Poster ABSTRACT

POSTER THEME TAXONOMY

Opheliidae (Polychaeta) diversity on the Western Australian coast

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Since 2005 a number of exploratory cruises have taken place off the coast of Western Australia with the objective of better understanding patterns of marine biodiversity. Depths sampled were in the range 100-1000 m and investigations of non-polychaete taxa have revealed large numbers of species previously unknown in Australia, many of which are undescribed. Sampling from a coral reef biodiversity program CReefs has contributed shallow water material from some of the same latitudes. This poster presentation is a summary of Opheliidae diversity and taxonomy from the region. Taxa represented include species of Armandia, Ophelina, Polyophthalmus and Travisia. Each will be described and the significance of the fauna discussed in terms of the objectives of the projects.

Deep sea Syllidae from Southern Brazil

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The deep sea invertebrate fauna of Southern Atlantic Ocean is poorly known, compared to Northern Atlantic and Antarctic waters. As a consequence of this differential sampling effort, the biota composition and the biogeographical patterns of this region are mostly unknown. Therefore descriptive studies are still of fundamental importance to the knowledge of the biodiversity and biogeography of this environment. This study presents the species of Syllidae collected from deep waters off Southern Brazil (700 - 2000m) between 21º18' S and 23º00' S at 44 stations sampled both in winter and summer of 2003, by means of a box-corer gear. This survey was conducted by PETROBRAS/ CENPES (Brazilian Petroleum Company) under the scope of the "Campos Basin Deep-sea Environmental Project". Eleven species of Syllidae were identified: *Parexogone campoyi* (18 spcms; 994 – 1962m), *Parexogone wolfi* (19 spcms; 738 - 1964m), *Parexogone* sp. 1 (15 specs; 698 – 754m), *Parexogone* sp. 2 (2 specs; 1621 – 1650m), *Sphaerosyllis* sp. 1 (17 specs; 749 – 1903m), *Sphaerosyllis* sp. 2 (1 spec.; 722m), *Syllis* cf. *aciculigrossa* (1 spec.; 749m), *Prosphareosyllis isabellae* (1 spec.; 1045m), *Exogone anomalochaeta* (3 specs; 749 – 1050m) and *Anguillosyllis* sp. (7 specs; 1035 – 1654m). This is the first report of the

generically named Lessepsian migrants. During a survey on the polychaete fauna of the Mar Menor littoral lagoon, in the south-eastern Spain, the presence of a dense population of *Branchiomma boholense* (Grube, 1878) has been detected. It represents the most western record of this sabellid polychaete in the Mediterranean Sea and its first record for the Iberian Peninsula; however, it is locally common in the Eastern Mediterranean, where it spread from its Indo-Pacific origin. In its Spanish location, *B. boholense* was mostly found forming dense aggregates of specimens associated with *Caulerpa prolifera* meadows. Based on the newly collected material, a characterization of the species is provided; it can be distinguished from other species within the genus by
the shape of its macrostylodes, which differ from adjacent stylodes in being up to four times longer, tongue-shaped and flattened instead of digitiform and cylindrical.

Deep Sea Pilargidae from southern Brazil

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In this study we identified specimens from the family Pilargidae collected during "Habitats Project – Campos Basin Environmental Heterogeneity coordinated by CENPES/ PETROBRAS" and by other cruises in Campos Basin at depths ranging from 400 to 3.000 m. The Campos Basin is considered the largest oil reserve in the Brazilian continental shelf, covering an area about 100000 km² extending from the State of Espírito Santo to the northern coast of Rio de Janeiro State. Identifications, descriptions and illustrations were made with stereomicroscope and optic microscope, besides the use of digital camera. At the moment, we identified a total of 59 pilargids belonging to eight species were found, 37 from *Synelmis* cf. *klatti*, 2 *Sigambra* aff. *setosa*, 1 *Sigambra tentaculata* 1, *Ancistrosyllis breviceps,* 2 *Ancistrosyllis* sp.1, 4 *Ancistrosyllis* sp.2, 9 *Ancistrosyllis* sp.3 and 3 *Ancistrosyllis* sp. 4. Four out of these eight species, *Ancistrosyllis* sp.1, *Ancistrosyllis* sp.2, *Ancistrosyllis* sp.3 and *Ancistrosyllis* sp.4, showed a strong affinity to the Gulf of Mexico however are still under investigation. The geographic distribution of many species will be extended.

