NEW RECORDS OF SABELLARIIDAE (ANNELIDA, POLYCHAETA) FROM ARGENTINA

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INTRODUCTION

The Sabellariidae Johnston, 1865, included in the order Terebellida (Fauchald, 1977), comprises about sixty-five species of non-colonial or colonial reef-builder polychaetes, which occur from shallow waters to oceanic depths (Uebelacker, 1984).

This family is currently represented by seven genera, two of which have been previously described from Argentina: *Idanthyrsus* Kinberg, 1867 and *Phragmatopoma* Moerch, 1863, both in continental shelf localities (Orensanz, 1974; Hartmann-Schroeder, 1983). Ringuelet (1969) has referred *Sabellaria fissidens* Grube, 1870 to the Patagonic littoral zone. However, this material was not described; the only available descriptions of this species are based upon material from the coast of Chile (Grube, 1870; Ehlers, 1901b).

This paper redescribes *I. armatus* Kinberg, 1867 and reports the first records of the genus *Sabellaria* Savigny, 1818 from Argentina, namely *S. nanella* Chamberlin, 1919 and *S. wilsoni* Lana & Gruet, 1989.

FAMILY SABELLARIIDAE Johnston, 1865

Diagnosis (modified from Uebelacker, 1984) - Body divided into four regions: opercular region, thorax, abdomen and cauda. Opercular region with two opercular peduncles, fused dorsally or not, and crowned with large paleae, arranged in 1, 2 or 3 apparent rows. Anterior margins of opercular peduncles with a row of soft papillae. Nuchal hooks or acicular spines may be present dorsally. Buccal cirri filamentous; two grooved palps and often a median tentacle in the buccal region. Thorax with two

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rudimentary segments bearing capillary neurosetae. Three or four parathoracic setigers, with paddle-shaped paleae and slender companion setae; notopodial ones larger. Cirriform branchiae from the second thoracic segment. Abdominal region with pectinate notopodial uncini and capillary neurosetae. Caudal region achetous, and generally reflexed over a ventral groove.

Sabellaria Savigny, 1818

Sabellaria nanella Chamberlin, 1919

Sabellaria nanella Chamberlin, 1919: 261, pl.2, figs.5-7.- Hartman, 1938: 16, pl.3, figs.8-10.- Hartman, 1944: 340, pl.30, figs.18-20.- Hartman, 1969: 509, figs. 1-4.- Rullier & Amoureux, 1979: 188.- Lana & Gruet, 1989: 243.

Material examined - Monte Hermoso, 39°00' S, 61°17'W, 2 specimens, 10m, hard bottom, 24 September 1981, C.B. coll., C. B. personal collection

Associated fauna - Assemblage characterized by sedentariate polychaetes, the sipunculid *Themiste petricola* and the small oyster *Ostrea spreta.*

Distribution - California, SE Brazil (of Espirito Santo and Rio de Janeiro States) and Argentina (Monte Hermoso, near Bahía Blanca).

Description - Unique complete specimen, 18,5 mm long with cauda. Both specimens pale, white in alcohol, with golden opercular paleae.

Opercular peduncles separated and straight in relation to main axis of body. Opercular crown circular and expanded distally, trumpet-shaped. Opercular paleae in three rows. 22 pairs of external paleae, directed outwards. External paleae with subequal smooth spikes terminating in a hook, except the median one, which is long, strong, and situated in a different plane (Fig.1a). 16 pairs of middle paleae, distally flat, suboval and concave (Fig.1b). 16 pairs of Inner paleae, basally excavated and distally entire, tapering to a point (Fig.1c). External paleae basally surrounded by a row of 24 round soft papillae. Buccal cirri long and filamentous. Palps short and blunt.

Two thoracic setigers with slender simple setae. Second thoracic setiger with cirriform branchiae, gradually smaller and absent in last abdominal setigers.

Three birramous parathoracic setigers, longer and thicker than thoracic ones. Notopodial setae a single row of distally barbed paddle-shaped paleae, alternating with shorter spiny companion setae. Their size and number increase from the first to the third parathoracic setiger. Neuropodial setae paddle-shaped as dorsal ones, but much smaller.

24 birramous abdominal setigers. Notopodia with uncini in a single transverse row, each with 5 teeth in 2 lateral rows and 1 median tooth at superior end. Tori prolonged and narrower from anterior to posterior abdomen. Abdominal neurosetae capillary and serrate.

Cylindrical cauda lacking parapodia and setae. Tubes friable, made of small sand grains.

Remarks - *Sabellaria nanella* was originally described from California. Specimens reported from the Atlantic coast of South America (Rullier & Amoureux, 1979;

Lana & Gruet, 1989) were considered to be identical to material from the Pacific coast of the United States, as described and illustrated by Chamberlin (1919) and Hartman (1938, 1944, 1969). However, a taxonomic review of type-material is sorely needed to assess affinities of Atlantic and Pacific material.

