

Research Article

Polychaetes (Annelida: Polychaeta) described for the Mexican Pacific: an historical review and an updated checklist*

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ABSTRACT. An updated checklist of the polychaete species described for the Mexican Pacific and an historic review of their study are presented. The taxonomic list includes nomenclature references, data of the type locality and synonyms based on systematic revisions. In the study area, 313 species of polychaetes and 21 genera have been described, of which 278 species are currently valid. Several descriptions (28%) of the valid species failed to indicate the habitat of the type locality. The remaining 199 valid species were described for a large variety of habitats: algae (11 species), mangroves (2), hard bottoms (22), soft bottoms (continental shelf = 65 species; deep sea = 78 species), hydrothermal vents (17), and others (parasites, larval planktonic forms, epitokes) (4). The species descriptions for the Mexican Pacific can be divided into four main periods: the first, during the 1910s, includes mainly Chamberlin's studies of deep sea fauna. The second, in the 1940s, comprises studies carried out by Rioja (intertidal zone) and Hartman (including specimens from the Allan Hancock Foundation collection). The third period began around the 1970s when Fauchald's studies were published and 77 currently valid species were described for western Mexico. The fourth period began in the 1980s and continues to date, being characterized by descriptions of species done mainly by Mexican scientists. The differences in the number of species described during each period and for the different regions of the Mexican Pacific are directly related to the sampling effort carried out along these coasts.

Keywords: Polychaeta, benthos, biodiversity, geographic distribution, Mexican Pacific.

Los poliquetos (Annelida: Polychaeta) descritos en el Pacífico mexicano: revisión histórica y lista faunística actualizada

RESUMEN. Se presenta una lista taxonómica de las especies de poliquetos descritas en el Pacífico mexicano y una revisión histórica de su estudio. El listado incluye referencias nomenclaturales, información sobre la localidad tipo y sinonimias basadas en revisiones sistemáticas. Un total de 313 especies y 21 géneros han sido descritos en el área de estudio, de ellas, 278 especies son actualmente válidas. El 28% de las descripciones de las especies válidas no incluyeron el hábitat de la localidad tipo. Las 199 especies válidas restantes fueron descritas en una amplia variedad de hábitats: algas (11 especies), manglares (2), fondos duros (22), fondos blandos (plataforma continental = 65 especies; mar profundo = 78 especies), ventanas hidrotermales (17) y otros (parásitos, formas larvales planctónicas, epitocas) (4). La descripción de especies en el Pacífico Mexicano puede ser dividida en cuatro períodos principales: el primero en la década de 1910 incluye principalmente los trabajos de Chamberlin sobre la fauna de aguas profundas. El segundo, en la década de 1940, comprende los estudios realizados por Rioja en la zona intermareal y por Hartman que incluyó especímenes de la colección de la Allan Hancock Foundation. El tercer periodo se inició alrededor de 1970 en que se publicaron los estudios de Fauchald que describen 77 especies actualmente válidas del oeste de México. El cuarto periodo se inició en la década de 1980 y continúa hasta la fecha, caracterizado por la descripción de especies realizada por científicos mexicanos. Las diferencias observadas en el número de especies descritas en cada periodo y en cada región del Pacífico mexicano están asociadas con el esfuerzo de muestreo llevado a cabo a lo largo de estas costas.

Palabras clave: Polychaeta, bentos, biodiversidad, distribución geográfica, Pacífico mexicano.

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INTRODUCTION

The study of polychaetes in the Mexican seas started during the second half of the nineteenth century, when Kinberg (1857) recorded the amphinomid *Hermodice carunculata* (Pallas, 1776). Unfortunately, he did not record the sampled site precisely, only noting "Mexico" as the sampling location. However, we consider it plausible that the amphinomid was collected in the Veracruz littorals due to the economic importance of the Veracruz Port at the time and because the records show that this species is common in the littoral grassbeds and coral reefs of the Gulf of Mexico (Johnson & Vittor, 1982). Thirty years later, Ehlers (1887) identified *Spirobranchus incrassatus* (Krøyer, 1863) in the Bay of Acapulco, the first record for the Mexican Pacific, but it was not until 1904 that Bush described a new species from the Mexican Pacific region: the serpulid *Eupomatus humilis*, a species currently valid as *Hydroides humilis* *fide* Pillai (1972).

During the following years, the study of polychaetes in the Mexican Pacific increased, mainly due to foreign oceanographic expeditions and researchers that enriched some of the world's prestigious scientific collections, particularly those of the Los Angeles County Museum of Natural History and the Allan Hancock Foundation, in Los Angeles, California. For the last 24 years, systematic studies carried out by Mexican researchers have increased considerably and shown a consistent and continuous effort in the area. Nowadays, more than 1,100 species of polychaetes have been recorded for the Mexican Pacific; however, most of these studies were done in the Gulf of California, whereas the southern coasts have been comparatively less studied (Hernández-Alcántara, 2002).

Initial efforts to summarize the information about polychaetes from the Mexican Pacific were done by Rioja (1941b, 1947b), Salazar-Vallejo (1989a), Hernández-Alcántara & Solís-Weiss (1999), Hernández-Alcántara *et al.* (2003), and Salazar-Vallejo & Londoño-Mesa (2004). These taxonomic lists are undoubtedly a highly valuable contribution to the knowledge of the polychaete fauna. However, despite this remarkable scientific effort to understand the polychaetae fauna in the region, differences in nomenclature and the criteria for taxa definitions have always been common. This is in part due to the relatively frequent revisions of genus and synonym procedures, but also because the lack of integrative taxonomic monographs and updated checklists for this region has caused confusion in nomenclature and in the real distribution ranges of many species. This study aims to present an updated list with the original and currently valid names for the polychaete species whose *locus typicus* is in the Mexican Pacific, to carry out an historical review, and to analyze the recorded

species distributions and habitats. With this, we hope to contribute to the worldwide effort to standardize polychaete nomenclature, in this case, in the Eastern Pacific.

MATERIALS AND METHODS

The checklist for the polychaete species described from the Mexican Pacific was made following an exhaustive bibliographic review and analysis of the original descriptions. The list includes the nomenclature reference for each polychaete species (original name, year of publication, pages, figures), data for the type locality, depth and habitat (as complete as possible, based on the information in the original description), and the current valid name (citing the author who introduced the taxonomic change). In addition, the number of species for each biogeographic province is indicated. The state to which the type locality belongs is noted only in order to facilitate the search within the country since the political divisions have no biogeographic meaning.

At the end of this paper, the complete references of the consulted publications are provided. In this way, we hope to reduce the time invested when further information is needed for other specific objectives.

Mexican Pacific coasts and biogeographic provinces

The Mexican Pacific littorals cover 4,054 km and are located between 15° and 32°N, along the Tropic of Cancer, crossing the southern Baja California region (Fig. 1). Its water masses of different origins (arctic, subarctic, tropical, subtropical) (Wirtky, 1967) combine with the diversified physiography to create many habitats: muddy and sandy beaches, rocky shores, bays, coastal lagoons and estuaries, about 240 islands and islets of different origins and geological ages, mangroves and seagrass beds, and even active expansion centers in the bottoms of the central zones with their corresponding hydrothermal vent areas (Guaymas Basin and 21°N).

The different marine regions in the Mexican Pacific are separated by steep thermal gradients to the north and south and by an area of open ocean (East Pacific Barrier) to the west. The boundaries of the biogeographic provinces used herein are taken from several authors: Briggs (1995), Hendrickx (1992), and Hastings (2000), who separated them on the basis of the distribution patterns of fishes and marine invertebrates. The northwestern littorals of Mexico are environmentally classified as warm-temperate and belong to the Californian biogeographic province which goes from south of Point Concepcion (near Santa Barbara, California) down to northern Magdalena Bay, southwest of the Baja California Peninsula (Brusca, 1980; Hastings, 2000) (Fig. 1). The topographic characteristics of the

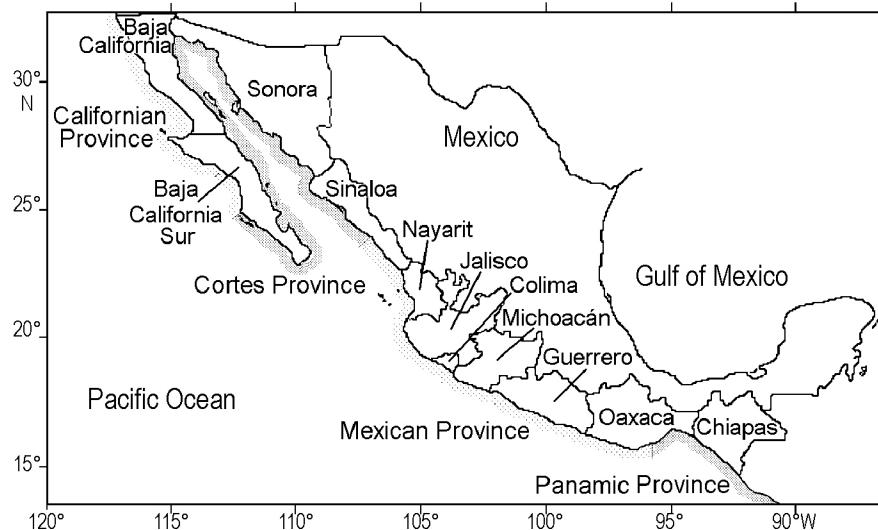


Figure 1. Distribution of the main biogeographic provinces and federal entities (States) along the Mexican Pacific Region.

Figura 1. Distribución de las principales provincias biogeográficas y entidades federativas (Estados) en la región del Pacífico mexicano.

Baja California Peninsula shoreline protect it from the cold southbound California Current and help to create a warm-temperate area along the southern California coasts (Briggs, 1995).

The Tropical Eastern Region extends from the Gulf of California southward to northern Peru, where a fauna with tropical affinities dominates (Brusca, 1980; Hastings, 2000). In the Mexican Pacific area, the tropical region encloses the Cortes, the Mexican, and the Panamanian biogeographic provinces. The Cortes Province corresponds to the Gulf of California, including the entire eastern and most of the southwestern coasts of the Baja California peninsula. The Gulf of California is primarily tropical in origin but could well be considered subtropical: its northernmost areas are primarily populated by eurythermal tropical species, whereas the southern fauna gradually evolves spatially to a more typical tropical biota (Brusca, 1980). The Mexican Province includes the coasts from Mazatlán (Sinaloa) down to the Isthmus of Tehuantepec in southern Mexico. At about 16°N, in the northern part of the Gulf of Tehuantepec, another faunal change can be observed; the area from that point southward to the Gulf of Guayaquil (3°S) is known as the Panamic Province (Briggs, 1995).

RESULTS

Taxonomic richness of polychaetes in Mexican Pacific waters

In the Mexican Pacific, the number of polychaete species recorded to date is approximately 1,100 (Hernández-Alcántara, 2002); of these, 313 species (278 currently valid) and 21 genera have their *locus typicus* in the Mexican Pacific (Table 1). The serpulid *Eupomatus humilis* (currently valid as *Hydroides humilis*) (Bush, 1904) was the first species found whose *locus typicus* is in the Mexican Pacific. During the twentieth century, significant contributions were made to the taxonomy of Mexican polychaetes and 313 polychaete species, grouped in 162 valid genera and 41 families, were described. As our knowledge on the systematics of the group have increased, the taxonomic status has changed frequently and so, of the original 313 species described, only 278 polychaete species are valid nowadays.

