bluntly rounded setal lobes and shorter, conical postsetal lobes (Figure 28-16b). Dorsal cirri cirriform, smooth to faintly articulated. Ventral cirri short, clavate. Notopodia apparently with furcate setae anteriorly (only one observed), replaced by setiger 9 with solitary, extremely slender capillary setae often having minutely bifid tips (Figure 28-16c). Neurosetae with long extension of shaft-head entire; blades long to short, lightly serrate, with faint spine below hooked tip (Figure 28-16d), blade-length ratio 5-7:1. Posterior parapodia with additional slender, dentate, simple neuroseta (Figure 28-16e). Pharynx extending to setigers 7-10.

REMARKS: These specimens were originally identified as Podarke agilis Ehlers, 1864, from which they apparently differ in having furcate notosetae anteriorly.

GULF OF MEXICO BLM-OCS OCCURRENCE: Numerous occurrences in northeastern Gulf (Figure 28-15); 11-177 m; coarse to fine-very fine sand, silty fine sand, clayey sandy silt.

Podarke obscura Verrill, 1873
Figures 28-17, 18a-f

Podarke obscura--Pettibone, 1963:104, fig. 28a,b.

Podarke obscura--Gardiner, 1976:118, fig. 8i-k.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2-12/80 (2 spec., USNM 75326), 20-7/81 (3 spec., USNM 75327), 20A-

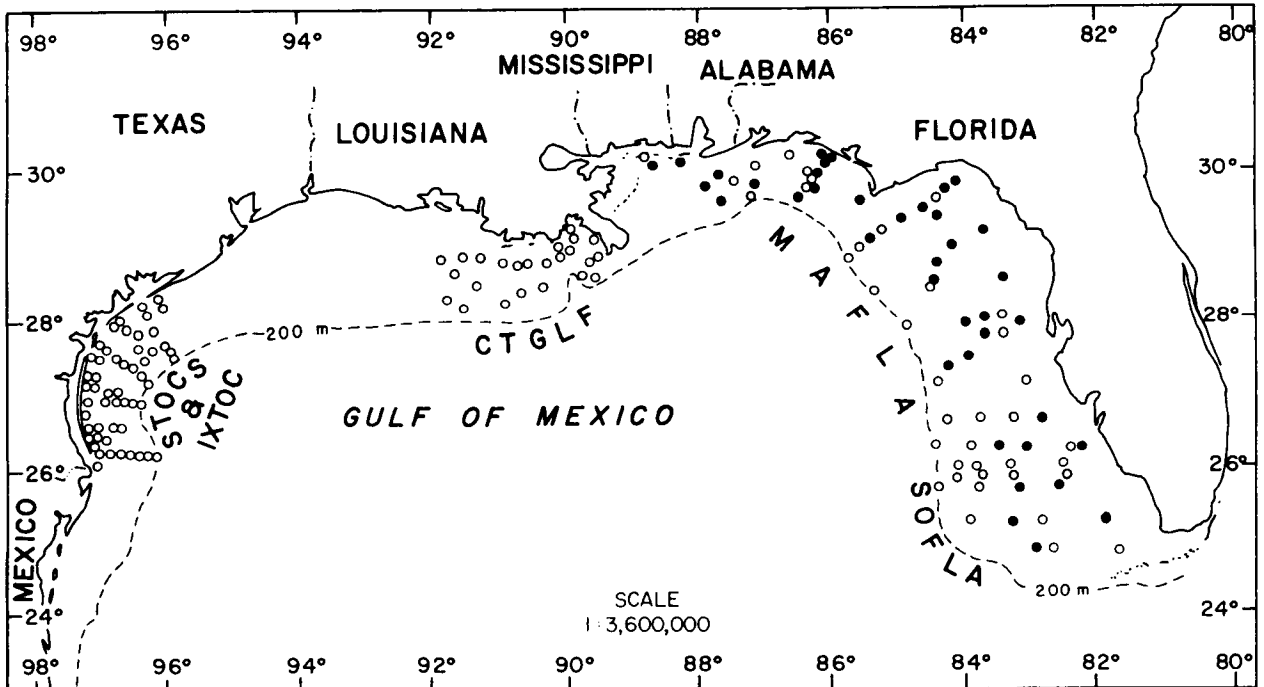


Figure 28-17. Distribution of *Podarke obscura* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

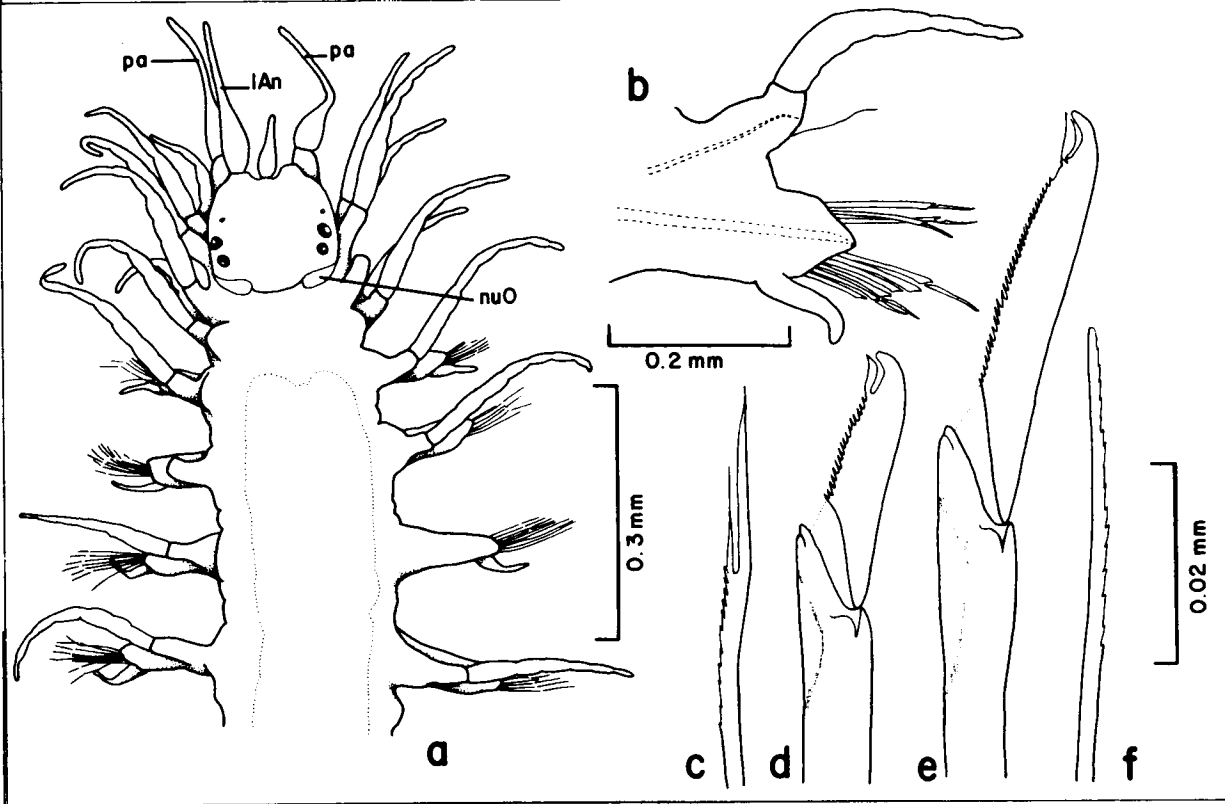


Figure 28-18. *Podarke obscura*: a, anterior end; b, parapodium (anterior view); c, notoseta; d, e, composite neurosetae from posterior region; f, simple neuroseta from posterior region.

7/81 (1 spec., USNM 75328); MAFLA 2211J-7/76 (1 spec.), 2314A-11/77 (1 spec.), 2318K-8/76 (2 spec.), 2318I-11/77 (1 spec.), 2423C-7/76 (4 spec.), 2423-7/76 (5 spec., USNM 55811), 2528G-11/77 (1 spec.), 2529I-6/75 (1 spec.), 2531F-11/77 (1 spec.), 2959H-8/77 (1 spec.).

Supplementary Material:

Massachusetts--Vineyard Sound, 1871, types (21 spec., USNM 9695).

North Carolina--Cape Lookout, Nov. 1974, in cemented material of Petaloproctus colonies, H. Wilson coll., S. L. Gardiner ID. (18 spec., USNM 52891).

Gulf of Mexico--Mobile Bay, Sta. 88-30 K8b, May 1973, B. A. Vittor coll. (1 spec.).

DESCRIPTION:

Length, to 13.4 mm (previously reported to 20 mm); width, to 2.0 mm. Most specimens complete with up to 51 setigers. Prostomium rounded to rectangular, with two pairs of lentigerous eyes, often with two additional minute eyespots (Figure 28-18a). Antennae clavate to subulate, arising anteriorly on prostomium, median antenna much smaller than lateral antennae. Palps with short bases and long, subulate styles, similar in length and arising ventrolateral to lateral antennae. Nuchal organs as narrow ridges along postectal corners of prostomium. Tentacular cirri subulate, indistinctly articulated distally. Parapodia subbiramous, notopodia small, neuropodia well-developed, with conical presetal lobes (Figure 28-18b). Dorsal cirri shorter than body width, indistinctly articulated distally. Ventral cirri digitiform to tapered. Notopodia with 0-3 (usually one) furcate setae (Figure 28-18c). Neurosetae with long extension of shaft-head bifid; blades long to short, lightly serrate, with faint spine or sheath below hooked tip (Figure 28-18d,e), blade-length ratio 2.9-8.1:1. Posterior parapodia with additional slender, dentate, simple neuroseta (Figure 28-18f). Anal cirri not observed. Pharynx extending to setigers 4-10; margin smooth, without papillae. Three specimens with eggs; one specimen with internal, paired, pincer-like structures in setiger 14.

REMARKS: Furcate notosetae have not been mentioned in previous descriptions, but are present in the type material (USNM 9695). The relative lengths of the two tines of the furcate notosetae are quite variable in Gulf of Mexico specimens, with the longer tine less than twice to several times the length of the shorter tine. Some BLM-OCS specimens of P. obscura were originally referred to several other species of Podarke.

PREVIOUSLY REPORTED HABITAT: Intertidal to 840 m; muddy sand flats, under stones, on pilings, among eelgrass, shells, hydroids, ascidians, sponges, algae, etc.; also found with echinoderms and the terebellid Lysilla alba.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf (Figure 28-17); 10-189 m; coarse to fine sand, silty fine to very fine sand, clayey sand and silt, sandy silt.

DISTRIBUTION: Massachusetts to Florida, Bermuda, Caribbean, Gulf of Mexico.

Genus Nereimyra Blainville, 1828

TYPE SPECIES: Nereis punctata O. F. Müller, 1776.

REFERENCES:

Fauvel, 1923:240 (as Castalia).

Ushakov, 1955:195 (as Castalia).

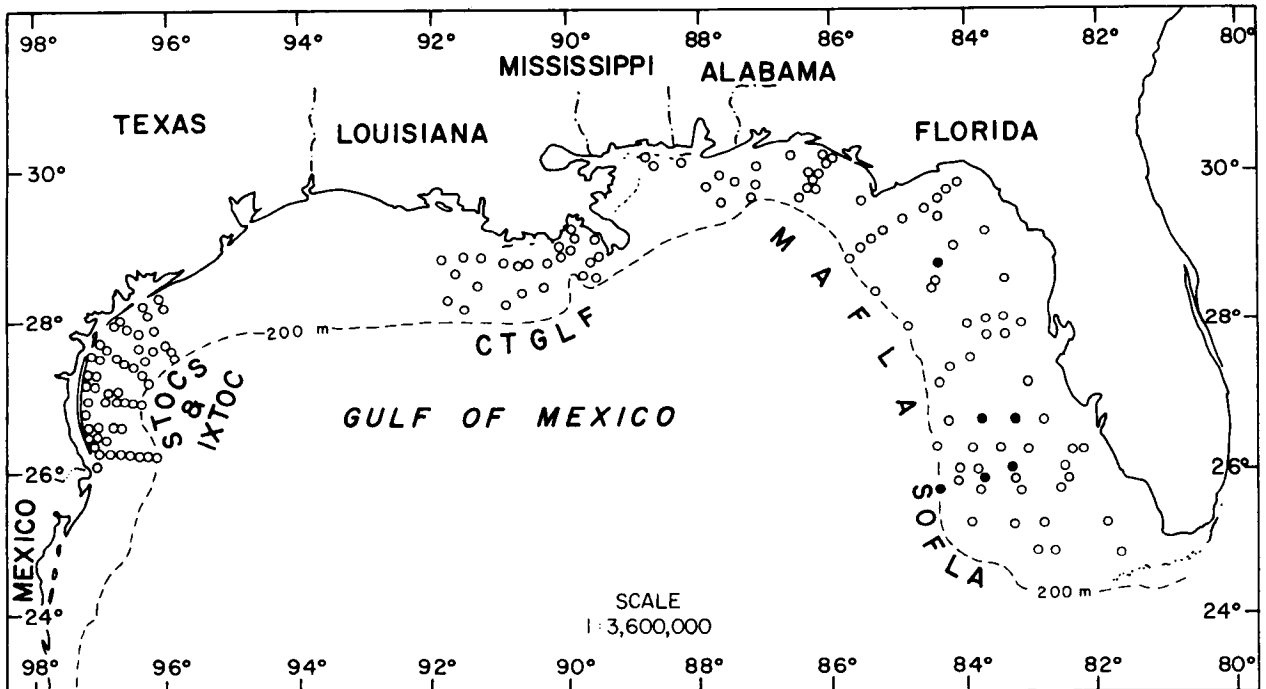


Figure 28-19. Distribution of *Nereimyra* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

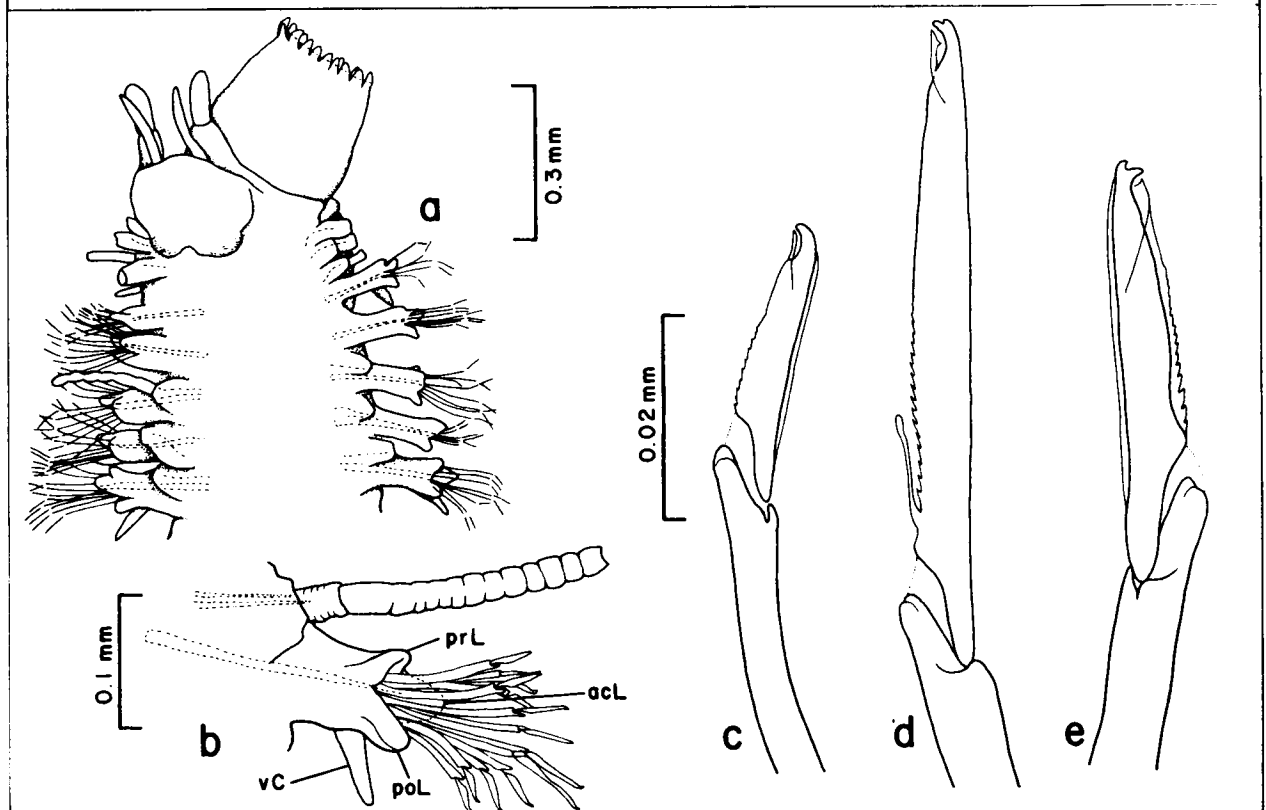


Figure 28-20. *Nereimyra* sp. A: a, anterior end; b, anterior parapodium (dorsal view); c, neuroseta from anterior region; d, middle neuroseta from midbody region; e, lower neuroseta from midbody region.

Hartmann-Schröder, 1971:128.

Fauchald, 1977a:76.

DIAGNOSIS: Prostomium with two antennae and two biarticulate palps. Six pairs of tentacular cirri. Parapodia subbiramous, notosetae few or absent. Neuropodia with three conical lobes. Pharynx with marginal papillae, jaws present or absent.

Key to the Gulf of Mexico BLM-OCS Species of Nereimyra

- 1a. Eyes absent; blades of neurosetae often with basal spur (Figure 28-20d). *Nereimyra* sp. A, p. 28-23
- 1b. Eyes present; blades of neurosetae without basal spur (Figure 28-22c,d). *Nereimyra* sp. B, p. 28-25

***Nereimyra* sp. A**
Figures 28-19, 20a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 5-5/81 (1 spec., USNM 75325), 4B-7/81 (1 spec., USNM 75324); MAFLA 2104J-2/78 (1 spec., USNM 71779), 2316H-7/76 (1 spec.), 2957C-8/77 (1 spec.), 2957D-8/77 (1 spec.), 2957H-8/77 (2 spec.), 2957J-8/77 (2 spec.).

DESCRIPTION:

Length, 5.2+ mm; width, to 0.6 mm. Body small, slender; all specimens incomplete with up to 26 setigers. Prostomium pentagonal to quadrangular, posteriorly prolonged as two large nuchal ridges (Figure 28-20a). Eyes absent. Lateral antennae slender, cirriform; median antenna absent. Palps same length as antennae, bases and styles equal in length. Tentacular and dorsal cirri long, distinctly articulated distally. First tentacular segment not visible dorsally. Notopodia reduced to two slender acicula supporting dorsal cirrophores, setae absent. Neuropodia well-developed with conical acicular lobe and lip-like pre- and post-setal lobes (Figure 28-20b). Ventral cirri short, digitiform or tapered. Neurosetae with long extension of shaft-head bifid. Blades lightly serrate, unidentate anteriorly (Figure 28-20c), becoming bidentate, with or without basal spur (Figure 28-20d,e); with subapical spine or sheath, and often with lateral sheaths (Figure 28-20c,e); blade-length ratio 1.6-3.5:1. Pharynx extending to setigers 4-8, margin surrounded by 20-30 small papillae, jaws absent.

REMARKS: *Nereimyra* sp. A resembles *N. multipapillata* Théel, 1879, from the Arctic, in lacking notosetae, in having two notoacacula, and in having 20 or more marginal papillae surrounding the pharynx. However, characteristics of the neurosetae of the latter species are unknown. Gulf of Mexico BLM-OCS specimens were previously referred to several other genera.

GULF OF MEXICO BLM-OCS OCCURRENCE: Few stations off western Florida (Figure 28-19); 35-180 m; coarse to medium sand, silty fine sand.

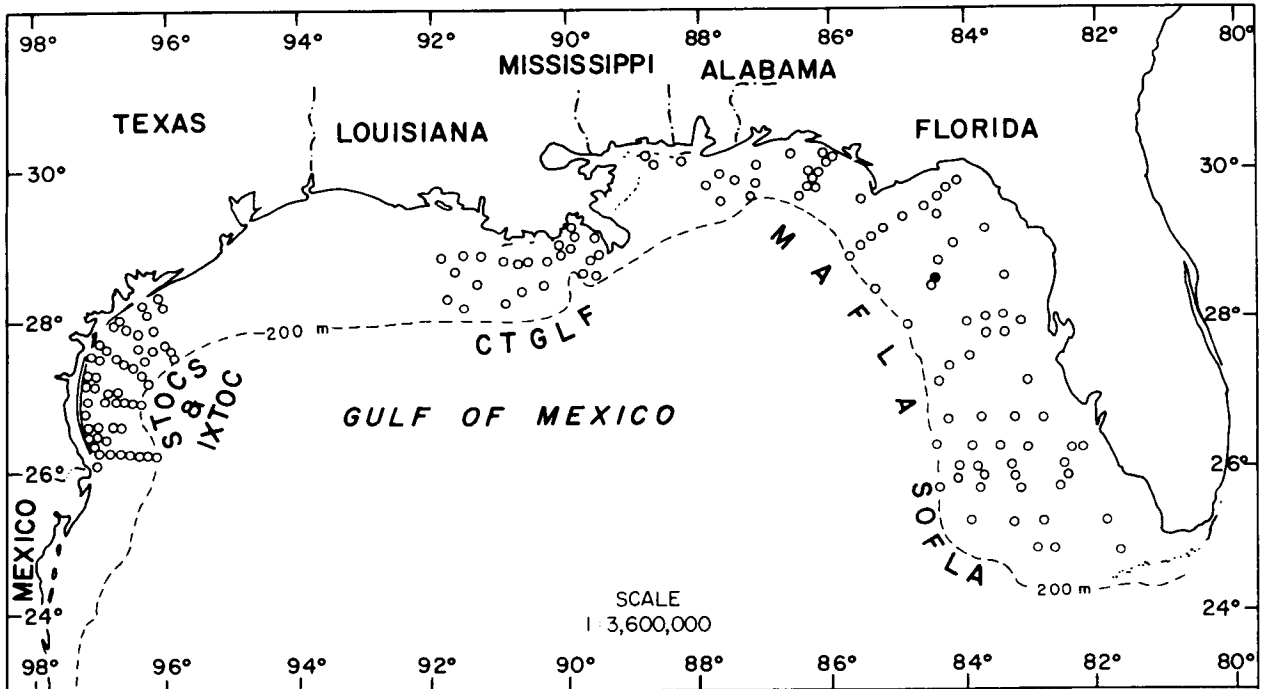


Figure 28-21. Distribution of *Nereimyra* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

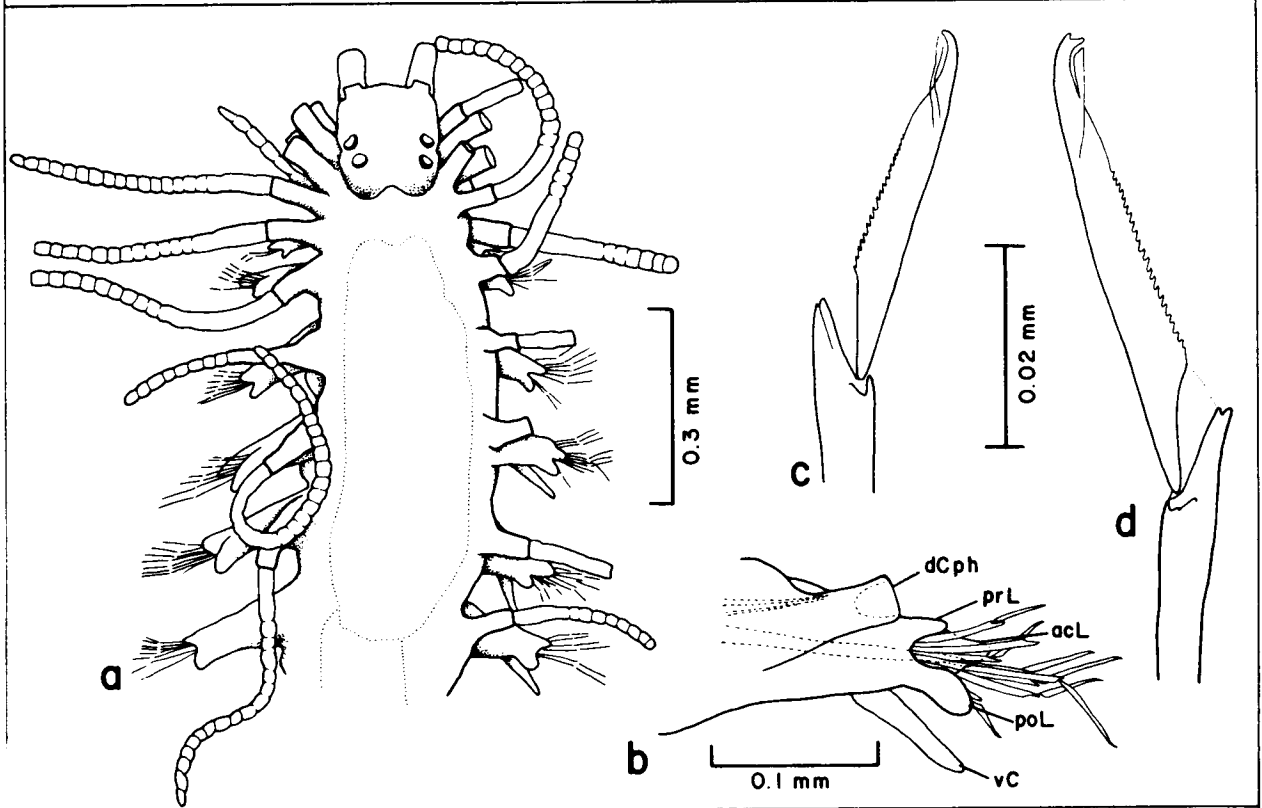


Figure 28-22. *Nereimyra* sp. B: a, anterior end; b, anterior parapodium (dorsal view); c, lower neuroseta from anterior region; d, lower neuroseta from midbody region.

Nereimyra sp. B
Figures 28-21, 22a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2315A-2/78 (1 spec.).

DESCRIPTION:

Length, 4.2+ mm; width, 0.7 mm. Body slender, incomplete with 24 setigers. Prostomium rectangular with four lentigerous eyes in rectangular arrangement; posterior margins prolonged as nuchal organs (Figure 28-22a). Antennae missing. Palps with stout, fairly long bases, styles missing. Tentacular and dorsal cirri long, distinctly articulated distally. First tentacular segment not visible dorsally. Notopodia reduced to two slender acicula supporting dorsal cirrophores, setae absent. Neuropodia well-developed with conical acicular lobe, lip-like postsetal lobe, and smaller, rounded presetal lobe (Figure 28-22b). Ventral cirri slender, digitiform to tapered. Neurosetae with long extension of shaft-head bifid; blades minutely serrate, with subapical spine or sheath; lateral sheaths apparently absent. Upper neurosetae minutely bidentate. Middle and lower neurosetae unidentate anteriorly (Figure 28-22c), gradually becoming bidentate (Figure 28-22d). Blades of neurosetae without basal spur or lateral sheath. Middle neurosetae with longest blades; blade length ratio 3.1:1. Pharynx extending to setiger 6, jaws absent.

REMARKS: This specimen differs from Nereimyra sp. A in having eyes and smaller neuropodial presetal lobes, and in lacking the basal spur and lateral sheath on the blades of the neurosetae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Single record off west-central Florida (Figure 28-21); 38 m; silty fine sand.

Genus Hesiospina Imajima and Hartman, 1964

TYPE SPECIES: Kefersteinia similis Hesse, 1925.

REFERENCES:

Imajima and Hartman, 1964:80.

Fauchald, 1977a:76.

DIAGNOSIS: Prostomium with two antennae and two biarticulate palps. Eight pairs of tentacular cirri. Parapodia subbiramous; notopodia small, with falcate spines. Neuropodia with composite falcigers and single acicular spine. Pharynx with marginal papillae, jaws absent.

Hesiospina sp. A
Figures 28-23, 24a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4A-7/81 (4 spec., USNM 75321), 16E-11/80 (1 spec., USNM 75322); MAFLA 2104I-2/78 (1 spec.), 2211G-7/76 (13 spec., USNM 71780), 2211I-7/76 (9 spec.), 2211J-7/76 (5 spec.), 2748G-2/78 (1 spec.).

DESCRIPTION:

Length, 5.6+ mm; width, to 1.4 mm. Body usually fragmented near anterior end; all specimens incomplete with up to 20 setigers. Prostomium rectangular with two pairs of fairly large, lentigerous eyes, anterior

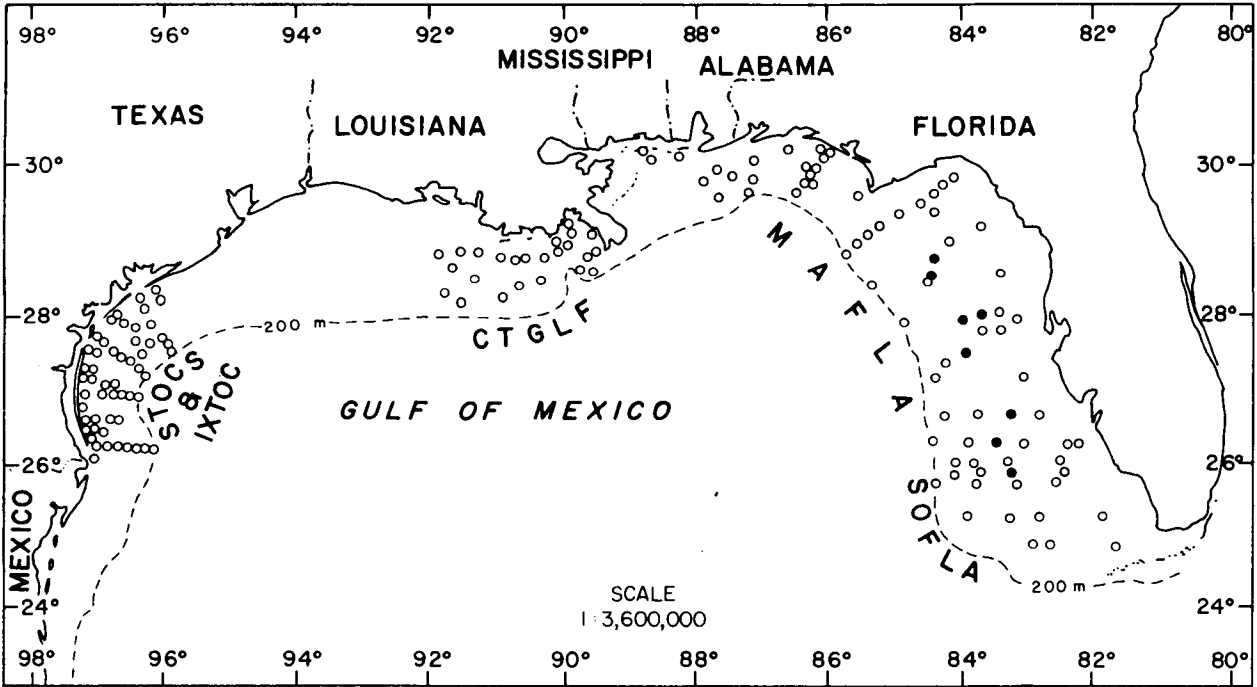


Figure 28-23. Distribution of *Hesiospina* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

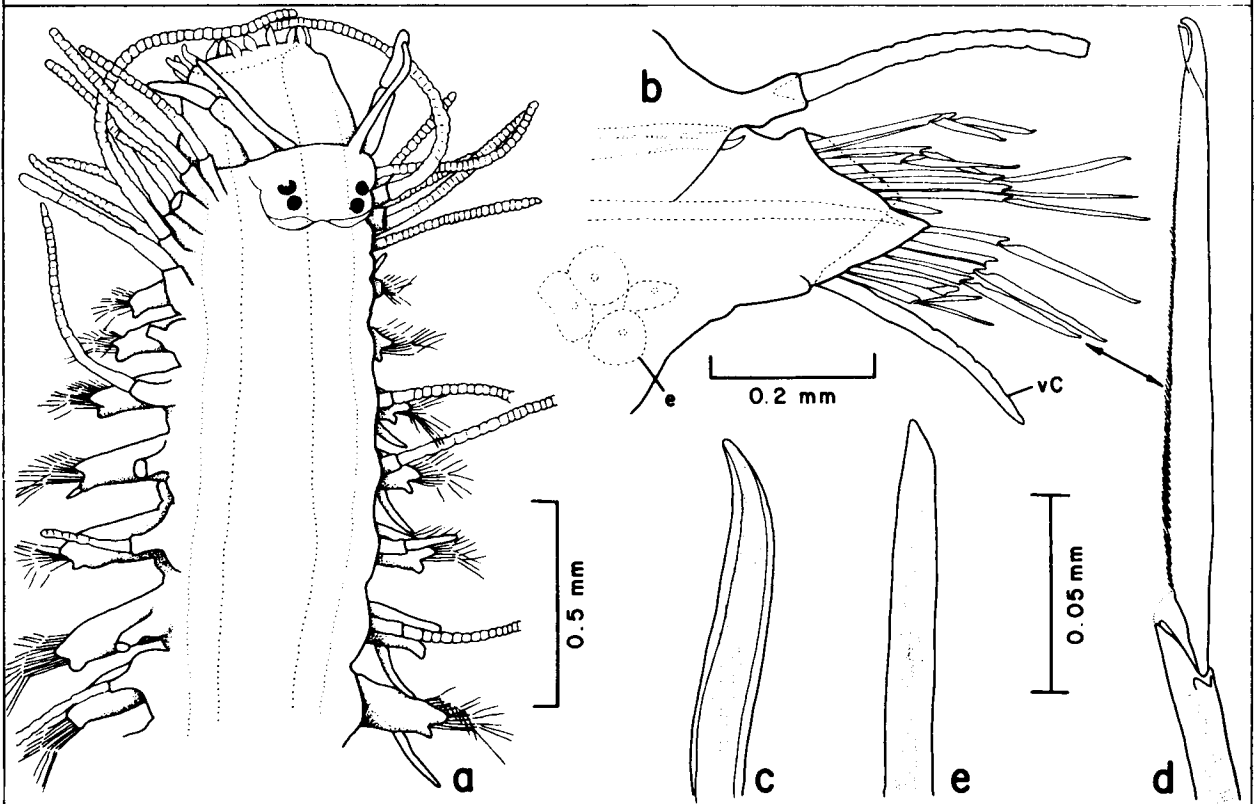


Figure 28-24. *Hesiospina* sp. A: a, anterior end; b, parapodium (anterior view); c, notopodial spine; d, long-bladed composite neuroseta; e, acicular neuroseta.

pair slightly larger and farther apart (Figure 28-24a). Lateral antennae long, cirriform. Palps similar in length to antennae, with bases longer than styles. Nuchal organs as slender ridges along postectal margins of prostomium. Tentacular and dorsal cirri indistinctly articulated distally. Parapodia with small notopodia, and well-developed neuropodia having broadly triangular pre- and postsetal lobes (Figure 28-24b). Ventral cirri slender, cirriform. Notopodia with slender acicula anteriorly, acicula becoming gradually larger; stout, emergent, falcate spine (Figure 28-24c) present starting on setigers 8-10. Neuropodial falcigers with long extension of shaft-head bifid; blades minutely serrate, with hooked tip and subapical sheath-like spine (Figure 28-24d), blade-length ratio 2.0-5.2:1. Additional median acicular neuroseta (Figure 28-24e) present starting on setigers 4-6. Pharynx extending to setigers 4-9, margin surrounded by about 20 short fusiform papillae.

REMARKS: Hesiospina sp. A differs from H. similis (Hessle, 1925) from Japan, in lacking notopodial spines anteriorly, and in having unidentate rather than bidentate composite neurosetae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Scattered occurrences off western Florida (Figure 28-23); moderate depths, 35-56 m; coarse to fine sand, silty fine to very fine sand.

Genus Gyptis Marion and Bobretzky, 1875

TYPE SPECIES: Gyptis propinqua Marion and Bobretzky, 1875.

REFERENCES:

Ushakov, 1955:195 (as Oxydromus).

Hartmann-Schröder, 1971:131.

Gardiner, 1976:119.

Fauchald, 1977a:76.

DIAGNOSIS: Prostomium with three antennae and two biarticulate palps. Eight pairs of tentacular cirri. Parapodia biramous, with simple notosetae and composite neurosetae. Pygidium with two anal cirri. Pharynx with marginal papillae, jaws absent.

Key to the Gulf of Mexico BLM-OCS Species of Gyptis

- 1a. Notosetae beginning on setiger 5; median antenna arising anteriorly on prostomium (Figure 28-26a). . . .Gyptis brevipalpa, p. 28-27
- 1b. Notosetae beginning on setiger 1; median antenna arising medially on prostomium (Figure 28-28a).Gyptis vittata, p. 28-29

Gyptis brevipalpa (Hartmann-Schröder, 1959)

Figures 28-25, 26a-e

Oxydromus brevipalpa Hartmann-Schröder, 1959:105, figs. 38-40.

Gyptis brevipalpa--Gardiner, 1976:119, figs. 8q-t, 9a.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2-11/80 (3 spec., USNM 75316), 4B-4/81 (1 spec.), 14A-4/81 (1 spec., USNM 75317), 20D-11/80 (1 spec., USNM 75318); MAFLA 1F-5/74 (1

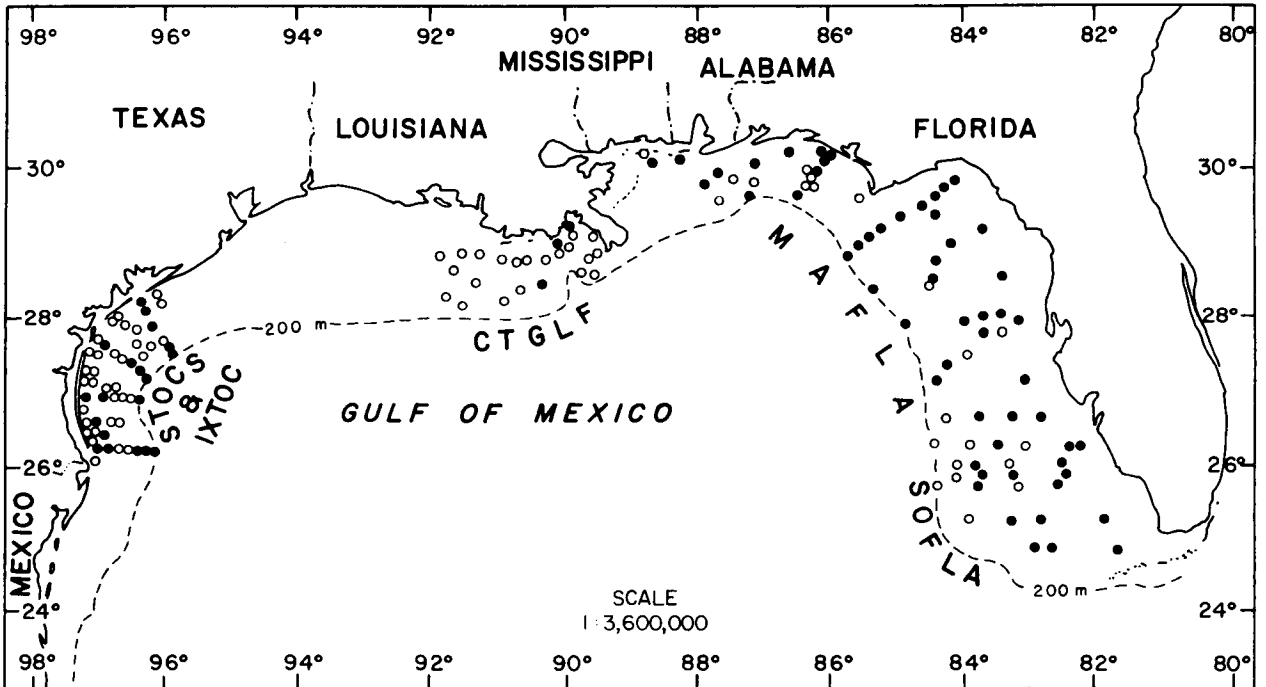


Figure 28-25. Distribution of *Gyptis brevipalpa* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

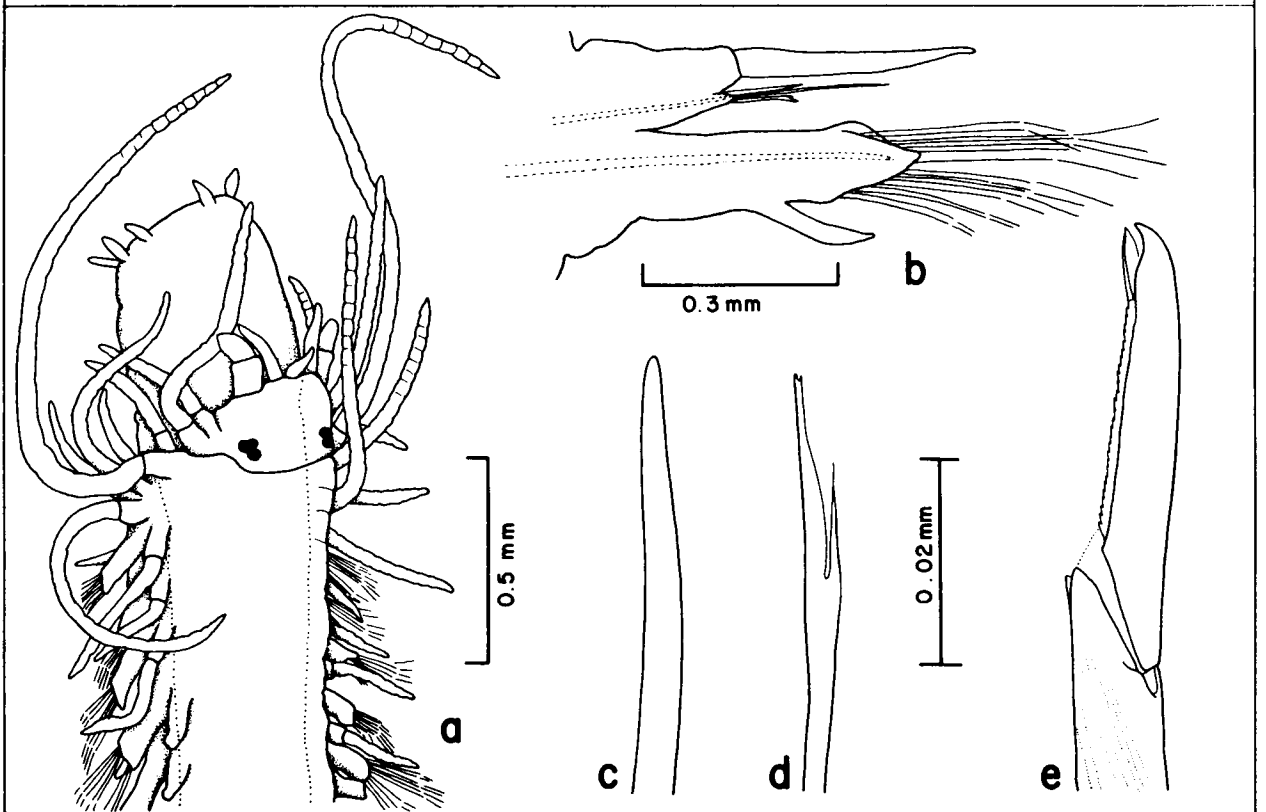


Figure 28-26. *Gyptis brevipalpa*: a, anterior end; b, parapodium (anterior view); c, acicular notoseta; d, furcate notoseta; e, lower neuroseta.

spec.), 2104A-5/75 (1 spec.), 2104D-5/75 (1 spec.), 2210D-7/76 (1 spec.), 2422D-7/76 (2 spec.), 2422E-7/76 (5 spec.), 2423G-7/76 (1 spec.), 2423E-2/78 (1 spec.), 2641-6/75 (1 spec., USNM 55810); CTGLF 02-1/79 (1 spec.), 03-5/78 (1 spec.); STOCS 1/I-1 S/76 (1 spec., USNM 75210), 4/I-1 S/76 (2 spec., USNM 75211); IXTOC N38-12/79 (1 spec., USNM 75127), S52-11/79 (1 spec., USNM 75128), S53-11/79 (1 spec., USNM 75129).

Supplementary Material:

North Carolina--Cape Hatteras area, Apr. 1965, J. H. Day coll., G. Gaston ID. (2 spec., USNM 51010).

Gulf of Mexico--Tampa Bay, 1963, J. L. Taylor coll./ID. (9 spec., USNM 45531); Mobile Bay, Mobil Oil Sta. 055B-7/78, 30°15'13"N, 88°03'08"W, 4.0 m, coarse sand (2 spec.); off Alabama, COE Sta. 582-4, 30°12.68'N, 88°11.2'W, Apr. 1981, 11.3 m, silty sand (1 spec.).

DESCRIPTION:

Length, to 15.3 mm (previously reported to 18 mm); width, to 1.4 mm (previously reported to 2 mm). Complete specimens with up to 58 setigers. Prostomium pentagonal to quadrangular, with two pairs of contiguous, lentigerous eyes (Figure 28-26a). Lateral antennae digitiform; median antenna smaller, clavate; all antennae arising on anterior margin of prostomium. Palps similar in length to lateral antennae. Nuchal organs as slender ridges along postectal margins of prostomium. Dorsal tentacular cirri long, indistinctly articulated distally; ventral tentacular cirri shorter than body width, also indistinctly articulated distally. Parapodia subbiramous anteriorly, becoming biramous with small notopodia (Figure 28-26b) starting on setiger 5. Neuropodia elongate with conical pre- and postsetal lobes. Dorsal cirri shorter than body width, cirriform or indistinctly articulated. Ventral cirri short, tapered. Notosetae including 1-2 acicular spines (Figure 28-26c), and 2-5 furcate setae with long tine minutely bifid distally (Figure 28-26d). Neuropodial falcigers with long extension of shaft-head bifid; blades minutely serrate, with hooked tip and subapical sheath-like spine (Figure 28-26e), blade-length ratio 3.8-10.5:1. Pygidium with two long, smooth or indistinctly articulated cirri. Pharynx extending to setigers 3-11, margin surrounded by ten digitiform papillae.

REMARKS: Some Gulf of Mexico BLM-OCS specimens were previously referred to G. vittata.

PREVIOUSLY REPORTED HABITAT: Intertidal to 15 m; sand mixed with gravel and shell particles; in burrows of the polychaete Glycera robusta and the holothurian Leptosynapta tenuis.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common throughout northern Gulf (Figure 28-25); 10-189 m; sands, silts and clays.

DISTRIBUTION: Washington, California, Central America, Virginia to Florida, Gulf of Mexico.

Gyptis vittata Webster and Benedict, 1887

Figures 28-27, 28a-g

Gyptis vittata Webster and Benedict, 1887:715, pl. 1, figs. 21, 22, pl. 2, fig. 23.

Gyptis vittata--Pettibone, 1963:106, fig. 28c,d.

Gyptis vittata--Gardiner, 1976:119, fig. 8 1-p.

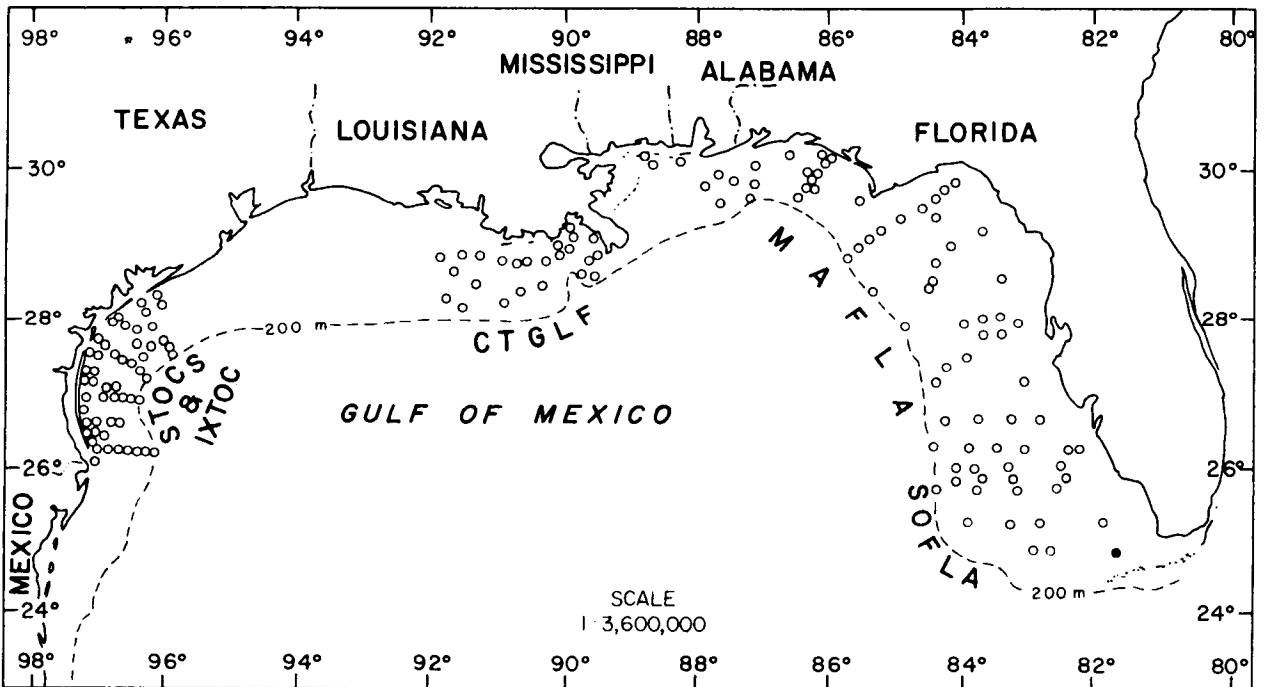


Figure 28-27. Distribution of *Gyptis vittata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

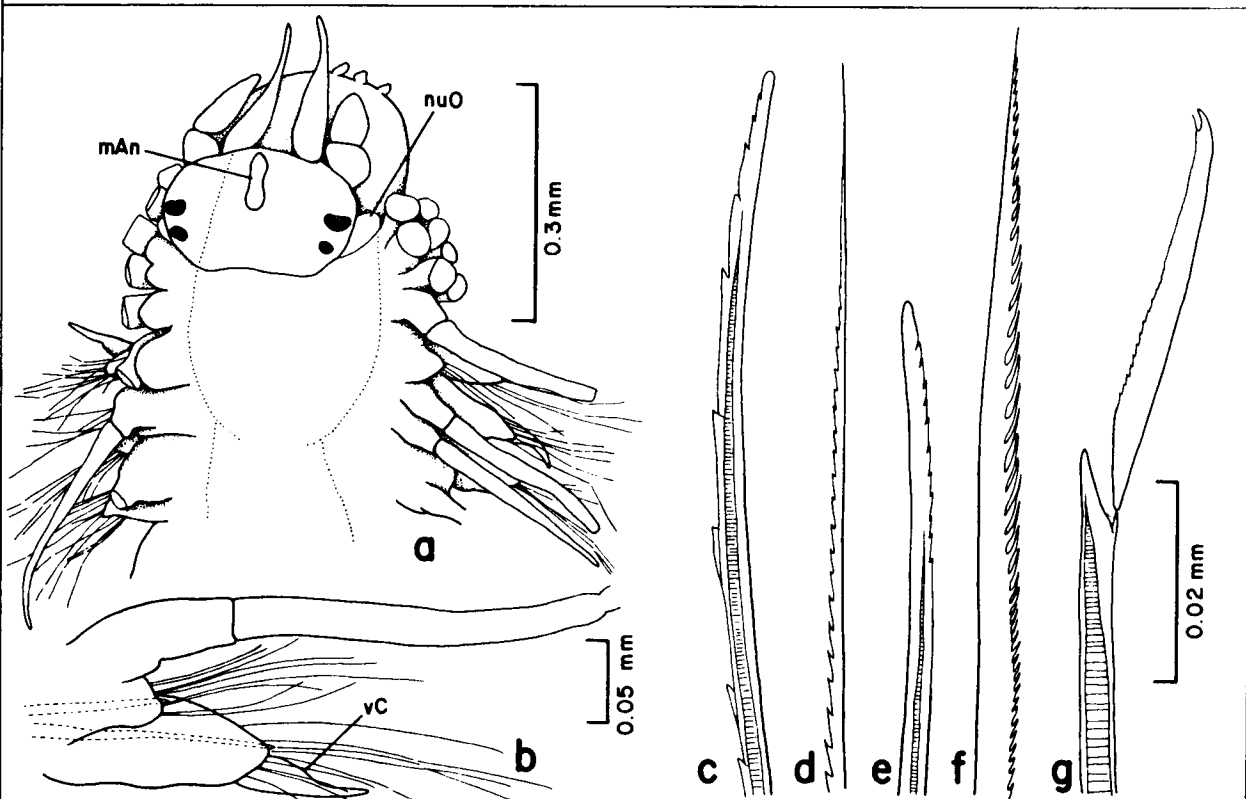


Figure 28-28. *Gyptis vittata*: a, anterior end; b, anterior parapodium (anterodorsal view); c, blunt-tipped spiked notoseta from setiger 1; d, tip of fine-tipped spiked notoseta from midbody region; e, dentate acicular notoseta from anterior region; f, serrate notoseta from midbody region; g, neuroseta.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 25D-7/81 (1 spec., USNM 75319).

Supplementary Material:

North Carolina--Wrightsville Beach, Banks Channel, in burrow of Notomastus lobatus, E. Powell and H. Wilson colls., S. L. Gardiner ID., July 1974 (2 spec., USNM 52892), Aug. 1974 (6 spec., USNM 52893), Feb. 1975 (5 spec., USNM 52894).

DESCRIPTION:

Length, 2+ mm (previously reported to 9 mm); width, 0.5 mm (previously reported to 1.4 mm). Body brownish in color; BLM-OCS specimen incomplete with 14 setigers. Prostomium oval, with two pairs of lentigerous eyes (Figure 28-28a). Lateral antennae subulate, arising on anterior margin of prostomium; median antenna much smaller, digitiform, arising medially on prostomium. Palps shorter than lateral antennae. Nuchal organs as white lobes lateral to prostomium. Tentacular and dorsal cirri smooth or indistinctly articulated distally. Parapodia biramous starting on setiger 1, with small notopodia below dorsal cirrophores, and well-developed neuropodia (Figure 28-28b). Ventral cirri clavate, arising near tips of neuropodia. Notosetae of four kinds: 1) relatively short, blunt-tipped, spiked setae (Figure 28-28c), most numerous on setiger 1; 2) spiked setae with long, fine tips (Figure 28-28d), most numerous notosetae after setiger 1; 3) single, dentate acicular seta (Figure 28-28e); 4) 2-3 fine-tipped, serrate setae (Figure 28-28f). Furcate notosetae absent. Neuropodial falcigers slender, with long extension of shaft-head entire; blades long, faintly serrate, with minutely hooked tip and slender subapical spine (Figure 28-28g), blade-length ratio 5.7-8.1:1. Pharynx extending to setigers 2-4, margin surrounded by ten small papillae.

REMARKS: Previous accounts of G. vittata have not described the different kinds of notosetae.

PREVIOUSLY REPORTED HABITAT: Intertidal to 55 m; rocks, shells, in burrow of the capitellid Notomastus lobatus.

GULF OF MEXICO BLM-OCS OCCURRENCE: Single record off southern tip of Florida (Figure 28-27); 24 m; silt/clay.

DISTRIBUTION: Maine to North Carolina, southern Florida.

Genus Amphiduros Hartman, 1959b

TYPE SPECIES: Amphidromus setosus Hesse, 1925.

REFERENCES:

Hesse, 1925:26 (as Amphidromus).

Fauchald, 1977a:75.

DIAGNOSIS: Prostomium with three antennae and two biarticulate palps. Median antenna attached medially. Eight pairs of tentacular cirri. Parapodia biramous, with simple notosetae and composite neurosetae. Pharynx distally fimbriated, jaws absent.

Key to the Gulf of Mexico BLM-OCS Species of Amphiduros

- 1a. Spiked notosetae (Figure 28-30e) tapering to long, fine tips.
.....Amphiduros sp. A, p. 28-34

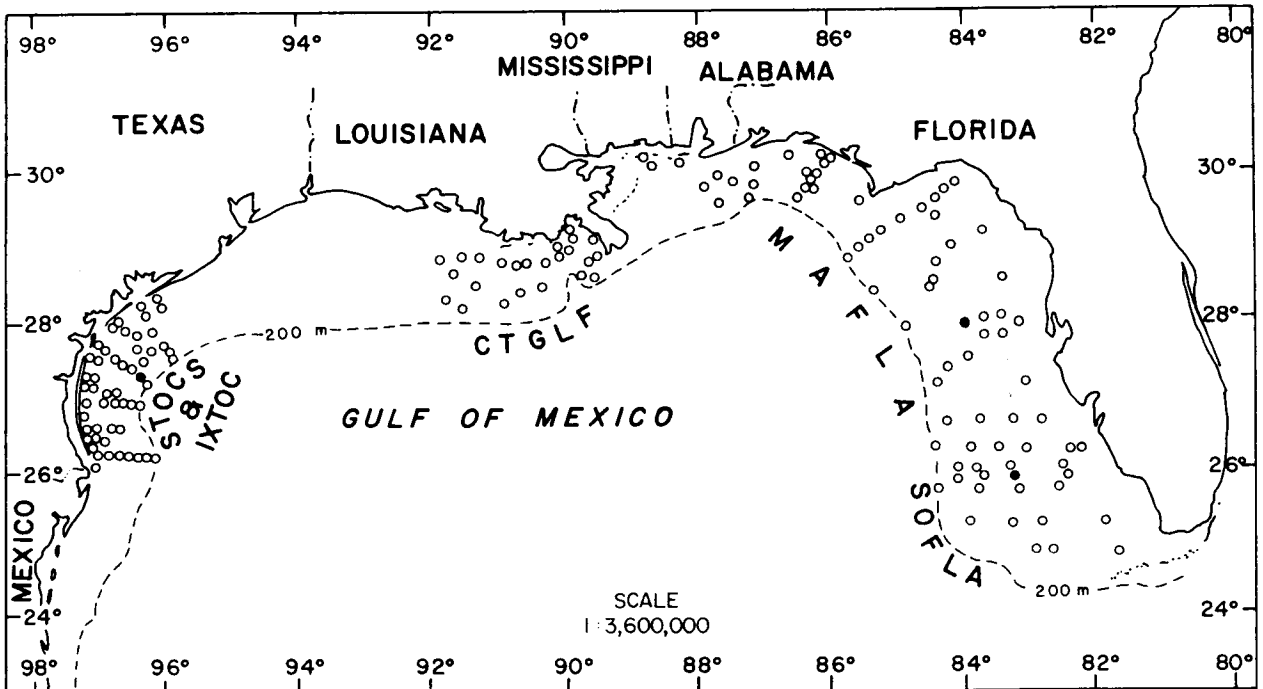


Figure 28-29. Distribution of *Amphiduros* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

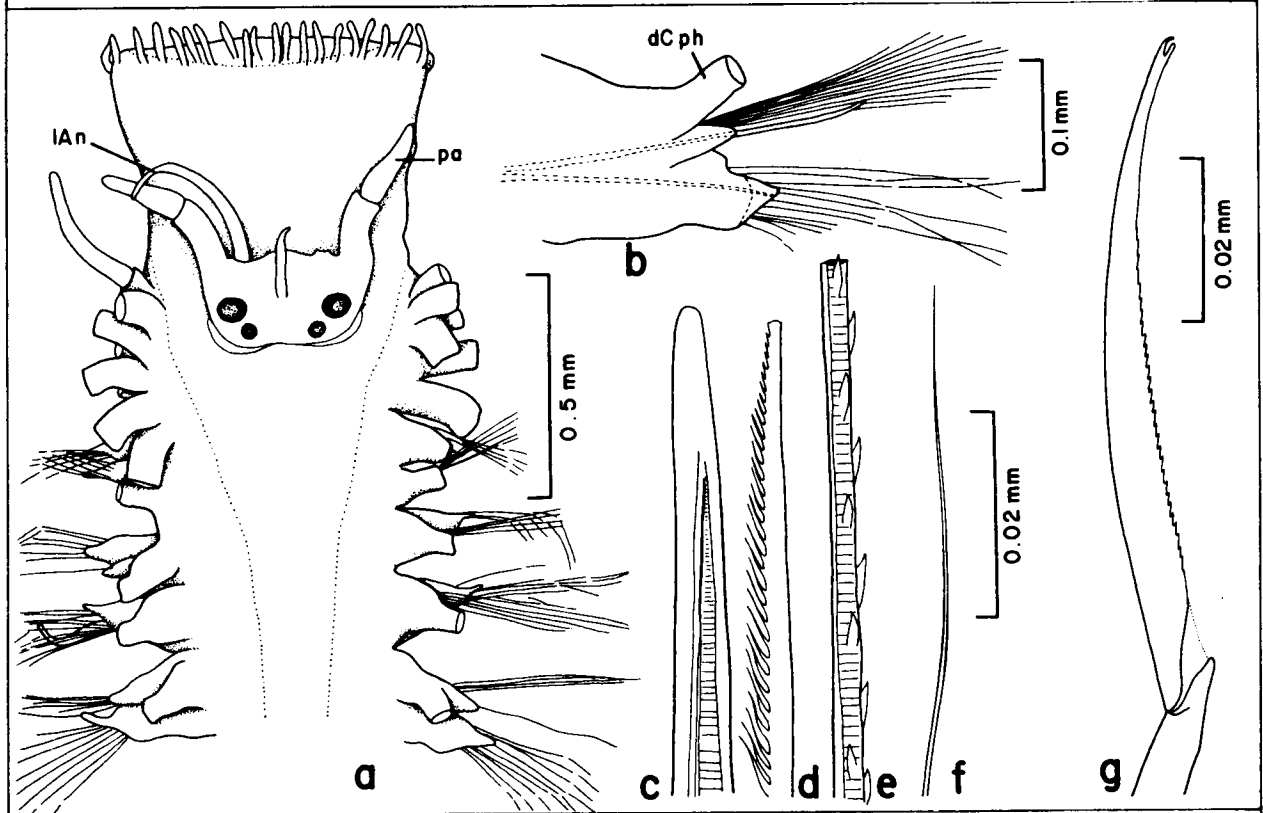


Figure 28-30. *Amphiduros* sp. A: a, anterior end; b, parapodium (anterodorsal view); c, acicular notoseta; d, tip of serrate notoseta; e, middle portion of spiked notoseta; f, capillary notoseta; g, neuroseta.

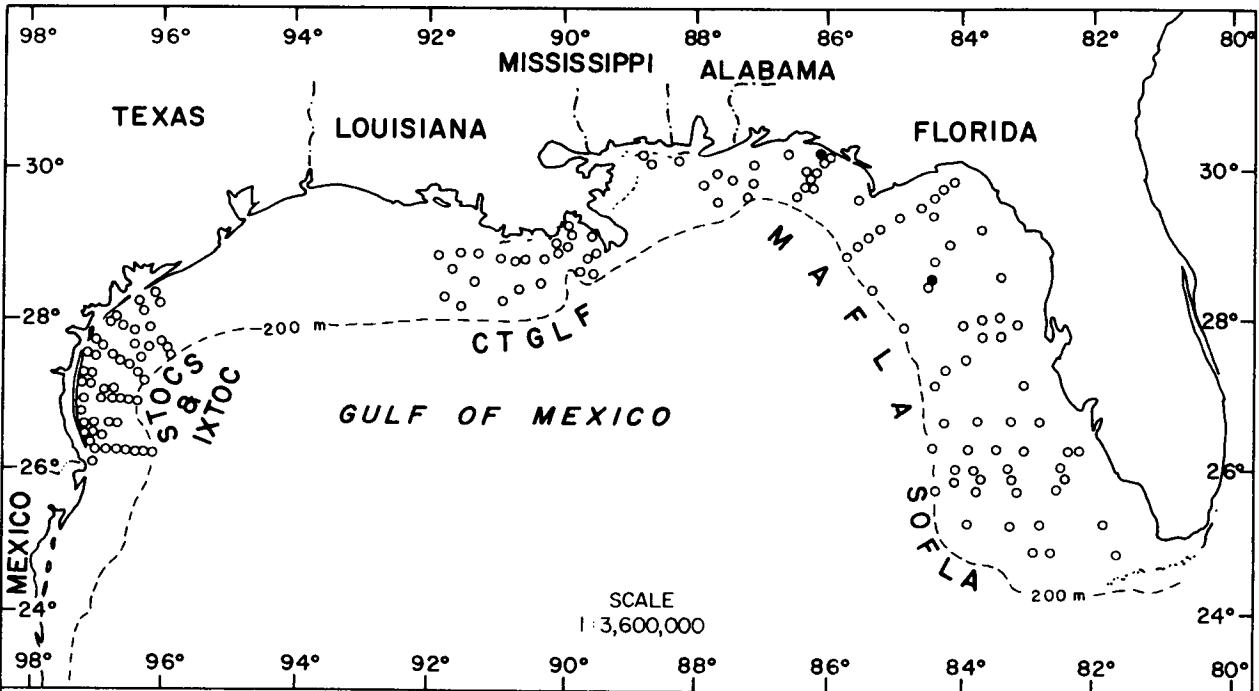


Figure 28-31. Distribution of *Amphiduros* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

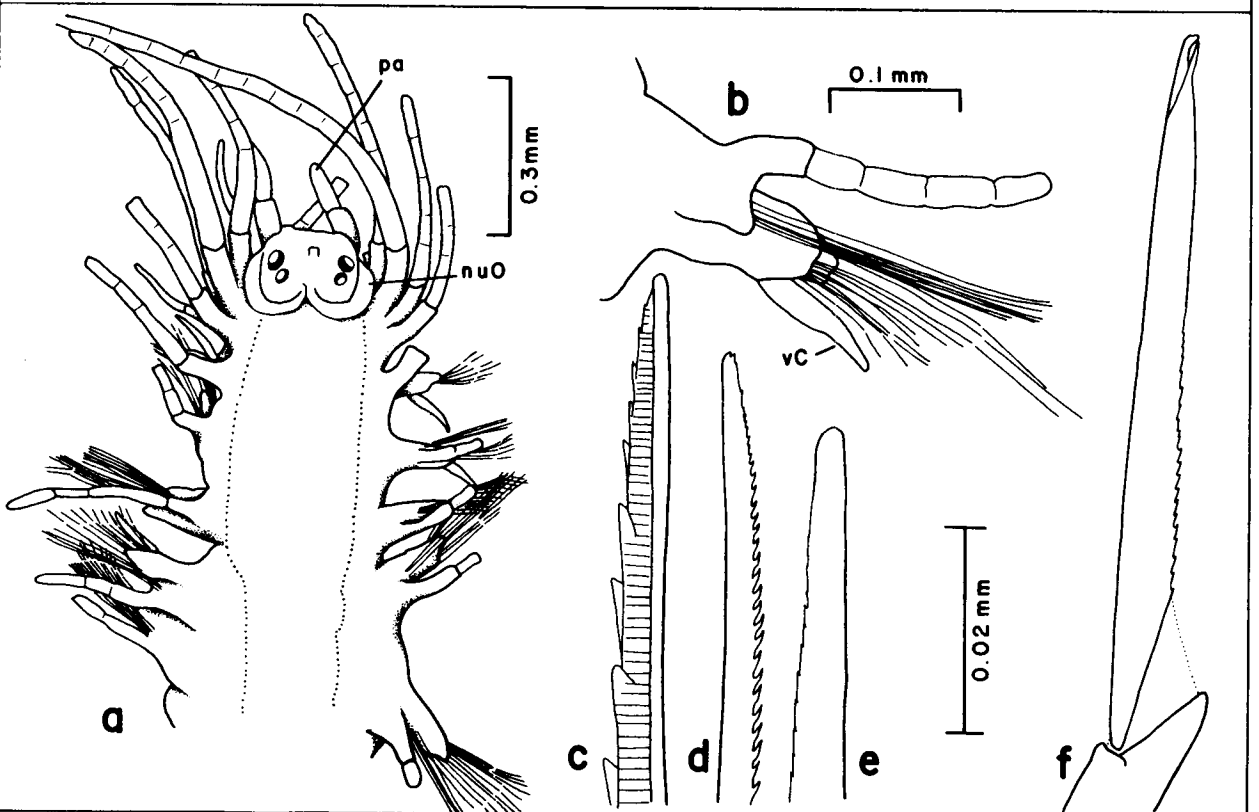


Figure 28-32. *Amphiduros* sp. B: a, anterior end; b, parapodium (anterodorsal view); c, spiked notoseta; d, serrate notoseta; e, acicular notoseta; f, neuroseta.

- 1b. Spiked notosetae with blunt tips (Figure 28-32c).
. *Amphiduros* sp. B, p. 28-34

***Amphiduros* sp. A**
Figures 28-29, 30a-g

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 16D-11/80 (1 spec., USNM 75315), 16C-4/81 (1 spec., USNM 75314);
MAFLA 2211E-7/76 (1 spec.); STOCS 6/II-5 W/76 (1 spec., USNM 75212).

DESCRIPTION:

Length, 2.0+ mm; width, to 1.3 mm. Body relatively stout; all specimens incomplete with up to eight setigers. Prostomium rectangular, with two pairs of large, lentigerous eyes, anterior pair larger and farther apart (Figure 28-30a). Antennae slender, cirriform, median antenna about half length of lateral antennae. Palps with fairly long bases and styles, similar in length to lateral antennae. Nuchal organs as long, curved ridges along postectal margins of prostomium. Most tentacular cirri missing, few remaining ones cirriform, smooth to indistinctly articulated with long joints. Parapodia biramous from setiger 2, with small notopodia below dorsal cirrophores, neuropodia stout with digitiform to triangular presetal lobes (Figure 28-30b). Dorsal cirri short, smooth, cirriform; ventral cirri fairly long, slender. Notoetae including single, stout acicular spines (Figure 28-30c); slender setae with long serrations and truncate tips (Figure 28-30d); cross-striated spiked setae (Figure 28-30e) tapering to long, fine tips; and extremely fine, smooth capillary setae (Figure 28-30f). Neuropodial falcigers with long extension of shaft-head entire; blades long, curved, faintly serrate, with minutely hooked tip and subapical spine (Figure 28-30g), blade-length ratio 3.8-6.1:1. Pharynx extending to setigers 2-5, margin surrounded by 30-40 slender fimbriae. One specimen with eggs present in parapodia.

REMARKS: *Amphiduros* sp. A is similar to *A. pacificus* Hartman, 1961, from California. It differs from the latter in lacking notopodia on setiger 1, and in having spinous and smooth, slender notosetae rather than furcate notosetae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Three widespread records off Texas and western Florida (Figure 28-29); intermediate depths, 43-98 m; coarse to fine sand, silty clay.

***Amphiduros* sp. B**
Figures 28-31, 32a-f

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2315A-2/78 (1 spec.), 2528I-9/77 (1 spec.).

DESCRIPTION:

Length, 1.8+ mm; width, to 0.8 mm. One specimen dark brown; both specimens incomplete with up to eight setigers. Prostomium rectangular, with two pairs of large, lentigerous eyes, anterior pair larger and farther apart (Figure 28-32a). Antennae missing, base of median antenna arising medially on prostomium. Palps with fairly long bases and styles. Nuchal organs as large, curved ridges along lateral and posterior margins

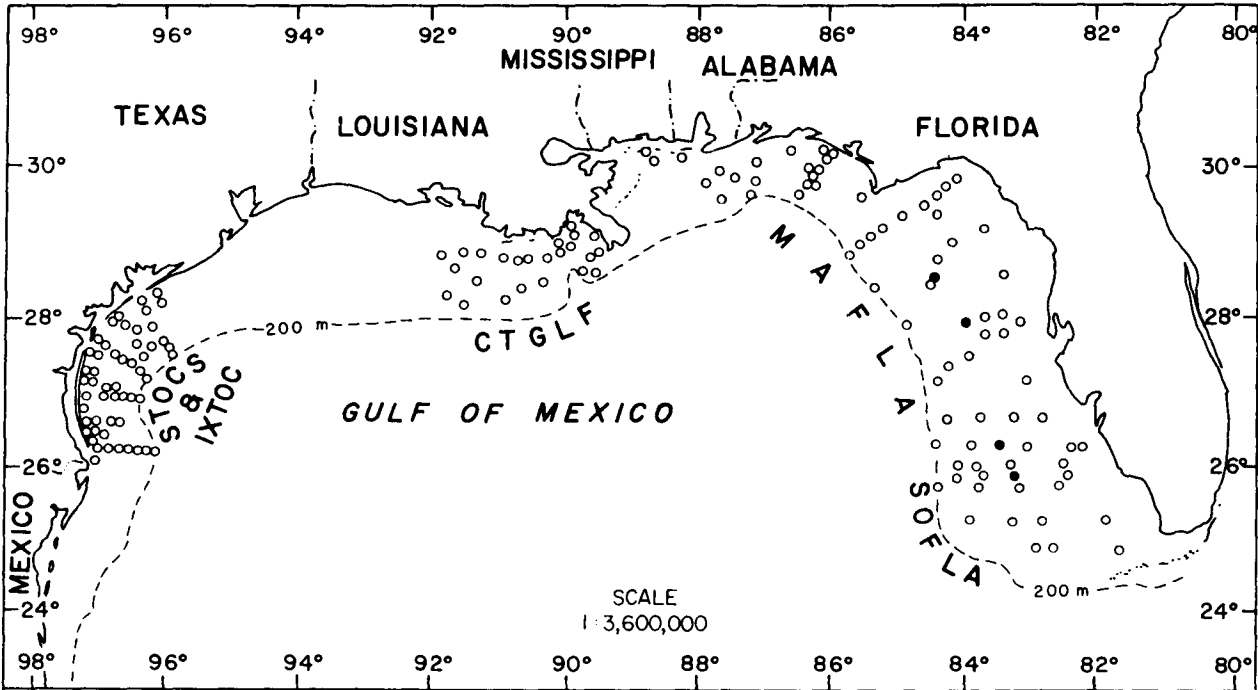


Figure 28-33. Distribution of *Hesione picta* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

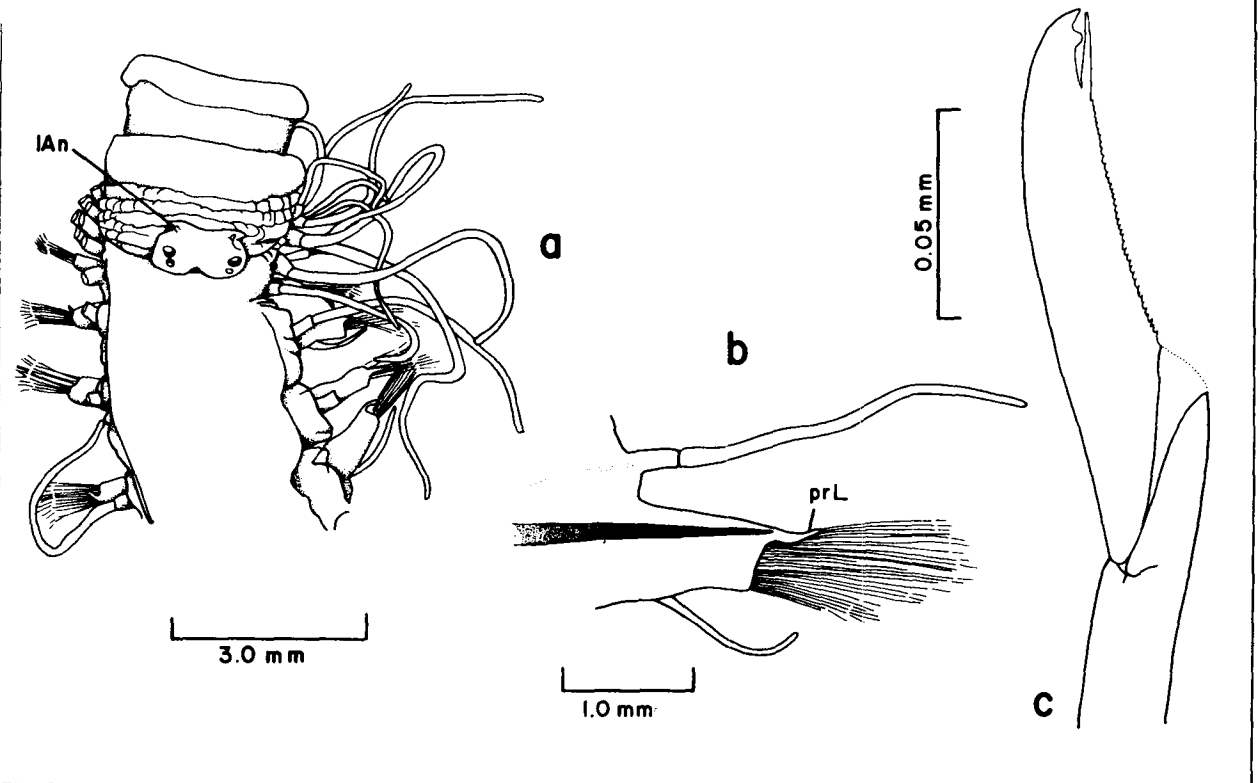


Figure 28-34. *Hesione picta*: a, anterior end; b, parapodium (anterior view); c, lower neuroseta.

of prostomium. Tentacular and dorsal cirri indistinctly articulated. Parapodia biramous from setiger 2, with small, triangular notopodial lobe below dorsal cirrophore (Figure 28-32b). Neuropodia with low, rounded presetal lobes and longer, triangular or truncate postsetal lobes. Ventral cirri tapered, extending well past tips of neuropodia. Notosetae including several stout, blunt-tipped, cross-striated, coarsely spiked setae (Figure 28-32c); few blunt-tipped serrate setae (Figure 28-32d); and single, stout acicular spines (Figure 28-32e). Neuropodial falcigers with long extension of shaft-head entire; blades faintly serrate, with minutely hooked tip and subapical spine (Figure 28-32f), blade-length ratio 3.3-3.6:1. Pharynx extending to setigers 4-5.

REMARKS: Amphiduros sp. B differs from Amphiduros sp. A in lacking the fine-tipped, spiked notosetae and slender, hair-like notosetae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two records off northwestern Florida (Figure 28-31); moderately shallow, 37-38 m; coarse sand, silty fine sand.

Genus Hesione Savigny, 1818

TYPE SPECIES: Hesione splendida Savigny, 1818.

REFERENCES:

Izuka, 1912:192.

Fauvel, 1923:233.

Fauchald, 1977a:76.

DIAGNOSIS: Prostomium with two small lateral antennae; palps and median antenna absent. Eight pairs of tentacular cirri. Parapodia subbiramous, notosetae absent. Pharynx with smooth margin, jaws absent. Body relatively large, robust, with relatively few segments.

Hesione ?picta F. Müller, 1858 Figures 28-33, 34a-c

Hesione picta F. Müller, 1858:213, pl. 6, fig. 3.

Hesione picta--Hartman, 1951a:35.

Hesione picta--Jones, 1962:180 [synonymy].

Hesione picta--Fauchald, 1977b:16.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 16F-11/80 (1 spec., USNM 75320); MAFLA 2104E-2/78 (1 spec.), 2211I-8/77 (1 spec.).

DESCRIPTION:

Length, to 14.5 mm (previously reported to 50 mm); width, to 2.0 mm. Body stout, with 16 setigers and one achaetous preanal segment; without color markings. Prostomium oval, with mid-posterior notch, two anterolateral prolongations, and two pairs of moderately large, lentigerous eyes (Figure 28-34a). Lateral antennae minute. Tentacular and dorsal cirri long, smooth, filiform. Parapodia subbiramous, notopodia reduced to two slender acicula supporting dorsal cirrophores, neuropodia well-developed, distally truncate, with slender presetal lobes (Figure 28-34b). Ventral cirri filiform, extending past tips of neuropodia. Neu-rosetae as numerous composite falcigers with long extension of shaft-head entire; blades minutely serrate, bidentate, with spine below

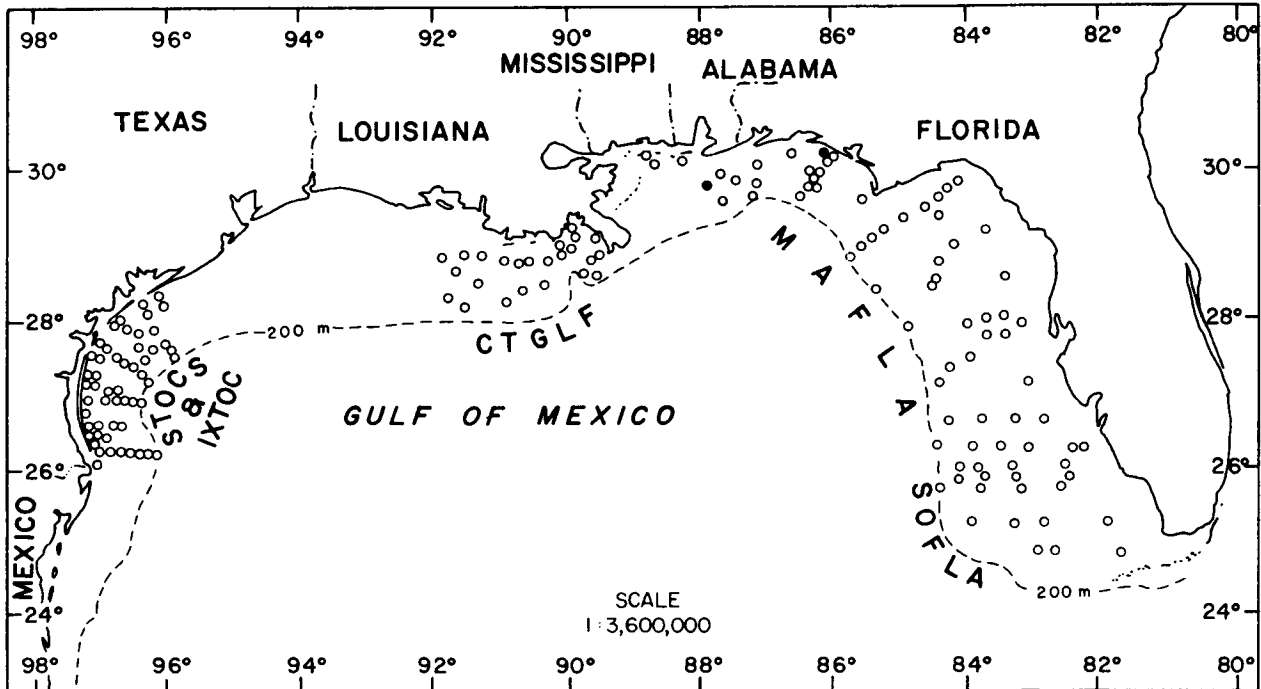


Figure 28-35. Distribution of *Kefersteinia cirrata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

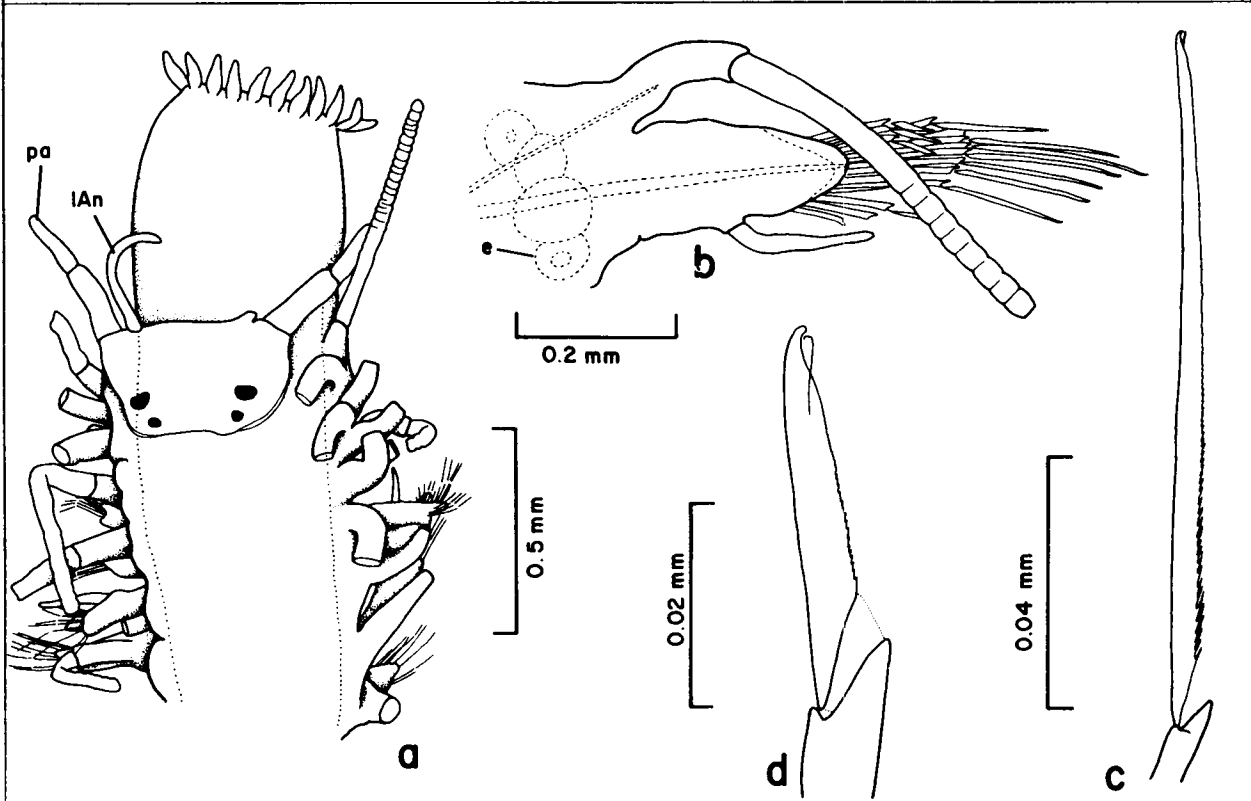


Figure 28-36. *Kefersteinia cirrata*: a, anterior end; b, parapodium (anterior view); c, long-bladed neuroseta; d, short-bladed neuroseta.

subapical tooth reaching nearly to tip of apical tooth (Figure 28-34c), blade-length ratio 1.7-2.3:1. Neuroacicula black. Pygidium with thick glandular ring and two long, smooth anal cirri. Pharynx everted, with ciliated margin. Facial tubercle not observed.

REMARKS: Hesione picta has been reported from the eastern Gulf of Mexico under various synonyms (see Perkins and Savage, 1975:28). The species is usually defined by its distinctive color markings. Since these preserved specimens lack pigmentation, they can only questionably be referred to H. picta.

PREVIOUSLY REPORTED HABITAT: Rocky habitats, coral reefs.

GULF OF MEXICO BLM-OCS OCCURRENCE: Four records off western Florida (Figure 28-33); 14-58 m; coarse to fine-very fine sand, silty fine sand.

DISTRIBUTION: Western Florida to Brazil in subtropical to tropical waters.

Genus *Kefersteinia* Quatrefages, 1865

TYPE SPECIES: *Psamathe cirrata* Keferstein, 1862.

REFERENCES:

Fauvel, 1923:238.

Day, 1967:228.

Hartmann-Schröder, 1971:131.

Fauchald, 1977a:76.

DIAGNOSIS: Prostomium with two antennae and biarticulate palps. Eight pairs of tentacular cirri. Parapodia subbiramous, notosetae absent. Pharynx with fimbriated margin, jaws absent.

Kefersteinia cirrata (Keferstein, 1862)

Figures 28-35, 36a-d

Kefersteinia cirrata--Fauvel, 1923:238, fig. 89a-e.

Kefersteinia cirrata--Day, 1967:228, fig. 11.2.d-f.

Kefersteinia cirrata--Hartmann-Schröder, 1971:131.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2528G-6/75 (1 spec.), 2528F-7/76 (1 spec., USNM 71781), 2528I-9/77 (3 spec.), 2640J-9/77 (1 spec.).

DESCRIPTION:

Length, 6.4+ mm (previously reported to 75 mm); width, to 1.2 mm. Body fairly small, slender; all specimens incomplete with up to 20 setigers. Prostomium quadrangular, with two pairs of lentigerous eyes on posterior half (Figure 28-36a). Lateral antennae slender, cirriform. Palps slightly longer than antennae, with long bases and shorter styles. Nuchal organs as slender ridges along postectal margins of prostomium. Tentacular and dorsal cirri long, distinctly articulated distally. Parapodia subbiramous, notopodia reduced to slender acicula supporting dorsal cirrophores, neuropodia well-developed with low, rounded pre- and postsetal lobes (Figure 28-36b). Ventral cirri slender, cirriform. Neuropodial falcigers with long extension of shaft-head entire; blades long (Figure 28-36c) to short (Figure 28-36d), serrate basally, with hooked tip and subapical sheath, blade-length ratio 3.7-6.3:1. Pharynx

extending to setigers 4-7, margin surrounded by about 20 slender papillae. One specimen with eggs in coelom.

REMARKS: K. cirrata is newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: Intertidal to 250 m; hard bottoms, empty serpulid tubes, Laminaria holdfasts, oyster beds, rocks, coarse sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off Alabama and northwestern Florida (Figure 28-35); moderately shallow, 35-37 m; coarse to medium sand.

DISTRIBUTION: North Atlantic from the North Sea to South Africa, Mediterranean, Gulf of Mexico, Indochina, Antarctic.

CHAPTER 29

Paul S. Wolf

FAMILY PILARGIDAE Saint Joseph, 1899

INTRODUCTION

Pilargids are elongate worms with numerous segments. The body may be dorsoventrally flattened, as in Sigambra, Ancistrostylis, Otopsis, and Pilargis, or cylindrical as in Litocorsa, Synelmis, Cabira, Parandalia, and Loandalia. Within the former group, species have a papillose or smooth integument. In the latter group, the integument is smooth or perhaps areolated, but never papillose.

The prostomium bears a pair of large biarticulate palps that are usually not fused anteriorly or ventrally. Each palp consists of a basal palpophore and distal palpostyle. The palpophores are fused basally to and located anteroventrally on the prostomium except in Litocorsa Pearson, 1970, where the palps are completely fused to the prostomium dorsally. The prostomium bears up to three antennae, ranging in size from minute, as in Litocorsa sp. A, to quite long and filiform as in Sigambra bassi (Hartman, 1945). In some species, particularly members of Ancistrostylis, the lateral antennae arise rather far forward above the palps.

The prostomium is fused to an achaetous tentacular segment which normally bears two pairs of tentacular cirri.

The parapodia usually have dorsal and ventral cirri equal in length, or the ventral cirri may be much shorter. The cirri range from small and knob-like, as in Cabira, to rather long and filiform, as in Sigambra and Pilargis. The parapodia are subbiramous, with the notopodium reduced to one or two internal acicula and sometimes a large emergent spine. When present, the spine is either strongly curved, as in Ancistrostylis and Sigambra, or straight, as in Litocorsa and Synelmis. The neuropodium is supported by a single aciculum and bears simple neurosetae. Furcate setae and spines occur among the neurosetae of some species of Litocorsa and Synelmis.

The pygidium normally bears a terminal anus and a pair of anal cirri, but may form a plaque as in Parandalia americana Hartman, 1947b.

The proboscis is eversible, sac-like, and smooth or papillose, sometimes with rows of chitinized papillae.

The Pilargidae have undergone several revisions since the familial characters were well-defined by Hartman (1947b). Pettibone (1966), Pearson (1970), and Emerson and Fauchald (1971) presented comprehensive keys to the genera based on new material and redefinitions of previous treatments. Britaev and Saphronova (1981) treated the genera Sigambra and Cabira, and revised the latter. Fauchald (1977a:77) listed ten valid genera for the family, including about 48 species. Seven genera are found in Gulf of Mexico BLM-OCS material, comprising 20 species, of which eight are probably new to science and two are questionable assignments.

PRINCIPAL DIAGNOSTIC CHARACTERS

Pilargid genera are differentiated primarily by the presence and shape of the emergent notopodial spines or hooks; the presence and relative lengths of the head appendages; the development of the parapodia; and to a lesser degree, the body shape.

All genera, except Otopsis Ditlevsen, 1917, Pilargis Saint Joseph, 1899, and Loandalia Monro, 1936, possess emergent notopodial spines. They are strongly hooked in Sigambra F. Müller, 1858, and Ancistrostylis McIntosh, 1879, and straight in Synelmis Chamberlin, 1919b, Litocorsa, Cabira Webster, 1879, and Parandalia Emerson and Fauchald, 1971. Within genera that possess emergent notopodial spines, their placement is of specific importance, particularly in Sigambra and Ancistrostylis. Variation, however, can be considerable and should be taken into account.

Most genera possess at least two antennae and two pairs of tentacular cirri as well as a pair of palpostyles. Parandalia and Loandalia lack antennae and tentacular cirri; Litocorsa stremma Pearson, 1970, lacks antennae and palpostyles. The relative lengths of antennae and palps, the number of antennae, and the presence of tentacular cirri separate genera. All but the latter character are also important at the species level.

The parapodia may be sharply set off from the body, as in Ancistrostylis and Sigambra, or may be poorly differentiated, as in Cabira. The shape and development of the dorsal and ventral cirri are useful specific characters.

Body shape, i.e., cylindrical or dorsoventrally flattened, is generally a consistent generic character. Some exceptions and uncertainties do exist, however, so this character should be used cautiously.

Pilargid neurosetae are simple, smooth to serrate, and grade in length from long to short, terminating in fine, entire to bifid tips. They are seldom useful as specific characters, although certain specialized neurosetae such as emergent spines and furcate setae may be important.

Some pilargids, particularly members of Ancistrostylis and Pilargis, have papillose integuments. The papillae are generally more numerous on the dorsum, the head appendages and the cirri. The degree of papillation may be of value as a specific character, although in some cases it is considered quite variable intraspecifically. Among the material examined herein, it seems to be consistent and is considered as such, although more material should be examined to support its use as a diagnostic character.

Pearson (1970) mentioned a curious dorsal organ in Litocorsa stremma. It is located anteriorly within the body cavity, just beneath the dorsal integument, extending anteriorly into the palps and posteriorly through about setiger 2 where it ends in two lobes, the tips of which are pigmented. The entire organ is somewhat glandular and the function is unknown. This organ has been observed by the author to occur in other genera, and is well-developed in Litocorsa, Synelmis, and Parandalia, where it extends posteriorly through 2-4 setigers. It is less developed in most species of Sigambra and Ancistrostylis, usually not extending beyond the tentacular segment. Although the scope of this chapter prohibits detailed systematic consideration of this organ, it is figured when conspicuous. Certainly a detailed study of this organ would be quite useful physiologically as well as systematically.

BIOLOGICAL NOTES

Pilargids were considered by Day (1967:214) to be carnivores or omnivores. Litocorsa stremma may be an active predator. As Fauchald and Jumars (1979:237) pointed out, no empirical evidence of pilargid food habits exists; therefore, statements regarding these strategies are based only on anatomical observations.

Most members of the family creep on the surface of the substratum and do not form tubes (Day, 1967:214). Day suggested that the reduction of head appendages and parapodia in Loandalia may indicate a burrowing habit. This is probably also the case for Synelmis and Litocorsa. Indeed, the latter, with its fused palps and thin, sleek body may be well-adapted for burrowing. Ancistrostylis commensalis Gardiner, 1976, has been reported as a commensal in the burrow of the capitellid polychaete Notomastus lobatus.

So far as is known, sexes are separate, and planktonic larvae have been found (Pettibone, 1982:10).

SPECIES OF PILARGIDAE RECORDED FROM
GULF OF MEXICO BLM-OCS PROGRAMS

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Key to the Genera of Pilargidae from
the Gulf of Mexico BLM-OCS Programs

- 1a. Middle and posterior notopodia with large, curved hooks (Figures 29-6c, 8c). 2
- 1b. Notopodia without curved hooks. 4

- 2a. Parapodia well-developed, sharply set off from body (Figure 29-4a,c,g) 3

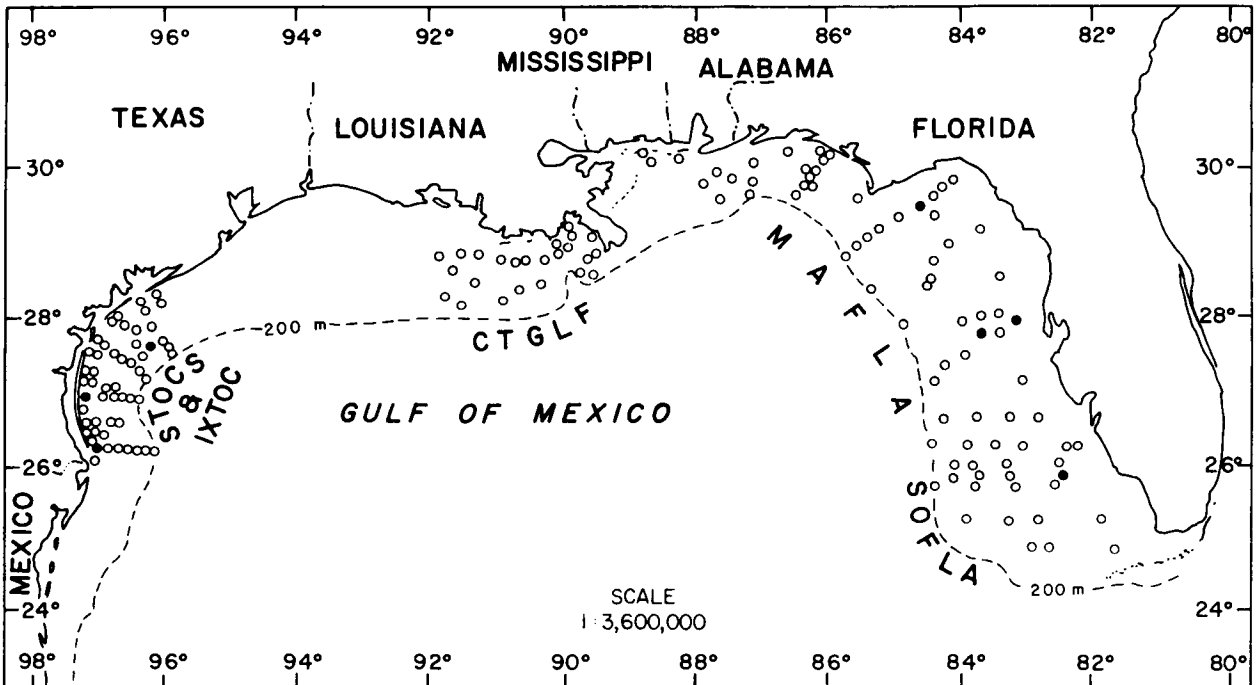


Figure 29-1. Distribution of *Cabira incerta* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

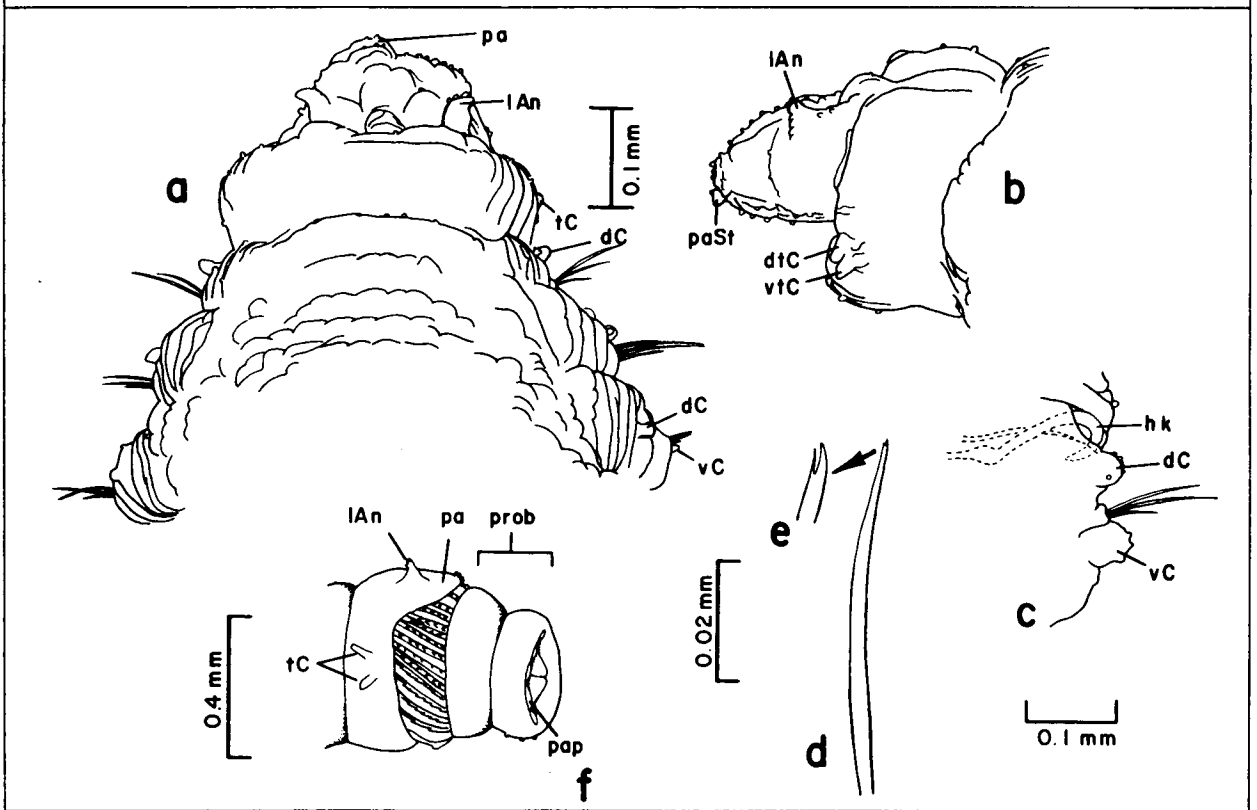


Figure 29-2. *Cabira incerta*: a, anterior end, dorsal view; b, same, lateral view; c, middle parapodium, posterior view; d, neuroseta; e, tip of same (not to scale); f, anterior end, lateral view, proboscis everted (Figure f from Pettibone 1966, fig. 11c).

- 2b. Parapodia poorly developed, not sharply set off from body (Figure 29-2a). Cabira, p. 29-5
- 3a. Three antennae present, usually longer than palps (Figure 29-6a); integument smooth, areolated or wrinkled, not papillose (Figures 29-4a, 6a). Sigambra, p. 29-6
- 3b. Two or three antennae present, usually shorter than palps (Figure 29-22a); integument papillose (Figure 29-22a) Ancistrostylis, p. 29-12
- 4a. Notopodia with stout emergent spines. 5
- 4b. Notopodia without emergent spines (Figure 29-26b). Pilargis, p. 29-26
- 5a. Tentacular cirri absent Parandalia, p. 29-28
- 5b. Tentacular cirri present (Figures 29-30b, 32b). 5
- 6a. Palps not fused dorsally (Figure 29-32a); antennae and palpostyles present (Figure 29-32b). Synelmis, p. 29-30
- 6b. Palps fused dorsally (Figure 29-40a); antennae and palpostyles minute (Figure 29-40a,c) or absent. Litocorsa, p. 29-39

Genus *Cabira* Webster, 1879

TYPE SPECIES: *Cabira incerta* Webster, 1879.

REFERENCE:

Pettibone, 1966:177.

DIAGNOSIS: Palps not fused; palpostyles small. Lateral antennae small if present; median antenna absent. Two pairs of small tentacular cirri present. Acicular notosetae hooked. Neurosetae smooth, tapering to fine or slightly curved, entire or minutely bifid tips. Parapodia poorly developed, not sharply set off from body. Integument smooth to papillose. Pygidium bilobed, without anal cirri.

Cabira incerta Webster, 1879

Figures 29-1, 2a-f

Cabira incerta Webster, 1879:267, pl. 11, figs. 155-157.

Cabira incerta--Pettibone, 1966:178, figs. 11a-c, 12a-e.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 14B-8/81 (1 spec., USNM 86936); MAFLA 2207I-8/77 (1 spec., USNM 86935), 2209H-6/76 (1 spec.), 2422D-6/76 (1 spec.); STOCS 4/III-3 F/76 (3 spec., USNM 86939), HR1-3 F/76 (1 spec., USNM 86940); IXTOC IV-2(?) -2 11/79 (1 spec., USNM 86937), S53-6 11/79 (1 spec., USNM 86938).

Supplementary Material:

Virginia--Chesapeake Bay, 37°32'N, 76°07'W, July 1961, 12 m, M. Pettibone ID. (USNM 30985, 2 paraneotypes).

DESCRIPTION:

Length, 13+ mm (previously reported to 18 mm); width, to 0.80 mm (previously reported to 1.5 mm). Largest specimen incomplete with 37 setigers. Prostomium (Figure 29-2a) with small, stout lateral antennae;

median antenna absent. Palps with small palpostyles (Figure 29-2b), not visible dorsally. Dorsal and ventral tentacular cirri small, equal in length. Dorsal cirri small, papilliform, similar in length throughout (Figure 29-2a,c). Ventral cirri present from setiger 3, equal in length to dorsal cirri. Parapodia poorly differentiated from body (Figure 29-2c). Body smooth except for few papillae on prostomium, parapodia and dorsal and ventral cirri (Figure 29-2a-c). Hooked acicular notosetae beginning on setigers 7-9, accompanied by internal aciculum (Figure 29-2c). Neurosetae with entire to minutely bifid tips (Figure 29-2d,e), numbering 2-4 per parapodium. Proboscis (Figure 29-2f) with longitudinal series of chitinized spines.

REMARKS: The above description of *C. incerta* differs from that given by Pettibone (1966:178) in that the hooks begin on setigers 7-9 instead of only 7. Also, the Gulf of Mexico specimens possess neurosetae with minutely bifid tips, whereas they are unidentate on the Chesapeake Bay specimens.

PREVIOUSLY REPORTED HABITAT: 12 m; compacted sandstone, mud.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Texas (Figure 29-1); 15-75 m; medium-fine to fine-very fine sand, silty sand, clayey sandy silt, sandy silty clay.

DISTRIBUTION: Virginia, Gulf of Mexico.

Genus *Sigambra* F. Müller, 1858

TYPE SPECIES: *Sigambra grubii* F. Müller, 1858.

REFERENCE:

Pettibone, 1966:179.

DIAGNOSIS: Palps not fused; palpostyles present. Three antennae present, usually longer than palps. Two pairs of tentacular cirri present. Acicular notosetae hooked. Neurosetae serrate, usually with minutely bifid tips. Pygidium usually with a pair of long anal cirri. Integument smooth, areolated or wrinkled, not papillose.

Key to the Gulf of Mexico BLM-OCS Species of *Sigambra*

- 1a. Median antenna longer than lateral ones, extending well beyond palps (Figure 29-6a); integument smooth anteriorly, not wrinkled or areolated (Figure 29-6a). 2
- 1b. Median antenna equal in length to lateral ones, not extending beyond palps (Figure 29-4a); integument areolated and wrinkled anteriorly (Figure 29-4a). *Sigambra wassi*, p. 29-8
- 2a. Notopodial hooks beginning on setigers 4-6; median antenna extending posteriorly to about setiger 6 (Figure 29-6a).
. *Sigambra tentaculata*, p. 29-8
- 2b. Notopodial hooks beginning on setigers 10-15; median antenna (Figure 29-8a) extending posteriorly to about setiger 12
. *Sigambra bassi*, p. 29-10

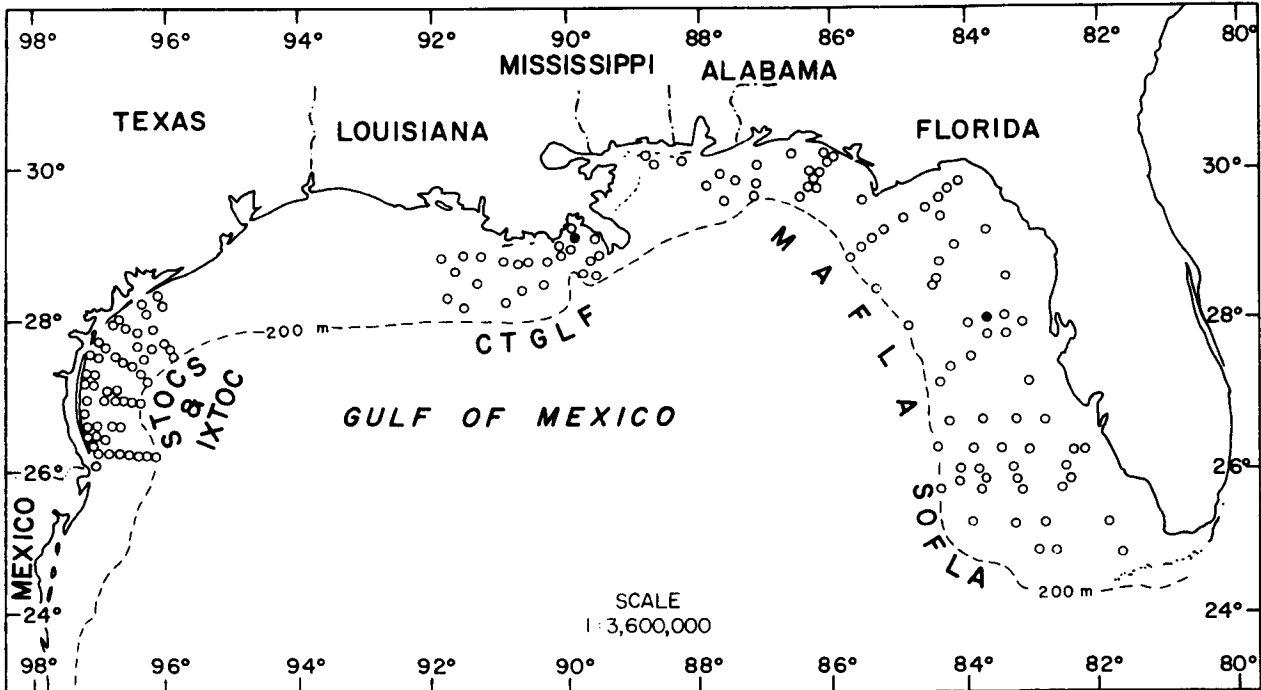


Figure 29-3. Distribution of *Sigambra wassi* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

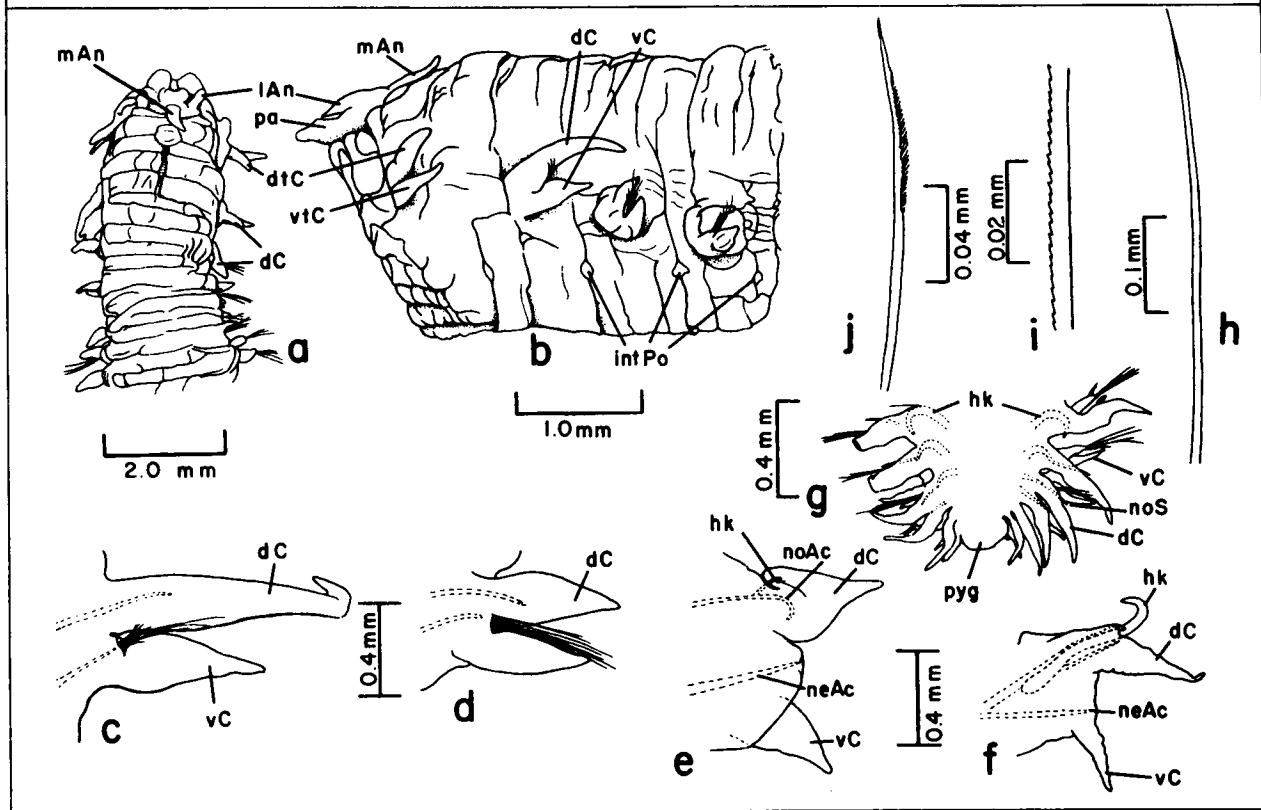


Figure 29-4. *Sigambra wassi*: a, anterior end, dorsal view; b, same, lateral view; c, first parapodium, anterior view; d, second parapodium, anterior view; e, middle parapodium, anterior view; f, posterior parapodium, anterior view; g, posterior end, dorsal view; h, upper neuroseta; i, middle portion of same; j, short neuroseta.

Sigambra wassi Pettibone, 1966
Figures 29-3, 4a-j

Sigambra wassi Pettibone, 1966:186, figs. 17a-f, 18a-e.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2210H-6/76 (1 spec.), 2210J-6/76 (1 spec., USNM 86981); CTGLF 01-5/78 (1 spec., USNM 86982).

Supplementary Material:

Virginia--Chesapeake Bay, 37°37'N, 76°11'W, 13 m, June 1961 (USNM 30987, 1 paratype).

DESCRIPTION:

Length, to 86 mm (previously reported to 70 mm); width, to 3.5 mm (previously reported to 5 mm). Largest specimen complete but fragmented, with over 200 setigers. Prostomium (Figure 29-4a) with three small, digitiform antennae; median antenna slightly longer than lateral ones. Palps with minute palpostyles. Dorsal and ventral tentacular cirri small, digitiform, equal in length (Figure 29-4a,b). Dorsal cirri of setiger 1 about twice as long as following ones (Figure 29-4b,c); slightly enlarged basally on setigers 2-5 (Figure 29-4d); foliaceous on middle setigers (Figure 29-4e); and elongate, conical on far posterior setigers (Figure 29-4f,g). Ventral cirri conical, present throughout. Body with wrinkled and areolated integument anteriorly (Figure 29-4a,b), becoming smooth posteriorly. Lateral intersegmental pores (Figure 29-4b) distinct anteriorly, becoming smaller and obscured in intersegmental folds medially, absent posteriorly. Hooked acicular notosetae present from about setigers 23-35, small initially (Figure 29-4e), becoming larger posteriorly (Figure 29-4f). Notopodia with 1-2 internal acicula and one emergent simple seta posteriorly. Neurosetae serrate, tapering to fine tips (Figure 29-4h,i). Shorter neurosetae, located anteriorly within the neuropodial fascicle, with more distinct serrations (Figure 29-4j). Pygidium (Figure 29-4g) rounded, smooth, anal cirri absent.

REMARKS: The Gulf of Mexico BLM-OCS specimens fit quite well the description of Sigambra wassi by Pettibone (1966:186). The intersegmental pores were not mentioned in the original description, but they were found on the one paratype examined (USNM 30987).

PREVIOUSLY REPORTED HABITAT: 11-13 m; sand, mud.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Louisiana (Figure 29-3); 16-37 m; silty very fine sand, sandy clayey silt.

DISTRIBUTION: Virginia, Gulf of Mexico.

Sigambra tentaculata (Treadwell, 1941)
Figures 29-5, 6a-h

Ancistrosyllis tentaculata Treadwell, 1941a:1, figs. 1-3.

Sigambra tentaculata--Pettibone, 1966:182, figs. 14a-f, 15a-e.

