

Sea Anemones: Flower-Animals of the Octopus' Garden

Text and Photography by

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The word “anthozoa” means “flower-animal,” and is aptly descriptive of those Anthozoans that we call sea anemones.

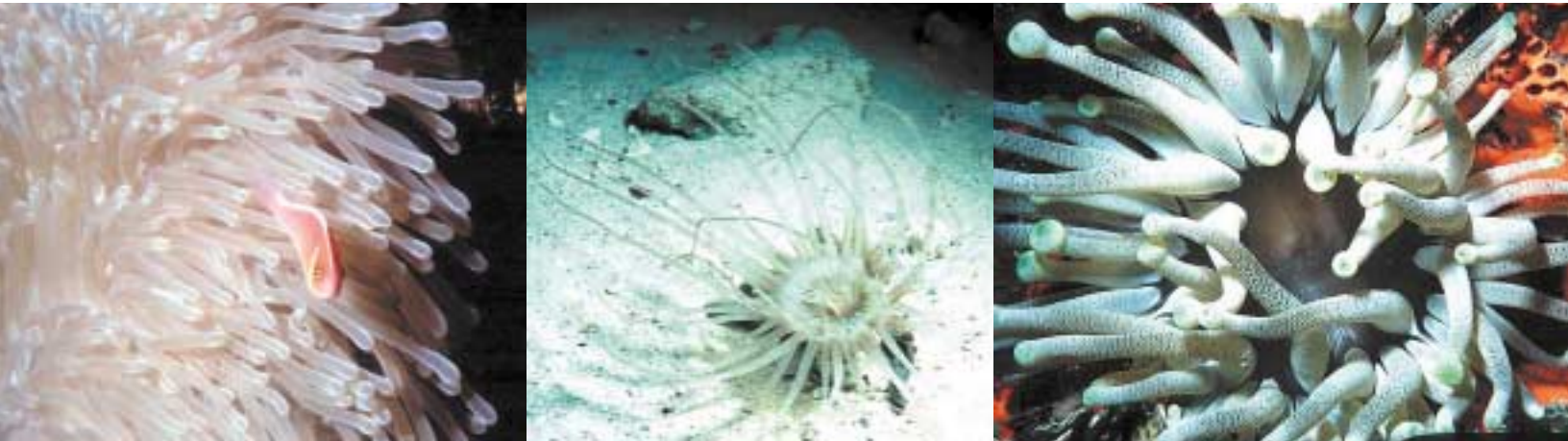
Appearing in a rainbow of different colors, sea anemones are found in all of the world's seas and range in size from tiny ones barely visible without magnification to giants over a meter across.

Members of the phylum Cnidaria, sea anemones share class Anthozoa with their cousins the stony reef-building corals (see “If I Only Had a Brain” in the May/June 2002 issue of Sources). Sea fans, sea pens, and other less well known cnidarians are also in this class. Anthozoans exhibit typical polypoid body structure: a radially-symmetrical bowl- or vase-shaped body topped by a mouth and an encircling ring of arms or tentacles. These tentacles bear

cnidoblasts, or stinging-cells, from which the phylum draws its name.

Cnidoblasts work like tiny harpoon guns. When a small fish or crustacean disturbs its hairlike trigger, a tiny dart shoots out of the cnidoblast and injects the hapless creature with a paralyzing toxin. The cnidarian then draws the victim into its mouth using its tentacles. Fortunately for us, humans are much too large to be captured and eaten by a sea anemone. Most of the time their stinging cells will cause no more than mild skin irritation, though a few species can create quite a burning sensation in a careless diver.

Anemones are often popular targets for underwater photographers. Their sensuous lines and sometimes iridescent colors make them interesting macro subjects. The fact that they just sit



there is also quite an attraction. But, as often as not, it's the anemone's symbiotic partners that become the main subject of the photograph, with the anemone itself merely serving as a colorful backdrop.

When most people think of sea anemones, their partnership with another creature, the clown fish, springs to mind. Clown fish, or anemone fish, have close symbiotic relationships with anemones found many places around the world. Because the anemone fish coat themselves with mucous from their host, the anemone does not recognize them as a danger and they are able to dwell in the midst of its waving arms without being stung. In return for keeping the anemone clean of dinner scraps and chasing away some fish who might otherwise make a meal of the

anemone, the clown fish receives protection from its predators and morsels to eat. Interestingly enough, you won't find any clown fish living with the large Caribbean anemones. There you'll find tiny crabs or shrimp making their homes amidst the anemone's cnidoblast bearing tentacles.

In the bountiful garden of the coral reef, sea anemones are usually the largest "flowers" you'll encounter. You can't really enjoy their fragrance, and you shouldn't ever pick a bouquet of them, but give me a patch of sea-flowers over a field of wildflowers any day.

References:

- Robert D. Barnes, *Invertebrate Zoology*, 1980
- Helena Curtis, *Biology*, 3rd edition, 1979
- Paul Humann, *Reef Creatures*, 2nd edition, 2002