

# Opisthobranch Newsletter

January, 1998, 24(1):1

Editor: Steven J. Long; 20220 21st Avenue NW, Shoreline, WA 98177; 206-546-5977; 800-793-6188. [miranda@oz.net](mailto:miranda@oz.net) <http://www.opisthobranch.org> Subscriptions - \$20.00 per calendar year. Back volumes available. Copyright © 1998.

## EDITOR'S NOTES

Thanks very much to everyone who has sent information for the ON. Erwin Köhler sent about 200 update links for the illustration list on the Web site bringing us up to just over 1000 opisthobranch illustrations! I haven't had time to count how many species are represented but it should be over 700. There are a few links scattered which are not working -- if you see one, please let me know and I will change it.

I left out some of the references from the References section for Michael Schrödl's article. Sorry Michael.

**Belcik, F.P. 1965.** The morphology of *Ismaila monstrosa* Bergh (Copepoda). Unpublished Master's Thesis, Oregon State University, Corvallis, Oregon. 36 pp.

**Belcik, F.P. 1981.** The male of *Ismaila monstrosa* Bergh, 1867 (Copepoda, Splanchnotrophidae). *Crustaceana* 40(1): 16-25.

**Ho, J.S. 1981.** *Ismaila occulta*, a new species of poecilostomatoid copepod parasitic in a dendronotid nudibranch from California. *Journal of Crustacean Biology* 1(1): 130-136.

**Ho, J.S. 1987.** Reconsideration of *Ismaila monstrosa* Bergh, 1867 (Copepoda, Splanchnotrophidae) from Oregon. *Crustaceana* 52(1): 109-111.

**Hyman, L.H. 1967.** The invertebrates, Volume VI, Mollusca I. McGraw-Hill, New York. 792 pp.

**Millen, S.V.; Schrödl, M.; Vargas, N.; Indacochea, A. 1994.** A new species of *Okenia* (Nudibranchia: Doridacea) from the Peruvian Faunal Province. *Veliger* 37(3): 312-318.

## PERSONAL NOTES

**From Bill Mahavier:** My wife and I are charter members of the San Antonio Shell Club founded in 1955. We have a sizable collection of shells from all over the world BUT my passion for 35 years has been MICROMOLLUSKS. I use a simple 30 power stereo microscope, which I have modified to receive a Pentax "MX" 35 mm camera for photographing micromollusks.

My collection consists of 55 species of mollusks that range in size from .25 to 4 mm. I don't keep any specimens larger than 4mm in length. I store the shells in 3/4" x 3/4" x 3/4" clear plastic boxes that can be found at any "container store" at reasonable prices. I have not been able to identify all of the species. Some are protoconchs and some have yet to be classified. My micromollusks have been recovered from grunge (beach wash) that I have collected, or have been given, from the Atlantic, Pacific, Gulf of Mexico and the Caribbean.

I have photographed my entire collection. I photograph all species on a 1 mm square grid. Any photographic supply house can help you in adapting a 35 mm camera to your microscope. I mount my flash

attachment on a stand, twenty four inches, (at a 45 degree angle) from the subject. A "bulb open, manual flash", bulb close" procedure seems to be the best.

Most of my specimens come from the Port Aransas, Texas area. I am currently having my collection photographs transferred to Floppy "A" disks so that I can send them with my "E Mail". - 128 Windsor Dr., San Antonio, TX78228

**From Peter Wirtz:** Opisthobranch Molluscs from the Azores (provisional summary). Sixteen species of opisthobranchs are recorded from the Azores for the first time. A summary is given of the opisthobranch gastropods recorded from this archipelago up to date, i.e., 46 cephalaspids (Mikkelsen 1995), 3 sacoglossans, 3 anaspids, 2 pleurobranchomorphs, 2 umbraculomorphs, and 29 nudibranchs. Two of the nudibranchs are still undescribed. 33 species are shown in colour photos taken at the Azores. - Universidade da Madeira, Largo do Colegio, P - 9000 Funchal, Portugal, Madeira

**Dr. Hans Bertsch**, as guest speaker, gave a rousing presentation on nudibranchs at the annual Installation Banquet of the San Diego Underwater Photographic Society on Dec.7th. He spent part of December in Baja Sur and should be sending in a note for the ON soon.