Sigambra tentaculata--Gardiner, 1976:121, fig. 9c.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 8-11/80 (5 spec., USNM 86975); MAFLA 16I-5/74 (1 spec.), 2208G-8/77 (6 spec.), 2209B-6/76 (1 spec., USNM 86972), 2209C-8/77 (1 spec.), 2210B-6/76 (12 spec., USNM 86973), 2210C-6/76 (9 spec.), 2316H-6/76 (1

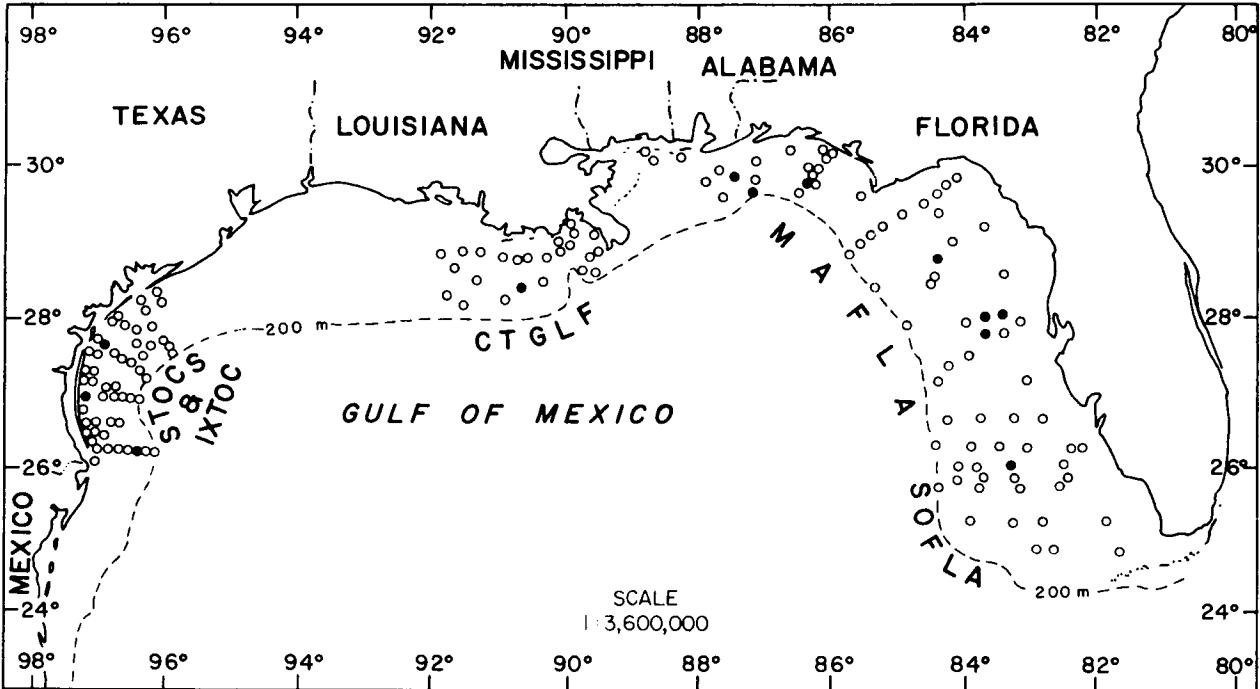


Figure 29-5. Distribution of *Sigambra tentaculata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

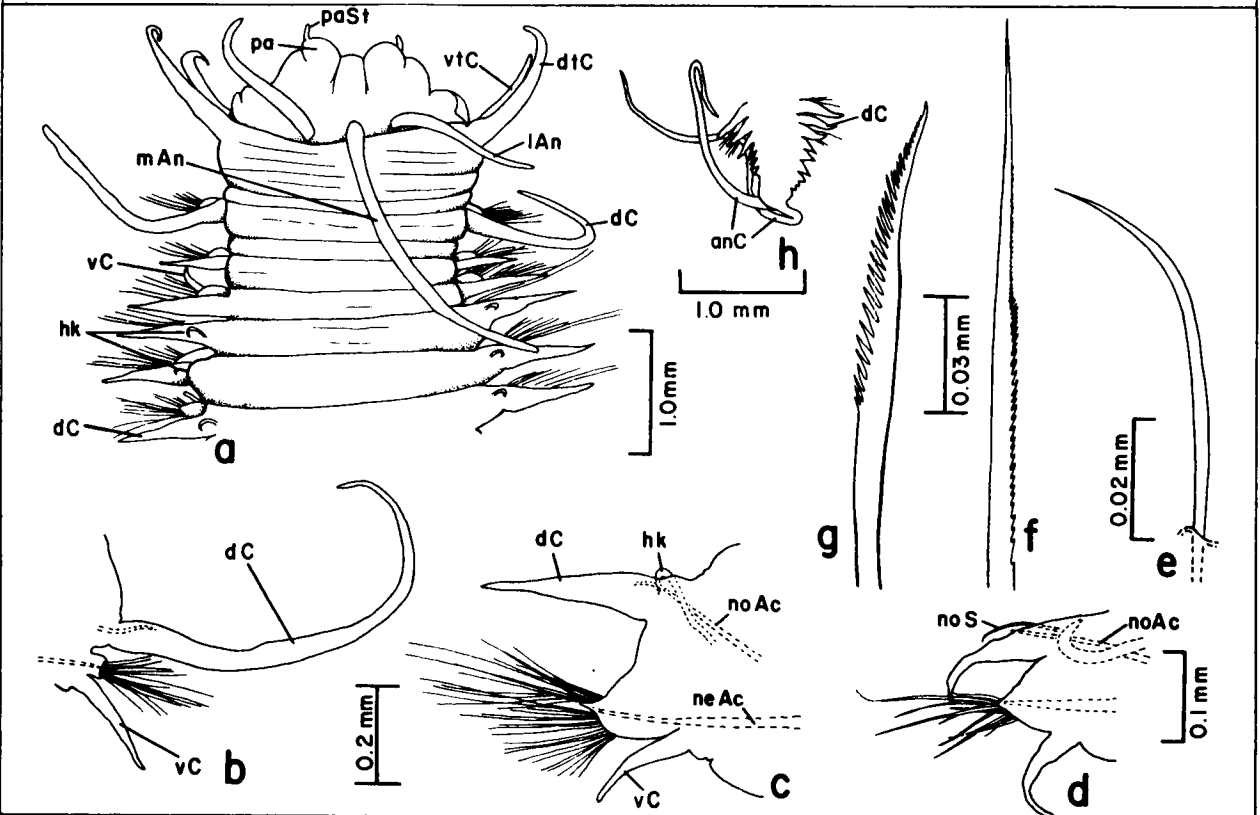


Figure 29-6. *Sigambra tentaculata*: a, anterior end, dorsal view; b, first parapodium, anterior view; c, middle parapodium, posterior view; d, posterior parapodium, posterior view; e, notoseta from same; f, upper neuroseta; g, short neuroseta; h, posterior end, dorsal view.

spec., USNM 86974), 2316I-7/76 (1 spec.), 2535C-6/75 (1 spec.), 2645G-2/78 (1 spec.); CTGLF 04-6/78 (1 spec., USNM 86980); STOCS 1/II-2 2/76 (1 spec., USNM 86977), 1/II-3 2/76 (1 spec., USNM 86978), 6/IV-3 Sp/76 (1 spec., USNM 86979); IXTOC S50-4 11/79 (4 spec., USNM 86976).

Supplementary Material:

New York--Crab Meadow State Park, Long Island (AMNH 2893, holotype).

DESCRIPTION:

Length, 12+ mm (previously reported to 15 mm); width, to 2.0 mm. Largest specimen incomplete with 65 setigers. Prostomium (Figure 29-6a) with long, smooth, filiform antennae, median antenna extending back to about setiger 6. Palps with small, digitiform palpostyles. Dorsal and ventral tentacular cirri equal in length. Dorsal cirri of setiger 1 extremely long, filiform (Figure 29-6a,b); subsequent ones broad basally, tapering to pointed tips (Figure 29-6a,c,d). Ventral cirri absent from setiger 2. Body with smooth integument, sometimes with distinct annulations dorsally on tentacular and first few setigerous segments (Figure 29-6a). Hooked acicular notosetae beginning on setigers 4-6 (Figure 29-6a), accompanied by internal notoaciculum (Figure 29-6c), and occasionally an emergent tapering seta (Figure 29-6d,e). Neurosetae tapering to fine tips, serrate along one margin (Figure 29-6f); shorter neurosetae located anteriorly within neuropodial fascicle, with more distinct serrations (Figure 29-6g). Pygidium (Figure 29-6h) with pair of long, filiform anal cirri.

REMARKS: Specimens from Gulf of Mexico BLM-OCS material fit quite well the description of Sigambra tentaculata given by Pettibone (1966:182), although on smaller specimens the hooked notosetae begin on setiger 5 or 6 rather than 4. The emergent capillary notosetae have not been mentioned for S. tentaculata, but since they have occasionally been found on specimens of S. bassi (Hartman, 1945), their presence is not considered of specific importance.

PREVIOUSLY REPORTED HABITAT: Intertidal to 5121 m; mud, sand, sand mixed with mud and shell fragments.

GULF OF MEXICO BLM-OCS OCCURRENCE: Scattered throughout northern Gulf (Figure 29-5); 15-117 m; coarse to fine sand, silty fine to very fine sand, clayey sand, clayey and sandy silt, sandy silty clay.

DISTRIBUTION: Black Sea, Red Sea, South Africa, northeastern South America, Gulf of Mexico, New England to Florida, North Pacific, southern California.

Sigambra bassi (Hartman, 1945)
Figures 29-7, 8a-e

Ancistrosyllis bassi Hartman, 1945:15; 1947b:501, pl. 61, figs. 1-7; 1951a:36, pl. 11, figs. 1-6.

Sigambra bassi--Pettibone, 1966:186, fig. 16a-f.

Sigambra bassi--Gardiner, 1976:123, fig. 9d-f.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2C-11/80 (4 spec., USNM 86966); MAFLA 2207D-8/77 (1 spec., USNM 86964), 2207I-8/77 (1 spec.), 2209J-6/76 (1 spec.), 2318J-7/76 (1 spec.), 2419C-8/77 (1 spec., USNM 86965), 2424C-7/76 (1 spec.), 2424G-7/76 (1 spec.); STOCS 1/II-12 W/76 (1 spec., USNM 86969), 4/II-5 W/76 (1

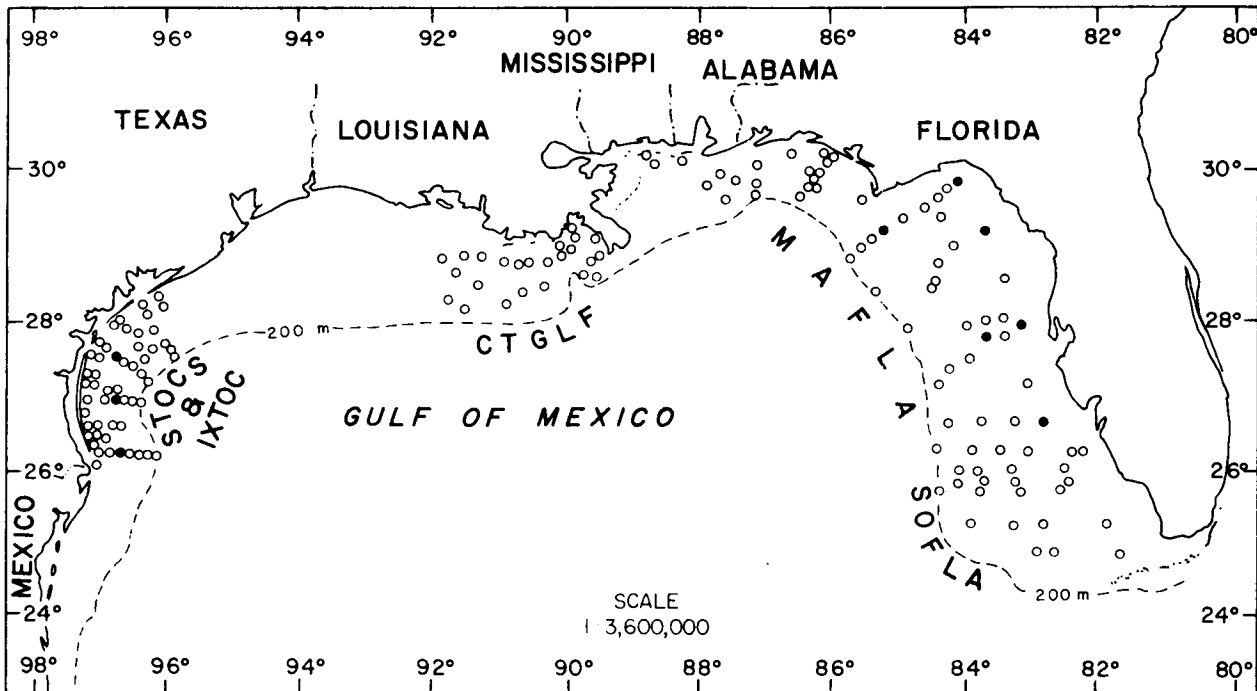


Figure 29-7. Distribution of *Sigambra bassi* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

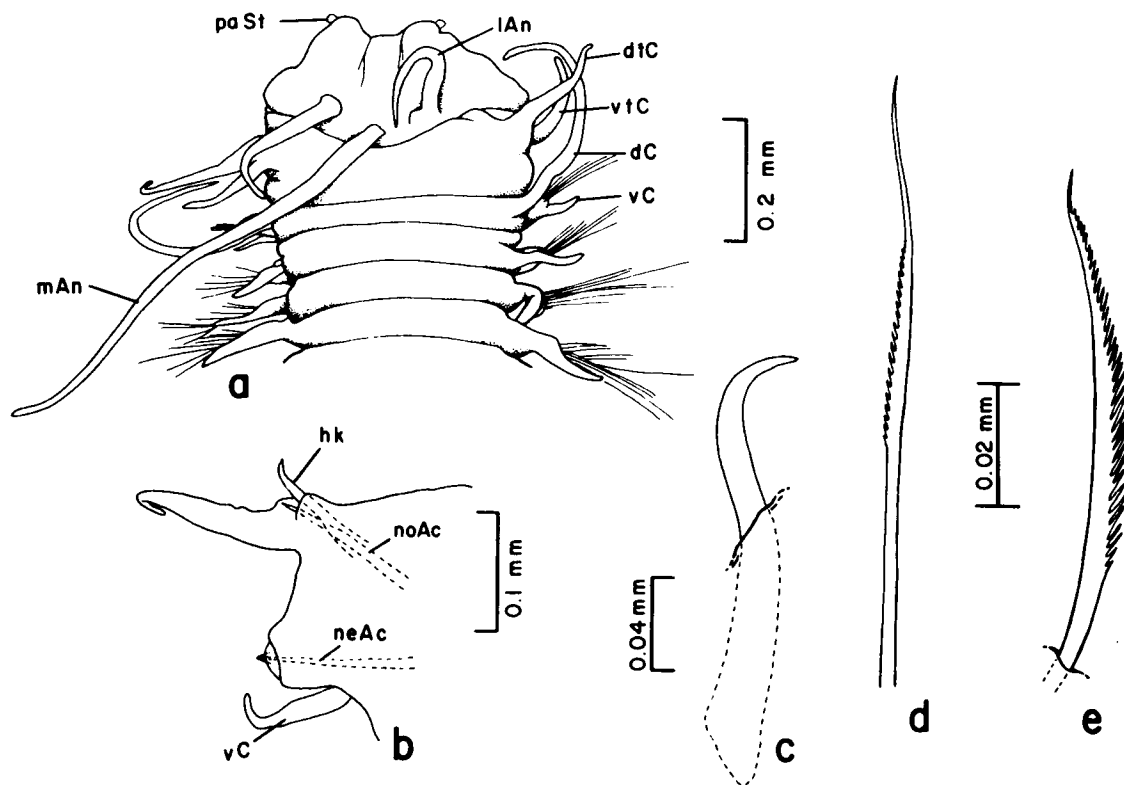


Figure 29-8. *Sigambra bassi*: a, anterior end, dorsal view; b, middle parapodium, anterior view (neurosetae omitted); c, hooked acicular notoseta; d, neuroseta; e, short neuroseta (Figure d from Hartman 1947, pl. 61, fig. 8).

spec., USNM 86970), 4/II-6 7/76 (1 spec., USNM 86971); IXTOC S51-3 12/79 (1 spec., USNM 86967), S54-5 11/79 (1 spec., USNM 86968).

DESCRIPTION:

Length, 19.0+ mm (previously reported to 40 mm); width, to 0.68 mm (previously reported to 2.0 mm). Largest specimen incomplete with about 85 setigers. Prostomium (Figure 29-8a) with long, smooth, filiform antennae; median antenna extending back to about setiger 12. Palps with small button-like palpostyles. Dorsal and ventral tentacular cirri about equal in length. Dorsal cirri of setiger 1 extremely long, filiform (Figure 29-8a); subsequent ones shorter, tapering to pointed tips (Figure 29-8a,b). Ventral cirri absent on setiger 2. Body with smooth integument. Hooked acicular notosetae (Figure 29-8c) beginning on setigers 10-15, accompanied by internal aciculum (Figure 29-8b) and occasionally an emergent simple seta. Neurosetae tapering to fine tips, serrate along one margin (Figure 29-8d); shorter neurosetae located anteriorly within the neuropodial fascicle, with more distinct serrations (Figure 29-8e). Pygidium with pair of long, filiform anal cirri.

REMARKS: Specimens from Gulf of Mexico BLM-OCS material fit quite well the descriptions of Sigambra bassi by Hartman (1947b:501) and Pettibone (1966:186). The only variation noted is that the hooked notosetae may begin as early as setiger 10.

PREVIOUSLY REPORTED HABITAT: Intertidal to 55 m; sand, sand mixed with mud and shell fragments.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Texas (Figure 29-7); 10-40 m; medium to fine-very fine sand, clayey sandy silt, sandy and silty clay.

DISTRIBUTION: North Carolina to Florida, Gulf of Mexico, southern California.

Genus Ancistrostylis McIntosh, 1879

TYPE SPECIES: Ancistrostylis groenlandica McIntosh, 1879.

REFERENCE:

Pettibone, 1966:164.

DIAGNOSIS: Palps not fused; palpostyles present. Two or three antennae present, each shorter than palps. One or two pairs of tentacular cirri. Acicular notosetae hooked. Neurosetae serrate, with minutely bifid tips. Pygidium papillose, with pair of anal cirri. Integument sparsely to heavily papillose.

Key to the Gulf of Mexico BLM-OCS Species of Ancistrostylis

- 1a. Ventral cirri present from setiger 1 (Figure 29-12a) 2
- 1b. Ventral cirri present from a more posterior setiger 3

- 2a. Notopodial hooks present from setiger 3
 Ancistrostylis sp. A, p. 29-14
- 2b. Notopodial hooks present from setiger 6
 Ancistrostylis sp. B, p. 29-17

- 3a. Ventral cirri present from setiger 2; median antenna absent.
 Ancistrostylis carolinensis, p. 29-17

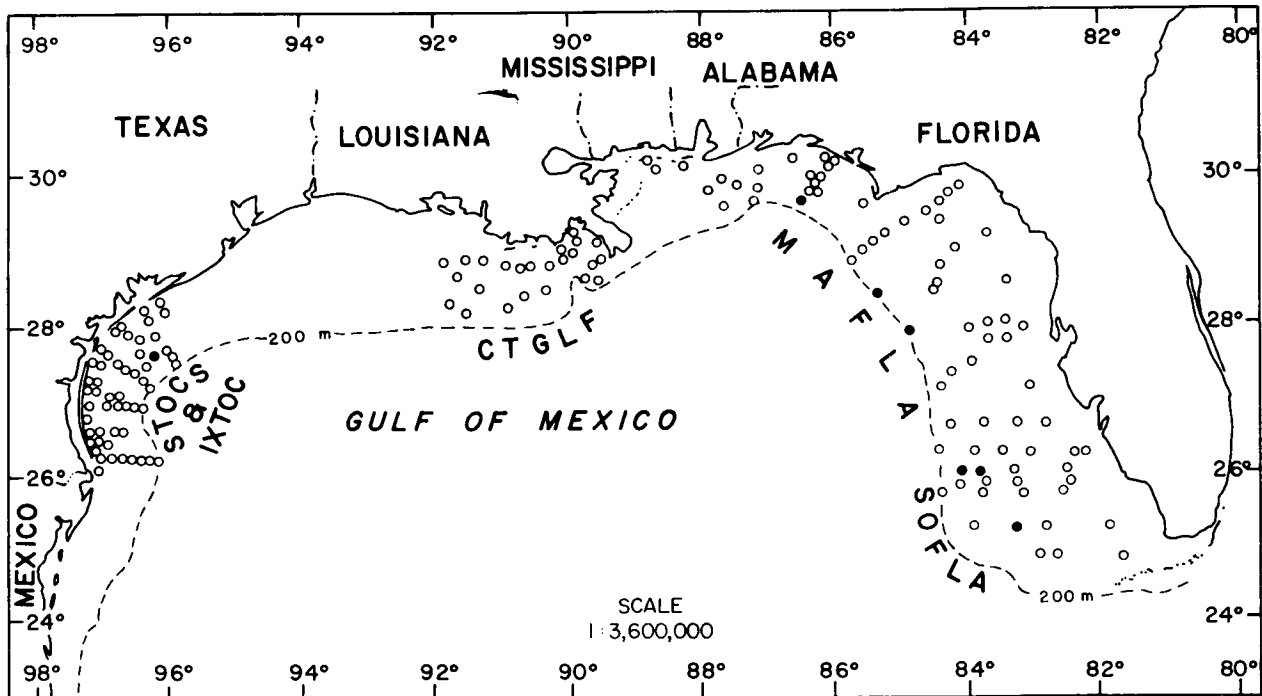


Figure 29-9. Distribution of *Ancistrosyllis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

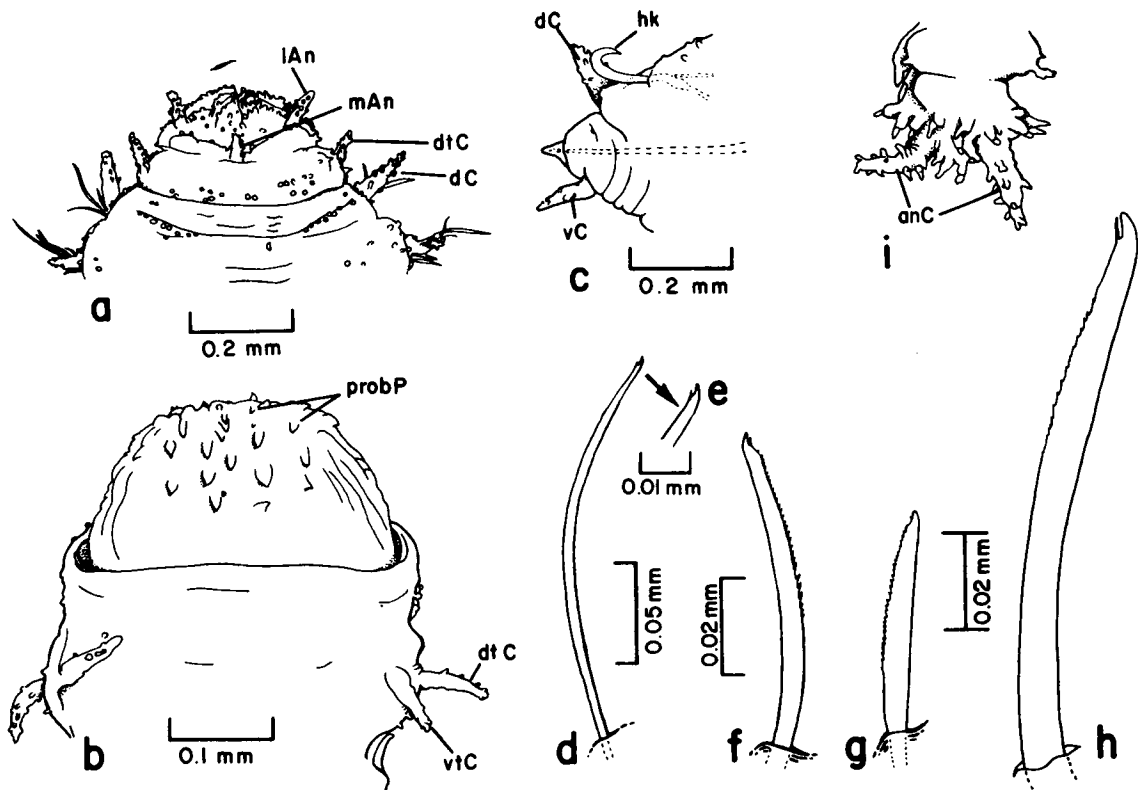


Figure 29-10. *Ancistrosyllis* sp. A: a, anterior end, dorsal view; b, same, ventral view (proboscis partially everted); c, middle parapodium, anterior view (neurosetae omitted); d, upper neuroseta; e, tip of same; f, middle neuroseta; g, short neuroseta; h, large neuroseta; i, posterior end, dorsal view.

- 3b. Ventral cirri present from setiger 3; median antenna present or absent. 4
- 4a. Median antenna absent (Figure 29-16a); notopodial hooks present from setiger 6. *Ancistrostylis* sp. C, p. 29-19
- 4b. Median antenna present (Figures 29-18a, 20a); notopodial hooks present from setiger 3 or 6 5
- 5a. Notopodial hooks present from setiger 6.
. *Ancistrostylis jonesi*, p. 29-19
- 5b. Notopodial hooks present from setiger 3 6
- 6a. Transverse dorsal ridges present (Figure 29-20c)
. *Ancistrostylis papillosa*, p. 29-22
- 6b. Transverse dorsal ridges absent (Figure 29-22a).
. *Ancistrostylis hartmanae*, p. 29-24

***Ancistrostylis* sp. A**
Figures 29-9, 10a-i

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 12B-4/81 (1 spec., USNM 86926), 24B-4/81 (1 spec., USNM 86927), 33C-8/81 (2 spec., USNM 86928); MAFLA 2212I-8/77 (1 spec., USNM 86925), 2212H-2/78 (1 spec., USNM 86924), 2313E-11/77 (1 spec.), 2536I-7/76 (1 spec.); STOCS HR3-6 Sp/76 (1 spec., USNM 86929).

DESCRIPTION:

Length, to 8.0 mm; width, to 0.75 mm. Largest specimen complete with 42 setigers and two achaetous preanal segments. Prostomium (Figure 29-10a) with lateral antennae nearly as long as tentacular cirri; median antenna two-thirds length of lateral ones. Palps with small palpostyles, not visible dorsally. Tentacular cirri (Figure 29-10b) equal in length to dorsal cirri of setiger 2. Dorsal cirri of setiger 1 almost twice as long as subsequent ones. Ventral cirri present from setiger 1, well-developed, extending slightly beyond setigerous lobes (Figure 29-10c). Prostomium and palps heavily papillose dorsally; segments with few papillae dorsally; ventrum mostly smooth. Hooked acicular notosetae beginning on setiger 3, accompanied by slender notoaciculum (Figure 29-10c). Neurosetae with curved tips and thin subapical tooth (Figure 29-10d-g). Middle setigers with additional large bifid neurosetae (Figure 29-10h), usually numbering one per parapodium. Posterior end with 2-3 achaetous preanal segments. Pygidium (Figure 29-10i) with moderately long papillae and a pair of papillose anal cirri. Proboscis (Figure 29-10b) with irregularly arranged papillae having weakly chitinized tips.

REMARKS: *Ancistrostylis* sp. A is similar to *A. groenlandica* McIntosh, 1879, but differs from the latter in having notopodial hooks beginning on setiger 3 instead of setigers 4-6. *Ancistrostylis* sp. A is also similar to *A. matsunagaensis* (Kitamori, 1960), from which it differs in being less papillose, in having shorter head and parapodial appendages, and in possessing a relatively large seta in the neuropodia. *A. hamata* (Hartman, 1960) has a proboscis similar to *Ancistrostylis* sp. A, but has notopodial hooks from setiger 6 instead of 3.

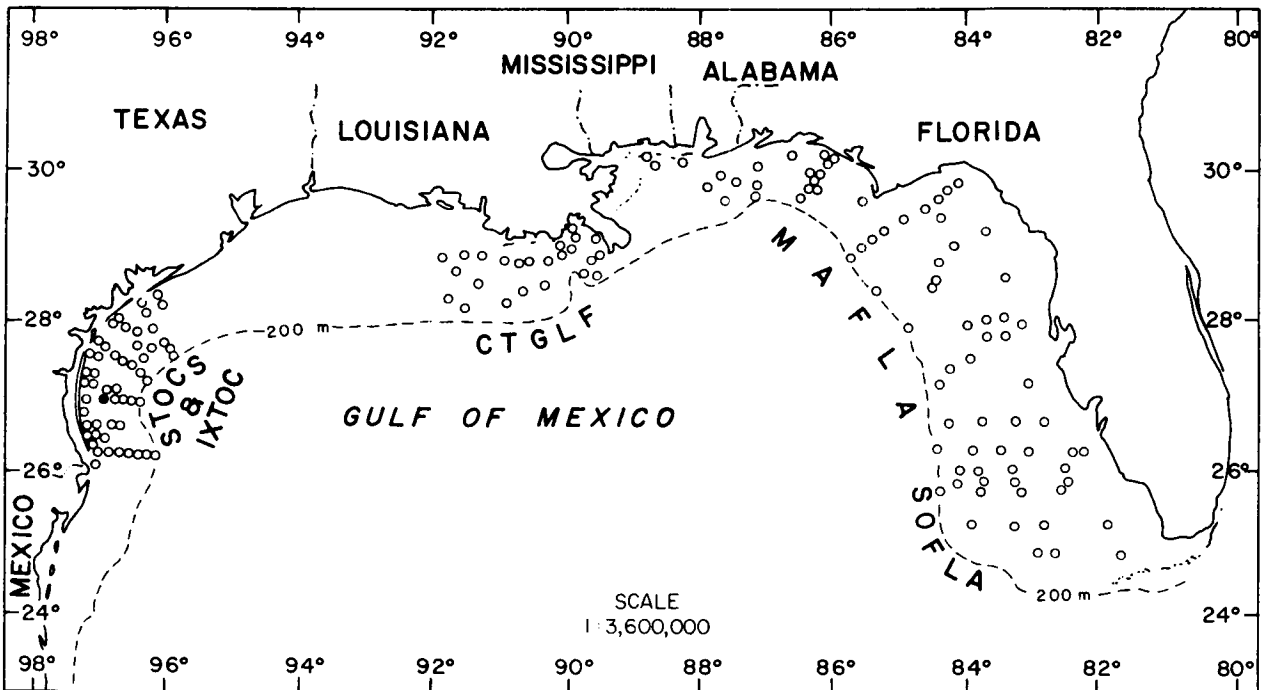


Figure 29-11. Distribution of *Ancistrosyllis* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

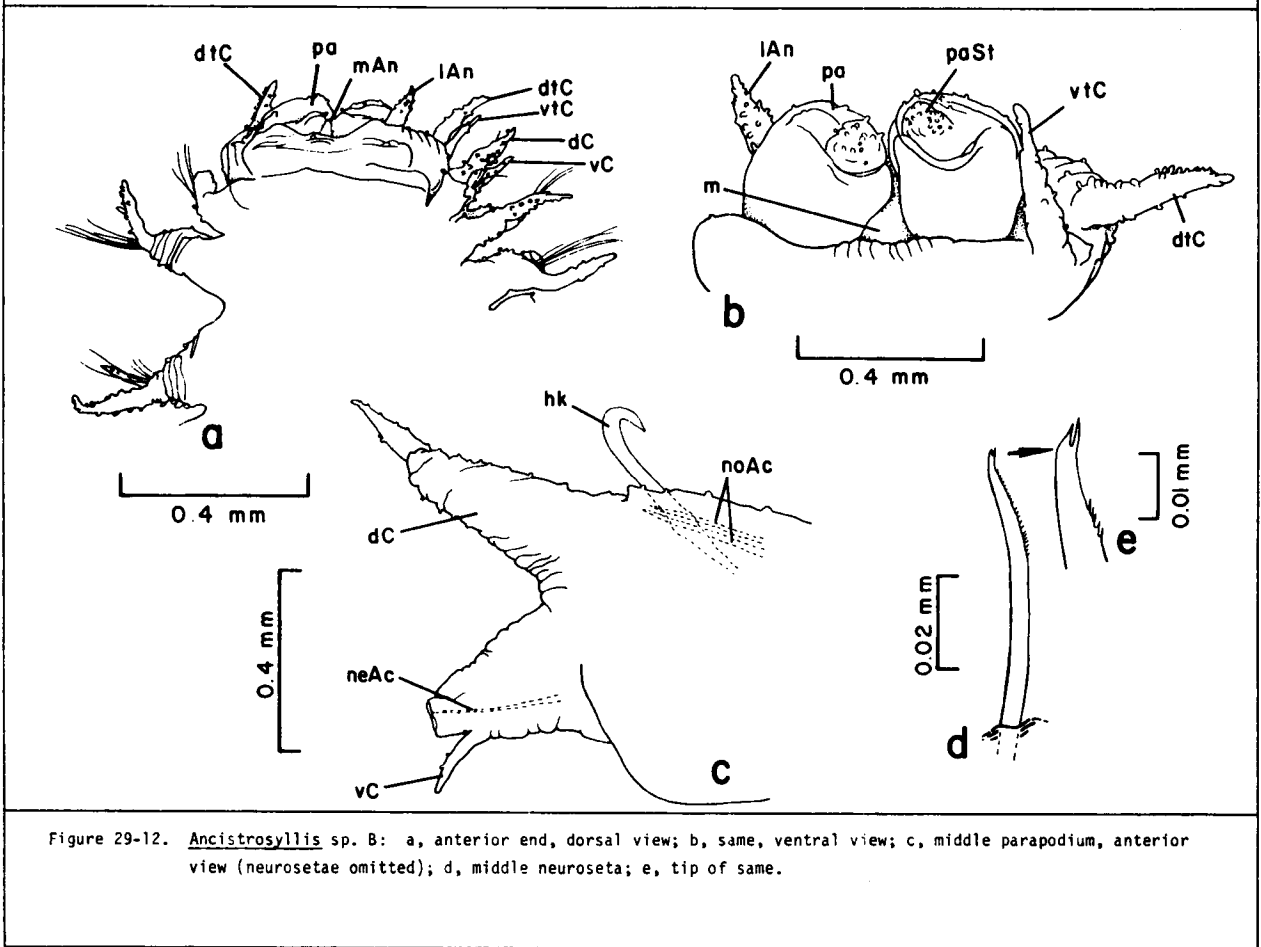


Figure 29-12. *Ancistrosyllis* sp. B: a, anterior end, dorsal view; b, same, ventral view; c, middle parapodium, anterior view (neurosetae omitted); d, middle neuroseta; e, tip of same.

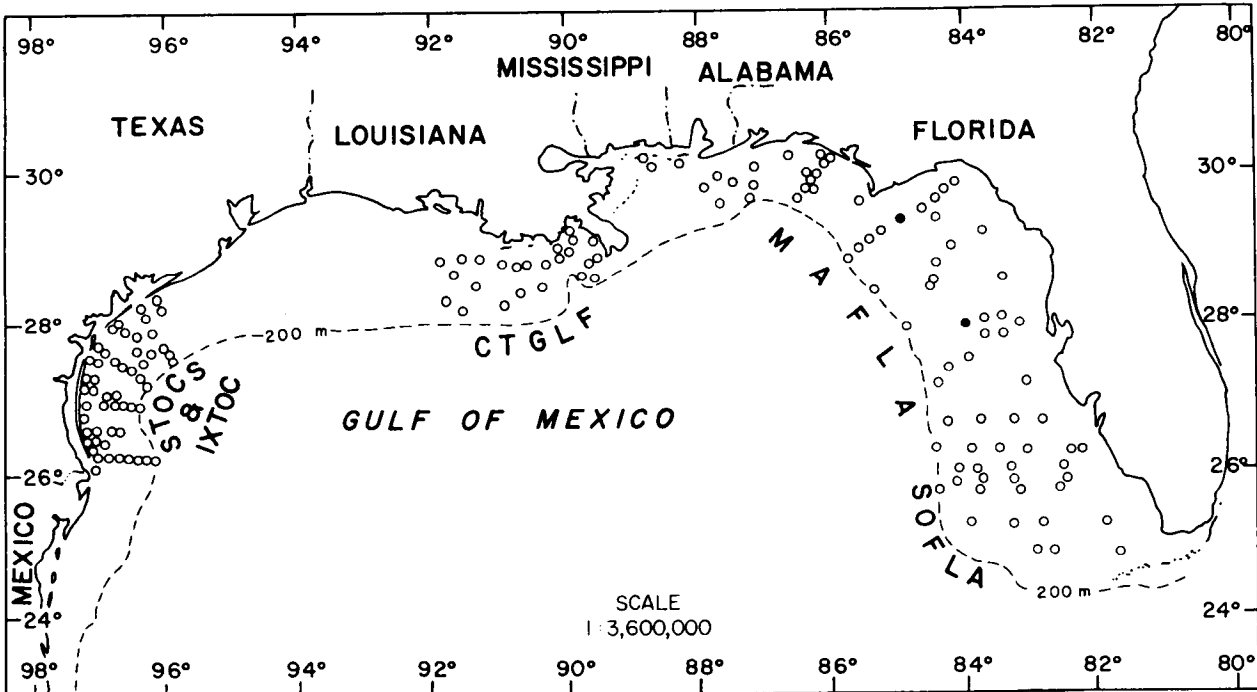


Figure 29-13. Distribution of *Ancistrosyllis carolinensis* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

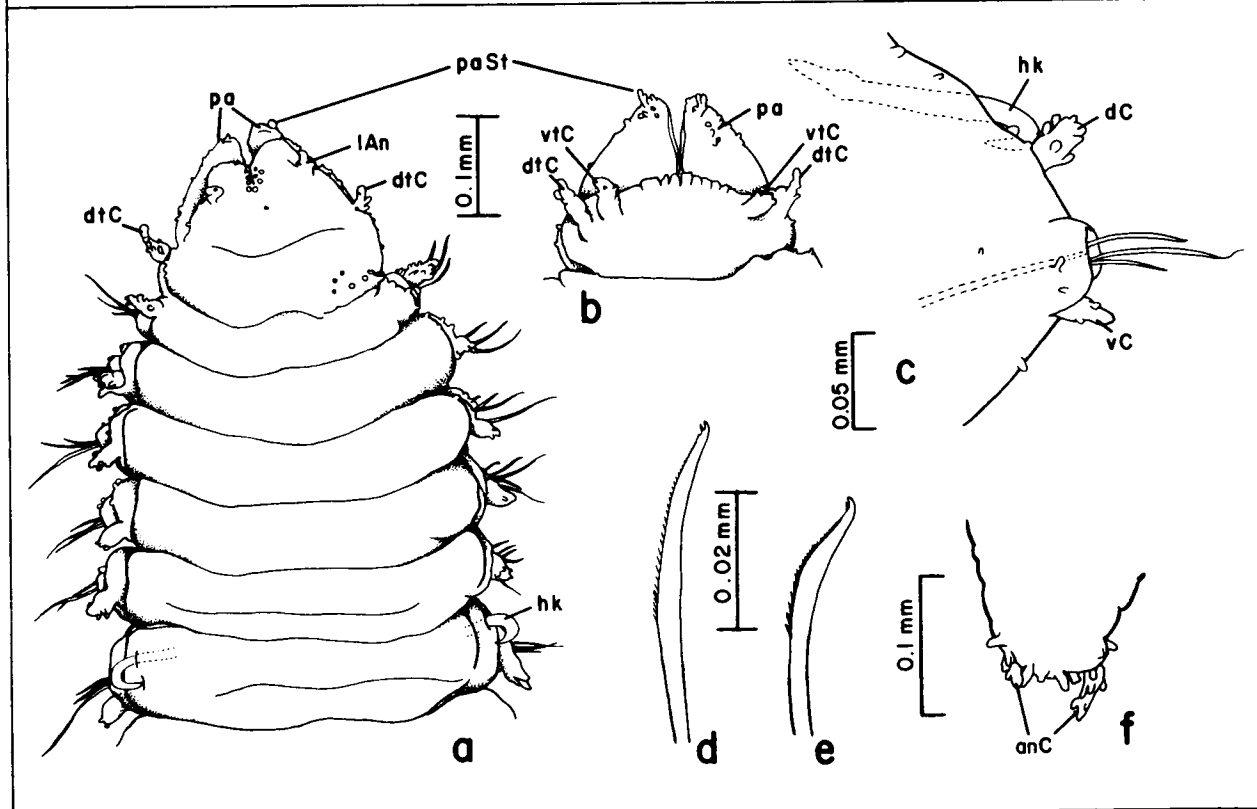


Figure 29-14. *Ancistrosyllis carolinensis*: a, anterior end, dorsal view; b, same, ventral view; c, middle parapodium, anterior view; d, middle neuroseta; e, short neuroseta; f, posterior end, dorsal view.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Texas (Figure 29-9); 81-189 m; medium to fine sand, silty very fine sand, clayey and sandy silt.

Ancistrosyllis sp. B
Figures 29-11, 12a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

IXTOC S49-6 12/80 (1 spec., USNM 86930).

DESCRIPTION:

Length, 15+ mm; width, to 2.5 mm. Only specimen incomplete with 38 setigers. Prostomium (Figure 29-12a) with three antennae; lateral antennae longer than median one. Palps with large, globular palpostyles (Figure 29-12b). Dorsal and ventral pairs of tentacular cirri equal in length. Dorsal cirri of setiger 1 similar in length to following ones (Figure 29-12a), filiform throughout, longer than ventral cirri (Figure 29-12c). Body with few large papillae dorsally, smaller papillae on antennae and cirri; smooth ventrally except palpostyles and palps (Figure 29-12b). Hooked acicular notosetae beginning on setiger 6, accompanied by two slender acicula (Figure 29-12c). Neurosetae with bifid tips (Figure 29-12d,e).

REMARKS: Ancistrosyllis sp. B is similar to A. groenlandica McIntosh, 1879, and A. commensalis Gardiner, 1976, but differs from both in having large globular palpostyles.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off Texas (Figure 29-11); 25 m; silty clay to clayey silt.

Ancistrosyllis carolinensis Gardiner, 1976
Figures 29-13, 14a-f

Ancistrosyllis carolinensis Gardiner, 1976:124, fig. 9p-r.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211I-8/77 (1 spec., USNM 86909), 2423C-7/76 (1 spec., USNM 86910).

Supplementary Material:

North Carolina--Cape Lookout (USNM 52905, holotype).

DESCRIPTION:

Length, to 9.0 mm (previously reported to 75 mm); width, to 0.45 mm (previously reported to 3.0 mm). Largest specimen complete with 62 setigers and two achaetous preanal segments. Prostomium (Figure 29-14a) with small lateral antennae; median antenna absent. Palps with small palpostyles (Figure 29-14b). Dorsal tentacular cirri similar in length to dorsal cirri of setiger 1; ventral tentacular cirri smaller (Figure 29-14a,b). Dorsal cirri of setiger 1 slightly longer than those of subsequent setigers (Figure 29-14a). Parapodia (Figure 29-14c) with short, globular, distinctly papillose dorsal cirri; neuropodia short, rounded. Ventral cirri beginning on setiger 2. Body sparsely papillose; papillae more numerous dorsally on palps, prostomium, and cirri; few papillae on segments and parapodia. Hooked acicular notosetae (Figure 29-14a,c) present from setiger 6, accompanied by slender

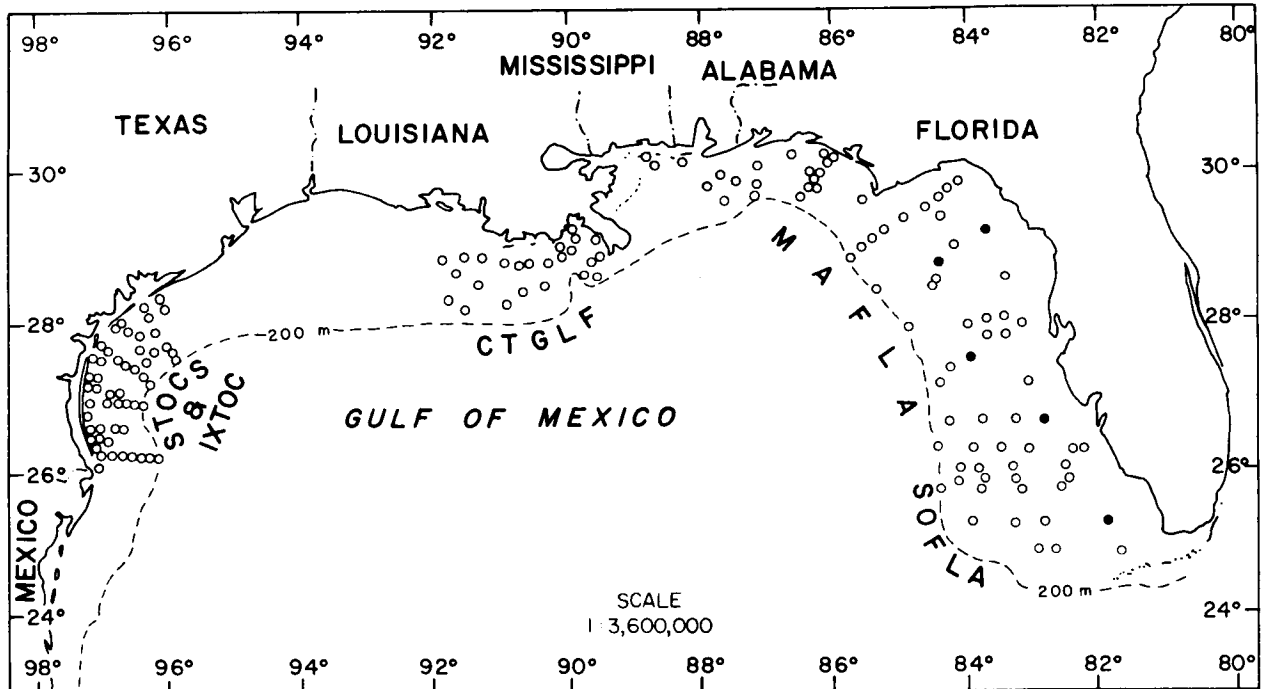


Figure 29-15. Distribution of *Ancistrosyllis* sp. C on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

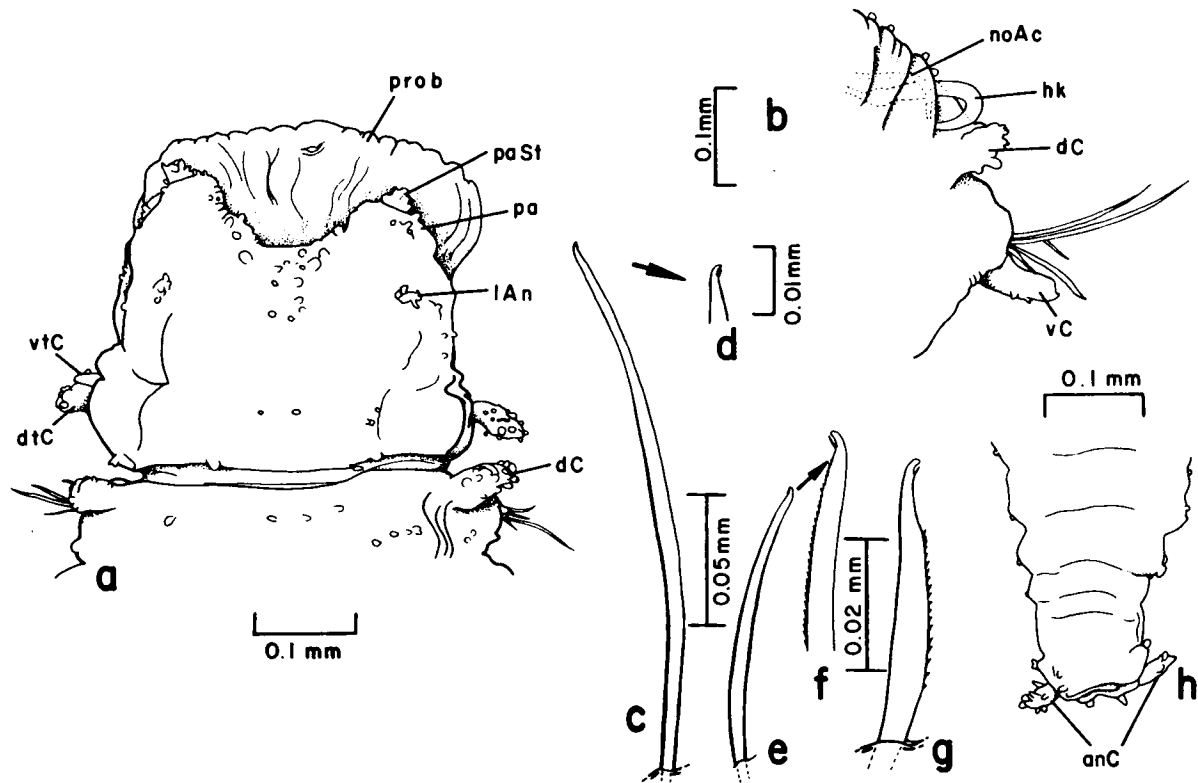


Figure 29-16. *Ancistrosyllis* sp. C: a, anterior end, dorsal view (proboscis partially everted); b, middle parapodium, posterior view; c, upper neuroseta; d, tip of same; e, lower neuroseta from anterior setiger; f, tip of same; g, lower neuroseta from posterior setiger; h, posterior end, dorsal view.

aciculum. Neurosetae with hooked tips and an indistinct, slender, secondary tooth (Figure 29-14d); shorter neurosetae medially expanded with more distinctly serrate margin (Figure 29-14e). Posterior end with two achaetous preanal segments, followed by papillose pygidium (Figure 29-14f) bearing a pair of papillose anal cirri.

REMARKS: The two Gulf of Mexico BLM-OCS specimens are probably juveniles; however, they match quite well the original description of A. carolinensis.

PREVIOUSLY REPORTED HABITAT: Sand mixed with gravel and shell fragments.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida (Figure 29-13); 19-43 m; coarse sand, silty fine sand.

DISTRIBUTION: North Carolina, Gulf of Mexico.

Ancistrosyllis sp. C
Figures 29-15, 16a-h

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2D-11/80 (1 spec., USNM 86933), 20-11/80 (1 spec., USNM 86934); MAFLA 2316J-7/76 (1 spec.), 2318E-7/76 (2 spec.), 2318E-11/77 (1 spec.), 2748I-2/78 (1 spec., USNM 86931), 2748K-2/78 (1 spec., USNM 86932).

DESCRIPTION:

Length, 23+ mm; width, to 0.80 mm. Largest specimen incomplete with about 100 setigers. Prostomium (Figure 29-16a) with minute lateral antennae; median antenna absent. Palps with small papillose palpostyles. Tentacular cirri equal in length to dorsal cirri. Dorsal cirri of setiger 1 similar in length to subsequent dorsal cirri. Ventral cirri longer than dorsal cirri (Figure 29-16b), present from setiger 3. Prostomium and anterior segments sparsely papillose. Hooked acicular notosetae beginning on setiger 6, accompanied by single notoaciculum (Figure 29-16b). Neurosetae with curved tips and thin secondary tooth (Figure 29-16c-f). Middle and posterior setigers additionally with 2-3 larger lower neurosetae (Figure 29-16g). Posterior end with 3-5 achaetous segments; pygidium (Figure 29-16h) with few papillae and a pair of anal cirri. Proboscis sac-like, without papillae basally (Figure 29-16a); distal end not examined.

REMARKS: Ancistrosyllis sp. C is similar to A. hamata (Hartman, 1960) and A. carolinensis Gardiner, 1976. It differs from the former in having smaller lateral antennae and longer ventral cirri, and from the latter in having ventral cirri from setiger 2 instead of setiger 3.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida (Figure 29-15); 20-50 m; coarse to medium sand, silty fine sand.

Ancistrosyllis jonesi Pettibone, 1966
Figures 29-17, 18a-g

Ancistrosyllis jonesi Pettibone, 1966:173, figs. 9a-d, 10a-e.

Ancistrosyllis jonesi--Gardiner, 1976:124, fig. 9 l-o.

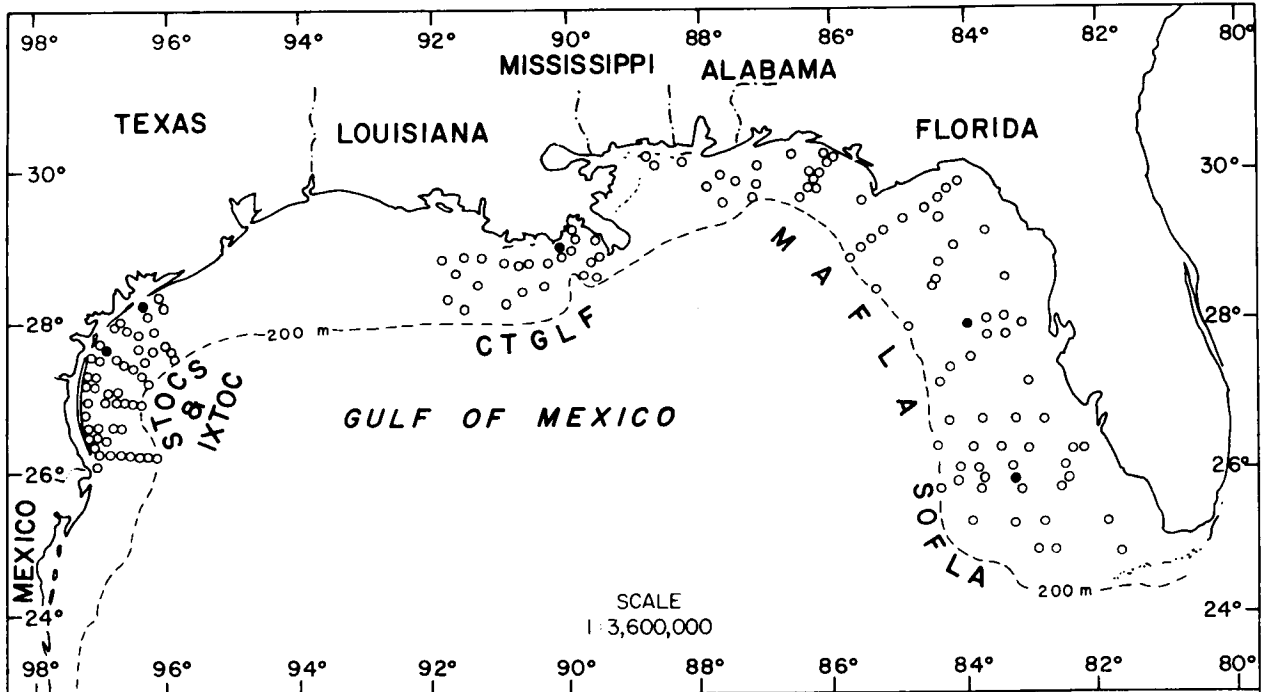


Figure 29-17. Distribution of *Ancistrosyllis jonesi* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

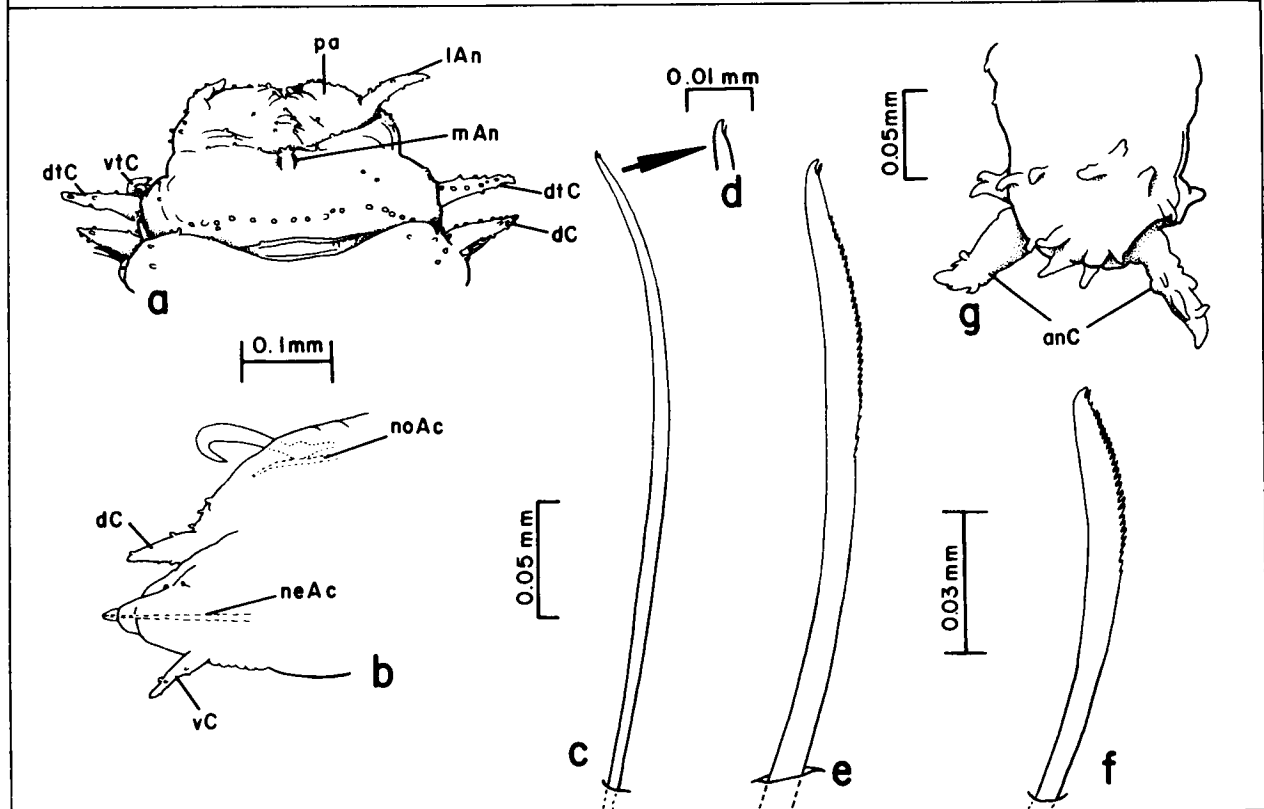


Figure 29-18. *Ancistrosyllis jonesi*: a, anterior end, dorsal view; b, middle parapodium, anterior view (neurosetae omitted); c, upper neuroseta; d, tip of same; e, f, short neurosetae; g, posterior end, dorsal view.

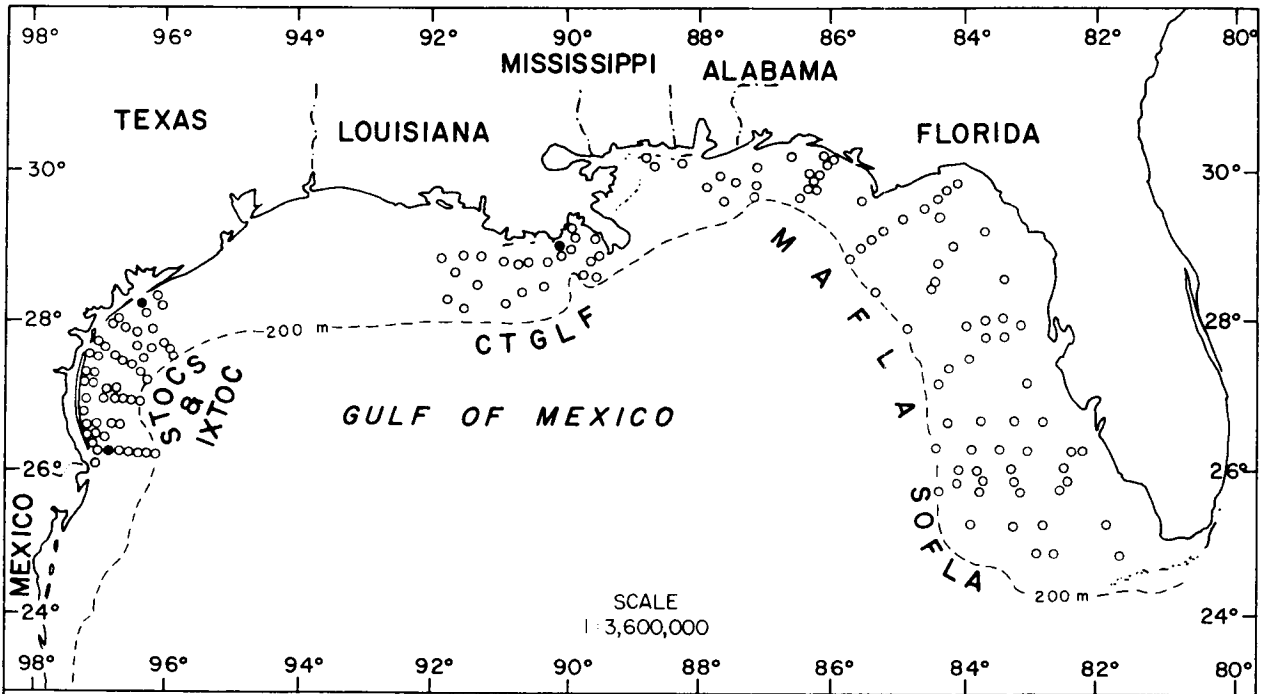


Figure 29-19. Distribution of *Ancistrosyllis papillosa* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

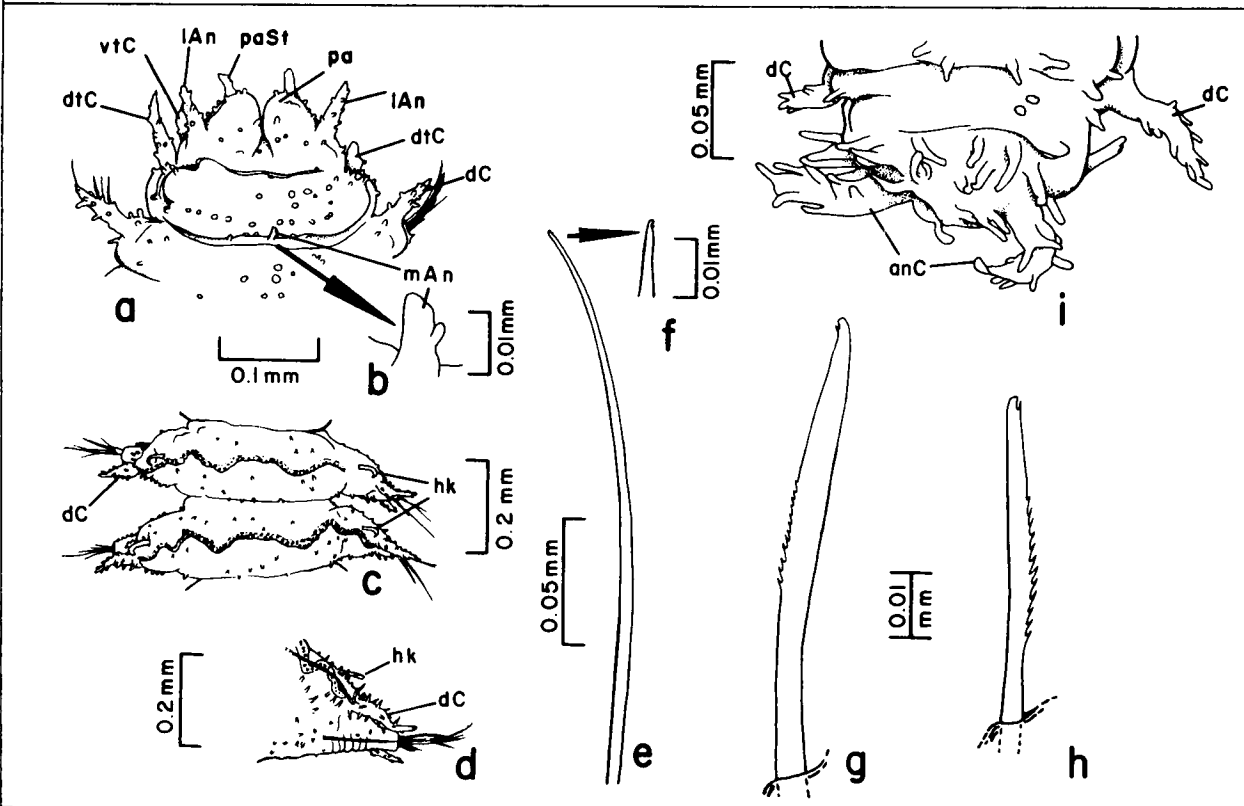


Figure 29-20. *Ancistrosyllis papillosa*: a, anterior end, dorsal view; b, median antenna; c, two middle setigers, dorsal view; d, twenty-seventh parapodium, posterior view; e, upper neuroseta; f, tip of same; g, h, short neurosetae; i, posterior end, dorsal view (Figures c, d from Jones 1961, figs. 5, 8).

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 16F-11/80 (1 spec., USNM 86917); MAFLA 2211H-6/76 (1 spec.), 2211H-11/77 (1 spec.), 2211G-2/78 (1 spec., USNM 86916); CTGLF 02-5/78 (1 spec., USNM 86920); STOCS 4/I-5 Sp/76 (1 spec., USNM 86918), 1/II-4 Sp/76 (1 spec., USNM 86919).

DESCRIPTION:

Length, to 10 mm (previously reported to 16 mm); width, to 0.70 mm (previously reported to 1.5 mm). Largest complete specimen with 49 setigers and four achaetous preanal segments. Prostomium (Figure 29-18a) with well-developed lateral antennae, equal in length to dorsal cirri of setiger 1; median antenna smaller, papillose. Palps with small palpostyles, not visible dorsally. Dorsal and ventral tentacular cirri similar in length. Dorsal cirri conical, those of setiger 1 slightly longer than following ones. Ventral cirri (Figure 29-18b) present from setiger 3, equal in length to dorsal cirri. Prostomium and body moderately papillose dorsally, smooth ventrally. Hooked acicular notosetae beginning on setiger 6, accompanied by internal aciculum (Figure 29-18b). Neurosetae long (Figure 29-18c,d) to short (Figure 29-18e,f), with curved tips and slender secondary tooth; shorter neurosetae distinctly toothed along one margin. Posterior end with 3-4 achaetous preanal segments. Pygidium (Figure 29-18g) with few large papillae dorsally and a pair of anal cirri.

REMARKS: Among the material examined, several specimens possessed shorter appendages, particularly the lateral antennae, than those shown for Figure 29-18a and b; however, the degree of papillation and the presence of a median antenna were identical, making the identification to A. jonesi certain.

PREVIOUSLY REPORTED HABITAT: Intertidal to 15 m; mud.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida, Louisiana, and Texas (Figure 29-17); 10-54 m; coarse to fine sand, clayey sand, sandy clayey silt, sandy silty clay.

DISTRIBUTION: Chesapeake Bay, North Carolina, Gulf of Mexico.

***Ancistrosyllis papillosa* (Jones, 1961)**

Figures 29-19, 20a-i

Ancistargis papillosus Jones, 1961:2, figs. 1-14.

Ancistrosyllis papillosa--Pettibone, 1966:170, fig. 6a-e.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

CTGLF 02-5/78 (2 spec., USNM 86923); STOCS 4/I-3 5/76 (1 spec., USNM 86921), 1/IV-6 5/76 (1 spec., USNM 86922).

Supplementary Material:

Florida--Alligator Harbor (AMNH 3602, 1 paratype).

DESCRIPTION:

Length, to 16 mm (previously reported to 10 mm); width, to 0.80 mm (previously reported to 0.5 mm). Largest specimen complete with 58 setigers and three achaetous preanal segments. Prostomium (Figure 29-20a) with a pair of small ventral eyespots which may be faded. Lateral antennae extending to anterior margin of palps; median antenna minute (Figure 29-20a), about twice the length of adjacent papillae (Figure 29-20b). Palps with well-developed palpostyles. Dorsal cirri about as

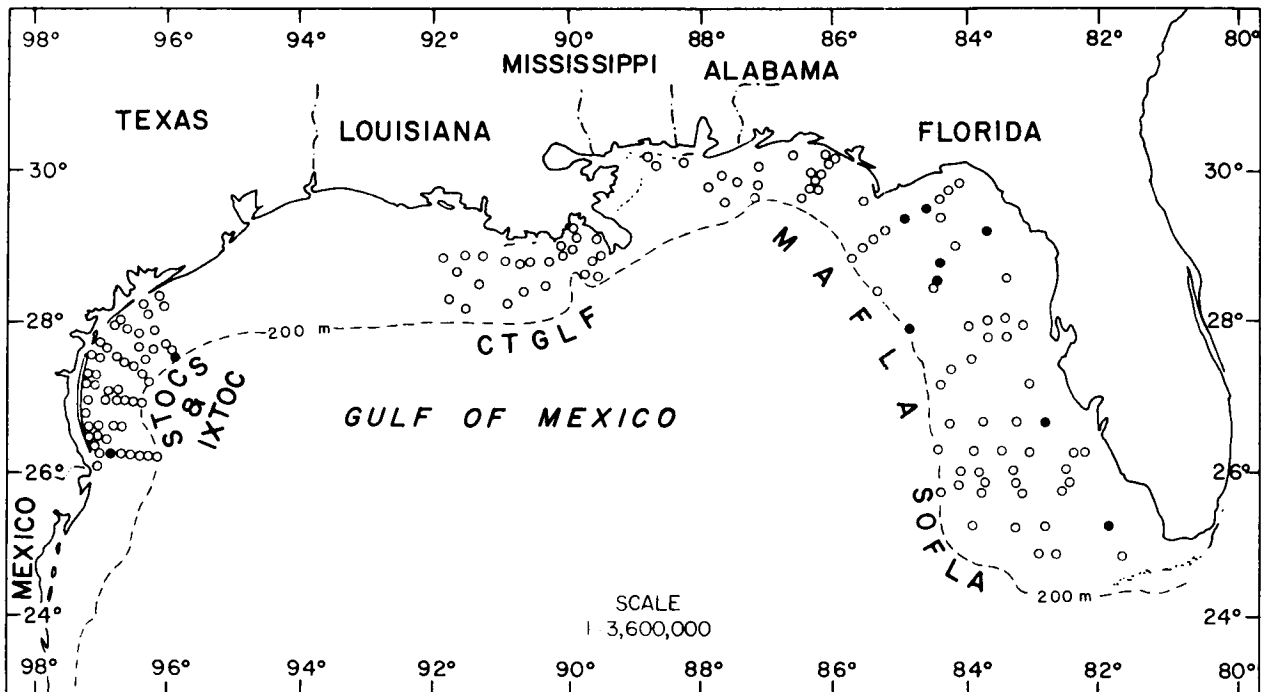


Figure 29-21. Distribution of *Ancistrosyllis hartmanae* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

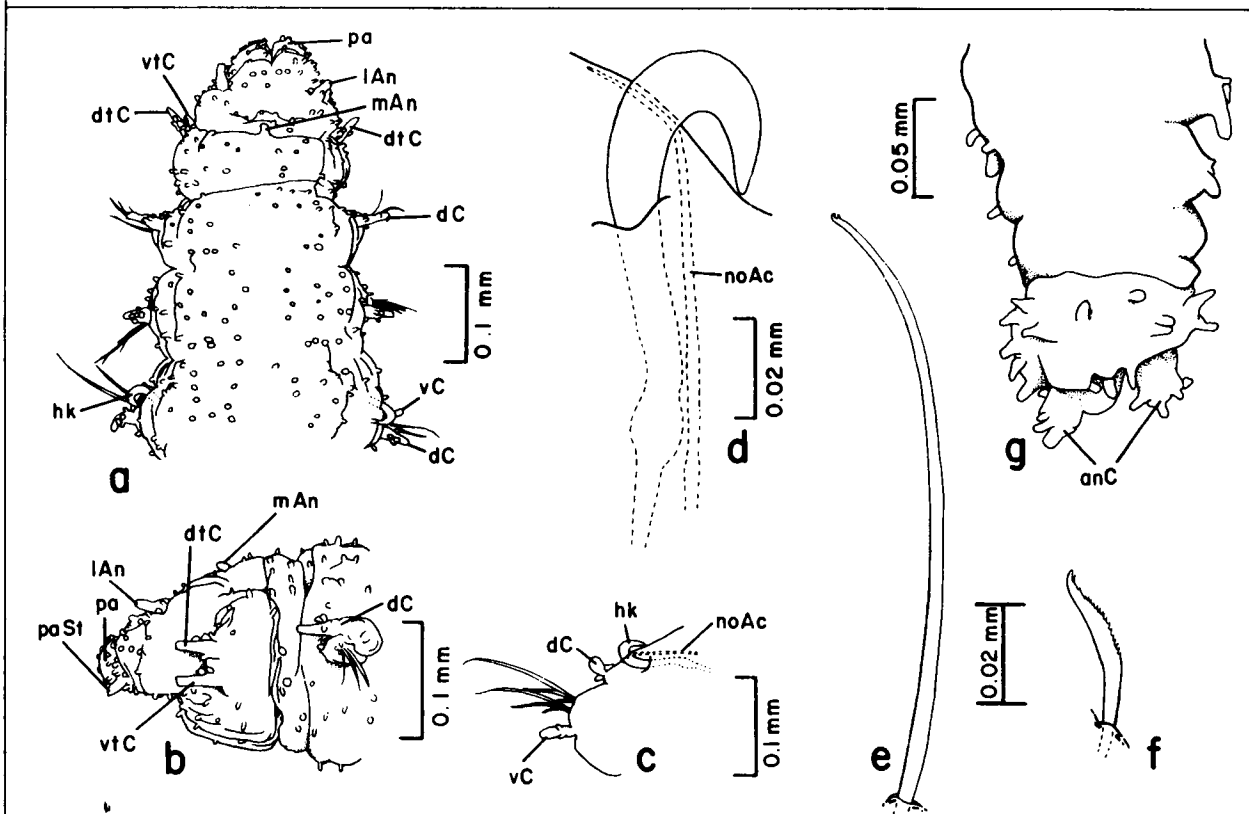


Figure 29-22. *Ancistrosyllis hartmanae*: a, anterior end, dorsal view; b, same, lateral view; c, middle parapodium, anterior view; d, notoseta and aciculum; e, long neuroseta; f, short neuroseta; g, posterior end, dorsal view.

long as tentacular cirri, extending slightly to well beyond tips of setigerous lobes (Figures 29-20c,d). Ventral cirri beginning on setiger 3. Transverse ridges extending across dorsum beginning on setiger 1 or 2; ridges bearing vacuoles, characteristically curved posteriorly on both sides of midline (Figure 29-20c). Entire body papillose except for palpostyles and ventral surface of head. Hooked acicular notosetae beginning on setiger 3, accompanied by slender notoaciculum (Figure 29-20d). Neurosetae with curved tips and indistinct secondary tooth (Figure 29-20e-g). Shorter neurosetae serrate on one margin (Figure 29-20g,h). Posterior end with 1-3 achaetous preanal segments, each bearing dorsal and ventral cirri; pygidium (Figure 29-20i) with numerous long papillae and a pair of densely papillose anal cirri.

REMARKS: Jones (1961) described A. papillosa as lacking a median antenna; however, examination of a paratype (AMNH 3602) revealed the presence of a small median antenna.

PREVIOUSLY REPORTED HABITAT: Intertidal to 9 m; mud.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Louisiana and Texas (Figure 29-19); 10-27 m; clayey sand, sandy clayey silt.

DISTRIBUTION: Gulf of Mexico off Florida and Texas.

Ancistrosyllis hartmanae Pettibone, 1966
Figures 29-21, 22a-g

Ancistrosyllis hartmanae Pettibone, 1966:172, fig. 7a-c.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2-11/80 (3 spec., USNM 86912), 20B-8/81 (3 spec., USNM 86913); MAFLA 2211G-8/77 (1 spec.), 2315A-7/76 (2 spec.), 2316H-11/77 (3 spec., USNM 86911), 2318E-11/77 (1 spec.), 2422C-6/76 (5 spec.), 2423A-6/76 (1 spec.), 2423B-7/76 (1 spec.), 2423I-7/76 (1 spec.), 2423J-8/77 (1 spec.); STOCS 3/I-3 F/76 (1 spec., USNM 86914), 1/IV-4 W/76 (1 spec., USNM 86915).

DESCRIPTION:

Length, to 11.0 mm (previously reported to 25 mm for 110 segments); width, to 0.50 mm. Largest specimen complete with 63 setigers and three achaetous preanal segments. Prostomium (Figure 29-22a) with small lateral antennae. Median antenna about half as long as lateral ones. Palps with small palpostyles (Figure 29-22b). Anterior dorsal cirri about equal in length to tentacular cirri, extending beyond setigerous lobes (Figure 29-22a). Dorsal cirri of middle and posterior setigers smaller (Figure 29-22c). Ventral cirri beginning on setiger 3. Body with numerous papillae dorsally and laterally (Figure 29-22a,b); transverse dorsal ridges absent. All appendages except palpostyles papillose. Hooked acicular notosetae beginning on setiger 3, accompanied by slender aciculum (Figure 29-22c,d). Neurosetae long (Figure 29-22e) to short (Figure 29-22f), with curved tips and slender, indistinct secondary tooth. Longer setae minutely serrate, shorter setae distinctly serrate and medially expanded (Figure 29-22f). Posterior end with three achaetous preanal segments; pygidium with few papillae and a pair of papillose anal cirri (Figure 29-22g).

REMARKS: The Gulf of Mexico BLM-OCS specimens match fairly well the description of A. hartmanae by Pettibone (1966). One specimen (MAFLA 2423B-7/76) had a ventral cirrus on setiger 2 on one side only.

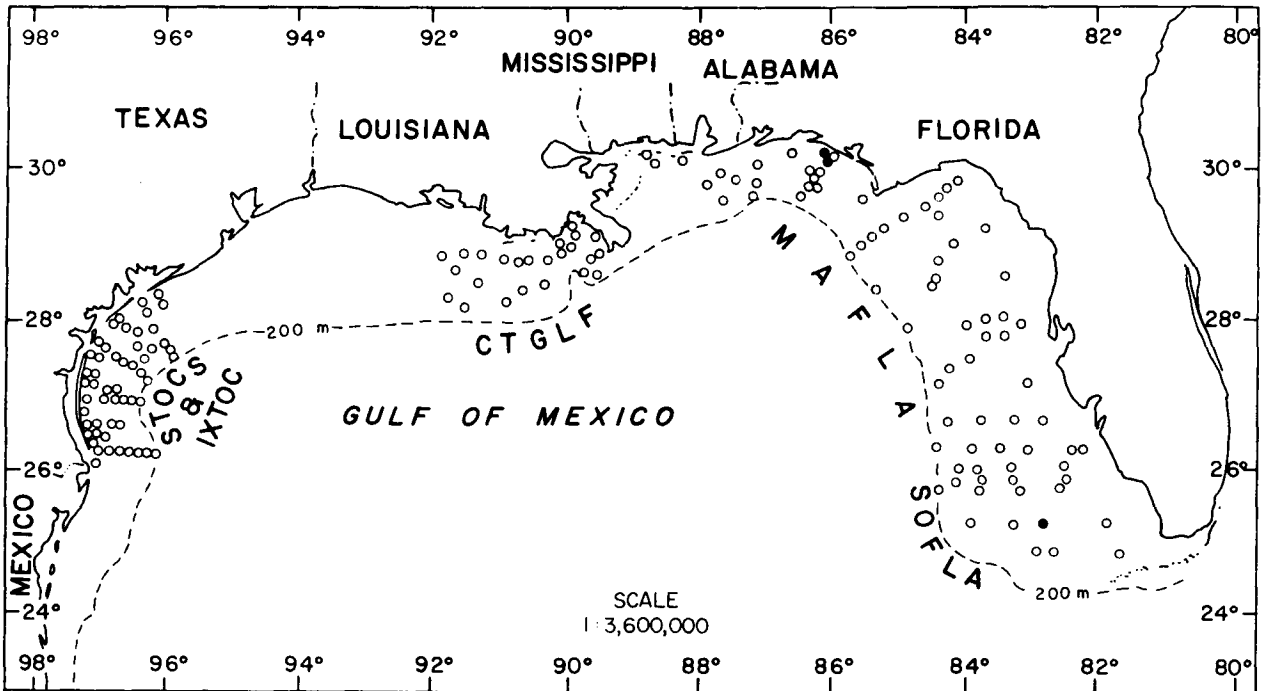


Figure 29-23. Distribution of *Pilargis berkeleyae* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

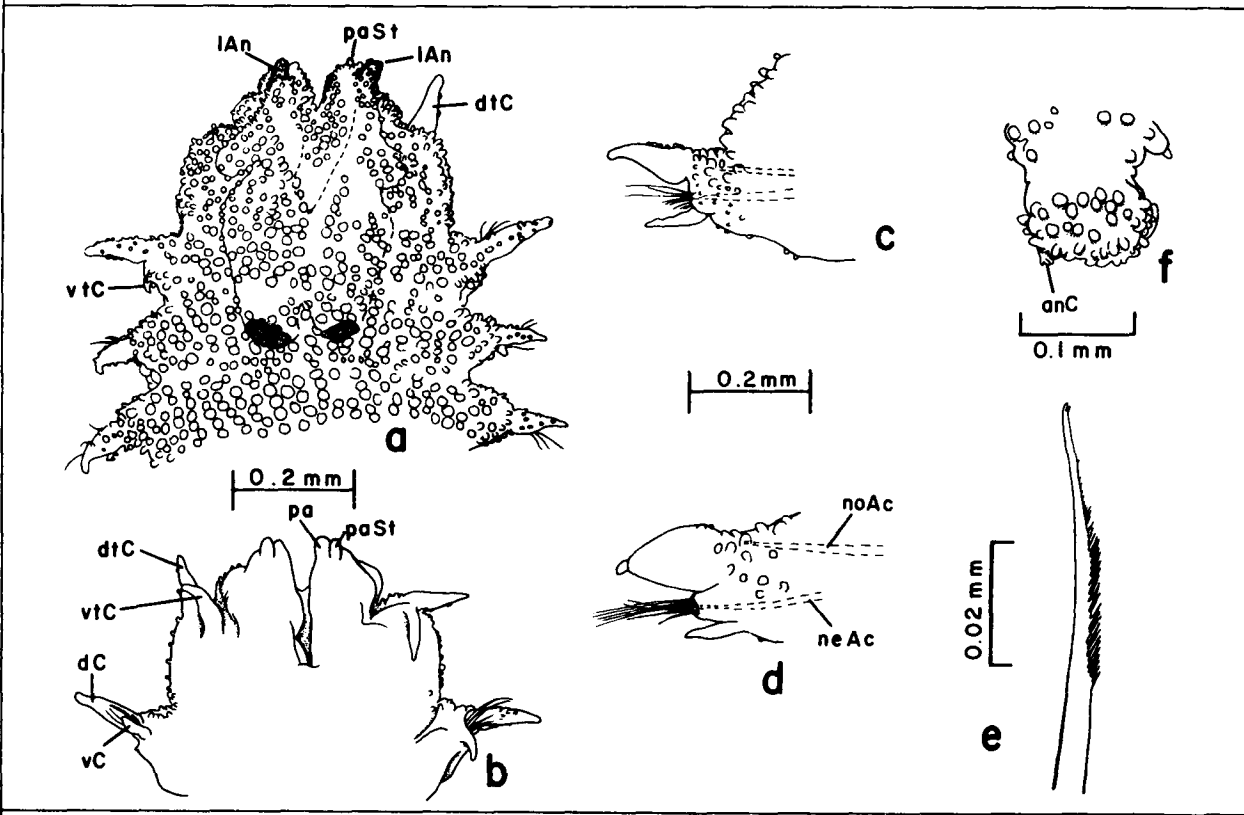


Figure 29-24. *Pilargis berkeleyae*: a, anterior end, dorsal view; b, same, ventral view; c, anterior parapodium, anterior view; d, middle parapodium, anterior view; e, middle neuroseta; f, posterior end, dorsal view.

PREVIOUSLY REPORTED HABITAT: 12 m; mud.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Texas (Figure 29-21); 10-134 m; coarse to medium-fine sand, silty fine sand, clayey sand, silty clay.

DISTRIBUTION: Chesapeake Bay, Gulf of Mexico.

Genus *Pilargis* Saint Joseph, 1899

TYPE SPECIES: *Pilargis verrucosa* Saint Joseph, 1899.

REFERENCES:

Hartman, 1947b:490.

Pettibone, 1966:160.

DIAGNOSIS: Palps not fused; palpostyles present. Paired lateral antennae present, shorter than palps; median antenna absent. Two pairs of tentacular cirri. Notosetae absent. Neurosetae smooth or serrate, usually with minutely bifid tips. Pygidium papillose with single pair of anal cirri. Integument sparsely to heavily papillose.

Key to the Gulf of Mexico BLM-OCS Species of *Pilargis*

- 1a. Dorsum heavily papillose (Figure 29-24a); cirrostyles of dorsal cirri inflated (Figure 29-24d) . . . *Pilargis berkeleyae*, p. 29-26
- 1b. Dorsum sparsely papillose (Figure 29-26a); cirrostyles of dorsal cirri not inflated (Figure 29-26b) . . . *Pilargis* sp. A, p. 29-28

Pilargis berkeleyae Monro, 1933c

Figures 29-23, 24a-f

Pilargis berkeleyi [sic]--Hartman, 1947b:491, pl. 59, figs. 1-8.

Pilargis berkeleyae--Pettibone, 1966:161 [in part], fig. 1a-f [not fig. 2a,b].

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 22B-4/81 (1 spec., USNM 86959); MAFLA 2528F-6/75 (1 spec.), 2528I-9/77 (1 spec., USNM 86958), 2528E-11/77 (1 spec.), 2530I-7/76 (1 spec.).

DESCRIPTION:

Length, 23+ mm (previously reported to 300 mm); width, to 1.2 mm (previously reported to 4 mm). Largest specimen incomplete with 103 setigers. Prostomium (Figure 29-24a) with small lateral antennae. Palps with small palpostyles (Figure 29-24b). Tentacular cirri about equal in length to dorsal cirri of setiger 1 (Figure 29-24a,b); following dorsal cirri smaller. Dorsal cirri of anterior 4-8 setigers (Figure 29-24a,c) without distinct cirrophores; more posteriorly with distinct cirrostyles and inflated cirrophores (Figure 29-24d). Ventral cirri beginning on setiger 1. Body with numerous large papillae dorsally and on anterior and posterior sides of parapodia (Figure 29-24a,c,d); with few small, scattered papillae ventrally (Figure 29-24b,c). Neurosetae minutely bifid, with serrate margins (Figure 29-24e). Pygidium with numerous papillae and a pair of short anal cirri (Figure 29-24f).

REMARKS: Pettibone (1966:161) considered *Pilargis maculata* Hartman, 1947b, to be a synonym of *Pilargis berkeleyae*. This view is not adopted

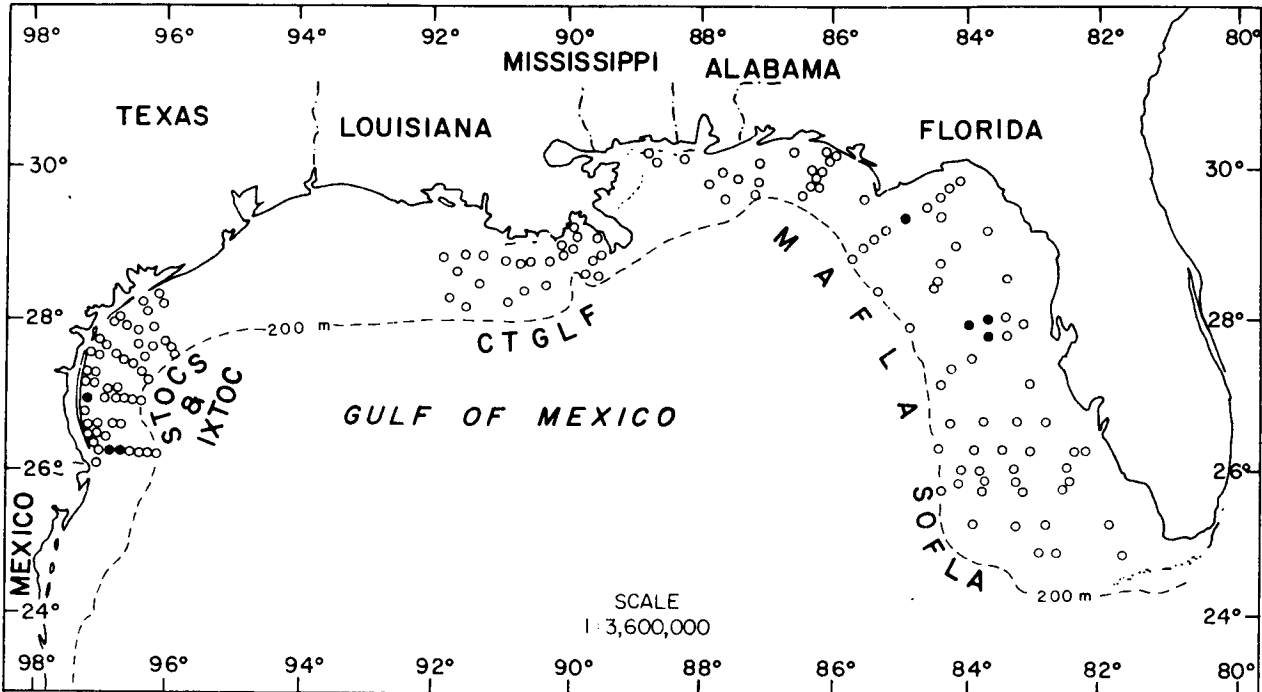


Figure 29-25. Distribution of *Pilargis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

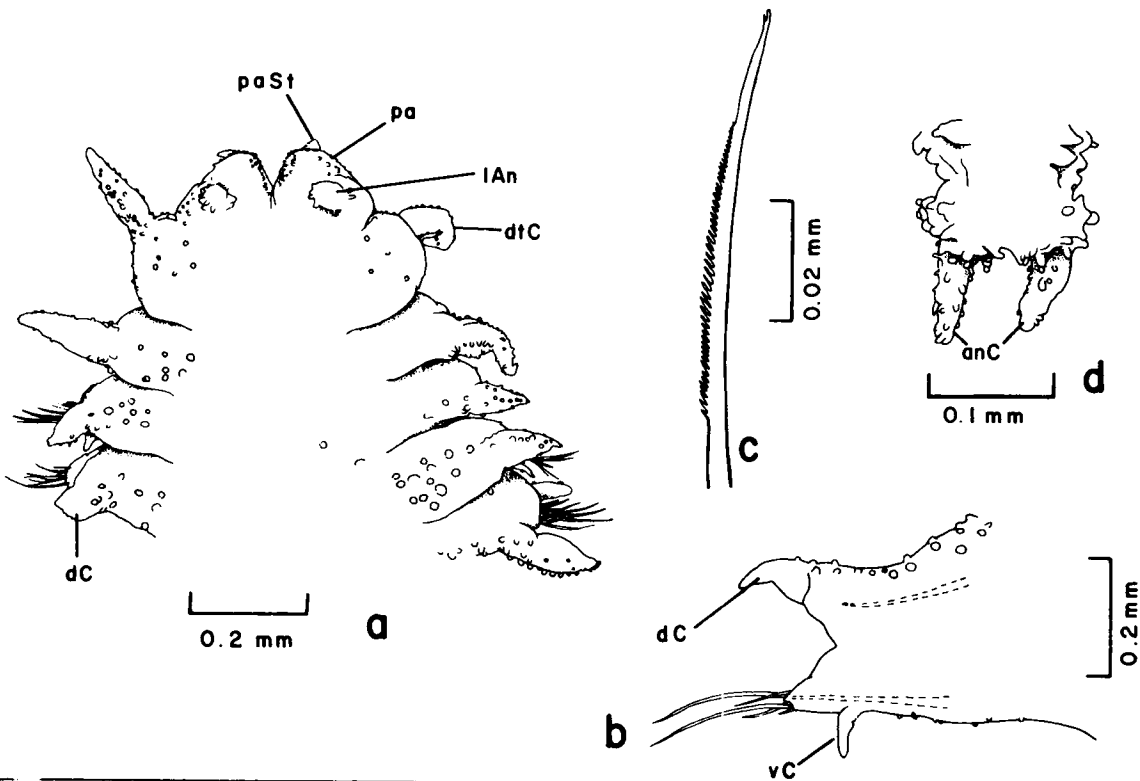


Figure 29-26. *Pilargis* sp. A: a, anterior end, dorsal view; b, middle parapodium, posterior view; c, upper neuroseta; d, posterior end, dorsal view.

herein because it is felt that the degree of papillation, shape of the parapodia, and shape of the dorsal cirri constitute specific differences. The Gulf of Mexico BLM-OCS specimens of P. berkeleyae possess a glandular organ anteriorly as in Litocorsa stremma Pearson, 1970, and Litocorsa sp. A (described herein).

PREVIOUSLY REPORTED HABITAT: Sand, shell; intertidal to 29 m.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida (Figure 29-23); 37-53 m; coarse to fine sand.

DISTRIBUTION: Washington, California, Gulf of Mexico.

Pilargis sp. A
Figures 29-25, 26a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2209B-6/76 (2 spec.), 2209J-6/76 (2 spec.), 2210E-6/76 (1 spec.), 2210F-6/76 (2 spec.), 2211C-8/77 (1 spec.), 2423E-11/77 (1 spec.), 2423G-11/77 (1 spec., USNM 86960); STOCS 4/III-5 Sp/79 (1 spec., USNM 86962), 5/IV-6 Sp/76 (1 spec., USNM 86963); IXTOC S52-3 11/79 (1 spec., USNM 86961).

DESCRIPTION:

Length, 20+ mm; width, to 0.80 mm. Largest specimen incomplete with 110 setigers. Prostomium (Figure 29-26a) with small, papillose lateral antennae. Palps with small palpostyles. Tentacular cirri equal in length to dorsal cirri of setiger 1. Dorsal cirri of setigers 2 and 3 smaller than those of setiger 1 and those from setiger 4 on (Figure 29-26a). Dorsal cirri without distinct cirrophores (Figure 29-26b). Ventral cirri beginning on setiger 1. Body with relatively few, small to large papillae dorsally (Figure 29-26a); ventrum with few minute papillae. Neurosetae minutely bifid with serrate margins (Figure 29-26c). Pygidium (Figure 29-26d) with a pair of papillose anal cirri.

REMARKS: Pilargis sp. A is similar to P. maculata Hartman, 1947b, in having relatively few papillae. It differs from the latter in having longer tentacular and dorsal cirri. Pilargis sp. A is also similar to some individuals of P. verrucosa Saint Joseph, 1899, described by Katzmann et al. (1974:16), but differs from them in having serrate neurosetae. Pilargis sp. A is similar to P. berkeleyae Monro, 1933c, but differs from the latter in being much less papillose and in having dorsal cirri without inflated cirrophores. The shape and degree of inflation of the dorsal cirri, however, can vary according to the contents of the body (Pettibone, pers. comm.) as well as the degree of contraction as reported for P. berkeleyae (Pettibone, 1966:163).

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Texas (Figure 29-25); 15-43 m; coarse sand, silty fine to very fine sand, silty and clayey sand, clayey sandy silt.

Genus Parandalia Emerson and Fauchald, 1971

TYPE SPECIES: Parandalia ocularis Emerson and Fauchald, 1971.

REFERENCE:

Emerson and Fauchald, 1971:19.

DIAGNOSIS: Palps not fused; palpostyles terminal, sometimes eversible. Antennae and tentacular cirri absent. All parapodia biramous, or

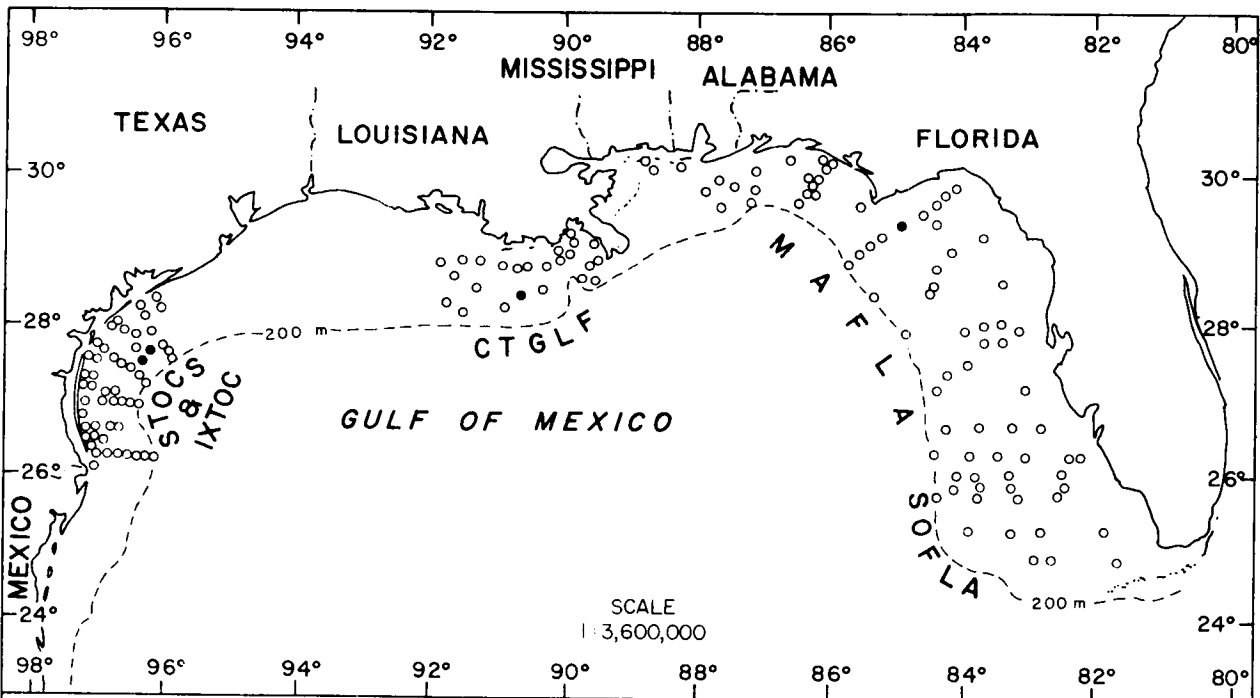


Figure 29-27. Distribution of *Parandalia* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

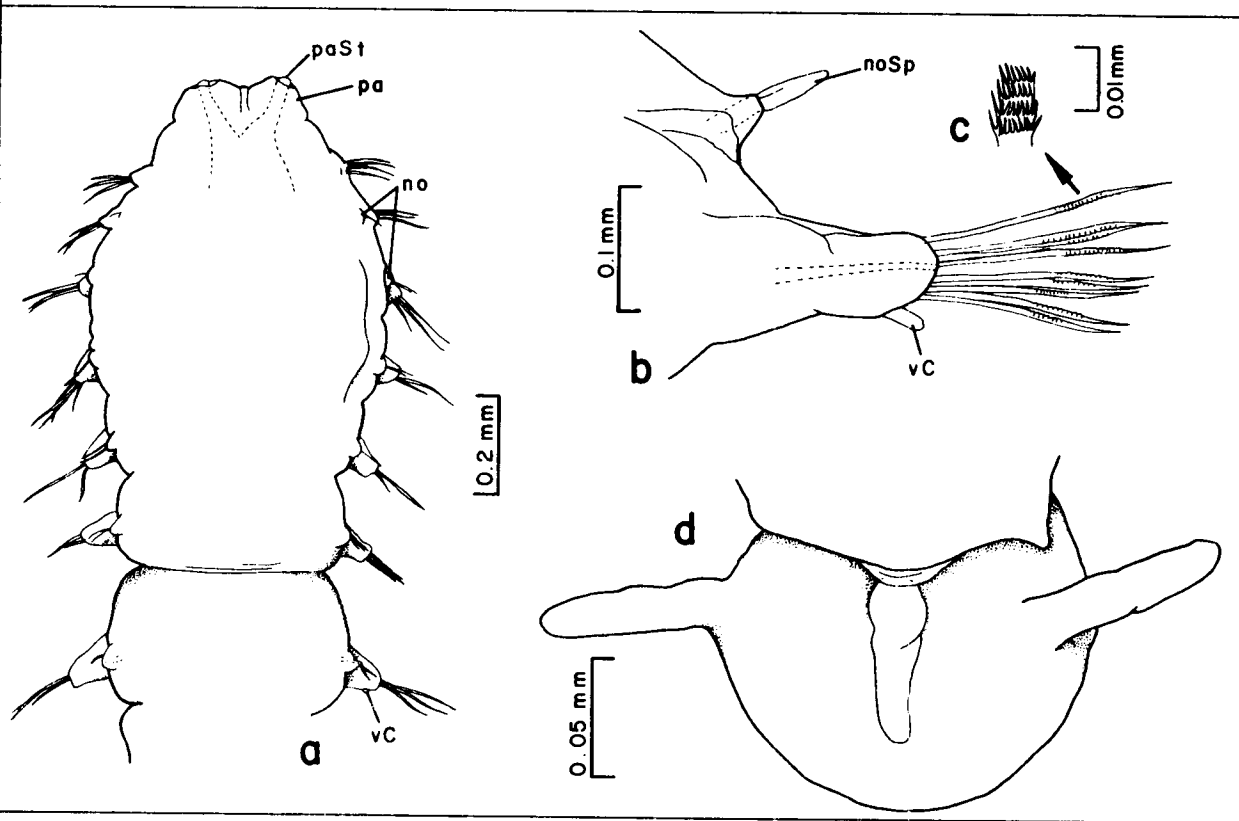


Figure 29-28. *Parandalia* sp. A: a, anterior end, dorsal view; b, middle parapodium, posterior view; c, spinous region of neuroseta; d, pygidium, ventral view.

setigers 1-2 with neurosetae only. Notosetae short, slender. Notoacicula gradually emerging and enlarging after setigers 2-9. Neurosetae spinous, tapering to fine tips. Pygidium plate-like, smooth, with one to several short cirri. Integument smooth or areolated, not papillose.

Parandalia sp. A
Figures 29-27, 28a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 24231-2/78 (1 spec., USNM 86953); CTGLF 04-6/78 (1 spec., USNM 36957), 04-9/78 (1 spec., USNM 86956); STOCS SB3-2 Sp/76 (2 spec., USNM 36955), HR1-1 W/76 (1 spec., USNM 86954).

DESCRIPTION:

Length, 20+ mm; width, to 0.50 mm. Largest specimen incomplete with 51 setigers. Prostomium (Figure 29-28a) without appendages or eyespots. Palps biarticulate with eversible palpostyles. Dorsal cirri absent. Ventral cirri beginning on setiger 4. Notopodia beginning on setiger 2, as small papilliform lobes (Figure 29-28a), each bearing 1-3 short, slender, spinous simple setae (Figure 29-28a) and an internal aciculum. Notoacicula gradually becoming stouter and emergent around setiger 7 (Figure 29-28b). Neurosetae spinous, numbering about nine per parapodium (Figure 29-28b,c). Anal plaque smooth and convex dorsally, concave ventrally with one medial and two lateral cirri (Figure 29-28d).

REMARKS: Parandalia sp. A is similar to P. americana (Hartman, 1947b) in having notosetae from setiger 2. It differs from the latter in that the ventral cirri begin on setiger 4 instead of setiger 6, and the notosetae are emergent from setiger 7 instead of setiger 2. P. americana also has 15 or more neurosetae per parapodium, arranged in five or six discrete groups, whereas Parandalia sp. A has about 9-10 neurosetae per parapodium, arranged in supra- and subacicular groups (Figure 29-28b).

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida, Louisiana, and Texas (Figure 29-27); 19-82 m; silty fine sand, clayey silt.

Genus Synelmis Chamberlin, 1919b

TYPE SPECIES: Synelmis simplex Chamberlin, 1919b.

REFERENCE:

Pettibone, 1966:190.

DIAGNOSIS: Palps not fused; palpostyles present. Three antennae present, usually quite small. Two pairs of tentacular cirri present. Acicular notosetae straight or slightly curved. Neurosetae including smooth, straight acicular spines or spines with teeth or serrations; furcate setae; and serrate setae tapering to entire or minutely bifid tips. Pygidium not papillose, with a pair of long, slender anal cirri. Body rounded in cross-section, with smooth, iridescent integument.

Key to the Gulf of Mexico BLM-OCS Species of Synelmis

- 1a. Some neurosetae modified (e.g., as furcate setae or spines; Figures 29-32e; 36d; 38i,j) 2

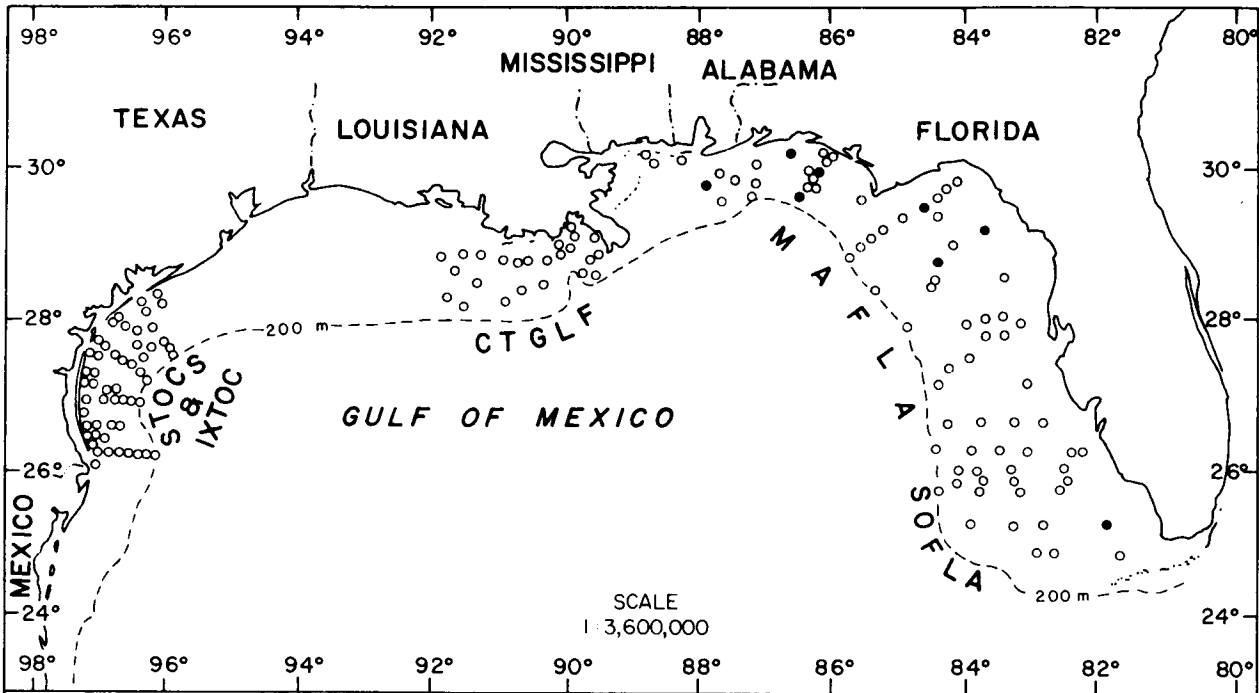


Figure 29-29. Distribution of *Synelmis klatti* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

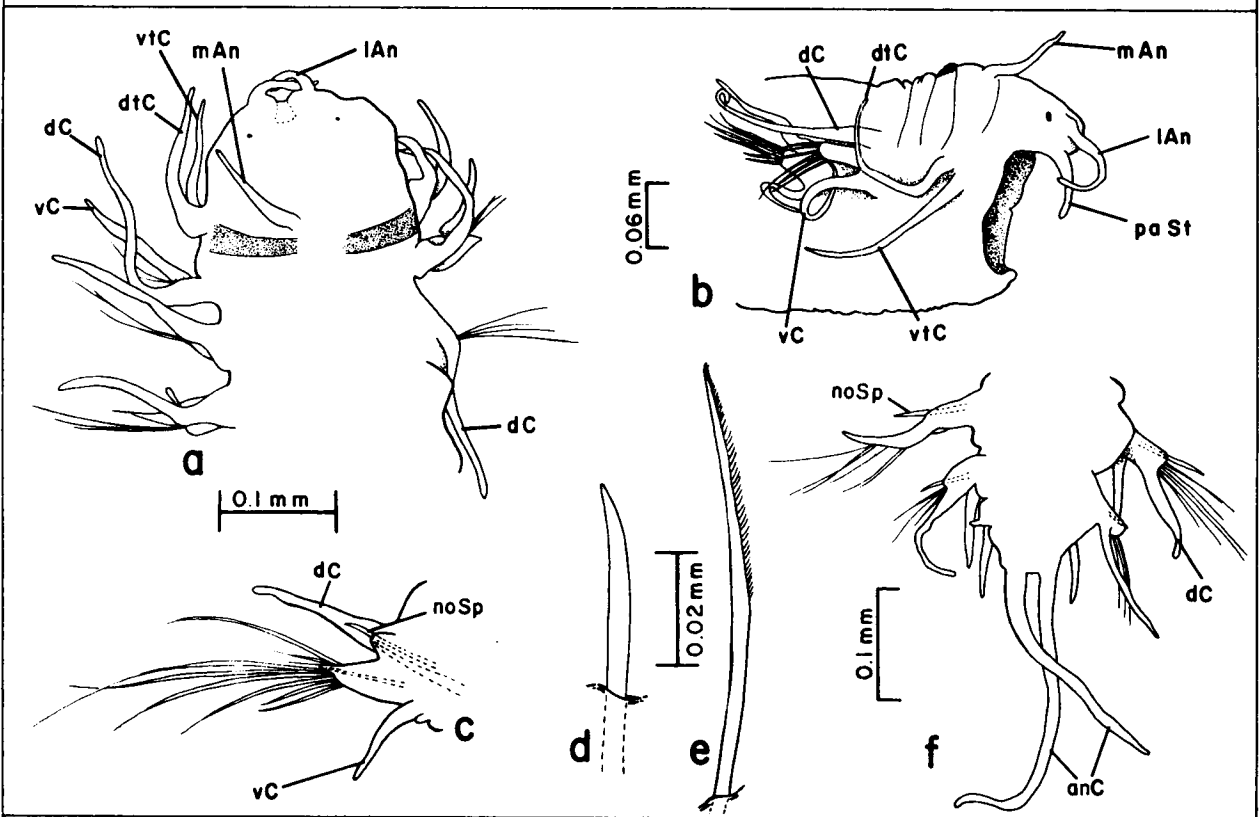


Figure 29-30. *Synelmis klatti*: a, anterior end, dorsal view; b, same, lateral view; c, middle parapodium, anterior view; d, notopodial spine; e, middle neuroseta; f, posterior end, dorsal view.

- 1b. Neurosetae slender, serrate, minutely bifid (Figure 29-30e), not modified *Synelmis klatti*, p. 29-32
- 2a. Modified neurosetae furcate (Figure 29-32e) 3
- 2b. Modified neurosetae otherwise (Figures 29-36d, 38i) 4
- 3a. Longer tine of furcate setae with entire tip (Figure 29-32e); dorsal and ventral cirri foliaceous with acuminate tips (Figure 29-32c). *Synelmis* cf. *albin*, p. 29-35
- 3b. Longer tine of furcate setae with bifid tip (Figure 29-34d); dorsal and ventral cirri slender, filiform (Figure 29-34c). *Synelmis* sp. A, p. 29-35
- 4a. Modified neurosetae as smooth spines with blunt tips (Figure 29-36d). *Synelmis* sp. B, p. 29-37
- 4b. Modified neurosetae as dentate spines with truncate or acuminate tips (Figure 29-38g-j). *Synelmis* sp. C, p. 29-39

***Synelmis klatti* (Friedrich, 1951)**
 Figures 29-29, 30a-f

Glyphohesione klatti Friedrich, 1951:171, figs. 1, 2.

Ancistrostylis klatti--Eliason, 1962b:29, fig. 3.

Synelmis klatti--Pettibone, 1966:191.

Synelmis klatti--Pearson, 1970:74, fig. 2b,c.

Synelmis klatti--Hartmann-Schröder, 1971:144, fig. 49a-e.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 20C-11/80 (3 spec., USNM 86986), 20A-4/81 (1 spec., USNM 86985), 20E-8/81 (1 spec., USNM 86987); MAFLA 2316C-11/77 (2 spec.), 2313D-7/76 (3 spec.), 2422J-6/76 (2 spec.), 2531I-8/77 (1 spec.-ovig., USNM 86983), 2536F-7/76 (1 spec., USNM 86984), 2640-11/77 (1 spec.), 2855E-8/77 (1 spec.).

DESCRIPTION:

Length, 12.0+ mm (previously reported to 13 mm); width, to 0.5 mm. Largest specimen incomplete with 53 setigers. Prostomium (Figure 29-30a,b) with three long, filiform antennae, all similar in length. Eyes present. Palps with long, filiform palpostyles. Paired pigment patches along posterior dorsal margin of prostomium (Figure 29-30a). Dorsal and ventral tentacular cirri long, slender, equal in length, about twice as long as antennae (Figure 29-30b). Dorsal cirri of setiger 1 up to twice as long as following ones; ventral cirri shorter (Figure 29-30c), present throughout. Body with smooth integument. Notopodial spines (Figure 29-30d) beginning on setigers 10-15, accompanied by slender aciculum (Figure 29-30c). Neurosetae long to short, serrate, with minutely bifid tips (Figure 29-30e). Pygidium (Figure 29-30f) with pair of long, filiform anal cirri.

REMARKS: The length of the first pair of dorsal cirri in specimens examined ranged from equal to twice that of the following dorsal cirri. *Synelmis klatti* has not previously been described as having bifid neurosetae; however, this feature is easily overlooked.

PREVIOUSLY REPORTED HABITAT: Mud to sandy mud; 11-680 m.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Alabama (Figure 29-

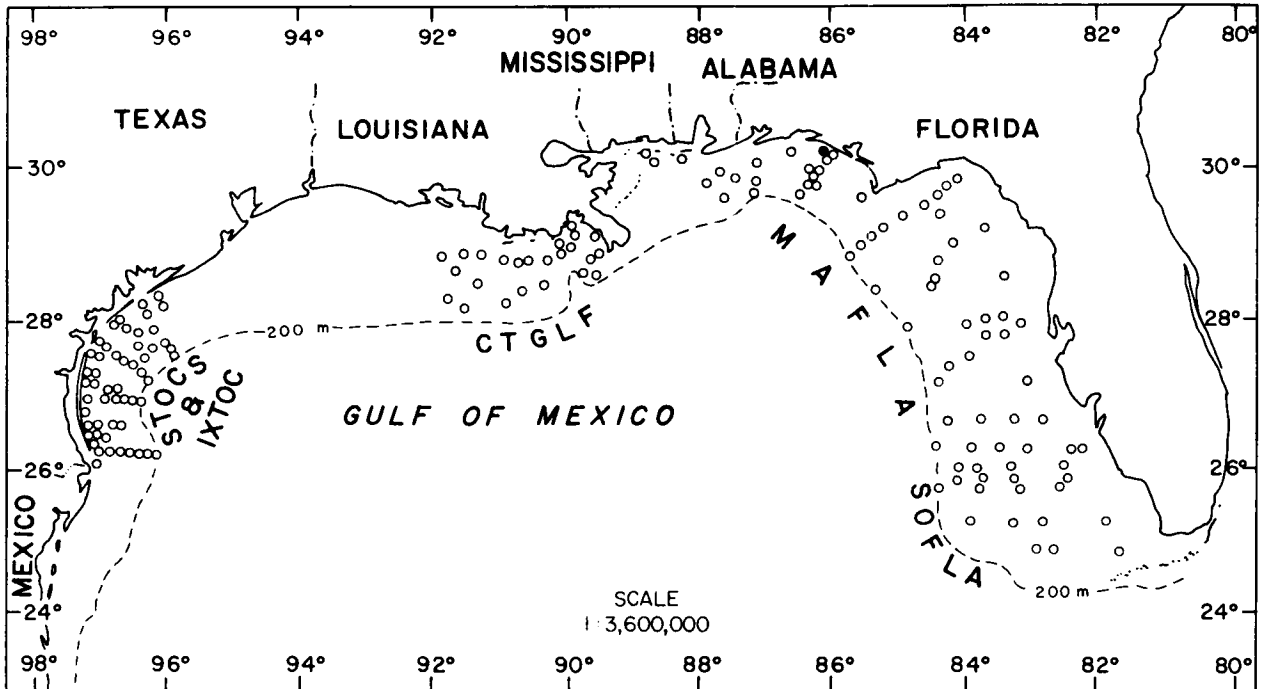


Figure 29-31. Distribution of *Synelmis cf. albini* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

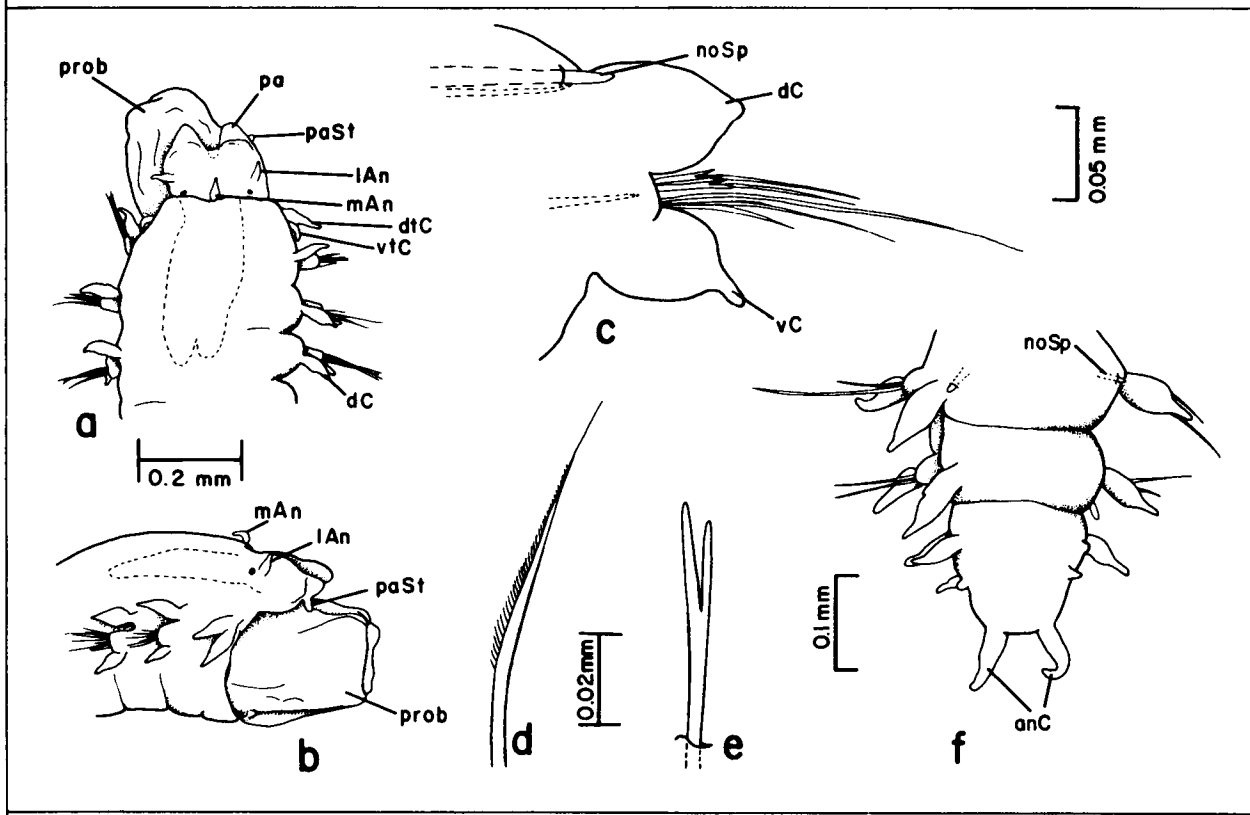


Figure 29-32. *Synelmis cf. albini*: a, anterior end, dorsal view; b, same, lateral view; c, middle parapodium, anterior view; d, middle neuroseta; e, furcate neuroseta; f, posterior end, dorsal view.

