



# Protecting South Australia's Fish, Sharks & Rays

## White-nosed Pigfish (*Perryena leucometopon*)

## FACT SHEET #6

The white-nosed pigfish is a little known and rarely sighted fish in South Australian waters. As with around eighty percent of SAs fish species, this fish is only found along the southern coast of Australia. Our lack of knowledge of the white-nosed pigfish exemplifies how little we know about the fish, sharks and rays of this State and the marine environment in general.

### HABITAT AND BIOLOGY

White-nosed pigfish are known from offshore rocky reefs, which are reported to be the main habitat type. The fish has also been recorded under rocks on rubble reef, at 4 m or 5 m depth.

They are endemic (i.e. found nowhere else) to the southern Australian coast, and are known from Gulf St Vincent (SA) in the east, to Port Denison (WA) in the west.

With its long snout, unusual grainy and scaleless skin, distinctive and long dorsal (top) fin and small gill opening above its pectoral (side) fins, this fish is something different to the average reef dweller. While it is obvious how the pigfish got its name, younger pigfish with graceful lines and attractive colours look quite different in both shape and colour from the wrinkled old adults. The fact that no image of the juvenile pigfish could be obtained for this fact sheet is an indication of both the rarity and lack of information regarding this fish. Pigfish demonstrate the fascinating diversity of life histories of our unique southern fish species.

The white-nosed pigfish is thought to be a slow moving, benthic (bottom dwelling) species that spends much of its life resting on and around reefs. It is likely that they use their long snout to probe into crevices, seaweed and sand, for crabs, worms, and other benthic invertebrates (animals that lack a backbone-like structure e.g. worms or shellfish). More research into the life history of the pigfish will be needed to confirm these details.

White-nosed pigfish are medium-sized fish and can grow to a length of around 16 cm. The small mouth and rocky habitat of this species means that it is rarely captured in fisheries and is therefore not often seen by humans. If you are lucky enough to see one note that the pigfish has venomous spines that can cause considerable pain for around 20 minutes and discomfort for over an hour, so look but don't touch.

### CURRENT CONSERVATION STATUS

The white-nosed pigfish is not currently protected in South Australian waters.



The White-nosed pigfish (Adult).

Photo: (c) B. Hutchins

This distinctive and unusual fish exemplifies how little we know about most non-commercial marine fish species.

## THREATS AND RESPONSES

Fish, sharks and rays in SA waters face a wide variety of threats including: damage to or loss of habitat; being taken as by-catch by commercial fishers; the impacts of climate change; introduced marine pests; and an overall lack of knowledge of fish species.

In the case of the white-nose pigfish, lack of knowledge of the species and the ecosystems they inhabit is one of the major threats.

Research to increase understanding of this species and their habitats is therefore particularly important. Surveys are required to determine the relative abundance (or rarity) of white-nose pigfish on reefs in South Australia. More information is also needed about its habitat and depth range, as is information on the biology, such as growth, longevity, reproduction and diet.

The inshore distribution, slow-moving and site-associated nature, and apparent natural rarity of the white-nose pigfish in southern Australia, make populations particularly susceptible to decline from habitat impacts in areas with high levels of land-based inputs such as metropolitan Gulf St Vincent.

Reduction and mitigation of land-based human impacts on the marine environment, i.e. sedimentation (excess sediment input), eutrophication (excess nutrient input) and other pollution such as toxic chemical inputs, are therefore important for the protection of this species.

The white-nose pigfish is reported to be a minor part of the bycatch in rock lobster pots in SA and WA, but there is currently no data available on the extent to which this occurs. Bycatch data from rock lobster fisheries (and any other fisheries in which it is at risk from bycatch) is required.

While the exact impacts of climate change on the marine environment are uncertain, there is little doubt that it will negatively affect marine habitats through increases in water temperature, sea level rise and a change in storm activity.

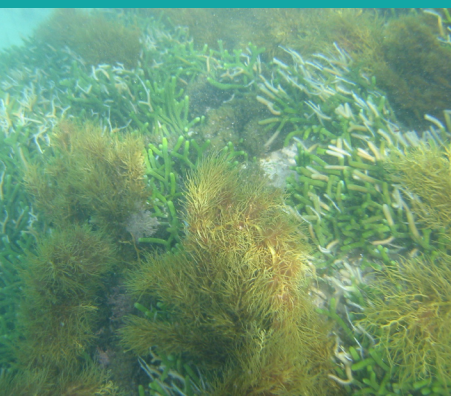
Inclusion of white-nose pigfish habitat in Sanctuary Zones under SAs Representative System of Marine Protected Areas will both help protect the pigfish and assist recovery of depleted populations. This will also help reduce the impacts of climate change by increasing ecosystem resilience.

For more information: [www.ccsa.asn.au/fsr](http://www.ccsa.asn.au/fsr)

## ACKNOWLEDGEMENT

Information used in this fact sheet was compiled from:

Baker, J.L. (2007 in prep.) Status of Marine Species at Risk in South Australia: Technical Report – Bony and Cartilaginous Fish.



Rocky inshore reef with healthy macroalgae cover is important habitat for many SA fish species

Photo: (c) J. Coates

Ignorance is the single biggest threat to these and other lesser known species. Learning more about fish like these and the environments they inhabit needs to be given increased priority before it is too late.