



Opheliidae (Polychaeta) from the Southwestern Atlantic ocean, with the description of *Travisia amadoi* n. sp., *Ophelina gaucha* n. sp. and *Ophelina alata* n. sp.

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Abstract

Opheliid polychaetes belonging to the genera *Armandia*, *Ophelia*, *Ophelina*, and *Travisia*, collected along the Southwestern Atlantic coast off Brazil and Argentina, are recorded or given extended descriptions. *Travisia amadoi* sp. n., *Ophelina gaucha* sp. n. and *Ophelina alata* sp. n. are described.

Introduction

The invertebrate fauna of the Southwestern Atlantic is still largely unexplored. Few named species of opheliid polychaete have previously been reported from the region. This is particularly true for Argentinean waters where most polychaete studies, comprising both taxonomical surveys of different families or records from oceanographic expeditions (Orensanz, 1974; Rullier & Amoureux, 1979; Hartmann-Schröder, 1983; Bremec et al., 2000), were carried out only in the late 1960s to the 1980s. Kinberg (1866), Hartman (1949), Tebble (1953), Rioja (1944), Jeldes (1962), and Elias & Bremec (2002) reported on opheliids from Argentinean waters. Opheliids from Brazil were studied by Hansen (1882), Augener (1934), Hartmann-Schröder (1956), Hartman (1965), Nonato & Luna (1970), Orensanz & Gianuca (1974), Rullier & Amoureux (1979) and Nonato (1981). About 20 opheliid species are currently recognized along the coasts of Southeastern Brazil and Argentina. Unfortunately, most of them were recorded in unpublished theses or technical reports and need to be reviewed.

This paper provides a checklist of the opheliid fauna and describes new or poorly known species from the Southeastern coast of Brazil and from the Argentinean coast based on collections from offshore and estuarine environments between 23° and 52° S. Generic definitions and terminology are mostly as defined in Dauvin & Bellan (1994) and Uebelacker (1984). The material, including holotypes and paratypes, is deposited at the Museo de La Plata in Argentina (MLP), Laboratorio de Bentos of the Instituto de Investigación y Desarrollo Pesquero (INIDEP) of Mar del Plata, and Centro de Estudos do Mar (MCEM) of the Universidade Federal do Paraná, Brazil.

Systematics

Genus *Travisia* Johnston, 1840

Travisia kerguelensis McIntosh, 1885

Travisia kerguelensis McIntosh, 1885: 357, pl. 43, Fig. 10 and pl. 26, Figs 1–2; Monro, 1930: 165–167, Figs 67a, b, c.

Material: Off the Argentinean coast: Sta. 101 (R/V Shinkai Maru V, 51°29' S, 65° 32' W), 134 m, fine-

medium sand and gravel, coll. P. Arias, Aug 1978, 2 specimens; Sta. 99 (R/V Shinkai Maru V, 51° 32' S, 67° 35' W), 100 m, fine-medium sand and gravel, coll. P. Arias, Sep 1978, 2 specimens; Sta. 101 (R/V Shinkai Maru XI, 51° 29' S, 65° 32' W), 135 m, fine-very fine sand, coll. P. Arias, Feb 1979, 1 specimen; Sta. 128 (R/V Shinkai Maru X, 54° 20' S, 65° 28' W), 93 m, medium-fine sand, coll. P. Arias, Feb 1979, 1 specimen; Sta. 76 (R/V Shinkai Maru V, 49° 29' S, 66° 15' W), 100 m, coll. P. Arias, Sep 1978, 1 specimen; Sta. 69 (R/V Shinkai Maru IV, 48° 27' S, 64° 22' W), 111 m, coll. P. Arias, Aug 1978, 1 specimen; Sta. 37 (R/V Shinkai Maru SM V, 43° 31' S, 62° 03' W), 92 m, coll. P. Arias, Aug 1978, 11 specimens; Sta. 5 (R/V Oca Balda 4, 38° 44' S, 56° 13' W), 87 m, coll. A. Roux, May 1987, 2 specimens; Sta. Ad. 1 (R/V Oca Balda 6, 39° 02' S, 55° 39' W), 199 m, coll. A. Roux, Jul 1987, 4 specimens. All material deposited in the INIDEP.

Description: Body fusiform tapering to both ends. Length of body 4–30.7 mm; width 1.5–4.1 mm for 23–29 segments. Last 10–12 segments with both parapodial lappets and marginal crenulations, increasing in number posteriorly. Anal cylinder short and projecting abruptly off the body. Branchiae retracted in examined material. Body brownish or reddish.

Remarks: Dauvin & Bellan (1994) included a key for worldwide species of the genus *Travisia* in their biogeographical review of Traviinae and mentioned that the southern species *T. olens* and *T. kerguelensis* need to have their genetical distance and variability reassessed. Our material fits most closely with the description of *T. kerguelensis* as provided by Monro (1930). The marginal crenulations of the terminal segments correspond to the lacinated type, but some specimens also present the serrate or intermediate shape.

Distribution: Strait of Magellan, Southern Indian, Antarctic and Subantarctic waters; 0–1837 m (Dauvin & Bellan, 1994). The present records extend its distribution to the southern Argentinean continental shelf, between 80 and 200 m.

***Travisia olens* Ehlers, 1897**

Travisia olens Ehlers, 1897: 98, pl. 6, Figs 162–163; Monro, 1930: 165, Fig. 66.

Material: Argentine: Fracasso Beach (42° S, 64° W), intertidal sandy beach, coll. L. Bala, Feb 2000, 38 spec. All material deposited in the INIDEP.

Description: Body fusiform. Length of body 15–30 mm; width 1.7–5 mm; 29 segments, including 26 chaetigers, two achaetous segments, and one pre-anal

ring with reduced notopodial lappets. Well-developed parapodial lappets, present on last 15 – 16 segments. Branchiae filiform, as long as width of body, present from chaetiger 2 to last one. Genital pores on anterior segments, best seen from chaetigers 3 to 14. Body whitish, translucent.

Remarks: The material examined fits well with the description provided by Monro (1930).

Distribution: Strait of Magellan, Antarctica and Subantarctic Islands, New Zealand, Australia, South Africa and Southern Pacific. 0–1120 m (Dauvin & Bellan, 1994; Hartmann-Schröder & Parker, 1995). The present record extends its northern distribution along the Southwestern Atlantic to coastal areas of Patagonia (42° S).

