TECHNICAL REPORTS

CATALOG OF THE ISOPOD CRUSTACEA TYPE COLLECTION OF THE NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY

Regina Wetzer, Hans G. Kuck, Pedro Baéz R., Richard C. Brusca, and Lauma M. Jurkevics
SERIAL PUBLICATIONS OF THE
NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY

The scientific publications of the Natural History Museum of Los Angeles County have been issued at irregular intervals in three major series; the articles in each series are numbered individually, and the numbers run consecutively, regardless of the subject matter.

- Contributions in Science, a miscellaneous series of technical papers describing original research in the life and earth sciences.
- Science Bulletin, a miscellaneous series of monographs describing original research in the life and earth sciences. This series was discontinued in 1978 with the issue of Numbers 29 and 30; monographs are now published by the museum in Contributions in Science.
- Science Series, long articles and collections of papers on natural history topics.

Copies of the publications in these series are sold through the Museum Book Shop. A catalog is available on request.

The museum also publishes Technical Reports, a miscellaneous series containing information relative to scholarly inquiry and collections but not reporting the results of original research. Issue is authorized by the museum's Scientific Publications Committee; however, manuscripts do not receive anonymous peer review. Individual Technical Reports may be obtained from the relevant Section of the museum.

SCIENTIFIC PUBLICATIONS COMMITTEE

Craig C. Black, Museum Director
Daniel M. Cohen
John M. Harris, Committee Chairman
Charles L. Hogue
George L. Kennedy
Joel W. Martin
Richard C. Hink, Managing Editor
CATALOG OF THE ISOPOD CRUSTACEA TYPE COLLECTION
OF THE NATURAL HISTORY MUSEUM
OF LOS ANGELES COUNTY

Regina Wetzer
Department of Marine Invertebrates
San Diego Natural History Museum
Balboa Park
San Diego, California 92101

Hans G. Kuck
Invertebrate Zoology Section
Natural History Museum of Los Angeles County
900 Exposition Boulevard
Los Angeles, California 90007

Pedro Baéz R.
Invertebrate Zoology Section
Natural History Museum of Los Angeles County
900 Exposition Boulevard
Los Angeles, California 90007

Museo Nacional de Historia Natural
Casilla 787
Santiago, Chile

Richard C. Brusca
Department of Marine Invertebrates
San Diego Natural History Museum
Balboa Park
San Diego, California 92101

Lauma M. Jurkevics
Invertebrate Zoology Section
Natural History Museum of Los Angeles County
900 Exposition Boulevard
Los Angeles, California 90007

Technical Reports, Number 3
Natural History Museum of Los Angeles County
INTRODUCTION ............................................................................................................. 1

ACKNOWLEDGEMENTS ................................................................................................ 3

CATALOG OF THE ISOPOD CRUSTACEA TYPE COLLECTION
OF THE NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY .............. 4

Suborder Anthuridea .................................................................................................. 4
Family Anthuridae ...................................................................................................... 4

  Apanthura californiensis Schultz, 1964 ................................................................. 4
  Bathura luna Schultz, 1966 .................................................................................... 4
  Cyathura guaroensis Brusca and Iverson, 1985 ..................................................... 4
  Cyathura munda Menzies, 1951 .......................................................................... 5
  Haliophasma geminata Menzies and Barnard, 1959 ......................................... 5, 43
  Mesanthuria occidentalis Menzies and Barnard, 1959 ....................................... 5, 45

Family Paranthuridae ................................................................................................. 6

  Bullowanthuria pambula Poore, 1978 ................................................................. 6
  Colanthuria bruscai Poore, 1984 .......................................................................... 6
  Colanthuria squamosissima Menzies, 1951 ......................................................... 6
  Paranthura elegans Menzies, 1951 ..................................................................... 6

Suborder Asellota ...................................................................................................... 7
Family Abyssianiridae ............................................................................................... 7

  Antias hirsutus Menzies, 1951 ........................................................................... 7

Family Acanthaspidiidae .......................................................................................... 7

  Acanthaspidia porrecta Menzies and Schultz, 1967 ........................................ 7
  Acanthaspidia sulcatacornia Menzies and Schultz, 1967 ................................. 7
  Exacanthaspidia rostratus Menzies and Schultz, 1967 ..................................... 8
  Iolanthe pleyronotus Menzies and Schultz, 1967 ............................................. 8
  Paracanthaspidia mucronata Menzies and Schultz, 1967 ................................. 8

Family Dendrotiidae ................................................................................................ 8

  Acanthomunna tannerensis Schultz, 1966 ........................................................... 8

Family Desmosomatidae .......................................................................................... 9

  Desmosoma symmetrica Schultz, 1966 .............................................................. 9

Family Haploniscidae ................................................................................................. 9

  Antennuloniscus subellipticus Menzies and Schultz, 1967 ........................... 9

Family Jaeropsididae ................................................................................................ 9

  Jaeropsis antarctica Menzies and Schultz, 1967 .............................................. 9
  Jaeropsis concava Schultz, 1966 ....................................................................... 10
  Jaeropsis dubia Menzies, 1951 ......................................................................... 10
Family Janiridae...............................................10

Caecianiropsis psammophila Menzies and Pettit, 1956........10
Caecilaera horvathi Menzies, 1951..........................11
Iais singaporensis Menzies and Barnard, 1951............11
Ianiropsis analoga Menzies, 1952..........................11
Ianiropsis epilittoralis Menzies, 1952......................11
Ianiropsis montereyensis Menzies, 1952....................12
Ianiropsis tridens Menzies, 1952..........................12
Janiralata davisi Menzies, 1951............................12

Family Macrostylidae........................................12

Vana longiremis Meinert, 1890..............................12

Family Microcerberidae......................................13

Microcerberus boninensis Ito, 1975.........................13
Microcerberus fukudai Ito, 1974............................13

Family Munnidae..............................................13

Munna chromatocephala Menzies, 1952......................13
Munna magnifica Schultz, 1964.............................13
Munna spinifrons Menzies and Barnard, 1959..............14, 45
Munna ubiquita Menzies, 1952..............................14

Family Munnopsidae..........................................14

Eurycope californiensis Schultz, 1966......................14
Ilyarachna acarina Menzies and Barnard, 1959.............14, 45
Ilyarachna profunda Schultz, 1966........................15

Family Nannoniscidae........................................15

Nannonisconus latipleonus Schultz, 1966.................15

Family Paramunnidae........................................15

Austrosignum erratum Schultz, 1964.........................15
Austrosignum tillerae Menzies and Barnard, 1959.........15
Paramunna quadratifrons Iverson and Wilson, 1980......16

Suborder Epicaridea..........................................17

Family Bopyridae............................................17

Bopyrella thomsoni muiensis Danforth, 1970..............17
Bopyrione longicapitata Markham, 1980...................17
Cancricepon garthi Danforth, 1970........................17
Grapsicepon sinensis Danforth, 1971......................17
Hypercepon guamensis Danforth, 1971......................18
Ionella murchisoni Danforth, 1970.........................18
Litobopyrus longicaudatus Markham, 1980................18
Merocepon knudseni Danforth, 1970.........................18
Onychocepon seychellensis Danforth, 1971
Pleurocryptosa enostoidis Markham, 1980
Probopyriscus novem palensis Markham, 1980
Pseudione novaequineensis Danforth, 1971
Stegophryxus hyphalus Markham, 1974
Trapezicepon domeciae Danforth, 1971

Suborder Flabellifera
Family Aegidae
Rocinela murilloi Brusca and Iverson, 1985

Family Cirolanidae
Cirolana californiensis Schultz, 1966
Cirolana joanneae Schultz, 1966
Eurydice branchuropus Menzies and Barnard, 1959
Excirolana chamensis Brusca and Weinberg, 1987
Metacirolana costaricensis Brusca and Iverson, 1985
Politolana wickstenae Wetzer, Delaney and Brusca, 1987

Family Corallanidae
Excorallana bruscai Delaney, 1984
Excorallana delaneyi Stone and Heard, 1989
Excorallana houstoni Delaney, 1984
Excorallana kathyae Menzies, 1962

Family Cymothoidae
Lironeca bowmani Brusca, 1981
Lironeca convexa Richardson, 1905
Lironeca menziesi Brusca, 1981
Mothocya arrosor Bruce, 1986
Mothocya collettei Bruce, 1986
Mothocya gilli Bruce, 1986
Mothocya ihi Bruce, 1986
Mothocya rosea Bruce, 1986

Family Limnoriidae
Limnoria tripunctata Menzies, 1951

Family Serolidae
Serolina aca ste Poore, 1987
Serolina clarella Poore, 1987
Serolina nepea Poore, 1987

Family Sphaeromatidae
Ancinus daltonae Menzies and Barnard, 1959
Ancinus seticomvus Trask, 1970
Exosphaeroma inornata Dow, 1958
Exosphaeroma insulare Van Name, 1940..........................33
Gnorimosphaeroma kurilense Kussakin, 1974..................34
Paraleptosphaeroma glynni Buss and Iverson, 1981........34

Family Tridentellidae...........................................34

Tridentella glutacantha Delaney and Brusca, 1985........34
Tridentella quinicornis Delaney and Brusca, 1985........34

Suborder Gnathiidea..............................................35
Family Gnathiidae...............................................35

Gnathia clementensis Schultz, 1966..........................35
Gnathia coronadoensis Schultz, 1966........................35
Gnathia hirsuta Schultz, 1966................................35
Gnathia productatridens Menzies and Barnard, 1959......36, 46
Gnathia steveni Menzies, 1962.................................36, 46
Gnathia tridens Menzies and Barnard, 1959................36, 46
Gnathia trilobata Schultz, 1966...............................36

Suborder Oniscidea..............................................37
Family Scyphacidae..............................................37

Armadilloniscus coronacapitalis Menzies, 1950...........37

Family Trichoniscidae..........................................37

Trichoniscus (Miktoniscus) medcofi Van Name, 1940.......37

Suborder Valvifera...............................................37
Family Astacillidae.............................................37

Idarcturus allelomorphus Menzies and Barnard, 1959.....37, 47
Microarcturus tannerensis Schultz, 1966...................38

Family Chaetiliidae.............................................38

Chaetilia tasmanica Poore, 1985..............................38

Family Idoteidae................................................38

Colidotea findleyi Brusca and Wallerstein, 1977.........38
Colidotea wallersteini Brusca, 1983........................40
Edotea sublittoralis Menzies and Barnard, 1959...........40, 47
Erichsonella cortezii Brusca and Wallerstein, 1977......40
Erichsonella crenulata Menzies, 1950........................41
Idotea schmitti Menzies, 1950................................41
Parasymmerus annamaryae Brusca and Wallerstein, 1979..41
Synidotea calcarea Schultz, 1966............................42
Synidotea francesae Brusca, 1983.............................42
Synidotea magnifica Menzies and Barnard, 1959...........42, 47
INTRODUCTION

This is the first crustacean type catalog to be issued by the Natural History Museum of Los Angeles County (LACM). It is published in compliance with Recommendation 72G, 4 of the International Code of Zoological Nomenclature (3rd Edition, 1985). This catalog treats the Crustacea Isopoda type material held by LACM, and includes all isopod type material formerly held by the Allan Hancock Foundation, University of Southern California (AHF), from which no type lists were published. Type catalogs of other crustacean taxa are in preparation.

The LACM isopod type collection represents 7 suborders, 29 families, 72 genera and 111 species. The collection consists of 369 lots of primary and secondary types (69 holotypes, 1 neotype, 2 syntypes, 28 allotypes, 1 neoallotype, and 268 other paratype lots) totalling 1334 specimens. Geographic representation of the collection is strongest for temperate and tropical east Pacific species (307 lots) with the remaining species distributed worldwide, primarily in the Indo-Pacific region.

The catalog is arranged alphabetically by suborder, family, genus and species. Each entry contains the following information: original citation (in full), LACM catalog number(s) (other published numbers in parantheses), specific collection locality (including latitude and longitude), habitat (as given in original publication, Velero ship logs and/or on specimen labels), host (where appropriate), collector, and remarks. Sex and length are given only if they were cited in the original publication. New generic assignments made subsequent to the original description are indicated in the "Remarks" sections; in these cases the species authors' names appear in parentheses. Synonymies made subsequent to the original publication are also indicated in the "Remarks" sections by citing the senior synonym and correct author (in these cases, species authors' names are not in parentheses). In all cases, the species names appearing in the "Remarks" sections are the currently recognized names. The remark "missing" indicates that the specimen was once in the collection but cannot be located at the present time.

Definitions and eligibility of types follow the International Code of Zoological Nomenclature (3rd Edition, 1985). We regard all specimens on which the original author based a new species (or subspecies) to constitute the type series. Any specimens mentioned separately, after name-bearing type(s) (i.e., holotype, cotypes, syntypes, lectotype, or neotype) and paratypes (including allotypes) have been designated, are expressly excluded from the type series (Recommendation 72B, vi). Any specimens mentioned after the designation of the holotype, but not excluded from the type series by the author, are part of the type series (Recommendation 72B, i) and are noted in the "Remarks" sections and are listed with additional data in the Appendix.
In 1985 the AHF Crustacea collection was transferred to LACM. Included in the transfer was the type collection and the collection catalogs. The AHF type material had been assigned AHF type numbers (most previously published) and many also had general accession (AHF Acc. No.) and/or catalog numbers (AHF Cat. No.) from the Crustacea Collection Catalog of the Foundation. The first two digits of AHF type numbers indicate the year that specimen was collected; the remaining digits are consecutive numbers, beginning with 1 within each year.

All material, regardless of where or how it was initially cataloged, has been given an LACM catalog number (e.g., LACM 57-112.3; the first two digits represent the year of collection). Specimens that were collected prior to 1900 or for which no date of collection is known have been given a Crustacea "odd lot number" (e.g., LACM 1). Because of the precedent set by AHF of cataloging type material separately from non-type material, there was at one time a list of LACM Crustacea type numbers. These LACM Crustacea type numbers appeared in a few publications, without mention of the LACM catalog number. Because that system is redundant, the assignment of separate LACM Crustacea type numbers has been discontinued; types are now assigned numbers in the regular LACM catalog sequence. In this publication, AHF Crustacea type numbers and all other published numbers associated with these specimens follow the LACM catalog number and are listed in parentheses. "CAS.IZ" numbers indicate specimens once cataloged at the California Academy of Sciences (San Francisco). Scripps Institution of Oceanography is abbreviated as SIO.

During the period from 1975 to 1986, when R. C. Brusca was Curator of Crustacea at AHF, a program of specimen exchange with other institutions was initiated. Many paratypes from the AHF collection were acquired through this program. These specimens usually had associated type numbers or catalog numbers from the original institution. These numbers follow the LACM catalog number and are in parentheses.

Collectors' field numbers and ship station numbers may also appear in the list under "Collector". Many of the AHF/LACM types were collected during expeditions by AHF's research vessels Velero III and Velero IV. Velero station numbers often have a two-digit suffix representing the year of collection. This suffix is not often included in the original publication or on specimen labels. Approximate ("Approx.") coordinates are given for collection localities for which specific coordinates could not be found in the original collection data or ship log or in the literature description of the species in question.

"T" refers to "degrees true north" and is associated with the coordinate degrees in the locality data. For example, "17.3 km, 286.5° T from Point La Jolla; green sandy mud, 776 m, Campbell grab" reads: collected by Campbell grab at a distance of 17.3 kilometers and at a bearing of 286.5 degrees true north from Point La Jolla, on green sandy mud, at a depth of 776 meters. Depth is given to the nearest meter and, if originally given in
fathoms, is converted by multiplying fathoms by the factor of 1.829. Distances are given in kilometers and, if originally given in nautical miles, is converted by multiplying nautical miles by the factor of 1.852. In the case of data discrepancies in published accounts, original Velero ship logs were used as the primary data source.

