

## TAXONOMIC UPDATE OF THE SABELLIDS (POLYCHAETA: SABELLIDAE) FROM CHILE AND TAXA ESTABLISHED BY PROF. ERNST EHLERS, WITH A KEY TO GENERA OF SABELLINAЕ.

ACTUALIZACIÓN TAXONÓMICA DE LOS SABÉLIDOS (POLYCHAETA: SABELLIDAE) DE CHILE Y TAXA ESTABLECIDOS POR EL PROF. ERNST EHLERS, CON UNA CLAVE PARA LOS GÉNEROS DE SABELLINAЕ.

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### RESUMEN

El listado más reciente de poliquetos de Chile fue publicado en 1985. Desde entonces, se han efectuado una serie de contribuciones sistemáticas de la familia Sabellidae, lo que ha ocasionado cambios en el estado taxonómico de varios géneros y especies. Este trabajo proporciona nuevos nombres, sinónimos y nuevos registros, así como una lista de los sabélidos nombrados por el Prof. Ernst Ehlers. Se enlistan 13 géneros y 23 especies para Chile. Fabricinae está representada por una especie y Sabellinae por 12 géneros y 22 especies. Tres especies que fueron descritas originalmente para Chile actualmente no se consideran válidas, mientras que siete registros permanecen como cuestionables hasta que una revisión garantice su distribución. El Prof. Ehlers estableció el género *Potamis* y 24 especies de sabélidos para diversas localidades del mundo. Entre esas especies, 17 se consideran válidas, dos *insertae sedis* y cinco han sido sinonimizadas, mientras que el género *Potamis* fue reemplazado con *Potamethus*. Se incluye una clave ilustrada para los géneros de Sabellinae.

Palabras clave: Sabellidae, Chile, Ehlers, listado, gusanos plumero, clave.

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## ABSTRACT

The most recent checklist of polychaetes of Chile dates from 1985. Since then systematic contributions for the family Sabellidae have been published resulting in changes in the taxonomic status of various genera and species. This contribution provides new names, synonymies and new records. A list of sabellid taxa named by Prof. Ernst Ehlers is also included. Thirteen genera and 23 species are listed for Chile. Fabriciinae is represented by one species and Sabellinae with 12 genera and 22 species. Three species that were originally described from Chile are currently recognised as not valid, and seven records as questionable until any revision sustains their distribution. Prof. Ehlers established 24 species of sabellid worms from several worldwide localities and the genus *Potamis*. Among these species, 17 are currently accepted names, two are *insertae sedis* and five have been synonymized, while the genus name *Potamis* was replaced with *Potamethus*. An illustrated key is included for the genera of Sabellinae.

Key words: Sabellidae, Chile, Ehlers, checklist, fan worms, key.

## INTRODUCTION

Sabellidae Latreille, 1825 is a family of polychaetous annelids commonly known as fan worms, feather-duster worms, or sea flowers. Living specimens are easily recognized due to their often colourful crown frequently projecting from the mouth of their tubes. Rioja (1923) divided the sabellids into three subfamilies based primarily on chaetal characters: Sabellinae Latreille, 1825, Myxicolinae Renier in Meneghini, 1847, and Fabriciinae Rioja, 1923. Fitzhugh's (1989) morphology-based cladistic analysis resulted in significant changes to the previous classification of Sabellidae as it demonstrated that only the subfamilies Fabriciinae and Sabellinae could be accepted as monophyletic.

Kupriyanova & Rouse (2008) studied the monophyly of the Sabellidae based on molecular data from three nuclear genes of sabellins and fabriciins. Their molecular evidence supports the hypothesis that the Sabellidae does not constitute a monophyletic group as currently formulated since it contains the Serpulidae. Additionally, the Fabriciinae were found to be more closely related to the Serpulidae than to Sabellinae. The authors therefore emphasized that the Fabriciinae must be removed from the Sabellidae and be referred to the Fabriciidae, with the revised Sabellidae being equal to the previous subfamily Sabellinae because its represents the simplest solution with the least disruption to current nomenclature. Recently, Capa *et al.* (2010) based on morphology and multiple genes (nuclear ribosomal RNA genes 18S and 28S and mitochondrial gene

16S) also confirmed the monophyly of Fabriciinae and Serpulidae, being Serpulidae the sister group to Fabriciinae. This study follows the traditional recognition of the subfamilies Fabriciinae and Sabellinae until the new classification, with the recognition of Fabriciidae as family, will be re-organized according the rules of the International Code of Zoological Nomenclature (1999).

In Chile, a number of important studies on polychaetes have been carried out. These works are summarized in the checklist of Rozbaczylo (1985), in which, 29 species of sabellids belonging to 16 genera are listed. On the other hand, Prof. Ernst Ehlers did a great contribution to the study of sabellid polychaetes, as shows his 24 detailed descriptions of feather duster worms and beautiful illustrations. The objectives of this contribution are to provide updated information of the Sabellidae species currently known to occur in Chile; to include the sabellid taxa named by Prof. Ehlers as a modest homage to his great contribution to the study of Sabellidae, and to provide a key for Sabellinae.

## MATERIAL AND METHODS

The sabellid genera described or recorded in Chile are given in alphabetic order, followed by an alphabetic list of species. The nomenclatural information includes the original name, year of publication, pages, plates and figures. Data for the type locality as complete as available in the original description are also included. Data for type materials are provided as complete as available in museums

data bases or original descriptions. A question mark symbol (?) indicates incomplete or unavailable information. The following abbreviations correspond to repository institutions:

AM: Australian Museum, Sydney, Australia.  
GNM: Göteborgs Naturhistoriska Museum,

Sweden.

LACM-AHF: Los Angeles County Museum of Natural History, Allan Hancock Foundation, Los Angeles, California, USA.

NHMW: Naturhistorisches Museum Wien, Wien, Austria.

NRS: Naturhistorika Riksmuseet Stockholm, Sweden.

RSM: Royal Scottish Museum Edinburgh, Scotland.

USNM: The Natural History Museum, Smithsonian Institution, Washington DC, USA.

ZMH: Zoologisches Institut und Museum, Univ. Hamburg, Hamburg, Germany.

ZMHUB: Zoological Museum, Humboldt University, Berlin, Germany.

ZMO: Zoological Museum, University of Oslo, Norway.

Although synonyms are provided, a list of the species not recognized as valid is given with their nomenclatural reference, type locality and remarks to facilitate further searches. Some questionable records in Chile are included until revision upholds their distribution.

Sabellid worms erected by Ernst Ehlers were included (currently accepted names, unaccepted names or *insertae sedis* names are specified). An illustrate key to genera in Sabellinae is presented here (a key for Fabriciinae was provided by Fitzhugh, 1998). At the end of this paper, the complete literature references of the consulted publications are provided.

## RESULTS

Thirteen genera and 23 species are listed for Chile. Fabriciinae is represented by one species and Sabellinae with 22 species and 12 genera. Three species that were originally described from Chile are currently recognised as not valid, and seven records as questionable until any revision sustains their distribution.

## SABELLID TAXA RECORDED OR DESCRIBED FOR CHILE: currently accepted names

### GENUS *Amphicorina* Claparède, 1864

*Amphicorina* Claparède, 1864: 474.—Rouse, 1994: 202.—Giangrande *et al.* 1999: 195–196.—Nogueira & Amaral, 2000: 618.

*Oria* de Quatrefages, 1866: 462.—Banse, 1957: 68.

*Oriopsis* Caullery & Mesnil, 1896: 483–484, Figs 1–2.—Banse, 1957: 68–70.—Fitzhugh, 1989: 66–67.—Rouse, 1994: 181.

*Oridia* Rioja, 1917: 73.—Banse, 1957: 68.—*Oriades* Chamberlin, 1919: 470.—Banse, 1957: 68.

#### 1) *Amphicorina alata* (Ehlers, 1897)

*Fabricia alata* Ehlers, 1897: 135–137, Pl. 9, Figs 206–210.—Ehlers, 1901b: 218.—Hartman, 1953: 11, Fig. 21a–e.—Rullier, 1954: 25, 27.

*Oria alata*.—Zenkevitch, 1925: 44.—*Oriopsis alata*.—Banse, 1957: 73–74, Fig. 2a–c.—Hartman, 1966: 119, 121, Pl. 40, Figs. 8–10.—Knight-Jones & Bowden, 1984: 813.

*Amphicorina alata*.—Giangrande *et al.* 1999: 197.

Type locality: Ushuaia, Beagle Channel, 1.82–3.65 m depth.

Type material: ZMH V-4955–57 (holotype).

Records: See Rozbaczylo (1985: 209) as *Oriopsis*.

#### 2) *Amphicorina alatooides*

(Hartmann-Schröder, 1962)

*Oriopsis alatooides* Hartmann-Schröder, 1962: 165, Figs 222–224.