Brief review of Japanese Spirorbinae

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First data on Japanese Spirorbinae were published by Bush (Moore, Bush,1904; Bush,1905) who described 4 new species: *Spirorbis argutus, S. foraminosa, S. bellulus* and *S. dorsatus*.

Okuda (1934; 1937) described *S. nipponicus* and recorded a new for Japan *S. spirillum*. Abe (1943) recorded *S. pagenstecheri*, described biology of *S. argutus* and mentioned two unidentified spirorbins tentatively naming one *S. asamusiensis* without any reference.. The first review of Japanese Spirorbinae (Imajima, Hartman,1964) included 6 species recorded by Bush and Okuda (but not Abe) and a new for Japan *Leodora coronatus*; "*nipponicus*" was synonymized with *Dexiospira alveolatus*. Uchida (1971; 1978) recorded 12 species, including six new ones (*Paradexiospira nakamurai, Dexiospira oshorensis, D. ainu, Laeospira pacifica, L. rosepigmentata, Leodora multiplata*) and three new for Japan (*Spirorbella tricornigera, Pileolaria militaris, Simplicaria pseudomilitaris*). Later all new Uchida's species and *S. tricornigera* were synonymized with other species (Knight-Jones P. et al., 1975; 1979; Knight-Jones & Knight-Jones 1977; Thorp et al., 1986) all of them remained new for Japanese fauna. Also Knight-Joneses recorded two new species for Japan (*Circeis armoricana* and *Sinistrella verruca*). Rzhavsky (1989) concluded that "*spirillum*" from Japan in fact was *C. armoricana*. The final list of Japanese spirorbins now includes 19 species, including our new data: *Spirorbis marioni, C.armoricana, Paradexiospira vitrea, Protolaeospira sp.(striata?)* (new for Japan), *Pileolaria ex.gr. berkeleyana, Pileolaria* n.sp.), *P.cornuarietis* (=*P. militaris*), *Bushiella verruca, B. quadrangularis, B. similis* (new for Japan), *Protoleodora coronata, P. gracilis (new for Japan), Janua pagenstecheri, Neodexiospira alveolata, N. brasiliensis, N. foraminosa, N. preacuta* (new for Japan and North Pacific) and *N.pseudocorrugata.* In addition, *S. dorsatus* and *S. asamusiensis* are *nomen dubium* and *nomen nudum*; *S.argutus sensu* Bush, (not Abe) is probably the same as *Eulaeospira orientalis*. We suggest that *Bushiella evoluta, Protoleodora uschakovi* and true *Circeis spirillum* should be present at least in the North of Japan.

Syllinae (Annelida: Polychaeta) from the Southern Mexican Pacific, with the description of four new species

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A study dealing with soft bottom macrobenthic fauna took place in the west coast of Acapulco Bay, Southern Mexican Pacific. 669 specimens of the Subfamily Syllinae Grube, 1850 (Syllidae) were collected; they belong to three genera and ten species. The samples were taken by SCUBA-divers and by means of a suction sampler (60 cm diameter) operated by compressed air from a SCUBA tank. Four species are new to science, belonging to the genera *Plakosyllis* Hartmann-Schröder, 1956, *Trypanosyllis* Claparède, 1864 and *Syllis* Savigny, 1818. The new species of *Plakosyllis* is characterized by having compound falcigers with very long and fine spines and the three antennae in ventral position, partially or completely covered by the prostomium; the genus is newly recorded for the American Pacific. The new species of *Trypanosyllis* is characterized by having bidentate falcigers with an inconspicuous notch and by having a pair of dorsal eyes and a pair of ventral eyes.