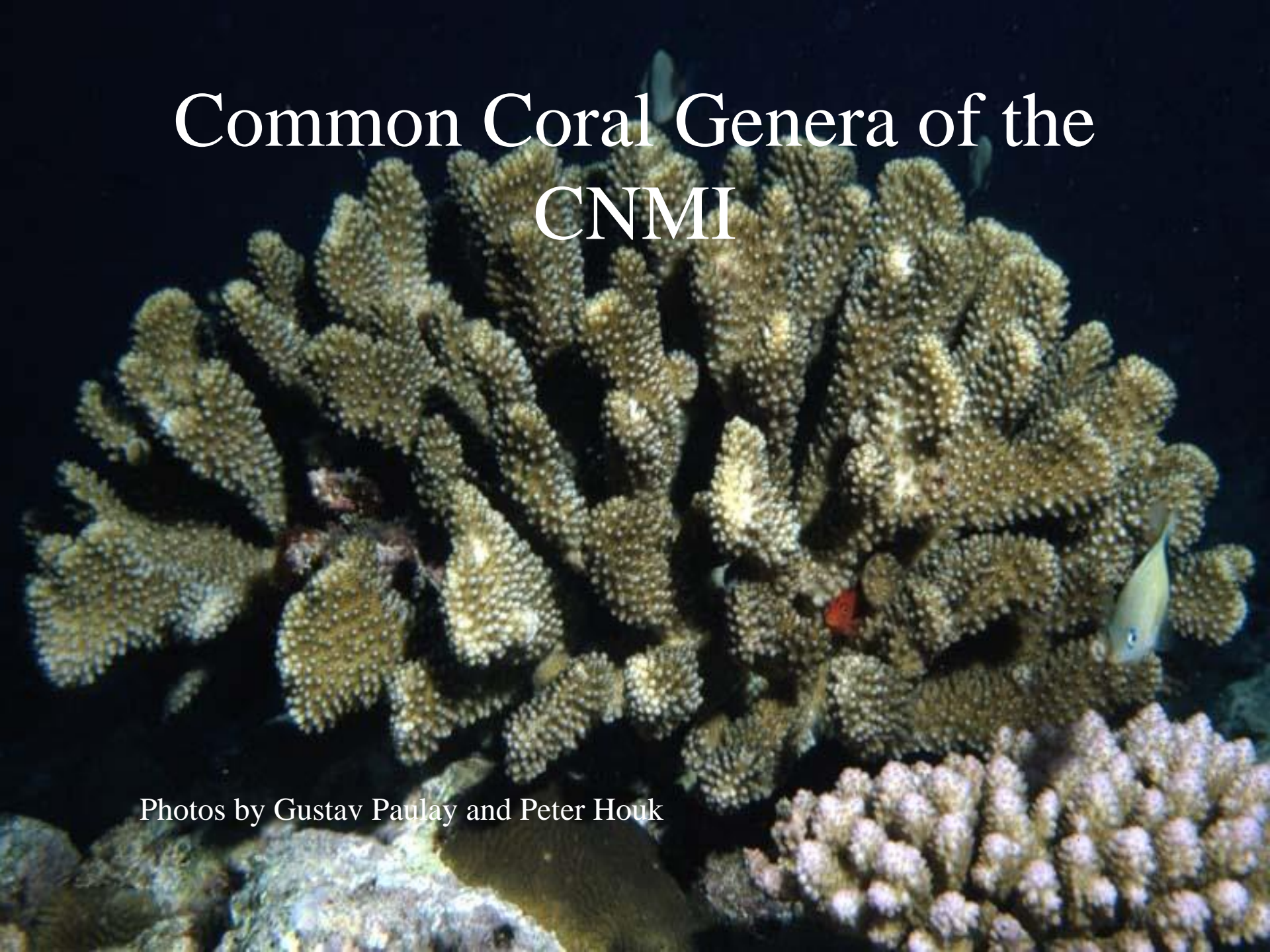
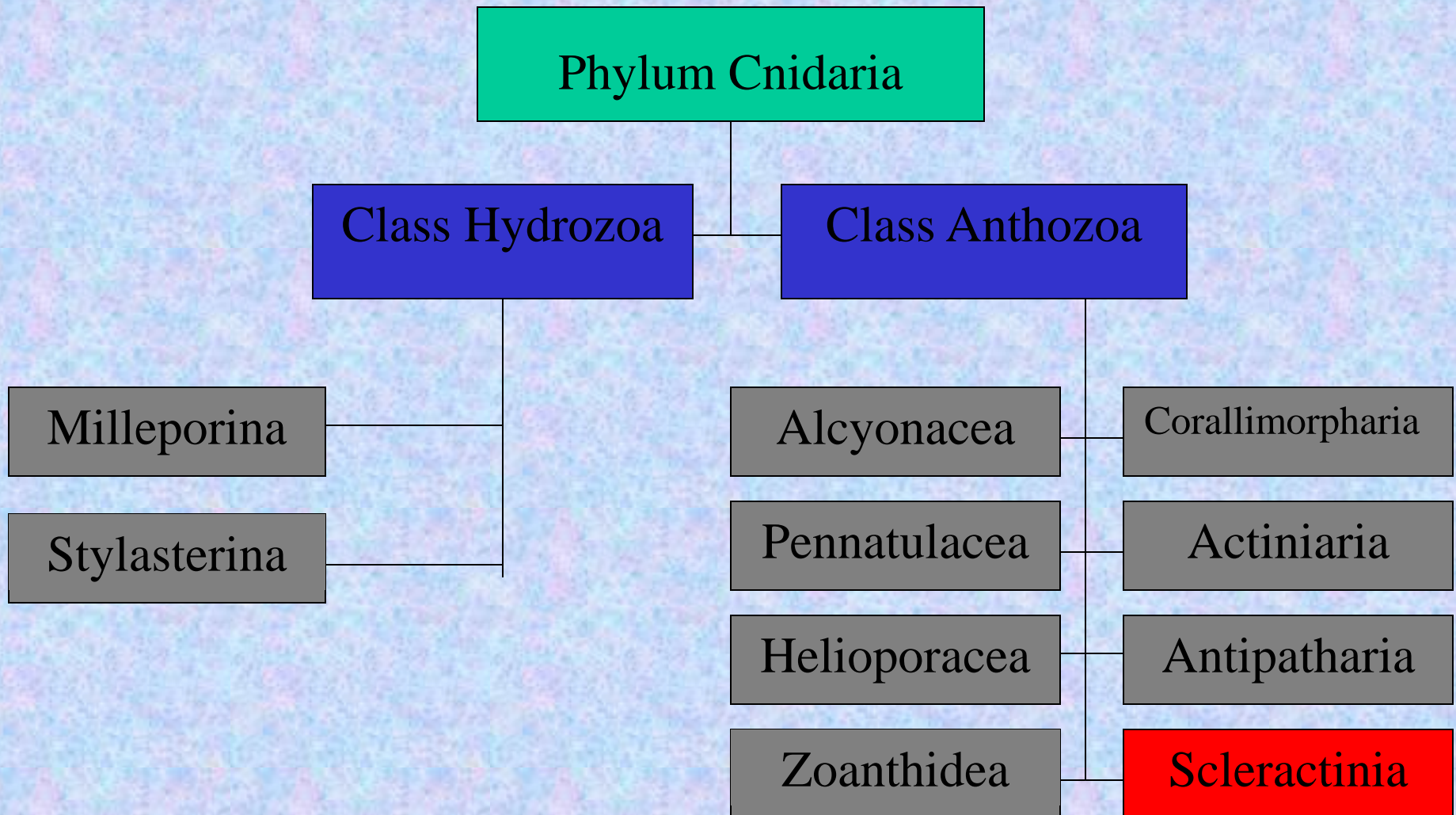


Common Coral Genera of the CNMI

Photos by Gustav Paulay and Peter Houk



What are Corals?



