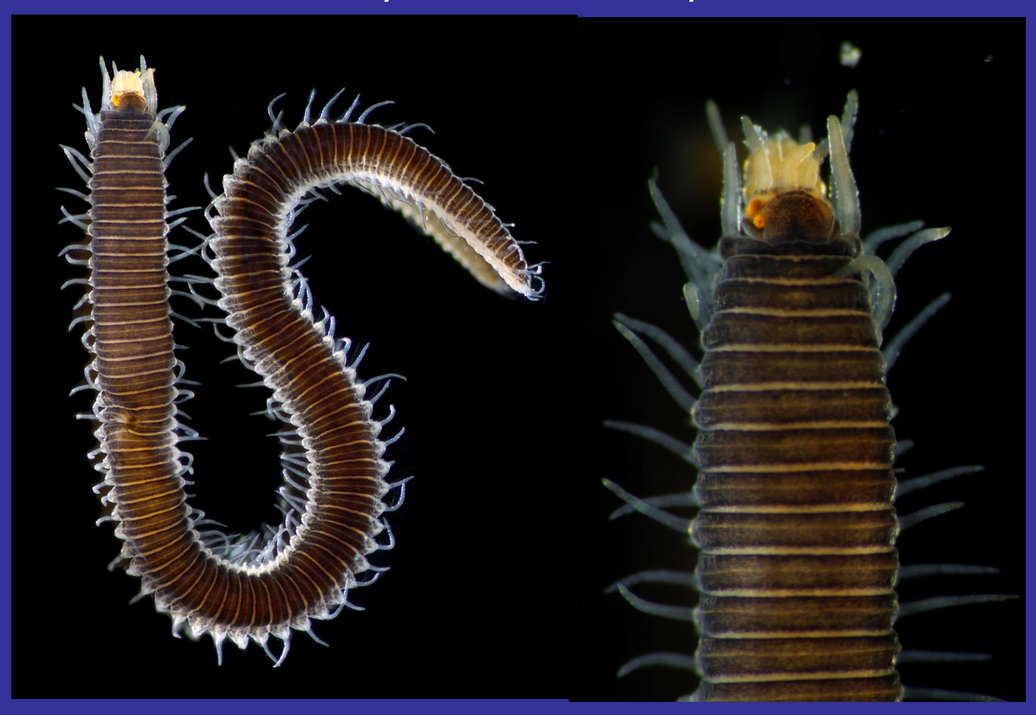
4 new & 1 revalidated species from California (Polychaeta)

Leslie Harris

Natural History Museum of Los Angeles County (USA)