ACKNOWLEDGEMENTS

Preparation of this catalog was supported by a National Science Foundation grant to R. C. Brusca (BSR 8605174) (later transferred to J. W. Martin). We thank Drs. Thomas E. Bowman, Gordon L. Hendler, Charles L. Hogue, Robert J. Lavenberg, Joel W. Martin, Timothy D. Stebbins, George D. F. Wilson and John Wright for their comments and suggestions in reviewing this catalog.
ORDER Isopoda Latreille, 1817  
SUBORDER Anthuridea Leach, 1814  
FAMILY Anthuridae Leach, 1814

Apanthura californiensis Schultz, 1964

Reference: Pacific Science, 18(3):312, fig. 4.
HOLOTYPE: LACM 55-35.1 (AHF Type No. 5512), female, 11 mm.
Locality: USA, California, Los Angeles County, 18.3 km, 203° T from Santa Monica Pier Light; black mud, 73 m, Hayward grab.
Lat./Long.: 33°51.37'N, 118°34.7'W.
Collector: R/V Velero IV Sta. No. 2998-55. 06 Feb 1955.

Bathura luna Schultz, 1966

HOLOTYPE: LACM 60-80.1 (AHF Type No. 6047), female with marsupium, 21 mm.
PARATYPES: LACM 60-80.4, 9 specimens.
Locality: USA, California, Channel Islands, Tanner Canyon, San Clemente Island, 53.5 km, 236° T from China Point Light; green mud, 1320 m, Campbell grab.
Lat./Long.: 32°32.3'N, 118°54.03'W.
Collector: R/V Velero IV Sta. No. 6832-60. 29 Jan 1960.

PARATYPE: LACM 60-88.3.
Locality: USA, California, San Diego County, Coronado Canyon, 8.6 km, 322.5° T from North Coronado Island; green mud, 794 m, Campbell grab.
Lat./Long.: 32°30.70'N, 117°21.62'W.
Collector: R/V Velero IV Sta. No. 6851-60. 01 Feb 1960.

PARATYPE: LACM 60-87.1.
Locality: USA, California, San Diego County, La Jolla Canyon, 20.0 km, 286.5° T from Point La Jolla; green sandy mud, 775 m, Campbell grab.
Lat./Long.: 32°54.35'N, 117°29.55'W.
Collector: R/V Velero IV Sta. No. 7047-60. 07 May 1960.

Cyathura guaroensis Brusca and Iverson, 1985

Reference: Revista de Biología Tropical, 33(Supl. 1):60, fig. 19.
HOLOTYPE: LACM 80-61.1 (AHF Type No. 8012).
PARATYPES: LACM 80-61.2, 5 specimens.
Locality: Costa Rica, Pacific coast, Guanacaste, Playas del
Coco, rocky point south of town; formalin washes of rocks and turf algae.

Lat./Long.: Approx. 10°34.5'N, 85°42.8'W.
Collectors: R. C. Brusca and A. M. Mackey. 27 Apr 1980.
Remarks: One paratype in University of Costa Rica Invertebrate Collection.

Locality: Costa Rica, Pacific coast, Puntarenas, Playa Tárcoles, outside mouth of Golfo de Nicoya; dark sand with scattered rocky points, intertidal, formalin washes of rocks with associated sediment, onuphid polychaete tubes abundant.

Lat./Long.: Approx. 9°45'N, 84°50'W.

Cyathura munda Menzies, 1951
PARATYPES: LACM 48-62.3, 2 juveniles.
Locality: USA, California, Marin County, Tomales Point, Tomales Bluff, bayside; intertidal zones III-IV.
Lat./Long.: Approx. 38°25'N, 122°59'W.

Haliophasma geminata Menzies and Barnard, 1959
Reference: Pacific Naturalist, 1(11):17, figs. 11, 12.
HOLOTYPE: LACM 56-44.1 (AHF Type No. 566), female, 8 mm.
Locality: USA, California, San Diego County, San Mateo Point, 3.0 km, 209° T from aero beacon; green-black, very fine sand, 23 m, Hayward grab and hydro-winch.
Lat./Long.: 33°21.7'N, 117°35.8'W.
Remarks: In addition, LACM holds 317 paratypes from 99 stations listed in the Material Examined section of the original description (see Appendix).

Mesanthura occidentalis Menzies and Barnard, 1959
HOLOTYPE: LACM 57-28.3 (AHF Type No. 5710), female, 7 mm.
Locality: USA, California, Santa Barbara County, 20.4 km, 089° T from Point Conception Light; bottom of dead kelp fragments and red algae, 16 m, hydro-winch.
Lat./Long.: 34°27.3'N, 120°14.8'W.
Remarks: One paratype was partly dissected and its appendages are in a permanent mount. In addition, LACM holds 4 paratypes from 2 stations listed in the Material Examined section of the original description (see Appendix).
FAMILY Paranthuridae Menzies and Glynn, 1968

**Bullowanthura pambula** Poore, 1978

Reference: Memoirs of the National Museum of Victoria, 39:146, figs. 8, 9.

**PARATYPE:** LACM 70-156.1.

**Locality:** Australia, Victoria, Melbourne, Port Phillip Bay; sand, 18 m.

**Lat./Long.:** 38°18.8'S, 144°53.3'E.


**Remarks:** Gift from the National Museum of Victoria, NMV J555.

**Colanthura bruscai** Poore, 1984

Reference: Journal of Natural History, 18:704, fig. 3b.

**HOLOTYPE:** LACM 77-160.1 (AHF Type No. 777), female, 4.9 mm.

**ALLOTYPE:** LACM 77-160.2 (AHF Type No. 777a), male, 3.6 mm.

**PARATYPES:** LACM 77-160.3 (AHF Type No. 778), 7 males, 2.5-3.4 mm; 5 females, 4.1-4.4 mm; 9 juveniles, 4.5 mm.

**Locality:** México, Sonora, Golfo de California, Puerto Peñasco, Station Beach Reef; on *Sargassum* sp.

**Lat./Long.:** 31°20'N, 113°35'W.

**Collector:** R. C. Brusca. 04 Apr 1977.

**Remarks:** Holotype and paratype appendages mounted on slides. Original description indicates 22 paratypes deposited at AHF.

**Colanthura squamosissima** Menzies, 1951


**PARATYPES:** LACM 48-62.1 (AHF Type No. 486), 2 males, 2 females.

**Locality:** USA, California, Marin County, Tomales Point, Tomales Bluff, bayside; formalin wash from holdfast of *Macrocystis* sp.

**Lat./Long.:** Approx. 38°25'N, 122°59'W.

**Collector:** R. J. Menzies. 23 May 1948.


**Paranthura elegans** Menzies, 1951


**PARATYPES:** LACM 48-62.2, 1 male, 2 ovigerous females, 2 juveniles.

**Locality:** USA, California, Marin County, Tomales Point,
Lat./Long.: Approx. 38°25'N, 122°59'W.  

SUBORDER Asellota Latreille, 1803  
FAMILY Abyssianiridae Menzies, 1956

Antias hirsutus Menzies, 1951


PARATYPE: LACM 48-65.1 (AHF Type No. 485).
Locality: USA, California, Marin County, Tomales Point, Tomales Bluff; reef, zone II-III, in rock and sand between coralline and laminarian algal zones, intertidal.
Lat./Long.: Approx. 38°15'N, 123°00'W.  
Remarks: Original description indicates 2 male paratypes deposited at AHF. =Santia hirsutus (Menzies, 1951). Santia was proposed by Sivertsen and Holthuis, 1980, Det Kgl. Norske Videnskabers Selskab Museet, 35:89, as a replacement name for Antias, which was shown to be a preoccupied name.

FAMILY Acanthaspidiidae Menzies, 1962

Acanthaspidia porrecta Menzies and Schultz, 1967

HOLOTYPE: LACM 62-84.1 (AHF Type No. 626, AHF Cat. No. 2032-1), female, 10 mm.
PARATYPES: LACM 62-84.2 (AHF Cat. No. 2032-1), 2 females, each 18 mm long.
Locality: Argentina, off Cabo de Hornos, Drake Passage, between hydrographic Sta. Nos. 14 and 15; 3724-3825 m, Menzies trawl.
Lat./Long.: 58°58'S, 56°03'W.  

Acanthaspidia sulcatacornia Menzies and Schultz, 1967

Reference: Antarctic Research Series, 11:158, figs. 15, 16.  
HOLOTYPE: LACM 62-82.1 (AHF Type No. 627, AHF Cat. No. 2036-1), juvenile female, 4 mm.
Locality: Argentina, West Scotia Basin, southeast of Tierra del Fuego, between hydrographic Sta. Nos. 2 and 3; approx. 4008 m, Menzies trawl.
Lat./Long.: 56°02'S, 61°56'W.  
Exacanthaspidia rostratus Menzies and Schultz, 1967

HOLOTYPE: LACM 62-93.1 (AHF Type No. 629, AHF Cat. No. 2034-1), female, 9.0 mm.
Locality: United Kingdom, Drake Passage, near South Shetland Islands, between hydrographic Sta. Nos. 11 and 12; 1437 m, 10 ft. Blake trawl.
Lat./Long.: 62°03'S, 61°09'W.

Iolanthe pleuronotus Menzies and Schultz, 1967

HOLOTYPE: LACM 63-155.1 (AHF Type No. 634, AHF Cat. No. 2030-1), male, 25 mm.
Locality: United Kingdom, Weddell Sea, southeast of South Orkney Islands, between hydrographic Sta. Nos. 12 and 13; 3784 m, Menzies trawl.
Lat./Long.: 63°17'S, 44°55'W.

Paracanthaspidia mucronata Menzies and Schultz, 1967

HOLOTYPE: LACM 62-85.1 (AHF Type No. 628, AHF Cat. No. 2035-1), female, 6 mm.
PARATYPES: LACM 62-85.2 (AHF Cat. No. 2035-1), 4 females (1 measuring at 4.0 mm).
Locality: United Kingdom, south of Falkland Islands, north of Burdwood Bank, between hydrographic Sta. Nos. 2 and 3; no sampling depth taken (bottom depth at position, 578-567 m), Menzies trawl.
Lat./Long.: 53°08'S, 59°22'W.

PARATYPE: LACM 63-154.1 (AHF Cat. No. 2031-1) female, 13.0 mm.
Locality: United Kingdom, east of Falkland Islands, Cape Pembroke, near hydrographic Sta. No. 25; 855-866 m, Menzies trawl.
Lat./Long.: 51°57'S, 56°39'W.

FAMILY Dendrotiidae Vanhöffen, 1914

Acanthomunna tannerensis Schultz, 1966

HOLOTYPE: LACM 60-76.4 (AHF Type No. 6041), female, 3.5 mm.
Locality: USA, California, Channel Islands, Tanner Canyon, San Clemente Island, 54.8 km, 250° T from China
Point Light; green muddy sand, 792 m, Campbell grab.
Lat./Long.: 32°37.87'N, 118°58.70'W.
Collector: R/V Velero IV Sta. No. 6833-60. 29 Jan 1960.

FAMILY Desmosomatidae G.O. Sars, 1897

Desmosoma symmetrica Schultz, 1966

HOLOTYPE: LACM 60-77.2 (AHF Type No. 6042), female with marsupium, 3.2 mm.
Locality: USA, California, Channel Islands, Tanner Canyon, San Clemente Island, 65.4 km, 249° T from China Point Light; coarse muddy sand, 415 m, Campbell grab.
Lat./Long.: 32°35.80'N, 119°04.92'W.
Collector: R/V Velero IV Sta. No. 6836-60. 29 Jan 1960.

FAMILY Haploniscidae Hansen, 1916

Antennuloniscus subellipticus Menzies and Schultz, 1967

Reference: Antarctic Research Series, 11:147, figs. 4, 5.
HOLOTYPE: LACM 62-83.1 (AHF Type No. 625, AHF Acc. No. 1966-2), male, 2.0 mm.
ALLOTYPE: LACM 62-83.3 (AHF Type No. 625a, AHF Acc. No. 1966-2), female, 2.1 mm.
Locality: Argentina, off Cabo de Hornos, Drake Passage, between hydrographic Sta. Nos. 6 and 7; 3733-3806 m, 10 ft. Blake trawl.
Lat./Long.: 57°13'S, 62°48'W.
Remarks: Original description indicates 3 female and 1 intersex paratypes deposited at AHF.
Locality: Argentina, off Cabo de Hornos, Drake Passage, between hydrographic Sta. Nos. 5 and 6; 3825-3975 m, Menzies trawl.
Lat./Long.: 57°06'S, 63°21'W

FAMILY Jaeropsididae Nordenstam, 1933

Jaeropsis antarctica Menzies and Schultz, 1967

**HOLOTYPE:** LACM 63-158.1 (AHF Type No. 637), male, 3.5 mm.

**Locality:** United Kingdom, Drake Passage, South Shetland Islands, southwest of King George Island; no sampling depth taken (bottom depth at position, 681-1409 m), 5 ft. Blake trawl.

**Lat./Long.:** 62°40'S, 59°30'W.

**Collector:** U.S.N.S. Eltanin Sta. No. 430. 07 Jan 1963.

**Remarks:** Holotype and paratypes not found in collection as of March 1988. Original description indicates 29 paratypes from 4 stations (place of deposition not given).

*Jaeropsis concava* Schultz, 1966

Reference: Allan Hancock Pacific Expeditions, 27(4):9, pl. 5.

**HOLOTYPE:** LACM 59-147.2 (AHF Type No. 5925), male, 3.1 mm.

**Locality:** USA, California, Channel Islands, Santa Cruz Channel, off south side of Santa Cruz Island, 4.5 km, 249.5° T from Gull Island; rocks and glauconitic sand, 205 m, Campbell grab.

**Lat./Long.:** 33°56.10'N, 119°52.28'W.

**Collector:** R/V Velero IV Sta. No. 6806-59. 22 Dec 1959.

*Jaeropsis dubia* Menzies, 1951


**PARATYPES:** LACM 48-62.5, 4 males, 14 females (3 ovigerous).

**Locality:** USA, California, Marin County, Tomales Point, Tomales Bluff, bayside; on *Laminaria* sp. holdfast and rock.

**Lat./Long.:** Approx. 38°25'N, 122°59'W.

**Collector:** R. J. Menzies. 23 May 1948.

**FAMILY Janiridae** G.O. Sars, 1897

*Caecianiropsis psammophila* Menzies and Pettit, 1956


**PARATYPES:** LACM 49-251.1 (AHF Type No. 4922, AHF Cat. No. 2028-1), 1 male, 1 female.

**Locality:** USA, California, Marin County, Tomales Point, Tomales Bluff; reef, zone II, mid-intertidal, approx. 13 cm below surface of coarse sand.

**Lat./Long.:** Approx. 38°15'N, 123°00'W.

**Collector:** R. J. Menzies. 27 Jan 1949.

**Remarks:** Gift from Pacific Marine Station, University of the Pacific, Dillon Beach, California. Original description indicates collection date as 09 July 1949, apparently in error.
Caecijaera horvathi Menzies, 1951


HOLOTYPE: LACM 50-72.1 (AHF Type No. 505), male, 1.6 mm.

ALLOTYPE: LACM 50-72.2 (AHF Type No. 505a), ovigerous female, 1.7 mm.

PARATYPES: LACM 50-72.3, 7 males, 10 females.

Locality: USA, California, Los Angeles County, Los Angeles-Long Beach Harbor, southwest corner of Terminal Island; from wood infested with Limnoria sp.

Lat./Long.: Approx. 33°45'N, 118°10'W.

Collector: C. Horvath. 06 Dec 1950.

Iais singaporensis Menzies and Barnard, 1951


PARATYPES: LACM 50-73.1 (AHF Type No. 5013), 3 males, 3 females.

Locality: Malaysia, Singapore Island, Seletar and Punggol.

Lat./Long.: Approx. 1°25'N, 103°54'E.

Host: Sphaeroma sp.


Ianiropsis analoga Menzies, 1952


PARATYPES: LACM 48-67.1 (AHF Type No. 489, AHF Cat. No. 2023-1), 3 males, 3 females.

Locality: USA, California, Marin County, Dillon Beach, Second Sled Road; under rocks and on Laminaria sp. holdfasts.

