



Australian Government



# Native Fish Strategy

## FISH FACTSHEET: NORTHERN RIVER BLACKFISH (RIVER BLACKFISH, SLIPPERY, SLIMY, MUDDY, GREASY)



Scientific Name

*Gadopsis marmoratus* Richardson 1848

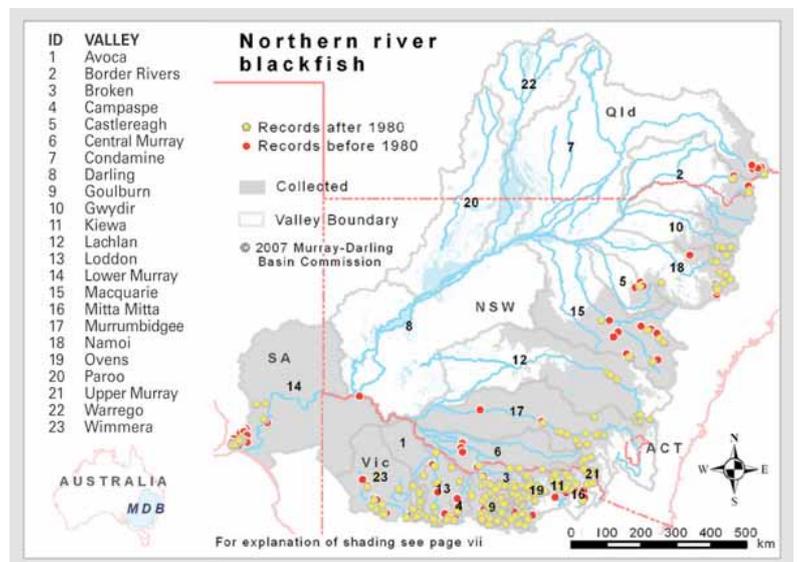
photo by Gunther Schmida

### CONSERVATIONS STATUS

Threatened.

### DISTRIBUTION AND ABUNDANCE

The Northern river blackfish is known from the Murray and the mid to upper reaches of the Murrumbidgee, Macquarie, Lachlan, Gwydir and Namoi drainages in NSW. It is locally common in the Condamine-Balonne and present in the Border rivers drainage in Qld, the northernmost extent of any of the blackfish species. In SA it has disappeared from the Murray and is now



confined to small localised populations in the Eastern Mt Lofty streams. In Vic it is known from all the major tributaries of the Murray. Once considered to be highly threatened across the Basin, its numbers and distribution have declined. However, its abundance in some locations seems to fluctuate considerably from year to year, although SA populations are precarious and threatened.

## IDENTIFICATION

A pale olive-green or brown to almost black fish, often with a diffuse marbled pattern. Maximum size of the northern form is about 350mm, but it is commonly 200–250mm long and about 100 g. The pelvic fins are reduced to a pair of fine, white, divided filaments located under the throat. The dorsal fin is low and long, reaching almost to the tail. The mouth is large. The dorsal fin has 6–13 spines. The body is covered in very small scales with a thick mucous coating. The northern form is readily distinguished from the Two-spined blackfish by its possession of more than three spines in the dorsal fin.

There is an undescribed species complex within *Gadopsis marmoratus* consisting of two species (northern and southern) which differ mainly in maximum size attained. Only the northern form occurs in the Basin.

## BIOLOGY AND HABITAT

The Northern river blackfish is found in a diverse range of stream types, from upland and lowland small creeks to large rivers. It prefers habitats with good instream cover such as woody debris, aquatic vegetation or boulders. Most aspects of its ecology are similar to that of the Two-spined blackfish, which often replaces this species in montane habitats.

Spawning occurs from October–January when water temperatures exceed ~16°C. The spawning site is usually inside hollow logs, although rocks and undercut banks may also be used. Fecundity is low (generally ~200–500 eggs) and increases with fish length. The eggs are large (~4mm diameter), demersal, adhesive and hatch after 14 days at 15°C with the larvae about 6–8mm long. The male guards and fans the eggs and rarely leaves the spawning site. The larvae remain at the spawning site for about 3 weeks after hatching.

An opportunistic carnivore, the Northern river blackfish consumes aquatic insect larvae, crustaceans, terrestrial insects that fall on the water surface, and occasionally other fish. Its movements are restricted-home range is estimated at 10–26 m. It is benthic and nocturnal. However, in a highly modified, small rural stream, it has been shown to use different habitats between day and night: undercut banks during the day, and open water at night.

## POTENTIAL THREATS

Major threats are smothering of eggs and spawning sites by sediment, and interactions with alien species such as trout and Redfin perch, particularly predation and competition for food. Habitat modifications such as cold-water pollution, desnagging and altered flows through river regulation are also likely to impact on this species.

## GENERAL REFERENCES

- Hammer 2004;
- Harris & Gehrke 1997;
- Jackson 1978a,b;
- Jackson et al . 1996;
- Khan 2003;
- Khan et al. 2004a,b;
- Lintermans & Osborne 2002;
- Lloyd and Walker 1986;
- Miller et al . 2004;
- Moffat & Voller 2002;
- Morris et al . 2001.

## PDF LINKS

Fishes of the Murray-Darling Basin: An introductory Guide;

<http://mdba.gov.au/files/publications/MDBA-Fish-species-book.pdf>

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**Murray-Darling Basin Authority**

GPO Box 1801 Canberra ACT 2601

Tel 02 6279 0100 Fax 02 6248 8053

[www.mdba.gov.au](http://www.mdba.gov.au)