Species belonging to the families Acoetidae (*Polyodontes californicus*) and Lopadorrhynchidae (*Lopadorrhynchus parvus*) have been synonymized; therefore, these families have no new species in the Mexican Pacific region. In 1969, Hartman established the family Sabellongidae for the genus *Sabellonga* (as monotype) and the species *Sabella disjuncta*, collected at 115 m in Cedros Island, Baja California. However, according to Fitzhugh (1989), Hartman interpreted the ventral lips or maybe the ventral sacs, as palps, and the species type (*S. disjuncta*)

Table 1. List of the species of polychaetes described for the Mexican Pacific (* species not valid presently; * new genera).**

Tabla 1. Lista de especies de poliquetos descritas en el Pacífico Mexicano (* especies no válidas en la actualidad; * género nuevo).**

CLASS POLYCHAETA Grube, 1850

Family Acoetidae Kinberg, 1858

**Polyodontes californicus* Treadwell, 1941: 20, figs. 9-12. Chamela Bay, Jalisco (= *Polyodontes lupinus* (Stimpson, 1856) *fide* Pettibone, 1989b: 120).

Family Acrocirridae Banse, 1969

Acrocirrus incisa Kudenov, 1975b: 212-215, figs. 11-23. Puerto Peñasco, Sonora; rocks.

Flabelligela mexicana Fauchald, 1972: 223-224, pl. 45, figs. f-g. Natividad Island, Baja California Sur; 1687-1696 m, green muds.

Flabelliderma macrochaeta Fauchald, 1972: 222-223, pl. 46, figs. a-b. Punta Piedras, San Juanito, Nayarit; 1458 m. (= *Flabelligella macrochaeta* (Fauchald, 1972) new status to Family Flabelligeridae *fide* Light, 1978: 687).

Family Ampharetidae Malmgren, 1866

Ampharete homa Chamberlin, 1919: 444-447, pl. 77, figs. 7-8. Tepuches, Sonora; 1546 m.

Amphicteis obscurior Chamberlin, 1919: 447-448, pl. 76, figs. 1-2, pl. 77, fig. 3. Guerrero; 887 m.

Amphicteis orphnus Chamberlin, 1919: 450-451, pl. 76, figs. 3-4, pl. 77, figs. 1-2. Guerrero; 887 m.

Amphicteis uncopalea Chamberlin, 1919: 448-450, pl. 76, figs. 5-6, pl. 77, fig. 4. Nayarit; 1217 m.

Amphisamytha fauchaldi Solís-Weiss & Hernández-Alcántara, 1994: 128-131, figs. 1 a-e. Guaymas Basin, Sonora, hydrothermal mounds; 2000-2020 m.

Anobothrus bimaculatus Fauchald, 1972: 289-291, pl. 56, figs. a-f. Las Áimas Island, Baja California; 864-1197 m.

Anobothrus mancus Fauchald, 1972: 291-293, pl. 59, figs. g-i. Espíritu Santo Island, Baja California Sur; 711 m.

****Ecamphicteis elongata* Fauchald, 1972: 294-295, pl. 60, figs. a-d. Cabo Falso, Baja California; 2610 m.

****Egamella quadribranchiata* Fauchald, 1972: 296-297, pl. 60, fig. a. Natividad Island, Baja California Sur; 1080-1188 m.

Lysippe mexicana Fauchald, 1972: 299-301, pl. 61, figs. b-d. Natividad Island, Baja California Sur; 779-830 m.

Melinna exilia Fauchald, 1972: 302-303, pl. 62, figs. a-c. Tortuga Island, Baja California Sur; 1584-1620 m.

Melinna plana Fauchald, 1972: 304-305, pl. 63, figs. a-b. Tortuga Island, Baja California Sur; 1584-1620 m.

Melinna tentaculata Fauchald, 1972: 305-307, pl. 64, figs. a-d. San José Island, Baja California Sur; 2394 m.

****Mexamage corrugata* Fauchald, 1972: 310-312, pl. 65, figs. a-c. Tortuga Island, Baja California Sur; 1584-1620 m.

Sabellides delus Chamberlin, 1919: 455-456, pl. 77, fig. 13. Western Baja California; 1546 m. (= *Amage delus* (Chamberlin, 1919) *fide* Fauchald, 1972: 278).

Sabellides manriquei Salazar-Vallejo, 1996: 143-147, figs. 1-10. Northeastern Ángel de la Guarda Island, Baja California; 65-82 m.

**Samyphella interrupta* Fauchald, 1972: 313-314, pl. 66, figs. a-b. Natividad Island, Baja California Sur; 1080-1188 m. (= *Samyphella elongata* Verrill 1873 *fide* Jirkov 1986: 330).

**Samyphella pala* Fauchald, 1972: 315-316, pl. 66, figs. c-f. Northern Gulf of California; 894 m. (= *Samyphella elongata* Verrill 1873 *fide* Jirkov 1986: 330).

Family Amphinomidae Savigny in Lamarck, 1818

Chloea entypa Chamberlin, 1919: 30-31, pl. 13, figs. 8-9, pl. 14, figs. 1-2. Western Mexico; 118.8 m.

Eurythoe complanata mexicana Berkeley & Berkeley, 1960: 358. San Carlos Bay, Sonora.

Linopherus kristiani Salazar-Vallejo, 1987: 77, figs. 1-2. Manzanillo, Colima; 35 m.

Pseudeurythoe abyssalis Fauchald, 1972: 41-43, pl. 3, figs. a-f. Natividad Island, Baja California Sur; 2322 m. (= *Linopherus abyssalis* (Fauchald, 1972)).

Pseudeurythoe tripunctata Kudenov, 1975a: 70. Soldado Estuary, Sonora; in mangrove roots. (= *Linopherus tripunctata* (Kudenov, 1975a)).

Family Aphroditidae Malmgren, 1867

Aphrodisia falcifera Hartman, 1939a: 23-24, pl. 1, figs. 11-15, pl. 26, figs. 319-320. Cedros Island, Baja California; 18-27 m.
Aphrodisia mexicana Kudenov, 1975a: 66, figs. 1-8. San Felipe, Baja California; 29-38 m.
Aphrodisia sonorae Kudenov, 1975c: 75, fig. 1. San Felipe, Baja California; 36 m.
Pontogenia laeviseta Hartman, 1939a: 24-26, pl. 2, figs. 16-30. Western Mexico and Pacific coasts of Panama; 144 m.

Family Arenicolidae Johnston, 1835

Arenicola glasselli Berkeley & Berkeley, 1939: 340. San Felipe, Baja California.

Family Capitellidae Grube, 1862

Dasybranchus parplatyceps Kudenov, 1975b: 218-220, figs. 31-34. Puerto Peñasco, Sonora; in silt, under rocks.
Dasybranchus platyceps Hartman, 1947: 435-437, pl. 55, figs. 1-5. Sonora.
****Leiocapitella glabra* Hartman, 1947: 438-439, pl. 54, figs. 1-3. Baja California; 52-99 m.
****Neonotomastus glabrus* Fauchald, 1972: 245-246, pl. 50, figs. a-c. San José Island, Baja California Sur; 2394 m.
****Notodasus magnus* Fauchald, 1972: 246-247, pl. 51, figs. a-c. Del Carmen Island, Baja California Sur; 171 m.
Notomastus abyssalis Fauchald, 1972: 248-249, pl. 51, figs. d-g. San José Island, Baja California Sur; 2322 m.
Notomastus angelicae Hernández-Alcántara & Solís-Weiss, 1998b: 713-716, figs. 1a-f, 2. El Fuerte River, Sinaloa; in silt, 28 m.
Notomastus cinctus Fauchald, 1972: 250-251, pl. 50, figs. d-h. María Magdalena Island, Nayarit; 3348 m.
Notomastus lobatus Hartman, 1947: 415-417, pl. 51, figs. 1-5. Espíritu Santo Island, Baja California Sur; 29 m.
Notomastus sonorae Kudenov, 1975b: 221-223, figs. 35-39. Cholla Bay, Sonora; in sand.

Family Chaetopteridae Malmgren, 1867

Mesochaetopterus mexicanus Kudenov, 1975b: 210-211, figs. 6-10. Puerto Peñasco, Sonora; in sand.
Mesochaetopterus rickettsii Berkeley & Berkeley, 1941: 43-44, figs. 15-16. Ensenada Estuary, Baja California.

Family Chrysopetalidae Ehlers, 1864

Paleaequor psamathae Watson-Russell, 1986: 168-170, figs. 22-24. Punta Pelícano, Sonora.
Paleonotus purpurea Rioja, 1947b: 517-519, figs. 1-7. El Mogote, La Paz, Baja California Sur; in *Pinna* shells.

Family Cirratulidae Ryckholdt, 1851

**Cirratulus inhamatus* Treadwell, 1937: 153, pl. 2, fig. 25. Eastern Cedros Island, Baja California; 68.4 m. (= *Aphelochaeta multifilis* (Moore, 1909) *fide* Hartman, 1956: 291 & Blake, 1991: 28).
**Cirratulus niger* Hartman, 1939b: 17-18, fig. 3b. Socorro Island, Colima; sand, 12.6-14.4 m. (= *Cirriformia punctata* (Grube, 1859) *fide* Hartman, 1956: 292).
Cirratulus sinincolens Chamberlin, 1919: 377-379, pl. 70, figs. 7-10. Tepuches, Sonora; 1546 m.
Cirratulus revillagigedoensis Rioja, 1959: 250-254, figs. 1-13. Ensenada Vargas Lozano, Socorro Island, Colima; swarming epitoke.

Family Cossuridae Day, 1963

Cossura brunnea Fauchald, 1972: 208-210, pl. 41, figs. a-e. Tortuga Island, Baja California Sur; 1791 m.
Cossura rostrata Fauchald, 1972: 211-212, pl. 41, figs. f-h, pl. 42, fig. a. María Madre Island, Nayarit; 3348 m.
Cossura sima Fauchald, 1972: 212-213, pl. 42, figs. b-d, pl. 43, figs. a-d. María Madre Island, Nayarit; 3348 m. (= *Cossurella sima* (Fauchald, 1972) *fide* Salazar-Vallejo & Donath-Hernández, 1984: 62).

Family Dorvilleidae Chamberlin, 1919

Exallopus jumarsi Blake, 1985: 92-94, figs. 16-17. Guaymas Basin, Sonora, hydrothermal mounds; 2000-2010 m.
Ophryotrocha platykephale Blake, 1985: 90, figs. 14-15. Guaymas Basin, Sonora, hydrothermal mounds; 2000-2020 m. (Redescription in Solís-Weiss & Hilbig, 1992: 92).

Family Eunicidae Savigny, 1818

Eunice biannulata mexicana Fauchald, 1970: 27-28, pl. 1, figs. f-g. Isabel Island, Nayarit; 18-33 m, in coralline bottoms. (= *Eunice mexicana* (Fauchald, 1970) *fide* Fauchald, 1992: 81).