Lat./Long.: Approx. 38°15'N, 123°00'W.


Remarks: Gift from Pacific Marine Station, University of the Pacific, Dillon Beach, California.

Ianiropsis epilittoralis Menzies, 1952


PARATYPE: LACM 48-68.1 (AHF Type No. 488, AHF Cat. No. 2026-1).

Locality: USA, California, Marin County, Dillon Beach, First Sled Road; in tidepool on top of Mytilus sp. covered rock.

Lat./Long.: Approx. 38°15'N, 123°00'W.

Remarks: Gift from Pacific Marine Station, University of the Pacific, Dillon Beach, California. Original description indicates 4 paratypes deposited at AHF.

Ianiropsis montereyensis Menzies, 1952


PARATYPES: LACM 47-33.1 (AHF Type No. 473, AHF Cat. No. 2029-1), 1 male, 1 female.

Locality: USA, California, San Mateo County, Pescadero Point; lowest intertidal zone, under sponge-encrusted rock.

Lat./Long.: Approx. 37°15'N, 122°25'W.


Ianiropsis tridens Menzies, 1952


PARATYPES: LACM 48-65.2 (AHF Type No. 4811, AHF Cat. No. 2025-1), 1 male, 1 female.

Locality: USA, California, Marin County, Tomales Point; reef, from Laminaria sp. holdfast.

Lat./Long.: Approx. 38°15'N, 123°00'W.


Remarks: Gift from Pacific Marine Station, University of the Pacific, Dillon Beach, California.

Janiralata davisi Menzies, 1951


PARATYPE: LACM 47-34.1 (AHF Type No. 472), female.

Locality: USA, California, Monterey County, Carmel Cove; intertidal, zone IV, on undersurface of submerged rock.

Lat./Long.: Approx. 36°34'N, 121°56'W.

Collector: J. Davis. 06 Jul 1947.


FAMILY Macrostylidae Hansen, 1916

Vana longiremis Meinert, 1890


PARATYPES: LACM 3 (AHF Cat. No. 1114-01), 4 specimens.

Locality: Denmark, Denmark Strait, Nordjylland, 24 km north northeast of Skagen Lightship, Hauch St. 460; 227 m.
Lat./Long.: Approx. 58°02'N, 10°50'E.
Collector: 22 Jul 1886.

FAMILY Microcerberidae Karaman, 1933

Microcerberus boninensis Itō, 1975

PARATYPES: LACM 73-170.1 (AHF Type No. 732), 4 specimens.
Locality: Japan, Ogasawara Gunto (Bonin Islands), Mukō Jima Rettō (Mukōjima Island); sand and pebbles, decanting and sieving method.
Lat./Long.: Approx. 27°45'N, 141°25'E.

Microcerberus fukudai Itō, 1974

Reference: Journal of the Faculty of Science, Hokkaidō University, Series VI, Zoology 19(2):339, figs. 1-3 and pl. 27.
PARATYPES: LACM 73-171.1 (AHF Type No. 733), 3 specimens.
Locality: Japan, Hokkaidō, Tombetsu; rinsed from sand.
Lat./Long.: Approx. 45°00'N, 142°30'E.

FAMILY Munnidae G.O. Sars, 1897

Munna chromatocephala Menzies, 1952

PARATYPES: LACM 48-70.1 (AHF Type No. 481, AHF Cat. No. 2024-1), 1 male, 4 females.
Locality: USA, California, Marin County, Dillon Beach, First Sled Road; north rocks, in Mytilus sp. biotope.
Lat./Long.: Approx. 38°15'N, 123°00'W.
Remarks: Original description indicates 4 female paratypes deposited at AHF.

Munna magnifica Schultz, 1964

Reference: Pacific Science, 18(3):310, fig. 2.
HOLOTYPE: LACM 54-94.2 (AHF Type No. 5417), female (with embryos in marsupium), 2.0 mm.
PARATYPE: LACM 54-94.4.
Locality: USA, California, Channel Islands, Santa Barbara Island, 24.3 km, 301° T from North Light; cobbles,
gravel and compact black mud, 457 m, Campbell grab.

Lat./Long.: 33°35.98'N, 119°15.18'W.

**Munna spinifrons** Menzies and Barnard, 1959

HOLOTYPE: LACM 57-28.4 (AHF Type No. 576), male, 1.5 mm.
Locality: USA, California, Santa Barbara County, 20.4 km, 089° T from Point Conception Light; silty sand, 16 m, hydro-winch.
Lat./Long.: 34°27.3'N, 120°14.8'W.
Remarks: In addition, LACM holds 3 paratypes from the holotype station listed in the Material Examined section of the original description (see Appendix).

**Munna ubiquita** Menzies, 1952

PARATYPES: LACM 48-71.1 (AHF Type No. 4810, AHF Cat. No. 2027-1), 1 male, 4 ovigerous females.
Locality: USA, California, Marin County, Dillon Beach, First Sled Road; north rocks, with *Scrupocellaria californica*.
Lat./Long.: Approx. 38°15'N, 123°00'W.

**FAMILY** Munnopsidae M. Sars, 1869

**Eurycope californiensis** Schultz, 1966

Reference: Allan Hancock Pacific Expeditions, 27(4):8, pl. 3.
HOLOTYPE: LACM 60-89.1 (AHF Type No. 6043), female, 3.5 mm.
PARATYPE: LACM 60-89.3.
Locality: USA, California, Orange County, Newport Canyon, 8.8 km, 174° T from base of Newport Pier; green mud and gray sand (some very coarse), 465 m, Campbell grab.
Lat./Long.: 33°31.47'N, 117°54.97'W.
Collector: R/V Velero IV Sta. No. 7032-60. 5 May 1960.

**Ilyarachna acarina** Menzies and Barnard, 1959

HOLOTYPE: LACM 57-83.1 (AHF Type No. 578), female, 4 mm.
Locality: USA, California, Santa Barbara County, 18.9 km, 147° T from Santa Barbara Breakwater Light; green mud, 91 m, hydro-winches.
Lat./Long.: 34°15.80'N, 119°34.47'W.
Collector: R/V Velero IV Sta. No. 4980-57. 11 Apr 1957.
Remarks: In addition, LACM holds 23 paratypes from 10 stations listed in the Material Examined section of the original description (see Appendix).

**Ilyarachna profunda** Schultz, 1966


**HOLOTYPE:** LACM 60-87.2 (AHF Type No. 6044), male, 3.0 mm.

Locality: USA, California, San Diego County, La Jolla Canyon, 20.0 km, 286.5° T from Point La Jolla; green sandy mud, 775 m, Campbell grab.
Lat./Long.: 32°54.35'N, 117°29.55'W.
Collector: R/V Velero IV Sta. No. 7047-60. 07 May 1960.

**FAMILY** Nannoniscidae Hansen, 1916

**Nannonisconus latipleonus** Schultz, 1966


**HOLOTYPE:** LACM 54-55.1 (AHF Type No. 5415), male, 2.8 mm.

Locality: USA, California, Los Angeles County, Redondo Canyon, 17.2 km, 287.5° T from Palos Verdes Point; many large rocks and blue-gray mud, 459 m, Hayward grab.
Lat./Long.: 33°48.0'N, 118°32.0'W.
Collector: R/V Velero IV Sta. No. 2793-54. 22 May 1954.

**FAMILY** Paramunnidae Vanhoffen, 1914

**Austrosignum erratum** Schultz, 1964


**HOLOTYPE:** LACM 58-166.1 (AHF Type No. 5814), male, 1.8 mm.

Locality: USA, California, Santa Barbara County, Santa Barbara Channel, 8.5 km, 137° T from Gaviota Pier; olive green, silty sand, 128 m, hydro-winches and orange peel grab.
Lat./Long.: 34°24.8'N, 120°08.7'W.

**Austrosignum tillerae** Menzies and Barnard, 1959

**HOLOTYPE:** LACM 56-26.11 (AHF Type No. 567), female, 1 mm.

**PARATYPE:** LACM 56-26.2.

**Locality:** USA, California, San Diego County, 9.6 km, 294° T from Point Loma Light; green mud and shells, 101 m, hydro-winch and Hayward grab.

**Lat./Long.:** 32°41.8'N, 117°20.4'W.

**Collector:** R/V Velero IV Sta. No. 4753-56. 08 Dec 1956.

**Remarks:** Holotype missing as of 19 February 1971.


**PARATYPE:** LACM 57-22.2.

**Locality:** USA, California, Santa Barbara County, 6.9 km, 179° T from Point Arguello Light; 88 m, hydro-winch.

**Lat./Long.:** 34°30.3'N, 120°39.0'W.

**Collector:** R/V Velero IV Sta. No. 4814-57. 16 Jan 1957.

**PARATYPE:** LACM 57-28.14.

**Locality:** USA, California, Santa Barbara County, 20.3 km, 089° T from Point Conception Light; 16 m, hydro-winch.

**Lat./Long.:** 34°27.3'N, 120°14.8'W.

**Collector:** R/V Velero IV Sta. No. 4822-57. 17 Jan 1957.

**PARATYPE:** LACM 57-132.2.

**Locality:** USA, California, San Diego County, 16.7 km, 185° T from Point Loma Light; red sand, 55 m, hydro-winch.

**Lat./Long.:** 32°31'N, 117°15.3'W.

**Collector:** R/V Velero IV Sta. No. 5193-57. 14 Aug 1957.

**PARATYPE:** LACM 57-228.2.

**Locality:** USA, California, Santa Barbara County, 16.8 km, 106° T from Santa Barbara Point Light; green mud, 44 m, hydro-winch.

**Lat./Long.:** 34°21.3'N, 119°32.58'W.

**Collector:** R/V Velero IV Sta. No. 5176-57. 03 Jul 1957.

**Paramunna quadratifrons** Iverson and Wilson, 1980


**PARATYPES:** LACM 78-181.1 (AHF Type No. 781, AHF Cat. No. 1950-01), 2 specimens.

**Locality:** USA, California, Channel Islands, south of Anacapa Islands; light brown, coarse sand and shell, 197 m, box core.

**Lat./Long.:** 33°53.24'N, 119°23.35'W.

**Collector:** R/V Thomas G. Thompson Sta. No. 81832. 24 Aug 1978.

**Remarks:** Original description indicates 2 male and 1 female paratypes deposited at AHF.
SUBORDER Epicaridea Latreille, 1831
FAMILY Bopyriidae Rafinesque, 1815

Bopyrella thomsoni muiensis Danforth, 1970

HOLOTYPE: LACM 66-269.1 (AHF Type No. 664, AHF Acc. No. 1969-29), female, 11.0 mm.
ALLOTYPE: LACM 66-269.2 (AHF Type No. 664a), male, 2.5 mm.
Lat./Long.: Approx. 11°30'N, 162°15'E.
Host: Alpheus strenuus Dana, female; from right gill chamber.

Bopyrione longicapitata Markham, 1980

HOLOTYPE: LACM 80-97.1 (AHF Type No. 805, AHF Cat. No. 2208-05), female, 6.78 mm.
ALLOTYPE: LACM 80-97.2 (AHF Type No. 805a, AHF Cat. No. 2208-05), male, 1.10 mm.
Locality: United Kingdom, Hong Kong, Tolo Harbour, west side of Starfish Bay; under intertidal rocks.
Lat./Long.: 22°24.92'N, 114°14.7'E.
Host: Alpheus lobidens de Haan? (AHF Cat. No. 2208-06).
Collector: J. C. Markham. 02 May 1980.

Cancricepon garthi Danforth, 1970

HOLOTYPE: LACM 67-197.1 (AHF Type No. 671, AHF Acc. No. 1969-29), female, 2.5 mm.
ALLOTYPE: LACM 67-197.2 (AHF Type No. 671a), male, 1.0 mm.
Lat./Long.: Approx. 11°30'N, 162°15'E.
Host: Dacryopilumnus eremita Nobili; from left branchial area.

Grapsicepon sinensis Danforth, 1971

Reference: Micronesica, 7(1,2):163, fig. 1.
HOLOTYPE: LACM 68-250.1 (AHF Type No. 686, AHF Acc. No. 1969-29), female, 3.5 mm.
ALLOTYPE: LACM 68-250.2 (AHF Type No. 686a), male, 1.0 mm.
Locality: United Kingdom, Hong Kong.
Lat./Long.: Approx. 22°15'N, 114°10'E.
Host: Lissocarcinus orbicularis Dana, female; from
left branchial cavity, which in turn was taken from the respiratory tree of *Holothuria argus* Jaeger.


**Hypercepon guamensis** Danforth, 1971

Reference: *Micronesica*, 7(1,2):167, fig. 2.

HOLOTYPE: LACM 66-271.1 (AHF Type No. 665, AHF Acc. No. 1969-29), female, 5.0 mm.

ALLOCYPE: LACM 66-271.2 (AHF Type No. 665a), male, 2.5 mm.

Locality: USA, Guam, Tumon Bay, Gun Beach.
Lat./Long.: Approx. 13°30'N, 144°46'E.
Host: *Trapezia ferruginea* Latreille, female; from left branchial chamber, strongly compressed among the gills.

**Ionella murchisoni** Danforth, 1970


ALLOCYPE: LACM 65-206.2 (AHF Type No. 6513a), male.

Locality: USA, Hawaiian Islands, Oahu, Kaneohe Bay, Sand Island.
Lat./Long.: Approx. 21°27'N, 157°47'E.
Host: *Callianassa* sp., from right gill chamber.

**Litobopyrus longicaudatus** Markham, 1980


HOLOTYPE: LACM 80-97.3 (AHF Type No. 803, AHF Cat. No. 2208-01), female, 2.30 mm.

ALLOCYPE: LACM 80-97.4 (AHF Type No. 803a, AHF Cat. No. 2208-01), male, 0.66 mm.

PARATYPES: LACM 80-97.5 (AHF Type No. 801, AHF Cat. No. 2208-04), 1 male, 2 females.

Locality: United Kingdom, Hong Kong, Tolo Harbour, west side of Starfish Bay; under intertidal rocks.
Lat./Long.: 22°24.92'N, 114°14.7'E.
Host: *Athanas* sp.
Collector: J. C. Markham. 02 May 1980.

**Merocepon knudseni** Danforth, 1970


HOLOTYPE: LACM 65-207.1 (AHF Type No. 6512, AHF Acc. No.
Onychocepon seychellensis Danforth, 1971

Reference: Micronesica, 7(1,2):169, fig. 3.

HOLOTYPE: LACM 66-270.1 (AHF Type No. 666, AHF Acc. No. 1969-29), female, 4.0 mm.

ALLOTYPES: LACM 66-270.2 (AHF Type No. 666a), male, 2.0 mm.

Locality: Indian Ocean, Seychelles, Mahé Island, Port Glaud.

Lat./Long.: Approx. 4°35'S, 55°30'E.

Host: Tetralia glaberrima (Herbst), male; from left branchial chamber.


Pleurocryptosa enosteoidis Markham, 1980


HOLOTYPE: LACM 80-99.1 (AHF Type No. 802, AHF Cat. No. 2206-04), female, 3.94 mm.

ALLOTYPES: LACM 80-99.2 (AHF Type No. 802a), male, 1.18 mm.

Locality: United Kingdom, Hong Kong, Mirs Bay, Breakers Reef; bottom of coral head, 18 m.

Lat./Long.: Approx. 22°15'N, 114°10'E.

Host: Enosteoides ornatus (Stimpson).


Probopyriscus novempalensis Markham, 1980


HOLOTYPE: LACM 80-100.1 (AHF Type No. 804, AHF Cat. No. 2202-01), female, 5.51 mm.

ALLOTYPES: LACM 80-100.2 (AHF Type No. 804a, AHF Cat. No. 2202-01), male, 1.62 mm.

Locality: United Kingdom, Hong Kong, Mirs Bay, Ninepins Islands, North Reef; 14 m, SCUBA.

Lat./Long.: Approx. 22°15'N, 114°20'E.

Host: Alpheus sp.

