

elkhorn coral

mustard hill coral

symmetrical brain coral

Field Guide  
to  
Western Atlantic  
Stony Corals

staghorn coral

yellow pencil coral

boulder brain coral

starlet coral

lobate star coral

lettuce coral

maze coral

grooved brain coral

mountainous star coral

fat finger coral

This *Field Guide to Western Atlantic Stony Corals* is a compilation of photographs of the dominant scleractinian and hydrozoan corals observed on reefs throughout the region. Depending on taxonomic sources, between 65-75 species have been identified. This guide identifies all known genera and the 49 dominant coral species common throughout shallow Caribbean reefs. Rare coral species are not included. Taxa that have been divided into multiple species (e.g. *Colpophyllia*, *Meandrina*, *Dichocoenia*, *Agaricia agaricites*, *Stephanocoenia*) are reported as single species due to taxonomic uncertainty. Common names appearing in this guide follow the nomenclature used in *Reef Coral Identification* (Humann and Deloach 2002). Whenever possible, taxa with similar growth forms or corallite arrangements are placed together to facilitate identification.

Corals consist of one or more polyps that secrete an underlying skeleton consisting of corallites joined together by a coenosteum. The corallite is basically a tube subdivided by a series of vertical plates or ridges known as septa-costae. These septa seldom join at the center of the corallite; instead they usually have 'teeth' that intertwine to form a columella. The arrangement, shape and size of the corallites are unique features which distinguish species.

There are six different types of corallite arrangements seen in stony corals. There is one genus (*Scolymia*) consisting of solitary corals each containing a single polyp. All other corals form colonies through a process known as budding. **Phaceloid** corals have corallites that are long and tubular, each with their own walls. **Plocoid** corals have corallites with their own walls, which are separated by an obvious coenosteum. **Ceriod** corals have polyps with common walls. The polyps of **flabellate** colonies are located in long valleys, but the walls are not shared with adjacent valleys. **Meandroid** colonies have long valleys each containing multiple corallites and shared walls between each valley.

Corals also exhibit various growth forms. Colonies can form cylindrical or flattened branches (**branching**), encrusting or laminar plates (**plating**), upright leaf-like or whorled plates (**foliaceous**), erect columns (**columnar**), hemispherical or dome-like boulders (**massive**) and encrusting, boulder like (**submassive**) growth forms. Growth forms can vary within individual species. For instance, certain species that form massive boulder-like structures in shallow water may form horizontal plates in deeper environments.

All photos and text by Andrew Bruckner 2010. Printed by *Woods Lithographics*, Arizona USA. The Khaled bin Sultan Living Oceans Foundation, 8181 Professional Place, Suite 215, Landover, MD USA. 301-577-1288. [www.livingoceansfoundation.org](http://www.livingoceansfoundation.org)

The LIVING OCEANS Foundation is dedicated to the conservation and restoration of living oceans and pledges to champion their preservation through research, education and a commitment to Science Without Borders®.