*Amphicorina alatooides*.—Giangrande *et al.* 1999: 197.

Type locality: Chile, Huasco.

Type material: ZMH P-15241(holotype).

Records: Only known for the type locality.

#### 3) *Amphicorina limbata* (Ehlers, 1897)

*Oria limbata* Ehlers, 1897: 137–139, Pl. 9, Figs. 211–216.—Ehlers, 1901b: 218.—Fauvel, 1916: 476–477.

*Oridia limbata*.— Augener, 1926: 269.— Benham, 1927: 130.— Hartman, 1951: 381.— Hartman, 1953: 54–55, Fig. 20a–d.

*Oriopsis limbata*.— Banse, 1957: 76–78, Fig. 3a–e.— Hartman, 1966: 121, Pl. 41, Figs. 3–6.— Hartman, 1967: 174.

*Amphicorina limbata*.— Giangrande et al. 1999: 197.

Type locality: Ushuaia, Beagle Channel, 9.14 m depth.

Type material: ZMH V-4958.

Records: See Rozbaczylo (1985: 210) as *Oriopsis*.

4) *Amphicorina magellanica*  
(Hartmann-Schröder, 1962)

*Oriopsis magellanica* Hartmann-Schröder, 1962: 163, Figs. 216–218.

Type locality: Punta Arenas, Chile, in *Macrocystis* holdfasts, 3–4 m depth.

Type material: ZMH P-15230 (holotype and 4 paratypes).

Records for Chile: See Rozbaczylo (1985: 210) as *Oriopsis*.

5) *Amphicorina taltalensis*  
(Hartmann-Schröder, 1962)

*Oriopsis taltalensis* Hartmann-Schröder, 1962: 163–164, Figs 219–221.

*Amphicorina taltanensis*.— Giangrande et al. 1999: 197.

Type locality: Chile, 4 km N Taltal.

Type material: ZMH P-15240 (holotype).

Records: Only known for the type locality.

#### GENUS *Branchiomma* Kölliker, 1859

*Branchiomma* Kölliker, 1859: 537.— Tovar-Hernández & Knight-Jones, 2006: 5.

*Dasychone* Sars, 1862: 118.— Hartman, 1959: 537.

*Dasychonopsis* Bush, 1905: 198.— Hartman, 1959: 537.

6) *Branchiomma curtum* (Ehlers, 1901a)

*Dasychone curta* Ehlers, 1901a: 216–218, Pl. 25, Figs. 10–13.— Ehlers, 1901b: 268.— Ehlers, 1907: 28.

*Dasychone cingulata* (Grube) var. *curta*  
Ehlers.— Augener, 1922a: 211.— Benham, 1927: 137–139, Pl. 4, Figs 124–125.

*Branchiomma curtum*.— Tovar-Hernández & Knight-Jones, 2006: 20–21, 23–24, Figs 5A–G, 8D–E, 9H–J, 10F, 11E.

Type locality: Chile, Masatierra, Juan Fernández Islands, 33.6 m depth.

Type material: ZMHUB 376 (syntypes).

Records: In Chile, only known for the type locality.

Remarks: At least four species of *Branchiomma* have been considered as alien (Tovar-Hernández et al. 2009), these include *B. luctuosum* (Grube), *B. boholense* (Grube), *B. curtum* and *B. bairdi* (McIntosh). Among these species, the linear distribution of *Branchiomma curtum* from Chile, New Zealand, Cape Verde Islands and Mexico may have been assisted by ballast water from ships (Tovar-Hernández & Knight-Jones 2006).

#### GENUS *Chone* Krøyer, 1856

*Chone* Krøyer, 1856: 13.— Sars, 1862: 119.— Malmgren, 1866: 404.— McIntosh, 1923: 287.— Day, 1967: 776.— Banse, 1972: 460.— Fitzhugh, 1989: 67.— Giangrande, 1992: 518.— Tovar-Hernández & Sosa-Rodríguez, 2006: 36–37.— Tovar-Hernández, 2008: 2216–2218.

*Parachonia* Kinberg, 1867: 355.— Johansson, 1925: 27–28.

*Megachone* Johnson, 1901: 430.— Banse, 1972: 460.

*Metachone* Bush in Moore, 1904: 190.— Fauvel, 1927: 334.

7) *Chone rosea* Hartmann-Schröder, 1965

*Chone rosea* Hartmann-Schröder, 1965: 276–278, Figs 279–280.— Tovar-Hernández, 2007: 55–56, Fig. 14.

Type locality: off south Chile, Punta Galera, Valdivia, 260 m depth.

Type material: ZMH P-15202 (holotype).

Records: See Rozbaczylo (1985: 207).

8) *Chone striata* Hartmann-Schröder, 1965

*Chone striata* Hartmann-Schröder, 1965: 278–280, Figs 281–283.

Type locality: Chile, Puerto Inglés, Bahía de Ancud, 12 m depth.

Type material: ZMH P-15203 (holotype and one paratype).

Records: Only known for the type locality.

#### GENUS *Euchone* Malmgren, 1866

*Euchone* Malmgren, 1866: 405–406.—Banse, 1972: 481–482.—Fitzhugh, 1989: 68.

##### 9) *Euchone pallida* Ehlers, 1908

*Euchone pallida* Ehlers, 1908: 159, Pl. 21, Figs. 10–15, Pl. 22, Figs. 1–4.—Monro, 1930: 203–204.—Hartman, 1966: 117, Pl. 49, Figs. 11–15.—Hartman, 1967: 172.—Hartman, 1978: 203, 205–206.—Hartmann-Schröder & Rosenfeldt, 1991: 89.—Licciano *et al.* 2009: 30–32, Fig. 1.

Type locality: East of Kerguelen Islands, Antarctica.

Type material:?

Records for Chile: See Rozbaczylo (1985: 208).

#### GENUS *Jasmineira* Langerhans, 1880

*Jasmineira* Langerhans, 1880: 113.—Day, 1967: 779.—Fitzhugh, 1989: 68–69.—Hartmann-Schröder, 1996: 556.—Fitzhugh, 2002: 383.

##### 10) *Jasmineira regularis* Hartman, 1978

*Jasmineria regularis* Hartman, 1978: 206–208, Figs 41a–g.

Type locality: Weddell Sea, 650 m depth.

Type material: USNM 47095 (holotype).

Records: See Rozbaczylo (1985: 209).

#### GENUS *Notaulax* Tauber, 1879

*Hypsicomus* Grube, 1870: 348 (in part; not *Sabella stichophthalmos* Grube).—Fauvel, 1927: 312.—Hartmann-Schröder, 1971: 502.

*Notaulax* Tauber, 1879: 136.—Levinsen, 1883: 185, 187–188.—Perkins, 1984: 327, 329.—Fitzhugh, 1989: 75.

*Protulides* Webster, 1884: 325.—Perkins, 1984: 327.

*Eurato* de Saint-Joseph, 1894: 219–220.—Perkins, 1984: 327.

*Hypsicomatopsis* Augener, 1922b: 49.—Perkins, 1984: 327.

##### 11) *Notaulax tilosaula* (Schmarda, 1861)

*Sabella tilosaula* Schmarda, 1861: 34, Pl. 23, Fig. 191.—Ehlers, 1901b: 216.

*Notaulax tilosaula*.—Perkins, 1984: 328.

Type locality: Coast of Chile.

Type material:?

Records: Only known for the type locality.

Remarks: Hartman (1959: 565) stated that this species is possibly *Sabella phaeotenia* Schmarda (both currently recognized in *Notaulax*), a species described from Ceylon, however Perkins (1984) recognized both as different species. Although the species is only known for the type locality, the record of *Notaulax phaeotenia* (Schmarda) from the South Patagonian Icefield by Montiel *et al.* (2004) could be assigned to *N. tilosaula*. See remarks of *Notaulax phaeotenia* in page 14.

#### GENUS *Novafabricia* Fitzhugh, 1990

##### 12) *Novafabricia chilensis*

(Hartmann-Schröder, 1962)

*Fabriciola chilensis* Hartmann-Schröder, 1962: 161, Figs. 212–215.—Knight-Jones & Bowden, 1984: 814.

*Novafabricia chilensis*.—Fitzhugh, 1990c: 9–10, Fig. 6.

Type locality: Chile, Arica, in rhizoids of *Macrocystis*.

Type material: ZMH P-15224 (holotype), P-15225 (10 paratypes).

Records: See Rozbaczylo (1985: 208).

#### GENUS *Parasabella* Bush, 1905

= *Demonax* Kinberg, 1867: 354 (not Thomson, 1860); 1910: 72.—Johansson, 1925: 26–27; 1927: 136.—Knight-Jones, 1983: 254.—Perkins, 1984: 292–293.—Knight-Jones & Walker, 1985: 605.—Fitzhugh, 1989: 75–76.—Giangrande, 1994: 229–230.