***Travisia amadoi* sp. n. (Fig. 1)**

Holotype: MLP Type Coll. 6063, a complete specimen.

Type locality: Las Grutas (Northern Patagonia), intertidal sandy beach, coll. J. M. Orensanz, Jan 1973.

Paratypes: MLP Type Coll. 6064, two complete specimens from the type locality.

Etymology: The species is dedicated to the late Brazilian writer Mr. Jorge Amado.

Other material: Argentine: Las Grutas (Las Grutas, sheltered sandy beach, 41° S, 65° W), coll. J.M. Orensanz, Nov 1971, 12 specimens; Sta. 1118 (Punta Mejillón, intertidal sandy beach, SAO III, San Matías Gulf, 41° 30' S, 64° 30' W), coll. J.M. Orensanz, 1972, 1 specimen; Sta. 1117 (Punta Mejillón, intertidal sandy beach, SAO III, San Matías Gulf, 41° 30' S, 64° 30' W), coll. J.M. Orensanz, 1972, 1 specimen; Sta. 1012 (Punta Isla Colorada, intertidal sandy beach, SAO III, San Matías Gulf, 41° 30' S, 64° 30' W), coll. R. Olivier and M. Zamponi, Mar 1972, 1 specimen; Sta. 1074 (Las Grutas, intertidal sandy beach, SAO III, San Matías Gulf, 41° 30' S, 64° 30' W), coll. J.M. Orensanz, Mar 1972, 2 specimens; Sta. 1116 (Caleta de los Loros, intertidal sandy beach, SAO III, San Matías Gulf, 41° 30' S, 64° 30' W), coll. J.M. Orensanz, Mar 1972, 1 specimen; Sta. San Antonio Bay (intertidal sandy beach, San Matías Gulf, 41° 30' S, 64° 30' W), coll. J.M. Orensanz, Jan 1973, 11 specimens; Sta. 1082 (Banco Reparo), intertidal sandy beach, SAO IV, San Matías Gulf, 41° 30' S, 64° 30' W), coll. J.M. Orensanz, Nov 1971, 1 specimen; Sta. 2287 A (R/V Almirante Saldanha, Campanha Costa Sul 1969, 38° 05' S, 56° 50' W), 43 m; coll. J.M. Orensanz, Nov 1969, 1 specimen. Off Brazilian coast: Operação Sueste 1 (R/V Almirante Saldanha), Sta.

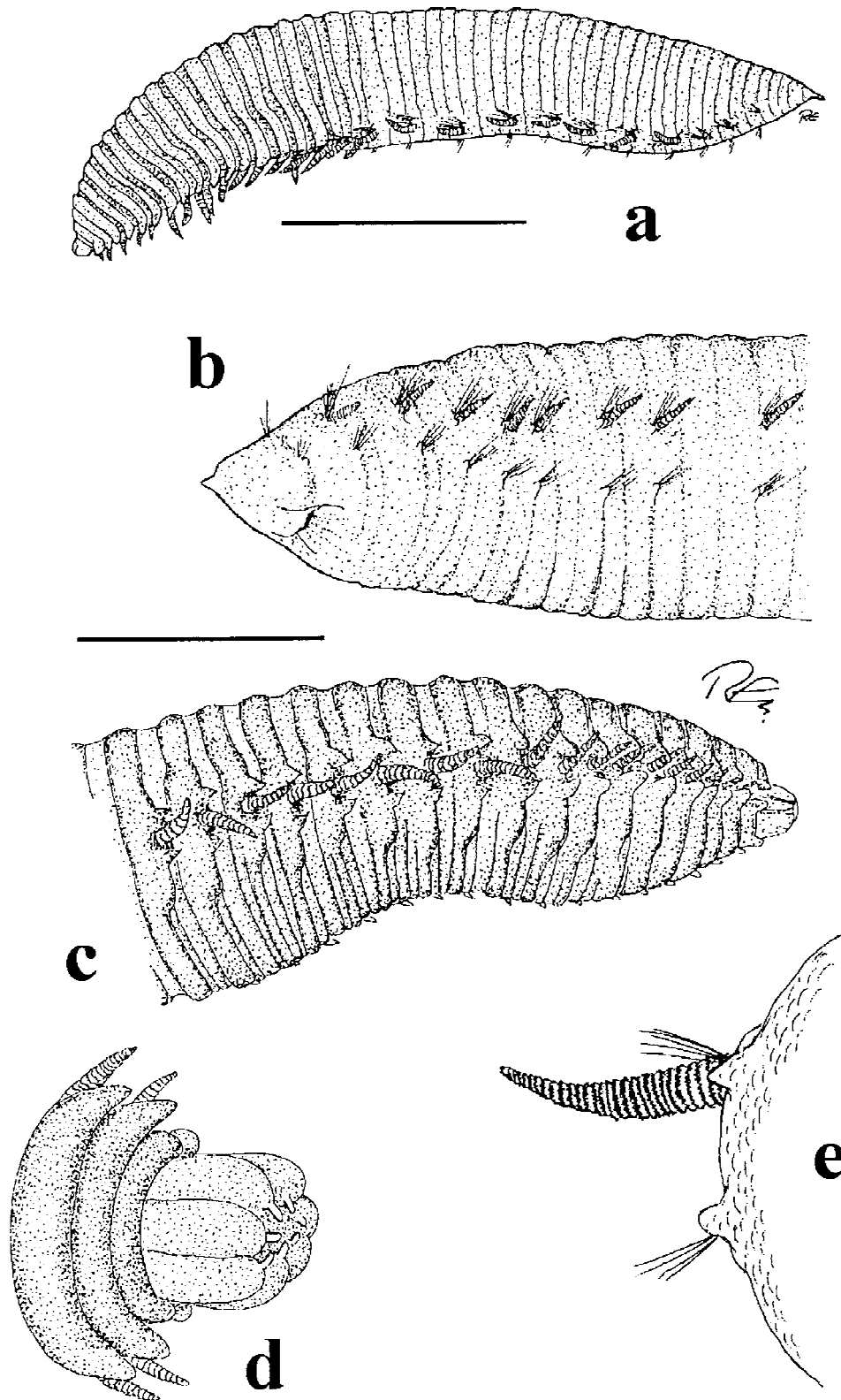


Figure 1. *Travia amadoi* sp.n. (a) Latero-dorsal view, (b) Lateral view of anterior segments, (c) Lateral view of posterior segments, (d) Pygidium, (e) Branchiate segment. Scales a: 1.2 mm; b, c: 0.4 mm.

