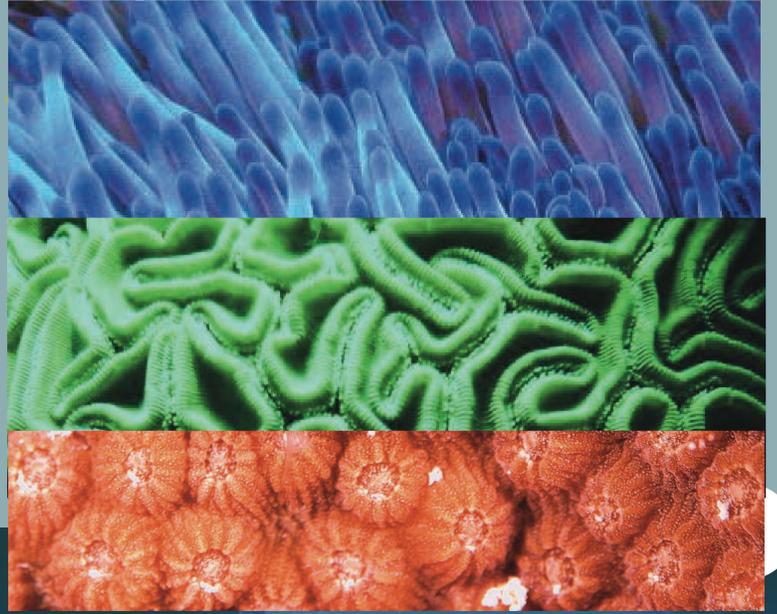


Anemones: An Anemone is like a large coral polyp, but has a fleshy body without a limestone skeleton. It has a tubular body with a mouth surrounded by tentacles. The tentacles sting small animals that stray within their reach. Not all animals are susceptible to the sting, the clown fish lives amongst the anemones.

Brain Coral is a species of Stony coral. Brain coral and boulder coral form the bulk of the coral reef area.



Coral Polyps (Day Time)

Threats to the Reef

• Humans

Recreational activities undertaken on the reef can cause damage to coral reef. It is important not to touch or walk on the reef. For boat owners it is important not to

moore to close to reefs. It takes a long time to repair broken or damaged reefs.

• Global Warming

Rising sea temperatures due to global warming is resulting in the bleaching of Samoa's coral reefs. Bleaching can occur by short term exposure (1-2 days) at temperature elevations of 3-4 degrees, or long term exposure (weeks) at elevations of only 1-2 degrees. Coral reefs are sensitive to

• Weather patterns

El Nino weather patterns have also impacted the reefs significantly, with low tides exposing the reef to direct sunlight, bleaching the coral reef. Cyclonic events also cause considerable damage to reefs. The large ocean

swells, damage and break the coral structures.

Ua si'omia le tele o le atu Samoa i Aau Amu. O le tasi fo'i lea o nofoaga e fagota ai meaai ma taumafa eseese e pei o i'a, figota ma isi mea taumafa o le sami. O aau foi e aveva ma pa puiptui o nofoaga lalata i le sami mai le mata'utia o afa fulifao ma galu lolo.

Ua fausia aau e ni manu nini'i e taua o polipe. O le gutu o so'o se polipe na te acina ai ana meaai. O nisi meaola nini'i foi e ola faatasi i luga o amu e aveva ma meaai a polipe. Ua aoga tele le susulu o le la i le gaosiaina o meaai a polipe ma o le ala foi lea e ola tele ai polipe poo amu foi i ogasami e mama ma manino toe le loloto tele.

E mafai e le polipe ona ia fausiaina se auivi i fafo o lona tino. O le tele o nei auivi o polipe e mafai ona sosoo faatasi ma fausia ai se vaega tele o amu lapopoa. Afai e mamate polipe tuai e tutupu a e, e fausiaina foi i luga o nei auivi. E mafai ona faaleagaina amu pe a faai o nei auivi. Iaula ai foi ni va'a o le sami.

Coral Reefs

Photographer Stevea Weible 2008: Scuba diving is great way to view the diverse coral reefs in Samoa. However, it is important not to touch or damage the reef, while undertaking leisure activities like this.

Most of the Samoan sea shore is fringed by coral reefs. The coral reef and its lagoon provide food, in the form of fish, shellfish and other seafood. The reef also protects the shore settlements from damage through cyclone or tsunami waves.

The coral reef is built up by small animals called polyps. A single polyp has a tube shaped body with a mouth surrounded by tentacles. Polyps capture food with these tentacles; at daytime, they also get food from small plant cells which live inside their body. This process requires sunlight. Corals only grow in shallow, clear and warm waters.



Coral Polyps. Two polyps are shown extended from their hard skeletons and two are shown retracted. The circle shows an enlarged part of a tentacle of a coral polyp with stinging cells. The harpoon of one cell has been fired.

The polyp of hard corals produces a stony skeleton of calcium carbonate (limestone or chalk) beneath and around its base. Many coral polyps living together in colonies form the large masses of limestone coral rock – the coral reef. When polyps die, new polyps grow on the remaining skeletons. One kilogram of coral rock may contain over eighty thousand polyp skeletons!