Collectors: Various SCUBA divers. 22 Apr 1980.
### Pseudione novaeguineensis Danforth, 1971

**Reference:** Bulletin of the Southern California Academy of Sciences, 70(2):99, fig. 1b-g.

**HoloType:** LACM 69-118.1 (AHF Type No. 694, AHF Acc. No. 1970-3), female, 3.5 mm.

**AlloType:** LACM 69-118.2 (AHF Type No. 694a), male, 1.1 mm.

**Paratypes:** LACM 69-118.3, 2 males, 2 females.

**Locality:** New Guinea, Papua New Guinea, near Maiwara; on mangrove roots.

**Lat./Long.:** 5°4.4'S, 145°43.7'E.

**Host:** Clibanarius sp., aff. longitarsis (De Haan).

**Collector:** R/V Alpha Helix, E. Ball. 26 Oct 1969.

### Stegophryxus hyphalus Markham, 1974

**Reference:** Bulletin of the Southern California Academy of Sciences, 73:36, figs. 6-8.

**HoloType:** LACM 39-130.1 (AHF Type No. 3928), female, 6.1 mm.

**AlloType:** LACM 39-130.3 (AHF Type No. 3928a), male, 2.6 mm.

**Paratype:** LACM 39-130.2, female.

**Locality:** USA, California, Channel Islands, northwest of San Clemente Island; mud, 216-384 m.

**Lat./Long.:** 32°59.5'N, 118°38.4'W.

**Host:** Parapagurodes makarovi McLaughlin and Haig.

**Collector:** R/V Velero III Sta. No. 1026-39. 09 Dec 1939.

**Paratypes:** LACM 41-209.1, 1 male, 5 females.

**Locality:** USA, California, Channel Islands, Santa Catalina Island, 4.6 km southeast of Seal Rocks; rock and lumpy gray sand, 159-165 m, dredge.

**Lat./Long.:** 33°17.3'N, 118°15.8'W.

**Host:** Parapagurodes laurentae McLaughlin and Haig.

**Collector:** R/V Velero III Sta. No. 1429-41, D-3. 25 Oct 1941.

**Paratypes:** LACM 39-10.1, 1 male, 1 immature female.

**Locality:** USA, California, Channel Islands, San Clemente Island, off Pyramid Cove; sand and mud, 143-201 m.

**Lat./Long.:** 32°47.2'N, 118°22.2'W.

**Host:** Parapagurodes laurentae McLaughlin and Haig.

**Collector:** R/V Velero III Sta. No. 914a-39. 19 Feb 1939.

**Paratypes:** LACM 39-7.1, 1 male, 1 female.

**Locality:** USA, California, Channel Islands, San Clemente Island, off Wilson Cove; sand and broken shell, 110-155 m.

**Lat./Long.:** 33°00.3'N, 118°33.2'W.

**Host:** Parapagurodes makarovi McLaughlin and Haig.

**Collector:** R/V Velero III Sta. No. 911-39. 18 Feb 1939.

**Paratypes:** LACM 39-85.1, 1 male, 1 female.

**Locality:** USA, California, Channel Islands, 10.2 km north
of Santa Barbara Island; gray sand, 139-159 m, dredge.

**Lat./Long.**: 33°34.9'N, 119°00.5'W.

**Hosts:**
- *Parapagurodes laurentae* McLaughlin and Haig (for LACM 39-85.1); *Parapagurodes makarovi* McLaughlin and Haig (for LACM 39-85.2).

**Collector:** R/V *Velero III* Sta. No. 981-39, D-2. 29 May 1939.

**Remarks:** Original description indicates (for LACM 39-85.2) 3 male and 7 female (1 immature) paratypes deposited at AHF.

**PARATYPE:** LACM 39-116.1, immature female.

**Locality:** USA, California, Channel Islands, San Clemente Island, south of Pyramid Cove; sand and shell, 101-126 m.

**Lat./Long.**: 32°45.9'N, 118°26.2'W.

**Host:** *Parapagurodes laurentae* McLaughlin and Haig.

**Collector:** R/V *Velero III* Sta. No. 1012-39. 9 Nov 1939.

**PARATYPES:** LACM 39-124.1, 1 male, 2 females.

**Locality:** USA, California, Channel Islands, north of San Clemente Island; gray sand, 247-274 m.

**Lat./Long.**: 33°03.2'N, 118°40.5'W.

**Host:** *Parapagurodes makarovi* McLaughlin and Haig.


**PARATYPE:** LACM 41-19.2, female.

**Locality:** USA, California, Channel Islands, San Clemente Island, off Wilson Cove; coralline and shell, 95-112 m, dredge.

**Lat./Long.**: 33°00.6'N. 118°32.5'W.

**Host:** *Parapagurodes laurentae* McLaughlin and Haig.

**Collector:** R/V *Velero III* Sta. No. 1239-41. 22 Feb 1941.

**PARATYPE:** LACM 39-87.1, female.

**Locality:** USA, California, Channel Islands, 28.7 km north northwest of Santa Barbara Island; boulders, 128 m, dredge.

**Lat./Long.**: 33°43.5'N, 119°09.5'W.

**Host:** *Parapagurodes makarovi* McLaughlin and Haig.

**Collector:** R/V *Velero III* Sta. No. 983-39. 29 May 1939.

**PARATYPE:** LACM 40-147.1, female.

**Locality:** USA, California, Channel Islands, 7.4 km southeast of Santa Catalina Island; fine green sand, 210-198 m, dredge.

**Lat./Long.**: 33°17.0'N, 118°14.5'W.

**Host:** *Parapagurodes makarovi* McLaughlin and Haig.

**Collector:** R/V *Velero III* Sta. no. 1173-40. 20 Aug 1940.

**Trapezicepon domeciae** Danforth, 1971

**Reference:** Micronesica, 7(1,2):172, fig. 4.

**HOLOTYPE:** LACM 64-126.1 (AHF Type No. 642, AHF Acc. No.
22

ALLOTYPE: LACM 64-126.2 (AHF Type No. 642a), male, 2.0 mm.
Locality: Indian Ocean, Maldives; from host on *Acropora* sp.
Lat./Long.: Approx. 4°N, 73°E.
Host: *Domecia glabra* Alcock, female; from right branchial chamber.

SUBORDER Flabellifera Sars, 1882
FAMILY Aegidae Leach 1815

*Rocinela murilloi* Brusca and Iverson, 1985


HOLOTYPE: LACM 73-109.1 (AHF Type No. 737, AHF Cat. No. 202-05), nongravid female.

Locality: Costa Rica, Pacific coast, Guanacaste, 25.9 km, 233° T from Punta Guiones; 1372-1865 m, beam trawl.
Lat./Long.: 9°40.95'N, 85°48.2'W

FAMILY Cirolanidae Dana, 1853

*Cirolana californiensis* Schultz, 1966


HOLOTYPE: LACM 60-88.4 (AHF Type No. 6048), female, 8.0 mm.
Locality: USA, California, San Diego County, Coronado Canyon, 8.6 km, 322.5° T from North Coronado Island; green mud, 794 m, Campbell grab.
Lat./Long.: 32°30.70'N, 117°21.62'W
Collector: R/V *Velero IV* Sta. No. 6851-60. 01 Feb 1960.

PARATYPES: LACM 60-76.3 (AHF Cat. No. 952-1), 2 specimens.
Locality: USA, California, Channel Islands, Tanner Canyon, San Clemente Island, 54.8 km, 250° T from China Point Light; green muddy sand, 792 m, Campbell grab.
Lat./Long.: 32°37.87'N, 118°58.70'W
Collector: R/V *Velero IV* Sta. No. 6833-60. 29 Jan 1960.

*Cirolana joanneae* Schultz, 1966


HOLOTYPE: LACM 59-149.4 (AHF Type No. 5926), female, 3.0 mm.
Locality: USA, California, Channel Islands, Santa Cruz Channel, off south side of Santa Cruz Island, 4.3 km, 246.5° T from Gull Island; rocks and some green sand, 201 m, Campbell grab.

Lat./Long.: 33°56.05'N, 119°52.05'W.


PARATYPES: LACM 54-94.1 (AHF Cat. No. 960-1), 3 specimens.

Locality: USA, California, Channel Islands, Santa Barbara Island, 24.3 km, 301° T from North Light; cobbles, gravel and compact black mud, 457 m, Campbell grab.

Lat./Long.: 33°35.98'N, 119°15.18'W.


Remarks: Schultz's (1966) holotype locality data (Velero Sta. 6806) are apparently in error; original label with specimen reads "Velero Sta. 6805." Schultz's (op. cit.) paratype locality data are also apparently in error (Velero Sta. 6805, 6806).

=E. branchuropus Menzies and Barnard, 1959

Eurydice branchuropus Menzies and Barnard, 1959


HOLOTYPE: LACM 57-67.1 (AHF Type No. 579), female, 3 mm.

Locality: USA, California, San Diego County, 18.5 m, 174° T from Point Loma Light; coarse red sand, 40 m, hydro-winch and orange peel grab.

Lat./Long.: 32°30.0'N, 117°13.3'W.


Remarks: In addition, LACM holds 4 specimens from the holotype locality listed in the Material Examined section of the original description (see Appendix). =E. caudata Richardson, 1899. Species synonymy by Bowman, 1977, Proceedings of the Biological Society of Washington, 89(57):654.

Excirolana chamensis Brusca & Weinberg, 1987

Reference: Contributions in Science, Natural History Museum of Los Angeles County, 392:11, figs. 1-4.

HOLOTYPE: LACM 84-215.1 (AHF Type No. 3013), male, 4.3 mm.

PARATYPE: LACM 84-215.2 (AHF Type No. 3014), male, head broken from body.

Locality: Panamá, near Panamá, Bahía de Punta Chame, near old part of town by National Theater; polluted beach.

Lat./Long.: Approx. 8°57'N, 79°30'W.


PARATYPES: LACM 84-218.1 (AHF Type No. 3015), 5 adults (2.4-2.6 mm), 3 mancas (1.7 mm each).

Locality: Panamá, near Panamá, Bahía de Punta Chame; fine
Lat./Long.: Approx. 8°57'N, 79°30'W.

Metacirolana costaricensis Brusca and Iverson, 1985

Reference: Revista de Biología Tropical, 33(Supl. 1):36, fig. 11d.

HOLOTYPE: LACM 80-60.1 (AHF Type No. 8011).
PARATYPES: LACM 80-60.2, 2 specimens.
Locality: Costa Rica, Pacific coast, Guanacaste, Parque Nacional Santa Rosa; rocky littoral approx. 1 km from mouth of mangrove estero (separated by sand beach), large surf, formalin washes of rocks and turf algae.
Lat./Long.: Approx. 10°48'N, 86°57'W.

Politolana wickstenae Wetzer, Delaney and Brusca, 1987

Reference: Contributions in Science, Natural History Museum of Los Angeles County, 392:3, figs. 1-7.

HOLOTYPE: LACM 85-171.1 (LACM Type No. 3008), nongravid female, 24.75 mm.
PARATYPES: LACM 85-171.2 (LACM Type No. 3009), 3 nongravid females, 24.26 mm, 26.07 mm, and 26.57 mm.
Locality: USA, Florida, Bay County, south of Panama City, northeast Gulf of Mexico; approx. 488 m, baited bottom trap.
Lat./Long.: 28°22.89'N, 86°14'W.
Collectors: R/V Citation, M. K. Wicksten and B. Cocke. 17 May 1985.

PARATYPES: LACM 85-197.1 (LACM Type No. 3010), 2 nongravid females, 27.89 mm and 30.53 mm.
Locality: Northwest Gulf of Mexico.
Remarks: Depth and coordinates not known.

PARATYPES: LACM 85-175.1 (LACM Type No. 3011), 3 nongravid females, 25.41 mm, 27.23 mm and 27.38 mm.
Locality: USA, Florida, Bay County, south of Panama City, northeast Gulf of Mexico; 500-600 m, baited bottom trap.
Lat./Long.: 28°22.29'N, 86°25.20'W.

PARATYPES: LACM 86-700.1 (LACM Type No. 3012), 2 males (15.80 mm and 18.20 mm), 32 females.
Locality: USA, Florida, Bay County, south of Panama City, northwest Gulf of Mexico; 500-600 m, baited
Lat./Long.: Approx. 28°22.29'N, 86°25.20'W.
Collectors: R/V Citation, M. K. Wicksten and B. Cocke. Sep 1986.

**FAMILY** Corallanidae Hansen, 1890

**Excorallana bruscai** Delaney, 1984

**Reference:** Bulletin of Marine Science, 34(1):5, figs. 1-4, 14-17, 22.

**HOLOTYPE:** LACM 66-268.1 (AHF Type No. 6611, AHF Cat. No. 1004-01), male, 7.88 mm.

**Locality:** México, Sonora, Golfo de California, Puerto de Lobos; seine on sand beach in evening.

**Lat./Long.:** Approx. 30°25'N, 112°50'W.
**Collectors:** D. A. Thomson and University of Arizona class. 26 Feb 1966.
**Remarks:** Original description indicates collection date as 22 February 1968, apparently in error.

**PARATYPE:** LACM 66-272.1 (AHF Cat. No. 1006-01), male, 8.25 mm.

**Locality:** México, Sonora, Golfo de California, Puerto Peñasco, Station Beach; rocky intertidal.

**Lat./Long.:** Approx. 31°20'N, 113°35'W.
**Collector:** P. S. Miles. 25 Feb 1966.
**Remarks:** Original description indicates collection date as 22 February 1968, apparently in error.

**PARATYPE:** LACM 79-165.1, female, 7.5 mm.

**Locality:** México, Sonora, Golfo de California, Puerto Peñasco, Station Beach; infauna of coquina reef.

**Lat./Long.:** Approx. 31°20'N, 113°35'W.
**Collector:** P. Pepe. Sample No. ZI, 92, 4. 23 Apr 1979.

**PARATYPE:** LACM 79-166.1, gravid female, 9.15 mm.

**Locality:** México, Sonora, Golfo de California, Puerto Peñasco, Station Beach; infauna of coquina reef.

**Lat./Long.:** Approx. 31°20'N, 113°35'W.
**Collector:** P. Pepe. Sample No. ZI, 60, 17. 23 Apr 1979.

**PARATYPES:** LACM 79-167.1, 4 males, 8.63 mm, 8.25 mm, 9.38 mm and 8.63 mm, and 3 females, 8.63 mm, 9.0 mm and 6.0 mm (damaged).

**Locality:** México, Sonora, Golfo de California, Puerto Peñasco, Station Beach; infauna of coquina reef.

**Lat./Long.:** Approx. 31°20'N, 113°35'W.

**PARATYPES:** LACM 79-168.1, 3 females, 9.0 mm (gravid), 8.25 mm and 6.75 mm (damaged).

**Locality:** México, Sonora, Golfo de California, Puerto Peñasco, Station Beach; infauna of coquina reef.
<table>
<thead>
<tr>
<th>Lat./Long.</th>
<th>Collector</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx. 31°20'N, 113°35'W.</td>
<td>P. Pepe. Sample No. ZII, 85, 27. 27 Apr 1979.</td>
<td>Original description indicates 5 male and 1 female paratypes (place of deposition not given); a group of 2 males and 1 female was found inside an empty vermetid gastropod <em>Serpulorbis margaritaceous</em> (Chenu, ex Rousseau, MS) tube.</td>
</tr>
<tr>
<td>Approx. 31°20'N, 113°35'W.</td>
<td>P. M. Delaney. 19 Apr 1981.</td>
<td></td>
</tr>
<tr>
<td>Approx. 31°20'N, 113°35'W.</td>
<td>R. C. Brusca. 16 Feb 1968.</td>
<td></td>
</tr>
<tr>
<td>Approx. 31°20'N, 113°35'W.</td>
<td>R. C. Brusca. 10 Jul 1971.</td>
<td></td>
</tr>
</tbody>
</table>

*Excorallana delaneyi* Stone and Heard, 1989


PARATYPES: LACM 79-169.1, 4 males, 7.88-8.63 mm, and 1 female, 8.63 mm.

