The Caribbean Coral Skeleton Identification Guide (CCSIG)

Bee Ling Melisa Chan, Nicte-Ha Muñoz, Mauro Lepore

Tip: Print on both sides of the paper, starting with this page on the front side of the paper to keep the images and tables of corals side by side.

Read Me

1. The Caribbean Coral Skeleton Identification Guide (CCSIG) is an identification guide that is based on the physical characteristics of coral skeletons.
2. The CCSIG currently (as of August 31, 2016) contains most of the species that can be found in Bocas del Toro, Panama.
    a. Contributions to further expand the taxonomic and geographic range of this guide are highly encouraged (please see No. 5 for contact information).
3. Information in the tables was obtained from Corals of the World, Coralpedia and various other sources.
    a. Grouping of species is based on their growth forms
4. Images of coral skeleton (colony, corallite and/or valley) were taken from coral specimens from the reference collection of coral skeleton (Caribbean Coral Skeleton Reference Collection, CCSRC) at the Naos Marine Laboratory, Smithsonian Tropical Research Institute, Panama.
    a. Images of species that are not available (as of August 31, 2016) in the CCSRC or do not have well-preserved specimens were obtained from Corals of the World instead.
    b. Each image has a scale of either:
        i. a strip of horizontal lines (or a ruler) with 1mm intervals (Images taken from the CCSRC)
        ii. a digitized scale located in one of the corners of the image (Images from Corals of the World)
    c. Labels of the images correspond with the row number and name of the species in the subsequent tables.
    d. An online version of the images is available here for better resolution
5. To make suggestions/comments, please contact:
    a. Melisa Chan – melisacbl@gmail.com
    b. Nicthe-Ha Muñoz – nicteha.limno@gmail.com
    c. Mauro Lepore – maurolepore@gmail.com

Click here for an online version of this guide.

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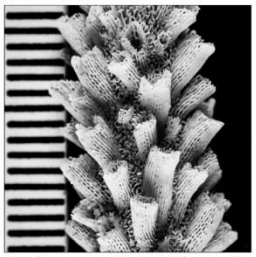
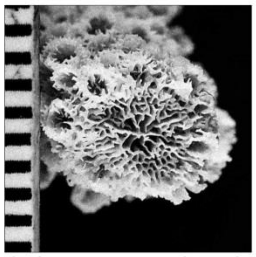
Branching Corals


1. Acropora cervicornis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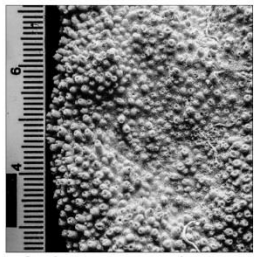
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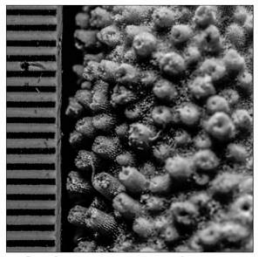
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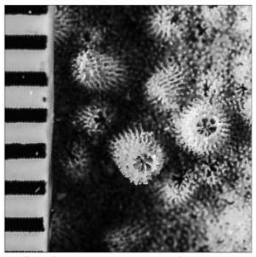
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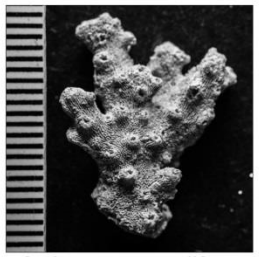
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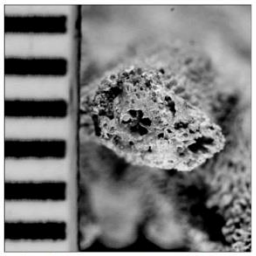
3. Acropora prolifera


4. Cladocora arbuscula


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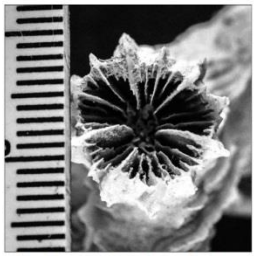
5. Eusmilia fastigiata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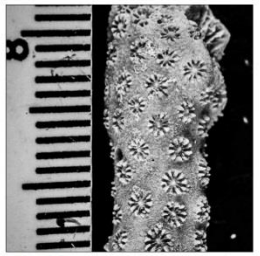
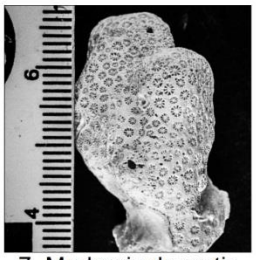

6. Madracis asperula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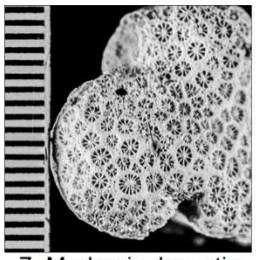
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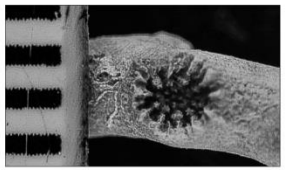
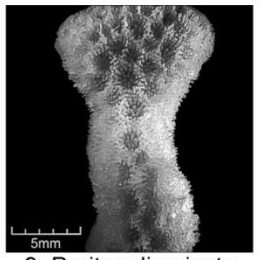
8. Oculina diffusa

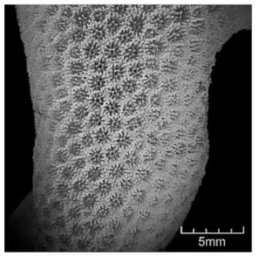

8. Oculina diffusa

9. Porites divaricata



9. Porites divaricata

10. Porites furcata



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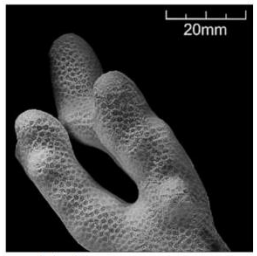
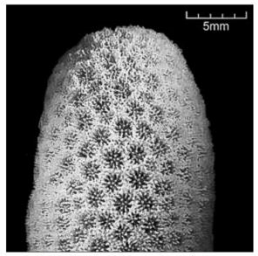


