

HOW TO SURVEY CORAL COLONIES

Help us locate a Giant Coral!

Please choose the type of survey that best suits you: simple, advanced or with a drone.

ADVANCED SURVEY. Diving or snorkelling

This type of survey is advisable for more experienced participants and can also be used to provide additional information on colonies which have been identified with a simple survey.

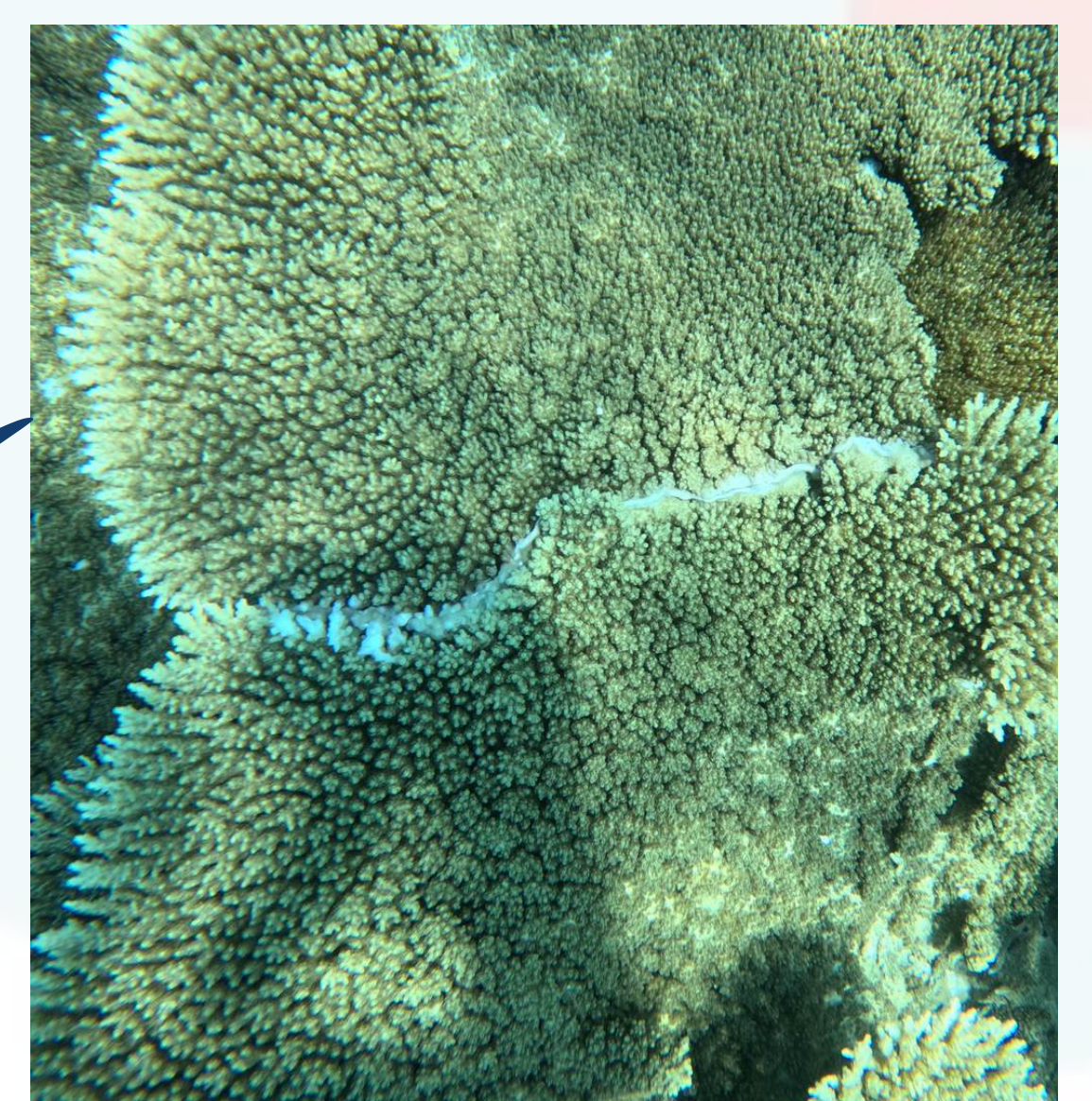
Steps to take:

- **Grab** your diving or snorkelling equipment and any safety tool you may require. If you have a waterproof camera, we highly recommend you to carry it along;
- **Head out** to the chosen reef;
- **Look out** for any large coral colony. Remember: a giant coral is considered a colony over 5 metres in size and presenting a continuous living tissue or skeleton.

