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2014

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Marine Biodiversity, v. 44, p. 367-390, 2014.
<http://www.producao.usp.br/handle/BDPI/46824>

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The state of the art of Xyalidae (Nematoda, Monhysterida) with reference to the Brazilian records

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Received: 28 August 2013 / Revised: 11 March 2014 / Accepted: 1 April 2014 / Published online: 4 May 2014
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Abstract In the current study we provide a reviewed list of valid genera and species of Xyalidae, a widespread family of mostly marine free-living nematodes. Comments are added about the historic background and taxonomic situation of the family, all valid genera and, when necessary, diagnostic characters are given. Additionally, information about distribution and geographical location of species recorded along the Brazilian coast is provided. Our review recognized 46 valid genera, 450 valid species and 73 descriptions without enough morphological information for identification (*species inquerendae*). Nearly 80 % of the *species inquerendae* belong to *Daptonema* and

Theristus. To avoid homonymies, two *Daptonema* species were renamed, *Daptonema biwaensis* (Tsalolikhin, 2002) new name (former *Mongolotheristus timoshkini*) and *Daptonema vietnamensis* (Gagarin and Thu, 2008) new name (former *D. curvatum* sensu Gagarin and Thu, 2008). *Cenolaimus sapeloensis* is transferred to *Xyala sapeloensis* comb. nov. Along the Brazilian coast 28 genera and 41 species have been recorded. The species *Elzalia floresi*, *Metadesmolaimus tersus*, *Paramonohystera stricta*, *Pseudosteineria scopae*, *Rhynchonema cemaie*, *R. veronicae*, *Steineria ericia*, *S. marcorum*, *S. pavo*, *S. tripartita*, *Theristus acribus*, *T. flevensis*,

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T. macroflevisis, *T. pertenuis*, *T. stranus*, *Trichotheristus heterus*, *T. setosus* and *Zygonemella striata* have the Brazilian coast as the type locality. Among all species, three occurred across three geographic regions, while the large majority was restricted to one. Xyalidae is typically encountered in oceanic sandy beaches, with only the species belonging to *Daptonema*, *Theristus*, *Trichotheristus* and *Zygonemella* being recorded in estuarine sediments. This observation suggests that the colonization of inland waters occurred multiple times along the evolutionary history.

Keywords Marine nematodes · Brazilian coast · Xyalidae

Introduction

Among the metazoans, nematodes are the most abundant organisms in all kind of benthic habitats (four of every five multicellular animals on the planet are nematodes) so they can hardly be ignored (Bongers and Ferris 1999). Hugot et al. (2001) considered 26,646 known species of nematodes and estimated the number of existing ones in 1 million. Although in the last decades, many studies have focused on the systematics within the phylum (Lorenzen 1994; De Ley and Blaxter 2004), less attention has been given to the family level (but see for instance Platonova and Mokievsky 1994 for Ironidae; Decraemer et al. 1997 for Draconematidae; Fonseca and Decraemer 2008 for Monhysteridae). In this study, we review the Xyalidae, a family of mostly marine free-living nematodes.

Species descriptions of Xyalidae, as well as of most marine nematodes, were largely made in the past century (e.g., Allgén 1929; Cobb 1920; Gerlach 1957a; Lorenzen 1977). Many of these descriptions were based on few specimens (one to three individuals) or even in juveniles or females only, with relatively few characters of taxonomic value. Such poor taxonomical accounts made in the past are today impediments for the taxonomical progress within the taxon. At the moment, we do not know which are the valid species and genera belonging to Xyalidae. For instance, some genera such as *Theristus* Bastian, 1865 and *Daptonema* Cobb, 1920, have each more than 100 nominal species and a list of synonyms as large as the list of valid species (Gerlach and Riemann 1973). Despite of this impediment, new genera and species are still being described within the family (e.g., Armenteros et al. 2009, 2010; Huang and Zhang 2010; Huang and Xu 2013).

Some authors already attempted to review taxonomically the Xyalidae seeking for morphological relationships within the group. Nicholas and Trueman (2002) recognized 33 genera in their cladistic analysis whereas Fonseca and Bezerra (2013) accepted 44 genera and also mentioned the number of valid species of each genus. The total number of valid species also varies enormously within Xyalidae. Since the checklist from Gerlach and Riemann (1973), later updated by Lorenzen (1977), no effort has been done to assemble the number of valid species

within this family. Many publications about nematodes (e.g., Castro et al. 2006; Botelho et al. 2007; Neres et al. 2010; Fonseca and Bezerra 2013) have used large databases as NeMys (Deprez et al. 2005), WoRMS (Appeltans et al. 2012) or The Biology Catalog (available in <https://insects.tamu.edu/research/collection/hallan>), which provide the numbers of genera and species, but these compilations have not a consensus in numbers of taxa. For instance, when looking for the number of valid genera in Xyalidae, we found 41 in NeMys, 47 in WoRMS and 42 in The Biology Catalog.

In the current study, we provide a reviewed list of valid genera and species of Xyalidae. Comments are added about the situation of each genus, and, when necessary, diagnostic characters are given. Additionally, we provide information about distribution and geographical location of species recorded along the Brazilian coast.

Methods

The works of Gerlach and Riemann (1973) and Lorenzen (1977) were used as the starting point of our review. All taxonomical studies published thereafter were considered in the present review. The new records were then double checked with the information available on the three main virtual checklists: NeMys, WoRMS and The Biology Catalog databases.

The most relevant references and comments concerning changes in the taxonomical position of species are given in the section of each genus. A valid species list is presented for each valid genus in which the type species is underlined and for each species the sampling location of the original description is given in parentheses. *Species inquirendae*, *nomen nudum* and *incertae sedis* are cited in separate lists following the valid species list, and, when necessary, names were adapted to attend to the Latin rules.

Occurrence of Xyalidae nematodes along the Brazilian coast is provided. This information was retrieved from Venekey et al. (2010) and other articles, as well as from PhD, M.Sc and undergraduation theses. The genera and species names are currently reported taking into account synonyms and changes in nomenclature. All species records were used to elaborate a map of occurrence in Brazil with indication of author, year, locality and habitat.

Results and discussion

Historic background and general comments about Xyalidae

The Xyalidae Chitwood, 1951 occurs in nearly all types of marine environments and frequently among the most abundant taxa. In early classifications genera and species of Xyalidae were positioned in Monhysteridae de Man, 1876, but later Lorenzen (1978) split up this family into Monhysteridae and Xyalidae. Lorenzen (1994) established the holophyly of Xyalidae by the following

holopomorphy: within species the anterior gonad is constantly to the left of the intestine and the posterior gonad constantly to the right of it. Additional features are: (1) cuticle always striated, (2) 6+4 sensillas almost always situated at the same level and sometimes with additional cephalic setae and (3) stoma usually funnel-shaped. Lorenzen (1978) and Lorenzen (1994) recognized 34 valid genera within the family: *Ammotheristus*, *Amphimonhystera*, *Amphimonhystrella*, *Cenolaimus*, *Cobbia*, *Dactylaimus*, *Daptonema*, *Echinotheristus*, *Elzalia*, *Filipjeva*, *Gnomoxyala*, *Gonionchus*, *Hofmaenneria*, *Linhystera*, *Megalamphis*, *Metadesmolaimus*, *Omicronema*, *Paramonhystera*, *Promonhystera*, *Pseudosteineria*, *Retrotheristus*, *Rhynchonema*, *Scaptrella*, *Sphaerotheristus*, *Spiramphinema*, *Steineria*, *Stylotheristus*, *Theristus*, *Trichotheristus*, *Valvaelaimus*, *Wieserius*, *Xenolaimus*, *Xyala* and *Zygonemella*. Lorenzen (1994) considered *Austronema*, *Buccolaimus* and *Pulchranemella* as dubious genera, following Hope and Murphy (1972).

The description of *Prorhynchonema* Goubault, 1982 and *Mongolotheristus* Tsalolikhin, 1985 elevated the number of genera to 36. The genus *Trichotheristus* was later considered invalid by Tchesunov (1990a). The description of *Marisalbinema* Tchesunov, 1990 and *Parezalia* Tchesunov, 1990 increased the number of genera in Xyalidae to 37. Bussau (1993) described in his PhD thesis three new genera: *Capsula*, *Enchonema* and *Manganonema*. Fonseca et al. (2006) redescribed *Manganonema* but *Capsula* and *Enchonema* remained in the grey literature. Nevertheless, most nematologists recognize the new taxa published by Bussau (1993) as valid given the quality of his descriptions and the widespread divulgence. Andr assy (1993) raised *Mesotheristus*, a subgenus of *Theristus*, to genus level. Another three genera, *Corononema* Nicholas and Stewart, 1995; *Gulanema* Nicholas and Stewart, 1995 and *Robustnema* Nicholas, 1996 were added. Later, Nicholas and Trueman (2002) in a cladistics analysis of Xyalidae, did not consider *Cenolaimus*, *Dactylaimus*, *Hofmaenneria* and *Wieserius* (incorrectly referred as *Wieseria* by them) as valid because of the lack of adequate descriptions and also questioned the validity of *Spiramphinema* and *Trichotheristus*. They also omitted *Mesotheristus* and *Mongolotheristus* without explanation. Meanwhile, *Sacrimarinema* Shoshin, 2001; *Arabanema* Turpeenniemi, Nasira and Maqbool, 2001; *Dactylaimoides* Blome, 2002, *Paragonionchus* Blome, 2002 and *Pseudechinotheristus* Blome, 2002 have been added to the family Xyalidae. Blome (2002) considered *Cenolaimus* Cobb, 1933 invalid because of insufficient description of the type species *C. supersentiens* Cobb, 1933 and suggested that *C. sapeloensis* Nichols, 1979 belongs to *Xyala* or *Gonionchus*. The last additions to Xyalidae were: *Paramphimonhystrella* Huang and Zhang, 2006; *Cienfuegia* Armenteros, Vincx and Decraemer, 2009 and *Guitartia* Armenteros, Vincx and Decraemer, 2010. Recently Coomans and Eyualem-Abebe (2006) synonymized *Mesotheristus* and *Mongolotheristus* with *Daptonema* and

Huang and Zhang (2006) recognized again *Trichotheristus* as a valid genus.

The last revision of Xyalidae was published by Fonseca and Bezerra (2013) which recognized 44 valid genera. These authors considered again *Hofmaenneria* and *Spiramphinema* as valid and synonymized *Arabanema* with *Theristus*. These authors did not include *Capsula* and *Guitartia* but we considered them valid because both have well detailed and well-illustrated descriptions. Another genus has a situation, which also should be commented on, is *Megalamphis* (Timm, 1961) De Coninck, 1965. This genus was originally described with the name *Macramphis* by Timm (1961) in the family Sphaerolaimidae and renamed later for *Megalamphis* to avoid homonymy with another already existing genus of terrestrial nematode described previously by Alther (1950). Since then the genus is considered as a taxon of Sphaerolaimidae by some authors (Timm 1961; Andr assy 1976) and of Xyalidae by others (Lorenzen 1978; Nicholas and Trueman 2002). In the present work we agree with the original description by Timm (1961) and the last revision of Xyalidae (Fonseca and Bezerra 2013) that considered it as a genus of Sphaerolaimidae. Therefore, *Megalamphis* does not appear in the list of valid genera and species and today the family Xyalidae is characterized by 46 valid genera. The list of genera and species is given in the Appendix.

Comments about valid genera of Xyalidae

Genus *Ammotheristus* Lorenzen, 1977

The genus *Ammotheristus* was established when in a revision of the Xyalidae family, based on a critical analysis of 56 species from North Sea and Baltic, Lorenzen (1977) found that *Amphimonhystera helgolandica* Riemann, 1967 and *Amphimonhystera subtilis* Lorenzen, 1972 differ from the type species *A. anechma* in their colorless cuticle, conical tail without terminal setae and in having a glandular posterior widening of the pharynx (Lorenzen 1977). As a consequence, Lorenzen (1977) established the genus *Ammotheristus* accommodating both *A. helgolandicus* and *A. subtilis*.

Number of valid species: 2.

Genus *Amphimonhystera* Allg en, 1929

The genus *Amphimonhystera* was established by Allg en (1929) to accommodate the monhysterid nematode species *Monohystera anechma*, described previously by Southern (1914) in a survey of marine fauna of Ireland. Later another new species, *A. paranechma* Allg en, 1935, was added. Riemann (1967) reviewed the genus *Amphimonhystera* and added a third species *A. helgolandica*. Lorenzen (1972) described a new species of *Amphimonhystera*, *A. subtilis*, however subsequently he concluded that *A. subtilis* and *A. helgolandica* differ from the type species *A. anechma* (Southern, 1914) Lorenzen, 1977 and established the genus *Ammotheristus* Lorenzen, 1977. Posteriorly Fadeeva (1984),

Bussau (1993) and Guo and Warwick (2001) described three more species: *Amphimonhystera galea*, *A. bella* and *A. circula*, respectively. More recently, Tchesunov and Mokievsky (2005) described another three species: *A. marisalbi*, *A. molloyensis* and *A. pallida*, and they also added a redescription of *A. galea*. These authors also emended the generic diagnosis and provided an identification key.

Number of valid species: 7.