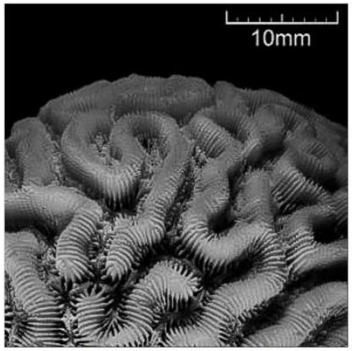
11. Porites porites



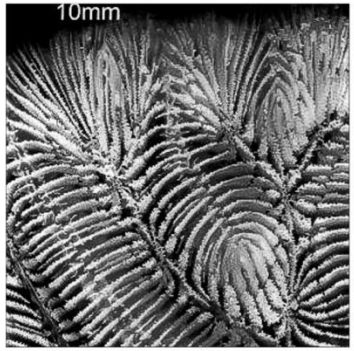
11. Porites porites

	Species	Corallite Size (mm)	Coralite wall thickness	Columellae size (mm)	Septal Number	Septal Cycle	Septal Teeth	Columella	Costae	Coenosteum	Branch diameter (cm)	Colony Form	Similar species	Comments/Notes
1	*Acropora cervicornis*	0.8-1	-	-	6	1	-	Absent	-	0.2-0.3mm	1-3	Plocoid	Acropora formosa (not in the Carribean/E. Pacific), Acropora prolifera	Corallite: Distinctive singular central axial corallites with tubular radial corallites; <5mm long
2	*Acropora palmata*	0.5-0.8	-	-	6	1	-	Absent	-	0.1-0.2mm	5-25	Plocoid	Acropora prolifera	Corallite: No distinctive axial corallite; irregular length; tubular; <5mm long Branches: Singular branches Colony: Largest among Acropora
3	*Acropora prolifera*	0.8-1.0	-	-	6	1	-	Absent	-	0.2-0.3mm	0.5-2	Plocoid	Acropora cervicornis, Acropora palmata	Corallites: Radial corallites orient upwards in rows; <5mm long Branches: Fuse at crossings Biology: Hybrid between A. cervicornis and A. palmata
4	*Cladocora arbuscula*	<6	-	1	36	-	-	Trabecular; discontinuous	-	-	-	Phaceloid	-	Branches: Fine ridges running along the length; each ending with a single corallite
5	*Eusmilia fastigiata*	80-130	-	-	15-18/cm	2	None	Trabecular; continuous	Well-developed	N/A	-	Phaceloid	-	Colony: Hemispherical mounds Septa: Widely spaced; primary septa exsert
6	*Madracis asperula*	1	-	-	10	2	-	Styliform (well-developed)	Absent	-	-	Plocoid	-	Biology: Primarily an azooxanthellae species Septa: Fuse with columella
7	*Madracis decactis*	1.3-1.9	-	-	10	-	-	Styliform (well-developed)	Absent	-	2-3	Plocoid	-	Colonies: Nodular (flattened and club-shaped), laminar or encrusting Coenosteum: Fine spicules (sometimes form ridge between corallites) Septa: Fuse with columella
8	*Oculina diffusa*	1.5-5	-	-	-	-	-	Trabecular (well-developed)	Absent/Reduced	-	<1.5	Plocoid	Oculina varicosa	Corallites: Have neat round exsert walls Septa: Slight alternation of long and short
9	*Porites divaricata*	<1.6	-	-	12	1	-	Trabecular (weak); discontinuous	-	-	<1	Subplocoid	Porites furcata, Porites porites	Pali: 5-6 Branch: Often divide near tips
10	*Porites furcata*	1.6-1.8	-	-	12	1	-	Trabecular; discontinuous	-	-	1-2	Subplocoid	Porites divaricata, Porites porites	Branches: Thinner than P. porites but not as slender/branched as P. divaricata; tightly compacted Pali: 5-6
11	*Porites porites*	1.8-2.0	-	-	12	1	-	Trabecular; discontinuous	-	-	>2	Subplocoid	Porites divaricata, Porites furcata	Branches: Stout, irregular, and stubby with blunt and often enlarged tips Pali: 5-6

Massive Brains Corals



13. Colpophyllia natans



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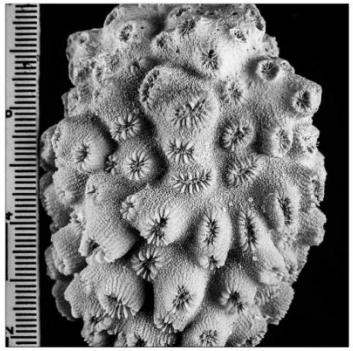
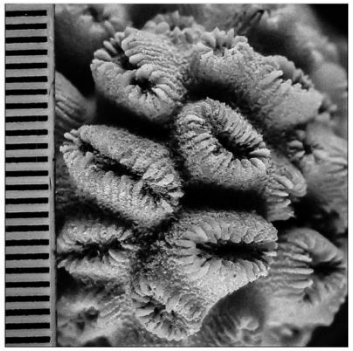

14. Dichocoenia stokesi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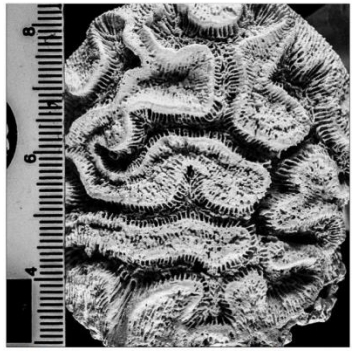
15. Diploria labyrinthiformis


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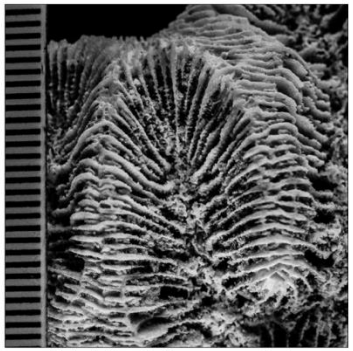
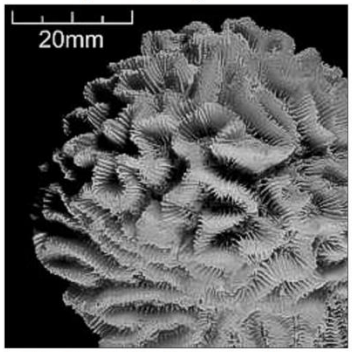
16. Isophyllia sinuosa

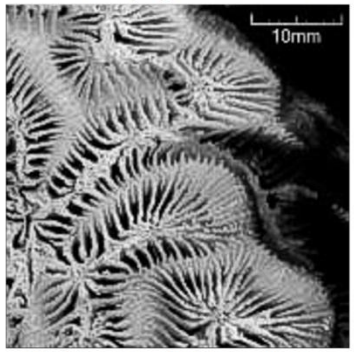

17. Manicina areolata


17. Manicina areolata

18. Meandrina meandrites



19. Pseudodiploria clivosa



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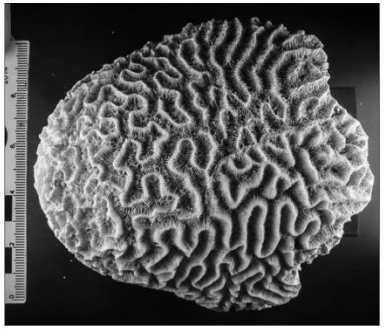
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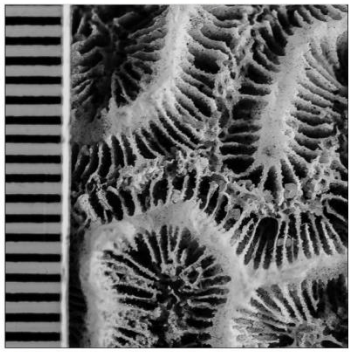
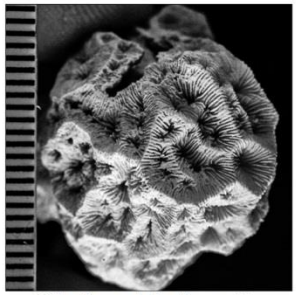