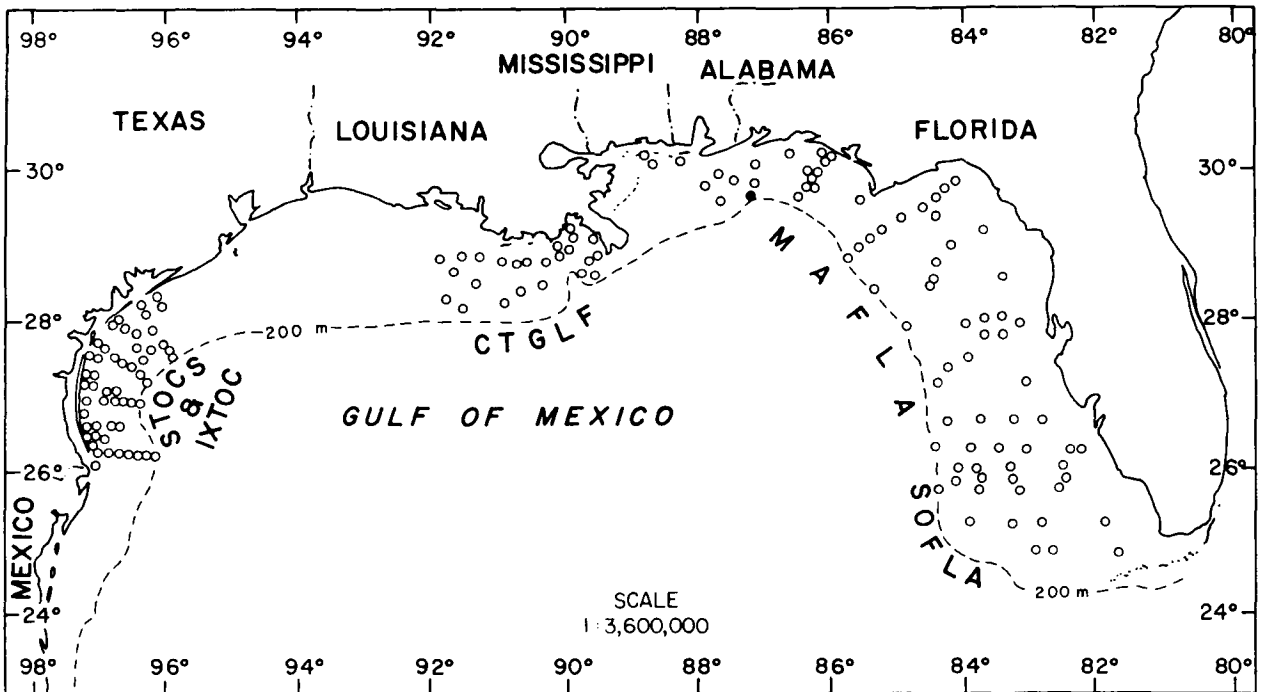


Figure 29-33. Distribution of *Synelmis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

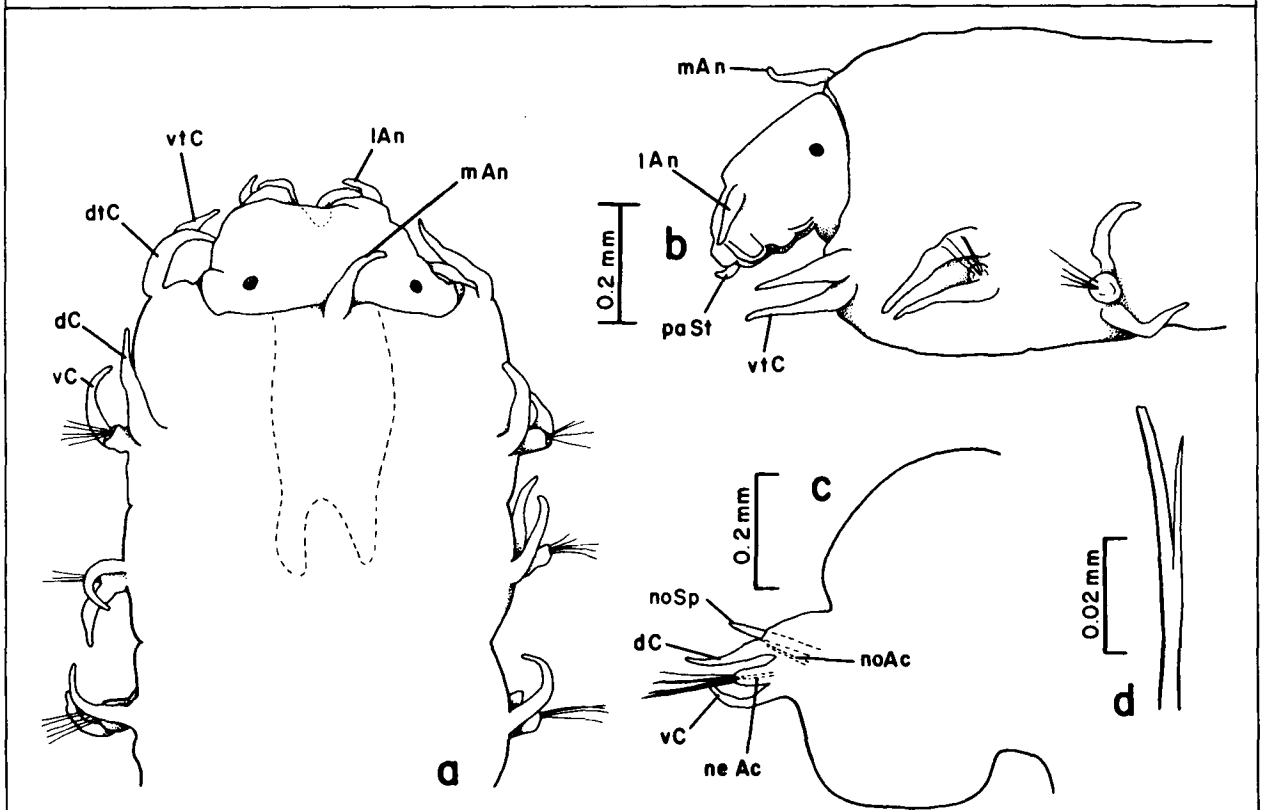


Figure 29-34. *Synelmis* sp. A: a, anterior end, dorsal view; b, same, lateral view; c, middle parapodium, anterior view; d, furcate neuroseta.

29); 20-189 m; coarse to medium-fine sand, silty fine sand, clayey silt.
DISTRIBUTION: North Sea, Scotland, Gulf of Mexico.

Synelmis cf. *albini* (Langerhans, 1881)
Figures 29-31, 32a-f

Ancistrosyllis albini Langerhans, 1881:107, fig. 16a-e.
Synelmis albini--Pettibone, 1966:191 [in part], fig. 19a-d, 20a-f [not
fig. 21a-d].

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:
MAFLA 2528E-2/78 (1 spec.).

DESCRIPTION:

Length, 9.0 mm; width, 0.5 mm. Single specimen complete with 59 setigers. Prostomium (Figure 29-32a) with three small antennae of equal length. Eyes present. Palps with small ventral palpostyles (Figure 29-32b). Dorsal and ventral tentacular cirri equal in length, about twice as long as antennae. Dorsal and ventral cirri foliaceous, with acuminate tips (Figure 29-32c), equal in length throughout. Body with smooth integument. Notopodial spines beginning on setiger 5, accompanied by slender aciculum (Figure 29-32c). Neuropodia with 5-10 serrate setae tapering to fine tips (Figure 29-32d), and 1-2 furcate setae (Figure 29-32e). Pygidium with a pair of anal cirri (Figure 29-32f).

REMARKS: The descriptions of Synelmis albini (Langerhans, 1881) are at present quite confused. Pettibone (1966:191) has synonymized several species under S. albini; however, she considered the furcate setae to be fractured simple setae and therefore not a valid character. On the specimen examined herein, the furcate setae are definite, well-defined, and consistent in shape and number. For other species of Synelmis, such as S. albini, S. rigida (see Hartman, 1947b:498), and S. gorgonensis (Monro, 1933c), seemingly well-defined furcate setae are also described and figured. Until type material of the various species of Synelmis is re-examined, the specimen described in this study can only be tentatively identified.

PREVIOUSLY REPORTED HABITAT: Intertidal to 2538 m.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off Florida (Figure 29-31); 37 m; coarse sand.

DISTRIBUTION: Widespread in tropical and subtropical waters.

Synelmis sp. A
Figures 29-33, 34a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:
MAFLA 2645I-6/75 (1 spec.).

DESCRIPTION:

Length, 42.0+ mm; width, 1.5 mm. Single specimen incomplete with 75 setigers. Prostomium (Figure 29-34a,b) with three antennae, equal in length. Palps with digitiform ventral palpostyles. Dorsal and ventral tentacular cirri equal in length, about twice as long as antennae. Dorsal cirri of setiger 1 slightly longer than following ones. Dorsal and ventral cirri (Figure 29-34c) equal in length, filiform throughout.

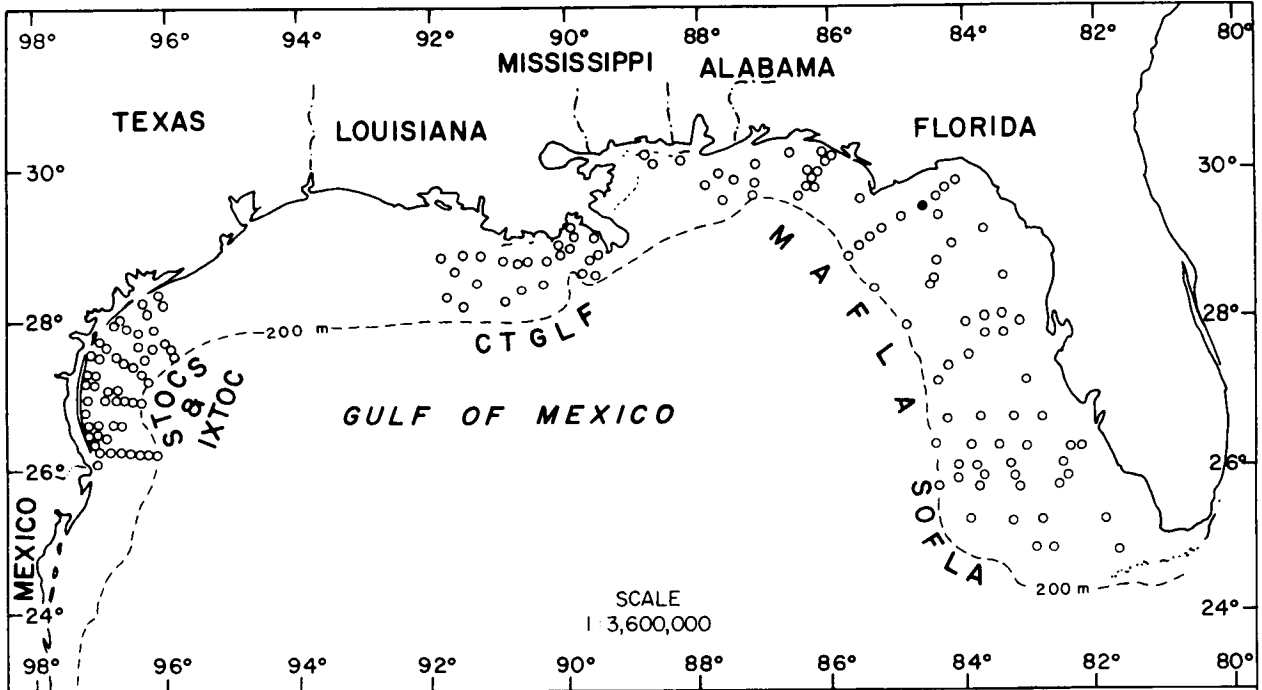


Figure 29-35. Distribution of *Synelmis* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

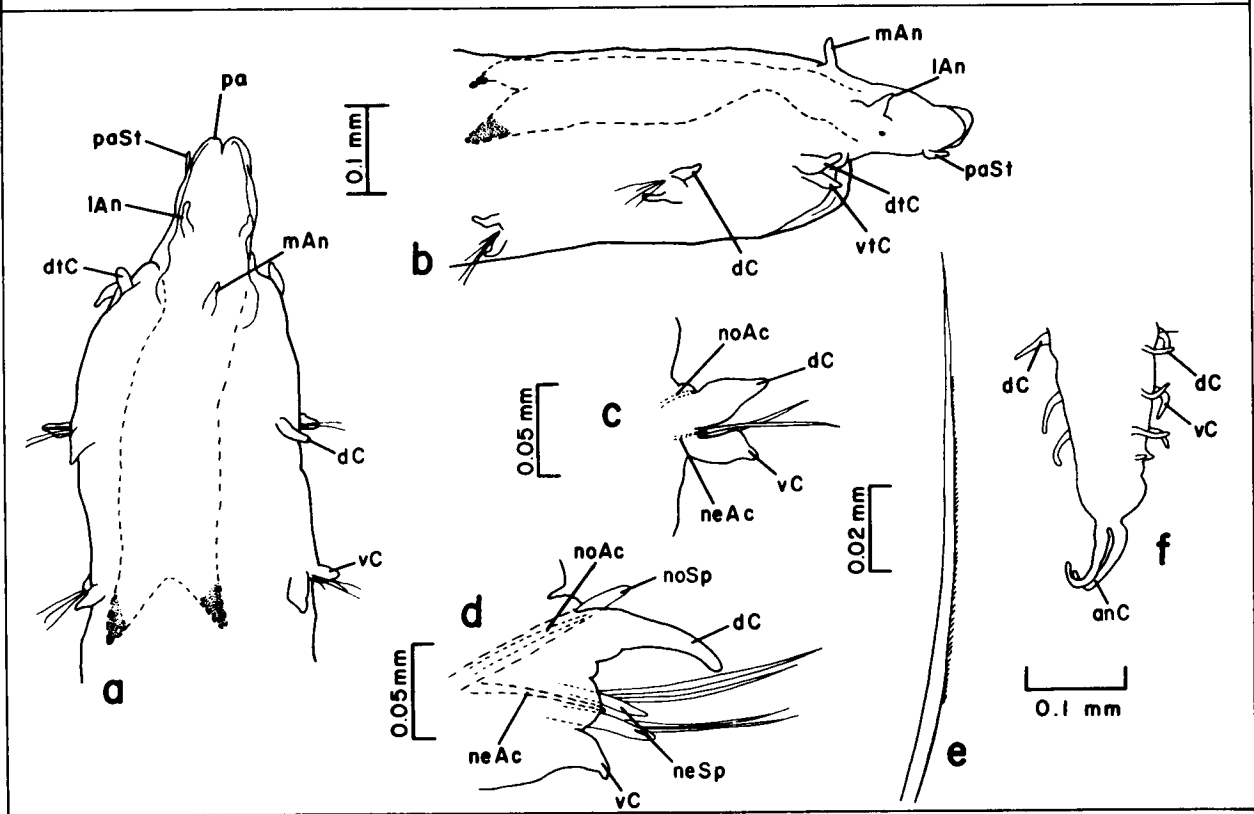


Figure 29-36. *Synelmis* sp. B: a, anterior end, dorsal view; b, same, lateral view; c, anterior parapodium, anterior view; d, posterior parapodium, anterior view; e, upper neuroseta; f, posterior end, dorsal view.

Notopodial spines beginning on setiger 5, accompanied by slender aciculum (Figure 29-34c). Neuropodia with about 15 serrate setae tapering to fine tips, and two furcate setae having slender unequal tines, longer one with minutely bifid tip (Figure 29-34d).

REMARKS: The furcate setae of Synelmis sp. A are extremely difficult to see among the numerous simple setae, but can be found by looking for the bifid tip of the longer tine. The bifid tip, although minute, proved to be a consistent character on the specimen examined herein. Synelmis sp. A differs from other species of the genus in the shape of the furcate setae. However, since only one specimen was available for examination, conclusions based on this character could be misleading.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off Florida (Figure 29-33); 106 m; coarse sand.

Synelmis sp. B
Figures 29-35, 36a-f

Synelmis albini--Pettibone, 1966:191 [in part], fig. 21a-d.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2422C-6/76 (1 spec., USNM 86988), 2422D-6/76 (1 spec., USNM 86989).

DESCRIPTION:

Length, 19.0+ mm; width, to 0.6 mm. Largest specimen incomplete with 46 setigers. Prostomium (Figure 29-36a) with three small digitiform antennae, equal in length. Eyes minute, not visible dorsally. Palps with small ventral palpostyles (Figure 29-36b). Dorsal and ventral tentacular cirri equal in length, about twice as long as antennae. Dorsal cirri of anterior setigers broad basally (Figure 29-36c), becoming longer and more filiform posteriorly (Figure 29-36d). Ventral cirri present throughout, similar in length to dorsal cirri anteriorly (Figure 29-36b), becoming relatively shorter posteriorly (Figure 29-36d). Body with smooth integument. Notopodial spines beginning about setiger 17, accompanied by slender aciculum (Figure 29-36d). Anterior neuropodia (Figure 29-36c) with slender serrate setae (Figure 29-36e) and 1-2 small emergent spines. Posteriorly, neuropodial spines becoming larger, more prominent, numbering two per parapodium (Figure 29-36d). Pygidium (Figure 29-36f) with two anal cirri.

REMARKS: Synelmis sp. B includes specimens from Old Tampa Bay, Florida, considered by Pettibone (1966:191, fig. 21a-d) (but not re-examined herein) to be a form of S. albini (Langerhans, 1381). Synelmis sp. B is similar to S. albini; however, the species differ in that the former possesses two stout emergent spines in the neuropodia, whereas the latter lacks spines altogether. No other species of Synelmis have been reported with stout neuropodial spines.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida (Figure 29-35); 24 m; medium-fine sand.

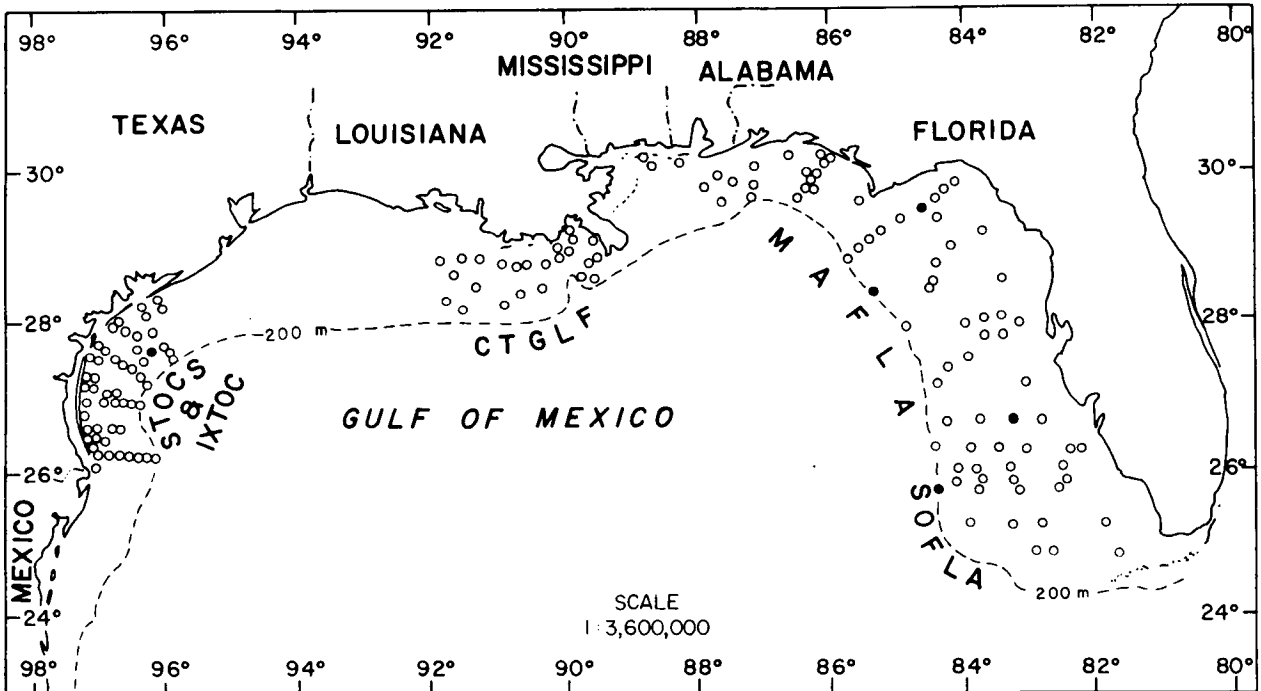


Figure 29-37. Distribution of *Synelmis* sp. C on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

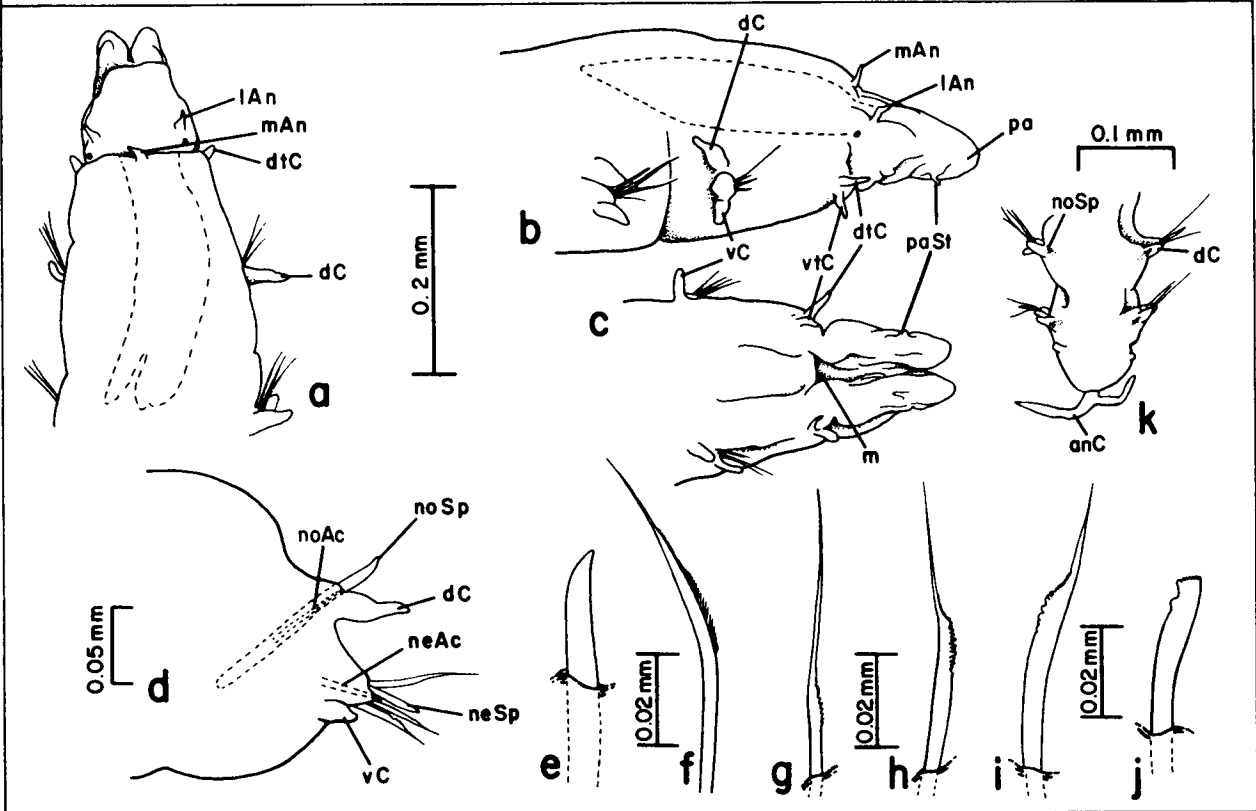


Figure 29-38. *Synelmis* sp. C: a, anterior end, dorsal view; b, same, lateral view; c, same, ventral view; d, middle parapodium, anterior view; e, notopodial spine; f, upper neuroseta from setiger 4; g, middle neuroseta from setiger 15; h, same, from setiger 20; i, same, from setiger 30; j, same, from setiger 38; k, posterior end, dorsal view.

Synelmis sp. C
Figures 29-37, 38a-k

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4D-8/81 (1 spec., USNM 86991); MAFLA 2313E-11/77 (1 spec., USNM 86990), 2422C-6/76 (1 spec.), 2957G-11/77 (1 spec.); STOCS HR1-5 F/76 (1 spec., USNM 86992).

DESCRIPTION:

Length, 9.0+ mm; width, to 0.30 mm. Largest specimen incomplete with 42 setigers. Prostomium (Figure 29-38a) with three small digitiform antennae, equal in length. Eyes present. Palps with small ventral palpostyles (Figure 29-38b,c). Dorsal and ventral pairs of tentacular cirri equal in length, about 1.5 times longer than antennae (Figure 29-38b). Dorsal cirri all similar in length. Ventral cirri present throughout, smaller than dorsal cirri (Figure 29-38d). Body with smooth integument. Notopodial spines (Figure 29-38e) beginning on setiger 5, accompanied by slender aciculum (Figure 29-38d). Neuropodia of anterior 14-17 setigers with about nine serrate setae tapering to fine tips (Figure 29-38f); thereafter, middle and lower neurosetae gradually transformed to have two rows of rounded teeth on convex margin below acuminate tip (Figure 29-38g,h). Acuminate neurosetae becoming stouter posteriorly and variously shaped (Figure 29-38i,j). Larger specimens with supra-acicular, smooth, emergent spine beginning about setigers 18-25 (Figure 29-38d); smaller specimens lacking spines. Number of neurosetae reduced to 4-6 posteriorly. Pygidium (Figure 29-38k) with single bifurcate anal cirrus.

REMARKS: Synelmis sp. C differs from other species of the genus in the form of the acuminate neurosetae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Texas (Figure 29-37); 24-180 m; medium to medium-fine sand, silty very fine sand, clayey sandy silt.

Genus Litocorsa Pearson, 1970

TYPE SPECIES: Litocorsa stremma Pearson, 1970.

REFERENCES:

Pearson, 1970:69.

Katzmann et al., 1974:12.

DIAGNOSIS: Palps fused dorsally, with or without palpostyles. Antennae present or absent. Two pairs of small tentacular cirri present. Noto-setae acicular. Neuropodia with 1-2 stout emergent spines, and slender serrate setae having fine tips. Pygidium smooth, with two smooth, slender anal cirri. Body rounded in cross-section, with smooth integument.

REMARKS: The above diagnosis is modified from that of Pearson (1970:69) to include the species described herein, which has minute antennae and palpostyles. Also, the pointed prostomium described by Pearson (1970) and Katzmann et al. (1974) is here interpreted as palps that are fused dorsally.

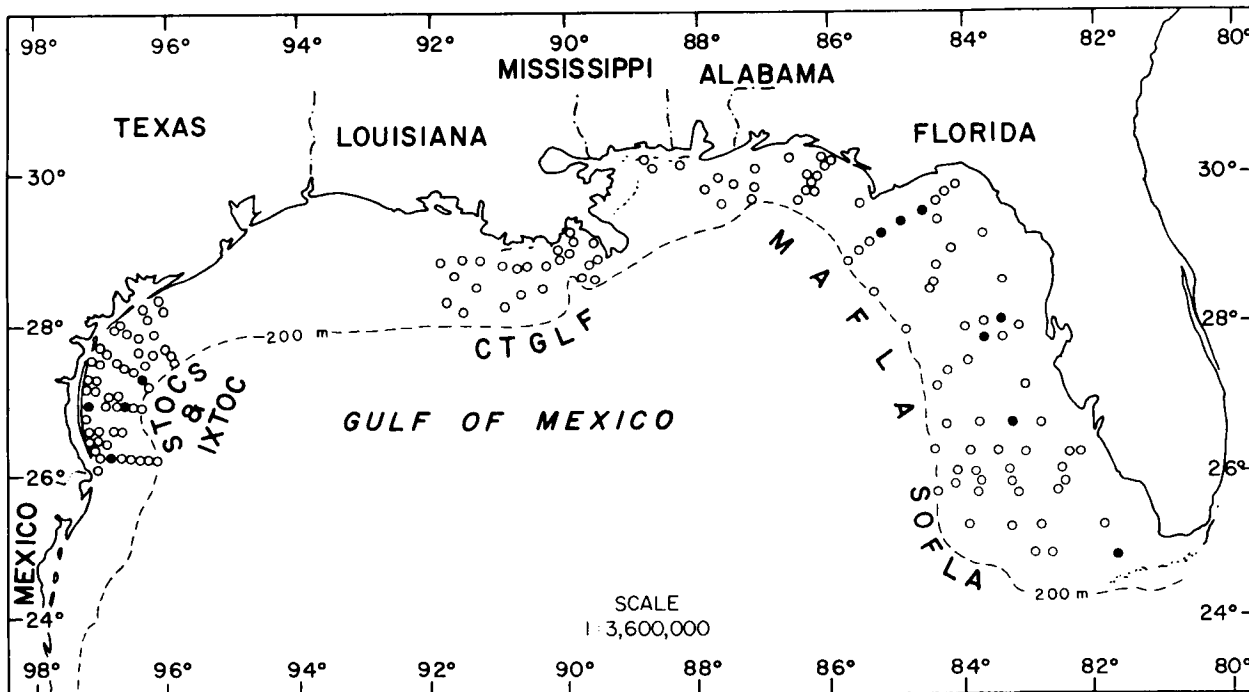


Figure 29-39. Distribution of *Litocorsa* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

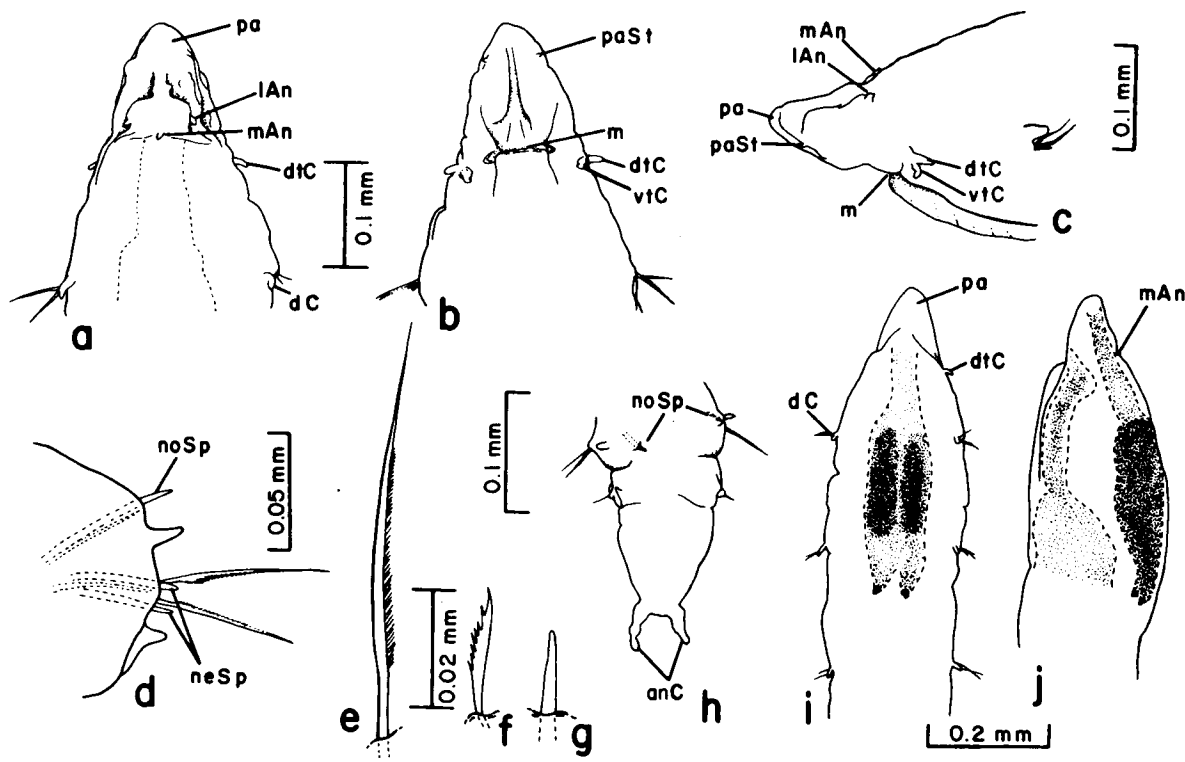


Figure 29-40. *Litocorsa* sp. A: a, anterior end, dorsal view; b, same, ventral view; c, same, lateral view; d, middle parapodium, anterior view; e, upper neuroseta; f, neuropodial spine from setiger 3; g, same, from middle setiger; h, posterior end, dorsal view; i, anterior end showing dorsal organ; j, same, lateral view.

Litocorsa sp. A
Figures 29-39, 40a-j

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4B-8/81 (1 spec., USNM 86944), 4D-8/81 (3 spec., USNM 86945), 25-11/80 (1 spec., USNM 86946); MAFLA 2208G-6/76 (2 spec., USNM 86941), 2209H-8/77 (1 spec., USNM 86943), 2422C-6/76 (13 spec.), 2422D-6/76 (2 spec.), 2422E-6/76 (11 spec.), 2423B-7/76 (36 spec.), 2423C-7/76 (60 spec.), 2423D-7/76 (50 spec.), 2424C-7/76 (1 spec.); STOCS 6/II-3 8/76 (1 spec., USNM 86948), 2/III-5 Sp/76 (2 spec., USNM 86949), 4/III-5 F/76 (13 spec., USNM 86951), 4/III-4 W/77 (1 spec., USNM 86950), 1/IV-6 W/76 (2 spec., USNM 86952); IXTOC S52-6 11/79 (1 spec., USNM 86947).

DESCRIPTION:

Length, to 25 mm; width, to 0.20 mm. Largest specimen complete with 107 setigers. Prostomium with minute median and lateral antennae (Figure 29-40a). Eyes apparently absent. Palps fused, with pair of minute palpostyles (Figure 29-40b). Tentacular and dorsal cirri short, digitiform, similar in length (Figure 29-40c). Parapodia (Figure 29-40d) poorly developed, not set off from body wall. Ventral cirri beginning on setiger 2, slightly smaller than dorsal cirri. Body entirely smooth. Stout notopodial spines beginning on setigers 6-8, accompanied by slender notoaciculum (Figure 29-40d). Slender, serrate neurosetae (Figure 29-40e) present throughout, accompanied by 1-2 acicular spines. Spines serrate on first 1-3 or 4 setigers (Figure 29-40f), gradually becoming smooth more posteriorly (Figure 29-40g). Pygidium (Figure 29-40h) with a pair of smooth, filiform anal cirri.

REMARKS: Litocorsa sp. A has a glandular organ present dorsally just beneath the integument (Figure 29-40i,j), extending from the palps to about setiger 3. Such an organ has also been reported for L. stremma Pearson, 1970. The function is unknown, but because the posterior tips are pigmented, it may be photoreceptive. Litocorsa sp. A differs from L. stremma only in possessing minute antennae and palpostyles. Examination of specimens of L. stremma, loaned by Dr. Pearson, confirms the absence of any head appendages on his specimens. The setal morphology of both species is identical, including the serrate neuropodial spines of the anterior few setigers.

GULF OF MEXICO BLM-OCS OCCURRENCE: Off Florida and Texas (Figure 29-39); 15-98 m; medium to medium-fine sand, silty fine sand, clayey sand, clayey sandy silt, silty clay.

CHAPTER 30

Joan M. Uebelacker

FAMILY SYLLIDAE Grube, 1850

INTRODUCTION

Syllids are small, slender-bodied polychaetous annelids, often less than 10 mm in length, although members of the subfamily Syllinae may reach several centimeters. The prostomium is rounded and usually has two pairs of eyes, three antennae, and a pair of anteroventral palps. The palps may be free from each other or partially to completely fused along their length. The peristomium has either one or two pairs of tentacular cirri. Nuchal organs are present and are variably defined. Dorsal cirri are conspicuous, of varying lengths, and smooth to articulated. Ventral cirri are present or absent. Parapodia are supported by acicula and are uniramous in non-reproductive individuals. In sexually mature individuals, most parapodia are subbiramous, due to the development of natatory setae arising from the body wall below the dorsal cirri. Setae are simple or composite. The eversible pharynx usually has a single median tooth, and/or a distal circlet of teeth; in a few taxa it is unarmed. The pharynx leads posteriorly into a large, muscular proventricle.

The family contains 56 recognized genera and more than 600 species (Fauchald, 1977a). Seventy-three species representing 25 genera have been identified from the Gulf of Mexico BLM-OCS studies. Of these, 28 are probably new to science and an additional 13 previously described species are newly reported from this region.

PRINCIPAL DIAGNOSTIC CHARACTERS

The Syllidae are divided into the subfamilies Autolytinae, Exogoninae, Eusyllinae, and Syllinae as follows:

Autolytinae: Palps partially to completely fused. Nuchal organs forming epaulettes. Tentacular cirri numbering two pairs. Dorsal cirri smooth or with single long article on basal cirrophore. Ventral cirri absent. Pharynx long, coiled or sinuous, having a distal circlet of teeth (trepan).

Exogoninae: Body small. Palps fused dorsally over half to entire length. Nuchal organs generally indistinct. Tentacular cirri numbering one or two pairs. Dorsal cirri short, and ovoid, clavate, fusiform, or digitiform in shape. Ventral cirri present. Pharynx straight, armed with a single large tooth.

Eusyllinae: Palps fused basally. Nuchal organs often large, distinct. Tentacular cirri numbering one or two pairs. Dorsal cirri variable in length, usually smooth. Ventral cirri present. Pharynx usually straight, with teeth or unarmed.

Syllinae: Palps separate. Nuchal organs usually small and indistinct. Tentacular cirri numbering two pairs. Dorsal cirri usually elongate, articulated. Ventral cirri present. Pharynx straight, having a large dorsal tooth and/or trepan.

Investigators identifying large numbers of syllids may find it helpful to initially sort to subfamily, insofar as possible. The Autolytinae and Exogoninae are readily recognizable taxa. However, the same cannot be said for the Eusyllinae and Syllinae in that characters typically used to separate these taxa overlap considerably. Some species referred to Pionosyllis in the Eusyllinae, for example, have distinctly articulated dorsal cirri, while a few species of the Syllinae, such as Syllis (Ehlersia) ferrugina, have mostly smooth dorsal cirri. Furthermore, it is often difficult to determine whether the palps are fused basally. Many members of the Syllinae examined herein appear to have basally fused palps. These two subfamilies can perhaps best be separated by the presence of articulated dorsal cirri, even though this criterion is not always definitive. Sexual stolons may not be readily identifiable to subfamily because certain diagnostic characters, such as head appendages, pharynx and proventricle, are considerably modified or absent. In such cases some level of identity can usually be determined by examining the setae.

Several major taxonomic characters contribute to generic separations, including body form, appendages and sensory structures, the kinds of setae, and especially, dentition of the pharynx. In general, the pharynx may be either unarmed, or armed in one of several ways: with a single large tooth (e.g., Syllis), the relative position of which is important; with a trepan of distinct teeth (e.g., Autolytus) or denticulation (e.g., Eusyllis) on the anterior margin; or with a series of teeth in a ventral arc (Odontosyllis). The body may be cylindrical, as in most syllids, or dorsoventrally flattened (e.g., Trypanosyllis). The presence of an occipital flap on the head region is diagnostic of Odontosyllis, while body papillae are characteristic of Sphaerosyllis. The number of pairs of tentacular cirri is important. Shape of the dorsal cirri is sometimes diagnostic, particularly in the Exogoninae. In the Eusyllinae and Syllinae, dorsal cirri usually are smooth or distinctly articulated. In the Autolytinae, the presence of well-developed dorsal cirrophores is an important generic character.

Kinds of setae and setal morphology are of great significance at both the generic and specific levels. Setae are usually composite falcigers, but composite spinigers may be present as well in a number of genera. The setae of Haplosyllis and Geminosyllis are entirely simple. In other genera, simple setae usually occur, but are restricted to one or two per fascicle, and often are found only on the posteriormost setigers (e.g., in Syllis). Modifications of these basic setal types are extremely variable, and are used to diagnose several genera and a large proportion of species.

Important specific criteria include pharyngeal and setal morphology, body pigmentation, and the shape and location of such structures as the antennae, nuchal organs, parapodia, dorsal and ventral cirri, and the proventricle. However, many of the soft appendages are quite variable, and are susceptible to loss or distortion if the specimen is handled roughly or is poorly preserved. It is therefore advisable to rely primarily on hard setal structures and pharyngeal dentition patterns for definitive species identifications. The use of a compound microscope is essential to accomplish this task. Setae are best examined using a high magnification immersion objective. Small specimens can easily be mounted whole on slides; with larger specimens it is best to remove and mount several parapodia from different body regions.

In order to separate species of the Autolytinae, and certain other genera such as Odontosyllis and Trypanosyllis, the pharynx must be carefully dissected to determine its dentition. These dissections require good stereoscopic resolution due to the small body size of syllids. One method of dissection involves making a small dorsal incision with a microscalpel, gently lifting the anterior end of the pharynx through the incision with care not to sever the pharynx, and allowing the freed end of the pharynx to rest on the dorsum. Muscle tissue obscuring the distal teeth should be very carefully cut away. Clearing of specimens may then be helpful by placing them in solution or on temporary slide mounts using Amman's lactophenol (Cook and Brinkhurst, 1973) and heat (P. Wolf, pers. comm.), or Hoyer's (Coull, 1977).

In the following descriptions of the Gulf of Mexico BLM-OCS species of syllids, frequent reference is made to different body regions. Although the body of a syllid is not externally divisible into distinct regions, "anterior" here includes the body region from the prostomium to the posterior end of the proventricle; "posterior" refers generally to a few prepygidial setigers such as those of Syllis in which both superior and inferior simple setae are present; and "midbody" refers to all other intermediate setigers.

Setal morphology and distribution are of paramount importance in syllid systematics. Frequently it is necessary to describe the various kinds of setae both along the body and within a setal fascicle, particularly among the Syllinae and also to some extent the Eusyllinae and Exogoninae. Setal morphology often changes considerably from anterior to posterior along the body or from dorsal to ventral within a fascicle. Blades of composite setae usually decrease in length from dorsal to ventral. Blade-length ratios comparing the lengths of the longest and shortest blades within a fascicle are reported for many members of the Syllinae. Superior and inferior simple setae, which accompany the composite setae in the posterior region of many species, are almost always solitary, and are illustrated from the posterior body region unless otherwise indicated.

In many of the descriptions, morphological data are presented as ranges for the following characters: number of articles in the antennae, tentacular, dorsal and anal cirri; setal blade-length ratios; number of setigers occupied by the pharynx and proventricle; number of marginal pharyngeal teeth; number of muscle cell rows along the proventricle; length ratio of the pharynx to proventricle; and the proventricle length to width ratio. These ranges are based only on the material examined for each species. The true population range for each of these parameters may be somewhat broader.

Setal blades were measured from the distal blade tip to the proximal base that articulates in the shaft socket. Proventricle length and width were measured at its longest and widest portions.

BIOLOGICAL NOTES

Syllids generally live in cryptic habitats, creeping actively through the channels or crevices of sponges, corals, hydroids, algae, gravel, etc. They are often the most abundant and diverse of polychaete families in collections of living hosts such as sponges and hard corals. Many syllids also commonly inhabit soft bottom sediments.

It is postulated that many syllid species are carnivorous, using the pharyngeal armature to pierce the body wall of prey organisms such as colonial invertebrates, and then sucking their body fluids by means of a proventricular pumping action. Examples of this predatory behavior are displayed by the Autolytinae, many of which specialize on hydroids. However, the Exogoninae are probably selective deposit-feeders of mud or detritus. Diatoms may be an important food source for some species (Fauchald and Jumars, 1979:251). Syllids in laboratory cultures have been maintained successfully on hydroids (Schiedges, 1979).

Reproduction in syllids commonly involves the formation of a sexual individual (stolon or epitoke) from the asexual (atokous) individual. This process is called epitoky, and results either through direct transformation of the atokous individual, or through budding. In direct transformation, the body cavity becomes filled with eggs or sperm, the eyes may enlarge, and notopodial natatory setae may develop (e.g., Odontosyllis). Budding involves the asexual production of stolons from the parental atoke or "stock" individual. The stolons may be produced as a single posterior bud either similar to the parental stock (as in many species of Syllis, Trypanosyllis, and Eurysyllis) or quite dissimilar from the stock (as in "saccocirrus" (female) and "polybostrichus" (male) sexual stolons of Autolytus). Stolons may also develop as a chain of similar buds (e.g., Myrianida), a cluster of buds at the posterior end (e.g., certain Trypanosyllis), or a segmental proliferation of stolons from the sides of the parental stock (e.g., Syllis ramosa).

Following either direct transformation or budding, the epitokes detach from the parental stock, develop to sexual maturity, and may swarm. In swarming, numerous individuals of both sexes swim to the surface where gametes are spawned, leading to fertilization.

Some syllids exhibit parental brood care of their young. For example, females among the Exogoninae carry their developing embryos attached to their dorsum or ventrum. In certain species of Pionosyllis, the female remains with the developing eggs in a tubular cocoon attached to a hydroid stem until the young are ready to leave the cocoon (Day, 1967:236).

SPECIES OF SYLLIDAE RECORDED FROM
GULF OF MEXICO BLM-OCS PROGRAMS

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Key to the Subfamilies and Genera of Syllidae from
the Gulf of Mexico BLM-OCS Programs

- 1a. Ventral cirri absent; pharynx coiled or sinuous; nuchal organs as epaulettes (Figures 30-2a, 6a) (subfamily *Autolytinae*). 4
- 1b. Ventral cirri present; pharynx usually straight; nuchal organs usually not as epaulettes 2

- 2a. Adults small, usually less than 10 mm in length; palps fused at least half their length (subfamily *Exogoninae*). 6
- 2b. Adults larger, up to several centimeters in length; palps maximally fused basally. 3

- 3a. Palps fused basally; dorsal cirri smooth at least basally; body cylindrical (subfamily *Eusyllinae*). 8
- 3b. Palps usually not fused basally; dorsal cirri articulated or globular; body cylindrical or flattened (subfamily *Syllinae*). 17

- 4a. Superior simple setae (bayonet-setae) thick-shafted (Figure 30-2c); nuchal epaulettes short, reaching setiger 1 or 2.
. *Proceraea*, p. 30-8
- 4b. Superior simple setae (bayonet-setae) thin-shafted (Figure 30-4c); nuchal epaulettes variable in length. 5

- 5a. Dorsal cirri cylindrical (Figure 30-6a). *Autolytus*, p. 30-10
- 5b. Dorsal cirri flattened (Figure 30-8a). *Myrianida*, p. 30-15

- 6a. Two pairs of tentacular cirri; dorsal cirri clavate to digitiform (Figure 30-12a). *Brania*, p. 30-16
- 6b. One pair of tentacular cirri; dorsal cirri subulate to onion-shaped (Figure 30-20a) or ovoid (Figure 30-30a) 7

- 7a. Dorsal cirri subulate to onion-shaped (Figure 30-20a); body with small papillae (Figure 30-20a) *Sphaerosyllis*, p. 30-24
- 7b. Dorsal cirri ovoid (Figure 30-30a); body without papillae.
. *Exogone*, p. 30-34

- 8a. Pharynx unarmed; dorsal cirri smooth or distally articulated (Figure 30-42a) 9
- 8b. Pharynx armed with one or a series of teeth; dorsal cirri smooth (Figure 30-60a), irregularly wrinkled (Figure 30-74a), or indistinctly articulated (Figure 30-62a). 11

- 9a. Anterior parapodia with large, knobbed acicula (Figure 30-46b); anterior composite falcigers with modified shaft-heads (Figure 30-46d,e). 10
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- 10a. Ventral cirri long (Figure 30-46a); composite spinigerous setae and capillary superior simple setae absent Streptosyllis, p. 30-52
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- 16b. Pharynx with medial ventral series of teeth (Figure 30-76g); nuchal organs as ciliated ridges along posterior border of prostomium; occipital flap present (Figure 30-76a). Odontosyllis, p. 30-80
- 17a. Pharynx with trepan of ten teeth (Figure 30-82h), with or without additional middorsal tooth, or unarmed; body dorsoventrally flattened 18
- 17b. Pharynx with single middorsal tooth and/or denticulate margin; body usually cylindrical, sometimes flattened 21
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- 26b. Simple setae restricted to posterior region 27
- 27a. Superior composite setae spinigerous, blade-length ratio at least 5:1 (Figures 30-114b, 116d). *Syllis (Ehlersia)*, p. 30-118
- 27b. Superior composite setae falcigerous, blade-length ratio less than 5:1. *Syllis (Typosyllis)*, p. 30-124

*Not found in Gulf of Mexico BLM-OCS collections.

Genus *Proceraea* Ehlers, 1864

TYPE SPECIES: *Proceraea picta* Ehlers, 1864.

REFERENCES:

Gidholm, 1967:203.

Fauchald, 1977a:83.

DIAGNOSIS: Prostomium with three antennae; palps small, fused, ventrally directed. Two pairs of tentacular cirri. Nuchal epaulettes usually short. Antennae, tentacular and dorsal cirri cylindrical; cirrophores absent. Bayonet-setae with truncate spiny tips, without lateral spines, with shafts about same thickness as shafts of composite falcigers. Ciliation restricted mainly to nuchal epaulettes. Pharynx sinuous, trepan usually with alternating large and small teeth in multiples of nine.

Proceraea ?cornuta (Agassiz, 1863)

Figures 30-1, 2a-c

Autolytus cornutus--Pettibone, 1963:144, fig. 37e [Not *Autolytus fallax*--Pettibone, 1954:247].

Autolytus (Regulatus) cornutus--Imajima, 1966:49, fig. 13a-i.

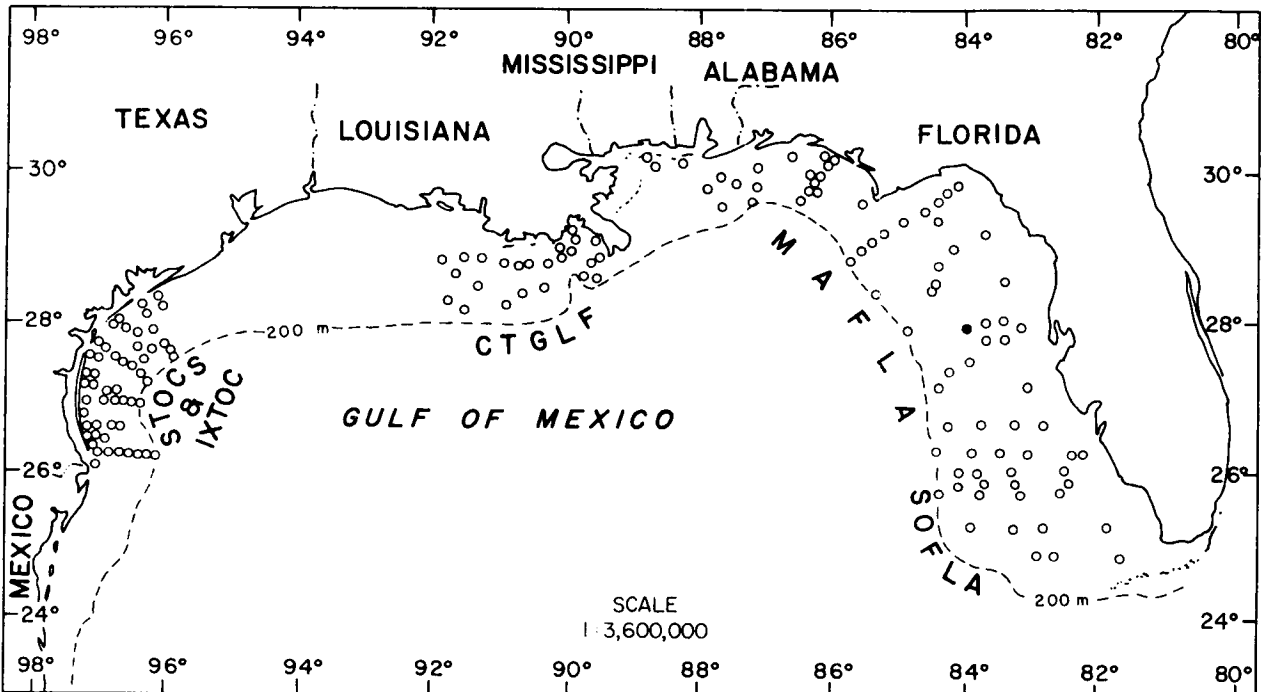


Figure 30-1. Distribution of *Proceraea ?cornuta* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

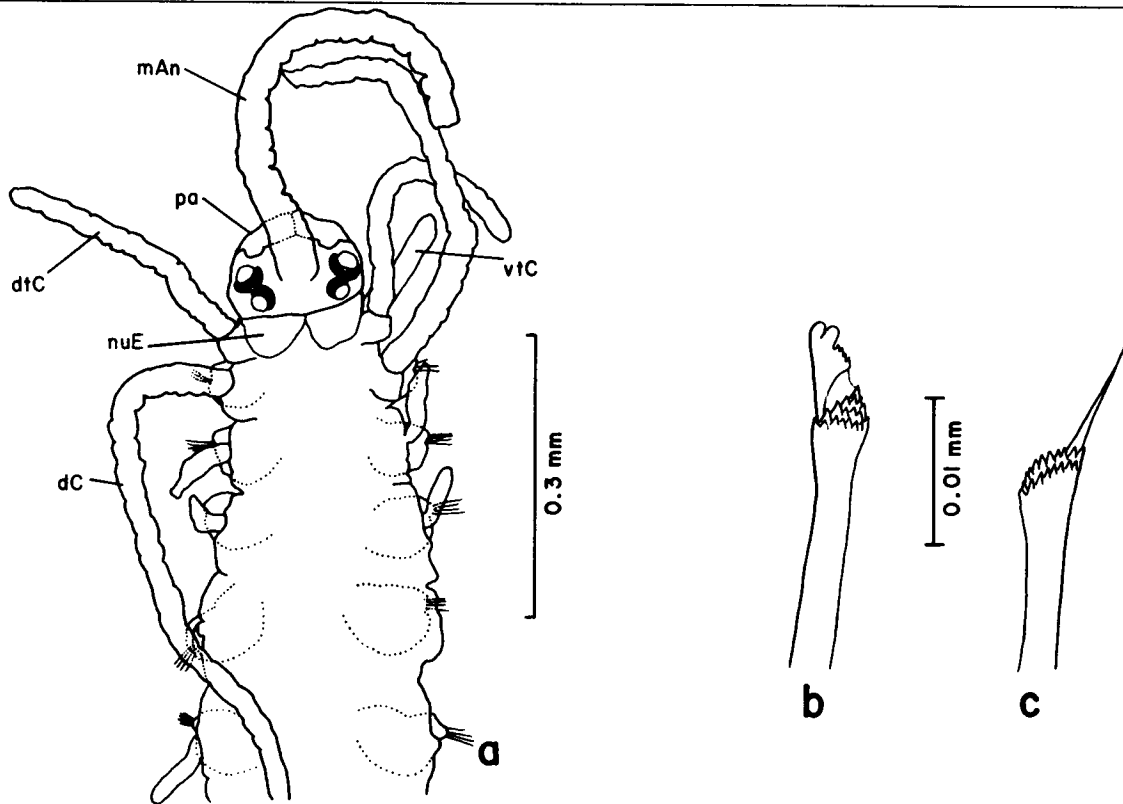


Figure 30-2. *Proceraea ?cornuta*: a, anterior end; b, composite falciger; c, bayonet-seta.

Proceraea cornuta--Gidholm, 1967:205, figs. 13e,f, 28a.
Proceraea cornuta--Day, 1973:35.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211J-7/76 (1 spec.).

DESCRIPTION:

Length, 2.4 mm (previously reported to 18 mm); width, 0.3 mm (previously reported to 0.7 mm). Body small, slender, with 25 setigers plus seven incompletely developed preanal segments. Prostomium rectangular. Two pairs of large, lentigerous eyes, each pair contiguous. Median antenna long, wrinkled, broken; lateral antennae missing. Palps short, completely fused. Nuchal epaulettes small, semicircular; extending over tentacular segment only (Figure 30-2a). Dorsal tentacular cirri long, about one-third length of first pair of dorsal cirri. Ventral tentacular cirri about one-half length of dorsal tentacular cirri. Dorsal cirri extremely long on setiger 1, thereafter uniformly short. Anal cirri paired, moderately long, wrinkled. Blades of composite falcigers short, bidentate, with rounded, contiguous teeth, subdistal tooth slightly larger (Figure 30-2b). Superior bayonet-seta (Figure 30-2c) present from setiger 2.

REMARKS: Since the poorly developed pharynx and proventricle could not be dissected or adequately examined due to the extremely small size of the single specimen, and since the prostomial antennae were either broken or missing, only tentative assignment to species could be made.

PREVIOUSLY REPORTED HABITAT: Low water to 140 m; under rocks; on pilings; in muddy sand; with sponges, algae, hydroids, barnacles, mussels, tunicates; sexual forms in surface waters.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off central Florida (Figure 30-1); 43 m; coarse sand.

DISTRIBUTION: Arctic, Norway to English Channel, Labrador to North Carolina, ?Gulf of Mexico, Japan.

Genus Autolytus Grube, 1850

TYPE SPECIES: Nereis prolifera O. F. Müller, 1788.

REFERENCES:

Imajima, 1966:27.

Day, 1967:281.

Gidholm, 1967:179.

Fauchald, 1977a:81.

DIAGNOSIS: Prostomium with three antennae; palps fused. Two pairs of tentacular cirri. Nuchal epaulettes present, length variable. Antennae, tentacular and dorsal cirri cylindrical; cirrophores present. First pair of dorsal cirri longest. Bayonet-setae with lateral spines, and with shafts much thinner than shafts of composite falcigers. Segmental ciliated bands present. Pharynx sinuous, trepan with variable number of teeth.

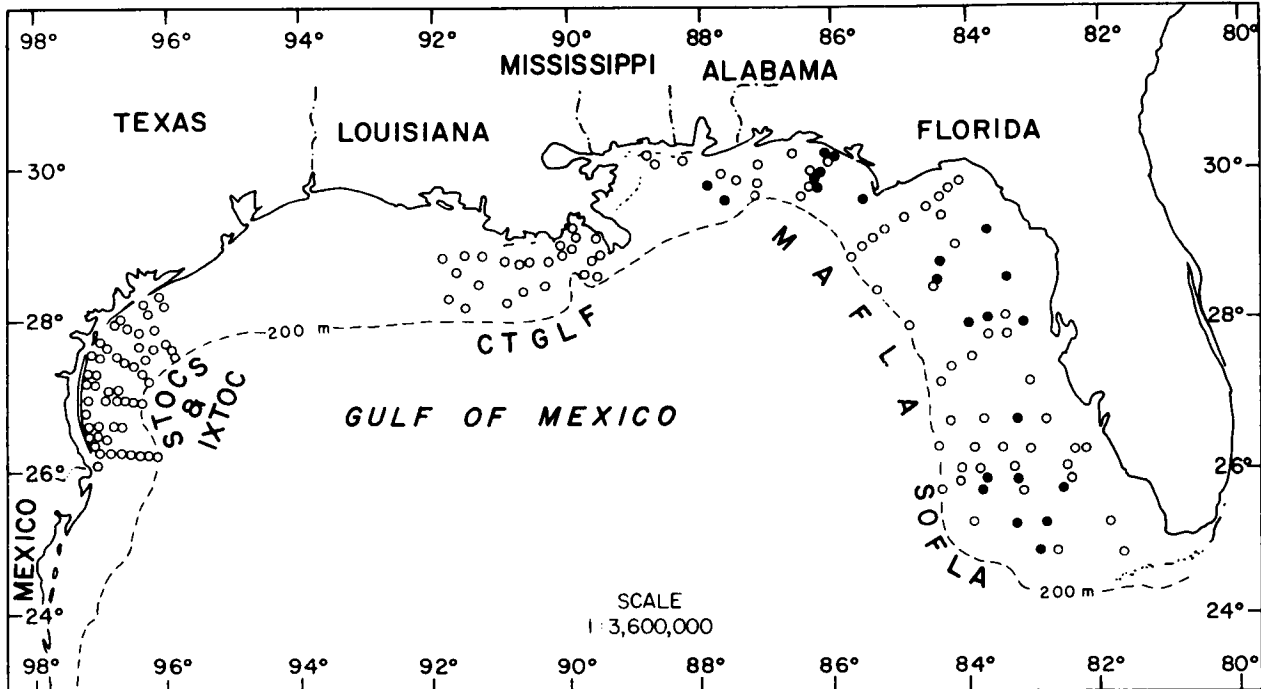


Figure 30-3. Distribution of *Autolytus dentalius* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

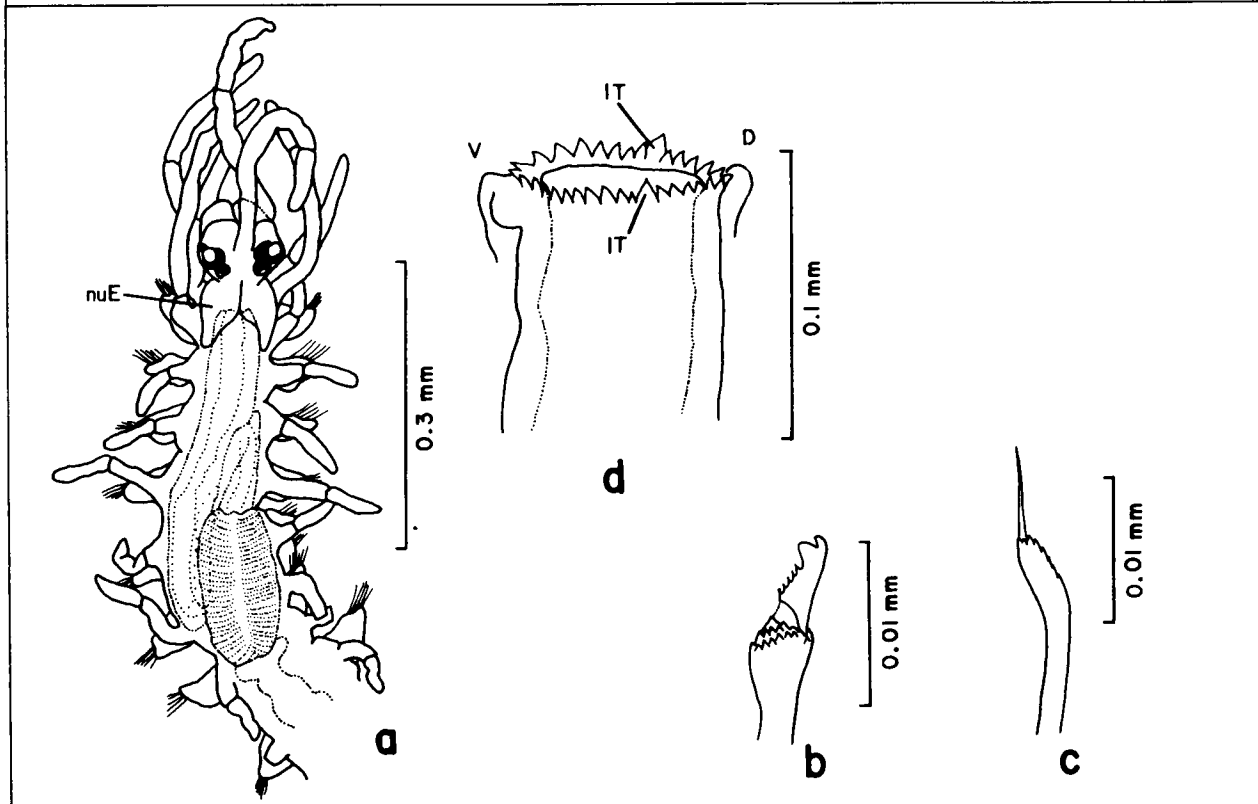


Figure 30-4. *Autolytus dentalius*: a, anterior end (juvenile specimen); b, composite falciger; c, bayonet-seta; d, trepan of pharynx (lateral view).

Key to the Gulf of Mexico BLM-OCS Species of Autolytus

- 1a. Trepan with two large lateral teeth separating dorsal and ventral arcs of smaller teeth (Figure 30-4d)
. Autolytus dentalius, p. 30-12
- 1b. Trepan with all teeth similar in size (Figure 30-6d)
. Autolytus sp. A, p. 30-15

Autolytus dentalius Imajima, 1966
Figures 30-3, 4a-d

Autolytus dentalius Imajima, 1966:36, fig. 7i-1.
Autolytus dentalius--Day, 1973:35.
Autolytus dentalius--Gardiner, 1976:127, fig. 10a-d.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4D-5/81 (1 spec., USNM 75267), 16A-4/81 (2 spec., USNM 75268), 16D-4/81 (1 spec., USNM 75269), 18B-4/81 (2 spec., USNM 75270), 24F-11/80 (2 spec.), 24C-8/81 (1 spec., USNM 75271); MAFLA 2211C-7/76 (1 spec.), 2211E-7/76 (1 spec.), 2211H-8/77 (2 spec.), 2315A-8/76 (1 spec.), 2318I-11/77 (2 spec.), 2528A-6/75 (2 spec.), 2531C-8/77 (1 spec.), 2534G-6/75 (1 spec.), 2640-2/78 (1 spec., USNM 55817), 2854E-8/77 (2 spec.), 2958K-11/77 (1 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie Co., 10.9 m, T. Perkins ID. (1 spec., USNM 54471).

DESCRIPTION:

Length, to 8.0 mm (previously reported to 13 mm); width, to 0.5 mm. Body small, slender; one complete specimen with 55 setigers plus three achaetous preanal segments. Preserved material generally lacking pigmentation; one specimen with dorsal segmental transverse brown stripes. Prostomium rounded. Two pairs of large, lentigerous eyes, each pair contiguous (Figure 30-4a); ocular spots occasionally present. Nuchal epaulettes extending to setigers 3-4. Antennae, tentacular cirri, and first two pairs of dorsal cirri extremely long, fairly broad. Dorsal cirri of following segments alternating in length, ranging from 0.5-1.5 times as long as body width. Cirrophores of long dorsal cirri generally equal to or longer than styles. Anal cirri not observed. Composite falcigers having short blades, with distal tooth smaller than subdistal tooth (Figure 30-4b). Superior bayonet-seta (Figure 30-4c) first present from setigers 3-12 (usually setiger 8). Trepan of pharynx with two slightly larger lateral teeth separating dorsal arc of 10-11 small teeth from ventral arc of 15-20 small teeth (Figure 30-4d). Proventricle located in setigers 10-13, with 23-36 indistinct muscle cell rows.

REMARKS: A. dentalius is newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: Intertidal to 10 m; shelly sediments.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf (Figure 30-3); 19-120 m; coarse to very fine sand, silty fine sand.

DISTRIBUTION: Japan, North Carolina, Gulf of Mexico.

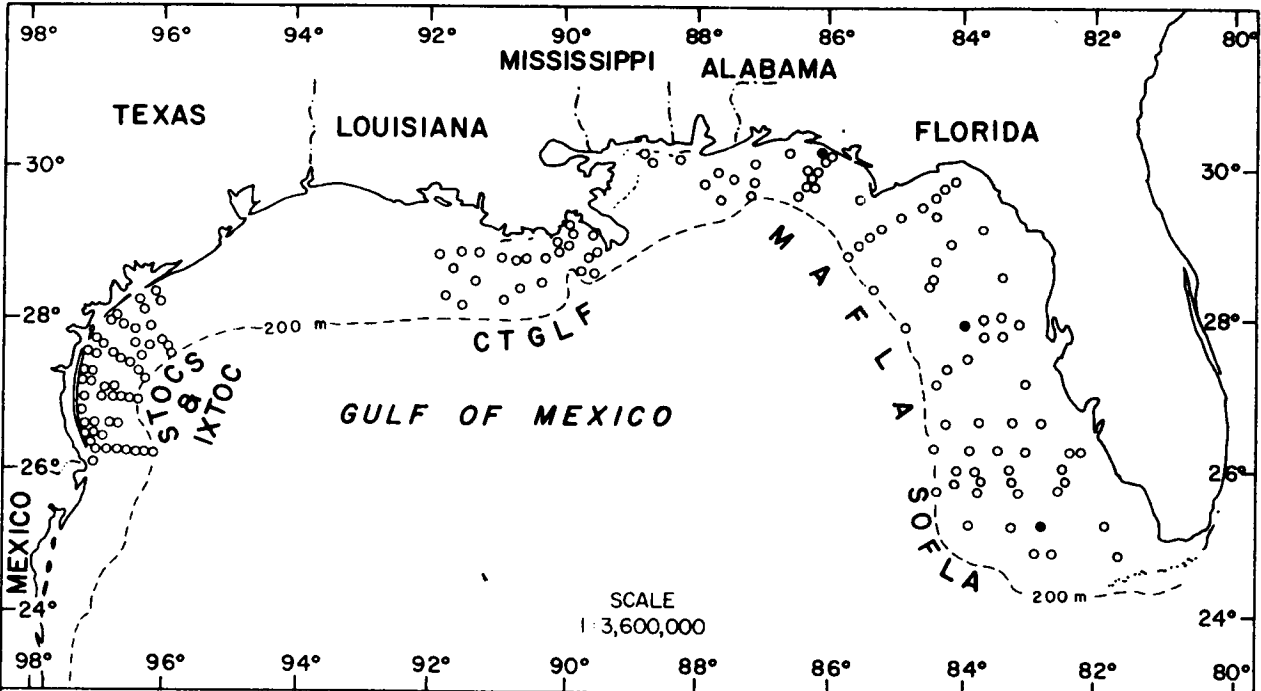


Figure 30-5. Distribution of *Autolytus* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

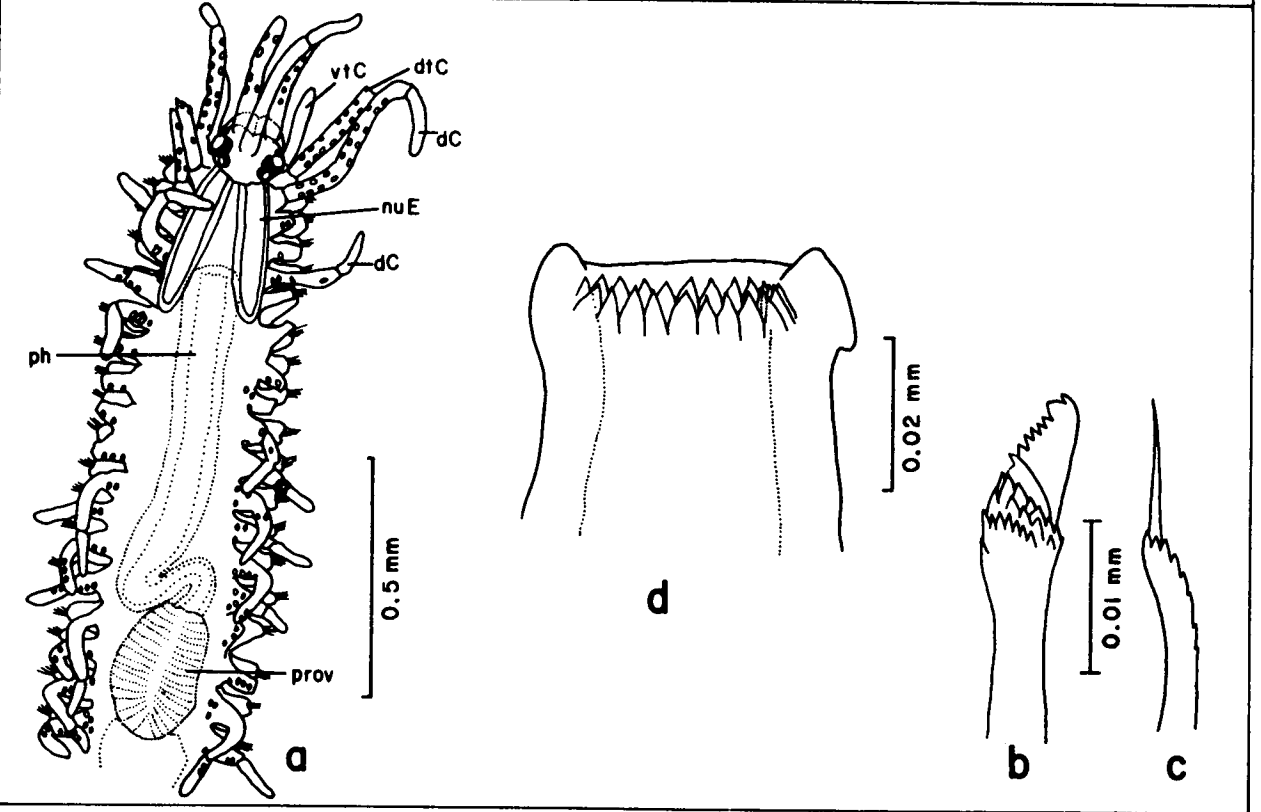


Figure 30-6. *Autolytus* sp. A: a, anterior end; b, composite falciger; c, bayonet-seta; d, trepan of pharynx.

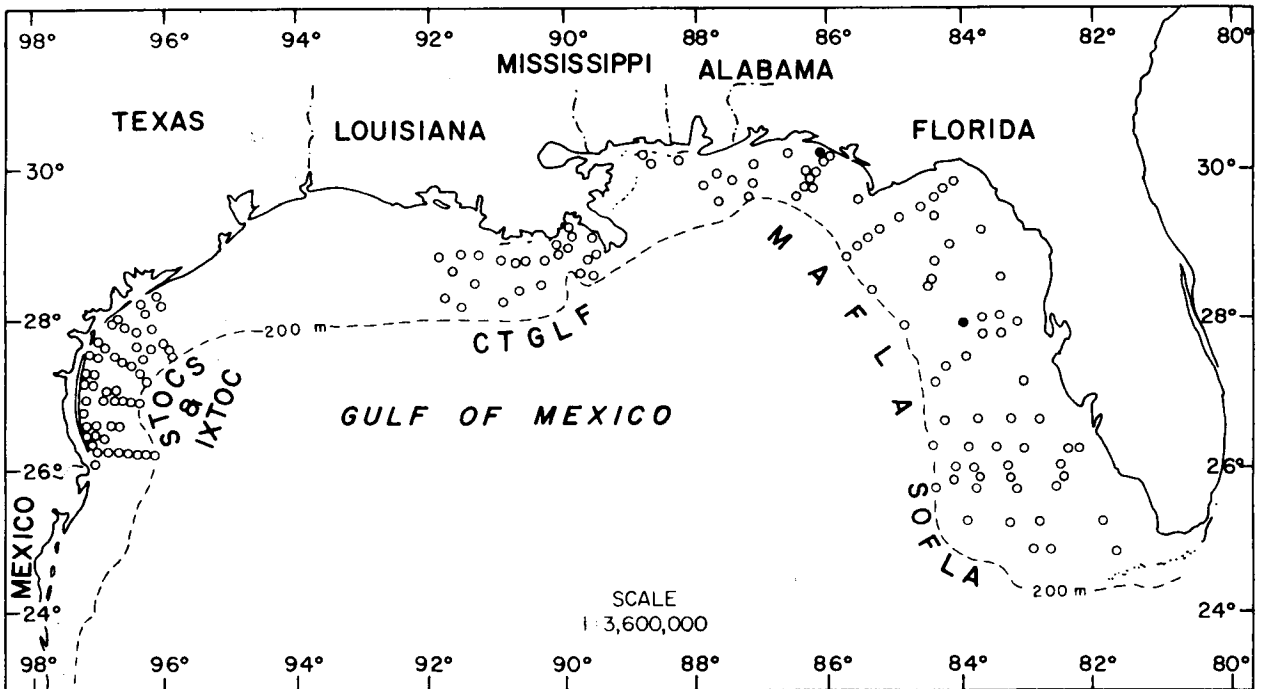


Figure 30-7. Distribution of *Myrianida* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

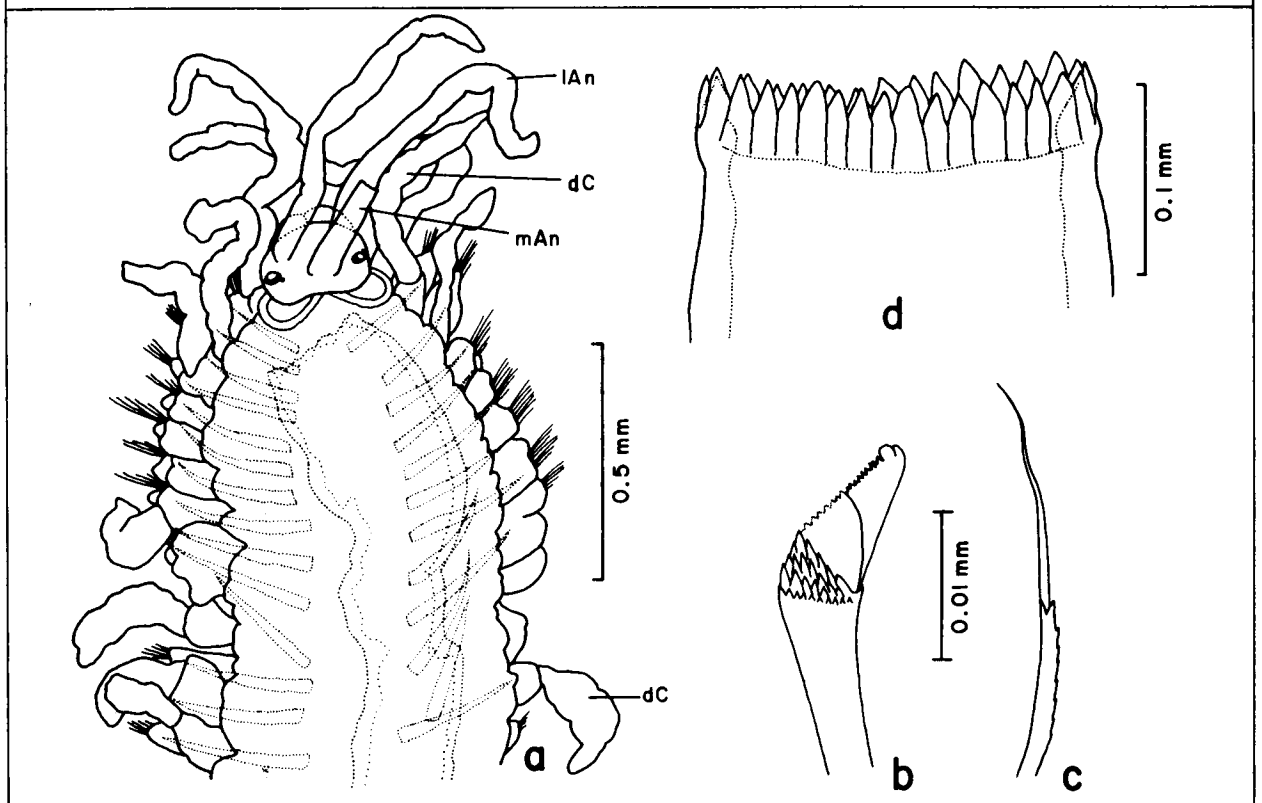


Figure 30-8. *Myrianida* sp. A: a, anterior end; b, composite falciger; c, bayonet-seta; d, trepan of pharynx.

Autolytus sp. A
Figures 30-5, 6a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 22D-4/81 (2 spec., USNM 75272); MAFLA 2211I-7/76 (1 spec.), 2528E-11/77 (1 spec.).

DESCRIPTION:

Length, to 6.0 mm; width, to 0.5 mm. Body small, slender. Prostomium rounded, with two pairs of large, lentigerous, contiguous eyes and two ocular spots. Antennae, tentacular and first pair of dorsal cirri moderately long, each having several light-reflecting granules arranged in two lateral rows (Figure 30-6a). Nuchal epaulettes extending to setigers 5-6. Dorsal cirri alternating slightly in length, ranging from 0.5-1 times as long as body width; cirrophores of longer dorsal cirri longer than styles. Anal cirri with several indistinct articles. Composite falcigers having short blades with distal tooth slightly smaller than subdistal tooth (Figure 30-6b). Superior bayonet-seta (Figure 30-6c) present from setiger 1. Trepan of pharynx with about 22-36 small teeth, all similar in size (Figure 30-6d). Proventricle located in setigers 8-11 or 15-18, with about 25-32 indistinct muscle cell rows.

REMARKS: Autolytus sp. A resembles A. prolifer (O. F. Müller, 1784) in having a similar number of teeth in the trepan. It differs from the latter in having longer nuchal epaulettes.

GULF OF MEXICO BLM-OCS OCCURRENCE: Three scattered records in northeastern Gulf (Figure 30-5); 37-53 m; coarse to fine sand.

Genus Myrianida Milne Edwards, 1845

TYPE SPECIES: Nereis pinnigera Montagu, 1808.

REFERENCES:

Imajima, 1966:79.

Day, 1967:285.

Gidholm, 1967:178 [table].

Fauchald, 1977a:83.

DIAGNOSIS: Prostomium with three cylindrical antennae; palps fused and ventrally directed. Two pairs of tentacular cirri. Nuchal epaulettes present. Cirrophores present. Bayonet-setae with slender shafts. Segmental ciliated bands present. Pharynx sinuous, trepan with varying number of teeth.

Myrianida sp. A
Figures 30-7, 8a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211F-11/77 (1 spec.), 2211K-11/77 (1 spec.), 2528E-7/76 (1 spec., USNM 65675).

DESCRIPTION:

Length, to 18.0 mm; width, to 1.0 mm. Body robust anteriorly. Prostomium oval (Figure 30-8a), with four small eyes and 0-2 ocular spots. Antennae and tentacular cirri long, cylindrical. Nuchal epaulettes straight or curving outward, extending to setigers 1-3. Dorsal cirri

about half as long as body width, cirrophores shorter than styles and somewhat inflated. Parapodia prolonged. Composite falcigers having short blades with minute distal tooth and somewhat larger subdistal tooth (Figure 30-8b). Superior bayonet-setae very slender, hair-like (Figure 30-8c), present only posteriorly. Acicula solitary, large, thick, readily visible in two specimens (Figure 30-8a). Trepan of pharynx with about 22-32 large equal teeth, all similar in size (Figure 30-8d). Proventricle located in setigers 15-20, with about 42-65 indistinct muscle cell rows.

REMARKS: Myrianida sp. A resembles M. pulchella Day, 1953, from South Africa, in having a similar number of trepan denticles. It differs from the latter in having shorter nuchal epaulettes and about half as many muscle cell rows in the proventricle.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations in northeastern Gulf (Figure 30-7); 37-43 m; coarse sand.

Genus Brania Quatrefages, 1866

TYPE SPECIES: Exogone pusilla Dujardin, 1851.

REFERENCES:

Imajima, 1966:393.

Day, 1967:267.

Fauchald, 1977a:82.

DIAGNOSIS: Prostomium with three antennae; palps well-developed, fused at least basally. Two pairs of tentacular cirri. Small nuchal organs present between prostomium and peristomium. Pharynx armed with single dorsal tooth. Embryos carried on dorsum of female.

Key to the Gulf of Mexico BLM-OCS Species of Brania

- 1a. Superior composite falcigers with long, bidentate blades (Figure 30-10c); dorsal cirri present on setiger 2 2
- 1b. Superior composite falcigers with short, unidentate blades (Figure 30-16d); dorsal cirri absent on setiger 2 3

- 2a. Dorsal tooth located near anterior margin of pharynx; anal cirri long, cirriform. Brania clavata, p. 30-16
- 2b. Dorsal tooth located about half-way back in pharynx (Figure 30-12a); anal cirri short, ovoid (Figure 30-12b).
 Brania sp. A, p. 30-19

- 3a. Blades of superior composite falcigers coarsely serrate (Figure 30-14c); eyes usually absent. . . . Brania wellfleetensis, p. 30-21
- 3b. Blades of superior composite falcigers finely serrate (Figure 30-16d); eyes present. Brania swedmarki, p. 30-23

Brania clavata (Claparède, 1863)
 Figures 30-9, 10a-e

Grubea clavata--Fauvel, 1923:296, fig. 114a-e.
Brania clavata--Pettibone, 1963:133, fig. 35b.

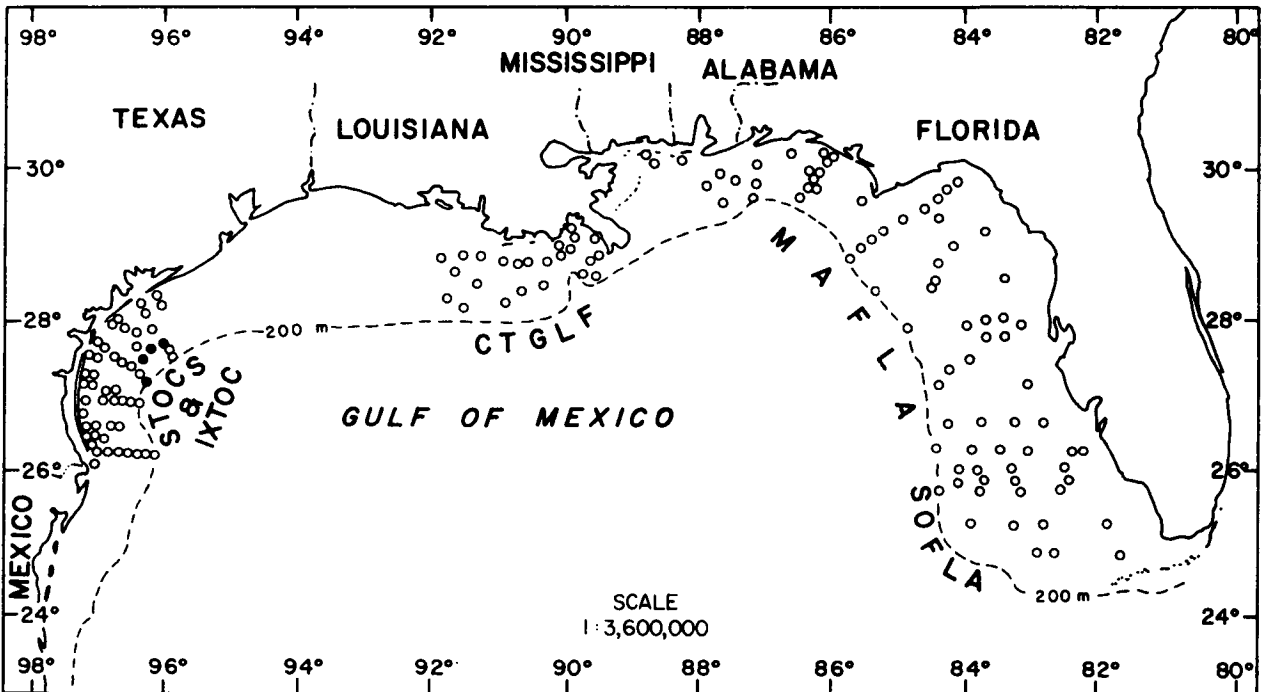


Figure 30-9. Distribution of *Brania clavata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

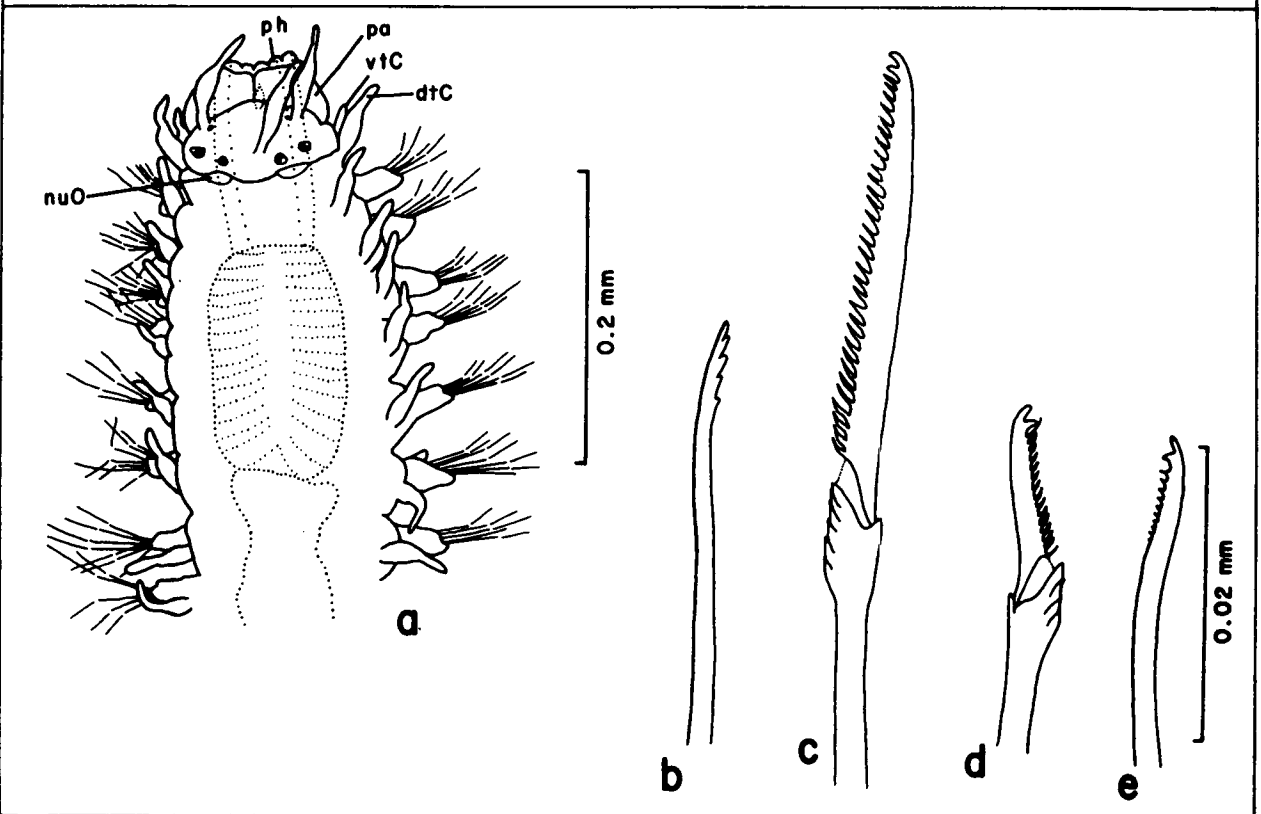


Figure 30-10. *Brania clavata*: a, anterior end; b, superior simple seta; c, superior falciger; d, inferior falciger; e, inferior simple seta; scale same for b-e.

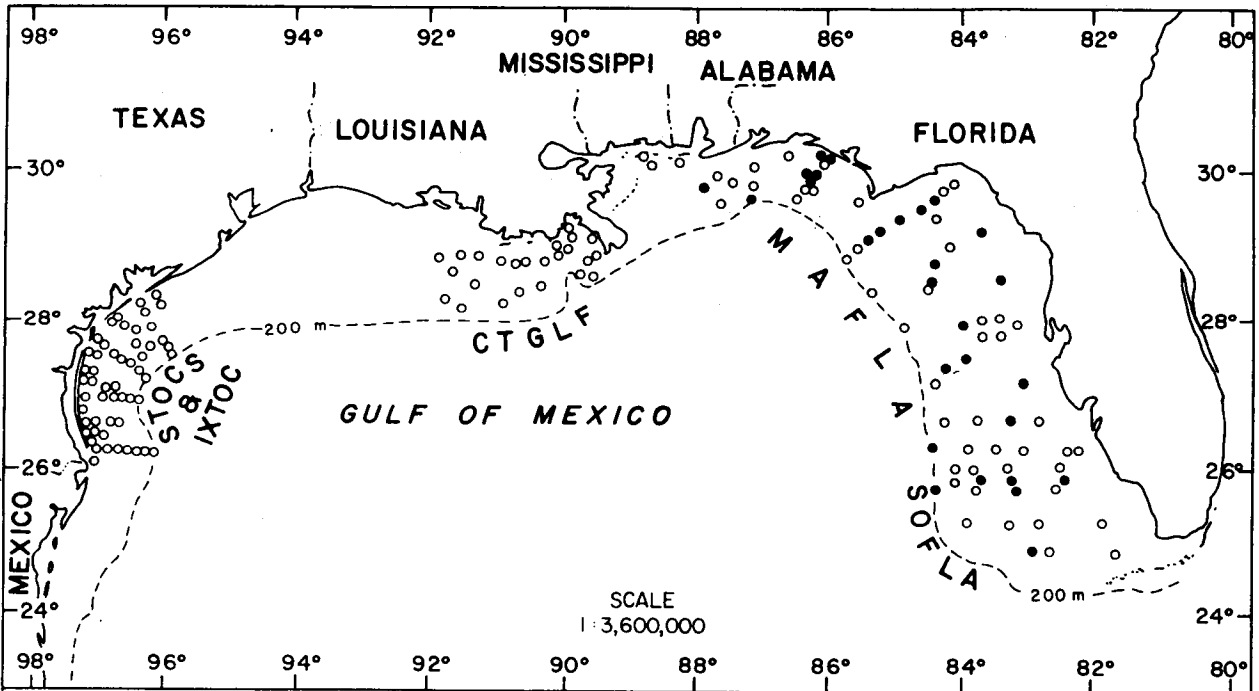


Figure 30-11. Distribution of *Brania* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

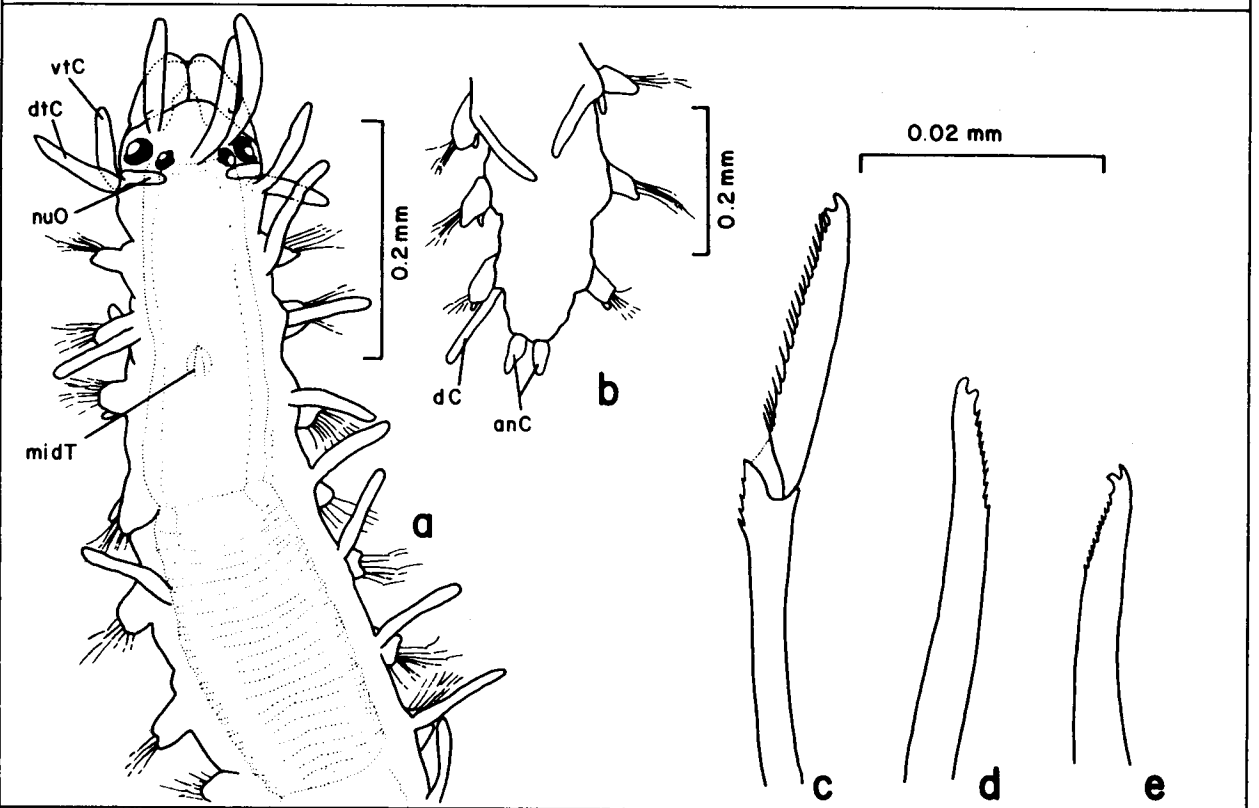


Figure 30-12. *Brania* sp. A: a, anterior end; b, posterior end; c, composite falciger; d, superior simple seta; e, inferior simple seta.

Brania clavata--Imajima, 1966:393, fig. 1a-g.
Brania clavata--Gardiner, 1976:130, fig. 10 1-n.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

STOCS HR1-6 11/76 (3 spec., USNM 75213), SB3-1 S/76 (1 spec., USNM 65662).

DESCRIPTION:

Length, to 1.4 mm (previously reported to 4 mm); width, to 0.2 mm (previously reported to 0.5 mm). Body small, slender; complete specimens with up to 29 setigers. Prostomium oval, with four small, lenticular eyes on posterior half and two ocular spots near base of palps (Figure 30-10a). Median and lateral antennae fusiform, equal in size. Palps short, fused dorsally over nearly entire length. Tentacular and dorsal cirri onion-shaped to subulate. Dorsal tentacular cirri twice length of ventral ones. Dorsal cirri present on all setigers; first dorsal cirri slightly larger than following ones. Ventral cirri digitiform, shorter than parapodia. Anal cirri long, cirriform. Superior simple seta slender, bidentate (Figure 30-10b), first present from setigers 2-4. Composite falcigers with finely serrate bidentate blades (Figure 30-10c,d), blade-length ratio about 2:1. Inferior simple seta bidentate (Figure 30-10e), present on posterior setigers. Pharynx with dorsal tooth located near anterior margin. Proventricle extending from setigers 2 to 5-6, with 15-18 muscle cell rows. Gametes present from setiger 12.

REMARKS: B. clavata is reported only from western Gulf BLM-OCS samples; specimens examined from the eastern Gulf are referred to Brania sp. A.

PREVIOUSLY REPORTED HABITAT: Low water to 30 m; on mud flats, stones, shells, mussel beds, algae, pilings, sponges, hydroids, tunicates, bryozoans; in salt ponds; sexual forms occur in surface waters.

GULF OF MEXICO BLM-OCS OCCURRENCE: Several stations in western Gulf off central Texas (Figure 30-9); 75-131 m; silty clay.

DISTRIBUTION: N. Atlantic, Gulf of Mexico, Caribbean Sea, Africa, Mediterranean, Yellow Sea, Japan, Okhotsk Sea, Bering Sea.

Brania sp. A

Figures 30-11, 12a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 28E-11/80 (3 spec., USNM 75275); MAFLA 2211B-7/76 (1 spec.), 2211J-7/76 (1 spec., USNM 65668), 2422F-7/76 (1 spec.), 2528C-2/78 (2 spec.), 2533A-2/78 (1 spec.).

DESCRIPTION:

Length, to 6.0 mm; width, to 0.3 mm. Body small, thread-like; complete specimens with up to 32 setigers. Prostomium oval, with four eyes in nearly straight line near posterior border (Figure 30-12a) and two ocular spots near base of palps. Antennae fusiform, median antenna inserted between eyes. Palps short, fused over nearly entire length. Nuchal organs as paired, slender lobes along posterolateral margins of prostomium. Tentacular cirri fusiform to digitiform. Dorsal cirri digitiform to cirriform, with glandular region at tip; present on all setigers. Ventral cirri digitiform, about two-thirds length of parapodia. Anal cirri paired, short, ovoid (Figure 30-12b). Composite

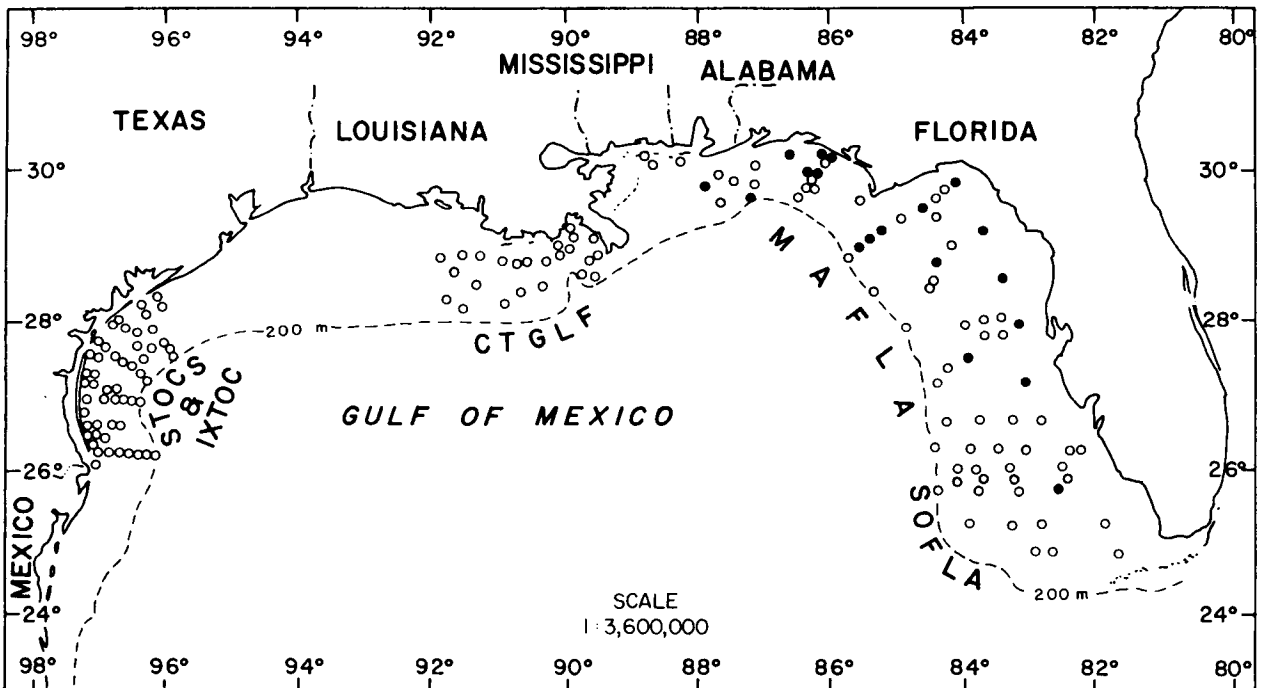


Figure 30-13. Distribution of *Brania wellfleetensis* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

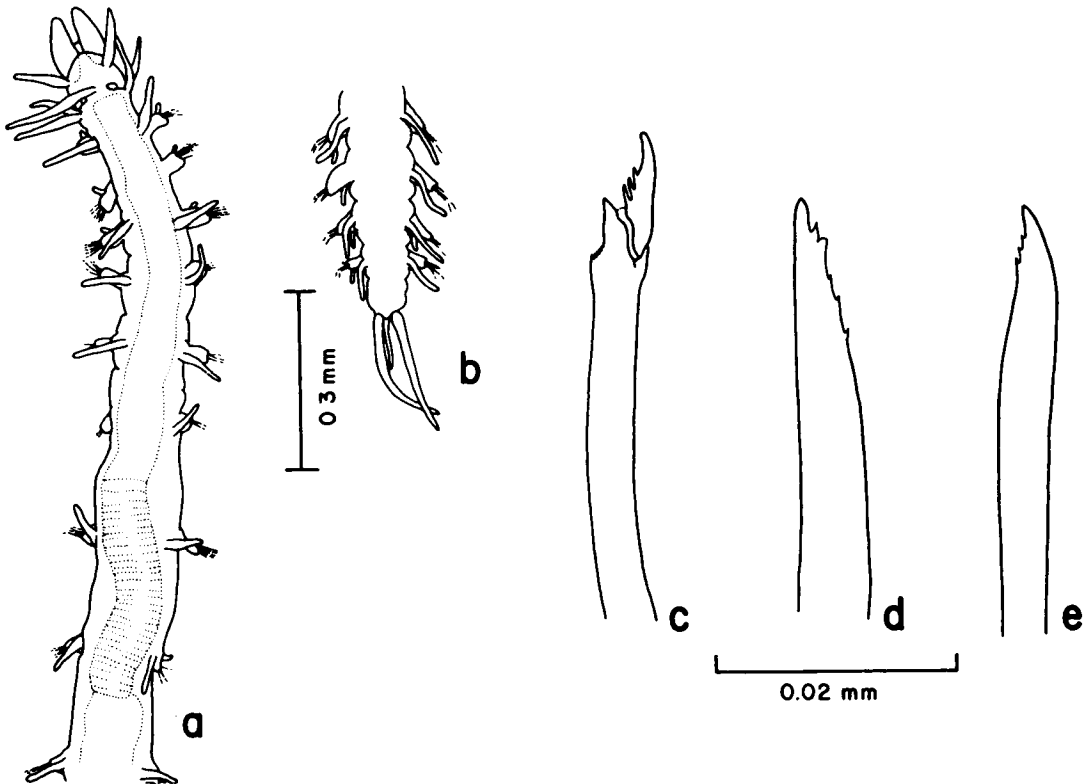


Figure 30-14. *Brania wellfleetensis*: a, anterior end; b, posterior end; c, composite falciger; d, superior simple seta; e, inferior simple seta.

falcigers with finely serrate, bidentate blades (Figure 30-12c). Superior simple seta bidentate (Figure 30-12d), present from setiger 1; inferior simple seta bidentate (Figure 30-12e), present on posterior setigers. Pharynx extending back to setigers 4-5, with middorsal tooth located medially, between setigers 2 and 3. Proventricle extending from setigers 4-5 to 7-9, with 23-24 rows of muscle cells. Two ripe males with sperm in setigers 10-24.

REMARKS: Gulf of Mexico BLM-OCS specimens are similar to the description of Brania mediodontata Westheide (1974:93, figs. 42A-C, 43) from the Galapagos. However, Brania sp. A differs from the latter in having anal cirri that are short and ovoid rather than long and slender, and in details of the setal morphology.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf (Figure 30-11); 19-180 m; coarse to fine sand, silty fine to very fine sand.

Brania wellfleetensis Pettibone, 1956
Figures 30-13, 14a-e

Brania wellfleetensis Pettibone, 1956b:282, fig. 2a-c; 1963:134, fig. 35h.

Brania wellfleetensis--Perkins, 1981:1082, fig. 1a-1.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2207G-11/77 (1 spec.), 2207K-11/77 (1 spec.), 2318G-8/76 (5 spec.), 2318K-8/76 (1 spec.), 2318C-11/77 (2 spec.), 2318E-11/77 (3 spec.), 2318D-2/78 (3 spec.), 2422E-7/76 (1 spec.), 2424B-7/76 (1 spec.), 2532E-9/75 (2 spec.), 2640E-11/77 (5 spec., USNM 65667).

Supplementary Material:

Massachusetts--Wellfleet Harbor, sand, among tubes of Diopatra cuprea, Aug. 1953, M. Pettibone ID. (USNM 27783, holotype).

Florida--Hutchinson Island, St. Lucie County, 10.3 m, T. Perkins ID. (1 spec., USNM 54502); Tampa Bay, S. Santos coll., T. Perkins ID. (10 spec., USNM 60477).

DESCRIPTION:

Length, to 9.5 mm (previously reported to 7 mm); width, to 0.4 mm (previously reported to 0.4 mm). Body slender, thread-like; complete specimens with up to 63 setigers. Prostomium triangular (Figure 30-14a). Eyes of preserved specimens absent or represented by diffusely pigmented areas. Antennae and tentacular cirri subulate; median antenna inserted near posterior border of prostomium. Palps long, narrow, fused over basal third. Nuchal organs as small, rounded lobes at base of prostomium. Dorsal cirri subulate, longest on setiger 1, absent from setiger 2. Ventral cirri digitiform, extending beyond tips of parapodia. Anal cirri subulate, numbering three, two dorsal and one ventral; ventral one about half length of dorsal ones (Figure 30-14b). Composite falcigers with short, coarsely serrate, unidentate blades (Figure 30-14c). Superior simple seta denticulate near tip (Figure 30-14d), present from midbody region. Inferior simple seta slender, with minute serrations near tip (Figure 30-14e), present only on last few setigers. Pharynx straight, extending to setigers 6-8, with middorsal tooth in anterior third. Proventricle extending from setigers 6-8 to 7-

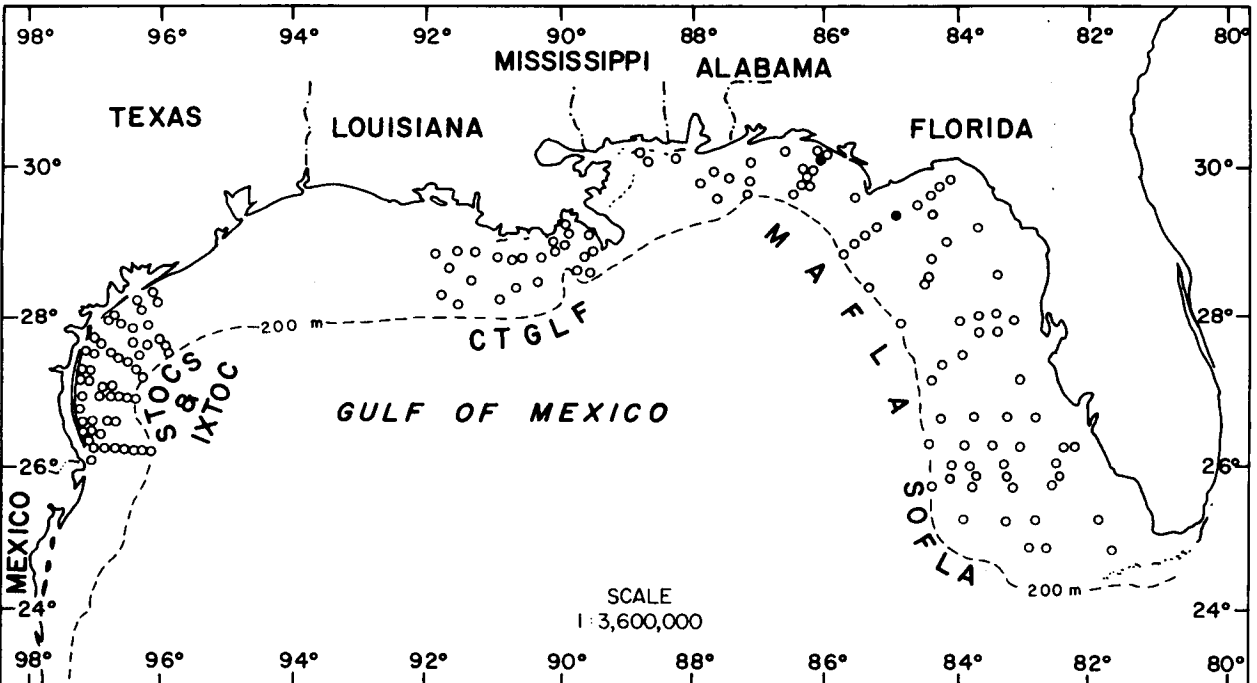


Figure 30-15. Distribution of *Brania swedmarki* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

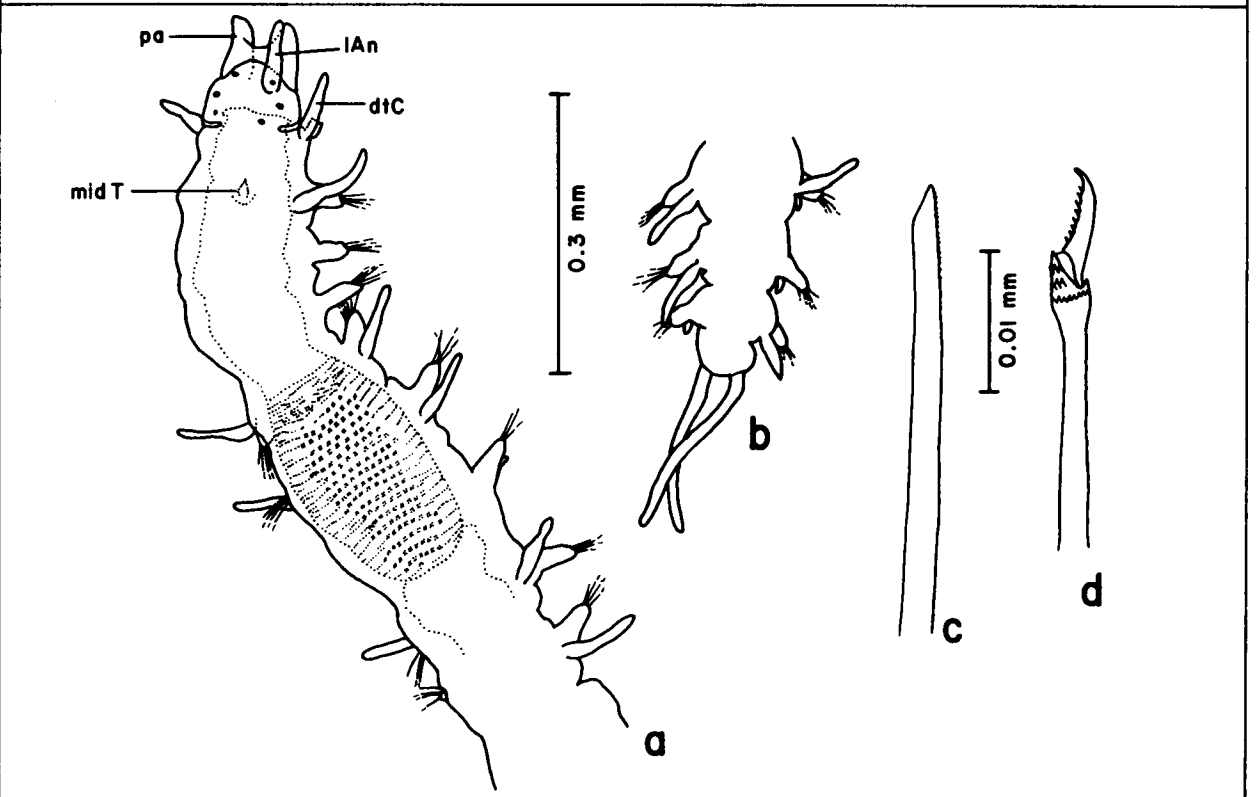


Figure 30-16. *Brania swedmarki*: a, anterior end; b, posterior end; c, superior simple seta; d, composite falciger.

11, with 32 (28-40) muscle cell rows. Egg masses of mature female beginning in setigers 14-16.

REMARKS: B. wellfleetensis is similar to Brania gallagheri Perkins, 1981, from the east coast of Florida, but differs from the latter in having a shorter proventricle, unidentate inferior simple setae, and gametes present more anteriorly. See Perkins, 1981:1084, 1086 for additional remarks. BLM-MAFLA specimens previously identified as Pionosyllis sp. D are herein referred to Brania wellfleetensis.

