

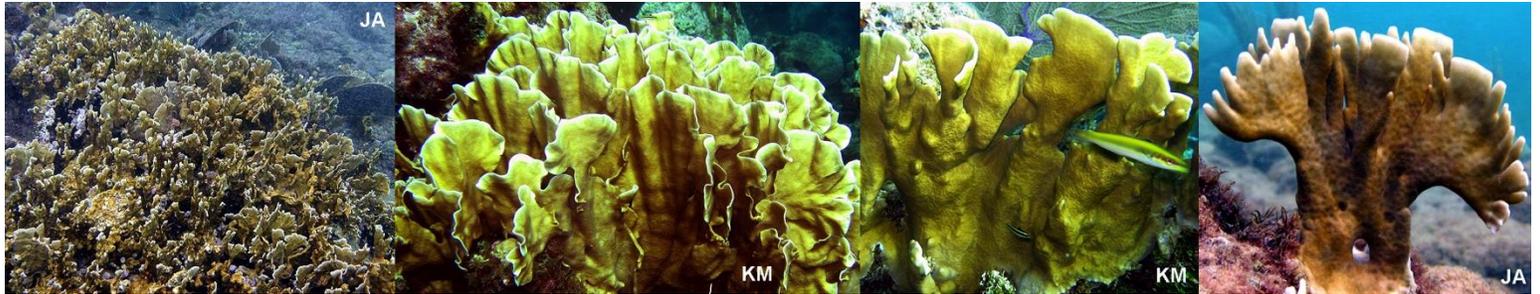
PICTURE GUIDE TO STONY CORALS OF GLOVERS REEF ATOLL



FIRE CORALS



BRANCHING FIRE CORAL *Millepora alcicornis* Crusts, growing out into small round branches. Slender polyps projecting from small pores in smooth skeleton. Color yellow, cream, tan. *Stings painfully if touched.*



BLADED FIRE CORAL *Millepora complanata* Blade-like branches arising from crusts. *Stings painfully if touched.*

BRANCHING CORALS



ELKHORN CORAL *Acropora palmata* Large, broad, palm-shaped branches in calm waters. More rounded in rough water. Brown to yellowish-brown. Side (radial) polyps small (0.5-0.8 mm). Terminal (axial) polyps larger, white.

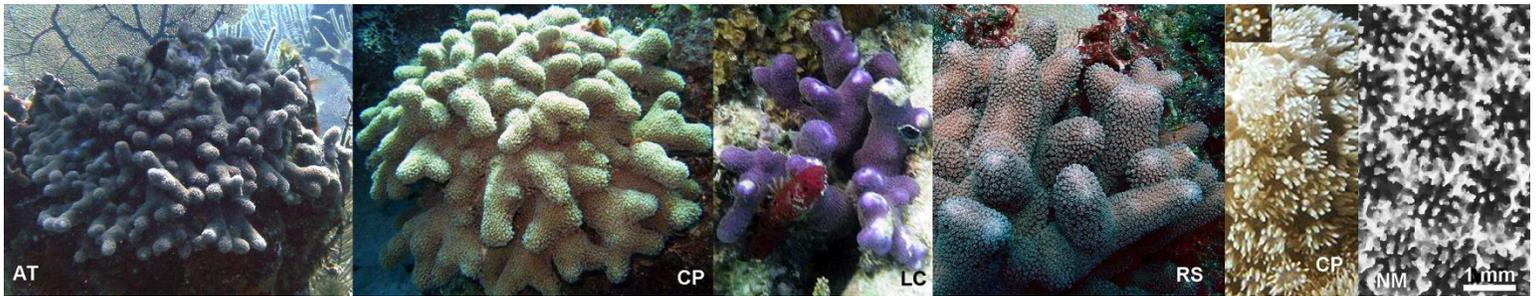


STAGHORN CORAL *Acropora cervicornis* Open, loosely packed thickets of thin, round, pointed, brown to yellowish-brown branches tipped by one large, white axial polyp. Easily broken, remains often forming rubble beds.

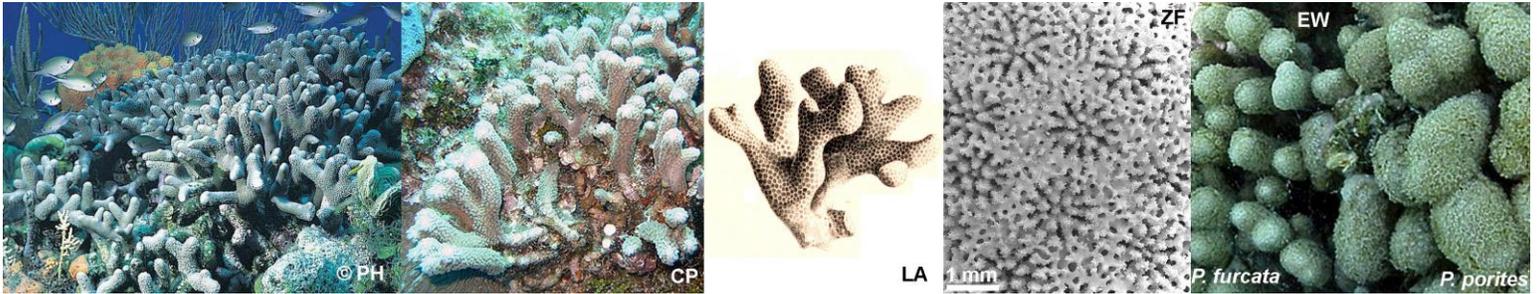


FUSED STAGHORN CORAL *Acropora prolifera* Hybrid of *A. palmata* & *A. cervicornis*. Branches densely packed. Brown to golden color. Branching tends toward horizontal and fan-shaped. Branchlets toward branch ends.

