

# *Australia's Incredible* **Leafy Seadragon**

Text and photos by Don Silcock





Leafy seadragons are found in the southern and western coasts of Australia.

**Australia, the great brown land down under, is home to many iconic and often strange-looking creatures, both above and below the water. But few are as unique and visually spectacular as the leafy seadragon!**

Known colloquially as “leafies”, they are also known by the common name Glauert’s seadragon. Leafy seadragons are endemic to the southern and western coasts of Australia, but are particularly synonymous with South Australia, where they have been adopted as the state’s marine emblem.

Timid creatures that grow to between 20 and 24cm in length, they use their ornate leaf-like appendages as very effective

camouflage to blend in with their surroundings and become almost invisible to the untrained eye.

Belonging to the same family as seahorses and pipefish, Australian leafy seadragons are generally brown to yellow in body colour, while their spectacular appendages are typically olive-tinted. Leafies can also change that colouration if they need to, such as when they are in open water and take on the appearance of floating seaweed.

### Habitat and lifestyle

Leafy seadragons are most commonly found among patches of kelp and seaweed, usually in sandy areas and at depths of less than 30m, living a mainly solitary existence with a life cycle of between five to seven years.

It was thought that leafies stayed in a specific habitat throughout their lifespans, but

recent research has shown that occasionally they will migrate up to several hundred metres away from their primary locations. They seem to have a keen sense of direction and are able to navigate back to their primary spots again.

Their kelp and seaweed habitats provide ample supplies of small crustaceans such as sea lice, plankton and larval fish, which they suck up through their long, pipe-like snouts. Leafy seadragons do not appear to have any specific predators—which is perhaps the ultimate compliment to their amazing camouflage.

### Propulsion

Like all bony fish, the leafy seadragon uses its swim bladder to maintain position in the water column. It has two small fins: one on its back close to the tail, which provides forward movement; and a second on the ridge of its neck,

## Seadragons



Leafy seadragons (above and previous page) grow up to 24cm and can change colour to resemble floating seaweed.



## Seadragons

History of Edithburgh Jetty on point-of-interest sign

until they are ready to hatch and change colour from pink to purple or orange. The eggs hatch at a rate of two to three at a time, and the male assists the hatching by shaking his tail and rubbing it up against seaweed and rocks—a process that typically takes many hours.

When they emerge from their eggs, the young leafy seadragons are between 4mm and 7mm in length. They are completely on their own, surviving initially by living off the still-attached egg capsule until their snouts are developed enough to start hunting. Leafies are fully grown after about two years and ready to mate, but it is estimated that only about five percent of the hatchlings survive to reach that maturity.



The reef by Edithburgh Jetty in South Australia is a good place to find leafy seadragons.

Females deposit up to 300 eggs on the underside of the males' tails, which they carry and incubate for up to eight weeks until the eggs hatch.

which allows it to steer and turn its body to change direction.

Although the incredible leaf-like appendages look like some form of fins, they actually play no part in how leafies move through the water and are simply there for camouflage. The overall effect being that leafy seadragons seem to float majestically through the water.

### Reproduction

The leafy seadragon's breeding season is during the warmer months of the southern hemisphere, starting late in the Australian spring around October and ending in late February as the summer comes to a close.

Reproduction is temperature-dependent and triggered by warmer coastal

water. When the mating season starts, the males give up their solitary lifestyle to court the females. When mating occurs, the females deposit between 250 to 300 bright-pink eggs onto the spongy "brood patch" on the underside of the males' tails.

The males then incubate the eggs, carrying them for between six to eight weeks



Located on the southeastern corner of Yorke Peninsula and around 50km west of Adelaide, Edithburg Jetty (above) is a popular place for leafy seadragons and various seabirds. The main threats to leafies are bad weather and poaching by rogue divers for the aquarium trade.

table big waves, can sweep them from their safe havens and wash them up on the shore.

While storms and big seas are part of nature,

and as such, factored into the overall ebb and flow of the leafy seadragon's reproductive cycle, global warming-induced changes to Australian weather patterns are impacting these delicate creatures. However, the bigger threat is the insidious practice of poaching leafies for the aquarium trade. Their superb presence in the water makes them so highly prized, they

are believed to fetch prices of up to AU\$15,000.

### Conservation

Poaching has had such a dramatic impact on the overall numbers of leafy seadragons that by the early 1990s, they became officially protected in the states of South Australia, Victoria and Western Australia. By the end of that decade, they were provided with national protection by the Australian government.

Despite these actions, the leafy seadragon has been classified as "Near Threatened" by the IUCN since 2006. Anecdotally, experienced South Australian divers found that before poaching really

### Threats to survival

There are two main threats to the survival of leafy seadragons: bad weather and rogue divers poaching them for the aquarium trade and private collectors. Unlike their cousins the seahorse, leafies have no tail, and therefore, no way to attach themselves to the kelp and seaweed in their habitats. So, harsh weather conditions and the inevi-



Great care is needed when diving and interacting with leafy seadragons, as they are very delicate creatures and get easily stressed. They are quite sensitive to bright lights so should not be exposed to extended use of strobes and video lights. As their swim bladders are easily damaged, they should not be moved up and down in the water column. Divers seeking leafies can stay at the Edithburg Hotel in Edithburg or Tipper's Bed & Breakfast (above).



became bad, it was quite common to see up to 30 leafies at the most popular sites. These days, it is a good day if five are encountered. So, there is clearly a long way to go before these iconic creatures are restored to their former status.

### Where to see leafy seadragons

The jetties and bays of South Australia, plus the state's very scenic Kangaroo Island, are the best places to see leafies—with Rapid Bay, Victor Harbour and Edithburg probably the best locations. Both Rapid Bay and Victor Harbour are about 85km south of the state capital Adelaide and are very popular dive sites, while Edithburg is on the southeast corner of Yorke Peninsula and about 50km

west of Adelaide, across Gulf St Vincent, but some 225km away by road. All three are shore dives with easy access in good weather. I have personally had the most success at Edithburg; although, I must say, that I was guided and doubt I would have been able to find them on my own.

### How to see leafy seadragons

Because the leafy seadragon's camouflage is so effective, it is surprisingly difficult to spot, even when it is in front of you. So, unless you have unlimited time, patience and sense of humour, you will probably be best served by using a guide. Several years ago, the choices for guides were quite limited, but these days, a quick check with Google shows that a

lot of dive shops and various individuals offer "leafy seadragon tours." I had the help of a guide, Carey Harmer of Leafy Sea Dragon Tours, and was very pleased with my trip. It is money well spent, really, if one factors in the cost of getting down to South Australia, car hire and accommodation.

### Leafy seadragon etiquette

Leafies are very delicate creatures which are very territorial and easily stressed. So, great care is needed when interacting with them, particularly if the males are carrying eggs. Under no circumstances should they be moved up and down in the water column, because their swim bladders are easily damaged by sudden

changes in pressure. Similarly, leafies do not have any eyelids and are believed to be quite sensitive to bright light. Therefore, they should not be exposed to video lights over an extended period or excessive use of strobes.

Overall, the leafy seadragon is an impressive example of Australian marine biodiversity and encounters with them are truly memorable. However, they must be respected and treated with great care. ■

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