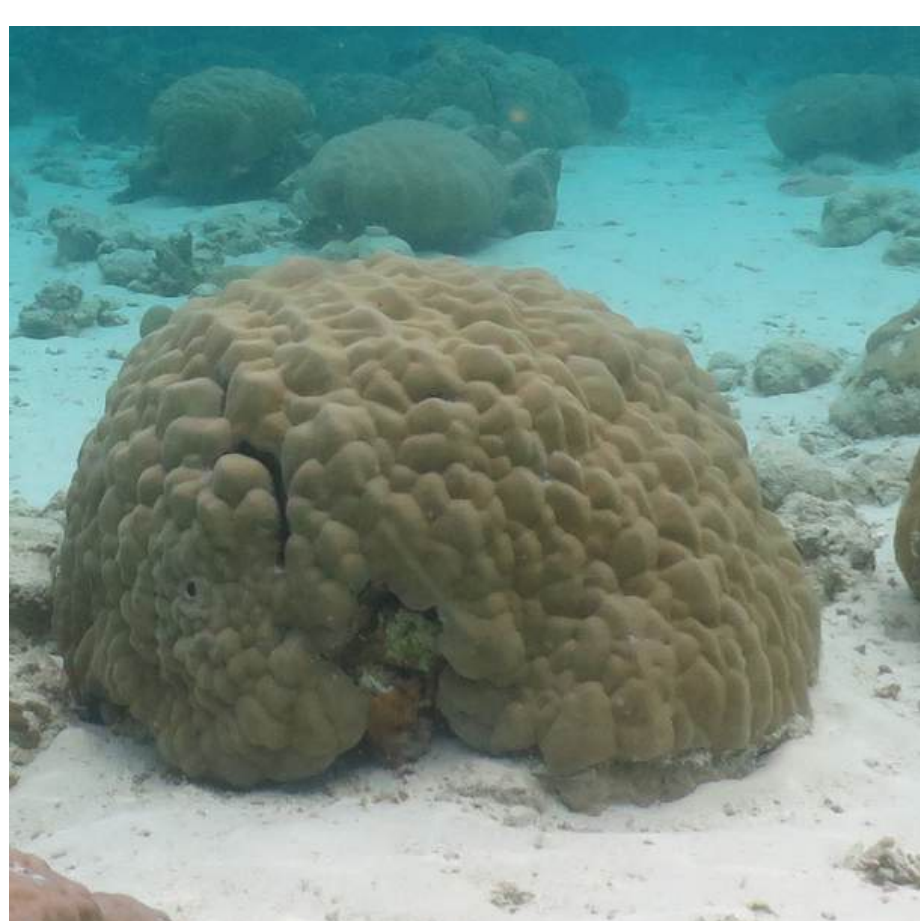


This colony originates from a single polyp and can grow in size indefinitely.
This is ONE colony.

The white mark is a scar, typical of two different colonies fighting and **growing side by side**. This is **NOT a colony but two**.



- **Identify the genus** or species or take wide-angle and close-up photos (possibly with a scale bar within the photo) and send it to us. Please see below the most likely genera:



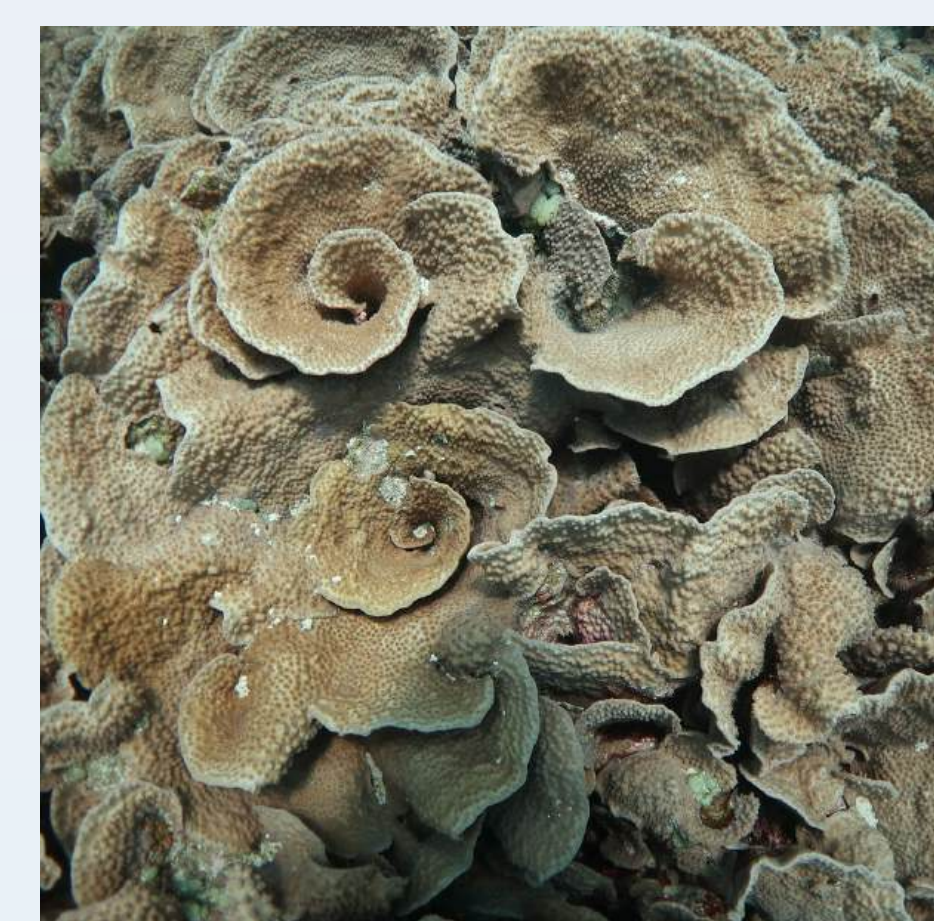
Porites sp.



