

Cold-water Corals Online Appendix

Phylogenetic list of 711 valid Recent azooxanthellate scleractinian species, with their junior synonyms and depth ranges

Notes

Type species of the genus indicated with an asterisk, valid species names in **bold-type**

Eleven facultatively zooxanthellate species

Taxa prefaced with a single square bracket are not valid species and thus are not counted

Last revised September 2008 (Stephen D. Cairns)

Suborder ASTROCOENIINA

FAMILY POCILLOPORIDAE Gray, 1842

Madracis Milne Edwards & Haime, 1849

**asperula* Milne Edwards & Haime, 1849 (facultative, H. Zibrowius, pers. comm.; 0-311 m)

pharensis* cf. *pharensis (Heller, 1868) (facultative; 6-333 m)

=? *M. cf. pharensis* sensu Cairns, 1991: 6 (Galápagos, 30-343 m)

=? *M. cf. pharensis* sensu Cairns & Zibrowius, 1997: 67 (Banda Sea, 85-421 m)

asanoi Yabe & Sugiyama, 1936 (110-183 m)

= *M. palaoensis* Yabe & Sugiyama, 1936

kauaiensis Vaughan, 1907 (44-541 m)

?= *singularis* Rehberg, 1892

?= *interjecta* Marenzeller, 1907

var. *macrocalyx* Vaughan, 1907 (160-260 m)

hellana Milne Edwards & Haime, 1850 (46 m)

myriaster (Milne Edwards & Haime, 1849) (37-1220 m)

= *Stylophora mirabilis* Duchassaing & Michelotti, 1860

= *Axohelia schrammii* Pourtalès, 1874

brueggemanni (Ridley, 1881) (51-130 m)

= *M. scotiae* Gardiner, 1913

profunda Zibrowius, 1980 (112-327 m)

[sp. A

=sensu Wells, 1954: 414 (Marshall I.)

=cf. *asperula*, sensu Cairns, 1991: 5 (Galápagos, 46-64 m)

=sensu Cairns & Keller, 1993:228 (SWIO, 62-160 m)

=sensu Cairns, 1994: 36 (Japan, 46-110 m)

=sensu Cairns & Zibrowius, 1997: 67 (Philippines, 124-208 m)

Suborder FUNGIINA

Superfamily FUNGIOIDEA Dana, 1846

FAMILY FUNGIACYATHIDAE Chevalier, 1987

Fungiacyathus (F.) Sars, 1872

****fragilis*** Sars, 1872 (200-2200 m) (not *F. fragilis* Keller, 1976 (junior homonym))

= *Bathyactis hawaiiensis* Vaughan, 1907

paliferus (Alcock, 1902) (69-823 m)

= *Bathyactis kikaiensis* Yabe & Eguchi, 1942 (fossil)

= *F. sp.* sensu Zibrowius & Grygier, 1985

stephanus (Alcock, 1893) (245-2000 m)

pusillus pusillus (Portalès, 1868) (285-685 m)

pusillus pacificus Cairns, 1995 (350-1050 m)

multicarinatus Cairns, 1998 (348-350 m)
sandoi Cairns, 1999 (77-600 m)
 [sp. A sensu Cairns 1994: 38 (Kurile I., 3175-4110 m)
 =*F. paliferus* sensu Keller, 1976
Fungiacyathus (Bathyactis) Moseley, 1881
 **symmetricus* (Pourtalès, 1871) (183-1664 m)
 sibogae (Alcock, 1902) (463-1914 m)
 =*Bathyactis stabilis* Gardiner & Waugh, 1939
 marenzelleri (Vaughan, 1906) (1820-6328 m)
 =*Bathytrochus hexagonus* Gravier, 1915
 =*F. symmetricus aleuticus* Keller, 1976
 =*F. symmetricus fragilis* Keller, 1976
 =*F. symmetricus durus* Keller, 1976
 =*F. sp a sensu* Zibrowius & Grygier, 1985
 pseudostephanus Keller, 1976 (3840-5120 m)
 variegatus Cairns, 1989 (84-715 m)
 granulosus Cairns, 1989 (287-1050 m)
 turbinolioides Cairns, 1989 (600-930 m)
 hydra Zibrowius & Gili, 1990 (882-886 m)
 margaretae Cairns, 1995 (440-1175 m)
 pliciseptus Keller, 1981 (480 m)
 crispus (Pourtalès, 1871) (fragmenting species; 183-1115 m)
 dennanti Cairns & Parker, 1992 (fragmenting species; 190-770 m)
 fissilis Cairns, 1984 (fragmenting species; 212-503 m)
 fissidiscus Cairns & Zibrowius, 1997 (fragmenting species; 282-287 m)

FAMILY MICRABACIIDAE Vaughan, 1905

Leptopenus Moseley, 1881
 **discus* Moseley, 1881 (2842-5000 m)
 =*L. irinae* Keller, 1977
 hypocoelus Moseley, 1881 (3949 m)
 antarcticus Cairns, 1989 (2005-2897 m)
 solidus Keller, 1977 (2000-3250 m)
 [sp. A
 =sensu Cairns, 1989: 14 (Celebes, 871 m)
 =sensu Cairns & Zibrowius, 1997: 73 (Banda Sea, 221-871 m)
Letepsammia Yabe & Eguchi, 1932
 **formosissima* (Moseley, 1876) (97-500 m)
 superstes (Ortmann, 1888) (77-710 m)
 =*Stephanophyllia japonica* Yabe & Eguchi, 1934
 franki Owens, 1994 (50-650 m)
 fissilis Cairns, 1995 (106-458 m)
 =*Letepsammia sp. sensu* Squires, 1964
Stephanophyllia Michelin, 1841
 complicata Moseley, 1876 (73-700 m)
 fungulus Alcock, 1902 (15-653 m)
 neglecta Boschma, 1923 (49-555 m)
Rhombopsammia Owens, 1986
 **squiresi* Owens, 1986 (622-1401 m)
 niphada Owens, 1986 (390-804 m)

Suborder FAVIINA

Superfamily Favioidea

FAMILY RHIZANGIIDAE d'Orbigny, 1851

Culicia Dana, 1846

**stellata* Dana, 1846 (0-100 m)

=*C. truncata* Dana, 1846

=*C. japonica* Yabe & Eguchi, 1936

rubeola (Quoy & Gaimard, 1833) (0-82 m)

=*Cylicia huttoni* Tenison-Woods, 1878

tenella tenella Dana, 1846 (30 m)

tenella natalensis (Duncan, 1876)

hoffmeisteri Squires, 1966 (0-51 m)

australiensis Hoffmeister, 1933 (3-378 m)

=*C. sp.* sensu Veron, 1986

quinaria (Tenison-Woods, 1878) (0.5-30 m)

smithii (Milne Edwards & Haime, 1849) (shallow)

fragilis Chevalier, 1971 (14-20 m)

excavata (Milne Edwards & Haime, 1849) (shallow)

cuticulata (Klunzinger, 1879) (unknown, but shallow)

tenuisepes Ogawa, Takahashi & Sakai, 1997 (0.5-1.5 m)

subaustraliensis Ogawa, Takahashi & Sakai, 1997 (shallow)

rachelfitzhardingeae Cairns, 2006 (2 m)

[*verreauxii* (ME & H, 1849) sp. dub. (see Cairns, 2004: 319, New Zealand; unknown depth)]

Astrangia Milne Edwards & Haime, 1848

populata (Ellis & Solander, 1786) (facultative, 0-263 m)

=**A. michelinii* Milne Edwards & Haime, 1848

=*A. danae* Milne Edwards & Haime, 1849

=*A. astreiformis* Milne Edwards & Haime, 1849

=*A. danae* Agassiz, 1850

=*A. edwardsii* Verrill, 1866

browni Palmer, 1928 (0-5 m)

conferta Verrill, 1870 (9-33 m)

equatorialis Durham & Barnard, 1952 (0-15 m)

=*A. gardinerensis* Durham & Barnard, 1952

haimeii Verrill, 1866 (1-53 m)

=?*A. concinna* Verrill, 1866

=*A. pulchella* Verrill, 1866

=*A. pedersenii* Verrill, 1870

=?*A. oaxacensis* Palmer, 1928

=*A. lajollaensis* Durham, 1947

=*A. caboensis* Durham, 1947

=*A. concepcionensis* Durham, 1947

=*A. coronadoensis* Durham, 1947 (Pleistocene and Recent)

=*A. santelmoensis* Durham, 1947 (Pleistocene)

=*A. cortezi* Durham & Barnard, 1952

=*A. hancocki* Durham & Barnard, 1952

=*A. sanfilipensis* Durham & Barnard, 1952

rathbuni Vaughan, 1906 (5-90 m)

solitaria (Leseuer, 1817) (0-51 m)

=*A. neglecta* Duchassaing & Michelotti, 1860

=*A. granulata* Duchassaing & Michelotti, 1860

- =?A. *minuta* Duncan, 1876
 - =?A. *epithecata* Duncan, 1876
 - =A. *solitaria portoricensis* Vaughan, 1901
 - =A. *brasiliensis* Vaughan, 1906
 - woodsii** Wells, 1955 (18 m)
 - atrata** (Dennant, 1906) (3-51 m)
 - californica** Durham & Barnard, 1952 (29 m)
 - =?A. *tangolaensis* Durham, 1949
 - costata** Verrill, 1866 (11-31 m)
 - howardi** Durham & Barnard, 1952 (54-91 m)
 - dentata** Verrill, 1866 (0-15 m)
 - macrodentata** Thiel, 1940 (shallow)
 - mercatoris** Thiel, 1941 (3-6 m)
 - Oulangia** Milne Edwards & Haime, 1848
 - ***stokesiana** Milne Edwards & Haime, 1848 (1-22 m)
 - var. miltoni** Yabe & Eguchi, 1932 (0-135 m)
 - bradleyi** (Verrill, 1866) (0-64 m)
 - cyathiformis** Chevalier, 1971 (10-20 m)
 - Cladangia** Milne Edwards & Haime, 1851
 - ***exusta** Lütken, 1873 (20 m)
- FAMILY OCULINIDAE Gray, 1847
- OCULININAE Gray, 1847
- Oculina** Lamarck, 1816
 - profunda** Cairns, 1991 (119-742 m)
 - =*Oculinidarium* sp. sensu Marenzeller, 1904
 - tenella** Pourtalès, 1871 (possibly facultative; 25-159 m)
 - varicosa** Leseuer, 1821 (facultative; 5-128 m)
 - diffusa** Lamarck, 1816 (facultative, re: Humann, 1993; 0-25 m)
 - virgosa** Squires, 1958 (29-1050 m)
- Petrophyllia** (=Archohelia) Conrad, 1855
 - rediviva** (Wells & Alderslade, 1979) (0-7 m)
- Sclerhelia** Milne Edwards & Haime, 1850
 - ***hirtella** (Pallas, 1766) (18-165 m)
 - =?S. *dubia* Nemenzo, 1980
- Bathelia** Moseley, 1881
 - ***candida** Moseley, 1881 (500-1250 m)
- Cyathelia** Milne Edwards & Haime, 1849
 - ***axillaris** (Ellis & Solander, 1786) (12-366 m)
- Madrepora** Linnaeus, 1758 (=Neohelia Moseley, 1881)
 - ***oculata** Linnaeus, 1758 (55-1950 m)
 - =*Amphelia venusta* Milne Edwards & Haime, 1850: 86
 - =*Lophohelia tenuis* Moseley, 1881
 - =*Lophohelia candida* Moseley, 1881
 - =*Cyathohelia formosa* Alcock, 1898
 - =*Lophohelia investigatoris* Alcock, 1898
 - =*Amphihelia moresbyi* Alcock, 1898 (see Zibrowius, 1974)
 - =*M. galapagensis* Vaughan, 1906
 - =*M. kauaiensis* Vaughan, 1907
 - =*M. alcocki* Faustino, 1927: 106 (unnecessary replacement name)
 - =*M. vitiae* Squires & Keyes, 1967