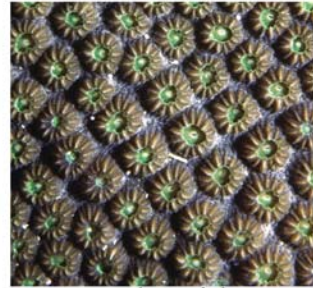
# Growth Form



solitary



phaceloid



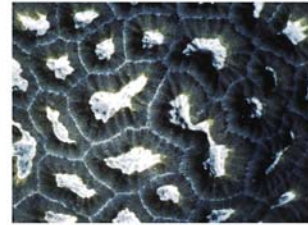
plocoid



flabellate



meandroid



cerioid



branching



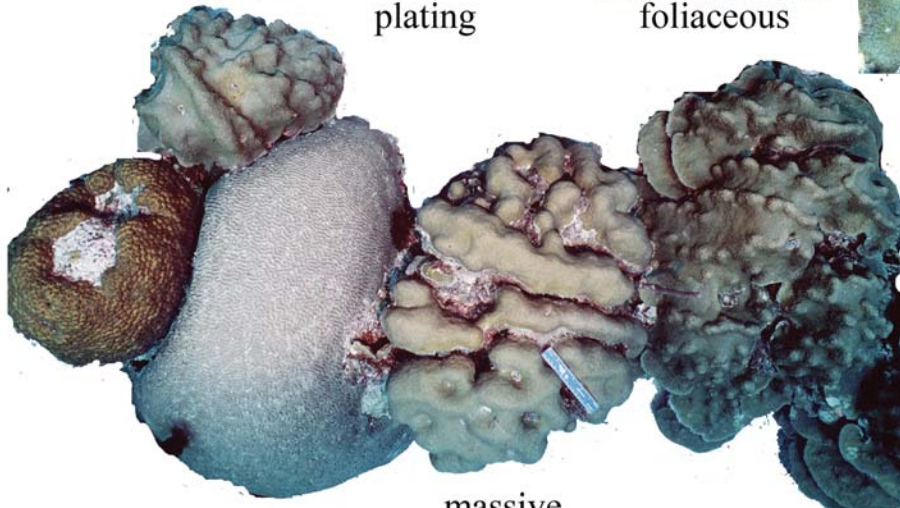
plating



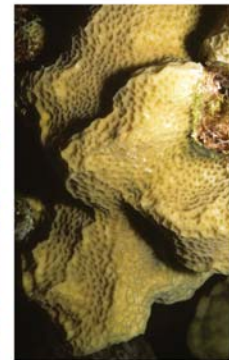
foliaceous



columnar



massive



submassive

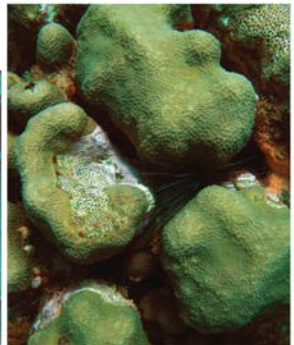


# Star & Boulder Corals

*M. annularis*

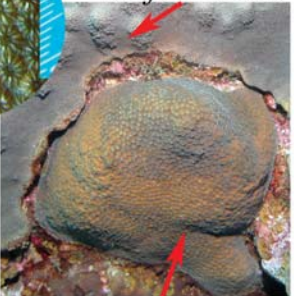
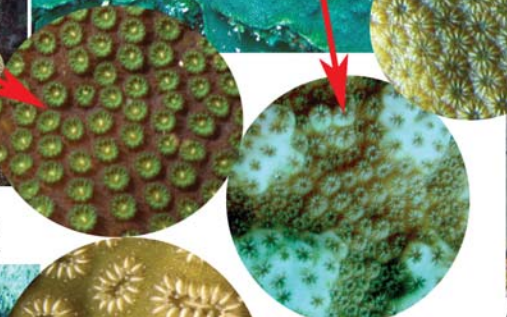


*Montastraea franksi*  
boulder star coral



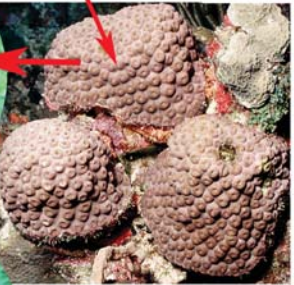
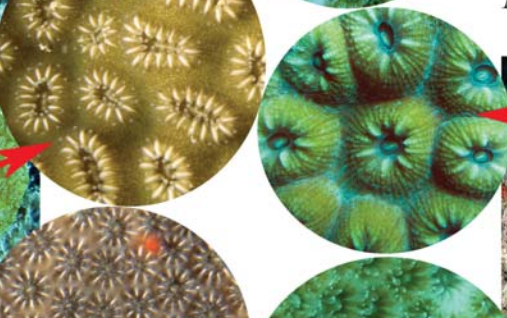
*M. annularis*  
lobate star coral  
*M. faveolata*

*M. faveolata*  
mountainous star coral



*M. cavernosa*  
great star coral

*Dichocoenia stokesi*  
elliptical star coral

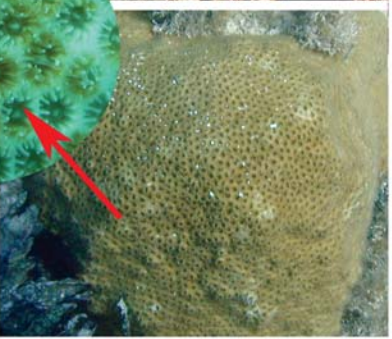


*Stephanocoenia intersepta*  
blushing star coral

*Favia fragum*  
golfball coral

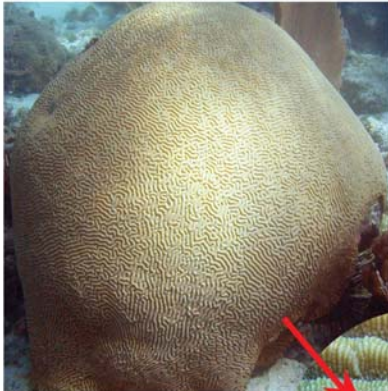


*Solenastrea bournoni*  
smooth star coral





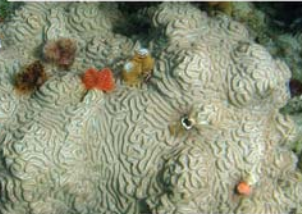
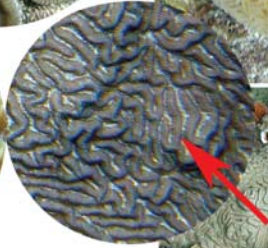
# Brain Corals