- Eunice cedroensis* Fauchald, 1970: 29-31, pl. 2, figs. a-e. Todos los Santos Island, Baja California; 73 m, sands, muds and shells.
- Eunice megabranchia* Fauchald, 1970: 33-36, pl. 4, figs. a-e. Guaymas, Sonora; 894 m.
- Eunice orensanzi* de León-González, 1990: 259-263, figs. 1a-g, 2a-d. Baja California Sur; 65 m.
- Eunice pulvinopalpata* Fauchald, 1982a: 781-785. figs. 1a-f. East Pacific Rise, geothermal vents at 21° N.
- Eunice reducta* Fauchald, 1970: 39-43, pl. 5, figs. a-i. De los Frailes Bay, Baja California Sur; 48 m, sand.
- Eunice semisegregata* Fauchald, 1969: 8-10, figs. 4a-e. Acapulco, Guerrero; 902 m, green muds.
- Eunice sonorae* Fauchald, 1970: 45-48. pl. 6, figs. a-g. Puerto Peñasco, Sonora; rocky intertidal. (Redescription in de León-González & Salazar-Vallejo, 1987).
- Eunice unidentata* Rioja, 1962: 175-178, figs. 77-83. San Roque Island, Baja California Sur.
- Eunice vittatopsis* Fauchald, 1970: 50-52, pl. 7, figs. a-d. Ensenada San Francisco, Sonora; intertidal.
- Leodice segregata* Chamberlin, 1919: 237-240, pl. 54, figs. 1-4. Southwestern Mexico; 902 m, green muds. (= *partim Eunice semisegregata* Fauchald, 1969 *fide* Fauchald, 1969: 8).
- Marpophysa angelensis* Fauchald, 1970: 57-59, pl. 8, figs. a-h. Ángel de la Guarda Island, Baja California; 19.8 m, in sand.
- Marpophysa mixta* Fauchald, 1970: 61-63, pl. 9, figs. a-h. Tangola Bay, Oaxaca; intertidal.

Family Fauveliopsidae Hartman, 1971

- Fauvelopsis rugosa* Fauchald, 1972: 220-222, pl. 45, figs. a-e. Natividad Island, Baja California Sur; 1696-1723 m.

Family Flabelligeridae de Saint-Joseph, 1894

- Brada verrucosa* Chamberlin, 1919: 399-400, pl. 68, figs. 3-6. Western Mexico; 887.4 m, green muds.
- Flabelliderma macrochaeta* Fauchald, 1972: 222-223, pl. 46, figs. a-b. Punta Piedras, San Juanito, Nayarit; 1458 m. (= *Flabelliderma macrochaeta* (Fauchald, 1972), new Genus and new status to Family Acrocirridae *fide* Light, 1978: 687).
- Ilyphagus bythincola* Chamberlin, 1919: 402-403, pl. 69, figs. 4-9. Western Mexico; 3496 m.
- Ilyphagus caudatus* Rioja, 1962: 191-195, figs. 94-98. Asunción Island, Baja California Sur; 21.6 m.
- Pherusa abyssalis* Fauchald, 1972: 226-228, pl. 47, figs. a-e. Cerralvo Island, Baja California Sur; 1071 m.
- Piromis gracilis* Hartman, 1961: 123-124, pl. 29, figs. 1-4, pl. 30, figs. 1-9. Oaxaca.
- Piromis hospitis* Fauchald, 1972: 229-231, pl. 48, figs. a-e. Del Carmen Island, Baja California Sur; 171 m.

Family Glyceridae Grube, 1850

- Glycera branchipoda* Moore, 1911: 302-304, pl. 20, figs. 155-156, pl. 21, figs. 157-159. Off Cabo Colnett, Baja California; 2520 m.
- **Glycera profundi* Chamberlin, 1919: 350-352, pl. 64, figs. 2-6. Sonora; 1546 m, muds. (= *Glycera branchiopoda* Moore, 1911 *fide* Böggemann, 2002: 41).
- Hemipodus armatus* Hartman, 1950: 83, pl. 12, figs. 1-5. Petatlán Bay, Guerrero; 9-18 m, hard sand and shell. (= *Hemipodia armata* (Hartman, 1950) *fide* Böggemann, 2002: 84).
- **Hemipodus mexicanus* Chamberlin, 1919: 349-350, pl. 63, figs. 2-3. San Pedro Nolasco Island, Sonora; 1130 m, brown muds with black specks. (= *Glycera branchiopoda* Moore, 1911 *fide* Böggemann, 2002: 41).

Family Goniadidae Kinberg, 1866

- ****Bathyglycinde mexicana* Fauchald, 1972: 108-110, pl. 23, figs. a-g. Farallón Basin, Baja California Sur; 2394 m.
- **Bathyglycinde cedroensis* Fauchald, 1972: 107-108, pl. 23, figs. h-n. Off Cedros Island, Baja California; 2362-2439 m, green muds. (= *Bathyglycinde lindbergi* (Uschakov, 1955) *fide* Böggemann, 2005: 198).
- Goniada acicula* Hartman, 1940: 252, pl. 44, figs. 132-141. Eastern Ángel de la Guarda Island, Baja California; 72 m, sand.

Family Hesionidae Sars, 1862

- ****Hesiolyra bergi* Blake, 1985: 75, figs. 4a-h. East Pacific Rise, geothermal vent at 21°N; 2615-2633 m.
- Microphtalmus riojai* Reish, 1968: 74, fig. 4a. De los Ángeles Bay, Baja California; in sands.
- Orseis grasslei* Blake, 1985: 78, figs. 6a-d. Guaymas Basin, Sonora, hydrothermal mounds; 2010 m.

Family Lopadorrhynchidae Claparède, 1868

**Lopadorrhynchus parvum* Chamberlin, 1919: 114, pl. 17, figs. 6-7. Galero Point, Oaxaca; 540 m to surface. (= *Lopadorrhynchus brevis* Grube, 1855 *fide* Tebble, 1962: 417).

Family Lumbrineridae Malmgren, 1867 emended Orensanz, 1990

Cenogenus eliae Hernández-Alcántara, Pérez-Mendoza & Solís-Weiss, 2006: 86-87, fig. 4. Punta Mita, Nayarit; 76 m, fine sand, silty sand.

**Lumbrineris branchiata* Fauvel, 1943: 22. Western Mexico (= *Ninoe dolichognata* Rioja, 1941b *fide* Fauchald, 1970: 115).

Lumbrineris cedroensis Fauchald, 1970: 80-81, pl. 11, figs. a-e. Cedros Island, Baja California; 1080-2439 m.

Lumbrineris crassidentata Fauchald, 1970: 82-83, pl. 12, fig. a. San Felipe Bay, Baja California.

Lumbrineris eugeniae Fauchald, 1970: 87-89, pl. 13, figs. c-f. Punta Eugenia, Baja California Sur; 1260 m.

Lumbrineris monroi Fauchald, 1970: 99-102, pl. 16, figs. e-i. Acapulco, Guerrero; rocky coast. (= *Scoletoma monroi* (Fauchald, 1970)).

Lumbrineris penascensis Fauchald, 1970: 103-104, pl. 17, figs. a-c. Puerto Peñasco, Sonora.

Lumbrineris platylobata Fauchald, 1970: 104-106, pl. 17, figs. d-h. Agua Verde Bay, Baja California Sur; 450 m, rocks. (= *Scoletoma platylobata* (Fauchald, 1970)).

**Lumbrineris platypygos* Fauchald, 1970: 106-108, pl. 18, figs. a-d. Western Baja California Sur; sublittoral. (= *Lumbrinerides acuta* (Verrill, 1875) *fide* Gardiner, 1976: 203).

**Lumbrineris simplex* Hartman, 1944: 152-153, pl. 10, figs. 224-229. Puerto Refugio, Ángel de la Guarda Island, Baja California; intertidal. (= *Lumbrineris simplicis* Hartman, 1944, new name, preoccupied *fide* Hartman, 1959: 336).

Ninoe dolichognatha Rioja, 1941b: 722-723, pl. 7, figs. 9-15, pl. 8, figs. 1-5. La Aguada, Acapulco, Guerrero and Mazatlán, Sinaloa; intertidal. (= *Kuwaita dolichognatha* (Rioja, 1941b) *fide* Carrera-Parra & Orensanz, 2002: 276).

Ninoe foliosa Fauchald, 1972: 153-156, pl. 29, figs. c-g, pl. 30, figs. a-d. Ángel de la Guarda Island, Baja California; 1121 m.

Ninoe fuscooides Fauchald, 1972: 156-158, pl. 31, figs. a-f. Crestón Island, Mazatlán, Sinaloa; 2448 m, (= *Cenogenus fuscooides* (Fauchald, 1972) *fide* Carrera-Parra, 2001: 721).

Ninoe jessicae Hernández-Alcántara, Pérez-Mendoza & Solís-Weiss, 2006: 83-85, fig. 2. Salina Cruz, Oaxaca; 70 m, muddy sands, muds.

Ninoe longibranchia Fauchald, 1972: 158-160, pl. 32, figs. a-g. Tortuga Island, Baja California Sur; 1606 m.

Ninoe marthae Hernández-Alcántara, Pérez-Mendoza & Solís-Weiss, 2006: 85-86, fig. 3. Punta Maldonado, Guerrero; 50 m, muddy sand, muds.

Ninoe moorei Rioja, 1941b: 718-722, pl. 6, figs. 4-9, pl. 7, figs. 1-8. La Aguada, Acapulco, Guerrero and Mazatlán, Sinaloa. (maybe *Kuwaita moorei* (Rioja, 1941b) *fide* Carrera-Parra & Orensanz, 2002: 276).

Ninoe spinosa Rioja, 1941b: 724, pl. 8, figs. 7-9. La Aguada, Acapulco, Guerrero and Mazatlán, Sinaloa. (maybe *Kuwaita spinosa* (Rioja, 1941b) *fide* Carrera-Parra & Orensanz, 2002: 276).

Family Magelonidae Cunningham & Ramage, 1888

Magelona marianae Hernández-Alcántara & Solís-Weiss, 2000: 630-634, figs. 1a-g. Punta Mita, Nayarit; 22.2-79 m, in sands and clays.

Magelona tehuanaensis Hernández-Alcántara & Solís-Weiss, 2000: 634-637, figs. 2a-h. Tehuantepec, Oaxaca; 70-101 m, sands and muds.

****Meridithia spinifera* Hernández-Alcántara & Solís-Weiss, 2000: 638-640, figs. 3a-h. Santa María Bay, Sinaloa; 39-100 m, in fine sands and clays.

Family Maldanidae Malmgren, 1867

**Asychis lobata* Fauchald, 1972: 256-258, pl. 52, figs. a-f. Punta Piedras, San Juanito, Nayarit 1458 m. (= *Chirimia biceps lacera* Moore, 1923 *fide* Light, 1980: 139).

Clymaldane laevis Fauchald, 1972: 259-260, pl. 53, figs. a-d. Off the tip of Baja California Sur; 2576-2682 m.