carolina (Pourtalès, 1871) (53-801 m)
= *Lophohelia exigua* Portalès, 1871
arbuscula (Moseley, 1881) (212-658 m)
minutiseptum Cairns & Zibrowius, 1997 (150-302 m)
porcellana (Moseley, 1881) (pentamerous; 55-516 m)
[cf. *porcellana* Cairns & Zibrowius, 1997: 84 (hexamerous; Indonesia, 55-238 m)]

FAMILY ANTHEMIPHYLLIIDAE Vaughan, 1907

Anthemiphyllia Portalès, 1878

**patera patera* Portalès, 1878 (500-700 m)
patera costata Cairns, 1999 (320-700 m)
spinifera Cairns, 1999 (282-650 m)
multidentata Cairns, 1999 (128-270 m)
macrolobata Cairns, 1999 (369-650 m)
dentata (Alcock, 1902) (50-1050 m)
=? *Discotrochus investigatoris* Alcock, 1893 (has priority if synonymous)
pacifica Vaughan, 1907 (205-342 m)
frustum Cairns, 1994 (209-340 m)

Suborder CARYOPHYLLIINA

Superfamily CARYOPHYLLIOIDEA Dana, 1846

FAMILY CARYOPHYLLIIDAE Dana, 1846

Caryophyllia (C.) Lamarck, 1801

Attached *Caryophyllia*:

**cyathus* (Ellis & Solander, 1786) (70-300 m)
= *Madrepora calendula* Hermann, 1782
= *Madrepora anthophyllum* Esper, 1791
berteriana Duchassaing, 1850 (91-1033 m)
= *C. formosa* Portalès, 1867
crypta Cairns, 2000 (12-183 m)
polygona Portalès, 1878 (700-1817 m)
horologium Cairns, 1977 (55-175 m)
corrugata Cairns, 1979 (183-380 m)
calveri Duncan, 1873 (91-340 m)
= *Cyathina pezita* Ehrenberg, 1834
=? *C. electrica* Milne Edwards, 1881
[cf. *calveri* Duncan, 1873, sensu Cairns, 1999: 73 (Vanuatu, 558-602 m)]
diomedae Marenzeller, 1904 (225-2200 m)
sarsiae Zibrowius, 1974 (520-2200 m)
= *C. sp.* sensu Zibrowius, 1974
alberti Zibrowius, 1980 (76-506 m)
secta Cairns & Zibrowius, 1997 (transverse division; 220-366 m)
abrupta Cairns, 1999 (transverse division; 300-650 m)
stellula Cairns, 1998 (166-420 m)
= *C. epithecata* of Gardiner, 1904
balaenacea Zibrowius & Gili, 1990 (882-1112 m)
atlantica (Duncan, 1873) 298-2165 m)
= *C. laevicostata* Moseley, 1881
=? *C. panda* Alcock, 1902
= *C. alcocki* Vaughan, 1907
=? *C. pacifica* Keller, 1981

antarctica Marenzeller, 1904 (87-1435 m)
arnoldi Vaughan, 1900 (40-656 m)
alaskensis Vaughan, 1941 (102-399 m)
 =C. sp. A sensu Cairns, 1994: 21
lamellifera Moseley, 1881 (89-1152 m)
japonica Marenzeller, 1888 (77-1680 m)
ephyala Alcock, 1891 (420 m)
crosnieri Cairns & Zibrowius, 1997 (nom. nov.; 133-1050 m)
 =C. *elongata* Cairns, in Cairns & Keller, 1993, not *C. clavus* var. *elongata* Duncan, 1873
cincticulatus (Alcock, 1898) (384 m)
inornata (Duncan, 1878) (0-100 m)
 =Coenocyathus *giesbrechti* Doderlein, 1913
 =Coenocyathus *dohrni* Doderlein, 1913
ralphae Cairns, 1995 (315-360 m)
eltaninae Cairns, 1982 (101-814 m)
profunda Moseley, 1881 (35-1116 m)
paucipalata Moseley, 1881 (714-843 m)
barbadensis Cairns, 1979 (129-249 m)
rugosa Moseley, 1881 (71-581 m)
 =C. *paraoctopali* Yabe & Eguchi, 1942
octopali Vaughan, 1907 (457-627 m)
 =C. *octopali* var. *incerta* Vaughan, 1907
marmorea Cairns, 1984 (331-500 m)
octonaria Cairns & Zibrowius, 1997 (182-622 m)
antillarum Pourtalès, 1874 (150-730 m)
zopyros Cairns, 1979 (73-618 m)
abyssorum Duncan, 1873 (732-2000 m)
 =Caryophyllia *inskipi* Duncan, 1873
 =Caryophyllia *vermiformis* Duncan, 1873
perculata Cairns, 1991 (54-316 m)
hawaiiensis Vaughan, 1907 (85-650 m)
quadragenaria Alcock, 1902 (54-440 m)
 =C. *scobinosa decapali* Yabe & Eguchi, 1942
solida Cairns, 1991 (373-488 m)
smithii Stokes & Broderip, 1828 (40-400 m)
 =Turbinolia *borealis* Fleming, 1828
 =Caryophyllia *clavus* Scacchi, 1835
 =Cyathina *turbinata* Philippi, 1836
 =Caryophyllia *pseudoturbinolia* Michelin, 1841
 =Paracyathus *taxilianus* Gosse, 1860
 =Paracyathus *thulensis* Gosse, 1860
 =Paracyathus *pteropus* Gosse, 1860
 =C. *smithii* var. *castanea* Gosse, 1860
 =C. *smithii* var. *esmeralda* Gosse, 1860
 =C. *smithii* var. *clara* Gosse, 1860
 =C. *clavus* var. *elongata* Duncan, 1873
 =C. *clavus* var. *exserta* Duncan, 1873
 =C. *clavus* var. *epithecata* Duncan, 1873
 =Paracyathus *monilis* Duncan, 1878
 =Paracyathus *humilis* Duncan, 1878 (junior homonym of *P. humilis* Verrill, 1870)
foresti Zibrowius, 1980 (155-950 m)

- paradoxus* Alcock, 1898 (786 m)
jogashimaensis Eguchi, 1968 (52-98 m)
transversalis Moseley, 1881 (210-397 m)
corona Duchassaing, 1870 (Antilles, 60 m)
protei Duchassaing 1870 (Antilles, 100 m)
 [sp. A sensu Seig & Zibrowius, 1989: 190 (New Caledonia, 570-610 m)
 [sp. B sensu Seig & Zibrowius, 1989: 190 (New Caledonia, 825-860 m)
- Unattached *Caryophyllia*:
scobinosa Alcock, 1902 (302-2450 m)
 =*C. cultrifera* Alcock, 1902
 =?*C. sp. B* sensu Seig & Zibrowius, 1989 (New Caledonia)
cornulum Cairns & Zibrowius, 1997 (1525-2603 m)
squiresi Cairns, 1982 (406-659 m)
 =*C. sp. A* sensu Squires, 1969
grandis Gardiner & Waugh, 1938 (183-596 m)
mabahithi Gardiner & Waugh, 1938 (278-1022 m)
sewelli Gardiner & Waugh, 1938 (366 m)
valdiviae Zibrowius & Gili, 1990 (882-2670 m)
ambrosia ambrosia Alcock, 1898 (311-1230 m)
 =?*C. scillaemorpha* Alcock, 1894
ambrosia caribbeana Cairns, 1979 (183-1646 m)
seguenzae Duncan, 1873 (1000-1400 m)
planilamellata Dennant, 1906 (128-1220 m)
huinayensis Cairns, Haussermann & Försterra, 2005 (16-256 m)
 [*paucipaliata* Yabe & Eguchi, 1942 (fossil)
 =*paucipaliata* Yabe & Eguchi, 1932: 443 (nom. nud., not *C. paucipalata* Moseley, 1881)
- Caryophyllia (Acanthocyathus)* Milne Edwards & Haime, 1848
 **grayi* (Milne Edwards & Haime, 1848) (spined; 37-360 m)
spinigera Saville Kent, 1871 (spined; 127-347 m)
dentata (Moseley, 1881) (spined; 90-263 m)
quangdongensis Zou, 1984 (spined; 167-179 m)
spinicarens (Moseley, 1881) (222-750 m)
zanzibarensis Zou, 1984 (nom. nov.) (238-302 m)
 =*C. compressus* of Gardiner & Waugh, 1938, not =*C. compressa* Yabe & Eguchi, 1932
decamera Cairns, 1998 (spined; 124-263 m)
karubarica Cairns & Zibrowius, 1997 (389-477 m)
unicristata Cairns & Zibrowius, 1997 (251-477 m)
- Premocyathus* Yabe & Eguchi, 1942
 **dentiformis* (Alcock, 1902) (22-960 m)
 =*Caryophyllia compressa* Yabe & Eguchi, 1932 (nom. nud.)
 =*Premocyathus compressus* Yabe & Eguchi, 1942, not *C. compressa* Gardiner & Waugh,
 1938 =*C. (A.) zanzibarensis* Zou, 1984, nom. nov.
 ?=*Caryophyllia ceratoconus* Hu, 1987
cornuformis (Pourtalès, 1868) (137-2360 m)
 =*Caryophyllia pourtalesi* Duncan, 1873
- Coenocyathus* Milne Edwards & Haime, 1848
 **cylindricus* Milne Edwards & Haime, 1848 (65-500 m)
 =*Coenocyathus lobatus* Chevalier, 1966
anthophyllites Milne Edwards & Haime, 1848 (65-250 m)
bowersi Vaughan, 1906 (9-302 m)
brooki Cairns, 1995 (7-95 m)

