



Protecting South Australia's Fish, Sharks & Rays

Rock Ling (*Genypterus tigerinus*)

FACT SHEET #3

Rock ling are one of the least known, large South Australian fish species and are uncommon in SA waters. Rock ling are considered to be a long-lived, site-associated reef fish. Ling are highly esteemed by some fishers as food, which appears to have led to rock ling being virtually eliminated from some areas of southern Australia.

HABITAT AND BIOLOGY

Rock ling occurs in the temperate marine waters of Australia and New Zealand. In Australia, it is known from the central New South Wales coast around the south coast of Australia (including Tasmania) to south-western Western Australia. Most known records in South Australia come from the gulfs and there are also records from the south-east.

Smaller juvenile rock ling live in seagrass-lined estuaries such as the waters of SAs gulfs and are often found under objects or small reef patches within the seagrass beds. Adults inhabit shallow rocky reef areas and are often found under ledges, in caves and in rocky recesses, where they commonly remain during the day. Rock ling are also found around jetties, shipwrecks, artificial reefs and resting under moored boats in sheltered bays. Although rock ling often inhabit shallow reefs close to the shoreline in bays, inlets and along open beaches, adults are known to move away from inshore areas, and can be found in coastal reef areas 15 m or more deep.

Rock ling are large fish and can reach a maximum size of around 1.2 m. To date the heaviest weight on record is 7.08 kg. There is a lack of biological information regarding the maximum age and growth rate of rock ling but it is noted that the related pink ling (*G. blacodes*), may live to 30 years. Rock ling feed on small fish and crustaceans.

Rock ling are members of the Family Ophidiidae (lings, tusk and cusk eels). Fish in this family are generally found in deep water (including the deepest-living fish known to date, the cusk-eel, *Abyssobrotula galathea*, recorded at 8.37 km, in the Puerto Rico Trench) and therefore the shallow water lifecycle of the rock ling is of considerable ecological interest. Fish of this family breed by producing eggs that hatch outside of the body but little else is known of the rock ling's reproductive biology. There is some research that suggests that they may breed in spring and summer but further investigation is required.



The rock ling
Photo: (c) Graham Short

Rock ling are members of a family of deep water fish, so their shallow water lifecycle is of considerable ecological interest.

CURRENT CONSERVATION STATUS

Rock ling are not currently protected. There are no size, bag, boat or catch limits set for the capture of this fish by recreational or commercial fishers.

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 bycatch by commercial fishers; the impacts of climate change; introduced marine pests; and an overall lack of knowledge of fish species.

Rock ling are reported to have a very low resilience to exploitation and already appear to be uncommon in South Australia.

Rock ling are associated with habitats (seagrass meadows and reefs) that are under serious and increasing threat, especially in SA gulf waters. Adult characteristics (i.e. large, site-associated, slow-moving and found in near shore areas) make them vulnerable to capture by fishers, including spear fishers, as well as to coastal impacts such as inappropriate development.

Anything that affects the quality of benthic habitat is considered a threat to populations of this species. This includes stormwater runoff, pollution discharges, inappropriate development and dredging. Site-association makes them particularly vulnerable to threats that damage habitat directly, such as dredging and trawling.

Due to their vulnerability to capture by fishers, appropriate fishing regulation would be useful, including introduction of size and bag limits.

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 changes in storm activity.

The lack of knowledge about population size, habitat requirements and distribution of marine fish means that it is extremely difficult to identify and implement appropriate management actions. Increased research and monitoring for this and other non-commercial species is needed.

For more information: 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.



Nearshore reef is critical rock ling habitat.

Photo: (c) Robert Baldock

Rock ling is reported to have been virtually eliminated from some areas of southern Australia by fishing, including netting and spear-fishing.



Rock ling are large fish and reach a maximum size of around 1.2m

Photo: (c) Fisheries Research and Development Corporation