6106 (25° 26' S, 47° 55' W), 23 m, fine sand, coll. P. C. Lana, Aug 1982, 1 specimen; Sta. 6108 (25° 13' S, 47° 42' 5' W), 21 m, fine sand with shells, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 2 (SARALBA, 32° 41' S, 52° 16' W), 16 m, fine sand, coll. R. Capitoli, Dec 1992, 1 specimen. All material deposited in the INIDEP.

Diagnosis: A *Travisia* with 30–31 segments and 29–30 chaetigers. Segments dorsally and ventrally triannulate, except for the first segment and the last 10 which are uniannulate or biannulate. Parapodial lappets from chaetigers 17–18. Chaeta simple capillaries. Branchiae cirriform and deeply annulate.

Description of holotype: Length of holotype 31 mm (ranging from 6.7 to 36 mm in paratypes); width of holotype 4.8 mm (ranging from 1.7 to 4.8 mm in paratypes). Holotype with 30 chaetigers, plus 1 preanal ring without chaeta (Fig. 1a). Prostomium acuminate, mouth ventral between chaetigers 1 and 2 (Fig. 1b). Body stout and fully covered with small papillae or pustules. First segment uniannulate, segments 2–11 biannulate both ventrally and dorsally, segments 12–24 triannulate ventrally, and 25–30 uniannulate. Parapodial lappets well developed in both noto- and neuropodia of 17–18 posterior chaetigers, progressively covering part of the branchiae towards the end of the body (Fig. 1c). Segments without crenulations. Branchiae cirriform and very contractile, present from chaetiger 2 to last one, largest in first chaetigers, showing different levels of contraction along length of the body (Fig. 1e). Interparapodial oval pores from chaetiger 1, lacking in last seven chaetigers. All chaeta smooth capillaries, emerging from deep depressions, close to branchiae, present in all segments, except last one. Pygidium with 7 large lobes, each with a little subterminal papilla (Fig. 1d). Color pale reddish-brown.

Remarks: *Travisia amadoi* n. sp. is close to *T. oksae* Hartmann-Schröder & Parker, 1995 in having a similar number of segments, triannulated segments, lappets in posterior region, pygidium with 7 blunt lobes and pustules covering the body. They clearly differ in the annulation pattern and in the presence of small terminal papillae on the pygidial lobes. Other close species, such as *T. olens* Ehlers, 1897, *T. kerguelensis* McIntosh, 1885 and *T. doellojuradoi* Rioja, 1944, also have a similar number of segments but the posterior margin of their terminal segments is crenulated. *T. amadoi* differs from *T. kerguelensis* and *T. doellojuradoi* in the presence of triannulated segments, and from *T. forbesii* Johnston, 1840 and *T. oksae* in having

smooth capillaries instead of hispid or bilimbate capillaries, respectively. *Travisia gigas* Hartman, 1938 from California (U.S.A.) and *T. elongata* Grube, 1866 from Iquique (Peru) also have lappets in posterior parapodia, but present from the 15th segment in the first or from the 20th notopodium and 26th neuropodium in the second, and having both more than 40 segments, as well as different branchial number (44 and 28, respectively). Pygidium of *T. gigas* with 6 long cirri, no cirri in *T. elongata* (Hartman, 1938).

Distribution and habitat: North Patagonian Gulf to Southern Brazil. From intertidal to shallow sandy bottoms. Some specimens of *Travisia amadoi* from Las Grutas were found in membranous tubes covered with sand grains.

Genus *Armandia* Philippi 1861

Armandia hossfeldi Hartmann-Schröder, 1956

Armandia hossfeldi Hartmann-Schröder, 1956: 67, Figs 10–11.

Material: Paranaguá Bay, Paraná State, SE Brazil: Sta. 2 (Buoy 22 of access channel to Paranaguá Harbor), 13 m, muddy sand, coll. P. C. Lana, May 1986, 1 specimen; Sta. 1 (Buoy 12 of access channel to Paranaguá Harbor), 10 m, fine sand, coll. P.C. Lana, Oct 1985, 1 specimen. Off the Argentinean coast: Sta. 50 (ARA Luisito, 37° 55.98' S, 57° 29.47' W), 12 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 9 specimens; Sta. 51 (ARA Luisito, 37° 56.02' S, 57° 29.30' W), 13 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 10 specimens; Sta. 52 (ARA Luisito, 37° 57' S, 57° 28.88' W), 14 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 8 specimens; Sta. 53 (ARA Luisito, 37° 57.09' S, 57° 30.14' W), 11 msandy-gravel bottom, coll. R. Elías, Mar 2000, 12 specimens; Sta. 54 (ARA Luisito, 37° 56.56' S, 57° 30.89' W), 9.5 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 1 specimen; Sta. 55 (ARA Luisito, 37° 56.19' S, 57° 29.93' W), 11 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 1 specimen; Sta. 56 (ARA Luisito, 37° 55.74' S, 57° 30.5' W), 11 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 2 specimens; Sta. 57 (ARA Luisito, 37° 55.9' S, 57° 29.71' W), 12 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 11 specimens; Sta. 58 (ARA Luisito, 37° 56' S, 57° 29.02' W), 14 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 4 specimens; Sta. 59 (ARA Luisito, 37° 54.9' S, 57° 30.12' W), 11 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 2 specimens; Sta. 63 (ARA Luisito, 37° 56.25' S, 57° 28.38' W), 10 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 2 specimens; Sta. 62 (ARA Luisito, 37°

56.26' S, 57° 28.29' W), 11 m, sandy-gravel bottom, coll. R. Elías, Mar 2000, 13 specimens; Sta. 52 (ARA Luisito, 37° 57' S, 57° 28.88' W), 14 m, sandy-gravel bottom, coll. R. Elías, Nov 2000, 1 specimen; Sta. 53 (ARA Luisito, 37° 57.09' S, 57° 30.14' W), 11 m, sandy-gravel bottom, coll. R. Elías, Nov 2000, 2 specimens; Sta. 54 (ARA Luisito, 37° 56.56' S, 57° 30.89' W), 9.5 m, sandy-gravel bottom, coll. R. Elías, Nov 2000, 1 specimen; Sta. 55 (ARA Luisito, 37° 56.19' S, 57° 29.93' W), 11 m, sandy-gravel bottom, coll. R. Elías, Nov 2000, 2 specimens. Material deposited in the INIDEP.

