



Australian Government



Native Fish Strategy

FISH FACTSHEET: MURRAY HARDYHEAD



Scientific Name

Craterocephalus fluviatilis McCulloch, 1913

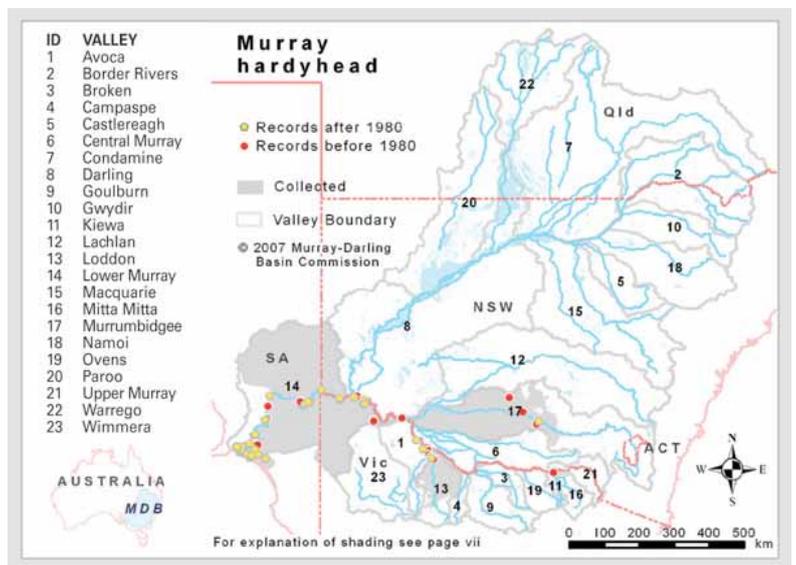
photo by Gunther Schmida

CONSERVATIONS STATUS

Threatened.

DISTRIBUTION AND ABUNDANCE

The Murray hardyhead is found only in the lowland areas of the southern Basin: in the mid to lower Murray as far upstream as Yarrawonga, and lower to mid Murrumbidgee drainages. Formerly abundant, it has suffered a significant reduction in distribution and is now a nationally threatened species. It is probably now extinct in the Murrumbidgee in NSW, and since 2000 only a single individual has been collected in NSW despite extensive surveys. Intermittently abundant at some locations, it is still present in a number of lakes near Swan Hill and Mildura in Vic, a few wetlands/saline basins along the Lower Murray, and the Lower Lakes in SA



IDENTIFICATION

A small, laterally compressed fish with a small protrusible mouth, large silvery eye and short, blunt gill rakers. Maximum size 76mm, commonly 40-65mm. The two dorsal fins are small and short-based, and the second is directly above the anal fin. The tail is forked and the pectoral fins are positioned high on the body. The midlateral scale count is 31-35 and the transverse scale count is 10-12. The scales on top of the head are large and irregular in shape. The back is silver to golden, and the ventral surface is always paler with a silvery sheen. There is a silvery-black stripe midlaterally, and the opercula are bright silver. The scale margins on the back are darker, giving a reticulated appearance.

BIOLOGY AND HABITAT

Found around the margins of lakes, wetlands, backwaters and billabongs, the Murray hardyhead prefers open water, shallow, slow-flowing or still habitats, with sand or silt substrates, but can also be found in deeper habitats with dense aquatic vegetation. The species appears to thrive in ephemeral deflation basin lakes and can survive in highly saline environments.

Mature males have been recorded at 27-34mm caudal fork length and females at 41-43mm, with fish maturing in their first year of life. Spawning occurs over an extended breeding season (September-April) but breeding usually occurs in late spring-early summer. The species is a batch spawner, with ovarian eggs at various stages of development. Details of the reproductive ecology and spawning site are currently being studied and are probably similar to other hardyhead species, which lay adhesive eggs amongst aquatic vegetation.

The Murray hardyhead is considered to be a largely annual species, although some individuals survive into their second year. It is omnivorous, eating primarily microcrustaceans but also some aquatic insects and algae. It is usually found in schools of distinct size classes-juveniles found throughout lakes (in open waters and associated with edge structure) and adults observed over shallow habitats including open sand banks and in association with emergent macrophytes.

Little is known of its movements.

POTENTIAL THREATS

The precise reasons for its dramatic decline are not known, but suspected to include increased salinisation, habitat degradation, altered flow regimes (decreasing connectivity with floodplain lakes), and impacts of alien species such as Eastern gambusia. The complete drying of some wetlands due to flow modification, coupled with the loss of connectivity with mainstream sites, has recently caused the extinction of two of the five remaining populations in Victoria.

GENERAL REFERENCES

- Crowley & Ivantsoff 1990;
- Ebner et al. 2003; Ellis 2005;
- Gilligan 2005a; Higham et al. 2005;
- Ivantsoff & Crowley 1996;
- Lyon & Ryan 2005; McCulloch 1913;
- Morris et al. 2001;
- Raadik & Harrington 1996;
- Wedderburn & Hammer 2003;
- [T. Raadik unpubl. data].

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