*Diploria strigosa*  
symmetrical brain coral



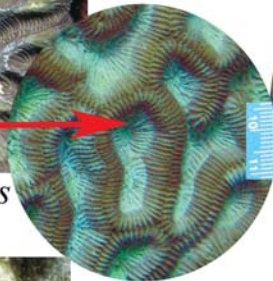
*D. labyrinthiformis*  
grooved brain coral



*D. clivosa*  
knobby brain coral



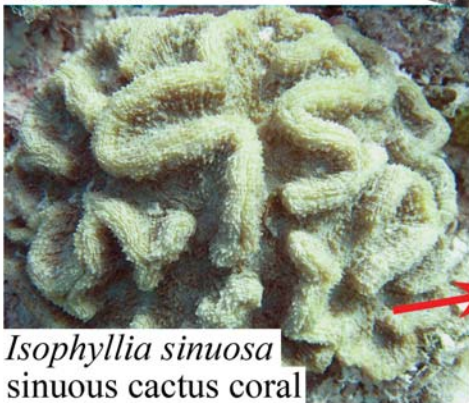
*Colpophyllia natans*  
boulder brain coral



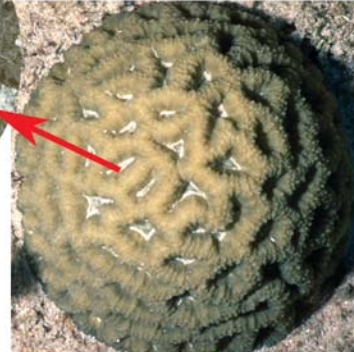
*Meandrina meandrites*  
maze coral



*Manacina areolata*  
rose coral



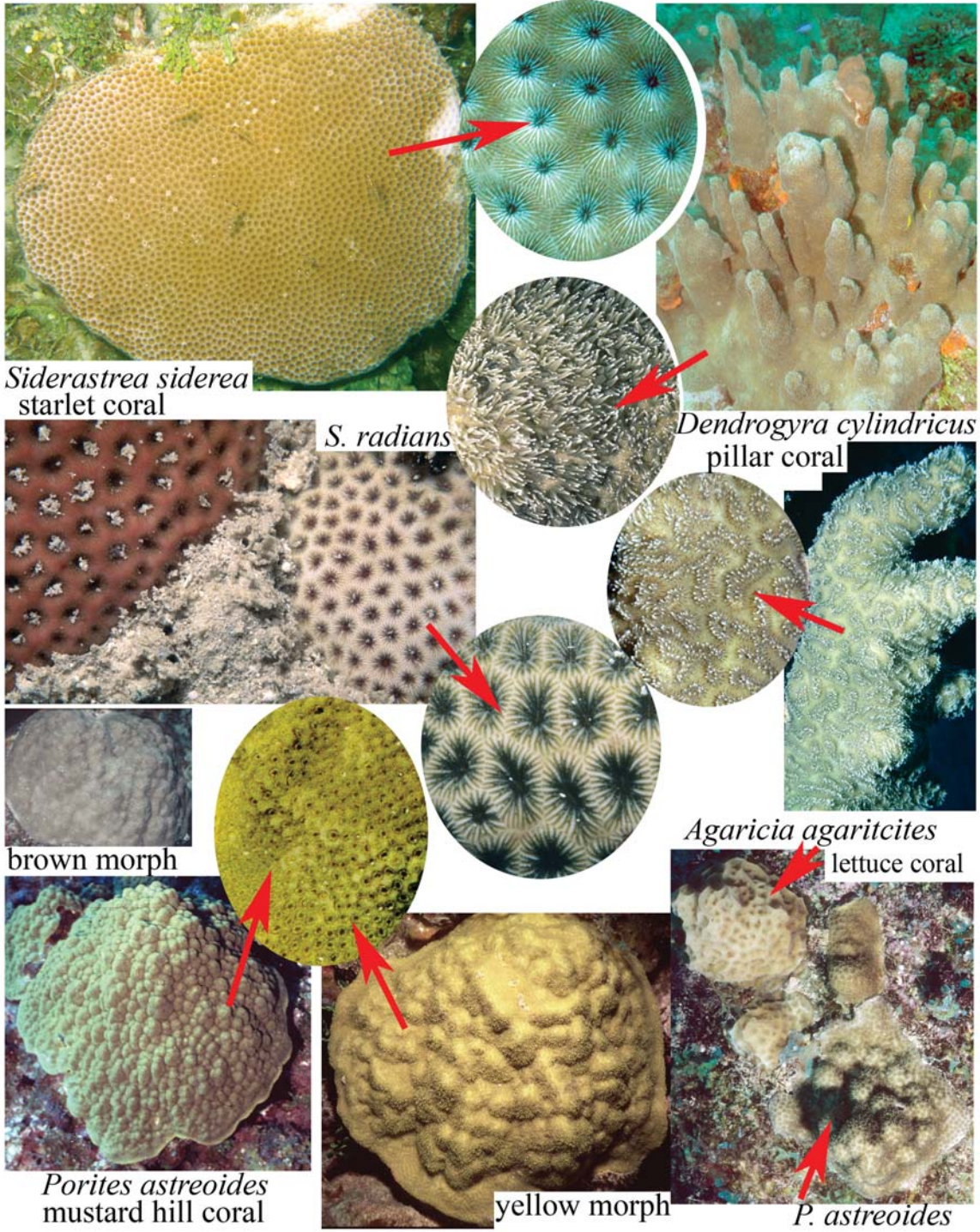
*Isophyllia sinuosa*  
sinuous cactus coral