- caribbeana* Cairns, 2000 (5-100 m)
goreaui Wells, 1972 (octamerall; 2-6 m)
humanni Cairns, 2000 (21 m)
parvulus (Cairns, 1979) (97-399 m)
- Bathycyathus*** Milne Edwards & Haime, 1848
 **chilensis* Milne Edwards & Haime, 1848 (26-420 m)
 =*B. indicus* Milne Edwards & Haime, 1848
- Crispatotrochus*** Tenison-Woods, 1878
 **cornu* (Moseley, 1881) (220-1097 m)
rubescens (Moseley, 1881) (110-634 m)
 =*Cyathoceras tydemani* Alcock, 1902
 =*Cyathoceras diomedea* Vaughan, 1907
niinoi (Yabe & Eguchi, 1942) (104 m)
foxi (Durham & Barnard, 1952) (82-272 m)
irregularis (Cairns, 1982) (549 m)
inornatus Tenison-Woods, 1878 (120-400 m)
woodsii (Wells, 1964) (77-87 m)
squiresi (Cairns, 1979) (686-822 m)
 =*Aulocyathus* sp. sensu Squires, 1959
galapagensis Cairns, 1991 (84-806 m)
curvatus Cairns, 1995 (1373-2505 m)
 =*Gardineria* sp. sensu Gardiner, 1929
rugosus Cairns, 1995 (142-1050 m)
gregarius Cairns, 2004 (460 m)
 [sp. A sensu Cairns, 1982: 22 (Eltanin Fracture Zone, 2305-2329 m)
 [cf. *cornu* sensu Cairns 1979: 67 (western Atlantic, 220-241 m)
- Labyrinthocyathus*** Cairns, 1979
 **langae* Cairns, 1979: 341 (695-810 m)
 =*L. langi* (sic) Cairns, 1979
limatulus (Squires, 1964) (20-508 m)
 =*Ceratotrochus japonicus* Eguchi, 1968
delicatus (Marenzeller, 1904) (155-1000 m)
 =*L.* sp. sensu Cairns, 1979: pl. 11, fig. 10-11
quaylei (Durham, 1947) (37-293 m)
facetus Cairns, 1979 (385-402 m)
 [sp. A
 =sensu Cairns, 1995: 58 (New Zealand, 665-1000 m)
 =sensu Cairns & Zibrowius, 1997: 104 (Indonesia, 210-268 m)
- Monohedotrochus*** Kitahara & Cairns, 2005
 **capitolii* Kitahara & Cairns, 2005 (150-1200 m)
circularis (Cairns, 1998) (190-545 m)
epithecatus (Cairns, 1999) (240-455 m)
- Concentrotheca*** Cairns, 1979
 **laevigata* (Pourtalès, 1871) (183-772 m)
vaughani Cairns, 1991 (313-316 m)
- Ceratotrochus*** Milne Edwards & Haime, 1848
magnaghii Cecchini, 1914 (7-400 m)
franciscana Durham & Barnard, 1952 (79-80 m)
 “*Ceratotrochus*” *laxus* Vaughan, 1907 (583-678 m)
- Nomlandia*** Durham & Barnard, 1952
 **californica* Durham & Barnard, 1952 (82 m)

***Trochocyathus* (T.)** Milne Edwards & Haime, 1848
rawsonii Pourtalès, 1874 (55-700 m)
 =*Montlivaultia poculum* Pourtalès, 1878
 =*Paracyathus laxus* Pourtalès, 1880
 [*rawsonii* Pourtalès, 1874, sensu Gardiner 1904 (S. Africa, unknown depth)
 =cf. *rawsonii* Pourtalès, 1874, sensu Cairns & Keller, 1993: 241 (SWIO, 560-620 m)
fossulus Cairns, 1979 (205-775 m)
fasciatus Cairns, 1979 (238 m)
laboreli Cairns, 2000 (130-240 m)
caryophylloides Alcock, 1902 (115-344 m)
japonicus Eguchi, 1968 (150-450 m)
 =*Ceratotrochus jogashimaensis* Eguchi, 1968
decamera Cairns, 1994 (70-88 m)
rhombocolumna Alcock, 1902 (110-530 m)
 =*Paracyathus tenuicalyx* Vaughan, 1907
oahensis Vaughan, 1907 (75-571 m)
aithoseptatus Cairns, 1984 (371-454 m)
mauiensis (Vaughan, 1907) (174-278 m)
vasiformis Bourne, 1903 (323-650 m)
philippinensis Semper, 1872 (54-330 m)
semperi Cairns & Zibrowius, 1997 (38-245 m)
gordoni Cairns, 1995 (398-710 m)
maculatus Cairns, 1995 (77-550 m)
 =?*T. cavatus* Alcock, 1902
spinosocostatus Zibrowius, 1980 (1575-1650 m)
burchae (Cairns, 1984) (35-144 m)
apertus Cairns & Zibrowius, 1997 (20-230 m)
porphyreus (Alcock, 1893) (shallow)
cooperi (Gardiner, 1905) (25-100 m)
 =?*T. weberi* Alcock, 1902
gardineri (Vaughan, 1907) (274-470 m)
cepulla Cairns, 1995 (398-610 m)
 =*Trochocyathus* sp. sensu Seig & Zibrowius, 1989
discus Cairns & Zibrowius, 1997 (240-700 m)
efateensis Cairns, 1999 (391-437 m)
patelliformis Cairns, 1999 (1010-1250 m)
wellsi Cairns, 2004 (75-86 m)
 [sp. A sensu Cairns & Keller, 1993: 240 (SWIO, 74-315 m)

***Trochocyathus* (*Aplocyathus*)** Orbigny, 1849
hastatus Bourne, 1903 (366-710 m)
brevispina Cairns & Zibrowius, 1997 (240-560 m)
longispina Cairns & Zibrowius, 1997 (326-760 m)

Tethocyathus Kühn, 1933
cylindraceus (Portalès, 1868) (183-649 m)
 =*Trochocyathus* sp. sensu Gardiner, 1929
prahli Lattig & Cairns, 2000 (303-333 m)
recurvatus (Portalès, 1878) (320-569 m)
variabilis Cairns, 1979 (250-860 m)
virgatus (Alcock, 1902) (137-1200 m)
minor (Gardiner, 1899) (73 m)
endesa Cairns, Haussermann & Försterra, 2005 (15-240 m)

Paracyathus Milne Edwards & Haime, 1848 [Rhizangiidae sensu Best (1987)]

pulchellus (Philippi, 1842) (17-1260 m)
 =*Cyathina striata* Philippi, 1842
 =*P. confertus* Pourtalès, 1868
 =*Caryophyllia sinuosa* Duchassaing, 1870
 =*P. agassizii* Duncan, 1873
 =*P. insignis* Duncan, 1878
 =*P. africanus* Duncan, 1878
 =*P. costatus* Duncan, 1878
 =*P. defilippi* Duchassaing & Michelotti, 1860

arcuatus Lindström, 1877 (201-343 m)

stearnsii Verrill, 1869 (20-134 m)
 =*P. caltha* Verrill, 1869 (sic)
 =*P. tiburonensis* Durham, 1947

montereyensis Durham, 1947 (75-146 m)

humilis Verrill, 1870 (23-104 m)

coronatus Duncan, 1876 (unknown depth)

pruinus Alcock, 1902 (150 m)

molokensis Vaughan, 1907 (161-260 m)

conceptus Gardiner & Waugh, 1938 (229-805 m)

stokesii Milne Edwards & Haime, 1848 (unknown depth)

parvulus Gardiner, 1899 (73 m)

lifuensis Gardiner, 1899 (73 m)

rotundatus Semper, 1872 (18-66 m)
 =?*P. caeruleus* Duncan, 1889
 =?*P. merguiensis* Duncan 1889

indicus indicus Duncan, 1889 (unknown depth)
indicus gracilis Alcock, 1893 (unknown depth)

cavatus Alcock, 1893 (unknown depth)

fulvus Alcock, 1893 (350-433 m)

andersoni Duncan, 1889 (unknown depth)

profundus Duncan, 1889 (unknown depth)

persicus Duncan, 1876: 431 (less than 50 m)

ebonensis Verrill, 1866: 40 (unknown depth)

porcellanus Verrill, 1866: 40 (unknown depth)

darwinensis Cairns, 2004 (0-26 m)

“*Paracyathus*” *vittatus* Dennant, 1906 (31 m)
 [sp. Cairns & Zibrowius, 1997: 116 (Banda Sea, 90-397 m)
 =*P. defilippi* sensu Moseley, 1881
 [sp. sensu Zibrowius, 1974: 766 (Amsterdam I., 80-100 m)]

Polycyathus Duncan, 1876 [=Rhizangiidae sensu Best (1987)]

****atlanticus*** Duncan, 1876 (unknown depth)
 =*Agelecyathus helenae* Duncan, 1876
 =*A. helenae* var. *minor* Duncan, 1876

mayae Cairns, 2000 (137-309 m)

fuscomarginatus (Klunzinger, 1879) (unknown depth)

fulvus Wijsman-Best, 1970 (30-50 m)

hodgsoni Verheij & Best, 1987 (0-35 m)

marigondoni Verheij & Best, 1987 (35 m)

furanaensis Verheij & Best, 1987 (6-52 m)

hondaensis (Durham & Barnard, 1952) (55-64 m)