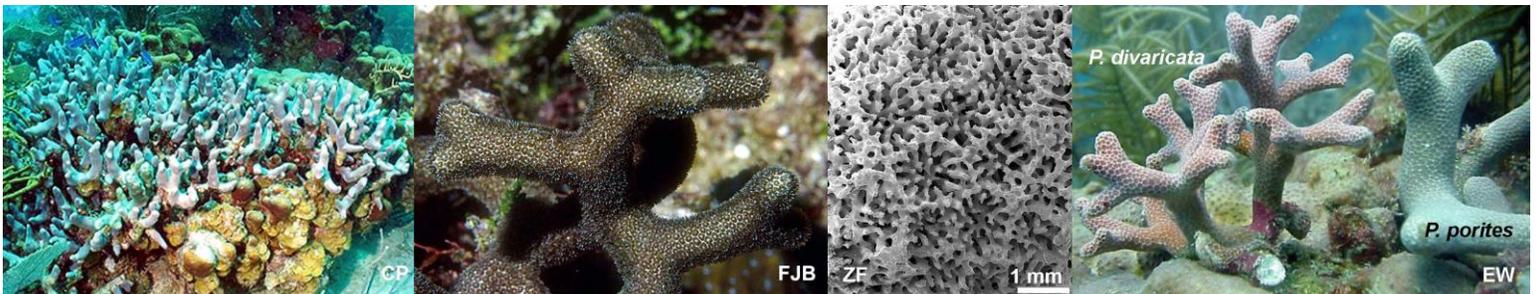
STONY CORALS OF GLOVERS REEF ATOLL



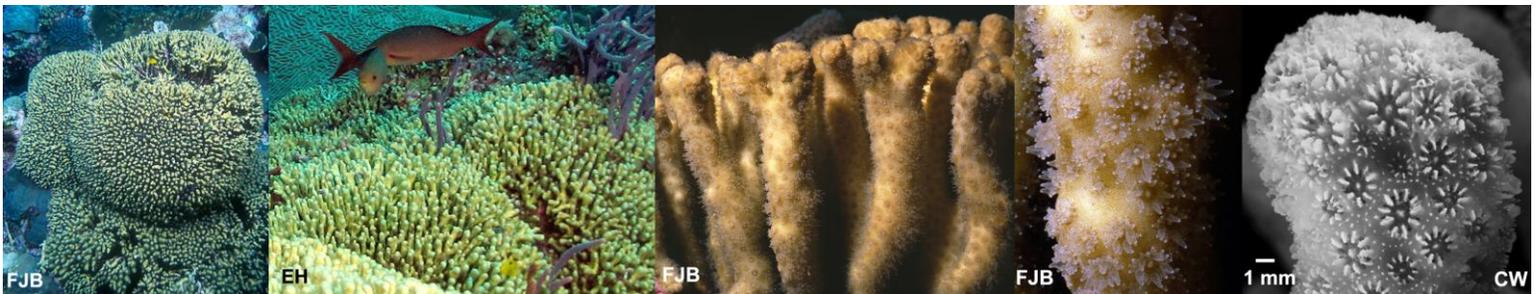
CLUB TIP FINGER CORAL *Porites porites* Branches thick (2 cm or more), curved, hooked or other irregular shapes. Tips blunt, often swollen. Polyps expanded in day, appearing “fuzzy”. Gray, blue, yellowish, or purple. Polyps small.



BRANCHED FINGER CORAL *Porites furcata* Branches compact, thin (1-2 cm), finger-like, usually elongate, rounded tips, bases usually dead. Gray or tan. Polyps small (1.6-1.8 mm).



THIN FINGER CORAL *Porites divaricata* Branches thinnest (less than 1 cm), widely spaced, and often at right angles to main stem. Tips often forked. Purple, brown, yellow-brown, gray. Polyps small.



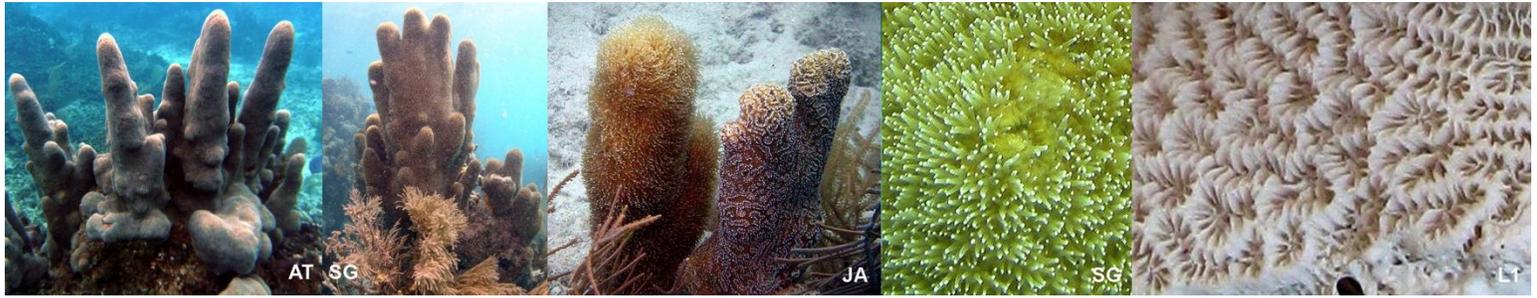
YELLOW PENCIL CORAL *Madracis auretenra* (formerly *Madracis mirabilis*) Thin, densely packed, finger-like branches. Pale yellow to light tan. Polyps expanded day & night. Polyps widely separated, with 10 septa.



TEN-RAY STAR CORAL *Madracis decactis* Colonies are densely packed nodular lobes. Gray, brown, yellow-brown or greenish. Polyps small (less than 2 mm), with 10 distinct septa.

STONY CORALS OF GLOVERS REEF ATOLL

MEANDROID CORALS



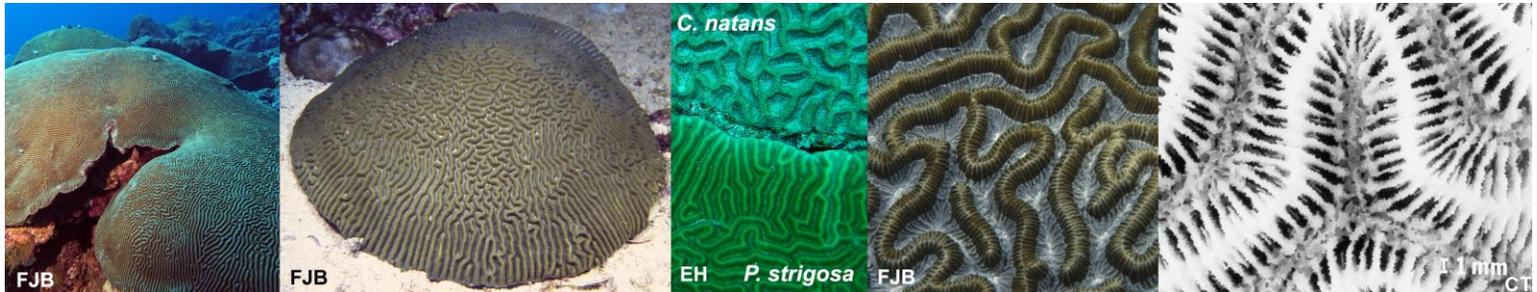
PILLAR CORAL *Dendrogya cylindrus* Upright columns to 2 m high. Contorted ridges. Polyps usually expanded by day, appearing very fuzzy. Polyps in meandroid series but smaller than in *M. meandrites*.



MAZE CORAL *Meandrina meandrites* Massive heads to 1 m, or can be small and columnar. Groove atop ridges. Large, thick septal plates. Ribbon-like columella. Valleys narrow. Cream, greenish & brown tints.



BOULDER BRAIN CORAL *Colpophyllia natans* Large, domed heads up to 3 m, or flatish discs. Ridges grooved on top and mid-way down sides. Valleys wide (15- 20 mm across). Valley color green, tan, white. Ridges brown.