20. Pseudodiploria strigosa

	Species	Coralite wall thickness	Columellae size (mm)	Valley width (mm)	No. of Centers per Series	Septal Number	Septal Cycle	Septal Teeth	Columella	Costae	Coenosteum	Colony Form	Similar species	Comments/Notes
13	*Colpophyllia natans*	-	<1/4 of valley width	10-15	1-3	<12/cm	>3	Small	Trabecular; discontinuous	Well-developed; discontinuous	Narrow (less than valley width)	Meandroid (sinous)	Colpophyllia breviserialis	Colony shape: Hemispherical or encrusting Septa: Exsert, equal Ambulacral groove: Fine; throughout top of wall
14	*Dichocoenia stokesii*	-	-	3.5-4.5	-	-	2	-	Trabecular (weak)	-	-	Plocoid/Ploco-meandroid	Dichocoenia stellaris	Colony shape: spherical/thick or submassive plates Corallites: Protrude, irregular, elliptal, circular or Y-shaped Taxonomy: Formerly known as Dichocoenia stellaris
15	*Diploria labyrinthiformis*	-	1/2 of valley width	5-10	Not distinct	12-24/cm	>3	-	Trabecular (weak); continuous	Well-developed; discontinuous	Wide	Meandroid (sinuous or parallel)	Colpophyllia natans	Colony shape: May also be hemispherical Ambulacral groove: Vary greatly within colony; may be wider than valleys (give superficial appearance of alternating valleys)
16	*Isophyllia sinuosa*	-	-	10-15	5-10	>12/cm	>3	-	Trabecular; discontinuous	-	-	Meandroid (sinuous)	-	Colony: Also oval to hemispherical domes Septa: Thin, large prominent teeth; continuous
17	*Manicina areolata*	-	1/3 of valley width	10-15	-	12-24/cm	>3	-	Continuous	Discontinuous	Narrow	Meandroid	-	Colony: (Most common) Small elliptical colonies with one long, continuous central valley and several short side valleys (with cone-shaped underside); also as hemispherical heads with a flat underside. Taxonomy: One of its former synonyms is Manicina mayori
18	*Meandrina meandrites*	-	10-20	-	-	-	-	-	Lamellar	-	-	Meandroid	-	Colony: Hemispherical heads and flattened plates Ridges: Formed by smooth, widely separated septa; thin line along top where septa come together
19	*Pseudodiploria clivosa*	-	1/2 of valley width	4-10	>5	>24/cm	~4	-	Trabecular; continuous	Well-developed; discontinuous	Fused walls	Meandroid (sinuous)	-	Colony shape: May be encrusting Ridges: Rise sharply Ambulcral groove: Fine (if any) Taxonomy: Formerly known as Diploria clivosa
20	*Pseudodiploria strigosa*	-	1/2 of valley width	5-10	-	12-24/cm	>3	-	Well-developed; continuous	Continuous	Fused walls	Meandroid (sinuous)	Platygyra daedalea	Colony shape: May also be encrusting Ridges: Evenly rounded, occasionally with extremely fine groove (usually without any) Taxonomy: Formerly known as Diploria strigosa

Massive Star Corals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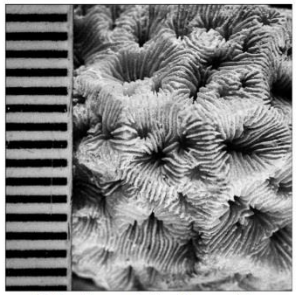
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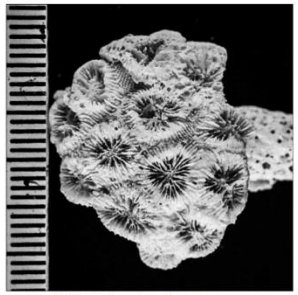
22. Favia fragum


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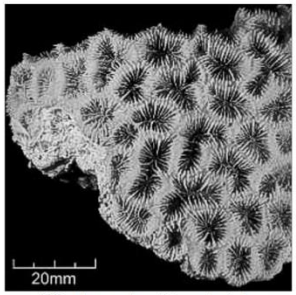

23. Isophyllia rigida

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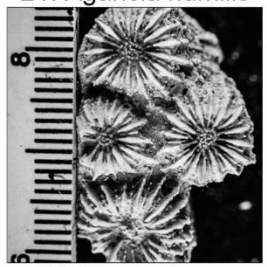
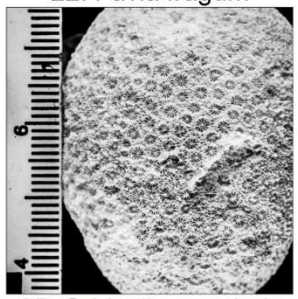

24. Montastraea cavernosa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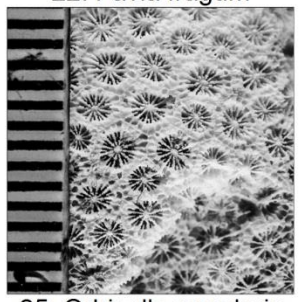
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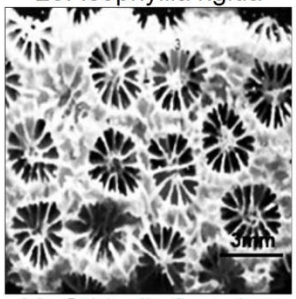
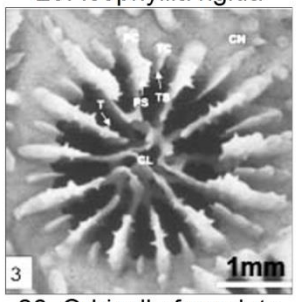
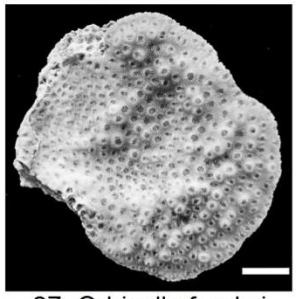
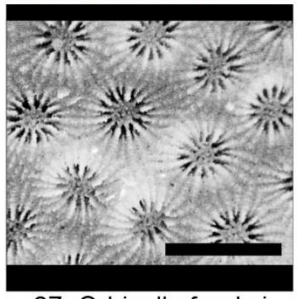
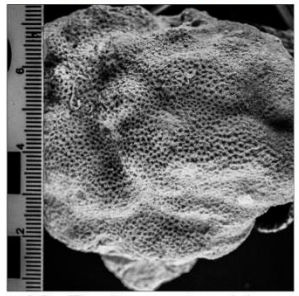