Genus *Amphimonhystrella* Timm, 1961

The genus *Amphimonhystrella* was established when, in the revision of free-living marine nematodes of the Bay of Bengal, Timm (1961) described the new species *Amphimonhystrella megastoma* Timm, 1961. This genus was erected based on the large ovoid double-walled amphidial fovea and on the deep and conical stoma with sclerotized walls surrounded by the pharyngeal tissue. Later *A. unita* Lorenzen, 1977 and *A. bullacauda* Tchesunov and Miljutina, 2005 were added. Tchesunov and Miljutina (2005) also emended the generic diagnosis and provided an identification key. More recently, Gagarin and Thanh (2009) described *A. parva*.

Number of valid species: 4.

Genus *Capsula* Bussau, 1993

The monospecific genus *Capsula* was described by Bussau (1993). In the last revision of Xyalidae made by Fonseca and Bezerra (2013) this genus was omitted without explanation. Nevertheless, we considered it a valid genus given its detailed description and illustration. Within Xyalidae, *Capsula* is distinguished from the remaining taxa by showing a bipartite head capsule strongly sclerotized. The wide buccal cavity resembles those from *Xyala*, *Gonionchus* and *Omicronema*. Additionally the three caudal glands open through a single duct, and females may show a spermatheca.

Number of valid species: 1.

Genus *Cienfuegia* Armenteros, Vincx and Decraemer, 2009

The monospecific genus *Cienfuegia* was recently described from the Caribbean Sea. The species has a characteristic bipartite buccal cavity similar to the observed in *Diplolaimella* Allgén, 1929 and *Diplolaimelloides* Meyl, 1954 from the family Monhysteridae. However *Cienfuegia* has the anterior gonad constantly placed to the left of the intestine. According to the position of the gonad this genus has been positioned within Xyalidae.

Number of valid species: 1.

Genus *Cobbia* de Man, 1907

The genus *Cobbia* was erected by De Man (1907) with the type species *Cobbia trefusiaeformis*, latter redescribed by Lorenzen (1977). This genus differs from the other genera in the family Xyalidae by a buccal cavity with three teeth and setiform labial sensilla. Huang and Zhang (2010) comment that the species in this genus can be distinguished from each other by the combination of the size of the dorsal tooth, the

diameter and distance from the anterior end of the amphid, the shape of spicules and gubernaculum and the length of the labial and cephalic setae. Lo Russo and Pastor de Ward (2012) described the most recent species, *Cobbia macrodentata*, and also provided an identification key for all valid species.

Number of valid species: 8.

Genus *Corononema* Nicholas and Stewart, 1995

The genus *Corononema* was described based on two species, *C. parvum* and *C. thai*, from Australia and Thailand, respectively. *Corononema* has a unique head which appears to be crowned by the incised lips, set off from the cylindrical buccal region by a deep groove. *C. thai* differs from *C. parvum* by possessing a shorter and broader head.

Number of valid species: 2.

Genus *Dactylaimoides* Blome, 2002

The monospecific genus *Dactylaimoides* is known only from the sandy beaches of Eastern Australia. Diagnose as in Blome (2002) and Fonseca and Bezerra (2013).

Number of valid species: 1

Genus *Daptonema* Cobb, 1920

The genus *Daptonema* was described by Cobb (1920) with type species *Daptonema fissidens*. Wieser (1956) consider this genus a subgenus of *Theristus* Bastian, 1865. Lorenzen (1977) agreed with Cobb (1920) and raised *Daptonema* to genus status again and considered four other subgenera of *Theristus* (*Cylindrotheristus* De Coninck, 1965; *Mesotheristus* Chitwood and Murphy, 1964; *Pseudotheristus* Chitwood and Murphy, 1964 and *Spirotheristus* Timm, 1961) and the genus *Tubolaimus* Allgén, 1929 as synonyms of *Daptonema*. The differences between *Daptonema* and *Theristus* are the shape of the tail and the presence of terminal setae at the tail tip: conico-cylindrical with terminal setae in the former, conical without terminal setae in the later. *Daptonema* is currently the genus with the highest number of valid and *species inquirendae* within Xyalidae.

In the present study two species within genus *Daptonema* were renamed. *D. curvatum* sensu Gagarin and Thu, 2008 was renamed for *D. vietnamensis* because there was already a species with this name within the genus (*D. curvatum* Gerlach, 1956 described originally for Kiel Bay as *Theristus curvatus*). Furthermore, as *Mongolotheristus* was synonymized with *Daptonema* by Coomans and Eyualem-Abebe (2006), the new name *Daptonema biwaensis* was given for *Mongolotheristus timoshkini* Tsalolikhin, 2002 to avoid homonymy with the previously existing *Daptonema timoshkini* Gagarin, 2001.

Number of valid species: 116.

Genus *Echinotheristus* Thun and Riemann, 1967

The genus *Echinotheristus* and the two known species were described for the sublittoral coarse sands of the North Sea. They are distinguished from the other genera by having a bladder-like precloacal supplements and the cuticle covered by transverse rows of small spines. Lorenzen (1977) added

some detailed comments on both species observing additional specimens from the same area.

Number of valid species: 2.

Genus *Elzalia* Gerlach, 1957

The genus *Elzalia* was described by Gerlach (1957b) from the São Paulo region (southern coast of Brazil) with the type species *E. floresi*. Later Timm (1961) described the genus *Megalolaimus* which was synonymized with *Elzalia* by Hope and Murphy (1972). Vitiello (1971) described a new species: *E. mediterranea* from the Mediterranean. Hope and Murphy (1972) synonymized *Megalolaimus* Timm, 1961 with *Elzalia*, transferring *M. speculifer* to *Elzalia*. Timm's species description was based on a single female. Gerlach and Riemann (1973) transferred *Filipjeviella tenuis* Allgén, 1959, to *Elzalia* which was also described from a single female. Castillo-Fernandez and Lamshead (1990) revised the genus *Elzalia* and described three new species from the oil producing zone of Campeche Sound in the Gulf of Mexico: *E. polli*, *E. federici* and *E. kima*. In that study only species with males were considered as valid, therefore, *E. speculifer* (Timm, 1961) Hope and Murphy, 1972 and *E. tenuis* (Allgén, 1959) Gerlach and Riemann, 1973 were not included. Recently, *E. gerlachi* and *E. striatitenuis*, were described from the Yellow Sea, China, by Zhang and Zhang (2006) and *E. bipectinella* and *E. tuberculata* from Thailand by Hope and Aryuthaka (2009). Particularly the work of Zhang and Zhang (2006) provides a pictorial and tabular key for identification of the valid species.

Number of valid species: 10.

Genus *Enchonema* Bussau, 1993

The monospecific genus *Enchonema* was described by Bussau (1993) for the Eastern Pacific Basin of Peru (Central Pacific Ocean). The only species *Enchonema umbrosum* was found around 4,000 m depth in fine sediments, and males, females and juveniles are described. Diagnose of the genus is given in Fonseca and Bezerra (2013) (incorrectly spelled as *Echonema*).

Number of valid species: 1

Genus *Filipjeva* Ditlevsen, 1928

The genus *Filipjeva* (in some works appearing as *Filipjevia*) was described by Ditlevsen (1928) from East Greenland based on *F. artica*. The emendation of *F. artica* by Allgén (1929) was considered invalid by Chitwood (1960). The genus *Filipjeva* was considered by Kreis (1934) and De Coninck (1965) as belonging to the family Oncholaimidae but Gerlach and Riemann (1973) assumed closer relationship with *Paramonohystera* subgenus *Leptogastrella* Cobb, 1920. *F. meridionalis* was described by Kreis (1932) from Indonesia based only in two males and Schuurmans Stekhoven (1950) described *F. mediterranea* with a single juvenile from the Mediterranean. Vitiello (1970) described *F. parameridionalis* from the Mediterranean and also revised the genus recognizing all four species known until then as

valid. Posteriorly, *F. crucis* was described from Antarctica by Blome and Schrage (1985). Tchesunov (1988) described *F. filipjevi* and *F. teratospicula* from the Kandalaksh Bay of the White Sea, off the Karelian coast (Russia). Here we consider *F. mediterranea* as *species inquirenda* because of its incomplete description.

Number of valid species: 6.

Genus *Gnomoxyala* Lorenzen, 1977

The monospecific genus *Gnomoxyala* was described by Lorenzen (1977) in the revision of the family to accommodate a new species from Baltic Sea. This species has a finely striated cuticle, amphidial fovea absent and a cylindrical buccal cavity.

Number of valid species: 1.

Genus *Gonionchus* Cobb, 1920

The genus *Gonionchus* was described from a tide pool of New Hampshire, USA, and it is very similar to *Xyala*, but differs from it by the presence of hyaline lips extended anteriorly. The species belonging to this genus was divided into two groups according to Vincx (1986): (1) without longitudinal ridges along cuticle (*G. africanus*, *G. australis*, *G. cumbraensis*, *G. inaequalis*, *G. intermedius*, *G. paravillosus*, *G. villosus*) and (2) longitudinal ornamentations present (*G. alastairi*, *G. arabica*, *G. heipi*, *G. longicaudatus*, *G. sensibilis*). The species *G. latentis* was omitted in Vincx (1986) without explanation and *G. ecuadorensis* is considered *nomen nudum* since it is described in a PhD thesis (Procel 2007). Procel (2007) provides an identification key for all the valid species within this genus.

Number of valid species: 13.

Genus *Guitartia* Armenteros, Vincx and Decraemer, 2010

Described from the Caribbean Sea, the monospecific *Guitartia* is the newest genus within Xyalidae. It is characterized by three long tooth-like structures in the stegostom, second and third circle of anterior sensilla separated and posterior genital branch of the female restricted to a long post-vulvar sac. In the last revision of Xyalidae made by Fonseca and Bezerra (2013) this genus was omitted without explanation but, as it has a detailed diagnosis, we recognize it as valid.

Number of valid species: 1.

Genus *Gullanema* Nicholas and Stewart, 1995

The monospecific genus *Gullanema* was described from Australia and it can be differentiated from all other genera within the family by having a very characteristic head that narrows sharply to a cylindrical "turret-like" region surrounding the buccal cavity.

Number of valid species: 1.

Genus *Hofmaenneria* Gerlach and Meyl, 1957

The genus *Hofmaenneria* was erected to accommodate two species whose systematic affiliation had not been clarified sufficiently: *Cylindrolaimus brachystoma* Hofmaner in

Hofmann and Menzel, 1914 and *C. niddensis* Skwarra, 1921. Schneider (1940) was the first to propose the genus *Hofmaenneria* to include *C. brachystoma* and *C. niddensis* but did not give a generic description. Later, Gerlach and Meyl (1957) established the genus *Hofmaenneria* with *H. brachystoma* (syn. *C. brachystoma*) as the type species and also transferred *C. niddensis* to it. Later, Mulvey (1969) described a new soil inhabiting species: *H. hazanensis*. The systematic position of the genus has been matter of controversy. The genus has already been assigned to Sphaerolaimidae (Andrássy 1981), to Xyalidae (Gerlach and Riemann 1973; Lorenzen 1994) and also *incerta sedis* (Coomans and Eyualem-Abebe 2006). In the present work we follow the most recent review of Xyalidae (Fonseca and Bezerra 2013), which recognized *Hofmaenneria* as a valid genus of Xyalidae. At the moment nine species are recognized as valid. The descriptions of *H. hazeensis* and *H. longicuada* were based only in females and, therefore, were presently considered *species inquirenda*.

Number of valid species: 9.

Genus *Linhystera* Juario, 1974

The genus *Linhystera* was described by Juario (1974) from the sublittoral zone of the German Bight (North Sea) with doubts about its position within Xyalidae. Lorenzen (1977) redescribed the genus with additional observations on the specimens of *L. problematica* from Chile and determined the correct position of the cephalic setae (6+4) and testis (anterior placed to the left and posterior placed to the right side of the intestine) confirming the systematic position of the genus. Pastor de Ward (1985) described the second species *L. longa* from sublittoral areas of Argentina. This species differs from *L. problematica* by having a reduced posterior testis, a crown of cervical setae and longer spicules.

Number of valid species: 2.

Genus *Manganonema* Bussau, 1993

The genus *Manganonema* and the type species *M. microcephalum* were described by Bussau (1993) for samples from 4,000 m depth from the Eastern Pacific Basin of Peru. Fonseca et al. (2006) redescribed the genus adding the description of five new species from different deep-sea locations (North and South-western Atlantic Ocean, Western Indian Ocean, Weddell Sea and South Sandwich Trench in the Southern Ocean). In this same study, another four species were typed but no names were given (Fonseca et al. 2006).

Number of valid species: 6.

Genus *Marisalbinema* Tchesunov, 1990

The monospecific genus *Marisalbinema* was described for the White Sea. Diagnose as in Fonseca and Bezerra (2013).

Number of valid species: 1.

Genus *Metadesmolaimus* Schuurmans-Stekhoven, 1935

The genus *Metadesmolaimus* was established with *M. labiosetosus* based on a single juvenile specimen from the Belgian coast (North Sea). Later two new species were

described, *M. coronatus* Schuurmans-Stekhoven, 1950 and *M. aversivulva* Gerlach, 1953, but posteriorly Wieser (1956) synonymized *Metadesmolaimus* with *Theristus*. Lorenzen (1972) rehabilitated and redescribed *Metadesmolaimus* with the description of four new species (*M. aduncus*, *M. heteroclitus*, *M. pandus* and *M. varians*) and new combination of other three species: *Paramonohystera canicula* Wieser and Hopper, 1967, *Theristus hamatus* Gerlach, 1956 and *Theristus tarsus* Gerlach, 1954. Lorenzen (1977) added a species with another new combination: *Theristus gelana* Warwick and Platt, 1973. Platt (1983) described *M. gaelicus*, and provided a table comparing the main diagnostic features of the valid species. Tchesunov (1990a) described *M. psammophilus* and Tchesunov (1990b) described *M. similis*, both species from the White Sea.