Clymene (Euclymene) papillata Berkeley & Berkeley, 1939: 340-342, figs. 11-12. Peñasco Port, Sonora. (= *Isocirrus papillatus* (Berkeley & Berkeley, 1939) *fide* Salazar Vallejo, 1991: 273).

**Euclymene papillata isocirra* Rioja, 1962: 196-199, figs. 99-105. De la Gaviota Island, Baja California Sur; under rocks. (= *Isocirrus papillatus* (Berkeley & Berkeley, 1939) *fide* Salazar Vallejo, 1991: 273).

Maldane cristata Treadwell, 1923: 9-10, figs. 5-8. Western Baja California; 855 m.

Maldane monilata Fauchald, 1972: 263-265, pl. 54, figs. c-g. María Madre Island, Nayarit; 3456 m.

Nichomache ardwidssoni Blake, 1985: 97. East Pacific Rise, geothermal vents at 21°N; 2615 m.

Family Nautiliniellidae Miura & Laubier, 1989

****Santelma mirasetis* (Fauchald, 1972): 59-60, pl. 8, figs. a-c. San Telmo, Michoacán; 240 m. (New status to Family and Genera; type species of the Genus *Santelma* *fide* Blake, 1993: 150).

Family Nephytidae Grube, 1850

**Aglaophamus dicirris* Hartman, 1950: 122-124, pl. 18, figs. 1-8. Baja California (= *Aglaophamus verrilli* (McIntosh, 1855) *fide* Gardiner, 1976: 155).

Aglaophamus erectans Hartman, 1950: 125-127, pl. 19, figs. 1-10. Baja California.

Aglaophamus eugeniae Fauchald, 1972: 82-84, pl. 14, figs. a-e. Natividad Island, Baja California Sur; 459-531 m.

Aglaophamus fossae Fauchald, 1972: 84-86, pl. 14, fig. f, pl. 15, figs. a-i. Ballenas Channel, Baja California; 1071 m.

Aglaophamus paucillamellata Fauchald, 1972: 86-87, pl. 16, figs. a-f. Natividad Island, Baja California Sur; 1696-1726 m.

Aglaophamus surrufa Fauchald, 1972: 87-89, pl. 16, figs. h-i, pl. 17, figs. a-c. Cabo Falso, Baja California Sur; 2178 m.

Nephtys bilobatus Kudenov, 1975a: 80-83, figs. 30-35. Cholla Bay, Puerto Peñasco, Sonora; in sands.

**Nephtys caecoides ferruginea* Hartman, 1940: 241, pl. 42, figs. 110-114, pl. 43, fig. 115. Baja California Sur (= *Nephtys ferruginea* Hartman, 1940 *fide* Hartman, 1950: 102).

Family Nereididae Johnston, 1851

Ceratocephale crosslandi americana Hartman, 1952: 16-19, pl. 4, figs. 1-3. Baja California; 95.4-97.2 m, green muds.

Ceratocephale papillata de León-González & Góngora-Garza, 1992: 418, figs. 1a-d, 2, 3. Western Baja California Sur; 52-220 m.

Ceratonereis singularis Treadwell, 1929: 1-3, figs. 1-8. San José Island, Baja California.

Ceratonereis vermillionensis Fauchald, 1972: 66-69, pl. 10, figs. a-e. San José Island, Baja California Sur; 2394 m.

Eunereis eugeniae de León-González & Solís-Weiss, 2000: 550-552, figs. 1a-g. Punta Eugenia, Baja California Sur.

****Imajimainereis pacifica* de León-González & Solís-Weiss, 2000: 553-554, figs. 2a-f. Northern Gulf of California; 18 m.

Leptonereis glauca moniloceras Hartman, 1940: 217. pl. 34, figs. 42-46. Western Mexico and California. (= *Nicon moniloceras* (Hartman, 1940) *fide* Imajima & Hartman, 1964: 150).

Leptonereis mexicana Treadwell, 1942: 1-4, figs. 2-9. Topolobampo Bay, Sinaloa. (= *Rullierinereis mexicana* (Treadwell, 1942) *fide* Pettibone 1971: 104).

Lycastopsis riojai Bastida-Zavala, 1990: 417-419, fig. 1a-f. Partidito Island, Baja California Sur; littoral. (= *Namanereis riojai* (Bastida-Zavala, 1990) *fide* Glasby, 1999: 104).

Neanthes cortezii Kudenov, 1979: 118-120, figs. 2a-h. Cholla Bay, Puerto Peñasco, Sonora.

Nereis ambiguus Treadwell, 1937: 149-151, pl. 2, figs. 19-24. Clarión Island, Colima; 36 m.

Nereis angelensis Fauchald, 1972: 72-74, pl. 11, figs. e-j. Ballenas Channel, Baja California; 1088 m.

Nereis anoculopsis Fauchald, 1972: 75-77, pl. 12, figs. a-g. Tortuga Island, Baja California Sur; 1606 m.

Nereis baolinci de León-González & Solís-Weiss, 2000: 557-558, figs. 4a-g. Punta Eugenia, Baja California Sur.

Nereis casoae de León-González & Solís-Weiss, 2001: 881-882, figs. 1a-d, 2a-e. Los Chivos Island, Mazatlán, Sinaloa; 61 m, algae fixed to coralline rocks.

Nereis fauchaldi de León-González & Díaz-Castañeda, 1998: 823-825, figs. 1a-d. Todos Santos Bay, Baja California; 210 m.

Nereis fossae Fauchald, 1972: 77-79, pl. 13, figs. a-i. Ballenas Channel, Baja California; 1008 m.

Nereis imajimai de León-González & Díaz-Castañeda, 1998: 825-827, figs. 2a-d. Todos Santos Bay, Baja California; 210 m.

Nereis inflata de León-González & Solís-Weiss, 2001: 882-886, figs. 3a-d. Punta San Juanico, Baja California Sur; 30 m, sandy rocks.

Perinereis bajacalifornica de León-González & Solís-Weiss, 1998: 675-677, figs. 2a-f. Falsa Bay, La Paz, Baja California Sur; in mangroves.

Perinereis elenacasoi Rioja, 1947c: 531-532, figs. 8-17. Mazatlán, Sinaloa; rocky littorals, in mytilids areas. (= *Perinereis elenacasoe* (Rioja, 1947c), redescription in de León-González & Solís-Weiss, 1998: 680).

Perinereis osoriotafalli de León-González & Solís-Weiss, 1998: 687-690, figs. 9a-f. De los Patos Island, Topolobampo, Sinaloa; between algae.

Perinereis villalobosi Rioja, 1947c: 532-534, figs. 18-22. Mazatlán, Sinaloa; rocky littoral, in mytilids areas.

Rullierinereis fauchaldi de León-González & Solís-Weiss, 2000: 562-563, figs. 6a-e. San Cristóbal Bay, Baja California.

Family Oenonidae Kinberg, 1865 emended Orensanz, 1990

**Arabella pacifica* Treadwell, 1941: 23, figs. 18-21. Guerrero (= *Arabella semimaculata* (Moore, 1911) *fide* Fauchald, 1970: 132).

Arabella pectinata Fauchald, 1970: 130-132, pl. 22, figs. a-f. El Descanso, Baja California; intertidal.

Drilonereis mexicana Fauchald, 1970: 138-140, pl. 23, figs. a-c. San Cristóbal Bay, Baja California; 117 m, in sands with shells.

Labidognathus forcipes Hartman 1944: 180. San Benito Island, Baja California; 11-146 m, endoparasite of *Eunice* sp., possibly *E. antennata* (Savigny, 1820). (= *Drilonereis forcipes* (Hartman, 1944) *fide* Pettibone, 1957: 176).

Labrorrostratus zaragozensis Hernández-Alcántara & Solís-Weiss, 1998a: 978-982, figs. 1-3. 30.3 m, Norte Rocas Consag, Sonora; endoparasite of the polychaete *Terebellides californica* Williams, 1984.

**Oenone brevimaxillata* Treadwell, 1931: 1-3, figs. 4-9. Western Mexico. (= *Lysarete brasiliensis* Kinberg, 1865 *fide* Hartman, 1944: 185).

Family Onuphidae Kinberg, 1865

Australonuphis beltrani de León-González & Góngora-Garza, 1993: 7, figs. 1a-b, 2a-b, 3a-e. Chacala, Nayarit.

Diopatra denticulata Fauchald, 1968: 4-7, figs. 1a-g. Tenacatita Bay, Guerrero; 81 m, sands and muds.

Diopatra farallonensis Fauchald, 1968: 7, figs. 1h-n. Farallón, Baja California Sur; submarine canyon, 135 m.

Diopatra mexicana de León-González, 1994: 58-60, figs. 1a-e. Western Baja California Sur; 54 m, in.

Diopatra neotridens Hartman, 1944: 63-66, pl. 2, figs. 44-48, pl. 3, figs. 49-54, pl. 16, fig. 334. Tortuga Bay, Baja California Sur; 47-56 m.

Diopatra papillata Fauchald, 1968: 11-12, pl. 2, figs. d-i. Ángel de la Guarda Island, Baja California; 72 m.

Hyalinoecia leucacra Chamberlin, 1919: 317-319, pl. 37, figs. 9-10, pl. 38, figs. 1-3. Western Mexico; 1188 m.

Hyalinoecia tecton Chamberlin, 1919: 310-315, pl. 38, figs. 4-9, pl. 39, figs. 1-2. María Madre Island, Nayarit; 1217 m.

Mooreonuphis bajacalifornica de León-González, 1988: 433-436, figs. 1a-d, 2a-d. Puerto Escondido, Baja California Sur; 30 m, epizoic on oysters.

Mooreonuphis elsiae de León-González, 1994: 62-64, figs. 2a-g, 3a-c. Western Baja California Sur; 60 m, sandy muds.

Nothria abyssalis Fauchald, 1968: 19-20, pl. 4, figs. a-b. South of Baja California Sur; 2575-2682 m. (= *Kinbergonuphis abyssalis* (Fauchald, 1968) *fide* Fauchald, 1982b: 14).

Nothria guadalupensis Fauchald, 1968: 22-24, pl. 6, figs. e-l. Guadalupe Island, Baja California; subtidal. (= *Mooreonuphis guadalupensis* (Fauchald, 1968) *fide* Fauchald, 1982b: 59).

Nothria mexicana Fauchald, 1968: 25-26, pl. 7, figs. b-e. Baja California Sur; 2700 m, silty clay. (= *Onuphis mexicana* (Fauchald, 1968) *fide* Fauchald, 1982b: 49).

Nothria pygidialis Fauchald, 1968: 26-27, pl. 7, figs. f-m. Guadalupe Island, Baja California; rocky intertidal. (= *Kinbergonuphis pygidialis* (Fauchald, 1968) *fide* Fauchald, 1982b: 31).

Nothria similis Fauchald, 1968: 28-29, pl. 4, figs. g-j. South San Benito Island, Baja California; 95-544 m, fine green and coarse gray sand. (= *Onuphis similis* (Fauchald, 1968) *fide* Fauchald, 1982b: 53).

Nothria stigmatis cirrata Hartman, 1944: 92-93, pl. 11, figs. 248-253. Puerto Refugio, Ángel de la Guarda Island, Baja California; 20-40 m, sand and shell. (= *Mooreonuphis cirrata* (Hartman, 1944) *fide* Fauchald, 1982b: 58).