Description: Body long and slender, with 31–35 chaetigers, 28–30 mm long and 5–6 mm wide. Prostomium conical with acuminate tip and 2–3 subdermal eyespots, the third one in median-posterior position when present. Fifteen to 22 pairs of elliptical brownish lateral eyes, starting in chaetigers 5–6. Parapodia with well developed prechaetal lobes, all chaeta capillary. Branchiae smooth, present from chaetiger 2 to 31–33, largest in middle body. Anal tube long, entire and cylindrical, with 6–7 terminal cirri and a long mid-ventral, internally-inserted caudal cirrus.

Remarks: The specimens from Mar del Plata differ from the original description by Hartmann-Schröder (1956) in having 35 chaetigers (31–33 in type material of *A. hossfeldi*), two eyespots in the prostomium (3 in types), 15–22 lateral eyes (18–19 in types), and 18 rings in the anal tube (16 in types). The numbers of lateral eyes and segments resemble those of *A. salvadoriana* Hartmann-Schröder, 1956, but the rest of characters fit better with *A. hossfeldi*.

Distribution: In Argentina, the species was found mainly in front of Mar del Plata sewage effluent (38° S, 57° W) in mixed sand-gravel bottoms associated with the amphipod *Bathyporeiapus*. The species was originally described from Cardoso Island (São Paulo State, Brazil) in the *Bathyporeia* zone (Hartmann-Schröder, 1956). The present records extend its distribution to other Southeastern Brazilian localities, in estuarine waters of Paranaguá Bay about 60 km south of Cardoso Island, and to Argentinean shallow-shelf waters off Mar del Plata to 11 m depth.

Armandia maculata (Webster, 1884)

Ophelina maculata Webster, 1884: 322, pl. 11, Figs 54–55.

Armandia maculata - Nonato & Luna, 1970: 92–93, Figs 84–85; Rullier & Amoureux, 1979: 183; Nonato, 1981: 181.

Material: Paranaguá Bay, Paraná State, SE Brazil: Sta.

3 (in front of Paranaguá Harbor), 18 m, muddy sand, coll. P.C. Lana, Jul 1986, 7 specimens; Sta. 4 (Gererês Islands), 9 m, muddy sand, coll. P.C. Lana, Jul 1986, 5 specimens. Off Rio Grande do Sul State, SE Brazil: Sta. 3 (R/V Diadema, 31/10/92, 34° 06' 19" S, 52° 20' 44" W), 38 m, sandy bottom, coll. R. Capitoli, Oct 1992, 1 specimen. Material deposited in the INIDEP.

Description: Body slender, with 29 chaetigers, 15.6–21 mm long and 1.2–1.6 wide. Prostomium conical with acuminate tip and 3 inconspicuous subdermal eyespots; 11 pairs of lateral eyes, starting between chaetigers 6 and 7. All chaeta capillary. Branchiae long, present from chaetiger 2 to 25–26, reduced in last three. Anal tube short, with ventral slit, 0–28 marginal papillae and mid-ventral, internally-inserted caudal cirrus.

Remarks: According to Nonato & Luna (1970), the chaeta of the first chaetiger are longer than the following, all chaeta having a golden sheen, and the anal tube bears 18–20 marginal papillae.

Distribution: The species had been previously reported from Northeastern Brazil by Nonato & Luna (1970) and Rullier & Amoureux (1979), in sand bottom and between calcareous algae (Nonato & Luna, 1970). The present record extends its known distribution to Southeastern and southern Brazil, in sandy or muddy-sand subtidal bottoms.

Armandia lobo Elías & Bremec (2002)

Material: Paranaguá Bay, SE Brazil: Sta. 4 (Gererês Islands), 9 m, muddy sand, coll. P.C. Lana, Jul 1986, 1 specimen; Sta. 1 (Buoy 12 at access channel to Paranaguá Harbor), 10 m, fine sand, coll. P.C. Lana, Oct 1985, 5 specimens; Sta. 1-dredge (Buoy 12), 10 m, fine sand, coll. P.C. Lana, Oct 1985, 2 specimens; Sta. 1 (Buoy 12 at access channel to Paranaguá Harbor), 10 m, fine sand, coll. P.C. Lana, Nov 1986, 1 specimen. Material deposited in the INIDEP.

Description: Body elongate, deeply grooved, with 29–31 chaetigers (usually 30). Length of complete specimens varies between 10 and 18.6 mm and width between 1.2 and 2 mm. Prostomium long, conical and acuminate; nuchal organs large, usually everted, no eyespots present. Branchiae cirriform, longer than notochaeta, lamelliform in midbody region, and small and cirriform posteriorly, present from chaetiger 2 to the last one, but lacking in a few posterior chaetigers (perhaps lost) in some specimens. Parapodia low, rounded, with a small prechaetal lobe, and a small cirriform ventral cirri; postchaetal lobe absent. Eleven to 13 pairs of lateral eyes starting before chaetiger

5 (1 specimen with eyes beginning before chaetiger 6). Some large specimens can have up to 18 pairs of eyes. Nephridiopores not observed. Anal tube short, with about 12 rings, slit at the postero-dorsal margin and marginally festooned with 6–8 filiform or clavate papillae (lost in macerated animals) and an external midventral unarticulate short cirrus (length 1/3 of the anal tube). In well-preserved material the midventral external cirrus has two minute terminal papillae and also a dorsally-inserted subterminal filiform cirrus. All chaeta capillary, notochaeta longer than neurochaeta. Proboscis sac-like with digitate anterobasal proboscoidal papillae. Color whitish.

Distribution: *Armandia lobo* was originally described from Argentine at shallow shelf depths of 4–15 m in coarse sand-gravel bottoms off Mar del Plata City (38° S, 57° W) and off Blanca Bay (39° S, 61° W). The Paranaguá specimens represent the first records for the species in Brazilian waters, northward to 25° S, 48° W.