IPC 12, Wales, UK

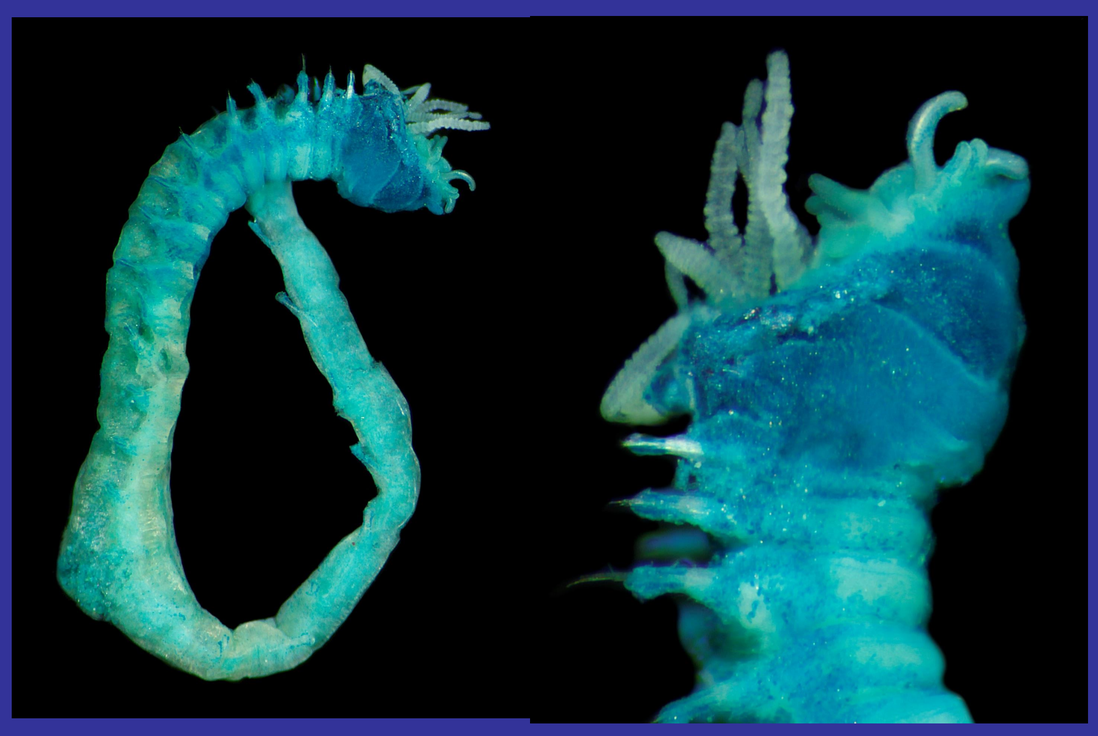
The polychaete fauna of the Northeast Pacific from Western Mexico through Alaska is considered to be one of the best defined in the world due to the extensive efforts of J. Percy Moore, Herbert P. Johnson, Edith and Cyril Berkeley, Olga Hartman, Kristian Fauchald, James Blake, and others. The Southern California Association of Marine Invertebrate Taxonomists has contributed greatly to regional knowledge for the last 30+ years by disseminating unpublished information, and standardizing taxonomic usage for the coast. None the less, many species remain undiscovered either because they live in under-sampled habitats or from confusion with morphologically similar species described from the northeast Pacific and elsewhere. For example, 36 out of 207 species collected in 5 samples taken off the Channel Islands in a recent survey are thought to be undescribed (LH, pers. records). Some provisional species have been recognized for over 40 years by regional taxonomists but have yet to be formally described. 4 new and 1 revalidated species are reported here.



Amaeana sp. A (Terebellidae), a distinctive species with conspicuous brown rings, was introduced into San Francisco Bay around the year 2000. Also known from 1 bay near Tokyo, Japan where it is considered to be a local species on the verge of going extinct (E. Nishi, per. comm.). It may be that the species is introduced in both areas. Does not match any species in the recent papers by Glasby & Hutchings (2014) and Nogueira, Hutchings, & Carrette (2015)

Hesperalia californiensis Chamberlin, 1919 (Syllidae), was synonymized with *Odontosyllis phosphorea* Moore, 1909, by Hartman (1961). Older specimens in the LACM-AHF polychaete collection were all identified as *O. phosphorea*. Based on examination of the type, LACM_AHF specimens, and fresh material it is newly revalidated as *Odontosyllis californiensis*.

Left: In 1997, *Eumida* sp 11 (Phyllodocidae) was found in low intertidal *Phragmatopoma* colonies off Malibu and not seen again until May 2016 in the same place and habitat. Right: *Eulalia* sp 12 (Phyllodocidae) also comes from Malibu & is equally rare which is likely to reflect how seldom the habitat is sampled for small organisms. Living coloration of both species is unique for the coast. Coloration, proportions of the antennae, tentacular cirri, & parapodial cirri distinguish these from all other *Eumida* & *Eulalia* species in the northeast Pacific.



Octobranchus sp A (Trichobranchidae) was established by Sue Williams in 1977 and remains undescribed due to both its rarity & the poor condition of most specimens. This specimen was taken during the Channel Island survey mentioned above, off San Miguel Island, 71 meters. Favors rocky and mixed substrates, from 71 to 600 meters.

Natural History Museum of Los Angeles County