**From Sara Shoaf:** My husband [Alan Miller] and I are avid divers, and have just recently returned from a trip to the Coral Sea on the Elizabeth E II liveaboard dive boat. While there, Alan took his usual numerous underwater photos (as he is an underwater photographer) and we came up w/ a good number of nudibranchs in the collection. A number of them are unlike anything we can find in any of the books we have. Suggestions for identification? Best books to try?

Better off sending photos to experts in the mail to ID? These are slides -- he could send dupes to people. Our friend in Australia, Janelle Cowhan, has been in touch w/ Neville Coleman over the recent past w/ several phone calls about branches she has found in the Whitsundays that were not able to be identified. Janelle is in the process of "retiring" from her job in the coal industry to pursue a live-on-the-water life style, so she may be hard to contact these days.

In addition, we take more Bahamas/Caribbean trips than Pacific ones, have friends who live and dive near Hilton Head, SC and would like to have books for IDing Atlantic nudis in the future -- any suggestions?

We have friends who dive w/ us who live near Hilton Head SC. Are there any of your experts who live around NC or SC who might give a lecture that we could attend?

We are still developing pictures and trying to ID the nudis we have -- will see what we can do about scanning the best and sending out to you. Probably will have to wait until after the holidays -- we seem to be a little busy here!! I am an orthodontist who works at a medical school, and am involved in a craniofacial anomaly clinic, sleep disorder clinic, and forensics. Alan is a photographer -- teaches in a local art center, but mostly

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freelances and takes care of me. His specialty is underwater photography, and we try to take at least 2 week-long diving trips a year to get him some pictures and me some R&R. The nudis are a new passion, and we are infecting our dive buddies who live in SC w/the virus. Will keep you posted as our consciousness emerges into the New Year. - Sarah C. Shoaf DDS, Dept. Dentistry, Bowam Gray School of Medicine of Wake Forest University, Winston-Salem, NC 72157-1093

**From Irina Roginskaya:** Have a happy and successful New Year, 1998! - P.P. Shirshov Institute of Oceanology, Nakhimovsky Prospect 36, 117218 Moscow, Russia

**From Cynthia Trowbridge:** I spent an enjoyable and productive year at the Gatty Marine Lab in Scotland. Chris Todd and I successfully raised veliger larvae of *Elysia viridis* (Ascoglossa) to competency and metamorphosis. We investigated whether there are differences in the capacity of larvae to metamorphose on different algal host species and whether postlarval slugs have the capacity to consume and to grow on all algal host species of adults. I just returned to Scotland to work with Chris for another year on a different project. - Gatty Marine Lab., University St. Andrews, St. Andrews, Fife KY16 8LB, Scotland, U.K.

**From Randy Reed:** [CEO of Reed Mariculture Inc in Santa Cruz, CA.] We are a land based marine aquaculture company that produces marine microalgae and oysters. We have been having problems with ascideans and sponges fouling our system and I've been told that nudibranchs might be a good solution. It might also be true that our system is an optimal breeding and growing ground for nudibranchs and this could turn into a product that we sell.

In the next few weeks I'd like to find places where I can get some nudibranchs to see how well they work in our system. I'd really appreciate any help with finding sources as well as any feedback or suggestions regarding ascideans and sponges or anything else. - Reed Mariculture Inc., 511 Pamilar Ave, Ste #C, Santa Cruz, CA 95128

**From Paul Katz:** [reply to Randy] I do neurobiological research on a nudibranch, *Tritonia diomedea*. This very large nudibranch eats sea pens, sea whips, or sea lilies, which are probably not clogging your system. However, we are interested in finding someone who would be willing to culture *Tritonia* for us. Right now we are having them collected by Seacology in Vancouver and by someone at the Friday Harbor Laboratories. If you or anyone else on the list are interested in growing *Tritonia* for us please let me know. There is an increasing number of laboratories in the country using this species as a model system for neuroscience research. So a stable supply would benefit the research, prevent the need for collecting from the

wild, and provide somebody with a steady income. - Department of Biology, Georgia State University, P.O. Box 4010 Atlanta, GA 30302-4010