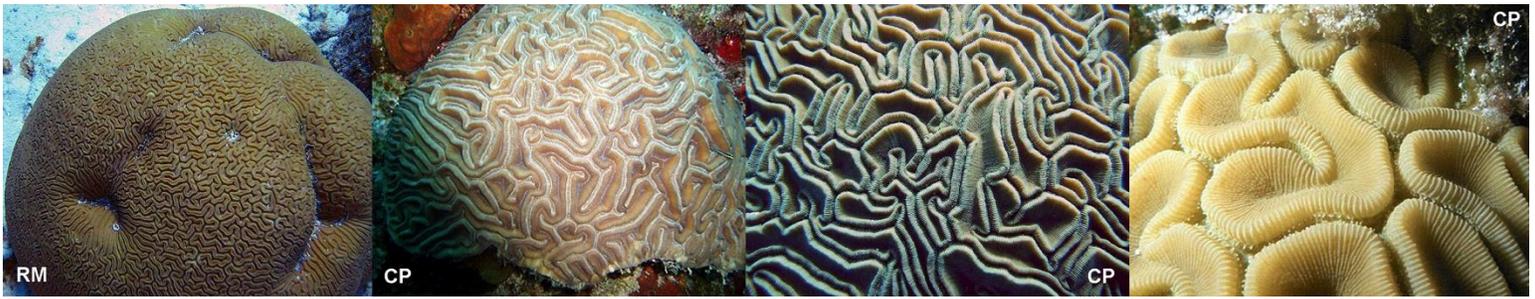


SYMMETRICAL BRAIN CORAL *Pseudodiploria strigosa* (formerly *Diploria strigosa*) Ridges smaller and valley width narrower (5-10 mm) than in *Colpophyllia*. Sometimes grooves on ridges. Ridge and valley color may differ.



KNOBBY BRAIN CORAL *Pseudodiploria clivosa* (formerly *Diploria clivosa*) Surface convoluted, knobby. Narrow, steep-sided ridges, with no grooves. Ridges and valleys are rarely straight, and are smaller than in *P. strigosa*

STONY CORALS OF GLOVERS REEF ATOLL



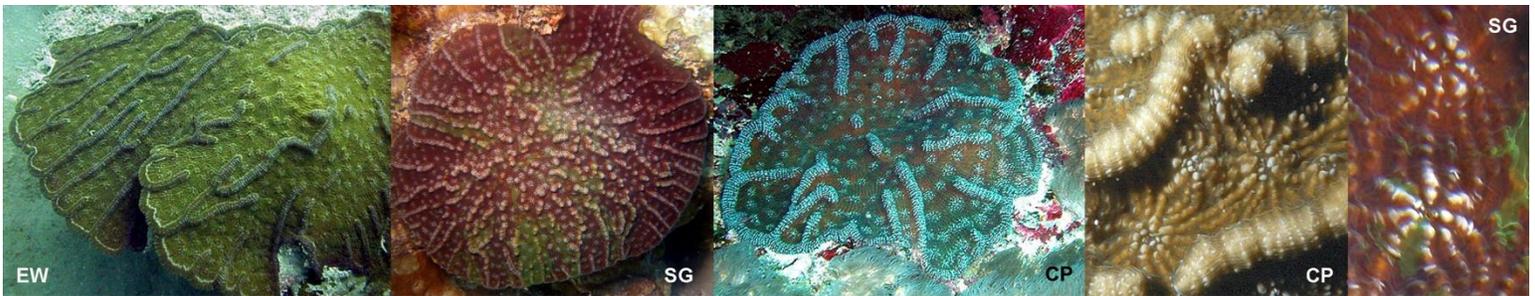
GROOVED BRAIN CORAL *Diploria labyrinthiformis* Large groove on wide, convoluted ridge giving “double valley” look. Ridge with groove often wider than the valley containing polyps. Groove and valley colors may differ.



SINUOUS CACTUS CORAL *Isophyllia sinuosa* Small massive colonies. Fleshy polyps and ridges in meandroid series. Deep valleys. Septa with large, spiny teeth. Dull grayish, sometimes greenish or reddish.



RIDGED CACTUS CORAL *Mycetophyllia lamarckiana* Small mounds or inverted plates. Ridges and shallow valleys variable over entire surface. May appear fleshy. Brown, gray, sometimes green.



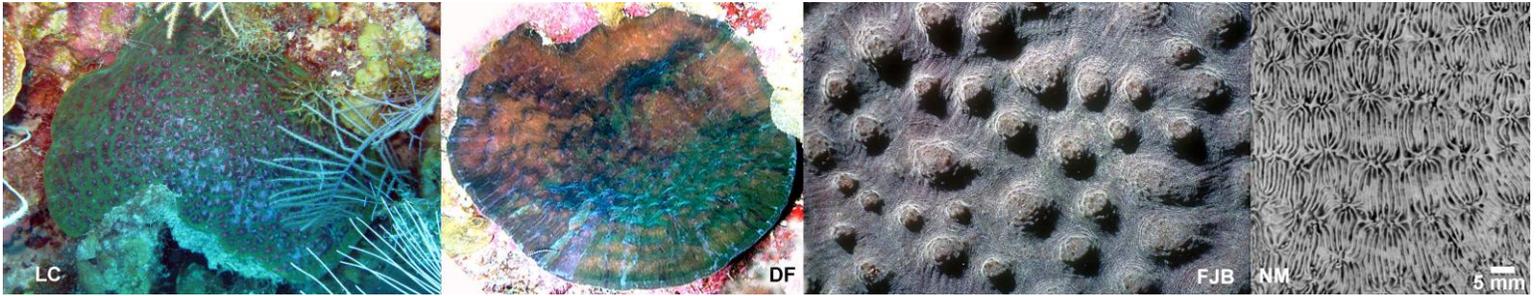
KNOBBY CACTUS CORAL *Mycetophyllia aliciae* Thin plates to domes. Large polyps. Often no clear valleys or ridges in central area. Raised areas usually lighter color. Brown or green, often light green or white spots around mouths or on ridges.



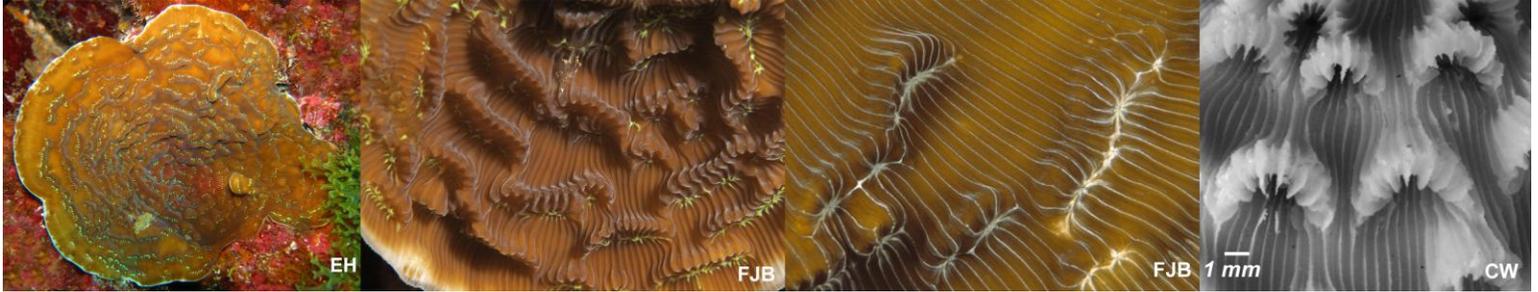
ROUGH CACTUS CORAL *Mycetophyllia ferox* Thin plates or crusts. Valleys narrow, often closed. Thin, grooved ridges on entire surface. Gray, reddish, brown, green. Polyps small, often pink.