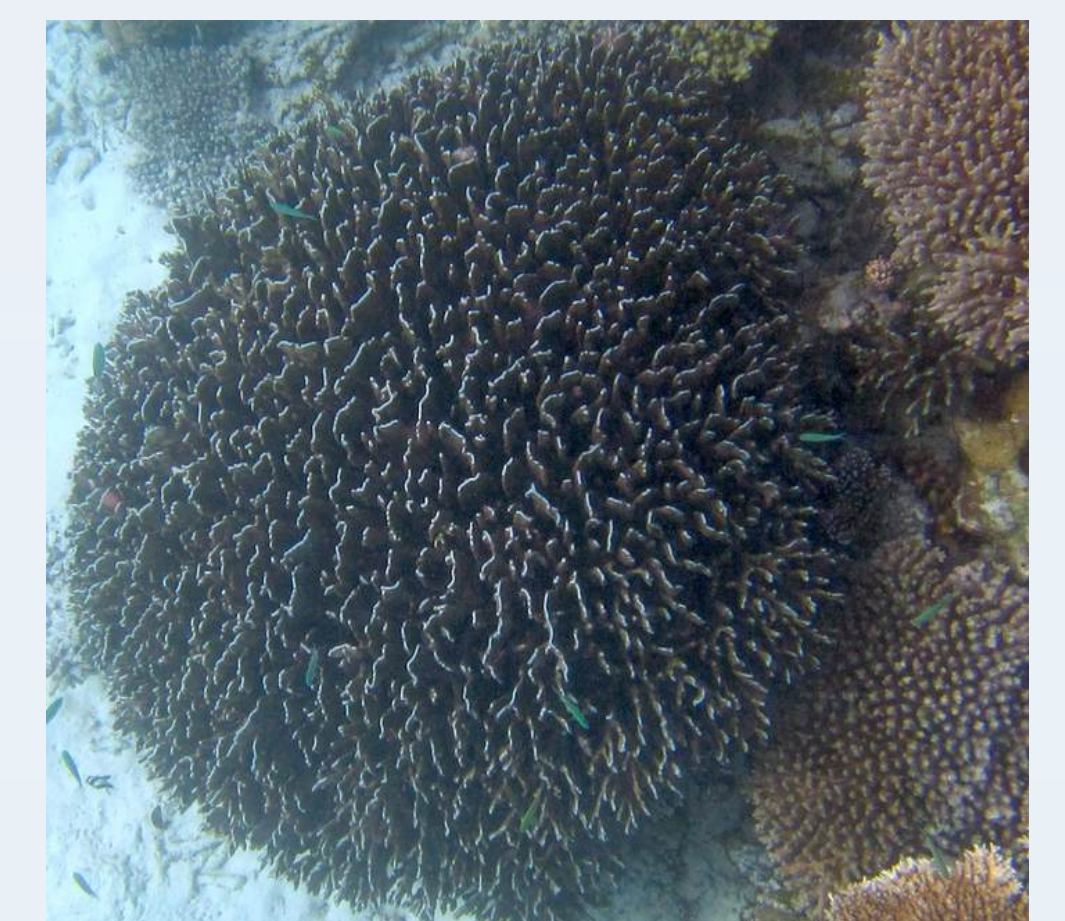
Goniopora sp.



Diploastrea heliopora



Turbinaria spp.