Number of valid species: 13.

Genus *Omicronema* Cobb, 1920

The genus *Omicronema* was established with the new species *O. litorium* Cobb, 1920. Later three new species were added, *O. nidrosiensis* Allgén, 1933 and *Omicronema truncatum* Schuurmans-Stekhoven, 1950, which are considered *species inquirenda* and *O. clavulatum* Gerlach, 1957. Vincx and Furstenberg (1988) considered *Omicronema* a junior synonym of *Xyala*. Stewart and Nicholas (1994) considered the relatively large amphids, without sharply defined rims, and cryptospiral appearance; and the cuticular ornamentations of simple bars without crests as sufficient features to separate *Omicronema* from *Xyala* and described three new species: *O. australis*, *O. coronalata* and *O. nana*. More recently *O. orientalis* has been described (Gagarin and Thanh 2009).

Number of valid species: 6.

Genus *Paragonionchus* Blome, 2002

The monospecific genus *Paragonionchus* is known only from the sandy beaches of Eastern Australia, and belongs together with *Dactylaimoides*, *Gonionchus* and *Xyala* to the group of Xyalidae genera with strongly annulated cuticle forming longitudinal crests or peculiar shaped projections. The unique character of the genus within the Xyalidae is the deeply incised lips with cuticularised structures (arches, clasps, strips). Diagnose as in Blome (2002) and Fonseca and Bezerra (2013).

Number of valid species: 1

Genus *Paramonohystera* Steiner, 1916

The genus *Paramonohystera* (in some works spelled as *Paramonhystera*) was initially proposed by Steiner (1916) as a subgenus of *Monhystera* to accommodate the species *Monhystera (Paramonohystera) megacephala*, which has been described based on a single female. *Paramonohystera* was raised to genus level by Filipjev (1918) and later Wieser (1954) redescribed *P. megacephala* using many specimens from Chile. Wieser (1956) considered *Paramonohystera* Steiner, 1916 and *Leptogastrella* Cobb, 1920 synonyms,

suggesting that the latter could be regarded as a subgenus of the former. Gerlach and Riemann (1973) considered *Paramonhystera* as used by Filipjev (1918) and many subsequent authors as an invalid emendation. Lorenzen (1977) transferred *P. breviseta* Juario, 1974 to *Retrotheristus*. Lorenzen (1994) considered *Paramonhystera* as the valid name with two subgenera: *Paramonhystera* Steiner, 1916 and *Leptogastrella* Cobb, 1920, which is the classification adopted here. Chen and Vincx (2000) described *P. geraerti*, redescribed *P. biforma* Wieser, 1956 and *P. megacephala*, and proposed an identification key for nine species. These authors considered *P. micramphis* Schuurmans-Stekhoven, 1950 as *species inquirenda*, included *P. breviseta* Juario, 1974 which was transferred to *Retrotheristus* by Lorenzen (1977) and did not included in their key *P. pilosa* Boucher, 1971, *P. parabutschlii* (Timm, 1961) Pastor de Ward, 1985, *P. zizichi* Pastor de Ward, 1985 and the species from *Leptogastrella*.

Number of valid species: 18.

Genus *Paramphimonhystrella* Huang and Zhang, 2006

The genus *Paramphimonhystrella* was described based on three new species from the Yellow Sea. It can be differentiated from all other genera within the family by the buccal cavity, which is conical elongated instead of typically conical. *P. elegans* is the type species, and it is characterized by amphids with ovoid fovea and spicules with a small hook at the distal end. The other two species *P. minor* and *P. sinica* can be distinguished from *P. elegans* by possessing spicules with a sharp tip and spicules with a blunt tip, respectively.

Number of valid species: 3.

Genus *Parelzalia* Tchesunov, 1990

The genus *Parelzalia* was described by Tchesunov (1990b) from the White Sea with the only species *P. obscuramphis*. Diagnose of the genus is given in Fonseca and Bezerra (2013).

Number of valid species: 1.

Genus *Promonhystera* Wieser, 1956

The genus *Promonhystera* with its two known species was described from Chile. A third species was described from The North Sea for the genus, *Promonhystera albigens* Riemann, 1966, but it was later transferred to *Daptonema*.

Number of valid species: 2.

Genus *Prorhynchonema* Goubault, 1982

The genus *Prorhynchonema* resembles *Rhynchonema*, but differs from it by having a shorter buccal cavity. The type species *P. warwicki* was described with reduced gonads and a peculiar reproduction system formed by spermatophores. A second species was posteriorly described: *P. goubaultae* Nicholas and Stewart, 1995.

Number of valid species: 2.

Genus *Pseudechinotheristus* Blome, 2002

The monospecific genus *Pseudechinotheristus* was described from specimens found in the intertidal medium to fine sands of Australia. This genus is similar to *Echinotheristus*,

another genus of Xyalidae, but lacks the precloacal supplements and the transverse row of small spines on the cuticular rings. Diagnose as in Blome (2002) and Fonseca and Bezerra (2013).

Number of valid species: 1.

Genus *Pseudosteineria* Wieser, 1956

The genus *Pseudosteineria* was described based on two species, *P. anteferens* and *P. anticipans*, and initially considered as a subgenus of *Theristus*, but later De Coninck (1965) raised it to genus level. *P. coronata* Gerlach, 1955 and *P. inaequaspiculata* Platonova, 1971 were described as *Theristus*, but transferred to *Pseudosteineria* by Wieser (1959) and Gerlach and Riemann (1973), respectively. *P. horrida* Steiner, 1916 was initially described as *Monhystera* and transferred to *Pseudosteineria* by Wieser (1956). Three other species (*P. scopae*, *P. pavo* and *P. pulchra*) were originally described as *Steineria* and transferred to *Pseudosteineria* by Fadeeva (1986), who also described *P. sagittispiculata*. Tchesunov (2000) described *P. ventropapilata*. The differential diagnostic character of this genus is the distribution of the additional subcephalic setae in eight groups at the level of the amphideal fovea, which is located posteriorly to the cephalic capsule. Recently Huang and Li (2010) described two new species, *P. sinica* and *P. zhangii*, and provided also an identification key.

Number of valid species: 12.

Genus *Retrotheristus* Lorenzen, 1977

The monospecific genus *Retrotheristus* was established when Lorenzen (1977) transferred *Paramonhystera breviseta* Juario, 1974 as a new combination based on the observation of additional specimens of the North Sea. Diagnose as in Fonseca and Bezerra (2013).

Number of valid species: 1.

Genus *Rhynchonema* Cobb, 1920

The genus *Rhynchonema* resembles *Prorhynchonema*, another genus also in Xyalidae. Main features that differentiate *Rhynchonema* from *Prorhynchonema* are the much attenuated head, long and tubular buccal cavity, and the cuticle, which is strongly annulated. The species *Rhynchonema lyngei* (Allgén, 1940) Gerlach, 1953 was originally described in *Leptolaimus* and *R. ronaldi* is considered *nomen nudum* since it is described in a PhD thesis (Procel 2007). Diagnose of the genus as in Nicholas and Stewart (1995) and Fonseca and Bezerra (2013).

Number of valid species: 31.

Genus *Robustnema* Nicholas, 1996

The monospecific genus *Robustnema* was described as common species for the mangrove mudflats in Australia. The arrangement of the cephalic setae (six labial papillae, six outer labial, and six cephalic setae in one circle), small and unarmoured buccal cavity and low lips profile are a unique combination in Xyalidae.

Number of valid species: 1.

Genus *Sacrimarinema* Shoshin, 2001

The genus *Sacrimarinema* with three species was described from the largest freshwater lake in the world, Baikal Lake. This genus resembles members of *Theristus* subgenus *Penzancia*. Diagnose of the genus is given in Coomans and Eyualem-Abebe (2006) and Fonseca and Bezerra (2013).

Number of valid species: 3.

Genus *Scaptrella* Cobb, 1917

The genus *Scaptrella* was described from California, USA, by Cobb (1917). Species in this genus have jointed mandibles, circular amphid, a single ovary, and spicules with only faint accessory pieces. Later, two new species were described: *S. brevicaudata* Gerlach, 1953 and *S. tenuicaudata* Gerlach, 1956, from Italy and Germany, respectively. Description of *S. tenuicaudata* was based in a single female and, therefore, is considered *species inquirenda*.

Number of valid species: 2.

Genus *Sphaerotheristus* Timm, 1968

The genus was erected by Timm (1968) from material sampled in the Gulf of Thailand. In this study he describes four new species, namely: *S. bengalensis*, *S. pseudodentatus*, *S. sonadiae* and *S. supoti* and erects *Cobbia macrostoma* Timm, 1963 as the type species. More recently, four new species from Vietnam were added to the genus: *S. parvus* Gagarin and Thanh, 2006; *S. nothum* Gagarin and Thanh, 2008; *S. supplementatus* Gagarin and Thanh, 2008 and *S. validum* Gagarin and Thanh, 2008.

Number of valid species: 9.

Genus *Spiramphinema* Wieser, 1956

The genus *Spiramphinema* was described by Wieser (1956) based on two species from Chile: *S. convolutum* and *S. longiseta*. The main feature was the spiral amphid. Wieser (1956) also transferred *Monhystera microcephalon* Stekhoven, 1942 to *Spiramphinema*, but given the poor description this species should be considered as *species inquirenda*. Nicholas and Trueman (2002) did not consider *Spiramphinema* valid, suggesting a mistaken interpretation of the amphid structure by Wieser (1956). Fonseca and Bezerra (2013) considered valid and provided a detailed diagnoses of this genus.

Number of valid species: 2.

Genus *Steineria* Mickoletzky, 1921

The genus *Steineria* was firstly established as a subgenus of *Monhystera* with only three species (*S. pilosa*, *S. polychaeta* and *S. setosissima*) and posteriorly raised to genus by Stekhoven and De Conninck (1933). For some years, *Steineria setosissima* was considered the type species as designed by Stekhoven and De Conninck (1933). Later, Mawson (1957) disagreed with the designation of the type-species based on the fact that *S. setosissima* was not one of the included species brought to the subgenus when this was first established, then a new type species was designated (*S. polychaeta*). Wieser and Hopper (1967) agreed with

Mawson (1957) and reinforced that the designated type species agreed with International Code of Zoological Nomenclature. This genus differs from the other of family Xyalidae by the additional subcephalic setae located at the level of cephalic setae and arranged in 8-radiate symmetry.

Number of valid species: 22.

Genus *Stylotheristus* Lorenzen, 1977

The monospecific genus *Stylotheristus* was established when Lorenzen (1977) transferred *Paramonhystera mutila* Lorenzen, 1973 as a new combination based on the observation of additional specimens of the North Sea. Diagnose as in Fonseca and Bezerra (2013).

Number of valid species: 1.

Genus *Theristus* Bastian, 1865

The genus *Theristus* is the oldest genus within Xyalidae and since its description passed for some internal changes. During the last century many taxa were placed as subgenera of *Theristus* but Gerlach and Riemann (1973) recognized only three subgenera of *Theristus* (*Daptonema*, *Penzancia* and *Theristus*) and later Lorenzen (1994) accepted only two (*Penzancia* and *Theristus*). Nowadays *Theristus* differs from *Daptonema* only by the form of the tail and the terminal setae at the tail tip: conical without terminal setae in the former, conico-cylindrical with terminal setae in the later. The taxon is currently the second genus with the highest number of valid species within Xyalidae. At present, the total amount of *species inquirenda* is 27.

Number of valid species: 92.

Genus *Trichotheristus* Wieser, 1956

The genus *Trichotheristus* was initially erected as a subgenus of *Theristus* by Wieser (1956) to accommodate *Steineria mirabilis* Stekhoven and De Coninck, 1933 and *S. paramirabilis* Gerlach, 1955. Chitwood and Murphy (1964) raised the taxon to genus level however; Wieser and Hopper (1967) kept considering it as a subgenus, including some species previously described in *Mesotheristus* (another subgenus of *Theristus*): *T. circumscriptus*, *T. erectus*, *T. laxus*, *T. longisetosus*, *T. sanctimarteni*, *T. setifer* and *T. setosus*. Furthermore, Wieser and Hopper (1967) considered *Theristus heterus* Gerlach, 1957 as species of the subgenus *Trichotheristus* and also described three new species: *T. floridanus*, *T. erectus* and *T. galeatus*. Other species was described by Warwick (1970) to subgenus *Trichotheristus*: *T. psammoides*. Tchesunov (1990a) considered *Mesotheristus* as a valid genus and *Trichotheristus* as an invalid genus redistributing the species *T. floridanus*, *T. heterus*, *T. mirabilis* and *T. psammoides* within *Daptonema*; *T. galeatus* within *Metadesmolaimus* and *T. paramirabilis* within *Pseudosteineria*. Huang and Zhang (2006) described *T. articulatus*, recognizing *Trichotheristus* as valid and provided an identification key. In the identification key from Huang and Zhang (2006), *T. psammoides* and *T. paramirabilis* were omitted. Since *Trichotheristus* is

currently considered as a valid taxon, these two species previously transferred by Tchesunov (1990a) to *Daptonema* and *Pseudosteineria*, respectively, are considered again as valid species of the genus *Trichotheristus*.

Number of valid species: 14.

