

Olive Perchlet (western population) - *Ambassis agassizii*

November 2013 Primefact 176 Second edition
Fisheries Ecosystems Unit, Port Stephens Fisheries Institute

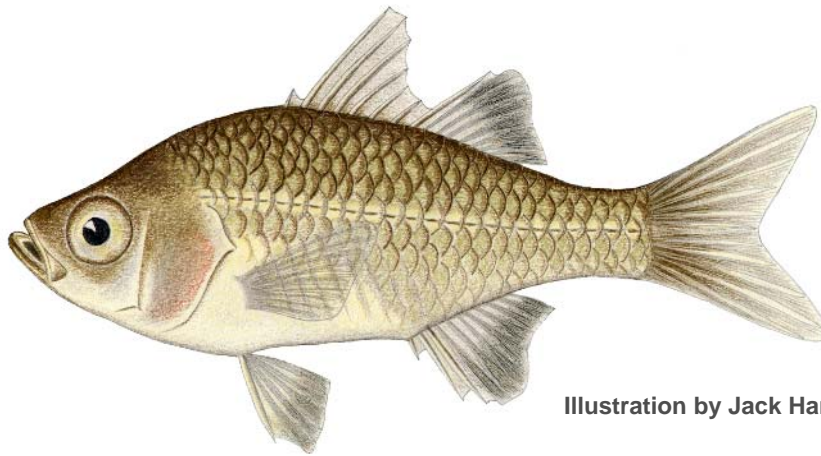


Illustration by Jack Hannan

Introduction

Olive Perchlet, also known as Agassiz's Glassfish, are a small native fish that occur in both eastern (coastal) and western (Murray-Darling) drainages in NSW, but these populations may be genetically distinct.

The western population of Olive Perchlet were once widespread throughout the Murray-Darling system of South Australia, Victoria, western New South Wales and southern Queensland, but have suffered serious decline. The population is now found in limited sites in the Darling River drainage and an isolated population in the central Lachlan catchment. The species is extinct in Victoria and has not been found in South Australia since 1983.

The western population of Olive Perchlet is listed as an **endangered population** in NSW. There are heavy penalties for harming, possessing, buying or selling them, or for harming their habitat (see 'Legal implications').

Description

Olive Perchlet have an oval shaped body with a moderately large mouth, very large eyes and a

forked tail. They are usually semi-transparent, with dark-edged scales forming a distinct pattern. The fins are generally clear, although there is often a broad, blackish band along the edges of the pelvic and anal fins. Olive Perchlet can grow to about 70-80 mm but are more commonly less than 40 mm.

Habitat and ecology

- Olive Perchlet inhabit rivers, creeks, ponds and swamps. They are usually found in slow-flowing or still waters.
- They are usually found in sheltered areas such as overhanging vegetation, aquatic macrophyte beds, logs, dead branches and boulders during the day, and disperse to feed during the night.
- Males and females reach sexual maturity at one year of age, and live for 2-4 years. Spawning occurs from October to December, when water temperatures increase to approximately 23°C. Females lay 200-700 eggs which attach to aquatic plants and rocks on the streambed.
- Olive Perchlet feed on a range of zooplankton and aquatic and terrestrial insects.