Locality: México, Sonora, Golfo de California, Puerto Peñasco, Station Beach; infauna of coquina reef.

PARATYPE: LACM 81-99.1, male, 8.63 mm.

Locality: México, Sonora, Golfo de California, Puerto Peñasco, Pelican Point; low intertidal coquina reef, commensal in white sponge *Leucetta losangelensis*.

PARATYPE: LACM 68-252.1 (UA Cat. No. 68-139), male, 10.13 mm.

Locality: México, Sonora, Golfo de California, Puerto Peñasco, Cholla Bay.

PARATYPE: LACM 71-38.1 (AHF Cat. No. 1007-01), male, 6.75 mm.

Locality: México, Sonora, Golfo de California, Puerto Peñasco, Cholla Bay; low intertidal on muddy sand.

PARATYPE: LACM 80-111.1, male, 7.5 mm.

Locality: México, Baja California Sur, Golfo de California, Bahía Concepción; on subtidal coralline algae.

Published coordinates (29'48" N, 089'24" W) seem to be in error.
Excorallana houstoni Delaney, 1984


**HOLOTYPE:** LACM 80-96.1 (AHF Type No. 807), female.

**PARATYPE:** LACM 80-96.2, female.

Locality: México, Baja California Sur, Golfo de California, Bahía Concepción; formalin wash of intertidal rocks with oysters and barnacles.

Lat./Long.: Approx. 26°55’N, 111°50’W.


Remarks: Original description indicates 4 female paratypes deposited at AHF.

**PARATYPE:** LACM 76-565.1, female, 5.25 mm.

Locality: México, Colima, Manzanillo, Bahía Audiencia; formalin wash of barnacles.

Lat./Long.: Approx. 19°00’N, 104°20’W.


**PARATYPE:** LACM 66-122.1, female, 8.25 mm.

Locality: Ecuador, East Pacific Ocean, Islas Galápagos, southeast side of Isla Santa Cruz, Punta Núñez; 18 m, SCUBA.

Lat./Long.: 00°44.60’S, 90°13.85’W.


Excorallana kathyae Menzies, 1962

Reference: Pacific Naturalist, 3(11):345, fig. 7.

**PARATYPES:** LACM 61-99.1 (AHF Type No. 6140), 28 specimens.

Locality: México, Baja California, Pacific coast, eastern arm of Bahía de San Quintín; formalin wash of oyster head.

Lat./Long.: Approx. 30°30’N, 116°00’W.


FAMILY Cymothoidae Leach, 1818

Lironeca bowmani Brusca, 1981


**HOLOTYPE:** LACM 79-160.1 (AHF Type No. 791, AHF Cat. No. 1999-01), female.

Locality: México, Sinaloa, Golfo de California, Bahía Mazatlán.

Lat./Long.: Approx. 23°11’N, 106°25’W.
Remarks: Donated by M. Hendrickx of Estación Mazatlán, Universidad Nacional Autónoma de México.

**PARATYPE:** LACM 65-203.1 (AHF Cat. No. 2048-1, SIO Cat. No. C 3873, SIO Acc. No. BI65-31), female.
Locality: México, Golfo de California, northeast side of Isla Santa Cruz; 27-32 m, Chemfish and SCUBA.
Lat./Long.: 25°18.3'N, 110°41.7'W.
Remarks: Donated by Scripps Institution of Oceanography.

**PARATYPE:** LACM 68-249.1 (AHF Cat. No. 75-17-1).
Locality: México, Sonora, El Golfo de Santa Clara; mud and sand, shrimp boat haul, otter trawl.
Lat./Long.: Approx. 31°41'N, 114°30'W.

**PARATYPE:** LACM 79-164.1 (AHF Cat. No. 2047-1), female.
Locality: México, Sinaloa, Golfo de California, Bahía Mazatlán.
Lat./Long.: Approx. 23°11'N, 106°25'W.

**PARATYPE:** LACM 78-179.1 (AHF Cat. No. 1138-02), female.
Locality: México, Sonora, Golfo de California, mouth of Río Colorado; trawl.
Lat./Long.: Approx. 31°41'N, 114°30'W.
Host: *Micropogon megalops* Gilbert, Sciaenidae, on gills.
Remarks: Donated by University of California, Los Angeles (from Ichthyology Collection).

*Lironeca convexa* Richardson, 1905


**NEOTYPE:** LACM 73-172.1 (AHF Type No. 734, AHF Cat. No. 414-01), female. (See Brusca, 1981. Zoological Journal of the Linnean Society 73(2):170, figs. 15, 18).

**NEOALLOTYPE:** LACM 73-172.2 (AHF Type No. 734a, AHF Cat. No. 414-01), male.
Locality: México, Nayarit, Playa Novillero, west of Tecuala; sandy beach, beach seine.
Lat./Long.: Approx. 22°21'N, 105°40'W.
Host: Female in mouth, male in gills of *Serranus* sp.
Remarks: Donated by University of Arizona (from Ichthyology Collection) No. UA68-124.
Lironecta menziesi Brusca, 1981


**HOLOTYPE:** LACM 49-154.2 (AHF Type No. 4924, AHF Cat. No. 129-06), female.

**ALLOTYPE:** LACM 49-154.3 (AHF Type No. 4924a, AHF Cat. No. 129-06), male.

**PARATYPES:** LACM 49-154.4 (AHF Cat. No. 129-06), 30 specimens.

Locality: México, west of Baja California, Isla Guadalupe, Ensenada Melpomene; rock bottom, shore collection, *Eisenia* sp.

Lat./Long.: Approx. 28°53.0'N, 118°17.7'W.


**PARATYPES:** LACM 46-44.1 (AHF Cat. No. 1597-01), 32 specimens.

Locality: México, west of Baja California, southwest tip of Isla Guadalupe; tidal reef.

Lat./Long.: Approx. 28°51'N, 118°15'W.

Host: *Clinocottus analis*, gill cavity.


**PARATYPES:** LACM 46-45.1 (AHF Cat. No. 504-1), 2 females.

Locality: México, west of Baja California, southwest tip of Isla Guadalupe; tidepool.

Lat./Long.: Approx. 28°51'N, 118°15'W.

Host: *Clinocottus analis*, gill cavity.


**PARATYPES:** LACM 65-204.1 (AHF Cat. No. 2051-1, SIO Cat. No. C 3871), 2 males, 1 female.

Locality: México, Baja California Sur, east of Cabo San Lucas, off Rancho El Tule; 0-15 m, rotenone and SCUBA.

Lat./Long.: 22°57.4'N, 109°47.7'W.


Remarks: Donated by Scripps Institution of Oceanography.

**PARATYPES:** LACM 49-161.1 (AHF Cat. No. 1818-02), 3 specimens.

Locality: México, west of Baja California, Isla Guadalupe, 4.2 km, 043° from South Bluff; sand, 64-73 m, steel dredge.

Lat./Long.: 28°54.61'N, 118°13.92'W.


**PARATYPE:** LACM 49-75.1 (AHF Cat. No. 1595-01), female.

Locality: México, Baja California Sur, Golfo de California, Los Frailes; rocky beach, tidepools, shore collection.
Lat./Long.: 23°22.8'N, 109°24.62'W.  

PARATYPES: LACM 46-53.1 (AHF Cat. No. 1596-01), 30 specimens.  
Locality: México, west of Baja California, south end of Isla Guadalupe; near outer edge of lava reef, tidepool fish.  
Lat./Long.: Approx. 28°53'N, 118°18'W.  
Collector: C. L. Hubbs Sta. Nos. H46-139 and H46-140. 06 Dec 1946.

PARATYPES: LACM 71-530.1 (AHF Cat. No. 1928-01), 2 females.  
Locality: México, Baja California Sur, just south (approx. 2.8 km) of Punta Arena, 274-457 m offshore; approx. 3-9 m, hook and line, dip net.  
Lat./Long.: Approx. 23°35'N, 109°26'W.  

Mothocya arrosor Bruce, 1986

Reference: Journal of Natural History, 20:1139, figs. 28, 29.
PARATYPES: LACM 50-71.1, male, 12.3 mm; ovigerous female, 24.0 mm.
Locality: France, East Pacific Ocean, Clipperton Island.
Lat./Long.: 10°N, 109°W.
Host: Euleptorhamphus viridis, under gill covers.
Remarks: Gift from United States National Museum of Natural History. Original description indicates collection date as 01 December 1950, apparently in error.

Mothocya collettei Bruce, 1986

Reference: Journal of Natural History, 20:1145, figs. 31-33.
PARATYPE: LACM 24-1.1 (CAS.IZ.10466), ovigerous female, 23.8 mm.
Locality: USA, Hawaiian Islands.
Lat./Long.: Approx. 30°00'N, 155°30'W.
Host: Tylosurus crocodilus.
Collector: Nov 1924.
Remarks: Gift from United States National Museum of Natural History.

Mothocya gilli Bruce, 1986

Reference: Journal of Natural History, 20:1159, figs. 41, 42.
PARATYPE: LACM 52-40.1 (AHF Type No. 529, AHF Cat. No. 424-01, USNM Acc. No. 329488), ovigerous female, 12.0 mm.
Locality: México, Sonora, Golfo de California, Guaymas, Ensenada San Francisco, 1.6-4.0 km east of Punta de las Cuevas.
Lat./Long.: Approx. 27°58'N, 111°00'W.
<table>
<thead>
<tr>
<th>Host:</th>
<th>Hyporhamphus unifasciatus (Ranzani), under right opercle.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collector:</td>
<td>B. W. Walker. 31 Jan 1952.</td>
</tr>
<tr>
<td>Remarks:</td>
<td>Gift from United States National Museum of Natural History (from Ichthyology Collection) No. 80.</td>
</tr>
<tr>
<td>PARATYPES:</td>
<td>LACM 70-157.1 (AHF Type No. 708, AHF Cat. No. 409-01; USNM Acc. No. 329488), male, 7.2 mm; ovigerous female, 11.2 mm.</td>
</tr>
<tr>
<td>Locality:</td>
<td>México, Colima, Bahía Manzanillo.</td>
</tr>
<tr>
<td>Lat./Long.:</td>
<td>Approx. 19°00'N, 104°30'W.</td>
</tr>
<tr>
<td>Host:</td>
<td>Hyporhamphus unifasciatus (Ranzani), under gills.</td>
</tr>
<tr>
<td>Remarks:</td>
<td>Gift from United States National Museum of Natural History.</td>
</tr>
</tbody>
</table>

**Mothocya ihi** Bruce, 1986


| PARATYPE: | LACM 1 (SU 15835), ovigerous female, 19.0 mm. |
| Locality: | New Zealand, North Island, Central Auckland, Auckland. |
| Lat./Long.: | Approx. 36°55'S, 174°45'E. |
| Host: | Hyporhamphus ihi. |
| Remarks: | Gift from United States National Museum of Natural History. Date of collection unknown. |

**Mothocya rosea** Bruce, 1986

Reference: Journal of Natural History, 20:1162, figs. 43, 44.

| PARATYPES: | LACM 39-265.1 (SU 47349), immature male, 6.5 mm; non-ovigerous female, 6.8 mm. |
| Locality: | USA, California, San Diego County, off San Diego. |
| Lat./Long.: | 32°40'N, 117°12'W. |
| Host: | Hyporhamphus rosea. |
| Collector: | N. B. Scofield. 21 Feb 1939. |
| Remarks: | Gift from United States National Museum of Natural History. |

**FAMILY Limnoriidae** Dana, 1852

**Limnoria tripunctata** Menzies, 1951


| PARATYPES: | LACM 48-64.1 (AHF Type No. 484), 2 males, 2 females. |
| Locality: | USA, California, San Diego County, edge of Mission Bay, Pacific Beach, Fanuel Street; from redwood ladder at foot of street. |
| Lat./Long.: | Approx. 32°45'N, 117°15'W. |
| Collectors: | Dr. and Mrs. R. J. Menzies. 23 Dec 1948. |
FAMILY Serolidae Leach, 1814

Serolina acaste Poore, 1987

Reference: Memoirs of the Museum of Victoria, 48(2):146, figs. 4-6.

PARATYPES: LACM 81-97.1 (LACM Type No. 3003, LACM Acc. No. A.10994.85-1), 1 male, 1 juvenile.

Locality: Australia, Victoria, Bass Strait, south of Cape Otway; fine sand, 92 m, epibenthic sled.

Lat./Long.: 39°06.7'S, 143°28.7'E.


Serolina clarella Poore, 1987


PARATYPE: LACM 65-209.1 (LACM Type No. 3001, LACM Acc. No. A.10994.85-1), juvenile.

Locality: Australia, Victoria, Western Port, Crib Point; sand and shell, 15 m, Smith-McIntyre grab.

Lat./Long.: 38°20.79'S, 145°14.41'E.


Serolina nepea Poore, 1987


PARATYPES: LACM 81-98.1 (LACM Type No. 3000, LACM Acc. No. A.10994.85-1), 1 male, 1 female, 1 juvenile.

Locality: Australia, Tasmania, Bass Strait, east of Flinders Island; fine sand and mud, 124 m, epibenthic sled.

Lat./Long.: 39°44.8'S, 148°40.6'E.


FAMILY Sphaeromatidae H. Milne-Edwards, 1840

Ancinus daltonae Menzies and Barnard, 1959


HOLOTYPE: LACM 57-25.1 (AHF Type No. 5714), female, 4 mm.

Locality: USA, California, Santa Barbara County, 0.5 km,
177° T from Point Conception Light; medium-coarse gray sand, 18 m, hydro-winch.

Lat./Long.: 34°26.5'N, 120°28.2'W.
Collector: R/V Velero IV Sta. No. 4819-57. 16 Jan 1957.
Remarks: In addition, LACM holds 3 paratypes (1 being the labeled allotype) in 1 lot (see Appendix).

Ancinus seticomvus Trask, 1970

HOLOTYPE: LACM 69-116.1 (AHF Type No. 692), male, 10.5 mm.
ALLOTYPE: LACM 69-116.2 (AHF Type No. 692a), ovigerous female, 8.0 mm.
PARATYPES: LACM 69-116.3, 5 specimens.
Locality: USA, California, Santa Barbara County, Coal Oil Beach; lower intertidal on sandy beach, hand shovel.
Lat./Long.: Approx. 34°28'N, 119°50'W.

Exosphaeroma inornata Dow, 1958

HOLOTYPE: LACM 48-74.1 (Mus. 1113, LACM Acc. No. A.7181.58-1), male, 5.2 mm.
ALLOTYPE: LACM 48-74.2 (Mus. 1114, LACM Acc. No. A.7181.58-2), female, 5.3 mm.
PARATYPES: LACM 48-74.3 (Mus. 1115, LACM Acc. No. A.7181.58-3), 210 specimens, 2.5-6.0 mm.
Locality: USA, California, Los Angeles County, San Pedro, Point Fermin; under holdfasts of Macrocystis sp.
Lat./Long.: Approx. 33°40'N, 118°20'W.
Collector: J. L. Mohr. 29 Nov 1948.
Remarks: Original description indicates 232 paratypes deposited at LACM.

Exosphaeroma insulare Van Name, 1940

SYNTYPE: LACM 38-270.1 (Cat. No. AMNH 8092).
Locality: USA, California, Channel Islands, San Nicolas Island; freshwater pond.
Lat./Long.: 33°15'N, 119°30'W.

\textbf{Gnorimosphaeroma kurilense} Kussakin, 1974

Reference: Sbornik Rabot Instituta Biologicheskikh Morya, 1: 234, fig. 6.

\textbf{PARATYPES:}\nLACM 55-40.1, 4 specimens.

\textbf{Locality:}\nUSSR, Kuril'skiye Ostrova (Kuril Islands), Shikotan Island, Krabovaja Bay; river.

\textbf{Lat./Long.:}\nApprox. 43°51'N, 146°47'E.

\textbf{Collector:}\nO. G. Kussakin. 25 May 1955.