PREVIOUSLY REPORTED HABITAT: Low water to 10.3 m; sand, muddy bottoms and sand flats, sand with algae; on Diopatra tubes.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf (Figure 30-13); 10-106 m; coarse to fine-very fine sand, silty fine sand.

DISTRIBUTION: Massachusetts, Gulf of Mexico.

Brania swedmarki Gidholm, 1962
Figures 30-15, 16a-d

Brania swedmarki Gidholm, 1962:256, fig. 3A-H.

Brania swedmarki--Perkins, 1981:1081.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2423C-7/76 (1 spec.), 2423J-7/76 (1 spec.), 2530E-1/76 (1 spec., USNM 65666).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, 10.9 m, T. Perkins ID., FSBC I 20673 (1 spec.), USNM 60475 (2 spec.).

DESCRIPTION:

Length, to 2.5 mm (previously reported to 3 mm); width, 0.25 mm. Body slender, minute, complete specimens with up to 25 setigers. Prostomium rounded with six small eyes in open circular arrangement (Figure 30-16a). Median antenna missing; lateral antennae cirriform, about as long as palps. Palps shorter than prostomium, directed ventrally at sides, fused dorsally over two-thirds their length. Nuchal organs as narrow ciliated slits between prostomium and peristomium. Tentacular and dorsal cirri clavate. Dorsal cirri absent from setiger 2. Ventral cirri digitiform, shorter than parapodia. Anal cirri paired, long, cirriform (Figure 30-16b). Superior simple seta smooth (Figure 30-16c), present beginning on setigers 1-6. Composite falcigers numbering 4-6 per fascicle, with blades similar in length, unidentate, minutely serrate (Figure 30-16d). Inferior simple seta slender, similar to superior simple seta, present on posterior setigers. Pharynx extending to setiger 4, with small dorsal tooth located about one-third way back. Proventricle extending from setigers 1-4 to 6-7, with about 25 muscle cell rows.

REMARKS: B. swedmarki is newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: To 11 m; coarse, calcareous sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off northwestern Florida (Figure 30-15); 19-41 m; medium sand, silty fine sand.

DISTRIBUTION: Roscoff, France; northwestern North Sea; east coast of Florida; Gulf of Mexico.

Genus *Sphaerosyllis* Claparède, 1863

TYPE SPECIES: *Sphaerosyllis hystrix* Claparède, 1863.

REFERENCES:

Imajima, 1966:400.

Day, 1967:275.

Fauchald, 1977a:84.

DIAGNOSIS: Prostomium with three antennae; palps fused dorsally over most or entire length. One pair of tentacular cirri. Nuchal organs inconspicuous. Antennae, tentacular, and dorsal cirri usually onion-shaped, i.e. with bulbous bases and slender tips. Pharynx armed with single dorsal tooth. Body usually with glandular papillae.

REMARKS: Investigators working with Gulf of Mexico material are referred to Perkins (1981) for an excellent treatment of 13 species of *Sphaerosyllis*, including eight new species, mostly from Florida.

Key to the Gulf of Mexico BLM-OCS Species of *Sphaerosyllis*

- 1a. Prostomium with six eyes (Figure 30-18a); pygidium with three anal cirri. *Sphaerosyllis longicauda*, p. 30-24
- 1b. Prostomium with four eyes (Figure 30-20a); pygidium with two anal cirri. 2

- 2a. Parapodial glands conspicuous, filled with rods (Figure 30-20a) 3
- 2b. Parapodial glands filled with spheres or granules, or inconspicuous 4

- 3a. Setae of midbody region ankylose (Figure 30-20d)
. *Sphaerosyllis aciculata*, p. 30-27
- 3b. Setae of midbody region composite (Figure 30-22d).
. *Sphaerosyllis taylori*, p. 30-29

- 4a. Superior composite falcigers of anterior region with long blades (Figure 30-24c). *Sphaerosyllis piriferopsis*, p. 30-31
- 4b. Superior composite falcigers of anterior region with short blades (Figure 30-26c). *Sphaerosyllis glandulata*, p. 30-33

Sphaerosyllis longicauda Webster and Benedict, 1887
Figures 30-17, 18a-f

Sphaerosyllis longicauda Webster and Benedict 1887:720, pl. 3, figs. 35-39.

Sphaerosyllis erinaceus--Gardiner, 1976:131, fig. 10s-v.

Sphaerosyllis longicauda--Perkins, 1981:1127, figs. 20a-c, 21a-i.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2316C-8/76 (1 spec.), 2420E-7/76 (1 spec.), 2421A-11/77 (1 spec.), 2423J-7/76 (1 spec.), 2424B-7/76 (1 spec.), 2424-7/76 (2 spec., USNM 55833).

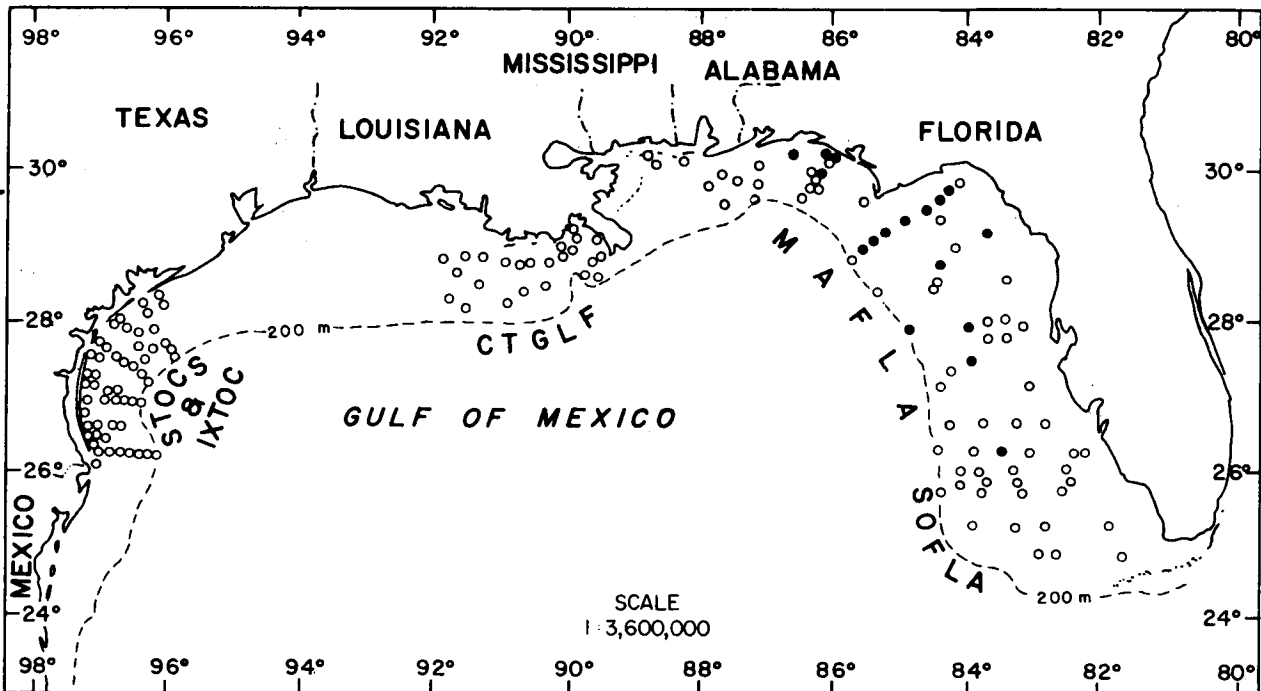


Figure 30-17. Distribution of *Sphaerosyllis longicauda* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

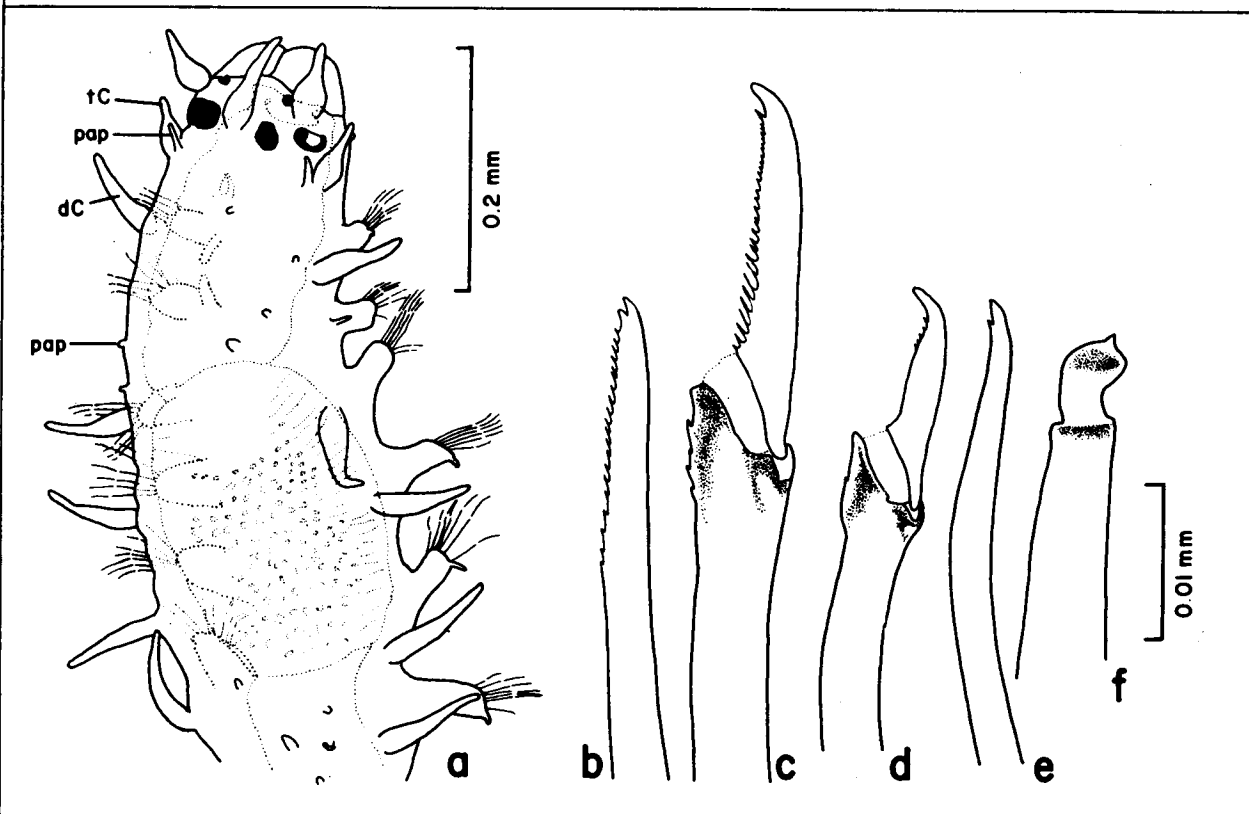


Figure 30-18. *Sphaerosyllis longicauda*: a, anterior end; b, superior simple seta from posterior region; c, superior falciger from midbody region; d, inferior falciger from same; e, inferior simple seta; f, aciculum from midbody region; scale same for b-f.

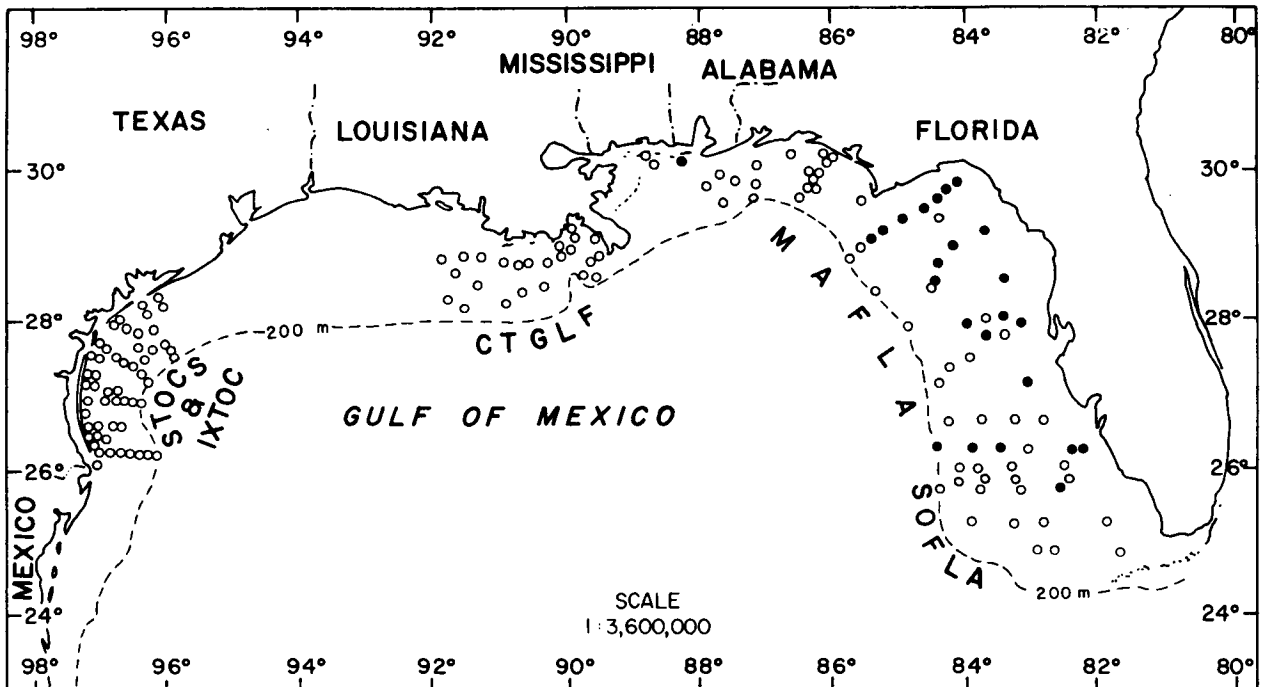


Figure 30-19. Distribution of *Sphaerosyllis aciculata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

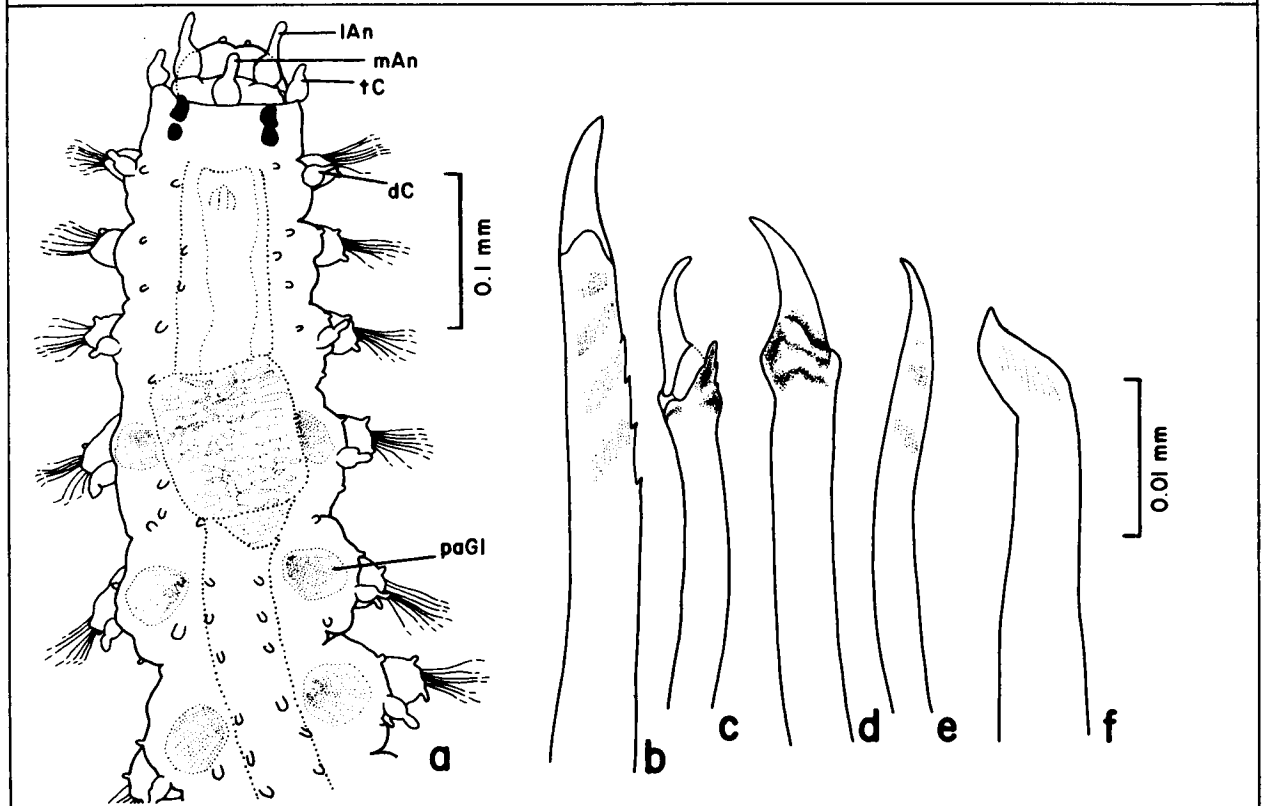


Figure 30-20. *Sphaerosyllis aciculata*: a, anterior end; b, superior simple seta from posterior region; c, inferior falciger from anterior region; d, ankylose seta from posterior region; e, inferior simple seta; f, aciculum from posterior region; scale same for b-f.

Supplementary Material:

Maine--Eastport, H. E. Webster coll., Webster and Benedict ID. (4 spec., USNM 400).

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., FSBC I 20677 (3 spec.), 20681 (1 spec.).

DESCRIPTION:

Length, to 2.3 mm (previously reported to 3.6 mm); width, to 0.2 mm (previously reported to 0.6 mm). Body slender, minute; complete specimens with up to 27 setigers. Papillae scattered, long and short. Pro-stomium oval, with four large, lentigerous eyes in line across mid-section and two small eyes near anterior border. Antennae clavate. Palps short, fused dorsally, directed ventrally. Nuchal organs as small, rounded lobes posterior to lateral eyes. Tentacular cirri clavate, each with a long, glandular, dorsal papilla (Figure 30-18a). Dorsal cirri subulate, replaced by a long papilla on setiger 2. Ventral cirri slender, digitiform, shorter than parapodia. Pygidium of Florida specimens with two long, subulate, dorsolateral anal cirri, plus short midventral cirrus. Parapodial glands not evident. Superior simple seta slender, minutely bidentate (Figure 30-18b), present on all setigers. Superior composite falcigers long-bladed, unidentate or subbidentate, with numerous fine serrations (Figure 30-18c). Inferior composite falcigers with shorter blades having few serrations or smooth (Figure 30-18d). Inferior simple seta slender, curved, pointed (Figure 30-18e), present on posterior setigers. Acicula solitary, with curved, pointed tips (Figure 30-18f). Pharynx extending to setiger 3; dorsal tooth located about one-third way back. Proventricle extending from setigers 3-4 to 5-6, with 17-20 rows of muscle cells. Gametes and natatory setae present from setiger 8.

REMARKS: S. longicauda is newly reported from the Gulf of Mexico. Most specimens in the BLM-OCS samples originally identified as Sphaerosyllis erinaceus are probably S. longicauda.

PREVIOUSLY REPORTED HABITAT: Low water to 55 m; sand, shells, rocks; on pilings.

GULF OF MEXICO BLM-OCS OCCURRENCE: Numerous stations off Florida (Figure 30-17); 19-189 m; coarse to fine-very fine sand, silty fine sand.

DISTRIBUTION: Maine to Florida, Gulf of Mexico.

***Sphaerosyllis aciculata* Perkins, 1981**

Figures 30-19, 20a-f

Sphaerosyllis aciculata Perkins, 1981:1115, figs. 13a-c, 14a-j.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2207J-8/77 (3 spec.), 2207K-8/77 (1 spec.), 2318G-8/76 (2 spec.), 2318K-8/76 (1 spec.), 2420-7/76 (3 spec., USNM 55834), 2422E-7/76 (1 spec.), 2424C-7/76 (3 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, 9.1 m, T. Perkins ID. (FSBC I 23561, 1 paratype).

DESCRIPTION:

Length, to 2.3 mm (previously reported to 2.2 mm); width, to 0.25 mm (previously reported to 0.1 mm without parapodia). Body slender, minute; complete specimens with up to 23 setigers. Papillae short,

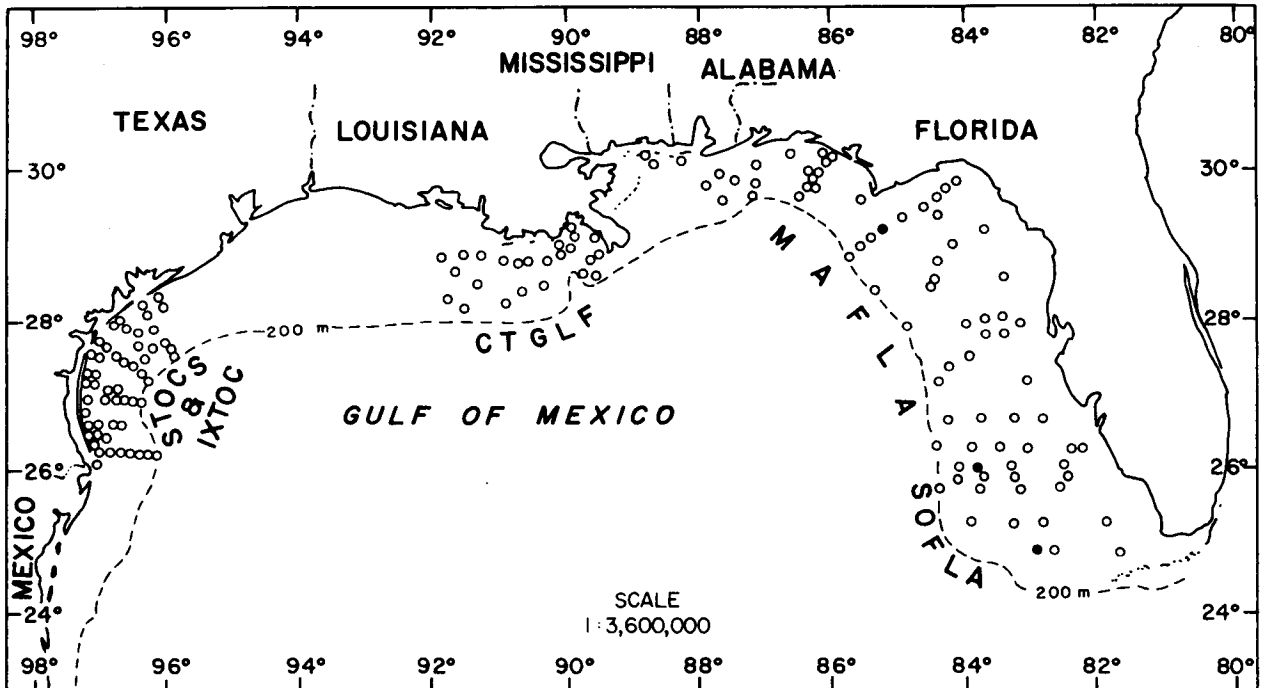


Figure 30-21. Distribution of *Sphaerosyllis taylori* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

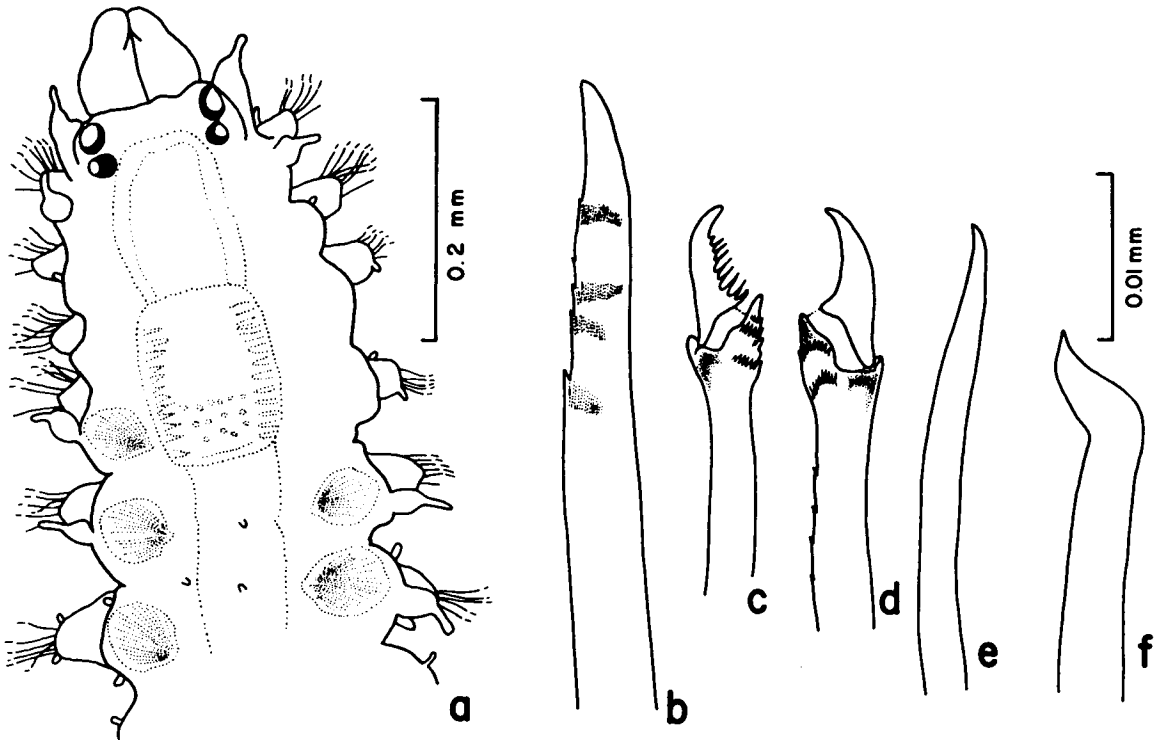


Figure 30-22. *Sphaerosyllis taylori*: a, anterior end; b, superior simple seta from posterior region; c, superior falciger from anterior region; d, inferior falciger from midbody region; e, inferior simple seta; f, aciculum from posterior region; scale same for b-f.

scattered. Prostomium rectangular, with four generally small, lentigerous, nearly contiguous eyes in rectangular arrangement, often partly to completely covered by peristomial fold. Antennae onion-shaped; median antenna inserted between eyes or at edge of peristomial fold; lateral antennae arising near anterior edge of prostomium (Figure 30-20a). Palps short, fused dorsally, often directed ventrally. Tentacular and dorsal cirri onion-shaped, smaller than antennae. Dorsal cirri small, shorter than parapodia, absent from setiger 2. Ventral cirri digitiform, shorter than parapodia. Pygidium with two onion-shaped or subulate anal cirri, about same size as antennae. Parapodial glands large, filled with rods, present from setiger 4 or 5 to posterior end of body. Superior simple seta with curved tip and few lateral serrations (Figure 30-20b), present on all setigers. Superior composite falcigers with short, unidentate blades having few coarse serrations; medial and inferior falcigers with smooth blades (Figure 30-20c). Ankylose setae (Figure 30-20d) replacing composite falcigers starting on setigers 7-8. Inferior simple seta slender, smooth, pointed (Figure 30-20e), present on posterior setigers. Acicula solitary, stout, with bent tips (Figure 30-20f). Pharynx extending to setiger 3. Proventricle usually located from setigers 3-4, with about 12-13 ill-defined rows of muscle cells. Gametes present from setigers 6-8 to 15-18; natatory setae beginning on setigers 7-8.

REMARKS: S. aciculata was previously identified as S. hystrix in BLM-OCS collections.

PREVIOUSLY REPORTED HABITAT: To 11 m; coarse to very fine sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf (Figure 30-19); 10-168 m; coarse to fine sand, silty fine to very fine sand, clayey sandy silt.

DISTRIBUTION: Florida, Gulf of Mexico.

***Sphaerosyllis taylori* Perkins, 1981**
Figures 30-21, 22a-f

Sphaerosyllis taylori Perkins, 1981:1140, fig. 26a-k.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 12A-11/80 (1 spec., USNM 75301), 28-11/80 (1 spec.); MAFLA 2424C-7/76 (1 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., FSBC I 23628 (2 paratypes), 23639 (3 paratypes), 23642 (1 paratype).

DESCRIPTION:

Length, 2.6 mm (previously reported to 2.4 mm); width, 0.4 mm (previously reported to 0.2 mm without parapodia). Body short, relatively broad, complete specimens with up to 23 setigers. Papillae short, scattered. Prostomium rectangular, with four lentigerous eyes in rectangular arrangement (Figure 30-22a). Antennae of paratypes onion-shaped, longer than prostomium. Palps rounded, fused dorsally, about twice as long as prostomium. Tentacular and dorsal cirri onion-shaped. Dorsal cirri slightly longer than parapodia, absent from setiger 2. Ventral cirri digitiform, shorter than parapodia. Anal cirri paired, similar to dorsal cirri and 1.5 times larger. Parapodial glands containing rods, present from setiger 4 or 5 to last setiger. Superior simple seta

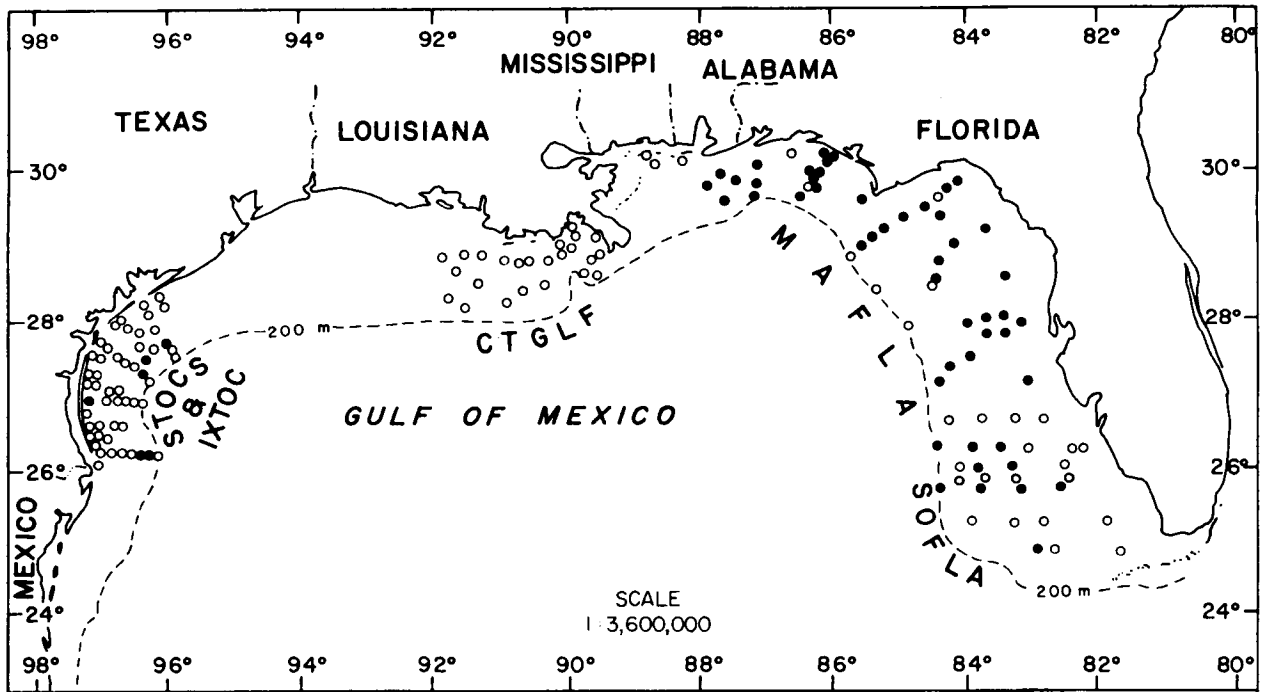


Figure 30-23. Distribution of *Sphaerosyllis piriferopsis* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

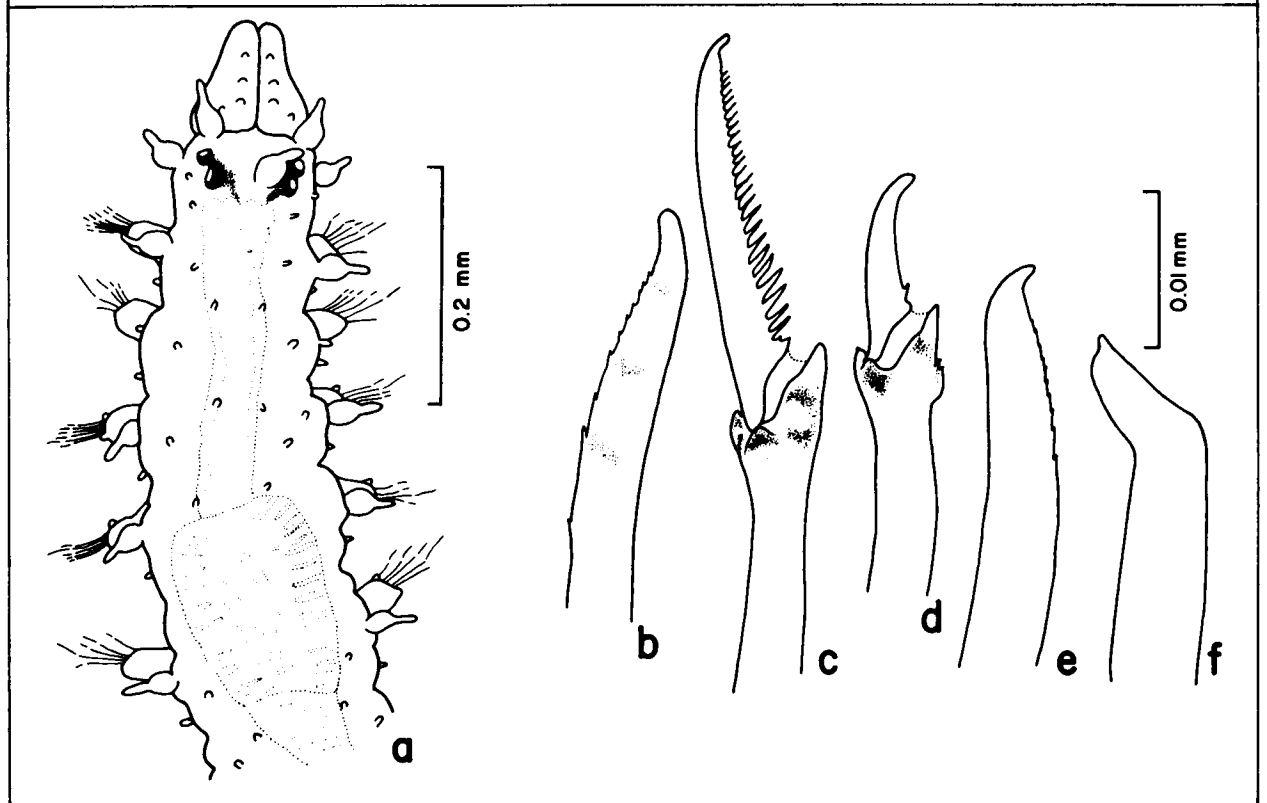


Figure 30-24. *Sphaerosyllis piriferopsis*: a, anterior end; b, superior simple seta from midbody region; c, superior falciger from anterior region; d, inferior falciger from same; e, inferior simple seta; f, aciculum from posterior region; scale same for b-f.

stout, pointed (Figure 30-22b), present from setiger 1. Superior composite falcigers unidentate, short-bladed, blades smooth or with several coarse serrations (Figure 30-22c). Inferior composite falcigers with smooth blades (Figure 30-22d). Inferior simple seta slender, smooth, pointed (Figure 30-22e), present on posterior setigers. Acicula solitary, stout, with bent tips (Figure 30-22f). Pharynx extending to setigers 2-3, with subterminal dorsal tooth. Proventricle located in setigers 3-4, with about 12 indistinct muscle cell rows. Gametes present from setigers 7 (1 female paratype) or 8 (1 male paratype).

REMARKS: S. taylori differs from the European S. hystrix in body size, length of the pharynx and proventricle, and in details of setal morphology and arrangement (see Perkins, 1981:1142 for additional remarks).

PREVIOUSLY REPORTED HABITAT: To 11 m; sand, coarse calcareous sand, Zostera beds.

GULF OF MEXICO BLM-OCS OCCURRENCE: Three scattered records off Florida (Figure 30-21); 27-90 m; medium to fine sand.

DISTRIBUTION: Connecticut, Maryland, Florida, Gulf of Mexico.

Sphaerosyllis piriferopsis Perkins, 1981

Figures 30-23, 24a-f

Sphaerosyllis piriferopsis Perkins, 1981:1133, figs. 23a-f, 24a-i.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 8A-11/80 (1 spec., USNM 75299), 12A-11/80 (5 spec., USNM 75300); MAFLA 2209H-8/77 (1 spec.), 2211J-7/76 (1 spec.), 2422C-7/76 (1 spec.), 2529A-2/78 (1 spec.), 2530D-6/75 (3 spec.), 2531K-2/78 (10 spec.), 2533B-6/75 (2 spec.), 2645H-6/75 (5 spec.), 2645-2/76 (4 spec., USNM 55835); STOCS SB3-3 4/76 (8 spec., USNM 75222; 2 spec.), SB3-6 Sp/76 (13 spec., USNM 75223).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., FSBC I 23603 (8 paratypes), 23613 (3 paratypes), 23617 (2 paratypes).

DESCRIPTION:

Length, to 3.3 mm (previously reported to 2.3 mm); width, to 0.2 mm (previously reported to 0.12 mm without parapodia). Body slender, thread-like; complete specimens with up to 42 setigers. Papillae short, scattered. Prostomium rectangular, with four lentigerous eyes in trapezoidal arrangement (Figure 30-24a). Internal organs of head region sometimes red-pigmented. Antennae onion-shaped, median antenna inserted near posterior border of prostomium, lateral antennae at anterior border. Palps about twice as long as prostomium, fused dorsally, usually curved ventrally. Tentacular cirri onion-shaped, arising lateral to eyes. Dorsal cirri onion-shaped, absent from setiger 2. Ventral cirri digitiform, about as long as parapodia. Anal cirri paired, onion-shaped or subulate, slightly longer than dorsal cirri. Parapodial glands inconspicuous or absent. Superior simple seta stout, slightly hooked at tip, present on all setigers (Figure 30-24b). Superior composite falcigers long-bladed, unidentate, with fine serrations (Figure 30-24c); inferior falcigers with shorter blades having few serrations or smooth (Figure 30-24d). Inferior simple seta slender, distally hooked (Figure 30-24e), present on posterior setigers. Acicula solitary, stout, with bent tips (Figure 30-24f). Pharynx extending to setiger 4, with large

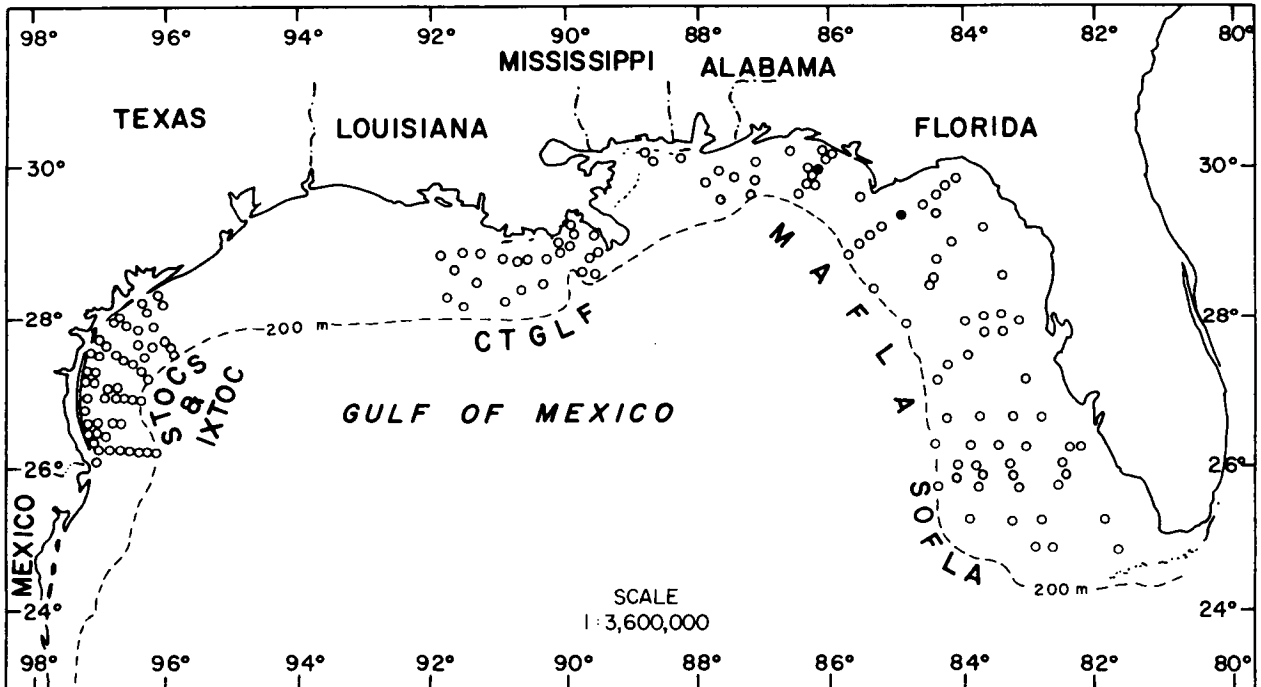


Figure 30-25. Distribution of *Sphaerosyllis glandulata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

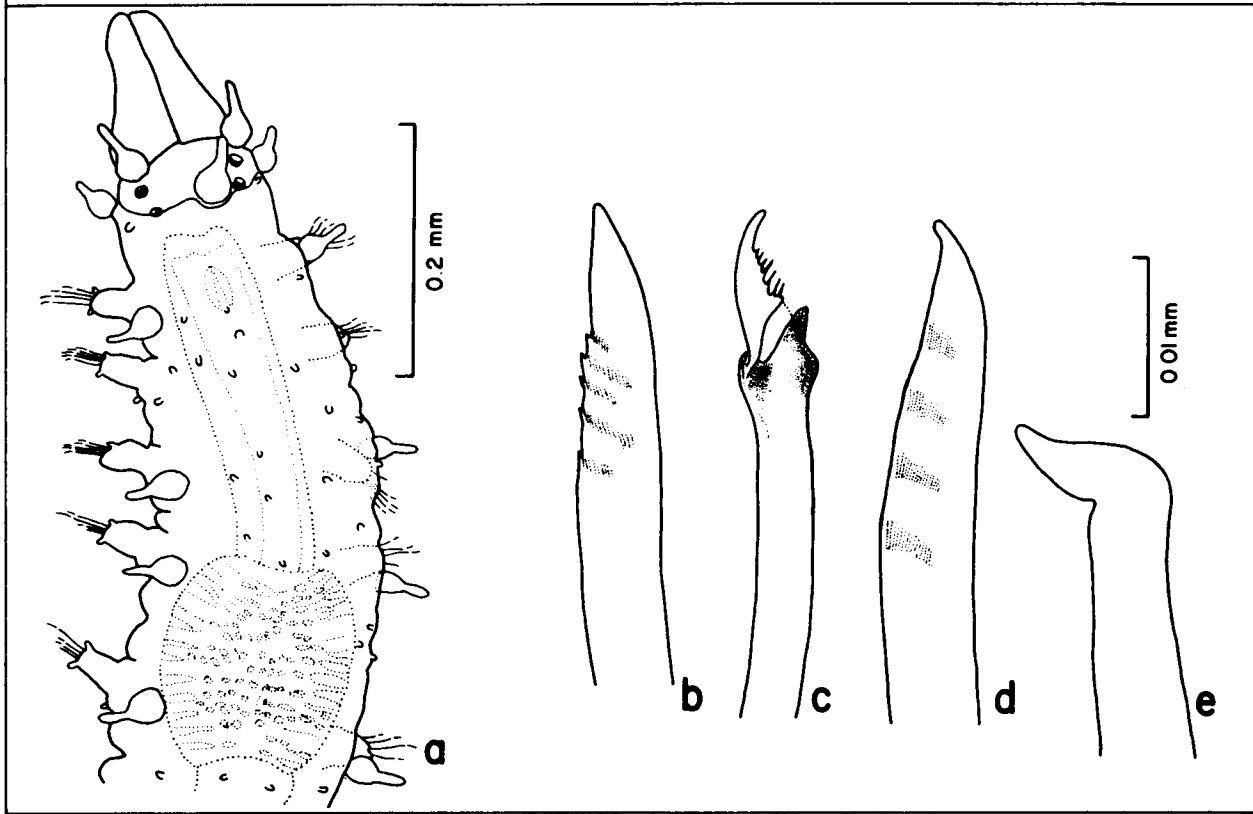


Figure 30-26. *Sphaerosyllis glandulata*: a, anterior end; b, superior simple seta from midbody region; c, superior fal-ciger from anterior region; d, inferior simple seta from midbody region; e, aciculum from same; scale same for b-e.

subterminal dorsal tooth. Proventricle located in setigers 4-5, with 12 (10-15) obscure rows of muscle cells. Gametes present in mature specimens beginning in setigers 11-13.

REMARKS: Perkins (1981:1136) described S. piriferopsis as always lacking parapodial glands. However, in some BLM-OCS specimens these glands are present as small, inconspicuous structures becoming more distinct posteriorly. Specimens were previously identified as Sphaerosyllis pirifera in BLM-OCS collections. S. piriferopsis is newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: To 11 m; coarse calcareous sand; sand, shell and coral rubble with Thalassia, Penicillus and Halimeda cover; submerged plastic sponges.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in eastern and western Gulf (Figure 30-23); 10-189 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey to sandy silt.

DISTRIBUTION: Bahamas, Florida, Gulf of Mexico.

Sphaerosyllis glandulata Perkins, 1981

Figures 30-25, 26a-e

Sphaerosyllis glandulata Perkins, 1981:1123, figs. 18a-c, 19a-j.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2423J-7/76 (2 spec., USNM 65686), 2531K-2/78 (9 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., FSBC I 23583 (1 female paratype), 23585 (3 paratypes), 23591 (1 male, 1 female paratypes).

DESCRIPTION:

Length, to 4.2 mm (previously reported to 7 mm); width, to 0.25 mm (previously reported to 0.18 mm without parapodia). Body slender, thread-like; complete specimens with up to 46 setigers. Papillae fairly long, scattered. Prostomium oval, with four small lentigerous eyes in trapezoidal arrangement (Figure 30-26a). Antennae onion-shaped, median antenna inserted at posterior border of prostomium, lateral antennae at anterior border. Palps straight, thick, fused dorsally, about twice as long as prostomium. Tentacular and dorsal cirri onion-shaped; dorsal cirri absent on setiger 2. Ventral cirri digitiform, usually shorter than parapodia. Anal cirri paired, subulate, at least twice as long as posterior dorsal cirri. Parapodial glands usually small and inconspicuous anteriorly, more distinct posteriorly, present from setiger 4. Superior simple seta stout, pointed (Figure 30-26b), present on all setigers. Superior composite falcigers short-bladed, unidentate, with several long serrations (Figure 30-26c) in anterior region; posterior and inferior falcigers with few short serrations or smooth. Inferior simple seta pointed, curved (Figure 30-26d), present on middle and posterior setigers. Acicula solitary, stout, sharply bent at tip (Figure 30-26e). Pharynx extending to setiger 4, with subterminal dorsal tooth. Proventricle located in setigers 4-5, with 12-13 rows of muscle cells. Gametes of paratypes beginning in setigers 9-11.

REMARKS: Perkins (1981:1114) distinguished S. glandulata from S. piriferopsis on the presence of parapodial glands. However, both species in BLM-OCS material showed evidence of parapodial glands. The

relative blade lengths of anterior composite falcigers appear to be a more reliable character for separating these species.

PREVIOUSLY REPORTED HABITAT: To 20 m; coarse calcareous sand; sand, broken shell.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off northwestern Florida (Figure 30-25); 19-45 m; coarse sand, silty fine sand.

DISTRIBUTION: North Carolina, Florida, Gulf of Mexico.

Genus **Exogone** Oersted, 1845

TYPE SPECIES: Exogone naidina Oersted, 1845.

REFERENCES:

Imajima, 1966:395.

Day, 1967:271.

Fauchald, 1977a:82.

DIAGNOSIS: Prostomium with three antennae; palps fused dorsally throughout most or entire length. One pair of tentacular cirri. Nuchal organs inconspicuous. Tentacular, dorsal, and ventral cirri ovoid. Pharynx armed with single dorsal tooth. Developing young attached caudally to ventrum of medial segments of female.

Key to the Gulf of Mexico BLM-OCS Species of Exogone

- 1a. Median antennae same length as lateral antennae (Figure 30-28a); dorsal cirri absent on setiger 2. **Exogone atlantica**, p. 30-34
- 1b. Median antenna longer than lateral antennae; dorsal cirri present or absent on setiger 2. 2

- 2a. Long-bladed composite setae with minutely bidentate tips (Figure 30-30c); superior simple seta aristate (Figure 30-30b).
. **Exogone sp. A**, p. 30-37
- 2b. Long-bladed composite setae with entire tips; superior simple seta sharp- or blunt-tipped, not aristate. 3

- 3a. Dorsal cirri absent on setiger 2; short-bladed composite falcigers unidentate (Figure 30-32d). **Exogone sp. B**, p. 30-39
- 3b. Dorsal cirri present on setiger 2; short-bladed composite falcigers bidentate (Figure 30-34e). 4

- 4a. Composite spinigers of setiger 2 with greatly enlarged shaft-heads (Figure 30-34d). **Exogone lourei**, p. 30-39
- 4b. Composite spinigers of setiger 2 without enlarged shaft-heads (Figure 30-36c). **Exogone dispar**, p. 30-43

Exogone atlantica Perkins, 1981
Figures 30-27, 28a-e

Exogone atlantica Perkins, 1981:1097, fig. 7a-i.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 16B-11/80 (3 spec., USNM 75282), 16A-4/81 (5 spec., USNM 75281),

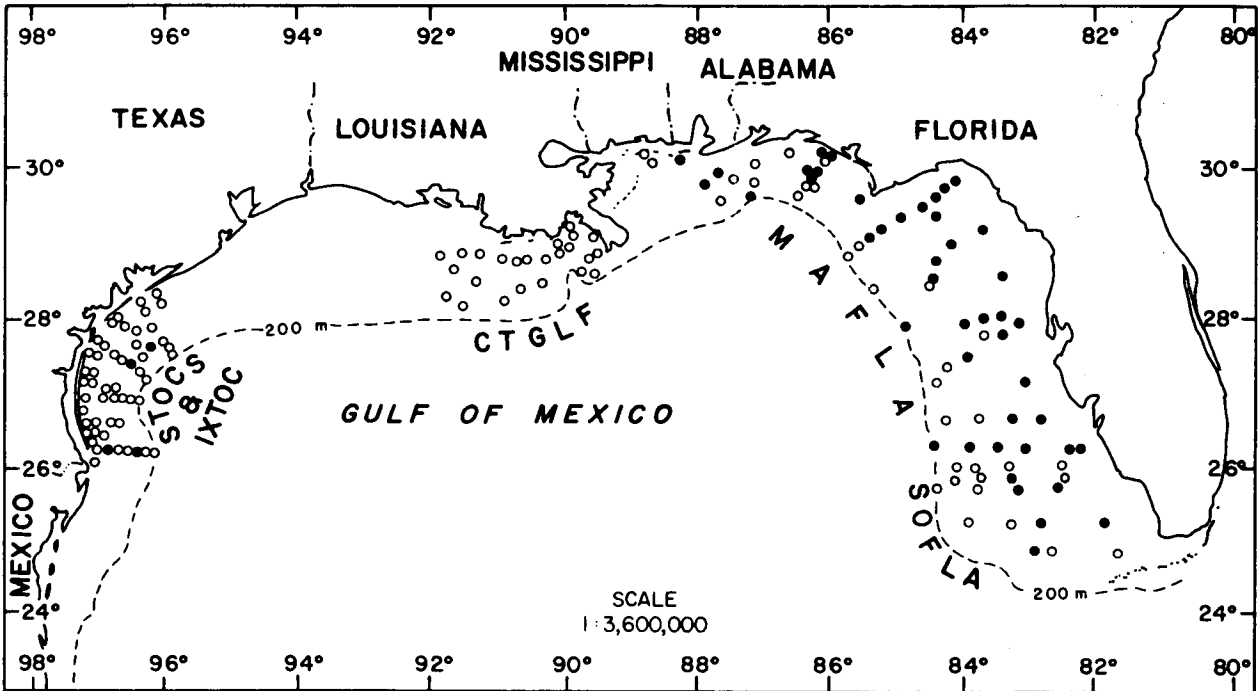


Figure 30-27. Distribution of *Exogone atlantica* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

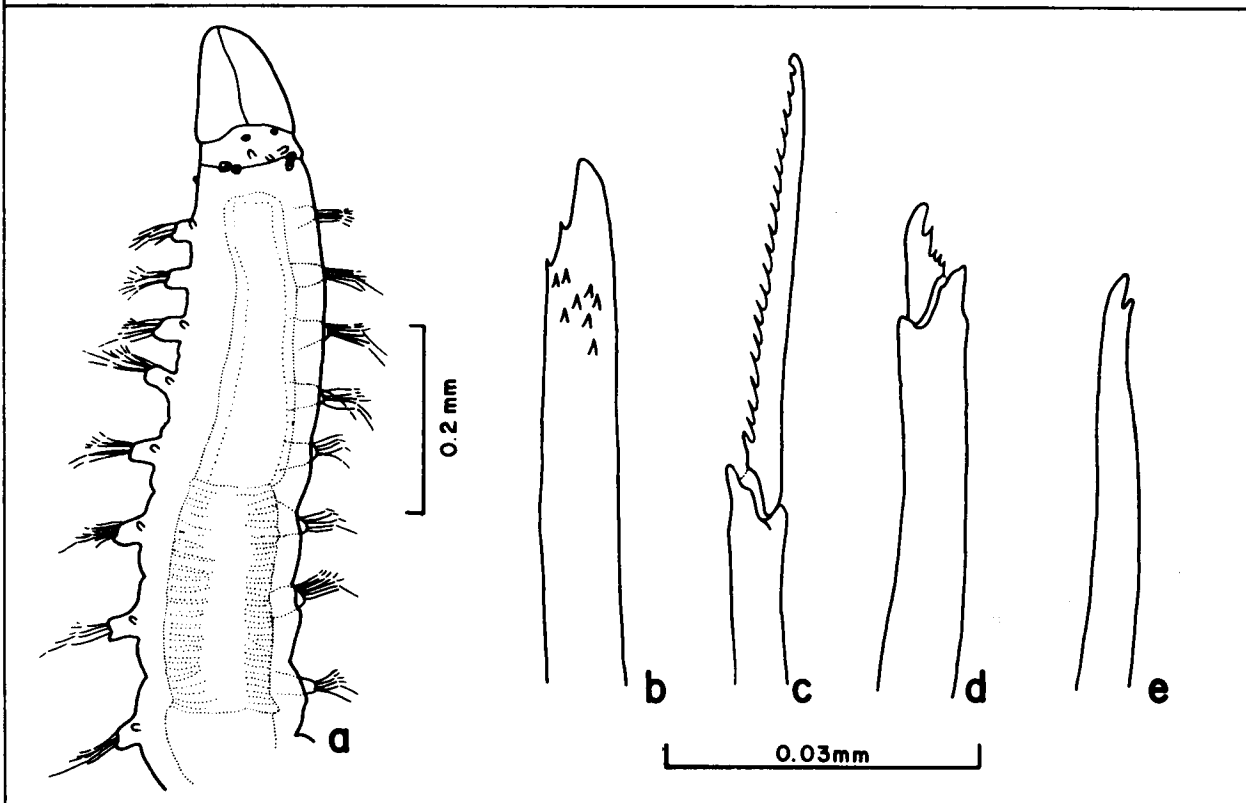


Figure 30-28. *Exogone atlantica*: a, anterior end; b, superior simple seta from midbody region; c, superior spiniger from anterior region; d, inferior falciger from posterior region; e, inferior simple seta; scale same for b-e.

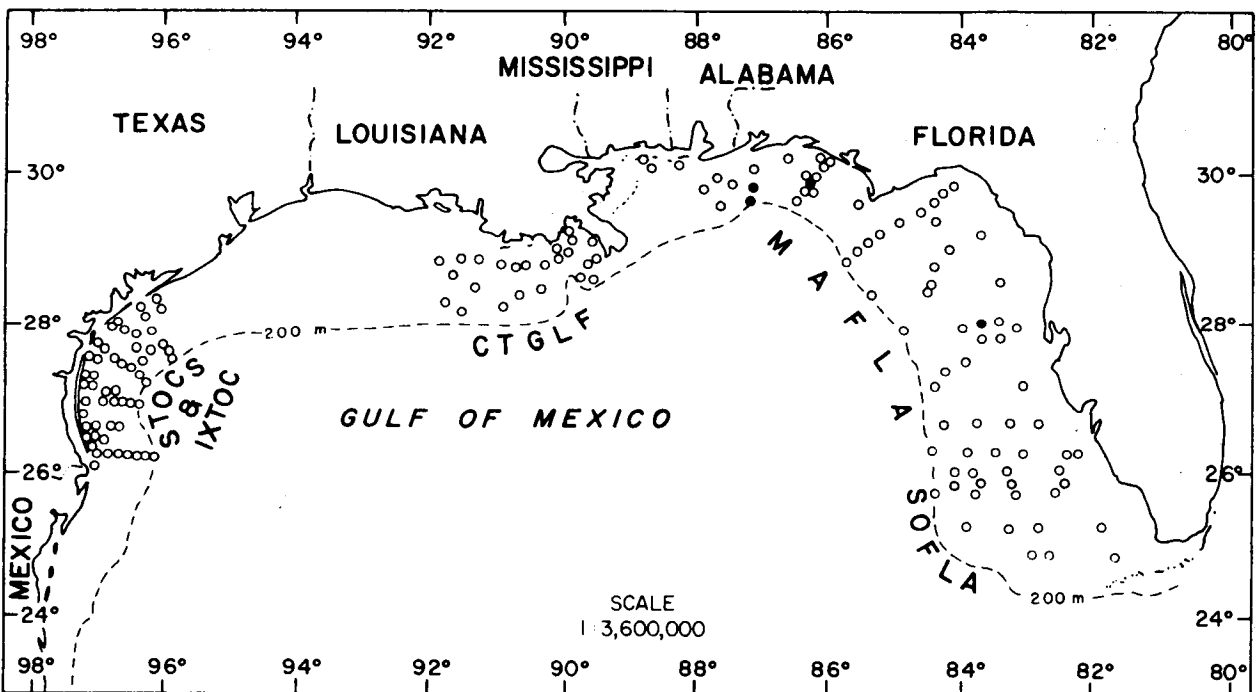


Figure 30-29. Distribution of *Exogone* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

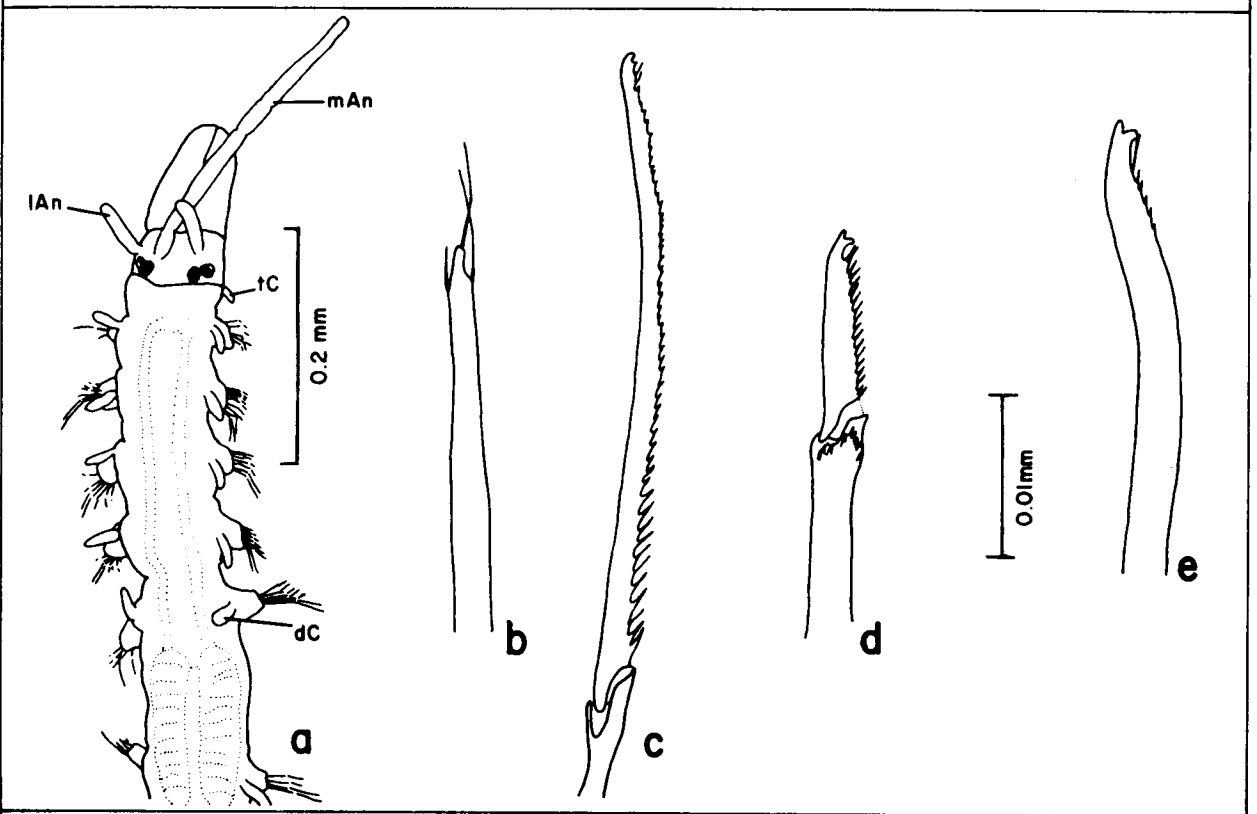


Figure 30-30. *Exogone* sp. A: a, anterior end; b, superior simple seta from midbody region; c, superior falciger from same; d, inferior falciger from same; e, inferior simple seta from same; scale same for b-e.

22-11/80 (2 spec., USNM 75283), 28D-11/80 (6 spec., USNM 75284), 28F-11/80 (1 spec., USNM 75285); MAFLA 2207K-11/77 (1 spec.), 2210A-11/77 (1 spec.), 2211F-11/77 (1 spec.), 2422F-7/76 (1 spec.), 2422-7/76 (1 spec., USNM 55820), 2423B-7/76 (2 spec.), 2640I-11/77 (1 spec.); STOCS HR-1 7/76 (3 spec., USNM 75214).

Supplementary Material:

Florida--Hourglass Sta. BIV-1967, approx. 18 mi. W of Egmont Key, 27°37'N, 83°07'W (FSBC I 23526, 2 paratypes).

DESCRIPTION:

Length, to 6.9 mm (previously reported to 3.2 mm); width, 0.2 mm. Body small, thread-like, brown in color; complete specimens with up to 46 setigers. Prostomium oval, with four small eyes or two large conglomerates of pigment spots near posterior border; with or without two additional eyespots near anterior border. Antennae minute, in a row between eyes (Figure 30-28a). Palps long, completely fused dorsally. Nuchal organs as obscure, oval lobes behind eyes. Tentacular cirri minute; dorsal cirri larger, ovoid, absent on setiger 2. Ventral cirri digitiform, shorter than parapodia except on far posterior setigers. Anal cirri paired, long, cirriform. Superior simple seta blunt-tipped with several lateral serrations (Figure 30-28b), present from setiger 1. Composite spinigers with knobbed tips and coarse serrations (Figure 30-28c), one per fascicle, absent posteriorly. Composite falcigers short-bladed, with few coarse serrations (Figure 30-28d). Inferior simple seta bidentate (Figure 30-28e), present on far posterior setigers. Pharynx straight, brown, extending to setigers 4-7, with subterminal dorsal tooth. Proventricle extending from setigers 4-8 to 6-9, with 19 (18-21) muscle cell rows.

REMARKS: This species has been confused in the BLM-MAFLA samples with Exogone verugera (Claparède, 1868). It differs from the latter principally in lacking dorsal cirri on setiger 2, and in having unidentate, short-bladed composite falcigers. E. atlantica in BLM-STOCS collections was identified as E. gemmifera.

PREVIOUSLY REPORTED HABITAT: 11-55 m; coarse calcareous sand; in scleractinian Siderastrea radians.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in eastern and western Gulf (Figure 30-27); 10-189 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey to sandy silt.

DISTRIBUTION: East coast of Florida, Gulf of Mexico.

Exogone sp. A
Figures 30-29, 30a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2645D-2/78 (1 spec.), 2645G-2/78 (1 spec., USNM 65673).

DESCRIPTION:

Length, to 6.0 mm; width, 0.2 mm. Body small, slender; one complete specimen with 43 setigers. Prostomium rectangular, with four small, contiguous to confluent eyes in trapezoidal arrangement. Median antenna extremely elongate, about twice as long as palps. Lateral antennae about one fifth as long as median antenna (Figure 30-30a). Palps elongate, completely fused dorsally. Tentacular, dorsal and ventral cirri ovoid. Dorsal cirri present on all setigers. Anal cirri paired, long, cirriform. Superior simple seta slender, aristate (Figure 30-30b),

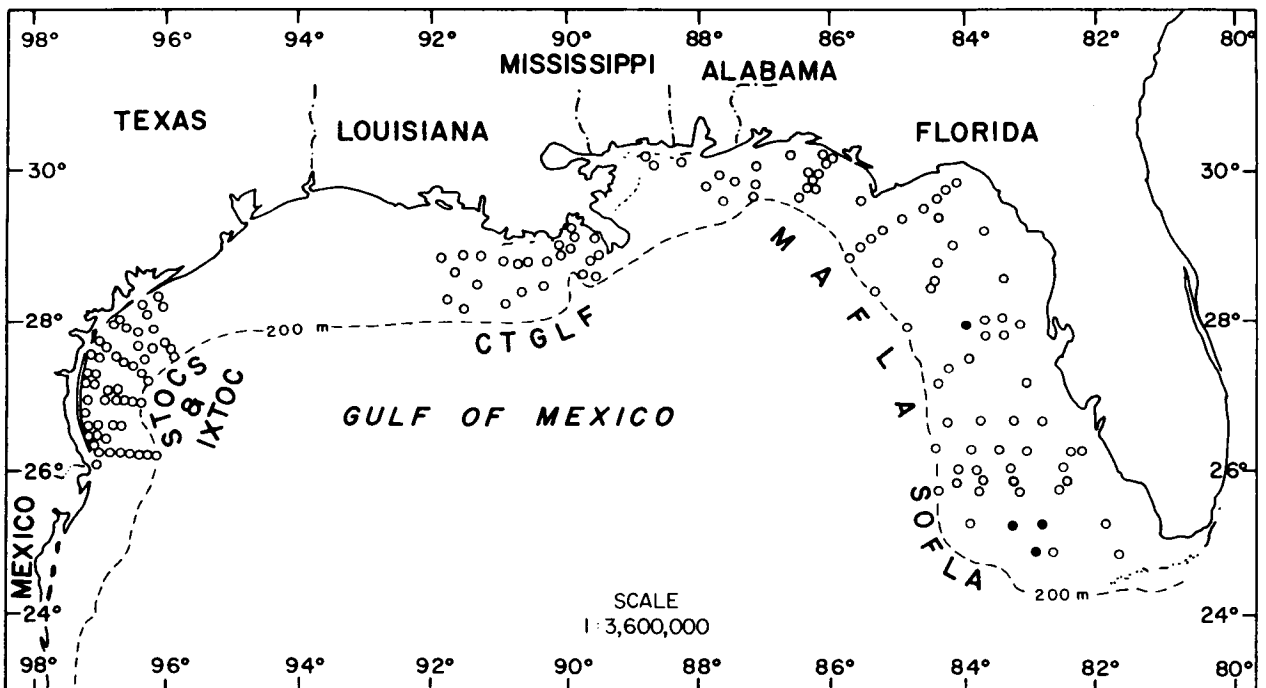


Figure 30-31. Distribution of *Exogone* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

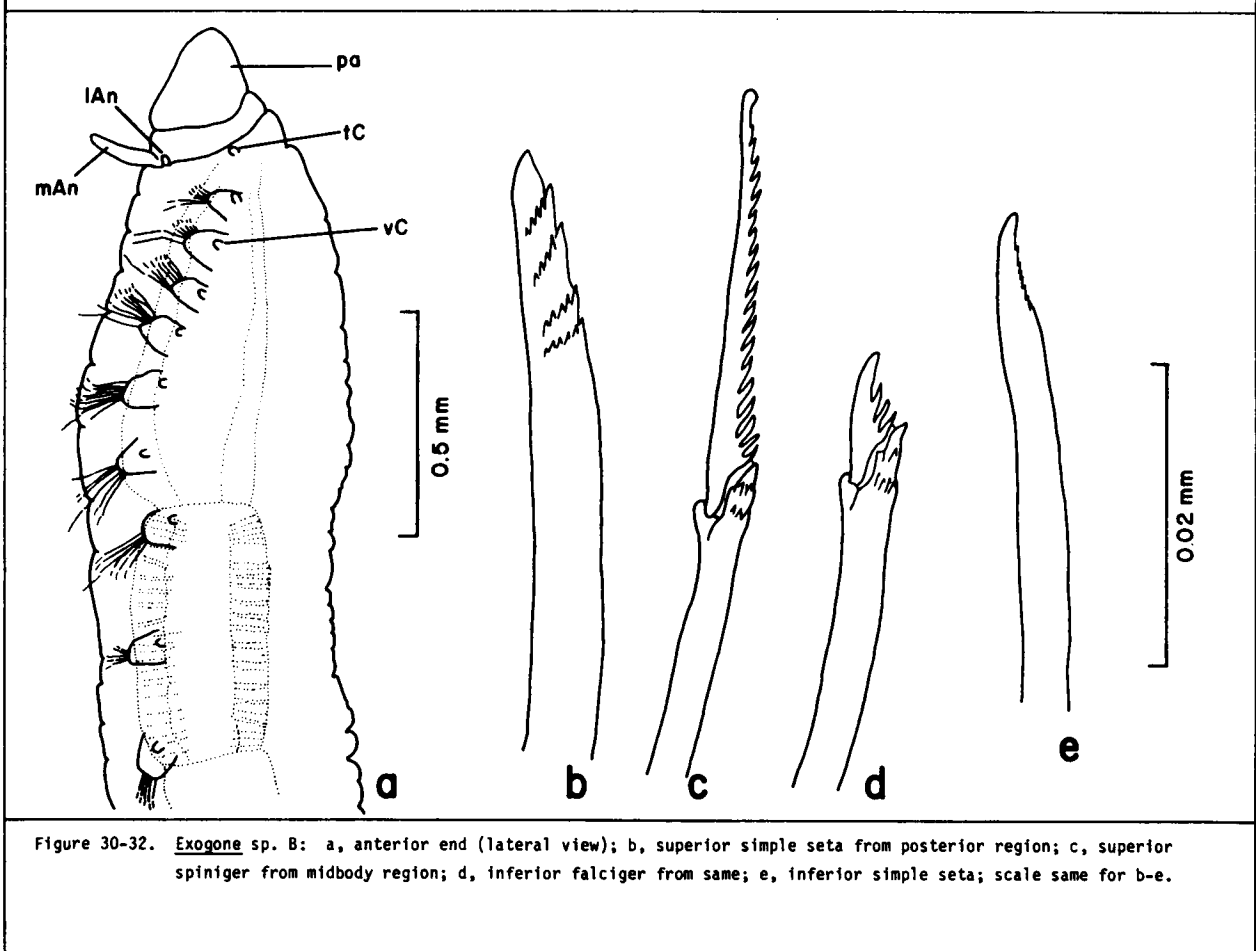


Figure 30-32. *Exogone* sp. B: a, anterior end (lateral view); b, superior simple seta from posterior region; c, superior spiniger from midbody region; d, inferior falciger from same; e, inferior simple seta; scale same for b-e.

present by setiger 7. Superior composite falcigers with long, finely serrate, minutely bidentate blades (Figure 30-30c), numbering 2-3 per fascicle. Medial and inferior composite falcigers numerous on anterior parapodia, similar to superior falcigers but with shorter blades (Figure 30-30d). Inferior simple seta bidentate (Figure 30-30e), present on far posterior setigers. Pharynx extending to setiger 5, dorsal tooth sub-terminal. Proventricle located in setigers 5-6, with about 15 rows of muscle cells.

REMARKS: This species is somewhat similar to Exogone longicirris (Webster and Benedict, 1887:722, pl. 3, figs. 46-50; Perkins, 1981:1092, fig. 5a-f). Exogone sp. A differs from E. longicirris in having longer antennae, distally pointed superior simple setae with several aristae, and falcigers with longer, serrate blades.

GULF OF MEXICO BLM-OCS OCCURRENCE: Several stations in northeastern Gulf (Figure 30-29); 37-106 m; coarse to medium sand, silty very fine sand.

Exogone sp. B
Figures 30-31, 32a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 22-11/80 (3 spec., USNM 75291), 24B-8/81 (3 spec., USNM 75292), 28D-11/80 (1 spec., USNM 75293); MAFLA 2211G-8/77 (1 spec.).

DESCRIPTION:

Length, to 4.2 mm; width, to 0.2 mm. Body small, slender, preserved specimens brown in color; complete specimens with up to 44 setigers. Prostomium broader than long, with four eyes, variable in size; ocular spots present or absent. Median antenna fusiform, 2-5 times as long as prostomium; lateral antennae smaller, ovoid. Palps thick, blunt, fused (Figure 30-32a). Tentacular, dorsal, and ventral cirri ovoid. Dorsal cirri absent on setiger 2. Anal cirri paired, long, cirriform. Superior simple seta distally blunt and serrate (Figure 30-32b), present from setiger 1. Superior composite spinigers long-bladed with knobbed tips and numerous coarse serrations (Figure 30-32c), blades becoming progressively shorter posteriorly; one per fascicle. Composite falcigers with short, unidentate or subbidentate, coarsely serrate blades (Figure 30-32d). Inferior simple seta distally pointed and lightly serrate (Figure 30-32e), present on far posterior setigers. Pharynx extending to setigers 5-7. Proventricle extending from setigers 6-8 to 8-9, with 19-22 rows of muscle cells. Gametes observed in setigers 13-34.

REMARKS: This species is similar to Exogone atlantica; it differs from the latter in having a longer median antenna and more strongly serrate superior simple setae.

GULF OF MEXICO BLM-OCS OCCURRENCE: Several stations off central and southwestern Florida (Figure 30-31); 43 m; coarse to fine sand.

Exogone lourei Berkeley and Berkeley, 1938
Figures 30-33, 34a-f

Exogone lourei Berkeley and Berkeley, 1938a:44, figs. 6-12.

Exogone lourei--Banse, 1972a:200, fig. 5A-D.

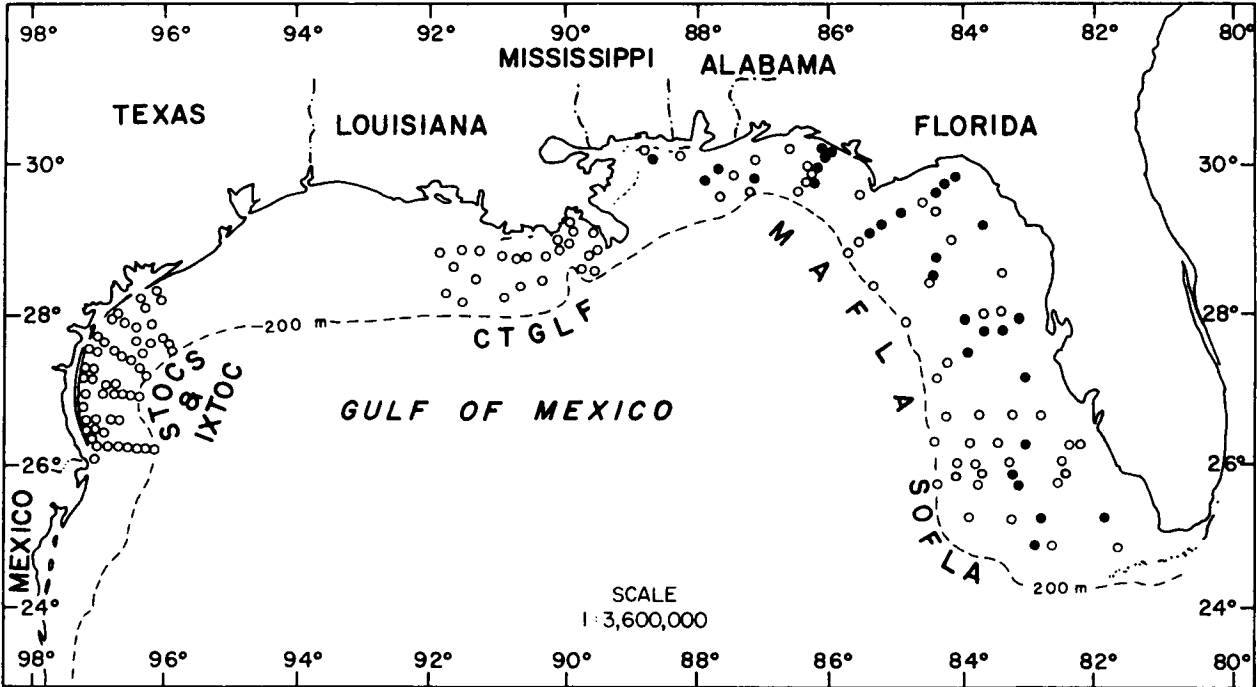


Figure 30-33. Distribution of *Exogone lourei* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

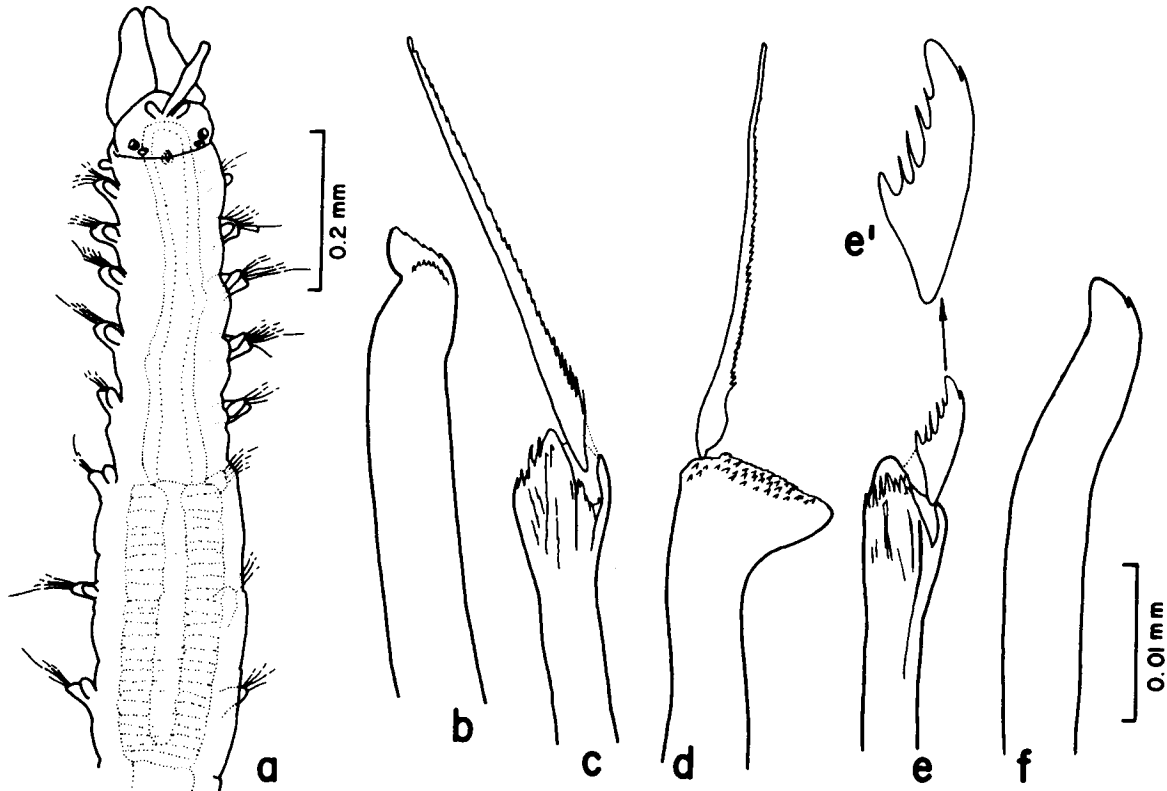


Figure 30-34. *Exogone lourei*: a, anterior end; b, superior simple seta from midbody region; c, superior spiniger from same; d, spiniger from setiger 2; e, inferior falciger from same; e', detail of e, not to scale; f, inferior simple seta; scale same for b-f.

Exogone lourei--Banse and Hobson, 1974:58, fig. 14h-j.

Exogone lourei--Perkins, 1981:1092.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 22-11/80 (2 spec., USNM 75288), 28-11/80 (5 spec., USNM 75289), 28B-11/80 (1 spec., USNM 75290); MAFLA 2211C-7/76 (1 spec.), 2211E-7/76 (3 spec.), 2316I-11/77 (3 spec.), 2424I-7/76 (3 spec.), 2529A-11/77 (2 spec., USNM 55821), 2534G-6/75 (1 spec.), 2644A-6/75 (1 spec.).

Supplementary Material:

British Columbia--False Narrows, May 1936, E. and C. Berkeley coll./ID. (USNM 32895, holotype).

DESCRIPTION:

Length, to 8.0 mm (previously reported to 8 mm); width, 0.2 mm. Body small, thread-like; complete specimens with up to 52 setigers. Prostomium pentagonal, with four small to large lentigerous eyes in trapezoidal arrangement. Median antenna fusiform, about as long as palps; lateral antennae ovoid, small (Figure 30-34a). Palps long, completely fused dorsally. Nuchal organs as inconspicuous lobes at postectal corners of prostomium. Tentacular, dorsal and ventral cirri ovoid. Dorsal cirri present on all setigers. Superior simple seta blunt, minutely serrate, present from setiger 1, sharply bent posteriorly (Figure 30-34b). Composite spinigers (Figure 30-34c) numbering 1-2 per fascicle; those of setiger 2 having greatly enlarged shaft-heads (Figure 30-34d). Composite falcigers bidentate with minute terminal tooth (Figure 30-34e,e'). Inferior simple seta blunt (Figure 30-34f), present on far posterior setigers. Pharynx extending to setigers 4-6, margin surrounded by ten soft papillae, dorsal tooth subterminal. Proventricle extending from setigers 4-6 to 6-8, with 20 (15-31) rows of muscle cell.

REMARKS: Exogone lourei is remarkably similar to E. arenosa Perkins (1981:1094, figs. 5g-j, 6) from Florida. It differs from the latter in lacking a well-defined spine near the tip of the superior simple setae, and in having a shorter proventricle with about 20 muscle cell rows rather than up to 28. Gulf of Mexico BLM-OCS specimens can be separated into two groups on the basis of proventricle length: those with 20 or fewer muscle cell rows and those with close to 30. This dichotomy does not persist with the superior simple setae. On the same specimen (regardless of proventricle length), the superior simple setae may appear either lacking a spine, or with a somewhat enlarged subdistal serration which could be construed as a spine. In my opinion, these characters are not sufficiently distinct or consistent to constitute a separate species; thus the BLM-OCS specimens are retained as E. lourei, which is herein newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: Lower intertidal to 153 m; coarse sand, mud, gravel with mud; between rocks among a colony of Fabricia oregonica.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf (Figure 30-33); 10-75 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey to sandy silt.

DISTRIBUTION: British Columbia to southern California, Gulf of Mexico.

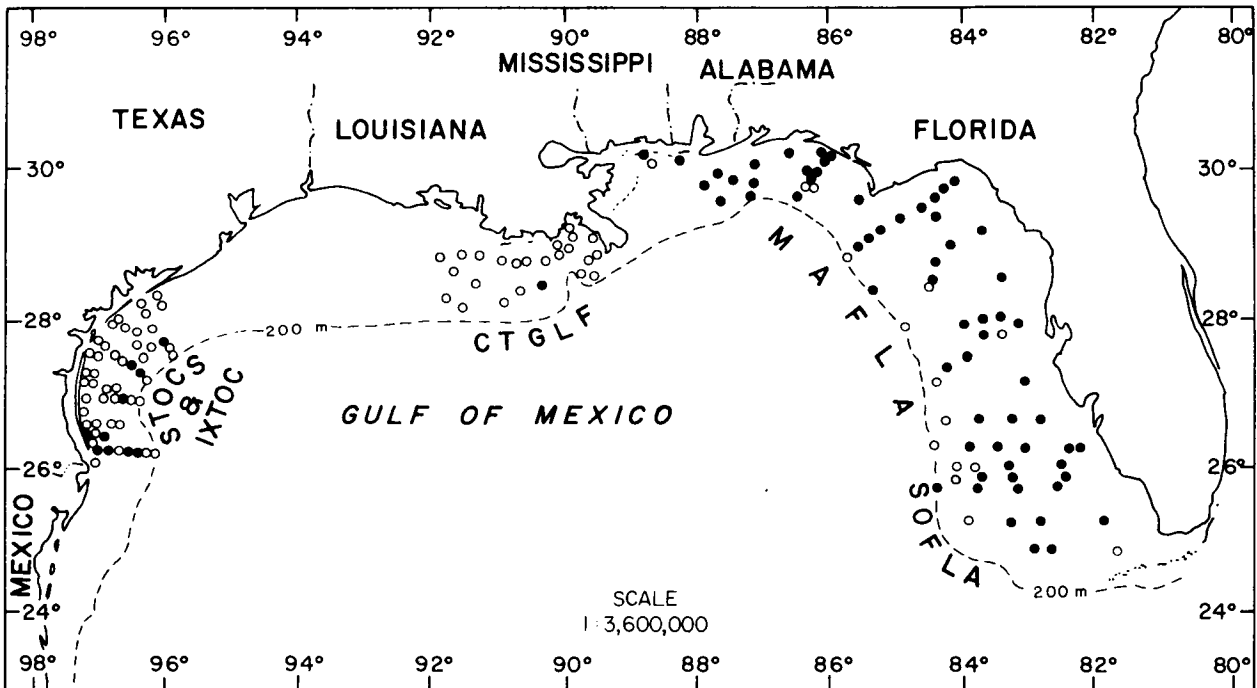


Figure 30-35. Distribution of *Exogone dispar* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

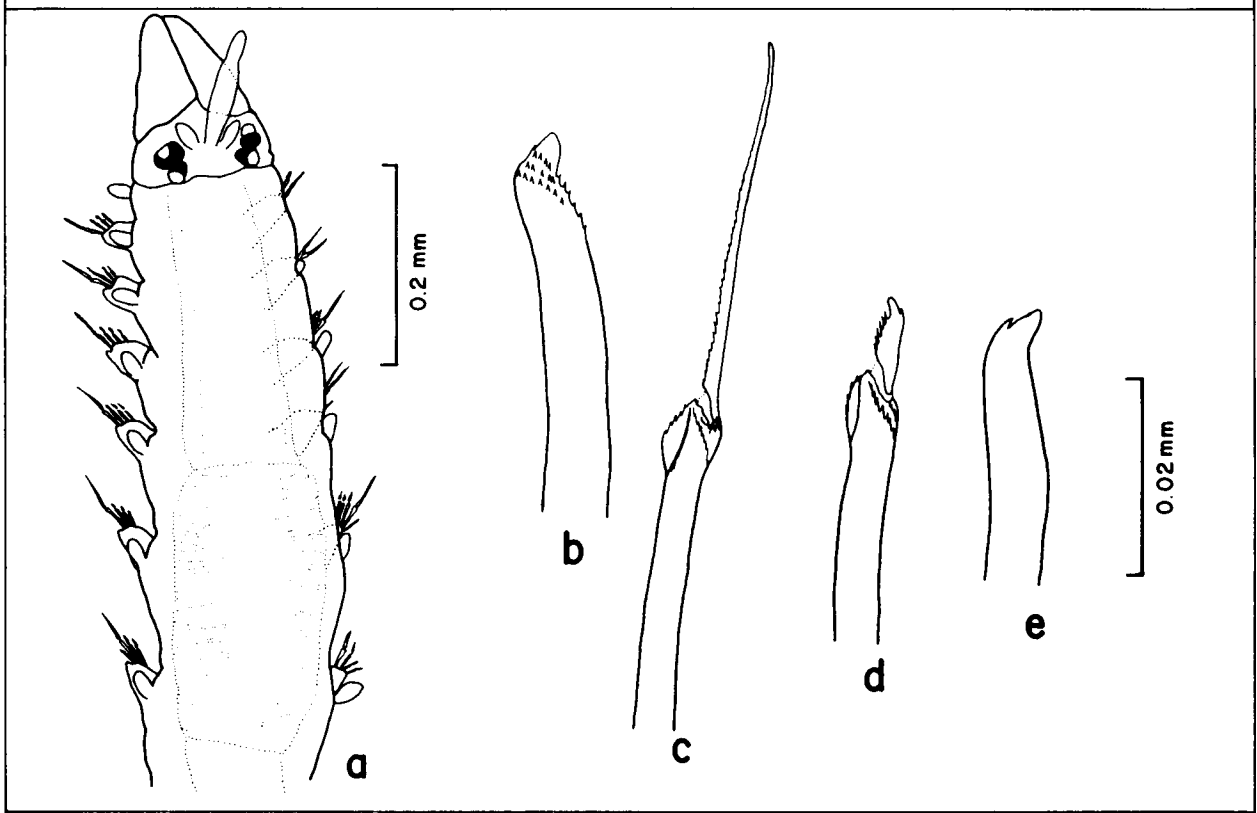


Figure 30-36. *Exogone dispar*: a, anterior end; b, superior simple seta from midbody region; c, superior spiniger from same; d, inferior falciger from same; e, inferior simple seta; scale same for b-e.

Exogone dispar (Webster, 1879)

Figures 30-35, 36a-e

Paedophylax dispar Webster, 1879:23, pl. 4, fig. 49, pl. 5, figs. 50-55.

Exogone dispar--Hartmann-Schröder, 1971:170.

Exogone dispar--Day, 1973:33.

Exogone dispar--Westheide, 1974:106, figs. 48A-H, 49A-D.

Exogone dispar--Gardiner, 1976:132, fig. 11f-i.

Exogone dispar--Perkins, 1981:1090.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 22-11/80 (1 spec., USNM 75286), 24E-7/81 (6 spec., USNM 89896), 28-11/80 (1 spec., USNM 75287); MAFLA 2207J-8/77 (2 spec.), 2207K-8/77 (1 spec.), 2422J-7/76 (8 spec.), 2533B-6/75 (1 spec.), 2533-7/75 (1 spec., USNM 55819); CTGLF 03-1/79 (1 spec.); STOCS 1/IV-1 F/76 (1 spec., USNM 75215), 1/IV-5 F/76 (1 spec., USNM 75216), 4/IV-5 Sp/76 (2 spec., USNM 75218), 4/IV-2 F/76 (1 spec., USNM 75217); IXTOC S18-3 12/80 (1 spec., USNM 75130), S18-5 12/80 (1 spec., USNM 75131).

Supplementary Material:

Virginia--M. Pettibone ID. (USNM 27562, 3 types).

Florida--Tampa Bay, Sta. 16-17, 9 m, J. Taylor and T. Perkins ID. (2 spec., USNM 60478).

DESCRIPTION:

Length, to 5.0 mm (previously reported to 9 mm); width, 0.2 mm (previously reported to 0.5 mm). Body small, thread-like; complete specimens with up to 38 setigers. Prostomium rectangular with two pairs of lenticular eyes in trapezoidal arrangement. Median antenna fusiform, shorter than palps; lateral antennae small, ovoid (Figure 30-36a). Palps completely fused dorsally. Nuchal organs as inconspicuous slits between prostomium and peristomium lateral to eyes. Tentacular, dorsal, and ventral cirri ovoid; dorsal cirri present on all setigers. Anal cirri paired, long, cirriform. Superior simple seta distally blunt with faint serrations near tip, present from setiger 1; becoming somewhat bent posteriorly (Figure 30-36b). Composite setae including 1-2 superior spinigers (Figure 30-36c) per fascicle, and short-bladed bidentate falcigers with pronounced subterminal tooth (Figure 30-36d). Inferior simple seta bifid, present on far posterior setigers (Figure 30-36e). Pharynx extending to setigers 3-5, dorsal tooth subterminal. Proventricle extending from setigers 3-6 to 4-7, with 18 (16-21) muscle cell rows. Embryos attached to ventrum of female beginning on setigers 14-17; gametes of male beginning in setigers 10-11.

PREVIOUSLY REPORTED HABITAT: Low water to 5023 m; shells, stones, sand, coral, pilings.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in northern Gulf (Figure 30-35); 10-189 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey to sandy silt, silty clay.

DISTRIBUTION: Arctic, North Pacific, North Atlantic, Maine to Florida, Gulf of Mexico, Alaska to Mexico, Galapagos, South Japan, South Africa.

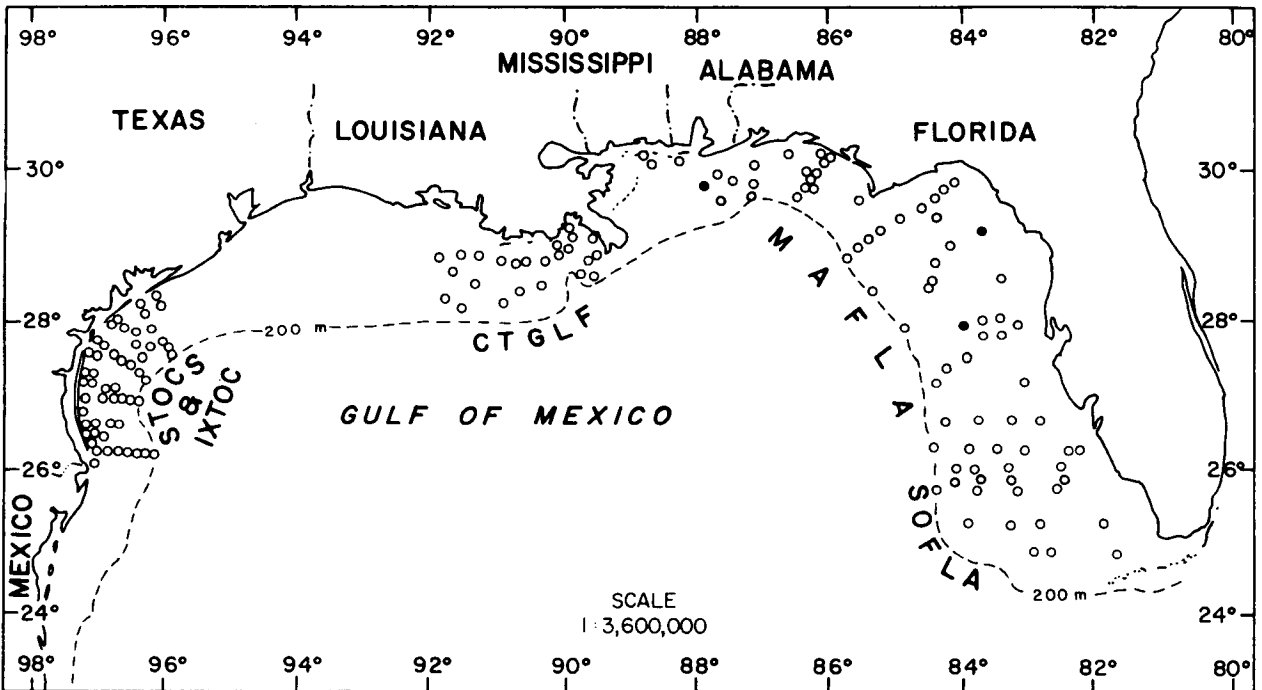


Figure 30-37. Distribution of *Syllides floridanus* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

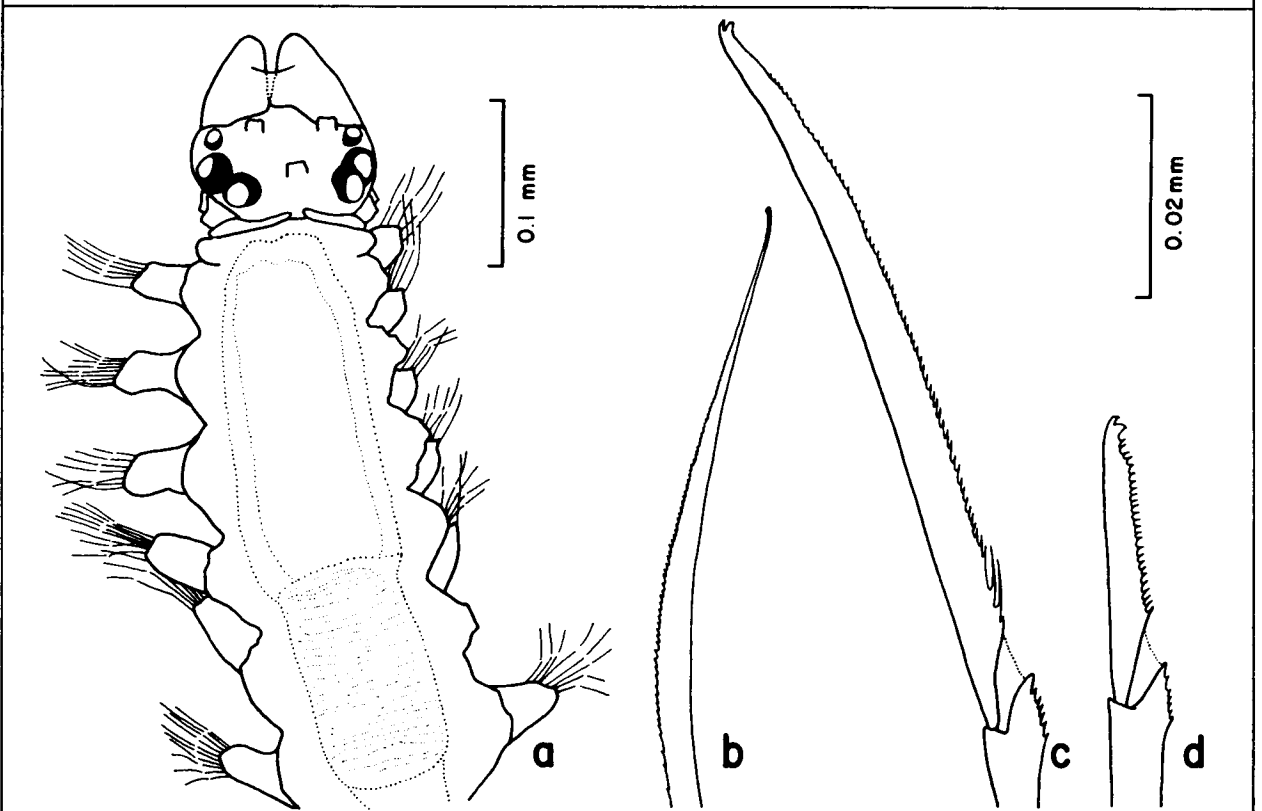


Figure 30-38. *Syllides floridanus*: a, anterior end (all antennae, tentacular and dorsal cirri missing); b, superior simple seta from anterior region; c, superior falciger from midbody region; d, inferior falciger from same; scale same for b-d.

Genus *Syllides* Oersted, 1845

TYPE SPECIES: *Syllides longocirrata* Oersted, 1845.

REFERENCES:

Day, 1967:259.

Banse, 1971:1469.

Fauchald, 1977a:84.

DIAGNOSIS: Prostomium with three antennae. Tentacular segment often collar-like and ciliated, with two pairs of tentacular cirri. Usually some dorsal cirri articulated. Setae and acicula of anterior parapodia not modified. Pharynx usually unarmed.

REMARKS: Banse (1971) provided a key to 12 species of *Syllides*, along with detailed descriptions and figures for a number of those species.

Key to the Gulf of Mexico BLM-OCS Species of *Syllides*

- 1a. Superior simple seta slender, distally pointed (Figure 30-38b) *Syllides floridanus*, p. 30-45
- 1b. Superior simple seta relatively thick, distally blunt (Figure 30-42b). 2

- 2a. Blades of superior composite setae with basal spurs (spur may be difficult to see) (Figure 30-40c). . . . *Syllides bansei*, p. 30-47
- 2b. Blades of superior composite setae without basal spurs. 3

- 3a. Blades of superior composite setae with faint basal serrations (Figure 30-42c); blade-length ratio 2-3:1. *Syllides fulvus*, p. 30-50
- 3b. Blades of superior composite setae with distinct, coarse basal serrations (Figure 30-44c); blade-length ratio about 5:1. *Syllides* sp. A, p. 30-50

Syllides floridanus Perkins, 1981
Figures 30-37, 38a-d

Syllides floridanus Perkins, 1981:1151, figs. 31a-e, 32a-j.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211F-7/76 (1 spec.), 2318C-8/76 (1 spec.), 2640F-2/78 (1 spec., USNM 65688).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, 10.0 m, T. Perkins ID. (FSBC I 23663, 1 paratype).

DESCRIPTION:

Length, to 2.3 mm (previously reported to 3.5 mm); width, to 0.4 mm. Body small, slender; complete specimens with up to 24 setigers. Prostomium rounded, with six lentigerous eyes (Figure 30-38a). Antennae and tentacular cirri missing on all specimens. Palps short, triangular, fused basally. Tentacular segment only slightly inflated. Anterior dorsal cirri long, wrinkled, some dorsal cirri of medial and posterior regions with 6-9 enlarged, pigmented articles. Ventral cirri variable, clavate to cirriform, usually not extending beyond parapodia. Anal

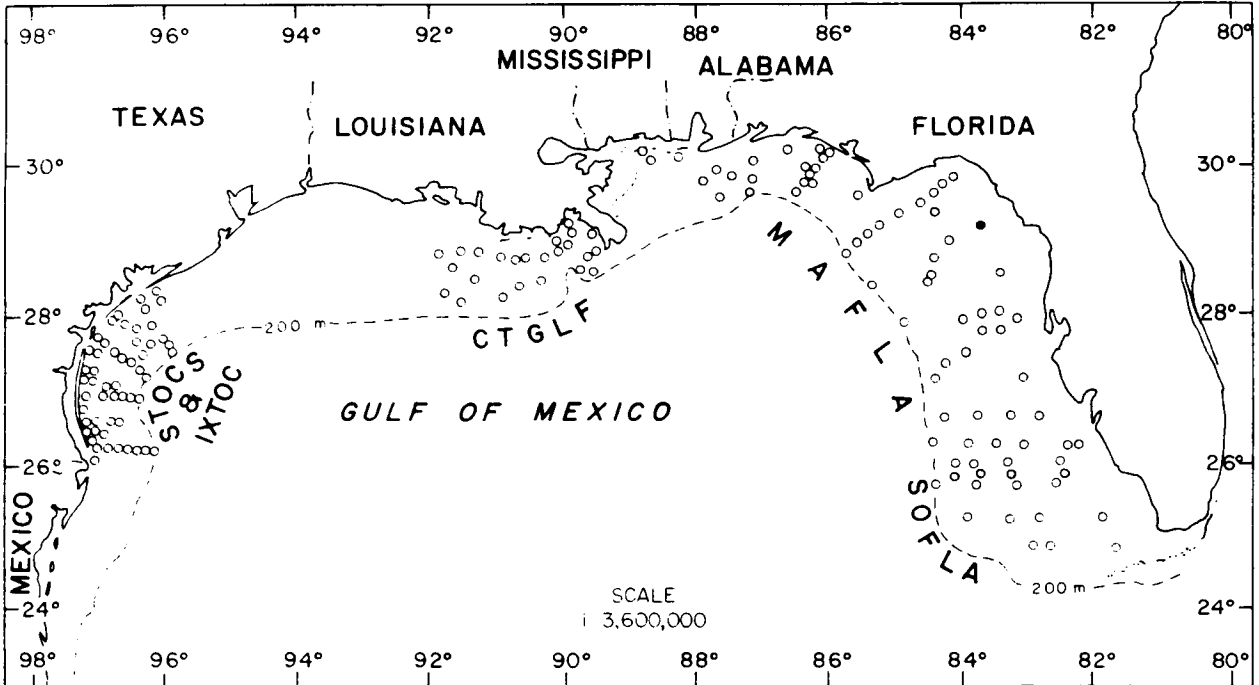


Figure 30-39. Distribution of *Syllides bansei* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-JCS monitoring programs.

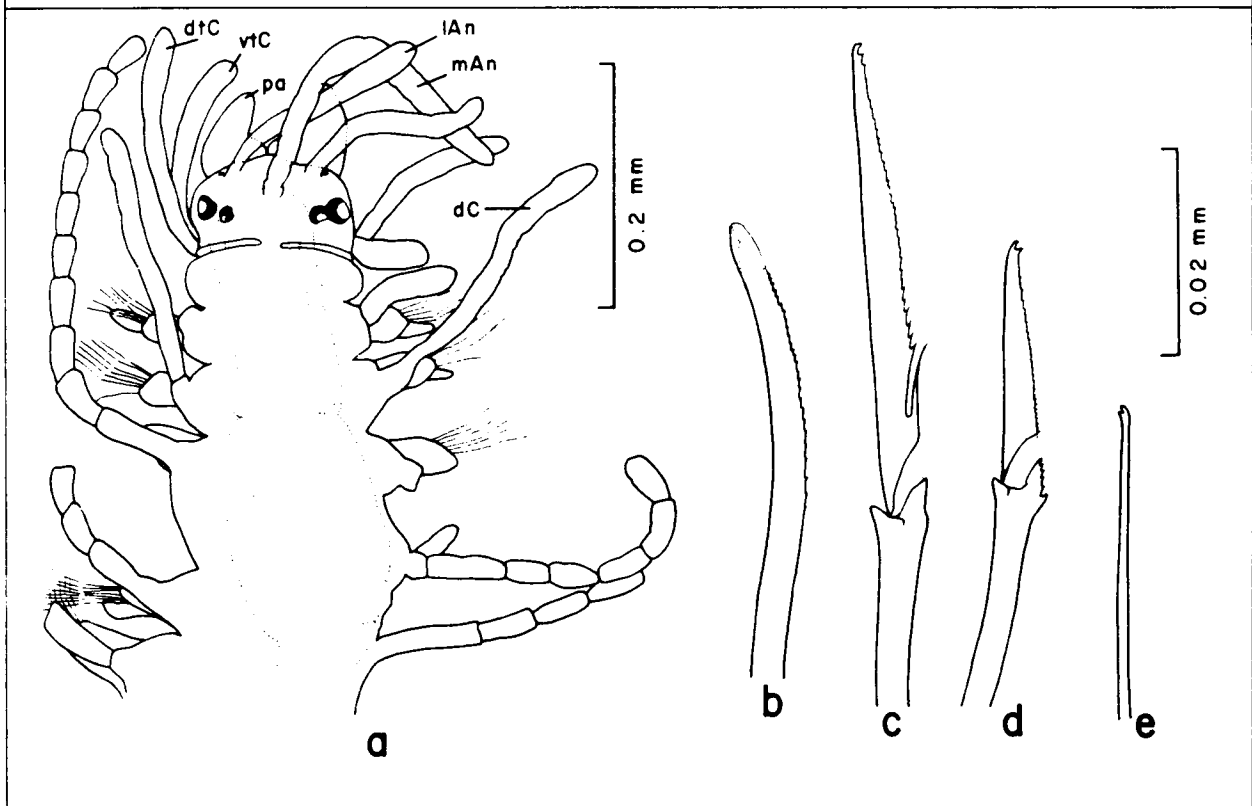


Figure 30-40. *Syllides bansei*: a, anterior end; b, superior simple seta from anterior region; c, superior falciger from posterior region; d, inferior falciger from same; e, inferior simple seta; scale same for b-e.

cirri missing. Acicula in all parapodia slender, distally knobbed. Superior simple seta slender, lightly serrate, minutely knobbed distally (Figure 30-38b). Composite falcigers bidentate, faintly serrate with basal serrations somewhat longer and coarser on some blades (Figure 30-38c,d), blade-length ratio 2-4:1. Pharynx extending to setigers 2-4. Proventricle extending from setigers 2-4 to 8, with 36-44 muscle cell rows. Dark band present on anterior end of intestine in paratype and one Gulf of Mexico specimen. Gametes present from setiger 8.

REMARKS: S. floridanus is newly reported from the Gulf of Mexico. Most specimens of the genus Syllides in BLM-MAFLA collections were originally referred to S. japonica or S. longocirrata, neither of which has been reported from the Gulf.

PREVIOUSLY REPORTED HABITAT: 11 m; coarse calcareous sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Three stations in northeastern Gulf (Figure 30-37); 20-43 m; coarse to medium sand.

DISTRIBUTION: East coast of Florida, Gulf of Mexico.

Syllides bansei Perkins, 1981

Figures 30-39, 40a-e

Syllides bansei Perkins, 1981:1147, figs. 29a-f, 30a-j.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2318K-11/77 (1 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, 10.3 m, T. Perkins ID. (FSBC I 23653, 1 paratype).

DESCRIPTION:

Length, 1.9 mm (previously reported to 2.5 mm); width, 0.3 mm. Body small, slender, complete with 24 setigers. Prostomium rounded, with four eyes, and two small ocular spots at base of palps (Figure 30-40a). Antennae clavate; lateral antennae about two-thirds as long as median antenna. Palps short, rounded. Nuchal organs as thin ridges between prostomium and peristomium. Peristomium inflated, with clavate tentacular cirri, dorsal ones about as long as lateral antennae. First pair of dorsal cirri short, digitiform; second pair long, cirriform; following pairs with 4-8 long, slender articles. Ventral cirri digitiform, extending beyond parapodia. Midventral anal cirrus present. Acicula slender, slightly knobbed distally. Superior simple seta thick anteriorly, becoming slender posteriorly with acuminate tip and distal hood (Figure 30-40b). Composite falcigers minutely bidentate; upper 1-2 falcigers spurred at base of blade (Figure 30-40c), lower setae faintly serrate (Figure 30-40d) but not spurred; blade-length ratio, about 2:1. Inferior simple seta slender, minutely bidentate (Figure 30-40e), present on far posterior setigers. Pharynx extending to setiger 2. Proventricle located in setigers 2-5, with about 28 muscle cell rows.

PREVIOUSLY REPORTED HABITAT: Low water to 11 m; sand, coarse calcareous sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off central Florida (Figure 30-39); 20 m; medium sand.

DISTRIBUTION: East coast of Florida, Gulf of Mexico.

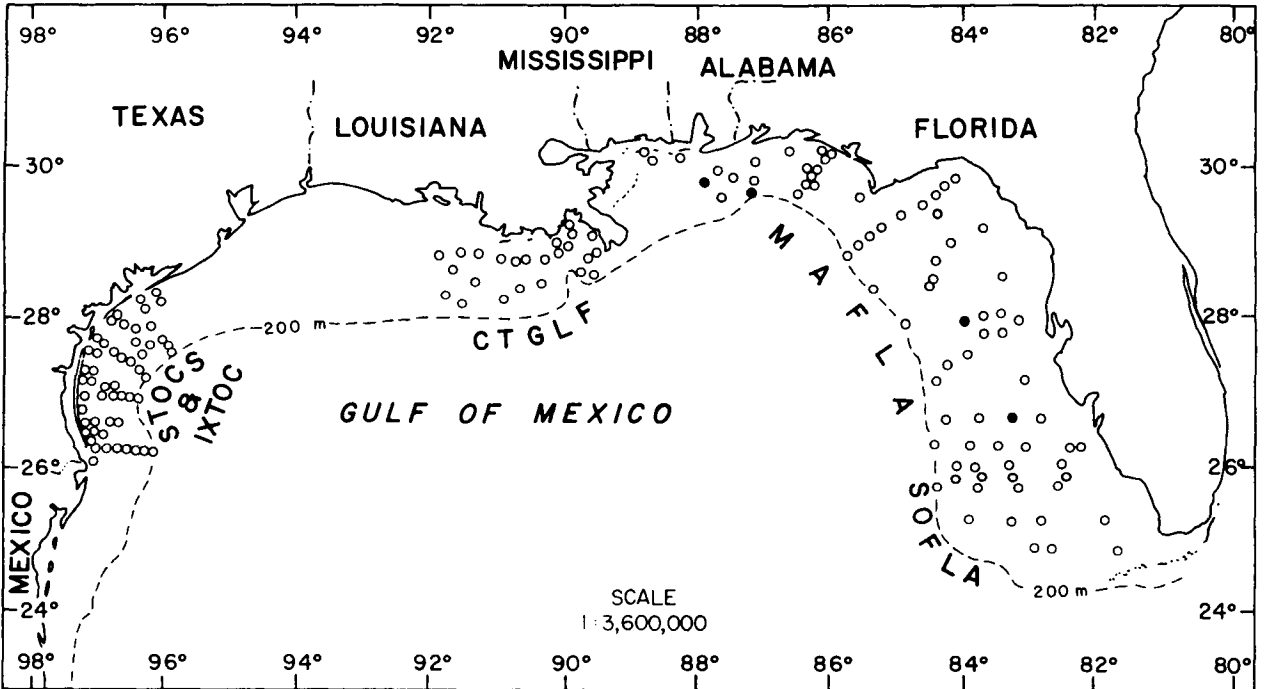


Figure 30-41. Distribution of *Syllides fulvus* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

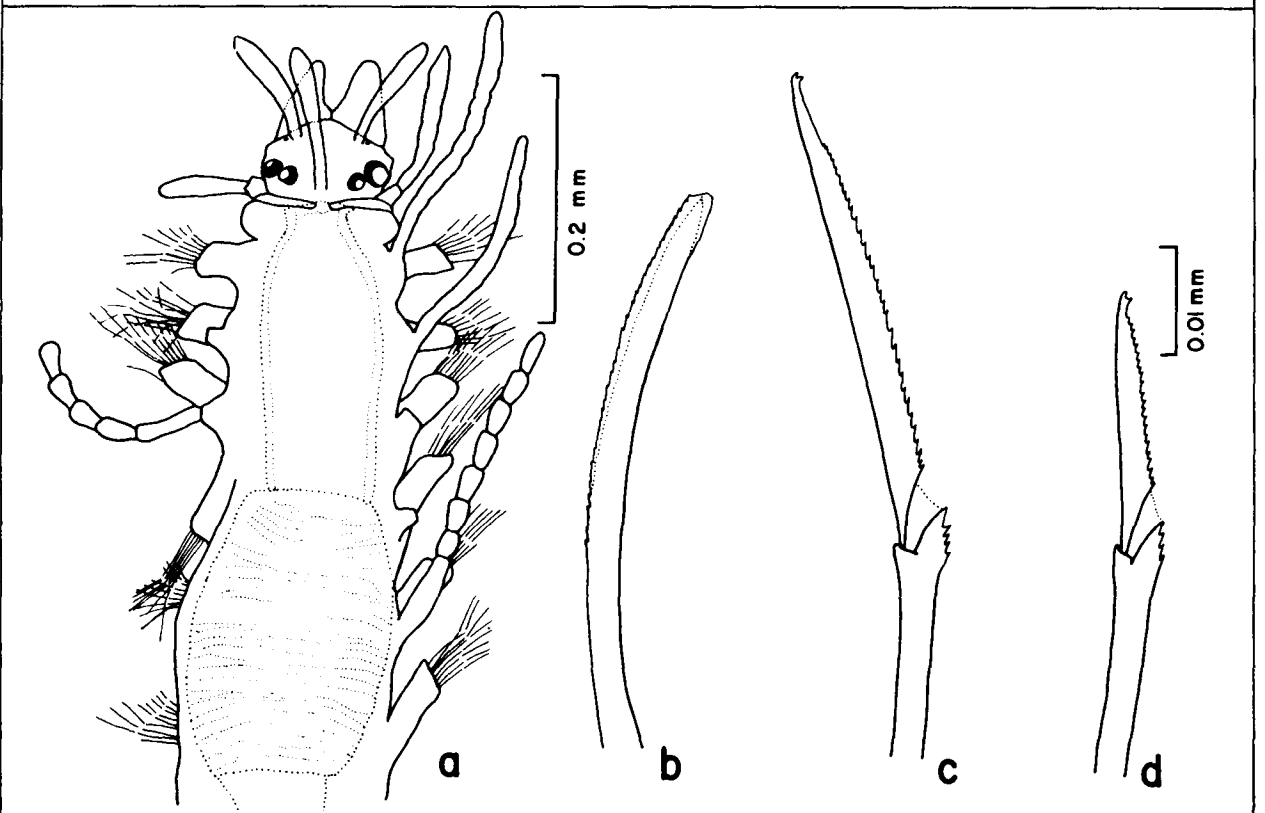


Figure 30-42. *Syllides fulvus*: a, anterior end; b, superior simple seta from anterior region; c, superior falciger from midbody region; d, inferior falciger from same; scale same for b-d.

