

NATIVE SPECIES

Common Name

Two-spined blackfish (Slippery, Slimy, Greasy)

Threatened

Scientific Name

Gadopsis bispinosus Sanger, 1984



Identification

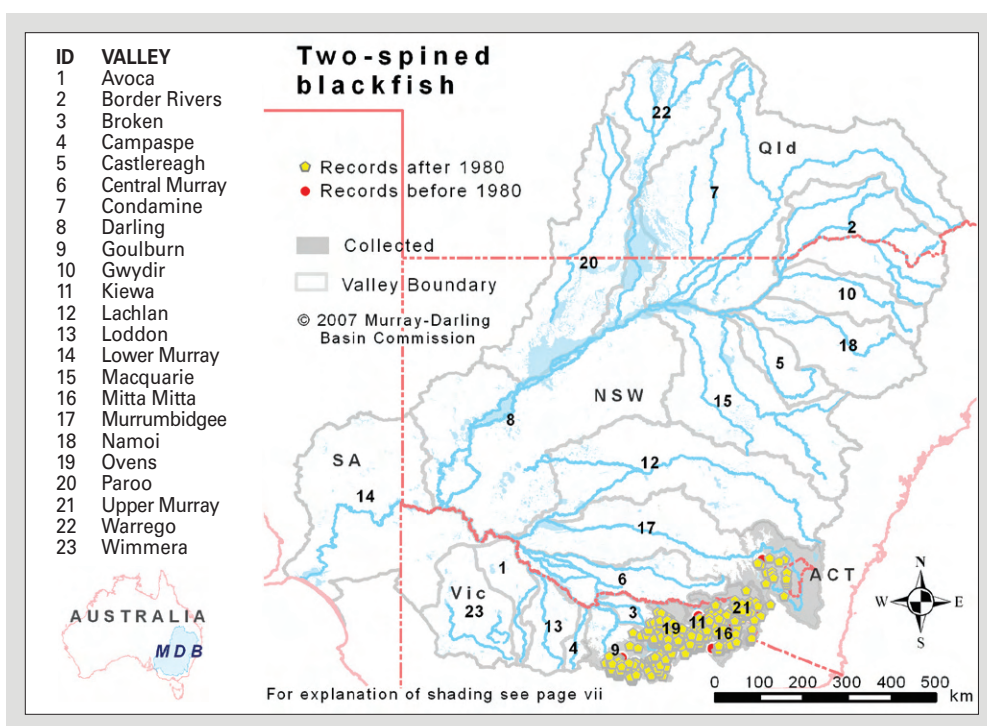
A small to medium sized fish with a yellowish-brown to olive green back and sides, often spectacularly mottled ('giraffe' spots), and a creamy or light grey belly. Maximum length ~350 mm and ~200 g; usually < 200 mm and 50 g. The pelvic fins have been reduced to a pair of fine, white, divided filaments located under the throat. The dorsal fin is low and long, reaching almost to the tail. The mouth is large. The dorsal fin has 1–3, usually 2, spines. The body is covered in very small scales with a thick mucous coating. Readily distinguished from the Northern river blackfish by its possession of 1–3 spines in the dorsal fin.

Biology and Habitat

The Two-spined blackfish is restricted to cool, clear upland or montane streams with abundant instream cover, usually in the form of boulders and cobble. It is found more in the medium to large streams where there is greater water depth and lower stream velocity, and is not found in the smallest

headwater streams. It is usually found in forested catchments, where there is little sediment input to the stream from erosion or agriculture. Its diet is dominated by aquatic insect larvae, particularly mayflies, caddisflies and midges, and occasionally fish and crayfish. Young-of-year and juvenile blackfish eat proportionally more mayfly and midge larvae than adult fish, which consume larger items such as caddisfly larvae and terrestrial invertebrates.

The Two-spined blackfish is benthic and nocturnal. Its movement is extremely limited—the home range of adults is estimated at ~15 m. Fecundity increases with length and spawning occurs in November–December. 80–420 eggs are laid in a single mass. Larger individuals spawn earlier in the season than small individuals and females commence breeding in their second or third year (at > ~120 mm length). The spawning site is usually in the gaps between cobbles or boulders where the eggs are attached to the upper surface of a rock. The eggs are large (~3.5 mm diameter), yolky and adhesive and



are fanned and guarded by the male fish until the larvae have almost fully utilised the yolk reserves and are free-swimming. Hatching occurs after approximately 16 days at a water temperature of 15°C. After approximately three weeks both the male parent and the larvae leave the spawning site.

Distribution and Abundance

This species is only known from the Murray-Darling Basin, where it has been recorded from north-east Vic, the ACT and south-east NSW. In Vic it is present in the upper sections of the Goulburn, Broken, Ovens, Mitta Mitta and upper Murray catchments. In the ACT it is only currently present in the Cotter catchment, although it was previously present in the Murrumbidgee and Paddys rivers, and possibly the Naas/Gudgenby system. In NSW it is known from the Goodradigbee, upper Murray above Lake Hume, Tumut and Goobarragandra catchments. A small remnant population is still present in the Murrumbidgee River above Cooma. When it is present, the species

is often abundant, but it has declined in a number of catchments in the ACT and NSW.

Potential Threats

Significant threats include cold-water pollution, smothering of eggs and spawning sites by sediment, and interactions with trout, particularly predation and competition for food.

General References

Jackson *et al.* 1996; Kalish *et al.* 1998; Koehn 1990; Lintermans 1998, 2002; Lintermans & Osborne 2002; Morris *et al.* 2001; Sanger 1990.

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