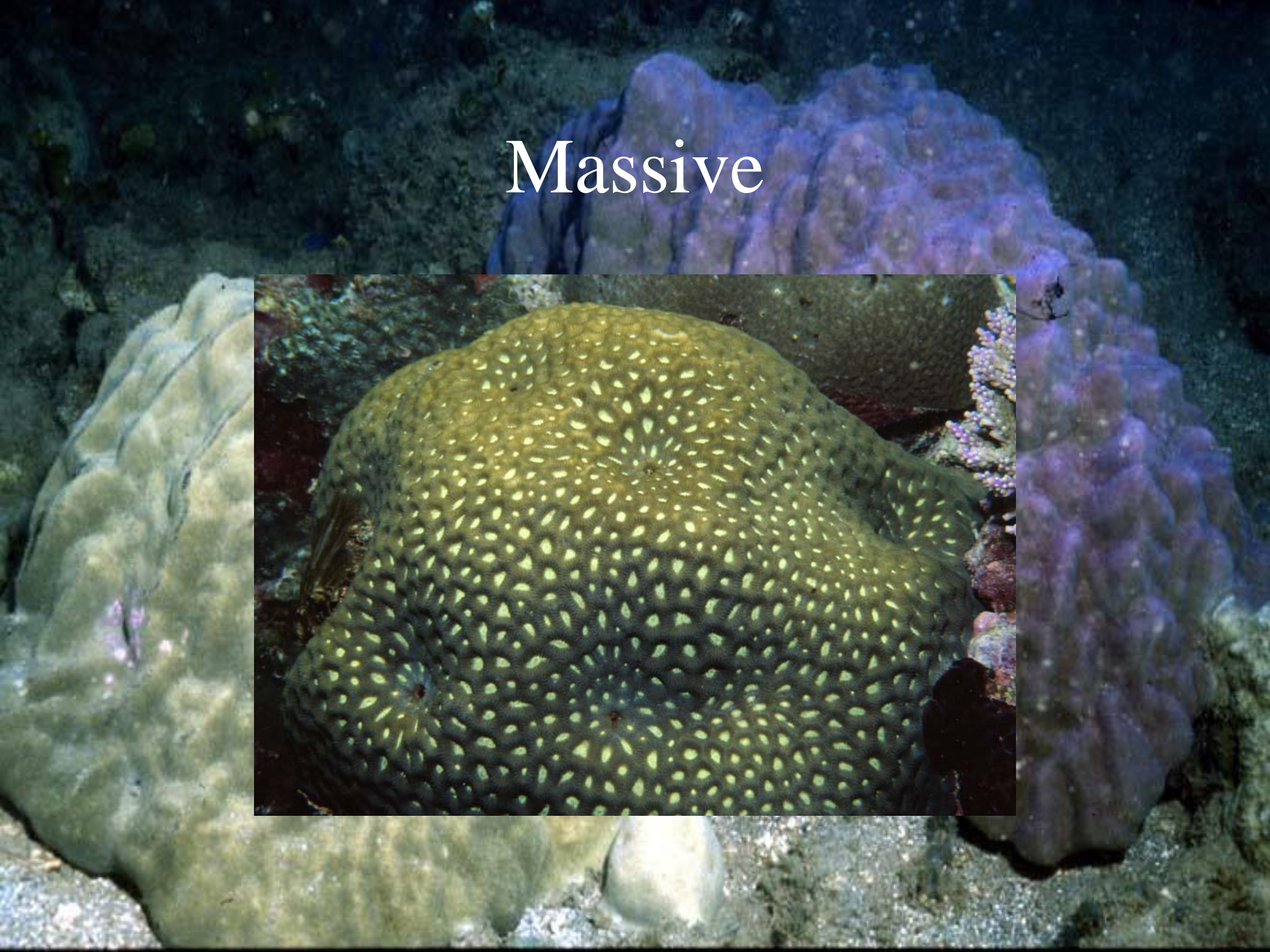
Common Terms (growth forms)

- Branching
- Massive
- Foliaceous (whorl or funnel formation)
- Laminar (no funnel)
- Columnar
- Encrusting
- Free-Living