STONY CORALS OF GLOVERS REEF ATOLL

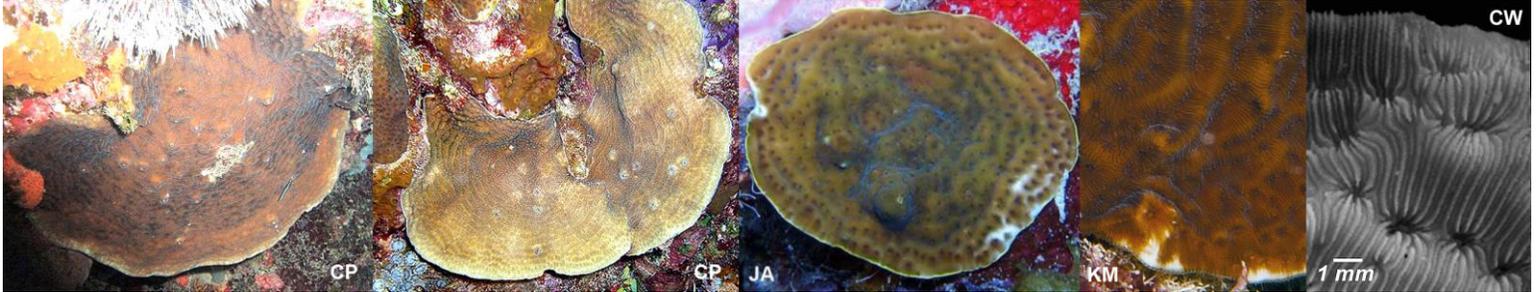
PLATY & KEELED CORALS



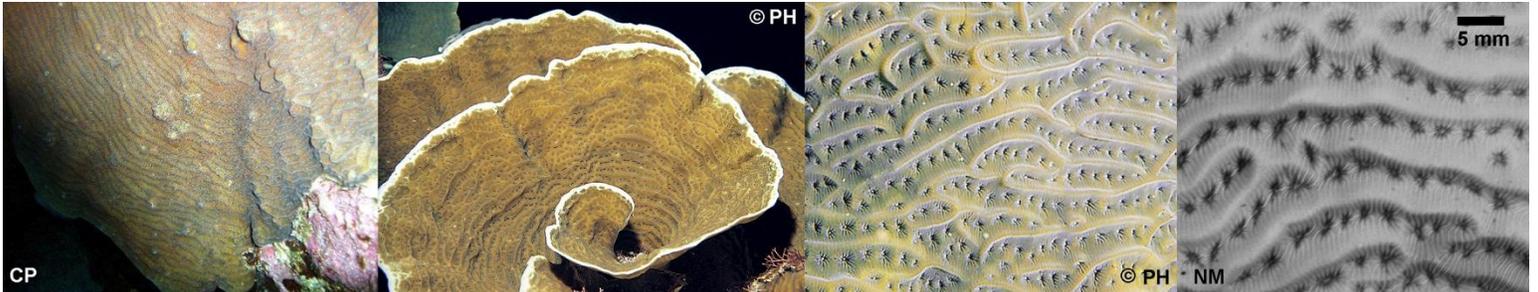
RIDGELESS CACTUS CORAL *Mycetophyllia reesi* Thin plates (thinner than other *Mycetophyllia*), hugging substratum. Smooth surface. No ridges. Bumpy rows of large polyps. Dark color.



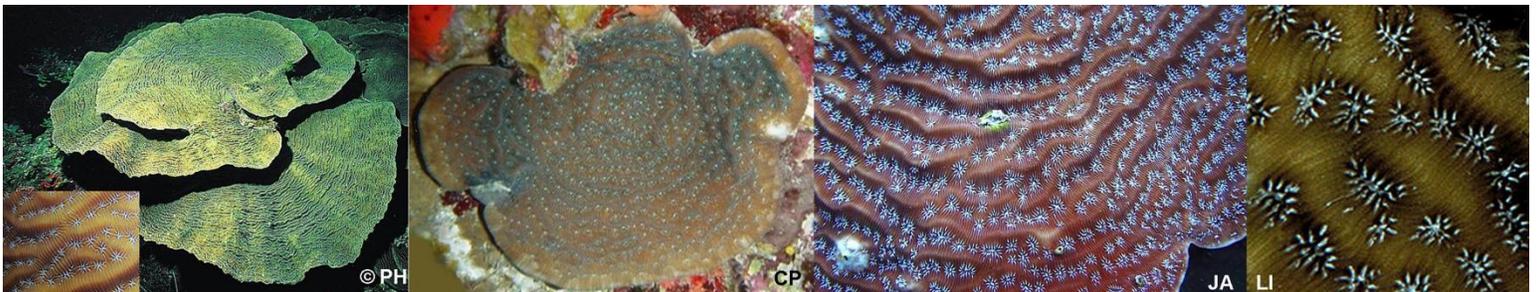
SUNRAY LETTUCE CORAL *Helioseris cucullata* (formerly *Leptoseris cucullata*) Thin plates. Polyps in cup-like ridges of varying lengths facing edge of colony. Prominent septa, radiating. Brown or fluorescent tissues with yellow polyp mouths.



FRAGILE SAUCER CORAL *Agaricia fragilis* Colonies small (< 15 cm), contour-hugging with thin edges. Small polyps (~2 mm), in irregularly concentric rows. Ridges low with round tops.



DIMPLED SHEET CORAL *Agaricia grahamae* Larger colonies form distinctive fans, bowls, and spirals. Polyps in concentric rows, on upper surface only. Ridges steep with pointed tops.

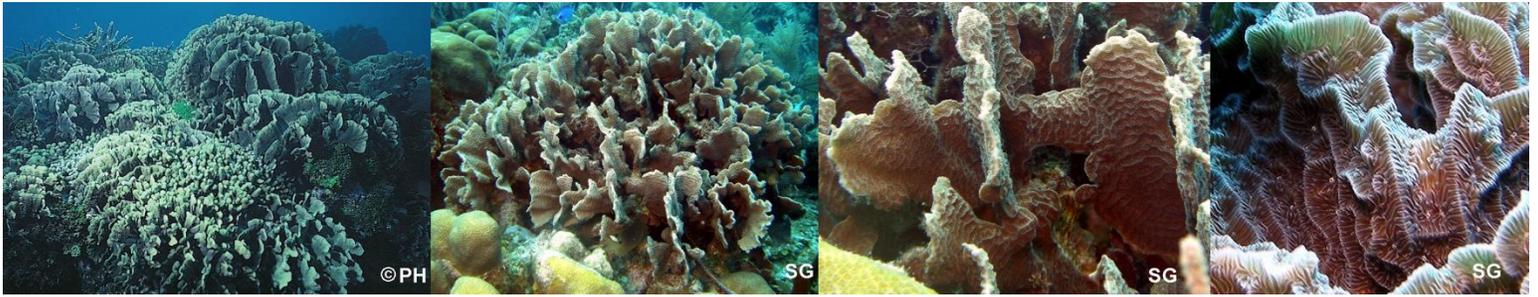


WHITESTAR SHEET CORAL *Agaricia lamarcki* Flat plates, to flattened whorls when large. Thick, dense skeleton. Ridges rounded. Yellow to dark-brown, with contrasting, large, pale to white, star-like polyp mouths.