Genus *Valvaelaimus* Lorenzen, 1977

The genus *Valvaelaimus* was erected for Xyalidae in the revision of the family made by Lorenzen (1977) to accommodate two species from *Theristus*, which have three teeth-like structures in the buccal cavity.

Number of valid species: 2.

Genus *Xenolaimus* Cobb, 1920

The genus *Xenolaimus* was originally described with one species, *Xenolaimus striatus*, from the Gulf Coast of California and posteriorly redescribed by Wieser and Hopper (1967). The other species belonging to this genus; *X. pauroamphus*, was described by Nichols (1979). These two species differ from each other by the size of the amphidial fovea and absence of the gubernaculum in the latter.

Number of valid species: 2.

Genus *Xyala* Cobb, 1920

The genus *Xyala* was described by Cobb (1920). Posteriorly, Vincx (1986) pointed for the existence of a large similarity between *Xyala* and *Omicronema* and proposed that *Omicronema* is a junior synonym for *Xyala*. Stewart and Nicholas (1994) attested that there are morphological differences between *Xyala* and *Omicronema*. Species within *Xyala* share the common characteristics of having a cuticle with longitudinal crests and hyaline lips without protrusion, amphidial fovea small and circular. The species *Cenolaimus sapeloensis* Nichols, 1979 is transferred to this genus as *Xyala sapeloensis* comb. nov., as suggested by Blome (2002). This species was described with male specimens but differs from the description of *Cenolaimus*, which is considered an invalid genus.

Number of valid species: 13.

Genus *Zygonemella* Cobb, 1920

The monospecific genus *Zygonemella* was described by Cobb (1920) from Costa Rica with *Z. striata* and later the same species was recorded by Gerlach (1957a) in magrove samples from Cananeia, Brazil. Recently Cunha et al. (2013) re-examined the situation of this genus with morphological and molecular studies.

Number of valid species: 1.

Records for the Brazilian coast

The first records of Xyalidae along Brazilian coastline were done by Sebastian Gerlach (Gerlach 1954, 1956a, b, 1957a, b). He sampled several sandy beaches, estuaries and lagoons along the Brazilian coast (Pernambuco, Alagoas, João Pessoa, Espírito Santo, Rio de Janeiro and São Paulo states). Since his major contribution, nine punctual studies were done (Bezerra

2001; Medeiros 1997; Venekey 2007; Maria et al. 2008; Vicente 2008; Neres et al. 2010; Ataide 2012; Brustolin et al. 2013; Cunha et al. 2013).

Along the Brazilian coastline 28 genera and 43 species of Xyalidae were registered. From the valid genera of Xyalidae *Capsula*, *Cienfuegia*, *Corononema*, *Dactylaimoides*, *Enchonema*, *Filippeva*, *Guitartia*, *Gullanema*, *Manganonema*, *Marisalbinema*, *Paragonionchus*, *Paramphimonhystrella*, *Parelzalia*, *Pseudechinotheristus*, *Robustnema*, *Sacrimarinema*, *Sphaerotheristus* and *Spiramphinema* were not recorded in Brazil. Among the species records, *Elzalia floresi*, *Metadesmolaimus tersus* *Paramonhystera stricta*, *Pseudosteineria scopae*, *Rhynchonema cemaie*, *R. olindensis*, *Steineria ericia*, *S. marcorum*, *S. pavo*, *S. tripartita*, *Theristus acribus*, *T. flevensis*, *T. macroflevensis*, *T. pertenuis*, *T. stranus*, *Trichotheristus heterus*, *T. setosus* and *Zygonemella striata* have the Brazilian coast as type locality. Given the paucity of data along the Brazilian coast, the distributional range of species can be barely inferred. Although there are three species registered at three different regions, supporting previous observation of widespread distribution of marine nematodes (e.g., Derycke et al. 2008; Bik et al. 2009), the large majority (32 species) were recorded at one region. This would support high levels of endemism along the Brazilian coast. However, this conclusion cannot be made for two main reasons: first, because our coast has been unevenly covered with most of the records concentrated around Rio de Janeiro and São Paulo (Fig. 1 and Table 1); and, second, because for most of the restricted species, the type locality is outside Brazil (see Appendix). An interesting aspect observed along the Brazilian coast is that Xyalidae species occurred mainly at oceanic sandy beaches rather than in estuarine areas. Species belonging to *Daptonema*, *Theristus*, *Trichotheristus* and *Zygonemella* were the only ones encountered in estuarine sediments (Table 1). Interestingly is that these four genera are not necessarily monophyletic (Nicholas and Trueman 2002; Fonseca and Bezerra 2013), suggesting that the colonization of inland waters

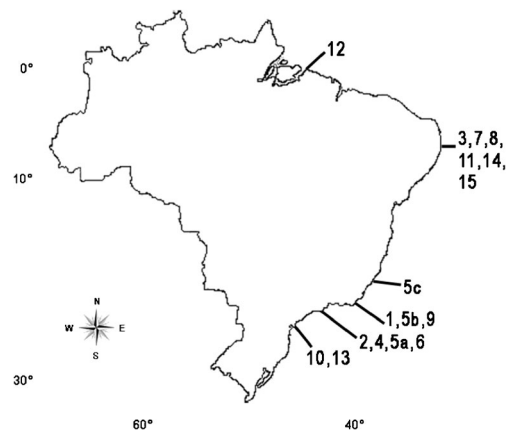


Fig. 1 Map of Brazil showing location of records of Xyalidae species

Table 1 Records of Xyalidae species along the Brazilian coast

Species	ID	PR	SP	RJ	ES	PE	PA	References
<i>Cobbia cf. dentata</i>	5a		SB					Gerlach 1957b
<i>Daptonema biggi</i>	10	EST						Vicente 2008
<i>Daptonema curvatum</i>	3					SB		Gerlach 1956b
<i>Daptonema furcatum</i>	10	EST						Vicente 2008
<i>Daptonema normadicum</i>	10, 12	EST					SB	Vicente 2008; Ataide 2012
<i>Daptonema oxycerca</i>	9			EST				Maria et al. 2008
<i>Daptonema procerum</i>	10	EST						Vicente 2008
<i>Daptonema resimum</i>	12						SB	Ataide 2012
<i>Daptonema tenuispiculum</i>	3					SB		Gerlach 1956b
<i>Daptonema trichinum</i>	3					SB		Gerlach 1956b
<i>Daptonema vicinum</i>	10	EST						Vicente 2008
<i>Elzalia floresi</i>	5a		SB					Gerlach 1957b
<i>Metadesmolaimus cf. labiosetosus</i>	5a		SB					Gerlach 1957b
<i>Metadesmolaimus coronatus</i>	5a		SB					Gerlach 1957b
<i>Metadesmolaimus tersus</i>	2, 5a, 5b, 5c		SB	SB	SB			Gerlach 1957b
<i>Omicronema clavulatum</i>	5a			SB				Gerlach 1957b
<i>Omicronema litorium</i>	5b, 6, 12		SB				SB	Gerlach 1957b; Medeiros 1997; Ataide 2012
<i>Paramonohystera stricta</i>	2, 5a		SB					Gerlach 1957b
<i>Pseudosteineria scopae</i>	3, 8					SB		Gerlach 1956b; Venekey 2007
<i>Rhynchonema cemaie</i>	15					SB		Bezerra and Vincx 2014
<i>Rhynchonema cinctum</i>	5a		SB					Gerlach 1957b
<i>Rhynchonema veronicae</i>	15					SB		Bezerra and Vincx 2014
<i>Scaptrella cf. brevicaudata</i>	5a		SB					Gerlach 1957b
<i>Scaptrella cincta</i>	3					SB		Gerlach 1956b
<i>Steineria ericia</i>	2, 5a		SB					Gerlach 1957b
<i>Steineria marcorum</i>	2, 3, 5a, 5b		SB	SB		SB		Gerlach 1957b
<i>Steineria pavo</i>	3, 5a		SB			SB		Gerlach 1957b
<i>Steineria tripartita</i>	5a		SB					Gerlach 1957b
<i>Theristus acribus</i>	2,5a		SB					Gerlach 1957b
<i>Theristus aff. rhynchonemoides</i>	7					SB		Bezerra 2001
<i>Theristus flevensis</i>	4, 5a, 12		EST/SB				SB	Gerlach 1957a, b; Ataide 2012
<i>Theristus heterospiculoides</i>	5a		SB					Gerlach 1957b
<i>Theristus macroflevensis</i>	1,4		EST	EST				Gerlach 1957a
<i>Theristus metaflevensis</i>	4, 5a		EST/SB					Gerlach 1957a
<i>Theristus pertenuis</i>	4, 5a, 12		EST/SB				SB	Gerlach 1957a
<i>Theristus stranus</i>	5a		SB					Gerlach 1957b
<i>Trichotheristus heterus</i>	5a		SB					Vicente 2008
<i>Trichotheristus mirabilis</i>	5a		SB					Gerlach 1957b
<i>Trichotheristus psammoides</i>	10	EST						Vicente 2008
<i>Trichotheristus setifer</i>	10	EST						Gerlach 1957a
<i>Trichotheristus setosus</i>	4, 5a, 10, 13	EST	EST					Gerlach 1957a, b; Vicente 2008; Brustolin et al. 2013
<i>Xyala striata</i>	5a		SB					Gerlach 1957b
<i>Zygonemella striata</i>	4, 11, 12, 14		EST			EST	EST	Gerlach 1957a; Neres et al. 2010; Cunha et al. 2013; Venekey pers. com.

Habitats of occurrence were classified as sandy beaches (SB) or estuary (EST). *PR* Paraná, *SP* São Paulo, *RJ* Rio de Janeiro, *ES* Espírito Santo, *PE* Pernambuco; *PA* Pará. *ID* location in the map (Fig. 1)

occurred multiple times along the evolutionary history (Holterman et al. 2008). The same cannot be concluded

for the conquest of the terrestrial sediments. In terrestrial habitats only species belonging to *Daptonema* and

Theristus have been reported (Coomans and Eyualem-Abebe 2006) and the taxonomical status of these genera is questionable (Nicholas and Trueman 2002).

Acknowledgments The authors acknowledge FAPESP-2011/21289-3 (São Paulo Research Foundation) by financially supporting the “Workshop Taxonomy and Diversity of Marine Meiofauna–Brazil”. The authors also thank Prof. Dr. Vladimir Gagarin for providing taxonomical literature and helping with the Russian articles, and Dr. Tania Nara Campinas Bezerra for helping with the genus *Rhynchonema*. The editor and anonymous referees are acknowledged for their suggestions. Gustavo Fonseca has been supported by FAPESP 2009/14019-0.

Appendix

Checklist of the valid genera and species belonging to the family Xyalidae.

Family Xyalidae Chitwood, 1951

Genus *Ammotheristus* Lorenzen, 1977

VALID SPECIES LIST

1. *Ammotheristus helgolandicus* (Riemann, 1967) Lorenzen, 1977 (Helgoland, North Sea)
2. *Ammotheristus subtilis* (Lorenzen, 1972) Lorenzen, 1977 (Helgoland, North Sea)

Genus *Amphimonhystera* Allgén, 1929

VALID SPECIES LIST

1. *Amphimonhystera anechma* (Southern, 1914) Lorenzen, 1977 (Helgoland, North Sea)
2. *Amphimonhystera circula* Guo and Warwick, 2001 (Bohai Sea, China)
3. *Amphimonhystera galea* Fadeeva, 1984 (White Sea, Russia)
4. *Amphimonhystera marisalbi* Tchesunov and Mokievsky, 2005 (White Sea, Russia)
5. *Amphimonhystera molloyensis* Tchesunov and Mokievsky, 2005 (Molloy Deep, Arctic Ocean)
6. *Amphimonhystera pallida* Tchesunov and Mokievsky, 2005 (Molloy Deep, Arctic Ocean)
7. *Amphimonhystera bella* Bussau, 1993 (Central Pacific Ocean, Peru)

SPECIES INQUIRENDA LIST

1. *Amphimonhystera paranechma* Allgén, 1935 (Öresund)

Genus *Amphimonhystrella* Timm, 1961

VALID SPECIES LIST

1. *Amphimonhystrella bullacauda* Tchesunov and Miljutina, 2005 (Molloy Deep, Arctic Ocean)

2. *Amphimonhystrella megastoma* Timm, 1961 (Bay of Bengal, Indian Ocean)
3. *Amphimonhystrella parva* Gagarin and Thanh, 2009 (Mekong River Delta, Vietnam)
4. *Amphimonhystrella unita* Lorenzen, 1977 (Skagen, Denmark)

Genus *Capsula* Bussau, 1993

VALID SPECIES LIST

1. *Capsula galeata* Bussau, 1993 (Central Pacific Ocean, Peru)

Genus *Cienfuegia* Armenteros, Vincx and Decraemer, 2009

VALID SPECIES LIST

1. *Cienfuegia cachoi* Armenteros, Vincx and Decraemer, 2009 (Cuba)

Genus *Cobbia* de Man, 1907

VALID SPECIES LIST

1. *Cobbia caledonia* Warwick and Platt, 1973 (Scotland)
2. *Cobbia dentata* Gerlach, 1953 (Italy)
3. *Cobbia macrodentata* Lo Russo and Pastor de Ward, 2012 (Argentina)
4. *Cobbia sinica* Huang and Zhang, 2010 (Yellow Sea, China)
5. *Cobbia trefusiaeformis* (De Man, 1907) Lorenzen, 1977 (North Sea, Baltic)
6. *Cobbia triodonta* Filipjev, 1918 (Russia)
7. *Cobbia truncata* Wieser, 1959 (Washington, USA)
8. *Cobbia urinator* Wieser, 1959 (Washington, USA)

