

## *Actinoporus elegans* (Elegant Anemone)

Order: Actiniaria (Sea Anemones)

Class: Anthozoa (Corals and Sea Anemones)

Phylum: Cnidaria (Corals, Sea Anemones and Jellyfish)



**Fig. 1.** Elegant anemone, *Actinoporus elegans*.

[<http://reefguide.org/pix/elegantanemone1.jpg>, downloaded 29 February 2016]

**TRAITS.** The elegant or brown-striped sand anemone *Actinoporus elegans* (Fig. 1) can reach up to 4cm in diameter (Correa, 1973). The cylindrical column is longer in specimens embedded in sand and unattached anemones, and may be up to 10 cm (Fig. 2E). While the middle and lower sections of the column are smooth, the upper 2cm, under the disc, display mesenteric ridges. Mesenteries are infoldings of the gut to increase the surface area for nutrient intake (McCloskey, n.d.). Vesicles on these ridges are opaque, white, grooved and wrinkled, giving its lacy appearance. Tentacles are found on the oral disc in pairs in spiral rows (Fig. 2D). These are very short and appear knob-like.

**DISTRIBUTION.** *A. elegans* was found initially in Mexico and its distribution is across the western Atlantic (González-Muñoz et al., 2013). The species has also been located

in Macqueripe Bay, Trinidad and Tobago (Rutherford, 2012). It is also found in sheltered beaches in Brazil and the Caribbean such as Guadeloupe and Jamaica.

**HABITAT AND ACTIVITY.** It is usually found on sandy bottoms where the pedal disc is attached to rocks and the column is lodged in the sand (Fig. 2A) (González-Muñoz et al., 2013). The habitat in Brazil consists of shallow water and the species may be found at low tide with its oral disc expanded although disturbances result in either retreat to the sand or closure of the disc.

**FOOD AND FEEDING.** *Actinoporus elegans* has a large circular oral disc (Fig. 2C) housing the mouth of the anemone in its centre. Knob-like tentacles are present on this disc. Feeding habits were stimulated in lab environment where bits of shrimp were placed on the oral disc and the anemone responded a delayed everting its actinopharyngeal lobes. These surrounded the food, prior to engulfing, without the aid of tentacles. Also noted was the movement of the disc to aid engulfing. The food is quickly swallowed relative to the movement of the actinopharyngeal lobes. Additionally, this animal feeds on crabs (Correa, 1973).

**POPULATION ECOLOGY.** Individuals of *A. elegans* are found singly (Correa, 1973), so this species is solitary. There was an absence of gametogenic tissue, which suggests that *A. elegans* reproduces asexually (González-Muñoz et al., 2013).

**BEHAVIOUR.** *A. elegans* is mobile. When threatened the column rapidly inserts into the sand while the disc closes (Fig. 2B). The anemone may also dislodge from the substrate it is attached to and move away (González-Muñoz et al., 2013). Another response to pressure includes squirting water from the oral disc (Correa, 1973).

**APPLIED ECOLOGY.** Present listings do not include this organism as threatened as its name did not appear under the World Wild Life Species Directory (World Wildlife Fund, 2016). Anemones are known to be beautiful animals. *Actinoporus elegans* may be kept in aquariums provided that suitable conditions are met. The aquarium should be well aerated, the water regularly changed and anemones should have steady diet of fish (Correa, 1973).