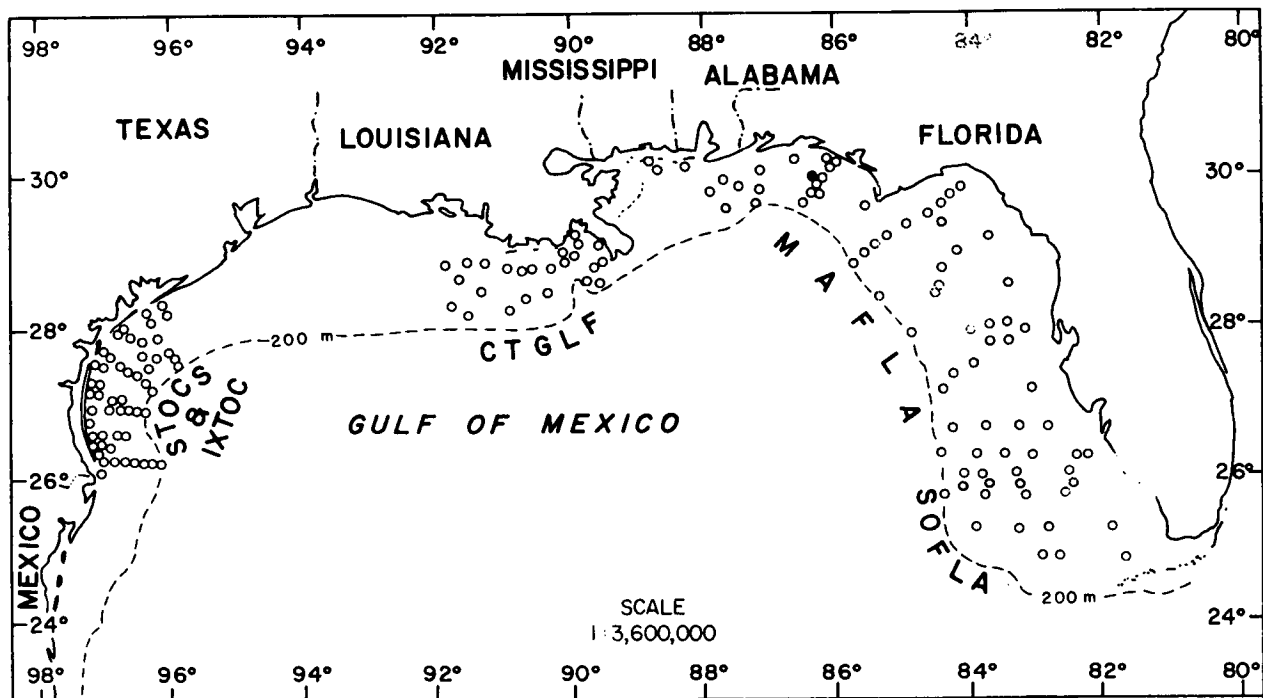


Figure 30-43. Distribution of *Syllides* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

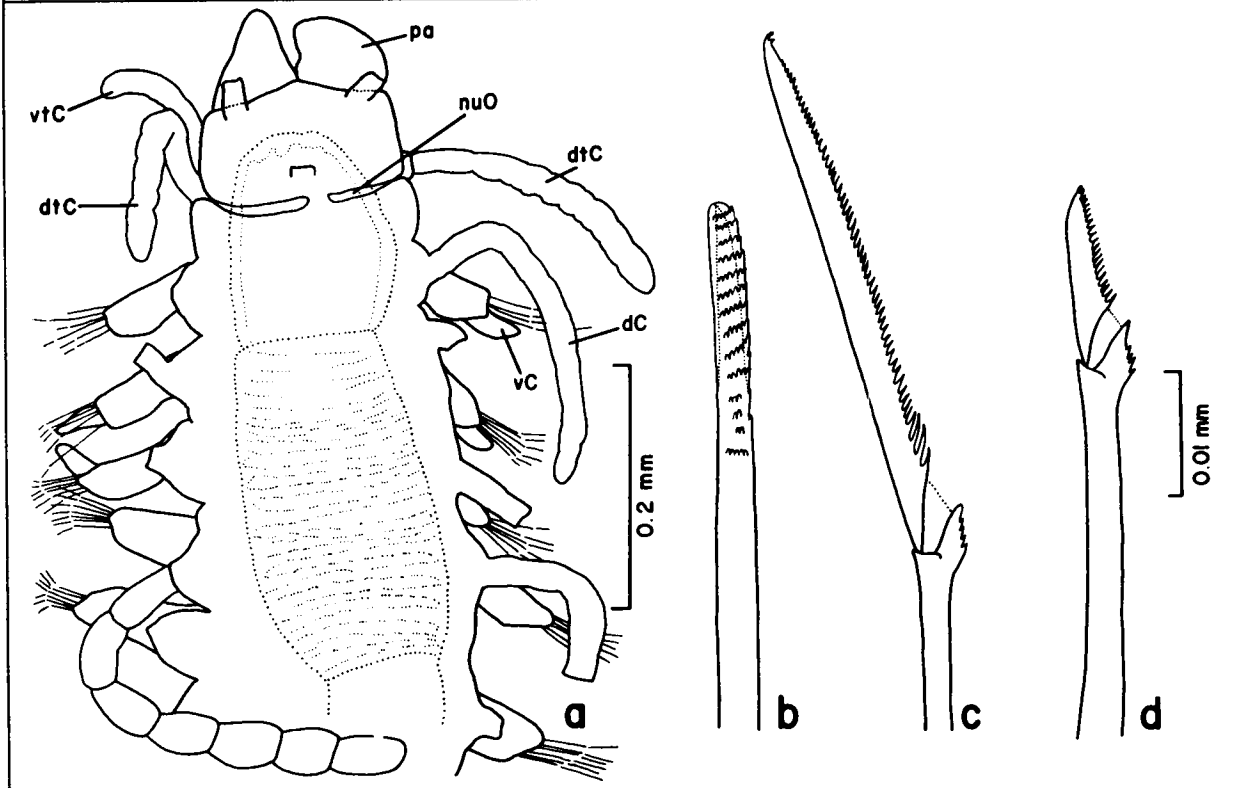


Figure 30-44. *Syllides* sp. A: a, anterior end; b, superior simple seta from midbody region; c, superior falciger from same; d, inferior falciger from same; scale same for b-d.

Syllides fulvus (Marion and Bobretzky, 1875)
Figures 30-41, 42a-d

Anoplosyllis fulva Marion and Bobretzky, 1875:28.
Syllides fulva--Banse, 1971:1472, fig. 2a-f.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4D-5/81 (1 spec., USNM 89897); MAFLA 2211C-11/77 (1 spec.), 2640F-2/78 (1 spec., USNM 65689), 2640H-2/78 (1 spec.), 2645H-6/75 (2 spec.), 2645D-2/78 (1 spec.).

DESCRIPTION:

Length, to 1.9 mm (previously reported to 2.3 mm); width, to 0.3 mm (previously reported to 0.45 mm). Body small, slender; complete specimens with up to 26 setigers. Prostomium and dorsum usually covered with small brown pigment spots. Prostomium rounded, with four eyes, and two small ocular spots at base of palps (Figure 30-42a). Palps erect, triangular, fused basally. Nuchal organs as long ridges between prostomium and peristomium. Antennae and tentacular cirri clavate. Peristomium somewhat inflated. First two pairs of dorsal cirri clavate to cirriform; following pairs with 5-17 long, slender articles. Ventral cirri digitiform, usually not extending beyond parapodia. Pygidium with short midventral cirrus; lateral anal cirri missing. Acicula slender with small knobbed tips in all setigers. Superior simple seta thick, blunt, lightly serrate on convex edge (Figure 30-42b); slender on last few setigers. Composite falcigers minutely bidentate, blades broad basally and faintly serrate (Figure 30-42c,d), blade-length ratio 2-3:1. Pharynx extending to setigers 2-4. Proventricle extending from setigers 3-4 to 6-7, with 27-42 muscle cell rows. Gametes first present from setiger 6 or 7.

REMARKS: *S. fulvus* is newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: Low water; rocks covered by Halimeda tuna, without sediment.

GULF OF MEXICO BLM-OCS OCCURRENCE: Scattered records in northeastern Gulf (Figure 30-41); 35-106 m; coarse to medium sand.

DISTRIBUTION: Mediterranean, Gulf of Mexico.

Syllides sp. A
Figures 30-43, 44a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2532E-7/76 (1 spec.).

DESCRIPTION:

Length, 3.4 mm; width, 0.45 mm. Body slender, complete with 29 setigers. Prostomium rectangular, with small palps; eyes absent (Figure 30-44a). Antennae missing. Peristomium inflated. Dorsal tentacular cirri about twice as long as prostomium, irregularly wrinkled; ventral tentacular cirri shorter. Dorsal cirri long, wrinkled anteriorly; becoming articulated in midbody region, with 7-13 glandular articles. Ventral cirri clavate, extending beyond parapodia. Pygidium with two long, filiform, lateral cirri and one short midventral cirrus. Acicula slender, distally knobbed. Superior simple seta thick, blunt, with serrate hood (Figure 30-44b). Composite falcigers minutely bidentate (Figure 30-44c,d);

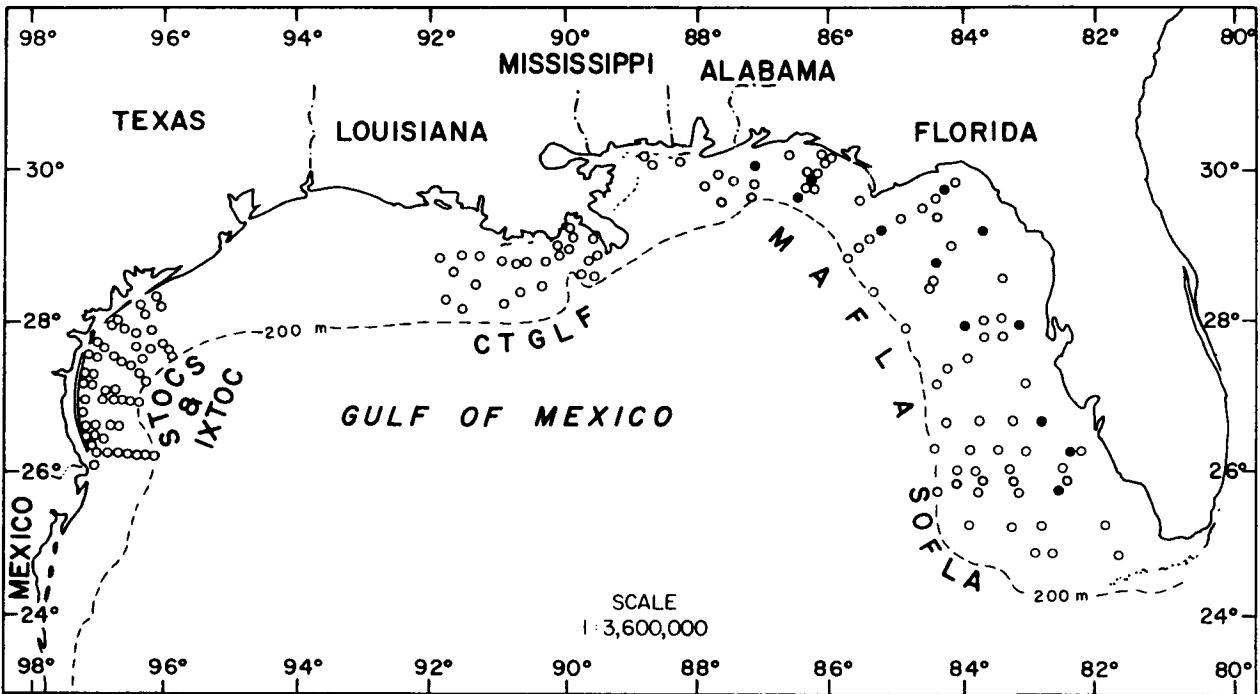


Figure 30-45. Distribution of *Streptosyllis pettiboneae* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

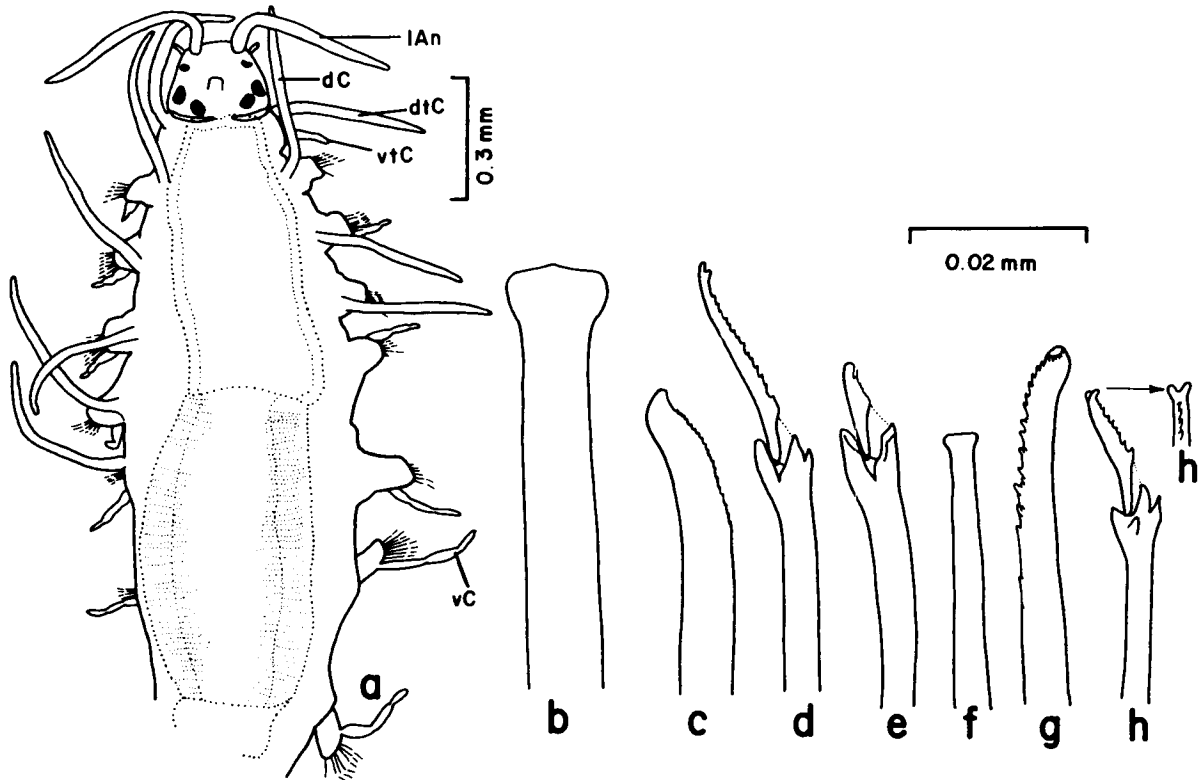


Figure 30-46. *Streptosyllis pettiboneae*: a, anterior end; b, aciculum from setiger 5; c, superior simple seta from same; d, superior falciger from same; e, inferior falciger from same; f, aciculum from setiger 6; g, superior simple seta from midbody region; h, medial falciger from same; h', tip of falciger blade, frontal view; scale same for b-h'.

blades of superior falcigers with coarse basal serrations; blade-length ratio 5:1. Inferior simple seta slender, minutely bidentate, present on last setiger only. Pharynx short, extending to setiger 2. Proventricle located in setigers 2-5, with about 42 muscle cell rows.

REMARKS: Syllides sp. A is similar to S. japonicus Imajima (1966:112; Banse, 1971:1477) in having superior setal blades with basal spines and in having a blade-length ratio of 5:1. It differs from the latter in lacking eyes and in having superior simple setae with blunt tips, rather than fine, drawn-out tips.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off Panama City, Florida (Figure 30-43); 52 m; coarse sand.

Genus Streptosyllis Webster and Benedict, 1884

TYPE SPECIES: Streptosyllis arenae Webster and Benedict, 1884.

REFERENCES:

Pettibone, 1963:126.

Fauchald, 1977a:84.

DIAGNOSIS: Prostomium with three antennae. Tentacular segment often collar-like and ciliated, with two pairs of tentacular cirri. Dorsal cirri smooth, wrinkled, or articulated. Anterior parapodia with large, knobbed acicula and modified setae. Composite spinigerous setae and capillary superior simple setae absent. Pharynx unarmed.

Streptosyllis pettiboneae Perkins, 1981

Figures 30-45, 46a-h'

Streptosyllis pettiboneae Perkins, 1981:1143, figs. 27a-f, 28a-i.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2D-5/81 (1 spec.); MAFLA 2102J-11/77 (3 spec.), 2102H-2/78 (3 spec., USNM 65687), 2318G-8/76 (1 spec.), 2318K-8/76 (1 spec.), 2318D-11/77 (1 spec.), 2318H-11/77 (1 spec.), 2424C-7/76 (1 spec.), 2856E-8/77 (4 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., 6.7 m (FSBC I 23649, 1 paratype), 10.9 m (FSBC I 23651, 1 paratype).

DESCRIPTION:

Length, to 4.0 mm (previously reported to 4.0 mm); width, to 0.5 mm (previously reported to 0.9 mm without parapodia). Body slender, thread-like; complete specimens with up to 41 setigers. Prostomium trapezoidal with four lentigerous eyes across posterior part, and usually two ocular spots near anterior margin (Figure 30-46a). Antennae fusiform, about 1.5-2 times as long as prostomium. Palps biarticulate with flattened basal lobes and short, filiform, terminal lobes; arising ventrally, terminal lobes sometimes visible dorsally. Nuchal organs as small lobes between prostomium and peristomium. Tentacular segment inflated, collar-like, often pigmented, with ciliary band; tentacular cirri digitiform, or long and fusiform. Anterior dorsal cirri long, slender; dorsal cirri of setiger 6 and several other setigers (7, 13, and 15 in one specimen) with enlarged, pigmented articles. Ventral cirri appearing triarticulate, extending well beyond parapodia.

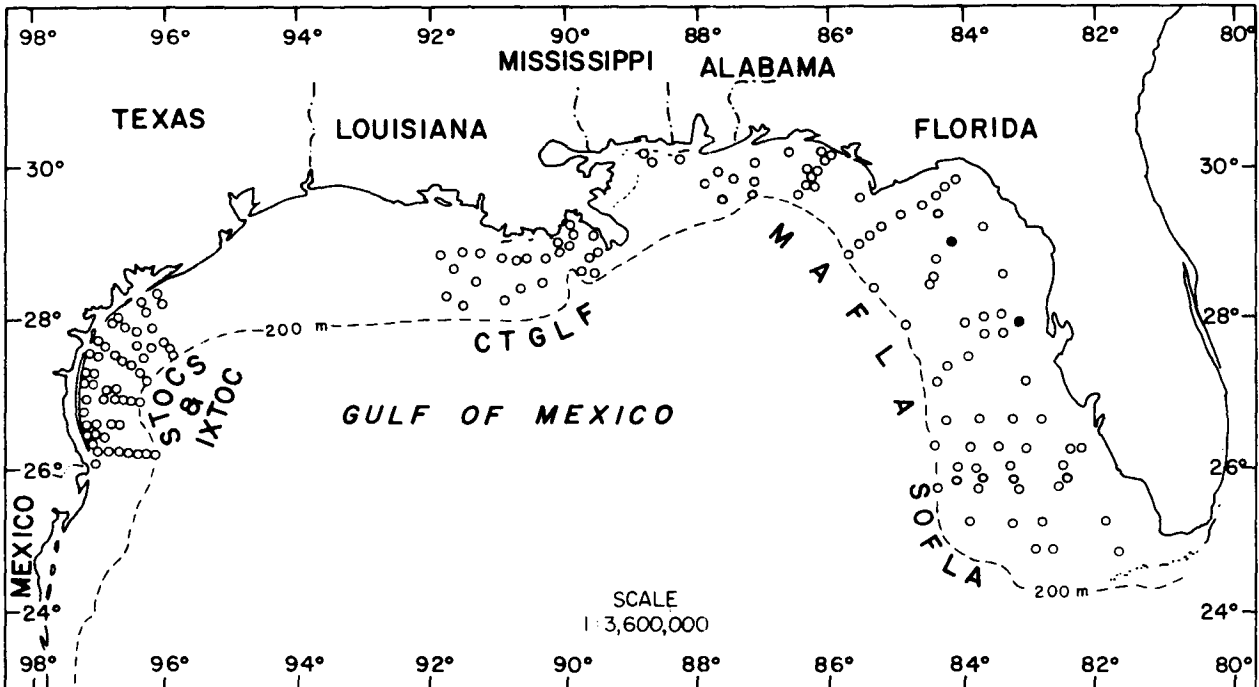


Figure 30-47. Distribution of *Streptospinigera heteroseta* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

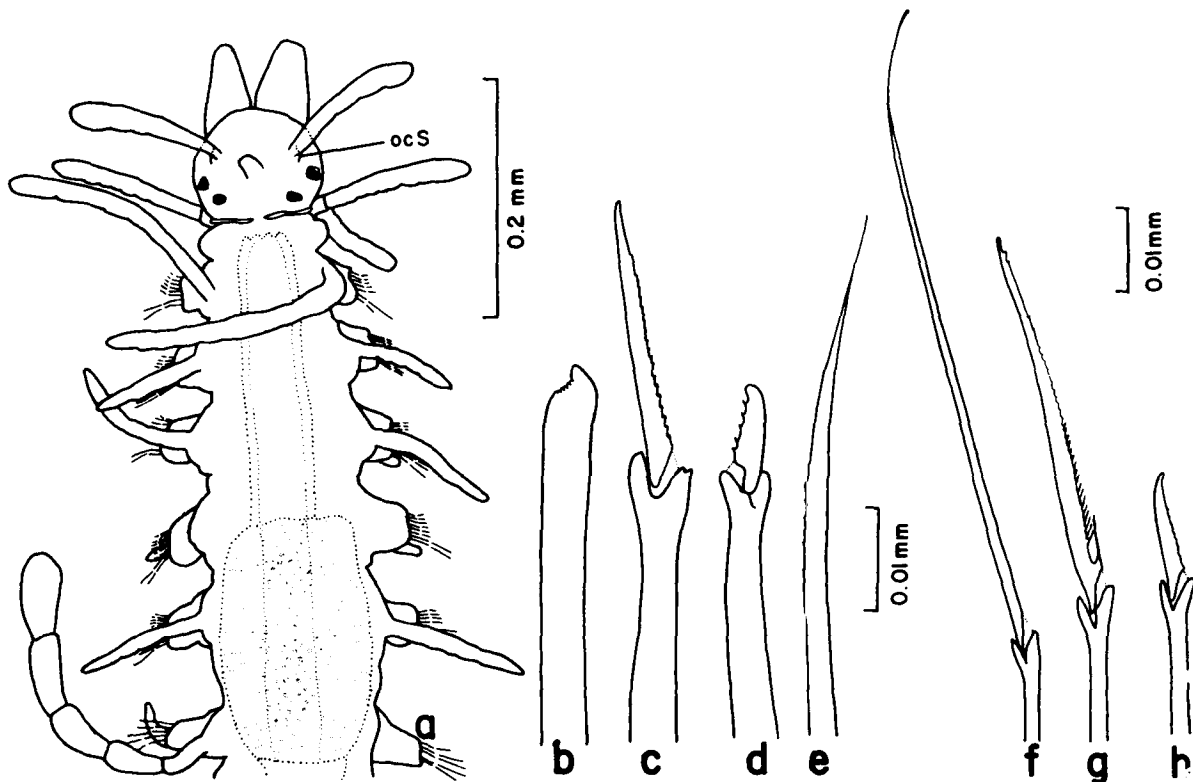


Figure 30-48. *Streptospinigera heteroseta*: a, anterior end; b, superior simple seta from anterior region; c, spiniger from same; d, falciger from same; e, superior simple seta from posterior region; f, superior spiniger from same; g, medial spiniger from same; h, inferior falciger from same; scale same for b-e and for f-h.

Pygidium with two short, slender, lateral cirri and one short midventral cirrus. Setae and acicula of setigers 2-5 modified, including solitary, enlarged acicula (Figure 30-46b); 1-2 stout, blunt superior simple setae (Figure 30-46c); 2-3 composite falcigers with narrow bidentate blades (Figure 30-46d); and composite falcigers with short, minutely bidentate blades (Figure 30-46e). Acicula of setiger 1 and from setiger 6 on not enlarged (Figure 30-46f). Setae of medial and posterior regions including stout, serrate, superior simple seta with cup-like sheath at tip (Figure 30-46g); and several composite falcigers with two terminal teeth in plane perpendicular to long axis of blade (Figure 30-46h,h'). Pharynx extending to setigers 2-4. Proventricle extending from setigers 3-5 to 6-9, with about 46 (34-54) closely spaced, indistinct muscle cell rows.

REMARKS: Specimens in the BLM-MAFLA collections originally identified as Streptosyllis arenae, S. bidentata and S. websteri are herein referred to S. pettiboneae.

PREVIOUSLY REPORTED HABITAT: 7-11 m; sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread off Florida (Figure 30-45); 11-189 m; coarse to fine-very fine sand, silty fine sand, clayey silt.

DISTRIBUTION: East coast of Florida, Gulf of Mexico.

Genus Streptospinigera Kudenov, 1983

TYPE SPECIES: Streptospinigera heteroseta Kudenov, 1983a.

REFERENCE:

Kudenov, 1983a:84.

DIAGNOSIS: Prostomium with three antennae. Two pairs of tentacular cirri. Dorsal cirri including smooth and articulated forms. Ventral cirri short. Anterior parapodia with large, knobbed acicula and modified setae. Composite spinigerous setae and capillary superior simple setae present.

Streptospinigera heteroseta Kudenov, 1983 Figures 30-47, 48a-h

Streptospinigera heteroseta Kudenov, 1983a:84, figs. 1, 2.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2207E-8/77 (USNM 74489, holotype), 2317A-2/78 (USNM 74490, 1 paratype).

DESCRIPTION:

Length, to 2.6 mm; width, 0.3 mm. Body slender, thread-like; holotype complete with 23 setigers. Prostomium rounded, with four small, lentigerous eyes in trapezoidal arrangement, and two crescentic ocular spots near bases of lateral antennae (Figure 30-48a). Median antenna missing, lateral antennae clavate. Palps triangular, fused basally, arising anteriorly on prostomium. Tentacular segment collar-like, ciliated. Tentacular cirri clavate; dorsal pair about equal in length to lateral antennae, ventral pair shorter. Dorsal cirri long, clavate on setiger 1; cirriform to subulate from setigers 2-5, with 4-5 large, pigmented articles beginning on setiger 6. Ventral cirri subulate,

extending past tips of anterior parapodia. Pygidium with one slender midventral cirrus; lateral anal cirri missing. Acicula enlarged and setae modified in first five setigers; setae including short, stout, superior simple seta (Figure 30-48b); 2-4 composite spinigers with serrate blades (Figure 30-48c); and numerous composite falcigers with short unidentate blades (Figure 30-48d). Acicula slender starting in setiger 6. Setae of medial and posterior regions including hair-like superior simple seta (Figure 30-48e); superior composite spinigers with long blades (Figure 30-48f); superior composite falcigers with long, minutely bidentate blades having basal spur (Figure 30-48g); and inferior composite falcigers with short, unidentate blades (Figure 30-48h). Shaft-heads of composite setae homogomph. Pharynx extending to setigers 2-4. Proventricle located in setigers 3-5 or 4-6, with 30-33 indistinct rows of muscle cell. Gametes first present from setigers 8-10.

REMARKS: Specimens of S. heteroseta were originally referred to the genus Streptosyllis.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off central Florida (Figure 30-47); 19-29 m; fine-very fine sand, silty very fine sand.

DISTRIBUTION: Gulf of Mexico.

Genus Parapionosyllis Fauvel, 1923

TYPE SPECIES: Pionosyllis gestans Pierantoni, 1903.

REFERENCES:

Fauvel, 1923:289.

Fauchald, 1977a:83.

DIAGNOSIS: Prostomium with three antennae and basally fused palps. Nuchal organs generally as small ciliated slits between prostomium and peristomium. One pair of tentacular cirri. Pharynx armed with single dorsal tooth.

Key to the Gulf of Mexico BLM-OCS Species of Parapionosyllis

- 1a. Dorsal cirri appearing biarticulate (Figure 30-50a); parapodial glands absent. Parapionosyllis sp. B, p. 30-55
- 1b. Dorsal cirri not biarticulate; parapodial glands present (Figure 30-52a). 2

- 2a. Blade-length ratio less than 2:1; superior simple seta in posterior region with strong, triangular, subdistal tooth, sometimes accompanied by a small tooth and several rows of serrations (Figure 30-52c). Parapionosyllis longicirrata, p. 30-58
- 2b. Blade-length ratio 2-3:1; superior simple seta in posterior region with several prominent, rounded subdistal teeth (Figure 30-54b). Parapionosyllis sp. A, p. 30-60

Parapionosyllis sp. B
 Figures 30-49, 50a-e

MATERIAL EXAMINED:
 Gulf of Mexico BLM-OCS:
 MAFLA 2531E-11/77 (1 spec.).

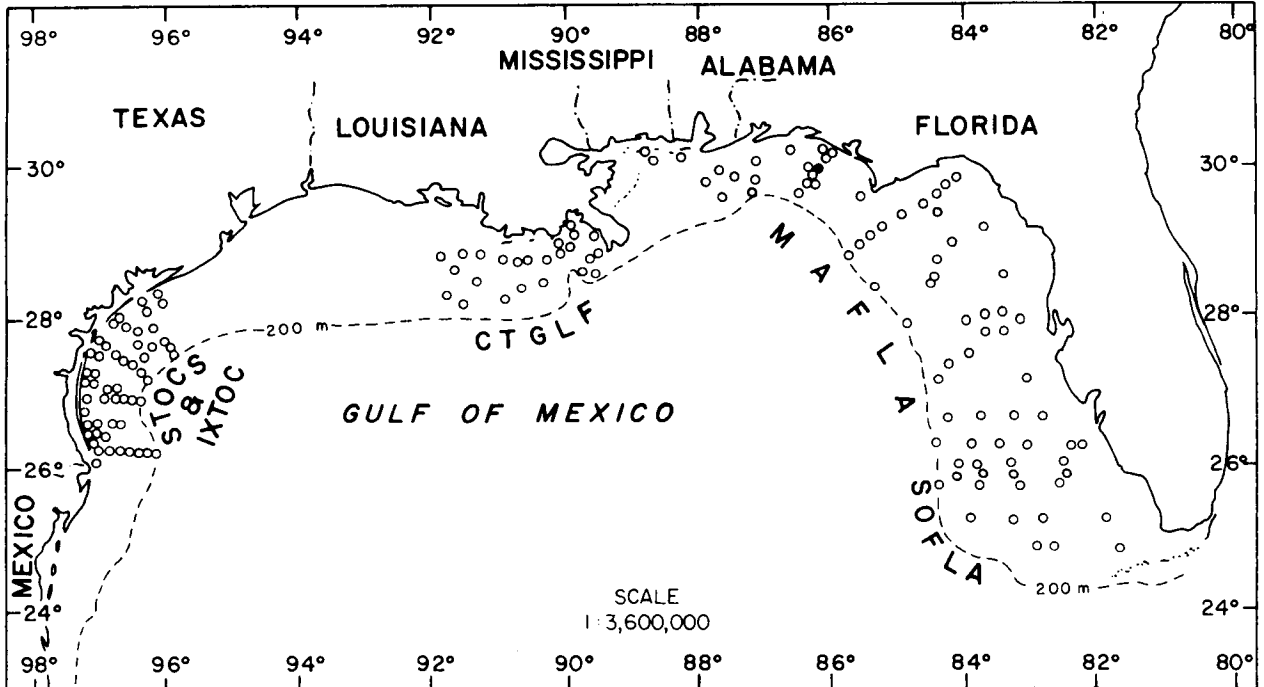


Figure 30-49. Distribution of *Parapionosyllis* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

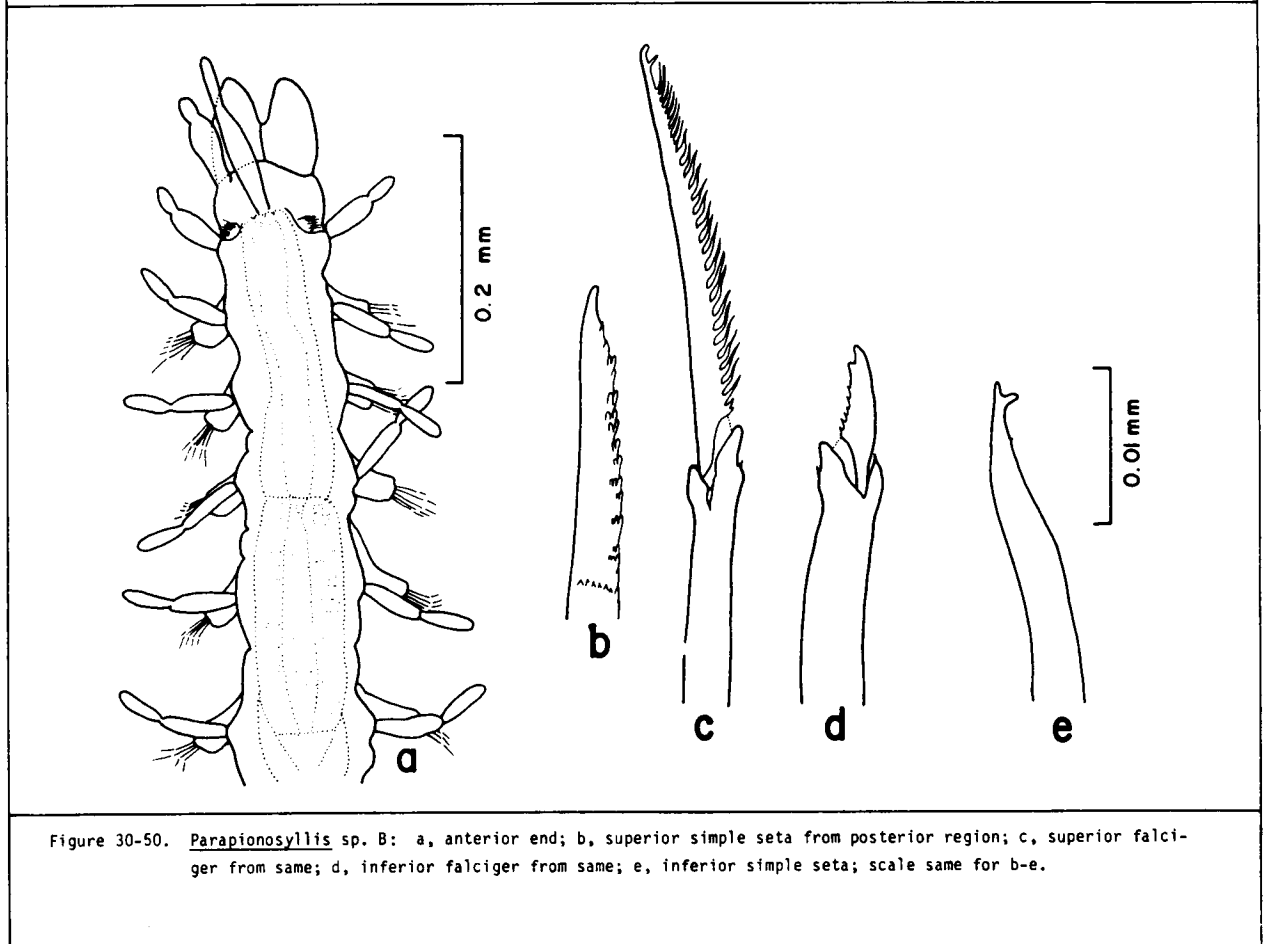


Figure 30-50. *Parapionosyllis* sp. B: a, anterior end; b, superior simple seta from posterior region; c, superior falciger from same; d, inferior falciger from same; e, inferior simple seta; scale same for b-e.

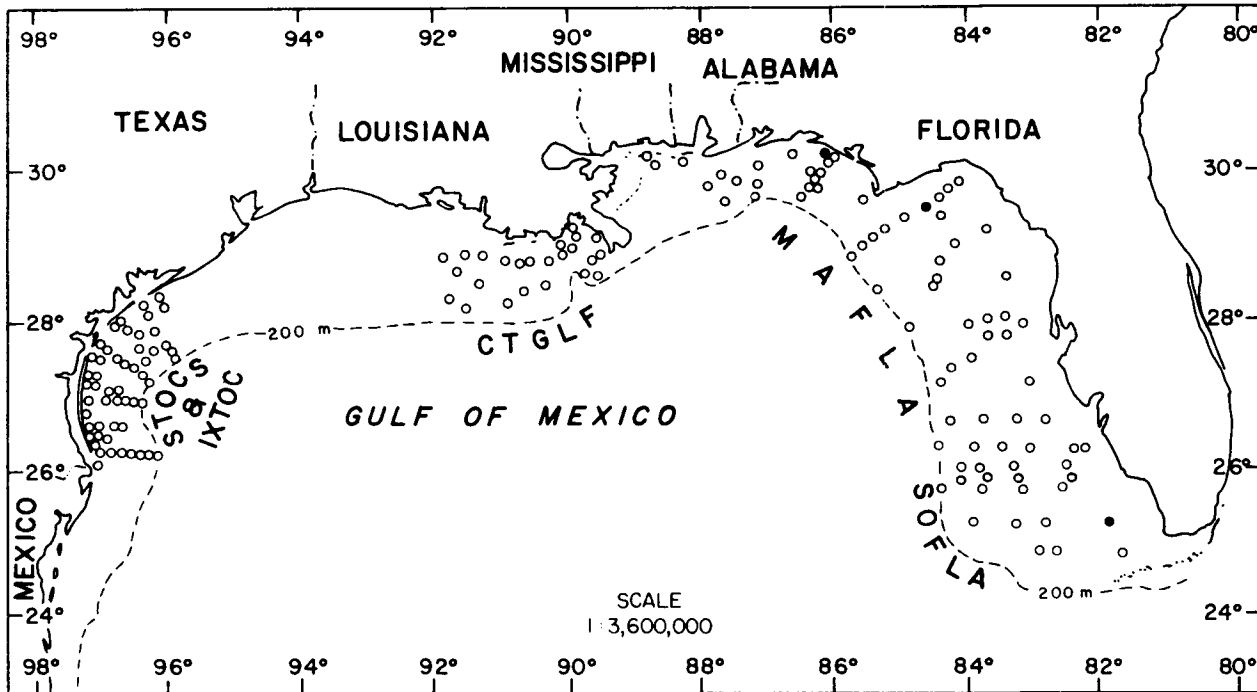


Figure 30-51. Distribution of *Parapionosyllis longicirrata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

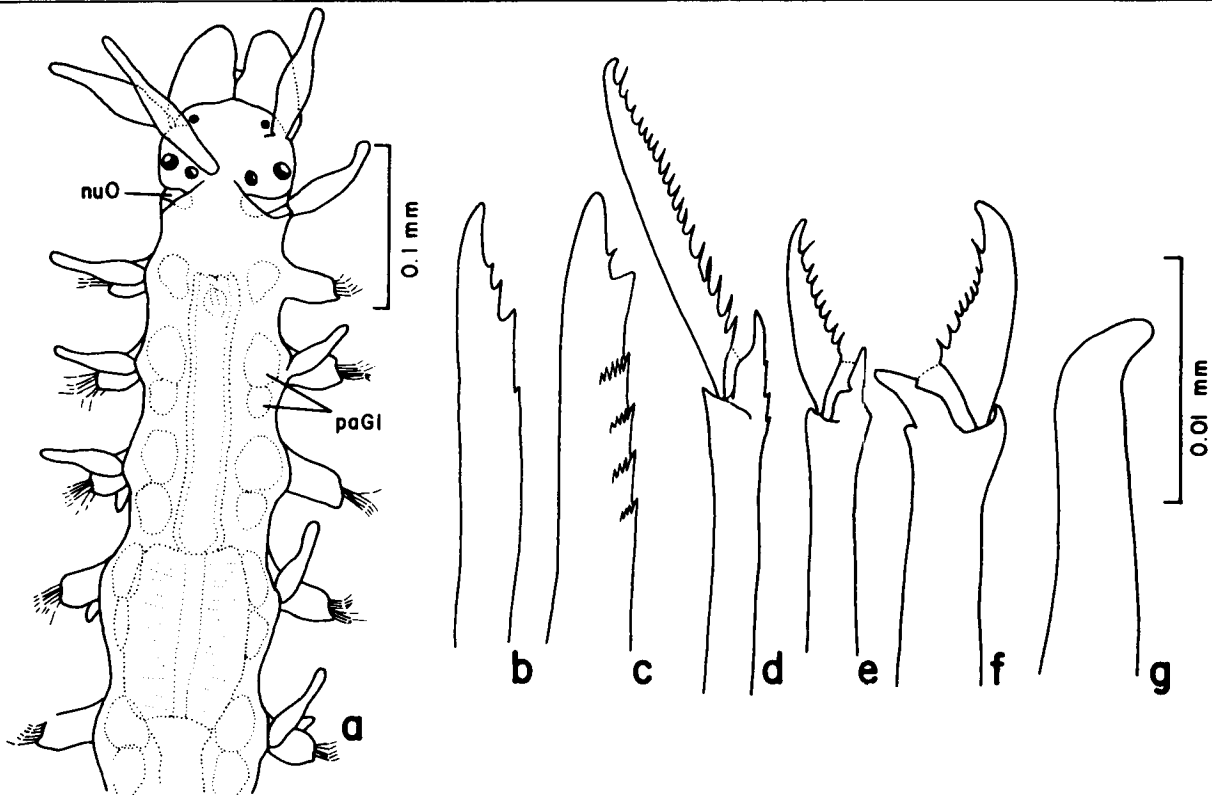


Figure 30-52. *Parapionosyllis longicirrata*: a, anterior end; b, superior simple seta from anterior region; c, same, from posterior region; d, superior falciger from anterior region; e, inferior falciger from same; f, same, from posterior region; g, inferior simple seta; scale same for b-g.

DESCRIPTION:

Length, 2.5 mm; width, 0.15 mm. Body small, slender, complete with 21 setigers. Prostomium rounded, fused dorsally with tentacular segment (Figure 30-50a); eyes absent. Antennae fusiform, median antenna arising near posterior edge of prostomium, lateral antennae arising at anterior margin of prostomium. Palps fused basally. Tentacular and dorsal cirri slightly longer than body width, appearing biarticulate (Figure 30-50a). Ventral cirri digitiform, shorter than parapodia. Pygidium with two long, slender, faintly biarticulate cirri, each with short terminal article. Parapodial glands absent. Superior simple seta stout, pointed, with numerous subdistal serrations (Figure 30-50b), present from setiger 1. Composite falcigers with minutely bidentate blades (Figure 30-50c,d), blade-length ratio 2:1. Inferior simple seta with two small teeth at nearly right angle (Figure 30-50e), present on posterior setigers. Pharynx extending to setiger 3, with subterminal dorsal tooth and ten distal papillae. Proventricle slender, located from setigers 3-5, with 23 muscle cell rows.

REMARKS: Parapionosyllis sp. B is unique among BLM-OCS members of this genus in lacking eyes and parapodial glands, and in having biarticulate dorsal cirri.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off Panama City, Florida (Figure 30-49); 45 m; coarse sand.

Parapionosyllis longicirrata (Webster and Benedict, 1884)
Figures 30-51, 52a-g

Sphaerosyllis longicirrata Webster and Benedict, 1884:715, pl. 8, figs. 95-100.

Parapionosyllis longicirrata--Pettibone, 1963:132, fig. 35e,f.

Parapionosyllis longicirrata--Perkins, 1981:1102 [in part], fig. 9a-m.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 20A-7/81 (4 spec., USNM 75297); MAFLA 2422C-7/76 (2 spec., USNM 65680), 2528J-11/77 (1 spec.).

Supplementary Material:

Massachusetts--Webster and Benedict ID. (USNM 479, types).

Florida--Tampa Bay, J. Taylor coll., T. Perkins ID. (1 spec., USNM 54170); offshore NE coast, 31°05'N, 80°35'W, G. Gaston ID. as Parapionosyllis sp. A (3 spec., USNM 56772).

DESCRIPTION:

Length, to 3.2 mm (previously reported to 5 mm); width, to 0.2 mm (previously reported to 0.3 mm). Body long, slender; complete specimens with up to 40 setigers. Prostomium oval, with four small, lentigerous eyes, and two ocular spots at base of palps (Figure 30-52a). Antennae fusiform, about twice as long as prostomium. Palps straight, fused dorsally over half their length. Tentacular and dorsal cirri subulate, about twice as long as parapodia. Ventral cirri digitiform, shorter than parapodia. Anal cirri paired, long, cirriform. Parapodial glands dark-colored, medial to dorsal cirri, single anteriorly, becoming paired starting on setigers 2-5 (Figure 30-52a). Superior simple seta with small subdistal serrations anteriorly starting on setiger 1 (Figure 30-52b), with shallow subdistal notch in addition to small serrations on posterior setigers (Figure 30-52c). Composite falcigers unidentate with

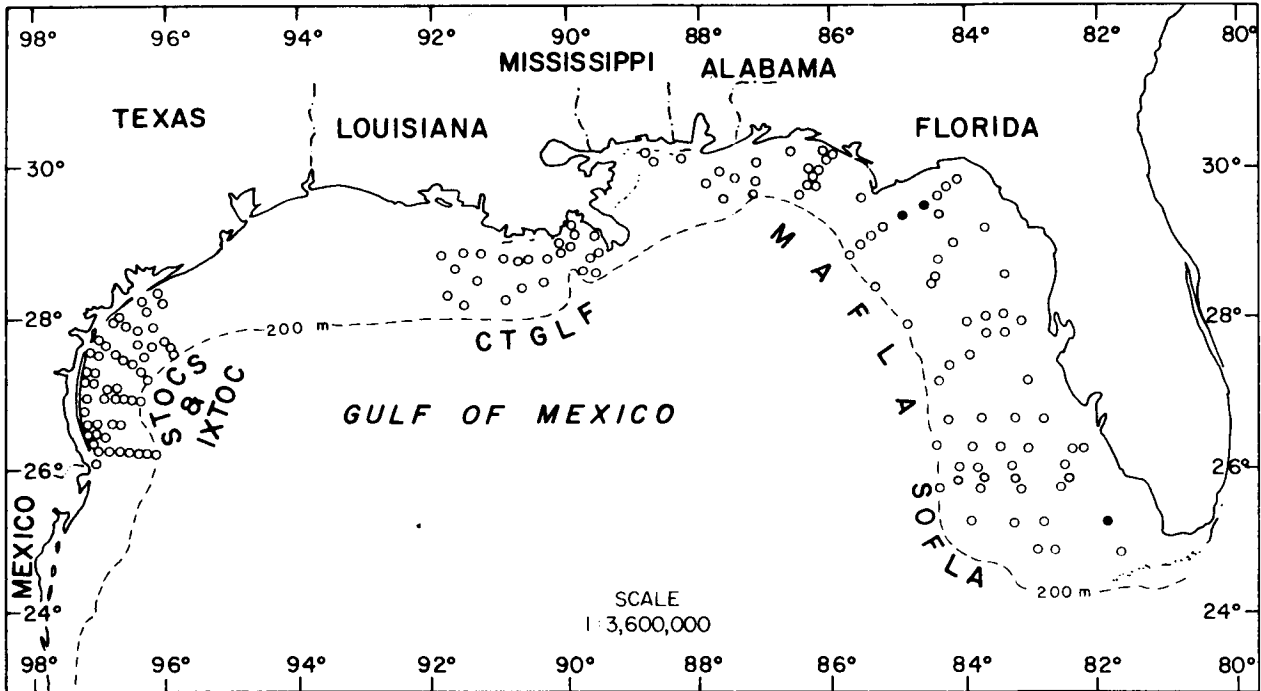


Figure 30-53. Distribution of *Parapionosyllis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

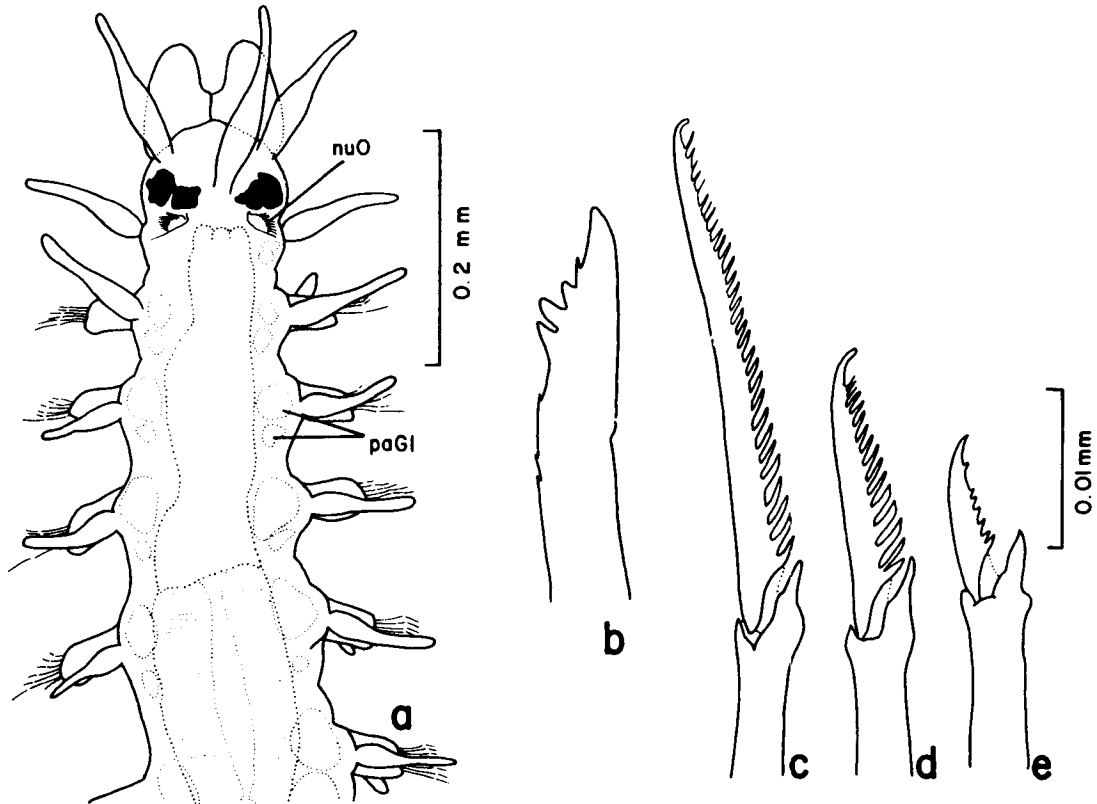


Figure 30-54. *Parapionosyllis* sp. A: a, anterior end; b, superior simple seta from posterior region; c, superior falciger from anterior region; d, medial falciger from same; e, inferior falciger from same; scale same for b-e.

coarse serrations and subterminal spine (Figure 30-52d-f), blade-length ratio 2:1; large prong of shaft-heads curved outward on posterior setigers (Figure 30-52f). Inferior simple seta of posterior region bluntly falcate (Figure 30-52g). Acicula with somewhat enlarged, knobbed tips. Pharynx extending to setigers 2-3, with small subterminal middorsal tooth. Proventricle located in setigers 3-4 or 4-5, with about 14 indistinct muscle cell rows.

REMARKS: Material examined by Perkins (1981:1102) includes specimens referred below to Parapionosyllis sp. A.

PREVIOUSLY REPORTED HABITAT: Low water to 38 m; shells, muddy sand, among tubes of small maldanids, calcareous sand, fossil coral.

GULF OF MEXICO BLM-OCS OCCURRENCE: Three scattered records off Florida (Figure 30-51); 22-37 m; coarse to medium-fine sand.

DISTRIBUTION: Massachusetts, Florida, Gulf of Mexico.

Parapionosyllis sp. A
Figures 30-53, 54a-e

Parapionosyllis longicirrata--Gardiner, 1976:133, fig. 110-r.

Parapionosyllis longicirrata--Perkins, 1981:1102 [in part].

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 20A-7/81 (1 spec., USNM 89895); MAFLA 2422C-7/76 (1 spec.), 2423B-7/76 (1 spec.), 2423C-7/76 (2 spec.), 2423D-7/76 (1 spec., USNM 55823), 2423E-7/76 (1 spec.).

Supplementary Material:

North Carolina--off Beaufort, 34°34'N, 76°25'W, 20 m, sand and broken shell, J. H. Day coll./ID. (as Parapionosyllis longicirrata, 4 spec., USNM 51070).

DESCRIPTION:

Length, to 7.3 mm; width, to 0.3 mm. Body long, slender; complete specimens with up to 49 setigers. Prostomium cordate, with four small eyes, or with large conglomerates of pigment spots across posterior portion (Figure 30-54a). Antennae fusiform to subulate. Palps straight, fused basally. Tentacular and dorsal cirri subulate, shorter than antennae. Ventral cirri clavate to cirriform, sometimes extending beyond parapodia. Anal cirri paired, long, cirriform. Parapodial glands medial to dorsal cirri, single anteriorly, becoming paired usually from setiger 5. Superior simple seta present from setiger 1, with several stout, subdistal serrations, becoming thicker posteriorly (Figure 30-54b). Composite falcigers unidentate with coarse serrations, sometimes with subterminal spine (Figure 30-54c-e), blade-length ratio about 3:1 anteriorly, 2:1 posteriorly; large prong of shaft-head curved outward posteriorly. Inferior simple seta, present on far posterior setigers, similar to that of Parapionosyllis longicirrata. Acicula with somewhat enlarged, knobbed tips. Pharynx extending to setigers 3-4, with small, subterminal middorsal tooth. Proventricle extending from setigers 3-4 to 5-6, with about 15 indistinct muscle cell rows.

REMARKS: Some specimens from North Carolina and from the Gulf of Mexico identified as Parapionosyllis longicirrata represent a separate species, herein designated Parapionosyllis sp. A, which differs from the former on the basis of setal blade-length ratios and serrations of the superior simple setae.

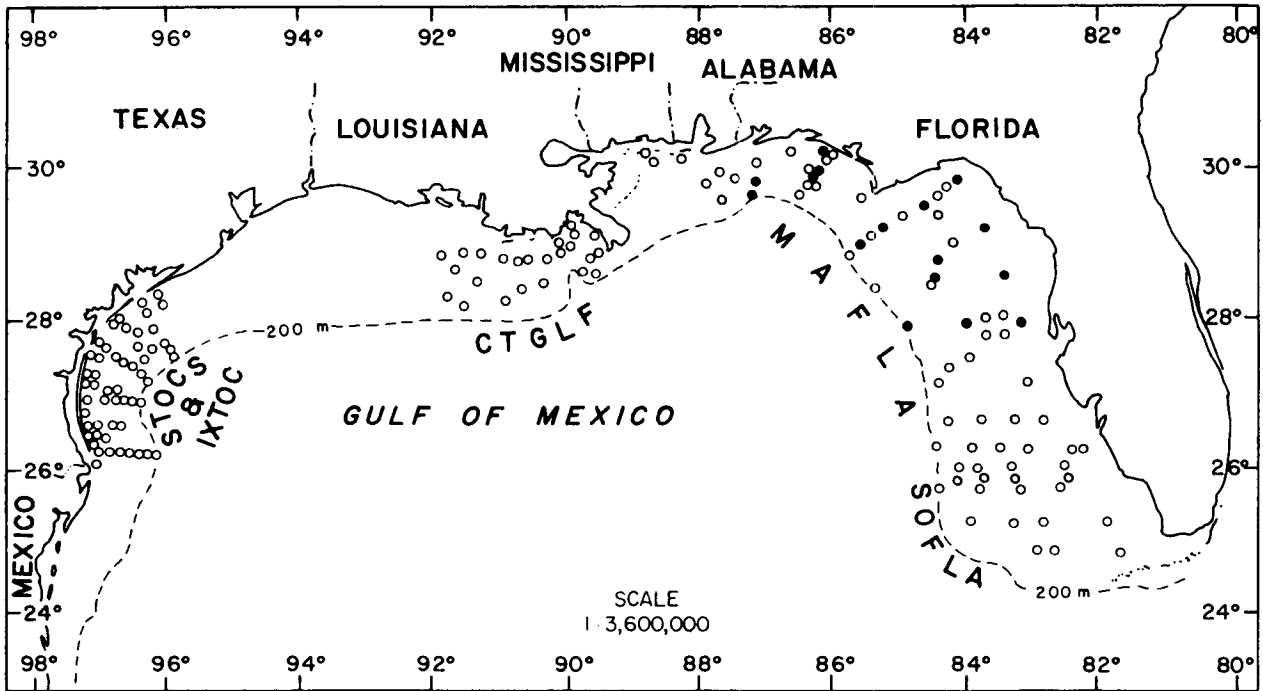


Figure 30-55. Distribution of *Opisthodonta* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

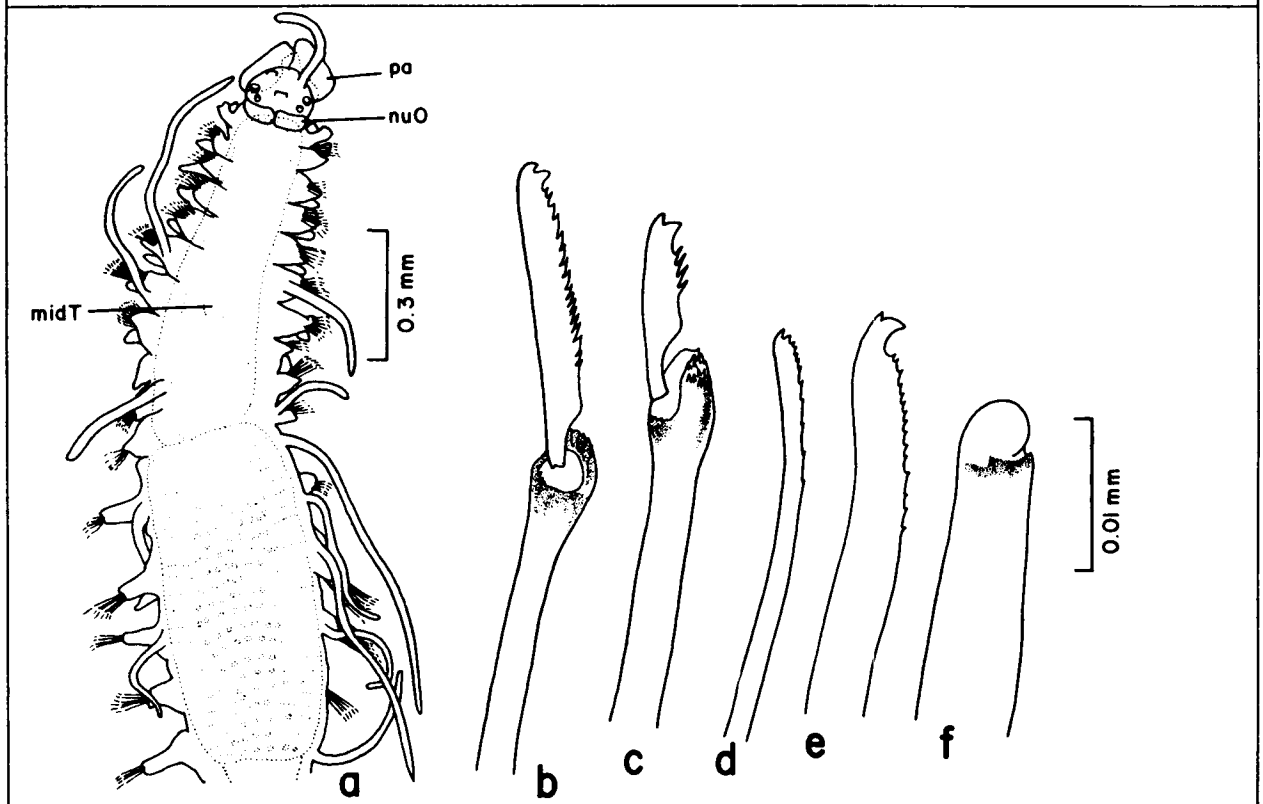


Figure 30-56. *Opisthodonta* sp. A: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, superior simple seta; e, inferior simple seta; f, aciculum; scale same for b-f.

PREVIOUSLY REPORTED HABITAT: 20 m; sand and broken shell.
GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off Appalachicola, Florida, and one off southwestern Florida (Figure 30-53); 19-24 m; coarse to medium-fine sand, silty fine sand.
DISTRIBUTION: North Carolina, Gulf of Mexico.

Genus *Opisthodonta* Langerhans, 1879

TYPE SPECIES: *Opisthodonta morena* Langerhans, 1879.

REFERENCES:

Fauvel, 1923:273.
Fauchald, 1977a:83.

DIAGNOSIS: Prostomium with three antennae. Nuchal organs as large ciliated ridges between prostomium and peristomium. Two pairs of tentacular cirri. Antennae, tentacular, and dorsal cirri smooth and slender. Pharynx armed with a large, dorsal, posterior tooth.

Key to the Gulf of Mexico BLM-OCS Species of *Opisthodonta*

- 1a. Spiniger-like composite setae absent; terminal tooth of bidentate composite falcigers nearly as large as subterminal tooth, blades without hoods (Figure 30-56b,c) . . . *Opisthodonta* sp. A, p. 30-62
- 1b. Spiniger-like composite setae present (Figure 30-58b); terminal tooth of bidentate composite falcigers much smaller than subterminal tooth, blades with hoods (Figure 30-58c,d)
. *Opisthodonta* sp. B, p. 30-64

Opisthodonta sp. A
Figures 30-55, 56a-f

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2207D-7/76 (1 spec.), 2207D-8/77 (1 spec.), 2207F-11/77 (1 spec., USNM 65679), 2211F-11/77 (1 spec.), 2211K-11/77 (1 spec.), 2212G-7/76 (1 spec.), 2315A-11/77 (2 spec.), 2316C-11/77 (1 spec.), 2422E-7/76 (1 spec.), 2528D-8/77 (4 spec.), 2533A-6/75 (1 spec.), 2644D-9/75 (1 spec.), 2645F-11/77 (3 spec.).

DESCRIPTION:

Length, 5.0+ mm; width, to 0.7 mm. Body stout anteriorly, slender posteriorly; all specimens incomplete with up to 31 setigers. Prostomium oval, with four lentigerous eyes, variable in size, in trapezoidal arrangement; with or without two ocular spots at base of palps (Figure 30-56a). Antennae smooth, median antenna about twice as long as lateral antennae. Palps large, directed ventrolaterally. Dorsal cirri slender, alternating long and short. Ventral cirri auricular, extending beyond parapodia anteriorly. Anterior parapodia with large setal fascicles. Composite setae including 2-4 superior falcigers having moderately long bidentate blades (Figure 30-56b), and numerous other falcigers having shorter bidentate blades (Figure 30-56c). All falcigers with distal teeth similar in size, and base of blades articulating in excavate shaft-heads. Setae decreasing in number toward midbody region. Posterior parapodia with slender, minutely bifid superior simple seta

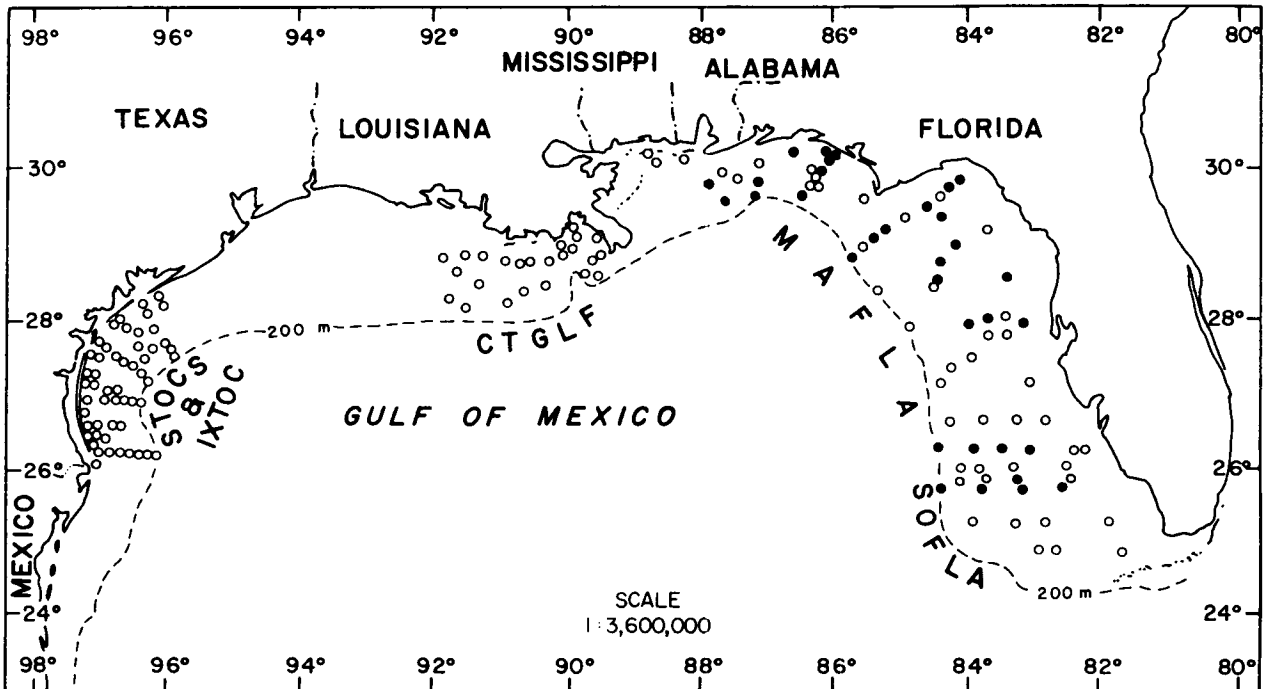


Figure 30-57. Distribution of *Opisthodonta* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

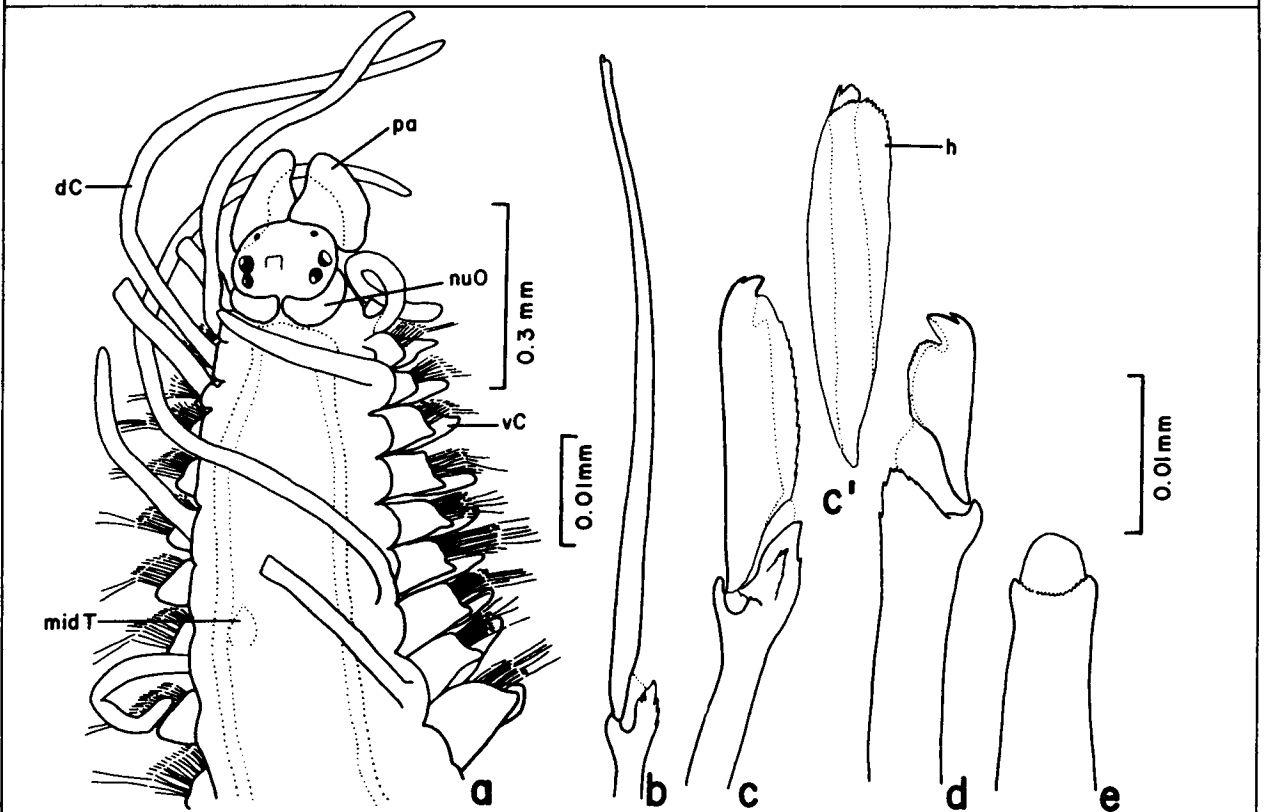


Figure 30-58. *Opisthodonta* sp. B: a, anterior end; b, superior spiniger from anterior region; c, inferior falciger from same; c', falciger blade, frontal view, from same; d, inferior falciger from midbody region; e, aciculum; scale same for c-e.

(Figure 30-56d) and bidentate inferior simple seta (Figure 30-56e). Acicula with rounded tips and subdistal cleft (Figure 30-56f). Pharynx extending to setigers 6-10 with medial tooth located at setiger 6 (5-9). Proventricle extending from setigers 7-12 to 9-16, with 21 (19-23) muscle cell rows. Gametes of one mature specimen present from setiger 17, natatory setae from setiger 18.

REMARKS: Opisthodonta sp. A was confused in BLM-MAFLA collections with various species of Eusyllis and Pionosyllis; it represents a new species which is being described by Kudenov.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common off northwestern Florida (Figure 30-55); 10-189 m; coarse to fine-very fine sand, silty fine to very fine sand.

Opisthodonta sp. B
Figures 30-57, 58a-e

Pionosyllis cf. uraga--Day, 1973:33, fig. 4k-m [Not Imajima, 1966].

Pionosyllis sp.--Gardiner, 1976:137.

Pionosyllis uraga--Perkins, 1981:1108.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 16C-7/81 (2 spec., USNM 75296); MAFLA 18H-5/74 (2 spec.), 2211F-7/76 (1 spec.), 2528I-9/77 (1 spec.), 2531-6/75 (1 spec., USNM 55824), 2645F-11/77 (5 spec.), 2853F-8/77 (1 spec.).

Supplementary Material:

North Carolina--off Beaufort, 34°19'N, 75°56'W, 130 m, J. H. Day coll., as Pionosyllis cf. uraga (1 spec., USNM 51071).

Florida--Hutchinson Island, St. Lucie County, T. H. Perkins ID, as Pionosyllis uraga, 10 m (1 spec., USNM 54519), 10.6 m (1 spec., USNM 54520), 10 m (2 spec., USNM 54521).

DESCRIPTION:

Length, 5.0+ mm; width, to 0.8 mm. Body moderately long, stout anteriorly, slender posteriorly; all specimens incomplete with up to 42 setigers. Prostomium rounded, with four lentigerous eyes, with or without ocular spots at base of palps (Figure 30-58a). Antennae smooth, median antenna longer than prostomium plus palps. Palps large, directed ventrolaterally. Tentacular cirri smooth; dorsal pair about twice as long as body width, ventral pair shorter. Dorsal cirri smooth, slender, at least as long as body width. Ventral cirri auricular, not fused to parapodial lobes. Superior setae of anterior region including 2-4 (1-7) long-bladed, spiniger-like composite setae with minutely bidentate tips (Figure 30-58b). Anterior setal fascicles with numerous composite falcigers having short, minutely bidentate blades (Figure 30-58c) surrounded by broad hood (Figure 30-58c'). Teeth of falciger blades becoming more distinct in midbody region (Figure 30-58d) and much stronger in inferior position of posterior setal fascicles. Inferior simple seta stout, bidentate, present posteriorly. Acicula with rounded tips and subdistal flange (Figure 30-58e). Pharynx extending to setiger 12 (11-17), with medial tooth (sometimes difficult to see) located at setiger 7 (5-10). Proventricle extending from setigers 12-16 to 18-25, with 26 (24-29) muscle cell rows. Gametes present beginning in setigers 29-30 of Florida specimens.

REMARKS: Opisthodonta sp. B from Gulf of Mexico BLM-OCS collections, from North Carolina, and from the east coast of Florida has been confused with Pionosyllis uraga Imajima, 1966, from Japan. It differs from the latter in having the middorsal pharyngeal tooth located medially, rather than anteriorly; in having auricular ventral cirri extending well beyond the anterior parapodia; and in having the cutting margin of the falciger blades surrounded by a semi-transparent hood. Opisthodonta sp. B differs from O. pterochaeta Southern, 1914, in having long-bladed, spiniger-like setae anteriorly; in having the short-bladed falcigers with a distinctly larger subterminal tooth; and in having fewer proventricular muscle cell rows.

PREVIOUSLY REPORTED HABITAT: 11-130 m; coarse calcareous sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in northeastern Gulf (Figure 30-57); 10-189 m; coarse to fine sand, silty fine to very fine sand, clayey silt, clayey sandy silt.

DISTRIBUTION: North Carolina, Florida, Gulf of Mexico.

Genus Pionosyllis Malmgren, 1867

TYPE SPECIES: Pionosyllis compacta Malmgren, 1867b.

REFERENCES:

Imajima, 1966:114.

Day, 1967:261.

Fauchald, 1977a:83.

DIAGNOSIS: Prostomium with three antennae; palps basally fused or separate. Nuchal organs often as distinct ciliated ridges along posterior border of prostomium. Two pairs of tentacular cirri. Antennae, tentacular and dorsal cirri smooth or weakly articulated. Pharynx armed with single tooth; anterior margin smooth.

Key to the Gulf of Mexico BLM-OCS Species of Pionosyllis

- 1a. Dorsal cirri shorter than body width. 2
- 1b. Dorsal cirri longer than body width or alternating long and short 3

- 2a. Composite falcigers with homogomph shaft-heads and distinctly bidentate blades (Figure 30-60c,d); acicula small, slender, not emergent. Pionosyllis weismanni, p. 30-67
- 2b. Composite falcigers with heterogomph shaft-heads and unidentate to minutely bidentate blades (Figure 30-62b,c); acicula large, thick, emergent (Figure 30-62f). Pionosyllis sp. B, p. 30-69

- 3a. Blades of all composite setae similar in length (Figure 30-64c,d); dorsal cirri alternating long and short (Figure 30-64a). Pionosyllis gesae, p. 30-69
- 3b. Blades of superior composite setae at least twice as long as blades of inferior composite setae (Figure 30-66d,e); all dorsal cirri long (Figure 30-66a). 4

- 4a. Eyes absent; nuchal organs small (Figure 30-66a); body slender, up to 0.6 mm wide including parapodia. . Pionosyllis sp. A, p. 30-72

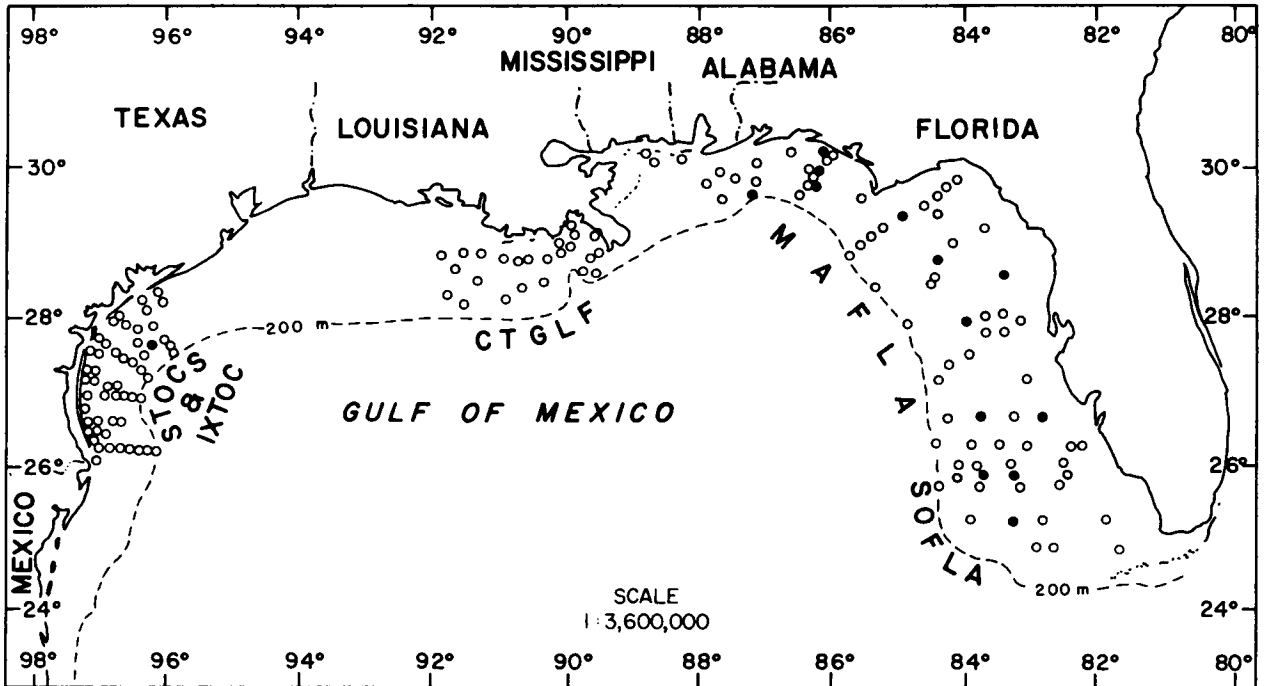


Figure 30-59. Distribution of *Pionosyllis weismanni* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

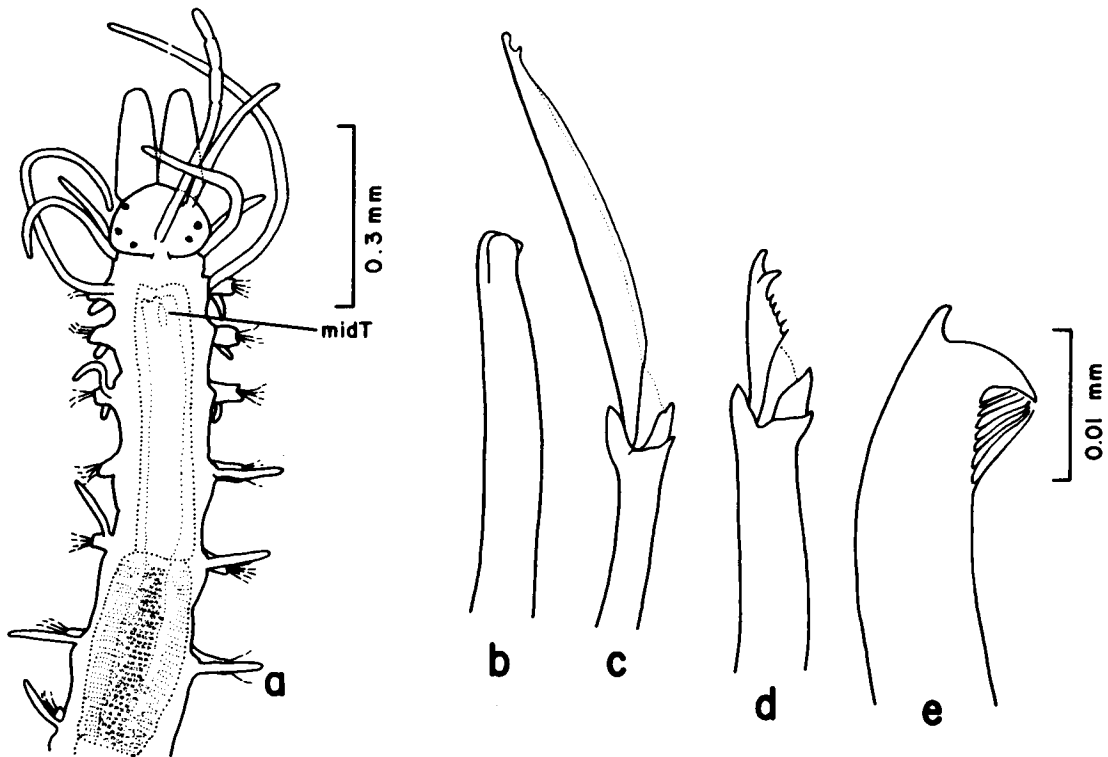


Figure 30-60. *Pionosyllis weismanni*: a, anterior end; b, superior simple seta from midbody region; c, superior falciger from same; d, inferior falciger from same; e, inferior simple seta from posterior region; scale same for b-e.

- 4b. Eyes present; nuchal organs large (Figure 30-68a); body broad, up to 1 mm wide including parapodia. 5
- 5a. Composite falcigers with subterminal guards (Figure 30-68b,b'); dorsal tooth set back from anterior margin of pharynx (Figure 30-68a). *Pionosyllis* sp. C, p. 30-75
- 5b. Composite falcigers without subterminal guards (Figure 30-70b,c); dorsal tooth near anterior margin of pharynx
. *Pionosyllis* sp. D, p. 30-75

***Pionosyllis weismanni* Langerhans, 1879**
Figures 30-59, 60a-e

Pionosyllis weismanni--Ben-Eliahu, 1977:50, fig. 20a-g.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 18C-11/80 (5 spec., USNM 89892); MAFLA 2211E-7/76 (1 spec.), 2211K-8/77 (1 spec., USNM 65681), 2423J-7/76 (1 spec.), 2645B-7/76 (1 spec.), 2645H-7/76 (2 spec.), 2645F-2/78 (2 spec., USNM 65682), 2645H-2/78 (1 spec.); STOCS HR1-4 7/76 (1 spec.), HR1-2 F/76 (3 spec., USNM 89893), HR1-6 F/76 (1 spec., USNM 89894).

DESCRIPTION:

Length, to 4.2 mm (previously reported to 17.7 mm); width, to 0.25 mm. Body small, slender; complete specimens with up to 83 setigers. Prostomium oval to rectangular, longer than broad, fused with peristomium middorsally (Figure 30-60a). Eyes variable, usually numbering four, small, in trapezoidal arrangement, with up to two ocular spots at base of palps. Antennae and tentacular cirri long, smooth to weakly articulated. Palps elongate, separate. Nuchal organs as small lobes at post-ectal corners of prostomium. First pair of dorsal cirri either long and slender, or similar in length to those following; remaining dorsal cirri short, with slightly inflated, glandular tips. Ventral cirri digitiform, usually shorter than parapodia. Anal cirri paired, long, slender. Superior simple seta straight, distally truncate (Figure 30-60b), present from midbody region. Composite falcigers with homogomph shaft-heads, and smooth or lightly serrate, bidentate blades (Figure 30-60c,d). Inferior simple seta stout, strongly bidentate, with several subapical guards (Figure 30-60e); generally present from midbody region. Pharynx extending to setigers 4-5, with subterminal tooth. Proventricle extending from setigers 4-6 to 6-8, with about 21-35 indistinct muscle cell rows.

REMARKS: These specimens exhibit several of the "variant" characters ascribed by Ben-Eliahu (1977:50) to individuals of *Pionosyllis weismanni*: 1) antennae, tentacular and first pair of dorsal cirri smooth rather than articulated; 2) first pair of dorsal cirri long or short; 3) setal shaft-heads homogomph rather than heterogomph; and 4) inferior simple seta acicular rather than capillary. *P. weismanni* is newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: Intertidal to 200 m; among vermetids and coralligenous substrates.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread off Florida and one station off central Texas (Figure 30-59); 19-106 m; coarse sand, silty fine sand.

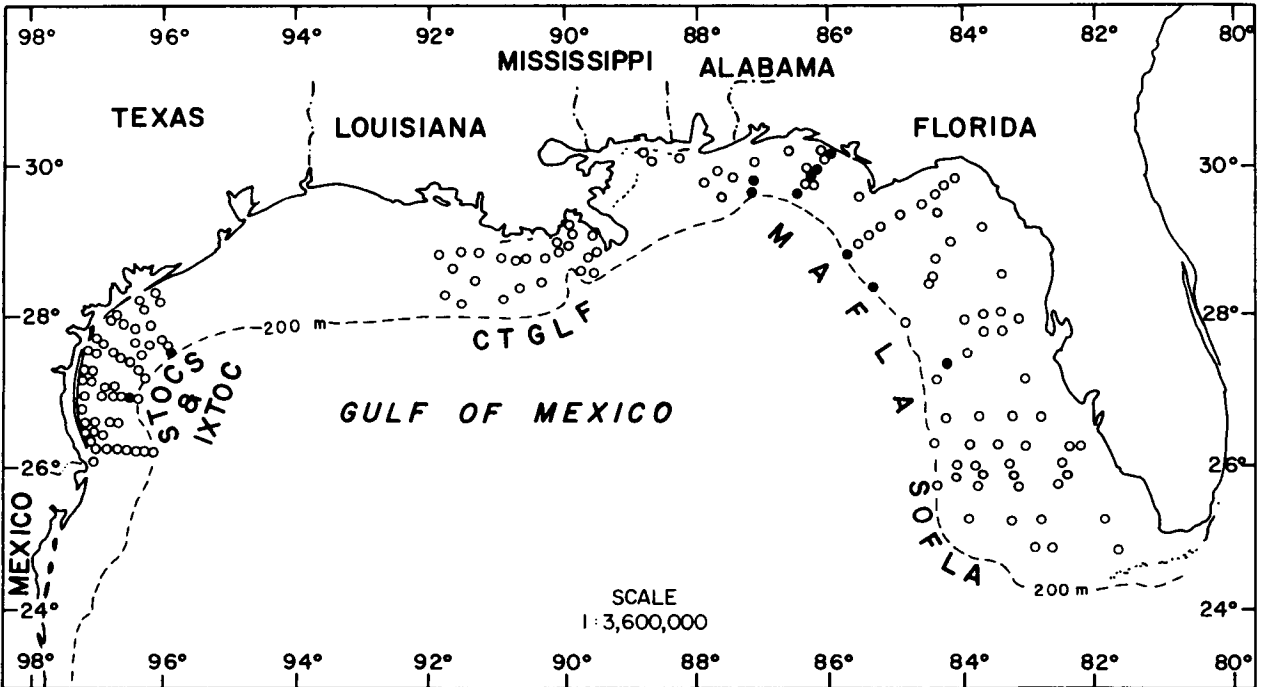


Figure 30-61. Distribution of *Pionosyllis* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

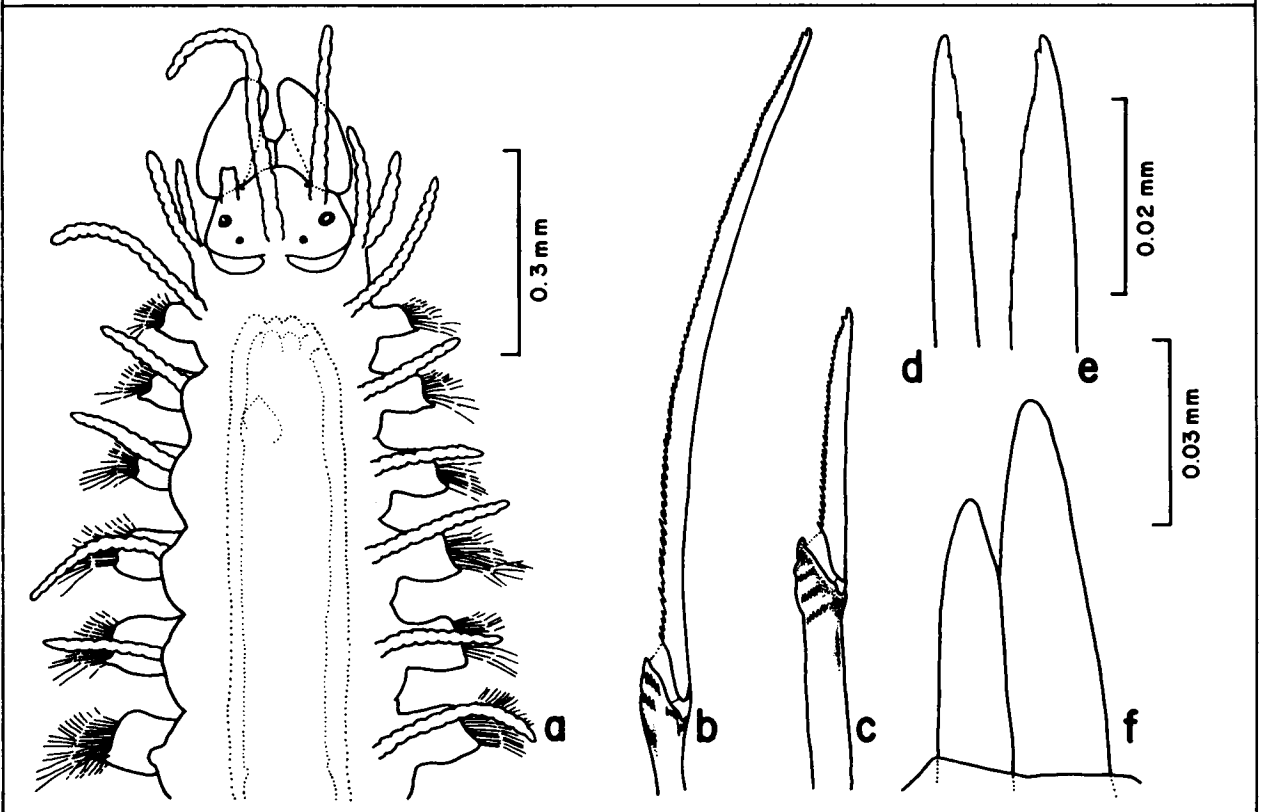


Figure 30-62. *Pionosyllis* sp. B: a, anterior end; b, superior falciger from midbody region; c, inferior falciger from same; d, superior simple seta; e, inferior simple seta; f, acicula from midbody region; scale same for b, c, f.

DISTRIBUTION: Gulf of Mexico, eastern Atlantic, Mediterranean, Gulf of Elat, Red Sea.

Pionosyllis sp. B
Figures 30-61, 62a-f

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2313I-11/77 (1 spec.), 2313K-2/78 (1 spec.), 2536B-9/75 (1 spec., USNM 65684), 2536E-7/76 (1 spec.); STOCS 3/I-4 W/76 (1 spec., USNM 89891), 3/III-1 F/76 (1 spec., USNM 89890).

Supplementary Material:

Texas--East Flower Gardens, 27°57.10'N, 93°35.13'W, 95 m (2 spec.).

Puerto Rico--San Juan, IEC SJ 008-008, 18°30.7'N, 66°10.6'W, 165 m, Jan. 1980 (1 spec.).

DESCRIPTION:

Length, 13+ mm; width, to 0.7 mm. Body long, robust anteriorly; complete specimens with up to 72 setigers. Prostomium triangular, with two minute pigment spots at base of palps, with or without four small eyes (Figure 30-62a). Antennae and tentacular cirri fairly short, slender, weakly to distinctly articulated. Palps longer than prostomium, fused basally. Nuchal organs as pigmented ridges along posterior border of prostomium. Dorsal cirri shorter than body width, weakly to distinctly articulated. Ventral cirri arising about midway on parapodia, extending slightly beyond parapodia. Pygidium with two long, articulated anal cirri plus slender, midventral cirrus. Composite falcigers numerous anteriorly, with long, lightly serrate, knob-tipped or minutely bidentate blades (Figure 30-62b,c), blade-length ratio approximately 2-5:1. Superior simple seta slender, faintly serrate (Figure 30-62d), present posteriorly. Inferior simple seta stout, minutely bidentate (Figure 30-62e), present posteriorly. Acicula thick, numbering 4-5 in anterior parapodia, slightly emergent; numbering 1-2 in posterior parapodia, strongly emergent (Figure 30-62f). Pharynx extending to setigers 6-9, with large, subterminal dorsal tooth, and smooth margin surrounded by ten soft papillae. Proventricle extending from setigers 6-9 to 9-14, with about 23-30 muscle cell rows. Gametes present from setiger 33.

REMARKS: Identifications of this species were confused with several other species in the BLM-OCS Gulf of Mexico collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: Several stations off Florida and Texas (Figure 30-61); 38-189 m; coarse to medium-fine sand, clayey sandy silt, clayey silt.

Pionosyllis gesae Perkins, 1981
Figures 30-63, 64a-d

Pionosyllis gesae Perkins, 1981:1105, fig. 10a-k.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2210C-7/76 (1 spec.), 2211B-7/76 (1 spec., USNM 90625), 2211G-7/76 (2 spec.), 2316J-8/76 (1 spec.), 2316K-8/76 (1 spec.), 2318G-8/76 (1 spec.), 2318K-8/76 (1 spec.), 2420-7/76 (1 spec., USNM 65776), 2422C-

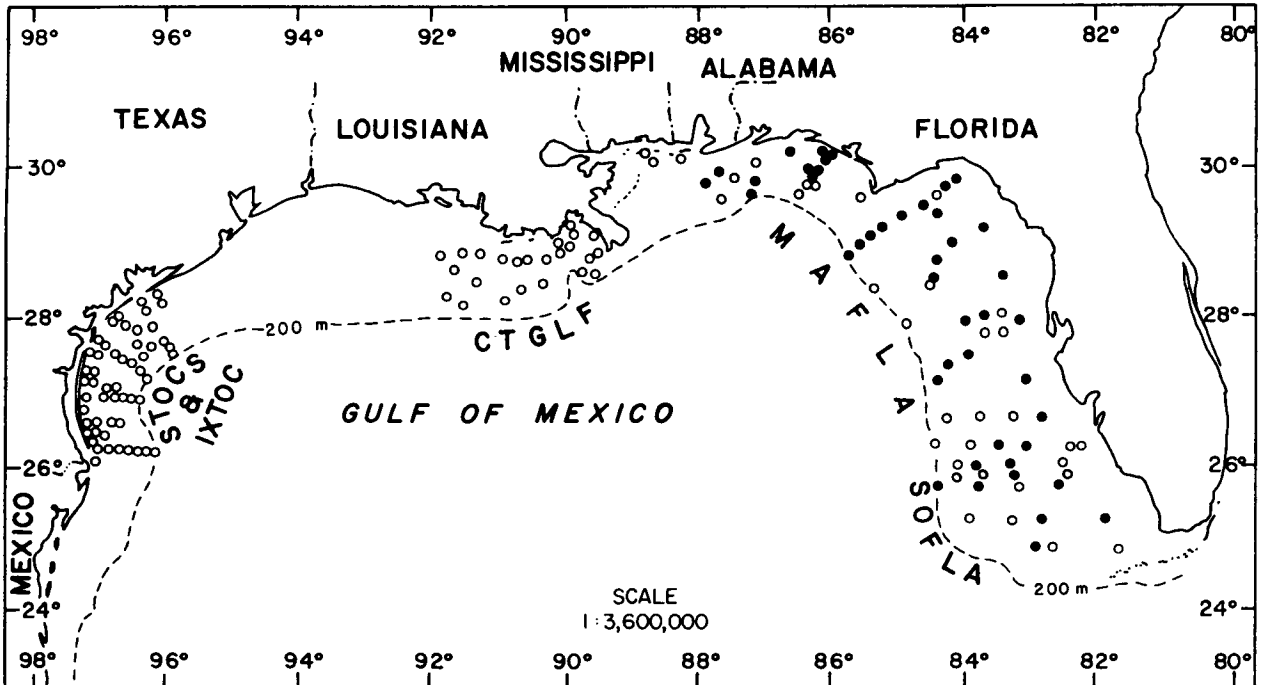


Figure 30-63. Distribution of *Pionosyllis gesae* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

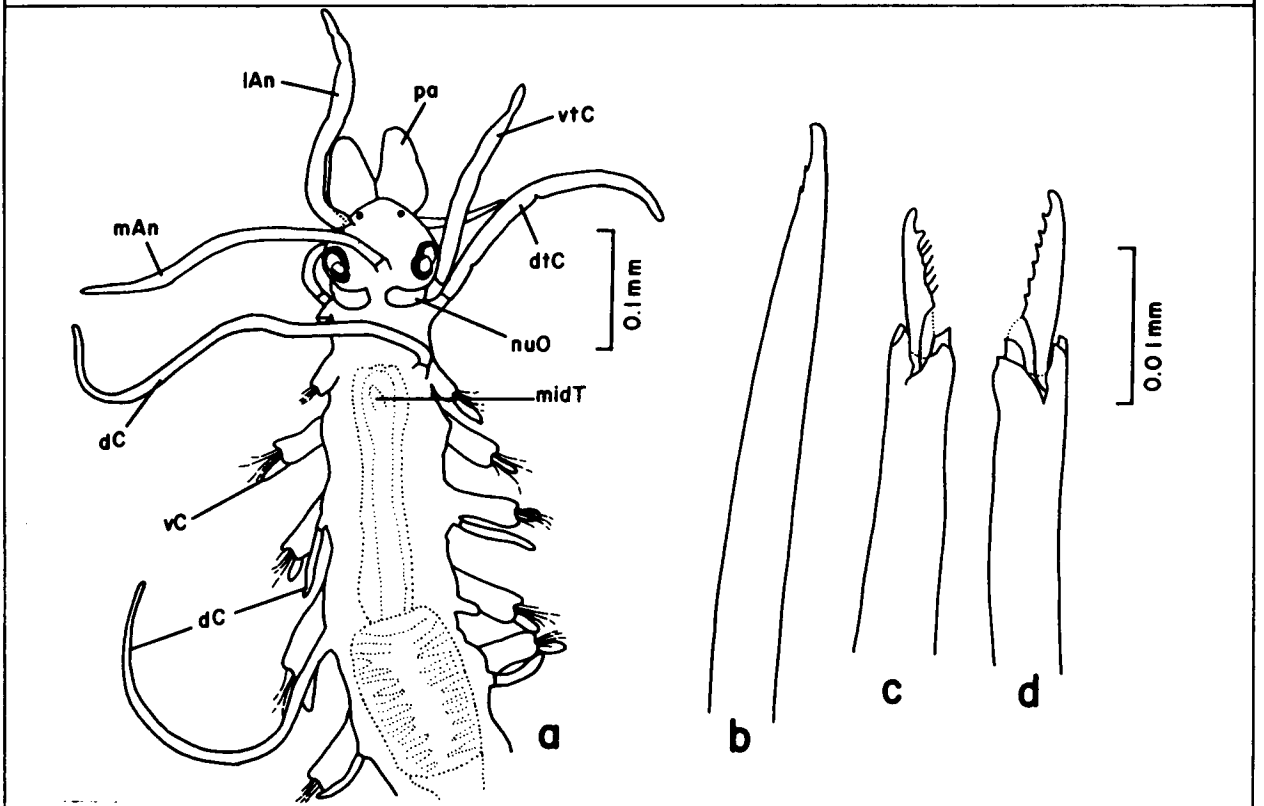


Figure 30-64. *Pionosyllis gesae*: a, anterior end; b, superior simple seta from midbody region; c, superior falciger from same; d, medial falciger from same; scale same for b-d.

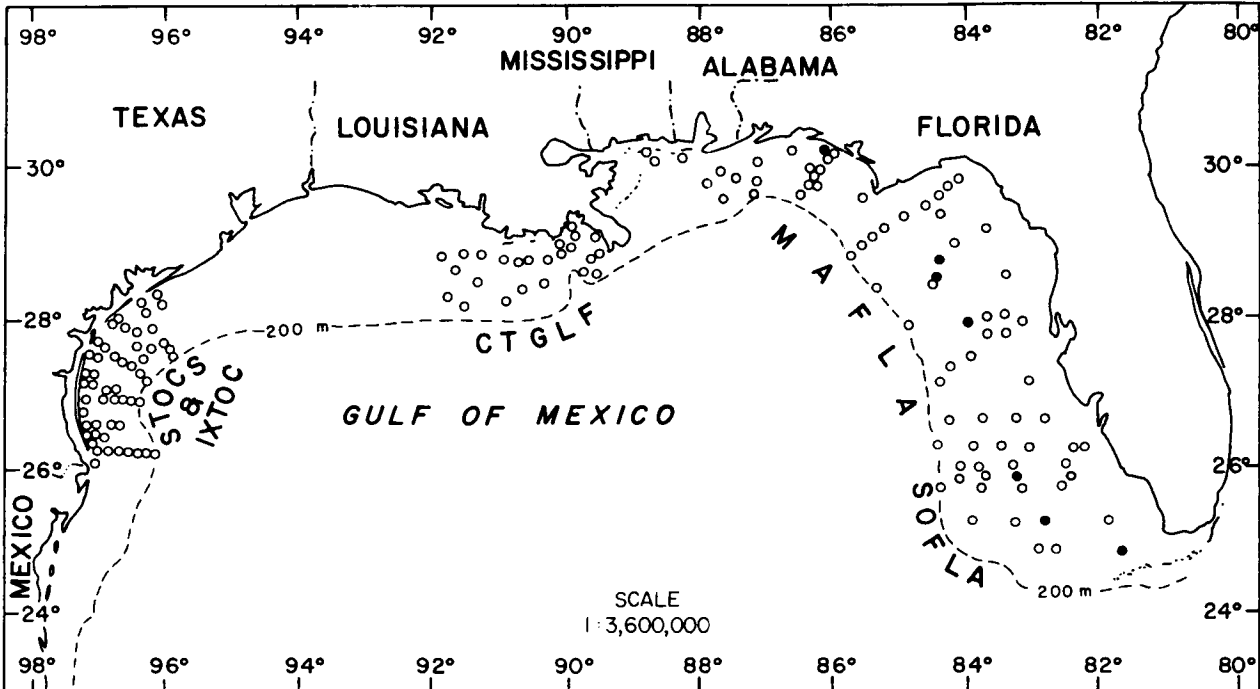


Figure 30-65. Distribution of *Pionosyllis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

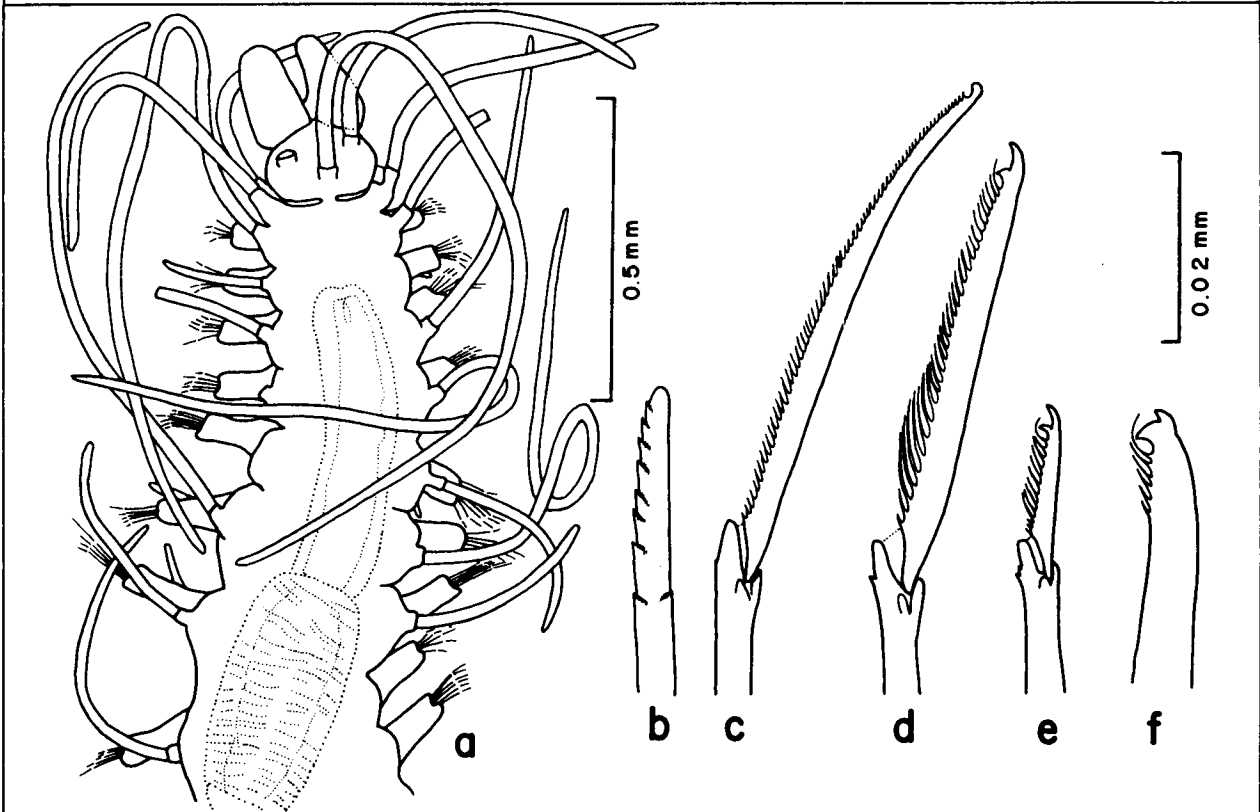


Figure 30-66. *Pionosyllis* sp. A: a, anterior end; b, superior simple seta from midbody region; c, superior falciger from anterior region; d, same, from midbody region; e, inferior falciger from same; f, inferior simple seta; scale same for b-f.

7/76 (1 spec., USNM 90627), 2422F-7/76 (1 spec., USNM 90626), 2423G-7/76 (1 spec.), 2423J-7/76 (2 spec.), 2424C-7/76 (2 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID. (1 paratype, USNM 60460).

DESCRIPTION:

Length, 3.9+ mm (previously reported to 5.0 mm); width, 0.3 mm. Body long, slender; all specimens incomplete with up to 37 setigers. Prostomium oval to cordate, with or without four lentigerous eyes, and two ocular spots at base of palps (Figure 30-64a). Antennae long, smooth, with short cirrophores. Palps thick, fused basally. Nuchal organs as paired lobes between prostomium and peristomium. Tentacular cirri long, slender. Dorsal cirri alternating long and short, filiform or digitiform, respectively, as follows: long on setigers 1, 4, 6, 8, and all odd numbered setigers from 9; short on setigers 3, 5, 7 and all even numbered setigers from 10; absent on setiger 2. Ventral cirri arising near tips of parapodia. Anal cirri paired, long, filiform. Ciliary tufts present on prostomium, pygidium, and all parapodia. Superior simple seta tapering to slender tip (Figure 30-64b), present from setiger 1. Composite falcigers all with short, bidentate blades (Figure 30-64c,d), numbering three per parapodium; shaft-heads homogomph, with each prong bifid. Pharynx usually extending to setiger 4; with subterminal dorsal tooth; margin surrounded by ten papillae. Proventricle extending from setigers 4-6 to 5-7, with about 14 muscle cell rows. Gametes starting in setigers 8-10.

REMARKS: P. gesae is newly reported from the Gulf of Mexico. Identifications of this species were confused with several other species in BLM-MAFLA collections.

PREVIOUSLY REPORTED HABITAT: 7-11 m; calcareous sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in northeastern Gulf (Figure 30-63); 10-180 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey sandy silt.

DISTRIBUTION: East coast of Florida, Gulf of Mexico.

Pionosyllis sp. A
Figures 30-65, 66a-f

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 22C-11/80 (1 spec., USNM 89888), 25C-7/81 (3 spec., USNM 89889); MAFLA 2211G-8/77 (2 spec.), 2315A-2/78 (1 spec., USNM 65683), 2528E-11/77 (2 spec.).

DESCRIPTION:

Length, to 10 mm; width, 0.6 mm. Body long, thread-like; complete specimens with up to 45 setigers. Prostomium rounded, without eyes. Palps long, separate, straight or directed ventrally. Nuchal organs as paired ridges between prostomium and peristomium. Antennae, tentacular and dorsal cirri long, filiform, with short cirrophores (Figure 30-66a). Ventral cirri slender, digitiform to filiform, sometimes longer than parapodia. Superior simple seta straight, distally blunt and serrate (Figure 30-66b); first present in anterior or midbody region. Composite falcigers with bidentate blades having numerous long serrations (Figure 30-66c-e), blade-length ratio 4-5:1. Inferior simple seta strongly bidentate, with several long subapical guards (Figure 30-66f), present

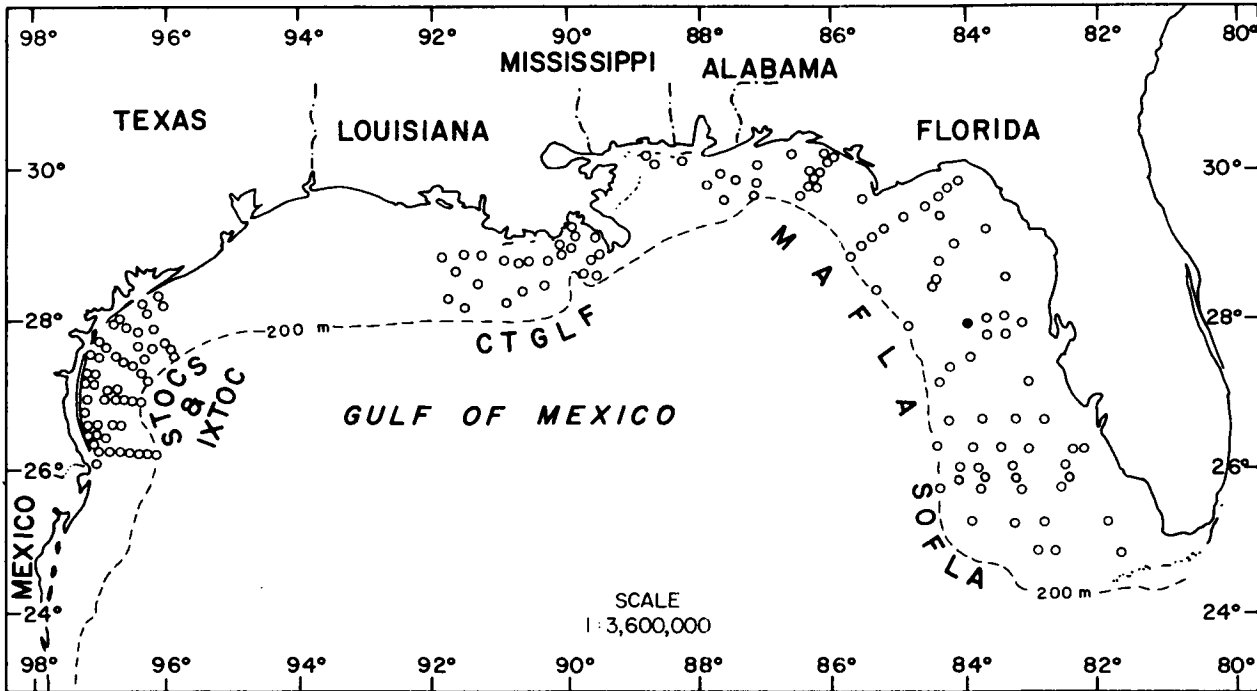


Figure 30-67. Distribution of *Pionosyllis* sp. C on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

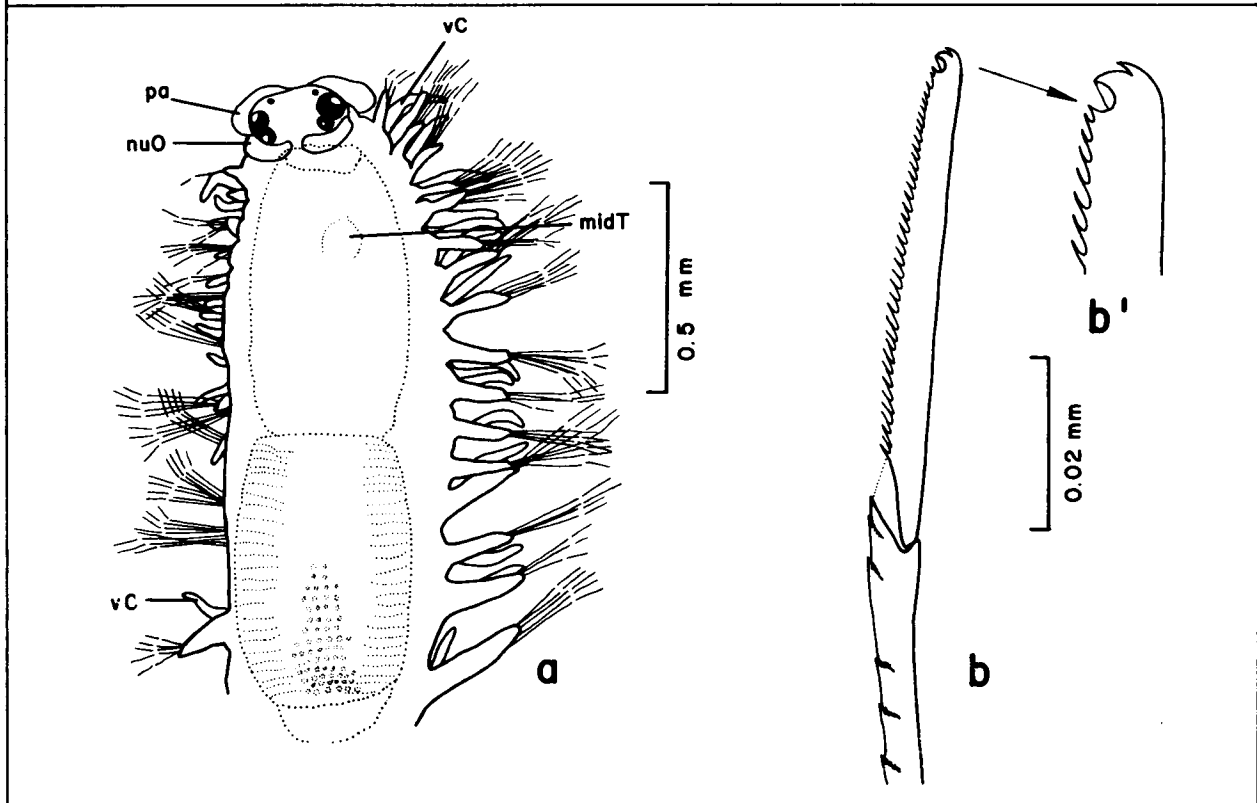


Figure 30-68. *Pionosyllis* sp. C: a, anterior end (all antennae, tentacular and dorsal cirri missing); b, falciger; b', detail of b, not to scale.

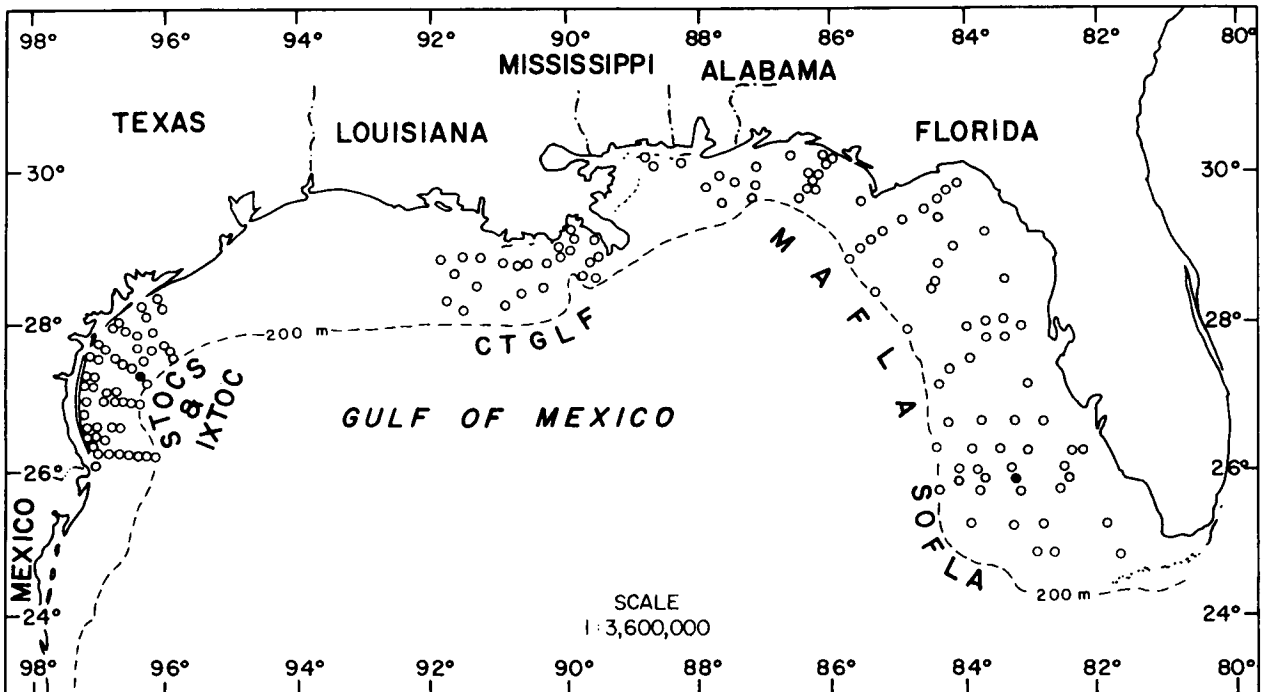


Figure 30-69. Distribution of *Pionosyllis* sp. D on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

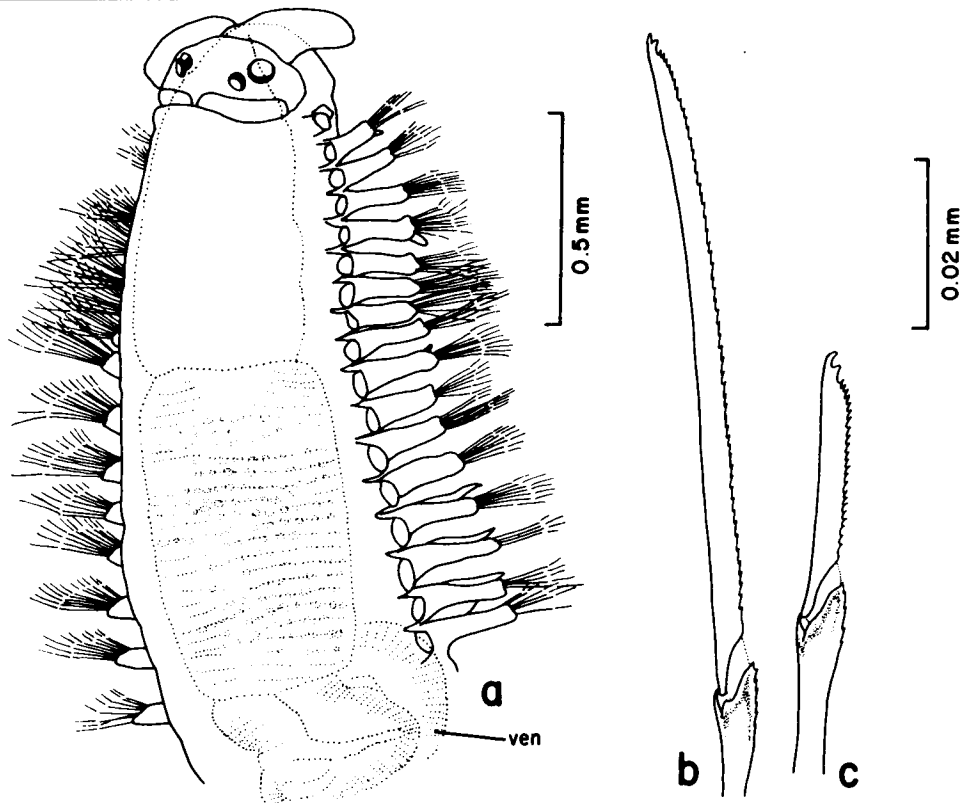


Figure 30-70. *Pionosyllis* sp. D: a, anterior end (all antennae, tentacular and dorsal cirri missing); b, superior falciger from anterior region; c, inferior falciger from same.

posteriorly. Pharynx extending to setigers 4-6. Proventricle extending from setigers 4-7 to 6-9, with about 20-38 muscle cell rows.