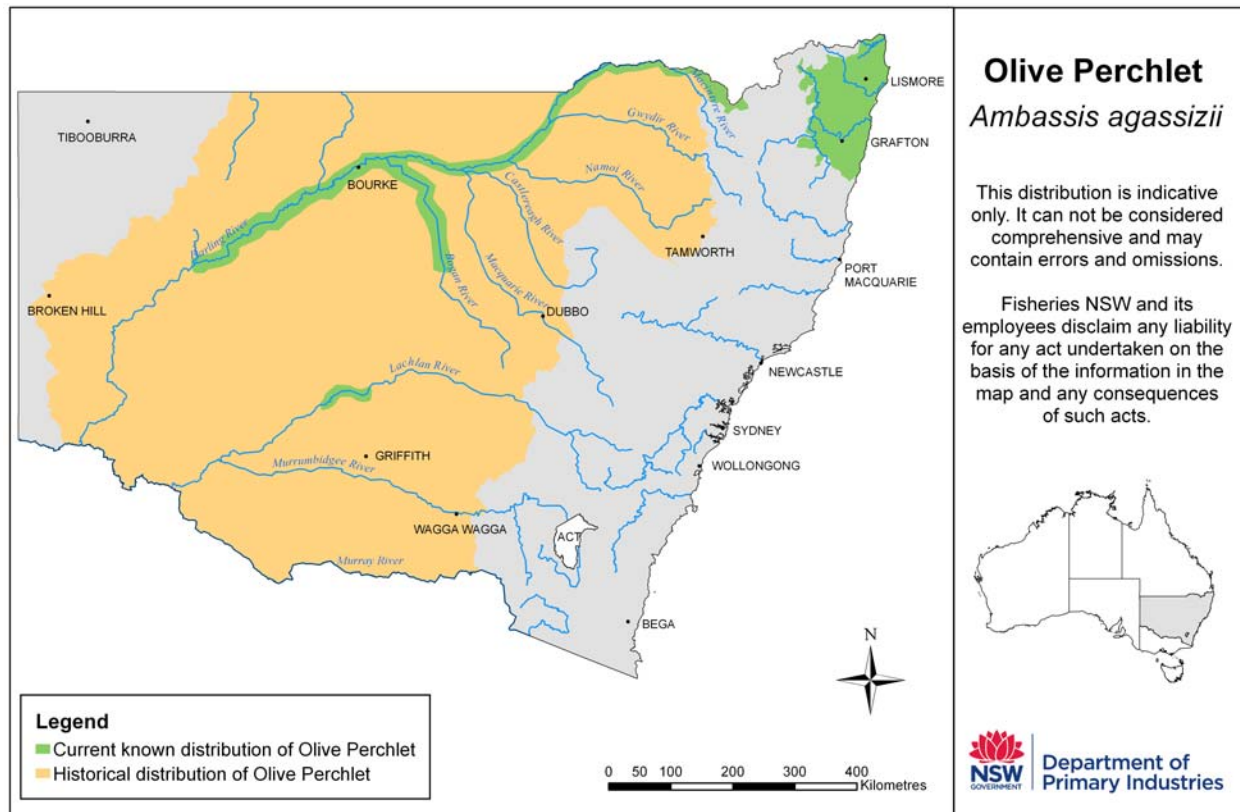


Figure 2: Historical and current known distribution of Olive Perchlet in NSW.

Why is the western population of Olive Perchlet threatened?

- Predation by introduced fish species such as Gambusia (*Gambusia holbrooki*) and Redfin Perch (*Perca fluviatilis*).
- Habitat degradation, including the removal of vegetation, logs and snags.
- Rapid fluctuations in water levels as a result of river regulation resulting in negative impacts on reproduction and recruitment.
- Spawning failures due to cold water releases from dams (temperature pollution).
- Loss of instream aquatic vegetation through the impacts of river regulation and carp (*Cyprinus carpio*).
- Reinstating wetting drying cycles in wetlands to improve wetland health.
- Implement control programs for introduced pest species.
- Promote appropriate land management practices to improve water quality and river health.
- **Report any sightings of the species via the NSW DPI online form:**
<http://www.dpi.nsw.gov.au/fisheries/species-protection/report-it/threatened-species-sighting-form>

Conservation and recovery actions

- Undertake surveys to establish the location of remaining populations of Olive Perchlet in the western drainages of NSW.
- Allocate environmental water flows in regulated rivers to restore natural seasonal flow patterns, and to reduce the impact of cold water pollution downstream of dams.

Figure 3: Olive Perchlet (Photo: NSW DPI)



Legal implications

It is illegal to catch and keep, buy, sell, possess or harm the western population of Olive Perchlet (or any other threatened species in NSW) without a specific permit, licence or other appropriate approval, and significant penalties apply. For endangered populations these penalties can include fines of up to \$220,000 and up to 2 years in prison.

There can also be significant penalties for causing damage to the habitat of a threatened species without approval through actions such as dredging riverbeds, removing large woody debris and constructing barriers that block the free passage of fish.

Clearing that constitutes a routine agricultural management activity, and certain routine agricultural activities (other than clearing) are permitted, provided the activities are to the minimum extent reasonably necessary and all other relevant statutory approvals or authorities have been obtained.

The impact of developments or activities that require consent or approval (in accordance with the *Environmental Planning and Assessment Act 1979*) must be assessed and considered by consent or determining authorities. Where such actions are likely to result in a significant impact on a threatened species or its habitat, a detailed species impact statement must be prepared.

Strategies to be adopted for promoting the recovery of the western population of Olive Perchlet must be set out in the NSW DPI Priorities Action Statement.

A recovery plan may be prepared in accordance with the provisions of the *Fisheries Management Act 1994* to promote the recovery of the endangered population to a position of viability in nature.

Bibliography and further reading

Allen, G.R. (1996) Family Chandidae: Glassfishes, chanda perchles, Pp. 146-149 in McDowall R.M. (ed.), *Freshwater Fishes of South-Eastern Australia* (second edition), Reed Books, Sydney, 247pp.

Allen, G.R. and Burgess, W.E. (1990) A review of the glassfishes (Chandidae) of Australia and New Guinea, *Records of the Western Australian Museum (Supplement)* 34: 139-206.

Lintermans, M. (2009) *Fishes of the Murray-Darling Basin: An introductory guide*. Murray-Darling Basin Authority, Canberra, ACT

Merrick, J.R. and Schmida, G.E. (1984) *Australian freshwater fishes: biology and management*. Merrick, Sydney.

For further information

See the NSW DPI website: www.dpi.nsw.gov.au

Contact the NSW DPI Threatened Species Section:

Port Stephens Fisheries Institute

Locked Bag 1

Nelson Bay NSW 2315

Fax: (02) 4916 3880

Email: fisheries.threatenedspecies@dpi.nsw.gov.au

© State of New South Wales through the Department of Trade and Investment, Regional Infrastructure and Services 2014. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (January 2014). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser.

Published by the NSW Department of Primary Industries.

Check for updates of this Primefact at: www.dpi.nsw.gov.au/primefacts

PUB12/10