Branching



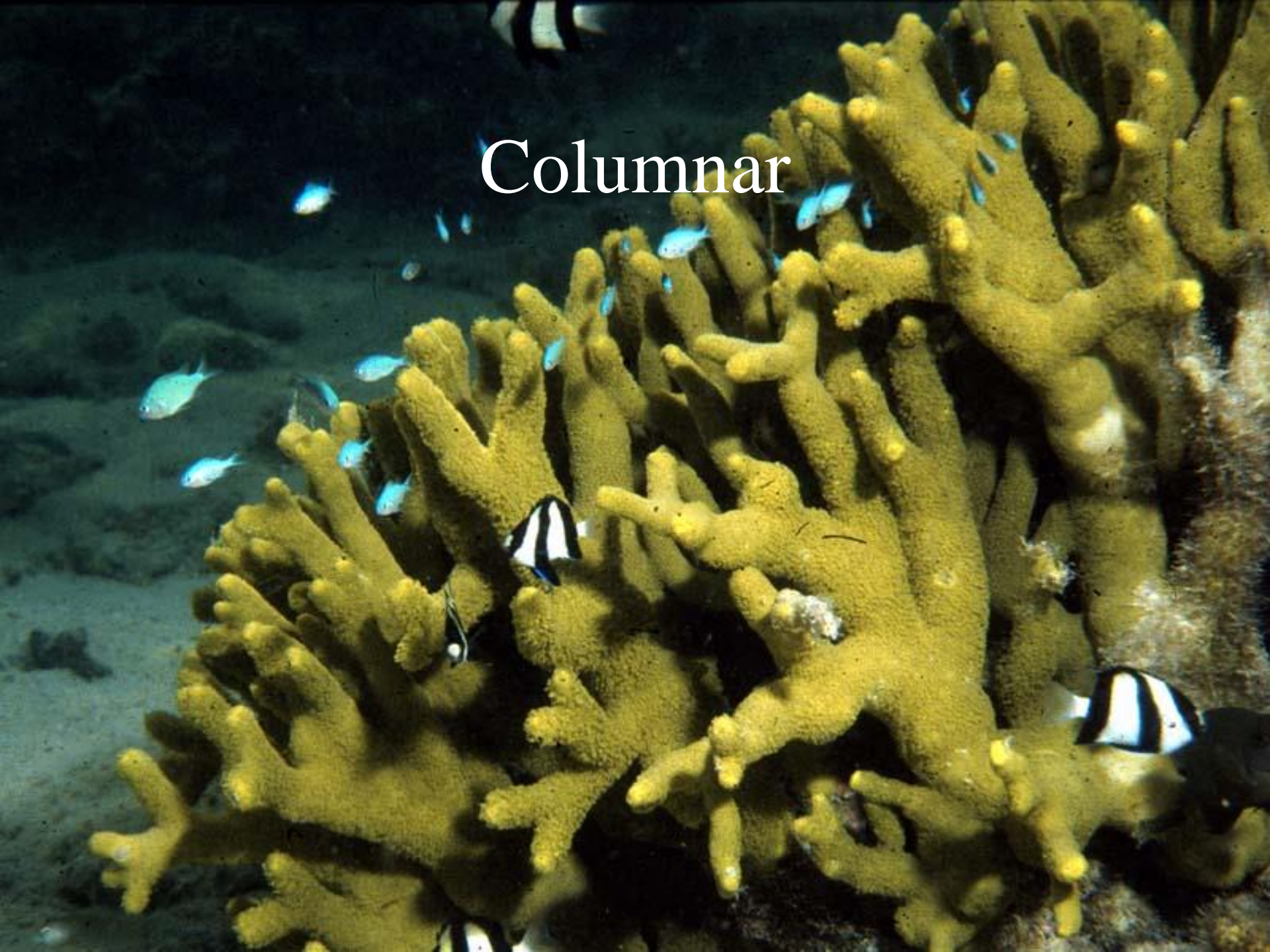
Massive



Foliaceous



Columnar





Laminar

Encrusting

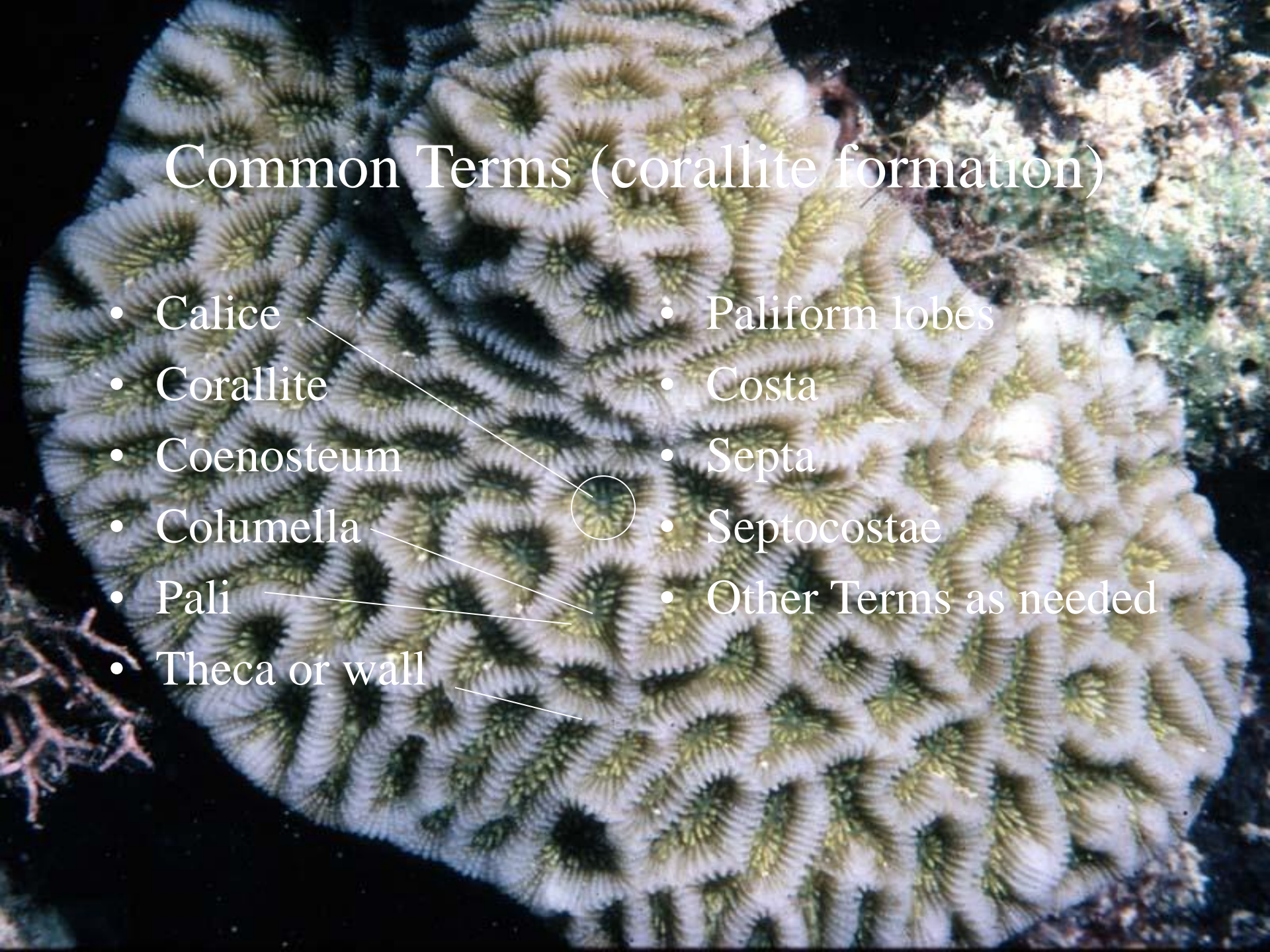


Free-Living



Common Terms (corallite formation)

- Calice
- Corallite
- Coenosteum
- Columella
- Pali
- Theca or wall
- Paliform lobes
- Costa
- Septa
- Septocostae
- Other Terms as needed