SPECIES INQUIRENDA LIST

1. *Cobbia mawsoni* Cobb, 1930 (Antarctica)
2. *Cobbia scutata* Wieser, 1956 (Chile)
3. *Cobbia simplex* (Allgén, 1929) Wieser, 1956 (Skagerrak, Sweden)

NOMEN NUDUM LIST

1. *Cobbia crenata* Wieser, 1960 (Buzzards Bay, USA)

Genus *Corononema* Nicholas and Stewart, 1995

VALID SPECIES LIST

1. *Corononema parvum* Nicholas and Stewart, 1995 (Australia)
2. *Corononema thai* Nicholas and Stewart, 1995 (Thailand)

Genus *Dactylaimoides* Blome, 2002

VALID SPECIES LIST

1. *Dactylaimoides coronifer* Blome, 2002 (Queensland, Australia)

Genus *Daptonema* Cobb, 1920

VALID SPECIES LIST

1. *Daptonema acrilabiatum* (De Coninck and Schuurmans-Stekhoven, 1933) Lorenzen, 1977 (North Sea)
2. *Daptonema adiecta* (Schulz, 1932) Wieser, 1956 (Kiel Bay)
3. *Daptonema aegypticum* (Gerlach, 1964) Lorenzen, 1977 (Red Sea)
4. *Daptonema albigensis* (Riemann, 1966) Hopper, 1968 (Prince Edward Island, Canada)
5. *Daptonema altaicum* Tsalolikhin, 1985 (Mongolia)
6. *Daptonema alternum* (Wieser, 1956) Lorenzen, 1977 (Chile)
7. *Daptonema angulatum* (Schuurmans-Stekhoven, 1950) Wieser, 1956 (Mediterranean)
8. *Daptonema aquaedulcis* (Gagarin, 1987) Gagarin, 1993 (Russia)
9. *Daptonema articulatum* Lorenzen, 1977 (Helgoland, North Sea)
10. *Daptonema biggi* (Gerlach, 1965) Lorenzen, 1977 (Svalbard)
11. *Daptonema biwaensis* (Tsalolikhin, 2002) (Biwa lake, Japan) *New name*
12. *Daptonema brevisetosum* Thanh and Gagarin, 2009 (Me Kong river, Vietnam)
13. *Daptonema buetschlii* Bresslau and Stekhoven in Stekhoven, 1935 (North Sea)
14. *Daptonema buetschlioides* (Chitwood, 1951) Lorenzen, 1977 (Texas, USA)
15. *Daptonema calcaneum* (Schuurmans-Stekhoven, 1950) Wieser, 1956 (Mediterranean)
16. *Daptonema calceolatum* (De Coninck and Schuurmans-Stekhoven, 1933) Lorenzen, 1977 (North Sea)
17. *Daptonema circum* (Vitiello, 1971) Lorenzen, 1977 (Mediterranean)
18. *Daptonema clavicaudatum* (Gerlach, 1953) Lorenzen, 1981 (Chile)
19. *Daptonema concordense* Pastor de Ward, 1985 (River Deseado, Argentina)
20. *Daptonema conicum* (Filipjev, 1922) Lorenzen, 1977 (Azow Sea)
21. *Daptonema crassissima* Ditlevsen, 1911 (Denmark)
22. *Daptonema curticauda* (Tchesunov, 1980) Tchesunov, 1990 (Caspian Sea)
23. *Daptonema curvatum* Gerlach, 1956 (Kiel Bay)
24. *Daptonema curvispicula* Tchesunov and Miljutin, 2006 (Molloy Deep, Arctic Ocean)
25. *Daptonema curvispiculum* (Gerlach, 1953) Wieser, 1959 (Italia, Mediterranean)
26. *Daptonema dentatum* (Wieser, 1956) Lorenzen, 1977 (Chile)
27. *Daptonema dihytera* Gagarin and Thanh, 2005 (Nhue River and West lake, Vietnam)
28. *Daptonema divertens* Boucher and Helléouet, 1977 (Pierre Noire, West Channel)
29. *Daptonema dolichurus* Nguyen, Thanh and Gagarin, 2004 (Can Gio mangrove, Vietnam)
30. *Daptonema donsi* (Allgén, 1948) Lorenzen, 1977 (Norway)
31. *Daptonema dubium* (Butschli, 1873) Lorenzen, 1977 (Germany)
32. *Daptonema durum* Gagarin and Nguyen, 2008 (Red river delta Vietnam)
33. *Daptonema ephygmaticum* (Wieser, 1959) Lorenzen, 1977 (Washington, USA)
34. *Daptonema elaboratum* (Chitwood, 1951) Lorenzen, 1977 (Texas, USA)
35. *Daptonema elegans* (Kreis, 1929) Lorenzen, 1977 (English Channel)
36. *Daptonema elongatum* Gagarin and Nguyen, 2008 (Red river delta, Vietnam)
37. *Daptonema eximium* Gagarin and Lemzina, 1981 (Issik-kull lake, Kyrgyzstan)
38. *Daptonema exutum* (Wieser, 1956) Lorenzen, 1977 (Chile)
39. *Daptonema fallax* (Lorenzen, 1972) Lorenzen, 1977 (Helgoland, North Sea)
40. *Daptonema fissidens* (Cobb, 1920) Lorenzen, 1977 (India)
41. *Daptonema fistulatum* (Wieser and Hopper, 1967) Lorenzen, 1977 (Florida, USA)
42. *Daptonema flagellicauda* (Lorenzen, 1973) Lorenzen, 1977 (Helgoland, North Sea)
43. *Daptonema foetidum* Gagarin and Thanh, 2010 (China Sea, South coast Vietnam)
44. *Daptonema fortis* Gagarin, 1993 (Lake Taimyr, Siberia, Russia)
45. *Daptonema furcatum* (Juario, 1974) Lorenzen, 1977 (Helgoland, North Sea)
46. *Daptonema gritsenkovi* (Gagarin and Lemzina, 1981) (Issik-kul lake, Kyrgyzstan)
47. *Daptonema groenlandium* (Ditlevsen, 1928) Lorenzen, 1977 (Greenland)
48. *Daptonema gyrophurum* (Wieser, 1956) Lorenzen, 1977 (Chile)
49. *Daptonema hirsutum* (Vitiello, 1967) Lorenzen, 1977 (English Channel)
50. *Daptonema hirtum* Gerlach, 1951 (North Sea)

51. *Daptonema hyalocella* Aryuthaka and Kito, 2012 (Phuket Province, Thailand)
52. *Daptonema iners* Nguyen, Thanh and Gagarin, 2004 (Can Gio mangrove, Vietnam)
53. *Daptonema intermedium* Tchesunov, 1980 (Caspian Sea)
54. *Daptonema invagiferoum* (Platt, 1973) Lorenzen, 1977 (Strangford lough, North Ireland)
55. *Daptonema inversum* Alekseev, 1984 (Kamchatka, Russia)
56. *Daptonema issykkulensis* Gagarin and Lemzina, 1980 (Issyk-kul lake, Kyrgyzstan)
57. *Daptonema karabugaensis* Tchesunov, 1980 (Caspian Sea)
58. *Daptonema kornoense* (Allgén, 1929) Lorezen, 1977 (Skagerrak)
59. *Daptonema leptogastrelloides* Riemann, 1979 (Weser estuary, Germany)
60. *Daptonema limnobia* Wu and Liang, 2000 (China)
61. *Daptonema longiapophysis* Huang and Zhang, 2010 (Yellow Sea, China)
62. *Daptonema longissimicaudatum* (Kreis, 1935) Lorenzen, 1977 (Mediterranean)
63. *Daptonema lopezi* Pastor de Ward, 1985 (Deseado River, Argentina)
64. *Daptonema macrostoma* Huang and Xu, 2013 (Yellow Sea, China)
65. *Daptonema maeoticum* (Filipjev, 1922) Lorenzen, 1977 (Azow Sea)
66. *Daptonema marylandicum* (Timm, 1952) Wieser, 1959 (Maryland, USA)
67. *Daptonema miamiense* (Hopper, 1969) Lorenzen, 1977 (Florida, USA)
68. *Daptonema microspiculum* (Gerlach, 1953) Lorenzen 1977 (Italia, Mediterranean)
69. *Daptonema modestum* Tchesunov, 1990 (White Sea)
70. *Daptonema nannospiculum* Tchesunov, 1980 (Caspian Sea)
71. *Daptonema nanum* (Lorenzen, 1972) Lorenzen, 1977 (Helgoland, North Sea)
72. *Daptonema normanicum* (De Man, 1890) Lorenzen, 1977 (English channel)
73. *Daptonema obesum* Gagarin, 2001 (Biwa lake, Japan)
74. *Daptonema osadchikhae* (Tchesunov, 1980) Tchesunov, 1990 (Caspian Sea)
75. *Daptonema ostentator* Wieser and Hopper, 1967 (Florida, USA)
76. *Daptonema oxycerca* (De Man, 1888) Lorenzen, 1977 (North Sea)
77. *Daptonema oxyuroides* (Stekhoven, 1931) Gagarin and Lemzina, 1981 (North Sea)
78. *Daptonema papillatus* Murphy, 1965 (Chile)
79. *Daptonema paracircumscriptum* Fadeeva and Belogurov, 1987 (Sea of Japan)
80. *Daptonema paradonsi* (Allgén, 1949) Wieser, 1956 (Norway)
81. *Daptonema paraelaboratum* (Timm, 1952) Wieser, 1959 (Maryland, USA)
82. *Daptonema paratortum* (Vitiello, 1971) Lorenzen, 1977 (Mediterranean)
83. *Daptonema planiere* (Vitiello, 1971) Lorenzen, 1977 (Mediterranean)
84. *Daptonema platonovae* (Galtsova, 1976) Tchesunov, 1990 (White Sea)
85. *Daptonema procerum* (Gerlach, 1951) Lorenzen, 1977 (North Sea)
86. *Daptonema prominens* (Vitiello, 1971) Lorenzen, 1977 (Mediterranean)
87. *Daptonema proprium* (Lorenzen, 1972) Lorenzen, 1977 (Helgoland, North Sea)
88. *Daptonema pseudotortum* (Vitiello, 1971) Lorenzen, 1977 (Mediterranean)
89. *Daptonema rectangulatum* Pastor de Ward, 1985 (Deseado River, Argentina)
90. *Daptonema resinum* (Wieser, 1959) Lorenzen, 1977 (Washington, USA)
91. *Daptonema riemanni* Platt, 1973 (Strangford lough, North Ireland)
92. *Daptonema rigidum* Gagarin, Thanh and Nguyen, 2005 (Chu river, Vietnam)
93. *Daptonema robustum* Tchesunov, 1980 (Caspian Sea)
94. *Daptonema romanelloi* Pastor de Ward, 1985 (Deseado river, Argentina)
95. *Daptonema rusticum* (Kreis, 1929) Lorenzen, 1977 (English Channel)
96. *Daptonema salvum* Gagarin, Thanh and Nguyen, 2005 (Chu river, Vietnam)
97. *Daptonema setihyalocella* Aryuthaka and Kito, 2012 (Phuket Province, Thailand)
98. *Daptonema sibiricum* Gagarin, 2000 (Russian Arctic)
99. *Daptonema spirum* (Gerlach, 1959) Lorenzen, 1977 (North Sea)
100. *Daptonema stylosum* (Lorenzen, 1973) Lorenzen, 1977 (Helgoland, North Sea)
101. *Daptonema svalbardense* (Gerlach, 1965) Lorenzen, 1977 (Svalbard)
102. *Daptonema tenuispiculum* (Ditlevsen, 1918) Lorenzen, 1977 (Danish Belt Sea)
103. *Daptonema timmi* (Timm, 1961) Gagarin and Nguyen, 2008 (Bay of Bengal)
104. *Daptonema timoshkini* Gagarin, 2001 (Biwa lake, Japan)
105. *Daptonema tortum* (Wieser and Hopper, 1967) Lorenzen, 1977 (Florida, USA)
106. *Daptonema tortuosum* (Timm, 1961) Lorenzen, 1977 (Bay of Bengal)

107. *Daptonema trabeculosum* (Schneider, 1906) Lorenzen, 1977 (Baltic sea)
108. *Daptonema trecuspidatum* (Wieser, 1959) Lorenzen, 1977 (Washington, USA)
109. *Daptonema trichinum* Gerlach, 1956 (Kiel Bay)
110. *Daptonema uncinatus* Wieser, 1959 (Washington, USA)
111. *Daptonema variasetosum* Pavljuk, 1984 (West-Pacific)
112. *Daptonema vicinum* (Riemann, 1966) Lorenzen, 1977 (North Sea)
113. *Daptonema vietnamensis* (Gagarin and Thu, 2008) (Red River delta, Vietnam) New name
114. *Daptonema voskresenskii* Tchesunov, 1990 (White Sea)
115. *Daptonema williamsi* Vincx and Coomans, 1983 (Solomon Islands)
116. *Daptonema xyaliforme* (Wieser and Hopper, 1967) Lorenzen, 1977 (Florida, USA)
19. *Daptonema notoistospiculoides* Allgén, 1959 (South Georgia, Antarctica)
20. *Daptonema notosetosum* Allgén, 1959 (South Georgia, Antarctica)
21. *Daptonema paratenuispiculum* (Allgén, 1942) Wieser, 1956 (Mediterranean)
22. *Daptonema paraistospiculoides* Allgén, 1959 (Falkland Islands and South Georgia, Antarctica)
23. *Daptonema polaris* (Cobb, 1914) Wieser, 1956 (Antarctica)
24. *Daptonema septentrionalis* Cobb, 1914 (Antarctica)
25. *Daptonema simplex* Allgén, 1959 (South Georgia, Antarctica)
26. *Daptonema sinuosus* Wieser, 1959 (Washington, USA)
27. *Daptonema sphaerolaimoides* (Schulz, 1932) Lorenzen, 1977 (Kiel Bay)
28. *Daptonema sphaerolaimus* (Allgén, 1935) Wieser, 1956 (Öresund)
29. *Daptonema tenuicaudatum* (Allgén, 1929) Lorenzen, 1977 (Skagerrak)
30. *Daptonema trichospiculum* (Allgén, 1933) Wieser, 1956 (Norway)