**From Jim McLean:** "Work continues on my book/revision of shelled gastropods of the NE Pacific, including pyrams and shelled 'cephalaspideans'. This is being delayed a few months by efforts to complete my revision of the Liotiinae of the world, in the works for the last 15 years." - Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, California 90007

## READER FORUM

**From James R. Lance:** Wesley Farmer and I have just returned from a mid-December camp-out opisthobranch field trip to Bahía San Quintin, Baja California, Mexico. This large, shallow bay (about the same size as San Diego Bay) lies some 300 km south of San Diego/ Tijuana and is one of the last pristine embayments on the southern edge of the temperate California Marine Faunal Province. As this area is headed for inevitable commercial development, over the past few years we have been attempting to survey the local opisthobranch populations. As would be expected, most of the species are identifiable with their more northerly counterparts or more rarely with neighboring subtropical Panamic Marine Faunal Province elements - with a notable exception.

During an earlier field trip in April, 1996, a single individual of an unidentified stiligerid sacoglossan was found attached to a moribund strand (stipe) of a huge species of *Codium*. Both alga and sacoglossan were very different from anything we had previously encountered in either eastern pacific faunal provinces. Subsequent research revealed that only one "giant" *Codium* had ever been reported from the Pacific coast of North America - namely *Codium magnum* Dawson, 1950, and from Bahía San Quintin. Dawson's original material was collected in December (1949) and he found it ubiquitous in some areas with plants to 74 dm (25 ft.). Our trip (December 1997) verifies the original data. Additionally we collected/observed a "bloom" of the stiligerid. The adage, "being at the right place at the right time" is true in this case.

Also on the same *Codium*, *Elysia hedgpethi* (Marcus, 1961) was present in huge numbers. Several specimens of *Placida dendritica* (Alder & Hancock, 1843) and two large mating individuals of *Aplysiopsis enteromorphae* (Cockerell & Eliot, 1905) were found on the same *Codium* species, but the last named was feeding on the septate chlorophyte *Urospora* sp. - epiphytic on its host.

We have returned to our San Diego area facilities with some 50 live specimens of the four sacoglossan species listed above. Now begins the work - live maintenance. I believe that's where the data are. - 746 Agate St, San Diego, CA 92109

Reference: Dawson, E, Yale 1950. A giant new *Codium* from pacific Baja California. Bull. Torrey Bot. Club. 77(4):298-300.

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**From Gert Lindner:** [Schaumannskamp 200, D-21465 Reinbek, Germany]

Überfamilie: **Pyramidelloidea** GRAY, 1840, (nom. transl. Lamy, 1919) (= **Aglossa** (in part);

**Pyramidelloida** MINICHEV & STAROBOGATOV, 1979 [als Überordnung]; **Pyramidellida** MINICHEV & STAROBOGATOV, 1979 [als Ordnung])

Familie: **Pyramidellidae** GRAY, 1840 [on Official list ICZN, Direct. 54]

Unterfamilie: **Pyramidellinae** GRAY, 1840 (= **Obeliscidae** IREDALE, 1929; **Chrysallidinae** F. NORDSIECK, 1972)

Unterfamilie: **Odostomiinae** PELSENER, 1928

Unterfamilie: **Turbonillinae** BRONN, 1849

Unterfamilie: **Cyclostremellinae** MOORE, 1966

Unterfamilie: **Eulimellinae** F. NORDSIECK, 1972

Familie: **Amathinidae** PONDER, 1987

Familie: **Anysocyclidae** VAN AARTSEN, 1995 (= **Ebalidae** WARÉN, 1994)

## Infraklasse: **Euthyneura** SPENGLER, 1881 (= **Pentaganglionata** HASZPRUNAR, 1985)

[Diese Übergeordnete Systemgruppe fasst heute auf Grund verbindender Merkmale die früher generell und heute noch vielfach als Unterklassen eingestuften Gruppen **Opisthobranchia** und **Pulmonata** zusammen.]