*Isophyllia rigida*  
rough star coral

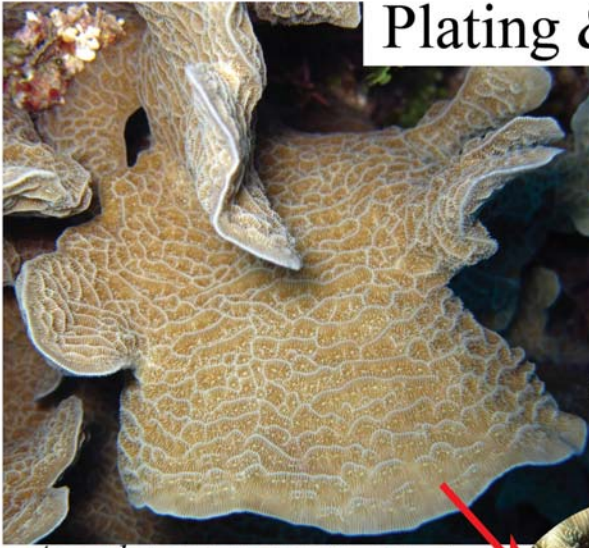


# Massive, Submassive and Columnar Corals

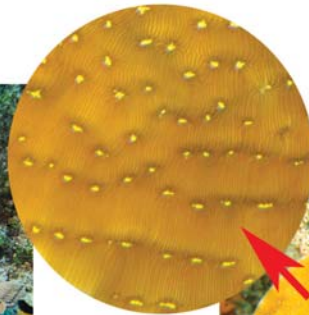
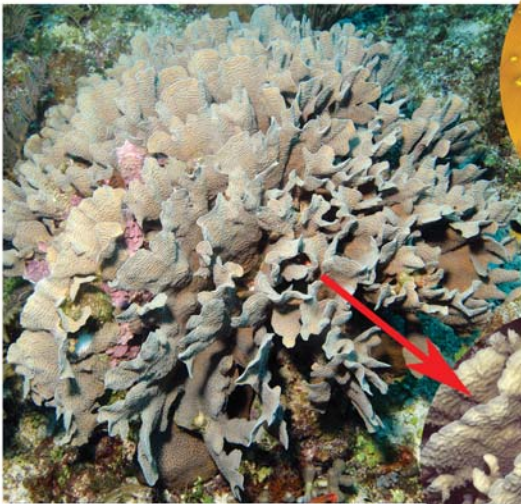
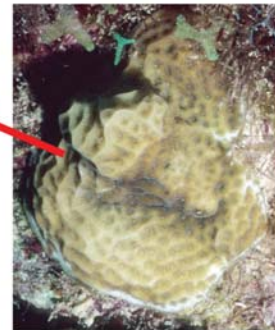
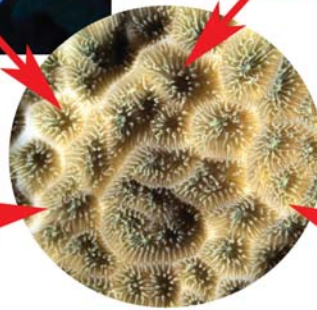




