



Australian Government



Native Fish Strategy

FISH FACTSHEET: DWARF FLAT-HEADED GUDGEON



Scientific Name

Philypnodon macrostomus Hoese & Reader 2006

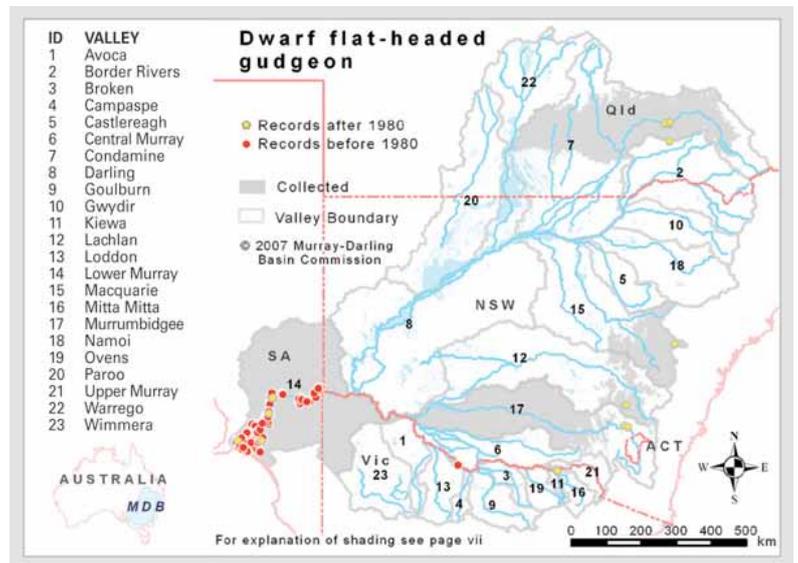
photo by Gunther Schmida

CONSERVATIONS STATUS

Uncommon.

DISTRIBUTION AND ABUNDANCE

Dwarf flat-headed gudgeons are relatively common in coastal streams from southern Qld to Wilsons Promontory in Vic, and there are some outlying coastal populations near Adelaide in eastern SA. They occur also in the inland MDB but are patchily distributed and have only been recorded from a few localities. It is known from the Macquarie drainage near Bathurst, the Murrumbidgee near Canberra, the Boorowa River near



Boorowa, the upper Murray near Albury, the Condamine near Condamine and Chinchilla, and the Lower Lakes and Mount Lofty Ranges in SA. It has also been reported from wetlands and edges of the lower Murray River up to Torrumbarry weir. In the first two sampling rounds of the Sustainable Rivers Audit covering 16 river valleys encompassing 351 sampling sites, only 9 individuals were captured, all from the Lower Murray. The species has not been recorded from the ACT.

IDENTIFICATION

A small, fish with a truncate to rounded tail. Maximum length 65mm; rarely more than 40mm. The head is broad and flat with a large mouth. Males have a larger mouth, extending beyond the rear margin of the eye, whereas in females it extends to below the middle of the eye. The gill openings on the underside of the head are narrow, extending forward to below the posterior portion of the gill covers, ending well behind the eye. It has two separate dorsal fins. The upper head and body is brown to black with irregular blotches, and a vertical black bar on the base of the caudal fin. Two black oblique bands extend backwards from the eye. The first dorsal fin has two black bands interspersed with orange or whitish areas. The second dorsal fin has 3-4 black stripes, also interspersed with orange or whitish areas. The caudal fin has orange spotting.

This species can be easily confused with small individuals of Flat-headed gudgeon but can be distinguished by: the narrower gill openings which do not extend to, or below the eye; the smaller number of pectoral fin rays (15-16); and the black bar at the base of the tail.

This recently described species is variable in morphology across its range, with some Murray-Darling populations differing in body patterning and pre-dorsal scalation to the taxon described from coastal drainages near Coffs Harbour. Further taxonomic work is required. Dwarf flat-headed gudgeon has also been confused with *Philypnodon grandiceps*, and some references to *P. grandiceps* prior to 1980 probably refer to Dwarf flat-headed gudgeon.

BIOLOGY AND HABITAT

Dwarf flat-headed gudgeon reportedly prefer relatively calm waters and occur over mud and rock substrates or

in weedy areas. However, recent information from coastal populations in southeastern Queensland indicates that this species occurs over coarser substrates such as gravel and cobbles, close to submerged cover such as leaf-litter accumulations, woody habitat and aquatic vegetation. Nothing is known of the reproductive biology in the wild, and little is known of its general ecology in the Basin. In aquaria it has been recorded breeding at temperatures of 19-22°C. The eggs are transparent and teardrop shaped, and hatch in 4-5 days. The male fish guards the egg mass, fanning them regularly and driving away other fish. The Dwarf flat-headed gudgeon is a benthic carnivore, feeding mainly on aquatic insects and their larvae such as chironomids, mayflies and caddisflies.

POTENTIAL THREATS

None known. Predation (larval and adult) by alien fishes and interaction with the aggressive Eastern gambusia may be threats.

GENERAL REFERENCES

- Allen et al. 2002;
- Fletcher 1997;
- Hammer 2004;
- Higham et al. 2005;
- Hoese & Reader 2006;
- Koehn & O'Connor 1990;
- Larson & Hoese 1996a;
- Lintermans & Osborne 2002;
- Lloyd & Walker 1986;
- Merrick & Schmida 1984;
- Pusey et al. 2004;
- Wedderburn & Hammer 2003.

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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