## Unterklasse: **Opisthobranchia** MILNE-EDWARDS, 1848)

Ordnung: **Cephalaspidea** P. FISCHER, 1883 (= **Bullomorpha** PELSENER, 1906)

Überfamilie: **Acteonoidea** D'ORBIGNY, 1842

Familie: **Acteonidae** D'ORBIGNY, 1842

Familie: **Bullinidae** LAMARCK, 1801

Familie: **Hydatinidae** PILSBRY, 1893

Überfamilie: **Diaphanoidea** ODHNER, 1914

Familie: **Diaphanidae** ODHNER, 1914

Unterfamilie: **Diaphaninae** ODHNER, 1914

Unterfamilie: **Toledoninae** WARÉN, 1989

Familie: **Notodiaphanidae** THIELE, 1931

Überfamilie: **Retusoidea** THIELE, 1926

Familie: **Retusidae** THIELE, 1926

Überfamilie: **Ringiculoidea** PHILIPPI, 1853

Familie: **Ringiculidae** PHILIPPI 1853

Überfamilie **Runcinoidea** H. & A. ADAMS, 1854

Familie: **Runcinidae** H. & A. ADAMS, 1854 (= **Peltidae**)

Unterfamilie: **Runcininae** H. & A. ADAMS, 1854

Unterfamilie: **Illiinae** BURN, 1963

Familie: **Ildicidae** BURN, 1963

Überfamilie **Bulloidea** LAMARCK, 1801

Familie: **Bullidae** LAMARCK, 1801 (= **Bullariidae**)

Überfamilie: **Haminoeidea** PILSBRY, 1895

Familie: **Haminoeidae** PILSBRY, 1895 (= **Atydidae**

[statt **Atydidae**] THIELE, 1925 [gültig nach ICZN, Opin. 1553] **Haminaeidae** [nach **Haminaea** LEACH 1847 = nomen nullum]; **Hamineidae** [nach **Haminea** GRAY, 1847 ex LEACH ms. = nomen nullum])

Unterfamilie: **Haminoeinae** PILSBRY, 1895

Unterfamilie: **Bullactinae** THIELE, 1926

Familie: **Smaragdinellidae**

Überfamilie **Philinoidea** GRAY, 1850

Familie: **Philinidae** GRAY, 1850

Familie: **Aglajidae** PILSBRY 1895 (1847)

Familie: **Cylichnidae** H. & A. ADAMS, 1854 (= **Scaphandridae** G. O. SARS, 1878; **Tornatinidae** P. FISCHER, 1887)

Familie: **Gastropteridae** SWAINSON, 1840

Ordnung: **Acochlidiomorpha** ODHNER, 1938 (= **Acochliacea** ODHNER, 1937; **Acochlidioidea**)

Überfamilie: **Euacochlidioidea** ODHNER in FRANC, 1968

Familie: **Acochliidae** ODHNER, 1937 [auch **Acochlididae**]

Familie: **Asperspinidae** RANKIN, 1979

Familie: **Hedylopsidae** BERGH, 1896

Familie: **Microhedylidae** ODHNER, 1937

Familie: **Tantulidae** RANKIN, 1979

Überfamilie: **Philinoglossoidea** HERTLING, 1932

Familie: **Philinoglossidae** HERTLING, 1932

Familie: **Plusculidae** MARCUS, 1953

Ordnung: **Anaspidea** P. FISCHER, 1883 (= **Aplysiomorpha** PELSENER, 1906)

Familie: **Akeridae** PILSBRY, 1893 (auch **Aceridae**) [Die Platzierung dieser Familie ist unsicher. Manche Autoren stellen sie in die Ordnung Cephalaspidea.]

Familie: **Aplysiidae** LAMARCK, 1809

Familie: **Dolabellidae** MACFARLAND, 1918

Familie: **Dolabriferidae** PILSBRY, 1895

Familie: **Notarchidae** EALES & ENGEL, 1935

Unterfamilie: **Notarchinae** EALES & ENGEL, 1935

Unterfamilie: **Stylocheilinae**

Unterfamilie: **Bursatellinae**

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Ordnung: **Notaspidea** P. FISCHER, 1883

Unterordnung: **Umbraculomorpha** SCHMEKEL, 1985 (= **Umbraculacea** DALL, 1889)

Überfamilie: **Umbraculoidea** DALL, 1889

Familie: **Umbraculidae** DALL, 1889

Familie: **Tylodinidae** GRAY, 1847

Unterordnung: **Pleurobranchomorpha** PELSENEER, 1906 (= **Pleurobranchacea** FÉRUSSAC 1822)

