



Soft corals on Chagos reefs are diverse, comprising vividly coloured species in deeper water, to sea fans, fast-growing fugitives, leather corals and soft mushroom corals.

Soft corals on Chagos reefs

Soft corals are so called because they lack the solid limestone skeleton of the hard or stony corals. Nevertheless, most have calcareous, needle-like spicules within their tissues which form a stiff, leathery or jelly-like matrix. They consist of many anemone-like polyps, embedded in this matrix. Soft coral polyps have eight tentacles, giving the group their collective designation, the octocorals. Some do not contain symbiotic algae (zooxanthellae) and these are brightly coloured, unlike their more dull cousins that possess these symbionts. By and large, soft corals fall into two categories; slow-growing and persistent species and fast-growing transient "fugitives" that might only survive for a season. They use their anemone-like stinging tentacles to trap zooplankton and those with symbiotic photosynthetic zooxanthellae use these to supplement this food source.

Soft corals are well-represented, but rarely abundant, on Chagos reefs. However, they are locally common in darker areas of the reef (deep walls and overhangs), where light is insufficient for light-dependent stony corals. Here one encounters what are known as leather corals, usually tough encrustations, and soft mushroom corals. With a further reduction in light, brightly coloured species without zooxanthellae come into their own, as do large sea fans.

This group of corals is vulnerable to predation. As a result, many produce defensive toxic substances, a biological form of chemical warfare. While these toxins undoubtedly assist soft corals in securing and maintaining territory on the reef, they are also of interest in human medicine and are being investigated for potential use in cancer chemotherapy.

It is difficult to assess the role that soft corals play on a reef. They are not reef-builders like the stony corals. However, they may opportunistically cover a damaged reef and bind its surface. They also add greatly to the diversity and, in the case of sea fans, to the 3-D structure of coral reefs.

The Chagos Conservation Trust is a charity (Registered in the UK No. 1031561), whose aims are to promote conservation, scientific and historical research, and to advance education concerning the archipelago.
The Trust is a non political association.

If you would like more information please contact the Secretary (simonhughes@hughes-mccormack.co.uk), or visit www.chagos-trust.org.