Genus *Ophelia* Savigny, 1818

Ophelia praetiosa (Kinberg, 1866)

Niteticus praetiosus Kinberg, 1866: 257; Kinberg, 1910: pl. 67, Fig. 7.

Ophelia praetiosa Hartman, 1949: 115–116; Hartman, 1966: 53, pl. 17, Figs 1–3.

Material: Off the Argentinean coast: Sta. 128 (R/V Shinkai Maru X, 54° 12' S, 65° 34' W), 95 m, coll. P. Arias, Feb 1979, 2 specimens; Sta. 60 (ARA Luisito, 37° 55.27' S, 57° 29.11' W), 13 m, Mar del Plata sandy subtidal affected by sewage discharge, coll. R. Elías, Nov 1999, 1 specimen; Sta. 61 (ARA Luisito, 37° 55.55' S, 57° 28.17' W), 14 m, coll. R. Elías, Mar 2000, 1 specimen. All material deposited in the INIDEP.

Description: Body with 8 prebranchial, 18 branchial and 5 postbranchial segments. Branchiae simple. Length of specimens between 21 and 54 mm, width between 3.2 and 4.5 mm. Parapodia with short lobes, with slender, smooth capillary chaeta; notochaeta longer than neurochaeta. Pygidium with pair of large ventral lobes and cirlet of 14–19 shorter filiform papillae, all directed posteriorly.

Remarks: Our material fits well with the descriptions provided by Hartman (1949, 1966).

Distribution: The species was originally recorded from Cape Virgin, Patagonia (Hartman, 1949). The present records extend its northern distribution range to 38° S, off Mar del Plata, Argentine.

Genus *Ophelina* Oersted, 1843

Ophelina syringopyge (Ehlers, 1901)

Ammotrypane aulopyge Ehlers, 1897: 100–121, pl. 6, Figs 157–158.

Ammotrypane syringopyge Ehlers, 1901: 171–172. Hartman, 1966. 148 pp., pl. 48.

Material: Off the Argentine coast: Sta. 89 (R/V Shinkai Maru IV, 50° 30' S, 65° 31' W), 116 m, coll. P. Arias, Aug 1978, 11 specimens; Sta. 102 (R/V Shinkai Maru V, 09/78, 51° 31' S, 63° 28' W), 174 m, coll. P. Arias, Sep 1978, 5 specimens; Sta. 96 (R/V Shinkai Maru IV, 50° 32' S, 57° 56' W), 143 m, coll. P. Arias, Aug 1978, 6 specimens; Sta. N 250 (R/V Akademik Knipovich, 34° 51' S, 52° 35' W), 83 m, muddy sand, coll. J.M. Orensanz, 1966, 1 specimen; Sta. Ad. 1 (R/V Oca Balda 6, 39° 02' S, 55° 9' W), 199 m, coll. A. Roux, Jul 1987, 4 specimens. All material deposited in the INIDEP.

Description: Body fusiform, deeply grooved ventrally and laterally. All complete specimens with 23–28 chaetigers. Length of body 8.4–13.2 mm, width 0.6–1.1 mm. Prostomium conical, with two nuchal organs. Proboscis and eyes not observed. Branchiae cirriform and translucent, absent in the first and last 4–5 chaetigers. Chaeta smooth capillaries. Anal tube cylindrical and short, with several small terminal cirri.

Remarks: The material fits well with the description given by Hartman (1966), except for the color of the branchiae, which are translucent in the Argentinean specimens rather than brown.

Distribution: The species was previously recorded in shallow depths of the Strait of Magellan and Subantarctic Islands (Hartman, 1966). The present records extend its northern distribution to 34° S, in shallow shelf waters to 199 m.

Ophelina gymnopyge (Ehlers, 1908)

Ammotrypane gymnopyge Ehlers, 1908: 118, pl. 17, Figs 1–4; Hartman, 1966: 49, pl. 15, Figs 4–6.

Material: Off the Argentinean coast: Sta. 1 (ARA Goyena, 37° 56' S, 57° 26' W), 13.2 m, sandy bottom, coll. J.M. Orensanz, Apr 1968, 4 specimens; Sta. N 244 (R/V Akademik Knipovich, 36° 24' S, 53° 52' W), 128 m, coll. J.M. Orensanz, 1965, 1 specimen; Sta. N 1056 (R/V Akademik Knipovich, 36° 30' S, 53° 55' W), 155–192 m, coll. J.M. Orensanz, 1967, 1 specimen; Sta. 5 (R/V Oca Balda 4, 38° 58' S, 55° 39' W), 127 m, coll. A. Roux, May 1987, 20 specimens; Sta. Ad. 1 (R/V Oca Balda 6, 39° 02' S, 55° 39' W), 199 m, coll. A. Roux, Jul 1987, 17 specimens; Sta. 20 (ARA Goyena II, 37° 55' S, 57° 30' W), 12–22 m, coll. J.M. Orensanz, Apr 1968, 4 specimens. All material deposited in the INIDEP.

Description: Body long and slender, ventrally and laterally grooved, with 25 – 29 chaetigers, usually 26. Branchiae smooth present from chaetiger 2, and lacking in the last 4. Prostomium conical without eyes. Proboscis not observed. Parapodial lobes rounded with smooth capillaries. Anal tube absent. Length of complete specimens ranging from 8.5–15 mm, width 0.4 – 1.5 mm.

Remarks: The material examined fits well with the description given by Hartman (1966).

Distribution: The present records extend its known distribution range from southern seas in the Antarctic and Subantarctic (Hartman, 1966; Hartmann-Schröder & Rosenfeldt, 1991) to the Argentinean Sea, at 37° 56' S, in depths between 13.2 and 199 m.

***Ophelina cf. acuminata* Oersted, 1843**

Ophelina acuminata Oersted, 1843: 2, pl. 46; Day, 1967: 579, Fig. 25.2-i,j; Hartmann-Schröder, 1979: 140.

Ophelina cf. acuminata Uebelacker, 1984: 17–15, Figs 17-11, 12a–c.