Überfamilie: **Pleurobranchoidea** FÉRUSSAC, 1822 (in MENKE, 1828)

Familie: **Pleurobranchidae** FÉRUSSAC, 1822 (in MENKE, 1828)

Unterfamilie: **Pleurobranchinae** FÉRUSSAC, 1822

Tribus: **Pleurobranchini** FÉRUSSAC, 1822

Tribus: **Berthellini** BURN, 1962

Unterfamilie: **Pleurobranchaeinae** PILSBRY 1896

Ordnung: **Thecosomata** BLAINVILLE, 1824

Unterordnung: **Euthecosomata** MEISENHEIMER, 1905

Familie: **Limacinidae** BLAINVILLE, 1823 (= **Spiratellidae** THIELE, 1926)

Familie: **Cavoliniidae** GRAY, 1850 (nomen validatum ICZN, Opinion 883/1969)

Unterfamilie: **Cavoliniinae** GRAY, 1850

Unterfamilie: **Clioinae** VAN DER SPOEL, 1967 [emend. 1972]

Unterfamilie: **Cuvierininae** VAN DER SPOEL, 1967

Unterordnung: **Pseudothecosomata** MEISENHEIMER, 1905

Familie: **Cymbuliidae** CANTRAINE, 1841

Unterfamilie: **Cymbuliinae** CANTRAINE, 1841

Unterfamilie: **Glebininae** VAN DER SPOEL, 1976

Familie: **Desmopteridae** CHUN, 1889

Familie: **Peraclidae** TESCH, 1930

Ordnung: **Gymnosomata** (s. l.) BLAINVILLE, 1824 (= **Pteropoda** [partiell])

Unterordnung: **Gymnosomata** (s. s.) BLAINVILLE, 1824

Familie: **Clionidae** GRAY, 1840

Unterfamilie: **Clioninae** GRAY, 1840

Unterfamilie: **Thliptodontinae** KWIETNIEWSKI, 1910

Familie: **Cliopsidae** A. COSTA, 1873 (auch **Cliopseidae**, **Clionopsidae**)

Familie: **Notobranchaeidae** PELSENEER, 1886

Familie: **Pneumodermatidae** LATREILLE, 1825

Unterordnung: **Gymnoptera** Van der SPOEL, 1972

Familie: **Hydromylidae** PRUVOT-FOL, 1942 (= **Anopsiidae** HOFFMANN, 1931 [und THIELE, 1931])

Familie: **Laginiopsidae** PRUVOT-FOL, 1922

Ordnung: **Nudibranchia** BLAINVILLE, 1814

Unterordnung: **Doridina** ODHNER, 1934 (= **Doridacea** ODHNER, 1934; **Doridoidea**; **Anthrobranchia** FÉRUSSAC, 1819; **Holohepatica** BERGH, 1881)

Überfamilie: **Anadoridoidea** ODHNER, 1934 (= **Phanerobranchia** P. FISCHER, 1883)

Familie: **Aegiretidae** P. FISCHER, 1883: (= **Notodorididae** ODHNER, 1926)

Familie: **Calycidorididae** ROGINSKAYA, 1972 [auch mit **Onchidorididae** zusammengeworfen]

Familie: **Corambidae** BERGH, 1892

Familie: **Goniodorididae** H. & A. ADAMS, 1854

Familie: **Lamellidorididae** PRUVOT-FOL, 1954

Familie: **Okeniidae** IREDALE & O'DONOGHUE, 1923

Unterfamilie: **Okeniinae** IREDALE & O'DONOGHUE, 1923

Unterfamilie: **Anculinae** PRUVOT-FOL, 1954

Unterfamilie: **Hopkinsiinae** ODHNER, 1968

Familie: **Onchidorididae** ALDER & HANCOCK, 1845 (auch **Onchidoridae**)

Familie: **Triophidae** ODHNER, 1968

Unterfamilie: **Triophinae** ODHNER, 1968

Unterfamilie: **Kalinginae** PRUVOT-FOL, 1956

Familie: **Vayssiereidae** THIELE, 1931 (= **Okadaiidae** MINICHEV & STAROBOGATOV, 1979)