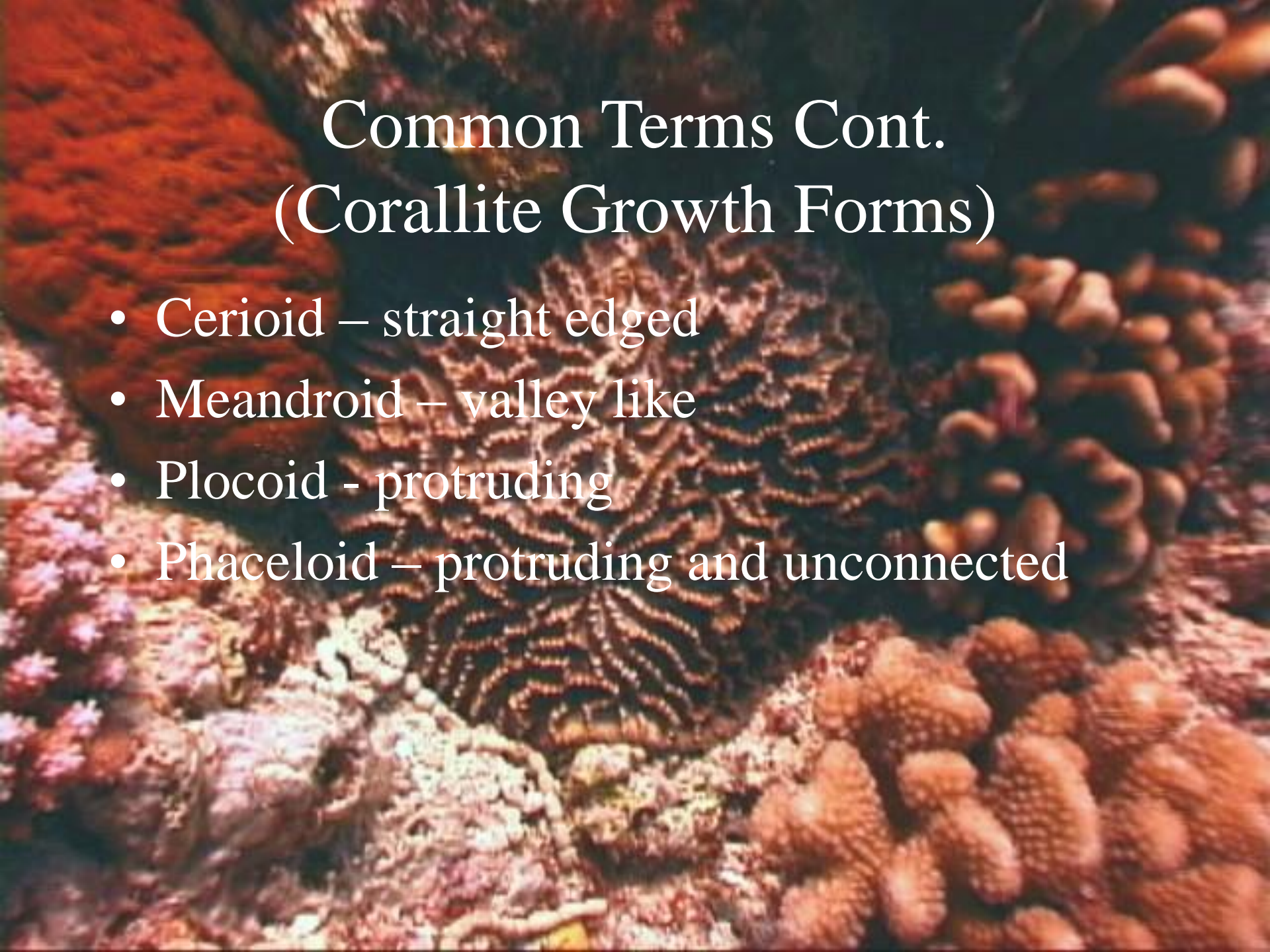


Septa, Costae, Coenosteum



Common Terms Cont. (Corallite Growth Forms)

- Cerioid – straight edged
- Meandroid – valley like
- Plocoid - protruding
- Phaceloid – protruding and unconnected



Ceriod



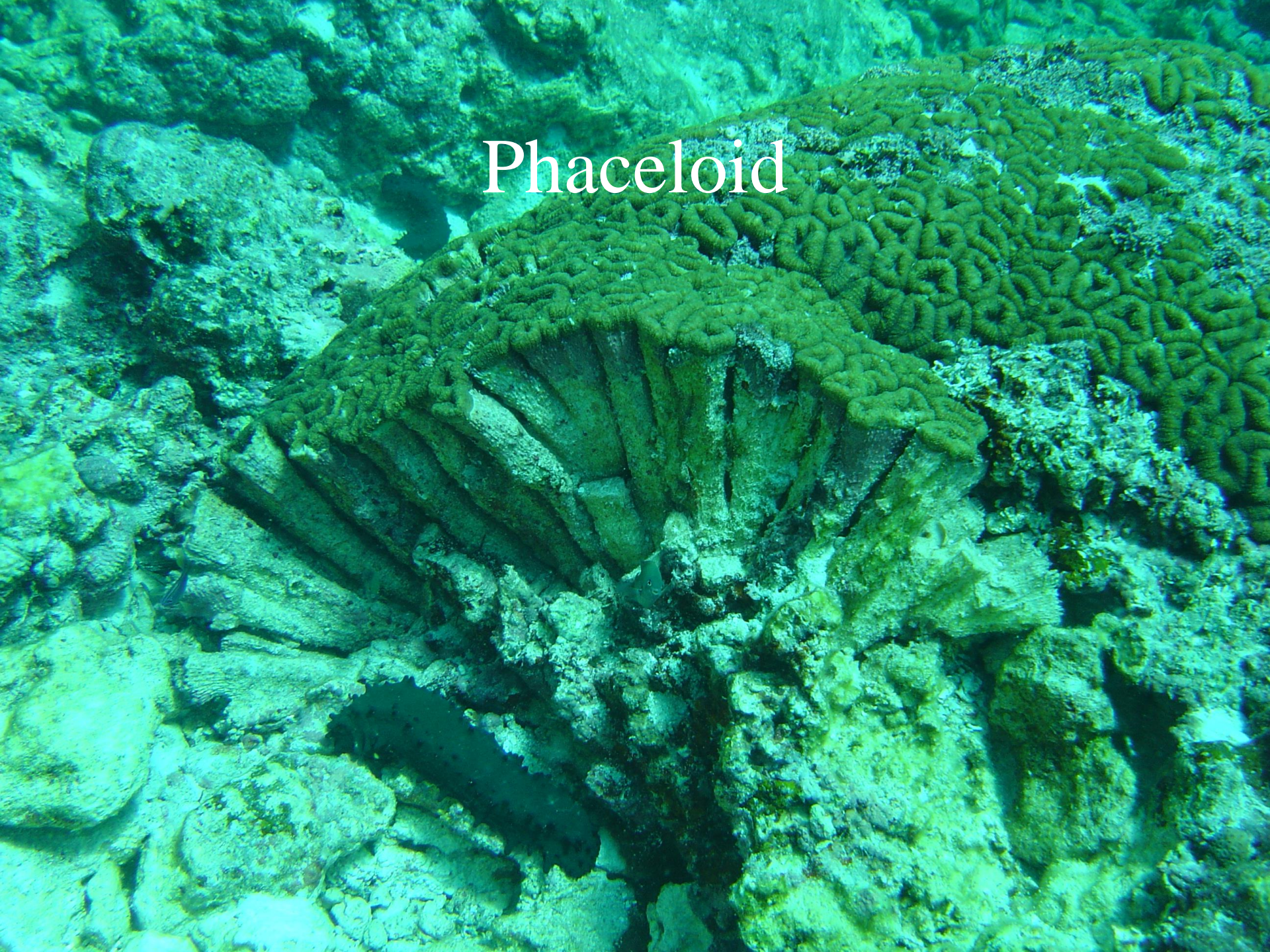
A close-up photograph of a meandroid coral colony. The coral exhibits a complex, maze-like structure with numerous interconnected, rounded, and slightly raised polyps. The color is a mix of brown and tan, with some darker, more shadowed areas. The texture appears rough and porous. The word "Meandroid" is overlaid in white text in the upper center of the image.

Meandroid



Plocoid

Phaceloid



Presentation of Corals

- Introduce at the Family level first
- Give characteristics of each family
- Introduce each genus within a family
- Show photos
- Observe Skeletons
- Observe in field!