# Plating & Foliaceous Corals



*Agaricia agaricites*  
lettuce coral



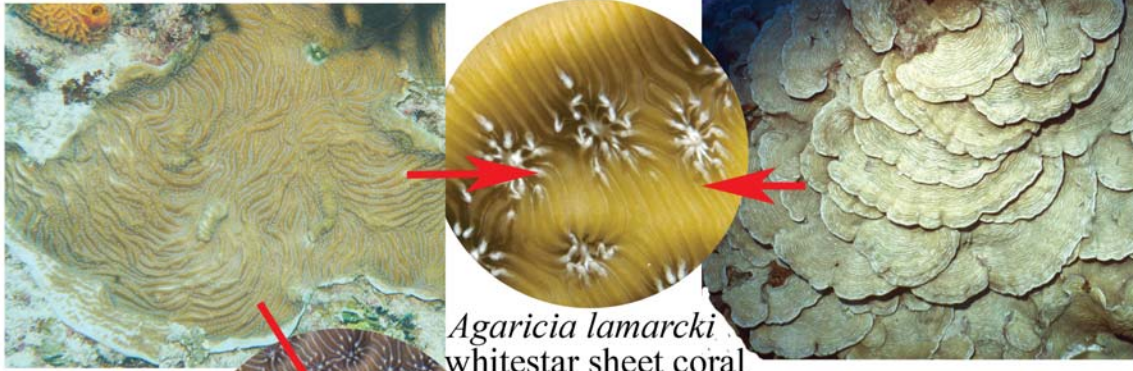
*Agaricia tenuifolia*  
thinleaf lettuce coral