SPECIES INQUIRENDA LIST

1. *Daptonema arcospiculum* (Allgén, 1947) Wieser, 1956 (Gulf of Panama)
2. *Daptonema arcticum* (Steiner, 1916) Filipjev, 1922 (Australia)
3. *Daptonema australis* Allgén, 1951 (Australia)
4. *Daptonema bathylaimum* Allgén, 1959 (Graham land, Antarctica)
5. *Daptonema buelkiensis* (Schulz, 1932) Wieser, 1956 (Kiel Bay)
6. *Daptonema cuspidospiculum* (Allgén, 1932) Wieser, 1956 (Campbell Island)
7. *Daptonema filicaudatum* Allgén, 1959 (South Georgia)
8. *Daptonema filispiculum* Allgén, 1932 (Campbell Island)
9. *Daptonema fimbriatum* (Cobb, 1920) Hopper, 1969 (New Hampshire, USA)
10. *Daptonema frigidum* (Cobb, 1914) Wieser, 1956 (Antarctica)
11. *Daptonema gracillimecaudatum* (Allgén, 1946) Wieser, 1956 (Norway)
12. *Daptonema grahami* (Allgén, 1969) Lorenzen, 1977 (Graham land, Antarctica)
13. *Daptonema lata* (Cobb, 1894) Lorenzen, 1977 (Australia)
14. *Daptonema longicaudatum* (Filipjev, 1922) Lorenzen, 1977 (Black Sea)
15. *Daptonema macrocirculum* Allgén, 1959 (Graham land, Antarctica)
16. *Daptonema metasetosum* (Allgén, 1929) (Skagerrak)
17. *Daptonema naviculivorum* (Cobb, 1930) Wieser, 1956 (Antarctica)
18. *Daptonema norvegicum* (Allgén, 1946) Wieser, 1956 (Norway)

NOMEN NUDUM LIST

1. *Daptonema deconincki* Sharma, 1985 (Netherlands)

Genus *Echinotheristus* Thun and Riemann, 1967

VALID SPECIES LIST

3. *Echinotheristus cimbricus* Thun and Riemann, 1967 (North Sea)
4. *Echinotheristus teutonicus* Thun and Riemann, 1967 (North Sea)

Genus *Elzalia* Gerlach, 1957

VALID SPECIES LIST

1. *Elzalia federici* Castillo-Fernández and Lamshead, 1990 (Gulf of Mexico)
2. *Elzalia floresi* Gerlach, 1957 (Ilha Bela, Brazil)
3. *Elzalia gerlachi* Zhang and Zhang, 2006 (Yellow sea, China)
4. *Elzalia kima* Castillo-Fernández and Lamshead, 1990 (Gulf of Mexico)
5. *Elzalia mediterranea* Vitiello, 1971 (Gulf of Lyon, Mediterranean)
6. *Elzalia poli* Castillo-Fernández and Lamshead, 1990 (Gulf of Mexico)
7. *Elzalia striatitenuis* Zhang and Zhang, 2006 (Yellow Sea, China)
8. *Elzalia tenuis* Allgén, 1959 (Graham Land, Antarctic Peninsula)

9. *Elzalia bipectinella* Hope and Aryuthaka, 2009 (Khung Kraben Bay, East Thailand)
10. *Elzalia tuberculata* Hope and Aryuthaka, 2009 (Khung Kraben Bay, East Thailand)

SPECIES INQUIRENDA LIST

1. *Elzalia speculifer* Timm, 1961 (Bay of Bengal)

Genus *Enchonema* Bussau, 1993

VALID SPECIES LIST

1. *Enchonema umbrosum* Bussau, 1993 (Central Pacific Ocean, Peru)

Genus *Filipjeva* Ditlevsen, 1928

VALID SPECIES LIST

1. *Filipjeva arctica* Ditlevsen, 1928 (South of the Lille Pendulum, East Greenland)
2. *Filipjeva crucis* Blome and Schräge, 1985 (King George Island, Antarctic)
3. *Filipjeva filipjevi* Tchesunov, 1988 (Kandalaksh Bay, White Sea, Karelian coast, Russia)
4. *Filipjeva meridionalis* Kreis, 1932 (Sunda Strasse Island, Indonesia)
5. *Filipjeva parameridionalis* Vitiello, 1970 (Leon Gulf, Mediterranean)
6. *Filipjeva teratospicula* Tchesunov, 1988 (Kandalaksh Bay, White Sea, Karelian coast, Russia)

SPECIES INQUIRENDA LIST

1. *Filipjeva mediterranea* Stekhoven, 1950 (Bay of Villefranche, Mediterranean)

Genus *Gnomoxyala* Lorenzen, 1977

VALID SPECIES LIST

1. *Gnomoxyala spina* Lorenzen, 1977 (Baltic Sea)

Genus *Gonionchus* Cobb, 1920

VALID SPECIES LIST

1. *Gonionchus africanus* Vincx and Furstenberg, 1988 (Sundays River, South Africa)
2. *Gonionchus alastairi* Stewart and Nicholas, 1994 (New South Wales, Australia)
3. *Gonionchus arabica* Nasira and Turpeenniemi, 2003 (Arabian Sea, Pakistan)
4. *Gonionchus australis* Stewart and Nicholas, 1994 (New South Wales, Australia)

5. *Gonionchus cumbraensis* Benwell, 1981 (Firth of Clyde, Scotland)
6. *Gonionchus heipi* Vincx, 1986 (North Sea, Belgium and Netherlands)
7. *Gonionchus inaequalis* Warwick and Platt, 1973 (Scotland)
8. *Gonionchus intermedius* Jensen, 1986 (East Flower Garden, Gulf of Mexico)
9. *Gonionchus latentis* Fadeeva, 1984 (Melkovodnaya Bay, Sea of Japan)
10. *Gonionchus longicaudatus* (Ward, 1972) Lorenzen, 1977 (Liverpool Bay, England)
11. *Gonionchus paravilosus* Blome, 1982 (Sylt Island, North Sea)
12. *Gonionchus sensibilis* Lorenzen, 1977 (Helgoland, Germany Island)
13. *Gonionchus villosus* Cobb, 1920 (New Hampshire, USA)

NOMEN NUDUM LIST

1. *Gonionchus ecuadorensis* Procel, 2007 (San Pedro Makgarato, Ecuador)

Genus *Guitartia* Armenteros, Vincx and Decraemer, 2010

VALID SPECIES LIST

1. *Guitartia tridentata* Armenteros, Vincx and Decraemer, 2010 (Caribbean Sea)

Genus *Gullanema* Nicholas and Stewart, 1995

VALID SPECIES LIST

1. *Gullanema fragilis* Nicholas and Stewart, 1995 (New South Wales, Australia)

Genus *Hofmaenneria* Gerlach and Meyl, 1957

VALID SPECIES LIST

1. *Hofmaenneria brachystoma* (Hofmanner in Hofmanner and Menzel, 1914) Gerlach and Meyl, 1957 (Yugoslavia)
2. *Hofmaenneria elongata* Gagarin, 1987 (Parabel River, Russia)
3. *Hofmaenneria gratiosa* Alekseev, 1983 (Khanka Lake, Russia)
4. *Hofmaenneria keoladeoensis* Khan, Hussain, Sultana and Tahseen, 2005 (Rajasthan, India)
5. *Hofmaenneria longispiculata* Gagarin and Naumova, 2010 (Lake Baikal, Russia)
6. *Hofmaenneria niddensis* (Skwarra, 1921) Schneider, 1940 (Germany)

7. *Hofmaenneria obesa* Gagarin and Naumova, 2010 (Lake Baikal, Russia)
8. *Hofmaenneria optata* Alekseev, 1983 (Khanka Lake, Russia)
9. *Hofmaenneria sitnikovae* Gagarin and Naumova, 2010 (Lake Baikal, Russia)

SPECIES INQUIRENDA LIST

1. *Hofmaenneria hazanensis* Mulvey, 1969 (Canadian Arctic)
2. *Hofmaenneria longicaudata* Gagarin, 2000 (Borok, Russia)

Genus *Linhystera* Juario, 1974

VALID SPECIES LIST

1. *Linhystera longa* Pastor de Ward, 1985 (Santa Cruz, Argentina)
2. *Linhystera problematica* Juario, 1974 (German Bight)

Genus *Manganonema* Bussau, 1993

VALID SPECIES LIST

1. *Manganonema antarctica* Fonseca, Decraemer and Vanreusel, 2006 (Southern Ocean)
2. *Manganonema bussauensis* Fonseca, Decraemer and Vanreusel, 2006 (North Atlantic)
3. *Manganonema media* Fonseca, Decraemer and Vanreusel, 2006 (SW Atlantic Ocean, Brazil; NE Atlantic, Goban Spur)
4. *Manganonema microcephalum* Bussau, 1993 (Central Pacific Ocean, Peru)
5. *Manganonema pitilica* Fonseca, Decraemer and Vanreusel, 2006 (SW Atlantic Ocean, Brazil)
6. *Manganonema robustus* Fonseca, Decraemer and Vanreusel, 2006 (SW Atlantic Ocean, Brazil)

Genus *Marisalbinema* Tchesunov, 1990

VALID SPECIES LIST

1. *Marisalbinema galtsovae* Tchesunov, 1990 (White Sea)

Genus *Metadesmolaimus* Schuurmans-Stekhoven, 1935

VALID SPECIES LIST

1. *Metadesmolaimus aduncus* Lorenzen, 1972 (Helgoland, North Sea)
2. *Metadesmolaimus aversivulva* Gerlach, 1953 (Mediterranean Sea)

3. *Metadesmolaimus caniculus* (Wieser and Hopper, 1967) Lorenzen, 1972 (Florida, USA)
4. *Metadesmolaimus coronatus* Schuurmans-Stekhoven, 1950 (Mediterranean Sea)
5. *Metadesmolaimus gaelicus* Platt, 1983 (Ireland, UK)
6. *Metadesmolaimus gelana* (Warwick and Platt, 1973) Lorenzen, 1977 (UK)
7. *Metadesmolaimus hamatus* (Gerlach, 1956) Lorenzen, 1972 (North Sea)
8. *Metadesmolaimus heteroclitus* Lorenzen, 1972 (Helgoland, North Sea)
9. *Metadesmolaimus pandus* Lorenzen, 1972 (North Sea)
10. *Metadesmolaimus psammophilus* Tchesunov, 1990 (White Sea)
11. *Metadesmolaimus similis* Tchesunov, 1990 (White Sea)
12. *Metadesmolaimus tersus* (Gerlach, 1956) Lorenzen, 1972 (São Sebastião, Brazil)
13. *Metadesmolaimus varians* Lorenzen, 1972 (Helgoland, North Sea)

SPECIES INQUIRENDA LIST

1. *Metadesmolaimus labiosetosus* Schuurmans-Stekhoven, 1935 (North Sea)

Genus *Omicronema* Cobb, 1920

VALID SPECIES LIST

1. *Omicronema australis* Stewart and Nicholas, 1994 (Australia)
2. *Omicronema clavulatum* Gerlach, 1957 (Rio de Janeiro, Brazil)
3. *Omicronema coronalata* Stewart and Nicholas, 1994 (Australia)
4. *Omicronema litorium* Cobb, 1920 (California, USA)
5. *Omicronema nana* Stewart and Nicholas, 1994 (Australia)
6. *Omicronema orientalis* Gagarin and Thanh, 2009 (Mekong River Delta, Vietnam)

SPECIES INQUIRENDA LIST

1. *Omicronema nidrosiens* Allgén, 1933 (Norway)
2. *Omicronema truncatum* Schuurmans-Stekhoven, 1950 (Mediterranean Sea)

Genus *Paragonionchus* Blome, 2002

VALID SPECIES LIST

1. *Paragonionchus sclerolabiatu* Blome, 2002 (New South Wales)