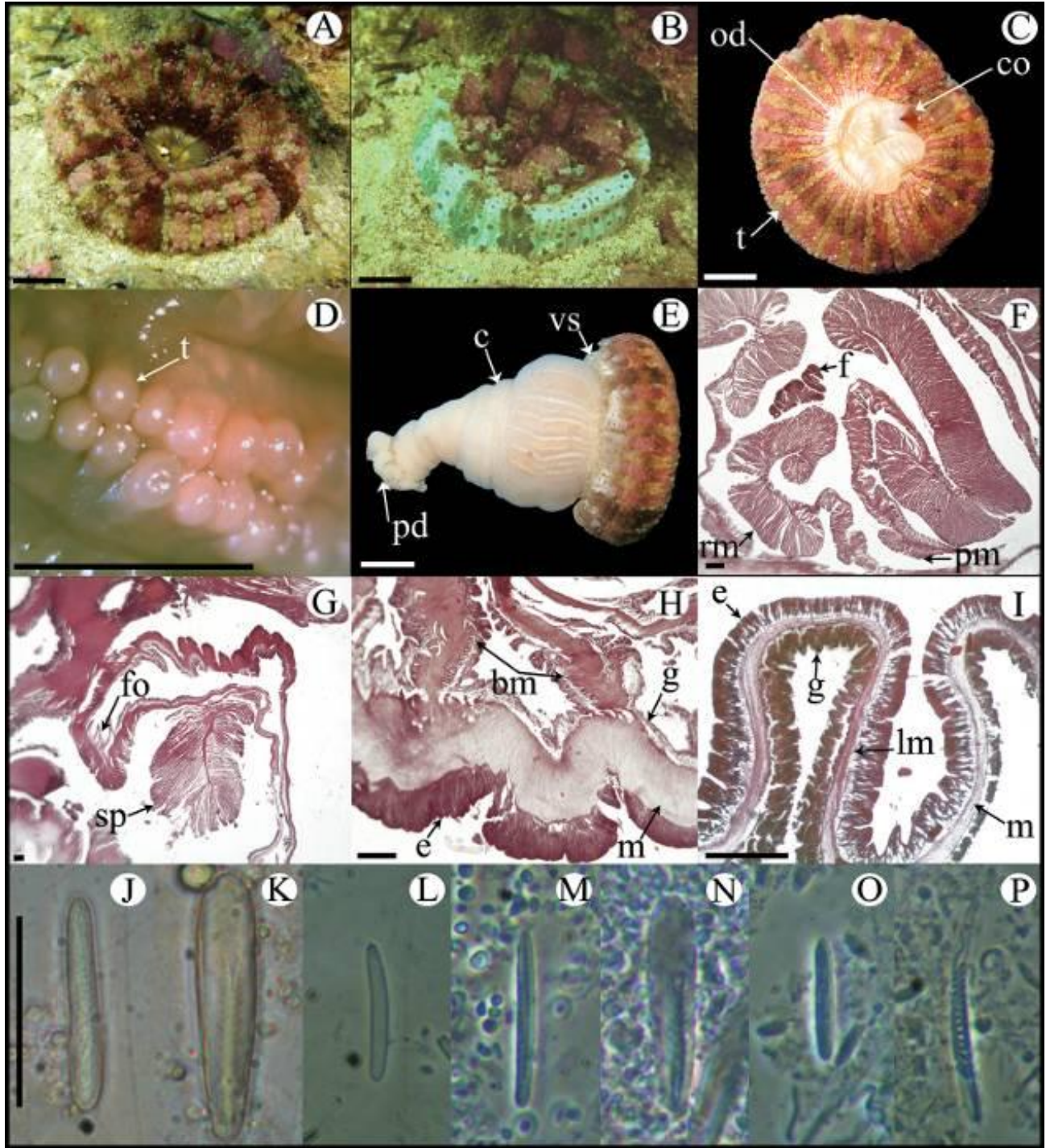
## REFERENCES

- Correa, D. (1973). On The Sea-Anemone *Actinoporus Elegans* Duchassaing. Publications of the Seto Marine Biological Laboratory 20:157-164.
- González-Muñoz, R., N. Simões, J. Tello-Musi, and E. Rodríguez. (2013). Sea anemones (Cnidaria, Anthozoa, Actiniaria) from coral reefs in the southern Gulf of Mexico. ZooKeys 341:77-106.
- McCloskey, B. (n.d.). Illustrated Glossary of Sea Anemone Anatomy - Terms. <http://www.nhm.ku.edu/tol/glossary/terms.html>.
- Rutherford, M. (2012). Tucker Valley BioBlitz 2012 Final Report. <https://sta.uwi.edu/fst/lifesciences/documents/TuckerValleyBioBlitz2012FinalReport.pdf>, downloaded 10 March, 2016.
- World Wildlife Fund. (2016). Species List Endangered, Vulnerable, and Threatened Animals. <https://www.worldwildlife.org/species/directory>, downloaded 10 March, 2016.

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**Fig. 2.** *Actinoporus elegans*: (A) opened disc, (B) retreated anemone, (C) oral disc, (D) tentacles, (E) side view, (F-I) sections of body, (J-P) cells in actinopharynx.

[<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3800810/figure/F8/> downloaded 9 March 2016]