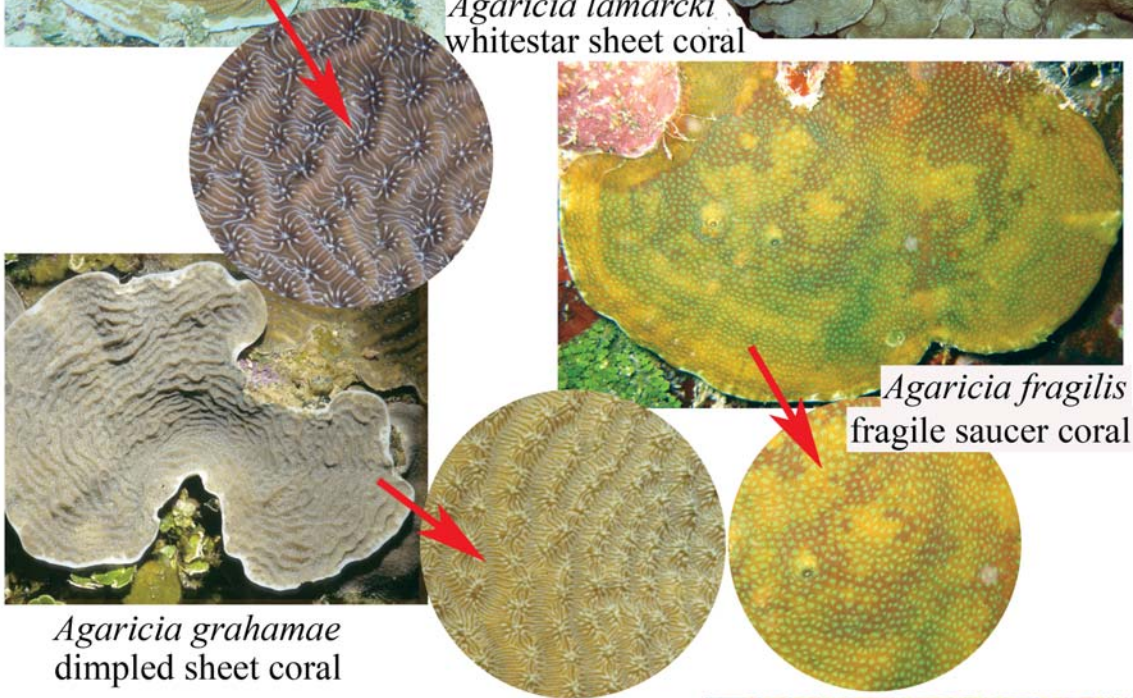
*Agaricia undata*  
scroll coral



# Plating & Foliaceous Corals

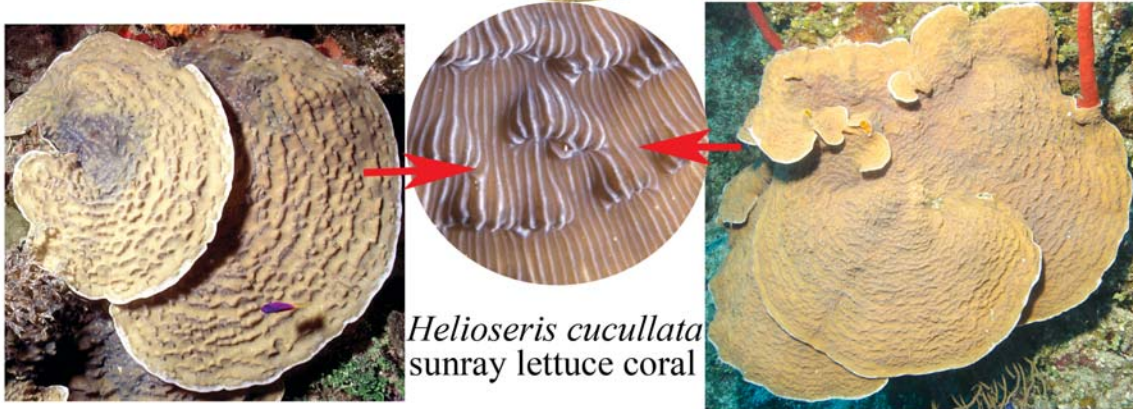


*Agaricia lamarcki*  
whitestar sheet coral



*Agaricia fragilis*  
fragile saucer coral

*Agaricia grahamae*  
dimpled sheet coral



*Helioseris cucullata*  
sunray lettuce coral



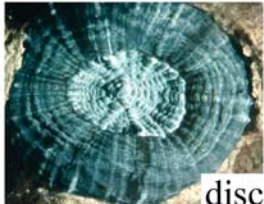
# Flower & Cactus Corals



*Mussa angulosa*  
spiny flower coral



*Eusmilia fastigiata*  
flower coral



disc coral

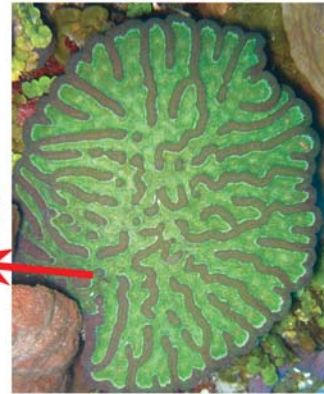
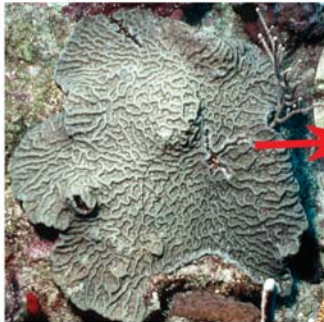
*Scolymia lacera*



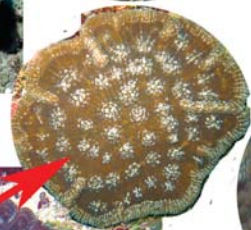
*Mycetophyllia ferox*  
rough cactus coral



*Cladocera arbuscula*  
tube coral



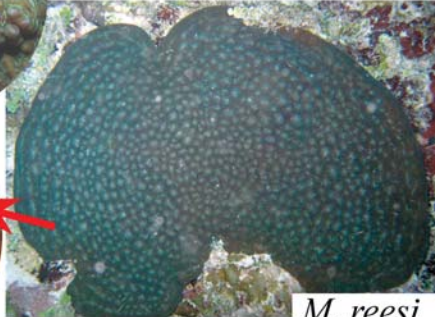
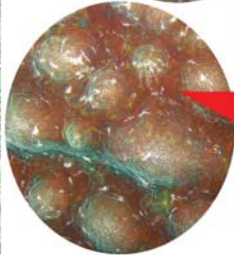
*M. lamarckiana*  
ridged cactus coral



