

Getting close to Hard Corals

A selection of hard corals from Sri Lankan waters, illustrating the diversity of forms, colours, and the skeletal structure on which classification is based.

Natural History Snippets



Dharshana Jayawardena - 2013

A lone, black-tipped reef shark swims above a bank of branching staghorn coral (*Acropora* sp.) at the Pigeon Islands National Park. The genus *Acropora* is just one out of many genera of hard corals found in Sri Lanka. Hard corals are those that secrete a calcium skeleton around the soft tissues of the animal, the skeleton persisting after death. Soft corals produce a leathery skeleton that perishes after death. The animal is in the form of a polyp—a tube, closed below, open at the top where the mouth is placed, surrounded by a ring of tentacles used to capture food. The individual polyp can range in size from tiny to huge, depending on the genus. They multiply sexually by broadcasting ova and sperm; but they also multiply vegetatively by producing buds from the side—the shape of the resulting colony depends on the pattern of bud formation.

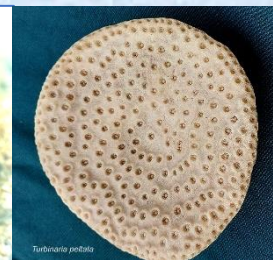
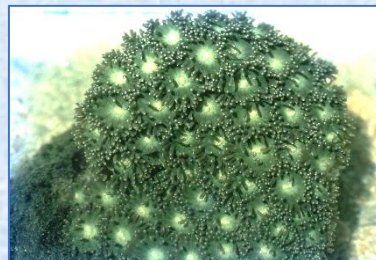


Two zoanthid polyps (a type of soft coral)



Malik - 2003

Dendrophyllidae (*Tubastrea* spp. & *Dendroastrea* spp.) come in bright colours, blooming at night. Some solitary, others have basally clustered branches, yet others arborescent.



Turbinaria peltata is a day bloomer. It grows as shallow cones on a central pillar. The corallites are far apart, on the upper surface only ('corallite' is explained below).



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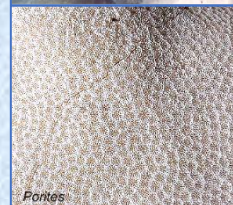
Symphyllia sp., 'brain coral', has meandering valleys with broad, spiny ridges. Various colours, often bi-coloured. The corallites are strung out in the valleys.



Symphyllia



Porites sp. grows into huge, solid, domes or knobby masses (grey coloured, left). At right is a small colony from Mount Lavinia. The 2 mm diam. corallites are tightly packed (left).



Porites



Fungia



Fungia

The family Fungidae consist of solitary, free-living corals, lying on sand bottoms. Each is a single corallite with a central mouth lying at the bottom of the slit. *Fungia* are slipper-shaped; other genera are circular or sub-triangular. The live specimen was photographed off Colombo at about 28 m; the 16 cm long skeleton was from Negombo, 22 m deep.



'Corallites' are the skeletal elements supporting a single polyp. Each corallite consists of a surrounding wall, from the inner margin of which project varying numbers of septa that may or may not reach a central columella. The corallite wall may be discrete, separated from its neighbours(1); or the walls may be shared (2); or a distinct wall may not be apparent (3).



Malik Fernando



The genus *Acropora* grows in many forms. Tabular *Acropora* (at left, Rumassala) grows as discoid plates, with short vertical branches arising from the upper surfaces. Branching *Acropora* 'staghorn coral', (right, Erakkandy), is arborescent—with erect or semi-erect branches. The corallites of both are tiny, of the order of approx. 1 mm in diameter.



Acropora rudis



Acropora rudis

Acropora rudis has branches that spread horizontally with corallites on the upper surface. The branch tip shows clustered corallites that have arisen as buds from a parent corallite that continues to elongate and is seen at the tip. The skeleton photographed was from the first reef off the Mount Lavina Hotel, collected from a depth of 6 m in 1981.

Tabular *Acropora* close-up (left). The *Dascyllus* fish take refuge between the vertical branches of the coral when alarmed. Pigeon Islands.



Heteropsammia cochlear

1 cm



Montipora aequituberculata

Montipora aequituberculata

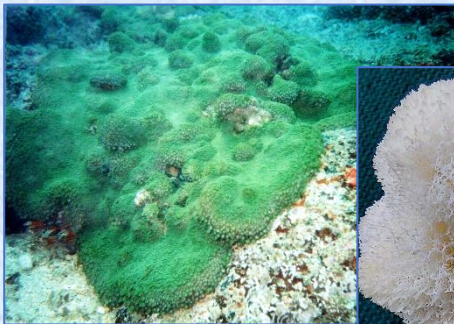
Montipora aequituberculata forms banks of concentric scrolls, seen clearly in the 20 cm diameter skeleton at centre. Corallites are minute, on the rough upper surface only. Dutch Bay, Trincomalee.



2 cm

Platygyra lamellina

Platygyra lamellina grows as flat or humped colonies made up of groups of narrow valleys with sharp, shared walls. Each valley contains a number of mouths of adjacent polyps. Underwater image was at Bar Reef, Kalpitiya; the skeleton from Mount Lavinia had brown walls with green valleys.

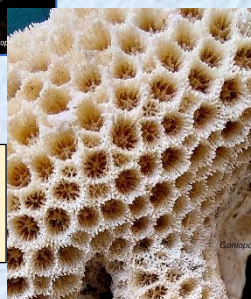


Alveopora verrilliana blooms during the day. Photographed at Uppuveli.



Platygyra lamellina

Goniopora can form massive boulders. The polyps are long, and extended during the daytime, as seen in the close-up at extreme right.



Goniopora



All images by the author except where otherwise stated. *Malik Fernando - June 2023*