Onuphis acapulcensis Rioja, 1944a: 139-143, figs. 1-11. Acapulco, Guerrero; littoral. (= *Hirsutonuphis acapulcensis* (Rioja, 1944a) *fide* Paxton, 1986b: 51).

Onuphis cedroensis Fauchald, 1968: 31-34, pl. 8 figs. a-g. Cedros Island, Baja California; 93-99 m, muds. (= *Kinbergonuphis cedroensis* (Fauchald, 1968) *fide* Fauchald, 1982b: 16).

Onuphis litabranchia Chamberlin, 1919: 274-279, pl. 50, fig. 7, pl. 51, figs. 1-10, pl. 52, fig. 1. Western Mexico; 3382 m, green muds. (= *Sarsonuphis litabranchia* (Chamberlin, 1919) *fide* Fauchald, 1982b: 75).

Onuphis microbranchiata Fauchald, 1968: 34-35, pl. 8, figs. h-q. Guadalupe Island, Baja California; shallow waters. (= *Mooreonuphis microbranchiata* (Fauchald, 1968) *fide* Fauchald, 1982b: 61).

Onuphis nannognathus Chamberlin, 1919: 270-274, pl. 43, figs. 8-11, pl 44, figs. 1-5. Punta Arena, Baja California Sur; 1791 m, light brown muds. (= *Kinbergonuphis nannognathus* (Chamberlin, 1919) *fide* Fauchald, 1982b: 25).

Onuphis pigmentata Fauchald, 1968: 38-39, pl. 9, figs. f-n. San Quintín Bay, Baja California; littoral mudflat. (= *Kinbergonuphis pigmentata* (Fauchald, 1968) *fide* Fauchald, 1982b: 28).

**Onuphis profundi* Fauchald, 1968: 40-41, pl. 10, figs. a-g. Baja California Sur; 2700 m. (= *Kinbergonuphis proalopus* (Chamberlin, 1919) *fide* Fauchald, 1982b: 29).

Onuphis vermillionensis Fauchald, 1968: 41-43, pl. 11, figs. a-i. Tiburón Island, Sonora; 126 m. (= *Kinbergonuphis vermillionensis* (Fauchald, 1968) *fide* Fauchald, 1982b: 35).

Onuphis zebra Berkeley & Berkeley, 1939: 337-338, figs. 9-10. Punta Gorda, Baja California. (= *Hirsutonuphis zebra* (Berkeley & Berkeley, 1939) *fide* Paxton, 1986b: 51).

**Rhamphobrachium cristobalensis* Fauchald, 1968: 44-46, pl. 12, figs. b-i. San Cristóbal Bay, Baja California Sur; 75 m. (*incertae sedis*, maybe juvenil of *Rhamphobranchium longisetosum* Berkeley & Berkeley, 1938 *fide* Paxton, 1986a: 102).

Family Opheliidae Malmgren, 1867

Travisia filamentosa de León-González, 1998: 12-14, figs. 1a-c. Western Baja California; 55 m.

Travisia fusifomis Kudenov, 1975b: 215-218, figs. 24-30. Cholla Bay, Puerto Peñasco, Sonora; in sands.

Family Orbiniidae Hartman, 1942

Califia mexicana Fauchald, 1972: 164-166, pl. 33, figs. a-e. Crestón Island, Mazatlán, Sinaloa; 2475 m.

Haploscoloplos mexicanus Fauchald, 1972: 167-169, pl. 34, figs. c-d. Las Ánimas Island, Baja California; 1395 m. (= *Leitoscoloplos mexicana* (Fauchald, 1972) *fide* Mackie, 1987: 11).

Leitoscoloplos bajacalifornica de León-González & Rodríguez, 1996: 169-171, figs. 1a-c. Western Baja California; 85-223 m. *Scoloplos* (*Leodamas*) *mazatlanensis* Fauchald, 1972: 169-171, pl. 35, figs. a-c. Crestón Island, Mazatlán, Sinaloa; 2448 m.

Family Paraonidae Cerruti, 1909

Aricidea (Aedicira) alisetosa Fauchald, 1972: 173-175, pl. 35, figs. d-f. Mazatlán, Sinaloa; 3060 m.

Aricidea (Aedicira) longicirrata Fauchald, 1972: 176-177, pl. 36, fig. a. Crestón Island, Mazatlán, Sinaloa; 2394 m.

Aricidea (Aricidea) crassicapitis Fauchald, 1972: 177-179, pl. 37, figs. g-h. Punta San Ignacio, Baja California Sur; 2394 m.

Aricidea (Aricidea) petacalcoensis de León-González, Hernández-Guevara & Rodríguez-Valencia, 2006: 258-259, figs. 1a-g. Petacalco Bay, Guerrero; 11 m.

Aricidea (Aricidea) rosea Reish, 1968: 80, figs. 7a-c, 8. De los Ángeles Bay, Baja California. (= *Aricidea (Acesta) lopezi rosea* Reish, 1968 *fide* Strelzov, 1979: 122).

Aricidea (Aricidea) similis Fauchald, 1972: 179-181, pl. 36, figs. b-e. Cabo Falso, Baja California Sur; 2520 m.

Cirrophorus magdalenaensis de León-González, Hernández-Guevara & Rodríguez-Valencia, 2006: 260-261, figs. 2a-d. Magdalena Bay, Baja California Sur; 74 m.

Paraonides cedroensis Fauchald, 1972: 181-182. Natividad Island, Baja California Sur; 1696-1723 m.

Paraonis gracilis oculata Hartman, 1957: 331-332, pl. 44, figs. 1-3. Baja California. (= *Levinenia oculata* (Hartman, 1957) *fide* Melville, 1979: 114-118).

Paraonis pycnobranchiata Fauchald, 1972: 184-185, pl. 37, figs. a-f. Punta Colorado, San José Island, Baja California Sur; 2408 m. (= *Levinenia pycnobranchiata* (Fauchald, 1972) *fide* Melville, 1979: 114-118).

Family Pectinariidae de Quatrefages, 1865

Pectinaria (Pectinaria) hartmanae Reish, 1968: 91-92, figs. 18a-e. De los Ángeles Bay, Baja California; in sands and silts bottoms.

Family Phyllodocidae Örsted, 1843

**Anaitides carloensis* Kudenov, 1975a: 71-73, figs. 16-19. San Carlos Bay, Sonora. (= *Phyllodoce panamensis* Treadwell, 1917 *fide* Pleijel, 1991: 253).

Anaitides cortezii Kudenov, 1975a: 73-75, figs. 20-24. San Agustín Bay, Sonora. (= *Phyllodoce cortezii* (Kudenov, 1975a) *fide* Pleijel, 1991: 253).

Anaitides dubia Fauchald, 1972: 44-46, pl. 4, figs. a-b. Punta Piedras, San Juanito Island, Nayarit; 1512 m. (= *Phyllodoce dubia* (Fauchald, 1972) *fide* Pleijel, 1991: 253).

- Anaitides minuta* Treadwell, 1937: 148, pl. 2, figs. 16-18. Banco Arena, Baja California Sur; 63 m. (*Phyllodoce minuta* (Treadwell, 1937) *fide* Pleijel, 1991: 259).
- Austrophylum exsiliun* Fauchald, 1972: 47-48, pl. 5, figs. a-d. María Magdalena Island, Nayarit; 3456 m.
- Eulalia anomolata* Fauchald, 1972: 49-50, pl. 6, figs. a-c. Cabo Falso, Baja California Sur; 2160 m.
- Eulalia mexicana* Fauchald, 1972: 50-52, pl. 6, figs. d-f. San Lorenzo Island, Baja California; 720 m.
- Eumida uschakovi* Kudenov, 1979: 116-117, figs. 1a-e. Cholla Bay, Puerto Peñasco, Sonora.
- Phyllodoce (Anaitides) multiserialis* Rioja, 1941b: 684-687, pl. 1, figs. 26. La Aguada, Guerrero; on colonies of *Idanthyrsus johnstoni*. (= *Phyllodoce multiserialis* Rioja, 1941b *fide* Pleijel, 1991: 259).
- Phyllodoce digueti* Fauvel, 1943: 10-13, fig. 1. Baja California.
- Phyllodoce tuberculosa* Kudenov, 1975a: 76-78, figs. 25-29. Morua Estuary, Puerto Peñasco, Sonora.
- Pirakia brunnea* Fauchald, 1972: 53-54, pl. 4, figs. c-d. Cabo Falso, Baja California Sur; 2610 m. (= *Sige brunnea* (Fauchald, 1972) *fide* Pleijel, 1991: 261).
- Protomystides papillosa* Blake, 1985: 72-75, figs. 3a-d. East Pacific Rise, geothermal vents at 21°N; 2612-2633 m.

Family Pilargidae de Saint-Joseph, 1899

- Ancistargis verrucosa* Fauchald, 1972: 57-59, pl. 7, figs. d-e. Cabo Falso, Baja California Sur; 2520 m.
- Loandalia riojai* Salazar-Vallejo, 1986: 202-204, lam. 3, figs. 19-22. Manzanillo Bay, Colima; 30-80 m, muds.
- Loandalia salazarvallejoi* de León-González, 1991: 315-317, figs a-c. Baja California Sur; 80 m, sandy muds.
- Parandalia bennei* Solís-Weiss, 1983: 370-373, figs. 1a-d, 2a-e. Mazatlán, Sinaloa; 3.5-25 m, in fine and coarse sands.
- Parandalia evelinae* de León-González, 1991: 317-319, figs. a-c. Baja California Sur; 106 m, muddy sands.
- Pilarginus angeli* Salazar-Vallejo & Harris, 2006: 132-133, 4a-d. Western Baja California Sur.
- Pilarginus mirasetis* Fauchald, 1972: 59-60, pl. 8, figs. a-c. 59-60, pl. 8, figs. a-c. San Telmo, Michoacán; 2340 m. (= *Santelma mirasetis* (Fauchald, 1972), new status to Family Nautilienellidae *fide* Blake, 1993: 150).
- Sigambra rugosa* Fauchald, 1972: 60-62, pl. 9, figs. a-e. Espíritu Santo Island, Baja California Sur; 720 m.
- Sigambra setosa* Fauchald, 1972: 62-64, pl. 7, figs. a-c. San José Island, Baja California Sur; 2394 m.
- Synelmis emiliae* Salazar-Vallejo, 2003: 25-26, figs 1b, 4a-f. Concepción Bay, Baja California Sur; intertidal.
- Synelmis harriseae* Salazar-Vallejo, 2003: 30-32, figs. 1f, 8a-d. La Jolla, California and Guadalupe Island, El Descanso and Punta Morro, Baja California; mixed bottoms, intertidal to 65 m.
- Synelmis levinae* Salazar-Vallejo, 2003: 33-34, figs. 10a-d. Northwestern Mexico; 810 m, coarse-grained cream-colored calcareous ooze.

Family Poecilochaetidae Hannerz, 1956

- Poecilochaetus multibranchiatus* de León-González, 1992: 109-113, figs. 1a-e, 2a-d. Western Baja California Sur. 168 m.