*M. aliciae*  
knobby cactus coral

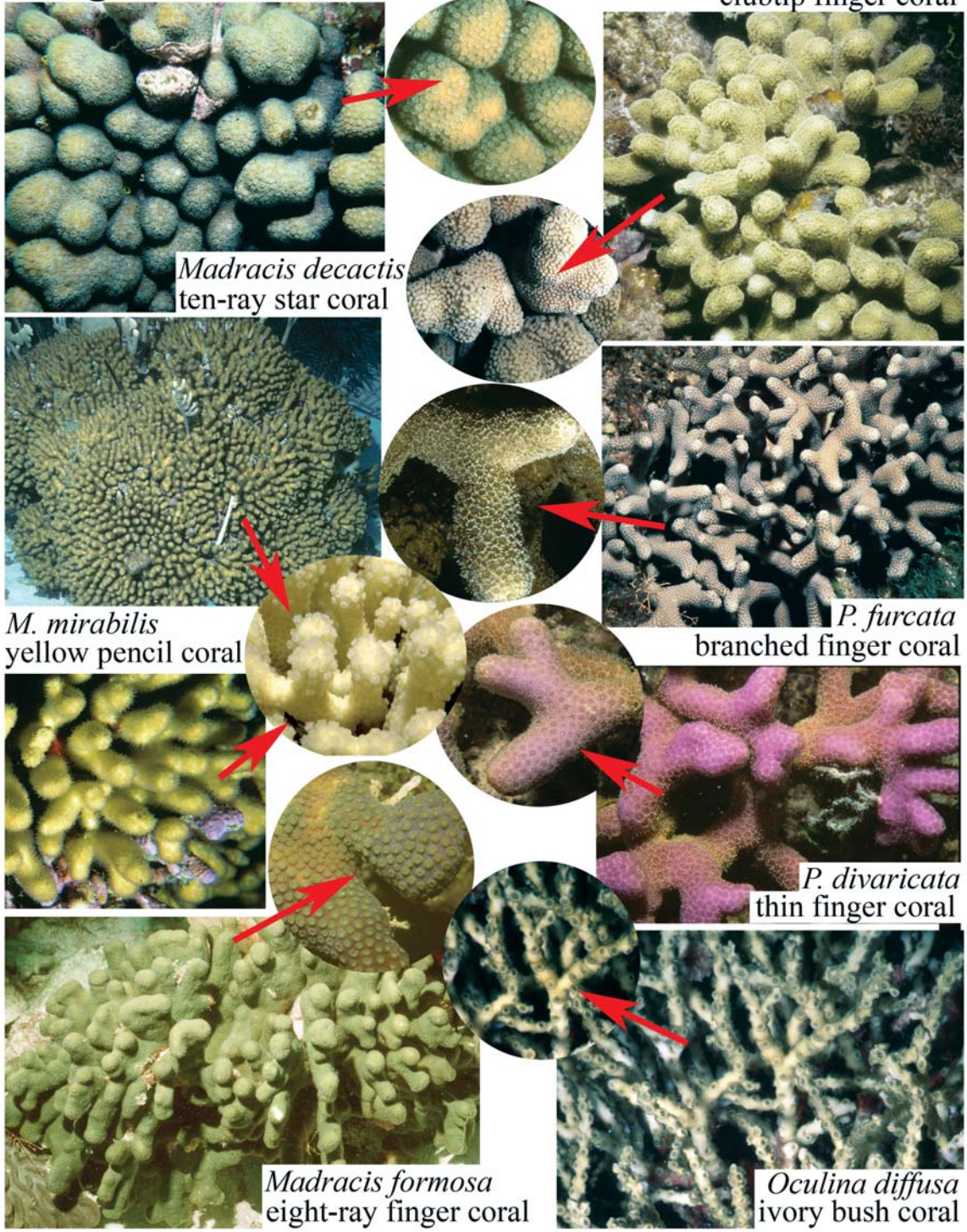


*M. reesi*  
ridgeless cactus coral





# Finger and Pencil Corals

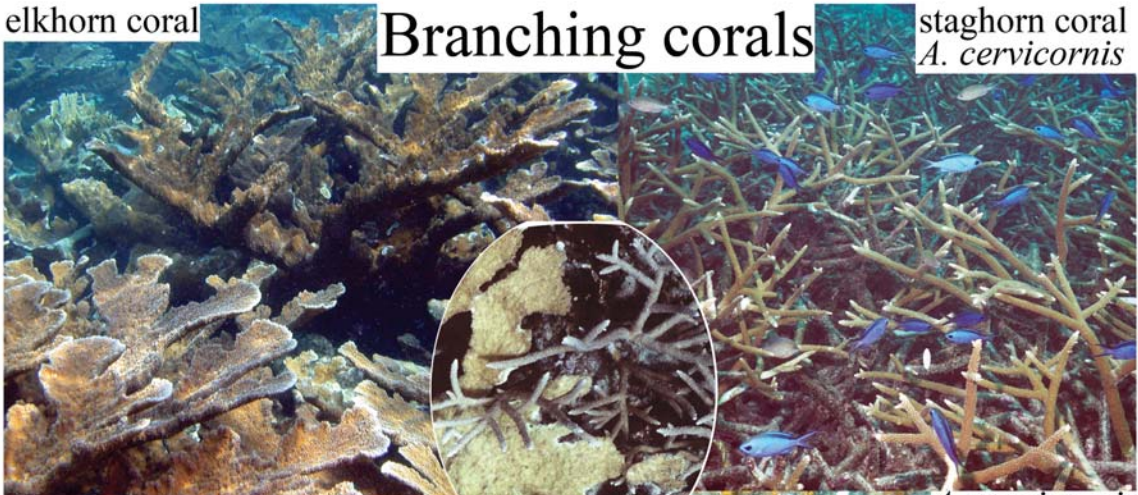




elkhorn coral

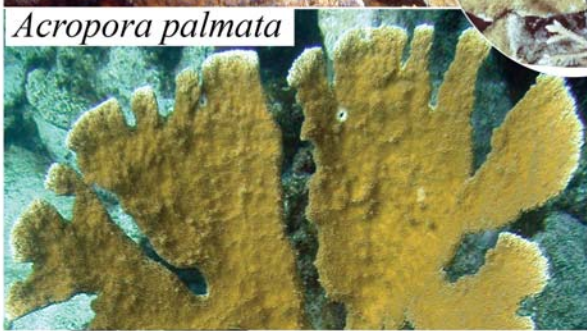
# Branching corals

staghorn coral  
*A. cervicornis*



*Acropora palmata*

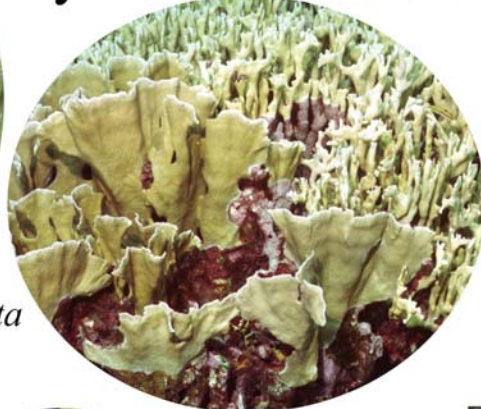
*A. cervicornis*



# Hydrozoan Corals

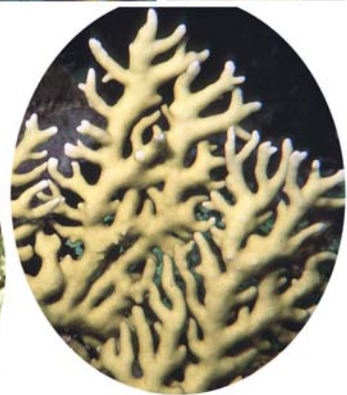


*Millepora complanata*  
blade fire coral



Fire coral

*M. squarrosa*  
box fire coral

