



Australian Government



# Native Fish Strategy

## FISH FACTSHEET: SHORT-HEADED LAMPREY



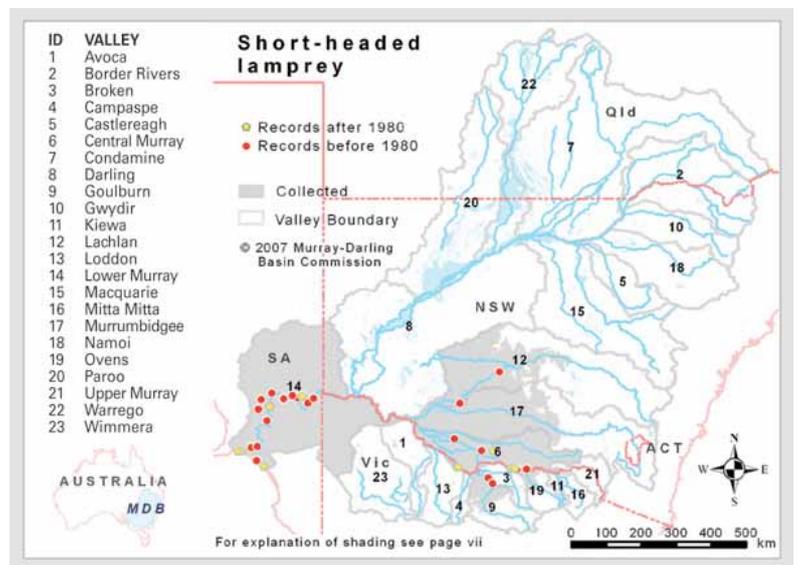
Scientific Name

*Mordacia mordax* (Richardson, 1846)

photo by Michael Hammer

### DISTRIBUTION AND ABUNDANCE

Generally restricted to the lower to mid Murray River in the Basin (occasionally recorded as far upstream as Yarrawonga and even Narrandera on the Murrumbidgee), but otherwise found in coastal rivers in Vic, NSW, SA and Tas. In recent times adults are rarely seen, but formerly they could be seen in large numbers in the lower Murray on their spawning run at migration barriers such as weirs. There are recent records of this species from below the Goolwa Barrage. Ammocetes are reasonably common in suitable silty habitats.



## IDENTIFICATION

Small to medium sized, slender and elongated, with a scaleless, eel-like body. Adults are commonly 300-440mm long in freshwater situations (maximum size ~500mm). Two low dorsal fins are situated well back on the body near the rounded caudal fin, and paired pectoral and pelvic fins are absent. Lampreys lack jaws; instead adults have a well-developed suctorial oral disc with sharp, radially arranged tooth plates. There are two large tricuspid teeth on the oral disc above the mouth and no fimbriae (fringing filaments) surrounding the oral disc. In mature adults, the radial toothplates disappear. The eyes of adults are dorsolateral, and both adults and ammocetes have seven small oval gill apertures on each side of the body behind the head. Adults are bluish-grey dorsally just before and after their marine phase; during their spawning migration they are a duller grey.

The larval juvenile life phase (ammocete) is usually less than 140mm long, worm-like, lacks eyes and tooth plates, and the dorsal fins are very low, not extending far above the body surface. A large, hood-like upper lip overhangs the small mouth. Brownish in colour, ammocetes are darker on the dorsal surface and reddish around the gills because of the underlying blood vessels. They can be distinguished from ammocetes of the Pouched lamprey by the position of the vent, which is below a point about halfway along the length of the second dorsal fin.

## BIOLOGY AND HABITAT

Most of the adult life is spent at sea or in estuaries. Young adults migrate upstream from the sea in spring and summer to breed in rivers. The spawning run lasts for about a year, before they spawn the following spring, from August-November. During the spawning run, individuals are usually active nocturnally, and burrow into the substrate during the day. Females have 3,800-13,400 small eggs, (0.3-0.5mm diameter), which are deposited in a shallow nest (small depression) in the substrate, often in shallow, relatively fast water. Adults die shortly after spawning. Ammocetes are sedentary and live in slow-flowing streams, burrowing in silt or mud, for about three years before metamorphosing (at around 100-140mm length) and migrating down to the sea, usually in spring. The ammocetes are toothless, feeding on algae, detritus and micro-organisms filtered from the water. After metamorphosis to adulthood, they become parasitic

on other fish, rasping a hole in the side and feeding on blood and/or muscle. Adults cease feeding prior to their spawning migration.

## POTENTIAL THREATS

Barriers to fish movement can interfere with spawning migrations, although the species can climb wet vertical surfaces.

## GENERAL REFERENCES

- Allen et al . 2002;
- Cadwallader & Backhouse 1983;
- Gilligan 2005a,b;
- Hughes & Potter 1968;
- Koehn & O'Connor 1990;
- Potter 1970, 1996a;
- 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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