*Parasabella* Bush, 1905: 191, 199–200.—Johansson, 1927: 136.—Tovar-Hernández & Harris, 2010: 14.

*Distyliidia* Hartman, 1961: 129.—Fauchald, 1977: 138.—Banse, 1979: 870.

Remarks: Kinberg (1867) described the new genus *Demonax* for four new species of sabellid polychaetes. This name is a junior homonym of *Demonax* Thomson, 1860, a genus of round necked longhorn beetles (Insecta: Coleoptera: Cerambycidae). Tovar-Hernández & Harris (2010) reintroduced the genus *Parasabella* Bush, 1905 for the replacement of *Demonax* Kinberg, 1867, since a junior homonym must be rejected and replaced either by an available and potentially valid synonym (Art. 23.3.5) or, for lack of such name, by a new substitute name (Article 60 of the International Code of Zoological Nomenclature, 1999).

- 13) *Parasabella fernandezensis* (Augener, 1922)  
*Sabella fernandezensis* Augener, 1922a: 210–211, Textfigs. 10a–b.  
*Demonax fernandezensis*.— Knight-Jones & Perkins, 1998: 404.  
*Parasabella fernandezensis*.— Tovar-Hernández & Harris, 2010: 15.  
 Type locality: Chile, Juan Fernandez Island (Robinson Crusoe), 30–40 m depth.  
 Type material: GNM 1534.  
 Records: Only known for the type locality.

- 14) *Parasabella leucaspis* (Kinberg, 1867)  
*Demonax leucaspis* Kinberg, 1867: 354.— Johansson, 1925: 24, Fig. 8, no. 7–11; 1927: 126, Text-fig. 14, no. 4, 6–7.— Knight-Jones, 1983: 256–257.— Perkins, 1984: 296–299, Figs. 3–5.  
*Demonax incertus* Kinberg, 1867: 354.— Johansson, 1925: 22, 24, Fig. 8, no. 1–6.— Hartman, 1959: 541.— Perkins, 1984: 296.

*Demonax leucaspis*.— Johansson, 1925: 24, Fig. 8, no. 7–11.

*Parasabella leucaspis*.— Tovar-Hernández & Harris, 2010: 15.

Type locality: Perú, Callao, Isla San Lorenzo, intertidal.

Type material: NRS (Fauchald, 2007)

Records: See Rozbaczylo (1985: 207).

Remarks: *Parasabella incertus* was described by Kinberg (1867: 354) from Valparaíso to 3.6–5.5 m depth (as *Demonax*). Johansson (1925, 1927) suggested *P. incertus* as synonym of *P. leucaspis* as corroborated later by Perkins, 1984: 296.

#### GENUS *Perkinsiana* Knight-Jones, 1983

*Perkinsiana* Knight-Jones, 1983: 273–274.— Rouse, 1996: 102–103.— Giangrande & Gambi, 1997: 268.— Capa, 2007: 549.

- 15) *Perkinsiana antarctica* (Kinberg, 1867)  
*Laonome antarctica* Kinberg, 1867: 354.— Ehlers, 1901a: 17.  
*Potamilla antarctica*.— Monro, 1930: 199–201.— Augener, 1932: 68.— Fauvel, 1936: 37.— Monro, 1936: 188.— Hartman, 1953: 53.— Hartman, 1966: 125–126, Pl. 41, Figs. 10–12.  
*Perkinsiana antarctica*.— Knight-Jones, 1983: 277–279, Fig. 14.— Hartmann-Schröder & Rosenfeldt, 1991: 88.— Giangrande & Gambi, 1997: 268, Figs. 1–2.— Rios *et al.* 2007: 94.

Type locality: Bahía Laredo, Punta Arenas, Strait of Magellan, Chile.

Type material: AM W 233505 (neotype).

Records: See Rozbaczylo (1985: 210–211). Bahia Laredo, Magellan Strait, associated to the holdfasts of the kelp *Macrocystis pyrifera* (Rios *et al.* 2007: 94).

Remarks: *Perkinsiana antarctica* was considered the most common sabellid in Antarctic and subantarctic waters. It was poorly described and no illustrations were provided but their records from Antarctic and subantarctic areas are extensive (see Giangrande & Gambi (1997) and references therein) showing a high degree of morphological variability. The revision by Giangrande & Gambi (1997) includes the designation of a neotype from Punta Arenas (Chile) and their study revealed that the species has been often confused with other taxa and that probably *P. antarctica* has a distribution restricted to subantarctic areas.

- 16) *Perkinsiana corcovandensis*  
(Hartmann-Schröder, 1965)

*Potamilla corcovandensis* Hartmann-Schröder, 1965: 269–271, Figs. 271–272.

*Perkinsiana corcovadensis*.— Knight-Jones, 1983: 287–288.

Type locality: Corcovado Gulf, South Chile, 190 m depth.

Type material: ZMH P-15224 (holotype).

Records: Only known for the type locality.

- 17) *Perkinsiana littoralis* (Hartman, 1967)  
*Potamethus littoralis* Hartman, 1967: 174–175, Pl. 51.  
*Perkinsiana littoralis*.—Knight-Jones, 1983: 288–289, fig. 20.—Giangrande & Gambi, 1997: 268, Figs. 3–4.  
Type locality: South Shetlands Island, 79 m depth.  
Type material: USNM 55570 (holotype).  
Records: See Rozbaczylo (1985).
- 18) *Perkinsiana magalhaensis* (Kinberg, 1867)  
*Sabella magalhaensis* Kinberg, 1867: 353.—Ehlers, 1901b: 215.—Kinberg, 1910: 72, Pl. 27, Fig. 7.—Johansson, 1925: 22, Fig. 7.  
*Bispira magalhaensis*.—Fauvel, 1916: 471, Pl. 9, Figs. 34–43.—Monro, 1930: 201.—Hartman, 1966: 123, Pl. 39, Figs 2–6.  
Type locality: Isla Sánchez (Bucket Island), Bahía San Nicolás, Strait of Magellan.  
Type material: NRS 1086 (holotype?).  
Records: in Chile only known for the type locality.
- 19) *Perkinsiana pusilla* (Johansson, 1922)  
*Sabella pusilla* Johansson, 1922: 5–6, Pl. 1, Fig. 6.—Hartman, 1966: 127, Pl. 42, Fig. 9.  
*Perkinsiana pusilla*.—Knight-Jones & Perkins, 1998: 404.  
Type locality: Falkland Islands, Puerto Williams, 12 m depth and Tierra del Fuego, E Ushuaia, 10 m depth.  
Type material: NRS 1084 (holotype?).  
Records: See Rozbaczylo (1985: 213).
- GENUS *Potamethus* Chamberlin, 1919  
*Potamis* Ehlers, 1887: 278.  
*Potamethus* Chamberlin, 1919: 469.—Knight-Jones, 1983: 269.—Fitzhugh, 1989: 71.
- 20) *Potamethus scotiae* (Pixel, 1913)  
*Potamis scotiae* Pixel, 1913: 356–357, Fig. 7.  
*Potamethus scotiae*.—Hartman, 1966: 123, Pl. 42, Figs. 1–4.—Hartman, 1967: 175.—1978: 208, Figs. 42a–e.—Knight-Jones, 1983: 271, Fig. 11L–N.  
Type locality: off Princess Martha Coast, Antarctic Ocean ( $71^{\circ} 22' S$ ,  $16^{\circ} 34' W$ ), 2578.6 m depth.
- Type material: RSM 1921.143.1486 (holotype).  
Records: See Rozbaczylo (1985: 211).
- GENUS *Potamilla* Malmgren, 1866
- 21) *Potamilla antarctica christensenii* Augener, 1932  
*Potamilla antarctica christensenii* Augener, 1932: 69–70.—Hartman, 1966: 126.  
Type locality: Chile, Adelaide Island, 620 m depth.  
Type material: ZMO C547 (holotype).  
Records: Only known for the type locality.  
Remarks: Augener (1932) described *Potamilla antarctica christensenii* from the Adelaide Island but did not provide illustrations. Giangrande & Gambi (1997) examined the holotype (ZMO, C547) and revealed that it belongs to a different genus, probably *Notaulax*.
- GENUS *Pseudopotamilla* Bush, 1905  
*Pseudopotamilla* Bush, 1905: 203.—Knight-Jones, 1983: 253–254.—Capa, 2007: 555–556.  
22) *Pseudopotamilla polyophtalma* Hartmann-Schröder, 1965  
*Pseudopotamilla polyophtalma* Hartmann-Schröder, 1965: 271–273, Figs. 273–275.  
Type locality: Chile, Punta Lavapié,  $38^{\circ} 08.7' S$ ,  $73^{\circ} 38.6' W$ , 58 m depth.  
Type material: ZMH P-15243 (holotype).  
Records: In Chile only known for the type locality.
- GENUS *Terebrasabella* Fitzhugh & Rouse, 1999  
*Terebrasabella* Fitzhugh & Rouse, 1999: 358–359.—Murray & Rouse, 2007: 52–53.  
23) *Terebrasabella heterouncinata* Fitzhugh & Rouse, 1999  
*Terebrasabella heterouncinata* Fitzhugh & Rouse, 1999: 359–367, Figs. 1–11.  
Type locality: Sudáfrica, Playa Seaforth, Simonstown ( $34^{\circ} 12' S$ ,  $18^{\circ} 27' E$ ).  
Type material: LACM-AHF 1908 (holotype), LACM-AHF 1909 (paratypes).  
Records: Puerto Montt, in farms of the red abalone *Haliotis rufescens* (Moreno *et al.* 2006).

