Life Under Water

A Sea Anemone from the Mumbai Shoreline

Sea anemones, ‘the flowers of the sea’, belong to the phylum Cnidaria (C- silent). Cnidaria comes from the Greek word “cnidos” meaning stinging nettle. Their tentacles are deadly and, when touched, can release venom and paralyze the prey or the enemy. Sea anemones inhabit a range of habitats from intertidal zones to deep oceans. Although found in coastal habitat through out most of the world, they are more common in tropical waters. They are soft-bodied, radially symmetrical, and cylindrical, with a pedal disc at one end and an oral disc surrounded by tentacles at the other end. Their size varies from 4 mm to about 1.8 meters in diameter, however most of them are about 2.5 to 10 cm across. They run the full spectrum of colours, and are attached to hard surfaces like rocks, seashells, or a crab’s back by their pedal discs. Sea anemones are sessile organisms that move very rarely;

they might occasionally creep very slowly, or move in a somersaulting fashion. They feed on plankton and fishes depending on their size. They can live up to 60-80 years. Sea anemones can reproduce asexually by budding of polyps, and some of them reproduce sexually also by releasing gametes into the sea. Sea anemones have established symbiotic relationships. They provide safe stay and exposure to sunlight to certain algae and, in exchange, they take oxygen and sugar (by-products of photosynthesis) from the algae. Their more famous symbiotic relationship is with clownfish, wherein the clownfish stays under their tentacles and the anemones feed on scraps from the fish’s meal.

The photo here is of importance because this organism was spotted by undergraduate students who went for a fieldtrip to the shores of the busy city of Mumbai. These shores and the seawater here are highly polluted and often have a lot of human activity. In spite of this disturbance, the students, to their pleasant surprise, found the shores alive with marine life and located this sea anemone in the intertidal zone. Shaunak Modi from ‘Marine Life of Mumbai’ helped identify this sea anemone as a species from the genus *Anthopleura* based on the dual lines running down the body column, with a caveat that the identification is temporary as it is based on a single photograph. Citizen-driven groups like Marine Life of Mumbai are putting efforts to document the rich biodiversity of the Mumbai shoreline and create awareness about it.

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