Überfamilie: **Eudoridoidea** ODHNER, 1934 (= **Cryptobranchia** P. FISCHER, 1883)

Familie: **Actinocyclidae** PRUVOT-FOL, 1934

Familie: **Aldisidae** ODHNER, 1933

Familie: **Archidorididae** BERGH, 1892 [auch **Archidoridae**]

Familie: **Baptodorididae** ODHNER, 1926

Familie: **Cadlinidae** BERGH, 1879

Familie: **Chromodorididae** BERGH, 1892 [gültig nach ICZN, Opin. 1375]

Familie: **Conualeviidae** COLLIER & FARMER, 1964

Unterfamilie: **Conualeviinae** COLLIER & FARMER, 1964

Unterfamilie: **Inudinae** MARCUS & MARCUS, 1967

Familie: **Discodorididae** BERGH, 1891 (auch **Discodoridae**)

Unterfamilie: **Discodoridinae** BERGH, 1891

Unterfamilie: **Taringinae** ODHNER in FRANC, 1968

Unterfamilie: **Neodoridinae** ODHNER in FRANC, 1968

Familie: **Dorididae** RAFINESQUE, 1815

Unterfamilie: **Doridinae** RAFINESQUE, 1815

Unterfamilie: **Artachaeinae** ODHNER in FRANC, 1968

Familie: **Geitodorididae** ODHNER in FRANC, 1968

Familie: **Halgeridae** (= **Asteronotidae** THIELE, 1931)

Familie: **Hexabranchidae** BERGH, 1891

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Familie: **Homoeodorididae** ODHNER, 1926 (auch **Homoiodorididae**)

Familie: **Kentrodorididae** BERGH, 1892

Familie: **Miamiridae** BERGH, 1891

Familie: **Platydorididae** BERGH, 1891

Unterfamilie: **Platydoridinae** BERGH, 1891

Unterfamilie: **Hoplodoridinae** ODHNER in FRANC, 1968

Familie: **Rostangidae** PRUVOT-FOL, 1951

Überfamilie: **Bathydoridoidea** BERGH, 1891 (= **Gnathodoridoidea** ODHNER, 1934 [siehe WÄGELE (1993)1

Familie: **Bathydorididae** BERGH, 1891

Familie: **Doridoxidae** BERGH, 1900

Überfamilie: **Polyceratoidea** ALDER & HANCOCK, 1845

Familie: **Gymnodorididae** ODHNER, 1941

Familie: **Polyceratidae** ALDER & HANCOCK, 1845 (auch **Polyceridae**)

Überfamilie: **Phyllidoidea** RAFINESQUE, 1815 (= **Porodoridoidea** ODHNER in FRANC, 1968; **Porostomata** BERGH, 1892)

Familie: **Dendrodorididae** O'DONOGHUE, 1924

Familie: **Phyllidiidae** RAFINESQUE, 1815

Unterordnung: **Dendronotina** ODHNER, 1936 (= **Dendronotoidea**, **Dentronotacea** ODHNER, 1936)

Überfamilie: **Dendronotoidea** SARS, 1878

Familie: **Aranucidae** ODHNER, 1936

Familie: **Bornellidae** P. FISCHER, 1883

Familie: **Dendronotidae** SARS, 1878

Familie: **Dotidae** GRAY, 1853 [gültig nach ICZN, Opin. 697] (= auch **Dotoidae**; **Dotonidae** GRAY, 1853;

**Iduliidae** THIELE, 1931) [**Doto** OKEN, 1815 non 1807 war für THIELE ein Synonym von **Idulia** LEACH, 1852, wonach er die Familie **Iduliidae** benannte. Selt 1964, ICZN, Opin. 697, ist **Doto** OKEN, 1815 nomen conservandum.]