## SABELLID TAXA DESCRIBED FOR CHILE: unaccepted names

### 1) *Demonax incertus* Kinberg, 1867: 354.

Type locality: Valparaíso, 3.65–5.48 m depth.

Remarks: *Parasabella* was reintroduced as a replacement name for *Demonax* (Tovar-Hernández & Harris 2010). Johansson (1925, 1927) suggested that *P. incertus* (as *Demonax*) is a synonym of *P. leucaspis* as corroborated later by Perkins, 1984: 296.

### 2) *Demonax tilosaurus* Kinberg, 1867: 354.

Type locality: Chile.

Remarks: Kinberg (1867) originally described four species in *Demonax* (now *Parasabella*). One species incorrectly reported by him as *Demonax tilosaurus* (not *Sabella tilosaula* Schmarda, 1861) is a *Chone* species according to Hartman (1959: 514).

### 3) *Megalomma monoculata* Hartman-Schröder, 1965: 273–276, Figs. 276–278.

Type locality: Chile, Punta Topocalma (34° 08.2' S, 72° 09.1' W), 160 m depth, 11.3° C, 0.23 ml/l O<sub>2</sub>.

Remarks: Knight-Jones (1997) synonymized *M. monoculata* with *M. pigmentum* Reish. Both species have caruncle, peristomium exposed dorsally and laterally above collar, eyes only in the dorsalmost radioles and similar chaetae and uncini.

## SABELLID TAXA WITH QUESTIONABLE DISTRIBUTION IN CHILE

### 1) *Amphicorina ehlersi* (Day, 1961)

*Oriopsis ehlersi* Day, 1961: 546–547, Fig. 16a–g.—Knight-Jones & Bowden, 1984: 813.

Type locality: South Africa, False Bay, 14–17 m depth.

Remarks: Knight-Jones & Bowden (1984) recorded *Amphicorina ehlersi* (as *Oriopsis*) from the Chilean shores between Iñaque and Concepción. These authors mentioned that the webbing is less conspicuous in materials from Chile than those recorded in Day's description but examination of chaetae and uncini are needed.

### 2) *Amphiglena pacifica* Annenkova, 1934

*Amphiglene pacifica* Annenkova, 1934: 328–329, Fig. 9a–e.

*Amphiglena pacifica*.—Kohn & Lloyd, 1973: 604.

Type locality: Bering Strait.

### 3) *Euchone analis* (Krøyer, 1856)

*Sabella analis* Krøyer, 1856: 17.

*Euchone analis*.—Augener, 1932: 70–71, 84–85.

Type locality: Greenland.

### 4) *Fabricia sabella* (Ehrenberg, 1836)

*Amphicora sabella* Ehrenberg, 1836: 4.

*Fabricia sabella*.—Kohn & Lloyd, 1973: 704.—Hartman, 1967: 173.

Type locality: Western Europe.

### 5) *Notaulax phaeotenia* (Schmarda, 1861)

*Sabella phaeotenia* Schmarda, 1861: 35, pl. 22, fig. 188.

*Hypsicomus phaeotenia*.—Hartmann-Schröder, 1983: 272.—Montiel et al. 2004: 61, Figs. 8–9.

*Notaulax phaeotenia*.—Perkins, 1984: 328.

Remarks: Hartman (1959) suggested that *Hypsicomus tilosaula* Schmarda is possibly *Sabella phaeotenia* Schmarda (both currently recognized in *Notaulax*), a species from Ceylon; however Perkins (1984) recognized both as different species. Although examination of type materials of both species is certainly needed, the comparison of original drawings by Schmarda for *N. phaeotaenia* (plate 22 fig. 188) and *N. tilosaula* (plate 23, fig. 191) allow differentiate both species: the branchial crown of *N. phaeotaenia* have red and yellow alternated bands and a basal lamina of the branchial crown long while in *N. tilosaula* the crown is homogeneously red and the basal lamina is short. Montiel et al. (2004) recorded *Hypsicomus phaeotenia* from the South Patagonian Icefield at 75 m depth and provided illustrations of anterior thorax and base of the branchial crown, the basal lamina is short (as *N. tilosaula*).

### 6) *Potamilla neglecta* (Sars, 1851)

*Sabella neglecta* Sars, 1851: 203.

*Potamilla neglecta*.—Hartman, 1953: 11.

Type locality: Trømsø, Norway.

- 7) *Sabellapavonina* Savigny, 1822  
*Sabellapavonina* Savigny, 1822: 79–80.—  
 Augener, 1932: 67–68.  
 Type locality: Southern Europe.

#### SABELLID TAXA ERECTED BY PROF. ERNST EHLERS

Prof. Ehlers established 24 species of sabellid worms from several worldwide localities and the genus *Potamis*. Among these species, 17 are currently accepted names (\*), five have been synonymized (\*\*) and two are *insertae sedis* (\*\*\*)<sup>1</sup>, while the genus name *Potamis* was replaced with *Potamethus*. Furthermore, two species of sabellids were named in honour of Ehlers: *Oriopsis ehlersi* Day, 1961 and *Potamilla ehlersi* Gravier, 1906. *Oriopsis ehlersi* was described from South Africa and currently is recognized as valid within the genus *Amphicorina*. *Potamilla ehlersi* was described from the Red Sea and recognized as synonym of *Pseudopotamilla saxicava* (de Quatrefages, 1866) as suggested by Knight-Jones *et al.* in a poster presented during the 8<sup>th</sup> International Polychaete Conference in Madrid. Dr. Knight-Jones was working on the reestablishment of *P. saxicava*; unfortunately she died before she could conclude a full revision of the genus *Pseudopotamilla*.

1) \**Amphicorina alata* (Ehlers, 1897) (see page 9)

2) \**Amphicorina limbata* (Ehlers, 1897) (see pages 9–10)

3) \**Amphicorina parvula* (Ehlers, 1913)  
*Oria parvula* Ehlers, 1913: 580–581.  
*Amphicorina parvula*.—Giangrande *et al.*  
 1999: 197.  
 Type locality: Simonstown, South Africa.  
 Type material: ZMB lost (Fauchald, 2007).

4) \*\**Branchiomma conspersum* (Ehlers, 1887)  
*Dasychone conspersa* Ehlers, 1887: 266–270,  
 Pl. 54, Figs. 1–6.  
*Dasychonopsis arenosa* Treadwell, 1924:  
 1–2, Figs. 1–4.—Tovar-Hernández & Knight-Jones,  
 2006: 18.

*Branchiomma conspersum*.—Knight-Jones,  
 1994: 192.—Tovar-Hernández & Knight-Jones,  
 2006: 18–20, Figs. 4A–J, 10E, 11D.

Type locality: Florida, Key West, 1.68–3.36  
 m depth.

Type material: Ehler's (1887) syntypes of *Dasychone conspersa* were deposited in the Museum of Comparative Zoology and the Zoological Museum of the Humboldt University Berlin. The single specimen in MCZ 848, which had been subsequently wrongly labelled as a holotype, had dried out by 1937 and is now missing (Ardis Johnston pers. com). A lectotype was selected from Ehler's other syntypes, ZMHUB 6791 by Phyllis Knight-Jones. There were 5 units in the vial, two of these (one with crown attached to body and one crown without body) agree with Ehler's description in having stylodes as wide as or wider than the rachis. The more complete specimen was therefore chosen as lectotype (Tovar-Hernández & Knight-Jones 2006). Unfortunately, Ehler's figure (pl. 54, fig. 3) of a radiole with stylodes is in side view, and the width of the macrostylodes does not show. That figure of the radiole may have misled subsequent sabellid workers to synonymise *B. conspersum* with *B. bairdi*. One of the syntypes was indeed *Branchiomma bairdi* (now ZMHUB 11064) but the proportions of Ehler's figured thorax and collar, agree best with the lectotype. Two other syntypes were yet other species, *Branchiomma nigromaculatum* and *Bispira melanostigma* (now ZMHUB 11063 and 11062 respectively).