Family Polynoidae Kinberg, 1856

- **Admetella dolichopus* Chamberlin 1919: 67-69, pl. 10, fig. 1. María Madre Island, Nayarit; 1224 m. (= *Admetella hastigerens* Chamberlin, 1919 *fide* Fauchald, 1972: 24).
- Admetella hastigerens* Chamberlin, 1919: 64-67, pl. 9, figs. 6-8. Nayarit; 1224 m.
- Antinoe anomolata* Moore, 1910: pl. 30, figs. 34-40. California and western Mexico (= *Antinoella anomolata* (Moore, 1910) *fide* Hartman, 1959: 62).
- Bathykuriula guaymensis* Pettibone, 1989a: 159-161, figs. 1-2. Guaymas Basin, Sonora, hydrothermal mounds; 2020 m.
- ****Branchinotogluma hessleri* Pettibone, 1985b: 450-453, figs. 1a-f, 2a-h. East Pacific Rise, geothermal vents at 21°N; 2618 m.
- Branchinotogluma grasslei* Pettibone, 1985b: 457-459, figs. 5a-h, 6a-h. East Pacific Rise, geothermal vents at 21°N; 2618 m.
- ****Branchiplicatus cupreus* Pettibone, 1985a: 151-156, figs. 1, 2a-f, 3a-g, 4a-i. East Pacific Rise, geothermal vents at 21°N; 2633 m.
- **Eunoë exoculata* Treadwell, 1923: 4-6, figs. 1-4. Pichilingue Bay, Baja California Sur; 855 m. (= *Harmothoe tenebricosa* Moore, 1910 *fide* Pettibone 1969: 37).
- Gorgoniapolyneae guadalupensis* Pettibone, 1991: 700-704, figs. 9a-i, 10a-f. Guadalupe Island, Baja California; 1000-2000 m.
- Halosydna glabra* Hartman, 1939a: 35-36, pl. 4, figs. 43-50. María Madre Island, Nayarit; 1224 m.

**Halosydna obtuso-cirrata* Treadwell, 1937: 143-144, pl. 1, figs. 8-11.5. Eastern Cedros Island, Baja California; 72 m. (= *Halosydna lator* Chamberlin, 1919 *fide* Hartman, 1938: 110).

Harmothoe mexicana Chamberlin, 1919: 54-58, pl. 1, figs. 1-9, pl. 2, fig. 1. Ángel de la Guarda Island, Baja California (= *Lagisca mexicana* (Chamberlin, 1919) *fide* Salazar-Silva, 2006: 49).

Hololepida veleronis Hartman, 1939a: 48-49, pl. 9, figs. 111-118. Guaymas, Sonora.

Iphionella risensis Pettibone, 1986: 28. East Pacific Rise, geothermal vents at 21°N; 2614-2626 m.

Lepidasthenia curta Chamberlin, 1919: 61-63, pl. 5, figs. 4-9. Guaymas, Sonora; 1216 m.

Lepidasthenia digueti Gravier, 1905: 160-173, figs. 2-9. La Paz, Baja California Sur; commensal of enteropneusts.

**Lepidasthenia ornata* Treadwell, 1937: 145-147, pl. 1, figs. 12-15. Banco Arena, Baja California; 63 m. (= *Lepidasthenia virens* (Blanchard, 1849) *fide* Hartman, 1956: 271).

**Lepidonotus pilosus* Treadwell, 1937: 141-143, pl. 1, figs. 1-7. Banco Arena, Baja California Sur. (= *Chaetacanthus magnificus* Grube, 1875 *fide* Hartman, 1939a: 28).

****Lepidonotopodium fimbriatum* Pettibone, 1983: 393, figs. 1-5. East Pacific Rise, geothermal vents at 21°N; 2600 m. (emended genus by Pettibone, 1984: 850).

****Levensteiniella kincaidi* Pettibone, 1985c: 741-746, figs. 1a-e, 2a-e, 3a-e. East Pacific Rise, geothermal vents at 21°N; 2617 m.

Macellicephalooides alvini Pettibone, 1989a: 162-164, figs. 3a-c, 4a-h. Guaymas Basin, Sonora, hydrothermal mounds; 2004 m.

Malmgrenia hartmaeae Kudenov, 1975c: 77-79, fig. 2. San Felipe, Baja California; 40 m. (= *Halosydna hartmaeae* (Kudenov, 1975) *fide* Hanley, 1987: 160).

Polynoe nesiotes Chamberlin, 1919: 72-74, pl. 8, fig. 8, pl. 9, figs. 1-5. Santa Margarita Island, Baja California. (= *Halosydna nesiotes* (Chamberlin, 1919) *fide* Hanley, 1987: 160).

Subadyte mexicana Fauchald, 1972: 27-29, pl. 1, figs. a-e. Cedros Island, Baja California; 567-844 m.

Family Sabellariidae Johnston, 1865

Idanthyrsus armatopsis Fauchald, 1972: 271-273, pl. 55, figs. a-g. Las Ánimas Island, Baja California; 1386 m.

Idanthyrsus mexicanus Kirtley, 1994: 105, figs. 6.12.1a-c. Tenacatita Bay, Jalisco; 45.7-64 m, rocks.

**Phragmatopoma moerchi digitata* Rioja, 1962: 201, figs. 106-112. La Ventosa, Salina Cruz, Oaxaca; intertidal. (= *Phragmatopoma virgini* Kinberg, 1867 *fide* Kirtley, 1994: 37).

Family Sabellidae Latreille, 1825

**Euchone barnardi* Reish, 1968: 93, figs. 19a-d. De los Ángeles Bay, Baja California (= *Euchone incolor* Hartman, 1965 *fide* Banse, 1970: 393).

**Euchone cortezi* Reish, 1968: 94, figs. 20a-e. De los Ángeles Bay, Baja California (= *Euchone arenae* Hartman, 1966 *fide* Banse, 1970: 397).

****Euchonella magna* Fauchald, 1972: 328-329, pl. 68, figs. a-f. Cerralvo Island, Baja California Sur; 1071 m.

Fabrisabella similis Fauchald, 1972: 329-330, pl. 69, figs. a-f. Cabo Corrientes, Jalisco; 2520 m.

Megalomma pigmentum Reish, 1963: 430-432, figs. 15, 16a-i. San Quintín Bay, Baja California.

****Sabellonga disjuncta* Hartman, 1969: 739-740, figs. 1-9. Western Cedros Island, Baja California; 115 m, hard packed clay and rocks. (New status to Family; type species of the Genus *Sabellonga* *fide* Fitzhugh, 1989: 10).

Family Sabellongidae Hartman, 1969

Sabellonga disjuncta Hartman, 1969: 739-740, figs. 1-9. Western Cedros Island, Baja California; 115 m, hard packed clay and rocks. (New status to Family Sabellidae; type species of the Genus *Sabellonga* *fide* Fitzhugh, 1989: 10).

Family Serpulidae Latreille, 1825

Eupomatus humilis Bush, 1904: 235, pls. 39, 49, figs. 22, 39, 40. Western Mexico (= *Hydroides humilis* (Bush, 1904) *fide* Pillai, 1972).

Eupomatus similis Treadwell, 1929: 11-12, fig. 31. Baja California.

Hydroides brachyacantha Rioja, 1941a: 169, pl. 3, fig. 2, pl. 4, figs. 1-9. Mazatlán, Sinaloa; rocky littoral.

**Hydroides californicus* Treadwell, 1929: 12, figs. 32-33. Baja California. (= *Hydroides crucigera* Moerch, 1863 *fide* Rioja, 1944b: 409).

Hydroides glandiferum Rioja, 1941a: 172-174, pl. 4, figs. 10-14. Caleta, Acapulco, Guerrero; between algae and chaetopterid

tubes. (= *** *Olgarhamania glandifera* (Rioja, 1941a) new status to Genus; type species of the Genus *fide* Rioja, 1941b: 733).

Hydroides malleophorus Rioja, 1942a: 126-130, figs. 7-14. Mazatlán, Sinaloa; rocky littoral.

Hydroides ochotereana Rioja, 1941a: 164-167, pl. 2, figs. 1-12, pl. 3, fig. 1. La Aguada and La Quebrada, Acapulco, Guerrero; on rocks covered by algae.

Hydroides recurvispina Rioja, 1941a: 167-169, pl. 1, figs. 11-15, figs. 1a-c. La Aguada, Acapulco, Guerrero; between algae, hydroides and sessil bivalves (*Bisoarca*).

Hydroides tenhovei Bastida-Zavala & de León-González, 2002: 389-393, figs. 2a-m, 3a-h. Cabo San Lázaro, Baja California Sur; sublittoral, on PVC structure.

Pileolaria (Pileolaria) lateralis Knight-Jones, 1978: 213-214, figs. 7a-n. Eastern La Paz, Baja California Sur.

Pileolaria (Pileolaria) marginata Knight-Jones, 1978: 214-215, figs. 8a-m. Todos Santos Bay, Baja California.

Pileolaria (Pileolaria) spinifer Knight-Jones, 1978: 215-217, figs. 9a-j. Eastern La Paz, Baja California Sur; intertidal.

Pomatocerus minutus Rioja, 1941a: 734-738, pl. 9, figs. 15-26. Caleta, Acapulco, Guerrero; on hydroids *Penaria* sp.

Spirorbis (Pileolaria) berkeleyana Rioja, 1942b: 144-147, figs. 53-67. Playa Caleta and la Aguada, Acapulco, Guerrero; on serpulid *Spirobranchus incrassatus* tubes.

Spirorbis (Spirorbella) bushi Rioja, 1942b: 149-150, figs. 25-35. Caleta, Acapulco, Guerrero and Mazatlán, Sinaloa; on sessil gastropods (*Vermetus*). (= *Spirorbis bushi* Rioja, 1942b *fide* Knight-Jones et al., 1979: 423).

Spirorbis (Spirorbella) tricornigera Rioja, 1942b: 150-151, figs. 36-44. Caleta, Acapulco, Guerrero and Mazatlán, Sinaloa; on sessil gastropods (*Vermetus*). (= *Spirosbis tricornigerus* Rioja, 1942b *fide* Knight-Jones et al., 1979: 423).

**Spirorbis (Pileolaria) helenpixelli* Rioja, 1942b: 143-144, figs. 45-52. Caleta and la Aguada, Acapulco, Guerrero; on serpulids *Spirobranchus incrassatus* tubes. (= *Pileolaria (Pileolaria) militaris* Claparède, 1868 *fide* Knight-Jones et al., 1979: 436).

Spirorbis (Pileolaria) spatulatus Knight-Jones, 1978: 206-207, figs. 3a-k. Punta Banda, Baja California; on *Macrocystis pyrifera*.

Vermiliopsis cornuta Rioja, 1947b: 525, figs. 14-21. Coromuel, La Paz, Baja California Sur; on mollusks shells. (= *Pseudovermilia occidentalis* (McIntosh, 1855) *fide* Zibrowius, 1971: 1374).

Family Sigalionidae Malmgren, 1867

Eulepethus mexicanus Berkeley & Berkeley, 1939: 328-332, figs. 4-8. Grande Bay, Baja California; 10.8 m.