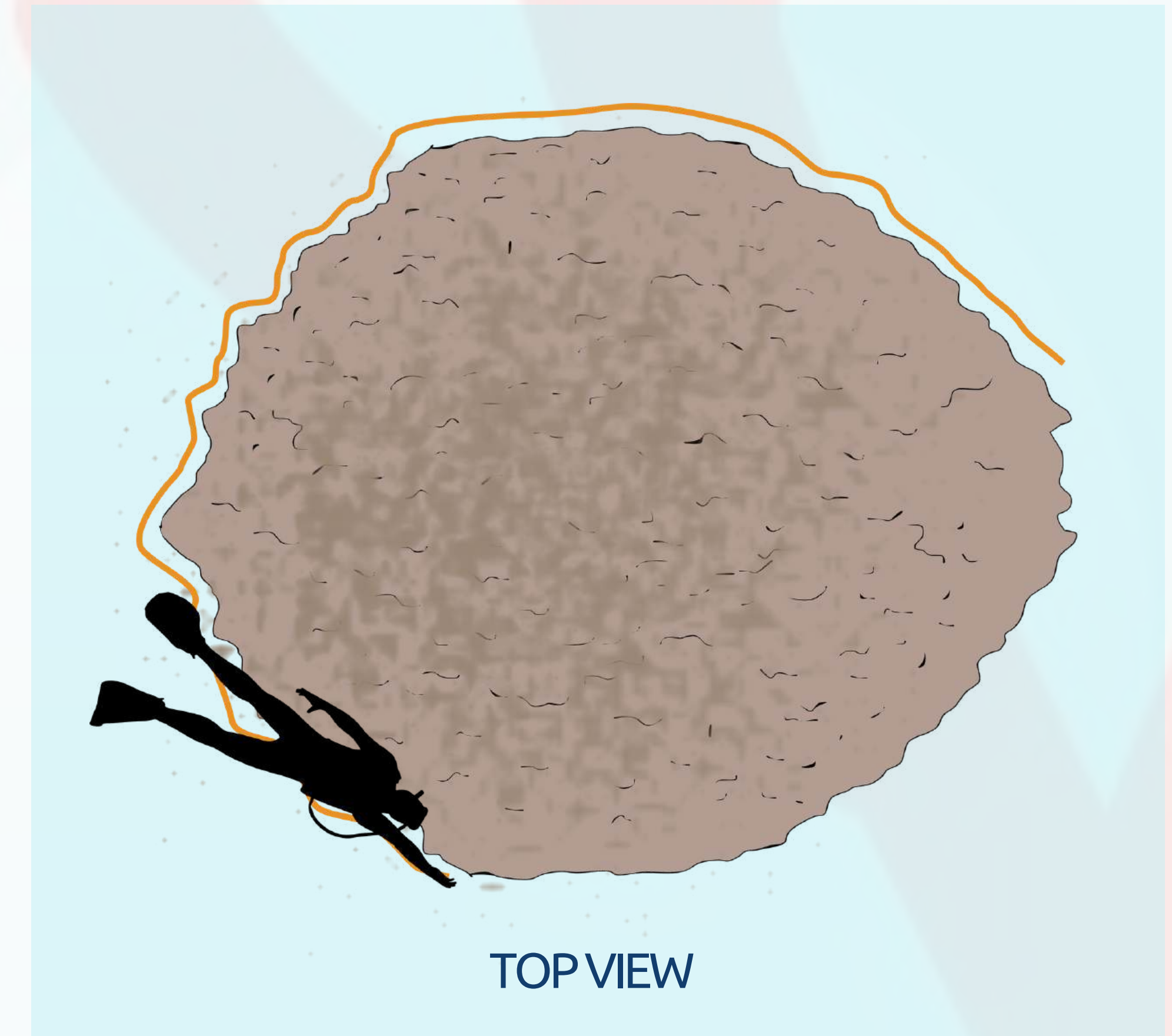
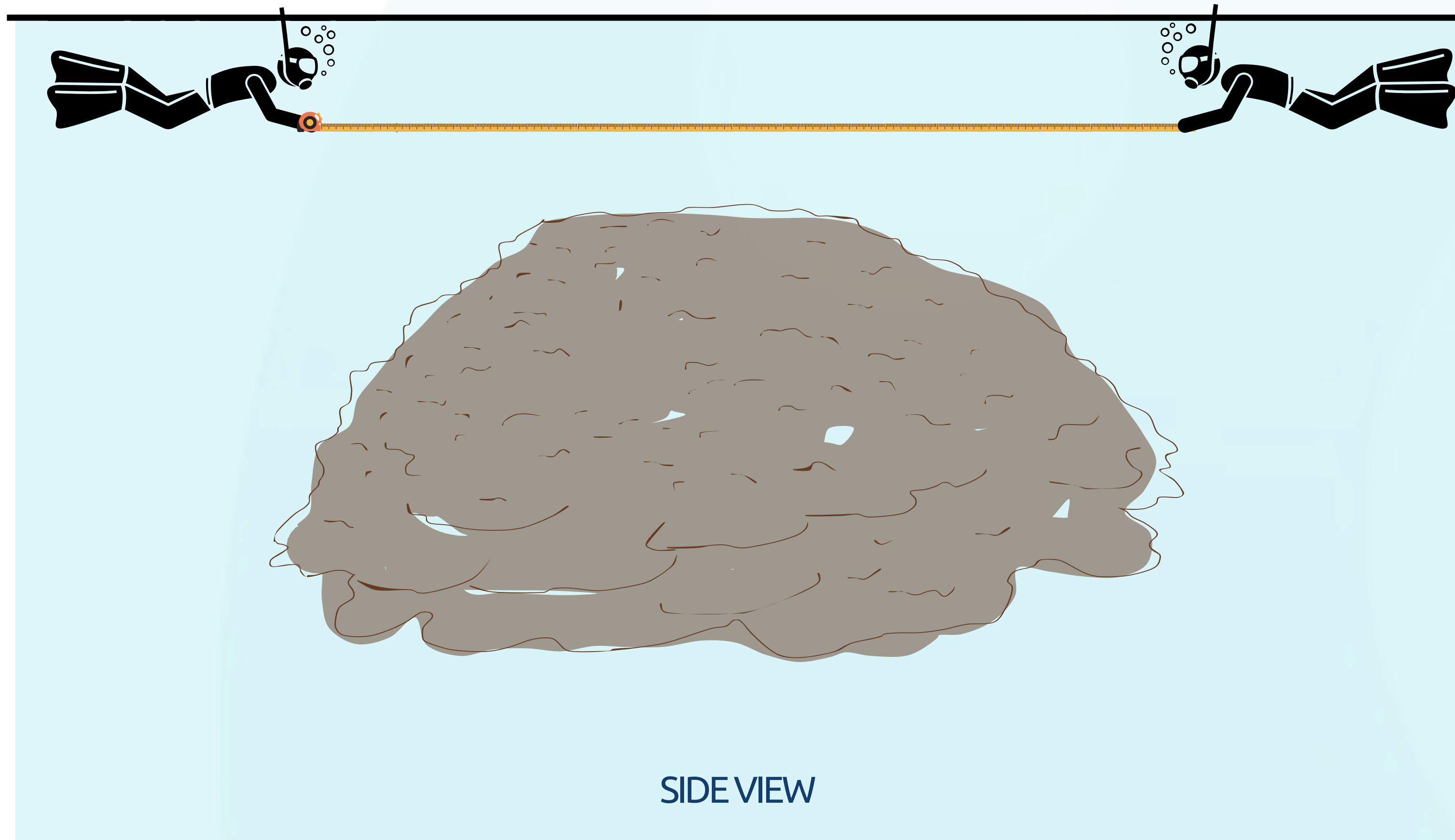