26. Orbicella faveolata

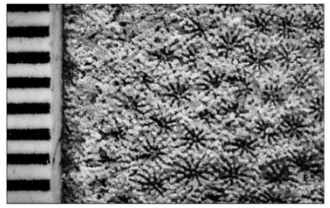


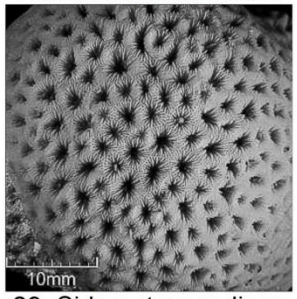
26. Orbicella faveolata


27. Orbicella franksi


27. Orbicella franksi

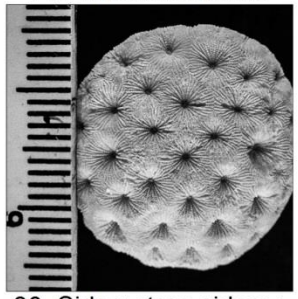

28. Porites astreoides

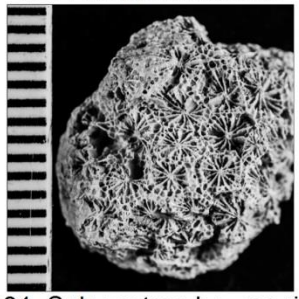

28. Porites astreoides



29. Siderastrea radians

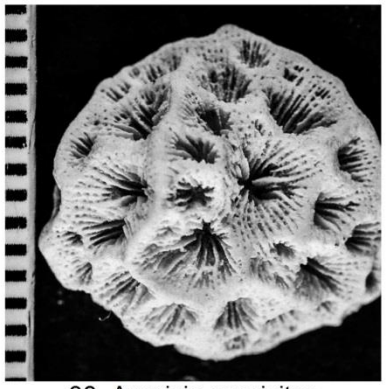

30. Siderastrea siderea

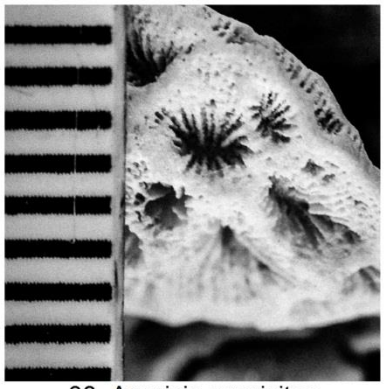

30. Siderastrea siderea

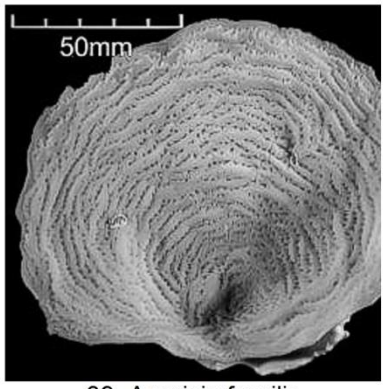

31. Solenastrea bournoni

	Species	Corallite Size (mm)	Coralite wall thickness	Columellae size (mm)	Valley width (mm)	No. of Centers per Series	Septal Number	Septal Cycle	Septal Teeth	Columella	Costae	Coenosteum	Colony Form	Similar species	Comments/Notes
21	*Agaricia humilis*	-	-	-	-	-	-	-	-	-	-	-	-	Agaricia agaricites	-
22	*Favia fragum*	<5	-	1/2 of calice/valley width	N/A	1-3	12-24/cm	~4	-	Trabecular (well-developed); continuous	Well-developed; discontinuous	Narrow	Plocoid	Dichocoenia	Corallite: <2mm high; oval with protruding rims (<2mm high) Colony size: Usually <5cm
23	*Isophyllia rigida*	10-20	-	-	10-15	1-2	-	-	-	Trabecular (weak); discontinuous	-	-	Cerioid	-	Septa: Thin, fine pointed teeth Taxonomy: Formerly known as Isophyllastrea rigida (Veron 2000)
24	*Montastraea cavernosa*	5.5-7.5	-	-	N/A	N/A	36-48	-	Channel shape, elliptical perpendicular bases	Trabecular	-	5-9mm	Plocoid	-	Colony shape: May also be conical (sometimes taller than wide), plates or sheets
25	*Orbicella annularis*	2.1-2.6	Intermediate	1.02	N/A	N/A	24	3	Irregular, multidirectional with circular bases	Trabecular	-	0.6-1.2mm	Plocoid	Favia stelligera (corallite: 2.5mm), Montastraea curta (corallite: 5mm), Montastraea salebrosa (all of which do not occur in Panama)	Colony shape: May also be columbar or flat Corallites: Flush to colony surface of conical; Septothecal walls Septa: Alternating long and short Taxonomy: Formerly known as Montastraea annularis
26	*Orbicella faveolata*	2.2-2.7	thin	0.96	N/A	N/A	24	3	Irregular, multidirectional with circular bases	-	-	-	Plocoid	-	Corallites: Very thin, partially parathecal walls formed by disspiments Taxonomy: Formerly known as Montastraea faveolata
27	*Orbicella franksii*	2.4-3.4	thick	1.13	N/A	N/A	24	3	Irregular, multidirectional with circular bases	-	-	-	Plocoid	-	Corallites: Septotecal walls Taxonomy: Formerly known as Montastraea franksii
28	*Porites astreoides*	1.2-1.4	-	-	N/A	N/A	12	1	-	Trabecular (well-developed)	-	-	Subplocoid	-	Colony shape: Encrusting>massive; lumpy>smooth/nodular Pali: >2
29	*Siderastrea radians*	2.5-3	-	-	N/A	N/A	30-40	3	-	Trabecular	-	-	Cerioid	-	Colony shape: Sometimes as free-living mobile balls (<2.5cm) or small flat discs Corallite: Deep, usually irregular; angular
30	*Siderastrea siderea*	<5	-	-	N/A	N/A	50-60	-	-	Trabecular	-	-	Cerioid	Siderastrea radians	Colony shape: May also be encrusting Septa: Tightly compacted Corallites: Shallower and larger than Siderastrea radians
31	*Solenastrea bournoni*	2-2.5	-	-	N/A	N/A	-	-	-	Trabecular	-	-	Plocoid	Solenastrea hyades	Colony shape: May also be hemispherical fomes Corallites: Protruding rims like blisters forming conspicuous dark circles