STONY CORALS OF GLOVERS REEF ATOLL

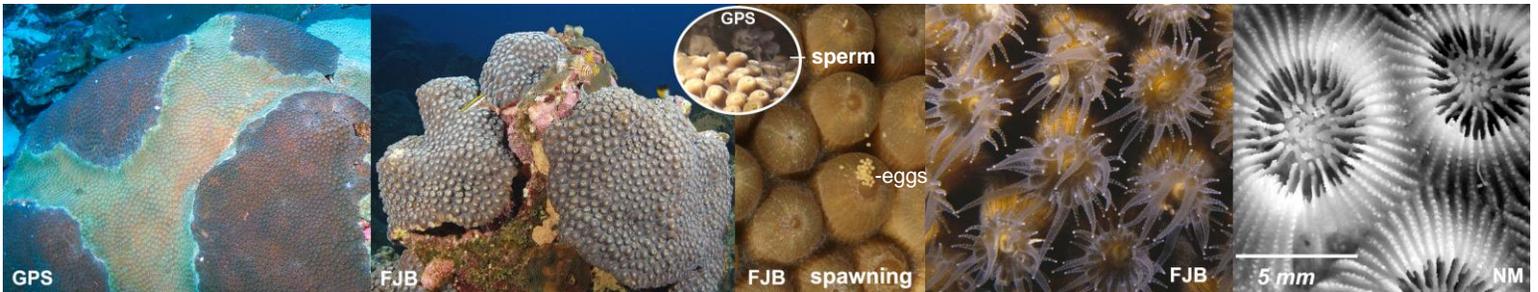


LETTUCE CORAL *Agaricia agaricites* (alternatively *Undaria agaricites*) Colonies of many diverse shapes: crusts, plates, mounds, keels and thick lobes. Reticulated ridges of varying lengths with pointed tops. Tan to brown tissues, sometimes fluorescent.

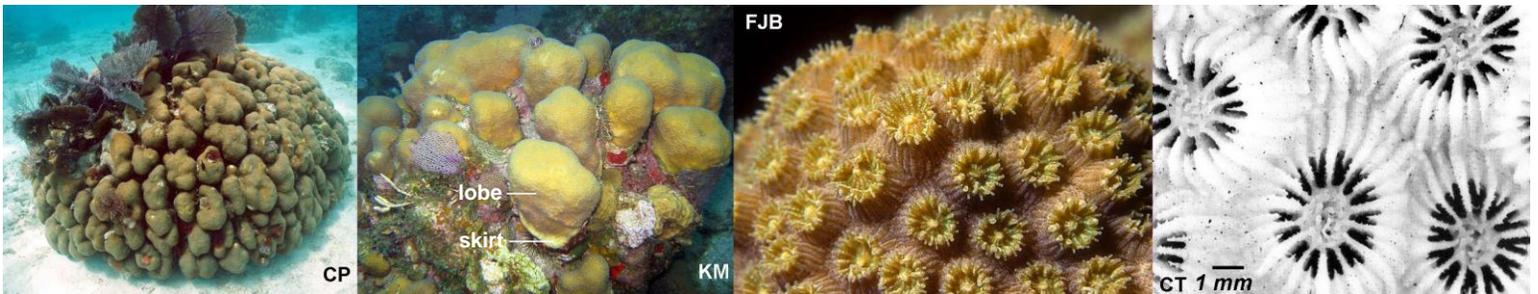


THIN LEAF LETTUCE CORAL *Agaricia tenuifolia* (alternatively *Undaria tenuifolia*) Growing from crusts upward into large distinctive clusters of thin, vertical keels. Polyps in meandroid rows separated by irregular ridges.

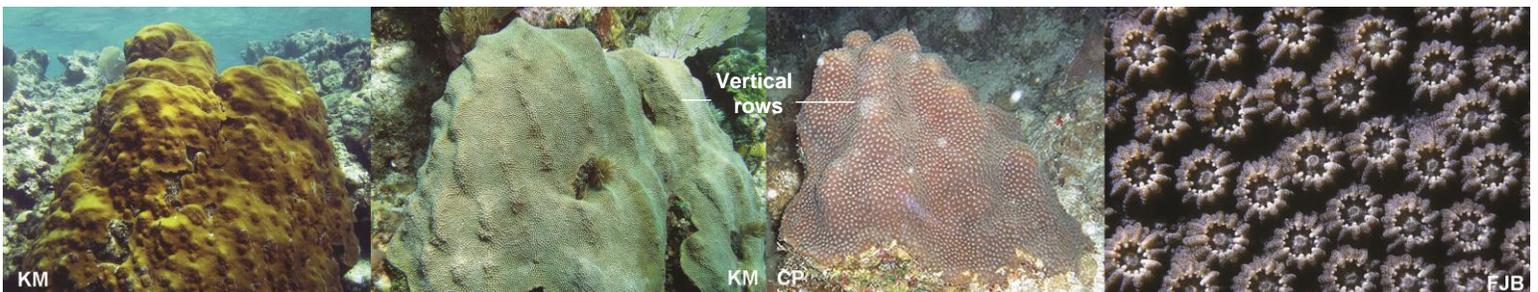
MOUND & BOULDER CORALS



GREAT STAR CORAL *Montastraea cavernosa* Mounds or short columns (shallow) and crusts (deep) to ~ 3 m diam. Polyps large (to ~ 1 cm), round, protruding. Light to dark brown, sometimes pigmented white or fluorescent.