Genus *Paramonohystera* Steiner, 1916

VALID SPECIES LIST

1. *Paramonohystera biforma* Wieser, 1956 (Chile)
2. *Paramonohystera concinna* Lorenzen, 1977 (North and Baltic Seas)
3. *Paramonohystera elliptica* Filipjev, 1918 (Black Sea)
4. *Paramonohystera eurycephalus* Huang and Wu, 2011 (Yellow Sea, China)
5. *Paramonohystera geraerti* Chen and Vincx, 2000 (Strait of Magellan, Chile)
6. *Paramonohystera halerba* Fadeeva and Belogurov, 1987 (Sea of Japan)
7. *Paramonohystera levicula* (Lorenzen, 1972) Lorenzen, 1977 (Helgoland, North Sea)
8. *Paramonohystera longicaudata* Timm, 1963 (Arabian Sea)
9. *Paramonohystera megacephala* (Steiner, 1916) Filipjev, 1918 (Barents Sea)
10. *Paramonohystera parabutschlii* (Timm, 1961) Pastor de Ward, 1985 (Mediterranean)
11. *Paramonohystera paranormandica* (Micoletzky, 1922) (Mediterranean)
12. *Paramonohystera pellucida* Cobb, 1920 (Chile)
13. *Paramonohystera pilosa* Boucher, 1971 (France)
14. *Paramonohystera proteus* Wieser, 1956 (Chile)
15. *Paramonohystera stricta* (Gerlach, 1956) (Santos, Brazil)
16. *Paramonohystera tschilenkoi* Platonova, 1971 (Sea of Japan)
17. *Paramonohystera zizichi* Pastor de Ward, 1985 (Argentina)
18. *Paramonohystera wieseri* Ott, 1977 (Bermuda)

SPECIES INQUIRENDA

1. *Paramonohystera micramphis* Schuurmans-Stekhoven, 1950 (Mediterranean)

NOMEN NUDUM LIST

1. *Paramonohystera mystacoderma* Wieser, 1960

Genus *Paramphimonhystrella* Huang and Zhang, 2006

VALID SPECIES LIST

1. *Paramphimonhystrella elegans* Huang and Zhang, 2006 (Yellow Sea)
2. *Paramphimonhystrella minor* Huang and Zhang, 2006 (Yellow Sea)
3. *Paramphimonhystrella sinica* Huang and Zhang, 2006 (Yellow Sea)

Genus *Parelzalia* Tchesunov, 1990

VALID SPECIES LIST

1. *Parelzalia obscuramphis* Tchesunov, 1990 (White Sea)

Genus *Promonhystera* Wieser, 1956

VALID SPECIES LIST

1. *Promonhystera faber* Wieser, 1956 (Chile)
2. *Promonhystera tricuspudata* Wieser, 1956 (Chile)

Genus *Prorhynchonema* Gourbault, 1982

VALID SPECIES LIST

1. *Prorhynchonema gourbaultae* Nicholas and Stewart, 1995 (New South Wales, Australia)
2. *Prorhynchonema warwicki* Gourbault, 1982 (Guadeloupe, France)

Genus *Pseudechinotheristus* Blome, 2002

VALID SPECIES LIST

1. *Pseudechinotheristus nudus* Blome, 2002 (Queensland)

Genus *Pseudosteineria* Wieser, 1956

VALID SPECIES LIST

1. *Pseudosteineria antiferens* (Wieser, 1956) De Coninck, 1965 (Chile)
2. *Pseudosteineria anticipans* (Wieser, 1956) De Coninck, 1965 (Washington, USA)
3. *Pseudosteineria coronata* (Gerlach, 1955) Wieser, 1959 (San Salvador)
4. *Pseudosteineria horrida* (Steiner, 1916) Wieser, 1956 (Barents Sea)
5. *Pseudosteineria inaequispiculata* (Platonova, 1971) Gerlach and Riemann, 1973 (Sea of Japan)
6. *Pseudosteineria pavo* (Gerlach, 1957) Fadeeva, 1986 (Ilha Bela, Brazil)
7. *Pseudosteineria pulchra* (Mawson, 1957) Tchesunov, 2000 (Encouter Bay, Australia)
8. *Pseudosteineria sagittispiculata* Fadeeva, 1986 (Sea of Japan)
9. *Pseudosteineria scopae* (Gerlach, 1956) Wieser, 1959 (Pernambuco, Brazil)
10. *Pseudosteineria sinica* Huang and Li, 2010 (Yellow Sea, China)
11. *Pseudosteineria zhangii* Huang and Li, 2010 (Yellow Sea, China)
12. *Pseudosteineria ventropapilata* Tchesunov, 2010 (White Sea)

Genus *Retrotheristus* Lorenzen, 1977

VALID SPECIES LIST

1. *Retrotheristus breviseta* (Juario, 1974) Lorenzen, 1977 (German Bight)

Genus *Rhynchonema* Cobb, 1920

VALID SPECIES LIST

1. *Rhynchonema amakusanum* Aryuthaka, 1989 (Oniike, Japan)
2. *Rhynchonema ambianorum* Boucher, 1974 (Eastern English Channel)
3. *Rhynchonema brevituba* Gerlach, 1953 (Mediterranean Sea)
4. *Rhynchonema cema* Bezerra and Vincx, 2014 (Olinda, Brazil)
5. *Rhynchonema ceramotos* Boucher, 1974 (Eastern English Channel)
6. *Rhynchonema chiloense* Lorenzen, 1975 (South Chile)
7. *Rhynchonema cinctum* Cobb, 1920 (Salavery, Peru)
8. *Rhynchonema collare* Nicholas and Stewart, 1995 (New South Wales, Australia)
9. *Rhynchonema deconincki* Vitiello, 1967 (Roscoff, France)
10. *Rhynchonema dispar* Gourbault, 1982 (Guadeloupe, France)
11. *Rhynchonema falciferum* Boucher, 1974 (English Channel)
12. *Rhynchonema fossum* Lorenzen, 1975 (Santa Marta, Caribbean Columbia)
13. *Rhynchonema gerlachi* Vitiello, 1967 (Europa Island, Indian Ocean)
14. *Rhynchonema hirsutum* Hopper, 1961 (Gulf of Mexico)
15. *Rhynchonema impar* Lorenzen, 1975 (Santa Marta, Caribbean Columbia)
16. *Rhynchonema kikuchii* Aryuthaka, 1989 (Oniike, Japan)
17. *Rhynchonema longituba* Gerlach, 1953 (Mediterranean Sea)
18. *Rhynchonema lyngei* (Allgén, 1940) Gerlach, 1953 (Baltic Sea)
19. *Rhynchonema megamphida* Boucher, 1974 (Western English Channel)
20. *Rhynchonema moorea* Boucher, 1974 (Society Islands, Central Pacific)
21. *Rhynchonema ornatum* Lorenzen, 1975 (Salamanca Island, Caribbean Columbia)
22. *Rhynchonema quemer* Boucher, 1974 (Eastern English Channel)
23. *Rhynchonema scutatatum* Lorenzen, 1972 (Helgoland, North Sea)
24. *Rhynchonema semiserratatum* Lorenzen, 1975 (South Chile)

25. *Rhynchonema separatum* Lorenzen, 1975 (South Chile)
26. *Rhynchonema sieverti* Gourbault, 1982 (Guadeloupe, France)
27. *Rhynchonema subsetosum* Murphy, 1964 (North Pacific Coast)
28. *Rhynchonema tomakinense* Nicholas and Stewart, 1995 (New South Wales, Australia)
29. *Rhynchonema tremendum* Lorenzen, 1975 (South Chile)
30. *Rhynchonema veronicae* Bezerra and Vincx, 2014 (Olinda, Brazil)
31. *Rhynchonema xiamenensis* Huang and Liu, 2002 (Xiamen Island, China)

SPECIES INQUIRENDA

1. *Rhynchonema wieseri* Hopper, 1961 (Peru, Chile)

NOMEN NUDUM LIST

1. *Rhynchonema ronaldi* Procel, 2007 (Ecuador)

Genus *Robustnema* Nicholas, 1996

VALID SPECIES LIST

1. *Robustnema fosteri* Nicholas, 1996 (Australia)

Genus *Sacrimarinema* Shoshin, 2001

VALID SPECIES LIST

1. *Sacrimarinema allae* Shoshin, 2001 (Lake Baikal, Russia)
2. *Sacrimarinema ljajiae* Shoshin, 2001 (Lake Baikal, Russia)
3. *Sacrimarinema tatushae* Shoshin, 2001 (Lake Baikal, Russia)

Genus *Scaptrella* Cobb, 1917

VALID SPECIES LIST

1. *Scaptrella brevicaudata* Gerlach, 1953 (Rimini, Adriatic coast)
2. *Scaptrella cincta* Cobb, 1917 (San Francisco Bay, California)

SPECIES INQUIRENDA LIST

1. *Scaptrella tenuicaudata* Gerlach, 1956 (Kiel Bay)

Genus *Sphaerotheristus* Timm, 1968

VALID SPECIES LIST

1. *Sphaerotheristus bengalensis* Timm, 1968 (Sunderbans, East Pakistan)

2. *Sphaerotheristus macrostoma* (Timm, 1963) Timm, 1968 (Bang Po, Gulf of Thailand)
3. *Sphaerotheristus nothum* Gagarin and Thanh, 2008 (Camestuary, HaiPhong, Vietnam)
4. *Sphaerotheristus parvus* Gagarin and Thanh, 2006 (Ilai Phong Prov, Vietnam)
5. *Sphaerotheristus pseudodentatus* Timm, 1968 (Sunderbans, East Pakistan)
6. *Sphaerotheristus sonadiae* Timm, 1968 (Bay of Bengal, East Pakistan)
7. *Sphaerotheristus supoti* Timm, 1968 (Sunderbans, East Pakistan)
8. *Sphaerotheristus supplementatus* Gagarin and Thanh, 2008 (Mekong River)
9. *Sphaerotheristus validum* Gagarin and Thanh, 2008 (Camestuary, HaiPhong, Vietnam)
18. *Steineria setosissima* (Cobb, 1894) Stekhoven and De Connick, 1933 (Australia)
19. *Steineria simplex* Timm, 1963 (Arabian Sea)
20. *Steineria sinica* Huang and Wu, 2011 (Yellow Sea, China)
21. *Steineria sterreri* Ott, 1977 (Bermuda)
22. *Steineria tripartita* Gerlach, 1957 (Ilha Bela, Brazil)

Genus *Stylotheristus* Lorenzen, 1977

VALID SPECIES LIST

1. *Stylotheristus mutilus* (Lorenzen, 1973) Lorenzen, 1977 (Helgoland, North Sea)

Genus *Theristus* Bastian, 1865

VALID SPECIES LIST

Genus *Spiramphinema* Wieser, 1956

VALID SPECIES LIST

1. *Spiramphinema convolutum* Wieser, 1956 (Chile)
2. *Spiramphinema longiseta* Wieser, 1956 (Chile)

SPECIES INQUIRENDA LIST

1. *Spiramphinema microcephalon* (Stekhoven, 1942) Wieser, 1956 (Mediterranean)

Genus *Steineria* Micoletzky, 1922

VALID SPECIES LIST

1. *Steineria aegyptica* Andrassy, 1959 (Red Sea)
2. *Steineria ampullacea* Wieser and Hopper, 1967 (Florida, USA)
3. *Steineria chiliensis* Murphy, 1966 (Chile)
4. *Steineria cobbi* Wieser, 1956 (Chile)
5. *Steineria copiosa* Faadeva, 1991 (Sea of Japan)
6. *Steineria ericia* Gerlach, 1956 (Guarujá and São Sebastião, Brazil)
7. *Steineria gerlachi* Wieser, 1956 (Washington, USA)
8. *Steineria longicaudata* Vitiello, 1971 (Gulf of Lyon, Mediterranean)
9. *Steineria marcorum* Gerlach, 1956 (Guarujá, Brazil)
10. *Steineria parapolychaeta* Gerlach, 1953 (Chile)
11. *Steineria pectinata* Wieser, 1956 (Washington, USA)
12. *Steineria phimifera* Wieser, 1959 (Washington, USA)
13. *Steineria pilosa* (Cobb, 1914) Micoletzky, 1921 (Cape Royds, Antarctica)
14. *Steineria polychaeta* (Steiner, 1915) Micoletzky, 1922 (Indonesia)
15. *Steineria polychaetoides* Gerlach, 1951 (North Sea)
16. *Steineria pontica* Gröza-Rojancovski, 1972 (Black Sea)
17. *Steineria punctata* Gerlach, 1955 (San Salvador)
1. *Theristus acer* (Bastian, 1865) Bussau, 1990 (English Channel)
2. *Theristus acribus* Gerlach, 1956 (São Paulo littoral, Brazil)
3. *Theristus acriformis* De Man, 1922 (North Sea)
4. *Theristus aculeatus* Schulz, 1935 (Kiel Bay)
5. *Theristus agilis* (De Man, 1880) Filipjev, 1918 (Netherlands)
6. *Theristus altenbachi* (Jensen, 1991) (Norwegian Sea)
7. *Theristus ambronensis* Schulz, 1936 (North Sea)
8. *Theristus anisocirculus* Blome, 1982 (Sylt Island, North Sea)
9. *Theristus anisotrichus* Lorenzen, 1972 (Helgoland, North Sea)
10. *Theristus anoxybioticus* Jensen, 1995 (Hirsholm Islands, Denmark)
11. *Theristus athesinus* Andrassy, 1962 (Italy)
12. *Theristus balticus* Lorenzen, 1973 (Kiel Bay)
13. *Theristus bastiani* Wieser in Gerlach and Riemann, 1973 (Kiel Bay)
14. *Theristus biarcospiculoides* Blome, 1982 (Sylt Island, North Sea)
15. *Theristus biarcospiculus* Timm, 1952 (Maryland, USA)
16. *Theristus bipunctatus* Schneider, 1906 (Baltic Sea)
17. *Theristus blandicor* Rachor, 1971 (Wesser estuary, Germany)
18. *Theristus borosi* Andrassy, 1958 (Egypt)
19. *Theristus brevisetosus* Alekseev in Alekseev, 1992 (Lake Khanka, Russia)
20. *Theristus bujumbura* Tsalolikhin in Tsalolikhin, 1989 (Lake Taganyika, Tanzania)
21. *Theristus calx* Wieser and Hopper, 1967 (Florida)
22. *Theristus caudasaliens* Adams and Tyler, 1980 (Cape Elizabeth, USA)
23. *Theristus complexus* Jayasree and Warwick, 1977 (Firth of Clyde, Scotland)

