Overview of Corals and Hardbottom Resources in Southeast Florida

Contents (Unit 1, file 2 of 3):

- Introduction
- General Biology & Ecology of SE Florida Reefs
- Threats to SE Florida Reefs
- **Identification Resources for SE Florida Corals (cont.)**
- Nearshore Hardbottom Resources

Other Common Corals, Not Threatened, but All Protected under State & Federal Rules* (*: Units 2 & 3)

Great star coral
Montastraea cavernosa

Mustard hill coral
Porites astreoides

Smooth star coral
Solenastrea bournoni

Detailed ID Slides for These & Other Common Species Follow

Grooved brain coral
Diploria labyrinthiformis

Maze coral
Meandrina meandrites

Elliptical star coral
Dichocoenia stokesii

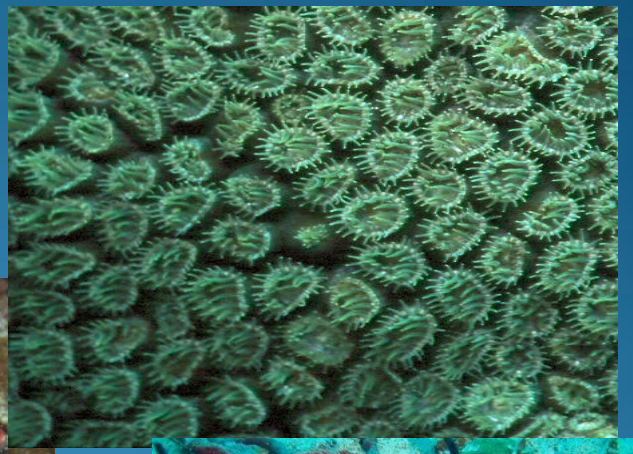
Montastraea cavernosa / great star coral

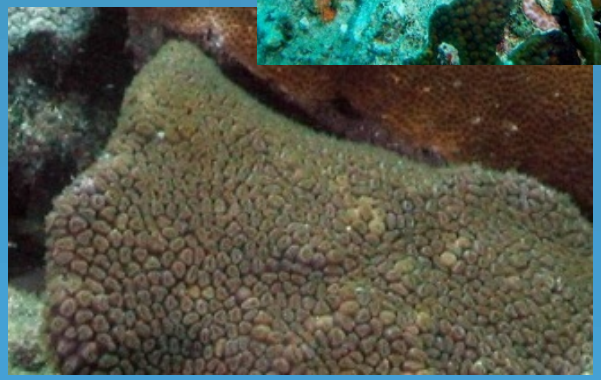
Reef Coral / Humann: pg #115
Common to abundant South FL

Miami-Dade	confirmed	abundant
Broward	confirmed	16%
Palm Beach	confirmed	very common
Martin	confirmed	?

- Size = 2 – 8'
- *M. cavernosa* has the largest polyps of the genus *Montastrea*. Easy to identify due to large polyps.
- Can appear as yellow, blue, green, color varies
- Could be confused with the colonial zoanthid *Palythoa,* which encrusts over dead corals, but *Palythoa* forms a mat (not a hard colony), and has smaller polyps.

- **<u>TO REMEMBER</u>: has the largest polyps – like caverns - *cavernosa***





Porites asteroides / mustard hill coral

Reef Coral / Humann: pg #121
Abundant to common FL

Miami-Dade	confirmed	abundant
Broward	confirmed	12%
Palm Beach	confirmed	very common
Martin	confirmed	?