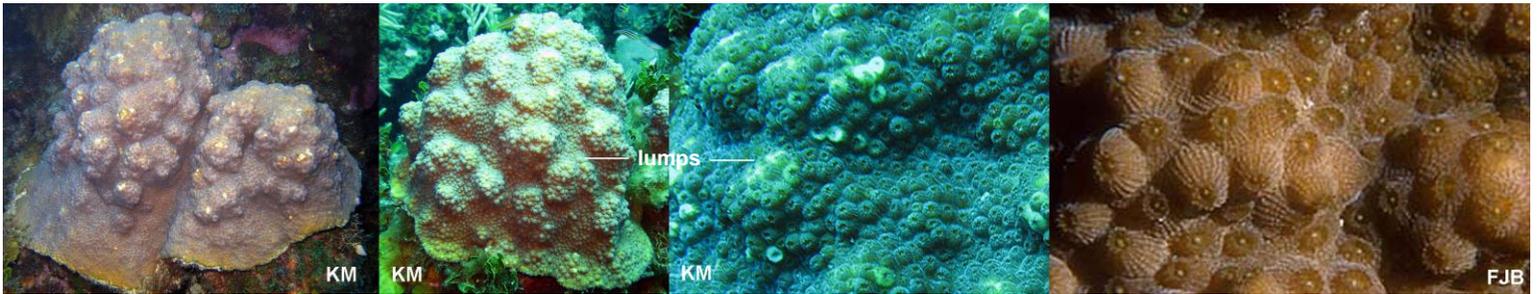


LOBED STAR CORAL *Orbicella annularis* (formerly *Montastraea annularis*) Large (> 3 m) mounds with small live polyps on the tops of closely packed lobes or columns. Platy basal "skirts" under low light conditions. Light tan to yellow-brown.

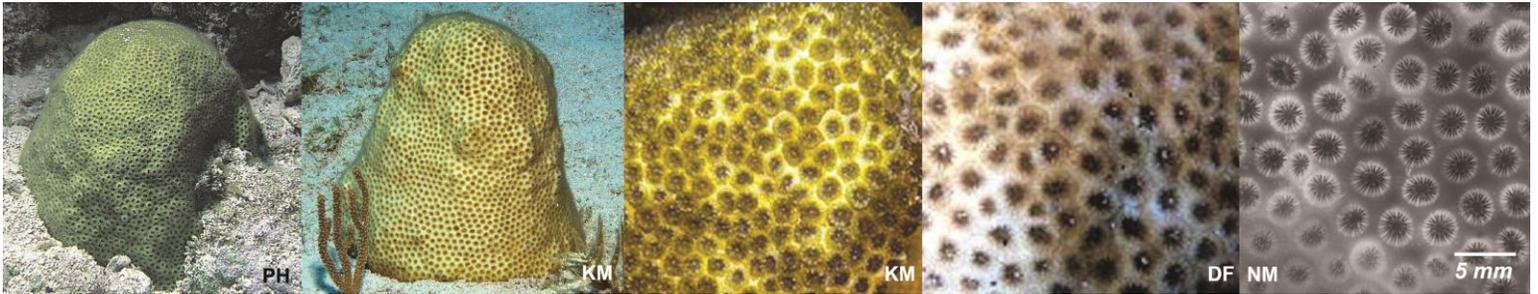


MOUNTAINOUS STAR CORAL *Orbicella faveolata* (formerly *Montastraea faveolata*) Very large (to 5 m), smooth, skirted heads, with ridged or bumpy vertical rows running down their sides. Small, pale to dark brown or fluorescent green polyps.

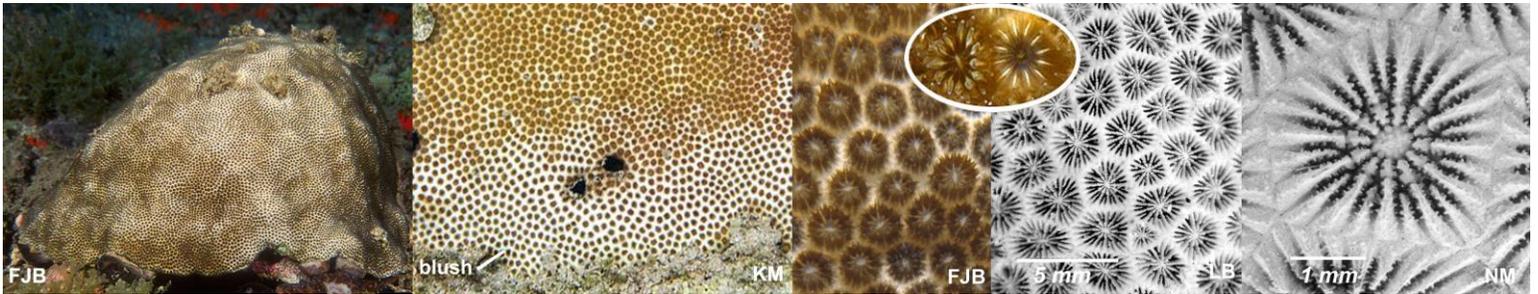
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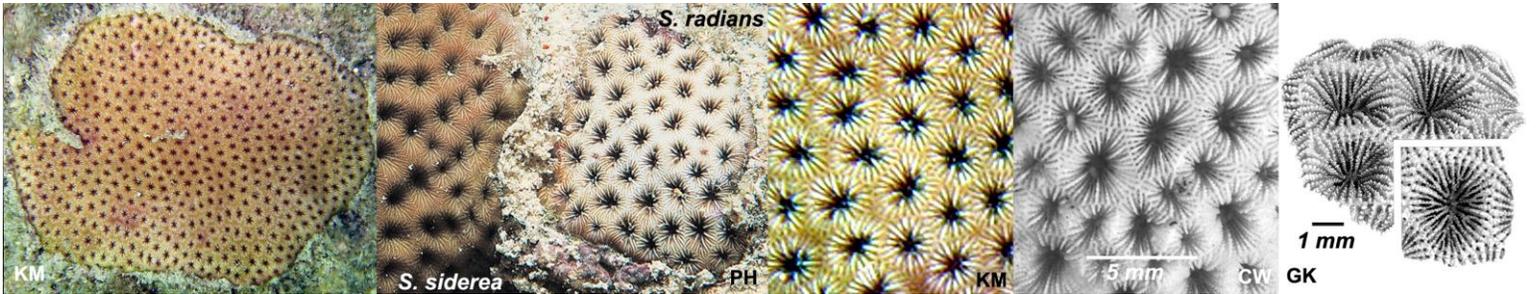
BOULDER STAR CORAL *Orbicella franksi* (formerly *Montastraea franksi*) Large (> 3 m), irregular mounds and plates with enlarged, protruding polyps on scattered lumps. Color orange-brown, gray or greenish-brown with pale polyps on the lumps.



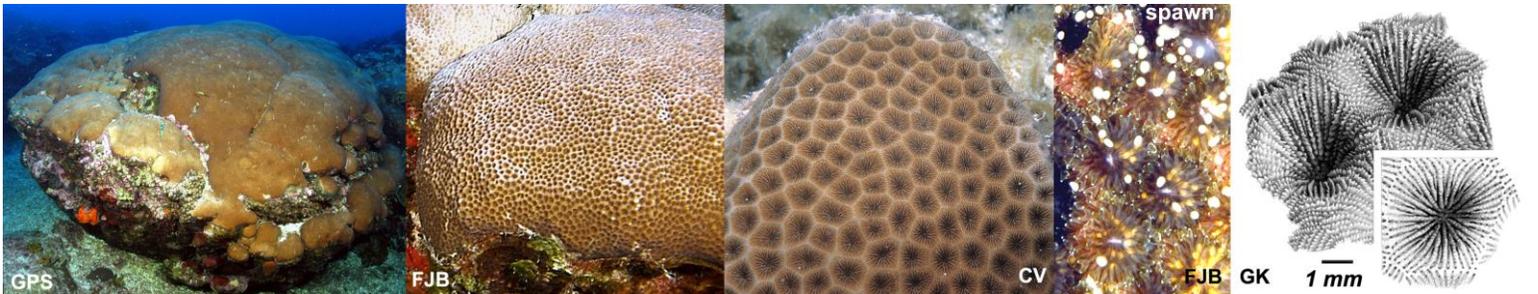
SMOOTH STAR CORAL *Solenastrea bournoni* Domes up to 1 m diam. Smooth, sometimes lumpy surface. Polyps small, uniform, with darkened centers, well separated, with raised walls that produce a "blistered" look. Cream, yellow, pale brown.