Family Acroporidae

- 4 Genus in family
 - *Acropora*
 - *Anacropora*
 - *Montipora*
 - *Astreopora*
- Small calices with poor septal development
- Branching, massive, tables (laminar), and encrusting

Genus *Acropora*

- Easy to recognize because have axial corallite and radial corallites lip or tubular shaped
- Colonies have pointed tips ending at the axial corallite
- Budding occurs only at axial corallite
- Branching, corymbose clumps, encrusting, staghorn, and tables
- 39 - 40 species
- One exception

Acropora tenuis



Acropora valida



Acropora c.f. austra



Acropora monticulosa



Bleached *Acropora gemmifera*



Acropora (Isopora) palifera



Genus *Montipora*

- Easy to recognize – encrusting, massive, and plate growth formations in calm water
- Very small calices or corallites
- Can't see septa without microscope
- Form large encrusting mats around CNMI
- Often have costal ornamentation
- Only similar genus is *Porites*, they have ceriod corallites while *Montipora* has circular
- 26 species

Montipora spp.



3 PM

A close-up photograph of a coral colony, identified as Montipora hoffmeisteri. The coral exhibits a complex, branching structure with numerous small, rounded polyps. The coloration is a mix of light pink, peach, and brownish-tan, with darker brown areas interspersed among the lighter polyps. The texture appears somewhat granular and porous. The background is dark, making the coral stand out.

Montipora hoffmeisteri

Montipora verilli



Montipora lobulata



Montipora foveolata





Montipora c.f.
monasteriata (tumor)

Genus *Astreopora*

- Have immersed or conical circular corallites 1.5 to over 3 mm in diameter
- Can be massive, laminar, or encrusting
- Deep corallites with neat visible septa
- 4 – 5 species present in CNMI

Astreopora listeri



Astreopora myriophthalma



A close-up photograph of the coral species *Astreopora randalli*. The image shows a dense field of small, white, cylindrical polyps with dark, central openings. The polyps are arranged in a regular, repeating pattern, creating a textured, almost crystalline appearance. The lighting is bright, highlighting the intricate details of the coral's surface.

Astreopora randalli



Astreopora gracilis

Astreopora with Cancer Tumor



Genus *Anacropora*

- Similar to *Acropora*, corallites are not crowded
- No axial corallite exists
- Genus probably does not exist in CNMI
- Calm, turbid waters

Family Pocilloporidae

- Five Genera, Veron 2000 changed to three
 - *Pocillopora* - Branching
 - *Stylophora* - Branching
 - *Seriatopora* - Branching
- All have small calices <2 mm diameter
- Many are brooders (internal fertilization), also spawners
- *Pocillopora* harbor *Trapezia* crabs which may deter COTS

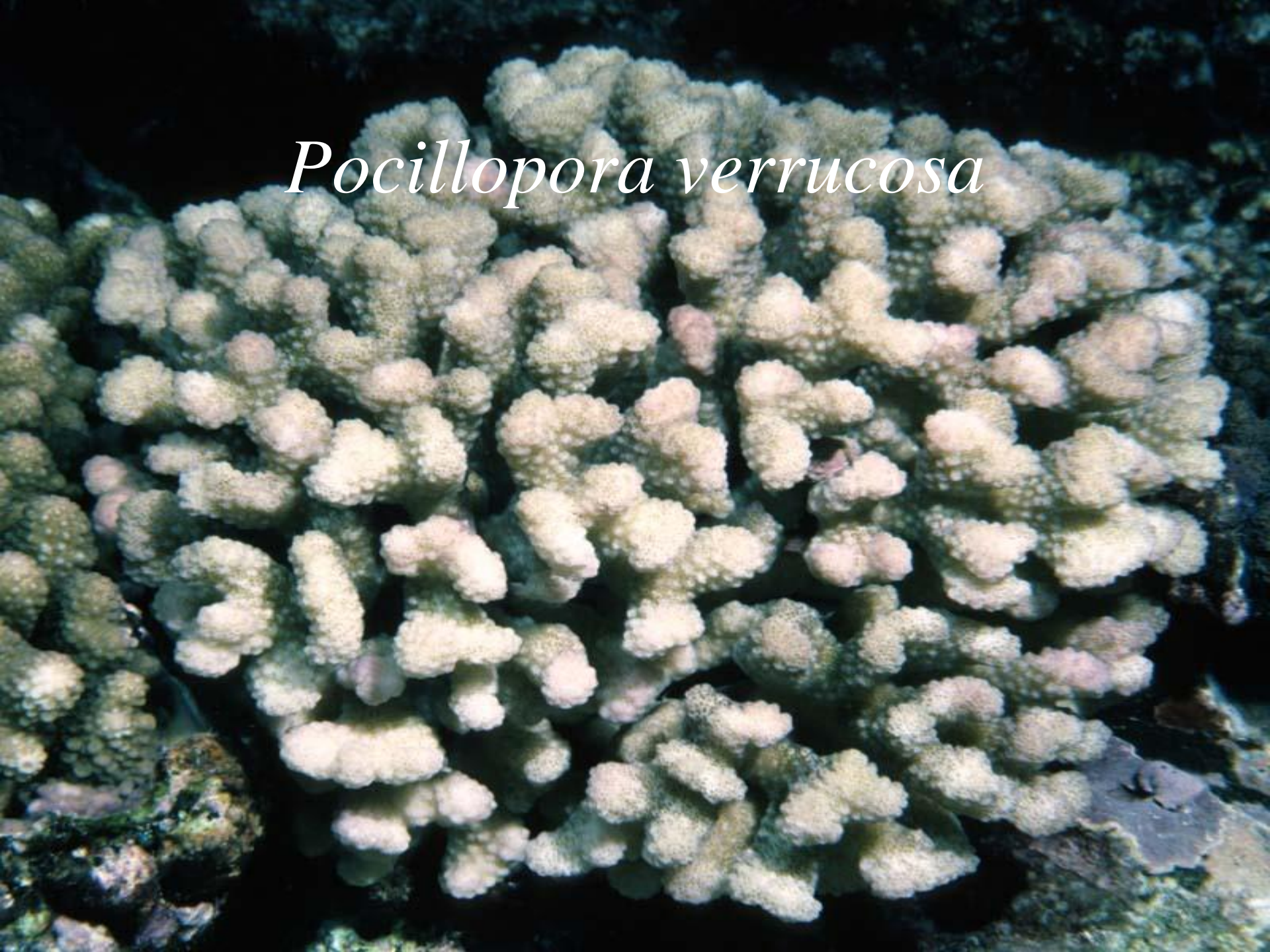
Genus *Pocillopora*

- Easy to recognize due to small wart like bumps growing all over colony called “verrucae”
- Growth form is usually branching wedge-like colonies, without pointed ends
- One exception to the rule
- 10 – 12 species large degree of interbreeding