Remarks: Gravier (1908) recorded *B. conspersum* (as *D. conspersa*) from Djibouti, Red Sea, but his material (MNHN A257) is *B. boholense* (Grube) a species in which thorax and stylode proportions resemble *B. bairdi* rather than *B. conspersum* (Tovar-Hernández & Knight-Jones 2006). As Gravier's (1908) Red Sea record is another species of *Branchiomma*, *B. conspersum* has not been found outside the Grand Caribbean.

5) \*\**Branchiomma corolliferum*  
 (Ehlers, 1913) re-established

*Dasychone corollifera* Ehlers, 1913: 571–572,  
 Pl. 45, Figs. 1–7.

*Branchiomma corolliferum*.—Knight-Jones,  
 1994: 192.

Type locality: South Africa, Simonstown.  
 Type material: ZMHUB 5921 (holotype).

Remarks: Hartman (1959: 540) suggested that *D. corallifera* is a subjective synonym of *B. nigromaculatum* but no comparison of both type materials were done. Day's (1967) figure of *Branchiomma nigromaculatum* from South Africa, with very enlarged basal stylodes, is unlike those of *B. nigromaculatum* and according to material from Saint-James, East coast of South Africa it is likely to be *B. coralliferum* (Ehlers, 1913), a well figured species which Day (1955) wrongly synonymized with *B. nigromaculatum* (Tovar-Hernández & Knight-Jones 2006).

6) \*\**Branchiomma curtum* (Ehlers, 1901) (see pages 10).

7) \*\**Branchiomma hypsilophum* Ehlers, 1920: 67, Pl. 3, Figs. 13–15.

Type locality: Amboina, Moluccas Islands, Indonesia.

Type material: ZMH P-E 1302 (original material).

Remarks: A junior synonym of *Styloamma palmata* de Quatrefages *fide* Knight-Jones, 1997: 322.

8) \*\**Dasychone foliosa* Ehlers, 1913: 572–574, Pl. 45, Figs. 8–16.

Type locality: Simonstown, South Africa.

Type material: ?

Remarks: A junior synonym of *Notaulax phaeotaenia* (Schmarda). *Dasychone foliosa* Ehlers, was synonymized by Hartman (1959: 540) with *Sabella violacea* Schmarda, a species from the Cape of Good Hope, South Africa. Later, Hartman (1965: 78) synonymized *S. violacea* with *Hypsicomus phaeotaenia* Schmarda, a species described from Ceylon. *Hypsicomus phaeotaenia* is currently recognized in the genus *Notaulax* (Perkins 1984: 328).

9) \*\**Euchone pallida* Ehlers, 1908 (see page 11).

10) \*\*\**Euchone rubella* Ehlers, 1871

*Euchone rubella* Ehlers, 1871: 82.

Type locality: Spitsbergen.

Type material: ?

Remarks: Hartman (1959: 543) listed *Euchone rubella* as being a subjective synonym of *Euchone analis* Krøyer, apparently only based on that both species were described from the same type locality (Spitsbergen). Location of type material of *Euchone rubella* is unknown.

11) \*\**Eudistylia brevicomata* (Ehlers, 1905)  
*Sabella (Potamilla) brevicomara* Ehlers, 1905: 298.

*Eudistylia brevicomata*.— Hartman, 1959: 543.— Banse, 1979: 843.

Type locality: Bare Island, New Zealand.  
Type material: ZMH P-E 1334 (holotype).

12) \*\**Jasmineira analis* Ehlers, 1908

*Jasmineira analis* Ehlers, 1908: 48.

Type locality: Atlantic Ocean, Southwest Africa, off Namibia.

Type material: ZMH P-1329 (holotype).

Remarks: This species probably does not belong in this genus (Day 1967: 779; Fitzhugh 2002: 387).

13) \*\**Jasmineira caeca* Ehlers, 1913

*Jasmineira caeca* Ehlers, 1913: 579.— Hart-

man, 1966: 119, Pl. 40, Figs. 1–3.  
*Jasmineira scotti* Benham, 1927: 131, Pl 3,

Figs 100–107.— Hartman, 1966: 119.

Type locality: Kerguelen Islands, Observatory Bai.

Type material: ?

14) \*\**Jasmineira macrophthalmia* Ehlers, 1913

*Jasmineira macrophthalmia* Ehlers, 1913: 578–579.— Hartman, 1966: 119.

Type locality: Kerguelen Islands, Observatory Bai.

Type material: ?

15) \*\*\**Laonome ceratodaula* Ehlers, 1905

*Laonome ceratodaula* Ehlers, 1905: 64.

Type locality: New Zealand.

Type material: ?

Remarks: Hartman (1959: 548) listed *Laonome ceratodaula* Ehlers as being a subjective synonym of *Sabellastarte indica* Savigny, although no comparisons or comments were provided. In the revision of the genus *Sabellastarte*, Knight-Jones & Mackie (2003) stated that *Sabellastarte indica* Savigny is junior to *Sabella indica* Abildgaard in Pectinariidae, consequently, the accepted name for *S. indica* is *Sabellastarte spectabilis* (Grube). However, Knight-Jones & Mackie (2003) did not examined type material of *L. ceratodaula*, these are not in the ZHH neither in ZMHUB.

- 16) \*\**Megalomma bioculatum* (Ehlers, 1887)  
*Branchiomma bioculatum* Ehlers, 1887: 260–263, Pl. 53, Figs. 1–9.  
*Megalomma bioculatum*.—Johansson, 1927: 132.—Perkins, 1984: 352–354, Fig. 38.  
 Type locality: Straits off Florida, 24° 37.5' N, 83° 36' W, 166 m depth.  
 Type material: MCZ 669 (holotype and six syntypes partially dried, incomplete, only crowns with anterior thorax). MCZ 824 (lot with an onuphid and an oenonid from the original series of syntypes).
- 17) \*\**Megalomma lobiferum* (Ehlers, 1887)  
*Branchiomma lobiferum* Ehlers, 1887: 254–259, Pl. 53, Figs. 10–15.  
*Megalomma lobiferum*.—Johansson, 1927: 132.—Hartman, 1959: 550.—Perkins, 1984: 354–357, Figs. 39–40.—Tovar-Hernández & Salazar-Vallejo, 2006: 42–43, Fig. 10.—Tovar-Hernández & Salazar-Vallejo, 2008: 1961, 1963–1964, Figs 3–5.  
 Type locality: Florida, Key West, 1.82–3.6 m depth.  
 Type material: MCZ 835 (holotype).
- 18) \*\**Megalomma suspiciens* (Ehlers, 1904)  
*Branchiomma suspiciens* Ehlers, 1904: 62–63, Pl. 9, Figs. 1–6.  
*Megalomma suspiciens*.—Hartman, 1959: 550.—Knight-Jones, 1997: 314.—Glasby & Read, 1998: 359.  
 Type locality: New Zealand, French Pass.  
 Type material: O-ZMUH PE 1034–6 (holotype).
- 19) \*\**Notaulax circumspiciens* (Ehlers, 1887)  
*Hypsicomus circumspiciens* Ehlers, 1887: 271–277, Pl. 55, Figs 5–13, Pl. 56, Figs. 1–3.  
*Notaulax circumspiciens*.—Perkins, 1984: 330.  
 Type locality: Florida, Carysfort Reef, 48.3 m depth.  
 Type material: MCZ 662 (holotype).
- 20) \*\**Myxicola sulcata* Ehlers, 1912  
*Myxicola sulcata* Ehlers, 1912: 29–30, Pl. 3, Figs 5–12.—Hartman, 1966: 122, Pl. 40, Figs 4–7.  
 Type material:?  
 Type locality: Antarctic Ocean, Victoria Land, Ross Sea (“Discovery”, Winter Quarters, No. 10 hole, 1.5 miles S of ship, on the edge of a bank bottom, small stones and organic debris to 237.7 m depth).
- 21) \*\**Potamilla laciniosa* Ehlers, 1905: 66–67, Pl. 9, Figs 7–10.  
 Type locality: New Zealand, Summer.  
 Type material: ZMH P-1335 (holotype).  
 Remarks: A junior synonym of *Potamilla oligopthalmus* Grube *fide* Johansson 1927: 151.
- 22) \*\**Potamilla perlonga* Ehlers, 1908: 156.  
 Type locality: Indian Ocean, Off Nicobar, 296 m depth.  
 Type material:?  
 Remarks: Subjective synonym of *Potamilla paulina* Grube (as *Sabella*) *fide* Johansson 1927: 146.
- 23) \*\**Potamethus spathiferus* (Ehlers, 1887)  
*Potamis spathiferus* Ehlers, 1887: 278–283, Pl. 54, Figs 7–11, Pl. 55, Figs. 1–4.  
*Potamethus spathiferus*.—Knight-Jones, 1983: 269, 271.  
 Type locality: Florida, off Sambos, 453.75 m.  
 Type material: MCZ 800 (holotype).  
 Remarks: Chamberlin (1919) introduced the name *Potamethus* in order to replace the genus *Potamis* Ehlers since it was preoccupied in Lepidoptera.
- 24) \*\**Sabella sulcata* Ehlers, 1897: 65.  
 Type locality: Zanzibar.  
 Type material: ZMH V-4592.  
 Remarks: A junior synonym of *Sabella porifera* Grube *fide* Hartman 1959: 565.