Leanira fimbriarum Hartman, 1939a: 70-72, pl. 18, figs. 217-225. Escondido Bay, Baja California; 108 m. (= *Sthenolepis fimbriarum* (Hartman, 1939a) *fide* Hartman 1968: 175).

Psammolyce fimbriata Hartman, 1939a: 74-75, pl. 20, figs. 244-245. Isabel Island, Sinaloa.

Psammolyce myops Hartman, 1939a: 76, pl. 21, figs. 255-264. Espíritu Santo Island, Baja California Sur.

Sigalion lewisi Berkeley & Berkeley, 1939: 326-328, figs. 2-3. Espíritu Santo, Island, Baja California Sur; 19.8 m.

Sthenelais neoleanirae Hartman, 1939a: 67-69, pl. 17, figs. 203-216. Escondida Bay, Baja California; 108 m.

Sthenolepis racemosa Fauchald, 1972: 34-36, pl. 2, figs. a-d. Guaymas, Sonora; 1746 m. (= *Neoleanira racemosa* (Fauchald, 1972) *fide* Fauchald & Hancock, 1981: 23).

Sthenolepis spargens Fauchald, 1972: 36-38, pl. 1, figs. e-h. Cedros Island, Baja California; 3060-3348 m.

Family Spionidae Grube, 1850

Aonides californiensis Rioja, 1947a: 205-207, figs. 11-17. Coromuel, La Paz, Baja California Sur; associated to *Porites*.

****Lindaspio dibranchiata* Blake & Maciolek, 1992: 724-727, figs. 1a-e, 2a-c. Guaymas Basin, Sonora, hydrothermal mounds; 1606 m.

Nerinides maculata Hartman, 1961: 91-92, pl. 12, figs. 1-4. Baja California (= *Spio maculata* (Hartman, 1961) *fide* Maciolek, 1990: 1112).

Polydora anophthalma Rioja, 1962: 26. Asunción Island, Baja California Sur; 21.6 m, in mollusk shells. (= *Boccardia anophthalma* (Rioja, 1962) *fide* Blake, 1981).

Polydora barbilla Blake, 1981: 947, fig. 1. Puerto Peñasco, Sonora; 15 m. (= *Dipolydora barbilla* (Blake, 1981) *fide* Blake, 1996: 192).

Polydora cirrosa Rioja, 1943b: 233-238, figs. 8-25. Mazatlán, Sinaloa; in submerged wood.

Polydora heterochaeta Rioja, 1939: 308-309, figs. 6-10. Acapulco, Guerrero; postlarval planktonic forms.

Polydora rickettsi Woodwick, 1961: 78-80, figs. 1-7. Cabo San Lucas, Baja California Sur.

Polydora wobberi Light, 1970: 74. San Francisquito Bay, Baja California; 6 m.

Prionospio (Apoprionospio) vermillionensis Fauchald, 1972: 190-192, pl. 38, figs. a-d. Tortuga Island, Baja California Sur; 1584-1620 m.

Prionospio (Prionospio) anuncata Fauchald, 1972: 193-194, pl. 39, figs. a-e. Cabo Falso, Baja California Sur; 2520 m.

**Prionospio (Prionospio) lobulata* Fauchald, 1972: 195-197, pl. 40, figs. a-e. Natividad Island, Baja California Sur; 558 m. (= *Prionospio (Prionospio) ehlersi* Fauvel 1928 *fide* Maciolek 1985: 345).

**Prionospio (Prionospio) longibranchiata* Reish, 1968: 82-84, figs. 9a-e. De los Ángeles Bay, Baja California. (= *Prionospio (Minuspio) delta* Hartman, 1965 *fide* Maciolek, 1985: 358).

Spiophanes lowai Solís-Weiss, 1983: 373-377, figs. 3a-d, 4a-g, 5a-c. Mazatlán, Sinaloa; in sands, 9m.

Family Sternaspidae Carus, 1863

Sternaspis maior Chamberlin, 1919: 406-407, pl. 78, fig. 10. San Pedro Nolasco Island, Sonora; 1130 m, brown muds with black specks.

Family Syllidae Grube, 1850

Branchiosyllis pacifica Rioja, 1941b: 698-700, pl. 4, figs. 1-4. Caleta, Acapulco, Guerrero; on rocks covered by algae.

Brania heterocirra Rioja, 1941b: 700-702, pl. 3, figs. 10-13. Caleta, Acapulco, Guerrero; between algae and chaetopterid tubes of *Phyllochaetopterus* sp. (= *Grubeosyllis heterocirra* (Rioja, 1941b) *fide* López et al., 1997: 63).

Brania limbata arenacea Rioja, 1943a: 217-220, figs. 32-37, 47. Caleta, Acapulco, Guerrero; on rocks covered by algae.

****Cicese sphaerosylliformis* Díaz-Castañeda & San Martín, 2001: 714-716, figs. 5a-i. San Quintín Bay, Baja California; muddy sands.

Exogone glandulosa Rioja, 1943a: 225-227, figs. 22-30. Caleta, Acapulco, Guerrero; between algae.

Haplosyllis spongicola brevicirra Rioja, 1941b: 695-696, pl. 4, figs. 5-6. Acapulco, Guerrero; littoral. (= *Haplosyllis brevicirra* Rioja, 1941b *fide* Salazar-Vallejo, 1989b: 48).

Odontosyllis heterodonta Góngora-Garza & de León-González, 1993: 18, figs. 1a-g. María Madre Island, Nayarit; littoral, in algae and sponges.

Pseudosyllides mexicana Góngora-Garza & de León-González, 1993: 22, figs. 3a-h. María Madre Island, Nayarit; littoral, in algae and sponges. (= *Inermosyllis mexicana* (Góngora-Garza & de León-González, 1993) *fide* San Martín, 2003: 326).

Family Terebellidae Grube, 1850

Anisocirrus mexicanus Rioja, 1947a: 210-212, figs. 18-25. Punta Colorada, La Paz, Baja California Sur; in mollusk shells. (= *Polycirrus mexicanus* (Rioja, 1947a) *fide* Hutchings & Glasby, 1986b: 330).

Glossothelodus mexicanus Hutchings & Glasby, 1986a: 84, fig. 1. Fraile Bay, Gulf of California; 16 m.

Nicolea latens Chamberlin, 1919: 430-432, pl. 79, figs. 10-11. Tepuches, Sonora; 1546 m.

****Paraxionice artifex* Fauchald, 1972: 319-321, pl. 67, figs. a-e. San Marcos Island, Baja California; 894 m.

Streblosoma longifilis Rioja, 1962: 216, figs. 118-123. De la Asunción Island, Baja California Sur; 21 m, among *Macrocystis* sp. rhizoids.

**Streblosoma magna* Treadwell, 1937: 155-156, pl. 2, figs. 26-28. Banco Arena, Baja California Sur; 63 m. (= *Thelepus crispus* Johnson, 1901 *fide* Hartman, 1956: 297).

**Streblosoma uncinatus* Kudenov, 1975b: 224-226, figs. 40-44. Beach Station, Puerto Peñasco, Sonora; intertidal, in sands. (= *Streblosoma longifilis* Rioja, 1962 *fide* Salazar-Vallejo, 1985: 216).

Family Tomopteridae Grube, 1848

Tomopteris (Johnstonella) aloysii sabaudiae Rosa, 1907: 176; 1908: 274, pl. 12, figs. 3-6. Mexican Pacific.

Tomopteris (Johnstonella) duccii Rosa, 1907: 176; 1908: 273, pl. 12, figs. 1-2. Mexican Pacific.

lacks a tentacular crown but uncini and chaetae resemble those found in Sabellidae. He then concluded that the genus *Sabellonga* is a member of the family Sabellidae.

The taxonomic status of 56 species has changed (Table 1), but they are still considered to be valid. For three of these species, taxonomic adjustments have been made at the family level: according to Blake (1993), *Pilargis mirasetis*, initially included in the family Pilargidae, belongs to the genus *Santelma*, in the family Nautiliiniellidae established in 1993 by Blake; *Flabelligella macrochaeta* (Flabelligeridae) is a member of the family Acrocirridae by Light (1978); and the serpulid *Hydroides glandiferum* is a type of the genus *Olgaharmania* by Rioja (1941b) within the Serpulidae.

Considering the number of currently valid species, the Nereididae and Onuphidae are the richest families (24 species each), followed by the Polynoidae (19 species), the Serpulidae (17 species), and the Ampharetidae and Lumbrineridae (16 and 15 species, respectively) (Table 1).

For 100 species, of which 79 are valid, the habitat of their type localities was not indicated in the original description. However, the distribution of the remaining valid species on the soft bottoms of the study area shows that 65 valid species (23%) were collected on the continental shelf and 78 valid species (28%) in the deep-sea. The remaining habitats recorded include less species: 22 species on hard bottoms from the littoral and sublittoral zones, 17 species from the hydrothermal vents both at Guaymas and 21°N, and 17 species in other habitats (Table 2).

According to their *locus typicus*, the number of polychaete species varies in each geographic zone. In the warm-temperate Californian Province, 65 valid species have been identified; in the Cortes Province, with sub-

tropical conditions, the number of species is the highest (155 valid species); finally, the Mexican Province in the southern Mexican Pacific (tropical characteristics) had 43 valid species (Table 3). Studies of the polychaete fauna distributed along the southern border of the Mexican Pacific (Panamic Province) are scarce and only four new valid species from this area have been identified.

Location of the type material of polychaetes described for the Mexican Pacific

Practically all the type material of the polychaete species collected in the Mexican Pacific has been deposited in foreign institutions, particularly in the United States National Museum (USNM); Smithsonian Institution, Washington, D.C.; the Los Angeles County Museum of Natural History, Allan Hancock Foundation (LACM-AHF); and the American Museum of Natural History, New York (AMNH); but also in the Museum of Comparative Zoology, Harvard University (MCZ); the Muséum National d'Histoire Naturelle, Paris (MNHN); and the British Museum of Natural History (BMNH), London. In Mexico, four official collections exist and all belong to research institutes associated with the best universities in the country. However, these collections are not a product of a national policy that recognizes the importance of this work. Two of the polychaete collections are in the Universidad Nacional Autónoma de México (Mexico City); these are in the Laboratorio de Ecología y Biodiversidad de Invertebrados Marinos, Instituto de Ciencias del Mar y Limnología, and in the Laboratorio de Invertebrados, Facultad de Ciencias. The other collections are in the Laboratorio de Zoología de Invertebrados no Arthropoda of the Universidad Autónoma de Nuevo

Table 2. Number of species described in each marine and coastal habitat from the Mexican Pacific.

Tabla 2. Número de especies descritas en cada hábitat marino y costero del Pacífico mexicano.

Habitat	Species described	Species currently valid
Algae	11	11
Mangroves	2	2
Hard bottoms	25	22
Continental shelf (soft bottoms)	66	65
Deep-sea (soft bottoms)	88	78
Hydrothermal vents	17	17
Others (parasites, larval planktonic forms, epitokes)	4	4
Habitat not indicated	100	79

Table 3. Number of species described for each biogeographic province.

Tabla 3. Número de especies descritas en cada provincia biogeográfica.