Heliopora coerulea

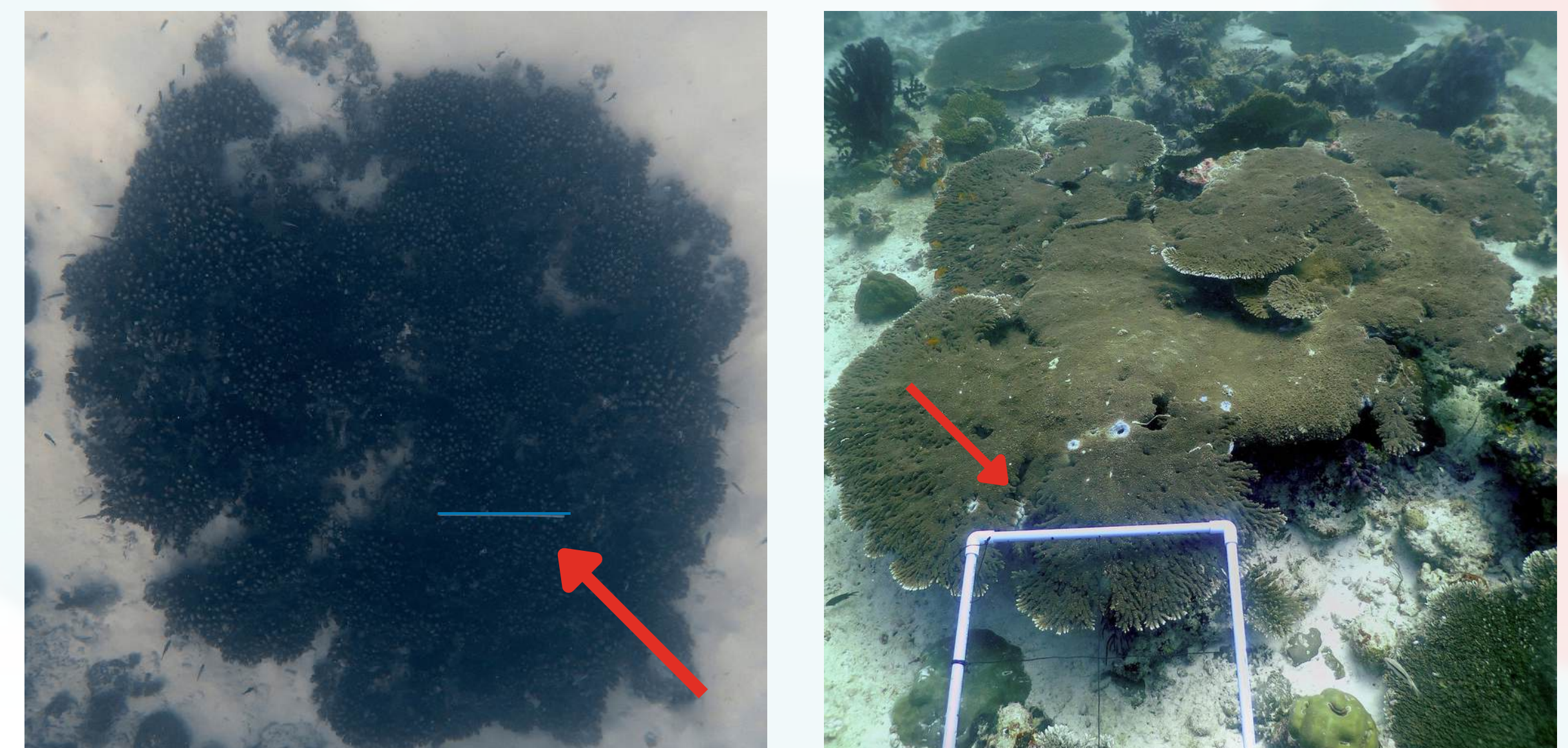
GIANT CORALS.
FUTURE MARINE
MONUMENTS.

