

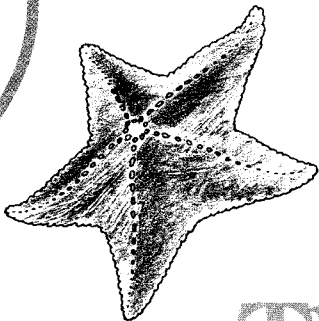
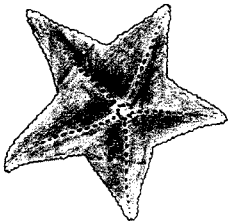


Often seen in pairs, the six-banded angelfish which produces grunting or thumping sounds when threatened.

Angelfishes are among the most colourful and widely recognised of the reef fishes. They are closely related to the butterflyfishes, and were at one time considered to be in the same family. Although both groups have deep, laterally compressed bodies, a single unnotched dorsal fin, and a small mouth with brush-like teeth, angelfishes can be differentiated from butterflyfishes in having a long spine at the corner of the operculum (pre-opercular spine) and are generally more brightly coloured. There are 76 species worldwide, inhabiting the coral reefs of the Indo-Pacific seas. A majority of the species inhabit shallow water, but a few are deep-water species. They are a favourite with

aquarists because of their brilliant coloration, especially species from the genus *Pomacanthus*, which also exhibit dramatic colour and pattern changes from juvenile to adult stage. Adults of this genera are also able to produce a loud drumming or thumping sound when threatened. Almost all angelfishes are day-time bottom feeders, with a few feeding on zooplankton in mid-water. Diet of the bottom feeders vary from species to species, and may include algae, detritus, sponges and benthic invertebrates.

There are no less than 3 species of angelfish in Singapore waters. The commonest is *Chaetodontoplus mesoleucus*, the vermiculated angel-fish. With its characteristic black stripe across the eye, yellowish tail, and purple-coloured lips, it can be found in almost all reefs, in pairs or in family groups, at depths from 2 - 20 m. The adults attain a length of 18cm, and they feed on algae and small invertebrates. The other two species, *Pomacanthus annularis* (blue-ringed angelfish) and *Pomacanthus sexstriatus* (six-banded angelfish) are larger species attaining

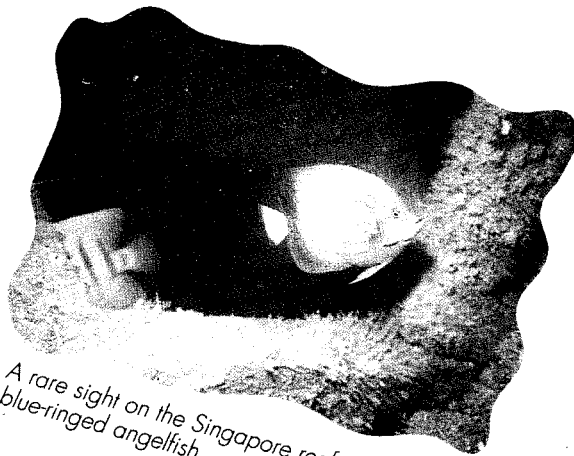


The Angelfishes



lengths of up to 31 cm for the former, and 46 cm for the latter. Juveniles of both species are similar, blackish with narrow curved blue and white bars, before they are transformed to the more colourful and striking adults. The blue-ringed angelfish is rare in Singapore, while the six-banded angelfish is commonly observed in pairs. The males are larger than the females, and it is thought that this species pair for life. Spawning in this species consists of swimming in a spiral towards the surface, and a dash to the bottom, accompanied by the release of eggs and sperm. The fertilised eggs, containing oil droplets, will then float to the surface.

All three angelfishes are popular with aquarists, although *C. mesoleucus* and *P. annularis* require great care. The juveniles of *P. sexstriatus* are more popular as the adults are too large, and are rarely available to hobbyists.



A rare sight on the Singapore reefs is the blue-ringed angelfish.



The vermiculated angelfish, with its purple lips, are a common sight on Singapore Reefs.

of Singapore