Sabellaria wilsoni Lana & Gruet, 1989

Sabellaria wilsoni **Lana & Gruet, 1989: 239, figs.1-21.**

Material examined - Monte Hermoso, 39°00'S, 61°17'W, 63 specimens, 10m, hard bottom, 23 September 1981, C.B.coll., C. B. personal collection.

Associated fauna - The same assemblage described for *S. nanella* .

Distribution - SE Brazil (Paraná State), Argentina, probably the French Guiana.

Remarks - The Argentinean specimens are similar to the Brazilian holotype described by Lana & Gruet (1989). The larger individual is 22mm long, with cauda, differing from the original description in the greater numbers of outer opercular paleae (42 pairs), middle and inner opercular paleae (19 pairs). The external opercular paleae have 3 pairs of lateral spines on each side of the central spike (Fig.1d). Middle and inner paleae are identical to the original description (Figs.1e-f). Buccal cirri are arranged in 7-8 rows on each side, instead of the 5 described for Brazilian individuals.

Tubes friable, built with small sand grains. Large colonies were not seen. The species seems to occur only in small aggregations.

Idanthyrsus Kinberg, 1867

Idanthyrsus armatus Kinberg, 1867

Idanthyrsus armatus Kinberg, 1867: 349.- Johansson, 1927: 90.- Monro, 1930: 177, fig. 73.- Monro, 1933: 1066, fig. 14.- Monro, 1936: 172.- Hartman, 1944: 336, pl.31, fig.36.- Hartman, 1953: 10.- Hartman, 1966: 73, pl. 24, figs.2-6.- Hartman, 1967: 150.- Ringuelet, 1969: 212.- Fauchald, 1972: 530, pl.55, figs.h-j.- Orensanz, 1974: 55.- Rullier & Amoureux, 1979: 188.- Hartmann-Schroeder, 1983: 271.

Pallasia sexungula Ehlers, 1897: 125, pl.8, figs.194-202.- Ehlers, 1900: 220.- Ehlers, 1901a: 267.

Pallasia armata - Ehlers, 1901b: 195

Sabellaria macropalea - Pratt, 1901: 13 (pro parte)

Pallasia pennata - Fauvel, 1941: 291

Material examined : Cruise OB 02 87, St. 4, 38°45'S, 56°13'W, 2 specimens, 87m; St. 5, 39o 03'S 55o 41'W, 20 specimens, 126m, 13 March 1987. Cruise OB 04 87, St. 5, 57 specimens, 127m, 7 May 1987. Cruise OB 06 87, St. 5, 9 specimens, 119m, 8 July 1987.Cruise OB 10 87, St.3, 38°28'S 56°45'W, 1 specimen, 80m, 3 September 1987; St.4, 1 specimen, 87m, 4 September 1987.Cruise OB 01 89, St.1, 38°10'S 57°12'W, 1 specimen, 38m, 1 February 1989. Substrate fine sand.

Associated fauna - Molluscs dominate the faunistic assemblages from sampling stations 4 and 5, mainly *Volvarina patagonica, Limopsis hirtella, Epicodakia falklandica* and *Hiatella solida* . Tubes generally constructed on *Chlamys patagonica* valves.

Distribution - South America: Pacific coast of Colombia, Central Chile, Magellan Strait, Beagle Channel, Cape Horn, Malvinas-Falkland Islands, South Georgia Island, continental shelf off Patagonia and northern Argentina. Other records: Western Mexico, British Columbia, Alaska, Australia, Japan. Intertidal to 300 m depth.

Description - Adult specimens up to 50 mm long, without cauda, and 3 mm wide at opercular peduncle. Shorter individual 18 mm long, including cauda. Most specimens reddish. Dorsal and ventral sides of opercular peduncle (including basis of buccal cirri) and ventral and lateral sides of thorax brownish, with the most conspicuous bands in the first thoracic and third parathoracic setigers. Posterior abdominal neuropodia brownish. Branchiae darker in a few specimens. Opercular paleae golden.

Opercular peduncles separated and straight in relation to main axis of body. Opercular crown obliquely truncate. Opercular paleae in two rows. 16-24 pairs of external paleae, directed outwards, each with nearly straight shaft and lateral spinelets widely separated and curved outwards; maximum number of spinelets 11 (Fig.1g). 9-16 pairs of inner paleae, as smooth hooks with narrow transverse striae (Fig.1h). 2-4 pairs of dorsal nuchal hooks. External paleae basally encircled by a row of sharp soft papillae in variable number. Buccal cirri filamentous. Two slender palps and and a median tentacle above the buccal region.

Two thoracic setigers with very slender bipectinate capillary neurosetae. Cirri of first thoracic setiger close to the buccal ones. Second thoracic setiger with cirriform branchiae, gradually smaller in posterior abdominal setigers and absent in last ones.