- Collect **measurements** following the preferred methodology:

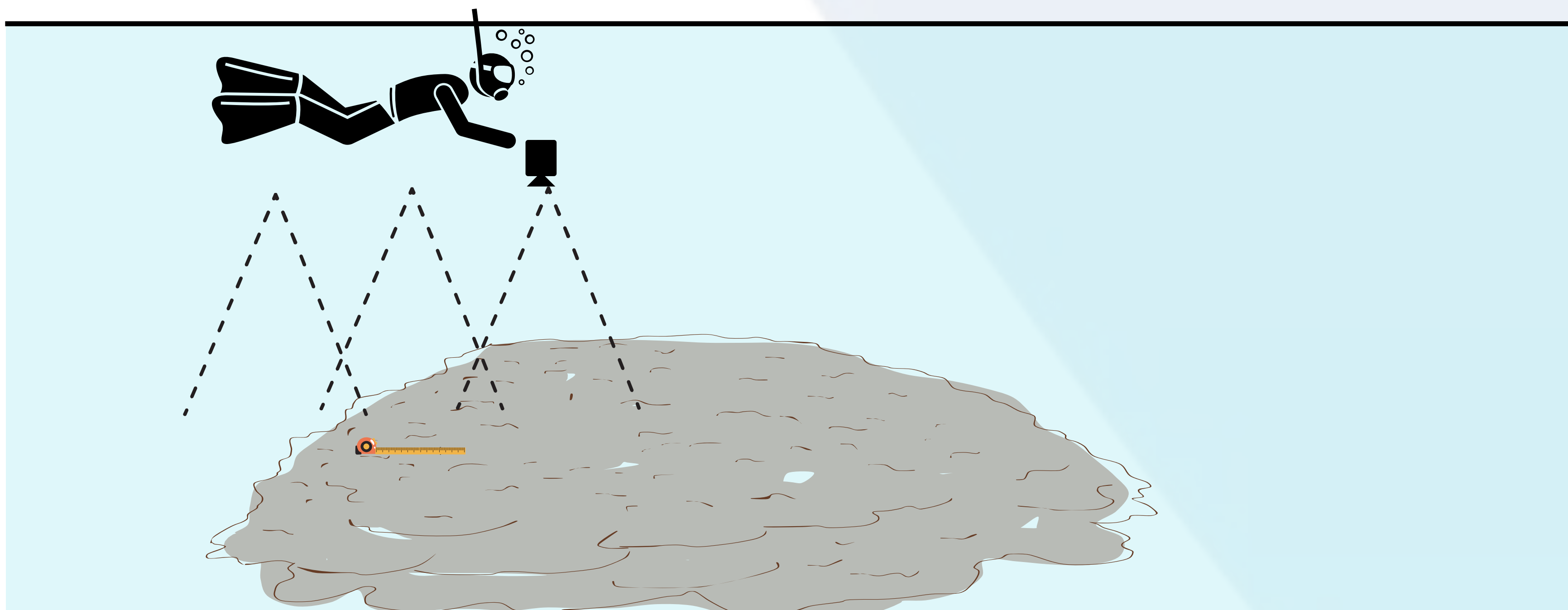
Measuring tapes: measure length, width or diameter, and height perpendicular to the colony in its largest points, and circumference in the widest spot (see side view image). For colonies with a **circular shape**, the diameter can be calculated by measuring the perimeter and dividing by 3.14 (see top view image).



Scalable photos: take one or multiple photos that include an object of known size (as close as possible to the colony without physical contact) such as a diver, a SCUBA tank, or a scaled bar to allow for size extrapolation;



Photogrammetry: shoot a photo every 2 seconds or set the camera with a self-timer of 2 seconds to cover the entire surface. Photos should have a 70% horizontal and vertical overlap. Shoot then photos at 45° angle to capture all the features of the colony and prevent gaps in the final model. Try to cover the whole colony or at least the widest side of the colony. Please remember to **include an object of known size** to extrapolate the measurements of the colony.



- Videos** are very useful for a complete overview. Please send them to mapthegiants@unimib.it

- **Site:** Indicate the Atoll, island, and site name of the reef and provide us with the
- **GPS coordinates:** define the location with the best approximation;
- **Depth:** Estimate the depth at which the coral was sitting and of its upper part (meters);
- What was the **water temperature?** (degrees Celsius)
- **Health conditions:** Estimate the percentage of live coral tissue based on these size classes:
 - 0% dead colony
 - <25% alive tissue;
 - 26–50% alive tissue;
 - 51–75% alive tissue;
 - 76–99% alive tissue;
 - 100% alive tissue (alive);
- Did the colony present any sign of **bleaching?**
- Did you see any **abnormality on the tissue?**