Material: Off SE Brazil, Operation Sueste I (R/V Almirante Saldanha): Sta. 6076 C (26° 29' 5" S, 48° 21' 4" W), 37 m, muddy sand, coll. P. C. Lana, Aug 1982, 1 specimen; Sta. 6089 A (26° 22' 1" S, 48° 19' 8" W), 51 m, muddy sand, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6089 B (26° 22' 1" S, 48° 19' 8" W), 51 m, muddy sand, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6094 A (25° 55' 4" S, 47° 52' 3" W), 50 m, muddy sand, coll. P.C. Lana, Aug 1982, 8 specimens. This material is deposited in the INIDEP; Sta. 6094 C (25° 55' 4" S, 47° 52' 3" W), 50 m, muddy sand, coll. P.C. Lana, Aug 1982, 18 specimens; Sta. 6105 A (25° 38' 8" S, 47° 30' 2" W), 52 m, muddy-sand with shells, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6105 B (25° 38' 8" S, 47° 30' 2" W), 52 m, muddy-sand with shells, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6105 C (25° 38' 8" S, 47° 30' 2" W), 52 m, muddy-sand with shells, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6122 A (24° 51' 5" S, 46° 45' 9" W), 47 m, fine sand with shells, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6122 C (24° 51' 5" S, 46° 45' 9" W), 47 m, fine sand with shells, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6122 D (24° 51' 5" S, 46° 45' 9" W), 47 m, fine sand with shells, coll. P.C. Lana, Aug 1982, 2 specimens; Sta. 6126 B (24° 33' 9" S, 46° 20' 5" W), 53 m, fine sand with mud and shells, coll. P.C. Lana, Aug 1982, 3 specimens; Sta. 6139 A (24° 16' S, 46° 01' 2" W), 49 m, muddy sand, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6139 C

(24° 16' S, 46° 01' 2" W), 49 m, muddy sand; coll. P.C. Lana, Aug 1982, 1 specimen. Operation Sueste II (R/V Almirante Saldanha): Sta. 6226 (26° 27' S, 48° 22' W), 33 m, sand with shells, coll. P.C. Lana, May 1983, 3 specimens; Sta. 6227 (23° 45' S, 48° 26' W), 37 m, fine sediment, coll. P.C. Lana, May 1983, 3 specimens; Sta. 6255 (25° 39' 2" S, 47° 30' 4" W), 53 m, muddy sand with shells, coll. P.C. Lana, May 1983, 3 specimens; Sta. 6287 (24° 38' 4" S, 45° 09' 9" W), 25 m, muddy sand with shells, coll. P.C. Lana, May 1983, 1 specimen; Sta. 6289 A (24° 14' S, 45° 56' 1" W), 51 m, mud, coll. P.C. Lana, May 1983, 1 specimen; Sta. 6289 B (24° 14' S, 45° 56' 1" W), 51 m, mud, coll. P.C. Lana, May 1983, 4 specimens; Sta. 6289 C (24° 14' S, 45° 56' 1" W), 51 m, mud, coll. P.C. Lana, May 1983, 2 specimens. This material is deposited in the MCEM.

Description: Body fusiform, moderately grooved ventrally and laterally. All complete specimens with 43 chaetigers. Length of body 10–27 mm, width 0.7 – 1.4 mm. Prostomium clavate, with acuminate tip and two conspicuous nuchal organs. Eyes not observed. Proboscis sac-like without papillae. Branchiae cirri-form, absent only in first chaetiger, largest in the first 6 chaetigers. Parapodia as rounded lobes, prechaetal lobes well developed anteriorly, and gradually diminishing in size; postchaetal lobes and ventral cirri absent. Nephridiopores not observed. Anal tube hood-shaped, opening ventrally, with about 20 marginal cirri, two basal larger cirri and an internally-inserted mid-ventral cirrus. Chaeta smooth capillaries; noto-chaeta longer than neurochaeta.

Remarks: *Ophelina acuminata*, originally described from Denmark, is presumed to be a cosmopolitan species, though consistent differences in relation to type-material have been reported in all the records from worldwide localities. Our specimens differ from type-material in having fewer than 50–54 chaetigers. A ventral cirrus as described by Day (1967) for South African material is also lacking. Another remarkable feature is the constant segment number, differing from the 48–50 described by Day (1967) for South African material, and 35–43 by Uebelacker (1984), for specimens from the Gulf of Mexico.

Distribution: The species has been previously reported from the northern hemisphere (Denmark, North Sea), South Africa, Gulf of Mexico, Indo-Pacific and Western Australia. If confirmed, this is its first record in the Southwestern Atlantic. The species was found in sandy shallow bottoms of Southeastern Brazil, from 33 to 71 m.