#### DIAGNOSIS OF SUBFAMILIES IN SABELLIDAE

##### *Fabriciinae* Rioja, 1923

Usually small worms (~1 mm, rarely 1 cm); abdomen with 2–4 segments (Fig. 1A, 1C); 2–3 pairs of radioles (Fig. 1A); branchial skeleton absent; branchial hearts present (Fig. 1F, *in arrows*); branchial lobes separated.

##### *Sabellinae* Latreille, 1825

Worms of variable size (~1 mm to 45 cm); abdominal segments numerous (Fig. 1B) except for *Terebrasabella* (3 segments, Fig. 1D); numerous pairs of radioles (Figs. 1B, O–P, 2B) except for *Terebrasabella* (2 pairs, Fig. 1D); branchial skeleton with cells in single, two or more rows; branchial hearts absent; branchial lobes fused dorsally.

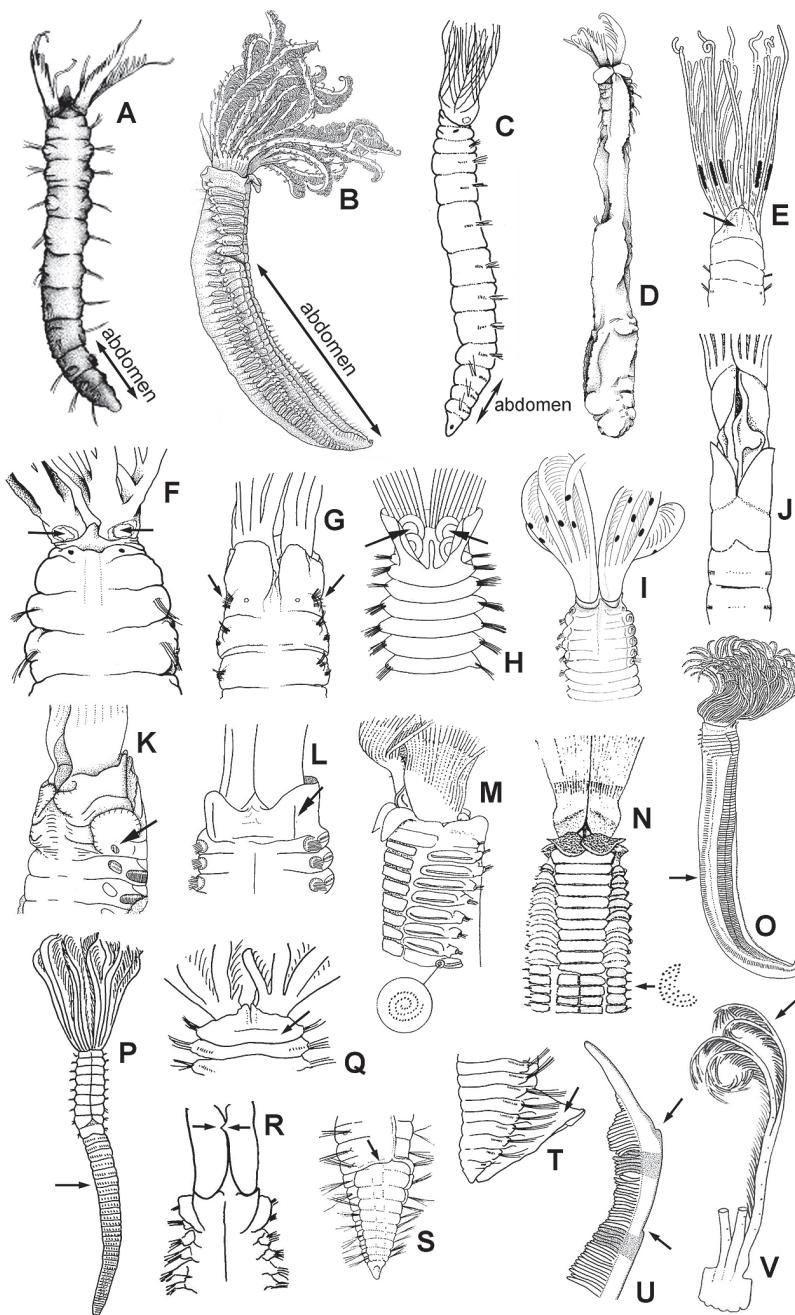


Fig. 1. Selected features of Sabellidae. A) Body, *Novafabricia*, B) body, *Branchiomma*, C) body, *Fabricia*, D) body, *Terebrasabella*, E) anterior peristomial ring, *Desdemona*, F) branchial hearts, *Augeneriella*, G) collar chaetiger, *Panoumethus*, H) vascular coils, *Fabrisabella*, I) proximal compound eyes, *Pseudopotamilla*, J) collar, *Potamethus*, K) collar chaetiger, *Hypsicomus*, L) collar chaetiger, *Notaulax*, M) spiral pattern, *Sabella*, N) C-shaped pattern, *Bispira*, O) body, *Sabellastarte*, P) cinctures of abdominal uncini, *Myxicola*, Q) anterior peristomial ring, *Amphiglena*, R) S-shaped flanges in base of branchial crown, *Stylomma*, S) pre-pygidal depression with a distinct ridge, *Euchone*, T) pre-pygidal depression with lateral wings, *Euchone*, U) pseudostyloides, *Pseudobranchiomma*, V) branched radiole, *Schizobranchia*. Figures modified from: A) Fitzhugh (1998), B) Rouse (2000), C) Fitzhugh (1989), D) Fitzhugh & Rouse (1999), E) Banse (1957), F) Fitzhugh (1990a), G) Fitzhugh (2002), H, S, V) Hartman (1969), I, L, U) Tovar-Hernández & Salazar-Vallejo (2006), J) Knight-Jones (1983), K) Perkins (1984), M–N) Knight-Jones & Perkins (1998), O) Knight-Jones & Mackie (2003), P–R) schematized, T) Banse (1972).