\textbf{Remarks:}\nGift from O. G. Kussakin.

\textbf{Paraleptosphaeroma glynni} Buss and Iverson, 1981


\textbf{PARATYPES:}\nLACM 78-180.1 (AHF Type No. 782), 77 specimens.

\textbf{Locality:}\nPanamá, Pacific coast, Punta Paitilla, 5 km south of entrance to Canal de Panamá; tidepools, on bryozoan-encrusted cobble.

\textbf{Lat./Long.:}\n8°54'N, 79°31'W.


\textbf{Remarks:}\nOriginal description indicates 81 paratypes deposited at AHF.

\textbf{FAMILY Tridentellidae} Bruce, 1984

\textbf{Tridentella glutacantha} Delaney and Brusca, 1985


\textbf{ALLOTYPE:}\nLACM 53-113.1 (AHF Type No. 5323a, AHF Cat. No. 2053-02), female, 16.7 mm.

\textbf{Locality:}\nUSA, California, Los Angeles County, 24.7 km, 156°T, south southeast of Los Angeles Breakwater Light; large boulders, 329-293 m, biological rock dredge.

\textbf{Lat./Long.:}\n33°30.28'N, 118°08.49'W


\textbf{PARATYPE:}\nLACM 41-103.1, female, 9.2 mm.

\textbf{Locality:}\nUSA, California, Channel Islands, Santa Catalina Island, 13.0 km west southwest of Church Rock; loose rock bottom, 283-278 m, dredge.

\textbf{Lat./Long.:}\n33°14.7'N, 118°11.7'W.

\textbf{Collector:}\nR/V \textit{Velero III} Sta. No. 1323-41. 18 May 1941.

\textbf{Remarks:}\nHolotype (male), CAS.IZ.025948, deposited at the California Academy of Sciences.

\textbf{Tridentella quinicornis} Delaney and Brusca, 1985

Reference: \textit{Journal of Crustacean Biology}, 5(4):732, figs. 2-5,
HOLOTYPE: LACM 49-151.1 (AHF Type No. 4926), male, 10.73 mm.

ALLOTYPE: LACM 49-151.2 (AHF Type No. 4926a), gravid female, 9.75 mm.

PARATYPE: LACM 49-151.3, female, 6.44 mm.

Locality: USA, California, Channel Islands, off west side of Santa Catalina Island, Farnsworth Bank, 030° T; corals, bryozoans, 31-27 m, dredge.

Lat./Long: 33°20.60'N, 118°31.06'W.

Collector: R/V Velero IV Sta. No. 1903-49. 07 Sep 1949.

SUBORDER Gnathiidea Leach, 1814
FAMILY Gnathiidae Harger, 1880

Gnathia clementensis Schultz, 1966


HOLOTYPE: LACM 60-82.1 (AHF Type No. 6049), male, 8.5 mm.

Locality: USA, California, Channel Islands, San Clemente Canyon, San Clemente Island, 14.7 km, 123° T from Pyramid Head Light; manganese nodules and limestone rock, 1587 m, Campbell grab.

Lat./Long.: 32°44.58'N, 118°12.7'W.

Collector: R/V Velero IV Sta. No. 6840-60. 30 Jan 1960.

Gnathia coronadoensis Schultz, 1966

Reference: Allan Hancock Pacific Expeditions, 27(4):17, pl. 11.

HOLOTYPE: LACM 60-88.1 (AHF Type No. 6050), male, 3.5 mm.

Locality: USA, California, San Diego County, Coronado Canyon, 8.6 km, 322.5° T from North Coronado Island; green mud, 794 m, Campbell grab.

Lat./Long.: 32°30.70'N, 117°21.62'W.

Collector: R/V Velero IV Sta. No. 6851-60. 01 Feb 1960.

Gnathia hirsuta Schultz, 1966


HOLOTYPE: LACM 59-149.2 (AHF Type No. 5927), male, 4.0 mm.

Locality: USA, California, Channel Islands, Santa Cruz Channel, off south side of Santa Cruz Island, 4.3 km, 246.5° T from Gull Island; rocks and some green sand, 201 m, Campbell grab.

Lat./Long.: 33°56.05'N, 119°52.05'W.


Gnathia productatridens Menzies and Barnard, 1959

HOLOTYPE: LACM 57-121.1 (AHF Type No. 5712), male, 3.2 mm.
Locality: USA, California, Santa Barbara County, 23.5 km, 134° T from Santa Barbara Point Light; green sticky silt, 89 m, hydro-winch.
Lat./Long.: 34°14.8'N, 119°32.4'W.
Collector: R/V Velero IV Sta. No. 5173-57. 03 Jul 1957.

PARATYPE: LACM 57-157.1.
Locality: USA, California, Santa Barbara County, 20.0 km, 138° T from Santa Barbara Point Light; dark olive green silt, 95 m, hydro-winch.
Lat./Long.: 34°15.7'N, 119°34.6'W.
Remarks: In addition, LACM holds 9 paratypes from 4 stations listed in the Material Examined section of the original description (see Appendix).

Gnathia steveni Menzies, 1962

PARATYPES: See Remarks and Appendix (Beaudette Foundation Cat. No. 86).
Locality: México, Baja California, Pacific coast, eastern arm of Bahia de San Quintin; dredged algae and sponges near cannery.
Lat./Long.: Approx. 30°30'N, 116°00'W.
Remarks: LACM holds 4 paratypes from this station listed in the Material Examined section of the original description (see Appendix).

Gnathia tridens Menzies and Barnard, 1959

HOLOTYPE: LACM 57-28.2 (AHF Type No. 5711), male, 3.0 mm.
Locality: USA, California, Santa Barbara County, 20.4 km, 089° T from Point Conception Light; bottom of dead kelp fragments and red algae, 16 m, hydro-winch.
Lat./Long.: 34°27.3'N, 120°14.8'W.
Remarks: Original description indicates 95 paratypes from the holotype locality (place of deposition not given). LACM holds 4 paratypes from 2 stations listed in the Material Examined section of the original description (see Appendix).

Gnathia trilobata Schultz, 1966

HOLOTYPE: LACM 60-88.2 (AHF Type No. 6051), male, 5.0 mm.
**Locality:** USA, California, San Diego County, Coronado Canyon, 8.6 km, 322.5° T from North Coronado Island; green mud, 794 m, Campbell grab.

**Lat./Long.:** 32°30.70'N, 117°21.62'W.

**Collector:** R/V *Velero IV* Sta. No. 6851-60. 01 Feb 1960.

---

**SUBORDER Oniscidea Latreille, 1803**

**FAMILY Scyphacidae Dana, 1853**

**Armadilloniscus coronacapitalis** Menzies, 1950


**PARATYPES:** LACM 46-49.1, 2 males, 2 females.

**Locality:** USA, California, Marin County, Tomales Bay, cove opposite Hog Island on east side of Tomales Point; coarse-grained granitic sand, under rocks at high tide line.

**Lat./Long.:** Approx. 38°15'N, 123°00'W.

**Collector:** R. J. Menzies. 03 Aug 1946.

---

**FAMILY Trichoniscidae Sars, 1899**

**Trichoniscus** (*Miktoniscus*) medcofi Van Name, 1940


**SYNTYPES:** LACM 36-194.1, 2 specimens.

**Locality:** USA, Illinois, Champaign County, Urbana, University of Illinois; moist floor of the Botanical Greenhouse.

**Lat./Long.:** Approx. 40°07'N, 88°12'W.

**Collector:** J. C. Medcof. 27 Oct 1936.

---

**SUBORDER Valvifera Sars, 1882**

**FAMILY Astacillidae G.O. Sars, 1897**

**Idarcturus allelomorphus** Menzies and Barnard, 1959

**Reference:** Pacific Naturalist, 1(11):22, fig. 16.

**HOLOTYPE:** LACM 57-77.1 (AHF Type No. 5713), female, 5.2 mm.

**Locality:** USA, California, Santa Barbara County, 23.5 km, 86.5° T from Point Conception Light; medium-coarse gray sand, 17 m, hydro-winch.

**Lat./Long.:** 34°27.4'N, 120°12.9'W.

**Collector:** R/V *Velero IV* Sta. No. 4938-57. 09 Apr 1957.

**Remarks:** In addition, LACM holds 22 paratypes from 13 stations listed in the Material Examined section of the original description (see Appendix).
**Microarcturus tannerensis** Schultz, 1966


**HOLOTYPE:** LACM 60-80.2 (AHF Type No. 6045), female, 5.5 mm.

**Locality:** USA, California, Channel Islands, Tanner Canyon, San Clemente Island, 53.5 km, 236° T from China Point Light; green mud, 1320 m, Campbell grab.

**Lat./Long.:** 32°32.3’N, 118°54.03’W.

**Collector:** R/V Velero IV Sta. No. 6832-60. 29 Jan 1960.

**FAMILY Chaetiliidae** Dana, 1853

**Chaetilia tasmanica** Poore, 1985

Reference: Memoirs of the Museum of Victoria, 46(2):156, figs. 2-5, pl. 34b, c.

**PARATYPES:** LACM 81-94.1 (LACM Type No. 3002, LACM Acc. No. A.10994.85-1), 2 specimens.

**Locality:** Australia, Tasmania, Convict Beach, near Southport; intertidal beach sand.

**Lat./Long.:** 43°27’S, 146°58’E.

**Collector:** A. McGifford. 18 Mar 1981.

**Remarks:** Gift from the Museum of Victoria, Melbourne, Australia, 15 October 1985.

**FAMILY Idoteidae** Fabricius, 1798

**Colidotea findleyi** Brusca and Wallerstein, 1977


**HOLOTYPE:** LACM 69-117.1 (AHF Type No. 6910), male.

**ALLOTYPE:** LACM 69-117.2 (AHF Type No. 6910a), female.

**Locality:** México, Sonora, Golfo de California, approx. 8 km north of Cabo Tepoca (=Puerto Lobos); beach backed by high sand dunes, mostly sand, few rocks, some isolated patches of bedrock forming slight reef, exposed vegetation, 1 m, shore/beach seine on sand and bedrock.

**Lat./Long.:** Approx. 30°17’N, 112°50’W.

**Collector:** L. T. Findley. 05 Jun 1969.

**Remarks:** Gift from University of Arizona (from Ichthyology Collection) No. UA 69-22.

**PARATYPE:** LACM 40-17.2 (AHF Cat. No. 117-01), female.

**Locality:** México, Golfo de California, south shore of Isla Tiburón; shingle, shore collection.

**Lat./Long.:** 28°45.6’N, 112°17.8’W.

**Collector:** R/V Velero III Sta. No. 1045-40. 25 Jan 1940.

**PARATYPE:** LACM 46-46.1 (AHF Cat. No. 116-01), female.

**Locality:** México, west of Baja California, south end of Isla
Guadalupe, Ensenada Melpomene, anchorage just west of South Bluff.

**Lat./Long.**: Approx. 28°52'N, 118°19'W.


**PARATYPES**: LACM 49-155.2 (AHF Cat. No. 126-01), 7 males, 10 females.

**Locality**: México, west of Baja California, Isla Guadalupe, between Ensenada Melpomene and inner island; rocks and volcanic sand, 9-27 m, boat dredge.

**Lat./Long.**: 28°52.64'N, 118°16.93'W.

**Collector**: R/V Velero IV Sta. No. 1914-49. 18 Dec 1949.

**PARATYPES**: LACM 67-198.1 (AHF Cat. No. 115-01), 2 females.

**Locality**: México, Sonora, Golfo de California, Puerto Peñasco, Norse Beach; tidepools, limestone flat, 1 m, night collection.

**Lat./Long.**: Approx. 31°20'N, 113°35'W.

**Collector**: R. C. Brusca. 08 Jun 1975.

**Remarks**: Original description indicates 1 male paratype deposited at AHP.

**PARATYPES**: LACM 75-141.1 (AHF Cat. No. 121-01), 2 specimens.

**Locality**: México, Sonora, Golfo de California, Puerto Peñasco, Station Beach; limestone (coquina) reef, low intertidal on Sargassum sp.

**Lat./Long.**: Approx. 31°20'N, 113°35'W.

**Collector**: R. C. Brusca. 08 Jun 1975.

**Remarks**: Original description indicates 1 male paratype deposited at AHP.

**PARATYPES**: LACM 76-89.2 (AHF Cat. No. 03-18), 12 males, 9 females.

**Locality**: México, Baja California, Golfo de California, approx. 64 km south of San Felipe, Campo Coloraditos; washes of Sargassum sp. from limestone and basalt rocks in low intertidal.

**Lat./Long.**: Approx. 30°30'N, 114°40'W.

**Collector**: R. C. Brusca and B. Wallerstein. 01 Jan 1976.

**PARATYPE**: LACM 72-299.1 (AHF Cat. No. 124-01), male.

**Locality**: México, Sonora, Golfo de California, Bahía de Kino, Old Kino.

**Lat./Long.**: Approx. 28°58'N, 111°58'W.

**Collector**: C. E. Lehner, Sta No. CEL 720415. 15 Apr 1972.

**Remarks**: Gift from University of Arizona (from Ichthyology Collection) No. UA 72-6.

**PARATYPE**: LACM 72-298.2 (AHF Cat. No. 125-01).

**Locality**: México, Sonora, Golfo de California, Puerto Peñasco; limestone reef, from Sargassum sp. in mid-intertidal.

**Lat./Long.**: Approx. 31°20'N, 113°35'W.

**Collector**: M. Price. 24 Mar 1972.
Colidotea wallersteini Brusca, 1983


HOLOTYPE: LACM 45-10.1 (AHF Type No. 452), male.
Locality: México, Baja California, Pacific coast, Punta Clara, south of Río Santo Tomás.
Lat./Long.: Approx. 31°30'N, 116°30'W.

PARATYPES: LACM 49-249.3 (AHF Type No. 4925, AHF Cat. No. 758-05), 2 specimens.
Locality: México, west of Baja California, Isla Guadalupe, Ensenada Melpomene at landing; intertidal, shore collection, rock wash.
Lat./Long.: 28°51.97'N, 118°17.87'W.

Edotea sublittoralis Menzies and Barnard, 1959


HOLOTYPE: LACM 56-17.1 (AHF Type No. 565), female, 4.0 mm.
Locality: USA, California, Orange County, 4.4 km, 302° T from Newport Pier; green to black silt, 10 m, Hayward grab.
Lat./Long.: 33°37.65'N, 117°58.27'W.
 Remarks: In addition, LACM holds 59 paratypes from 21 stations listed in the Material Examined section of the original description (see Appendix).

Erichsonella cortezi Brusca and Wallerstein, 1977

Reference: American Museum Novitates, 2634:10, figs. 6, 7.

HOLOTYPE: LACM 70-158.1 (AHF Type No. 706, AHF Cat. No. 85-02), male.
Locality: México, Sonora, Golfo de California, Puerto Peñasco; rocky, in algal mat of low intertidal, approx. 0 tide level.
Lat./Long.: Approx. 31°19'N, 113°35'W.

ALLOTYPE: LACM 70-159.1 (AHF Type No. 706a, AHF Cat. No. 90-01), female.
Locality: México, Sonora, Golfo de California, Puerto Peñasco; rocky intertidal.
Lat./Long.: Approx. 31°20'N, 113°35'W.
 Collectors: University of Arizona Invertebrate Zoology class. 06 Mar 1970.

PARATOPOTYPE: LACM 72-301.1 (AHF Cat. No. 81-01), male.
Locality: México, Sonora, Golfo de California, Puerto
Erichsonella crenulata Menzies, 1950


**HOLOTYPE:** LACM 49-252.1 (AHF Type No. 492), male, 23.0 mm.

**ALLOTYPE:** LACM 49-252.2 (AHF Type No. 492a), ovigerous female, 17.0 mm.

**PARATYPE:** LACM 49-252.3 (AHF Type No. 492b), male, 20.0 mm.

**Locality:** USA, California, Orange County, upper Newport Bay; on Zostera sp.

**Lat./Long.:** Approx. 33°38'N, 117°58'W.

**Collector:** J. L. Barnard. 30 Nov 1949.

**Remarks:** Original description indicates collection date as 20 November 1949, apparently in error.

Idotea schmitti Menzies, 1950

Reference: The Wasmann Journal of Biology, 8(2):174, pls. 5a-f, 9g-h.

