



# Protecting South Australia's Fish, Sharks & Rays

## The Western Blue Devil (*Paraplesiops meleagris*)

## FACT SHEET #4

The western blue devil is one of the most entrancing sights for divers on South Australian rocky reefs. The species is rarely seen in large numbers as adults form pair bonds or are solitary. Recreational divers love this species and dive tourism operators promote its presence as a major attraction at their dive sites.

### HABITAT AND BIOLOGY

The western blue devil is found in South Australia, Victoria (to Wilsons Promontory), and WA (to Houtman Abrolhos). Blue devils are territorial fish that occur in the vicinity of rocky reefs, often in caves and crevices, and under ledges and overhangs, usually between 5 m and 45 m deep.

Western blue devils can grow to around 36 cm and the heaviest recorded specimen was 1.134 kg. Adult individuals rarely venture beyond the home site and the species is known to defend its home territory. They eat other bony fish and benthic crustaceans (e.g. crabs), and are described as 'generalist carnivores'.

For such a popular species very little information on reproduction has been recorded. Members of *Paraplesiops* (the genus to which western blue devil belong) lay eggs on a hard substrate. The eggs usually have anchor-shaped hooks and hair-like filaments, that either entangle with one another to form a mass, or adhere to the surface on which they have been laid. It is thought that western blue devil eggs are guarded by the male in a crevice or cave, or are mouth-brooded. It has been reported that the related species, the eastern blue devil, is likely to be a mouth-brooder.

The western blue devil can be considered as an indicator species for inshore reef ecosystem health. Conservation efforts to protect reef habitat, such as reducing sediment loads reaching the marine environment from land based sources, will benefit not only this species, but marine ecosystems as a whole.

### CURRENT CONSERVATION STATUS

The western blue devil is not currently protected in South Australian waters. It is noted that the related eastern blue devil, is a protected species in NSW. There are no size, bag, boat or catch limits set for the capture of this fish by recreational or commercial fishers.



The western blue devil  
Photo: (c) P. Horne

Adult western blue devils rarely venture beyond their home site and are known to defend their home territory.

## THREATS AND RESPONSES

Western blue devils are solitary (or form pair bonds), territorial, slow-moving, inquisitive, strongly site-associated with reefs in shallow near shore waters, and have site-specific reproduction. These characteristics make populations particularly vulnerable to localised impacts.

Habitat degradation impacting on reef habitat and other near shore areas arises from activities such as dredging and channel development, from excess sediment and nutrient inputs, stormwater and other land-based discharges. Protection of these ecosystems through the establishment of Marine Park sanctuary zones will be of significant benefit to western blue devils.

The species is sometimes taken as a food fish by recreational anglers and spearfishers across its range and blue devils are sought after for the aquarium trade. Implementation of bag and boat and/or size limits for this species will assist in its conservation. It is noted that protection from spear-fishing in SA was suggested as early as 1967 (by Dr. S. A. Shepherd).

Tourism related impacts such as disturbance is potentially a problem at popular dive sites and more research is required to determine whether this is a threat to this species.

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.

Despite its widespread distribution there is little information available on the biology or population dynamics, and little knowledge of population sizes or relative abundance of this species. 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.

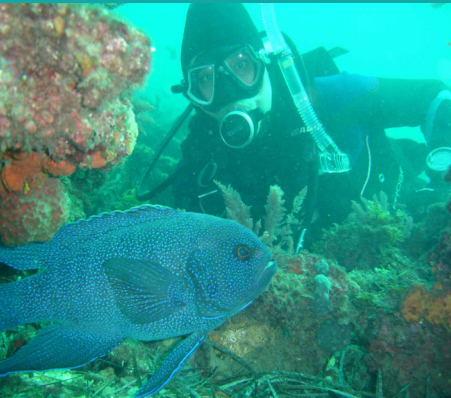
Western blue devil are currently one of the 'in peril' species monitored by the Reef Watch 'Feral or in Peril' program. Reef Watch is one example of how the community can be involved in reporting sightings of western blue devils and other fish, sharks and rays of conservation concern. See [www.reefwatch.asn.au](http://www.reefwatch.asn.au)

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.



The western blue devil is considered to be a 'dive icon' and is popular with recreational divers including dive tourists.

Photo: (c) S. Leske

Concern for the status of western blue devils is reflected in the selection of this species as one of the 'in peril' species as part of the Reef Watch Feral or in Peril project.