REMARKS: Identifications of this species were confused with several other species in BLM-MAFLA collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: Scattered records off Florida (Figure 30-65); 24-54 m; coarse to fine sand, silty fine sand, silty clay.

Pionosyllis sp. C
Figures 30-67, 68a-b'

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211E-7/76 (1 spec., USNM 89887).

DESCRIPTION:

Length, 1.6+ mm; width, 0.8 mm. Body stout, strongly arched dorsally, only specimen incomplete. Prostomium oval with four large, lentigerous eyes, and two ocular spots near anterior margin (Figure 30-68a). Palps directed ventrally, barely visible dorsally. Nuchal organs as large, curved ridges along posterior border of prostomium. All antennae, tentacular and dorsal cirri lost. Ventral cirri subulate, extending beyond parapodia, especially long on setiger 1. Composite falcigers with coarsely serrate, strongly bidentate blades having subterminal guards (Figure 30-68b,b'); blade-length ratio about 2.3:1. Pharynx colored dark brown, extending to setiger 11, with smooth margin and middorsal tooth located in anterior third. Proventricle located in setigers 12-16, with about 27 muscle cell rows.

REMARKS: See "REMARKS" under Pionosyllis sp. D below. Specimens (not included herein) from the Florida Middle Ground coral reef have long antennae, tentacular and dorsal cirri.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off central Florida (Figure 30-67); 43 m; coarse sand.

Pionosyllis sp. D
Figures 30-69, 70a-c

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 16C-7/81 (1 spec., USNM 89885); STOCS 6/II-1 W/77 (3 spec., USNM 89886; 1 spec., USNM 65664).

DESCRIPTION:

Length, 4.8+ mm; width, to 1.0 mm. Body stout, strongly arched dorsally; all specimens incomplete with up to 26 setigers. Prostomium oval, with four moderately large, lentigerous eyes (Figure 30-70a); ocular spots present or absent. Palps thin, paddle-shaped, usually directed ventrally. Nuchal organs as large, curved ridges along posterior border of prostomium. Antennae, tentacular and dorsal cirri much longer than body width, slender, indistinctly articulated distally. Ventral cirri tapered, extending beyond parapodia on all setigers. Composite falcigers numerous, with long, finely serrate, bidentate blades (Figure 30-70b,c); blade-length ratio 2.4-3.4:1. Pharynx extending to setigers 7-9, with smooth margin surrounded by ten papillae, and subterminal middorsal tooth. Proventricle extending from setigers 8-10 to 13-16, with

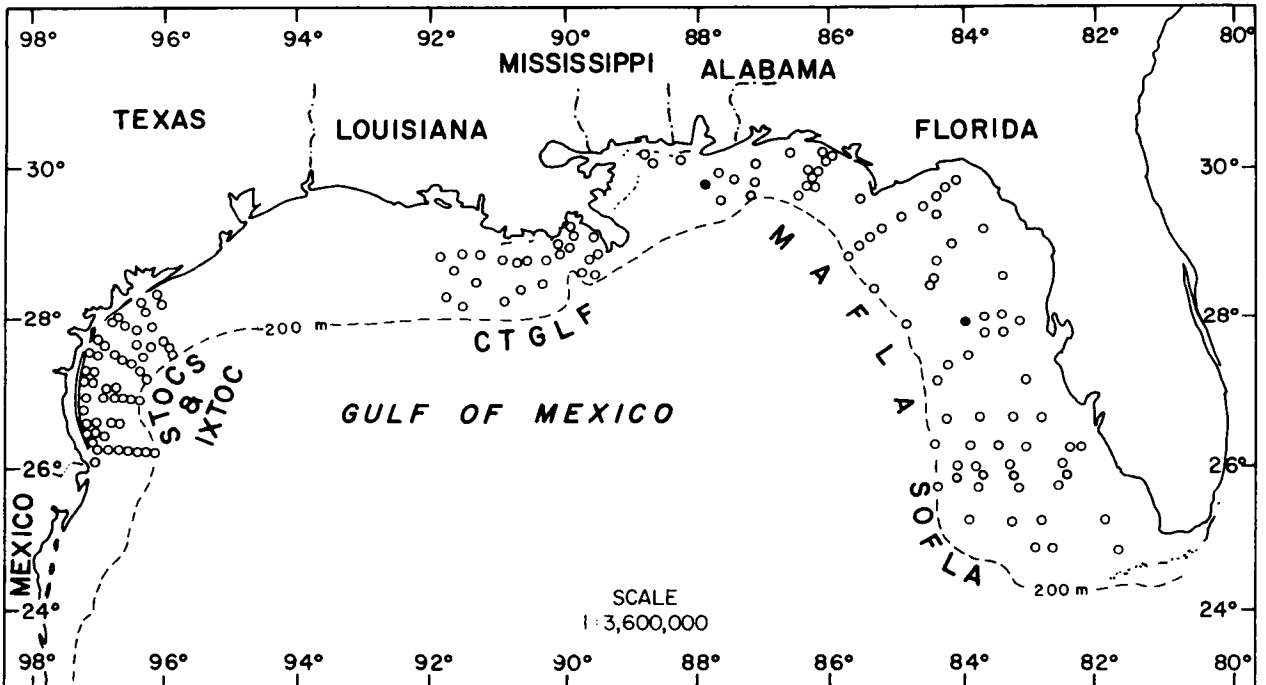


Figure 30-71. Distribution of *Dioplosyllis* cf. *octodentata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

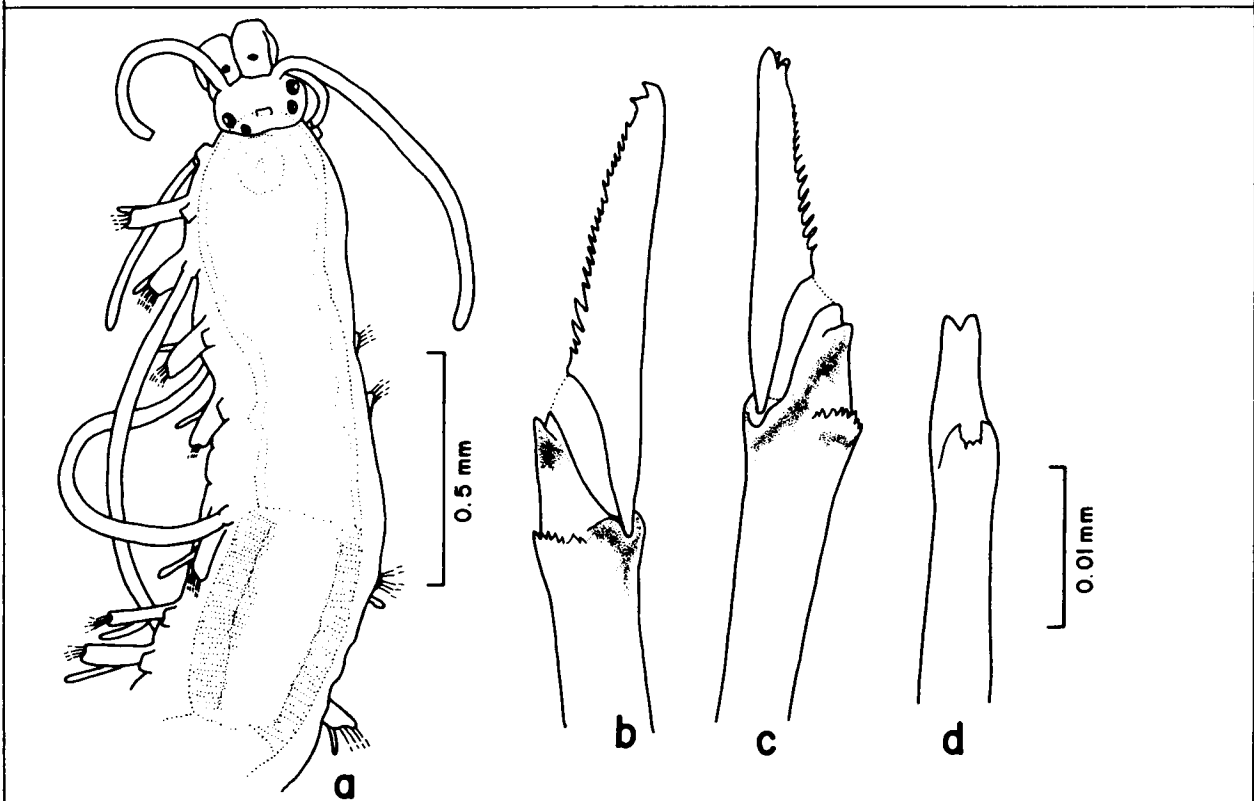


Figure 30-72. *Dioplosyllis* cf. *octodentata*: a, anterior end; b, superior falciger; c, inferior falciger; d, setal shaft (rear view); scale same for b-d.

20-25 muscle cell rows. Ventricle large, convoluted, occupying about three setigers.

REMARKS: This species is similar to Pionosyllis sp. C, but differs from the latter in having less strongly bidentate setae without subterminal guards, and in having a subterminal pharyngeal tooth. Gulf of Mexico BLM-OCS specimens were originally identified as Pionosyllis cf. ehlersiaeformis in STOCS collections and Pionosyllis uraga in SOFLA collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station each off southern Texas and southern Florida (Figure 30-69); 54-98 m; fine sand.

Genus Dioplosyllis Gidholm, 1962

TYPE SPECIES: Dioplosyllis cirrosa Gidholm, 1962.

REFERENCES:

Gidholm, 1962:253.

Imajima, 1966:88.

Fauchald, 1977a:82.

DIAGNOSIS: Prostomium with three smooth antennae, and linguiform, ventrally directed palps. Nuchal ridges present or absent. Two pairs of tentacular cirri. Parapodia elongate, with long, smooth dorsal cirri. Pharynx with large middorsal tooth, with or without additional small marginal teeth.

Dioplosyllis cf. octodentata Perkins, 1981 Figures 30-71, 72a-d

Dioplosyllis octodentata Perkins, 1981:1087, fig. 4a-h.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211E-2/78 (1 spec., USNM 65670), 2640H-2/78 (1 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, 10.3 m, T. Perkins ID. (USNM 54508, 1 paratype).

DESCRIPTION:

Length, 2+ mm (previously reported to 8 mm); width, to 0.6 mm. Body short, stout; both specimens anterior fragments only. Prostomium oval, with four small, lentigerous eyes (Figure 30-72a). Lateral antennae long, median antenna missing. Palps long, fused basally, with small diffusely pigmented areas dorsally near base. Nuchal organs as small ridges posterior to eyes. Tentacular and dorsal cirri long, smooth. Ventral cirri cirriform, often extending beyond parapodia. Superior composite falcigers with bidentate blades (Figure 30-72b); inferior composite falcigers with tri- to multidentate blades (Figure 30-72c). Shaft-heads of setae with prolonged, distally notched prongs (Figure 30-72d). Pharynx extending to setiger 6, with large, subterminal, middorsal tooth; smaller marginal teeth not visible. Proventricle extending from setigers 7 to 10-12, with about 34-36 muscle cell rows.

REMARKS: BLM-MAFLA specimens approach D. octodentata in all features except the apparent absence of marginal pharyngeal teeth. The presence of multidentate composite falcigers does not necessarily distinguish these specimens from D. octodentata because setal blades could easily

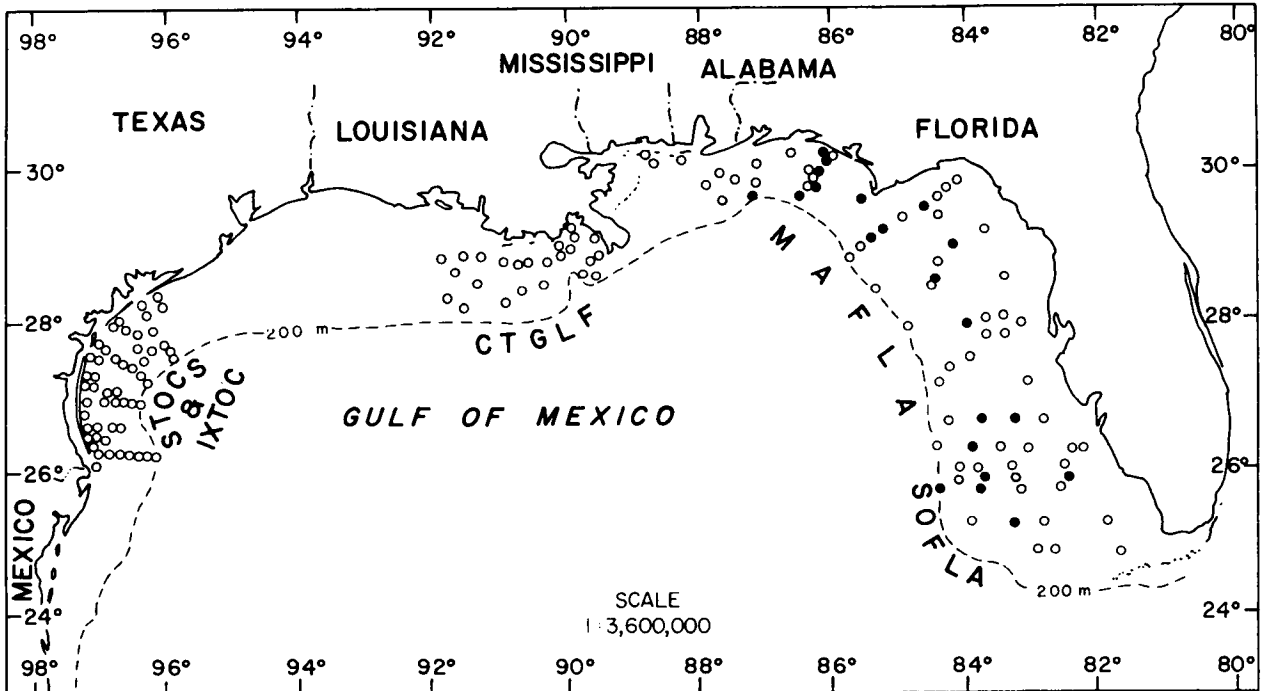


Figure 30-73. Distribution of *Eusyllis lamelligera* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

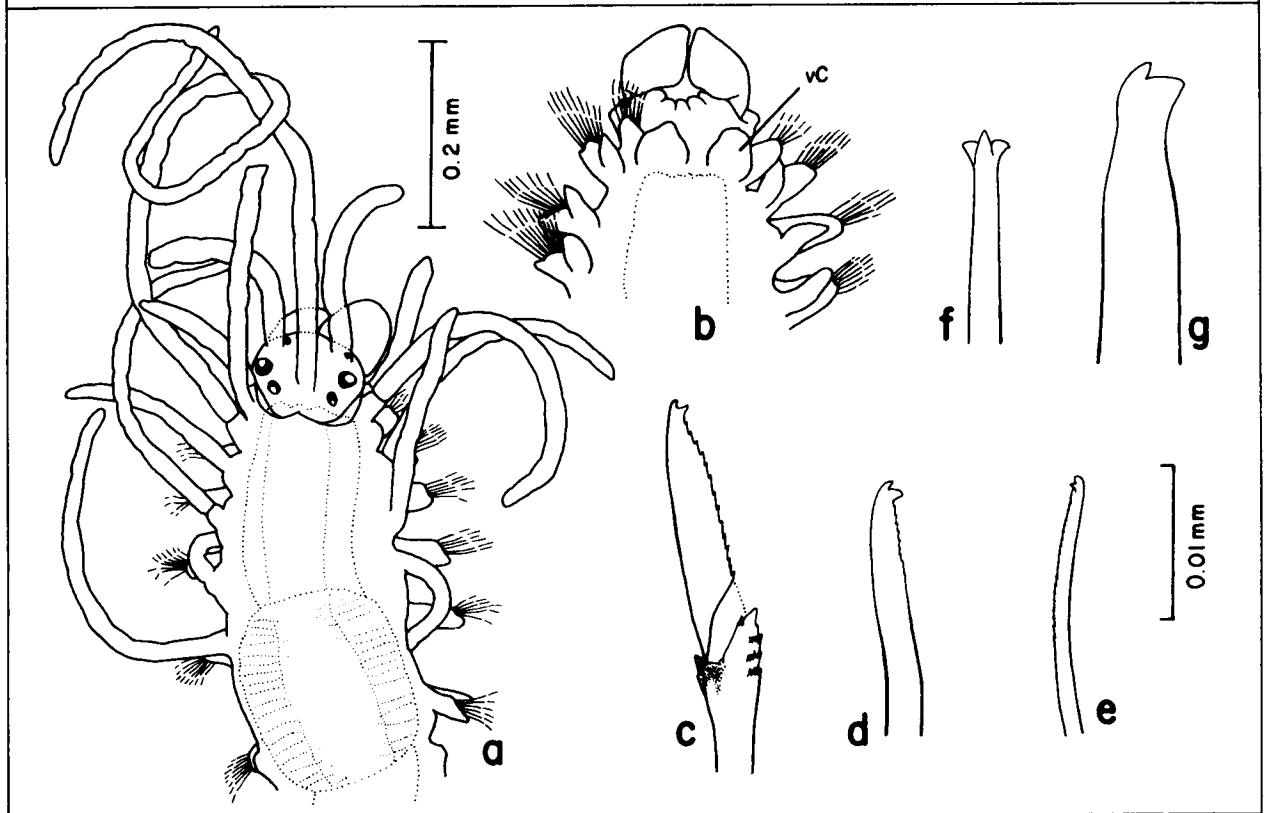


Figure 30-74. *Eusyllis lamelligera*: a, anterior end; b, same (ventral view); c, medial falciger from anterior region; d, superior simple seta; e, inferior simple seta; f, aciculum; g, aciculum, variation; scale same for c-g.

wear from a multidentate to a bi- or tridentate state (Kudenov, pers. comm.).

PREVIOUSLY REPORTED HABITAT: 11 m; coarse calcareous sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off Alabama and central Florida (Figure 30-71); 35-43 m; coarse to medium sand.

DISTRIBUTION: East coast of Florida, ?Gulf of Mexico.

Genus *Eusyllis* Malmgren, 1867

TYPE SPECIES: *Eusyllis blomstrandii* Malmgren, 1867b.

REFERENCES:

Imajima, 1966:89.

Day, 1967:264.

Fauchald, 1977a:82.

DIAGNOSIS: Prostomium with three antennae and basally fused palps. Nuchal organs often as ciliated ridges between prostomium and peristomium. Small occipital flap sometimes present. Two pairs of tentacular cirri. Antennae, tentacular, and dorsal cirri smooth or indistinctly articulated. Pharynx armed with middorsal tooth and denticulate margin.

?*Eusyllis lamelligera* Marion and Bobretzky, 1875
Figures 30-73, 74a-g

Eusyllis lamelligera--Fauvel, 1923:294, fig. 113a-e.

Eusyllis lamelligera--Pettibone, 1963:120, figs. 33, 34a-d.

Eusyllis lamelligera--Hartmann-Schröder, 1971:157.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 5B-5/81 (2 spec., USNM 75279), 5C-5/81 (2 spec.), 24A-7/81 (2 spec., USNM 75280); MAFLA 2211E-7/76 (1 spec.), 2211I-8/77 (1 spec.), 2211F-11/77 (1 spec.), 2211I-2/78 (1 spec.), 2315A-2/78 (2 spec., USNM 65672), 2534H-9/75 (1 spec.), 2645J-2/78 (1 spec.), 2854E-8/77 (1 spec.).

Supplementary Material:

Virginia--38°44'N, 73°04.3'W, 152 m, G. Gaston ID. (1 spec., USNM 56763).

DESCRIPTION:

Length, 3.4+ mm (previously reported to 15 mm); width, to 0.4 mm (previously reported to 0.5 mm). Body small, fragile; all specimens incomplete with up to 19 setigers. Prostomium rounded, with four lentigerous eyes, with or without two small ocular spots at base of palps (Figure 30-74a). Antennae and tentacular cirri long, slender, irregularly wrinkled, sometimes with fine hair-like projections. Palps broad, slightly longer than prostomium, fused basally. Nuchal organs as large ridges along posterior border of prostomium, often with brown pigment. Dorsal cirri long, slender, smooth. Antennae, tentacular and dorsal cirri arising from short cirrophores. First pair of ventral cirri lamelliform (Figure 30-74b), following pairs auricular to digitiform, shorter than parapodia. Composite falcigers with minutely serrate, bidentate blades (Figure 30-74c); blade-length ratio about 1.5-2.4:1. Superior simple seta slender, hair-like, minutely bidentate (Figure 30-74d), present posteriorly. Inferior simple seta slender, bidentate (Figure 30-74e),

present posteriorly. Acicula slender, appearing trifid distally (Figure 30-74f), enlarged and bidentate in one specimen (Figure 30-74g). Pharynx extending from setigers 1 to 4-7, with large, subterminal middorsal tooth. Proventricle extending from setigers 5-8 to 6-12, with approximately 17 muscle cell rows. Two specimens with gametes beginning in setigers 8 and 11.

REMARKS: Only tentative assignment of these specimens to Eusyllis can be made, since the anterior pharyngeal denticulation was not observed. They otherwise match published descriptions of E. lamelligera fairly well.

PREVIOUSLY REPORTED HABITAT: Gravel and shell; among bryozoans, sponges, ascidians; sexual forms at surface.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread off Florida (Figure 30-73); 24-189 m; coarse to fine sand, silty fine to very fine sand, clayey silt.

DISTRIBUTION: Eastern North Pacific, Atlantic, Gulf of Mexico, Mediterranean, English Channel.

Genus Odontosyllis Claparède, 1863

TYPE SPECIES: Syllis fulgurans Audouin and Milne Edwards, 1833c.

REFERENCES:

Imajima, 1966:102.

Day, 1967:260.

Fauchald, 1977a:83.

DIAGNOSIS: Prostomium with three antennae; palps basally fused or separate. Nuchal organs as large, curved, ciliated ridges along posterior border of prostomium. Occipital flap often present. Two pairs of tentacular cirri. Antennae, tentacular and dorsal cirri smooth. Pharynx armed with ventral arc of recurved teeth.

Key to the Gulf of Mexico BLM-OCS Species of Odontosyllis

- 1a. Antennae, tentacular and dorsal cirri short, generally not exceeding body width (Figure 30-76a); pharynx with ventral arc of six teeth and two pointed lateral plates (Figure 30-76g)
. Odontosyllis enopla, p. 30-80
- 1b. Median antenna, dorsal tentacular cirri and most anterior dorsal cirri long, exceeding body width; pharynx with ventral arc of five or seven teeth, with or without pointed lateral plates. 2
- 2a. Pharynx with ventral arc of seven teeth, middle teeth longest, plus two pointed lateral plates (Figure 30-78e).
. Odontosyllis cf. octodentata, p. 30-85
- 2b. Pharynx with ventral arc of five teeth, similar in size, without pointed lateral plates (Figure 30-80e)
. Odontosyllis sp. A, p. 30-85

Odontosyllis enopla Verrill, 1900
Figures 30-75, 76a-g

Odontosyllis enopla--Verrill, 1900:627.

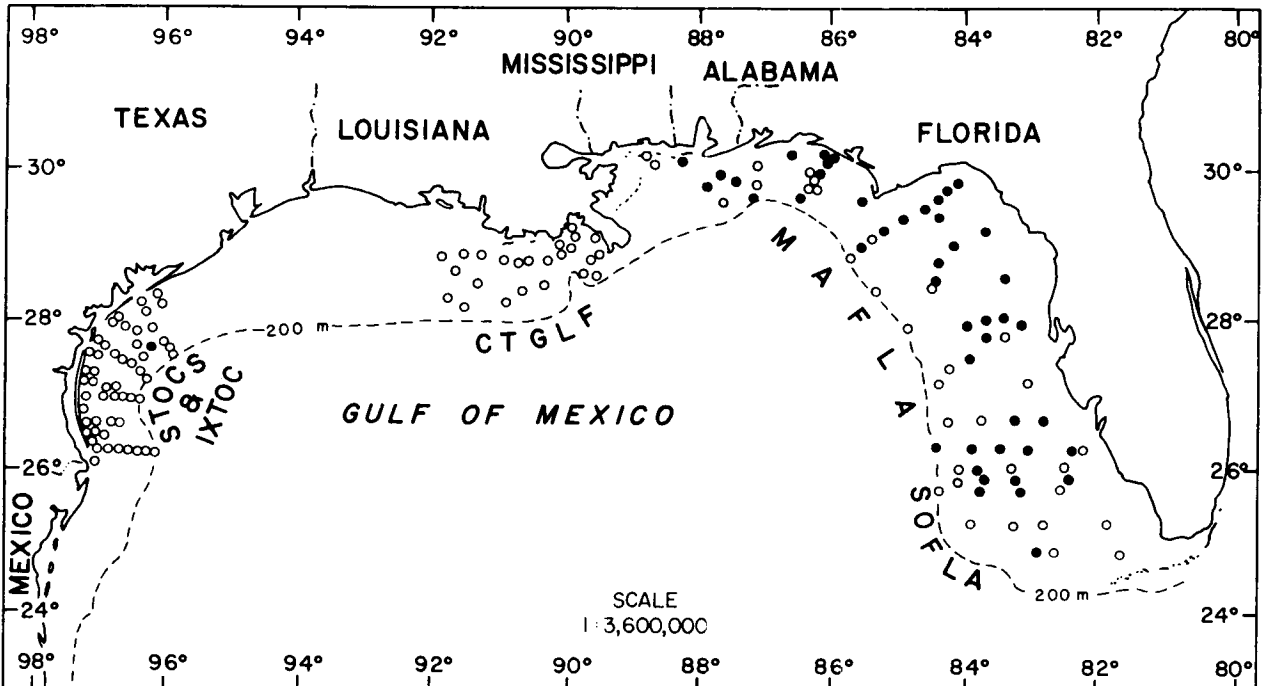


Figure 30-75. Distribution of *Odontosyllis enopla* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

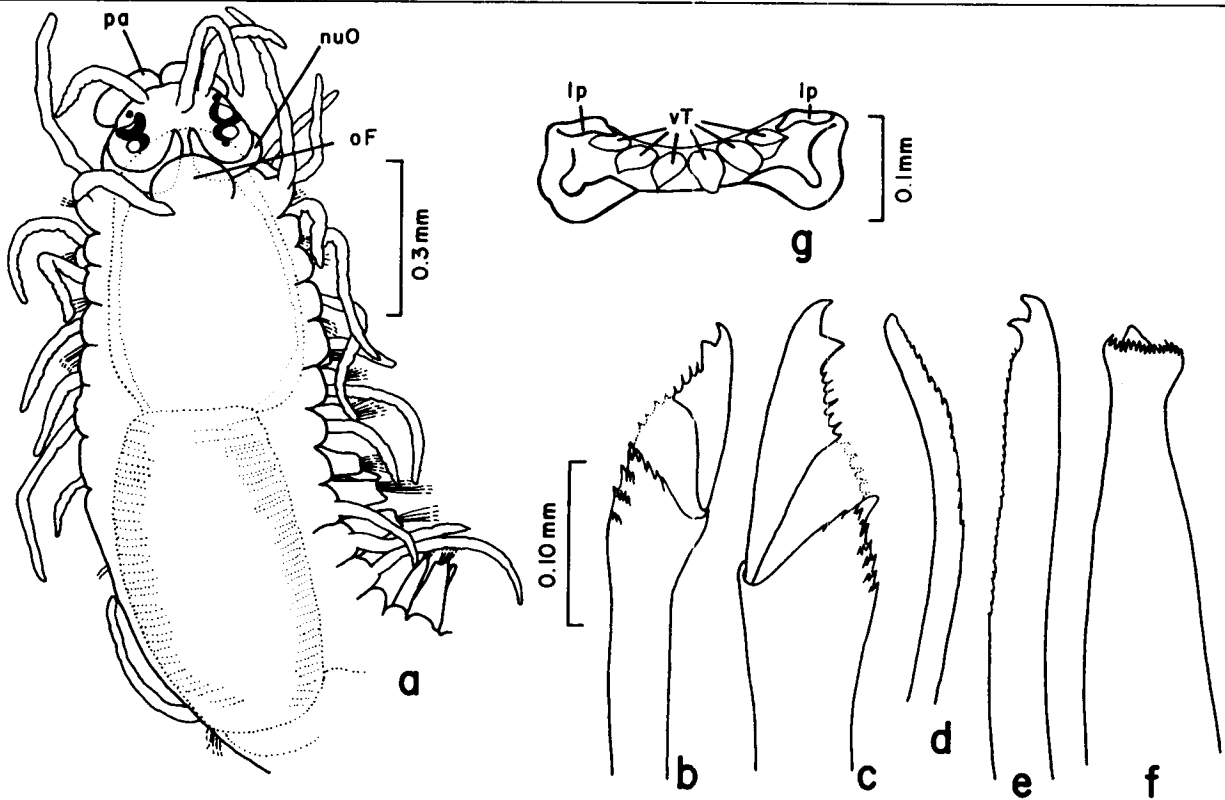


Figure 30-76. *Odontosyllis enopla*: a, anterior end; b-f from posterior region: b, superior falciger; c, inferior falciger; d, superior simple seta; e, inferior simple seta; f, aciculum; g, pharyngeal teeth; scale same for b-f.

Odontosyllis enopla--Galloway and Welch, 1911:1-26, figs. 1-30, pls. 1-5.

Odontosyllis enopla--Hartman, 1951a:41.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4-11/80 (1 spec., USNM 89880), 16E-7/81 (3 spec., USNM 89879); MAFLA 2207C-7/76 (2 spec.), 2207K-11/77 (1 spec.), 2208G-8/77 (1 spec.), 2209D-7/76 (1 spec.), 2209C-8/77 (1 spec.), 2210I-7/76 (1 spec.), 2210J-7/76 (1 spec.), 2211H-7/76 (1 spec.), 2211J-7/76 (1 spec.), 2316H-8/76 (1 spec.), 2318G-11/77 (1 spec.), 2318J-11/77 (1 spec.), 2419H-2/78 (1 spec.), 2420B-7/76 (1 spec.), 2421E-7/76 (2 spec., USNM 65677), 2422I-7/76 (1 spec.), 2424H-7/76 (1 spec.), 2528A-6/75 (1 spec., USNM 65676), 2528-11/77 (1 spec.), 2531H-6/75 (1 spec.), 2641I-6/75 (1 spec.), 2645G-11/77 (1 spec.); STOCS HR1-6/76 (1 spec., USNM 75219).

Supplementary Material:

Gulf of Mexico--Tampa Bay, Florida, J. Taylor ID. (2 spec., USNM 45546). Bermuda--Spanish Port, small boat harbor near sunken barge breakwater, May 1976, M. L. Jones coll., T. H. Perkins ID. (4 spec., USNM 65881).

DESCRIPTION:

Length, to 6.3 mm (previously reported to 25 mm); width, to 0.5 mm (previously reported to 1.5 mm). Body stout anteriorly; complete specimens with up to 54 setigers; sometimes with one thin, dark, transverse, dorsal stripe per segment. Prostomium rounded anteriorly, bilobed posteriorly (Figure 30-76a); with four large, lentigerous eyes, and 0-2 ocular spots at base of palps. Median antenna long, arising between anterior eyes; lateral antennae shorter than median one, inserted near anterior margin of prostomium. Palps irregularly quadrangular, shorter than prostomium, sometimes directed ventrally. Nuchal organs as large, crescent-shaped, often pigmented ridges along posterior border of prostomium. Occipital flap usually semicircular, covering posterior portion of prostomium. Dorsal cirri alternating in length, with longer cirri usually about equal to body width. Ventral cirri auricular, sometimes extending beyond parapodia anteriorly. Anal cirri paired, long, cirriform. Composite falcigers numerous, with short bidentate blades and fimbriated sheath connecting blade to shaft-head (Figure 30-76b,c). Superior simple seta slender, present posteriorly (Figure 30-76d). Inferior simple seta thicker, bidentate (Figure 30-76e). Acicula distally constricted, with numerous serrations surrounding small, conical tip (Figure 30-76f). Pharynx divided into anterior section and more muscular posterior section containing ventral arc of six recurved teeth, two lateral plates (Figure 30-76g), and up to four smaller teeth between ventral arc and each lateral plate. Proventricle extending from setigers 5-7 to 8-11, with 49 (42-58) muscle cell rows.

REMARKS: Most specimens originally identified as Odontosyllis fulgurans in the BLM-MAFLA collections are herein referred to O. enopla.

PREVIOUSLY REPORTED HABITAT: Luminescent sexual forms have been observed to swarm in surface waters of the West Indies.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in northeastern Gulf plus one station off Texas (Figure 30-75); 10-189 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey to sandy silt.

DISTRIBUTION: Barbados, Bermuda, Gulf of Mexico.

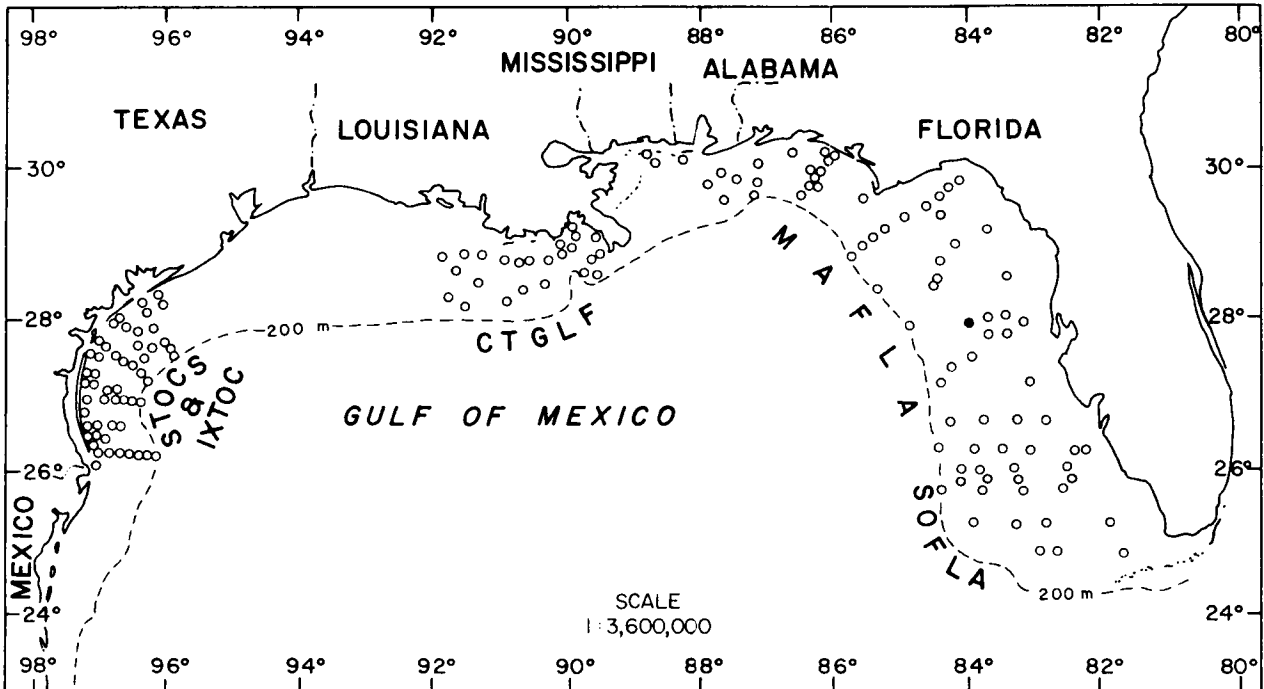


Figure 30-77. Distribution of *Odontosyllis* cf. *octodentata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

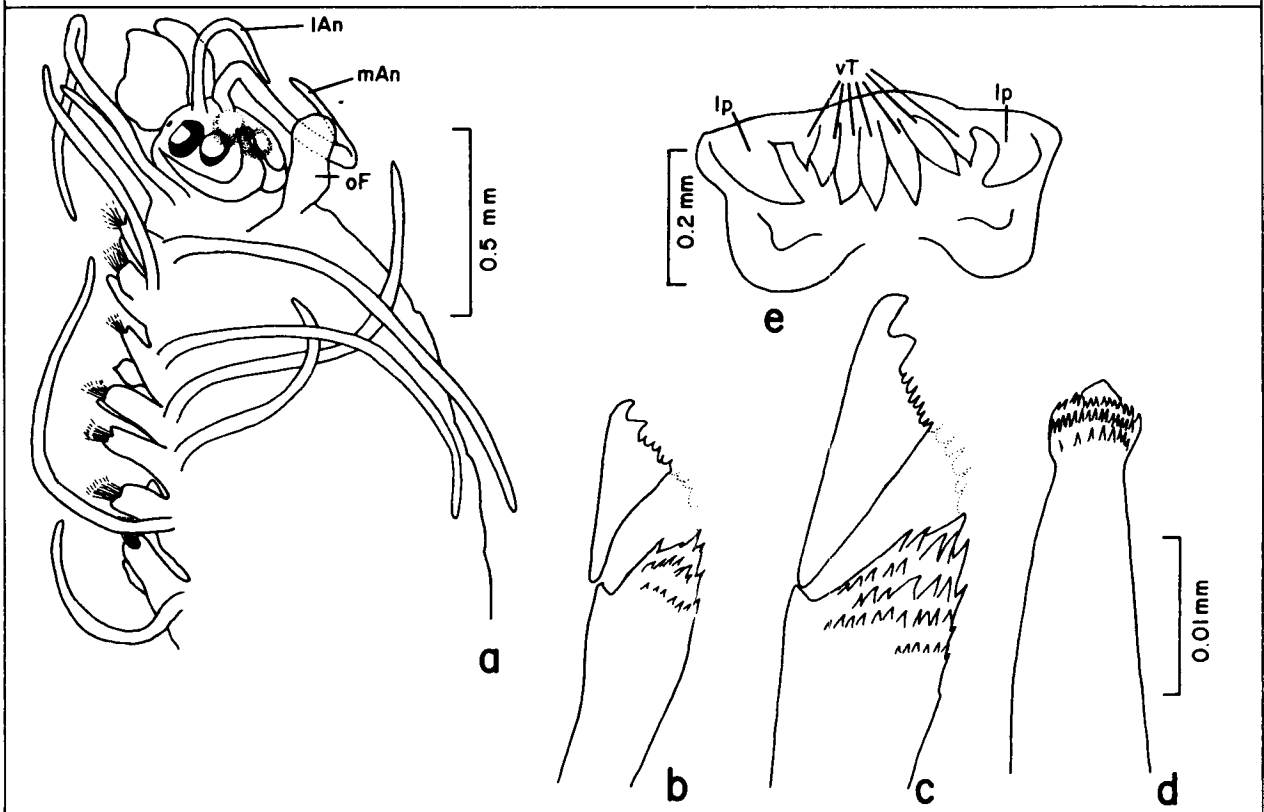


Figure 30-78. *Odontosyllis* cf. *octodentata*: a, anterior end; b-d from midbody region; b, superior falciger; c, inferior falciger; d, aciculum; e, pharyngeal teeth; scale same for b-d.

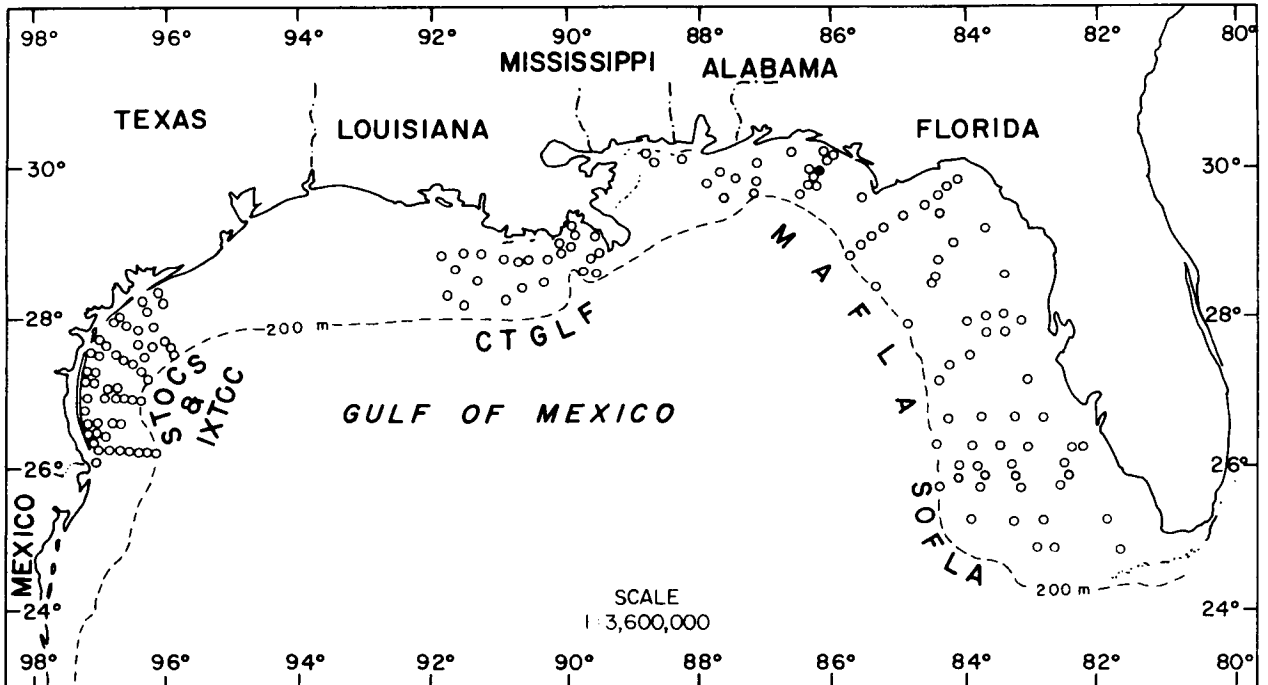


Figure 30-79. Distribution of *Odontosyllis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

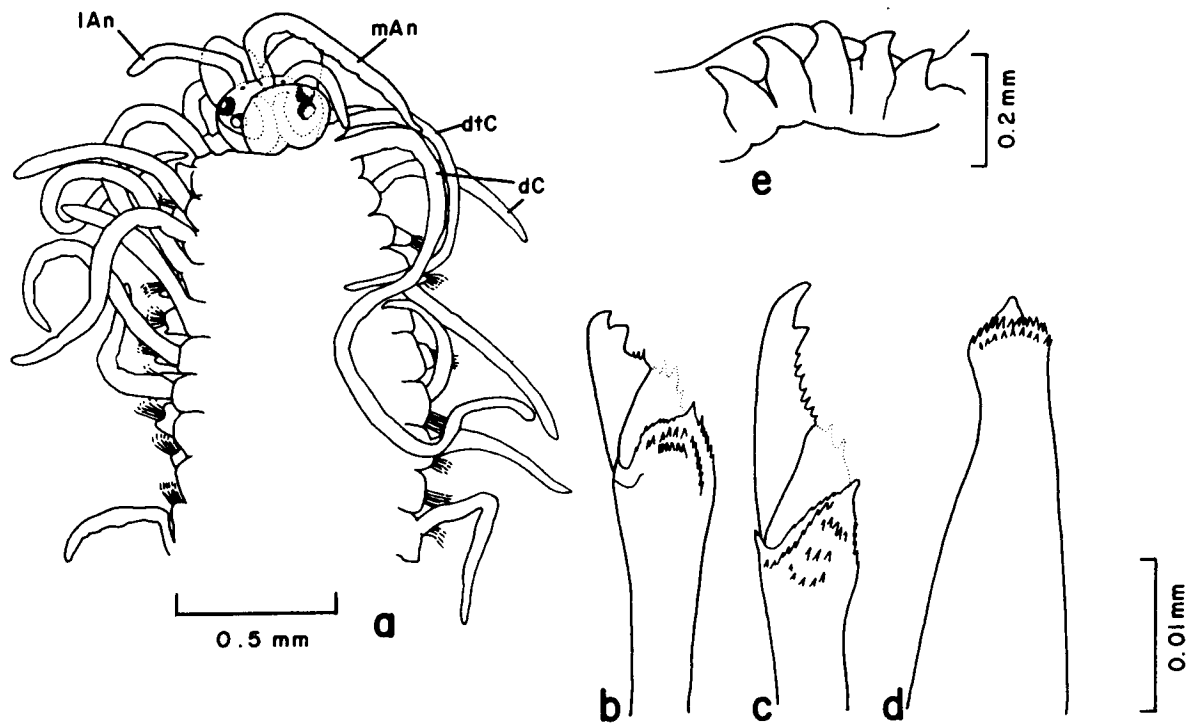


Figure 30-80. *Odontosyllis* sp. A: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, aciculum from midbody region; e, pharyngeal teeth; scale same for b-d.

Odontosyllis cf. octodentata Treadwell, 1917
Figures 30-77, 78a-e

Odontosyllis octodentata Treadwell, 1917:257, pl. 1, figs. 1-3.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211F-7/76 (1 spec.).

Supplementary Material:

Florida--Dry Tortugas, A. Treadwell ID. (AMNH VI-1914-973, holotype).

DESCRIPTION:

Length, 7.0+ mm (previously reported to 40 mm); width, 1.0 mm (previously reported to 2.5 mm). Body fairly large, incomplete with 30 setigers. Prostomium rounded anteriorly, bilobed posteriorly; with four large, lentigerous eyes, and two ocular spots at base of palps (Figure 30-78a). Lateral antennae slightly longer than palps, median antenna about three times as long as lateral antennae. Palps irregularly lamelliform, about as long as prostomium. Nuchal organs as semicircular, faintly pigmented ridges along posterior border of prostomium. Occipital flap large, semicircular. Tentacular cirri long, smooth. Dorsal cirri long anteriorly, thereafter alternating long and short. Ventral cirri auricular, rounded anteriorly, pointed posteriorly. Composite falcigers numerous, with short, bidentate blades and fimbriated sheath connecting blade to shaft-head (Figure 30-78b,c). Acicula distally constricted, with several rows of denticles surrounding small conical tip (Figure 30-78d). Pharynx divided into anterior section and more muscular posterior section with ventral arc of seven recurved teeth and two pointed lateral plates (Figure 30-78e). Proventricle with about 62 closely spaced muscle cell rows.

REMARKS: This specimen differs slightly from the holotype of Odontosyllis octodentata in having blades of superior setae with smaller teeth, and in having a longer median antenna than that figured by Treadwell (1917:pl. 1, fig. 1). In addition, Treadwell reported the pharynx (now missing from the holotype) as having a ventral row of eight teeth.

PREVIOUSLY REPORTED HABITAT: None reported.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off central Florida (Figure 30-77); 43 m; coarse sand.

DISTRIBUTION: Gulf of Mexico.

Odontosyllis sp. A
Figures 30-79, 80a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2531J-9/77 (1 spec., USNM 89881).

DESCRIPTION:

Length, 8.0+ mm; width, 1.0 mm. Body fairly large, robust, incomplete with 42 setigers. Prostomium rounded anteriorly, bilobed posteriorly, with four large, lentigerous eyes, and two minute ocular spots at base of palps (Figure 30-80a). Median antenna long, arising between eyes; lateral antennae arising from anterior margin of prostomium. Palps triangular, about as long as prostomium. Nuchal organs as pigmented, crescent-shaped ridges along posterior edge of prostomium. Occipital

flap large, roughly rectangular. Tentacular cirri long, smooth. Dorsal cirri long anteriorly, thereafter alternating long and short. Ventral cirri lanceolate, generally shorter than parapodia. Composite falcigers numerous, short-bladed, bidentate; terminal tooth falcate, often larger than subterminal tooth; with fimbriated sheath connecting blade to shaft-head (Figure 30-80b,c). Acicula distally constricted, with minute serrations surrounding small, pointed tip (Figure 30-80d). Pharynx extending to setiger 5, with ventral arc of five recurved teeth (Figure 30-80e). Proventricle located in setigers 6-19, with about 87 muscle cell rows.

REMARKS: Odontosyllis sp. A is similar to O. maculata Ushakov, 1950, from the northeastern Pacific, in having a trepan of five or six ventral teeth. It differs from the latter in having longer dorsal cirri and bidentate falcigers with shorter blades superiorly (see Imajima, 1966:103).

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off Panama City, Florida (Figure 30-79); 45 m; coarse sand.

Genus Trypanosyllis Claparède, 1864

TYPE SPECIES: Syllis zebra Grube, 1860a.

REFERENCES:

Imajima, 1966:235.

Day, 1967:253.

Fauchald, 1977a:84.

DIAGNOSIS: Body usually dorsoventrally flattened with segments much wider than long. Prostomium with three antennae; palps basally separated. Nuchal organs as large, curved ridges along posterior border of prostomium. Two pairs of tentacular cirri. Antennae, tentacular, and dorsal cirri articulated. Pharynx with terminal trepan of usually ten teeth, with or without an additional midorsal tooth.

Key to the Gulf of Mexico BLM-OCS Species of Trypanosyllis

- 1a. Body large, adults up to several centimeters long; dorsum with transverse brown stripes (Figure 30-82a); proventricle longer than pharynx Trypanosyllis vittigera, p. 30-88
- 1b. Body small, adults usually less than 1 cm long; dorsum without transverse brown stripes; proventricle shorter than pharynx. . . 2
- 2a. Blades of inferior falcigers unidentate to subbidentate (Figure 30-84d,e) Trypanosyllis sp. B, p. 30-91
- 2b. Blades of inferior falcigers bidentate (Figure 30-86c,e). . . . 3
- 3a. Antennae, tentacular and anterior dorsal cirri long, usually with more than ten articles (Figure 30-86a).
 Trypanosyllis parvidentata, p. 30-91
- 3b. Antennae, tentacular and dorsal cirri short, usually with fewer than ten articles (Figure 30-88a) 4
- 4a. Pharynx up to twice as long as proventricle (Figure 30-88a); body broad, flattened. Trypanosyllis coeliaca, p. 30-93

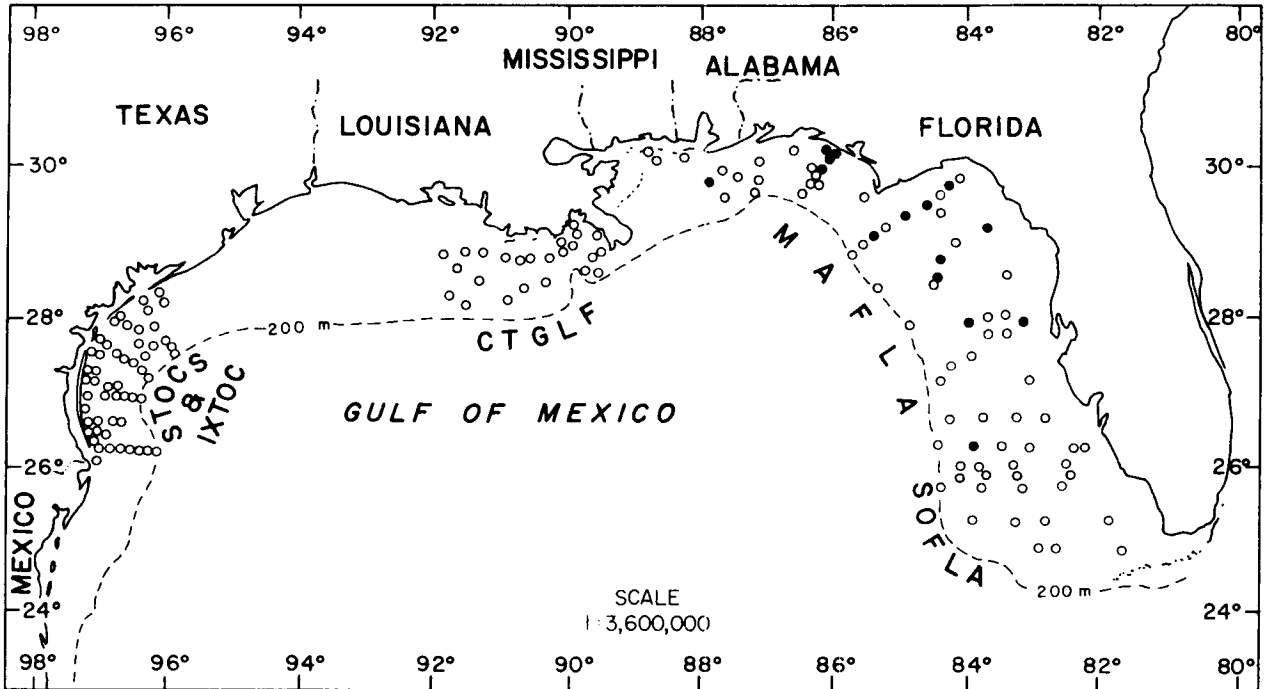


Figure 30-81. Distribution of *Trypanosyllis vittigera* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

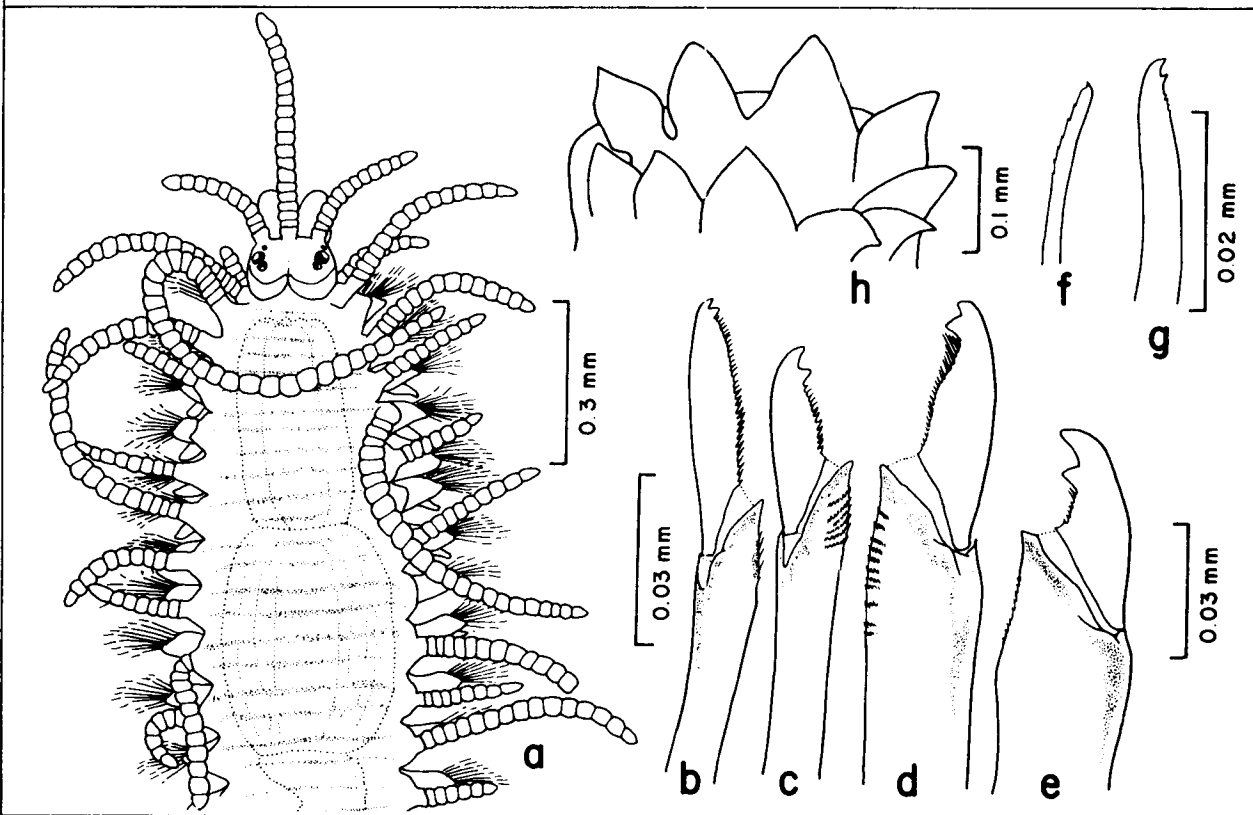


Figure 30-82. *Trypanosyllis vittigera*: a, anterior end; b, superior falciger from midbody region; c, inferior falciger from same; d, superior falciger from posterior region; e, inferior falciger from same; f, superior simple seta; g, inferior simple seta; h, trepan of pharynx; scale same for b-c, for d-e, and for f-g.

- 4b. Pharynx nearly three times as long as proventricle (Figure 30-90a); body narrow, nearly cylindrical.
. Trypanosyllis sp. C, p. 30-95

Trypanosyllis vittigera Ehlers, 1887
Figures 30-81, 82a-h

Trypanosyllis vittigera Ehlers, 1887:151, pl. 40, figs. 1-3.
Trypanosyllis vittigera--Treadwell, 1924:10.
Trypanosyllis vittigera--Hartman, 1951a:41.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211F-7/76 (1 spec.), 2211H-7/76 (1 spec.), 2211E-8/77 (1 spec.),
2528-11/77 (1 spec., USNM 55838), 2528G-2/78 (1 spec.).

Supplementary Material:

Florida--Conch Key, intertidal under rocks, H. Wilson coll., S. Gardiner
ID. (1 spec., USNM 53741).

DESCRIPTION:

Length, 34.0+ mm (previously reported to 13.5 mm); width, to 2.8 mm (previously reported to 2.5 mm). Body long, broad, flattened; with two dorsal transverse brown stripes per segment anteriorly, dorsal cirri uncolored to purplish-brown. One small complete specimen with 39 setigers. Prostomium wide anteriorly, bilobed posteriorly, nuchal ridges separated by middorsal cleft (Figure 30-82a); with four large, dark, lentigerous eyes, with or without two faint eyespots near bases of lateral antennae. Antennae arising at anterior border of prostomium. Palps well-separated, triangular, distally blunt. Antennae, tentacular and dorsal cirri long, number of articles generally increasing with size of specimen. Dorsal cirri alternating in length. Ventral cirri digitiform, extending beyond parapodia. Anal cirri paired, with 6-7 articles on small complete specimens. Composite falcigers with minutely serrate, bidentate blades (Figure 30-82b-e). Superior simple seta hairlike (Figure 30-82f), present only on far posterior setigers. Inferior simple seta slender, bidentate (Figure 30-82g), present posteriorly. Acicula stout, emergent, numbering 4-5 anteriorly, 1-2 posteriorly. Pharynx with terminal trepan of ten large, triangular teeth (Figure 30-82h), additional middorsal tooth absent. Pharynx located in setigers 2-6 in two small specimens; proventricle extending from setigers 6-7 to 10-11. Proventricle 2-3 times longer than wide, and up to 1.5 times longer than pharynx; with 28-38 muscle cell rows.

REMARKS: Specimens in the BLM-MAFLA collections originally identified as Trypanosyllis zebra are herein referred to T. vittigera.

PREVIOUSLY REPORTED HABITAT: Intertidal to 13 m, under rocks.

GULF OF MEXICO BLM-OCS OCCURRENCE: Fairly common in northeastern Gulf (Figure 30-81); 14-43 m; coarse to fine-very fine sand, silty fine sand.

DISTRIBUTION: West Indies, southern Florida, Gulf of Mexico.

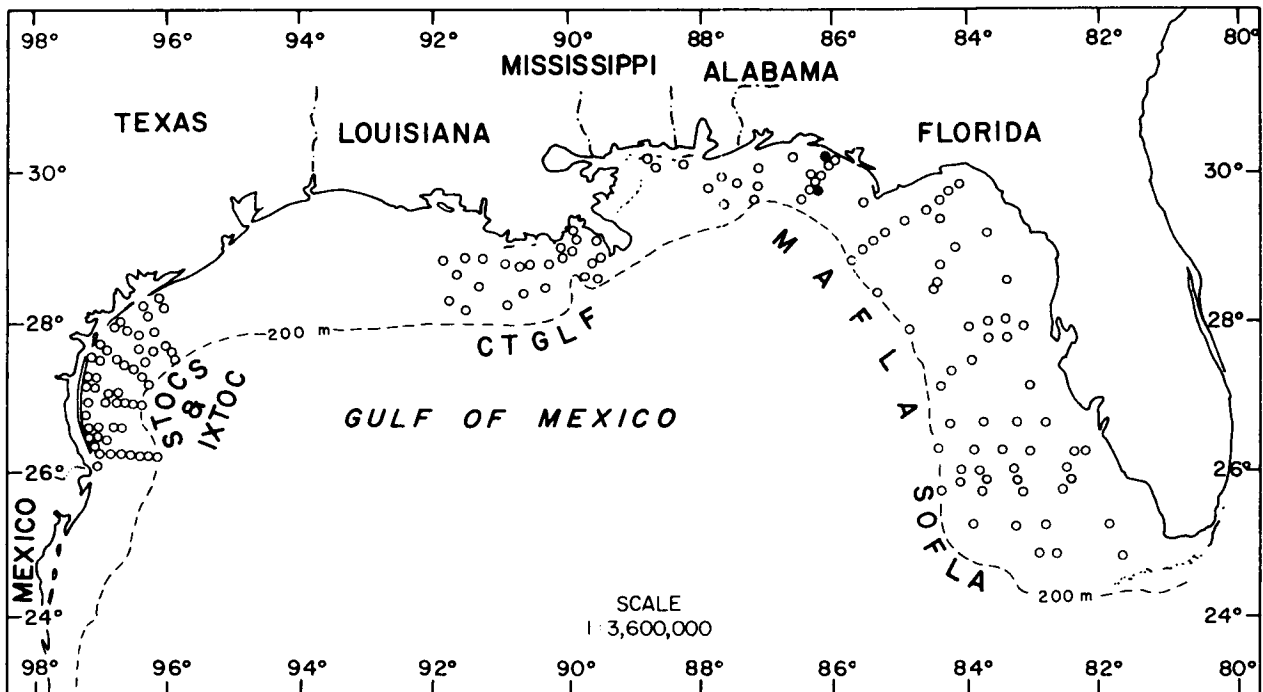


Figure 30-83. Distribution of *Trypanosyllis* sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

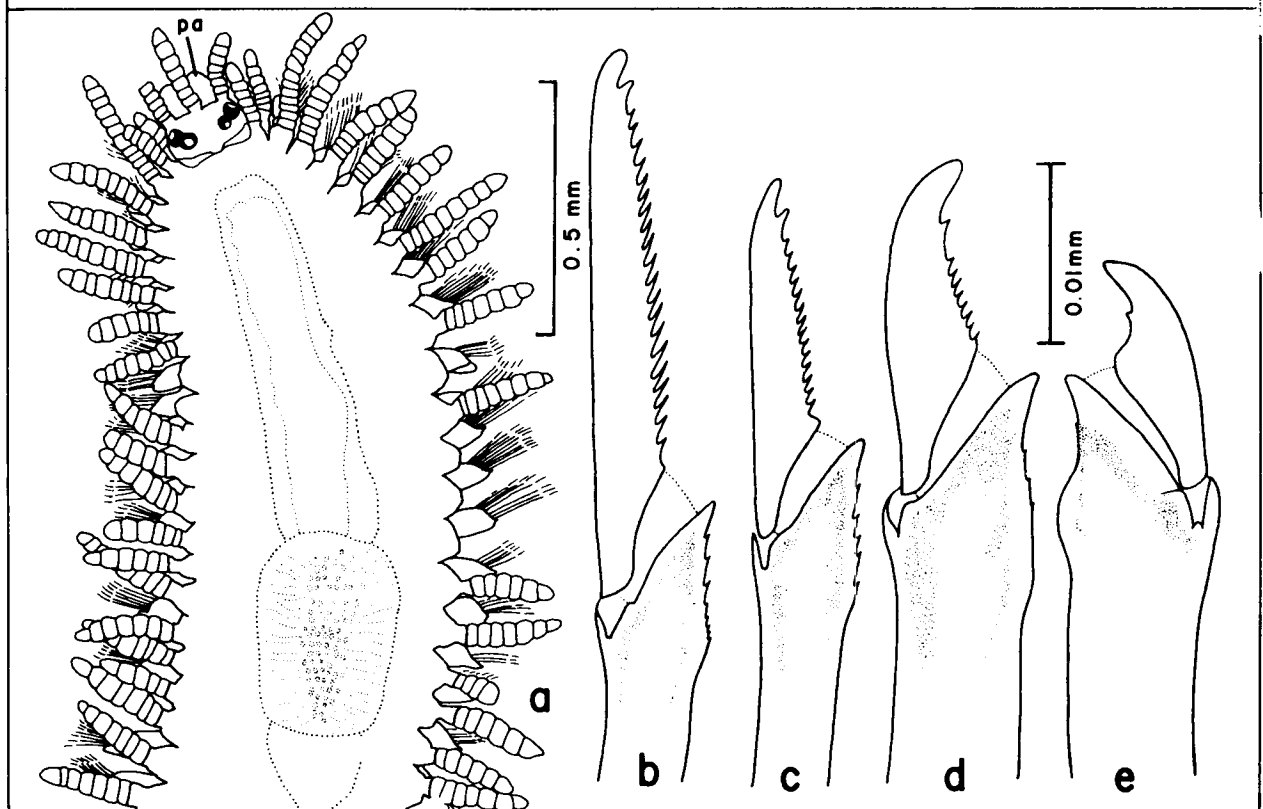


Figure 30-84. *Trypanosyllis* sp. B: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, same, from midbody region; e, same, from posterior region; scale same for b-e.

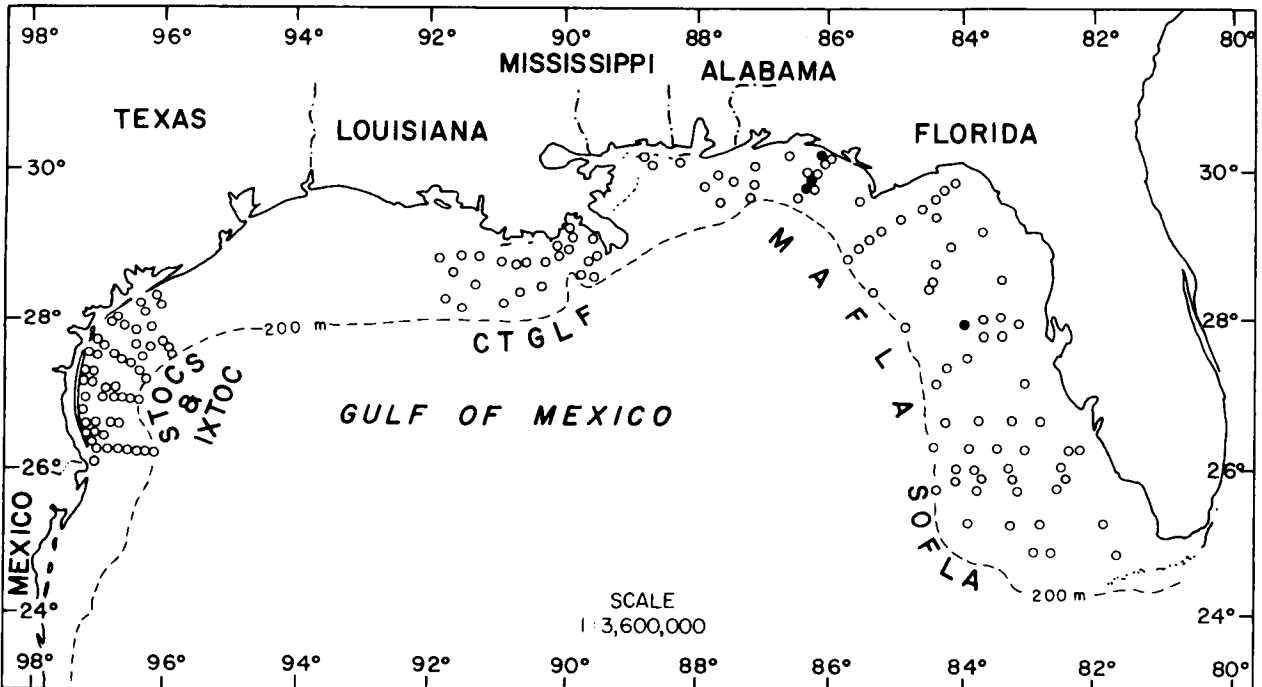


Figure 30-85. Distribution of *Trypanosyllis parvidentata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

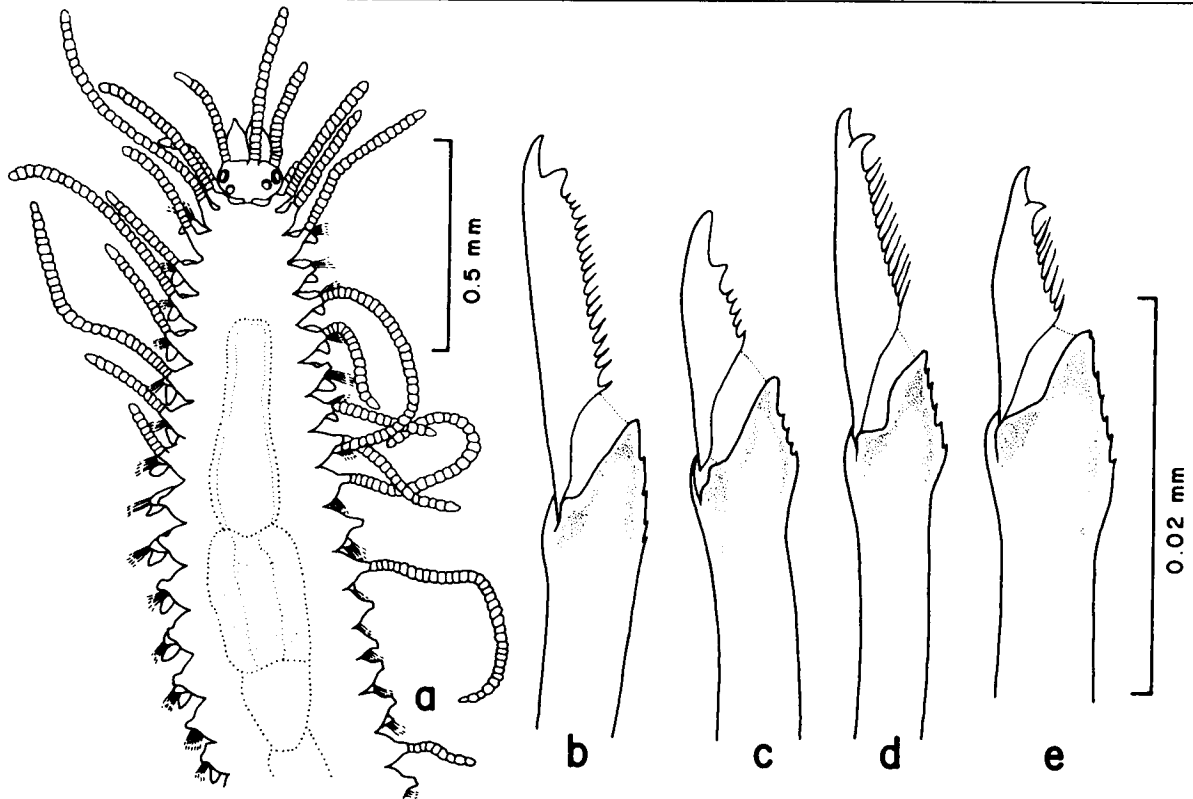


Figure 30-86. *Trypanosyllis parvidentata*: a, anterior end; b, superior falciger from midbody region; c, inferior falciger from same; d, superior falciger from anterior region; e, inferior falciger from same; scale same for b-e.

Trypanosyllis sp. B
Figures 30-83, 84a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2528K-11/77 (1 spec.), 2534E-9/75 (1 spec., USNM 65697).

DESCRIPTION:

Length, 4.4+ mm; width, to 0.65 mm. Body long, narrow, dorsoventrally flattened, uncolored in preservative; both specimens incomplete. Prostomium rectangular, shallowly notched posteriorly, with four large, lentigerous eyes (Figure 30-84a) and small ventral eyespots. Median and lateral antennae each with eight articles, arising at anterior margin of prostomium. Palps blunt, well-separated, shorter than prostomium. Dorsal tentacular cirri with seven articles, ventral ones with six. Dorsal cirri spindle-shaped, with six articles anteriorly, 5-8 articles in midbody region. Ventral cirri auricular, extending beyond parapodia. Anal cirri not observed. Superior composite falcigers with finely serrate, bidentate blades (Figure 30-84b). Inferior composite falcigers shorter, with finely serrate, bidentate blades anteriorly (Figure 30-84c), with unidentate or subbidentate blades (Figure 30-84d,e) in medial and posterior regions. Simple setae not observed. Acicula thick, pointed, emergent, numbering two anteriorly. Pharynx extending to setigers 10-13; trepan not observed. Proventricle extending from setigers 11-14 to 14-18, with about 21 muscle cell rows. Proventricle half as long as pharynx and 1.3-1.5 times longer than wide. One specimen having posterior region, beginning with setiger 29, modified into stolon possessing eyes, swimming setae and gametes.

REMARKS: Trypanosyllis sp. B in BLM-MAFLA collections was confused with T. coeliaca, from which it differs in having inferior composite falcigers with unidentate to subbidentate blades.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off Panama City, Florida (Figure 30-83); 37-73 m; coarse sand.

Trypanosyllis parvidentata Perkins, 1981
Figures 30-85, 86a-e

Trypanosyllis parvidentata Perkins, 1981:1161, fig. 36a-h.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211J-7/76 (1 spec.), 2211F-8/77 (1 spec.), 2533F-7/76 (1 spec.), 2533H-7/76 (2 spec.), 2535-9/75 (1 spec., USNM 55837).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., 10.0 m (FSBC I 23683, 1 paratype), 10.6 m (FSBC I 23684, 1 paratype).

DESCRIPTION:

Length, 9.5+ mm (previously reported to 10 mm); width, to 0.8 mm (previously reported to 0.45 mm). Body small, dorsoventrally flattened, uncolored in preservative; all specimens incomplete with up to 28 setigers. Prostomium trapezoidal, widest anteriorly, with four lentigerous eyes (Figure 30-86a), with or without dorsal and ventral ocular spots. Antennae arising near anterior margin of prostomium; median antenna with 10-20 articles, lateral antennae with 9-15 articles. Palps separated, pointed, as long as prostomium. Dorsal tentacular cirri with 12-24

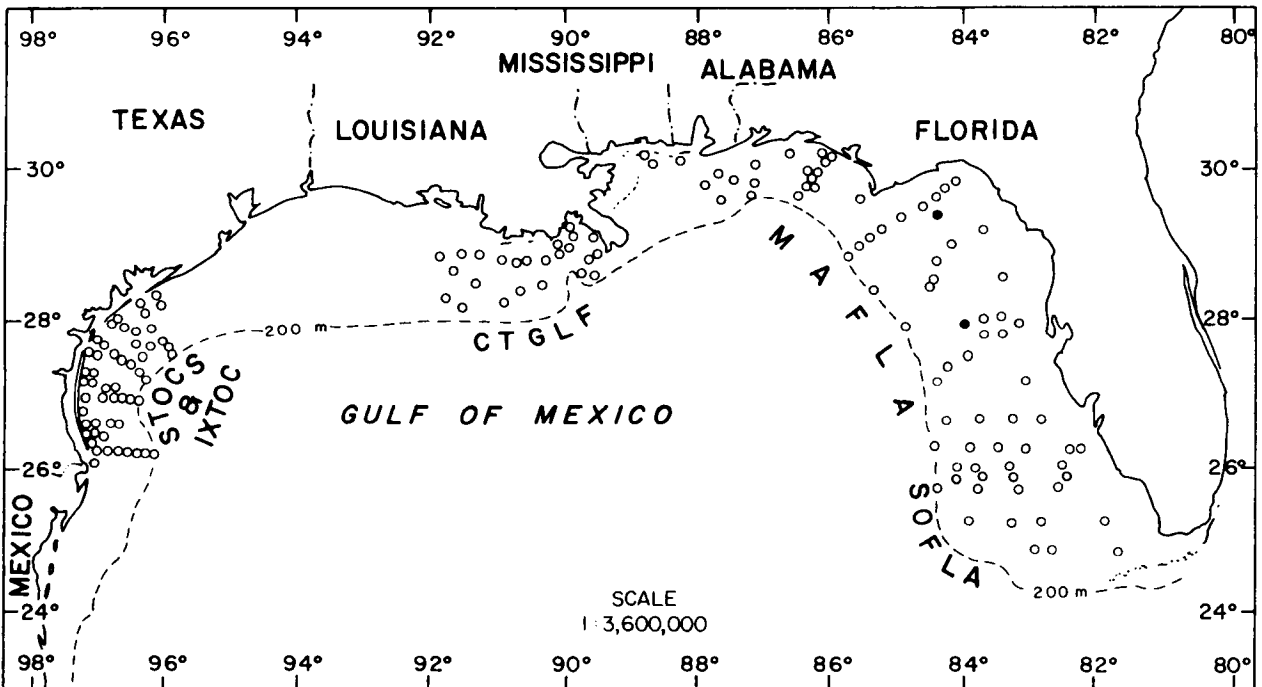


Figure 30-87. Distribution of *Trypanosyllis coeliaca* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

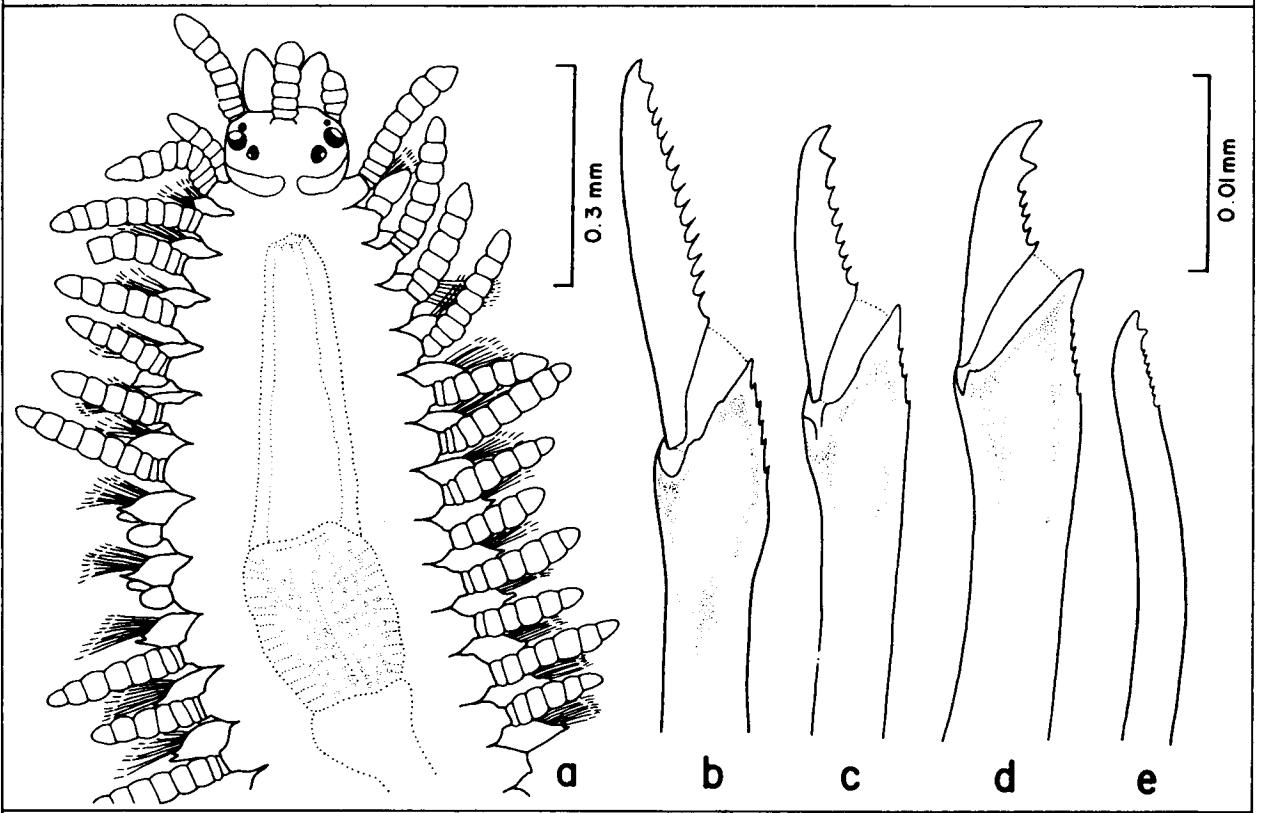


Figure 30-88. *Trypanosyllis coeliaca*: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, same, from midbody region; e, inferior simple seta; scale same for b-e.

articles, ventral ones with 8-13 articles. Dorsal cirri with 7-36 articles anteriorly, 5-16 articles in midbody region. Ventral cirri ovoid, extending beyond parapodia anteriorly. Anal cirri articulated. Composite falcigers with finely serrate, bidentate blades, teeth oblique (Figure 30-86b,c) to hooked (Figure 30-86d,e), superior blades slightly longer than inferior ones. Inferior simple seta slender, bidentate, present on far posterior setigers. Acicula thick, emergent, numbering 1-2 per parapodium. Pharynx extending from setigers 1-4 to 8-11; trepan not observed. Proventricle extending from setigers 8-12 to 11-14, with 14-18 muscle cell rows. Pharynx 1.3-3 times longer than proventricle; proventricle 1.5-2 times longer than wide. Sexually modified segments from setiger 47 in largest specimen.

REMARKS: T. parvidentata is newly reported from the Gulf of Mexico. This species was originally confused with T. vittigera in the BLM-MAFLA collections.

PREVIOUSLY REPORTED HABITAT: 11 m; coarse calcareous sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Several stations off central and northwestern Florida (Figure 30-85); 37-117 m; coarse sand, clayey silt.

DISTRIBUTION: East coast of Florida, Gulf of Mexico.

Trypanosyllis coeliaca Claparède, 1868
Figures 30-87, 88a-e

Trypanosyllis coeliaca Claparède, 1868:513, pl. 13, fig. 3.

Trypanosyllis coeliaca--Fauvel, 1923:270, fig. 101f-h.

Trypanosyllis coeliaca--Perkins, 1981:1155, figs. 33a-g, 34a-f.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211H-7/76 (2 spec.), 2211J-7/76 (1 spec.), 2853G-8/77 (1 spec., USNM 65696).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., (1 spec., FSBC I 20684), 10.0 m (1 spec., FSBC I 20689), 10.3 m (1 spec., FSBC I 20690).

DESCRIPTION:

Length, to 5.3 mm (previously reported to 12 mm); width, to 0.6 mm (previously reported to 0.65 mm). Body broad, dorsoventrally flattened, complete specimens with up to 72 setigers. Prostomium rectangular to pentagonal, with four large, lentigerous eyes (Figure 30-88a), and small ventral ocular spots. Antennae inserted at anterior margin of prostomium; median antenna with 5-10 articles, lateral antennae with 3-9 articles. Palps blunt, basally separated, shorter than prostomium. Dorsal tentacular cirri with 8-10 articles, ventral ones with 5-7 articles. Dorsal cirri with 5-13 articles anteriorly, 4-8 articles in midbody region. Ventral cirri fusiform to auricular, extending beyond parapodia. Anal cirri missing. Composite falcigers with finely serrate, bidentate blades (Figure 30-88b,c), teeth becoming more pronounced posteriorly (Figure 30-88d). Inferior simple seta bidentate (Figure 30-88e), present on far posterior setigers. Acicula stout, emergent, usually numbering two anteriorly, one posteriorly. Pharynx extending from setigers 1-4 to 7-9; trepan not observed. Proventricle extending from setigers 7-10 to 10-13, with 14-18 muscle cell rows. Pharynx 1.2-2 times longer than proventricle; proventricle 1.3-2 times longer than

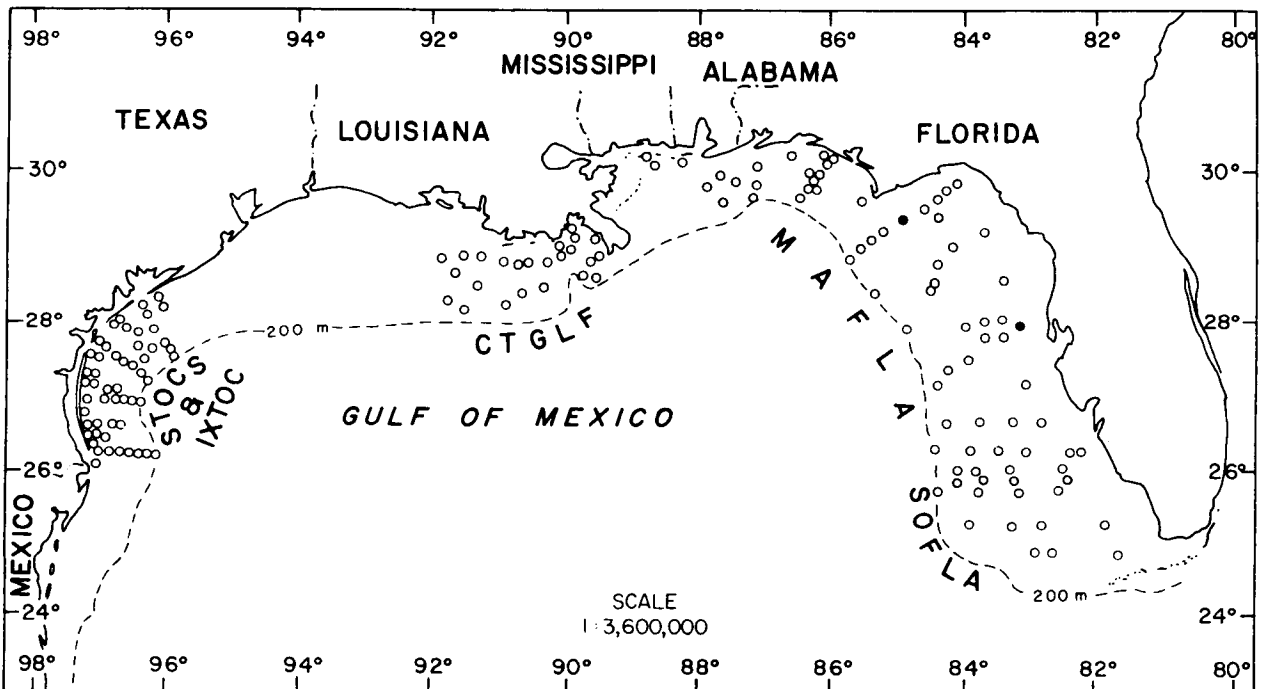


Figure 30-89. Distribution of *Trypanosyllis* sp. C on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

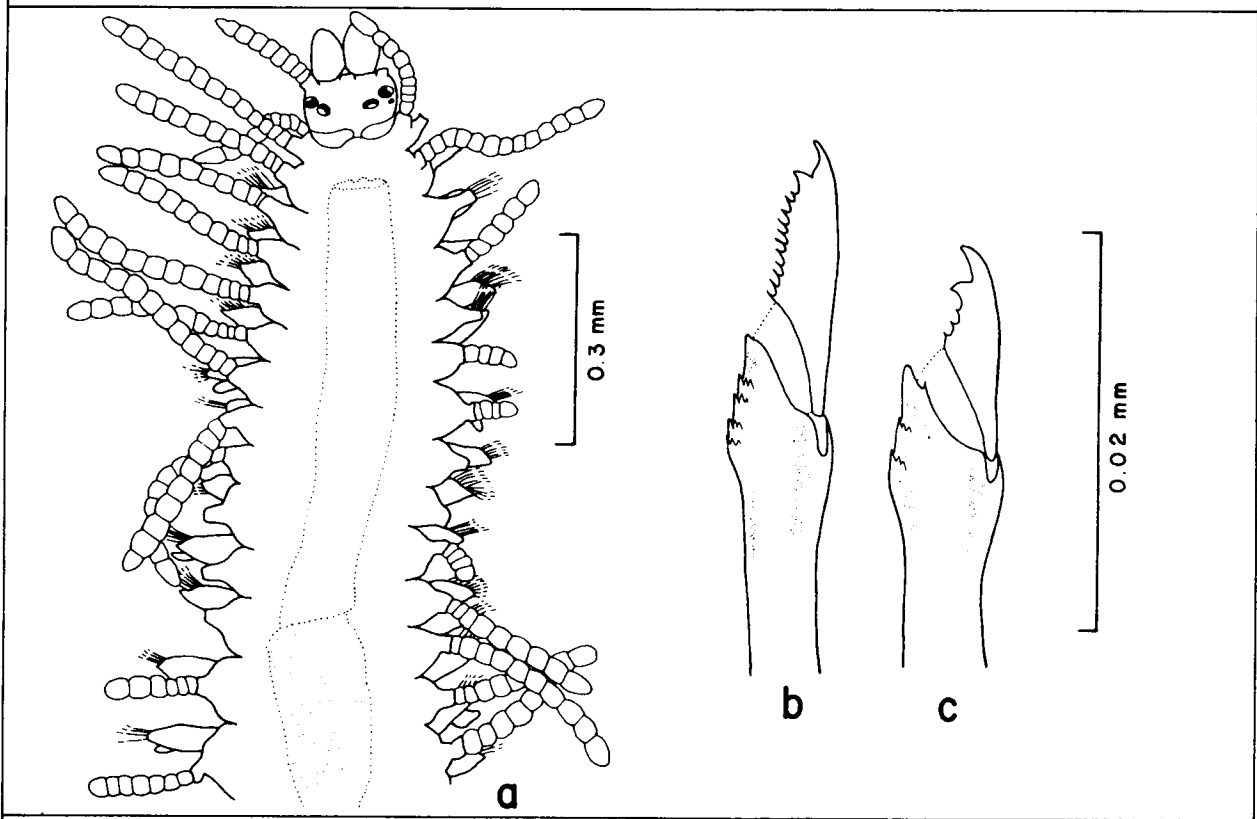


Figure 30-90. *Trypanosyllis* sp. C: a, anterior end; b, superior falciger from midbody region; c, inferior falciger from same.

wide. One Florida specimen (FSBC I 20684) with sexual stolon of 28 setigers.

PREVIOUSLY REPORTED HABITAT: To 11 m; coarse calcareous sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off Florida (Figure 30-87); 29-43 m; coarse sand.

DISTRIBUTION: Mediterranean Sea, eastern North Atlantic, Florida, Gulf of Mexico, Solomon Islands.

Trypanosyllis sp. C
Figures 30-89, 90a-c

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2207F-11/77 (1 spec.), 2423B-7/76 (1 spec., USNM 65698).

DESCRIPTION:

Length, to 4.8 mm; width, to 0.4 mm. Body long, narrow, slightly flattened, uncolored in preservative; one specimen complete with 74 setigers. Prostomium square, with four lentigerous eyes (Figure 30-90a). Antennae arising near anterior margin of prostomium; median antenna broken, lateral antennae with eight articles. Palps separated, shorter than prostomium. Dorsal tentacular cirri with 9-13 articles, ventral ones with 7-8 articles. Dorsal cirri inflated distally, with 7-11 articles anteriorly, 5-8 articles in midbody region. Ventral cirri auricular, often extending beyond parapodia. Anal cirri paired, with seven articles. Composite falcigers with finely serrate, bidentate blades (Figure 30-90b,c); superior blades slightly longer than inferior ones anteriorly, becoming similar in length posteriorly. Simple setae not observed. Acicula thick, emergent, numbering 1-2 per parapodium. Pharynx extending to setigers 10-11; trepan not observed. Proventricle extending from setigers 11-12 to 13-14, with 15-16 muscle cell rows. Pharynx 2.6-3 times longer than proventricle; proventricle about twice longer than wide.

REMARKS: Trypanosyllis sp. C is unusual in having a relatively narrow, nearly cylindrical body. For this reason, BLM-MAFLA specimens were originally confused with other genera.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off Florida (Figure 30-89); 19 m; fine-very fine sand, silty fine sand.

Genus Xenosyllis Marion and Bobretzky, 1875

TYPE SPECIES: Syllis scabra Ehlers, 1864.

REFERENCES:

Fauvel, 1923:272.

Laubier, 1968:90.

Fauchald, 1977a:84.

DIAGNOSIS: Prostomium with three antennae and basally separated palps. Nuchal organs as large, curved ridges along posterior border of prostomium. Two pairs of tentacular cirri. Antennae, tentacular and dorsal cirri with moniliform or collared articles. Dorsum covered with small papillae or ridges. Pharynx unarmed.

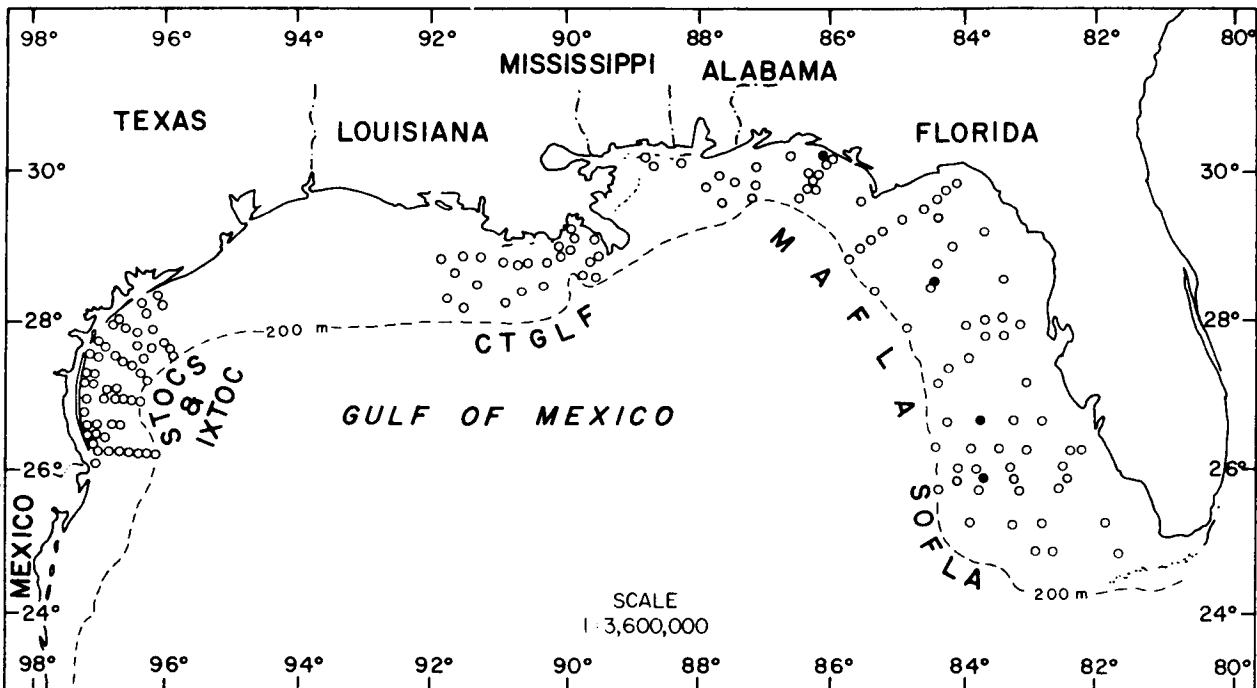


Figure 30-91. Distribution of *Xenosyllis* cf. *scabra* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

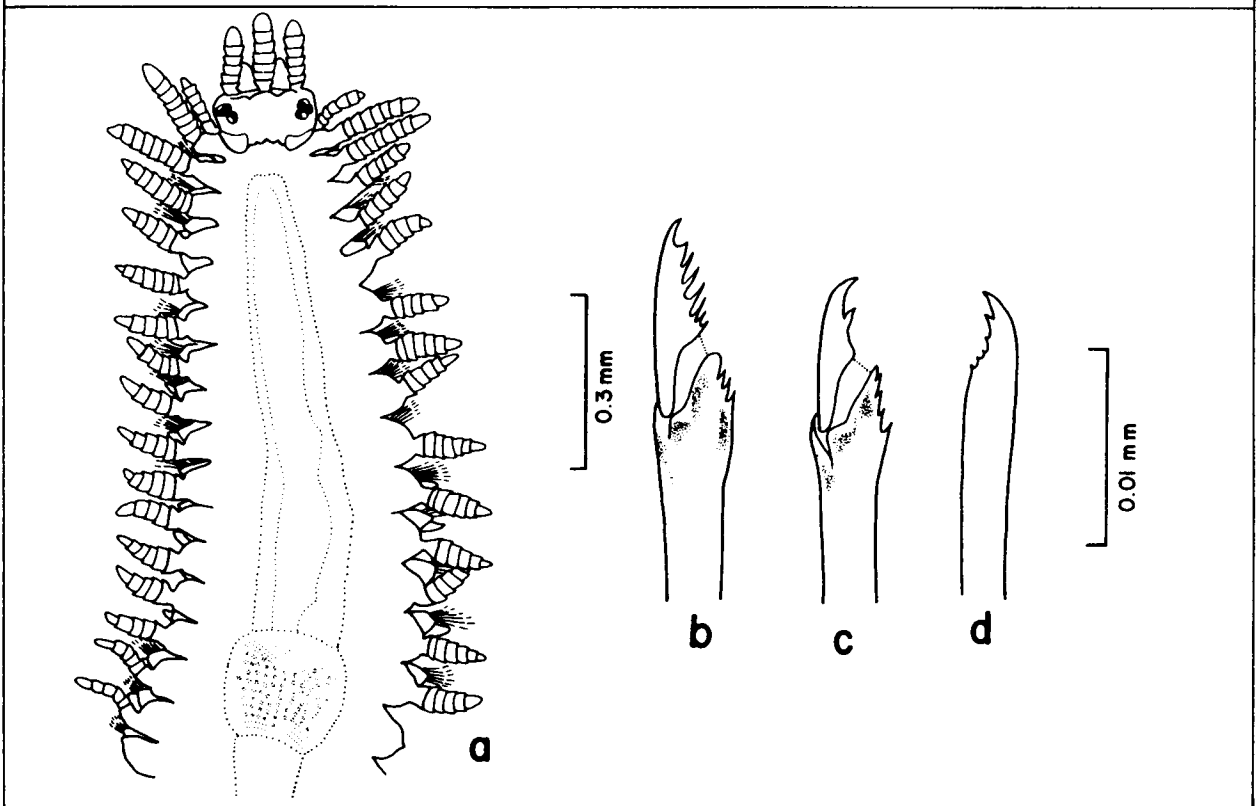


Figure 30-92. *Xenosyllis* cf. *scabra*: a, anterior end; b, superior falciger from midbody region; c, inferior falciger from same; d, inferior simple seta; scale same for b-d.

Xenosyllis cf. *scabra* (Ehlers, 1864)
Figures 30-91, 92a-d

Xenosyllis scabra--Fauvel, 1923:272, fig. 102a-c.
Xenosyllis scabra--Laubier, 1968:90; figs. 4-6.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 18B-11/80 (2 spec., USNM 75313), No data (1 spec.); MAFLA 2315A-8/76 (5 spec.), 2528-11/77 (1 spec.), 2528-11/77 (1 spec., USNM 55836).

DESCRIPTION:

Length, to 4.0 mm (previously reported to 4.5 mm); width, to 0.9 mm. Body fairly small, flattened; complete specimens with up to 45 setigers. Prostomium and dorsal body surface covered with small papillae or transverse rows of short ridges. Prostomium trapezoidal, broader and lobed anteriorly, with four lentigerous, contiguous eyes (Figure 30-92a), with or without ventral eyespots. Antennae arising at anterior margin of prostomium; median antenna with 6-10 articles, lateral antennae with about five articles. Palps ovoid, completely separated, shorter than prostomium, inserted anteroventrally. Nuchal organs lightly pigmented. Peristomium with small occipital flap having crenulate anterior margin. Dorsal tentacular cirri with 8-11 articles, ventral ones with 5-7 articles. Antennae and tentacular cirri constricted basally, sometimes inflated distally, articles often collared. Dorsal cirri short, spindle-shaped, with 4-10 articles. Ventral cirri auricular, extending beyond parapodia. Pygidium with two triangular lobes. Superior composite falcigers with short, bidentate blades having long, coarse serrations (Figure 30-92b). Inferior composite falcigers with blades smooth below subterminal tooth (Figure 30-92c). Inferior simple seta slender, bidentate (Figure 30-92d), present posteriorly. Acicula slender anteriorly, becoming stout posteriorly, usually not emergent. Pharynx extending to setigers 4-14; trepan not observed. Proventricle extending from setigers 5-15 to 8-18, with 14 (12-16) muscle cell rows. Pharynx up to four times length of proventricle; proventricle approximately same length as width. Eggs present from setiger 38 in one specimen.

REMARKS: *Xenosyllis* cf. *scabra* in BLM-MAFLA collections was originally confused with several species of *Trypanosyllis*. These specimens differ from *X. scabra* in lacking inferior unidentate falcigers.

PREVIOUSLY REPORTED HABITAT: 20-25 m; coralligenous and calcareous sediments.

GULF OF MEXICO BLM-OCS OCCURRENCE: Scattered records off Florida (Figure 30-91); 37-91 m; coarse to medium sand, silty fine sand.

DISTRIBUTION: Mediterranean, Atlantic, ?Gulf of Mexico.

Genus *Eurysyllis* Ehlers, 1864

TYPE SPECIES: *Eurysyllis tuberculata* Ehlers, 1864.

REFERENCES:

Fauvel, 1923:271.

Laubier, 1968:94.

Hartmann-Schröder, 1971:164.

Fauchald, 1977a:82.

DIAGNOSIS: Body short, dorsoventrally flattened. Prostomium with three antennae. Two pairs of tentacular cirri. Antennae, tentacular and

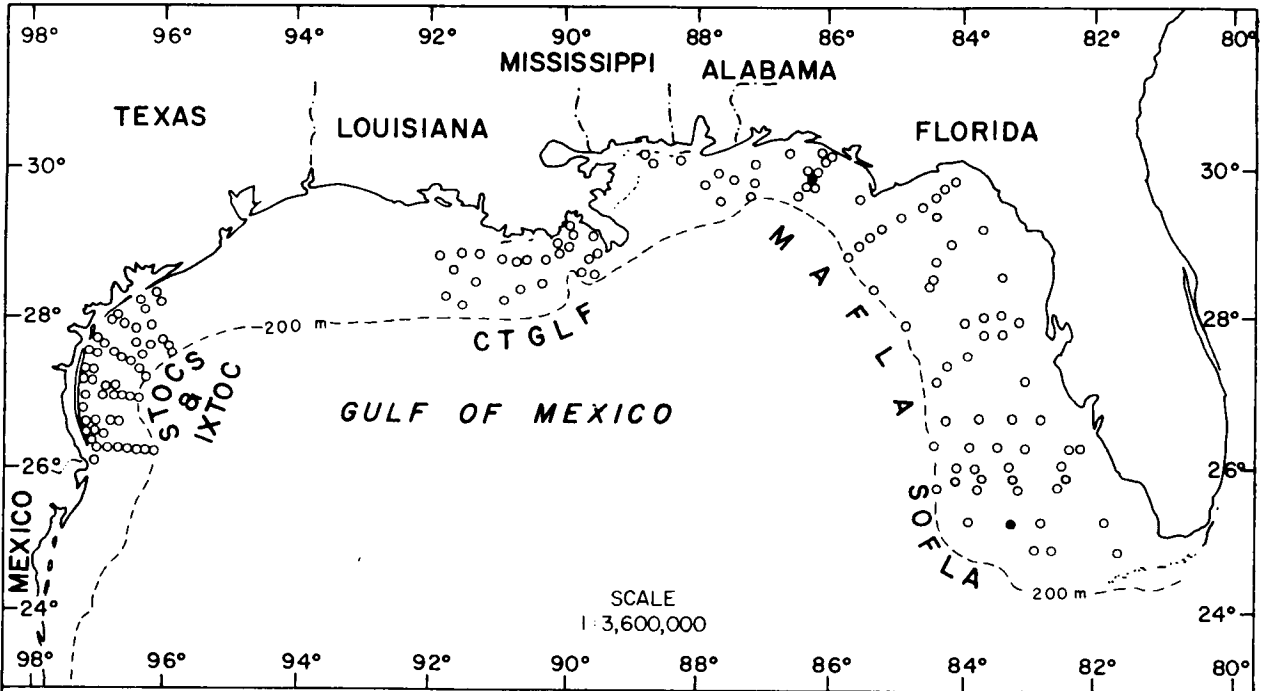


Figure 30-93. Distribution of *Eurysyllis tuberculata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

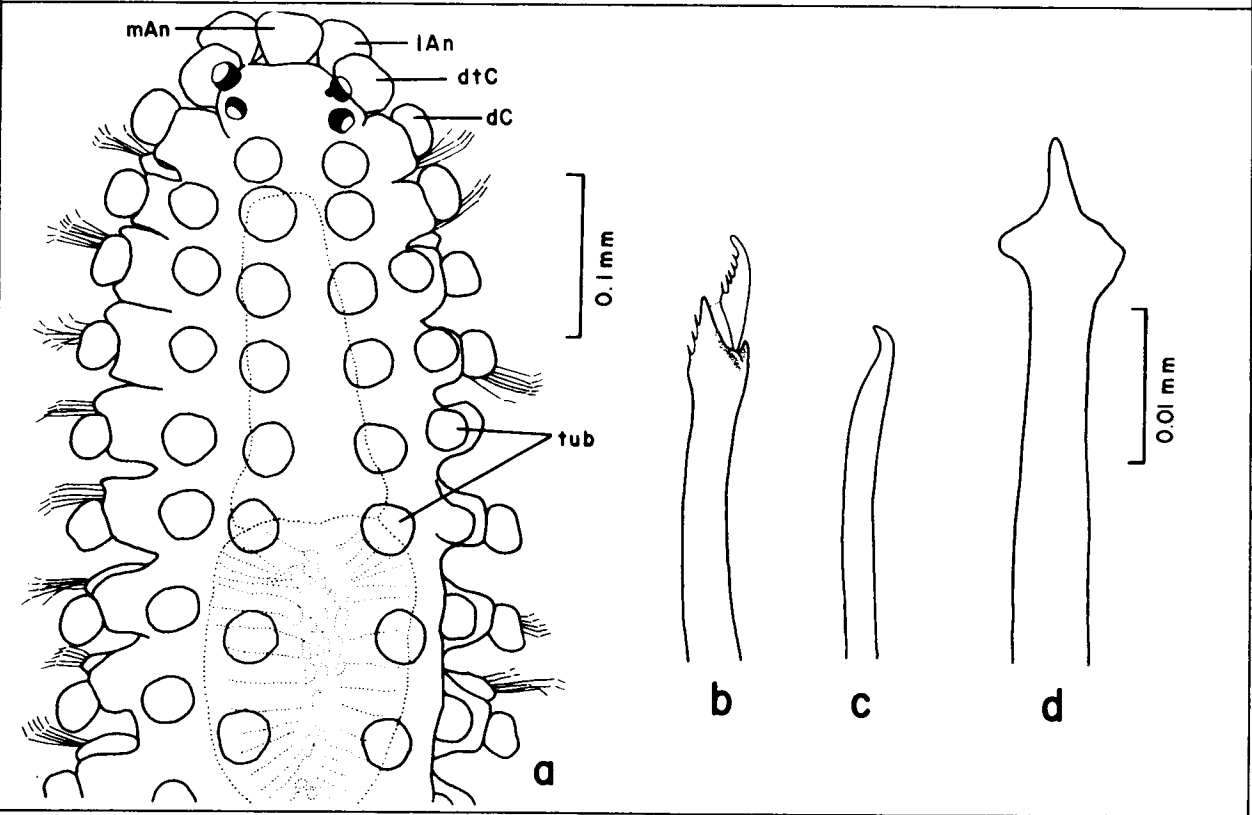


Figure 30-94. *Eurysyllis tuberculata*: a, anterior end; b, falciger; c, inferior simple seta; d, aciculum; scale same for b-d.

dorsal cirri globular. Dorsum with longitudinal rows of globular tubercles. Pharynx with middorsal tooth; trepan questionably present.

Eurysyllis tuberculata Ehlers, 1864
Figures 30-93, 94a-d

Eurysyllis tuberculata--Fauvel, 1923:271, fig. 1011-o.
Eurysyllis tuberculata--Laubier, 1968:93, figs. 7, 8, 10c.
Eurysyllis tuberculata--Hartmann-Schröder, 1971:164.
Eurysyllis tuberculata--Day, 1973:34.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 24C-11/80 (2 spec., USNM 75278); MAFLA 2533B-6/75 (1 spec., USNM 65671).

DESCRIPTION:

Length, to 1.8 mm (previously reported to 5 mm); width, to 0.3 mm. Body short, flattened; complete specimen with 36 setigers. Prostomium wider than long, anteriorly lobed; with four dorsal, lentigerous eyes (Figure 30-94a); with or without two small ocular spots medial to eyes. Antennae globular; median antenna arising from anterior border of prostomium; lateral antennae arising anteroventrally. Palps ventral, globular, contiguous. Dorsal tentacular cirri arising from extensions of peristomium lateral to eyes; ventral tentacular cirri smaller, not visible dorsally. Dorsal cirri globular, situated on stout segmental extensions. Ventral cirri auricular, generally fused with setal lobes; tips free, extending beyond parapodia. Anal cirri paired, globular. Dorsum with four longitudinal rows of large, globular tubercles. Composite falcigers with short, finely serrate, unidentate blades (Figure 30-94b). Posterior setigers with slender, falcate inferior simple seta (Figure 30-94c). Superior simple seta absent. Acicula distally expanded, mucronate (Figure 30-94d). Pharynx extending to setigers 2-5, with middorsal tooth; trepan not visible. Proventricle barrel-shaped, extending from setigers 2-6 to 5-8, with about 15 muscle cell rows. Posterior region of one specimen from setiger 25 beginning modification into sexual stolon.

REMARKS: Many BLM-MAFLA specimens identified as *Eurysyllis tuberculata* are in fact *Plakosyllis quadrioculata*; see "REMARKS" under *P. quadrioculata*. *E. tuberculata* is newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: Intertidal to a few meters; vermetid reefs.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off northwestern and southwestern Florida (Figure 30-93); 67-88 m; coarse to medium sand.

DISTRIBUTION: North Atlantic to Mediterranean, Red Sea, Madeira, North Carolina, Gulf of Mexico.

Genus *Plakosyllis* Hartmann-Schröder, 1956

TYPE SPECIES: *Plakosyllis brevipes* Hartmann-Schröder, 1956.

REFERENCES:

Hartmann-Schröder, 1956:87.

Fauchald, 1977a:83.

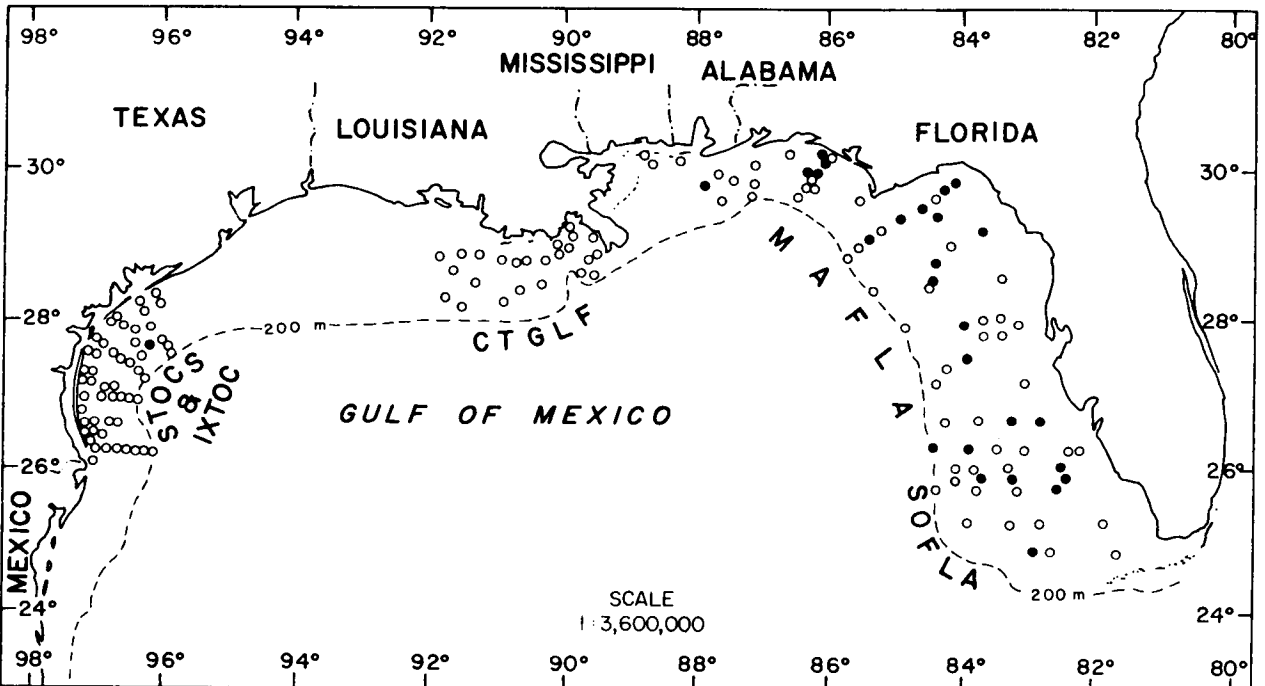


Figure 30-95. Distribution of *Plakosyllis quadrioculata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

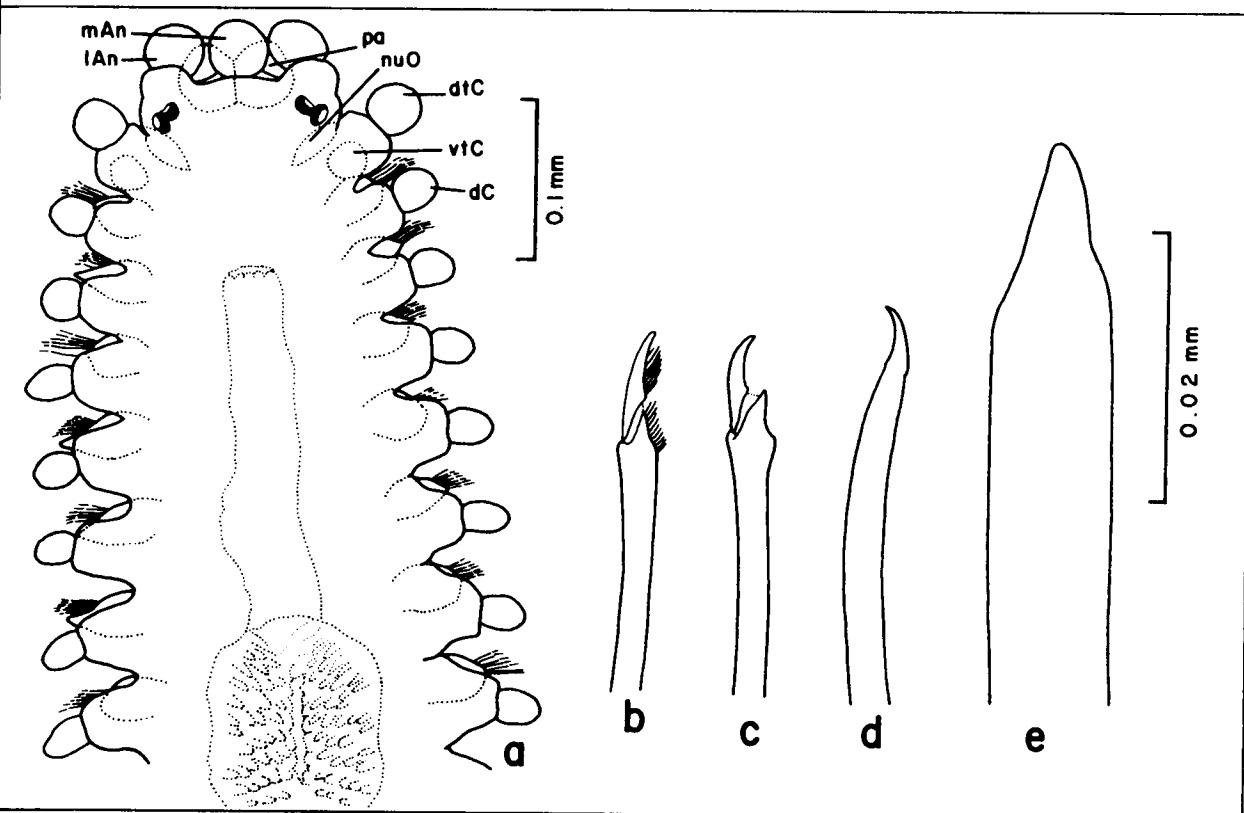


Figure 30-96. *Plakosyllis quadrioculata*: a, anterior end; b, superior falciger; c, inferior falciger; d, inferior simple seta; e, aciculum; scale same for b-e.