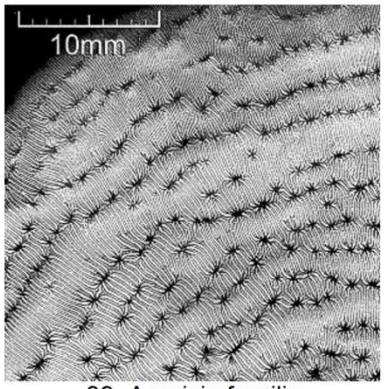
Thin Leafy Corals


38. Agaricia agaricites

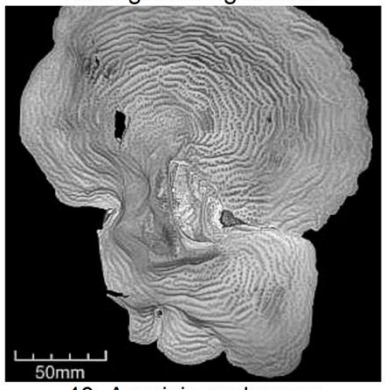

38. Agaricia agaricites



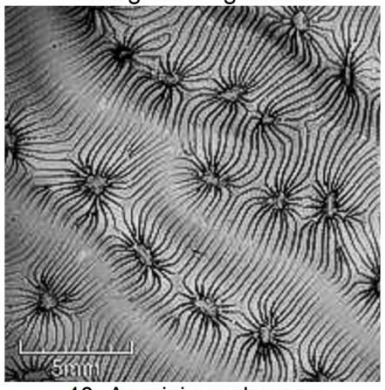
39. Agaricia fragilis



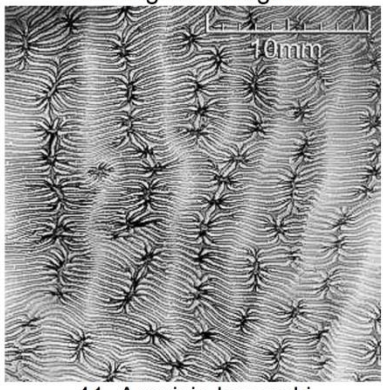
39. Agaricia fragilis



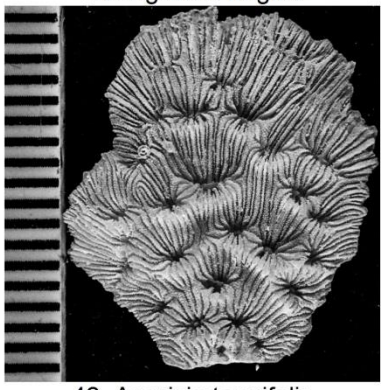
40. Agaricia grahamae

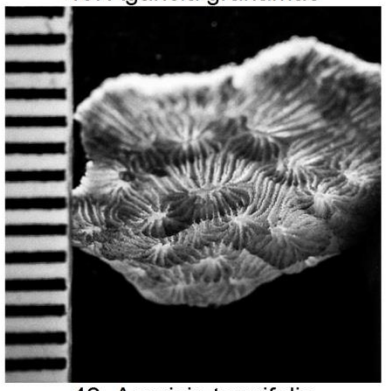


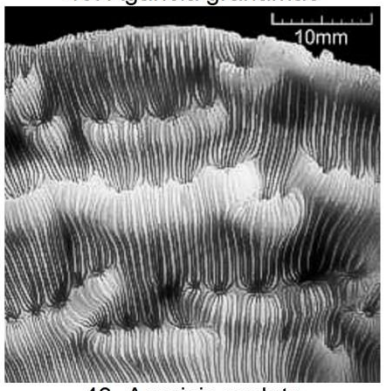
40. Agaricia grahamae



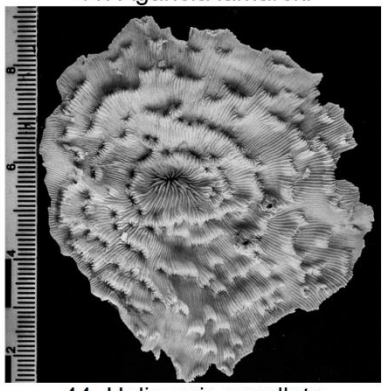
41. Agaricia lamarcki

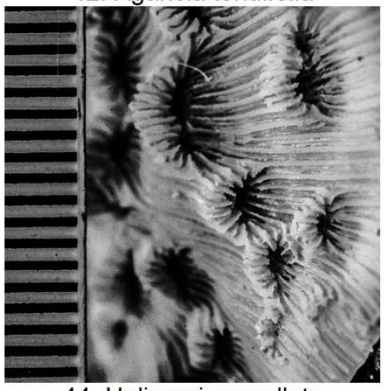

42. Agaricia tenuifolia


42. Agaricia tenuifolia



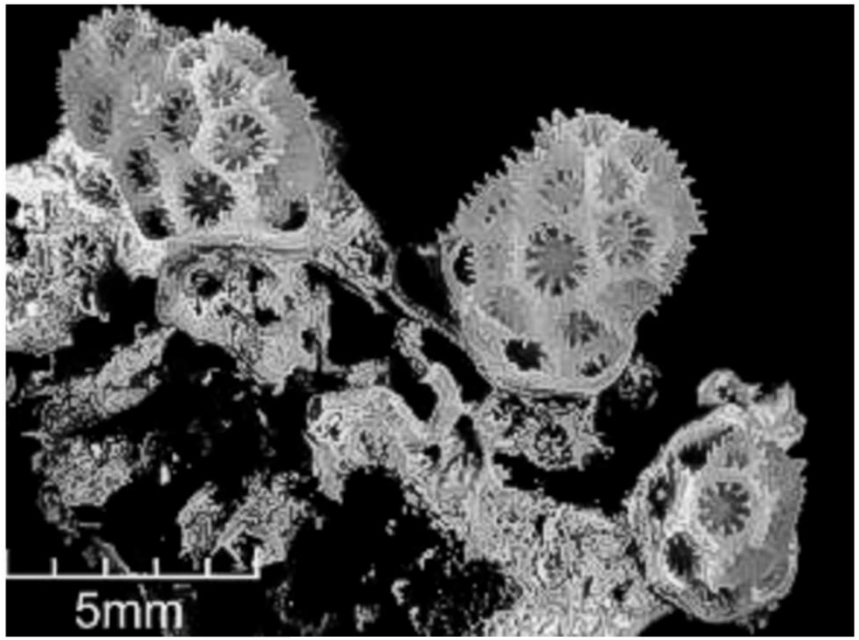
43. Agaricia undata


44. Helioseris cucullata


44. Helioseris cucullata

	Species	Corallite Size (mm)	Coralite wall thickness	Columellae size (mm)	Valley width (mm)	No. of Centers per Series	Septal Number	Septal Cycle	Septal Teeth	Columella	Costae	Coenosteum	Surface	Colony Form	Similar species	Comments/Notes
38	*Agaricia agaricites*	2-4	-	-	-	-	<36	-	-	Trabecular; discontinuous	-	-	-	Meandroid	Agaricia undata	Colony shape: May also be encrusting/thick leaves/irregular projections/flat plates Corallites: May be unifacial or bifacial Walls: Angular; pointed ridge tops
39	*Agaricia fragilis*	1.9-2.5	-	-	2-4	-	17-36	-	-	Trabecular (weak); discontinuous	-	-	Uneven concentric circles radiating from center	Meandroid	Agaricia grahamae, Agaricia undata	Corallites: Unifacial; small and close together; face upwards; Colony: Nearly smooth underside
40	*Agaricia grahamae*	2-2.9	-	-	-	-	18-28	-	-	Trabecular (well-developed); discontinuous	-	-	-	Meandroid	Agaricia lamarcki, Agaricia fragilis	Colony shape: Flat; whorls; smooth underside Corallites: Unifacial; concentric rows of ridges with narrow, long and wavy valleys Septa: thick; do not alternate
