



Protecting South Australia's Fish, Sharks & Rays

Congolli (*Pseudaphritis urvillii*)

FACT SHEET #7

The congolli, also known as the tupong or freshwater flathead, inhabits both estuarine and freshwater habitats. The abundance and distribution of this species has been heavily impacted by human induced changes to its environment and by historical fishing targeting spawning aggregations. The plight of the congolli is indicative of the problems faced by other fish species in SA estuarine environments.

HABITAT AND BIOLOGY

Historically a widespread species in south-eastern Australia, congolli are found throughout south-eastern South Australia, Victoria, Tasmania, the Bass Strait islands and parts of New South Wales. Today its range remains widespread, but it is far less abundant, and less commonly recorded.

Congolli, once found throughout the State near freshwater outlets, are now restricted to south-eastern SA in areas such as the lower reaches of the Murray Darling Basin and estuaries adjacent to South Australian gulf waters. The species is no longer found in some locations such as Kangaroo Island and Streaky Bay where it has been recorded historically. On a positive note, congolli have returned to the Torrens River system after the introduction of 'fishways' providing access for fish migration through human built barriers.

A small to medium sized fish the congolli is highly variable in colour, and large females can grow to 35 cm in length but are more commonly seen in the 10-20 cm size class. The fish can be confused with gudgeons but can be identified by the longer top (dorsal) and lower (anal) fins. Congolli are thought to have a life span of around 3-5 years.

The congolli will often bury itself in soft sand or silt and is an ambush predator. However, they will eat aquatic vegetation as well as prey items such as fish, fish eggs, molluscs and crustaceans.

In the lower River Murray, reproduction occurs from May to September, and likely takes place in freshwater - large congregations of females in roe (so presumably spawning) were historically netted from around reed islands in Lake Alexandrina.

Research is required to learn more about the life history of the congolli. It appears to exhibit complex and varying behaviour across its range and can be found living in both purely marine and totally freshwater environments. There is a lack of understanding regarding the saltwater – freshwater link for this species, though it is almost certain that access to freshwater is critical to its lifecycle.

CURRENT CONSERVATION STATUS

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



The congolli (Freshwater Flathead)

Photo: (c) G. Aland

The congolli has the unusual ability to inhabit both totally marine and totally freshwater habitats.



Estuary habitat such as the Murray Mouth / Coorong Area is under increasing threat.

South Australia has a very limited number of estuaries that can support congolli populations and these are increasingly under threat.

THREATS AND RESPONSES

The distribution and abundance of this species in SA is already reduced. The apparent need for congolli to move freely from freshwater to estuarine areas to complete the life cycle is a major point of vulnerability for the species, given that there are very few rivers and estuaries in SA able to support them. Congolli are subject to numerous ongoing threatening processes such as:

- blockages created by humans such as dams, weirs, barrages and drains, which alter the direction, velocity and timing of flows, and can impede spawning migrations of adults, and/or the migration of juveniles;
- reduction in fresh water quantity (environmental flows) in some areas and artificially increased flow (through channelisation) in other areas;
- introduced aquatic pest species such as carp, that can out compete, predate or displace congolli;
- destruction of in-stream habitat, and loss and degradation of riparian vegetation (which reduces habitat, destabilises river banks, and changes channels); and,
- contamination of rivers and estuaries with pollutants and drainage and/or infilling of small creeks.

Land-based actions such as revegetating river banks can address multiple issues facing freshwater courses. Ensuring connectivity between marine, estuarine and freshwater environments is vital to the lifestyle of congolli and other fish that need to migrate between these environments.

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. For species that require both marine and freshwater habitats, such as the congolli, reduced freshwater river flows caused by reduced rainfall and increased diversion of river water for human use are potential threats from climate change.

Marine Parks or aquatic reserves in estuarine areas along with improved marine planning may assist recovery of depleted populations.

Prevention, monitoring and mitigation of pest species invasions can be assisted via implementation of the National System for the Prevention and Management of Introduced Marine Pests. The Reef Watch 'Feral or in Peril' program run by the Conservation Council of SA is an example of how the community can be involved in reporting sightings of specific introduced marine pest species. See www.reefwatch.asn.au

The lack of knowledge about marine fish means that it is extremely difficult to identify and implement appropriate management actions. Increased research and monitoring for 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.