- isabela* Wells, 1982 (14-23 m)
muellerae (Abel, 1959) (0-30 m)
 =*Polycyathus banyulensis* Best, 1968
 =*Polycyathus mediterraneus* Best, 1968
palifera (Verrill, 1869) (“reef” depth)
senegalensis Chevalier, 1966 (12-143 m)
verrilli Duncan, 1889 (unknown depth)
andamanensis Alcock, 1893 (unknown depth)
difficilis Duncan, 1889 (unknown depth)
persicus (Duncan, 1876: 434) (shallow)
norfolkensis Cairns, 1995 (10-20 m)
octuplus Cairns, 1999 (90-441 m)
- Cladocora*** Ehrenberg, 1834
debilis Milne Edwards & Haime, 1849 (28-480 m)
 =*C. patriarca* Pourtalès, 1874
 =*C. paulmayeri* Doderlein, 1913
pacifica Cairns, 1991 (45-274 m)
- Bourneotrochus*** Wells, 1984
stellulatus (Cairns, 1984) (210-566 m)
 = **B. veroni* Wells, 1984
- Stephanocyathus* (*S.*)** Seguenza, 1864
diadema (Moseley, 1876) (795-2553 m)
 =*Ceratotrochus discoides* Moseley, 1876
paliferus Cairns, 1977 (220-715 m)
laevifundus Cairns, 1977 (300-1158 m)
moseleyanus (Sclater, 1886) (1000-2000 m)
 =?*Sabinotrochus apertus* Gravier, 1920
crassus (Jourdan, 1895) (400-1557 m)
platypus (Moseley, 1876) (439-1219 m)
 =*S.* sp. sensu Squires & Ralph, 1965 and Squires & Keyes, 1967
regius Cairns & Zibrowius, 1997 (563-2160 m)
imperialis Cairns, 2004 (2436-2474 m)
 [*bipatella* (Alcock, 1902) (a juvenile specimen of an unknown species;)
 [sp. sensu Cairns & Parker, 1992: 26 (Tasmania, 520 m)]
- Stephanocyathus* (*Odontocyathus*)** Moseley, 1881
 **coronatus* (Portalès, 1867) (543-1989 m)
 =*Sabinotrochus flatiliseptis* Alcock, 1902
 =*S. (O.)* sp. sensu Keller, 1975
weberianus (Alcock, 1902) (700-1500 m)
 =*Stephanotrochus sibogae* Alcock, 1902
 =*S. ixine* Squires, 1958 (in part)
nobilis (Moseley in Thompson, 1873) (609-2200 m)
 =*Stephanotrochus nitens* Alcock, in Wood Mason & Alcock, 1891
 =*Stephanotrochus oldhami* Alcock, 1894
 =*Sabinotrochus opulens* Gravier, 1915
campaniformis (Marenzeller, 1904) (882-1610 m)
- Stephanocyathus* (*Acinocyathus*)** Wells, 1984
 **spiniger* (Marenzeller, 1888) (120-1188 m)
 =*Stephanotrochus tatei* Dennant, 1899 (fossil)
 =*Odontocyathus sexradii* Alcock, 1902
 =*Odontocyathus stella* Alcock, 1902

- =?*Odontocyathus coloradus* Smith, 1913 (fossil)
 =*Odontocyathus japonicus* Yabe & Eguchi, 1932 (fossil)
explanans (Marenzeller, 1904) (180-1016 m)
Vaughanella Gravier, 1915
 **margaritata* (Jourdan, 1895) (1267 m)
concinna Gravier, 1915 (500-3018 m)
oreophila Keller, 1981 (646-1050 m)
multipalifera Cairns, 1995 (920-3500 m)
Ericiocyathus Cairns & Zibrowius, 1997
 **echinatus* Cairns & Zibrowius, 1997 (814-1401 m)
Deltocyathus Milne Edwards & Haime, 1848
 **italicus* (Michelotti, 1838) (403-2634 m)
 =*D. conicus* Zibrowius, 1980
agassizii Pourtalès, 1867 (494-1115 m)
calcar Pourtalès, 1874 (81-675 m)
eccentricus Cairns, 1979 (183-1000 m)
moseleyi Cairns, 1979 (200-1372 m)
pourtalesi Cairns, 1979 (311-567 m)
magnificus Moseley, 1876 (88-1500 m)
 =*Fungiacyathus* sp. sensu Veron, 1986
andamanicus Alcock, 1898 (187-397 m)
rotulus (Alcock, 1898) (210-1300 m)
 =*D. fragilis* Alcock, 1902
murrayi Gardiner & Waugh, 1938 (1948-2312 m)
varians Gardiner & Waugh, 1938 (655-732 m)
sarsi (Gardiner & Waugh, 1938) (44-80 m)
 ?*nascornatus* (Gardiner & Waugh, 1938) (73-2000 m)
suluensis Alcock, 1902 (142-1050 m)
 =*D. formosus* Cairns, 1995
vaughani Yabe & Eguchi, 1932 (nom. nov.) (88-1097 m)
 =*Levipalifer orientalis* Vaughan, 1900, not *D. orientalis* Duncan, 1876
parvulus Keller, 1982 (1940-5080 m)
ornatus Gardiner, 1899 (73-360 m)
heteroclitus Wells, 1984 (208-335 m)
philippinensis Cairns & Zibrowius, 1997 (342-522 m)
stella Cairns & Zibrowius, 1997 (206-597 m)
halianthus (Lindström, 1877) (46-130 m)
corrugatus Cairns, 1999 (280-390 m)
crassiseptum Cairns, 1999 (413-536 m)
cameratus Cairns, 1999 (305-1175 m)
taiwanicus Hu, 1987 (320-697 m)
 [sp. A sensu Cairns & Keller, 1993: 245 (SWIO, 207-315 m)
 [sp. sensu Zibrowius, 1974: 756 (Amsterdam I., 496-2278 m)
Heterocyathus Milne Edwards & Haime, 1848
 **aequicostatus* Milne Edwards & Haime, 1848 (facultative; 0-20 m)
 =*H. roussaeanus* Milne Edwards & Haime, 1848
 =*Stephanoseris lamellosa* Verrill, 1865: 149 (1865 is correct)
 =*H. philippinensis* Semper, 1872
 =*H. oblongatus* Rehberg, 1892
 =*H. wood-masoni* Alcock, 1893
 =*Stephanoseris carthausi* Felix, 1913

- =*H. a. delicatus* Sakakura, 1935
 =*H. elongatus* Hu, 1987 (Pleistocene)
- japonicus** (Verrill, 1866: 47) (see Zibrowius, 1998: 321; 0-20 m)
 =*H. mai* Cheng, 1971
- alternatus** Verrill, 1865: 149 (facultative; 0-319 m)
 =*H. parasiticus* Semper, 1872
 =*H. heterocostatus* Harrison, 1911
- sulcatus** (Verrill, 1866: 48) (facultative; 11-312 m)
 =*Psammoseris cycliciodes* Tenison-Woods, 1879
 =*H. pulchellus* Rehberg, 1892
 =*Homophyllia incrustans* Dennant, 1906
- hemisphaericus** Gray, 1849 (2-140 m)
 =*Spongiocyathus typicus* Folkeson, 1919
- Conotrochus** Seguenza, 1864
- brunneus** (Moseley, 1881) (97-1051 m)
 =*Phloeocyathus hospes* Alcock, 1902
- funicolumna** (Alcock, 1902) (80-1078 m)
 =*Ceratotrochus hiugaensis* Yabe & Eguchi, 1942
 =?*Ceratotrochus parahispidus* Yabe & Eguchi, 1942
- asymmetros** Cairns, 1999 (210-510 m)
- Lochmaetrochus** Alcock, 1902
- *oculeus** Alcock, 1902 (240-616 m)
gardineri Cairns, 1999 (608-1175 m)
- Paraconotrochus** Cairns & Parker, 1992
- *zeidleri** Cairns & Parker, 1992 (304-558 m)
 =*Cyathoceras* sp. sensu Veron, 1986
- ?antarctica** (Gardiner, 1929) (87-728 m)
 =*Flabellum* sp. sensu Pax, 1910
 =*Caryophyllia* sp. sensu Gravier, 1914
 =*Gardineria lilliei* Gardiner, 1929
- ?capense** (Gardiner, 1904) (59 m)
- Aulocyathus** Marenzeller, 1904
- *juvenescens** Marenzeller, 1904 (182-463 m)
recidivus (Dennant, 1906) (128-1137 m)
atlanticus Zibrowius, 1980 (450-1716 m)
matricidus (S.-Kent, 1871) (84-207 m)
 =*Fragilocyathus controchoides* Yabe & Eguchi, 1932
 =*elongatus* Yabe & Eguchi, 1942 (fossil)
- Desmophyllum** Ehrenberg, 1834
- *dianthus** (Esper, 1794) (8-2460 m)
 =*Desmophyllum cristagalli* Milne Edwards & Haime, 1848
 =*Desmophyllum costatum* Milne Edwards & Haime, 1848
 =*D. cumingii* Milne Edwards & Haime, 1848
 = *D. reflexum* Duch. & Mich., 1860
 =?*Thalassiotrochus telegraphicus* Milne Edwards, 1861 (see Zibrowius, 1980: 206)
 =*D. ingens* Moseley, 1881
 =*D. capense* Gardiner, 1904
 =*D. serpuliforme* Gravier, 1915
- quinarium** Tenison-Woods, 1879: 18 (37 m)
striatum Cairns, 1979 (277-823 m)
- Thalamophyllia** Duchassaing, 1870

- *riisei* (Duchassaing & Michelotti, 1860) (nom. correct: from *rusei*; 4-914 m)
 =*Desmophyllum simplex* Verrill, 1870
 =*Desmophyllum solidum* Pourtalès, 1871
tenuescens (Gardiner, 1899) (8-360 m)
gasti (Doderlein, 1913) (13-200 m)
gombergi Cairns, 1979 (188-220 m)
- Dactylotrachus* Wells, 1954
**cervicornis* (Moseley, 1881) (73-400 m)
 =*Tridacophyllia primordialis* Gardiner, 1899
- Hoplangia* Gosse, 1860
**durotrix* Gosse, 1860 (0-150 m)
 =*Gemmulatrochus simplex* Duncan, 1878
 =*Microcyathus neapolitanus* Doderlein, 1913
- Oxysmilia* Duchassaing, 1870
**rotundifolia* (Milne Edwards & Haime, 1848) (46-640 m)
 =*Desmophyllum incertum* Duchassaing & Michelotti, 1860
 =*Lophosmilia urena* Duchassaing, 1870
 =*Parasmilia punctata* Lindström, 1877
 =*Cyathoceras portoricensis* Vaughan, 1901
corrugata Cairns, 1999 (180-190 m)
- Phyllangia* Milne Edwards & Haime, 1848
**americana americana* Milne Edwards & Haime, 1849 (0-53 m)
 =*Syndapas Gouldii* Lyman, 1857
 =*Stellangia reptans* Duchassaing & Michelotti, 1860
 =*Astrangia phyllangioides* Duchassaing & Michelotti, 1864
 =*Coenocyathus apertus* Doderlein, 1913
 =*P. americana nazensis* Chevalier, 1966
americana mouchezii (Lacaze-Duthiers, 1897) (1-55 m)
pequegnatae Cairns, 2000 (48-112 m)
consagensis (Durham & Barnard, 1952) (0-82 m)
 =*Lophosmilia wellsii* Durham & Barnard, 1952
dispersa Verrill, 1864: 47 (shallow, less than 50 m)
papuensis Studer, 1878 (88-100 m)
 =*Blastomussa lawtoni* Nemenzo, 1988
hayamaensis (Eguchi, 1968) (5 m)
granulata Koch, 1886 (unknown depth)
echinosepes Ogawa, Takahashi & Sakai, 1997 (90 m)
- Colangia* Pourtalès, 1871
**immersa* Pourtalès, 1871 (1-347 m)
jamaicaensis Cairns, 2000 (10-20 m)
multipalifera Cairns, 2000 (20 m)
moseleyi (Faustino, 1927) (nom. nov, see Cairns & Zibrowius, 1997: 137; 18-54 m)
 =*Cladocora conferta* Moseley, 1881, not *Caryophyllia conferta* Dana, 1846 (junior secondary homonym)
- Rhizosmilia* Cairns, 1978
**gerdae* Cairns, 1978 (123-549 m)
maculata (Portalès, 1874) (1-508 m)
 =*Coenocyathus bartschi* Wells, 1947
sagamiensis (Eguchi, 1968) (60-98 m)
robusta Cairns, in Cairns & Keller, 1993 (66-360 m)
elata Cairns & Zibrowius, 1997 (70-380 m)