DIAGNOSIS: Body short, dorsoventrally flattened. Prostomium with three antennae. Two pairs of tentacular cirri. Antennae, tentacular, and dorsal cirri globular. Dorsum without large, globular tubercles. Pharynx with middorsal tooth and trepan.

Plakosyllis quadrioculata Perkins, 1981
Figures 30-95, 96a-e

Plakosyllis quadrioculata Perkins, 1981:1108, figs. 11a-f, 12a-i.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2D-11/80 (2 spec., USNM 75298); MAFLA 2315A-8/76 (2 spec.), 2423J-7/76 (2 spec., USNM 65685), 2423-11/77 (1 spec.), 2530D-6/75 (2 spec.), 2853D-9/77 (1 spec.); STOCS HR1-5 F/76 (1 spec., USNM 75221), HR1-2 11/76 (1 epitoke, USNM 75220).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., 11.8 m (USNM 60219, holotype).

DESCRIPTION:

Length, to 1.9 mm (previously reported to 3.0 mm); width, to 0.5 mm (previously reported to 0.3 mm). Body small, flattened; complete specimens with up to 54 setigers. Prostomium rectangular, wider than long, lobed anteriorly (Figure 30-96a), with four small, lentigerous eyes, two dorsal and two ventral. Antennae globular; median antenna arising from anterior margin of prostomium, lateral antennae arising anteroventrally. Palps ventral, globular, contiguous. Nuchal organs as ventrolateral ridges between prostomium and peristomium, not visible dorsally. Dorsal tentacular cirri arising on extensions of peristomium lateral to eyes; ventral tentacular cirri smaller, not visible dorsally. Dorsal cirri globular, situated on stout cirrophores. Ventral cirri auricular, extending beyond parapodia. Anal cirri paired, globular. Dorsum smooth, or with segmental ridges, or with longitudinal rows of low rounded tubercles or internal gland-like structures. Superior composite falcigers numbering 2-4 per fascicle, with short, serrate, unidentate blades and serrate shaft-heads (Figure 30-96b). Inferior composite falcigers with smooth blades (Figure 30-96c): shaft-heads smooth or with few

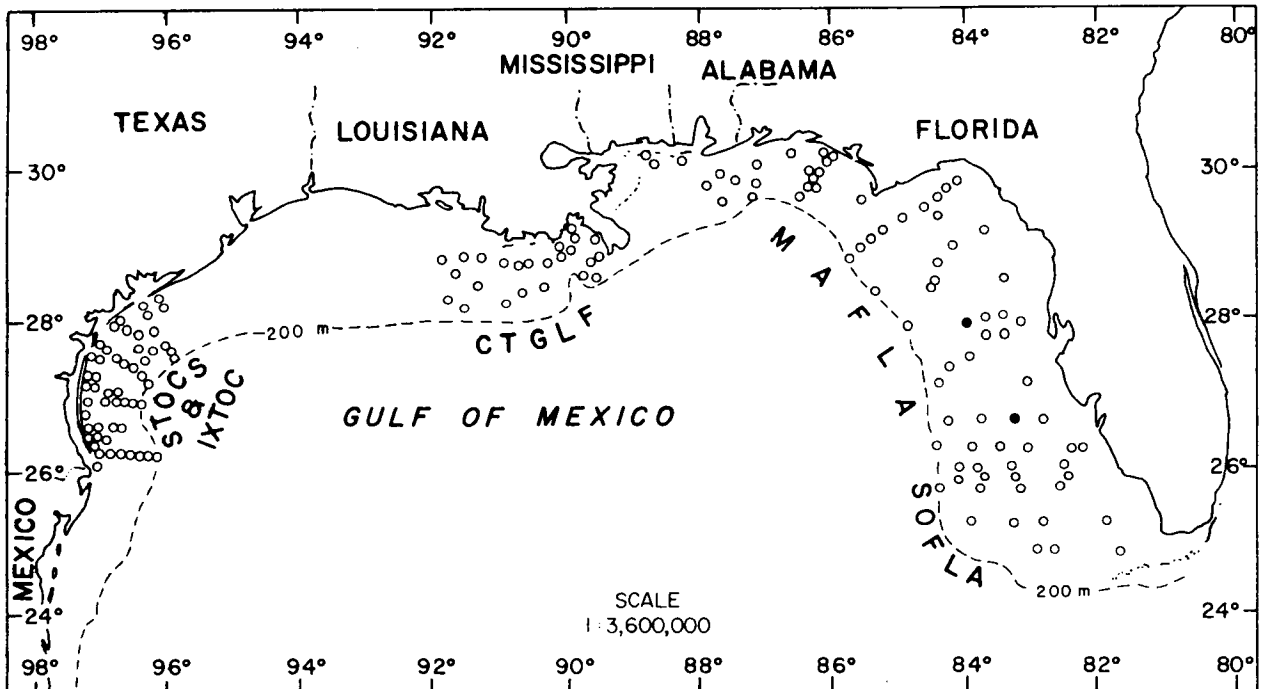


Figure 30-97. Distribution of *Opisthosyllis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

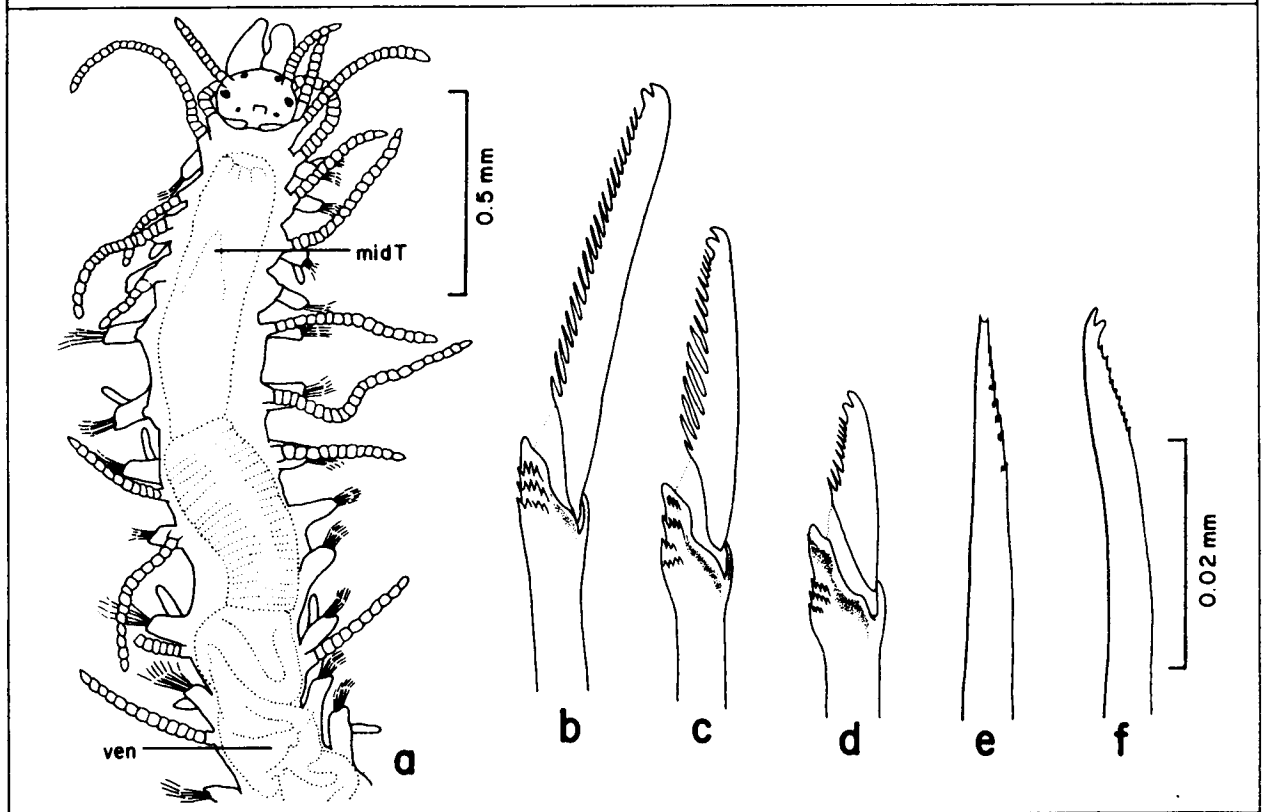


Figure 30-98. *Opisthosyllis* sp. A: a, anterior end; b-d from midbody region; b, superior falciger; c, medial falciger; d, inferior falciger; e, superior simple seta; f, inferior simple seta; scale same for b-f.

PREVIOUSLY REPORTED HABITAT: 11 m; coarse calcareous sand.
GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf and one station off Texas (Figure 30-95); 10-168 m; coarse to very fine sand, silty fine to very fine sand.
DISTRIBUTION: East coast of Florida, Gulf of Mexico.

Genus *Opisthosyllis* Langerhans, 1879

TYPE SPECIES: *Opisthosyllis brunnea* Langerhans, 1879.

REFERENCES:

Imajima, 1966:223.

Day, 1967:252.

Fauchald, 1977a:83.

DIAGNOSIS: Prostomium with three antennae. Occipital flap present or absent. Nuchal organs as small, ciliated lobes between prostomium and peristomium. Two pairs of tentacular cirri. Antennae, tentacular and dorsal cirri articulated. Pharynx with smooth margin, middorsal tooth located medially.

Opisthosyllis sp. A
Figures 30-97, 98a-f

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4B-7/81 (1 spec., USNM 75295); MAFLA 2211G-8/77 (1 spec.), 2211F-2/78 (1 spec., USNM 65678; 1 spec.).

DESCRIPTION:

Length, to 22.8 mm; width, to 0.6 mm. Body long, slender; complete specimen with 106 setigers. Prostomium rounded, with four lentigerous eyes, and 1-2 ocular spots at base of palps (Figure 30-98a). Median antenna with 11-13 articles, lateral antennae with 8-12 articles. Palps moderately long, triangular, fused basally. Dorsal tentacular cirri with 12-17 articles, ventral ones with 9-11 articles. Dorsal cirri long, slender, with 8-24 articles; alternating slightly in length. Ventral cirri digitiform, usually extending beyond parapodia. Composite falcigers with bidentate blades having fine to coarse serrations, and distal teeth set close together (Figure 30-98b-d); blade-length ratios 1.7-2:1 anteriorly, 1.9-2.2:1 medially, 2:1 posteriorly. Superior simple seta minutely bifid (Figure 30-98e); inferior simple seta bidentate (Figure 30-98f); both present only on far posterior setigers. Pharynx extending to setigers 7-8, with massive, acutely pointed, middorsal tooth located medially. Proventricle extending from setigers 8-9 to 10-11, with 23-27 muscle cell rows. Ventricle long, convoluted (Figure 30-98a), occupying 6-8 setigers. Pharynx 1.3-1.9 times length of proventricle; proventricle 2.5-2.9 times longer than wide.

REMARKS: *Opisthosyllis* sp. A was confused with *Syllides* in BLM-MAFLA collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off central Florida (Figure 30-97); 43-56 m, coarse to medium sand.

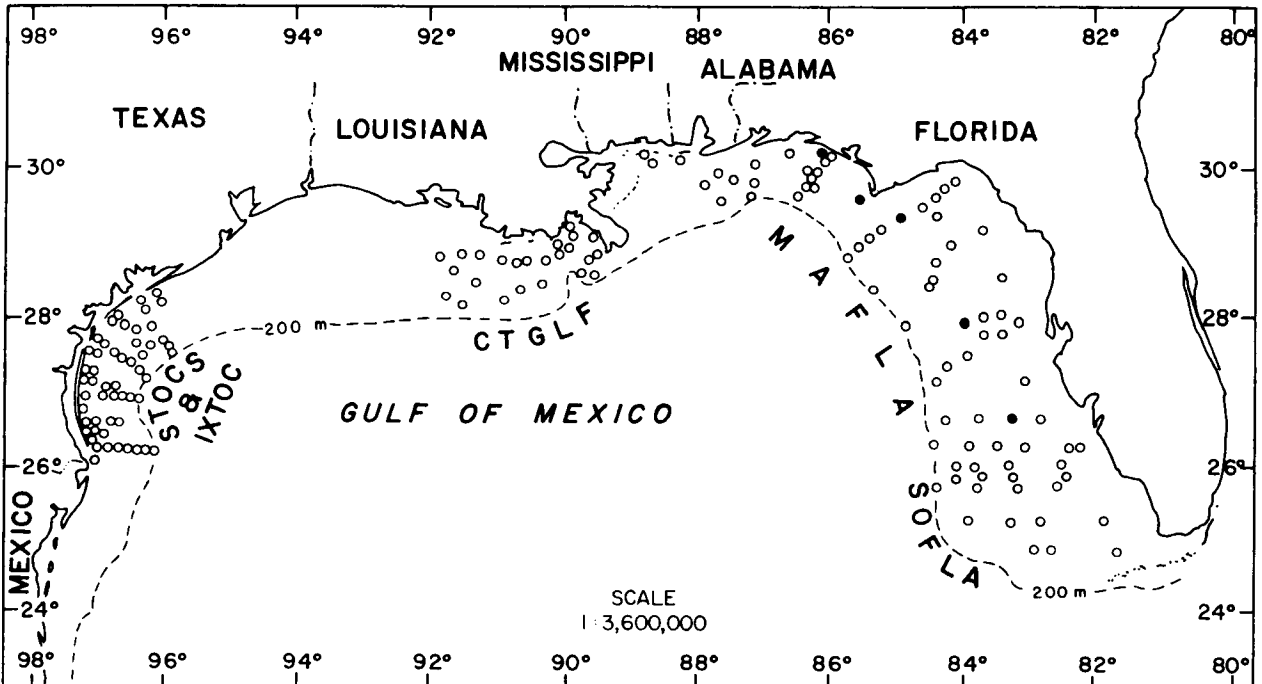


Figure 30-99. Distribution of *Branchiosyllis exilis* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

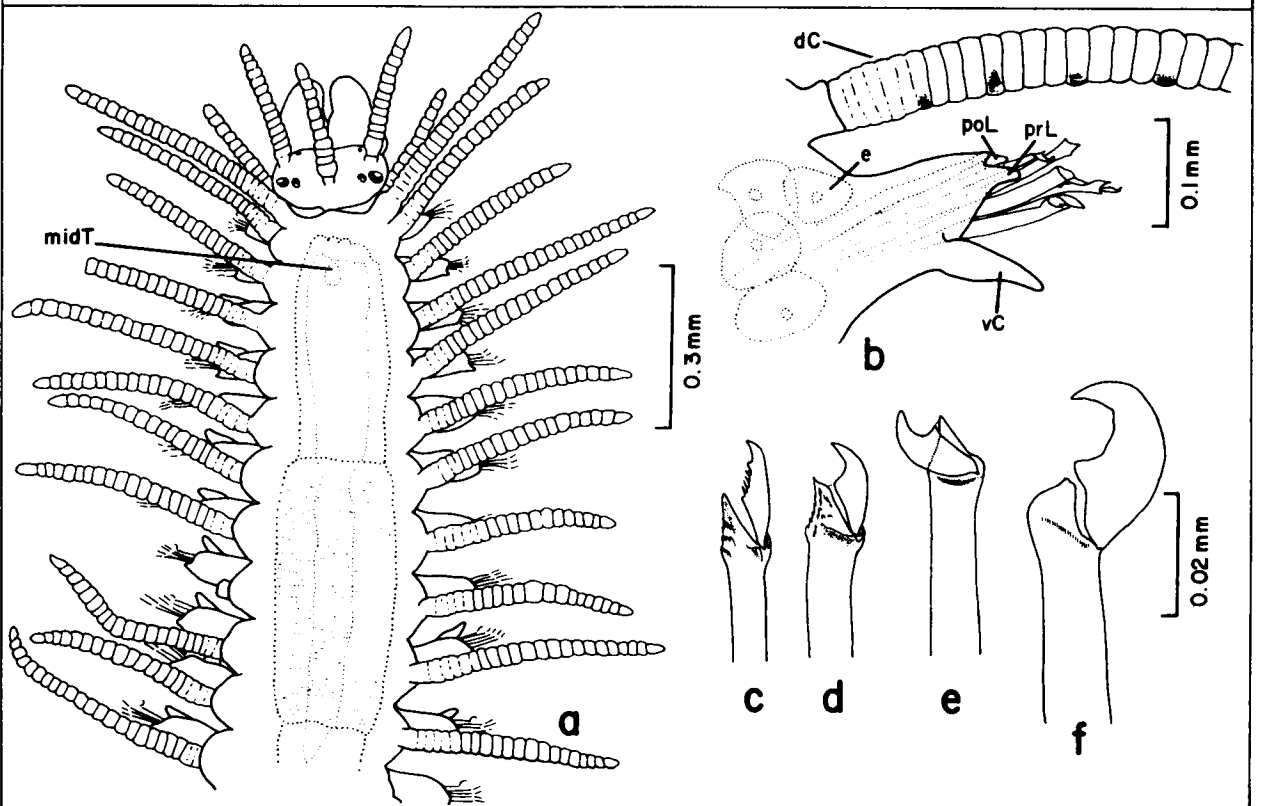


Figure 30-100. *Branchiosyllis exilis*: a, anterior end; b, parapodium from midbody region, anterolateral view; c, superior falciger from anterior region; d, inferior falciger from same; e, same, from midbody region; f, same, from posterior region; scale same for c-f.

Genus Branchiosyllis Ehlers, 1887

TYPE SPECIES: Branchiosyllis oculata Ehlers, 1887.

REFERENCE:

Fauchald, 1977a:81.

DIAGNOSIS: Prostomium with three antennae. Two pairs of tentacular cirri. Antennae, tentacular and dorsal cirri articulated. Parapodia with slender, digitiform pre- and postsetal lobes; with or without accessory branchial lobes. Some or all setae with claw-like blades.

REMARKS: Hartmann-Schröder (1978:60) presented a table comparing six species of Branchiosyllis.

Key to the Gulf of Mexico BLM-OCS Species of Branchiosyllis

- 1a. Setae consisting of bidentate falcigers (Figure 30-100c) and claw-like falcigers (Figure 30-100e,f); accessory branchial lobes absent; body cylindrical. Branchiosyllis exilis, p. 30-105
- 1b. Setae consisting entirely of claw-like falcigers (Figure 30-102c,d); accessory branchial lobes present (Figure 30-102b); body usually flattened. Branchiosyllis oculata, p. 30-107

Branchiosyllis exilis (Gravier, 1900)
Figures 30-99, 100a-f

Syllis (Typosyllis) exilis Gravier, 1900:160, pl. 10, fig. 19.

Syllis (Typosyllis) fuscoturata Augener, 1922:43.

Branchiosyllis exilis--Westheide, 1974:60, fig. 26A-H.

Branchiosyllis exilis--Hartmann-Schröder, 1978:57, figs. 15-20.

Branchiosyllis exilis--Uebelacker, 1982b:583.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4B-5/81 (1 spec., USNM 75273); MAFLA 2211C-7/76 (3 spec.), 2211H-7/76 (4 spec.), 2211I-7/76 (1 spec.), 2423D-2/78 (1 spec.), 2528-11/77 (2 spec., USNM 55818), 2854E-8/77 (13 spec.).

Supplementary Material:

Florida--Tortugas, S. W. Channel, H. Augener ID. (syntypes of Syllis fuscoturata, MNHUB 6598, 2 spec.); Tampa Bay, IEC 723 TB 001-013, 27°37.1'N, 82°59.7'W, 15 m, off sponge (1 spec.).

Georgia--Sapelo Whistle, 21 m, M. Pettibone ID. (1 spec., USNM 33167).

DESCRIPTION:

Length, to 19.0 mm (previously reported to 19 mm); width, to 1.3 mm (previously reported to 0.8 mm). Body long, cylindrical; complete specimens with up to 77 setigers. Prostomium oval, with four small, lentigerous eyes, and two small ocular spots at base of palps (Figure 30-100a). Median antenna arising between eyes, having 10-24 articles; lateral antennae arising from anterior margin of prostomium, having 12-15 articles. Palps thick, rounded, free to base. Nuchal organs as slender ridges in groove between prostomium and peristomium. Tentacular and dorsal cirri moderately long; dorsal tentacular cirri with 20-27 articles, ventral ones with 8-13 articles. Anterior dorsal cirri with 10-50 articles, medial ones with 7-54 articles, number of articles increasing with size of specimen; every fourth article usually

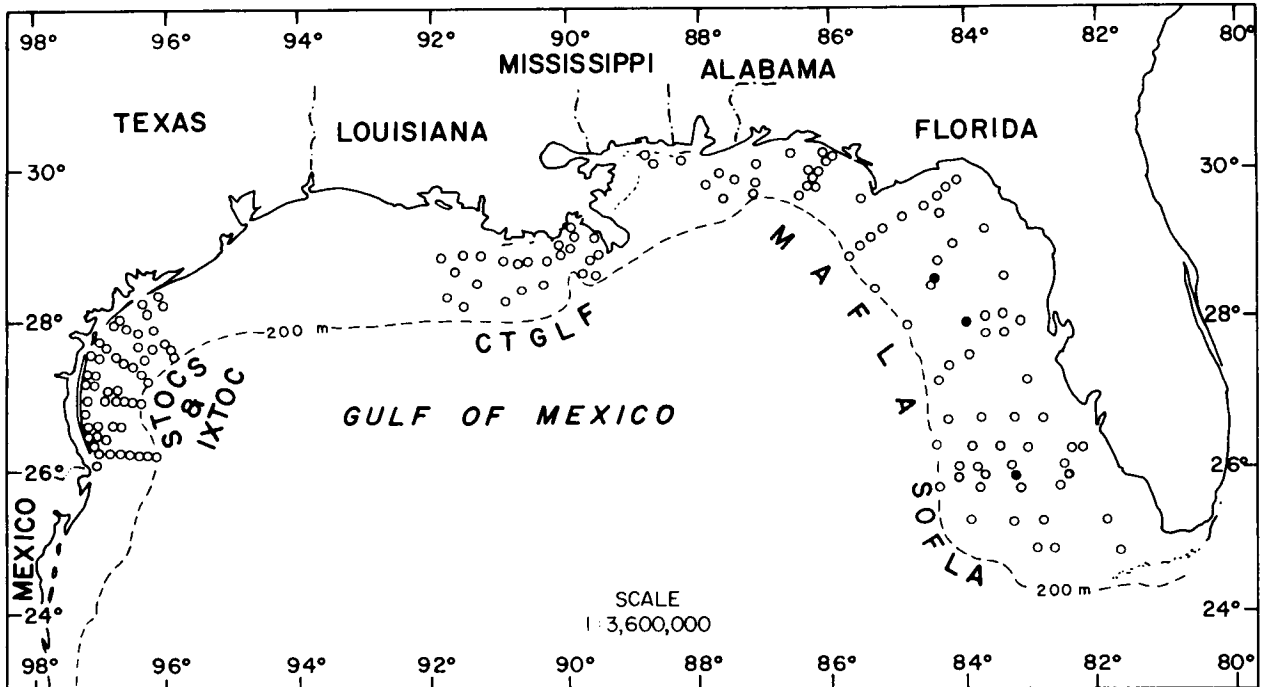


Figure 30-101. Distribution of *Branchiosyllis oculata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

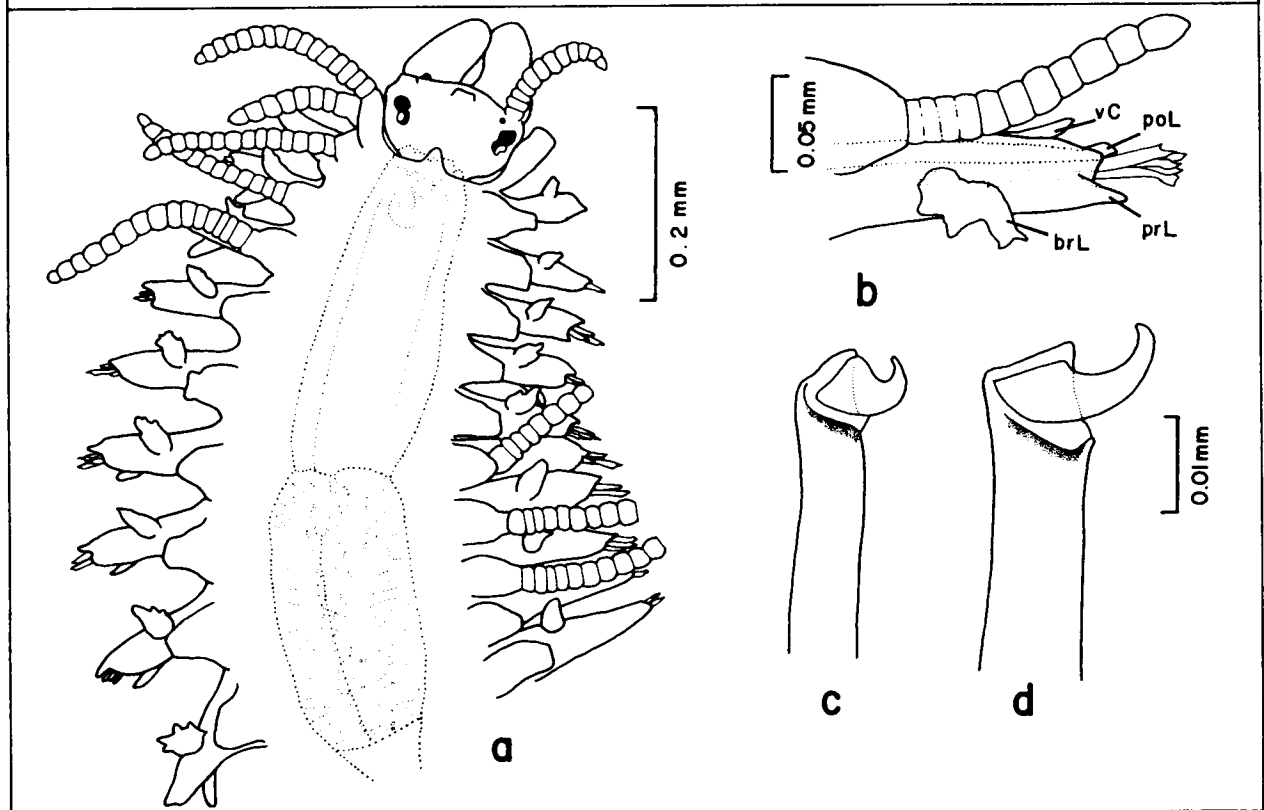


Figure 30-102. *Branchiosyllis oculata*: a, anterior end; b, parapodium from posterior region, dorsal view; c, superior falciger from posterior region; d, inferior falciger from same; scale same for c, d.

pigmented. Ventral cirri tapered, not extending beyond parapodia. Anal cirri paired, with 11-20 articles. Parapodia with short, slender, pre- and postsetal lobes; without accessory branchial lobes (Figure 30-100b). Superior composite falcigers bidentate (Figure 30-100c); inferior falcigers bidentate anteriorly, becoming unidentate and more strongly falcate (Figure 30-100d) after first few setigers, claw-like (Figure 30-100e) in midbody region, and enlarged (Figure 30-100f) posteriorly. Claw-like setae usually replacing bidentate falcigers entirely in medial to posterior regions. Simple setae absent. Pharynx extending to setigers 2-9. Proventricle extending from setigers 3-10 to 5-17, with 39 (32-41) muscle cell rows.

PREVIOUSLY REPORTED HABITAT: Littoral; under stones, among sponges and ophiuroids.

GULF OF MEXICO BLM-OCS OCCURRENCE: Several stations off central and northwestern Florida (Figure 30-99); 19-56 m; coarse to medium-fine sand, silty fine sand.

DISTRIBUTION: Circumtropical.

Branchiosyllis oculata Ehlers, 1887
Figures 30-101, 102a-d

- Branchiosyllis oculata Ehlers, 1887:148, pl. 39, figs. 1-7.
Branchiosyllis oculata--Hartman, 1942b:44, figs. 62, 63.
Branchiosyllis oculata--Hartmann-Schröder, 1978:60 [table].
Branchiosyllis oculata--Pawlik, 1983:65, figs. 3, 5-8.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 16E-7/81 (1 juv., USNM 75274); MAFLA 2211C-7/76 (1 spec., USNM 65665), 2315A-2/78 (1 spec.).

DESCRIPTION:

Length, 3.0+ mm (previously reported to 21 mm); width, 0.5+ mm. Body moderately flattened, uncolored to dark brown in preservative; larger specimens incomplete with up to 44 setigers. Prostomium broader than long, trilobed anteriorly, with four small, lentigerous eyes located near lateral margins (Figure 30-102a), with or without ocular spots. Median antenna of juvenile with four articles. Lateral antennae arising at anterior margin of prostomium, with 4-11 articles. Palps short, rounded anteriorly, fused basally. Nuchal organs as paired lobes along posterolateral margins of prostomium. Peristomial margin usually with mid-anterior projection. Dorsal tentacular cirri with 12-37 articles, ventral ones with 4-12 articles. Anterior dorsal cirri with 5-27 articles, medial ones with 4-24 articles. Ventral cirri digitiform, not extending beyond parapodia. Anal cirri of juvenile with six articles. Accessory branchial lobes irregularly globular, located on dorsal surface of parapodia (Figure 30-102b). Parapodia with digitiform presetal lobes and shorter postsetal lobes. Setae all composite falcigers with claw-like blades (Figure 30-102c), inferiormost seta largest (Figure 30-102d). Pharynx extending to setigers 2-6; with large, subterminal, middorsal tooth. Proventricle extending from setigers 2-7 to 4-11, with 21-24 muscle cell rows.

REMARKS: Some specimens of *B. oculata* in BLM-OCS collections were originally identified as *Typosyllis* cf. *fuscoturata*.

PREVIOUSLY REPORTED HABITAT: to 5 m; on sponges.

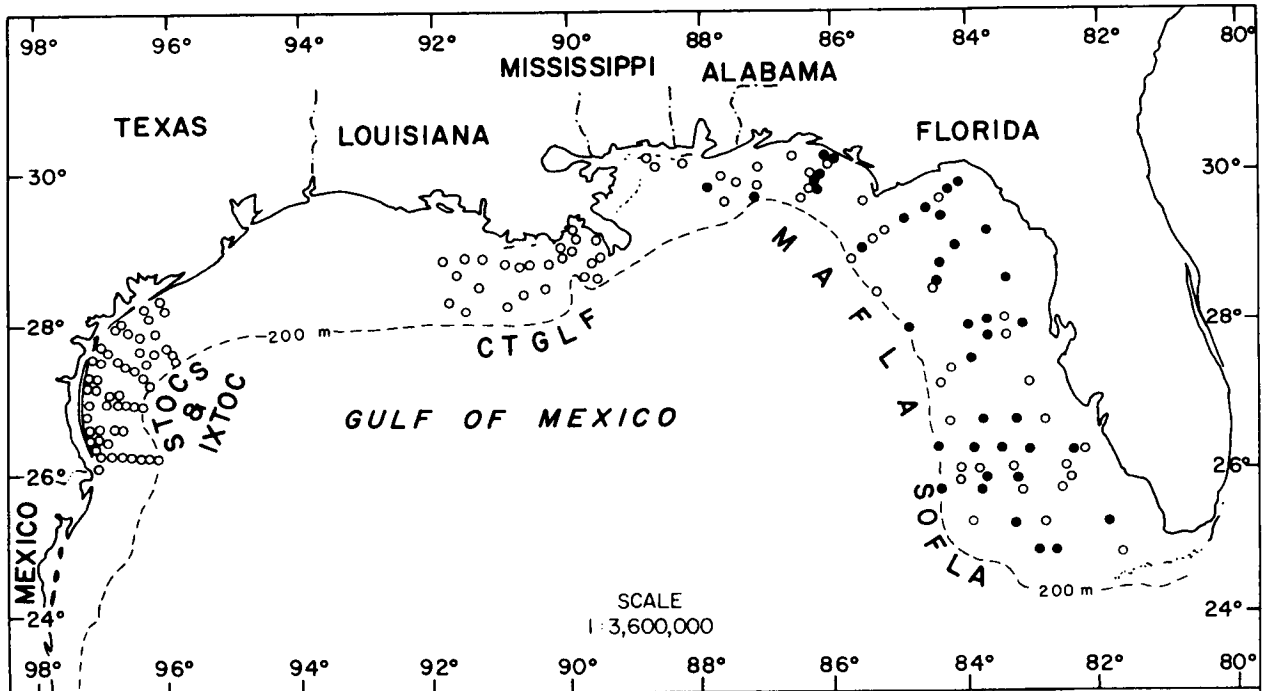


Figure 30-103. Distribution of *Haplosyllis spongicola* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

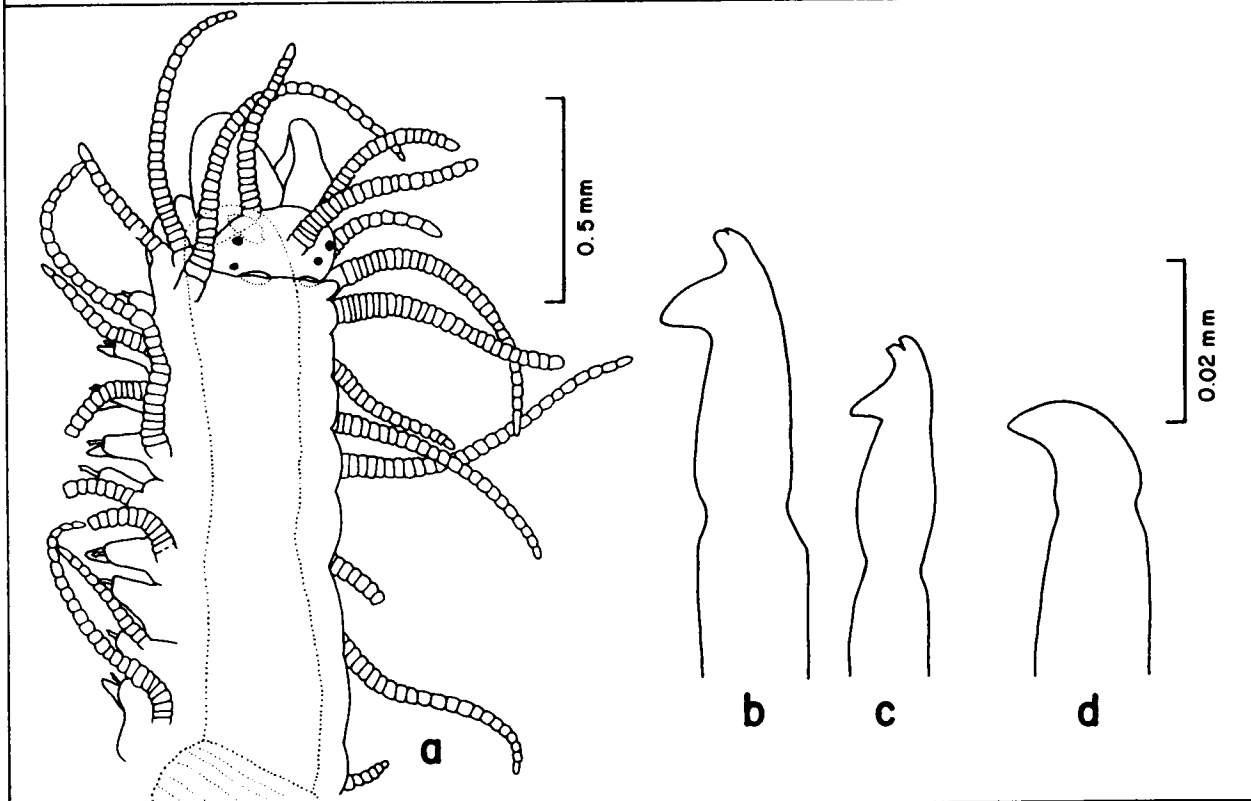


Figure 30-104. *Haplosyllis spongicola*: a, anterior end; b-d from posterior region; b, superior seta; c, medial seta; d, aciculum; scale same for b-d.

GULF OF MEXICO BLM-OCS OCCURRENCE: Three scattered records off western Florida (Figure 30-101); 38-54 m; coarse to fine sand, silty fine sand.
DISTRIBUTION: West Indies, Key West, Tortugas, Gulf of Mexico, Bermuda.

Genus *Haplosyllis* Langerhans, 1879

TYPE SPECIES: *Syllis spongicola* Grube, 1855.

REFERENCES:

Imajima, 1966:220.

Fauchald, 1977a:82.

Uebelacker, 1982a:856.

DIAGNOSIS: Prostomium with three antennae. Two pairs of tentacular cirri. Antennae, tentacular, and dorsal cirri articulated. All setae simple. Pharynx with anterior middorsal tooth. Usually commensal.

REMARKS: Hartmann-Schröder (1978:52) presented a table comparing eight currently known species and subspecies of *Haplosyllis*.

Haplosyllis spongicola (Grube, 1855)

Figures 30-103, 104a-d

Syllis (*Haplosyllis*) *spongicola*--Fauvel, 1923:257, fig. 95a-d.

Haplosyllis spongicola--Imajima, 1966:220, fig. 38a-h.

Syllis (*Haplosyllis*) *spongicola*--Day, 1967:240, fig. 12.1.e-i; 1973:29.

Syllis (*Haplosyllis*) *spongicola*--Gardiner, 1976:139, fig. 12i-k.

Haplosyllis spongicola--Hartmann-Schröder, 1978:52 [table].

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 24E-7/81 (5 spec., USNM 75294); MAFLA 2315A-8/76 (1 spec.), 2528-11/77 (5 spec., USNM 55822), 2528K-11/77 (3 spec.).

DESCRIPTION:

Length, 4.6+ mm (previously reported to 50 mm); width, 0.8 mm. Body cylindrical, incomplete with up to 34 setigers. Prostomium oval, with four small, lentigerous eyes (Figure 30-104a). Median antenna with 21-37 articles, lateral antennae with 8-21 articles. Palps thick, rounded. Nuchal organs as small, thin slits between prostomium and peristomium. Dorsal tentacular cirri with 19-32 articles, ventral ones with 9-10 articles. Anterior dorsal cirri with 6-45 articles. first pair longest. Dorsal cirri of midbody region alternating in length, shorter ones with 4-8 articles, longer ones with 8-13 articles. Ventral cirri ovoid, extending beyond parapodia anteriorly. Anal cirri long, smooth to indistinctly articulated. Setae all simple, distally bifid, or worn and appearing smooth, with large subterminal boss (Figure 30-104b,c). Acicula numbering 2-3 per parapodium anteriorly, decreasing to 1-2 medially, becoming enlarged and strongly hooked posteriorly (Figure 30-104d). Pharynx extending to setigers 5-8, with 8-11 soft marginal papillae, and subterminally located middorsal tooth. Proventricle extending from setigers 6-8 to 10-15, with 24-70 muscle cell rows.

REMARKS: Three specimens each contain a juvenile endoparasitic arabeliid, *Labrorostratus luteus* Uebelacker, 1978.

PREVIOUSLY REPORTED HABITAT: Intertidal to 400 m; from sponges, ascidians; on rocks, pilings.

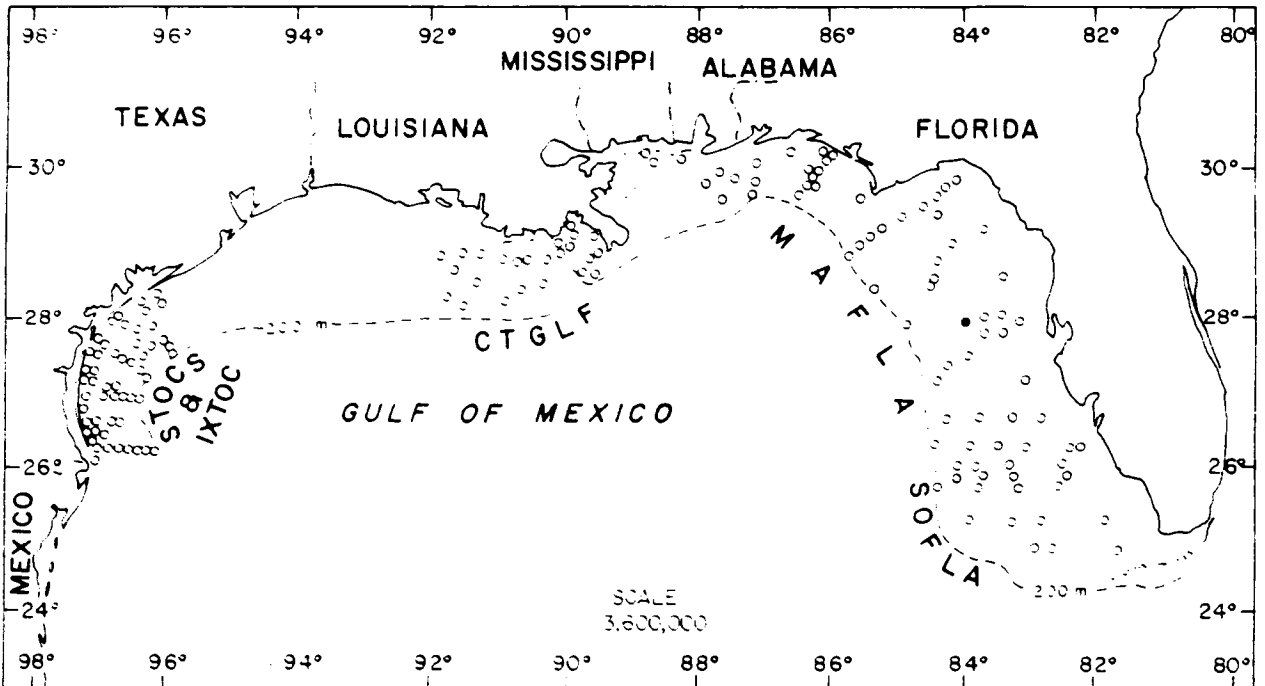


Figure 30-105. Distribution of *Semiosyllis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (○) in BLM-DCS monitoring programs. (●) in BLM-DCS monitoring programs.

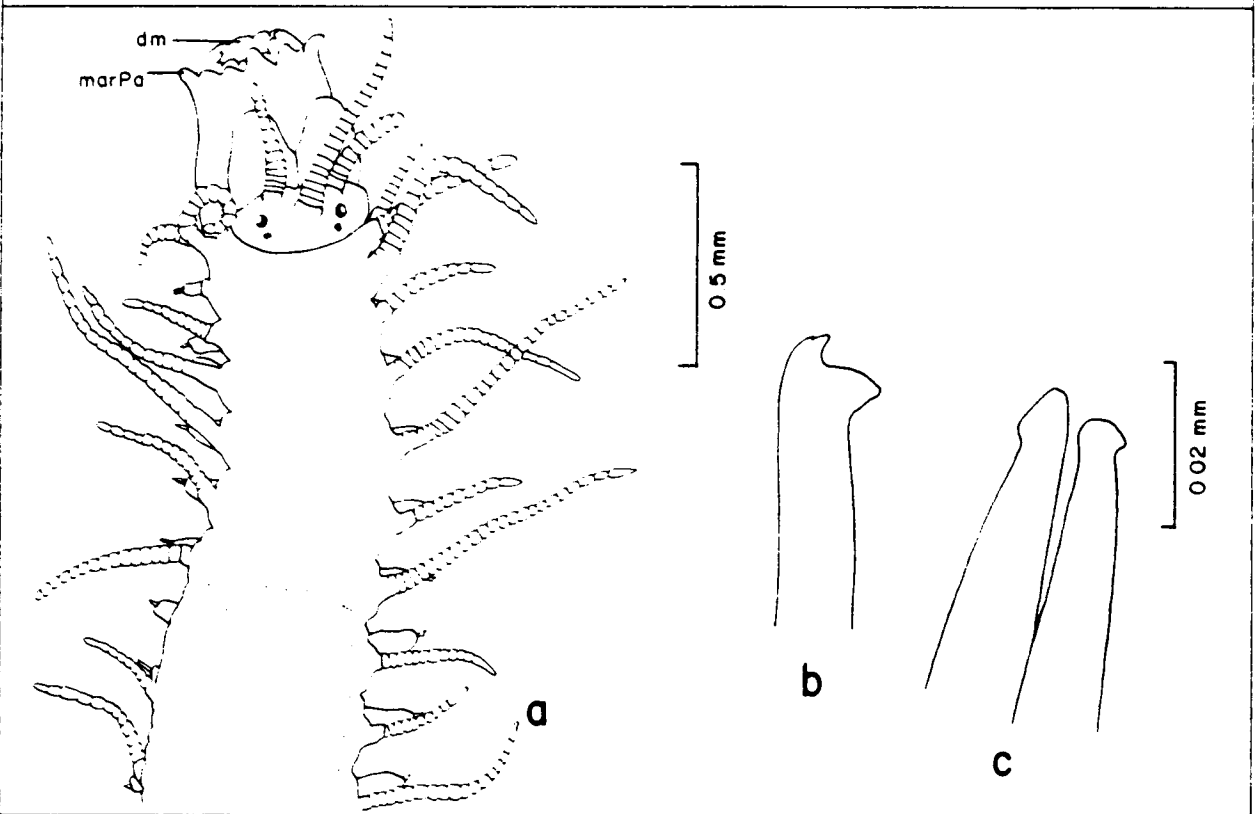


Figure 30-106. *Semiosyllis* sp. A. a, anterior end; b, c from midbody region; b, seta; c, acicula; scale same for b, c.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in northeastern Gulf (Figure 30-103); 10-189 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey sandy silt, silty clay.

DISTRIBUTION: Cosmopolitan.

Genus *Geminosyllis* Imajima, 1966

TYPE SPECIES: *Trypanosyllis* (*Trypanoseta*) *ohma* Imajima and Hartman, 1964.

REFERENCES:

Imajima, 1966:233.

Fauchald, 1977a:82.

DIAGNOSIS: Prostomium with three antennae. Two pairs of tentacular cirri. Antennae, tentacular, and dorsal cirri articulated. All setae simple. Anterior margin of pharynx denticulate.

Geminosyllis sp. A

Figures 30-105, 106a-c

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211G-7/76 (3 spec., USNM 65674; 6 spec.).

DESCRIPTION:

Length, to 5.5 mm; width, 0.5 mm. Body slender, cylindrical; complete specimens with up to 39 setigers. Prostomium oval, with four small, lentigerous eyes (Figure 30-106a). Median antenna with 12-19 articles, lateral antennae with 10-11 articles. Palps thick, blunt, slightly longer than prostomium. Dorsal tentacular cirri with 13-15 articles, ventral ones with 8-9 articles. Anterior dorsal cirri with 8-23 articles, first pair longest; medial dorsal cirri usually alternating in length, with short cirri having 1-4 articles and long ones having 3-8 articles. Ventral cirri digitiform anteriorly, becoming ovoid and smaller posteriorly; not extending beyond parapodia. Anal cirri long, smooth, with 2-3 articles. Setae all simple, bifid terminally, with a large boss subterminally (Figure 30-106b). Acicula numbering 2-3 per parapodium anteriorly, 1-2 posteriorly; slightly knobbed or bent distally, not enlarged or strongly hooked (Figure 30-106c). Pharynx extending to setigers 5-7, with 9-10 marginal papillae, and denticulate margin having 9-10 bluntly rounded, chitinized teeth; middorsal tooth apparently absent. Proventricle extending from setigers 6-8 to 9-11, with 32 (29-34) muscle cell rows.

REMARKS: This genus is newly reported from the Gulf of Mexico. *Geminosyllis* sp. A is similar in appearance to *Haplosyllis spongicola*, but differs from the latter in having a denticulate pharyngeal margin, slender and distally knobbed acicula, and a shorter proventricle. *Geminosyllis* sp. A differs from *G. ohma* (Imajima and Hartman, 1964) from Japan, in having shorter antennae, tentacular and dorsal cirri, pharynx and proventricle; and in lacking the additional middorsal pharyngeal tooth.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off central Florida (Figure 30-105); 43 m; coarse sand.

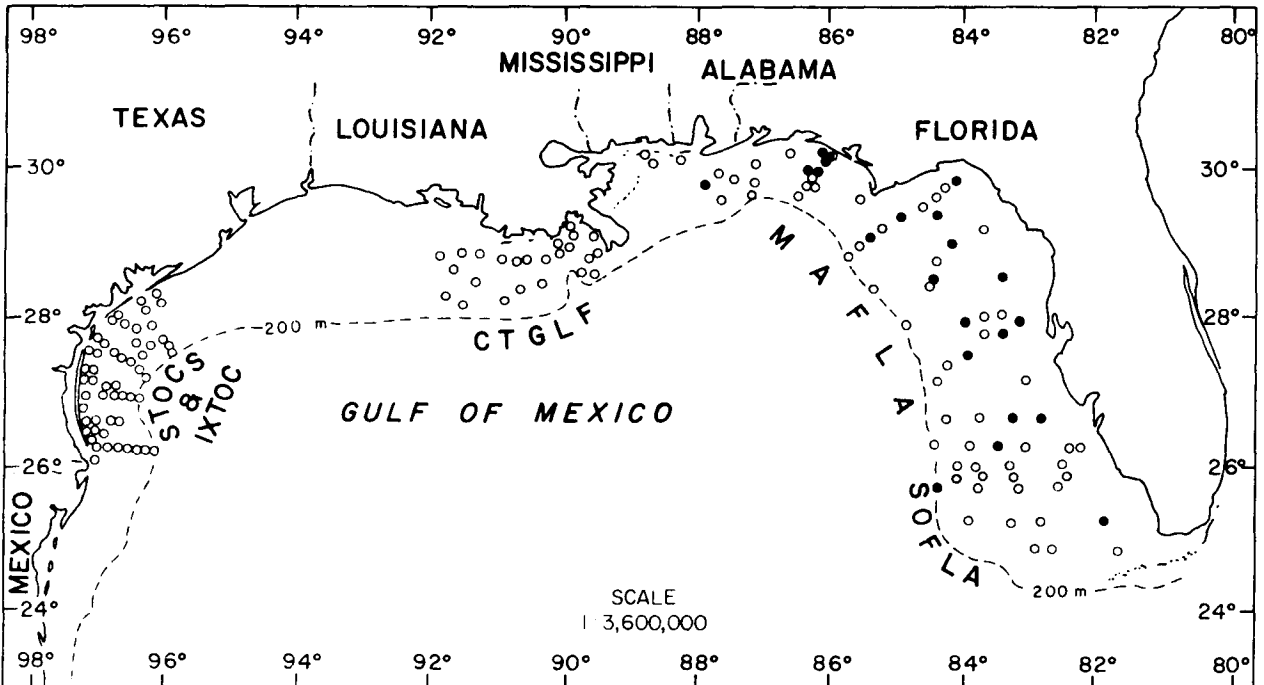


Figure 30-107. Distribution of *Dentatisyllis carolinae* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

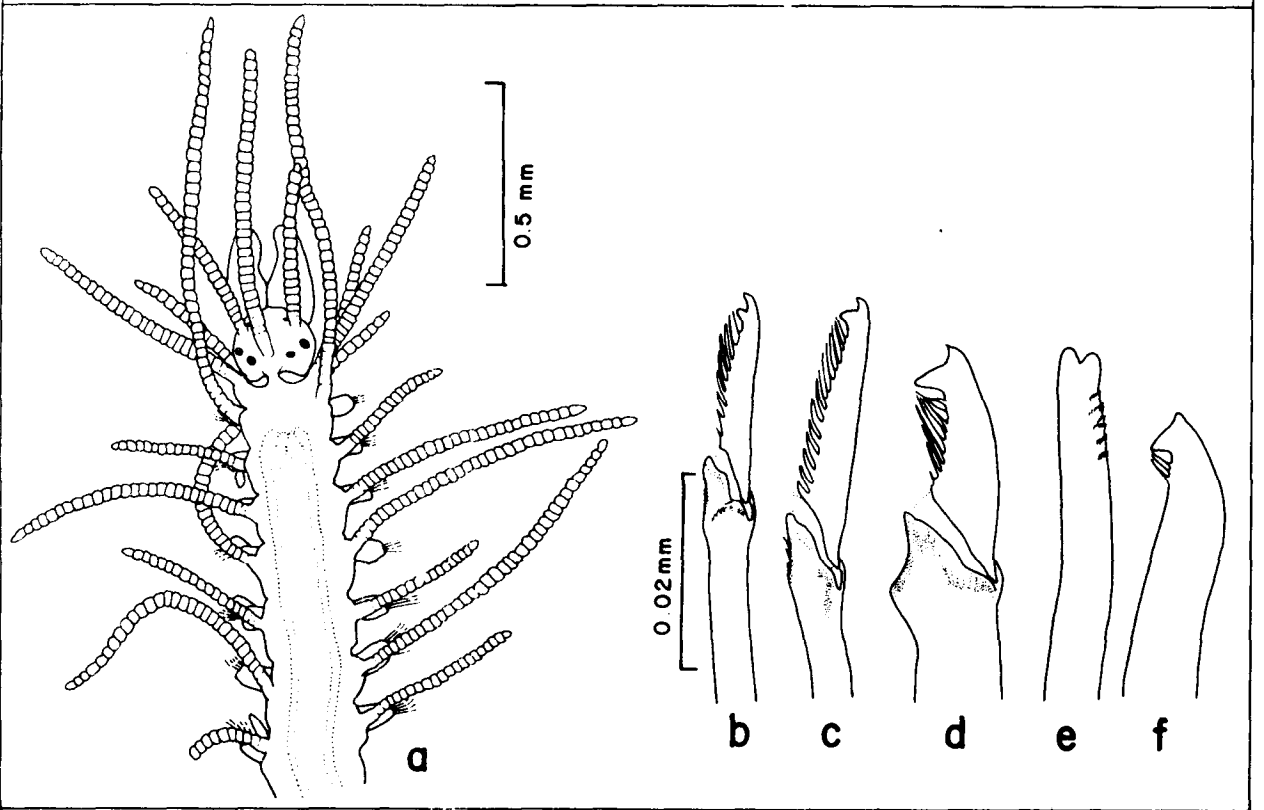


Figure 30-108. *Dentatisyllis carolinae*: a, anterior end; b, superior falciger from anterior region; c-f from posterior region: c, superior falciger; d, inferior falciger; e, superior simple seta; f, inferior simple seta; scale same for b-f.

Genus *Dentatisyllis* Perkins, 1981

TYPE SPECIES: *Syllis* (*Typosyllis*) *regulata carolinae* Day, 1973.

REFERENCE:

Perkins, 1981:1166.

DIAGNOSIS: Body cylindrical. Prostomium with three antennae. Nuchal organs as small, ciliated lobes between prostomium and peristomium. Two pairs of tentacular cirri. Antennae, tentacular, and dorsal cirri articulated. Pharynx with subterminal middorsal tooth and denticulate margin.

Key to the Gulf of Mexico BLM-OCS Species of *Dentatisyllis*

- 1a. Proventricle with 23-33 muscle cell rows; ventral cirri extending just beyond parapodia in anterior region
. *Dentatisyllis carolinae*, p. 30-113
- 1b. Proventricle with 47-50 muscle cell rows; ventral cirri extending well beyond parapodia in anterior region (Figure 30-110a).
. *Dentatisyllis* sp. A, p. 30-115

Dentatisyllis carolinae (Day, 1973)

Figures 30-107, 108a-f

Syllis (*Typosyllis*) *regulata carolinae* Day, 1973:30, fig. 4a-f.

Syllis (*Typosyllis*) *regulata carolinae*--Gardiner, 1976:141, figs. 12x-z, 13a.

Dentatisyllis carolinae--Perkins, 1981:1166, fig. 38a-h.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 20E-11/80 (6 spec., USNM 75277), 20B-7/81 (2 spec., USNM 75276); MAFLA 2207D-8/77 (1 spec.), 2211B-7/76 (1 spec.), 2211H-7/76 (4 spec.), 2315A-8/76 (1 spec.), 2423B-7/76 (2 spec.), 2423-7/76 (1 spec., USNM 55831), 2528G-6/75 (1 spec.), 2530H-6/75 (1 spec.), 2531F-2/78 (4 spec.).

Supplementary Material:

North Carolina--34°34'N, 76°25'W, 20 m, broken shells, J. H. Day coll. (USNM 43146, holotype).

DESCRIPTION:

Length, to 20.3 mm (previously reported to 20 mm); width, to 0.7 mm (previously reported to 0.6 mm). Body slender, thread-like; complete specimens with up to 119 setigers. Prostomium rounded, with four small eyes, and up to two ocular spots at base of palps medial to lateral antennae (Figure 30-108a). Median antenna with 15-38 articles, lateral antennae with 10-23 articles. Palps blunt, nearly twice as long as prostomium. Dorsal tentacular cirri with 11-33 articles, ventral ones with 7-20 articles. Dorsal cirri long, moniliform, alternating in length, with 7-49 articles anteriorly and 6-46 articles medially. Ventral cirri slender, extending just beyond parapodia. Pygidium with two lateral cirri having 15-47 articles, and single, slender, midventral cirrus. Composite falcigers slender, bidentate, with long serrations anteriorly (Figure 30-108b). Superior composite falcigers slender with coarsely serrate blades posteriorly (Figure 30-108c); inferior falcigers

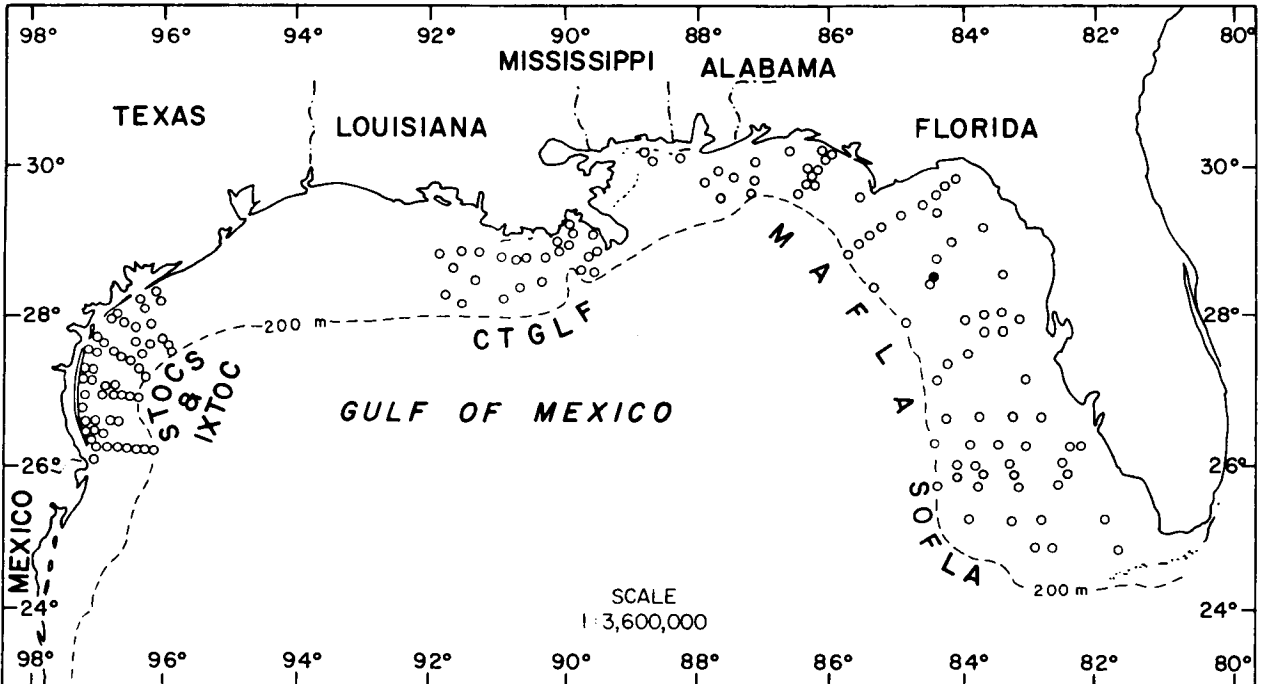


Figure 30-109. Distribution of *Dentatisyllis* sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

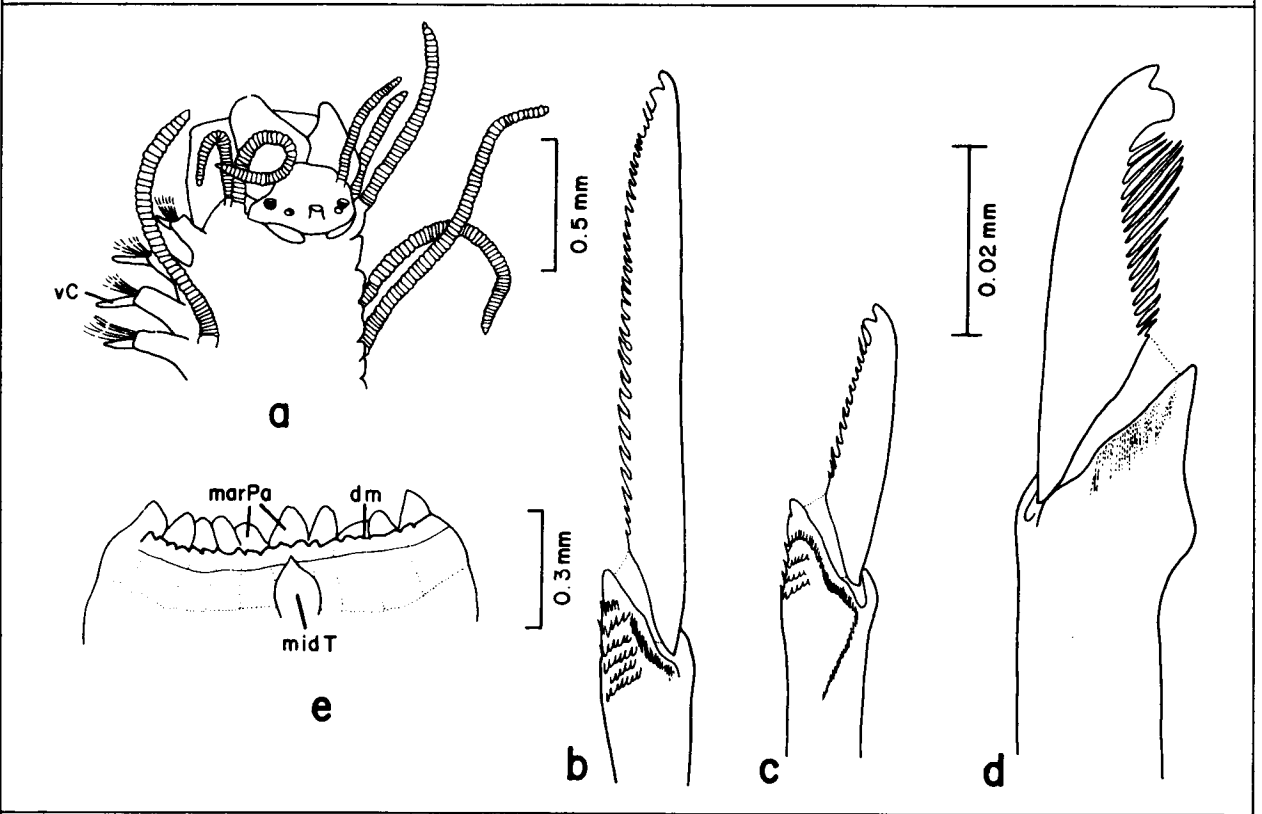


Figure 30-110. *Dentatisyllis* sp. A: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, same, from posterior region; e, margin of pharynx.

broad with enlarged subterminal tooth (Figure 30-108d); blade-length ratios 1.3-1.9:1 anteriorly, 1-1.5:1 medially, 1-1.6:1 posteriorly. Superior simple seta stout, distally bifid (Figure 30-108e), present from midbody region. Inferior simple seta stout, strongly bidentate, with few serrations below strong subterminal tooth (Figure 30-108f), present posteriorly. Acicula slender, pointed. Pharynx extending to setigers 5-11; margin denticulate with numerous irregular lobes or teeth, surrounded by ten soft papillae; middorsal tooth large, subterminal. Proventricle extending from setigers 5-12 to 8-17, with 28 (23-33) muscle cell rows. Ventricle occupying two setigers. Pharynx 1-1.7 times longer than proventricle; proventricle about 2-4 times longer than wide.

REMARKS: Dentatisyllis carolinae was originally identified in BLM-OCS collections as Typosyllis regulata and T. regulata carolinae.

PREVIOUSLY REPORTED HABITAT: 7-30 m; shelly sand, very fine to coarse sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in northeastern Gulf (Figure 30-107); 10-180 m; coarse to fine-very fine sand, silty fine to very fine sand, sandy silt.

DISTRIBUTION: North Carolina to Florida, Gulf of Mexico.

Dentatisyllis sp. A

Figures 30-109, 110a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2315A-11/77 (1 spec., USNM 65669), 2315A-2/78 (2 spec.).

DESCRIPTION:

Length, 28.8+ mm; width, to 1.3 mm. Body large, elongate; all specimens incomplete with up to 101 setigers. Prostomium trapezoidal, widest basally, with four lentigerous eyes (Figure 30-110a). Median antenna with 29 articles, lateral antennae with 20-23 articles. Palps long, broad basally, bluntly pointed distally. Dorsal tentacular cirri with 24-37 articles, ventral ones with 20-23 articles. Anterior dorsal cirri long, with 27-60 articles. Ventral cirri long, cirriform, extending well beyond parapodia anteriorly. Parapodia with short, digitiform pre- and post setal lobes. Composite falcigers bidentate with short coarse serrations anteriorly (Figure 30-110b,c). Inferior falcigers broad, strongly bidentate, with long coarse serrations posteriorly (Figure 30-110d). Blade-length ratios 1.3:1 anteriorly, 1.7:1 medially. Pharynx extending to setigers 11-13, surrounded anteriorly by about 10-13 soft papillae; middorsal tooth subterminal; margin smooth to denticulate with about 20 low rounded teeth (Figure 30-110e). Proventricle extending from setigers 12-14 to 20-24, with 47-50 muscle cell rows. Pharynx and proventricle about equal in length; proventricle about 4-5 times longer than wide.

REMARKS: Dentatisyllis sp. A is much larger and more robust than D. carolinae, has relatively longer ventral cirri anteriorly, and a proventricle with more muscle cell rows.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station near Florida Middle Ground coral reef (Figure 30-109); 38 m; silty fine sand.

Genus Syllis Savigny in Lamarck, 1818

TYPE SPECIES: Syllis monilaris Savigny in Lamarck, 1818.

REFERENCES:

Pettibone, 1963:113.

Day, 1967:239.

Gardiner, 1976:138.

DIAGNOSIS (sensu lato): Body cylindrical. Prostomium with three antennae. Nuchal organs as paired, ciliated lobes between prostomium and peristomium. Two pairs of tentacular cirri. Antennae, tentacular and dorsal cirri articulated. Setae mostly composite, with additional solitary superior and inferior simple setae posteriorly. Pharynx with smooth margin and a subterminal middorsal tooth.

REMARKS: Some authors, particularly O. Hartman and K. Fauchald, have used the genus Syllis in the strict sense, excluding Ehlersia and Typosyllis and considering them to be full genera. However, the distinction between Syllis, Ehlersia and Typosyllis is based upon narrowly defined setal characteristics not generally used to separate other syllid genera. Also, the splitting of Syllis into these three genera does not achieve the practical goal of substantially reducing the size of the large Typosyllis-group. Finally, the three groups, as routinely defined, are not sharply delineated from each other. For these reasons, the genus Syllis is maintained here in the broad sense to include the subgenera Syllis, Ehlersia and Typosyllis.

Subgenus Syllis Langerhans, 1879

TYPE SPECIES: Syllis monilaris Savigny in Lamarck, 1818.

REFERENCE:

Fauchald, 1977a:84.

DIAGNOSIS: Modified, simple or pseudocomposite setae present in midbody region.

Syllis (Syllis) gracilis Grube, 1840

Figures 30-111, 112a-h

Syllis gracilis Grube, 1840:77.

Syllis gracilis--Fauvel, 1923:259, fig. 96f-i.

Syllis gracilis--Pettibone, 1963:116, fig. 32a-e.

Syllis gracilis--Imajima, 1966:248, fig. 49a-k.

Syllis (Syllis) gracilis--Day, 1967:241, fig. 12.l.m-p.

Syllis (Syllis) gracilis--Gardiner, 1976:139, fig. 12 l-n.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 14D-7/81 (1 spec., USNM 89882); MAFLA 2211G-7/76 (1 spec.), 2211H-7/76 (3 spec.), 2211K-8/77 (1 spec.), 2315A-8/76 (2 spec.), 2423F-11/77 (1 spec.), 2528-11/77 (1 spec., USNM 55829); STOCS HR1-2 11/76 (1 spec., USNM 89883).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, 1973, T. Perkins ID. (3 spec., USNM 54575).

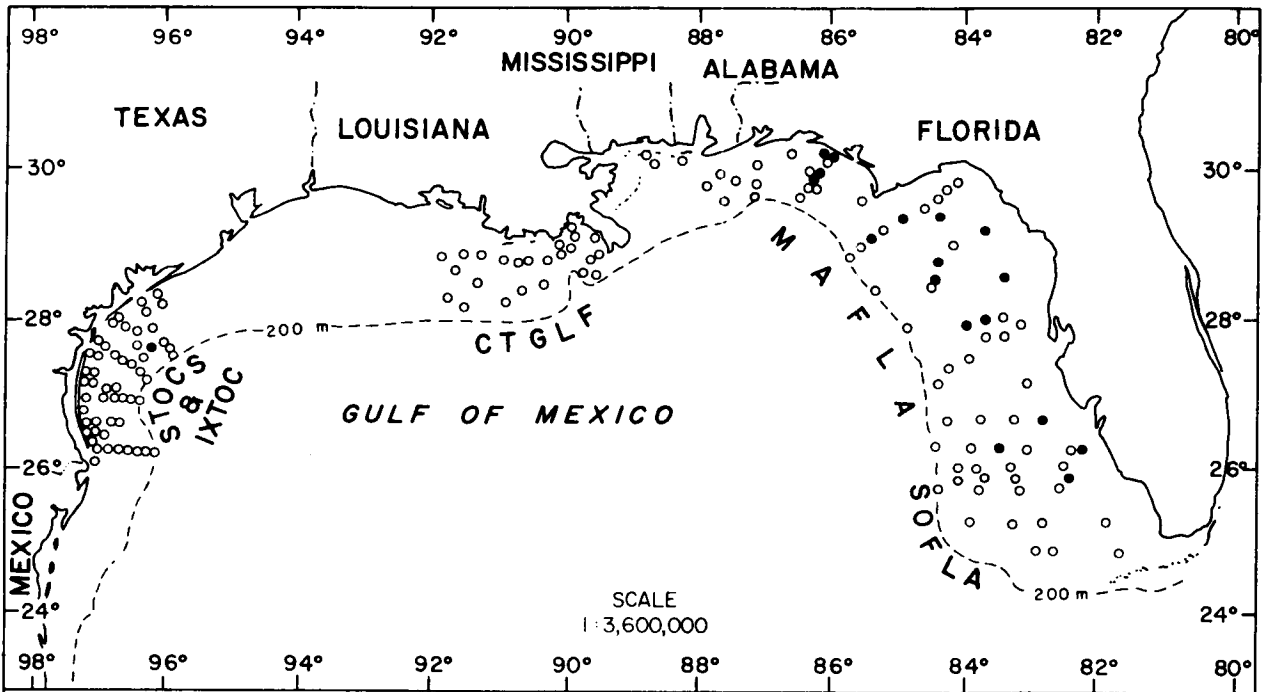


Figure 30-111. Distribution of *Syllis (Syllis) gracilis* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

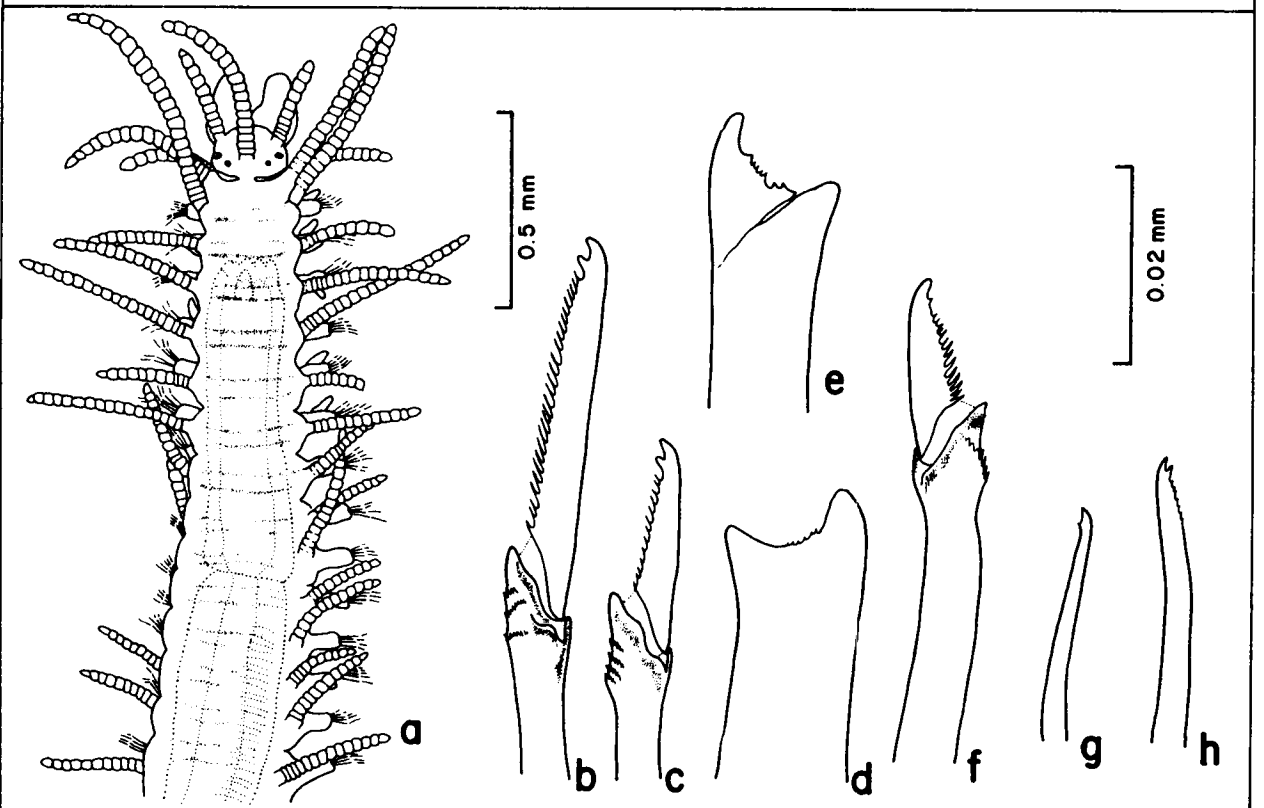


Figure 30-112. *Syllis (Syllis) gracilis*: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, simple seta from midbody region; e, transitional seta from same; f, falciger from posterior region; g, superior simple seta; h, inferior simple seta; scale same for b-h.

DESCRIPTION:

Length, to 14.0 mm (previously reported to 50 mm); width, to 0.6 mm (previously reported to 1 mm). Body slender; complete specimens with up to 88 setigers. Two black, dorsal, transverse stripes per segment anteriorly. Prostomium octagonal to rounded, with four small, lentigerous eyes (Figure 30-112a). Median antenna arising between anterior eyes, with 7-22 articles; lateral antennae with 7-12 articles. Palps triangular, broad basally, rounded distally. Dorsal tentacular cirri with 8-20 articles, ventral ones with 6-12 articles. Dorsal cirri with 7-24 articles anteriorly, 5-16 articles medially. Ventral cirri digitiform, not extending beyond parapodia. Pygidium with paired, lateral anal cirri having 6-13 articles, and short midventral cirrus. Anterior setae entirely composite bidentate falcigers (Figure 30-112b,c), replaced abruptly in larger specimens by thick, simple, ypsiloid setae (Figure 30-112d) between setigers 14 and 21. Few transitional, pseudo-composite setae (Figure 30-112e) sometimes present in smaller specimens. Posterior setae as composite bidentate falcigers (Figure 30-112f), plus slender, minutely bidentate superior and inferior simple setae (Figure 30-112g,h). Blade-length ratios 1.5-4.7:1 anteriorly, 1.1-2.4:1 posteriorly. Pharynx extending to setigers 6-10; margin smooth and surrounded by ten soft papillae; middorsal tooth subterminal. Proventricle extending from setigers 6-11 to 9-16, with 39 (35-45) muscle cell rows. Ventricle occupying two setigers. Pharynx about 1-1.5 times longer than proventricle; proventricle about 2.5-3.5 times longer than wide.

PREVIOUSLY REPORTED HABITAT: Low water to 235 m; among ascidians, algae, serpulid tubes, rocks, barnacles, oysters, hydroids, broken shells; on pilings.

GULF OF MEXICO BLM-OCS OCCURRENCE: Numerous records off Florida and one station off Texas (Figure 30-111); 11-75 m; coarse to fine-very fine sand, silty fine to very fine sand.

DISTRIBUTION: Cosmopolitan in temperate and tropical seas.

Subgenus *Ehlersia* Langerhans, 1879

TYPE SPECIES: *Syllis sexoculata* Ehlers, 1864.

REFERENCE:

Fauchald, 1977a:82.

DIAGNOSIS: Modified simple and pseudocomposite setae absent. Superior composite setae elongate, spinigerous or spiniger-like, with blades at least five times longer than blades of inferior setae.

REMARKS: The long-bladed setae of this subgenus have routinely been called spinigers, although in some species the blade tips are not pointed but are knobbed or minutely bidentate. The subgenus may be more precisely defined based on relative blade lengths, as above.

Key to the Gulf of Mexico BLM-OCS Species of *Syllis* (*Ehlersia*)

- 1a. Spiniger-like setae with minutely knobbed tips (Figure 30-114b); proventricle 4-8 times longer than wide, with more than 33 rows of muscle cells. *Syllis* (*Ehlersia*) *cornuta*, p. 30-120
- 1b. Spiniger-like setae with minutely bidentate tips (Figures 30-116d, 118b); proventricle 1.5-4.4 times longer than wide, with fewer than 33 rows of muscle cells. 2

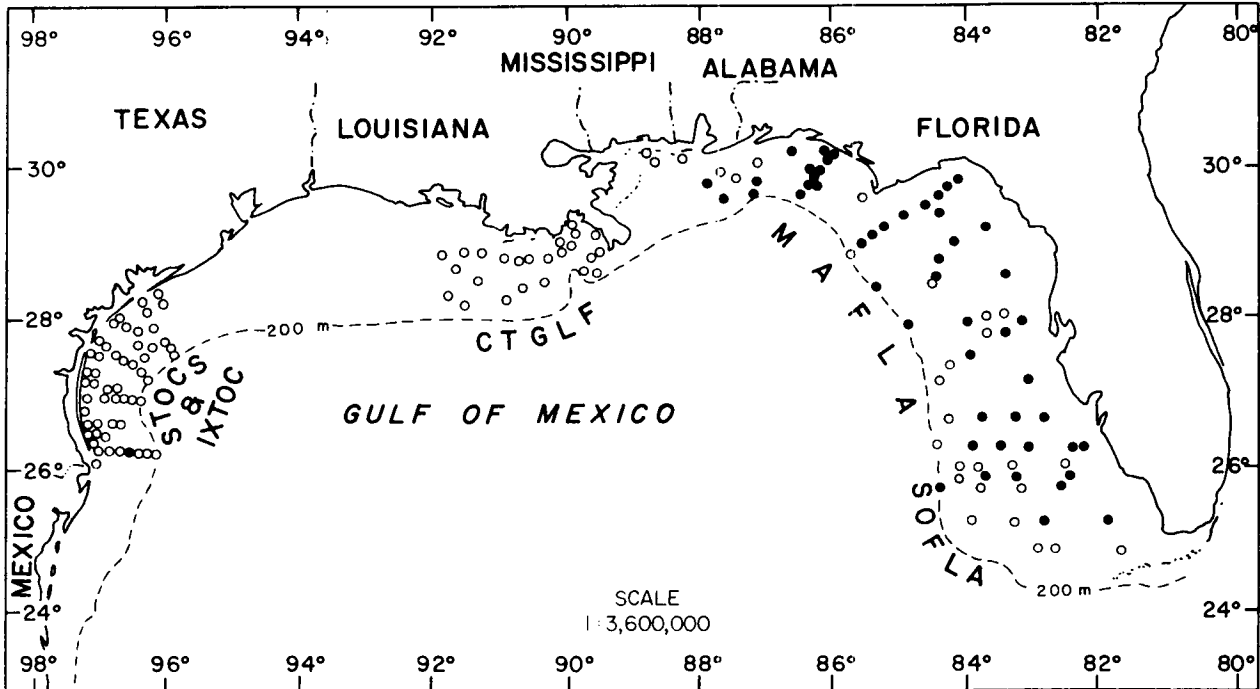


Figure 30-113. Distribution of *Syllis (Ehlersia) cornuta* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

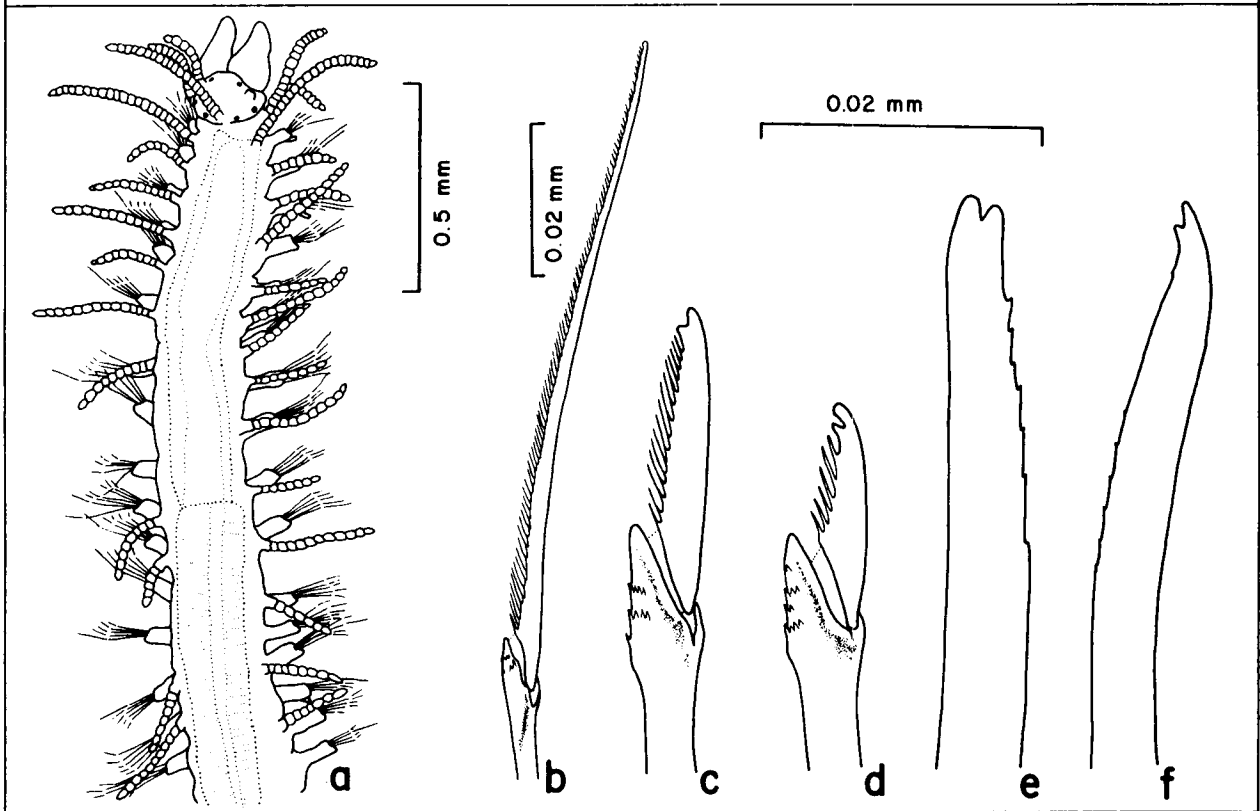


Figure 30-114. *Syllis (Ehlersia) cornuta*: a, anterior end; b-d from anterior region: b, superior spiniger; c, superior falciger; d, inferior falciger; e, superior simple seta; f, inferior simple seta; scale same for c-f.

- 2a. Dorsal cirri becoming smooth and filiform after first few setigers (Figure 30-116a); inferior falcigers of posterior body region with large subterminal tooth (Figure 30-116e)
 Syllis (Ehlersia) ferrugina, p. 30-122
- 2b. Dorsal cirri articulated and cirriform throughout; inferior falcigers of posterior body region with small subterminal tooth (Figure 30-118e) Syllis (Ehlersia) sp. A, p. 30-124

Syllis (Ehlersia) cornuta Rathke, 1843
 Figures 30-113, 114a-f

Syllis cornuta Rathke, 1843:164.

Syllis (Ehlersia) cornuta--Fauvel, 1923:267, fig. 100g-i.

Syllis cornuta--Pettibone, 1963:118, fig. 31i,j.

Langerhansia cornuta--Imajima, 1966:256, fig. 51a-o.

Syllis (Langerhansia) cornuta--Day, 1967:244, fig. 12.2.s-u; 1973:29.

Syllis (Langerhansia) cornuta--Gardiner, 1976:140, fig. 12o-s.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2E-11/80 (5 spec., USNM 75303), 20B-7/81 (4 spec., USNM 75304); MAFLA 2207D-11/77 (4 spec.), 2207F-11/77 (1 spec.), 2422C-7/76 (2 spec.), 2423E-7/76 (3 spec.), 2528I-2/78 (1 spec.), 2531B-6/75 (3 spec.), 2531-8/77 (1 spec., USNM 55827), 2534C-9/75 (1 spec.); STOCS 2/IV-3 F/76 (1 spec., USNM 75224).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, 10.9 m, T. Perkins ID. (1 spec., USNM 54530).

DESCRIPTION:

Length, to 21.0 mm (previously reported to 45 mm); width, to 0.8 mm (previously reported to 1.2 mm). Body long, slender; complete specimens with up to 115 setigers. Prostomium triangular, with four small eyes, and two minute ocular spots near base of palps (Figure 30-114a). Median antenna arising near posterior border of prostomium, with 11-29 articles; lateral antennae with 8-20 articles. Palps long, triangular, blunt anteriorly, fused basally. Dorsal tentacular cirri with 12-21 articles, ventral ones with 7-17 articles. Dorsal cirri with 4-32 articles anteriorly, 5-27 articles medially. Ventral cirri digitiform, extending beyond parapodia anteriorly. Pygidium with paired, elongate cirri having 22-30 articles, plus slender, fusiform midventral cirrus. Superior composite setae spiniger-like, numbering 1-2 per fascicle from setiger 1, with fine serrations and minutely knobbed tips (Figure 30-114b). Composite falcigers bidentate with small subterminal tooth and long, fine serrations (Figure 30-114c,d). Blade-length ratios 2.6-6.6:1 anteriorly, 3.8-10:1 medially, about 3-8:1 posteriorly. Stout, bifid, superior simple seta (Figure 30-114e) and bidentate inferior simple seta (Figure 30-114f) present posteriorly. Pharynx extending to setigers 8-13; middorsal tooth subterminal; margin surrounded by ten soft papillae. Proventricle extending from setigers 9-14 to 12-21, with 44 (33-50) muscle cell rows. Ventricle occupying two setigers. Pharynx 1-1.7 times longer than proventricle; proventricle 4-8 times longer than wide. PREVIOUSLY REPORTED HABITAT: Intertidal to 2560 m; among serpulid tubes, bryozoans, algae, the maldanid Petaloproctus socialis; on shelly bottoms, mud, sand, stones, rocks, sponges; sexual forms in plankton.

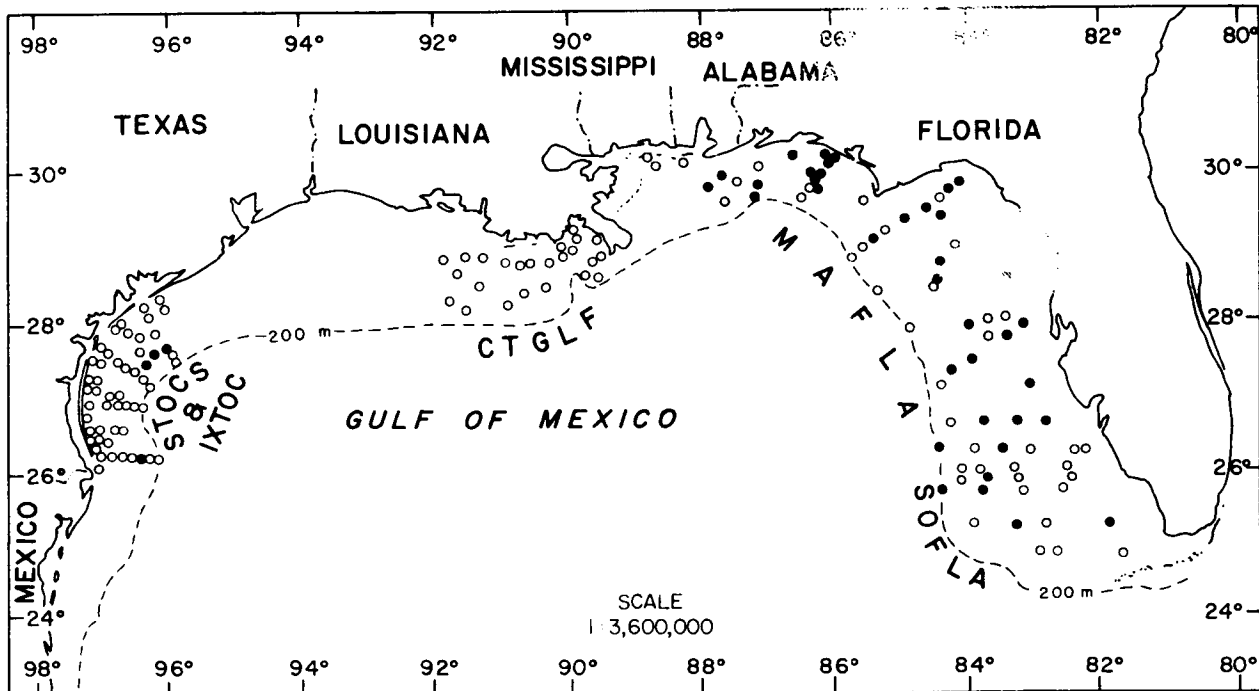


Figure 30-115. Distribution of *Syllis (Ehlersia) ferrugina* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

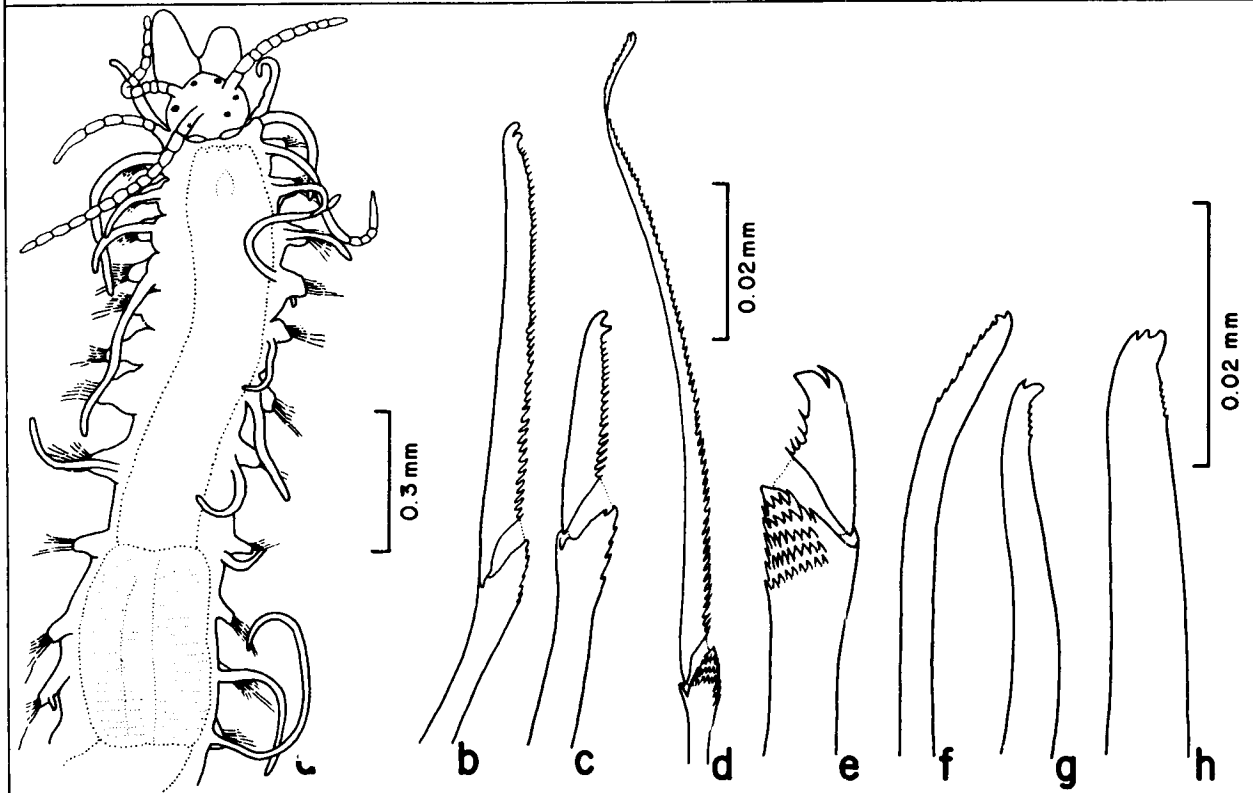


Figure 30-116. *Syllis (Ehlersia) ferrugina*: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, superior spiniger from midbody region; e, inferior falciger from same; f, superior simple seta; g, inferior simple seta; h, superior simple seta, variation; scale same for b-d and for e-h.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in northeastern Gulf and one station off Brownsville, Texas (Figure 30-113); 10-189 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey to sandy silt. DISTRIBUTION: Cosmopolitan.

Syllis (Ehlersia) ferrugina (Langerhans, 1881)
Figures 30-115, 116a-h

Ehlersia ferrugina Langerhans, 1881:104, pl. 4, fig. 10a,b.

Syllis (Ehlersia) ferrugina--Fauvel, 1923:269, fig. 100k-n.

Syllis (Langerhansia) ferrugina--Day, 1967:244, fig. 12.2.o-r; 1973:29, fig. 4n-q.

Ehlersia ferrugina--Laubier, 1968:85, fig. 3.

Syllis (Langerhansia) ferrugina--Gardiner, 1976:140, fig. 12t,u.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 24B-11/80 (4 spec., USNM 75302); MAFLA 11F-5/74 (1 spec.), 2207F-11/77 (1 spec.), 2211E-7/76 (1 spec.), 2211H-7/76 (1 spec.), 2211I-11/77 (2 spec.), 2422F-7/76 (1 spec.), 2531C-8/77 (1 spec.), 2534-9/75 (1 spec., USNM 55828); STOCS HR1-5 3/76 (3 spec.), HR1-2 7/76 (2 spec., USNM 75225), HR1-5 7/76 (3 spec., USNM 75226), SB3-4 8/76 (1 spec., USNM 75227).

DESCRIPTION:

Length, to 15.6 mm (previously reported to 10 mm); width, to 0.5 mm (previously reported to 0.4 mm). Body long, slender; complete specimens with up to 100 setigers. Prostomium oval, with four lentigerous eyes, and two ocular spots near base of palps (Figure 30-116a). All antennae, tentacular and dorsal cirri sometimes appearing smooth; otherwise median antenna with up to 33 articles, lateral antennae with up to 16 articles. Palps oval. Dorsal tentacular cirri with up to 19 articles, ventral ones with up to six articles. Anterior dorsal cirri with up to 25 articles, becoming smooth and filiform medially. Ventral cirri digitiform, not extending beyond parapodia. Pygidium with paired anal cirri having up to 13 articles, plus short midventral cirrus. Anterior falcigers with long, finely serrate, bidentate blades (Figure 30-116b,c). Superior setae becoming spiniger-like medially (Figure 30-116d) and inferior falcigers becoming short-bladed with large subterminal tooth (Figure 30-116e). Blade-length ratios 2.2-4.3:1 anteriorly, 6.4-11.4:1 medially, 4.8-9.3:1 posteriorly. Superior and inferior simple setae slender, bidentate (Figure 30-116f,g) present posteriorly; superior simple seta sometimes thick, distally truncate and bi- or trifid (Figure 30-116h). Pharynx extending to setigers 1-10; middorsal tooth subterminal. Proventricle extending from setigers 2-11 to 7-13, with 20 (15-23) muscle cell rows. Ventricle occupying up to four setigers. Pharynx 0.6-2.3 times longer than proventricle; proventricle 1.5-2.6 times longer than wide.

PREVIOUSLY REPORTED HABITAT: Intertidal to 130 m; medium sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common in northeastern Gulf plus several stations off Texas (Figure 30-115); 10-180 m; coarse to fine-very fine sand, silty fine to very fine sand, sandy silt.

DISTRIBUTION: Europe, Mediterranean, N. and S. Atlantic, N. Carolina, Gulf of Mexico, S. Pacific, S. W. Australia.

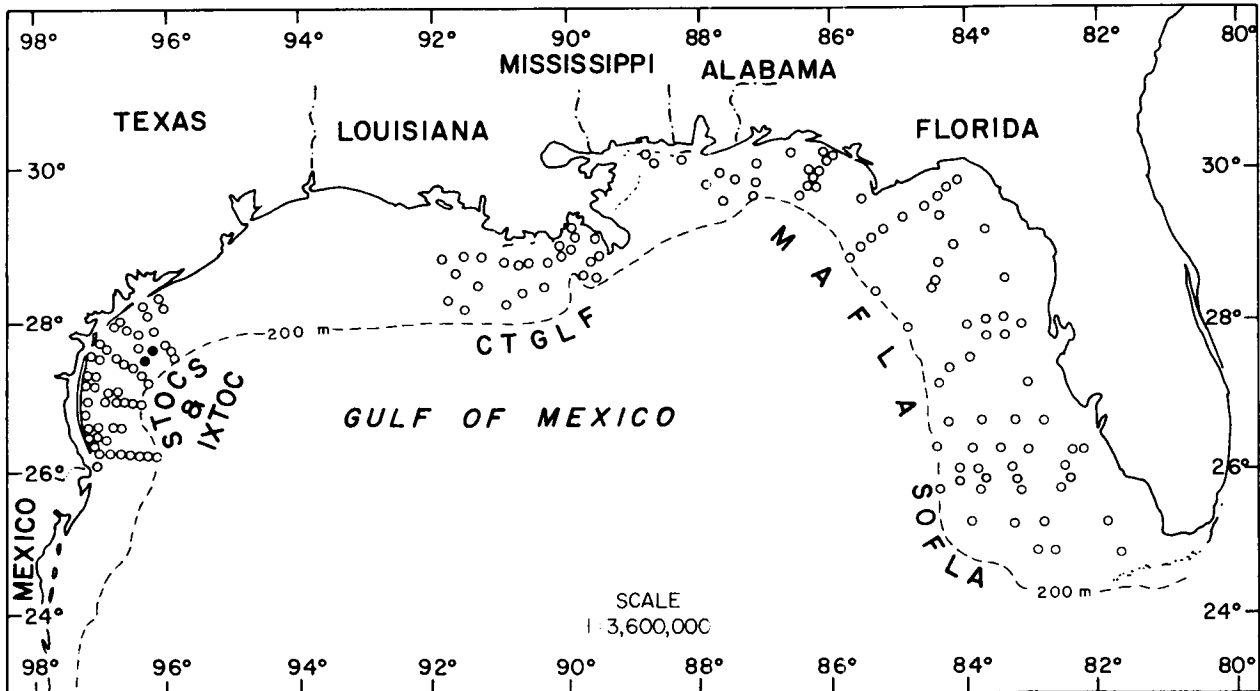


Figure 30-117. Distribution of *Syllis* (*Ehlersia*) sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

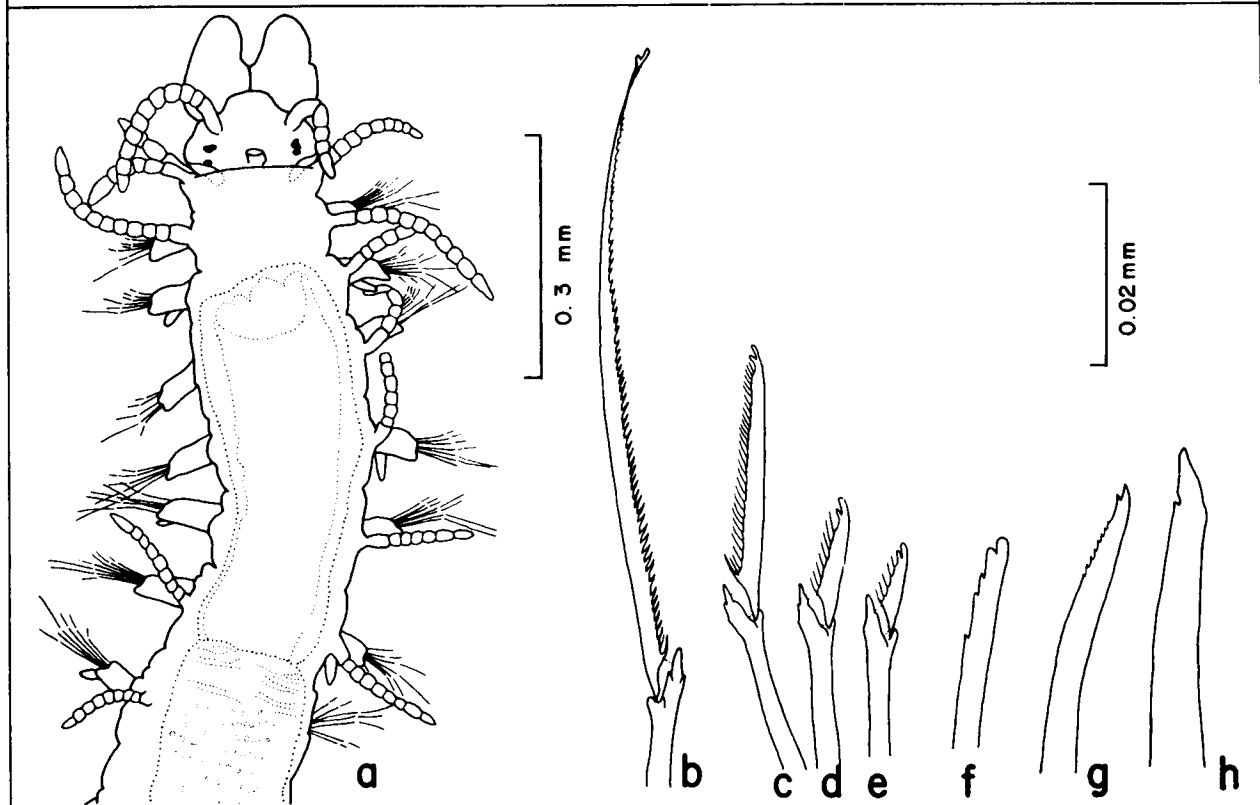


Figure 30-118. *Syllis* (*Ehlersia*) sp. A: a, anterior end; b-e from midbody region; b, superior spiniger; c, superior falciger; d, medial falciger; e, inferior falciger; f, superior simple seta; g, inferior simple seta; h, aciculum from posterior region; scale same for b-h.

Syllis (Ehlersia) sp. A
Figures 30-117, 118a-h

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

STOCS SB3-5 4/76 (1 spec.), SB3-1 12/76 (3 spec.), HR1-3 W/76 (1 spec., USNM 75228), HR1-6 F/76 (1 spec., USNM 65663).

Supplementary Material:

Texas--Flower Gardens, Sta. PLA III, 27°52.36'N, 93°59.69'W, 117 m (1 spec.)

DESCRIPTION:

Length of one complete specimen, 4.9 mm; width, to 0.3 mm. Body small, slender, with up to 41 setigers. Prostomium triangular, with up to four small, faint eyes (sometimes absent) and 0-2 ocular spots (Figure 30-118a). Median antenna arising near posterior border of prostomium, with 25 articles; lateral antennae with 6-13 articles. Palps short, broad, fused basally. Dorsal tentacular cirri with 5-8 articles, ventral ones with three articles. Dorsal cirri short, slender, with 3-11 articles. Ventral cirri digitiform, arising basally and not extending beyond parapodia. Anal cirri with ten articles. Composite setae including 1-2 superior, long-bladed, spiniger-like setae (Figure 30-118b); 2-3 moderately long-bladed falcigers (Figure 30-118c); 2-3 moderately short-bladed falcigers (Figure 30-118d); and 2-3 very short-bladed falcigers (Figure 30-118e) per parapodium; all having bidentate blades with knob-like terminal tooth. Blade-length ratios 4.5-5.5:1 anteriorly, 5.8-9.8:1 medially, about 4:1 posteriorly. Superior simple seta bidentate with rounded teeth (Figure 30-118f); inferior simple seta bidentate with pointed teeth (Figure 30-118g); both present posteriorly. Acicula distally notched (Figure 30-118h), emergent posteriorly. Pharynx extending to setigers 3-8; margin smooth, surrounded by ten soft papillae; mid-dorsal tooth subterminal. Proventricle extending from setigers 3-9 to 8-14, with 29-31 muscle cell rows. Ventricle occupying one setiger. Proventricle 1-1.5 times longer than pharynx and 1.6-4.4 times longer than wide.

REMARKS: This species is similar to Ehlersia rosea magna Westheide, 1974. It differs from the latter in having shorter dorsal cirri, middle falcigers with relatively longer blades medially and posteriorly, and the proventricle longer than the pharynx. Syllis (Ehlersia) sp. A was originally identified as Syllis (Ehlersia) cornuta and S. anops in BLM-STOCS collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off central Texas (Figure 30-117); 75-82 m; silty clay.

Subgenus Typosyllis Langerhans, 1879

TYPE SPECIES: Syllis krohnii Ehlers, 1864.

REFERENCE:

Fauchald, 1977a:84.

DIAGNOSIS: Modified simple and pseudocomposite setae absent. Blades of superior composite setae falcigerous, less than five times longer than blades of inferior setae.

REMARKS: The subgenus Typosyllis is taxonomically a difficult and challenging group of many morphologically similar species which differ from each other primarily in setal details. These differences are

difficult to describe either qualitatively or morphometrically. Investigators attempting to identify individuals belonging to this subgenus are urged to use phase contrast or differential interference contrast microscopy and high magnification immersion objectives to examine setal structures. The use of a good clearing medium such as Hoyer's will enhance the visibility of internal structures.

Key to the Gulf of Mexico BLM-OCS Species of Syllis (Typosyllis)

- 1a. All or some composite falcigers unidentate to subbidentate. 2
- 1b. All composite falcigers bidentate or bifid. 3
- 2a. All falcigers unidentate or subbidentate (Figure 30-120b-d).
. **Syllis (Typosyllis) amica**, p. 30-127
- 2b. Falcigers of anterior and posterior regions bidentate; falcigers of midbody region unidentate or subbidentate (Figure 30-122d,e).
. **Syllis (Typosyllis) armillaris**, p. 30-129
- 3a. Falcigers unequally bifid (Figure 30-124b-d)
. **Syllis (Typosyllis) sp. G**, p. 30-131
- 3b. Falcigers bidentate (Figure 30-128b-e). 4
- 4a. Blades of inferior falcigers from medial to posterior regions with terminal or subterminal tooth enlarged (Figures 30-126e, 128e) relative to teeth of superior falcigers 5
- 4b. Blades of inferior falcigers from medial and posterior regions with terminal and subterminal teeth not enlarged relative to teeth of superior falcigers 6
- 5a. Blades of inferior falcigers from medial and posterior regions enlarged, with terminal and subterminal teeth unequal in size and perpendicular to each other (Figure 30-126e)
. **Syllis (Typosyllis) sp. A**, p. 30-134
- 5b. Blades of inferior falcigers from medial and posterior regions not enlarged, with terminal and subterminal teeth equal in size and parallel to each other (Figure 30-128e).
. **Syllis (Typosyllis) sp. C**, p. 30-134
- 6a. Superior composite falcigers of midbody region with terminal tooth minute and knob-like (Figure 30-130b); blade-length ratio 2.2-5:1
. **Syllis (Typosyllis) cf. lutea**, p. 30-136
- 6b. Superior composite falcigers of midbody region with terminal tooth not minute and knob-like; blade-length ratio less than 2.2:1. 7
- 7a. Blades of superior composite falcigers from anterior region with indistinct terminal and subterminal teeth (Figure 30-132b)
. **Syllis (Typosyllis) sp. F**, p. 30-139
- 7b. Blades of superior composite falcigers from anterior region with distinct terminal and subterminal teeth (Figure 30-134b). 8
- 8a. Proventricle less than twice as long as wide; dorsal cirri long (Figure 30-134a). **Syllis (Typosyllis) sp. D**, p. 30-139
- 8b. Proventricle more than twice as long as wide; dorsal cirri long or short 9

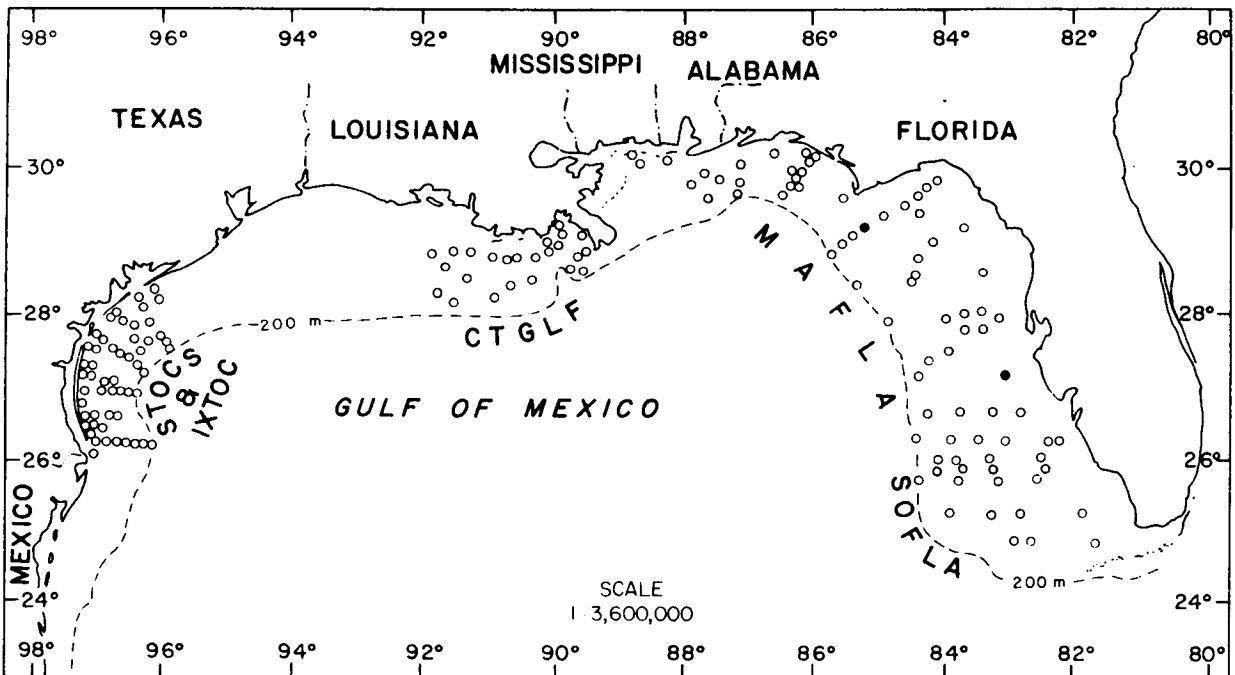


Figure 30-119. Distribution of *Syllis (Typosyllis) amica* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

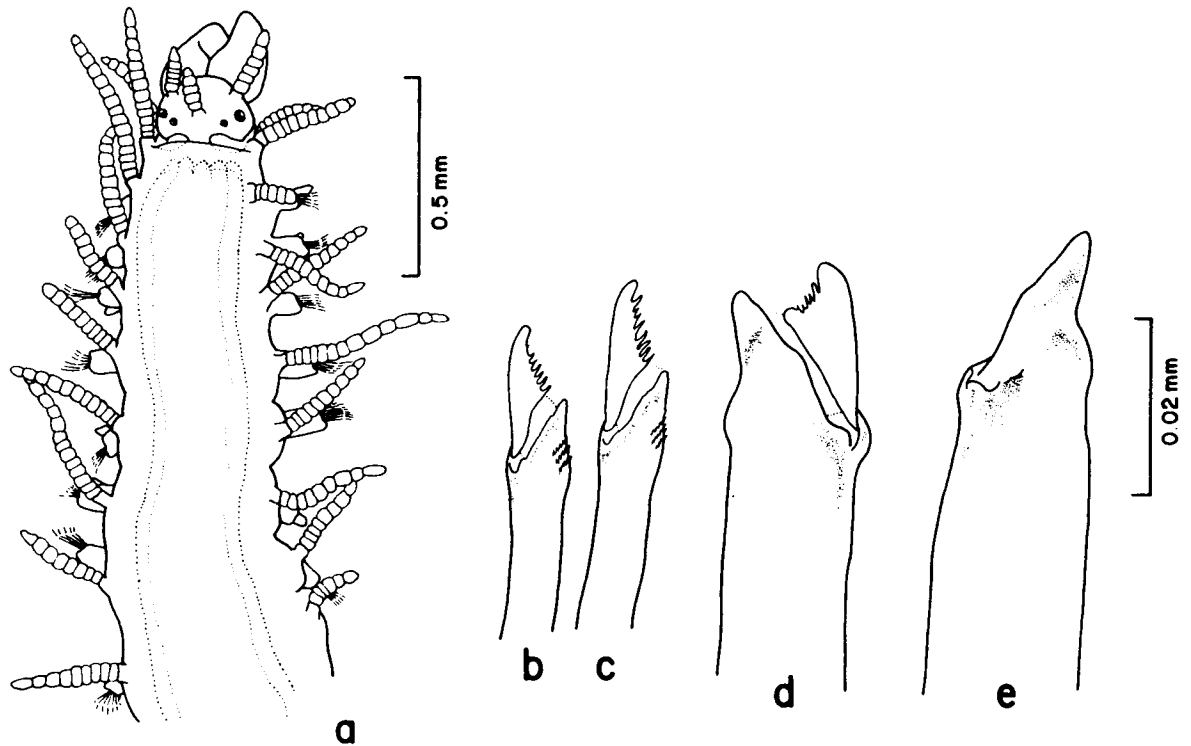


Figure 30-120. *Syllis (Typosyllis) amica*: a, anterior end; b, inferior falciger from anterior region; c, medial falciger from same; d, superior falciger from midbody region; e, superior seta from same; scale same for b-e.

