

Phymanthus crucifer (Red Beaded Anemone)

Order: Actiniaria (Sea Anemones)

Class: Anthozoa (Corals and Sea Anemones)

Phylum: Cnidaria (Corals, Sea Anemones and Jellyfish)



Fig. 1. Red beaded anemone, *Phymanthus crucifer*.

[http://animalworld.com/encyclo/reef/anemones/images/RedBeadedAnemoneWRA_Ap8R.jpg,
downloaded 2 April 2015]

TRAITS. *Phymanthus crucifer* is also known as the beaded, rock, flower or speckled anemone. Though diverse in colour ranging from a grey-green to a chestnut-brown colour, is mostly known for its tentacles around its edges that appear to be beaded. This appearance is due to white spots (clusters of stinging cells or nematocysts) that grow randomly into bead-like swellings or run the length of the tentacles making the anemone appear ornamental with red suckers on its column. This cream coloured column extends to a pedal disc ('foot') that is used to root the anemone to a particular spot or move around when desired. The mouth of the anemone is found in the centre; most times the same colour as the disc of the anemone, and is usually closed only opening when

the anemone is hungry or is used as a warning signal. The anemone ingests food and expels waste via the same opening. This particular sea anemone bearing approximately 200 short tentacles, are capable of growing to 15 cm across its column when fully extended, reaching 15-20 cm in length. It may have a very long life span, and there is no way of telling the sex in this species.

DISTRIBUTION. The red beaded anemone can be found in the Caribbean Sea across the West Indies (Fig. 2).

HABITAT AND ACTIVITY. They can be found approximately 1-5m deep in the ocean and can adhere to vertical shaded walls, or rocky ledges where they can withdraw into crevices upon agitation and can also be found in coral reefs or buried in the ocean floor where they use the nematocysts in their tentacles to sting or ward off any threats.

FOOD AND FEEDING. The sea anemone is a carnivore. Its diet includes plankton or anything that is caught in its tentacles including big fish, small fish, snails etc. They move around and feed at night. They use the nematocysts in their tentacles to catch their prey as the nematocysts contain tiny barbs with venom that would paralyze their prey and enable them to draw the prey into their mouths to feed. They may catch organisms with shells such as crabs but the anemone cannot digest the shells if eaten nor can they particularly paralyse the organisms due to the shells covering their skin so they eventually get away before the anemone can ingest them. Their predators are generally sea stars and nudibranchs though they may have a few predators that are also of fish species.

REPRODUCTION. The red beaded anemone is a dioecious species, meaning it has separate male and female individuals. It can reproduce sexually with its offspring developing from egg to ciliated planula larvae within the parent and would then drop on the ocean floor, develop a pedal disk and grow into a juvenile anemone without tentacles (Fig. 3). This species can also reproduce asexually via fission. The process of fission happens as the anemone splits to produce a clone. The reproduction cycle is also seen to be longer than simply annually or biannually indicating that there may be a difference in the reproductive cycle of anemones in tropical seas and that of those in cooler waters. The reproduction rate of the anemone is directly proportional to its food intake. The more the anemone feeds is the more it reproduces asexually and sexually.

REFERENCES

- Arya, N. (2012) "Sea Anemone Care." Buzzle. August 7, 2012. Accessed April 2, 2015. <http://www.buzzle.com/articles/sea-anemone-care.html>.
- Lin, Ming-Doun; Chaolun Allen Chen, and Lee-Sing Fang (2001). "Distribution and Sexual Reproduction of a Seagrass-bed-inhabiting Actinarian, *Phymanthus strandesi* (Cnidaria: Anthozoa: Actiniaria: Phymanthidae), at Hsiao-Liuchiu Island, Taiwan". *Zoological Studies* 40 (3): 254–261.
- STRI (2010). "Phymanthus crucifer". Smithsonian Tropical Research Institute. Smithsonian.

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Fig. 2. Distribution of red bearded sea anemone.

[http://www.google.tt/imgres?imgurl=http://img.photobucket.com/albums/v209/arionne/Aquarium/map_zps7ca6e8c2.jpg&imgrefurl=http://www.nano-reef.com/topic/342744-rock-flower-anemone-information-and-appreciation-thread/, downloaded 2 April 2015]

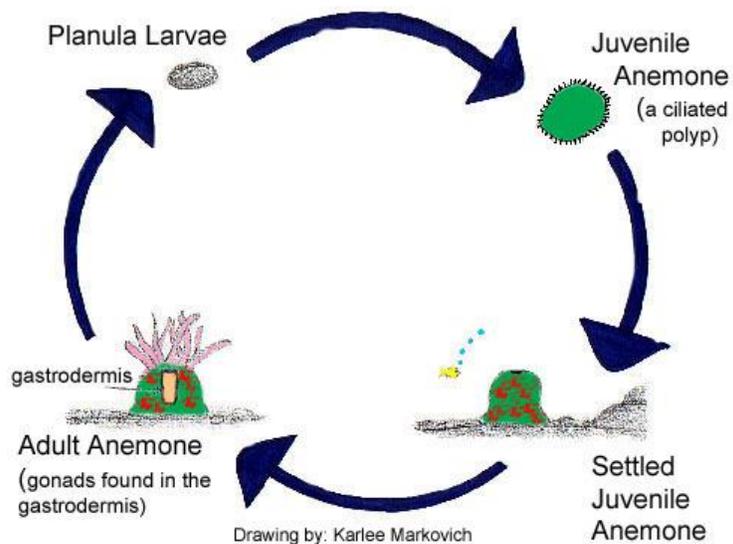


Fig. 3. Anemone reproducing via sexual reproduction.

[http://www.uas.alaska.edu/arts_sciences/naturalsciences/biology/tamone/catalog/cnidaria/urticina_crassicornis/images/urticina_crassicornis9.jpg, downloaded 2 April 2015]