- multipaliferus* Cairns, 1998 (11-165 m)
- Sympodangia* Cairns & Zibrowius, 1997
- **albatrossi* Cairns & Zibrowius, 1997 (212-616 m)
- Lophelia* Milne Edwards & Haime, 1849
- pertusa* (Linnaeus, 1758) (39-2775 to ?3383 m)
- =**Madrepora prolifera* Pallas, 1766
- =*L. subcostata* Milne Edwards & Haime, 1850
- =*Lophohelia affinis* Pourtalès, 1868
- =*Lophohelia prolifera* forma *gracilis* Duncan, 1873:328
- =*Lophohelia tubulosa* Studer, 1878
- =*Lophohelia prolifera* forma *brachycephala* Moseley, 1881:178
- =*Lophohelia oculifera* Whiteaves, 1901: 42 (nom. nud.)
- =*Lophelia californica* Durham, 1947
- =*Dendrosmilia nomlandi* Durham & Barnard, 1952
- Coenosmilia* Pourtalès, 1874
- **arbuscula* Pourtalès, 1874 (74-622 m)
- inordinata* Cairns, 1984 (244-322 m)
- Anomocora* Studer, 1878
- **fecunda* (Portalès, 1871) (37-640 m)
- =*A. sp. sensu* Cairns, 1984 (Hawaii, 201-271 m)
- carinata* Cairns, 1991 (614-785 m)
- prolifera* (Portalès, 1871) (30-329 m)
- =*Ceratotrochus johnsoni* Duncan, 1882
- marchadi* (Chevalier, 1966) (32-229 m)
- =?*Trochosmilia elongata* Studer, 1878
- gigas* (van der Horst, 1931) (183-510 m)
- Pourtalosmilia* Duncan, 1884
- anthophyllites* (Ellis & Solander, 1786) (25-300 m)
- =*Coenocyathus corsicus* Milne Edwards & Haime, 1848
- =**Blastosmilia pourtalesi* Duncan, 1878
- =*Coenosmilia repens* Chevalier, 1966
- conferta* Cairns, 1978 (55-191 m)
- Phacelocyathus* Cairns, 1979
- **flos* (Portalès, 1878) (20-255 m)
- [*sp. sensu* Zibrowius & Grygier, 1985: 121 (Indian Ocean, 55-131 m)]
- Solenosmilia* Duncan, 1873
- **variabilis* Duncan, 1873 (220-2165 m)
- =*Solenosmilia jeffreyi* Alcock, 1898
- =*Solenosmilia sp. sensu* Keller, 1975
- Dasmosmilia* Pourtalès, 1880
- **lymani* (Portalès, 1871) (37-366 m)
- =*Goniocyathus pacifica* Yabe & Eguchi, 1932
- variegata* (Portalès, 1871) (110-600 m)
- =*Bathycyathus elegans* Studer, 1878
- valida* Marenzeller, 1907 (490 m)
- Goniocorella* Yabe & Eguchi, 1932
- **dumosa* (Alcock, 1902) (88-1488 m)
- =*G. glanulosa* Hu, 1987 (sic: granulose; Pleistocene)
- Confluphyllia* Cairns & Zibrowius, 1997
- **juncta* Cairns & Zibrowius, 1997 (135-385 m)

FAMILY TURBINOLIIDAE Milne Edwards & Haime, 1848

Alatotrochus Cairns, 1994

**rubescens* (Moseley, 1876) (180-751 m)

Pleotrochus Cairns, 1997

**venustus* (Alcock, 1902) (200-397 m)

zibrowii Cairns, 1997 (1137 m)

Australocyathus Cairns & Parker, 1992

**vincentinus* (Dennant, 1904) (16-148 m)

Tropidocyathus Milne Edwards & Haime, 1848

**lessonii* (Michelin, 1842) (50-421 m)

=*Trochocyathus wellsii* Yabe & Eguchi, 1942

labidus Cairns & Zibrowius, 1997 (206-536 m)

Cyathotrochus Bourne, 1905

pileus (Alcock, 1902) (123-522 m)

=?*Tropidocyathus bouganvillei* Milne Edwards & Haime, 1857 (nom. obl.)

=*Endopachys australiae* Tenison-Woods, 1878 (nom. obl.)

=?**Cyathotrochus herdmanni* Bourne, 1905

=*Tropidocyathus intermedius* Yabe & Eguchi, 1932 (nom. nud.)

nascornatus (Gardiner & Waugh, 1938) (183-457 m)

Deltocyathoides Yabe & Eguchi, 1932

orientalis (Duncan, 1876) (44-635 m)

=*Deltocyathus lens* Alcock, 1902

=**Deltocyathus japonicus* Yabe & Eguchi, 1932, not *Peponocyathus orientalis* Yabe & Eguchi, 1932

=*Deltocyathus minutus* Gardiner & Waugh, 1938

stimpsonii (Pourtalès, 1871) (110-600 m)

=*Notocyathus* sp. sensu Lewis, 1965

Notocyathus Tenison-Woods, 1880

conicus (Alcock, 1902) (34-1110 m)

venustus (Alcock, 1902) (70-555 m)

Thrypticotrochus Cairns, 1989

petterdi (Dennant, 1906) (95-925 m)

=**T. multilobatus* Cairns, 1989

Cryptotrochus Cairns, 1988

**carolinensis* Cairns, 1988 (320-338 m)

javanus Cairns, 1988 (585 m)

brevipalus Cairns, 1999 (466-700 m)

Pseudocyathoceras Cairns, 1991

**avis* (Durham & Barnard, 1952) (91-183 m)

=*Kionotrochus hoodensis* Durham & Barnard, 1952

Idiotrochus Wells, 1935

**emarciatus* (Duncan, 1865) (82-238 m)

=*Sphenotrochus excisus* Duncan, 1865 (Miocene)

=*Sphenotrochus emarciatus* var. *perexiguus* Dennant, 1906

kikutii (Yabe & Eguchi, 1941) (97-645 m)

=*Idiotrochus* n. sp. sensu Cairns & Parker, 1992: 41

alatus Cairns, 2004 (315-450 m)

Lissotrochus Cairns, 2004

**curvatus* Cairns, 2004 (342-367 m)

Dunocyathus Tenison-Woods, 1878

**parasiticus* Tenison-Woods, 1878 (64-549 m)

=*Deltocyathus rotaeformis* Tenison-Woods, 1878
 =*Dunocyathus* sp. sensu Wells, 1958: 263
wallaceae Cairns, 2004 (320-414 m)
Holcotrochus Dennant, 1902
 **scriptus* Dennant, 1902 (9-342 m)
 crenulatus Dennant, 1904 (40-414 m)
Conocyathus d'Orbigny, 1849
 zelandiae Duncan, 1876 (4-137 m)
 =C. *scrobiculatus* Dennant, 1902
 =*Turbinolia australiensis* Gardiner, 1939
 gracilis Cairns, 1998 (22-291 m)
 formosus Cairns, 2004 (320-367 m)
Turbinolia Lamarck, 1816
 stephensoni (Wells, 1959) (9-32 m)
Sphenotrochus Milne Edwards & Haime, 1848 (type species is a fossil)
 (*Eusthenotrochus*) *gilchristi* Gardiner, 1904 (*type of subgenus; 24-165 m)
 =S. *moseri* Wells, 1935
 =S. *dentosus* Boshoff, 1981 (nom. nud.)
 =S. sp. sensu Boshoff, 1981
 (*E.*) *auritus* Pourtalès, 1874 (15-64 m)
 lindstroemi Cairns, 2000 (22-78 m)
 hancocki Durham & Barnard, 1952 (18-274 m)
 excavatus Tenison-Woods, 1878 (unknown depth)
 ralphae Squires, 1964 (7-104 m)
 =S. n. sp. B sensu Ralph & Squires, 1962
 squiresi Cairns, 1995 (66-318 m)
 aurantiacus Marenzeller, 1904 (155-366 m)
 evexicostatus Cairns in Cairns & Keller, 1993 (12-73 m)
 =*Sphenotrochus* sp. sensu Pichon, 1974: 176
 imbricaticostatus Cairns, in Cairns & Keller, 1993 (37-347 m)
 cuneolus Cairns, 2004 (42-342 m)
 gardineri Squires, 1961 (9-403 m)
 andrewianus andrewianus Milne Edwards & Haime, 1848 (12-105 m)
 =*Sphenotrochus wrightii* Gosse, 1860
 andrewianus moorei Cairns, 2000 (9-42 m)
Foveolocyathus Cairns, 1997
 **verconis* (Dennant, 1904) (73-183 m)
 alternans (Cairns & Parker, 1992) (27-238 m)
 kitsoni (Dennant, 1901) (342-367 m)
 parkeri Cairns, 2004 (73-183 m)
Endocyathopora Cairns, 1989
 **laticostata* Cairns, 1989 (46-100 m)
Trematotrochus Tenison-Woods, 1879
 hedleyi Dennant, 1906 (150-457 m)
 corbicula (Portalès, 1878) (400-576 m)
Kionotrochus Dennant, 1906
 **suteri* Dennant, 1906 (44-622 m)
Platytrochus Milne Edwards & Haime, 1848
 hastatus Dennant, 1902 (27-148 m)
 compressus (Tenison-Woods, 1878) (64-130 m)
 laevigatus Cairns & Parker, 1992 (22-165 m)

parisepta Cairns & Parker, 1992 (40-201 m)
Peponocyathus Gravier, 1915
folliculus (Pourtalès, 1868) (30-582 m)
=**Peponocyathus variabilis* Gravier, 1915
=*P. orientalis* Yabe & Eguchi, 1932
minimus (Yabe & Eguchi, 1937) (30-903 m)
dawsoni Cairns, 1995 (87-988 m)