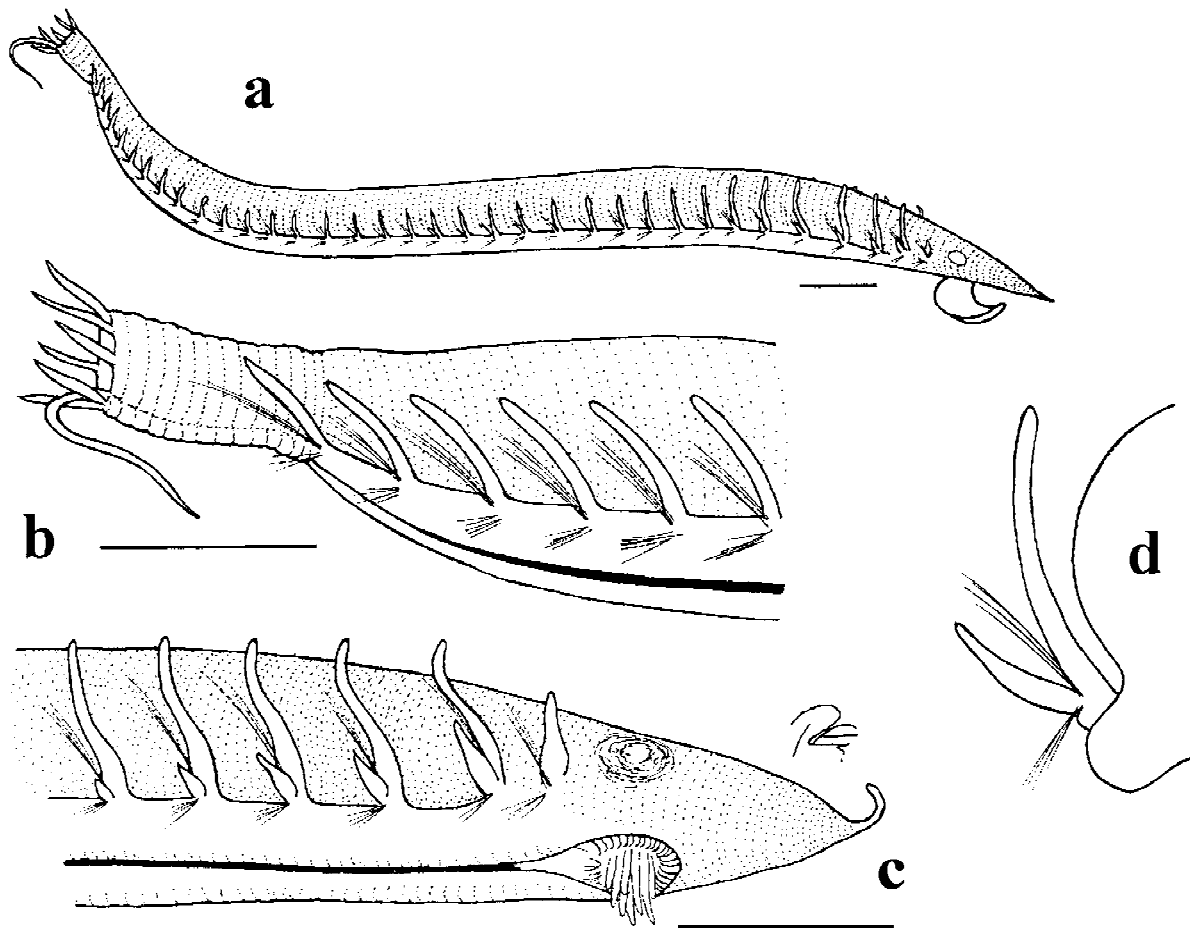


Figure 2. *Ophelina gaucha* sp.n. (a) Lateral view, (b) Lateral view of posterior segments, (c) Lateral view of anterior segments, (d) Branchiate segment. Scales a, b, c: 1 mm.

***Ophelina gaucha* sp. n.** (Fig. 2)

Holotype: MLP Type Coll. 6059, 1 complete specimen.

Type locality: Southern Brazil (25° 46' S, 48° 12' 8'' W), subtidal fine sand, coll. P.C. Lana, Aug 1982.

Paratypes: MLP Type Coll. 6060, 1 complete specimen from Currais Island (off Parana State).

Etymology: The name refers to their distribution in the 'gauchos' zone (a certain sort of cowboys from southern Brazil and Argentine).

Other material: Argentine: Sta. Las Grutas (Las Grutas, 41° S, 65° W), intertidal sheltered sandy beach, coll. J.M. Orensanz, Jan 1971, 12 specimens. The material is deposited in INIDEP (7 specimens) and MCEM (5 specimens). Sta. Mar Chiquita (37° 46' S, 57° 27' W), subtidal sandy bottom, mouth of Mar Chiquita coastal lagoon, coll. J.M. Orensanz, May 1969, 1 specimen. Deposited in INIDEP.

Diagnosis: An *Ophelina* with 36 chaetigers. Anal tube entire, fringed by 6–8 terminal cirri and a midventral cirrus fixed to the ventral part of the anal tube. Branchiae from the second to the last chaetiger.

Description of holotype: Length of holotype 16 mm (ranging between 10.5 and 22 mm in the examined material); width of holotype 1 mm (ranging between 0.77 and 1.5 mm in the examined material). Body fusiform, with 36 chaetigers, deeply grooved both laterally and ventrally (Fig. 2a). Prostomium short and clavate, with two nuchal organs (Fig. 2c). Proboscis lobed. Eyes not observed. Parapodia rounded, with subulate pre-chaetal lobes in the first 9 chaetigers, gradually diminishing in size. Chaeta all smooth capillaries, larger in notopodia. Branchiae long and cirriform, slightly overlapping anteriorly, present from the second to the last chaetiger (Fig. 2d). Anal tube as long as last 3–4 chaetigers, with 6–8 short terminal

cirri, and a mid-ventral cirrus fixed throughout the ventral part of the anal tube (Fig. 2b).

Remarks: *Ophelina gaucha* sp. n. has mid-ventral cirrus, as do the other local species *O. cylindricaudata* and *O. alata* sp. n. (see below), but differs in chaetiger number (36, 26–28 and 51–53, respectively). In *O. gaucha* the mid-ventral cirrus is fixed throughout the ventral part of the anal tube, while in *O. alata* sp. n. it is internally attached only at the base of the anal tube, as in the rest of family. In *O. cylindricaudata* the ventral cirrus is stout, annulated and digitiform (Day, 1973; Uebelacker, 1984). Terminal edge of the anal tube is crenulate in *O. cylindricaudata* (Day, 1973; Uebelacker, 1984), while in *O. alata* sp. n. the numbers of terminal cirri (10–12) is lower than in *O. gaucha* n. sp. (6–8).

Distribution and habitat: The species was found in both intertidal and subtidal sandy sediments, both in coastal brackish-water areas and in the shallow continental shelf (18 m), in Patagonia and Brazil.

***Ophelina alata* sp.n.** (Fig. 3)

Holotype: MLP Type Coll. 6061, a complete specimen.

Type locality: Southern Brazil, (25° 26' S, 47° 55' W), subtidal fine sand, coll. P. C. Lana, Aug 1982.

Paratypes: MLP Type Coll. 6062, 3 paratypes from type locality.

Etymology: The name refers to the branchial wings.