Pocillopora elegans



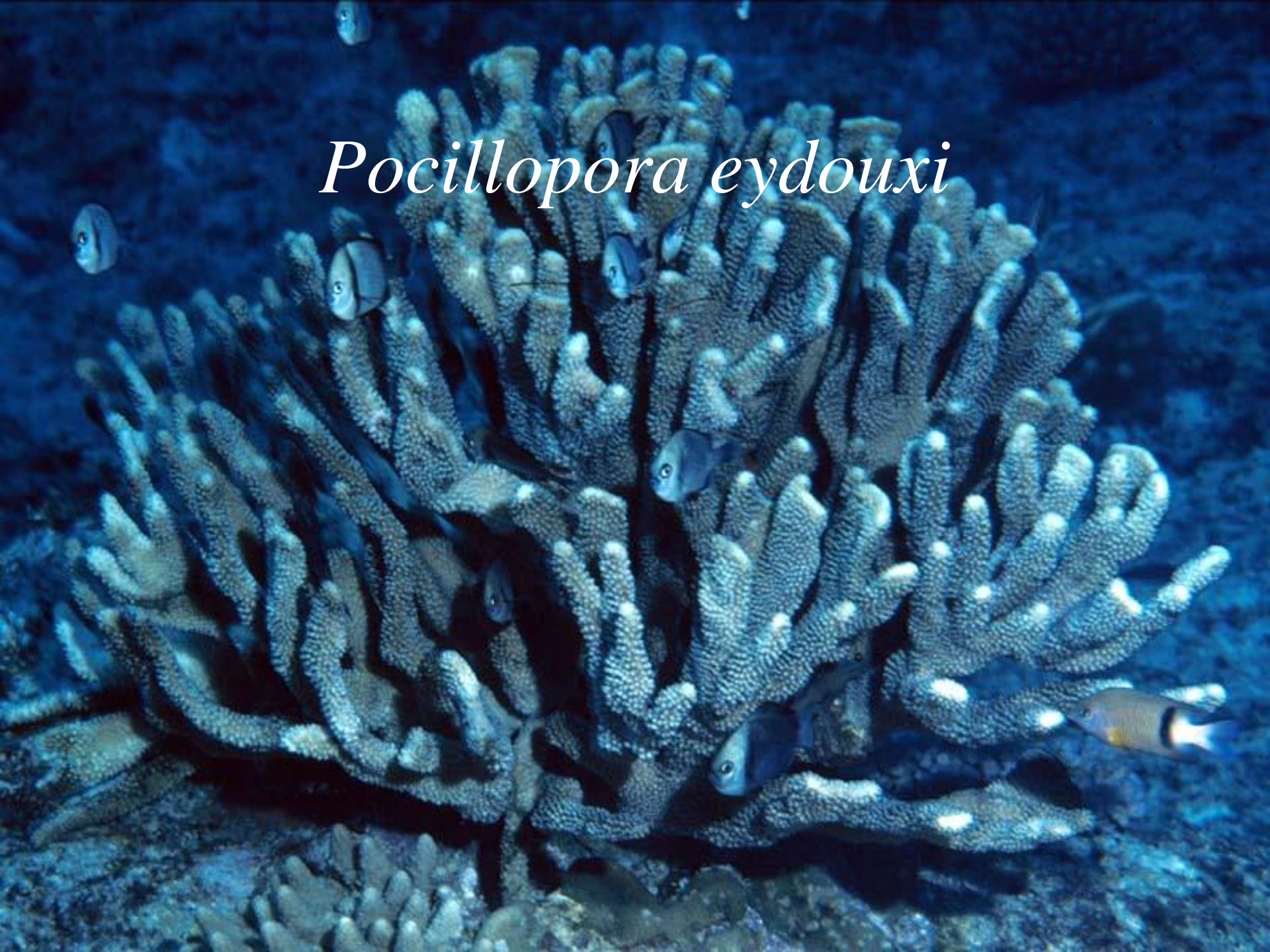
Pocillopora verrucosa





Pocillopora eydouxi

Pocillopora eydouxi



Pocillopora damicornis



Genus *Stylophora*

- Only one (1) species in CNMI, *S. mordax*
- Similar growth form to *Pocillopora*, wedge like branches
- Distinguishing characteristic are the hoove like growth on the **top** of each corallite
- *Pocillopora* has bumbs, *Acropora* has lips on bottom

Stylophora mordax



Genus *Seriatopora*

- Thin branches most similar to *Acropora* taper to pointed end (one exception)
- Colonies are much smaller than *Acropora* (10 – 30 cm in diameter)
- There are no axial corallites
- All corallites are neatly arranged in rows
- 3 – 4 species in CNMI

Seriatopora aculeata



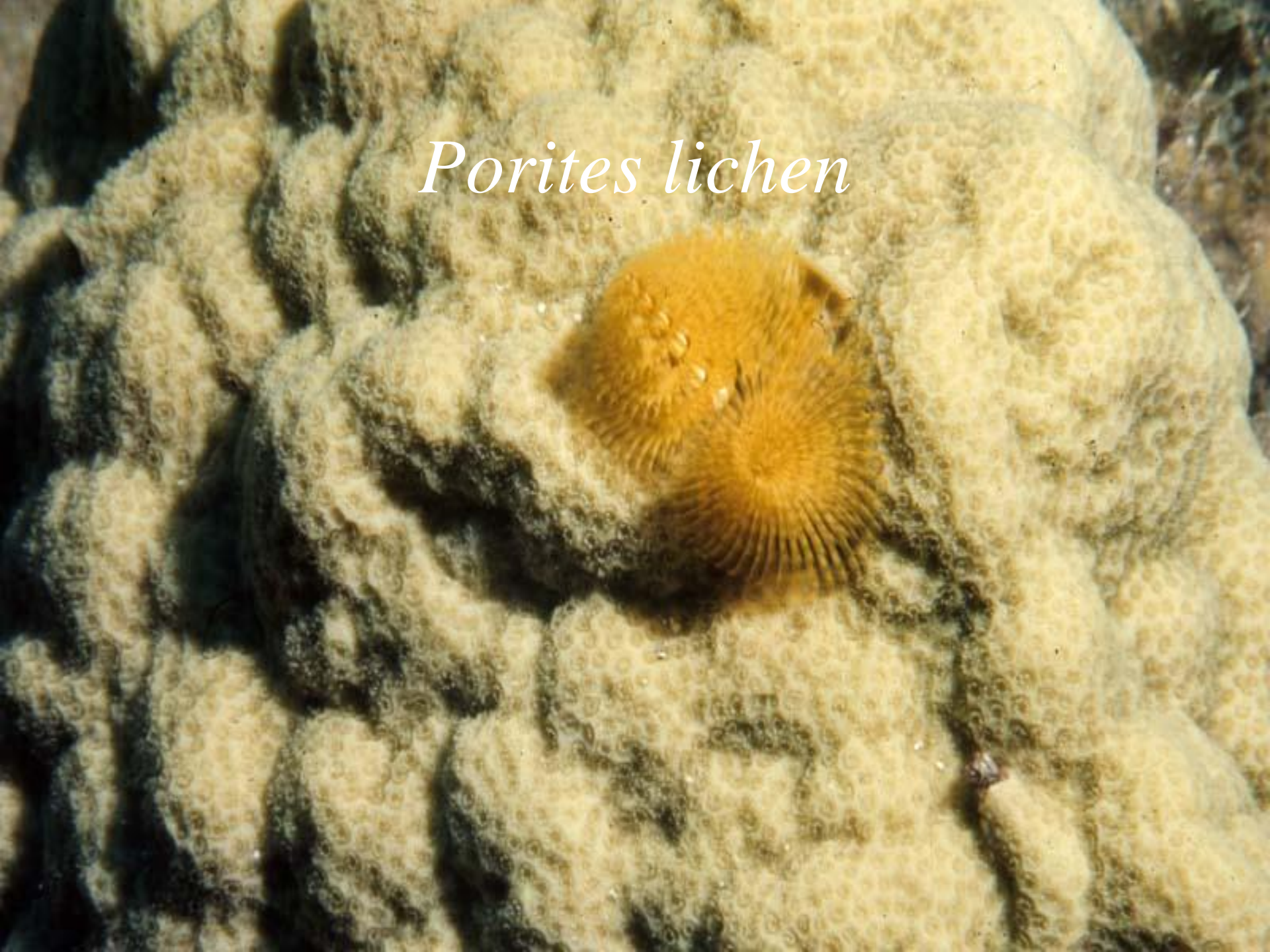
A close-up photograph of a Seriatopora caliendrum coral colony. The coral consists of numerous thick, upright, cylindrical polyps that are densely packed together. Each polyp has a distinct, rounded, and slightly flattened top surface covered in small, white, circular openings (pores). The overall color of the coral is a warm, yellowish-tan or light brown. The background is dark, which makes the coral stand out. The text "Seriatopora caliendrum" is overlaid in a white, italicized serif font in the upper central portion of the image.