BLUSHING STAR CORAL *Stephanocoenia intersepta* Colonies are thick crusts and mounds up to ~1m diameter. Small cream, tan, gray or brown polyps with dark centers that are commonly expanded by day and appear to "blush" when retracted.

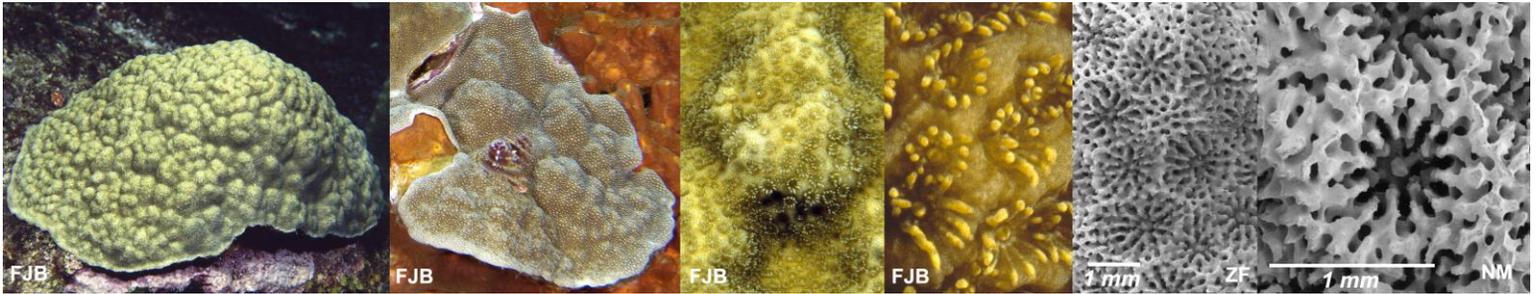


LESSER STARLET CORAL *Siderastrea radians* Small crusts, flat mounds or "loose balls" with "dimpled" surface. Usually < 30 cm. Tiny, sunken, pale brownish polyps, some "pinched," with darker centers and thick septa that are easily seen in-situ.



MASSIVE STARLET CORAL *Siderastrea siderea* Rounded masses, with smoothish "dimpled" surface. Polyps small, sunken, with many thin, "hard-to-see" septa. Brownish, reddish or grey.

STONY CORALS OF GLOVERS REEF ATOLL



MUSTARD HILL CORAL *Porites astreoides* Small lumpy mounds, or crusts and plates up to 1 m diam. Color mustard yellow, green, gray, light to chocolate brown. Fuzzy appearing due to expanded polyps. Polyps small (1.2-1.4 mm).

FLOWER & SMALL CORALS



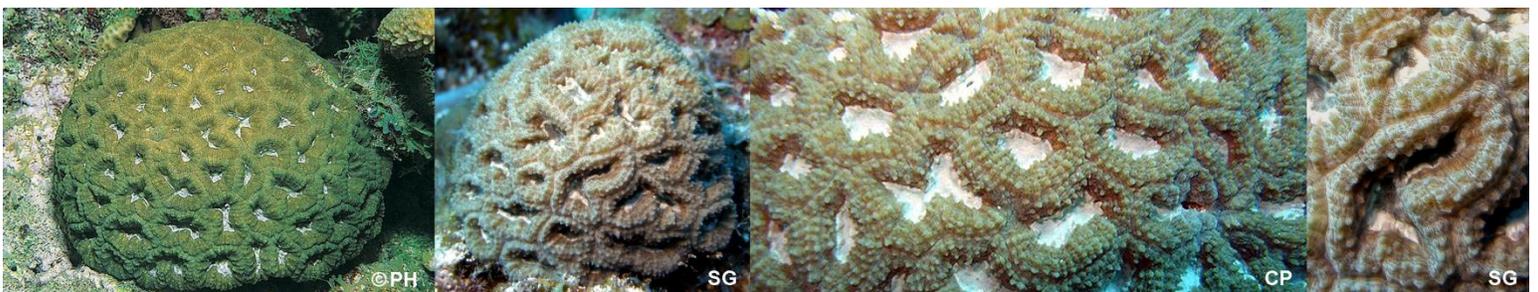
ELLIPTICAL STAR CORAL *Dichocoenia stokesi* Small mounds or thick oval plates, sometimes columnar. Polyps large, protruding, well separated, oval, or elongated to meandroid before dividing. Surface granular between polyps. Cream, green-brown.



GOLFBALL CORAL *Favia fragum* Small rounded knobs “golfballs”, or crusts. Polyps, round, or oval to elongate before dividing (never meandroid), granular septa. Polyps closer set and not as protruding as in *Dichocoenia*. Pale brown to yellow.

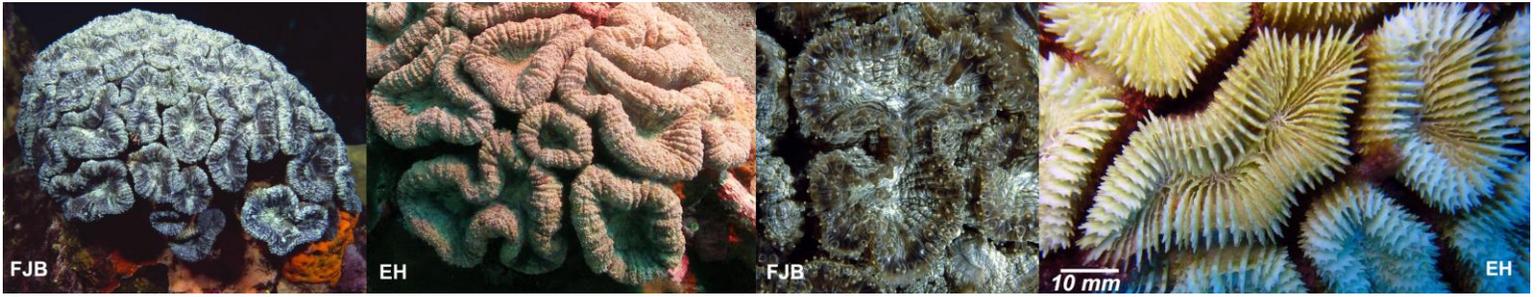


SMOOTH FLOWER CORAL *Eusmilia fastigiata* Clumps of tubular stalks, each with 1-3, round to oval polyps. Stalk bases without live coral tissue. Septa large, smooth and widely spaced. Cream, with pink or green tints.