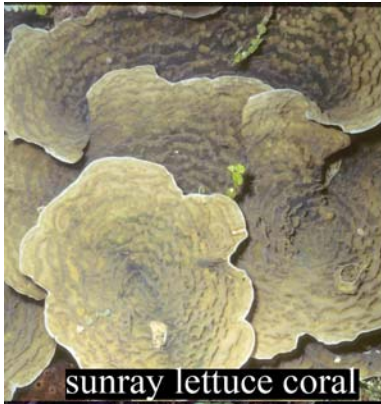


*M. alcicornis*  
branching fire coral



*Stylaster roseus*  
rose coral

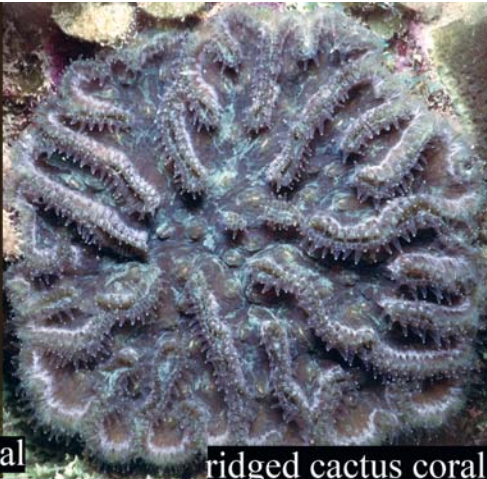




sunray lettuce coral



eight ray finger coral



ridged cactus coral



elliptical star coral



ivory bush coral



ten ray star coral



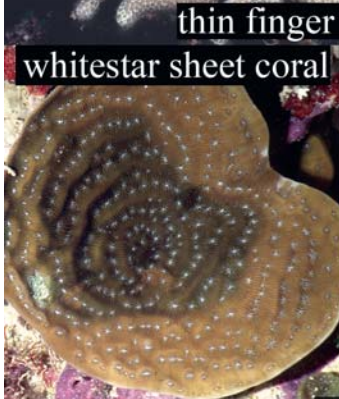
thin finger coral



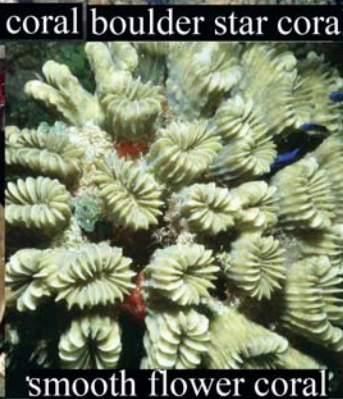
boulder star coral



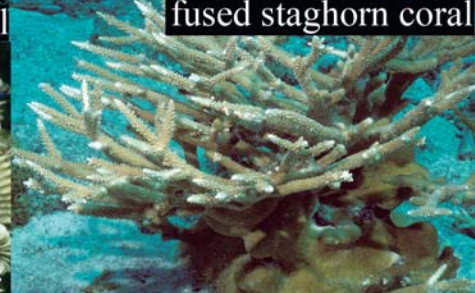
knobby brain coral



whitestar sheet coral



smooth flower coral



fused staghorn coral