41	*Agaricia lamarcki*	3.1-4.1	-	-	-	-	20-32	-	-	Trabecular; discontinuous	-	-	-	Meandroid	Agaricia grahamae	Colony shape: Flat; may be encrusting; whorls; smooth underside Corallites: Unifacial; concentric rows of ridges with wide, straight or reticulate valleys Septa: Alternate long (usually extend close to columella before dropping off sharply) and short (slope gradually into corallite pit)
42	*Agaricia tenuifolia*	-	-	-	-	-	-	-	-	-	-	-	-	Meandroid	-	Colony shape: Thin margins; contorted; elongate Corallites: Unifacial Taxonomy: Commonly assigned to genus *Undaria*.
43	*Agaricia undata*	2-2.9	-	-	6-7	-	13-24	-	-	Trabecular (well-developed); discontinuous	-	-	High rounded concentric ridges	Meandroid	Agaricia fragilis	Colony shape: Flat or upright; curve upward near edges; smooth underside Corallites: Unifacial; close together; occur on outward facing edge of walls (collines) Valleys: Straight, wide, wavy
44	*Helioseris cucullata*	<2.5	-	-	-	-	15-22	-	-	Trabecular (weak/none); discontinuous	-	-	-	Meandroid	Leptoseris mycetoseroides (not in Panama)	Colony shape: May also be encrusting/tiered; 10-25cm Corallies: Closely compacted, outwardly incllined; concentric rows; short and discontinuous ridges and valleys Septa: Alternate long and short (strong) Taxonomy: Formerly known as Leptseris cucullata

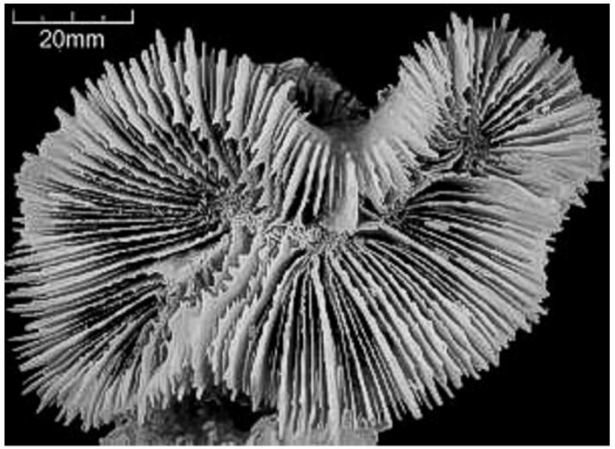
Lumpy Corals



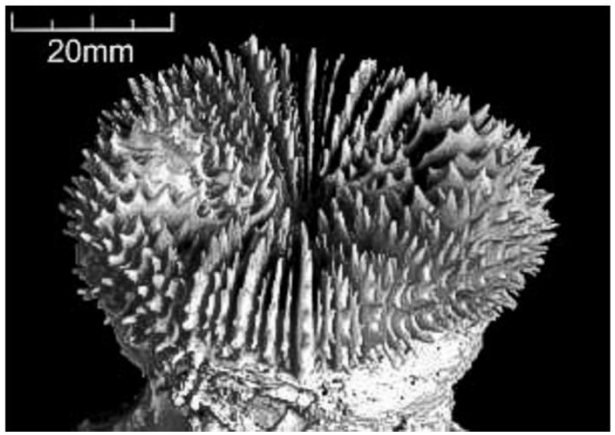
12. Madracis pharensis

	Species	Corallite Size (mm)	Coralite wall thickness	Columellae size (mm)	Septal Number	Septal Cycle	Septal Teeth	Columella	Costae	Coenosteum	Colony Form	Similar species	Comments/Notes
12	*Madracis pharensis*	~1.5	-	-	10	2	-	Styliform (well-developed)	-	-	Plocoid	-	Distribution: Mostly in the Dominican Republic (Corals of the World: None in Panama); Deep water Septa: Fuse with columella

