

YANKALILLA BAY CONSERVATION DIVING

David Muirhead (Inshore Fish Group)

Normanville Beach at Yankalilla Bay, South Australia, is home to one of the highest variety of pipefish in the world. These pipefish have proven a bonus for overseas and local conservation divers which have delighted in the experience. There are two species that inhabit the sand flats close inshore. The Brigg's crested pipefish (*Histiogamphelus briggsi*) and the closely related Rhino pipefish (*Histiogamphelus cristatus*). These species are among a number of exciting discoveries by the Seadragon Foundation Inc. members, myself and Kevin Smith, during surveys for new species.



*Brigg's crested pipefish (*Histiogamphelus briggsi*) was only known as far west as the Robe in the SE of South Australia until they were found at Normanville Beach by David Muirhead and Kevin Smith.*

The finding of this species in such an accessible location shows how little is known of inshore fish in South Australia.

Image courtesy of David Muirhead.

The Seadragon Foundation Inc. supports the development of a range of conservation experiences based around the seadragons and their other Syngnathid relatives. The close inshore aggregations of pipefish mainly occur during the warmer months an ideal time for even casual diver/beach lover to see these unique creatures.

This close up of the head of a Brigg's crested pipefish. The calm shallow waters of Normanville are ideal for the photography of a wide variety of pipefish.

The head in this photo would be about 2 cm long.

Image courtesy of Graham Smith.



The Syngnathid family includes seadragons, and their cousins the seahorses and pipefish. Pipefish are smaller and less spectacular than their close relatives the leafy seadragon and weedy seadragon. Nevertheless, the delightful and beautiful pipefish are as mysterious and appealing as they are exotic. There is already a substantial community of divers targeting the leafy seadragon and other species at the nearby Rapid Bay jetty.



*The Rhino pipefish (*Histiogamphelus cristatus*) is named because of the very high crest on its snout.*

*The very square snout may be an adaptation to camouflage these pipefish as they mimic broken pieces of strap weed (*Posidonia* sp.).*

Image courtesy of Graham Smith.

Seadragon conservation and eco-tourism in the Yankalilla area will benefit by catering to increasingly discerning conservation divers. Yankalilla Bay is remarkable in that timid shore divers and snorklers could hope to see these pipefish live in standing-depth water in sandy areas. These are the very areas preferred by summer recreational paddlers and swimmers. So Yankalilla Bay can offer both the beginner and experienced diver a unique experience.

To those both local to the area and across the world I invite you (?at leisure in a quiet moment?- as if!!) to view a particular page on the Inshore Fish Group's very user-friendly website(ifg.biotech.org.au). The Inshore Fish Group is a working group within the Seadragon Foundation Inc. Please visit 'Brigg's Crested Pipefish' in the pipefish species list found in the 'Pipefish' section <http://www.ifg.biotech.org/Fish%20species/Histiogamphelus%20briggsi.htm>

There you will see some images, correctly credited as taken off Normy and featuring Brigg's crested pipefish, which is just one of a surprising variety of pipefish species Kevin Smith and I have sighted and photographed in Yankalilla Bay.



*The spotted pipefish (*Stigmatopora argus*) is one of the most widely distributed and common pipefish species in South Australia.*

As with all pipefish and other syngnathids the males carry the eggs.

The females in common with many pipefish display to the females. In the case of the spotted pipefish the females display by flattening their bodies.

Image courtesy of Graham Smith.

This diving experience at Normanville Beach would augment the Leafy Seadragon Festival experience and would encourage some of the diving interstate and international eco-tourism subset of Leafy Sea Dragon Festival participants make return visits. The Normanville Beach site lends itself so perfectly to public snorkeling/diving etc. and difficulties in access to other sections of the beach make this the ideal diving site.

The Seadragon Foundation Inc. has a mandate to support the sustainable management of the leafy seadragon and its habitat. This includes its syngnathid relatives and other inshore fish. Consequently we will be very concerned with the management of the Normanville diving site. We have been monitoring the site for several years and will continue and improve our monitoring of Normanville Beach.

The sustainable management of the dive site should be overseen by our Yankalilla working group, Yankalilla council community members and other local community groups. If increasing numbers of 'dive guides' or conservation divers visit this site, along with the already large local beach going community and Surf Life Saving Club etc., then the syngnathids themselves will be protected in that any unscrupulous collectors would be seen by passers-by or watchers on the balcony of Surf Life Saving Club etc.

I think that the current kiosk/dining facility could provide Yankalilla District Council an ideal public aquarium facility and marine interpretative center, with a restaurant, as they usually are!. Of course this would have to be coordinated with other local tourism information facilities.

If divers want to observe and photograph non-seadragon Syngnathids including pipefish and maybe seahorses and weedy seadragons - some will have the collector mentality that has driven many like myself to amass more images than we know what to do with, and still we go back in the water eager for more! - then I suspect they will be hard pressed to find a more genial, convenient and accessible site than Normanville.



Stigmatopora sp.

This is a type of pipefish that the Inshore Fish Group and especially Kevin Smith and David Muirhead has been studying for several years. We are currently describing this species and completing a comprehensive study of the pipefishes and other syngnathids of South Australia.

Image courtesy of David Muirhead.

If these early indications are a guide perhaps divers photographic collections and interactive experiences might never reach 'full house' with regard to the Southern Oz pipefish species list.

This is because new endemic inshore species will likely be formally described and hence added to the list on an ongoing basis here in South Australia - as well as Western Australia etc, but South Australia in particular was in the doldrums for decades, with essentially no work done on pipefish identification until recently since the pre-SCUBA era.

Now that public interest in inshore fish has been rekindled by Kevin Smith, Robert Browne, myself and others, the Inshore Fish Group have been finding new types and have just described the Southern Gulf Pipefish *Stigmatopora narinosa* (Browne and Smith 2007, in press). The southern gulf pipefish is the first new pipefish species named in southern Australia for decades. It is also the first confirmed in SA since the early years of last century. The southern gulf pipefish has so far not been seen at Normanville but is found at Seacliff and is common at several popular Yorke Peninsula jetty dive sites. I could go on but if you want to read more on my pet subject the same IFG website has an excellent summary.

More information on the pipefish at Normanville can be found in the Marine Life Society of South Australia August Newsletter. Notes on a Recent Dive (*David Muirhead*)
<http://www.mlssa.asn.au/>.



Carrackalinga beach with Normanville Beach in the distance to the north. There are many exciting opportunities for the exploration of marine life on Fleurieu Peninsula, South Australia.

Image by Karen Whitford.