

To reference this article:

Browne RK. 2006. Proposed Seadragon Aquarium. Seadragon Foundation Articles.

This article talks about aquariums for the Leafy Seadragon. The Seadragon Foundation would like to see the establishment of a public seadragon aquarium.

## Proposed Leafy Seadragon Aquarium

*Dr Robert Browne*

Don Chapman, Event Management/Tourism Officer, Yankalilla, Visitor Information Centre, sent MLSSA an email asking for comments on a proposed aquarium dedicated to the Leafy Seadragon.

Don asked 'Could the aquarium itself offer an opportunity for you or your members if it had a genuine research capability?'. The 'Leafy' was named in 1865 by Gunther, and was protected earlier in South Australia than its immediate relatives in the syngnathids, the seahorses and pipefish. Other syngnathids were only fully protected in South Australia in 2006. The Leafy Seadragon (*Phycodurus eques*) has become symbolic of marine conservation and – along with the Giant Cuttlefish (*Sepia apama*) – of marine ecotourism in South Australia. Because of its conservation status the 'Leafy' as it is affectionately called must be a model for best practice in management and research.

Along with questions about the Aquarium there was also a proposal for the formation of a foundation dedicated to Leafy Seadragon conservation. This proposal was supported by Frits van Emden. The proposed foundation will strongly support the Aquarium and also diving at Rapid Bay Jetty, a top Leafy Seadragon dive spot where among the piles of the jetty a diver is almost assured of sighting a 'Leafy'. The old Rapid Bay Jetty is unsafe and has been closed. This means a long swim out for divers, and also the lack of a facility close to diving sites for emergency treatment as a consequence of a diving accident. The Rapid Bay jetty diving site is regarded as significant to tourism in South Australia. To assist marine ecotourism a new jetty parallel to the old jetty is planned at a cost of about \$2,000,000.

The Leafy Seadragon belongs to the syngnathids which also include the Weedy Seadragon, Pipefish, and Seahorses. The syngnathids are one of the most interesting and little known groups of inshore fish and are of great conservation significance. The significance of syngnathids to conservation was recognized through their blanket protection in South Australia.

For more information the 'Inshore Fish Group' site, [www.ifg.bioteck.org](http://www.ifg.bioteck.org) has species profiles for South Australian syngnathids. So, in a nutshell, any facility that can offer a genuine research capability for the study of the Leafy Seadragon, or any other syngnathid, would be invaluable. To a conservation biologist a 'genuine research capability' means the provision of a facility in which research of value to Leafy Seadragon conservation can be conducted. The standard for 'research of value' is a quality acceptable to peer reviewed scientific journals.

The possible types of research will be determined by the design of the system. The best type of research for a cluster of medium to small display aquariums is of behaviors including courtship rituals, mating, reproduction, and territoriality. In particular, behaviors involved with courtship and reproduction offer a great opportunity for educational displays.

I have recently seen two great conservation exhibits in the USA at the Chattanooga and New Orleans Aquariums which were dedicated to syngnathids and marine conservation. These were very popular with the public. The candidates for the Leafy Seadragon research projects should be familiar with Syngnathid biology, and the research should have institutional ethics approval. Preferably conservation research should be non-invasive.

Other research opportunities for both marine conservation and eco-tourism present themselves at Rapid Bay. The anticipated increase in recreational diving at Rapid Bay should encourage the establishment of more habitats for the Leafy Seadragon. Besides research in the proposed Aquarium other research could investigate different options for the creation of more habitat for Leafy Seadragons, and other marine fauna and flora in the area. These projects could be in conjunction with improved quality of habitat for divers. The potential at Rapid Bay for temperate water marine eco-tourism is great. It is clear that if a community can integrate economic and cultural goals with conservation this is the best possible outcome. Marine eco-tourism at Yankalilla and Rapid Bay means a greater public awareness of South Australia's beautiful and unique inshore ecosystems and their conservation value. The proposed Leafy Seadragon Aquarium if dedicated to conservation and properly conducted research would be an invaluable asset within this conservation strategy.