Superfamily FLABELLOIDEA Bourne, 1905

FAMILY FLABELLIDAE Bourne, 1905

Flabellum (*F.*) Lesson, 1831

**pavoninum* Lesson, 1831 (73-665 m)
=*F. distinctum* Milne Edwards & Haime, 1848
=*F. coalitum* Marenzeller, 1888
=*F.* sp. 3, 6 sensu Cairns, 1989b: 63
thouarsii Milne Edwards & Haime, 1848 (71-305 m)
curvatum Moseley, 1881 (115-1137 m)
campanulatum Holdsworth, 1862 (unknown depth)
patens Moseley, 1881 (204-439 m)
australe Moseley, 1881 (36-1026 m)
transversale transversale Moseley, 1881 (55-150 m)
transversale conicum Yabe & Eguchi, 1942
transversale triangulare Eguchi, 1965
lamellulosum Alcock, 1902 (187-490 m)
folkesoni Cairns, 1998 (124-430 m)
chunii Marenzeller, 1904 (200-700 m)
magnificum Marenzeller, 1904 (225-740 m)
=?*F. suluense* Alcock, 1902 (has priority if synonymous)
sibogae sensu Gardiner, 1904 (567 m)
=*Adkinsella* n. sp. sensu Boshoff, 1981: 34
knoxi Ralph & Squires, 1962 (201-1167 m)
impensum Squires, 1962 (46-2260 m)
=?*F.* sp. A sensu Cairns, 1994: 28
ongulense Eguchi, 1965 (570 m)
floridanum Cairns, 1991 (nom. nov.) (80-366 m)
=*F. fragile* Cairns, 1977 (junior homonym, not *F. cuneiforme* var. *fragile* Vaughan, 1900)
atlanticum Cairns, 1979 (357-618 m)
areum Cairns, 1982 (1647-2229 m)
gardineri Cairns, 1982 (177 m)
flexuosum Cairns, 1982 (101-659 m)
=*Desmophyllum* sp. sensu Marenzeller, 1903
=?*Flabellum ongulense* Eguchi, 1965 (has priority if synonymous; also listed as valid species)
vaughani Cairns, 1984 (232-369 m)
politum Cairns, 1989 (40-402 m)
=*Flabellum* sp. 1 sensu Cairns, 1989b: 63
arcuatile Cairns, 1999 (300-640 m)
angustum Yabe & Eguchi, 1942 (unknown depth)
[*Flabellum* sp. A sensu Cairns, 1991: 20 (Galápagos, 441-717 m)]

Flabellum (*Ulocyathus*) Sars, 1851

macandrewi Gray, 1849 (128-1260 m)
 =**Ulocyathus arcticus* M. Sars, 1851
japonicum japonicum Moseley, 1881 (128-1141 m)
japonicum bythios Cairns, in Cairns & Keller, 1993 (1095-1720 m)
deludens Marenzeller, 1904 (106-1035 m)
hoffmeisteri Cairns & Parker, 1992 (110-842 m)
daphnense Durham & Barnard, 1952 (101 m)
aotearoa Squires, 1964 (130-1300 m)
marenzelleri Cairns, 1989 (179-390 m)
angulare Moseley, 1876 (2000-3186 m)
conuis Moseley, 1881 (1994-2603 m)
apertum apertum Moseley, 1876 (220-1575 m)
 =*F. patagonichum* Moseley, 1881
 =*F. raukawaensis* Squires & Keyes, 1967
apertum borealis Cairns, 1994 (307-1141 m)
tuthilli Hoffmeister, 1933 (347-824 m)
alabastrum Moseley, in Thompson, 1873 (357-2000 m)
 =*F. goodei* Verrill, 1878
 =*F. minus* Duncan, 1878
messum Alcock, 1902 (368-1035 m)
lowekeyesi Squires & Ralph, 1965 (278-1100 m)
marcus Keller, 1974 (1050-1602 m)
moseleyi Pourtalès, 1880 (216-1097 m)
sexcostatum Cairns, 1989 (685-1121 m)
 [*Flabellum* sp. cf. *moseleyi* sensu Cairns & Zibrowius, 1997: 158 (W. Pacific, 441-1058 m)]
Truncatoflabellum Cairns, 1989
 **spheniscus* (Dana, 1846) (2-174 m)
 =*Flabellum debile* Milne Edwards & Haime, 1848
 =*Flabellum affine* Milne Edwards & Haime, 1848
 =*Flabellum bairdi* Milne Edwards & Haime, 1848
 =*Flabellum profundum* Milne Edwards & Haime, 1848
 =*Flabellum sumatrense* Milne Edwards & Haime, 1848
 =*Flabellum crenulatum* Milne Edwards & Haime, 1848
angiostromum Folkesson, 1919 (15-136 m)
aculeatum (Milne Edwards & Haime, 1848) (11-132 m)
 =? *Flabellum spinosum* Milne Edwards & Haime, 1848
 =? *Flabellum variabile* Semper, 1872
crassum (Milne Edwards & Haime, 1848) (unknown depth)
stokesii (Milne Edwards & Haime, 1848) (12-256 m)
 =*Flabellum owenii* Milne Edwards & Haime, 1848
irregulare (Semper, 1872) (11-42 m)
cumingi (Milne Edwards & Haime, 1848) (46-132 m)
 =*F. irregulare* Tenison-Woods, 1878: 313, not Semper's 1872
incrustatum Cairns, 1989 (30-415 m)
formosum Cairns, 1989 (42-933 m)
 =*T. n. sp.* sensu Cairns, 1989: 73
candeanum (Milne Edwards & Haime, 1848) (70-290 m)
 =*Flabellum elegans* Milne Edwards & Haime, 1848
pusillum Cairns, 1989 (85-460 m)
dens (Alcock, 1902) (286-555 m)
paripavoninum (Alcock, 1894) (394-1450 m)

carinatum Cairns, 1989 (30-274 m)
trapezoideum (Keller, 1981) (1630 m)
truncum (Cairns, 1982) (595-1896 m)
arcuatum Cairns, 1995 (350-364 m)
gardineri Cairns, in Cairns & Keller, 1993 (138 m)
zuluense Cairns, in Cairns & Keller, 1993 (62-84 m)
multispinosum Cairns, in Cairns & Keller, 1993 (62-183 m)
vanuatu (Wells, 1984) (240-335 m)
phoenix Cairns, 1995 (18-441 m)
 =*T. sp. B* sensu Cairns, 1994: 79
inconstans (Marenzeller, 1904) (183 m)
stabile (Marenzeller, 1904) (786-3010 m)
 =*Truncatoflabellum sp. A* sensu Cairns, 1994: 79
 =?*T. sp.* Zibrowius & Gili, 1990: 38 (Walvis Ridge)
martensii (Studer, 1878) (139-182 m)
angustum Cairns & Zibrowius, 1997 (195-530 m)
mortenseni Cairns & Zibrowius, 1997 (50-455 m)
australiensis Cairns, 1998 (90-220 m)
veroni Cairns, 1998 (15-119 m)
macroeschara Cairns, 1998 (18-201 m)
viginifarium Cairns, 1999 (288-1050 m)
Blastotrochus Milne Edwards & Haime, 1848
 **nutrix* Milne Edwards & Haime, 1848 (11-18 m)
Placotrochides Alcock, 1902
 **scaphula* Alcock, 1902 (462-1628 m)
 =*Flabellum elongatum* 1987 (Pleistocene fossil)
frustum Cairns, 1979 (497-1378 m)
cylindrica Cairns, 2004 (1117-1402 m)
minuta Cairns, 2004 (119-458 m)
 =*minima* (sic) sensu Cairns, 2006: 52
Javania Duncan, 1876
 **insignis* Duncan, 1876 (46-1050 m)
 =*Flabellum weberi* Alcock, 1902
cailleti (Duchassaing & Michelotti, 1864) (30-2165 m)
 =*Galaxea eburnea* Pourtalès, 1871
 =*Desmophyllum eburneum* Moseley, 1881 (junior homonym and synonym)
 =*Desmophyllum nobile* Verrill, 1885
 =*Desmophyllum vitreum* Alcock, 1898
 =*Flabellum sp.* sensu Marenzeller, 1904
 =*Desmophyllum galapagense* Vaughan, 1906
 =*Desmophyllum delicatum* Yabe & Eguchi, 1942
pseudoalabastra Zibrowius, 1974 (625-1557 m)
antarctica (Gravier, 1914) (53-1280 m)
 =?*Desmophyllum pseudoseptata* Eguchi, 1965
lamprotichum (Moseley, 1880) (191-881 m)
 =?*Desmophyllum alabastrum* sensu Alcock, 1902
californica Cairns, 1994 (62-170 m)
borealis Cairns, 1994 (247-348 m)
 =*Javania n. sp.* sensu Cairns, 1989: 76 (in text)
 =*Javania sp. A* sensu Cairns, 1991: 21
fusca (Vaughan, 1907) (271-1045 m)

- =*J. sp.* sensu Cairns, 1989
 =*J. pachythea* Cairns, 1995
exserta Cairns, 1999 (91-455 m)
 =*J. sp. A* sensu Cairns & Zibrowius, 1997: 165
erhardti Cairns, 2004 (35-44 m)
Placotrochus Milne Edwards & Haime, 1848
 **laevis* Milne Edwards & Haime, 1848 (6-289 m)
 =*P. candeanus* Milne Edwards & Haime, 1848
 =*P. pedicellatus* Tenison-Woods, 1879
Falcatoflabellum Cairns, 1995
 **rauolensis* Cairns, 1995 (366-402 m)
Monomyces Ehrenberg, 1834
pygmaea (Risso, 1826) (5-150 m)
 =**Monomyces anthophyllum* Ehrenberg, 1834
 =*Coelocyathus typicus* M. Sars, 1857
 =*Rhizotrochus affinis* Duncan, 1873
rubrum (Quoy & Gaimard, 1833) (typical form; 0-410 m)
 =*Flabellum nobile* Holdsworth, 1862 (form 2 sensu Cairns, 1995)
 =*Flabellum latum* Studer, 1878
 =*Desmophyllum gracile* Studer, 1878 (form 3 sensu Cairns, 1995)
 =*Cylicia vacua* Tenison-Woods, 1879
 =*Flabellum rugulosum* Tenison-Woods, 1880
 =*Flabellum harmeri* Gardiner, 1929
Rhizotrochus Milne Edwards & Haime, 1848
 **typus* Milne Edwards & Haime, 1848 (20-1048 m)
 =?*R. vegetans* Haime, 1860
 =*R. worsleyi* Wood-Mason & Alcock, 1891
 =*R. crateriformis* Alcock, 1893
 =*R. palaoensis* Yabe & Eguchi, 1942
 =*R. niinoi* Yabe & Eguchi, 1942
 =*Monomyces uchiuraensis* Eguchi, 1972
 =*Monomyces* n. sp. Boshoff, 1981
levidensis Gardiner, 1899 (1-73 m)
tuberculatus (Tenison-Woods, 1879) (0-73 m)
 =*Flabellum tubuliferum* Tenison-Woods, 1880
 =*Rhizotrochus radiatus* Dennant, 1904
flabelliformis Cairns, 1989 (228-1050 m)
Polomyces Cairns, 1979
 **fragilis* (Pourtalès, 1868) (75-822 m)
 =*Rhizotrochus tulipa* Pourtalès, 1874
montereyensis (Durham, 1947) (69-212 m)
 =*Flabellum tannerense* Durham & Barnard, 1952
wellsi Cairns, 1991 (355-1203 m)