- Size = 6″ - 2′
- One of the most common species in our region

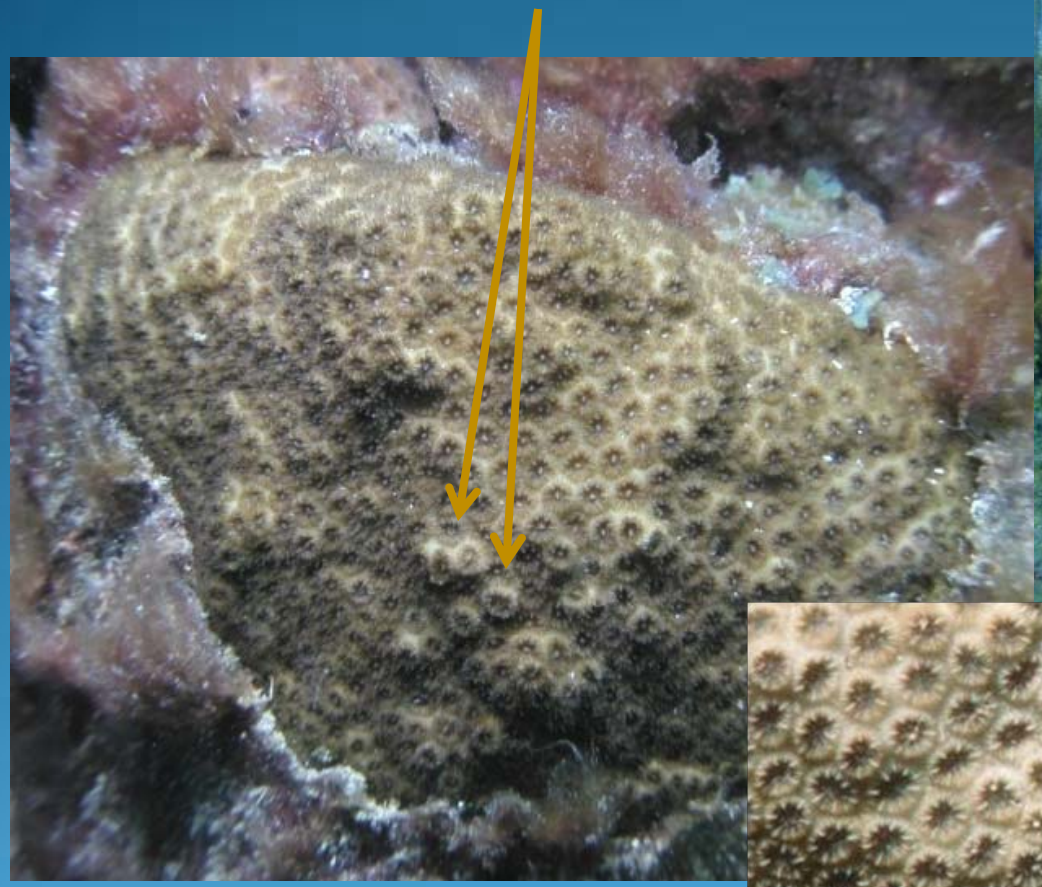
- **<u>TO REMEMBER</u>: often mustard yellow or brown and size of ant hill (mustard hill coral)**

Solenastrea bournoni / smooth star coral

Reef Coral / Humann: pg #117
Common to occasional South FL

Miami-Dade	confirmed	common
Broward	confirmed	4%
Palm Beach	confirmed	fairly common
Martin	confirmed	?

- Size = 4 - 18”
- Corallite rims protrude noticeably, giving a blistered appearance

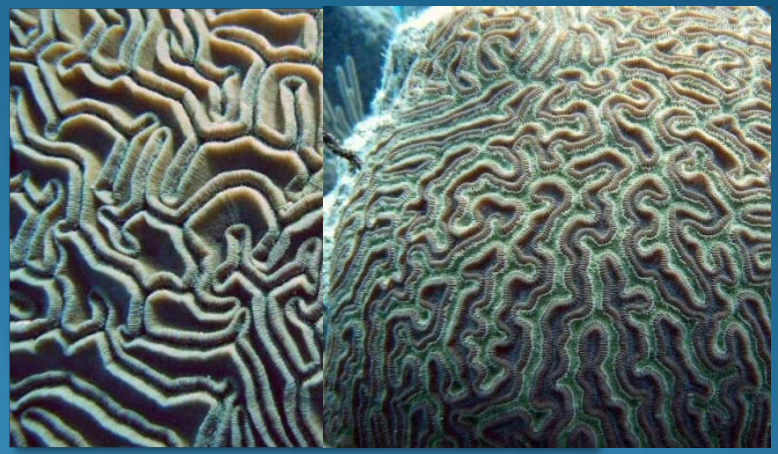


Diploria labyrinthiformis/
grooved brain coral

Reef Coral / Humann: pg #127
Common to occasional South FL

Miami-Dade	confirmed	common
Broward	confirmed	<1%
Palm Beach	confirmed	?
Martin	not confirmed	?