Familie: **Embletoniidae** SCHMEKEL, 1970 [S. MILLER & WILLAN (1991)]

Familie: **Hancockiidae** PRUVOT-FOL, 1958

Familie: **Lomanotidae** BERGH, 1892

Familie: **Marianinidae** ODHNER in FRANC, 1968

Familie: **Phylliroidae** FÉRUSSAC, 1821

Familie: **Scyllaeidae** P. FISCHER, 1883

Familie: **Tethyidae** ALDER & HANCOCK, 1855

Familie: **Tritoniidae** H. & A. ADAMS, 1858

Unterordnung: **Arminina** ODHNER, 1934 (= **Arminoidea**; **Arminacea** ODHNER, 1934

Überfamilie: **Euarminoidea** ODHNER, 1968

Familie: **Arminidae** PRUVOT-FOL, 1927

Familie: **Doridomorphidae** ODHNER in FRANC, 1968

Familie: **Heterodorididae** VERRILL & EMERTON in VERRILL, 1882

Familie: **Lemindidae** GRIFFITHS, 1985

Überfamilie **Metarminoidea** ODHNER, 1968

Familie: **Charcotiidae** ODHNER, 1926

Familie: **Dironidae** MacFARLAND, 1912

Familie: **Goniaeolididae** ODHNER, 1907

Familie: **Heroidae** BERGH, 1892

Familie: **Madrellidae** VAYSSIÈRE, 1909

Familie: **Zephyrinidae** IREDALE & D'DONOGHUE, 1923 (= **Janolidae** PRUVOT-FOL, 1954)

Unterordnung: **Aeolidiina** ODHNER, 1934 (= **Aeolidioidea** ODHNER, 1934; **Aeolidiacea**; **Eolidiacea** ODHNER, 1934)

[MILLER (1971) und McDONALD (1983) weisen darauf hin, dass sich die von ODHNER (1939) zur Kennzeichnung evolutionärer Stufen in den **Aeolidioidea** verwendeten Tribus oder "Überfamilien" **Pleuroprocta**, **Acleioprocta** und **Cleioprocta** wie auch die von SCHMEKEL (1970) errichtete Ersatztribus **Heteroploca** für eine Klassifikation schlecht eignen, da die diesen Tribus zugrundeliegende Position des Anus "keinen guten taxonomischen Charakter" darstellt und durch ein solches System die Familien eher zerschnitten als separiert werden.]

Überfamilie: **Euaeolidioidea** ODHNER, 1968 (= **Eueolidioidea**, **Eueolidiacea**)

Familie: **Aeolidiidae** D'ORBIGNY, 1834

Familie: **Calmidae** IREDALE & D'ONOGHUE, 1923

Familie: **Coryphellidae** BERGH, 1889

Familie: **Eubbranchidae** ODHNER, 1934

Unterfamilie: **Eubbranchinae** ODHNER, 1934

Unterfamilie: **Cumanotinae** ODHNER, 1968

Familie: **Facelinidae** BERGH in CARUS, 1889 (= **Phidianidae** ODHNER, 1968)

Unterfamilie: **Facelininae** BERGH in CARUS, 1889

Unterfamilie: **Favorininae** BERGH in CARUS, 1889 (= **Favorinidae** BERGH in CARUS, 1889)

Unterfamilie: **Pteraeolidiinae** RISBEC, 1953

Unterfamilie: **Crateninae** ? BERGH, 1890 (= **Cratinae**)

Unterfamilie: **Henriellinae** BURN, 1967

Familie: **Fionidae** ALDER & HANCOCK, 1855

Familie: **Flabellinidae** BERGH, 1889

Familie: **Glaucidae** MENKE, 1828

Unterfamilie: **Glaucinae** MENKE, 1828

Unterfamilie: **Babakininae** ROLLER, 1973

Familie: **Myrrhinidae** BERGH, 1905

Familie: **Nossidae** ODHNER in FRANC, 1968

Familie: **Notaeolidiidae** ELIOT, 1910

Familie: **Paracoryphellidae** (?) MILLER, 1971

Familie: **Piseinotecidae** EDMUNDS, 1970

Familie: **Pleuroliidiidae** ODHNER in FRANC, 1968

Familie: **Protaeolidiellidae** ODHNER in FRANC, 1968

Familie: **Pseudovermidae** THIELE, 1931

Familie: **Spurillidae** ODHNER, 1939

Familie: **Tergipedidae** BERGH, 1889 (= **Cuthonidae** ODHNER, 1934) [BEHRENS, 1984 führt THIELE, 1931 als Autor des Namens **Tergipedidae** an und wiederholt die Diskussion über **Tergipedidae/Cuthonidae**]