Superfamily GUYNIOIDEA Hickson, 1910

Family GUYNIIDAE Hickson, 1910

Guynia Duncan, 1872

- **annulata* Duncan, 1872 (28-653 m)
 =*Pyrophyllia inflata* Hickson, 1910
 =*Guynia* n. sp. sensu Goreau & Wells, 1967

Family SCHIZOCYATHIDAE Stolarski, 2000

Schizocyathus Pourtalès, 1874

**fissilis* Pourtalès, 1874 (88-1300 m)

Pourtalocyathus Cairns, 1979

**hispidus* (Pourtalès, 1878) (349-1006 m)

=*Flabellum* sp. a sensu Vaughan, 1921 (fossil)

Temnotrochus Cairns, 1995

**kermadecensis* Cairns, 1995 (321-402 m)

Family STENOCYATHIDAE Stolarski, 2000

Stenocyathus Pourtalès, 1871

**vermiformis* (Pourtalès, 1868) (110-1500 m)

=*Caryophyllia simplex* Duncan, 1878

=*Caryophyllia carpenteri* Duncan, 1878

=*Stenocyathus washingtoni* Cecchini, 1914

=*Stenocyathus decamera* Ralph & Squires, 1962

Truncatoguynia Cairns, 1989

**irregularis* Cairns, 1989 (80-334 m)

=*T.* sp. sensu Cairns, 1989: 43

Pedicellocyathus Cairns, 1995

**keyesi* Cairns, 1995 (70-194 m)

Superfamily VOLZEIOIDEA Melnikova, 1974

FAMILY GARDINERIIDAE Stolarski, 1996

Gardineria Vaughan, 1907

**hawaiiensis* Vaughan, 1907 (142-1200 m)

=*G. musorstomica* Cairns, 1989

=*G.* sp. A sensu Cairns, 1995:111 (LHSMC, 291-378 m)

paradoxa (Pourtalès, 1868) (91-700 m)

=*Duncania barbadensis* Pourtalès, 1874

minor Wells, 1973 (2-146 m)

simplex (Pourtalès, 1878) (46-241 m)

philippinensis Cairns, 1989 (192-494 m)

[[Flabellidae, n. gen., n. sp. sensu Seig & Zibrowius 1989:192, figs. 1g-j [not *Stolarskicyathus*]

Stolarskicyathus Cairns, 2004

**pocilliformis* Cairns, 2004 (342-367 m)

=[Gardineriidae fam. n, Gen. n. sensu Stolarski, 1996: 350, figs 6A-F

Suborder DENDROPHYLLIINA

FAMILY DENDROPHYLLIIDAE Gray, 1847

Balanophyllia Wood, 1844

Western Atlantic:

cyathoides (Pourtalès, 1871) (45-494 m)

palifera Pourtalès, 1878 (53-708 m)

wellsi Cairns, 1977 (412-575 m)

(*Eupsammia*) *caribbeana* Cairns, 1977 (33-86 m)

(*Eupsammia*) *pittieri* Vaughan, 1919 (fossil)

=*B. grandis* Cairns, 1977 (Recent; 40-96 m)

dineta Cairns, 1977 (27-274 m)

hadros Cairns, 1979 (238-274 m)

bayeri Cairns, 1979 (274-311 m)

- floridana* Pourtalès, 1868 (13-220 m)
- Eastern Atlantic:
- europaea* (Risso, 1826) (0-50 m)
= *Desmophyllum stellaria* Ehrenberg, 1834
 - regia* Gosse, 1853 (2-100 m)
= *Balanophyllia brevis* Duncan, 1882
= *Balanophyllia balaerica* Lacaze-Duthiers, 1897
 - cellulosa* Duncan, 1873 (80-850 m)
 - helenae* Duncan, 1876 (18 m)
 - striata* Duncan, 1876 (18 m)
 - thalassae* Zibrowius, 1980 (385-1150 m)
- Southwest Indian Ocean:
- diffusa* Harrison & Poole, 1909 (6-274 m)
 - capensis* Verrill, 1865 (27-37 m)
 - bonaespei* Van der Horst, 1938 (unknown depth)
 - diademata* Van der Horst, 1927 (165 m)
 - vanderhorsti* Cairns, 2001 (nom. nov.) (51-59 m)
= *B. ponderosa* Van der Horst, 1926, not *B. ponderosa* Vaughan, 1900
- Northern Indian Ocean:
- taprobanae* Bourne, 1905 (unknown depth)
 - gemmifera* Klunzinger, 1879 (81 m)
 - scabra* Alcock, 1893: 144 (unknown depth)
 - (*Eupsammia*) *regalis* (Alcock, 1893: 144) (59 m)
 - merguiensis* Duncan, 1889 (unknown depth)
- Eastern Australia:
- yongei* Crossland, 1952: 167 (shallow)
 - bairdiana* Milne Edwards and Haime, 1848 (6-548 m)
= *buccina* Tenison-Woods, 1878
= *elliptica* (Tenison-Woods, 1878)
 - dentata* Tenison-Woods, 1879 (66-135 m)
 - dilatata* Dennant, 1904 (shallow)
 - spongiosa* Cairns, 2004 (11-18 m)
- New Zealand:
- chnous* Squires, 1962 (140-549 m)
= *Thecopsammia* sp, *Balanophyllia* sp. sensu Gardiner, 1929
 - crassithec*a Cairns, 1995 (190-508 m)
- Japan:
- japonica* Cairns, 2001 (nom. nov.) (154-237 m)
= *B. teres* Cairns, 1994, not *E. teres* Romer, 1863
[*B. sp. A* sensu Cairns, 1994: 84 (=cf. *B. italica* Y & E, 1942) (Japan, 56-100 m)]
- Hawaiian Islands:
- diomedea*e Vaughan, 1907 (110-307 m)
= *B. diomedea* var. *mauensis* Vaughan, 1907
 - laysanensis* Vaughan, 1907 (238-400 m)
- Central west Pacific:
- scabrosa* (Dana, 1846) (unknown depth)
 - (*Eupsammia*) *stimpsonii* (Verrill, 1865: 150) (18-95 m)
= *Eupsammia stimpsoniana* Verrill, 1866: 29 (misspelling of *stimpsonii*)
= *Rhodopsammia socialis* Semper, 1872
= *Rhodopsammia affinis* Semper, 1872
= *Rhodopsammia incerta* Semper, 1872

- =*Leptosammia conica* van der Horst, 1922 (not *B. conica* Osasco, 1897)
 =*Balanophyllia sumbayaensis* Cairns, 2001 (nom. nov. for *L. conica*)
(Eupsammia) carinata (Semper, 1872) (33-124 m)
 =*Rhodopsammia amoena* Semper, 1872
parallela (Semper, 1872: 258) (18 m)
dubia (Semper, 1872) (55 m)
kalakauai Wright, 1882 (unknown depth)
profundicella Gardiner, 1899: 169 (73 m)
(Eupsammia) imperialis Kent, 1871 (18-120 m)
 =*Balanophyllia malaccensis* Kent, 1871
cumingii Milne Edwards & Haime, 1848 (65-307 m)
 =*Rhodopsammia ovalis* Semper, 1872
rediviva Moseley, 1881 (90-256 m)
gemma (Moseley, 1881) (137-522 m)
cornu Moseley, 1881 (60-520 m) not *B. cornu* Sokolow, 1894 (junior homonym)
parvula Moseley, 1881 (192-300 m)
crassiseptum Cairns & Zibrowius, 1997 (183-250 m)
gigas Moseley, 1881 (90-640 m)
 =*B. hawaiiensis* Vaughan, 1907
serrata Cairns & Zibrowius, 1997 (190-194 m)
generatrix Cairns & Zibrowius, 1997 (96-535 m)
tenuis Van der Horst, 1922: 63 (may be colonial; 15 m)
desmophyllioides Vaughan, 1907 (95-1050 m)
?corniculans (Alcock, 1902a: 114) (needs neotype; may be colonial; unknown depth)
iwayamaensis Abe, 1938: 506 (may be colonial; 1-3 m)
- Eastern Pacific:
- cedrosensis** Durham, 1947 (66-119 m)
 =*B. tiburonensis* Durham, 1947
elegans Verrill, 1864 (0-293 m)
galapagensis Vaughan, 1906 (18-462 m)
 =*B. osburni* Durham & Barnard, 1952
- Subantarctic:
- malouinensis** Squires, 1961 (75-1137 m)
 [B. sp. sensu Cairns, 1982: 54 (Falkland Islands, 247-253 m)]
- Leptosammia** Milne Edwards & Haime, 1848
 ***stokesiana** Milne Edwards & Haime, 1848 (46-69 m)
formosa (Gravier, 1915) (400-900 m)
 =*Thecopsammia imperfecta* Gravier, 1915
britannica (Duncan, 1870) (160-665 m)
 =*Balanophyllia (Thecopsammia) socialis* var. *costata* and *jeffreysia* Duncan, 1870
pruvoti Lacaze Duthiers, 1897 (3-150 m)
 =*L. microcardia* Doderlein, 1913
chevalieri Zibrowius, 1980 (70-500 m)
trinitatis Hubbard & Wells, 1987 (15-40 m)
queenslandiae Wells, 1964 (87 m)
crassa van der Horst, 1922 (22-187 m)
poculum (Alcock, 1902) (90 m)
 =*L. poculum* Van der Horst, 1922 (junior homonym and synonym)
columna Folkson, 1919 (20 m)
- Endopsammia** Milne Edwards & Haime, 1848
 ***philippensis** Milne Edwards & Haime, 1848 (0-62 m)