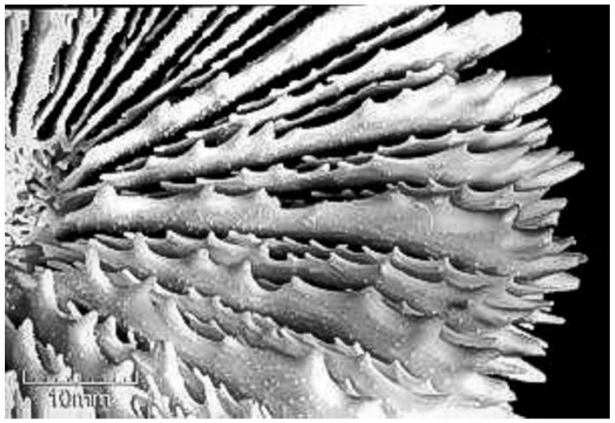
Solitary Corals



32. Mussa angulosa



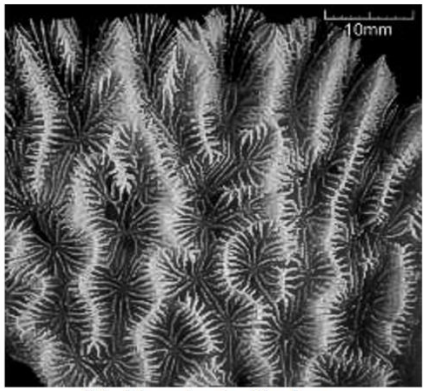
33. Scolymia cubensis



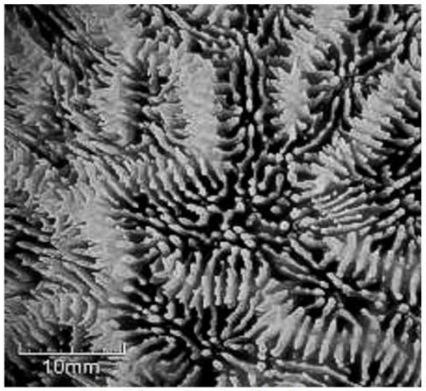
33. Scolymia cubensis

	Species	Corallite Size (mm)	Coralite wall thickness	Columellae size (mm)	Valley width (mm)	No. of Centers per Series	Septal Number	Septal Cycle	Septal Teeth	Columella	Costae	Colony Form	Similar species	Comments/Notes
32	*Mussa angulosa*	45-70	-	-	-	<5 (in flabellomeandroid)	6-9/cm	>4	-	Trabecular (well-developed); discontinuous	-	Phaceloid-Flabellomeandroid	Scolymia cubensis	Colony shape: May also be flat or hemispherical; branching>solitary Septa: Prominent tall sharp teeth; septal granules grow in more than one plane
33	*Scolymia cubensis*	<100	-	-	N/A	-	80	>5	-	Trabecular; discontinuous	Well-developed	Solitary	Mussa angulosa; Scolymia lacera (positive ID requires magnified examination of septa)	Colony shape: Usually attached but may be free-living; tapered base; circular to oval Septa: Septal granules grow in a single plane Corallite: Center usually flat to convex, rarely concave

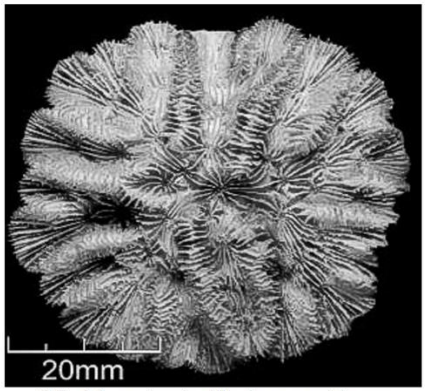
Thick Leafy Corals



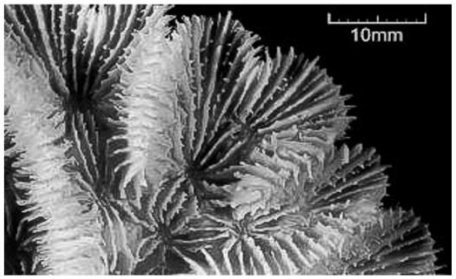
34. Mycetophyllia ferox



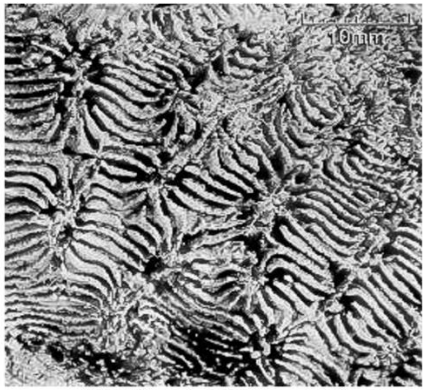
34. Mycetophyllia ferox



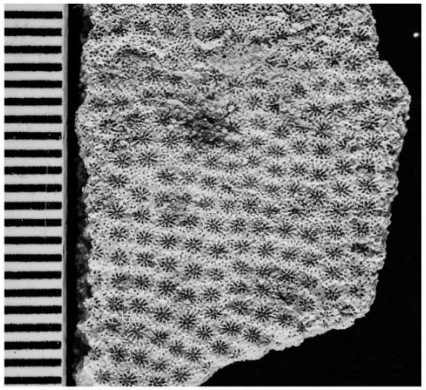
35. Mycetophyllia lamarckiana



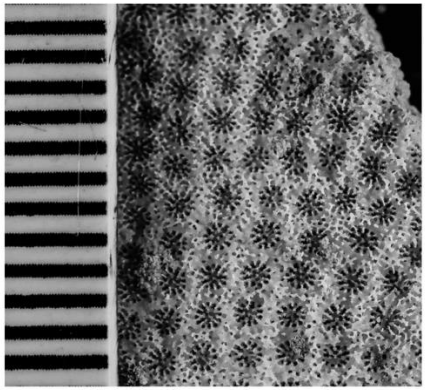
35. Mycetophyllia lamarckiana



36. Mycetophyllia reesi



37. Porites colonensis



37. Porites colonensis

	Species	Corallite Size (mm)	Coralite wall thickness	Columellae size (mm)	Valley width (mm)	No. of Centers per Series	Septal Number	Septal Cycle	Septal Teeth	Columella	Costae	Coenosteum	Colony Form	Similar species	Comments/Notes
34	*Mycetophyllia ferox*	-	-	-	10-15	-	-	-	-	Trabecular (weak/absent); continuous	-	-	Meandroid	-	Colony shape: Thin; weakly attached Corallites: Centres in single rows Valleys: Slightly sinuous
35	*Mycetophyllia lamarckiana*	-	-	-	10-15	-	-	-	-	Trabecular (weak/absent); continuous	-	-	Meandroid	-	Colony shape: Solid, rounded, often circular plates Valleys: Radiate from original point of growth; one row of mouths Corallite: Vaguely concentric to plate margins
36	*Mycetophyllia reesi*	-	-	-	10-15	-	-	-	-	Trabecular (weak/absent); continuous	-	-	Meandroid	Mycetophyllia lamarckiana	Colony shape: Thin laminae (sometimes conforming to substrate shape); attached centrally/at the side Valley: Do not radiate Corallite: Centers parallel to plate margins
37	*Porites colonensis*	1.8-2	-	N/A	N/A	N/A	12	1	-	Absent	-	-	Subplocoid	-	Colony shape: Thin; sometimes in tiers; smooth or undulating surface Pali: 5-6