Biogeographic province	Species described	Species currently valid
Californian	77	65
Cortes	170	155
Mexican	47	43
Panamic	6	4
Local distribution not indicated	13	11

León (Monterrey, Nuevo León State) and the Laboratorio de Poliquetos, Colegio de la Frontera Sur (Chetumal, Quintana Roo State).

Main contributions to the knowledge of polychaetes along the Mexican Pacific coasts

Since Bush's 1904 description of the serpulid *Eupomatus humilis* (now *Hydroides humilis*) for Mexican waters, 37 researchers have participated in describing 313 species (278 valid species) whose *locus typicus* is in the Mexican Pacific. Fauchald (93 species currently valid), Rioja (31 species), Hartman (24 species), and de León-González with different co-authors (26 species) have made the largest contributions (Table 4).

In the beginning, polychaete studies were mainly the result of sampling done during foreign oceanographic expeditions and by researchers who visited different sites along the Mexican coasts. The expeditions of the *U.S. Fish Commission Steamer Albatross* (1888-1905), marked the beginning of the oceanographic and biological studies in the region. The last of these expeditions were directed by the famous naturalist Alexander Agassiz and were the most important for the study of the Mexican Pacific polychaetes. These expeditions enriched scientific collections worldwide and important taxonomic information on the deep sea polychaetes from the Albatross collections was later published by Chamberlin (1919), Treadwell (1923, 1929), and Fauchald (1972).

The Italian expeditions made on board the *Liguria* (1903-1905) included sites in western Mexico; as part of these cruises, Rosa (1907, 1908) described species of the planktonic families Tomopteridae and Alciopidae. From 1923 to 1938, the Department of Tropical Research of the New York Zoological Society made several expeditions on board the *Templeton Crocker* and Zaca & Treadwell (1931, 1937, 1941, 1942) identified the polychaetes collected from these research cruises, including pelagic species.

Berkeley & Berkeley (1939, 1960) identified the polychaetes collected by the *Stranger* expeditions (1934, 1937) in Mexican waters. Hartman (1939a, 1939b, 1940, 1941, 1944) analyzed the polychaetes deposited in the Allan Hancock Foundation collection, synonymized several species identified previously by Treadwell, and described material collected from 1931 to 1941 as part of the Pacific Expeditions on board *Velero III* and *Velero IV*. Later, Fauchald (1968, 1970) published a monography on the Eunicea from western Mexico, including specimens from the Velero expeditions, and, in 1972, as part of his PhD thesis, analyzed all the polychaete material in the Allan Hancock Foundation collection distributed in the Mexican Pacific.

Rioja, the first researcher settled in Mexico, described

35 new species (31 presently valid) whose *locus typicus* are basically in Acapulco (Guerrero), Mazatlán (Sinaloa), and La Paz (Baja California Sur) (Rioja, 1939, 1947a, 1947b) (Table 4). This faunal material was manually collected in the intertidal zone as part of numerous scientific expeditions. Unfortunately, Rioja's collection was never found and one of us (VSW) can assert that it does not exist.

In 1981, our group began the organized sampling of polychetes on board the *R/V El Puma* in the sublittoral zone of the Mexican Pacific that continues to this day. The information about the polychaete fauna collected in these oceanographic expeditions has been mainly published by Solís-Weiss, de León-González, and Hernández-Alcántara, each with different co-authors (Table 4). Up to now, 30 new polychaete species have been described for the continental shelf area and hydrothermal vents.

Thus, the historical contributions in the description of new species in the Mexican Pacific can be grouped into three main periods (Fig. 2). The first, at the end of the 1910s, was the result of Chamberlin's (1919) studies on the deep water biological material from the Tropical Pacific (20 currently valid species). The second, in the 1940s, was mainly due to Rioja's (1941a, 1941b, 1942a, 1942b, 1943a, 1943b, 1944a, 1947a, 1947b, 1947c,) and Hartman's (1940; 1941; 1944; 1947) publications. Rioja focused on the intertidal zone (24 new species), whereas Hartman analyzed part of the Allan Hancock Foundation collections (13 new species still valid) in the littoral and sublittoral zones. The third period began around the 1970s, when Fauchald's studies were published (1970, 1972), with 77 presently valid species from western Mexico, most (63 species) from the Gulf of California.

Beginning in the 1980s, most descriptions have been made by Mexican scientists in all regions of the Mexican littorals (Table 4). In fact, in the last 24 years, 10 Mexican authors have participated in the description of new polychaete taxa at a rate of about two species per year (Fig. 2), an important effort in a country where taxonomic studies are generally hindered by economic and political problems.

DISCUSSION

The description of 313 species (278 currently valid) from the Mexican Pacific over the last hundred years at a rate of 2.79 species per year is largely due to the monumental work done by Fauchald in the 1970s. He alone described 93 of the currently valid species (34%), which is more than a third of the total. These contributions made Mexico's Pacific zone the region with the largest number of described taxa in the country. From 1980 on, the rate of new species described decreased to two species per year due to a re-

Table 4. Authors who have described polychaete species from the Mexican Pacific, year of description and number of species described.

Tabla 4. Autores que han descrito las especies de poliquetos del Pacífico mexicano, año de descripción y número de especies descritas.

Authors and years of descriptions	Species described	Species currently valid
Bastida-Zavala (1990)	1	1
Bastida-Zavala & de León-González (2002)	1	1
Berkeley & Berkeley (1939, 1941, 1960)	7	7
Blake (1981, 1985)	7	7
Blake & Maciolek (1992)	1	1
Bush (1904)	1	1
Chamberlin (1919)	24	20
de León-González (1988, 1990, 1991, 1992, 1994, 1998)	8	8
de León-González & Díaz-Castañeda (1998)	2	2
de León-González & Góngora-Garza (1992, 1993)	2	2
de León-González & Rodríguez (1996)	1	1
de León-González & Solís-Weiss (1998, 2000, 2001)	8	8
de León-González, Hernández-Guevara & Rodríguez-Valencia (2006)	2	2
Díaz-Castañeda & San Martín (2001)	1	1
Fauchald (1968, 1969, 1970, 1972, 1982a)	101	93
Fauvel (1943)	2	1
Góngora-Garza & de León-González (1993)	2	2
Gravier (1905)	1	1
Hartman (1939a, 1939b, 1940, 1941, 1944, 1947, 1950, 1952, 1957, 1961, 1969)	27	24
Hernández-Alcántara & Solís-Weiss (1998a, 1998b, 2000)	5	5
Hernández-Alcántara, Pérez-Mendoza & Solís-Weiss (2006)	3	3
Hutchings & Glasby (1986a)	1	1
Kirtley (1994)	1	1
Knight-Jones (1978)	4	4
Kudennov (1975a, 1975b, 1975c, 1979)	16	14
Light (1970)	1	1
Moore (1910, 1911)	2	2
Pettibone (1983, 1984, 1985a, 1985b, 1985c, 1986, 1989a, 1991)	9	9
Reish (1963, 1968)	7	4
Rioja (1939, 1942a, 1942b, 1943a, 1943b, 1944a, 1947a, 1947b, 1947c, 1959, 1962)	35	31
Rosa (1907, 1908)	2	2
Salazar-Vallejo (1986, 1987, 1996, 2003)	6	6
Salazar-Vallejo & Harris (2006)	1	1
Solís-Weiss (1983)	2	2
Solís-Weiss & Hernández-Alcántara (1994)	1	1
Treadwell (1923, 1929, 1931, 1937, 1941, 1942)	16	6
Watson-Russell (1986)	1	1
Woodwick (1961)	1	1

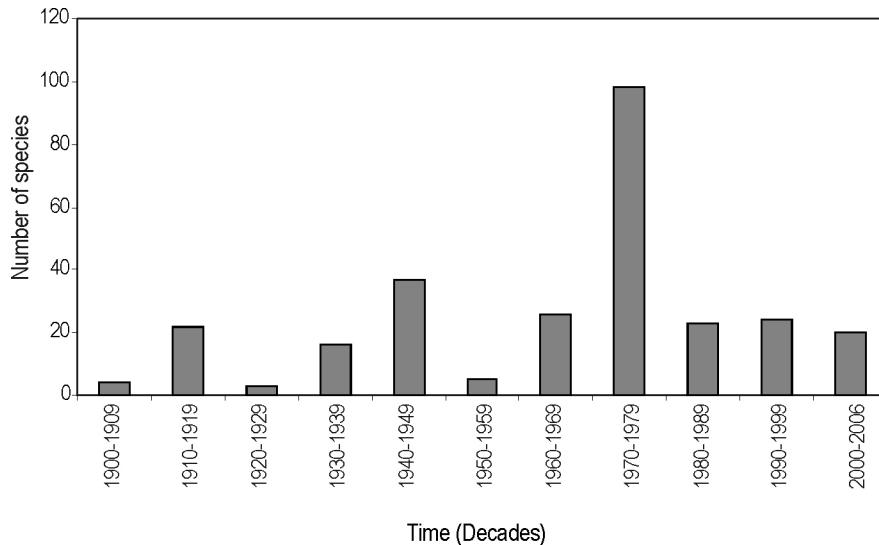


Figure 2. Number of new species of polychaetes described from the Mexican Pacific from 1904 to 2006.

Figura 2. Número de nuevas especies de poliquetos descritas en el Pacífico mexicano entre 1904 y 2006.

duction in sampling and in taxonomic studies carried out after Fauchald's work and not because fewer new species remain to be described in the Mexican littorals. In fact, in 2006, four new species were described (Hernández-Alcántara *et al.*, 2006; Salazar-Vallejo & Harris, 2006).

Thus, we can state that the polychaete species richness in the Mexican Pacific is still underestimated and that the sampling effort has been uneven, mainly concentrated in the Gulf of California. This trend is the same when the number of authors and publications in each region of the Mexican Pacific are considered, suggesting that the number of described species in each of the regions is more an artifact than a biological phenomenon. As more studies are carried out in a specific Mexican Pacific region, the species number described for that region increases. Similarly, the highest numbers of species recorded for the families Nereididae, Onuphidae, and Polynoidae reflect the individual interests of the authors for a particular group.

Faunal affinities among Pacific regions should also be cautiously analyzed since the habitat distribution data shows that the sampling effort has been predominantly carried out over "soft bottoms". Therefore, we predict many new descriptions when more samplings are done in algae, mangroves, or hard bottoms, or when the possibility of conducting deep-sea or hydrothermal vent studies can be increased; these deep-water habitats are characterized by unique environmental features, but also by difficult conditions and the need for complex sampling methods. These facts suggest that additional polychaete taxonomic studies could significantly change the interpretation of the currently accepted distribution patterns and affinities

among the different biogeographic provinces.

This study shows that, despite the relevant results already obtained in this field, the magnitude of the polychaete biodiversity in the Mexican Pacific has yet to be assessed and needs a sustained effort over time and space. The Mexican littorals are constantly altered by human actions, especially in recent times, making the need to increase this effort urgent, not only in order to evaluate the biodiversity, but also to monitor and study those alterations. The discovery of more new species will probably be related to a greater extent to studies in southern Mexico, in the Mexican biogeographic province, a marine zone where polychaete records are still unknown.

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