ROUGH STAR CORAL *Isophyllia rigida* (formerly *Isophyllastrea rigida*) Small domes with large fleshy polyps & ridges. 1- 3 polyps per valley, never meandroid. Gray or greenish. Centers & walls may differ in color.

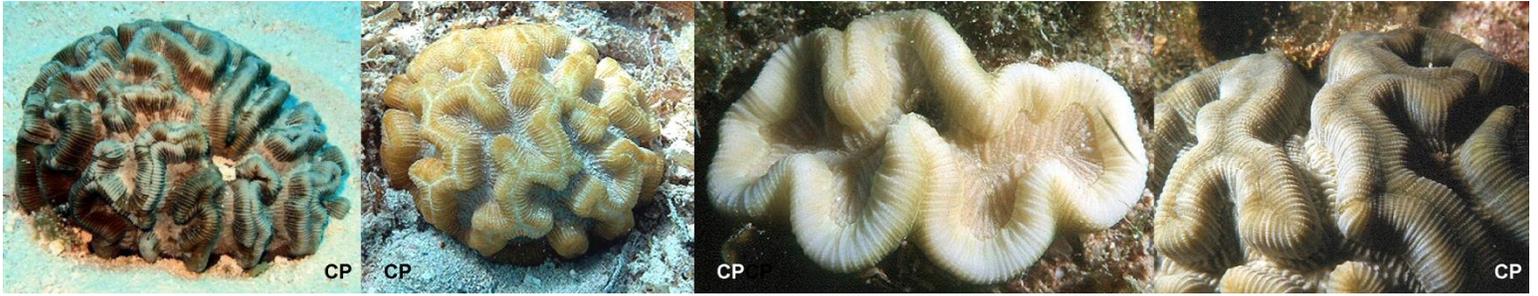
STONY CORALS OF GLOVERS REEF ATOLL



SPINY FLOWER CORAL *Mussa angulosa*

usually 1 (sometimes 2 or 3) large, fleshy polyps. Gray, may be tinted green, blue, reddish.

Clumps (up to 1 m wide) of stalks, each topped with



ROSE CORAL *Manicina areolata*

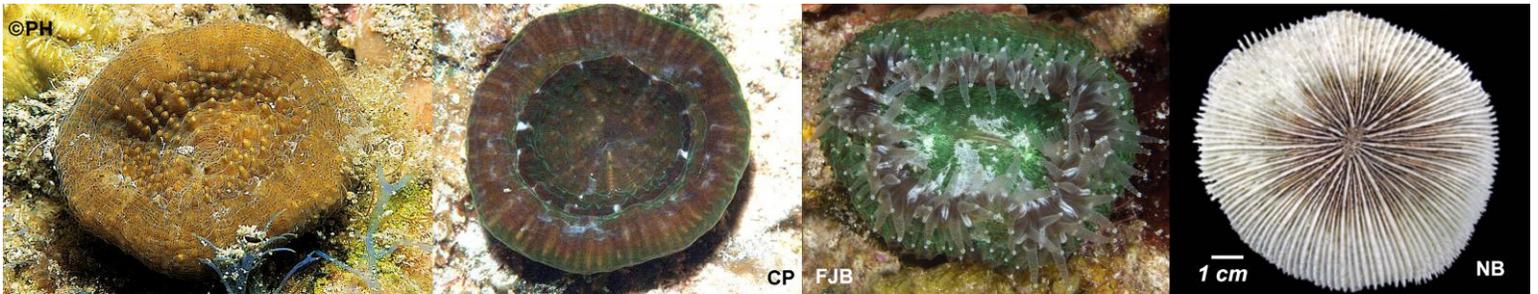
Small colonies that may be unattached from substratum on rubble and sand bottoms and in seagrass beds. Meandroid, with broad, deep valleys. The large ridges grooved on top.



BUTTERPRINT ROSE CORAL *Meandrina danae*

Corallum small, oval, elongated. Wide valleys. Typically unattached from substratum on rubble and sand bottoms and in seagrass beds.

SOLITARY CORALS



ARTICHOKE CORAL *Scolymia cubensis*

Large (to ~10 cm), fleshy, smoothish-surfaced polyp that occasionally divides to form several connected mouths. Septal teeth often visible below gray, brown or greenish tissues.



ATLANTIC MUSHROOM CORAL *Scolymia lacera*

Very large (to ~15 cm), very fleshy polyp looks "warty" over large septal teeth. Occasionally divides to form several connected mouths. Can be difficult to distinguish from *S. cubensis* when small.

STONY CORALS OF GLOVERS REEF ATOLL



TUBE CORAL



TUBE CORAL *Cladocora arbuscula* Small clumps of tiny, elongate, finely-ridged and stalked branches. Basal parts dead. Polyps ~4 mm diameter. May be attached to reef or unattached on rubble and sand bottoms and in seagrass beds.

This guide will help you recognize corals known from Glover's Reef. However, it is often difficult to distinguish between similar species in-situ or strictly from photographs. For coral basics and more detailed species descriptions go to:

NOAA coral tutorials <http://coralreef.noaa.gov/aboutcorals/coral101/>.

AGRRA "Atlantic and Gulf Rapid Reef Assessment" tutorials <http://www.agrra.org/method/trainingid.html>.

"REEF CORAL IDENTIFICATION: FLORIDA, CARIBBEAN, BAHAMAS, 3rd Edition" (2013)

by Paul Humann & Ned DeLoach, New World Publications, Inc.

"MARINE LIFE OF THE BAY ISLANDS OF HONDURAS", a Compact Disk by Frank & Joyce Burek, Azure Computer and Photographic Services, Inc., Montgomery, Texas, jfburek@consolidated.net.

"CORALPEDIA" <http://coralpedia.bio.warwick.ac.uk/>.

"NMITA", University of Iowa <http://nmita.iowa.uiowa.edu/database/corals/coralmnu.htm>.

"CORALS OF THE WORLD ONLINE" <http://coral.aims.gov.au/>.

"HEXACORALLIANS OF THE WORLD" <http://hercules.kgs.ku.edu/hexacoral/dev/index.cfm>.

"Stony Corals (Cnidaria: Hydrozoa, Scleractinia) of Carrie Bow Cay, Belize" by Stephen D. Cairns, pp. 271-302, Smithsonian Contributions to the Marine Sciences # 12 (1982).

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Ann Budd et al. 2012, Taxonomic classification of the reef coral family Mussidae. *Zoological Journal of the Linnean Society*, 166 (NB)

Jake Adams (JA) from his articles "West Atlantic Corals, Parts 1, 2 and 3" in the

Advanced Aquarist's Online Magazine <http://www.advancedaquarist.com/>

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March 2013

WILDLIFE CONSERVATION SOCIETY
Glover's Reef Research Station, Belize