- Size = 1 – 4’
- Deep grooves on top of the ridges (labyrinths)
- Colonies form hemispherical heads
- TO REMEMBER: Labyrinth – the only brain coral with a labyrinth / groove on the ridges.



Meandrina meandrites / maze coral

Reef Coral / Humann: pg #129
Common to occasional South FL

- Size = 1 - 3′
- Relatively easy species to ID
- Doesn't really look like anything else out there

- **<u>TO REMEMBER</u>: meandering maze**

Miami-Dade	confirmed	common
Broward	confirmed	2%
Palm Beach	confirmed	very common
Martin	confirmed	?

Dichocoenia stokesii / elliptical star coral

Reef Coral / Humann: pg #119
Occasional South FL

Miami-Dade	confirmed	common
Broward	confirmed	2%
Palm Beach	confirmed	?
Martin	confirmed	?

- Size = 4 – 15″
- Protruding corallites (up to 1/4″)
- Colonies typically form rounded heads
- Meandroid (eliptical) long calices
- Corallites protrude up to ¼″ and are usually elliptical or circular and occasionally Y shaped

Siderastrea siderea / massive starlet coral

Reef Coral / Humann: pg #123
Common FL

- Size = 1 - 6′ (to six feet)
- Probably the most common species in our area
- **Easy to confuse recruits (new colonies) with *S. radians***

Miami-Dade	confirmed	abundant
Broward	confirmed	25%
Palm Beach	confirmed	very common
Martin	confirmed	?

Siderastrea radians / lesser starlet coral

Reef Coral / Humann: pg #123
Common FL

Miami-Dade	confirmed	abundant
Broward	confirmed	8%
Palm Beach	confirmed	very common
Martin	confirmed	8%

- Size = 4 - 12”
- Lighter color and less common than *S. siderea*
- Colonies small, often flat shaped
- Polyps darker than colony
- Colony pale white (looks bleached) with dark polyps
- Irregular corallites (square, polygonal, triangular)

- **Easily confused with: *S. siderea***

S. radians* vs. *S. siderea

Montastraea annularis – forma faveolata
(boulder) mountainous star coral

Reef Coral / Humann: pg #113
Common to abundant South FL

Miami-Dade	confirmed	Abundant
Broward	confirmed	2%
Palm Beach	confirmed	?
Martin	confirmed	?

- Size = 1 - 10′ (to 15′)
- Can have ribs (rows of vertical ribs on colony)
- Bumps (like *M. franksii*, but larger and with pigment)
- Oldest local colony = 314 years old (15′ tall) off of Ft. Lauderdale

- **<u>TO REMEMBER</u>: look for vertical ribs and/or *bumps* *and/or mountainous growth***

Diploria strigosa/ symmetrical brain coral

Reef Coral / Humann: pg #125
Abundant to common FL

Miami-Dade	confirmed	common
Broward	confirmed	<1%
Palm Beach	confirmed	common
Martin	confirmed	?

- Size = 6″ – 6′
- Horizontal or vertical (parallel) ridges near base
- Can be confused with other brain corals, but:
  Colpophyllia natans – has thicker ridges
  D. labrinthyformis – has labyrinth (groove in ridges)
  D. clivosa – has knobs

Eusmilia fastigiata/ smooth flower coral

Reef Coral / Humann: pg #163
Common to occasional FL

Miami-Dade	confirmed	common
Broward	confirmed	<1%
Palm Beach	confirmed	common
Martin	not confirmed	?

- Size = ½′ – 2 1/2′
- Polyps = ¾″ – 1¼″
- Polyps on long stalks
- Corallites round to oval
- Easy to identify

- **<u>TO REMEMBER</u>: You smell (*Eusmilia*) the flowers (bouquet - smooth flower coral)**