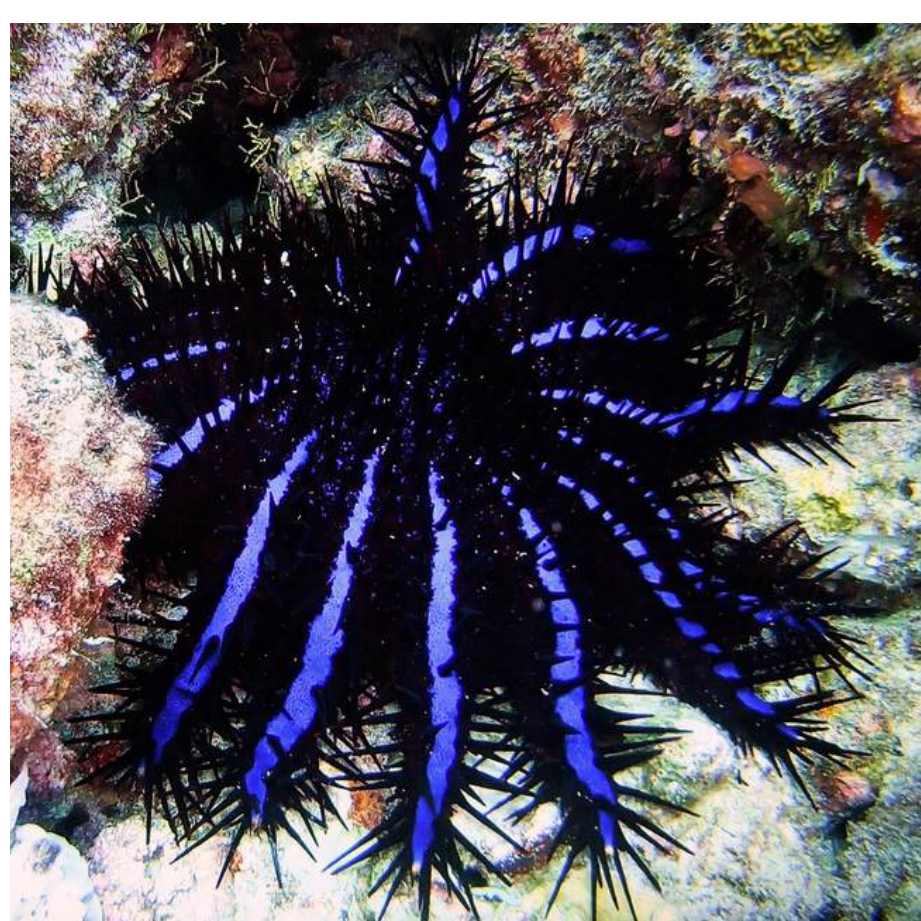


Bleached coral

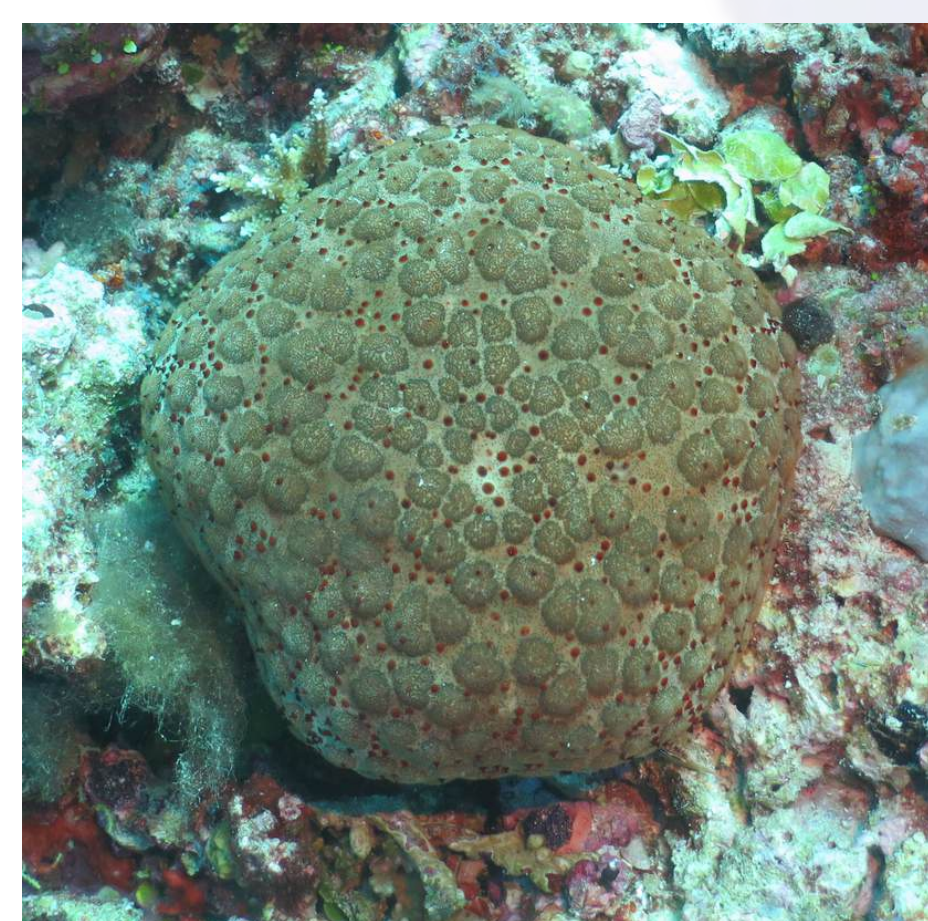


Tissue abnormalities

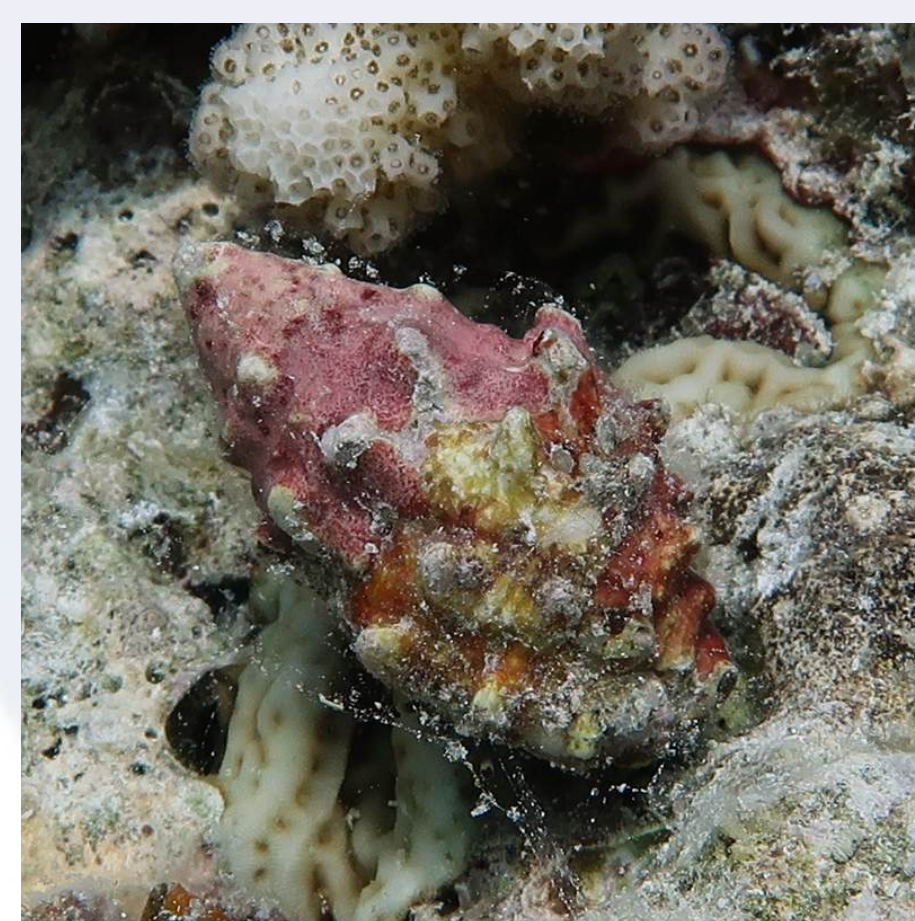
- **Competing organisms:** did you see any of these organism on or near the colony?



Crown of Thorns



Cushion Seastar



Drupella sp.



Terpios hoshinota

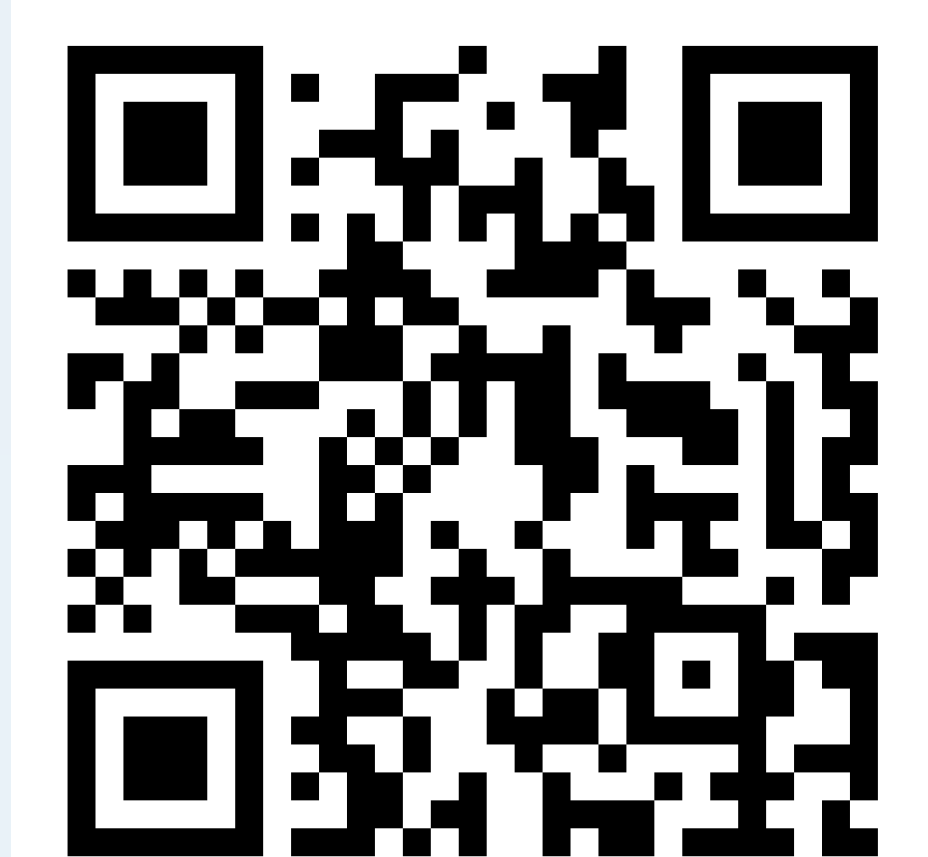


Dendropoma sp.

- Add any **note** on the colony or the surrounding environment.

MAKE AN ENTRY

Submit your data by scanning the **QR code** on the right or navigating to **www.mapthegiants.com** under the section **Get Involved** **Share**



Get in touch:



mapthegiants@unimib.it



MAP THE
GIANTS

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