Glossary of Coral Morphology

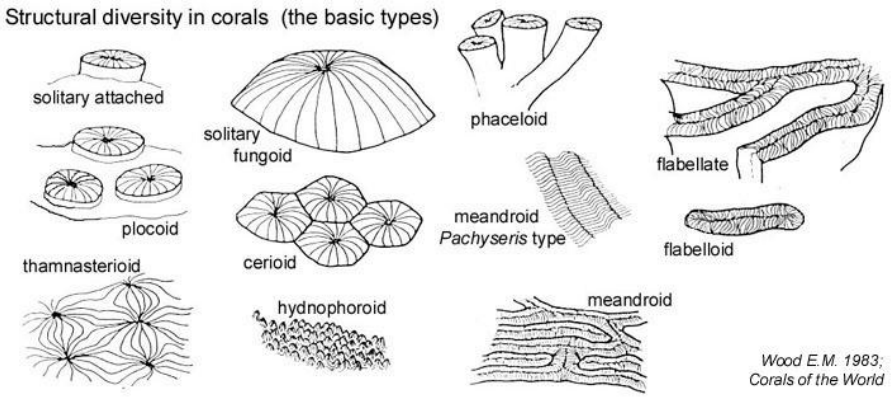


Figure 1: A sample of the various coral shapes

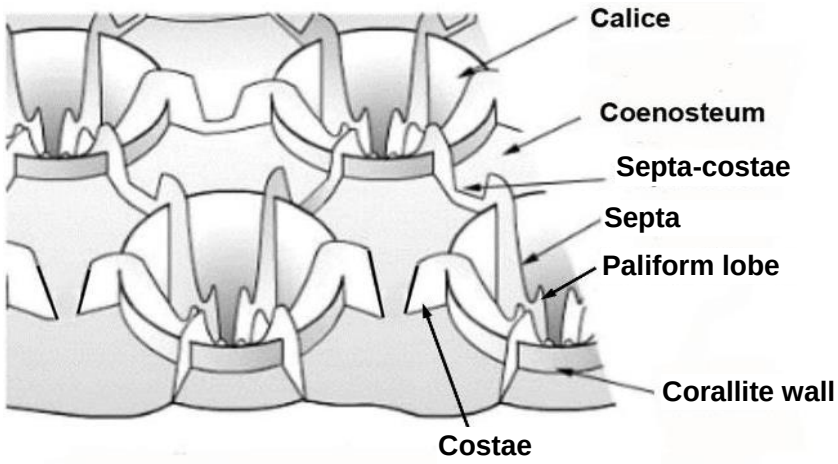


Figure 2: Different structures of a corallite

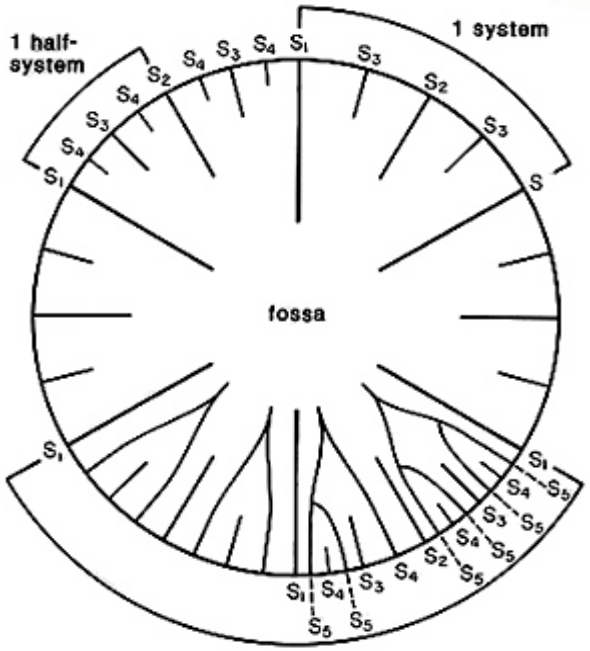


Figure 3:Septal cycle – upper right system with three cycles of septa; upper left system with four cycles, and lower two systems with various stages of development of the Poutralès plan Numbers refer to cycle to which septa belong. (Cairns 1994)

Coral Morphology	Definitions
Calice	Cup-shaped depression on corallite surface
Centers per Series	Number of corallites in a series/valley
Coenosteum	Skeleton between corallites within a colony
Columella	Central axial structure within a corallite
Columella (Lamellar)	Plate-like, parallel to valley
Columella (Papillose)	Many small rods
Columella (Solid)	Central
Columella (Trabecular)	Formed by inner ends of septa
Coral Form	Overall shape of colony
Coral Form (Branching)	Flattened with calices on only one side
Coral Form (Massive)	Elongated projections
Coral Form (Platy)	Mound-shaped/Encrusting
Coral Shape	Corallite arrangement
Coral Shape (Cerioid)	Cerioid: Juxtaposed and even, with own walls (those of massive corals share common walls)
Coral Shape (Dendroid)	Dendroid: Branch from each other in dendritic pattern
Coral Shape (Fasciculate)	Fasciculate: Cylindrical but not in contact; may be dendroid (irregular branches) or phaceloid
Coral Shape (Flabelloid)	Flabelloid: Arranged in single series; adjacent valleys do not share ridges
Coral Shape (Flabello-meandroid a. k. a flabellate)	Flabello-meandroid a.k.a flabellate: Long meandering rows with common base; walls may be partially fused

Coral Shape (Hydnophoroid)	Hydnophoroid: Cone-shaped protuberances between corallites
Coral Shape (Meandroid)	Meandroid: Arranged in multiple series; adjacent valleys share ridges
Coral Shape (Phaceloid)	Phaceloid: Separated by voided space; those with distinct walls separated by coenosteum
Coral Shape (Plocoid)	Plocoid: Short-stalked and isolated, separated by coenosteum
Coral Shape (Solitary)	Solitary: Entire coral = one corallite
Coral Shape (Subplocoid)	Subplocoid: Sometimes separated by coenosteum, each with its own wall
Coral Shape (Thamnasterioid)	Thamnasterioid: Confluent septa of adjacent corallites, often twisted or sinuous
Corallite	Skeleton of solitary individual or an individual within a colony
Costae	Extension of septum beyond wall
Paliform lobes	Exsert protuberance of septum at center of corallite
Septa	Radially-arranged vertically partitions within a corallite (exsert, insert or even in regard to corallite wall)
Septa-costae	Structure that flows between corallites when corallite walls are indistinct
Septal cycle	No. of types of septa with difference lengths and thickness
Septal granules	Small elevation on septa or septa teeth
Septal spacing	Spacing between septa/No. of septa per unit distance
Septal teeth	Sharp projections lining the upper margins of septa
Synapticulum	Conical or cylindrical supporting process extending between septa
Valley	A series of corallites
Wall	Vertical structure enclosing corallite

References and Additional Resources

Coral Taxonomy

- http://www.marinespecies.org/index.php

Coral Species ID

- http://coral.aims.gov.au/info/factsheets.jsp
- http://eusmilia.geology.uiowa.edu/nmita/generaList.page?classification=NMITA&taxonName=Zooxanthellate+Coral&getGenButton=Get+Genera
- http://coralpedia.bio.warwick.ac.uk/
- https://www.stri.si.edu/english/PDFs/201215_Hard_Coral_Identification_guide.pdf
- http://eusmilia.geology.uiowa.edu/idstep1.htm
- http://species-identification.org/index.php
- Budd, Ann F., and Jarosław Stolarski. "Searching for New Morphological Characters in the Systematics of Scleractinian Reef Corals: Comparison of Septal Teeth and Granules between Atlantic and Pacific Mussidae." Acta Zoologica 90.2 (2009): 142-65. Web. 23 June 2016.
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- http://www.coralhub.info/terms/corallite/
- http://tolweb.org/Dendrophylliidae/19165
- http://www.cap-recifal.com/page/articles.html/_/vivant/identification-des-scl%C3%A9ractiniaires-r44