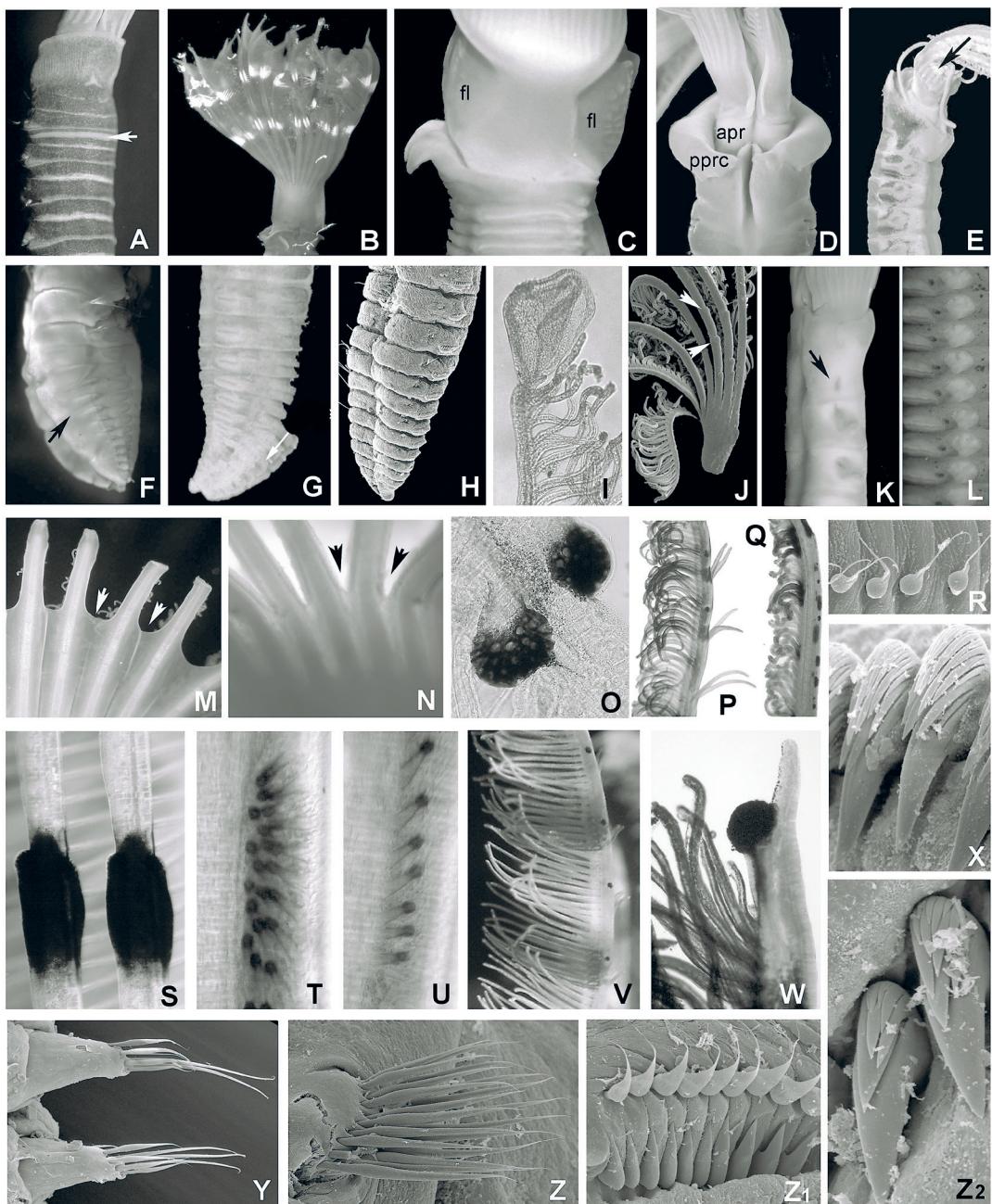


Fig. 2. Selected features of Sabellidae. A) Glandular ridge on chaetiger 2, *Paradialychnone*, B) crown, *Notaulax*, C) basal flanges, *Anamobaea*, D) peristomium, *Chone*, E) abscission zone, *Jasmineira*, F-G) pre-pygidal depressions with lateral wings, *Euchone*, H) simple pre-pygidal depression, *Dialychnone*, I) distal, radiolar flanges, *Claviramus*, J) proximal, compound eyes, *Pseudopotamilla*, K) collar chaetiger, *Panousea*, L) interlamal eyespots, *Branchiomma*, M) high palmate membrane, *Chone*, N) low palmate membrane, *Perkinsiana*, O, S) paired compound eyes, *Bispira*, P) stylodes, *Branchiomma*, Q) ocular spots, *Demonax*, R) companion chaetae, *Demonax*, T) grouped eyes, *Notaulax*, U) row of eyes, *Notaulax*, V) compound eyes, *Branchiomma*, W) distal eyes, *Megalomma*, X) teeth of anterior abdominal uncini, *Dialychnone*, Y) abdominal chaetiger, *Branchiomma*, Z) abdominal chaetiger, *Megalomma*, Z<sub>1</sub>) location of companion chaetae, *Megalomma*, Z<sub>2</sub>) teeth of anterior abdominal uncini, *Paradialychnone*. Pictures: B) Humberto Bahena, F, N) Beatriz Yáñez, S) Leslie Harris. Abbreviations: apr anterior peristomial ring, fl flange, pprc posterior peristomial ring collar.

KEY TO GENERA IN THE  
SUBFAMILY SABELLINAE

1 A whitish glandular ridge in the second chaetiger present (Fig. 2A, *in arrow*); thoracic uncini only acicular (Fig. 3D) ... 2

– A whitish glandular ridge in the second chaetiger absent; thoracic uncini not acicular (except for *Terebrasabella*) ... 15

2(1) Abdominal uncini form nearly complete cinctures around the body (Fig. 1P, *in arrow*); abdominal uncini with two or three teeth above main fang, without handles (Fig. 3E–F) ... *Myxicola* Renier in Meneghini 1847

– Abdominal uncini form short, discrete tori (Figs. 1O, 2G); abdominal uncini with numerous rows of teeth above the main fang ... 3

3(2) Palmate membrane absent ... 4

– Palmate membrane present (Fig. 2M–N) ... 8

4(3) Thoracic companion chaetae absent ... 5

– Thoracic companion chaetae present (Fig. 2Z<sub>1</sub>) ... 7

5(4) Prominent, foliaceous flanges at the distal ends of the radioles (Fig. 2I) ... *Claviramus* Fitzhugh, 2002

– Foliaceous flanges at the distal end of radioles absent ... 6

6(5) Posterior peristomial ring collar absent; anterior margin of anterior peristomial ring developed ventrally as wide lobe (Fig. 1E, *in arrow*) ... *Desdemona* Banse, 1957

– Posterior peristomial ring collar present (Fig. 2D); abscission zone in the base of branchial crown present: refers to crowns where there is a distinct point immediately above the radiolar bases, where the radioles become detached from the branchial basis (Fig. 2e, *in arrow*) ... *Jasmineira* Langerhans, 1880

7(4) Bayonet chaetae present (Fig. 3G); collar chaetae fascicle (chaetiger 1) arranged as elongate row (Fig. 2K, *in arrow*); collar chaetae short, spinelike ... *Panousea* Rullier & Amoureaux, 1970

– Bayonet chaetae absent; collar chaetae fascicle (chaetiger 1) arranged as short, longitudinal row (Fig. 1G, *in arrows*) ... *Panoumethus* Fitzhugh, 2002

8(3) Posterior abdominal uncini similar to those in anterior abdomen ... 9

– Posterior abdominal uncini modified from those in anterior abdomen ... 13

9(8) Two pairs of distinct vascular coils visible dorsally below collar (Fig. 1H, *in arrows*) ... *Fabrisabella* Hartman, 1969

– Without vascular coils ... 10

10(9) Hood of thoracic uncini absent; posterior peristomial ring distinctly elongate, often extending anteriorly beyond collar (Fig. 1j) ... *Potamethus* Chamberlin, 1919

– Hood of thoracic uncini present (Fig. 3D, *in arrow*) ... 11

11(10) Abdominal uncini with handles well developed, rounded breast (Fig. 3J) ... *Euchoneira* Licciano, Giangrande & Gambi, 2009

– Abdominal uncini without handles; breast hooked (Fig. 3H) or quadrangular (Fig. 3I) ... 12

12(11) Abdominal uncini with several regular, vertical rows of teeth, occupying at least three-quarters of its length (rasp-shaped plates); hooked breast (Fig. 3H) ... *Amphicorina* Claparède, 1864

– Abdominal uncini with a main fang surmounted by a few rows of teeth, occupying one-quarter of its length; quadrangular breast (Fig. 3I) ... *Chone* Krøyer, 1856

13(8) Ventral margin of collar incised; pre-pygidal depression with lateral wings (Figs 1T, 2F–G, *in arrows*) or with a distinct girdle marking the anterior and lateral edges of the depression (Fig. 1S, *in arrow*) ... *Euchoneira* Malmgren, 1866

– Ventral margin of collar entire (Fig. 2A); simple pre-pygidal depression (Fig. 2H) ... 14

14(12) Uncini from anterior abdomen with a series of nearly uniform size (Fig. 2X) .... *Dialychone* Claparède, 1870

– Uncini from anterior abdomen with a large tooth above main fang, followed by a series of smaller teeth (Fig. 2Z<sub>2</sub>) ... *Paradialychone* Tovar-Hernández, 2008

15(1) Two or three types of thoracic uncini: acicular (Fig. 3K), avicular (Fig. 3L) and palmate (Fig. 3A–C); three abdominal chaetigers (Fig. 1D); living in burrows of the shells of marine gastropods, coral rubble or inside spirorbid tubes ... *Terebrasabella* Fitzhugh & Rouse, 1999

– Only one type of thoracic uncini; abdomen with numerous segments (Fig. 1B) ... 16