Three birramous parathoracic setigers. Notopodial setae arranged in a single row, alternating paddle-shaped with larger, slender and curved capillary setae. Their size and number increase from first to third parathoracic setigers. All neuropodial setae paddle-shaped, but much smaller than notopodial ones.

Abdominal setigers birramous. Notopodia with uncini in a single transverse row; each with a double lateral row of 8 teeth, in addition to a median tooth at superior end. Tori progressively prolonged and narrower from anterior to posterior abdomen. Abdominal neurosetae serrate.

Cylindrical cauda lacking parapodia and setae and often missing in preserved material.

Tubes stout, cylindrical and made of sand grains.

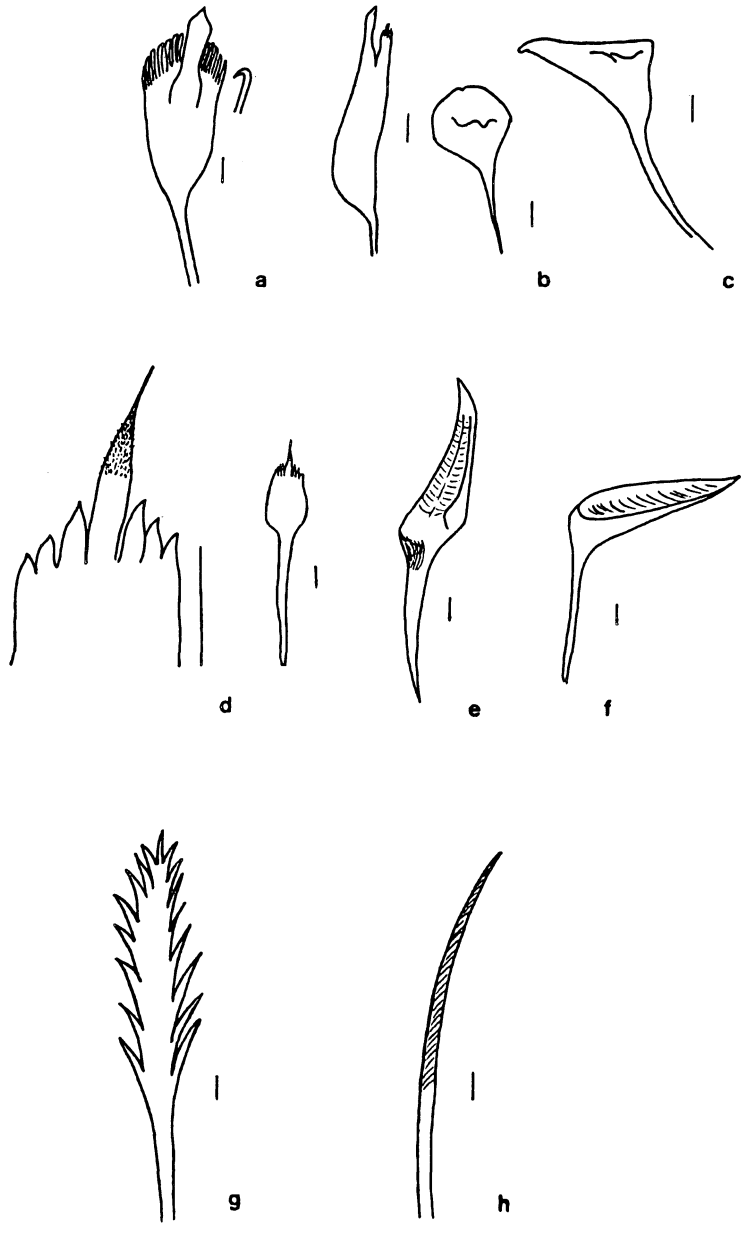

Fig. 1
Opercular paleae. *Sabellaria nanella*: a) outer, b) middle, c) inner. *S. wilsoni* : d) outer, e) middle, f) inner. *Idanthyrsus armatus*: g) outer, h) inner. Scales representing 100 μm.

ABSTRACT

Two species of Sabellariidae, *Sabellaria nanella* Chamberlin, 1919 and *S. wilsoni* Lana & Gruet, 1989 are newly reported from shallow waters off Bahía Blanca, Argentina (39°), extending southwards their geographic range. *Idanthyrsus armatus* Kinberg, 1867 is redescribed from deeper continental shelf bottoms off the northern Argentinean coast.

RESUMO

A distribuição austral de duas espécies de Sabellariidae, *Sabellaria nanella* Chamberlin, 1919 and *S. wilsoni* Lana & Gruet, 1989, é grandemente ampliada, com novos registros para a região de Bahia Blanca, Argentina (39°). *Idanthyrsus armatus* Kinberg, 1867 é redescrito a partir de material coletado em fundos de plataforma ao largo da costa norte da Argentina.

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