Seriatopora caliendrum

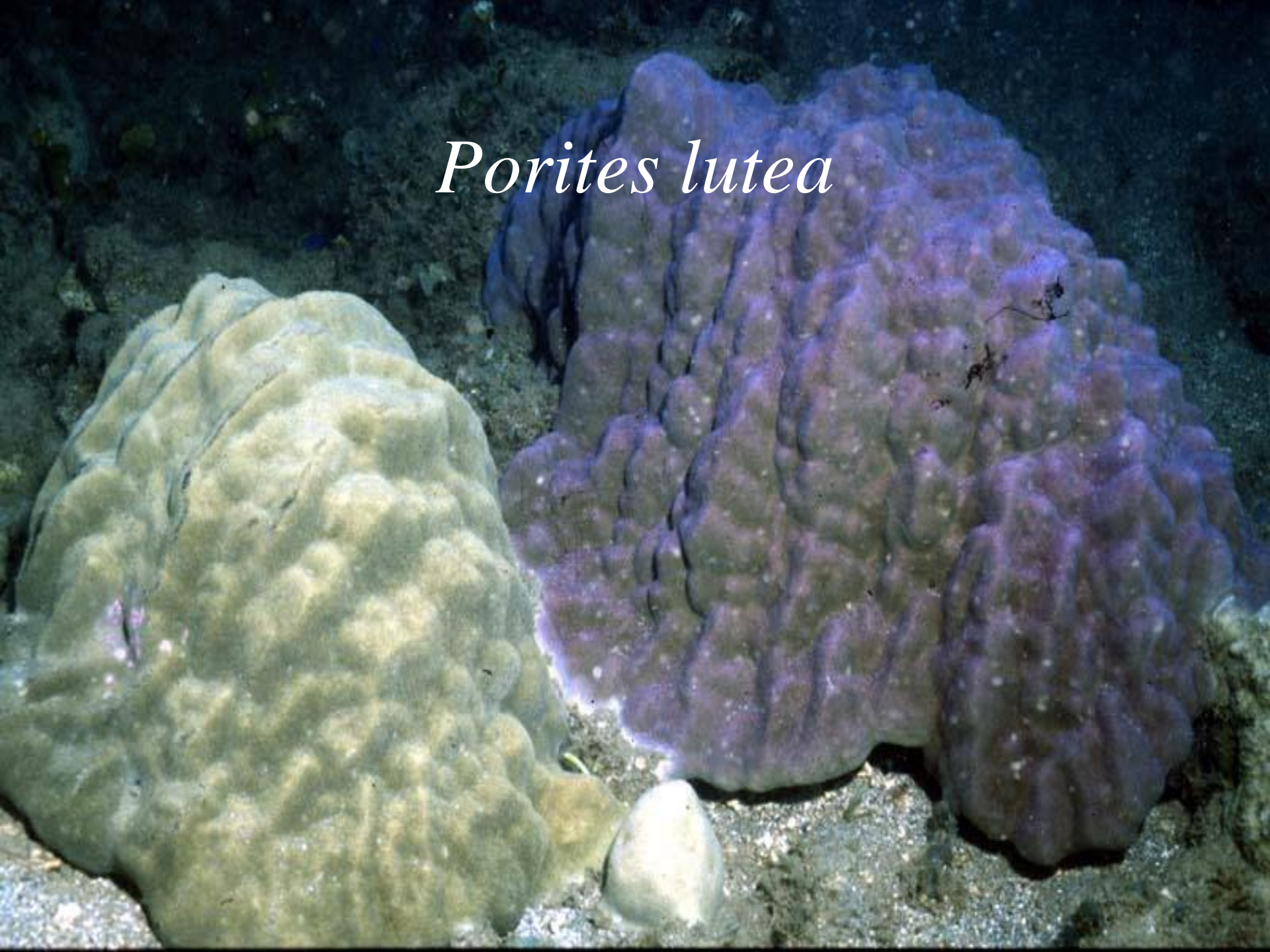
Family *Poritidae*

- Five genera that are distinct, four genera in CNMI
- *Porites* – massive, branching, and laminar
- *Goniopora* – massive, branching, and laminar
- *Alevopora* – massive
- *Stylarea* – encrusting, very small
- Corallites vary in size however are usually very crowded and compact
- Usually need skeletons for proper identification

