

LEAFY SEA DRAGON

The leafy sea dragon (*Phycodurus eques*) is a marine fish belonging to the Syngnathidae family which also includes the seahorse and pipe fish. There are two species of sea dragon found in Australia's southern waters and nowhere else in the world, the other being the weedy sea dragon. The name syngnathid refers to these unique fishes' jaws, which are united into a tube-shaped snout with a tiny mouth at the end.

The leafy sea dragon has many leaf-like appendages on their body which resembles sea weed making it difficult for predators to find them in their natural habitat. These appendages are not used for propulsion only as camouflage. They propel themselves by means of a pectoral fin on the ridge of their neck and a dorsal fin on their back closer to the end of the tail. These small fins are almost completely transparent and difficult to see as they undulate minutely to move the creature sedately through the water, completing the illusion of floating seaweed. The fins along the side of their head allow them to steer and turn.

Most adults are green to yellowish-brown with thin bands or stripes across their body. They can change colour to blend in and match their surroundings making them very hard to see. They can reach a total length of 45 cm but usually grow to about 20-24 cm feeding on plankton and small crustaceans especially mysid shrimps or sea lice. They use their long pipe-like snout and small mouth to suck up their food as they do not have teeth.

The leafy sea dragon lives among rocky reefs, seaweed beds, seagrass meadows and on sand patches near weed covered reefs. Once hidden deep within kelp forests, they are impossible to detect. They are estimated to have a range from under 1 hectare to 5 hectares. Short bursts of movement are often followed by long periods of several days without movement. Populations exist from Western Australia to Victoria and possibly in northern Tasmanian waters. However, they are most commonly sighted off the Fleurieu Peninsula in South Australia. The total population size and life span is unknown.

The leafy sea dragon are equipped with several long sharp spines along the side of their body which are thought to be used to protect themselves against attacking fish. They also have eyes which move independently of one another giving them the ability to look in different directions. Each leafy sea dragon has a different pattern on their snout which is the only way to identify individuals. Another amazing feature is their exceptional navigational system which allows them to return to the same spot.

The leafy sea dragons courting ritual can continue for weeks, but eventually the female produces up to 300 bright pink eggs and deposits them onto the male's tail via a long tube. These are pressed on to the skin to become fertile, the skin hardens to hold the eggs in place. This is called the brood patch, which supplies them with oxygen. The female plays no more part in the eggs incubation and hatching.

Incubation is around 8 weeks in which time algae will grow over the eggs to help disguise them. The eggs turn a ripe purple after which the male pumps its tail until the infants emerge, a process which takes place over 24-48 hours. The male further aides in the babies hatching by shaking his tail and rubbing it against seaweed and rocks. Once born the miniature sea dragons are completely independent, receiving no further help from the parents, eating small zooplankton until large enough to hunt mysids. At birth they are around 20 millimetres long which makes them vulnerable to predators like fish, crustaceans and sea anemones. Only about 5% of eggs survive, growing very fast and reaching 20 centimetres after one year and their full mature length at two years.

Leafy sea dragons are listed as **Near Threatened** on the International Union for Conservation of Nature and Natural Resources Red List of Threatened Species. If you are lucky enough to see a live leafy sea dragon do not handle them as they are very fragile and can be injured easily. Please report all sightings dead or alive to www.dragonsearch.asn.au