16(15) Abdominal neuropodia as erect, conical lobes, elevated (Fig. 2Y) ... 17

– Abdominal neuropodia as low, transverse ridges (Fig. 2Z) ... 23

- 17(16) Companion chaetae present (Fig. 2Z<sub>1</sub>) ... 18  
   – Companion chaetae absent ... 21
- 18(17) Base of branchial crown with a long base and S-shaped dorsal basal flanges (Fig. 1R); superior abdominal chaetae absent; radioles with stalked terminal compound eyes (absent in one species) ... *Styloamma* Knight-Jones, 1997  
   – Base of branchial crown with a short base without flanges; superior abdominal chaetae present; stalked terminal compound eyes absent ... 19
- 19(18) Companion chaetae hook-shaped (Fig. 3O–P); thoracic and abdominal uncini without handle; living in calcareous tubes ... *Glomerula* Brünnich Nielsen, 1931 (synonym of *Calcisabella* Perkins, 1991)  
   – Companion chaetae with distal ends as distinctly assymetrical membranes (Fig. 3Q–R); thoracic and abdominal uncini with handles (Fig. 3J, U); living in sandy tubes ... 20
- 20(19) Abdominal neurochaetae arranged in a tight spiral pattern (Fig. 1M); radiolar eyes absent ... *Sabellula* Linnaeus, 1767  
   – Abdominal chaetae arranged in C-shaped pattern containing further arcs or random infilling (Fig. 1N); radioles with paired (rarely single) composite eyes (Fig. 2S) distributed along radiolar length (absent in four species) ... *Bispira* Krøyer, 1856
- 21(17) Radioles with stylodes (Fig. 2P) or pseudostylodes (flanges) (Fig. 1U) ... 22  
   – Radioles without stylodes ... *Sabellastarte* Krøyer, 1856
- 22(21) Radioles with pseudostylodes (Fig. 1U); compound radiolar eyes can be present (only in 5 of the 13 species), whereas paired or arranged in irregular assemblages ... *Pseudobranchiomma* Jones, 1962  
   – Radioles with stylodes (Fig. 2p); compound radiolar eyes always present, paired (Fig. 2O, V) ... *Branchiomma* Kölliker, 1858
- 23(16) Abdomen with paleate neurochaetae, with mucro (Fig. 3V–W, Y) ... 24  
   – Abdomen without paleate neurochaetae ... 26
- 24(23) Base of the branchial crown with erect, dorsal and ventral flanges (Fig. 2C) ... *Anamobaea* Krøyer, 1856  
   – Base of the branchial crown without flanges ... 25
- 25(24) Chaetiger 1 with chaetae (collar chaetae) arranged in a transversal row (elongate fascicle) (Figs 1L); lensed ocelli in a continuous row (Fig. 2U) on lateral margins distal to palmate membrane, or scattered, or organized into various groups (Fig. 2T)  
   ... *Notaulax* Tauber, 1879  
   – Chaetiger 1 with chaetae (collar chaetae) arranged in a fascicle (bundle similar to other superior thoracic notochaetae) (Fig. 1K); lensed ocelli scattered on lateral margins distal to palmate membrane ... *Hypsicomus* Grube, 1870
- 26(23) Inferior thoracic notochaetae composed of paleate (Fig. 3Y) or broadly hooded chaetae (Fig. 3X) ... 27  
   – Inferior thoracic notochaetae composed of paleate chaetae only (Fig. 3Y) ... 29
- 27(26) At least dorsalmost radioles with compound eyes located on inner margins, near distal end (Fig. 2W) ... *Megalomma* Johansson, 1925  
   – Radioles without compound eyes located on inner margins, near distal end; radioles with spots (Fig. 2Q) or unpaired, simple eyespots along entire lengths of outer radiole margins (Fig. 2V) ... 28
- 28(27) Companion chaetae with rounded denticulate heads and long, drop shaped, slightly assymetrical membranes (Fig. 2Z<sub>1</sub>); interramal, simple ocelli in all chaetigers ... *Sabellomma* Nogueira, Fitzhugh & Rossi, 2010  
   – Companion chaetae with membranes pointed, perpendicular to slender shaft (Fig. 2R); without interramal, simple ocelli ... *Parasabella* Bush, 1905 (reintroduced as a replacement name for *Demonax* Kinberg, 1867)
- 29(26) With unpaired radiolar compound eyes present on outer margins; limited to proximal region of most radioles (Figs 1I, 2J) ... 30  
   – Without compound radiolar eyes ... 32
- 30(29) Radioles, at least of large specimens, appear spiraled; very numerous (more than 20 pairs); sometimes dichotomously branched (Fig. 1V) ... *Eudistylia* Bush, 1905  
   – Radioles not spiraled, less than 20 pairs ... 31
- 31(30) Radioles with numerous dichotomous branches (Fig. 1V) ... *Schizobranchia* Bush, 1905  
   – Radioles not branched ... *Pseudopotamilla* Bush, 1905
- 32(29) Radioles united by a low palmate membrane (Fig. 2N) ... *Potamilla* Malmgren, 1866  
   – Radioles free to their bases ... 33

33(32) Thoracic uncini replaced by thick spines (Fig. 3S) on last few chaetigers (in chaetigers 5–7) ... *Potaspina* Hartman, 1969

– Thoracic uncini not replaced by spines (all thoracic neurochaetae are uncini of similar shape) ... 34

34(33) Last five abdominal chaetigers with uncini replaced by large, thick, falcate spines (Fig. 3T) ... *Sabellonga* Hartman, 1969

– All abdominal uncini of similar shape ... 35

35(34) Posterior peristomial ring collar absent (Fig. 1Q, in arrow) ... *Amphiglena* Claparède, 1864

– Posterior peristomial ring collar present ... 36

36(35) Thoracic uncini with handles of variable length, 2–5 times the length of main fang (Fig. 3U) ... *Perkinsiana* Knight-Jones, 1983

– Thoracic uncini without handles (Fig. 3M) or with very reduced handles (Fig. 3Z) ... 37

37(36) Thoracic and abdominal uncini with a very short handle (Fig. 3Z–Z<sub>1</sub>) ... *Aracia* Nogueira, Fitzhugh & Rossi, 2010 (substitute name for *Kirkia* Nogueira, López & Rossi, 2004)

– Thoracic and abdominal uncini without handles (Fig. 3M–N) ... *Laonome* Malmgren, 1866.

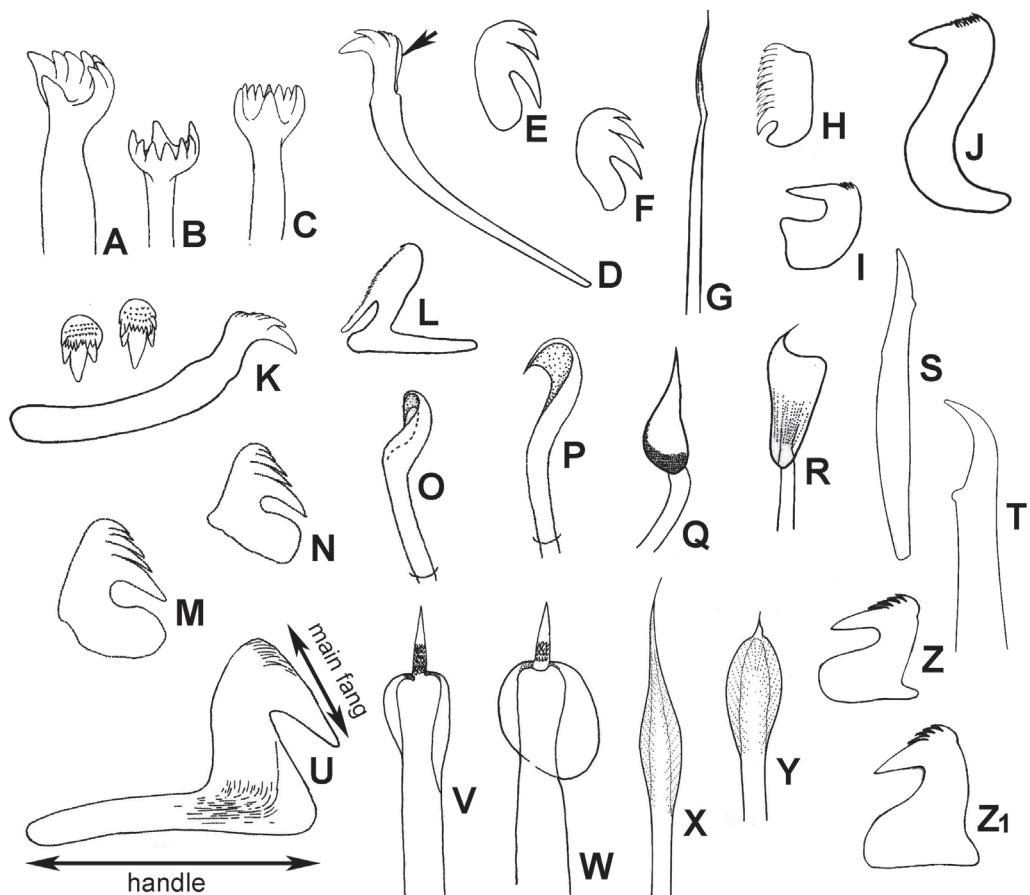


Fig. 3. Selected chaetae and uncini of Sabellidae. A–C) Palmate hooks, D, K) thoracic, acicular uncini, E–F, M–N) bayonet chaetae, G) bayonet chaeta, O–P) companion chaetae hooked-shaped, Q–R) companion chaetae teardrop-shaped, S–T) aciculae, U, Z) thoracic avicular uncini, V–W) abdominal paleate chaetae, X) broadly hooded chaeta, Y) paleate chaeta. Figures modified from: A–C) Jones (1974), E–F, M–N) Fitzhugh (2002), G–I, Q–R, X–Y) Fitzhugh (1989), J) Banse (1972), K–L) Fitzhugh & Rouse (1999), O–P) Perkins, 1991, S–T) Hartman (1969), V–W) Tovar-Hernández & Salazar-Vallejo (2006), Z–Z<sub>1</sub>) Nogueira *et al.* (2004).

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