24. *Theristus conicaudatus* Allgén, 1959 (South Georgia, Antarctica)
25. *Theristus copulatus* Jensen, 1986 (Gulf of Mexico)
26. *Theristus darkovi* Tsalolikhin, 1993 (Langano lake, Ethiopia)
27. *Theristus denticulatus* Warwick, 1970 (English Channel)
28. *Theristus discolensis* Bussau, 1993 (Central Pacific Ocean, Peru)
29. *Theristus diversispiculus* Gerlach, 1953 (Chile)
30. *Theristus ensifer* Gerlach, 1951 (St. Peter Ording, Germany, North Sea)
31. *Theristus fimbriatoides* (Chtiwood and Murphy, 1964) Gerlach and Riemann, 1973 (Chile)
32. *Theristus flevensis* (Schuurmans-Stekhoven, 1935) Nasira and Turpeenniemi, 2003 (North Sea)
33. *Theristus franzbergeri* Schiemer, 1984 (Danube river, Austria)
34. *Theristus gracillis* (De Man, 1876) Filipjev, 1918 (Gulf of Naples, Mediterranean)
35. *Theristus heterospiculoides* Gerlach, 1953 (Italia, Mediterranean)
36. *Theristus heterospiculus* (Allgén, 1932) Gerlach, 1953 (Campbell Island)
37. *Theristus inermis* Gerlach, 1953 (Italia, Mediterranean)
38. *Theristus interstitialis* Warwick, 1970 (English Channel)
39. *Theristus lineatus* Gerlach, 1965 (Svalbard)
40. *Theristus littoralis* Filipjev, 1922 (Black Sea)
41. *Theristus longicollis* Blome, 1982 (Sylt Island, North Sea)
42. *Theristus longisetifer* Kito and Aryuthaka, 1998 (Chanthabury, Gulf of Thailand)
43. *Theristus longisetosus* (Stekhoven and De Coninck, 1933) Lorenzen, 1977 (North Sea)
44. *Theristus longispicula* Platonova, 1971 (Sea of Japan)
45. *Theristus longus* Platt, 1973 (Strangford lough, North Island)
46. *Theristus lorenzeni* Pastor de Ward, 1985 (Deseado River, Argentina)
47. *Theristus macer* (Lorenzen, 1973) (North Sea)
48. *Theristus macroflevensis* Gerlach, 1954 (Rodrigo de Freitas Lake, Brazil)
49. *Theristus manicatus* Wieser, 1956 (Chile)
50. *Theristus marinae* Tchesunov, 1981 (Caspian Sea)
51. *Theristus megalaimoides* Wieser, 1956 (Chile)
52. *Theristus melnikovi* Tchesunov, 1986 (Central Arctic Basin)
53. *Theristus metaflevensis* Gerlach, 1955 (El Salvador)
54. *Theristus meyli* Riemann, 1966 (Elbe Estuary, North Sea)
55. *Theristus minimus* Gagarin and Thanh, 2011 (Red River, North Vietnam)
56. *Theristus modicus* Wieser, 1956 (Chile)
57. *Theristus monstrosus* Gerlach, 1954 (Mediterranean)
58. *Theristus norwedicus* (Allgén, 1933) Wieser, 1956 (Norway)
59. *Theristus oistospiculum* Allgén, 1932 (Campbell Island)
60. *Theristus orientalis* Gagarin and Thanh, 2005 (Cam Estuary, Hai Phong, Vietnam)
61. *Theristus otoplanobius* (Gerlach, 1951) Nasira and Turpeenniemi, 2003 (Kiel Bay)
62. *Theristus pakistanesis* (Turpeenniemi, Nasira and Maqbool, 2001) Fonseca and Bezerra, 2013 (Arabian Sea, Pakistan)
63. *Theristus pannonicus* (Andrássy, 1985) Gagarin and Holovachov, 2002 (Keszthely, Hungary)
64. *Theristus parambronensis* Timm, 1952 (Maryland, USA)
65. *Theristus paravelox* Allgén, 1934 (Tarva, Norway)
66. *Theristus pertenuis* Bresslau and Stekhoven in Stekhoven, 1935 (North Sea)
67. *Theristus pictus* Gerlach, 1951 (Sylt Island, North Sea)
68. *Theristus polychaetophilus* Hopper, 1966 (Florida, USA)
69. *Theristus pratti* Murphy and Canaris, 1964 (Indian Ocean, Kenya)
70. *Theristus problematicus* (Allgén, 1928) Wieser, 1956 (Campbell Island)
71. *Theristus profundus* Blome, 1982 (Sylt Island, North Sea)
72. *Theristus psammophilus* Gagarin and Naumova, 2012 (Lake Baikal, Russia)
73. *Theristus pyronasi* Gerlach, 1965 (Svalbard)
74. *Theristus rezaki* Jensen, 1986 (Gulf of Mexico)
75. *Theristus rhynchonemoides* Hopper, 1961 (Gulf of Mexico)
76. *Theristus roscoffiensis* Vitiello, 1967 (English Channel)
77. *Theristus ruffoi* (Andrássy, 1959) (Italia)
78. *Theristus scanicus* Allgén, 1949 (Sweden)
79. *Theristus sonnae* Bussau, 1993 (Central Pacific Ocean, Peru)
80. *Theristus stranus* (Gerlach, 1957) (São Paulo coast, Brazil)
81. *Theristus strelzovi* Galtsova, Platonova, Streltsova and Petukhov, 1980 (Barents Sea)
82. *Theristus subacer* Pavljuk, 1984 (Sea of Japan)
83. *Theristus subcurvatus* Lorenzen, 1977 (Anholt Island, Denmark)
84. *Theristus terricola* Andrássy, 1985 (Budapest, Hungary)
85. *Theristus tessae* Heyns and Coomans, 1989 (Namibia)
86. *Theristus tsalolikhini* Gagarin and Naumova, 2012 (Baikal lake, Russia)
87. *Theristus turbidus* Gagarin and Thanh, 2010 (China Sea, South Coast Vietnam)

88. *Theristus velox* Bastian, 1865 (English Channel)
89. *Theristus vesentinae* Andrásy, 1962 (Italy)
90. *Theristus wegelineae* Andrásy, 1962 (Germany)
91. *Theristus wimmeri* (Wieser, 1959) (Washington, USA)

SPECIES INQUIRENDA LIST

1. *Theristus bathylaimoides* Allgén, 1959 (Falkland Islands)
2. *Theristus bidontolaimus* Allgén, 1959 (Graham Land, Antarctica)
3. *Theristus brachysetosus* Allgén, 1959 (Graham Land, Antarctica)
4. *Theristus brevicollis* (Cobb, 1894) Filipjev, 1922 (Australia)
5. *Theristus chitinolaimus* (Allgén, 1932) Wieser, 1956 (Campbell Island)
6. *Theristus falklandiae* Allgén, 1959 (Falkland Islands)
7. *Theristus helveticus* (Steiner, 1914) Andrásy, 1981 (Switzerland)
8. *Theristus kaszabi* Andrásy, 1977 (Mongolia)
9. *Theristus latissimus* (Filipjev, 1922) Wieser, 1956 (Black Sea)
10. *Theristus leptosoma* Allgén, 1950 (Skagerrak)
11. *Theristus lingi* (Hoeppli and Chu, 1932) Andrásy, 1960 (Chile)
12. *Theristus macropapillatus* Allgén, 1959 (Falkland Islands)
13. *Theristus maspapillatus* (Cobb, 1891) Filipjev, 1918 (Gulf of Aden)
14. *Theristus megalaimus* (Stewart, 1914) Wieser, 1956 (Bay of Bengal)
15. *Theristus meridianus* (Cobb, 1914) Filipjev, 1922 (Antarctica)
16. *Theristus neglectus* (Cobb, 1930) Wieser, 1956 (Antarctica)
17. *Theristus nidrosiensis* (Allgén, 1933) Wieser, 1956 (Norway)
18. *Theristus obtusicephalus* Stekhoven, 1950 (Mediterranean)
19. *Theristus pacificus* (Johnston, 1938) Filipjev, 1918 (Australia)
20. *Theristus parasetosus* Allgén, 1928 (Kristineberg Bay, Sweden)
21. *Theristus parasiticus* (Penso, 1938) Andrásy, 1981 (Libya)
22. *Theristus parvulus* Timm, 1952 (Maryland, USA)
23. *Theristus pellucidus* Allgén, 1939 (Bud, Norway)
24. *Theristus sabulicola* (Filipjev, 1918) Wieser, 1956 (Black Sea)
25. *Theristus strichotricha* Stekhoven, 1950 (Mediterranean)

26. *Theristus tenuicaudatus* Allgén, 1951 (Tautra Island, Norway)
27. *Theristus strandi* Allgén, 1934 (Öresund)

NOMEN NUDUM LIST

1. *Theristus frictor* Wieser and Kanwisher, 1961
2. *Theristus multisetosus* Wieser, 1960
3. *Theristus camelopardis* Wieser, 1959

SPECIES INCERTAE SEDIS LIST

1. *Theristus quadripapillatus* Decraemer and Coomans, 1978 (Lizard island, Australia)

Genus *Trichotheristus* Wieser, 1956

VALID SPECIES LIST

1. *Trichotheristus articulatus* Huang and Zhang, 2006 (Hong Kong, China)
2. *Trichotheristus circumscriptus* Wieser, 1959 (Washington, USA)
3. *Trichotheristus erectus* (Wieser and Hopper, 1967) Gerlach and Rieman, 1973 (Biscay Bay, Spain)
4. *Trichotheristus floridanus* (Wieser and Hopper, 1967) Gerlach and Rieman, 1973 (Biscay Bay, Spain)
5. *Trichotheristus galeatus* (Wieser and Hopper, 1967) Gerlach and Rieman, 1973 (Virginia, USA)
6. *Trichotheristus heterus* (Gerlach, 1957) Wieser and Hopper, 1967 (Itanhaen, Brazil)
7. *Trichotheristus laxis* (Wieser, 1956) Wieser and Hopper, 1967 (Chile)
8. *Trichotheristus longisetosus* (Stekhoven and De Coninck, 1933) Wieser and Hopper (North Sea)
9. *Trichotheristus mirabilis* (Stekhoven and De Coninck, 1933) Wieser, 1956 (North Sea)
10. *Trichotheristus paramirabilis* (Gerlach, 1955) Wieser, 1959 (San Salvador, Bahamas)
11. *Trichotheristus psammoides* (Warwick, 1970) Gerlach and Rieman, 1973 (North Atlantic)
12. *Trichotheristus sanctimarteni* (Timm, 1957) Wieser and Hopper, 1967 (San Martin Island)
13. *Trichotheristus setifer* (Gerlach, 1952) Wieser and Hopper, 1967 (Mediterranean)
14. *Trichotheristus setosus* (Büschli, 1874) Wieser and Hopper, 1967 (Kiel Bay)

Genus *Valvaelaimus* Lorenzen, 1977

VALID SPECIES LIST

1. *Valvaelaimus euxinus* (Filipjev, 1918) Lorenzen, 1977 (Black Sea)

2. *Valvaelaimus maior* (Gerlach, 1956) Lorenzen, 1977 (Kiel Bay)

Genus *Xenolaimus* Cobb, 1920

VALID SPECIES LIST

1. *Xenolaimus pauroamphus* Nichols, 1979 (Georgia, USA)
2. *Xenolaimus striatus* Cobb, 1920 (Florida, USA)

Genus *Xyala* Cobb, 1920

VALID SPECIES LIST

1. *Xyala aestuariensis* Vincx and Furstenberg, 1988 (Sundays River, South Africa)
2. *Xyala barbata* Ward, 1972 (Irish Sea)
3. *Xyala brevibucca* Stewart and Nicholas, 1994 (New South Wales, Australia)
4. *Xyala finneyae* King, Mundo-O campo and De Ley, 2010 (Santa Clara, Gulf of Mexico)
5. *Xyala hamleyi* Stewart and Nicholas, 1994 (Queensland and Northern Territory, Australia)
6. *Xyala imparis* Boucher and Helleouet, 1977 (Pierre Noire, West Channel)
7. *Xyala macramphis* Stewart and Nicholas, 1994 (New South Wales, Australia)
8. *Xyala oxybiotica* Jensen, 1986 (East Flower Garden, Gulf of Mexico)
9. *Xyala psammonalis* Vincx and Furstenberg, 1988 (Sundays River, South Africa)
10. *Xyala riemanni* Boucher and Helleouet, 1977 (Pierre Noire, West Channel)
11. *Xyala sapeloensis* (Nichols, 1979) Blome, 2002 (Georgia State, USA) *New combination*
12. *Xyala smo* Warwick and Platt, 1973 (Scotland)
13. *Xyala striata* Cobb, 1920 (Massachusetts, USA)

SPECIES INQUIRENDA LIST

1. *Xyala exigua* Wieser, 1956 (Chile)

Genus *Zygonemella* Cobb, 1920

VALID SPECIES LIST

1. *Zygonemella striata* Cobb, 1920 (Costa Rica, Pacific Coast)

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