**HOLOTYPE:** LACM 46-47.1 (AHF Type No. 462), female, 13.5 mm.

**ALLOTYPE:** LACM 46-47.2 (AHF Type No. 462a), male, 30.0 mm.

**Locality:** USA, California, Marin County, Dillon Beach, Second Sled Road; intertidal, outermost zone.

**Lat./Long.:** Approx. 38°15'N, 123°00'W.

**Collector:** R. J. Menzies. 28 Jun 1946.

**PARATYPES:** LACM 48-72.1 (Pacific Marine Station Acc. No. 1254) 2 ovigerous females.

**Locality:** USA, California, Marin County, Dillon Beach, Second Sled Road; approx. zone III, on rock covered with calcareous algae.

**Lat./Long.:** Approx. 38°15'N, 123°00'W.

**Collector:** Mrs. R. J. Menzies. 21 Feb 1948.

Parasymmerus annamaryae Brusca and Wallerstein, 1979


**HOLOTYPE:** LACM 76-565.2 (AHF Type No. 765, AHF Cat. No. 500-02), male.

**ALLOTYPE:** LACM 76-565.3 (AHF Type No. 765a, AHF Cat. No. 500-02), female.

**PARATOPOTYPES:** LACM 76-565.4 (AHF Cat. No. 500-02), 22 specimens.

**Locality:** México, Colima, Manzanillo, Bahía Audiencia, north shore, beach in front of Hotel Las Hadas; mussel bed with brown algae, exposed granite bedrock and boulders, approx. 1 m below high tide mark.

**Lat./Long.:** Approx. 19°00'N, 104°20'W.

**Collectors:** R. C. Brusca, B. Wallerstein, P. Pepe and A. M. Mackey. 04 Sep 1976.
Locality: México, Sinaloa, Golfo de California, 3.2 km north of Mazatlán; small reef, -0.5 m tide, pronounced surf.
Lat./Long.: Approx. 23°14'N, 106°28'W.

**Synidotea calcarea** Schultz, 1966


HOLOTYPE: LACM 60-76.1 (AHF Type No. 6046), female, 6.0 mm.
PARATYPES: LACM 60-76.5, 2 specimens.
Locality: USA, California, Channel Islands, Tanner Canyon, San Clemente Island, 54.8 km, 250° T from China Point Light; green muddy sand, 792 m, Campbell grab.
Lat./Long.: 32°37.87'N, 118°58.70'W.
Collector: R/V Velero IV Sta. No. 6833-60. 29 Jan 1960.

**Synidotea francesae** Brusca, 1983


HOLOTYPE: LACM 73-175.1 (AHF Type No. 736), female.
ALLOTYPE: LACM 73-175.2 (AHF Type No. 736a), male.
Locality: México, Sonora, El Golfo de Santa Clara, approx. 6.4 km southeast of town; found "scavenging"? on cast up tubes of *Chaetopterus* sp., on sandy beach.
Lat./Long.: Approx. 31°50'N, 114°25'W.
Remarks: Original description indicates collection date as 17 April 1973, apparently in error.

**Synidotea magnifica** Menzies and Barnard, 1959


HOLOTYPE: LACM 57-103.1 (AHF Type No. 577), female, 6 mm.
Locality: USA, California, San Diego County, 3.9 km, 242.5° T from Oceanside Pier; dark green micaceous silt, 60 m, hydro-winch.
Lat./Long.: 33°10.5'N, 117°25.4'W.
Remarks: In addition, LACM holds 23 paratypes from 11 stations listed in the Material Examined section of the original description (see Appendix).
APPENDIX
PARATYPES BASED ON EXTERNAL EVIDENCE

Recommendation 72B of the International Code of Zoological Nomenclature (3rd Edition, 1985) has been followed throughout the above list. We regard the type series of a species to include all specimens whose stations were listed in the Material Examined section of the original description (even if not designated by the author(s) specifically as part of the type series) if, after the holotype had been designated by the author(s), no other types had been designated. The following list comprises those species which have specimens meeting the above criteria, but which were not previously recognized as part of a type series.

In some instances, LACM holds a greater number of specimens per station than are listed for that station in the Material Examined section of the original description, and it is not possible to determine at present which specimens of those stations were examined by the author(s). All specimens from those stations are therefore assumed to be of paratypic status.

(P) or (A) next to the LACM No. refers to paratypes or allotypes previously recognized by AHF as part of the type series of the species. SQ = San Quintin Bay Survey station (not a Velero station).

Haliophasma geminata Menzies & Barnard, 1959

<table>
<thead>
<tr>
<th>Velero IV Sta. No.</th>
<th>LACM No.</th>
<th># paratypes at LACM</th>
<th># paratypes in Material Examined</th>
</tr>
</thead>
<tbody>
<tr>
<td>2128-52</td>
<td>52-41.3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2436-53</td>
<td>53-81.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2630-54</td>
<td>54-28.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2637-54</td>
<td>54-30.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2843-54</td>
<td>54-62.2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2852-54</td>
<td>54-99.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3389-55</td>
<td>55-57.2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>3391-55</td>
<td>55-61.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3505-55</td>
<td>55-50.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4329-56</td>
<td>56-64.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4330-56</td>
<td>56-66.1</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>4722-56</td>
<td>56-19.2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4747-56</td>
<td>56-25.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4753-56</td>
<td>56-26.4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4754-56</td>
<td>56-27.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4757-56</td>
<td>56-30.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4762-56</td>
<td>56-35.1</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>4767-56</td>
<td>56-40.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4769-56</td>
<td>56-42.2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4771-56</td>
<td>56-44.3</td>
<td>(P)</td>
<td>3</td>
</tr>
<tr>
<td>Velero IV Sta. No.</td>
<td>LACM No.</td>
<td># paratypes at LACM</td>
<td># paratypes in Material Examined</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------</td>
<td>---------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>4772-56</td>
<td>56-45.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4784-56</td>
<td>56-54.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4786-56</td>
<td>56-56.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4817-57</td>
<td>57-23.1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>4820-57</td>
<td>57-26.1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4823-57</td>
<td>57-29.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4824-57</td>
<td>57-30.1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4827-57</td>
<td>57-33.2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4828-57</td>
<td>57-34.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4845-57</td>
<td>57-46.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4850-57</td>
<td>57-48.1</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>4854-57</td>
<td>57-51.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4855-57</td>
<td>57-52.1</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>4856-57</td>
<td>57-53.3</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>4860-57</td>
<td>57-55.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4868-57</td>
<td>57-210.2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4910-57</td>
<td>57-67.2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4920-57</td>
<td>57-69.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4924-57</td>
<td>57-71.1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4927-57</td>
<td>57-73.2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>4937-57</td>
<td>57-76.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4951-57</td>
<td>57-81.1</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>4954-57</td>
<td>57-214.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4955-57</td>
<td>57-216.1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4956-57</td>
<td>57-82.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>4981-57</td>
<td>57-84.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4983-57</td>
<td>57-86.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5092-57</td>
<td>57-98.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5098-57</td>
<td>57-100.1</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>5111-57</td>
<td>57-105.1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5148-57</td>
<td>57-107.1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5160-57</td>
<td>57-109.2</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>5161-57</td>
<td>57-110.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5162-57</td>
<td>57-111.1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5163-57</td>
<td>57-112.2</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>5166-57</td>
<td>57-115.1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>5167-57</td>
<td>57-116.3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5168-57</td>
<td>57-117.1</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>5169-57</td>
<td>57-118.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5173-57</td>
<td>57-121.2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5187-57</td>
<td>57-128.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5191-57</td>
<td>57-131.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5197-57</td>
<td>57-204.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5202-57</td>
<td>57-134.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5259-57</td>
<td>57-149.1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5261-57</td>
<td>55-151.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5262-57</td>
<td>57-152.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5271-57</td>
<td>57-155.1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5330-57</td>
<td>57-158.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Velero IV</td>
<td>LACM No.</td>
<td># paratypes at LACM</td>
<td># paratypes in Material Examined</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
<td>---------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>5331-57</td>
<td>57-159.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5348-57</td>
<td>57-161.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5367-57</td>
<td>57-218.1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5370-57</td>
<td>57-167.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5371-57</td>
<td>57-203.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5372-57</td>
<td>57-168.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5378-57</td>
<td>57-227.2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5400-57</td>
<td>57-174.1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5402-57</td>
<td>57-175.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5404-57</td>
<td>57-176.1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5408-57</td>
<td>57-178.1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>5409-57</td>
<td>57-179.1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5410-57</td>
<td>57-180.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5413-57</td>
<td>57-181.1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5417-57</td>
<td>57-183.1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>5419-57</td>
<td>57-184.1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>5509-57</td>
<td>57-215.1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5533-57</td>
<td>57-195.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5536-57</td>
<td>57-197.1</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>5537-57</td>
<td>57-198.1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5558-58</td>
<td>58-13.1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5560-58</td>
<td>58-15.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5563-58</td>
<td>58-18.1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5564-58</td>
<td>58-206.1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>5572-58</td>
<td>58-207.1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5586-58</td>
<td>58-28.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5628-58</td>
<td>58-40.2</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>5688-58</td>
<td>58-215.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5736-58</td>
<td>58-64.9</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>5737-58</td>
<td>58-65.10</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

**Mesanthura occidentalis** Menzies & Barnard, 1959

| 4822-57   | 57-28.11 | 2 (P)   | 2 |
| 5503-57   | 57-189.1 | 2        | 1 |

**Munna spinifrons** Menzies & Barnard, 1959

| 4822-57   | 57-28.12 | 3 (P)   | 4 |

**Ilyarachna acarina** Menzies & Barnard, 1959

<p>| 2845-54   | 54-101.1 | 1 | 1 |</p>
<table>
<thead>
<tr>
<th>Velero IV Sta. No.</th>
<th>LACM No.</th>
<th># paratypes at LACM</th>
<th># paratypes in Material Examined</th>
</tr>
</thead>
<tbody>
<tr>
<td>2846-54</td>
<td>54-102.1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4753-56</td>
<td>56-26.5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4767-57</td>
<td>56-40.1</td>
<td>1 (P)</td>
<td>1</td>
</tr>
<tr>
<td>4824-57</td>
<td>57-30.4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4855-57</td>
<td>57-52.2</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>4951-57</td>
<td>57-81.3</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>4980-57</td>
<td>57-83.3</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>57-83.5</td>
<td>1 (P)</td>
<td>--</td>
</tr>
<tr>
<td>5510-57</td>
<td>57-192.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5560-58</td>
<td>58-15.4</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

**Eurydice branchuropus** Menzies & Barnard, 1959

| 4910-57 | 57-67.4 | 4 | 4 |

**Ancinus daltonae** Menzies & Barnard, 1959

| 4819-57 | 57-25.2 | 1 (A) | 4 |
|         | 57-25.3 | 2 (P) |   |

**Gnathia productatridens** Menzies & Barnard, 1959

| 4814-57 | 57-22.6 | 3 | 1 |
| 5160-57 | 57-109.10 | 2 | 1 |
| 5173-57 | 57-121.3 | 3 (P) | 3 |
| 5174-57 | 57-122.2 | 1 | 1 |

**Gnathia steveni** Menzies, 1962

| SQ 175 | 60-93.1 | 4 (P) | 5 |

**Gnathia tridens** Menzies & Barnard, 1959

| 4822-57 | 57-28.16 | 1 (P) | 95 |
| 5164-57 | 57-113.5 | 3 | 3 |
**Idarcturus allelomorphus** Menzies & Barnard, 1959

<table>
<thead>
<tr>
<th>Velero IV Sta. No.</th>
<th>LACM No.</th>
<th># paratypes at LACM</th>
<th># paratypes in Material Examined</th>
</tr>
</thead>
<tbody>
<tr>
<td>4464-56</td>
<td>56-67.3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4676-56</td>
<td>56-62.2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4785-56</td>
<td>56-55.7</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4814-57</td>
<td>57-22.4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4822-57</td>
<td>57-28.18</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4827-57</td>
<td>57-33.6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4850-57</td>
<td>57-48.5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4938-57</td>
<td>57-77.6</td>
<td>4 (P)</td>
<td>5</td>
</tr>
<tr>
<td>5166-57</td>
<td>57-115.7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5168-57</td>
<td>57-117.7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5171-57</td>
<td>57-119.3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5173-57</td>
<td>57-121.7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5413-57</td>
<td>57-181.4</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Edotea sublittoralis** Menzies & Barnard, 1959

<table>
<thead>
<tr>
<th>Sta. No.</th>
<th>LACM No.</th>
<th># paratypes at LACM</th>
<th># paratypes in Material Examined</th>
</tr>
</thead>
<tbody>
<tr>
<td>2312-53</td>
<td>53-110.2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4464-56</td>
<td>56-67.2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4719-56</td>
<td>56-16.2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4720-56</td>
<td>56-17.2</td>
<td>1 (P)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>56-17.5</td>
<td>3</td>
<td>--</td>
</tr>
<tr>
<td>4746-56</td>
<td>56-24.2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4758-56</td>
<td>56-31.4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4759-56</td>
<td>56-32.4</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>4761-56</td>
<td>56-34.2</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>4762-56</td>
<td>56-35.4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4771-56</td>
<td>56-44.5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4813-57</td>
<td>57-248.3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4818-57</td>
<td>57-24.4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4825-57</td>
<td>57-31.7</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4840-57</td>
<td>57-41.4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4841-57</td>
<td>57-42.2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4853-57</td>
<td>57-220.3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4862-57</td>
<td>57-56.3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4956-57</td>
<td>57-82.6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5043-57</td>
<td>53-94.4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>53-94.5</td>
<td>2</td>
<td>--</td>
</tr>
<tr>
<td>5508-57</td>
<td>57-191.3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5583-58</td>
<td>58-27.5</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

**Synidotea magnifica** Menzies & Barnard, 1959

<table>
<thead>
<tr>
<th>Sta. No.</th>
<th>LACM No.</th>
<th># paratypes at LACM</th>
<th># paratypes in Material Examined</th>
</tr>
</thead>
<tbody>
<tr>
<td>4722-56</td>
<td>56-19.14</td>
<td>1 (P)</td>
<td>1</td>
</tr>
<tr>
<td>Velero IV Sta. No.</td>
<td>LACM No.</td>
<td># paratypes at LACM</td>
<td>Material Examined</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------</td>
<td>---------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>4760-56</td>
<td>56-33.3</td>
<td>1 (P)</td>
<td>1</td>
</tr>
<tr>
<td>4785-56</td>
<td>56-55.16</td>
<td>1 (P)</td>
<td>1</td>
</tr>
<tr>
<td>4817-57</td>
<td>57-23.17</td>
<td>9 (P)</td>
<td>9</td>
</tr>
<tr>
<td>4820-57</td>
<td>57-26.13</td>
<td>1 (P)</td>
<td>1</td>
</tr>
<tr>
<td>4850-57</td>
<td>57-48.12</td>
<td>1 (P)</td>
<td>1</td>
</tr>
<tr>
<td>4981-57</td>
<td>57-84.8</td>
<td>1 (P)</td>
<td>1</td>
</tr>
<tr>
<td>5163-57</td>
<td>57-112.10</td>
<td>2 (P)</td>
<td>2</td>
</tr>
<tr>
<td>5167-57</td>
<td>57-116.16</td>
<td>3 (P)</td>
<td>3</td>
</tr>
<tr>
<td>5168-57</td>
<td>57-117.14</td>
<td>2 (P)</td>
<td>2</td>
</tr>
<tr>
<td>5585-58</td>
<td>58-213.6</td>
<td>1 (P)</td>
<td>1</td>
</tr>
</tbody>
</table>
INDEX TO SCIENTIFIC NAMES

(Generic reassignments and species synonymies appear in brackets.)