- regularis* (Gardiner, 1899) (8-73 m)
pourtalesi (Durham & Barnard, 1952) (unknown depth)
- Endopachys** Lonsdale, 1845
grayi Milne Edwards & Haime, 1848 (37-386 m)
 =*E. weberi* Alcock, 1902
 =*E. oahense* Vaughan, 1907
 =*E. japonicum* Yabe & Eguchi, 1932
 =*E. vaughani* Durham, 1947
bulbosa Cairns & Zibrowius, 1997 (220-251 m)
- Notophyllia** Dennant, 1899
recta Dennant, 1906 (40-458 m)
etheridgi Hoffmeister, 1933 (37-238 m)
piscacauda Cairns, 1998 (22-51 m)
hecki Cairns, 2004 (342-414 m)
- Bathypsammia** Marenzeller, 1907
 **tintinnabulum* (Pourtalès, 1868) (183-549 m)
fallosocialis Squires, 1959 (213-805 m)
- Thecopsammia** Pourtalès, 1868
 **socialis* Pourtalès, 1868 (183-879 m)
elongata Moseley, 1881 (271-576 m)
- Trochopsammia** Pourtalès, 1878
 **infundibulum* Pourtalès, 1878 (532-1472 m)
- Pourtalopsammia** Cairns, 2001
 **togata* (Van der Horst, 1927) (155-775 m)
- Heteropsammia** Milne Edwards & Haime, 1848
cochleata (Spengler, 1781) (facultative; 6-622 m)
 =**H. michelinii* Milne Edwards & Haime, 1848
 =*H. rotundata* Semper, 1872
 =*H. ovalis* Semper, 1872 (fossil)
 =*Psammoseris cyliciodes* Tenison-Woods, 1879
 =*H. aphrodes* Alcock, 1893
 =?*H. pisum* Alcock, 1902
 =*H. ovalis* var. *formosensis* Yabe & Eguchi, 1932 (Pliocene)
 =*H. ovalis* var. *japonica* Yabe & Eguchi, 1932 (Pliocene)
 =*H. cochleata* var. *alta* Yabe & Eguchi, 1932 (Pliocene)
 =*H. michelini* var. *formosus* Hu, 1987 (Pleistocene)
- eupsammides* (Gray, 1849) (facultative; 1-38 m)
 =*H. geminata* Verrill, 1870
 =*H. multilobata* Moseley, 1881
moretonensis Wells, 1964 (11-48 m)
- Eguchipsammia** Cairns, 1994
 **cornucopia* (Pourtalès, 1871) (91-960 m)
 =*Dendrophyllia* n. sp. a sensu Vaughan, 1921: 133 (fossil)
- strigosa* Cairns, 2000 (25-77 m)
gaditana (Duncan, 1873) (30-988 m)
 =*Balanophyllia praecipua* Gardiner & Waugh, 1939
fistula (Alcock, 1902) (86-910 m)
 =*Dendrophyllia oahensis* Vaughan, 1907
serpentina (Vaughan, 1907) (200-362 m)
japonica (Rehberg, 1892) (senior homonym of *D. japonica* van der Horst, 1922) (114-1050 m)
wellsi (Eguchi, 1968) (32-196 m)

- stigosa* Cairns, 2001 (25-77 m)
- Rhizopsammia** Verrill, 1870
- **pulchra* Verrill, 1870 (“low water”)
 - bermudensis* Wells, 1972 (8-12 m)
 - goesi* (Lindström, 1877) (5-119 m)
 - nuda* van der Horst, 1926 (5.5-220 m)
 - verrilli* van der Horst, 1922 (2-278 m)
 - =? *R. chamissoi* Wells, 1954
 - = *Balanophyllia scheeri* Durham, 1962
 - minuta* van der Horst, 1922 (0-176 m)
 - var. *mutsuensis* Yabe & Eguchi, 1932
 - var. *bikiniensis* Wells, 1954
 - wellingtoni* Wells, 1982 (2-43 m)
 - wettsteini* Scheer & Pillai, 1983 (4 m)
 - annae* (van der Horst, 1933) (0-80 m)
 - compacta* Sheppard & Sheppard, 1991 (35-110 m)
- Astroides** Quoy & Gaimard, 1827
- **calycularis* (Pallas, 1766) (0-30 m)
 - = *Astroides luteus* Quoy & Gaimard, 1827
- Cladopsammia** Lacaze-Duthiers, 1897
- **rolandi* Lacaze-Duthiers, 1897 (12-50 m)
 - echinata* Cairns, 1984 (222-470 m)
 - gracilis* (Milne Edwards & Haime, 1848) (0-95 m)
 - =? *Dendrophyllia conferta* Quelch, 1866
 - =? *Dendrophyllia coarctata* Duncan, 1889: 17
 - =? *Dendrophyllia elegans* van der Horst, 1922 (not *D. elegans* Duncan, 1866)
 - =? *Dendrophyllia klunzingeri* van der Horst, 1926
 - = *Tubastraea coccinea titjimaensis* Eguchi, 1968
 - eguchii* (Wells, 1982) (1-85 m)
 - = *Dendrophyllia arbuscula* var. *compressa* Eguchi & Sasaki, 1973
 - manuelensis* (Chevalier, 1966) (55-366 m)
 - willeyi* (Gardiner, 1899) (shallow)
- Dendrophyllia** Blainville, 1830
- Group 1** sensu Cairns, 2001 (monopodial, axial corallites):
- **ramea* (Linnaeus, 1758) (40-150 m)
 - granosa* Studer, 1878 (91 m)
 - minuscula* Bourne, 1905 (unknown depth)
 - cribrosa* Milne Edwards & Haime, 1851 (7-40 m)
 - ijimai* Yabe & Eguchi, 1934 (10-366 m)
 - =? *D. subcornigera cylindrica* Eguchi, 1968
 - velata* Crossland, 1952 (shallow)
 - indica* Pillai, 1969 (1967) (true date 1969; 5 m)
 - carleenae* Nemenzo, 1983 (unknown depth)
- Group 2** sensu Cairns, 2001 (bushy):
- cornigera* (Lamarck, 1816) (89-600 m)
 - radians* (Wright, 1882) (unknown depth)
 - cladonia* Van der Horst, 1927 (49-457 m)
 - arbuscula* Van der Horst, 1922 (2-353 m)
 - = *D. nouhuysi* Gardiner & Waugh, 1939
 - = *D. horsti* Gardiner & Waugh, 1939
 - =? *D. erecta* Nemenzo, 1960

- =?*D. sphaerica* Nemenzo, 1960
 =?*D. subcornigera* ss Eguchi, 1969
robusta (Bourne, 1905) (unknown depth)
aculeata Latypov, 1990 (11-21 m)
laboreli Zibrowius & Brito, 1984 (1-70 m)
incisa (Crossland, 1952) (shallow)
suprarbuscula Ogawa & Takahashi, 2000 (90 m)
paragracilis Ogawa & Takahashi, 2000 (?=*Cladopsammia*) (1-10 m)
futojiku Ogawa & Takahashi, 2000 (2 m)
minima Ogawa & Takahashi, 2000 (2 m)
- Group 3** sensu Cairns, 2001 (sympodial):
alternata Pourtalès, 1880 (276-900 m)
dilatata Van der Horst, 1927 (97-132 m)
californica Durham, 1947 (42-462 m)
johnsoni Cairns, 1991 (373-462 m)
oldroydae Oldroyd, 1924 (nom. correct: spelled *oldroydi* originally; (40-576 m)
 =*D. cortezi* Durham & Barnard, 1952
boschmai boschmai van der Horst, 1926 (nom. nov.; 40-200 m)
 =*D. japonicus* van der Horst, 1922, not Rehberg, 1892 (the latter is an *Eguchipsammia*)
boschmai cyathoheloides Eguchi, 1965 (55-100 m)
florulenta Alcock, 1902 (69-243 m)
 =*D. florentula* van der Horst, 1922 (junior synonym and homonym)
 =*D. florentula* (sic) Wells, 1954
alcocki (Wells, 1954) (118-1200 m)
 =*D. palita* Squires & Keyes, 1967
 [*D. semiramea* Blainville, 1834 (nom. nud.)
- Group Unknown**
cecilliana Milne Edwards & Haime, 1848 (unknown depth)
- Enallopsammia** Michelotti, 1871
rostrata (Pourtalès, 1878) (110-2165 m)
 =*Amphihelia adminicularis* Rehberg, 1892
 =*Dendrophyllia* (*Coenopsammia*) *amphelioides* Alcock, 1902
 =*Coenopsammia amphelioides* var. *cucullata* Vaughan, 1907
 =*E. amphelioides disticha* Eguchi, 1968
profunda (Pourtalès, 1867) (403-1748 m)
pusilla (Alcock, 1902) (371-805 m)
 =*E. marenzelleri* Zibrowius, 1973
- Tubastraea** Lesson, 1829
 **coccinea* Lesson, 1829 (0-110 m)
 =*Lobopsammia aurea* Quoy & Gaimard, 1833
 =*Dendrophyllia aurantiaca* Quoy & Gaimard, 1833
 =*Coenopsammia ehrenbergiana* Milne Edwards & Haime, 1848
 =*Coenopsammia gaimardi* Milne Edwards & Haime, 1848
 =*Coenopsammia tenuilamellosa* Milne Edwards & Haime, 1848
 =*Coenopsammia urvillei* Milne Edwards & Haime, 1848
 =*Coenopsammia radiata* Verrill, 1864
 =*Coenopsammia manni* Verrill, 1866: 30
 =*Astropsammia pedersenii* Verrill, 1869
 =*Dendrophyllia surcularis* Verrill, 1869
 =*Pachypsammia valida* Verrill, 1866: 30
 =?*Placopsammia darwini* Duncan, 1876

- =*Dendrophyllia (Coenosammia) affinis* Duncan, 1889
- =*Dendrophyllia turbinata* Nemenzo, 1960
- micranthus*** (Ehrenberg, 1834) (0-50 m)
 - =*Dendrophyllia nigrescens* Dana, 1846
 - =*Dendrophyllia aequiserialis* Milne Edwards & Haime, 1848
 - =*Dendrophyllia viridis* Milne Edwards & Haime, 1848
 - =*Dendrophyllia micranthus* var. *grandis* Crossland, 1952
- diaphana*** (Dana, 1846) (1-30 m)
 - =*Dendrophyllia sibogae* van der Horst, 1922
 - =*Dendrophyllia micranthus* var. *fruticosa* Nemenzo, 1960
- faulkneri*** Wells, 1982 (3-5 m)
- tagusensis*** Wells, 1982 (1-43 m)
- floreana*** Wells, 1982 (2-5 m)
- Dichopsammia*** Song, 1994
 - ****granulosa*** Song, 1994 (April; 20-30 m)
 - =*Schizopsammia songae* Cairns, 1994 (October)

INCERTAE SEDIS

- “*Cylicia*” ***inflata*** Pourtalès, 1878 (Cuba, 183-443 m)
- Unnamed species (epithecate “*Culicia*”) sensu Cairns & Zibrowius, 1997:198 (Indonesia, 30-68 m)
- Bachyrochus simplex*** Duncan, 1876: 436 (“Gaspar Strait”, 22 m)