- 9a. Proventricle usually between 2.3 and 3.8 times longer than wide; dorsal cirri long or short. 10
- 9b. Proventricle at least four times longer than wide; dorsal cirri long (Figure 30-136a).
 *Syllis (Typosyllis) cf. alternata*, p. 30-141
- 10a. Margin of pharynx surrounded by 14-20 soft papillae (Figure 30-138g). *Syllis (Typosyllis) corallicoloides*, p. 30-143
- 10b. Margin of pharynx surrounded by ten soft papillae 11
- 11a. Proventricle with 21-26 muscle cell rows; superior simple seta with truncate tip having shelf-like lateral projection (Figure 30-140d). *Syllis (Typosyllis) sp. E*, p. 30-145
- 11b. Proventricle with 27 or more muscle cell rows; superior simple seta with entire or bifid tip (Figures 30-142e, 144f). 12
- 12a. Blades of composite setae with fine serrations and pointed teeth; blade-length ratio of composite falcigers in medial to posterior regions about 1:1 (Figure 30-142c,d)
 *Syllis (Typosyllis) gerlachi*, p. 30-145
- 12b. Blades of composite setae with fine or coarse serrations and rounded teeth; blade-length ratio of composite falcigers in medial to posterior regions about 1.5-2:1. 13
- 13a. Dorsal cirri mostly short, with less than 20 articles (Figure 30-144a); dorsum unpigmented. . *Syllis (Typosyllis) sp. B*, p. 30-148
- 13b. Dorsal cirri mostly long, with up to 45 articles (Figure 30-146a); dorsum often with light brown transverse stripes anteriorly. . . .
 *Syllis (Typosyllis) prolifera*, p. 30-150

Syllis (Typosyllis) amica Quatrefages, 1865
 Figures 30-119, 120a-e

Syllis amica Quatrefages, 1865, II:20, pl. 5, figs. 16-22.
Syllis amica--Fauvel, 1923:258, fig. 95e-n.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2424A-11/77 (1 spec., USNM 65690), 2851G-7/76 (1 spec.).

Supplementary Material:

Florida--Hutchinson Island, St. Lucie County, T. Perkins ID., 9.7 m (HI-775, 1 juv.; HI-776, 1 spec.; HI-778, 1 spec. + reproductive stolon), 10.0 m (HI-759, 1 spec.; HI-760, 1 spec. + reproductive stolon).

DESCRIPTION:

Length, 9.7+ mm (previously reported to 60 mm); width, to 0.9 mm. Body fairly stout; all specimens incomplete with up to 87 setigers. Prostomium rounded to trilobed anteriorly, with four lentigerous eyes, with or without two ocular spots (Figure 30-120a). Median antenna with 5-15 articles, lateral antennae with 4-10 articles. Palps large, bluntly triangular to rectangular. Dorsal tentacular cirri with 8-16 articles, ventral ones with 6-10 articles. Dorsal cirri with 5-21 articles anteriorly and 6-11 articles medially. Ventral cirri digitiform to fusiform, extending beyond parapodia anteriorly. Pygidium with paired cirri having nine articles, plus short, broad, midventral knob-like process.

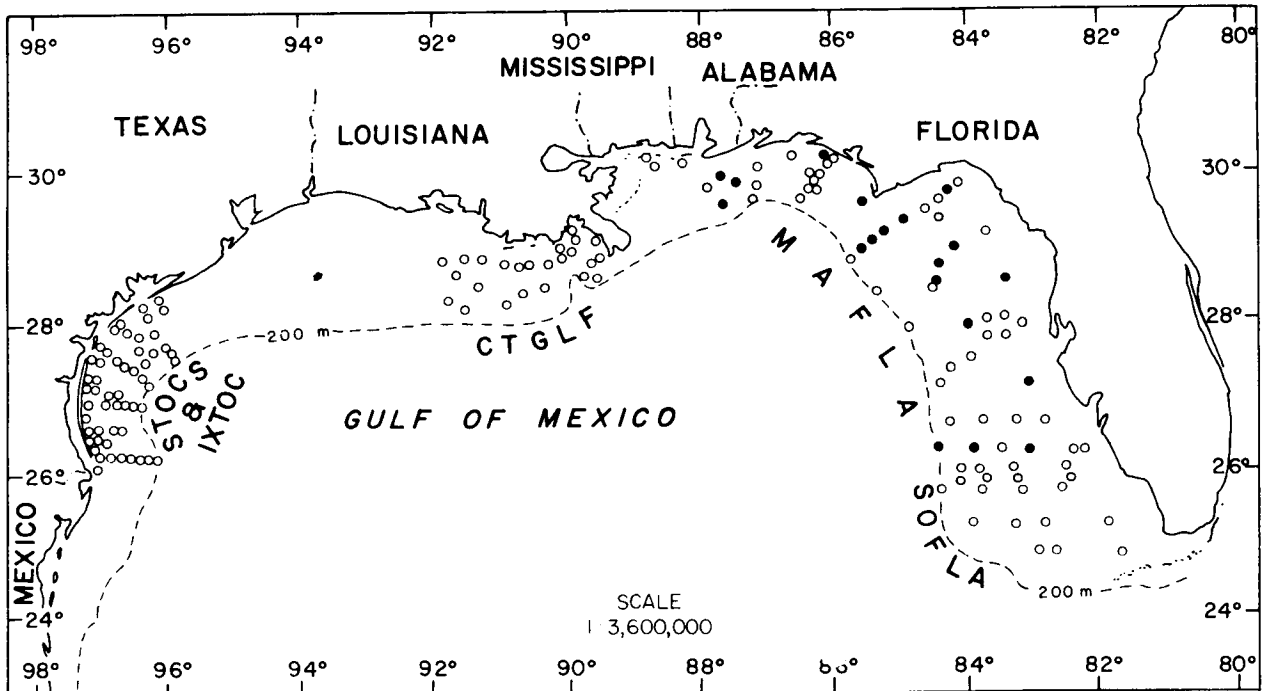


Figure 30-121. Distribution of *Syllis* (*Typosyllis*) *armillaris* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

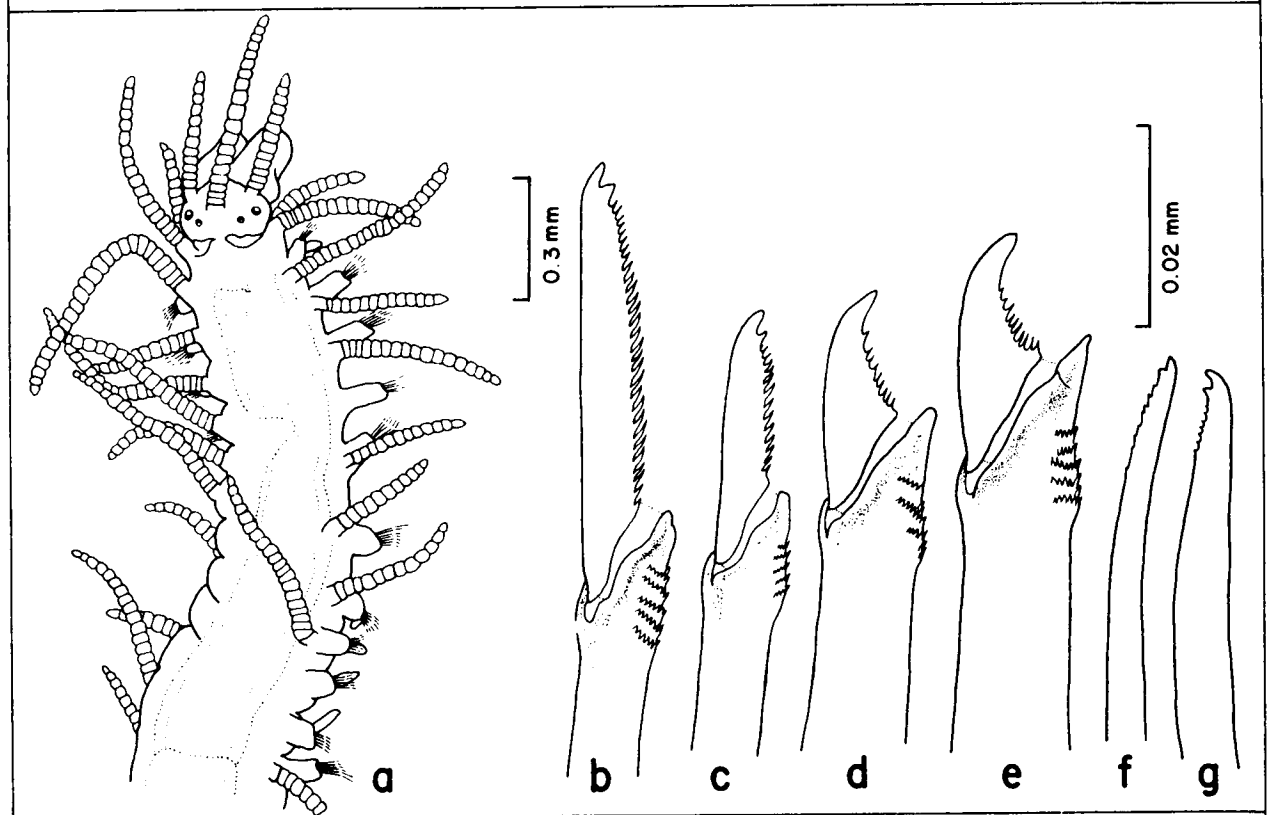


Figure 30-122. *Syllis* (*Typosyllis*) *armillaris*: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, medial falciger from midbody region; e, inferior falciger from same; f, superior simple seta; g, inferior simple seta; scale same for b-g.

Composite falcigers having short, unidentate blades with coarse serrations (Figure 30-120b), sometimes appearing subbidentate anteriorly with distal serration slightly enlarged (Figure 30-120c). Setae of midbody region broad, sometimes ypsiloid (Figure 30-120d). Blade-length ratios 1.2-1.4:1 anteriorly, about 1:1 medially and posteriorly. Superior seta in medial to posterior regions of larger specimens enlarged, appearing simple due to loss of blade (Figure 30-120e). Superior and inferior simple setae of posterior region slender, subbidentate, minutely serrate. Pharynx extending to setigers 2-12; middorsal tooth subterminal. Proventricle extending from setigers 3-13 to 7-22, with 37-40 muscle cell rows. Ventricle occupying three setigers. Pharynx 0.6-1.3 times length of proventricle; proventricle 2.8-4.3 times longer than wide.

REMARKS: This species is referred to the subgenus Typosyllis rather than Syllis because the simple setae of the midbody region appear to be formed directly by loss of the setal blade (in many cases the sheath from the base of the blade remains intact), and are not consistently present in all specimens. Syllis (Typosyllis) amica and S. (T.) armillaris were confused in BLM-MAFLA collections.

PREVIOUSLY REPORTED HABITAT: Intertidal; vermetid reefs.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off Florida (Figure 30-119); 27-36 m; medium to fine sand.

DISTRIBUTION: Mediterranean, eastern N. Atlantic, east coast of Florida, Gulf of Mexico.

Syllis (Typosyllis) armillaris (O. F. Müller, 1771 in O. F. Müller, 1776)
Figures 30-121, 122a-g

Nereis armillaris O. F. Müller, 1771 in O. F. Müller, 1776:217.

Syllis (Typosyllis) armillaris--Fauvel, 1923:264, fig. 99a-f.

Syllis (Typosyllis) armillaris--Day, 1967:249, fig. 12.4.a-d.

Typosyllis (Typosyllis) armillaris--Hartmann-Schröder, 1971:149, fig. 50a-c.

Syllis (Typosyllis) armillaris--Uebelacker, 1982b:585, fig. 2a-1.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211B-7/76 (1 spec.), 2211H-7/76 (1 juv.), 2315A-11/77 (2 spec.), 2528G-11/77 (4 spec.), 2528-2/78 (2 spec., USNM 55826), 2854E-8/77 (1 spec.).

DESCRIPTION:

Length, to 14.5 mm (previously reported to 50 mm); width, to 0.75 mm. Body long, cylindrical; complete specimens with up to 120 setigers. Prostomium trilobed anteriorly, with four lentigerous eyes, and 0-2 anteromedial ocular spots (Figure 30-122a). Median antenna with 13-20 articles, lateral antennae with 8-13 articles. Palps broad, flat basally, rounded distally. Dorsal tentacular cirri with 9-14 articles, ventral ones with 6-16 articles. Dorsal cirri cirriform anteriorly with 5-31 articles, becoming fusiform medially with 2-20 articles. Ventral cirri clavate to fusiform, sometimes extending slightly beyond parapodia anteriorly. Pygidium with a slender, midventral cirrus and paired cirri having 12-20 articles. Composite falcigers bidentate anteriorly (Figure 30-122b,c) and posteriorly, unidentate or subbidentate in midbody region (Figure 30-122d,e). Blade-length ratios 1.5-2.4:1 anteriorly, 1.1-1.3:1 medially, 1.2-1.7:1 posteriorly. Slender, minutely bidentate superior

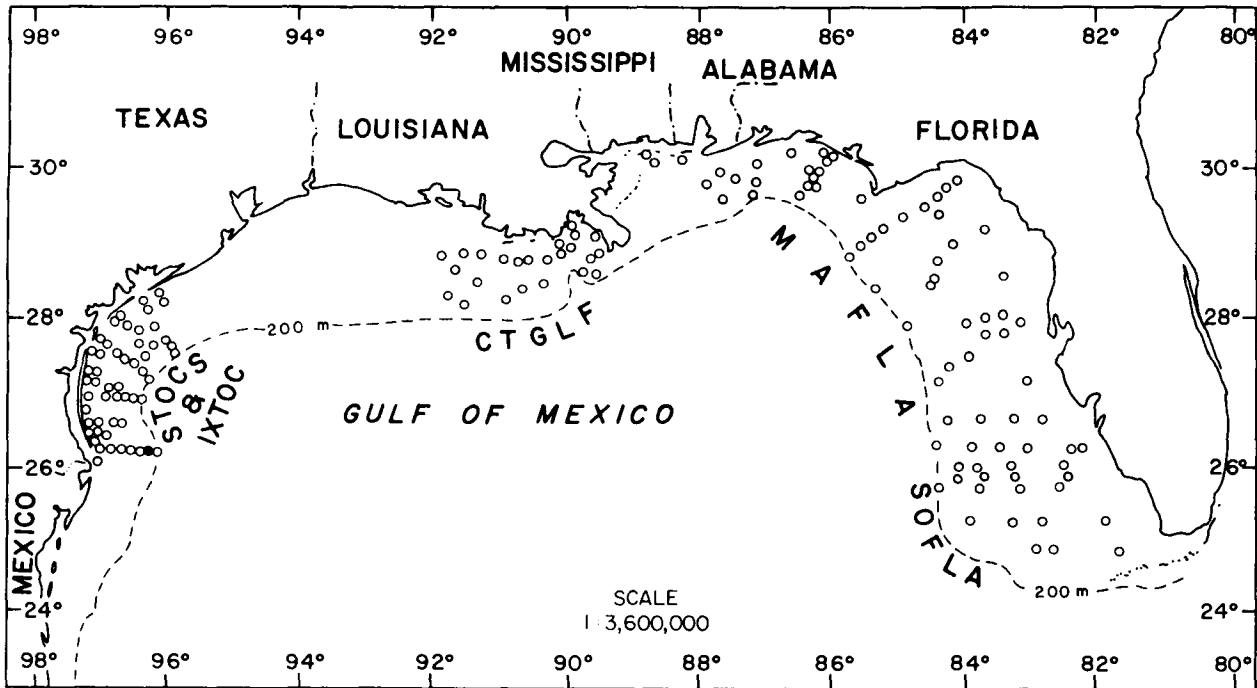


Figure 30-123. Distribution of *Syllis (Typosyllis)* sp. G on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

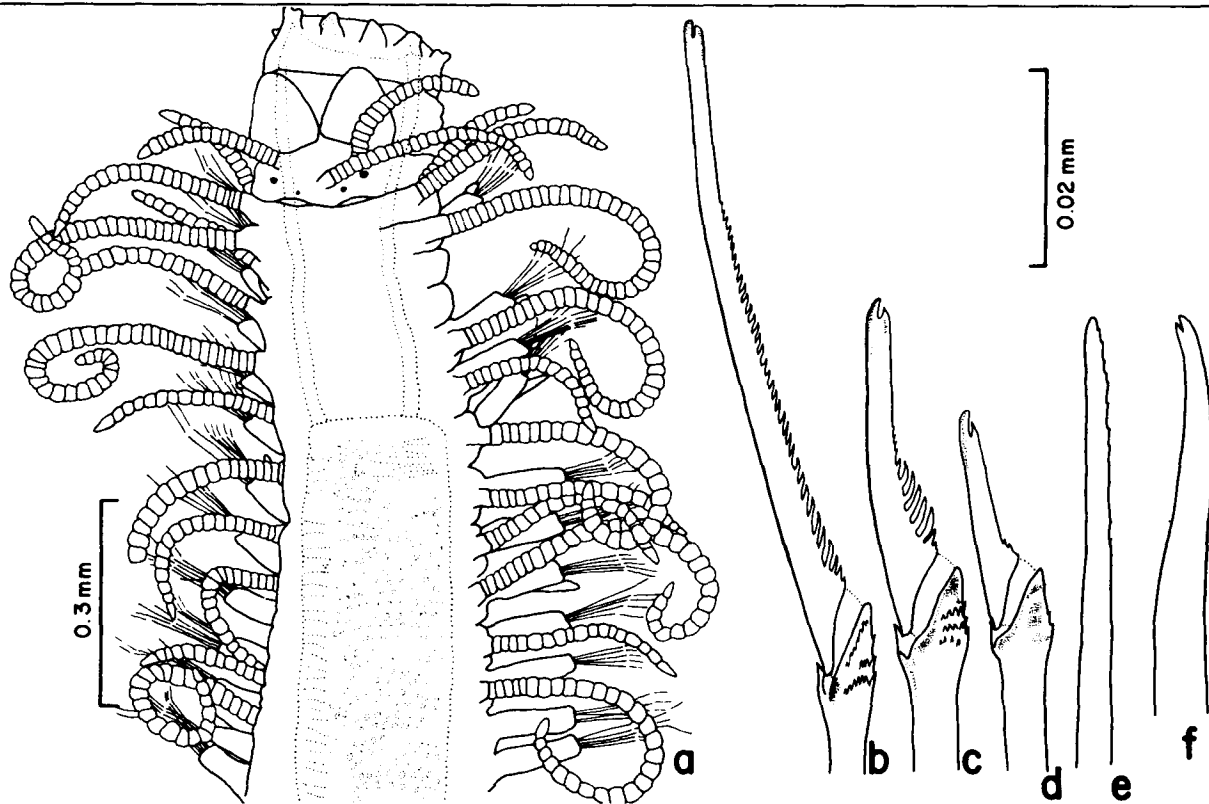


Figure 30-124. *Syllis (Typosyllis)* sp. G: a, anterior end (pharynx everted); b-d from anterior region: b, superior falciger; c, medial falciger; d, inferior falciger; e, superior simple seta; f, inferior simple seta; scale same for b-f.

simple seta (Figure 30-122f) and bidentate inferior simple seta (Figure 30-122g) present posteriorly. Acicula numbering four per parapodium anteriorly, decreasing to two medially and one posteriorly. Pharynx extending to setigers 4-13; margin surrounded by ten soft papillae; middorsal tooth subterminal. Proventricle extending from setigers 5-14 to 7-23, with 39 (33-42) muscle cell rows. Ventricle occupying 2-4 setigers. Pharynx 0.8-1.4 times longer than proventricle; proventricle 2-5 times longer than wide.

REMARKS: This species is newly reported from the Gulf of Mexico.

PREVIOUSLY REPORTED HABITAT: Littoral to 400 m; among algae, tunicates, barnacles; on Sabellaria reefs; sand.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf (Figure 30-121); 14-168 m; coarse to fine-very fine sand, silty fine to very fine sand.

DISTRIBUTION: Cosmopolitan.

Syllis (Typosyllis) sp. G
Figures 30-123, 124a-f

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

STOCS 3/IV-3 F/77 (1 spec., USNM 75234).

Supplementary Material:

Gulf of Mexico--Texas, East Flower Gardens, 27°59.57'N, 93°35.42'W, 93 m (1 spec.), 27°52.51'N, 93°58.56'W, 112 m (1 spec.).

DESCRIPTION:

Length, to 6.7 mm; width, to 1.2 mm. Body long, broad anteriorly, slender posteriorly; complete specimens with up to 55 setigers. Prostomium oval, with or without four minute eyes (Figure 30-124a). Median antenna with 27 articles, lateral antennae with 18-24 articles. Palps triangular, blunt, fused basally. Dorsal tentacular cirri with 21-28 articles, ventral ones with 13-16 articles. Dorsal cirri alternating in length, with 18-48 articles anteriorly, 10-34 articles medially. Ventral cirri slender, cirriform, extending slightly beyond parapodia. Parapodia long and slender in medial to posterior regions. Pygidium with paired cirri having 24 articles, plus short, slender, midventral cirrus. Blades of composite falcigers with unequally cleft tips (Figure 30-124b-d), and coarse basal serrations except on inferior setae (Figure 30-124d). Blade-length ratios 3.1-3.3:1 anteriorly, 2.4-2.5:1 medially, 3:1 posteriorly. Superior simple seta slender, faintly serrate (Figure 30-124e), present posteriorly. Inferior simple seta slender, sinuous, smooth, with cleft tip (Figure 30-124f), present posteriorly. Pharynx extending to setigers 5 (when everted) to 11; middorsal tooth subterminal; margin smooth and surrounded by ten soft papillae. Proventricle extending from setigers 6-12 to 17-23, with 48-50 muscle cell rows. Ventricle occupying 1-2 setigers. Proventricle 1.1-1.3 times longer than pharynx, and 3.7-4.5 times longer than wide.

REMARKS: The unusual cleft setae of Syllis (T.) sp. G are superficially similar to those of Exogonella longipedata Hartman (1965:77, pl. 10, fig. b), described from 400 m depth off New England.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off Brownsville, Texas (Figure 30-123); 91 m; clayey sand.

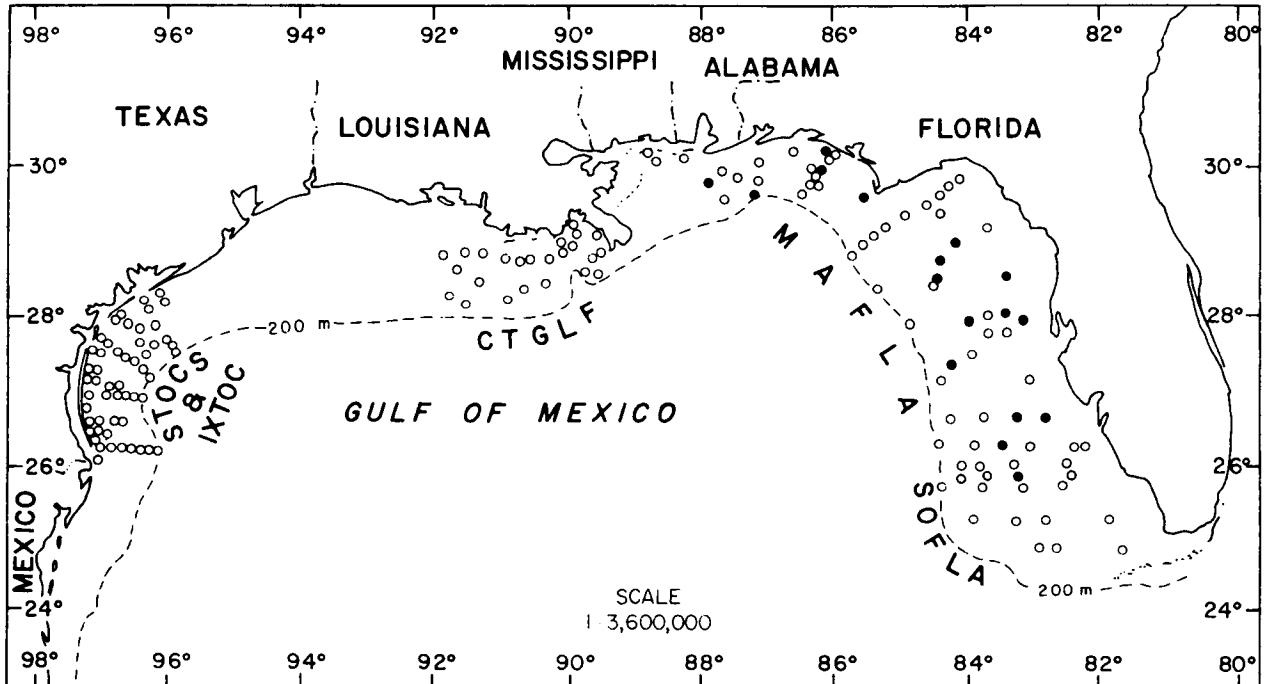


Figure 30-125. Distribution of *Syllis* (*Typosyllis*) sp. A on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

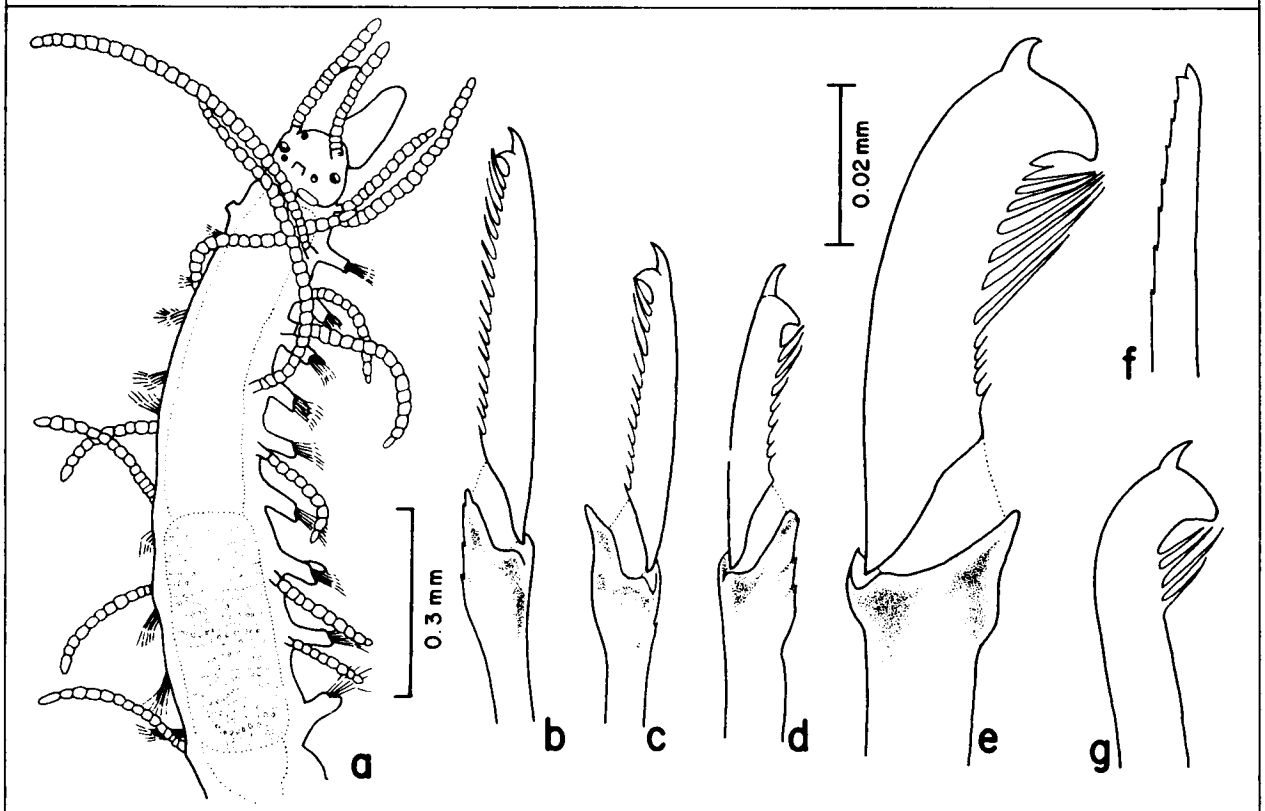


Figure 30-126. *Syllis* (*Typosyllis*) sp. A: a, anterior end; b-d from anterior region: b, superior falciger; c, medial falciger; d, inferior falciger; e, same, from midbody region; f, superior simple seta; g, inferior simple seta; scale same for b-g.

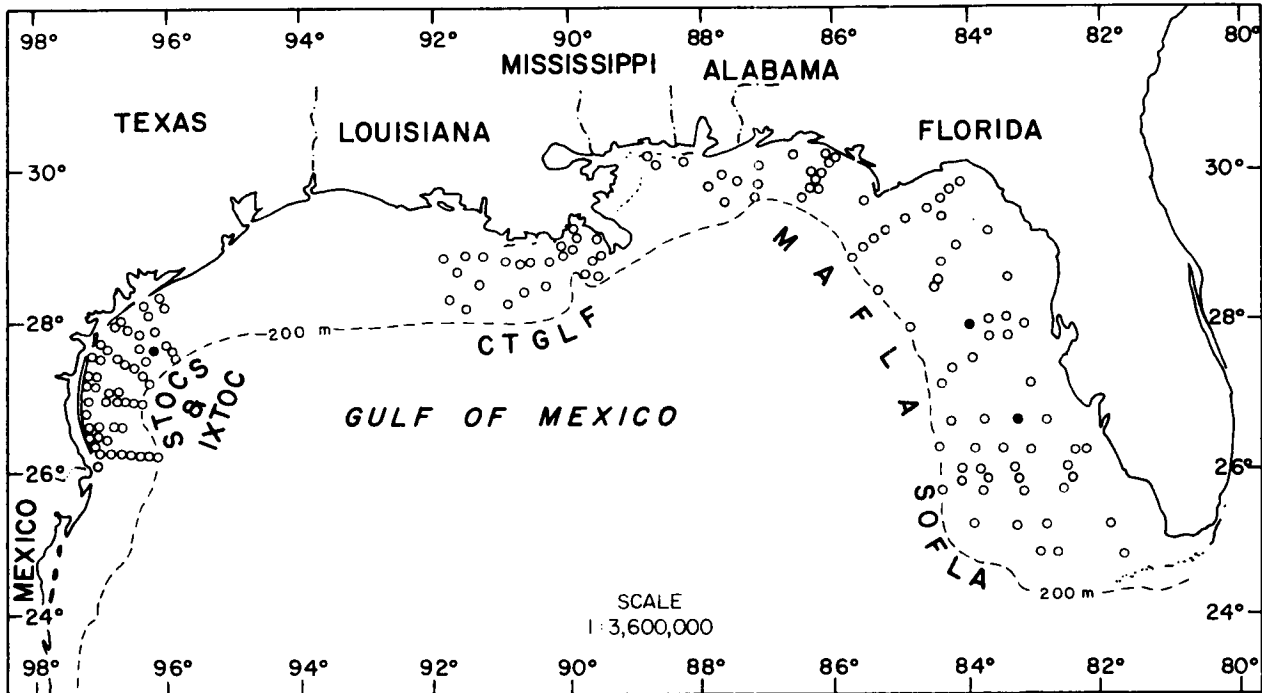


Figure 30-127. Distribution of *Syllis* (*Typosyllis*) sp. C on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

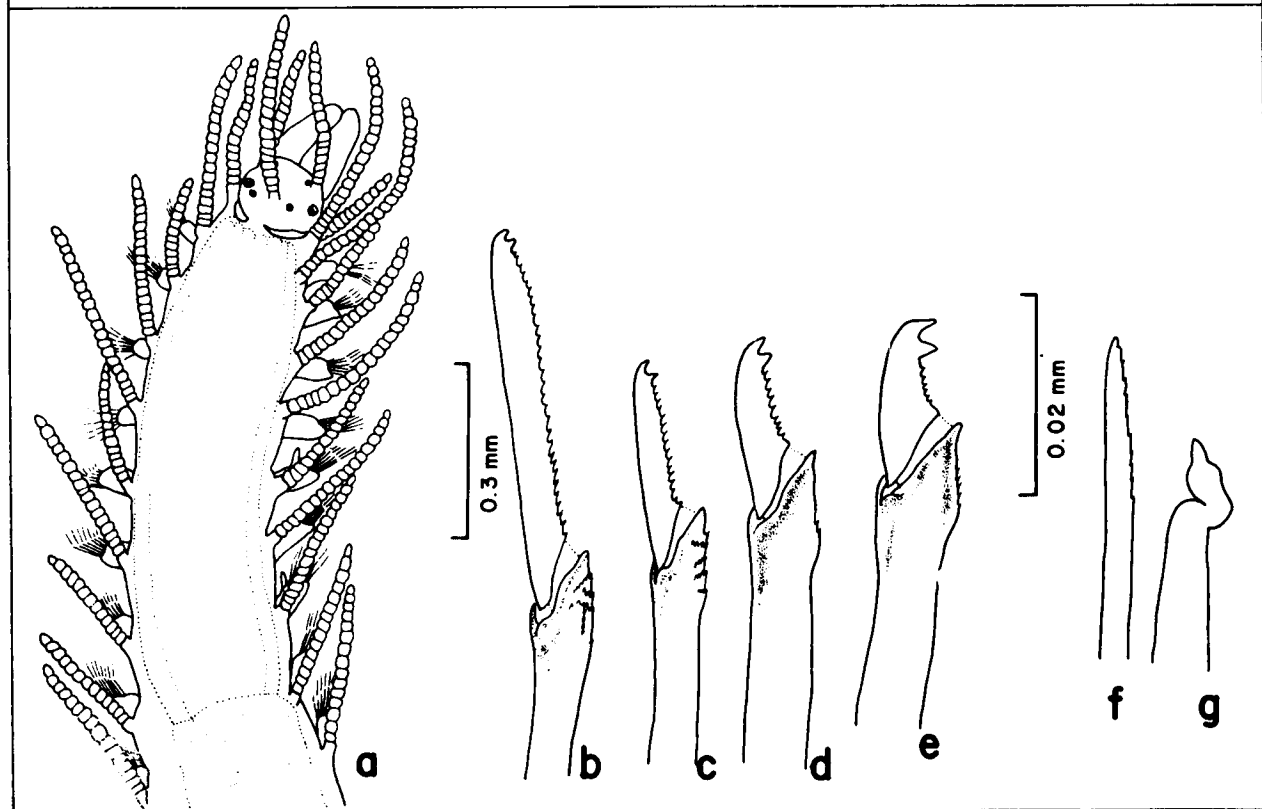


Figure 30-128. *Syllis* (*Typosyllis*) sp. C: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d, same, from midbody region; e, same, from posterior region; f, superior simple seta; g, aciculum from midbody region; scale same for b-g.

Syllis (Typosyllis) sp. A
Figures 30-125, 126a-g

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2E-11/80 (2 spec., USNM 75308; 2 spec., USNM 75312), 4A/C-7/81 (2 spec., USNM 75306); MAFLA 2208K-8/77 (1 spec.), 2211B-7/76 (1 female stolon), 2211H-7/76 (2 spec.), 2315A-8/76 (1 spec.), 2528C-8/77 (1 spec., USNM 65692, 1 spec.), 2528G-8/77 (1 spec.).

DESCRIPTION:

Length of one small complete specimen, 1.6 mm; width, to 0.3 mm. Body small, thread-like, with up to 22 setigers. Prostomium rounded with four lentigerous eyes, and two ocular spots near base of palps (Figure 30-126a). Median antenna with 16-29 articles; lateral antennae with 6-16 articles. Palps long, slender, triangular. Dorsal tentacular cirri with 18-24 articles, ventral ones with 10-16 articles. Dorsal cirri long and slender, alternating in length, with 5-38 articles anteriorly, 3-33 articles medially. Ventral cirri long, digitiform, often extending beyond parapodia. Pygidium with paired anal cirri having 22 articles, plus slender midventral cirrus. Anterior composite falcigers having bidentate blades with strong subterminal tooth and coarse serrations (Figure 30-126b-d). Composite setae of midbody region including 1-3 inferior falcigers having greatly enlarged, distally hooked blades with minute terminal tooth and massive subterminal tooth above double row of long, coarse serrations (Figure 30-126e). Blade-length ratios 1.3-1.7:1 anteriorly, 0.6-0.8:1 medially, about 0.7:1 posteriorly. Superior simple seta slender, bidentate (Figure 30-126f), present posteriorly. Inferior simple seta (Figure 30-126g) similar in appearance to blades of inferior composite falcigers, present posteriorly. Pharynx extending to setigers 3-7; middorsal tooth subterminal. Proventricle extending from setigers 4-7 to 6-10, with 24-27 muscle cell rows. Ventricle occupying 1-2 setigers. Pharynx 1.2-1.6 times length of proventricle; proventricle 2-3 times longer than wide.

REMARKS: Syllis (Typosyllis) sp. A is unique in having inferior composite falcigers with massive, distally hooked blades.

GULF OF MEXICO BLM-OCS OCCURRENCE: Widespread in northeastern Gulf (Figure 30-125); 19-106 m; coarse to fine-very fine sand, silty fine to very fine sand, clayey sandy silt.

Syllis (Typosyllis) sp. C
Figures 30-127, 128a-g

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 4B-7/81 (3 spec., USNM 75305); MAFLA 2211J-7/76 (1 spec., USNM 65694; 1 spec.); STOCS HR1-6 7/76 (1 spec., USNM 75230).

DESCRIPTION:

Length, 6.3+ mm; width, to 0.45 mm. Body long, slender; largest specimen incomplete with 50 setigers. Prostomium rounded, with four small lentigerous eyes, and two ocular spots near base of palps (Figure 30-128a). Median antenna with 18-19 articles, lateral antennae with 5-14 articles. Palps triangular, fused basally. Dorsal tentacular cirri with 11-19 articles, ventral ones with 5-11 articles. Dorsal cirri slender, alternating in length, short anteriorly with 5-28 articles,

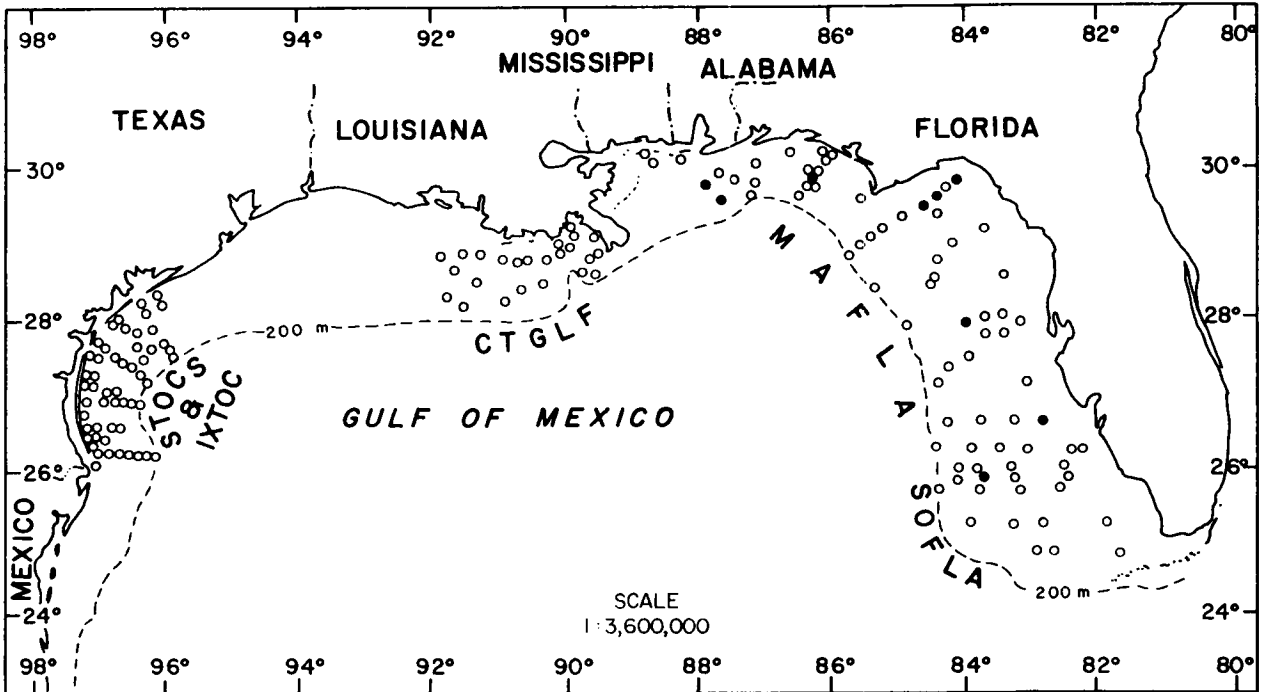


Figure 30-129. Distribution of *Syllis* (*Typosyllis*) cf. *lutea* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

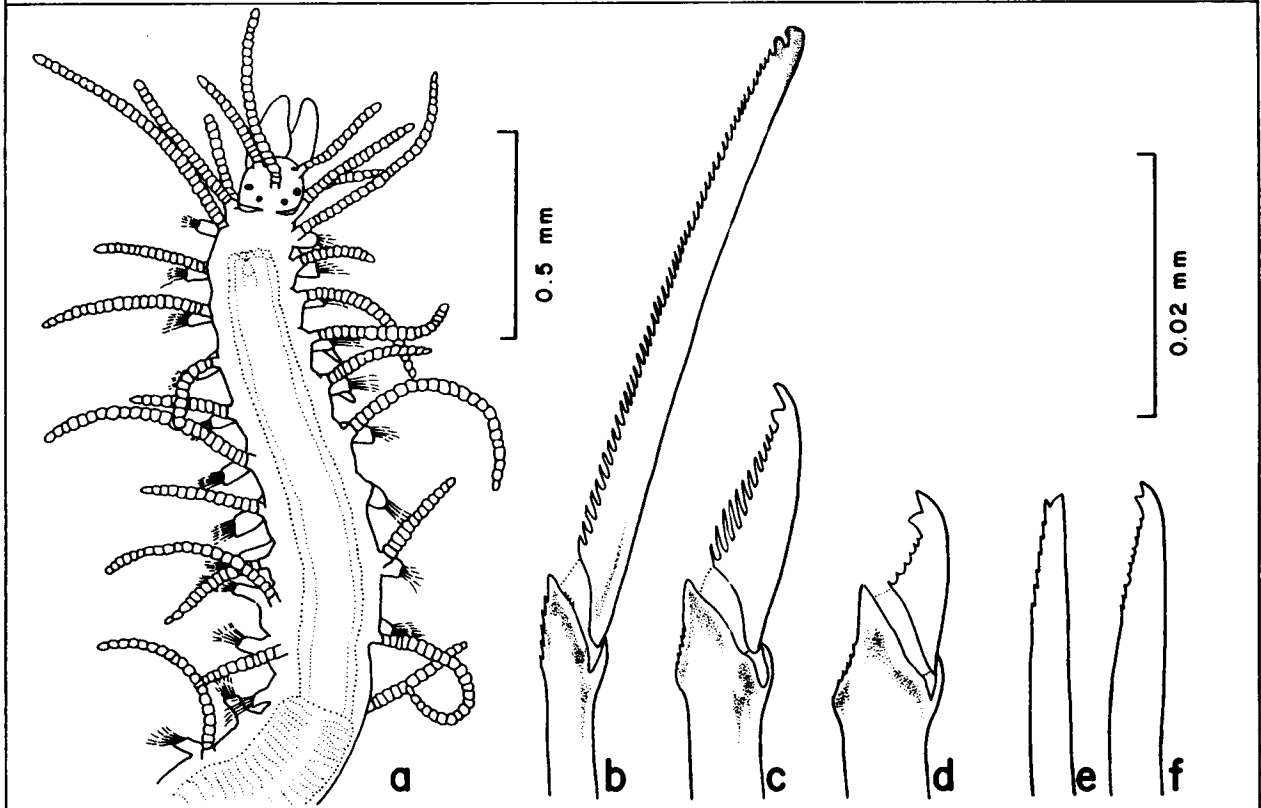


Figure 30-130. *Syllis* (*Typosyllis*) cf. *lutea*: a, anterior end; b-f from posterior region: b, superior falciger; c, medial falciger; d, inferior falciger; e, superior simple seta; f, inferior simple seta; scale same for b-f.

mostly longer than body width medially with 11-20 articles. Ventral cirri digitiform, usually not extending beyond parapodia. Composite falcigers having bidentate blades with short serrations (Figure 30-128b,c). Inferior falcigers of medial to posterior regions with enlarged teeth perpendicular to long axis of blade (Figure 30-128d,e). Blade-length ratios 1.4-2:1 anteriorly, 1.8-2.2:1 medially, about 1:1 posteriorly. Superior simple seta minutely bidentate (Figure 30-128f), present posteriorly. Inferior simple seta with two large teeth similar to those of inferior falcigers, present posteriorly. Acicula with twisted, acuminate tips (Figure 30-128g). Pharynx extending to setigers 5-8; margin smooth; middorsal tooth subterminal. Proventricle extending from setigers 6-9 to 10-13, with 29-32 muscle cell rows. Ventricle occupying 1-2 setigers. Pharynx 0.9-1.3 times length of proventricle; proventricle 2.4-3.2 times longer than wide. Gametes present from about setiger 25.

REMARKS: This species was confused with Syllis (T.) hyalina in BLM-STOCS collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off central Florida and one off central Texas (Figure 30-127); 43-75 m; coarse to medium sand.

Syllis (Typosyllis) cf. lutea (Hartmann-Schröder, 1960)
Figures 30-129, 130a-f

Typosyllis lutea Hartmann-Schröder, 1960:81, pls. 2, 5, figs. 38-41.
Syllis (Typosyllis) lutea--Ben-Eliahu, 1977:40.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2D-11/80 (2 spec.); 18D-4/81 (1 spec., USNM 75310); MAFLA 2211H-7/76 (4 spec.), 2419H-2/78 (1 spec.), 2421-11/77 (1 spec., USNM 55825), 2422I-7/76 (1 spec.), 2533C-7/76 (2 spec.), 2533H-2/78 (2 spec.), 2640-7/76 (1 spec., USNM 55830), 2643G-11/77 (1 spec.).

DESCRIPTION:

Length, to 15.3 mm (previously reported to 4.07 mm); width, to 0.7 mm (previously reported to 0.29 mm). Body long, slender; complete specimens with up to 104 setigers. Prostomium rounded to triangular, with four small lentigerous eyes, and two ocular spots near base of palps (Figure 30-130a). Median antenna arising between eyes, with 8-28 articles; lateral antennae with 7-19 articles. Palps triangular, blunt. Dorsal tentacular cirri with 9-19 articles, ventral ones with 7-17 articles. Dorsal cirri with 7-44 articles anteriorly, 6-24 articles medially. Ventral cirri digitiform, often extending beyond parapodia anteriorly. Pygidium with paired cirri having 12-20 articles, plus short, slender, midventral cirrus. Composite falcigers slender, bidentate, with fine serrations (Figure 30-130b-d). Superior falcigers long-bladed, with knobbed terminal tooth (Figure 30-130b); blade-length ratios 1.9-3.1:1 anteriorly, 2.2-4.7:1 medially, 1.2-3.3:1 posteriorly. Superior and inferior simple setae slender, bifid or bidentate (Figure 30-130e,f), present posteriorly. Acicula slender, distally recurved. Pharynx extending to setigers 5-11; margin surrounded by ten soft papillae; middorsal tooth subterminal. Proventricle extending from setigers 6-12 to 9-16, with 32 (26-38) muscle cell rows. Ventricle occupying 1-2 setigers. Pharynx 0.8-1.7 times length of proventricle; proventricle 2.6-4.5 times longer than wide.

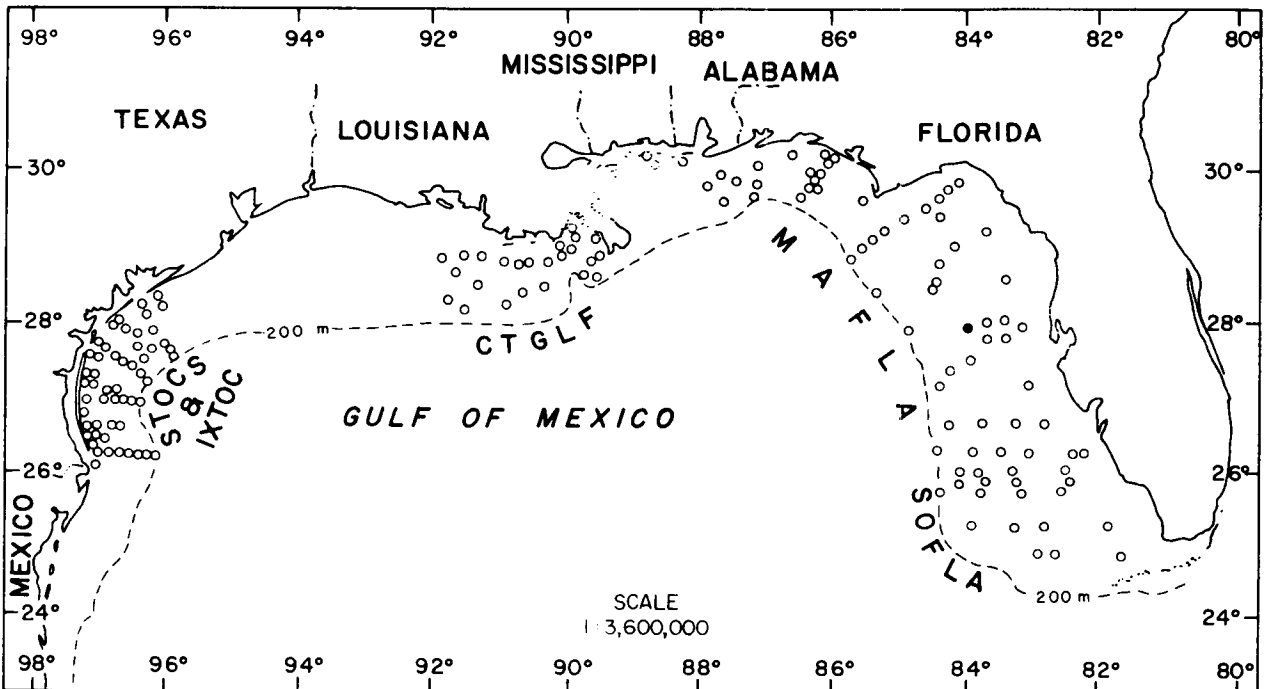


Figure 30-131. Distribution of *Syllis (Typosyllis)* sp. F on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

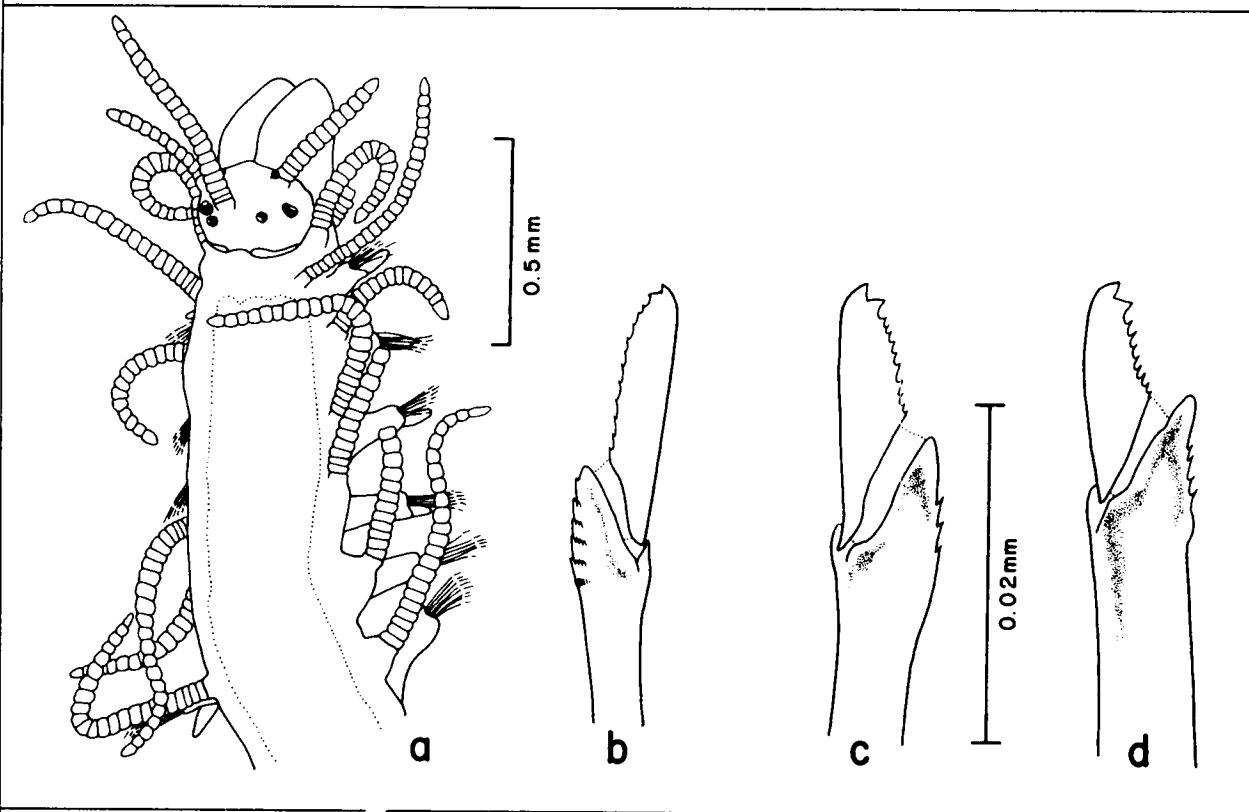


Figure 30-132. *Syllis (Typosyllis)* sp. F: a, anterior end; b, superior falciger from anterior region; c, same, from midbody region; d, inferior falciger from same; scale same for b-d.

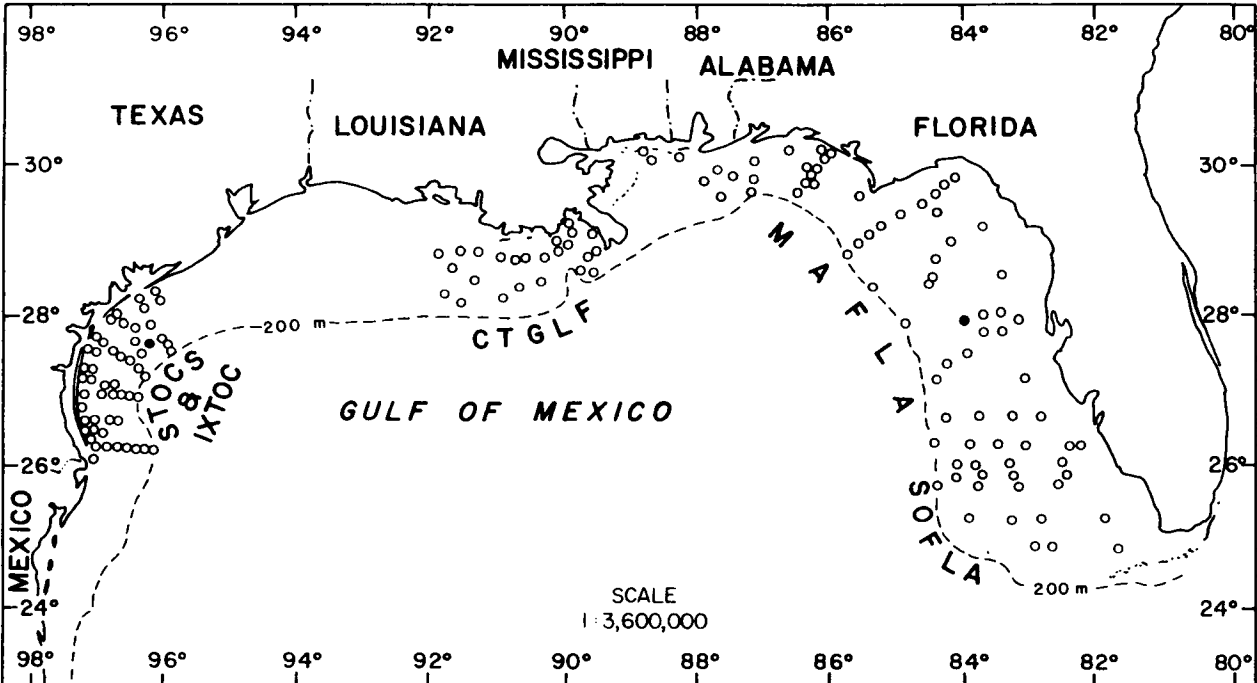


Figure 30-133. Distribution of *Syllis* (*Typosyllis*) sp. D on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

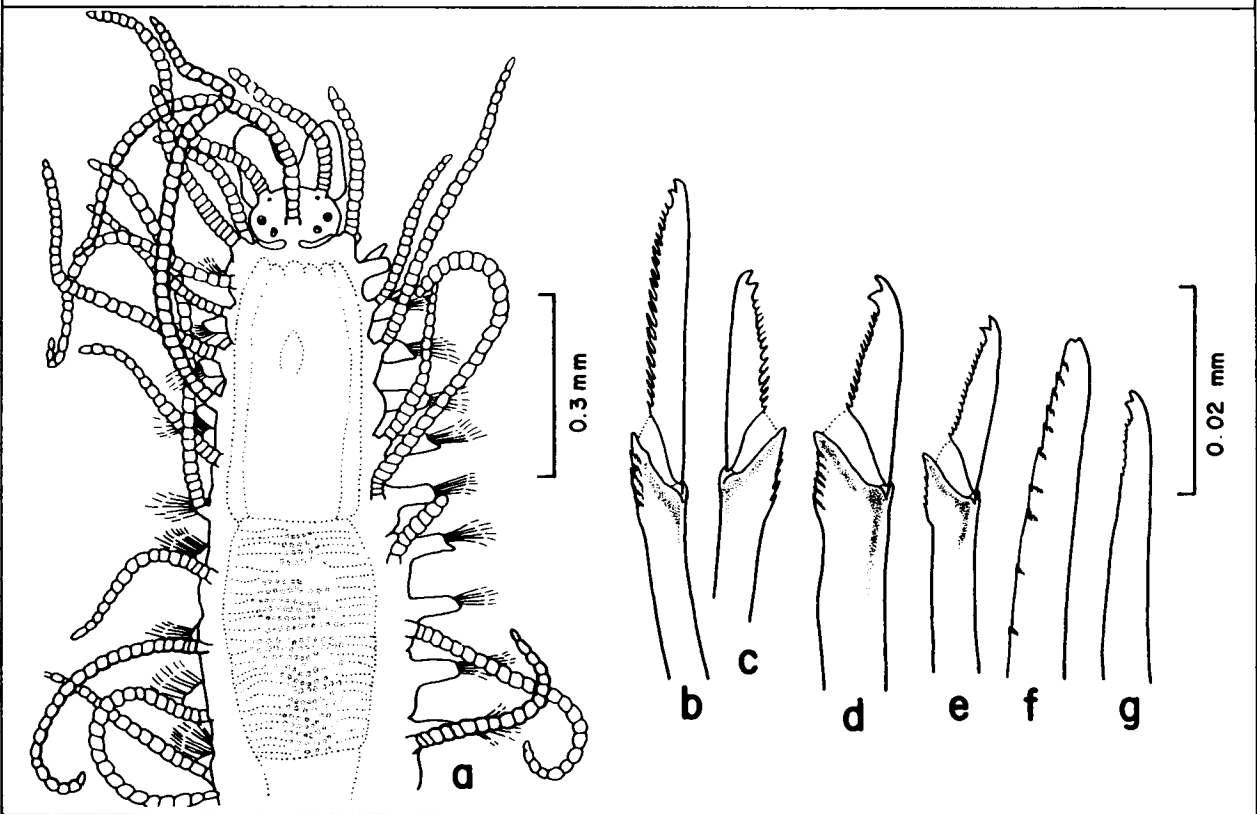


Figure 30-134. *Syllis* (*Typosyllis*) sp. D: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from same; d-g from posterior region: d, e, medial falcigers; f, superior simple seta; g, inferior simple seta; scale same for b-g.

REMARKS: These specimens differ from Syllis (Typosyllis) lutea in having the blades of the composite falcigers with knobbed terminal teeth; smaller, rounded subterminal teeth; and finer serrations. S. (T.) cf. lutea was confused with several other species of Syllis in BLM-OCS collections.

PREVIOUSLY REPORTED HABITAT: Intertidal; on vermetid reefs, coral.
GULF OF MEXICO BLM-OCS OCCURRENCE: Scattered records in northeastern Gulf (Figure 30-129); 10-87 m; coarse to fine sand, silty fine sand.
DISTRIBUTION: E. and W. African coasts, Suez Canal, Red Sea, Gulf of Elat, ?Gulf of Mexico.

Syllis (Typosyllis) sp. F
Figures 30-131, 132a-d

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211F-7/76 (1 spec., USNM 89884).

DESCRIPTION:

Length, 2.3+ mm; width, 0.4 mm. Body slender; incomplete with 16 setigers. Prostomium oval, with four lentigerous eyes, plus two ocular spots at base of palps (Figure 30-132a). Median antenna with 20 articles, lateral antennae with 11-13 articles. Palps triangular, blunt. Dorsal tentacular cirri with 20 articles, ventral ones with 11 articles. Dorsal cirri with 18-27 articles anteriorly, 19-24 articles in midbody region. Ventral cirri tapered, extending slightly beyond parapodia. Composite falcigers bidentate with short serrations and small teeth (Figure 30-132b-d). Blades of superior falcigers broadest subdistally (Figure 30-132b) in anterior region. Blade-length ratios 1.5:1 anteriorly, 1:1 medially. Simple setae not observed. Pharynx extending to setiger 9. Proventricle located in setigers 10-13, with 31 muscle cell rows. Ventricle occupying two setigers. Pharynx 1.5 times length of proventricle; proventricle 2.7 times longer than wide.

REMARKS: Syllis (Typosyllis) sp. F was originally referred to S. corallicola Verrill, 1900, in BLM-MAFLA collections. It differs from the latter in having a smaller body with much shorter dorsal cirri, and anterior falcigers with shorter blades.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off central Florida (Figure 30-131); 43 m; coarse sand.

Syllis (Typosyllis) sp. D
Figures 30-133, 134a-g

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211J-7/76 (1 spec.); STOCS HR1-1 7/76 (1 spec., USNM 75231).

DESCRIPTION:

Length of one complete specimen, 4.4 mm; width, to 0.45 mm. Body fairly long, slender, with up to 55 setigers. Prostomium rounded, with four lentigerous eyes and two ocular spots (Figure 30-134a). Median antenna with 33 articles, lateral antennae with 13-17 articles. Palps blunt, fused basally. Dorsal tentacular cirri with 18-29 articles, ventral ones with 10-14 articles. Dorsal cirri longer than body width, alternating in length, with 11-42 articles anteriorly and 8-29 articles

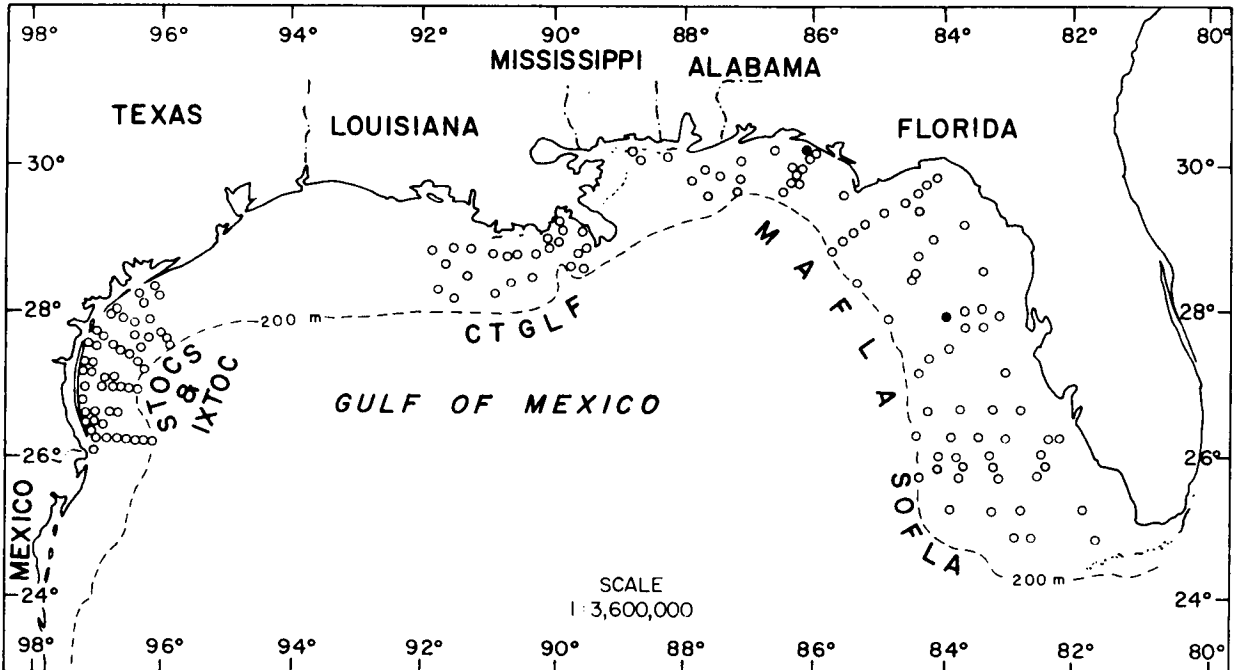


Figure 30-135. Distribution of *Syllis* (*Typosyllis*) cf. *alternata* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

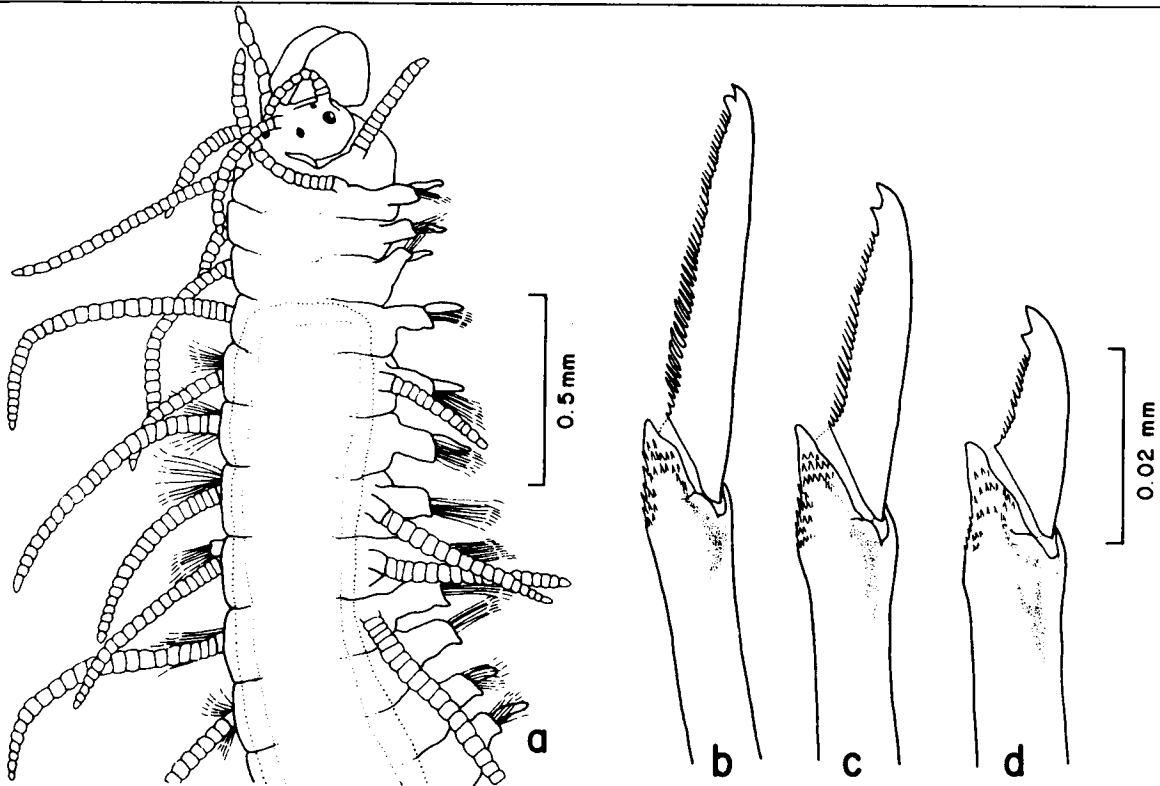


Figure 30-136. *Syllis* (*Typosyllis*) cf. *alternata*: a, anterior end; b-d from midbody region: b, superior falciger; c, medial falciger; d, inferior falciger; scale same for b-d.

medially. Ventral cirri digitiform, extending past parapodia anteriorly. Composite falcigers slender, bidentate, with short serrations and small teeth (Figure 30-134b-e). Blade-length ratios 1.3-1.6 anteriorly, 1.1:1 medially, 1.3-1.4:1 posteriorly. Superior simple seta minutely bifid (Figure 30-134f), present posteriorly; inferior simple seta bidentate (Figure 30-134g). Pharynx extending to setigers 6-8; margin smooth and surrounded by ten soft papillae; middorsal tooth located in anterior third. Proventricle located in setigers 6-10 or 9-17, with 26-34 muscle cell rows. Ventricle occupying two setigers. Proventricle about same length as pharynx and 1.7-1.8 times longer than wide.

REMARKS: This species has setae similar to those of Syllis (Typosyllis) sp. B. It differs from the latter in having longer dorsal cirri and a proventricle length:width ratio less than 2:1. Syllis (T.) sp. D was originally confused with S. alternata and S. hyalina in BLM-OCS collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station off central Florida and one off central Texas (Figure 30-133); 43-75 m; coarse sand.

Syllis (Typosyllis) cf. alternata Moore, 1908
Figures 30-135, 136a-d

Syllis alternata Moore, 1908:323, figs. a-f.

Typosyllis alternata--Imajima, 1966:273, fig. 58a-1.

Syllis (Typosyllis) alternata--Gardiner, 1976:141, fig. 13b,c.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211J-11/77 (1 spec.), 2528A-6/75 (1 spec., USNM 65691).

Supplementary Material:

Alaska--near Naha Bay, Behm Canal, S. E. Alaska, Sta. 4228 Alb. 1903, 203-245 m (USNM 5542, cotype); Dundas Bay, Icy Strait, Sta. 4261 Alb. 1903, 16-18 m (USNM 5765, cotype).

DESCRIPTION:

Length, 5.6+ mm (previously reported to 23 mm); width, to 0.9 mm (previously reported to 0.8 mm). Body stout anteriorly; both specimens incomplete. Prostomium irregularly rounded, trilobed anteriorly, with four lentigerous eyes, with or without two ocular spots (Figure 30-136a). Median antenna with 13-16 articles, lateral antennae with 11-12 articles. Palps short, bluntly triangular. Nuchal organs sometimes lightly pigmented. Dorsal tentacular cirri with 17-19 articles, ventral ones with nine articles. Dorsal cirri with 10-27 articles anteriorly, 12-21 articles medially. Ventral cirri digitiform, extending well beyond parapodia anteriorly. Composite falcigers bidentate with short, fine serrations, and teeth at oblique angle to long axis of blade (Figure 30-136b-d), blade-length ratios 1.7:1 throughout. Superior and inferior simple setae not observed. Acicula distally pointed, numbering four per parapodium anteriorly. Pharynx extending to setigers 11-13; middorsal tooth subterminal. Proventricle extending from setigers 12-13 to 20-21, with 41-42 muscle cell rows. Ventricle occupying one setiger. Pharynx 0.8-1.3 times length of proventricle; proventricle about four times longer than wide.

REMARKS: Gulf of Mexico BLM-OCS specimens differ from the types in having setal blades with more strongly developed teeth and longer serrations.

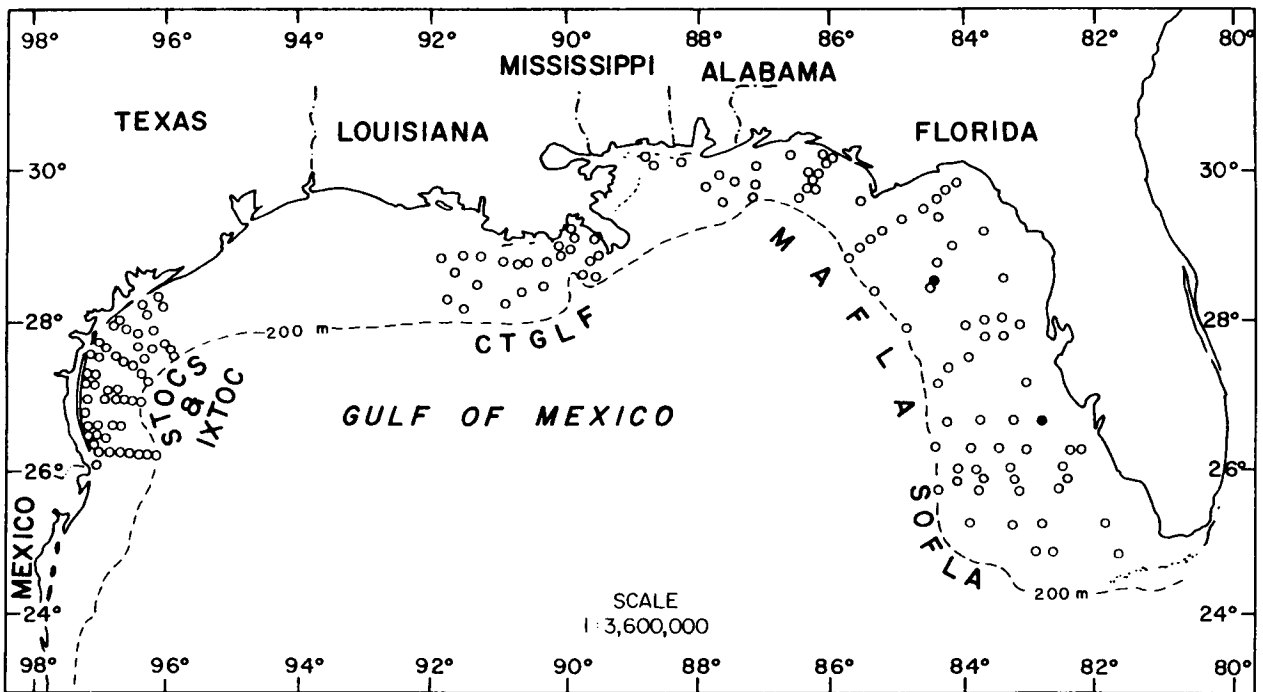


Figure 30-137. Distribution of *Syllis (Typosyllis) corallicoloides* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

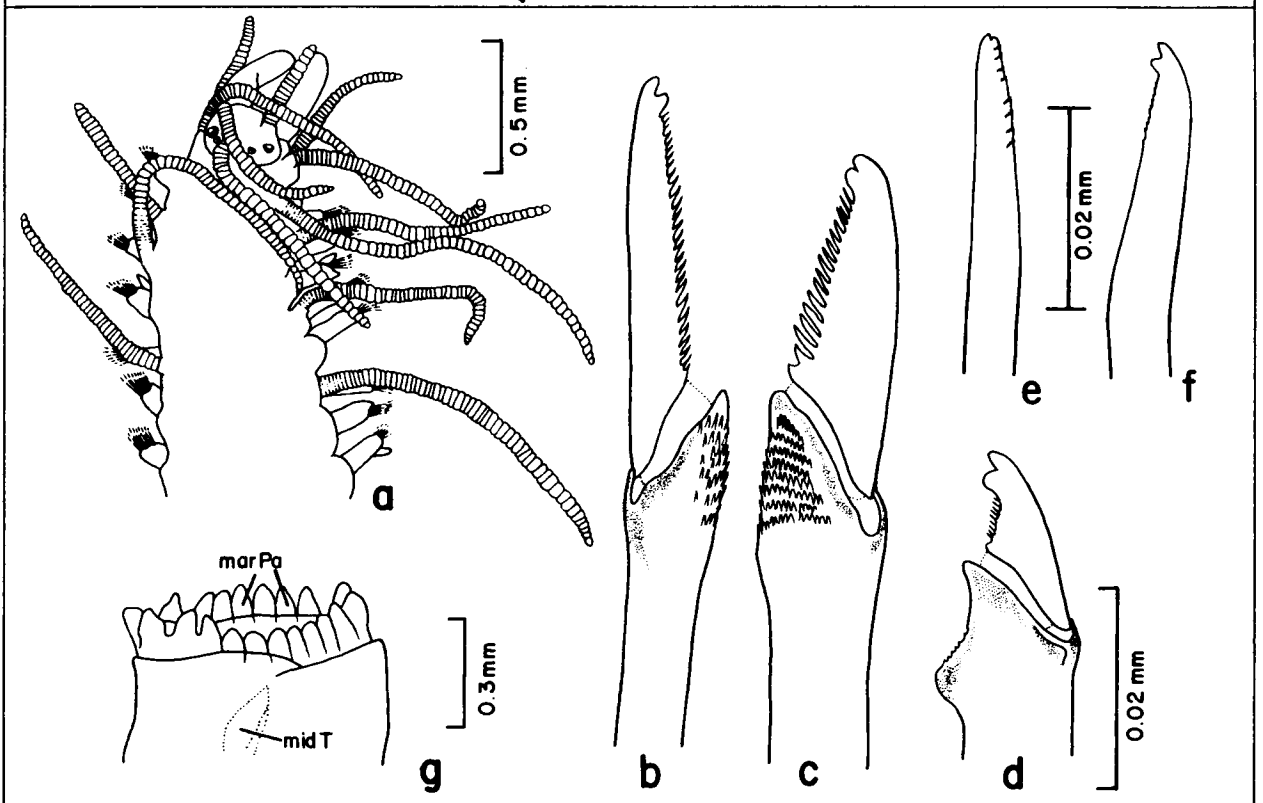


Figure 30-138. *Syllis (Typosyllis) corallicoloides*: a, anterior end; b, medial falciger from anterior region; c, superior falciger from midbody region; d, inferior falciger from posterior region; e, superior simple seta; f, inferior simple seta; g, pharynx; scale same for b-f.

PREVIOUSLY REPORTED HABITAT: Intertidal to 350 m; hard bottom.
GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off central and north-western Florida (Figure 30-135); 37-43 m; coarse sand.
DISTRIBUTION: Alaska to California, northeast Japan Sea, Japan, East Indies, North Carolina, ?Gulf of Mexico.

Syllis (Typosyllis) corallicoloides Augener, 1922
Figures 30-137, 138a-g

Syllis (Typosyllis) corallicoloides Augener, 1922:42; 1927a:134; 1927b:51; 1933:227; 1936:341.

Eusyllis antillensis Augener, 1922:44.

Syllis (Typosyllis) tigrinoides Augener, 1922:43; 1927b:52; 1931:286; 1933:229.

Typosyllis corallicoloides [sic]--Hartman, 1951a:41.

Typosyllis corallicoloides [sic]--Marsden, 1960:995.

Syllis (Typosyllis) corallicoloides--Uebelacker, 1982b:587, fig. 3a-j.

Syllis (Typosyllis) tigrinoides--Uebelacker, 1982b:589, fig. 4a-i.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 2D-11/80 (2 spec., USNM 75307; 2 spec., USNM 75311); MAFLA 2315A-2/78 (2 spec.).

Supplementary Material:

West Indies--St. Croix, Grube coll. (MNHUB 3020, 2 syntypes of *S. corallicoloides*); St. Thomas Sound, Kükenthal and Hartmeyer colls., Jan. 1907 (MNHUB 6594, holotype of *Eusyllis antillensis*).

Florida--Dry Tortugas, Bird Key Reef and S. W. Channel, Hartmeyer coll. (MNHUB 6597, holotype of *Syllis tigrinoides*).

DESCRIPTION:

Length, to 24.7 mm (previously reported to 17.7 mm); width, to 1.0 mm (previously reported to 1.8 mm). Body fairly stout anteriorly, slender posteriorly; all specimens incomplete with up to 72 setigers. Prostomium oval with four lentigerous eyes, and with or without two ocular spots near base of palps (Figure 30-138a). Median antenna with 27-39 articles, lateral antennae with 18-26 articles. Palps separate basally, rounded distally. Nuchal organs sometimes lightly pigmented. Dorsal tentacular cirri with 21-38 articles, ventral ones with 14-25 articles. Dorsal cirri alternating in length, with 14-61 articles anteriorly, 12-49 articles medially. Ventral cirri digitiform, extending beyond parapodia anteriorly. Composite falcigers with lightly serrate, bidentate blades (Figure 30-138b,c); inferior falcigers with broad shafts in midbody region (Figure 30-138d); blade-length ratios 1.5-1.8:1 anteriorly, 1.2-1.8:1 medially, 1.4-1.6:1 posteriorly. Superior simple seta distally bifid (Figure 30-138e), present posteriorly. Inferior simple seta distally bidentate (Figure 30-138f), present posteriorly. Pharynx extending to setigers 8-15; margin smooth, surrounded by 17-20 soft papillae (Figure 30-138g); middorsal tooth subterminal. Proventricle extending from setigers 9-16 to 16-29, with 29-36 muscle cell rows. Ventricle occupying 2-5 setigers. Proventricle 0.7-1.4 times as long as pharynx and 2.3-5 times as long as wide.

REMARKS: Uebelacker (1982b:589) synonymized *Eusyllis antillensis* with *Syllis tigrinoides*, and suggested that *S. tigrinoides* and *S. corallicoloides* might also represent the same species. Differences between the

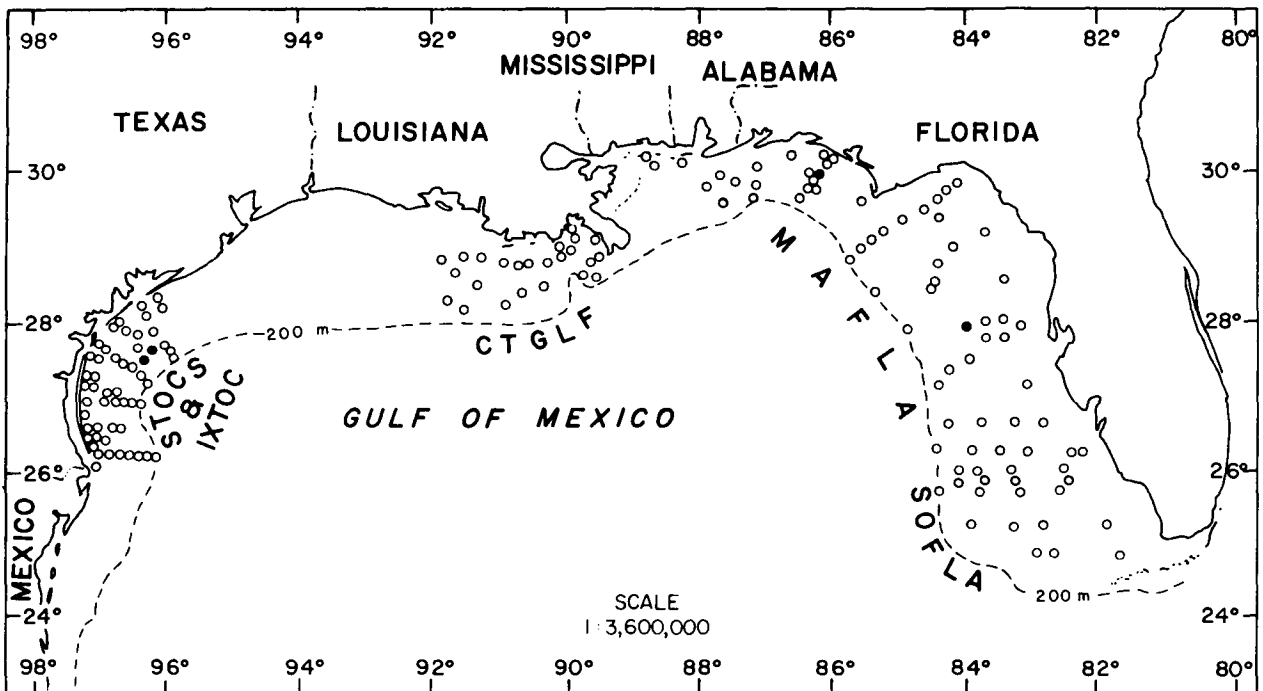


Figure 30-139. Distribution of *Syllis (Typosyllis) sp. E* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

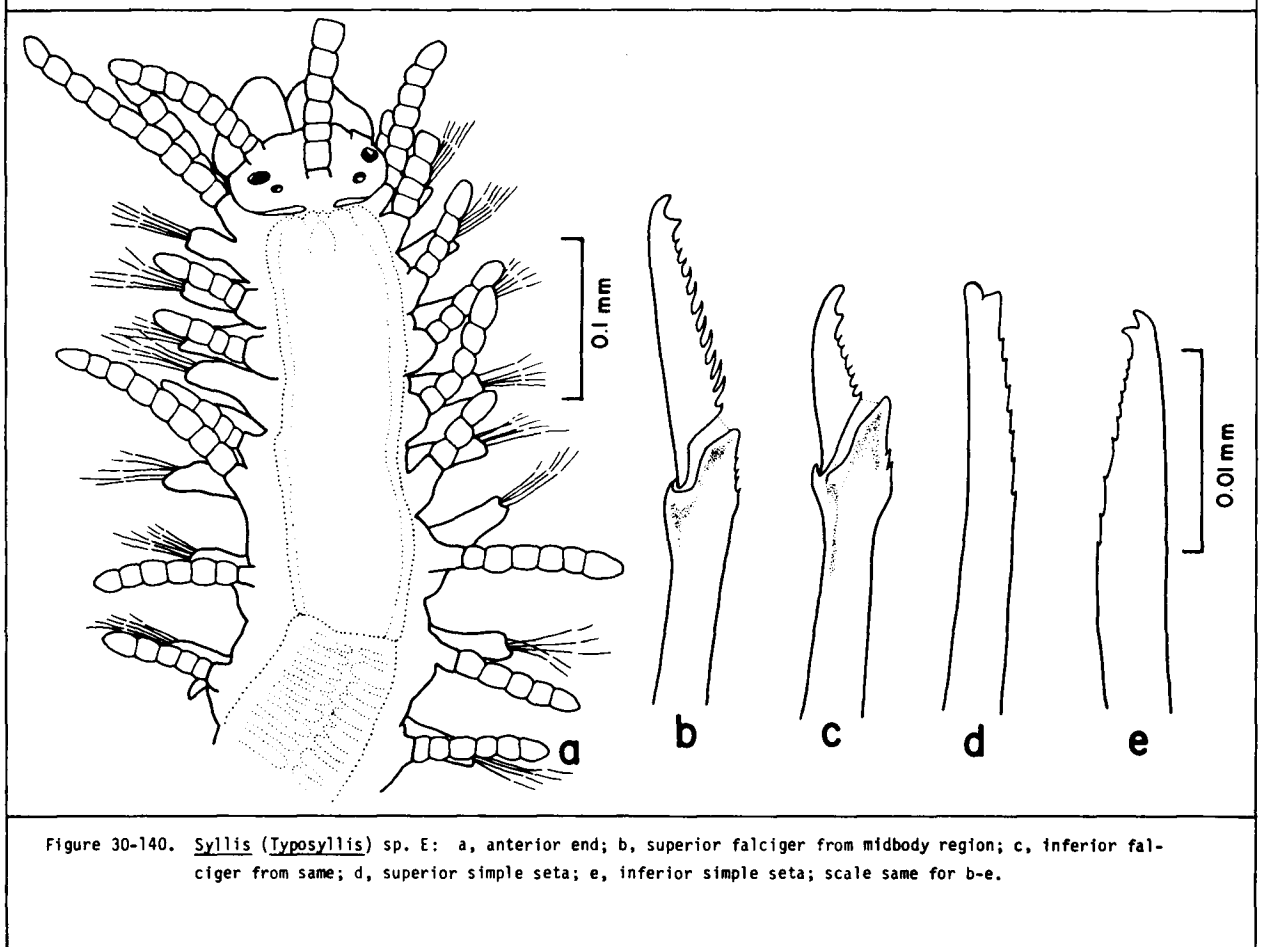


Figure 30-140. *Syllis (Typosyllis) sp. E*: a, anterior end; b, superior falciger from midbody region; c, inferior falciger from same; d, superior simple seta; e, inferior simple seta; scale same for b-e.

types of the latter two are minimal, and Gulf of Mexico BLM-OCS specimens exhibit intermediate characteristics which further diminish these differences. Thus, S. tigrinoides is hereby synonymized with S. corallicoloides.

PREVIOUSLY REPORTED HABITAT: None reported.

GULF OF MEXICO BLM-OCS OCCURRENCE: Two stations off central Florida (Figure 30-137); 24-38 m; medium sand, silty fine sand.

DISTRIBUTION: West Indies; Veracruz, Mexico; Brazil; Gulf of Mexico.

Syllis (Typosyllis) sp. E
Figures 30-139, 140a-e

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211H-7/76 (1 spec.), 2531H-11/77 (1 spec., USNM 65695); STOCS HR1-1 7/76 (1 spec., USNM 75232), HR1-6 7/76 (3 spec., USNM 75233), SB3-3 S/76 (1 spec.).

DESCRIPTION:

Length, to 5.5 mm; width, to 0.2 mm. Body small, slender; complete specimens with up to 43 setigers. Prostomium rounded, with four lentigerous eyes (Figure 30-140a). Median antenna arising between eyes, with 9-20 articles; lateral antennae with 5-9 articles. Palps short, blunt, triangular. Dorsal tentacular cirri with 6-11 articles, ventral ones with 3-7 articles. Dorsal cirri short, digitiform, not alternating in length, with 2-12 articles anteriorly, 4-7 articles medially. Ventral cirri ovoid, shorter than parapodia. Pygidium with paired cirri having 4-7 articles, and a broad, triangular midventral projection. Composite falcigers bidentate with short, coarse serrations (Figure 30-140b,c); blades often curved and basally broad; blade-length ratios 1.8-2.2:1 anteriorly, 1.7-2.2:1 medially, 1.3-2.1:1 posteriorly. Superior simple seta serrate, distally rounded with subdistal shelf-like projection (Figure 30-140d), present from midbody region. Inferior simple seta bidentate (Figure 30-140e), present posteriorly. Pharynx extending to setigers 4-7; margin surrounded by ten soft papillae; middorsal tooth subterminal. Proventricle extending from setigers 4-8 to 7-12, with 21-26 muscle cell rows. Ventricle occupying one setiger. Pharynx 1-3.4 times length of proventricle; proventricle 1.8-3.2 times longer than wide.

REMARKS: This species was originally referred to S. hyalina and S. anops in BLM-OCS collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: Few stations in northeastern and northwestern Gulf (Figure 30-139); 43-82 m; coarse sand.

Syllis (Typosyllis) gerlachi (Hartmann-Schröder, 1960)
Figures 30-141, 142a-g

Typosyllis gerlachi Hartmann-Schröder, 1960:81, pls. 6, 7, figs. 42-44.
Syllis (Typosyllis) gerlachi--Ben-Eliahu, 1977:19, fig. 5a-j.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2315A-8/76 (1 spec.).

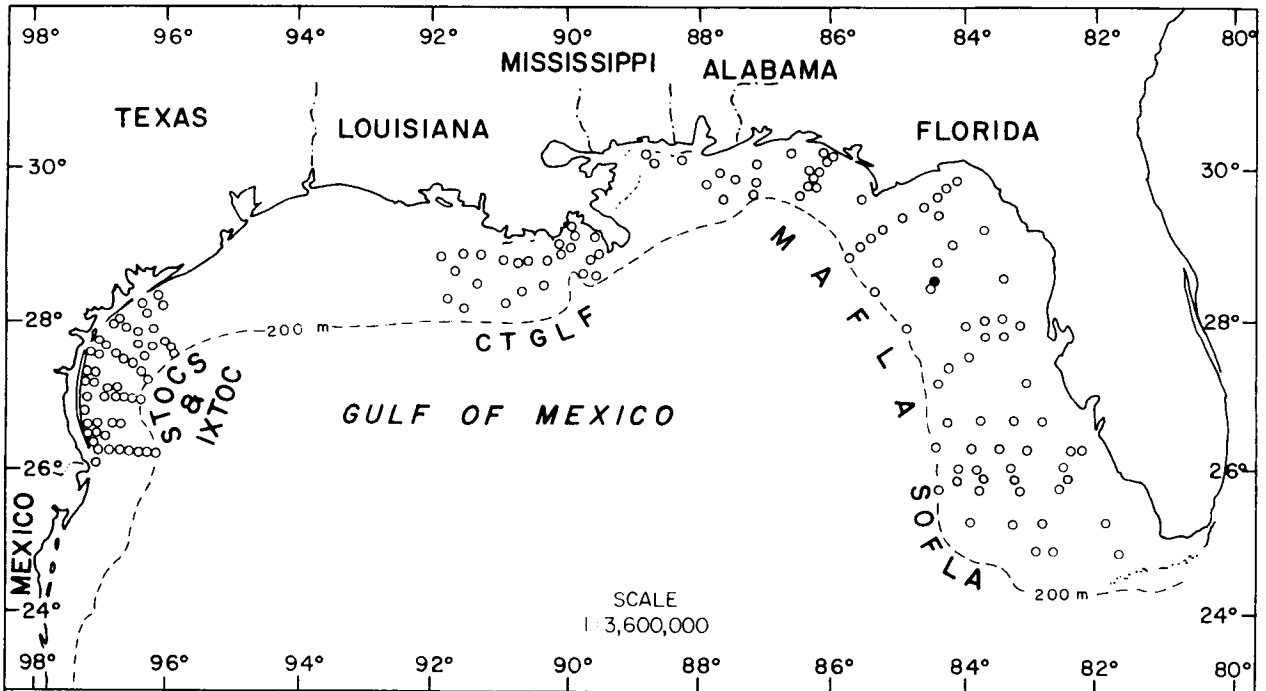


Figure 30-141. Distribution of *Syllis* (*Typosyllis*) *gerlachi* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

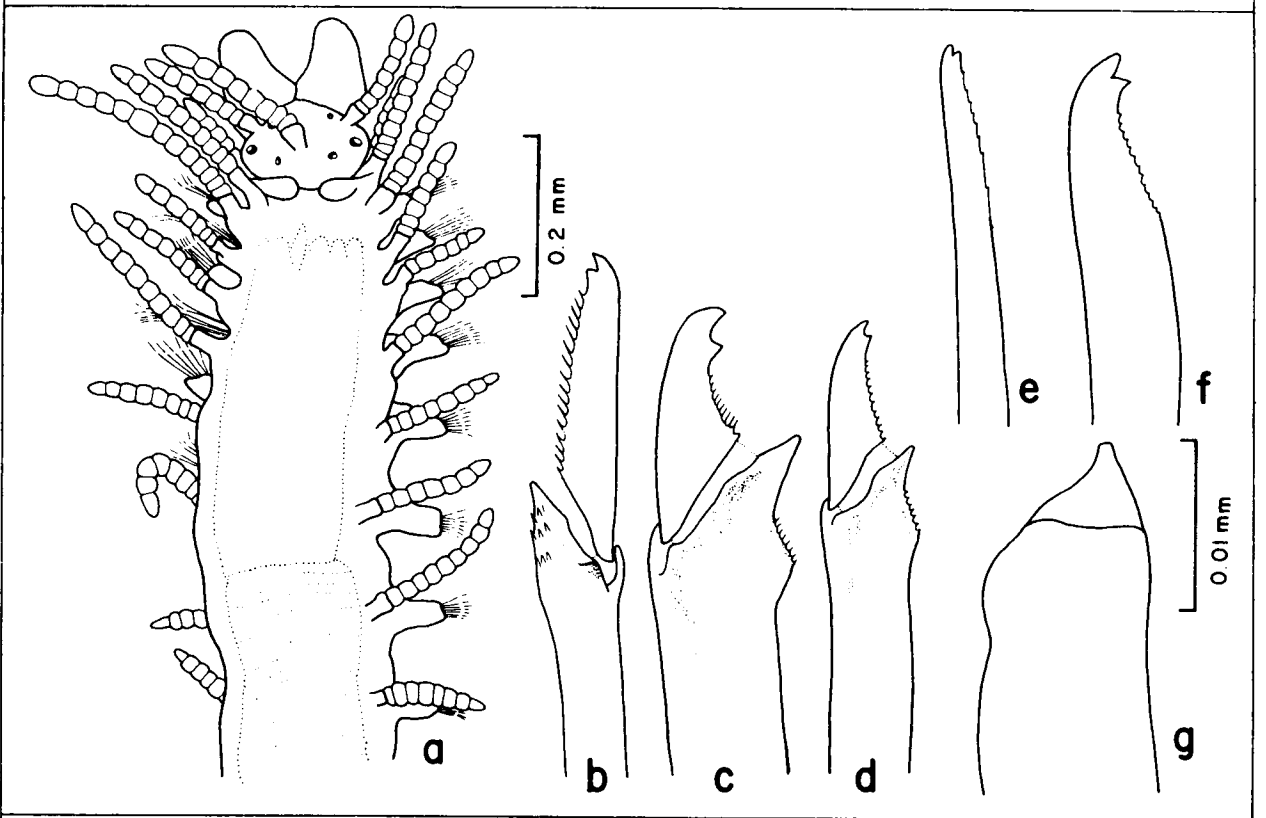


Figure 30-142. *Syllis* (*Typosyllis*) *gerlachi*: a, anterior end; b, superior falciger from anterior region; c-g from posterior region: c,d, medial falcigers; e, superior simple seta; f, inferior simple seta; g, aciculum; scale same for b-g.

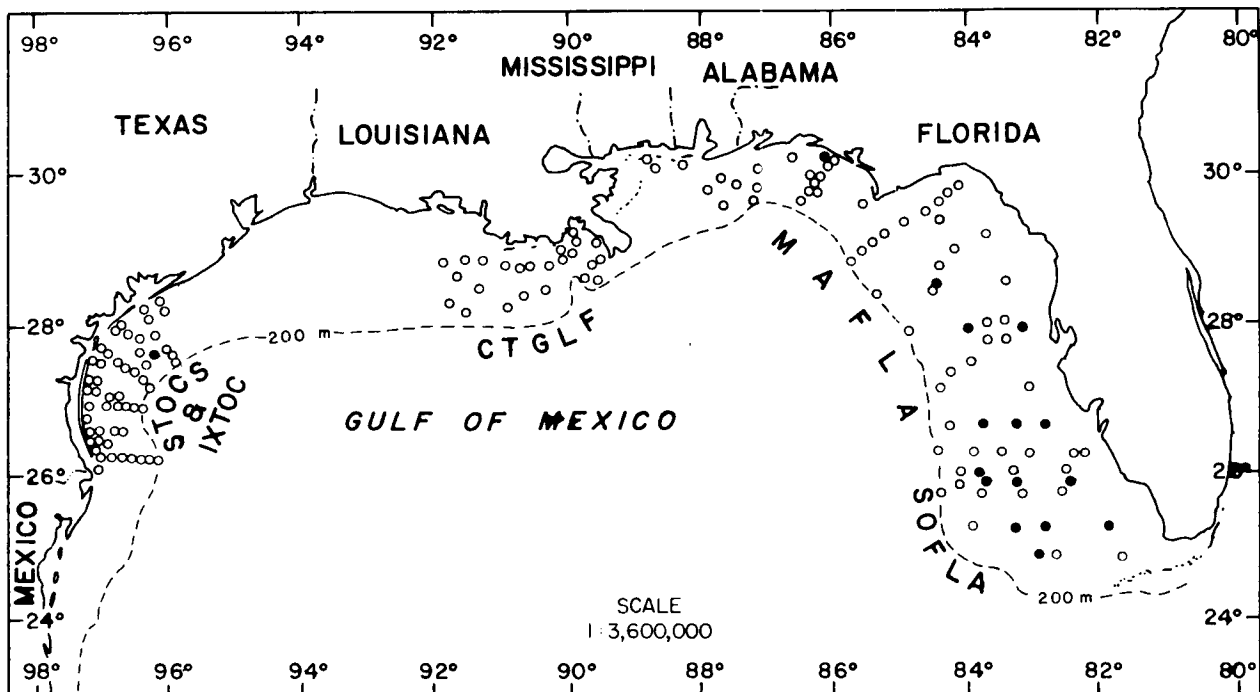


Figure 30-143. Distribution of *Syllis* (*Typosyllis*) sp. B on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring program.

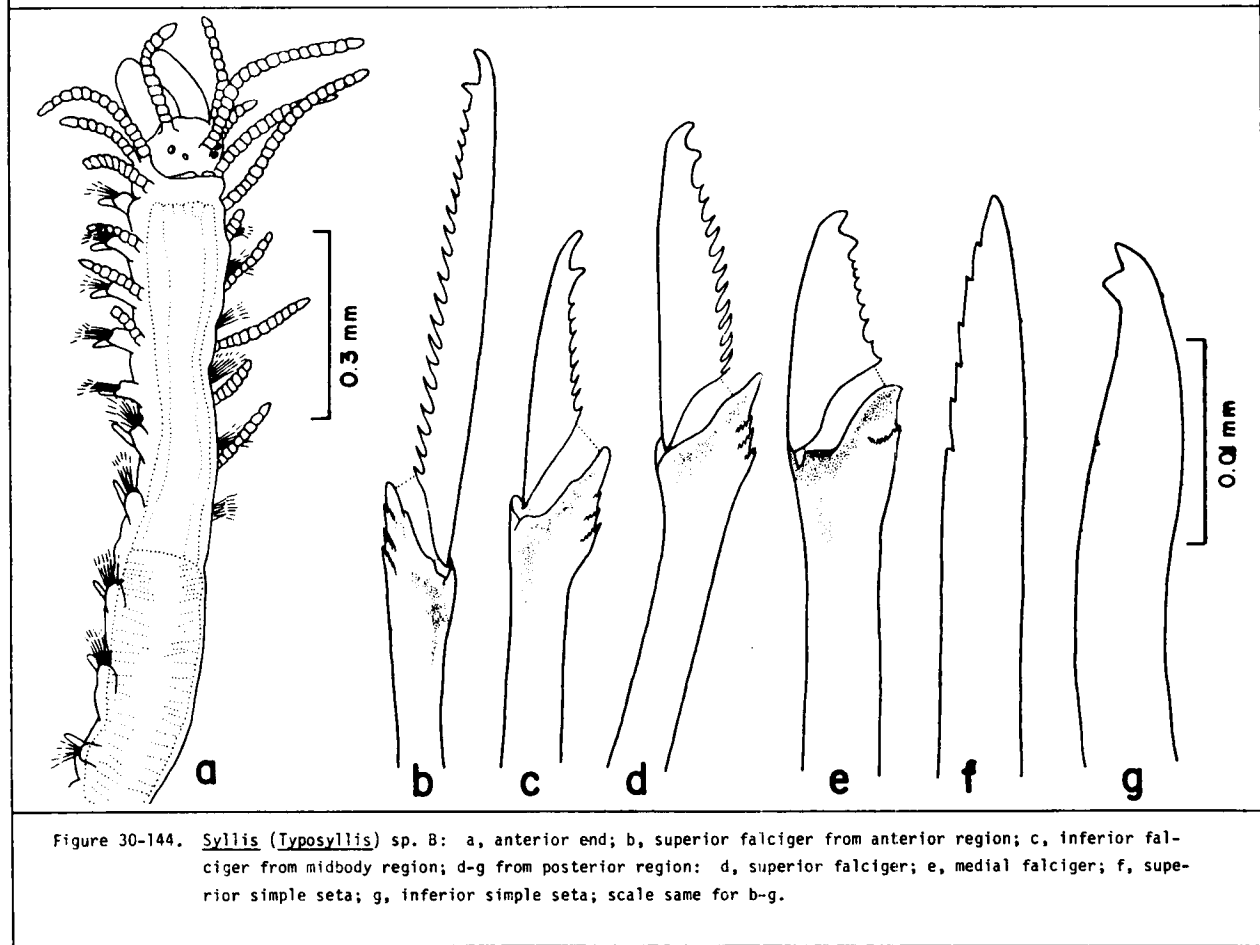


Figure 30-144. *Syllis* (*Typosyllis*) sp. B: a, anterior end; b, superior falciger from anterior region; c, inferior falciger from midbody region; d-g from posterior region: d, superior falciger; e, medial falciger; f, superior simple seta; g, inferior simple seta; scale same for b-g.

DESCRIPTION:

Length, 3.1+ mm (previously reported to 4.39 mm); width, 0.4 mm (previously reported to 0.39 mm). Body short, relatively broad, nearly complete with 37 setigers. Prostomium oval, with four small, lentigerous eyes, and two ocular spots (Figure 30-142a). Antennae, tentacular and dorsal cirri all short, stout. Median and lateral antennae each with eight articles. Palps short, bluntly triangular, fused basally. Dorsal tentacular cirri with ten articles, ventral ones with 5-6 articles. Dorsal cirri with 7-13 articles anteriorly, 6-9 articles medially. Ventral cirri short, ovoid. Anterior composite falcigers bidentate with pointed teeth and short, fine serrations (Figure 30-142b). Composite falcigers from medial and posterior regions broad and narrow, all with similar blade-length (Figure 30-142c,d). Blade-length ratios 1.8:1 anteriorly, 1.1:1 medially. Superior simple seta slender, minutely bidentate (Figure 30-142e); inferior simple seta stout, distinctly bidentate (Figure 30-142f). Acicula slender, numbering two per parapodium anteriorly, becoming solitary and enlarged medially, with obliquely acuminate tips (Figure 30-142g). Pharynx extending to setiger 6; margin smooth; middorsal tooth subterminal. Proventricle located in setigers 7-9, with 30 muscle cell rows. Ventricle occupying one setiger. Proventricle same length as pharynx and 2.4 times longer than wide.

REMARKS: This species was previously known only from the Red Sea and Gulf of Elat. It was originally identified as S. prolifera in BLM-MAFLA collections.

PREVIOUSLY REPORTED HABITAT: Intertidal to 5 m; on vermetid reefs, coral.

GULF OF MEXICO BLM-OCS OCCURRENCE: One station near Florida Middle Ground coral reef (Figure 30-141); 38 m; silty fine sand.

DISTRIBUTION: Red Sea, Gulf of Elat, Gulf of Mexico.

Syllis (Typosyllis) sp. B
Figures 30-143, 144a-g

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

SOFLA 20E-11/80 (5 spec., USNM 75309); MAFLA 2207H-8/77 (1 spec.), 2211H-7/76 (2 spec.), 2211I-11/77 (1 spec.), 2211J-11/77 (1 spec.), 2315A-8/76 (1 spec.), 2528G-6/75 (1 spec., USNM 65693); STOCS HR1-2 7/76 (1 spec., USNM 75229).

DESCRIPTION:

Length, to 8.9 mm; width, to 0.5 mm. Body slender, fairly small, complete specimens with up to 67 setigers. Prostomium rounded to trilobed anteriorly, with four lentigerous eyes (Figure 30-144a), and two ocular spots near base of palps; eyes and ocular spots sometimes absent. Median antenna arising between posterior eyes, with 13-23 articles; lateral antennae with 8-14 articles. Palps triangular, fused basally. Dorsal tentacular cirri with 10-19 articles, ventral ones with 8-11 articles. Dorsal cirri mostly shorter than body width, alternating slightly in length, with 5-22 articles anteriorly, 4-21 articles medially. Ventral cirri digitiform, sometimes extending beyond parapodia anteriorly. Pygidium with paired cirri having 6-20 articles, plus short midventral cirrus. Composite falcigers slender, bidentate, with short serrations and rounded teeth (Figure 30-144b-e). Blade-length ratios 1.5-2.1:1 anteriorly and medially, 1.4-1.9:1 posteriorly. Superior simple seta

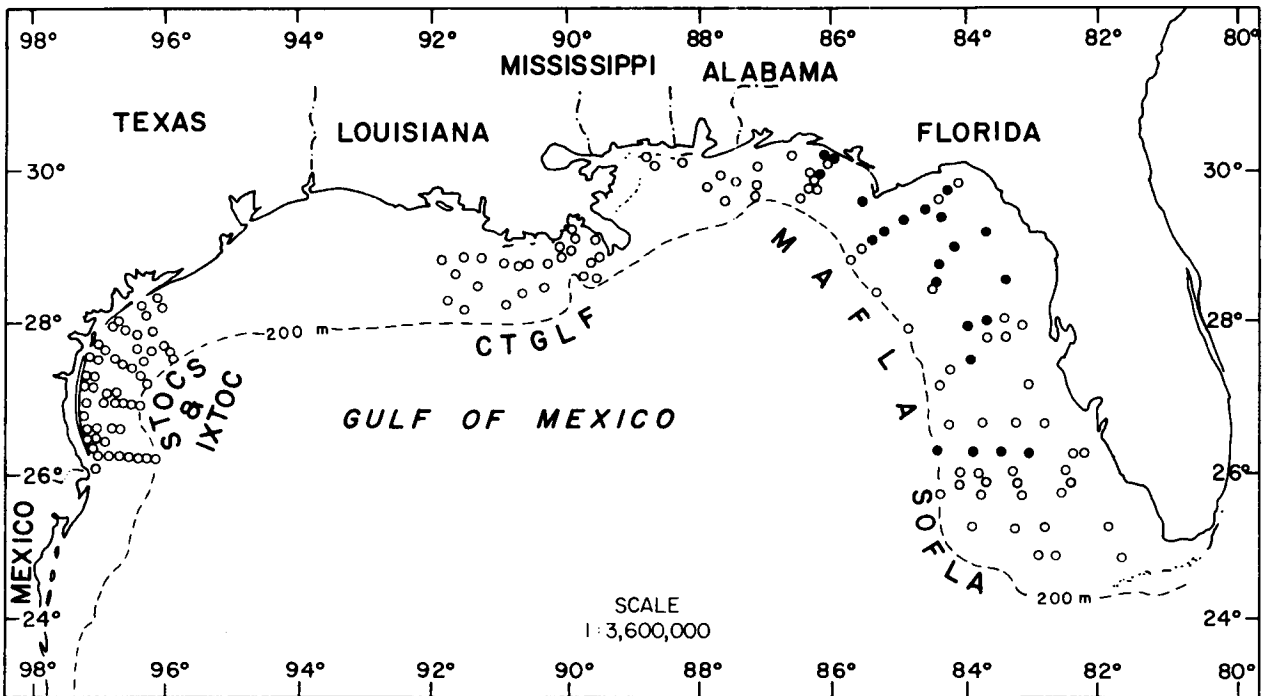


Figure 30-145. Distribution of *Syllis (Typosyllis) prolifera* on the outer continental shelf of the northern Gulf of Mexico based on its occurrence (●) in BLM-OCS monitoring programs.

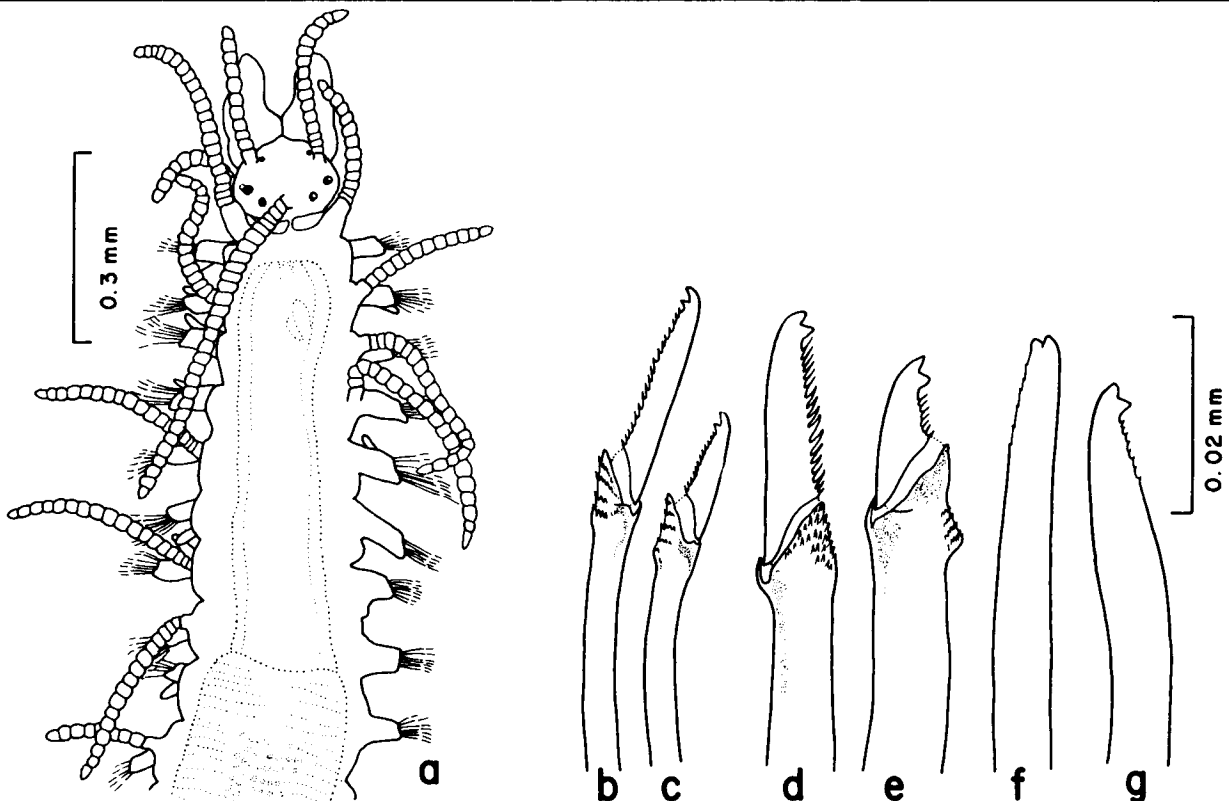


Figure 30-146. *Syllis (Typosyllis) prolifera*: a, anterior end; b-c from setiger 1: b, medial falciger; c, inferior falciger; d-g from posterior region: d, superior falciger; e, inferior falciger; f, superior simple seta; g, inferior simple seta; scale same for b-g.

stout, distally blunt to bifid (Figure 30-144f), present posteriorly. Inferior simple seta bidentate (Figure 30-144g), present posteriorly. Pharynx extending to setigers 4-8; margin smooth and surrounded by ten soft papillae; middorsal tooth subterminal. Proventricle extending from setigers 3-9 to 6-13, with 29 (27-32) muscle cell rows. Ventricle occupying two setigers. Pharynx 0.8-1.5 times length of proventricle; proventricle 2.6-3.4 times longer than wide.

REMARKS: This species was originally confused with S. hyalina and S. aciculata in BLM-OCS collections.

GULF OF MEXICO BLM-OCS OCCURRENCE: Several stations off Florida and Texas (Figure 30-143); 19-91 m; coarse to fine-very fine sand, silty fine sand.

Syllis (Typosyllis) prolifera Krohn, 1852
Figures 30-145, 146a-g

Syllis prolifera Krohn, 1852:66.

Syllis (Typosyllis) prolifera--Fauvel, 1923:261, fig. 97a-g.

Typosyllis prolifera--Imajima, 1966:292, fig. 65a-n.

Syllis (Typosyllis) prolifera--Day, 1967:248, fig. 12.3.g-i; 1973:30.

MATERIAL EXAMINED:

Gulf of Mexico BLM-OCS:

MAFLA 2211H-7/76 (1 spec.), 2315A-8/76 (1 spec.), 2318I-11/77 (2 spec.), 2528F-1/76 (2 spec.), 2528-11/77 (2 spec.), 2854-8/77 (1 spec., USNM 55832; 2 spec.).

DESCRIPTION:

Length, to 29.0 mm (previously reported to 35 mm); width, to 1.0 mm (previously reported to 1.7 mm). Body fairly large, stout, elongate; complete specimens with up to 101 setigers. Anterior dorsum of preserved specimens often with two transverse light brown stripes per segment, fading out in midbody region. Prostomium rounded to rectangular, with four lentigerous eyes, and with or without two ocular spots near base of palps (Figure 30-146a). Median antenna with 12-31 articles, lateral antennae with 9-23 articles. Palps bluntly triangular. Dorsal tentacular cirri with 13-29 articles, ventral ones with 8-16 articles. Dorsal cirri fairly long, with 8-42 articles anteriorly, 6-45 articles medially. Ventral cirri long, digitiform, extending beyond parapodia anteriorly, becoming much shorter posteriorly. Pygidium with paired cirri having 16-31 articles, and a short digitiform midventral cirrus. Composite falcigers bidentate, with more or less rounded teeth and coarse serrations (Figure 30-146b-e), blade-length ratios 1.6-2.1:1 anteriorly, 1.3-2:1 medially, 1.5-2.1:1 posteriorly. Superior simple seta bifid (Figure 30-146f), inferior simple seta slender, bidentate (Figure 30-146g), present posteriorly. Pharynx extending to setigers 7-12; anterior margin surrounded by ten soft papillae; middorsal tooth subterminal. Proventricle extending from setigers 8-13 to 10-20, with 32 (27-40) muscle cell rows. Ventricle occupying 2-5 setigers. Pharynx 0.8-1.5 times length of proventricle; proventricle 2.3-3.3 times longer than wide.

REMARKS: This species was originally confused with S. variegata in BLM-MAFLA collections.

PREVIOUSLY REPORTED HABITAT: Intertidal to 30 m; on corals.

GULF OF MEXICO BLM-OCS OCCURRENCE: Common off Florida (Figure 30-145);
14-168 m; coarse to fine-very fine sand, silty fine to very fine sand.
DISTRIBUTION: Japan, Indian Ocean, South Africa, Mediterranean Sea,
Atlantic Ocean, Caribbean Sea, Gulf of Mexico.



The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.