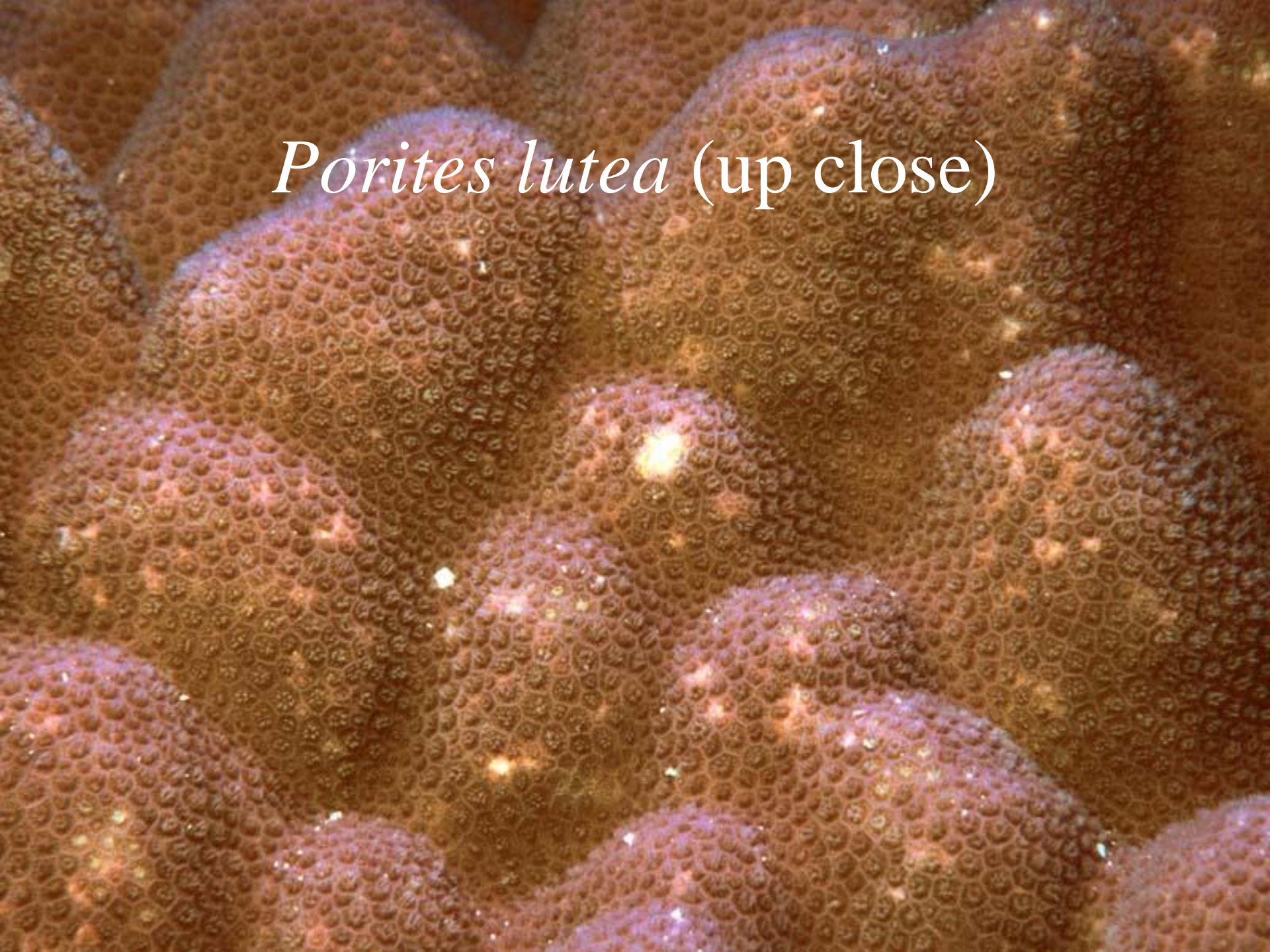
Porites lichen



Porites lutea



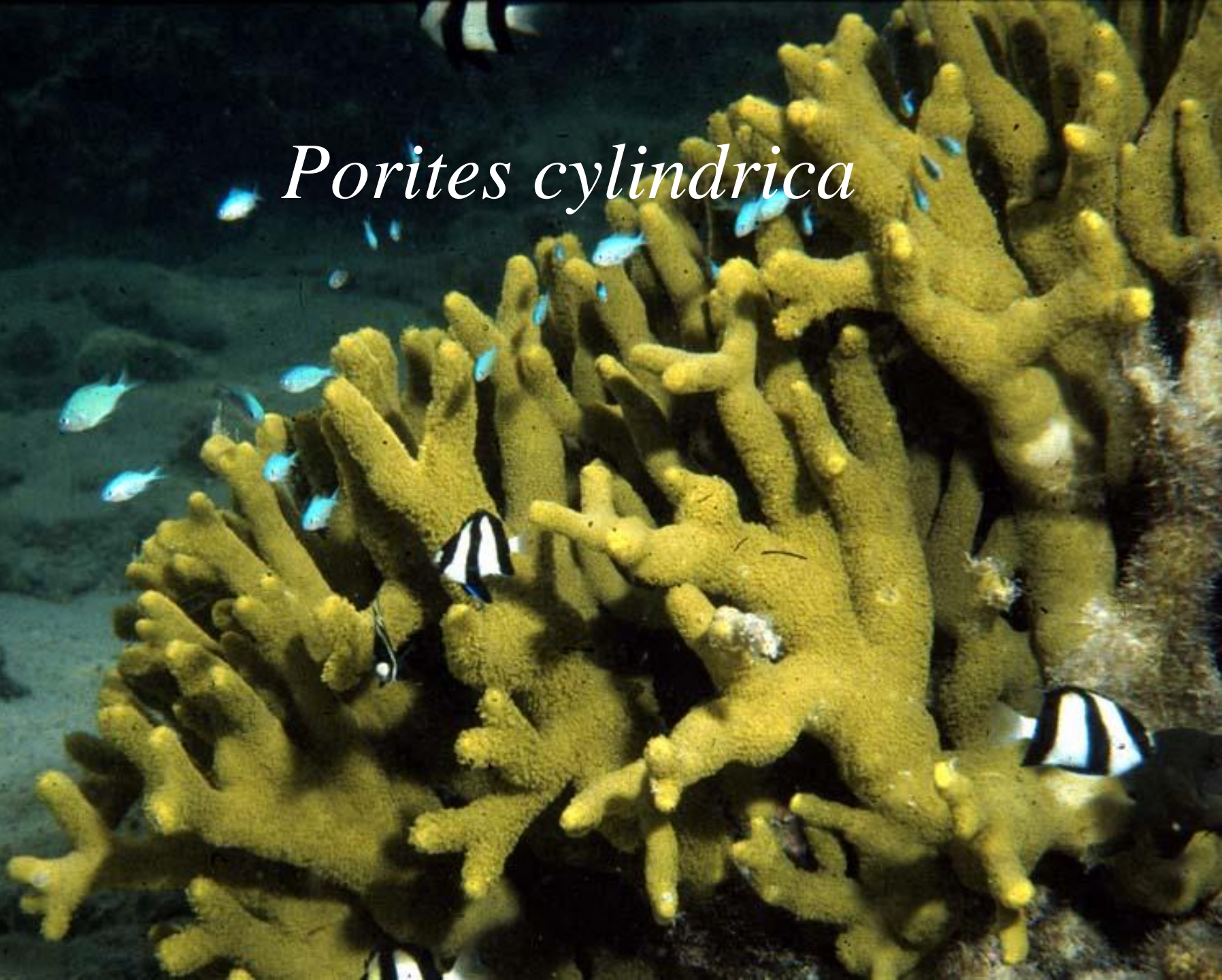
Porites lutea (up close)



Porites rus



Porites cylindrica



Genus *Goniopora*

- Known as “carpet corals” because long polyps are always extended and waving around during the day and night
- Have skeleton below waving polyps
- Massive to columnar colonies
- Skeletons show a prominent raised columella in most species of *Goniopora*
- 9 species documented in CNMI

Goniopora sp.



An underwater photograph showing a colony of Goniopora coral. The coral polyps are densely packed and their tentacles are retracted, giving the colony a smooth, rounded appearance. The coral is light brown or tan in color. The background is dark blue, indicating an underwater environment. The text "Goniopora (tentacles retracted)" is overlaid in white at the top. In the bottom right corner, there is a red timestamp "3 2:51 PM".

Goniopora (tentacles retracted)

3 2:51 PM

Close up Goniopora



4 2:11 PM

Genus *Alveopora*

- Very similar to the genus *Goniopora*, however they only have 12 tentacles extending from each polyp, not 24
- Skeletons are easily distinguished from *Goniopora* by being much less calcified
- Rare to encounter on CNMI reefs
- 3 – 4 species in CNMI

Alveopora superficialis



Genus *Stylarea*

- Only one species in genus, *S. punctata*
- Very small colonies that are encrusting and often live on the bottom of reef rocks
- Distinguished by the almost circular corallites, and the presence of a columellae that is irregularly raised and pointed

Stylarea punctata