Other material: Off SE and S Brazilian continental shelf: Operation Sueste I (R/V Almirante Saldanha): Sta. 6090 D (26° 14' 8" S, 48° 19' 8" W), 30 m, fine sand with shells, coll. P.C. Lana, Aug 1982, 2 specimens; Sta. 6108 C (25° 13' S, 47° 42' 5" W), 21 m, fine sand with shells, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6108 D (25° 13' S, 47° 42' 5" W), 21 m, fine sand with shells, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6109 D (25° 02' 8" S, 47° 12' W), 24 m, fine sand, coll. P.C. Lana, Aug 1982, 1 specimen; Sta. 6123 (24° 46' S, 46° 56' 6" W), 38 m, fine sand, coll. P.C. Lana, Aug 1982, 1 specimen. Operation Sueste II (R/V Almirante Saldanha): Sta. 6241 (26° 03' S, 48° 16' W), 25 m, sand, coll. P.C. Lana, May 1983, 1 specimen; Sta. 6242 (25° 53' S, 48° 14' W), 24 m, fine sand, coll. P.C. Lana, May 1983, 3 specimens; Sta. 6256 (25° 30' 5" S, 46° 43' W), 49 m, coll. P.C. Lana, May 1983, 1 specimen. Operation Sueste IV (R/V Almirante Saldanha): Sta. 6653 (25° 12' S, 47° 42' W), 22 m, sand with shells, coll. P.C. Lana, Nov 1985, 1 specimen. Sta. Ubatuba P1 (São Paulo State, Brazil, sampling data missing), coll. P.C.

Lana, 1 specimen. All material is deposited in MCEM. *Diagnosis:* An *Ophelina* with 51–53 chaetigers. Branchiae with an anterior wing, occurring from the second to the last chaetiger. Anal tube cylindrical, long and slender, with 10–12 marginal cirri and internally inserted mid-ventral cirrus.

Description of holotype: Length of holotype 52 mm (ranging from 24 to 55 mm in paratypes); width of holotype 3.5 mm (ranging from 1.4 to 3.2 mm in paratypes). Body fusiform, with 51 chaetigers, deeply grooved both laterally and ventrally (Fig. 3a). Prostomium long and slender (triangular in cross section, much longer than width at base), with two prominent nuchal organs (Fig. 3b). Proboscis sac-shaped. Eyes not observed. Parapodia rounded, with subulate pre-chaetal lobes in the first 6 chaetigers, gradually diminishing in size. Chaeta all smooth capillaries, larger in notopodia. Branchiae long, cirriform and with an anterior vascularised wing, extending from the base to half the length of branchiae (Fig. 3c), diminishing gradually in the last 10 chaetigers. Branchiae absent in the first chaetiger and overlapping anteriorly. Anal tube as long as the last 7 chaetigers, slender, with 10–12 short terminal cirri, and a larger ventral cirrus internally attached only at the base of the anal tube (Fig. 3b).

Remarks: *Ophelina alata* sp. n. differs from other SW Atlantic and Subantarctic species of *Ophelina* in having a branchial wing, and also in the great number of chaetigers (51–53). *O. alata* sp. n. has a cylindrical anal tube like *O. breviata* Ehlers, 1913, *O. cylindricaudata* (Hansen, 1878), *O. kinbergii* (Hansen, 1882), *O. nematoides* (Ehlers, 1913), and *O. syringopyge* (Ehlers, 1901), and *O. gaucha* sp. n. However, it differs from these species in the presence of terminal cirri: *O. kinbergii* lacks terminal cirri (Hansen, 1882); *O. cylindricaudata* has only lateral crenulations (Day, 1973; Uebelacker, 1984); and *O. syringopyge* (Hartman, 1966; Hartmann-Schröder & Rosenfeldt, 1989) has terminal cirri. The other species show a different number of terminal cirri (Hartman, 1966; 1967; Hartmann-Schröder & Rosenfeldt, 1989).

Ophelina alata sp. n. has a mid-ventral cirrus, like *O. cylindricaudata* and *O. gaucha* sp. n., but differs in the number of chaetigers (51–53, 26–28 and 36, respectively). In *O. gaucha* the mid-ventral cirrus is attached to the ventral part of the anal tube, while in *O. alata* it is internally attached only at the base of the anal tube, as in other species of the family.

Distribution and habitat: In continental shelf bot-

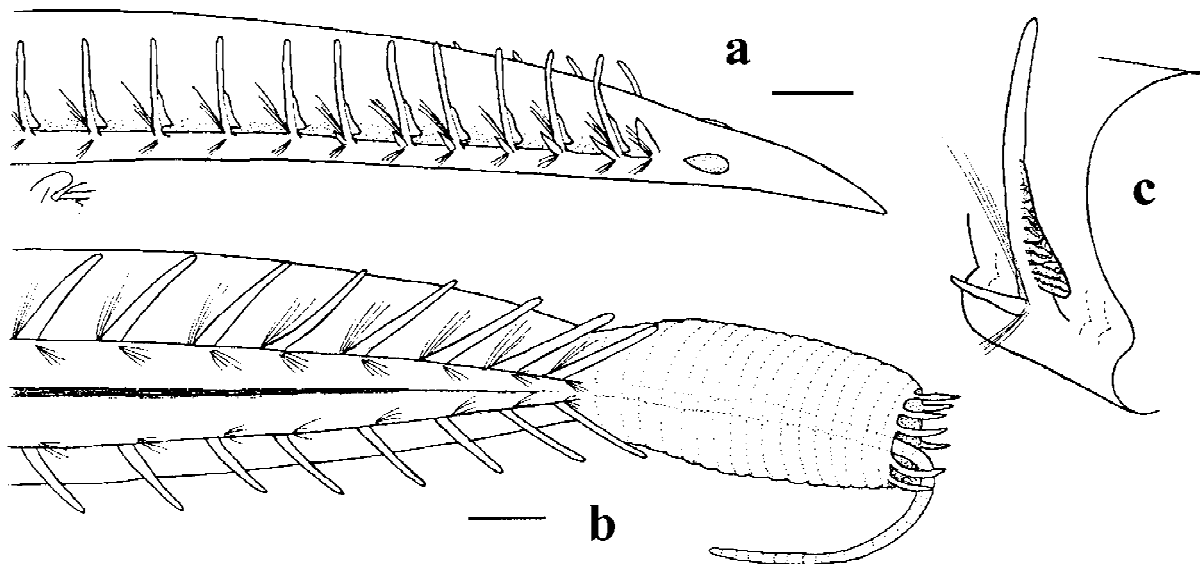


Figure 3. *Ophelina alata* sp.n. (a) Lateral view of anterior segments, (b) Ventral view of posterior segments, (c) Lateral view of branchiate segment. Scales a, b: 1 mm.

toms to 49 m in fine sand and shell bottoms, off Southeastern Brazil.

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