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Ordnung: **Saccoglossa** v. IHERING, 1876 [auch **Sacoglossa** ICZN, Art. 32c] (= **Ascoglossa** BERGH, 1876; **Monostichoglossa** PAGENSTECHER, 1863)

Unterordnung: **Conchoidina** GASCOIGNE, 1985 [als Unterordnung **Conchoidea**]

Überfamilie: **Cylindrobulloidea** TAYLOR & SOHL, 1962

Familie: **Cylindrobullidae** THIELE, 1931 (nom. transl. MARCUS & MARCUS, 1956)

Überfamilie: **Julioidea** E. A. SMITH, 1885 (TAYLOR & SOHL, 1962) (**Tamanovalvacea** KAWAGUTI & BABA, 1959) [Siehe TAYLOR & SOHL, 1962: Hinweis 48)]

Familie: **Juliidae** E.A. SMITH, 1885 (= **Bertheliniidae** BEETS, 1949; **Tamanovalvidae** KAVVAGUTI & BABA, 1959)

Unterfamilie: **Juliinae** E.A. SMITH, 1885

Unterfamilie: **Bertheliniinae** BEETS, 1949

Überfamilie: **Oxynoidea** BOETTGER 1963

Familie: **Oxynoidae** BERGH, 1878 (= **Lobigeridae** PRUVOT-FOL, 1954)

Überfamilie: **Volvatelloidea** PILSBRY, 1895

Familie **Volvatellidae** PILSBRY, 1895 (= **Arthessidae** TAYLOR & SOHL, 1962)

Unterordnung: **Aconchoidina** GASCOIGNE, 1985 [als Unterordnung **Aconchoidea**]

Überfamilie: Elysioidae H. & A. ADAMS, 1854

Familie: **Elysiidae** H. & A. ADAMS, 1854 (= **Placobranchidae** RANG, 1929)

Familie: **Boselliidae** MARCUS, 1982

Überfamilie: **Polybranchioidea** H. & A. ADAMS, 1854

Familie: **Polybranchiidae** H. & A. ADAMS, 1854

Familie: **Alderidae** PRUVOT-FOL, 1954

Familie: **Caliphyllidae** THIELE, 1912

Familie: **Costasiellidae** CLARK, 1984

Familie: **Hermaeidae** H. & A. ADAMS, 1854 [wird off mit **Stiligeridae** synonymisiert]

Familie: **Stiligeridae** IREDALE & O'DONOGHUE, 1923

Unterfamilie: **Stiligerinae** IREDALE & O'DONOGHUE, 1923

Unterfamilie: **Limapontiinae** GRAY, 1842 (= **Limapontiidae** GRAY, 1842)

Überfamilie: **Platyhedyloidea** SALVINI-PLAVVEN, 1973

Familie: **Platyhedyllidae** SALVINI-PLAWEN, 1973

Ordnung: **Rhodopemorpha** SALVINI-PLAWEN, 1989

"At present the **Rhodopidae** are best classified as a separate order (**Rhodopemorpha** SALVINI-PLAWEN, 1989) of uncertain affinities among the Opisthobranchia." (HASZPRUNAR & HUBER, 1990)]

Familie: **Rhodopidae** KÖLLIKER, 1847

Unterklasse: **Gymnomorpha** SALVINI-PLAWEN, 1970

Ordnung: Systellommatophora PILSBRY, 1948 (= **Gymnophila** H.B. BAKER, 1955; **Opisthopneumona** MINICHEV, 1975)

Überfamilie: **Otinoidea** H. & A. ADAMS, 1855

Familie: **Otinidae** H. & A. ADAMS, 1855

Unterordnung: **Onchidiina** VAN MOL, 1967

Überfamilie: **Onchidioidea** RAFINESQUE, 1815 (auch **Oncidioidea**)

Familie: **Onchidiidae** RAFINESQUE, 1815 (auch **Oncididae**, **Onchidellidae**)

Familie: **Smeagolidae** CLIMO, 1980

Unterordnung: **Soleolifera** SIMROTH, 1890 (= **Veronicellida** GRAY, 1840)

Familie: **Veronicellidae** GRAY, 1840 (= **Vaginulidae** GILL, 1871)

Familie: **Rathousiidae** HEUDE, 1890

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