Abyssianiridae ........................................................................ 7
Acanthaspidia ........................................................................ 7
Acanthaspidiidae .................................................................... 7
Acanthomunna ....................................................................... 8-9
acarina, Ilyarachna ................................................................ 14-15, 45-46
acaste, Serolina ....................................................................... 32
Aegidae .................................................................................. 22
allelomorphus, Idarcturus .......................................................... 37, 47
analoga, Ianiropsis .................................................................. 11
Ancinus .................................................................................. 32-33, 46
annamaryae, Parasymmerus .................................................. 41-42
antarctica, Jaeropsis ................................................................ 9-10
Antennuloniscus ..................................................................... 9
Anthuridae .............................................................................. 4-5
Anthuridea .............................................................................. 4-7
Antias .................................................................................... 7
Apanthura ............................................................................... 4
Armadilloniscus ..................................................................... 37
arrosor, Mothocya ................................................................... 30
Asellota .................................................................................. 7-16
Astacillidae ........................................................................... 37-38
Austrosignum .......................................................................... 15-16
Bathura ................................................................................... 4
[Bathycopea] .......................................................................... 33
boninensis, Microcerberus ...................................................... 13
Bopyrella .................................................................................. 17
Bopyridae ............................................................................... 17-22
Bopyrione ............................................................................... 17
bowmani, Lironeca .................................................................. 27-28
branchuropus, Eurydice .......................................................... 23, 46
bruscai, Colanthura .................................................................. 6
bruscai, Excorallana ............................................................... 25-26
Bullowanthura ......................................................................... 6
Caecianiropsis ......................................................................... 10
Caecijaera ............................................................................... 11
calcarea, Synidotea ................................................................. 42
[Califanthura] .......................................................................... 6
[californica], Iais ...................................................................... 11
californiensis, Apanthura ...................................................... 4
californiensis, Cirolana ............................................................ 22
californiensis, Eurycope .......................................................... 14
Cancricepon ............................................................................ 17
[caudata], Eurydice .................................................................. 23
Chaetilia .................................................................................. 38
Chaetillidae ............................................................................. 38
chamensis, Excirolana ............................................................. 23-24
chromatocephala, Munna ....................................................... 13
Cirolana .................................................................................. 22-23
<table>
<thead>
<tr>
<th>Genus/Species</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cirolanidae</td>
<td>22-25</td>
</tr>
<tr>
<td>Clarella, Serolina</td>
<td>32</td>
</tr>
<tr>
<td>Clementensis, Gnathia</td>
<td>35</td>
</tr>
<tr>
<td>Colanthura</td>
<td>6</td>
</tr>
<tr>
<td>Colidotea</td>
<td>38-40</td>
</tr>
<tr>
<td>Collettei, Mothocya</td>
<td>30</td>
</tr>
<tr>
<td>Concava, Jaeropsis</td>
<td>10</td>
</tr>
<tr>
<td>Convexa, Lironeca</td>
<td>28</td>
</tr>
<tr>
<td>Corallanidae</td>
<td>25-27</td>
</tr>
<tr>
<td>Coronacapitalis, Armadilloniscus</td>
<td>37</td>
</tr>
<tr>
<td>Coronadoensis, Gnathia</td>
<td>35</td>
</tr>
<tr>
<td>Cortesi, Erichsonella</td>
<td>40-41</td>
</tr>
<tr>
<td>Costaricensis, Metacirolana</td>
<td>24</td>
</tr>
<tr>
<td>Crenulata, Erichsonella</td>
<td>41</td>
</tr>
<tr>
<td>Cyathura</td>
<td>4-5</td>
</tr>
<tr>
<td>Cymothoididae</td>
<td>27-31</td>
</tr>
<tr>
<td>Daltonae, Ancinus</td>
<td>32-33, 46</td>
</tr>
<tr>
<td>Davisi, Janiralata</td>
<td>12</td>
</tr>
<tr>
<td>Delaneyi, Excorallana</td>
<td>26</td>
</tr>
<tr>
<td>Dendrotiidae</td>
<td>8-9</td>
</tr>
<tr>
<td>Desmosoma</td>
<td>9</td>
</tr>
<tr>
<td>Desmosomatidae</td>
<td>9</td>
</tr>
<tr>
<td>Domeciae, Trapezicepon</td>
<td>21-22</td>
</tr>
<tr>
<td>Dubia, Jaeropsis</td>
<td>10</td>
</tr>
<tr>
<td>Edotea</td>
<td>40, 47</td>
</tr>
<tr>
<td>Elegans, Paranthura</td>
<td>6-7</td>
</tr>
<tr>
<td>Enosteoidis, Pleurocryptosa</td>
<td>19</td>
</tr>
<tr>
<td>Epicarida</td>
<td>17-22</td>
</tr>
<tr>
<td>Epilittoralis, Ianiropsis</td>
<td>11-12</td>
</tr>
<tr>
<td>Erichsonella</td>
<td>40-41</td>
</tr>
<tr>
<td>Erratum, Austrosignum</td>
<td>15</td>
</tr>
<tr>
<td>Eurycope</td>
<td>14</td>
</tr>
<tr>
<td>Eurydice</td>
<td>23, 46</td>
</tr>
<tr>
<td>Exacanthaspidia</td>
<td>23-24</td>
</tr>
<tr>
<td>Excirolana</td>
<td>25-27</td>
</tr>
<tr>
<td>Excorallana</td>
<td>25-27</td>
</tr>
<tr>
<td>Exosphaeroma</td>
<td>33-34</td>
</tr>
<tr>
<td>Findleyi, Colidotea</td>
<td>38-39</td>
</tr>
<tr>
<td>Flabellifera</td>
<td>22-35</td>
</tr>
<tr>
<td>Francesae, Synidotea</td>
<td>42</td>
</tr>
<tr>
<td>Fukudai, Microcerberus</td>
<td>13</td>
</tr>
<tr>
<td>Garthi, Cancricepon</td>
<td>17</td>
</tr>
<tr>
<td>Geminata, Haliophasma</td>
<td>5, 43-45</td>
</tr>
<tr>
<td>Gilli, Mothocya</td>
<td>30-31</td>
</tr>
<tr>
<td>Glutacantha, Tridentella</td>
<td>34</td>
</tr>
<tr>
<td>Glynni, Paraleptosphaeroma</td>
<td>34</td>
</tr>
<tr>
<td>Gnathia</td>
<td>35-37, 46</td>
</tr>
<tr>
<td>Gnathiidae</td>
<td>35-37</td>
</tr>
<tr>
<td>Gnathidea</td>
<td>35-37</td>
</tr>
<tr>
<td>Gnorimosphaeroma</td>
<td>34</td>
</tr>
<tr>
<td>[Gnorimosphaeroma]</td>
<td>34</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>[granulatus], Ancinus</td>
<td>33</td>
</tr>
<tr>
<td>Grapsicepon</td>
<td>17-18</td>
</tr>
<tr>
<td>guamensis, Hypercepon</td>
<td>18</td>
</tr>
<tr>
<td>guaroensis, Cyathura</td>
<td>4-5</td>
</tr>
<tr>
<td>Haliophasma</td>
<td>5, 43-45</td>
</tr>
<tr>
<td>Haploniscidae</td>
<td>9</td>
</tr>
<tr>
<td>hirsuta, Gnathia</td>
<td>35</td>
</tr>
<tr>
<td>hirsutus, Antias</td>
<td>7</td>
</tr>
<tr>
<td>horvathi, Caecijaera</td>
<td>11</td>
</tr>
<tr>
<td>houstoni, Excorallana</td>
<td>27</td>
</tr>
<tr>
<td>Hypercepon</td>
<td>18</td>
</tr>
<tr>
<td>hyphalus, Stegophryxus</td>
<td>20-21</td>
</tr>
<tr>
<td>Iais</td>
<td>11</td>
</tr>
<tr>
<td>Ianiropsis</td>
<td>11-12</td>
</tr>
<tr>
<td>Idarcturus</td>
<td>37, 47</td>
</tr>
<tr>
<td>Idotea</td>
<td>41</td>
</tr>
<tr>
<td>Idoteidae</td>
<td>38-42</td>
</tr>
<tr>
<td>ihi, Mothocya</td>
<td>31</td>
</tr>
<tr>
<td>Ilyarachna</td>
<td>14-15, 45-46</td>
</tr>
<tr>
<td>inornata, Exosphaeroma</td>
<td>33</td>
</tr>
<tr>
<td>insulare, Exosphaeroma</td>
<td>33-34</td>
</tr>
<tr>
<td>Iolanthe</td>
<td>8</td>
</tr>
<tr>
<td>Ionella</td>
<td>18</td>
</tr>
<tr>
<td>Jaeropsidae</td>
<td>9-10</td>
</tr>
<tr>
<td>Jaeropsis</td>
<td>9-10</td>
</tr>
<tr>
<td>Janiralata</td>
<td>12</td>
</tr>
<tr>
<td>Janiridae</td>
<td>10-12</td>
</tr>
<tr>
<td>joanneae, Cirolana</td>
<td>22-23</td>
</tr>
<tr>
<td>kathyae, Excorallana</td>
<td>27</td>
</tr>
<tr>
<td>knudseni, Merocepon</td>
<td>18-19</td>
</tr>
<tr>
<td>kurilense, Gnorimosphaeroma</td>
<td>34</td>
</tr>
<tr>
<td>latipleonus, Nannonisconus</td>
<td>15</td>
</tr>
<tr>
<td>Limnoria</td>
<td>31</td>
</tr>
<tr>
<td>Limnoriidae</td>
<td>31</td>
</tr>
<tr>
<td>Lironeca</td>
<td>27-30</td>
</tr>
<tr>
<td>Litobopyrus</td>
<td>18</td>
</tr>
<tr>
<td>longicapitata, Bopyrine</td>
<td>17</td>
</tr>
<tr>
<td>longicaudatus, Litobopyrus</td>
<td>18</td>
</tr>
<tr>
<td>longiremis, Vana</td>
<td>12-13</td>
</tr>
<tr>
<td>luna, Bathura</td>
<td>4</td>
</tr>
<tr>
<td>Macrostylidae</td>
<td>12-13</td>
</tr>
<tr>
<td>[Macrostylis]</td>
<td>13</td>
</tr>
<tr>
<td>magnifica, Munna</td>
<td>13-14</td>
</tr>
<tr>
<td>magnifica, Synidotea</td>
<td>42, 47-48</td>
</tr>
<tr>
<td>medcofi, Trichonisculus (Miktoniscus)</td>
<td>37</td>
</tr>
<tr>
<td>menziesi, Lironeca</td>
<td>29-30</td>
</tr>
<tr>
<td>Merocepon</td>
<td>18-19</td>
</tr>
<tr>
<td>Mesanthurra</td>
<td>5, 45</td>
</tr>
<tr>
<td>Metacirolana</td>
<td>24</td>
</tr>
</tbody>
</table>
[Metacirolana] ........................................... 23
Microarcturus ........................................... 38
Microcerberidae ......................................... 13
Microcerberus ........................................... 13
[Miktoniscus], Trichoniscus ............................ 37
[Momedossa] ............................................. 9
montereyensis, Ianiropsis .............................. 12
Mothocyca ................................................ 30-31
mucronata, Paracanthaspida ......................... 8
muiensis, Bopyrella thomsoni ......................... 17
munda, Cyathura .......................................... 5
Munna ..................................................... 13-14, 45
Munnidae ................................................ 13-14
[Munnogonium] .......................................... 16
Munnopsidae ........................................... 14-15
murchoisoni, Tonella .................................. 18
murilloi, Rocinela ....................................... 22
Munniscidae ............................................ 15
Munnisconus ............................................ 15
[Natatolana] ............................................. 22
nepea, Serolina ......................................... 32
novaequineensis, Pseudione ......................... 20
novempalensis, Probopyriscus ......................... 19
occidentalis, Mesanthura .............................. 5, 45
Oniscidea ............................................... 37
Onychoeconop .......................................... 19
pambula, Bullowanthurz ............................... 6
Paracanthaspida ...................................... 8
Paraleptosphaeroma .................................. 34
Paramunna ............................................. 16
Paramunnidae .......................................... 15-16
Paranthura ........................................... 6-7
Paranthiridae ........................................ 6-7
Parasymmerus ........................................ 41-42
Pleurocryptosa ........................................ 19
pleuronotus, Iolanthe ................................ 8
Politolana ............................................. 24-25
porrecta, Acanthaspida ............................... 7
Probopyriscus ......................................... 19
productatriens, Gnathia ............................... 36, 46
profunda, Ilyarachna ................................ 15
psammophila, Caecianiplipsis ....................... 10
Pseudione ............................................... 20
quadratifrons, Paramunna ......................... 16
quinicornis, Tridentella ............................. 34-35
Rocinela .............................................. 22
rosea, Mothocyca ...................................... 31
rostratus, Exacanthaspida ......................... 18
[sanctaecrucis], Gnathia .............................. 35
[Santia]............................................................................... 7
schmitti, Idotea ........................................................................ 41
Scyphacidae .............................................................................. 37
Serolidae .................................................................................. 32
Serolina .................................................................................... 32
seticomvus, Ancinus.................................................................. 33
seychellensis, Onychopeon....................................................... 19
sinensis, Grapsicepon.............................................................. 17-18
singaporensis, Tais................................................................. 11
Sphaeromatidae........................................................................ 32-34
spinifrons, Munna..................................................................... 14, 45
squamosissima, Colanthura..................................................... 6
Stegophryxus........................................................................... 20-21
steveni, Gnathia....................................................................... 36, 46
subellipticus, Antennuloniscus................................................ 9
sublittoralis, Edotea................................................................. 40, 47
sulcatacornia, Acanthaspndia ................................................ 7
symmetrica, Desmosoma......................................................... 9
Synidotea................................................................................ 42, 47-48
tannerensis, Acanthomunna.................................................. 8-9
tannerensis, Microarcturus....................................................... 38
tasmanica, Chaetilia................................................................. 38
thomsoni, Bopyrella................................................................ 17
tillerae, Austrosignum.............................................................. 15-16
Trapezicepon........................................................................... 21-22
Trichoniscidae......................................................................... 37
Trichoniscus............................................................................ 37
tridens, Gnathia...................................................................... 36, 46
tridens, Ianiropsis................................................................... 12
Tridentella................................................................................ 34-35
Tridentellidae......................................................................... 34-35
trilobata, Gnathia................................................................... 36-37
tripunctata, Limnoria............................................................. 31
[truncata], Excorallana............................................................ 27
ubiquita, Munna..................................................................... 14
[Uromunna]............................................................................. 14
Valvifera.................................................................................. 37-42
Vana......................................................................................... 12-13
wallersteini, Colidotea............................................................ 40
wickstenae, Politolana............................................................ 24-25
LITERATURE CITED


Buss, L. W. and E. W. Iverson. 1981. A new genus and species of Sphaeromatidae (Crustacea: Isopoda) with experiments and


INSTRUCTIONS FOR AUTHORS

Technical Reports are rarely illustrated and are not typeset by the museum. The text of manuscripts should be submitted "camera ready." Type manuscript single spaced on one side of 8-1/2- by 11-inch paper on a typewriter or printer with a carbon (not cloth) ribbon and a letter-quality typeface. Leave a 1-inch margin at the top and bottom sides of the paper. Number the pages consecutively, beginning with the page containing the abstract or introduction. Place the page number in the center of the top or bottom margin of each page. If the report is long enough or complicated enough to require a table of contents, provide one, entitled "CONTENTS," numbered with small roman numerals, beginning with iii.

Carefully proof the final typescript as it will not be checked or proofed by the museum or the printer.

Transmit the original and one copy of the manuscript in a secure and reinforced envelope to the Head of the appropriate Section of the museum. The manuscript should be accompanied by a cover letter signed by the author who will be responsible for correspondence regarding the manuscript. The covering letter should contain a statement that the manuscript has not been published elsewhere except in abstract or abbreviated form. Include copies of any permissions needed to reproduce published material.