

Southern Pygmy Perch

Nannoperca australis

November 2013 Primefact 190 Second Edition
Fisheries Ecosystems Unit, Port Stephens Fisheries Institute

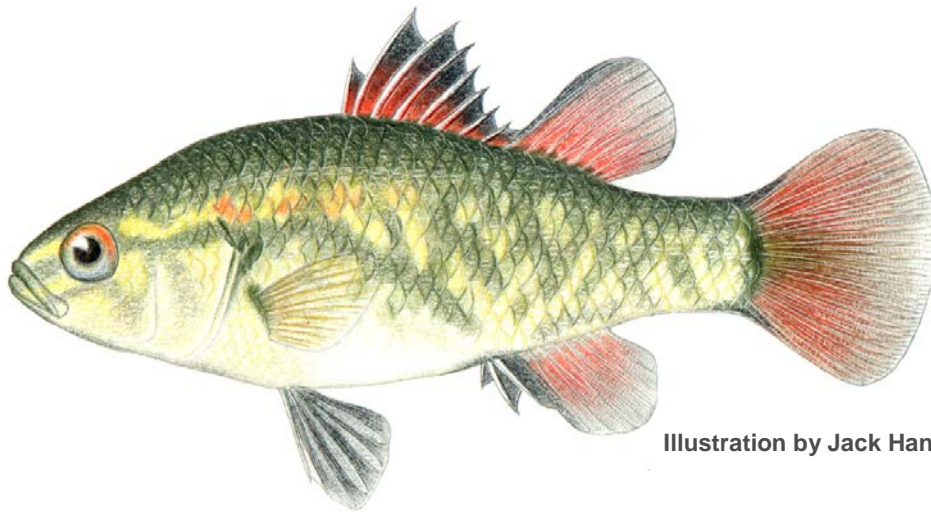


Illustration by Jack Hannan

Introduction

The Southern Pygmy Perch was once widely distributed throughout the Lachlan, Murrumbidgee and Murray River systems, as well as coastal streams in South Australia, Victoria, north-eastern Tasmania and King and Flinders Islands in Bass Strait. However, there have been large-scale reductions in its range, particularly in inland regions.

The Southern Pygmy Perch is listed as an **endangered species** in NSW. There are heavy penalties for harming, possessing, buying or selling them or for harming their habitat (see 'Legal implications').

Description

The Southern Pygmy Perch is a small fish, growing to 65 – 85 mm in length. It has a small mouth reaching to just below the eye, and a rounded tail.

Individuals vary greatly in colour depending on local habitat and other environmental conditions. Colouration has been observed to vary from pale cream to green-brown, with paler colouration on the belly. Individuals may also have irregular markings on their sides including dark spots or longitudinal bands.

Breeding males display brighter colours, with the dorsal, caudal and anal fins becoming bright red with black edges, and with the pelvic fins and region around the vent turning black.

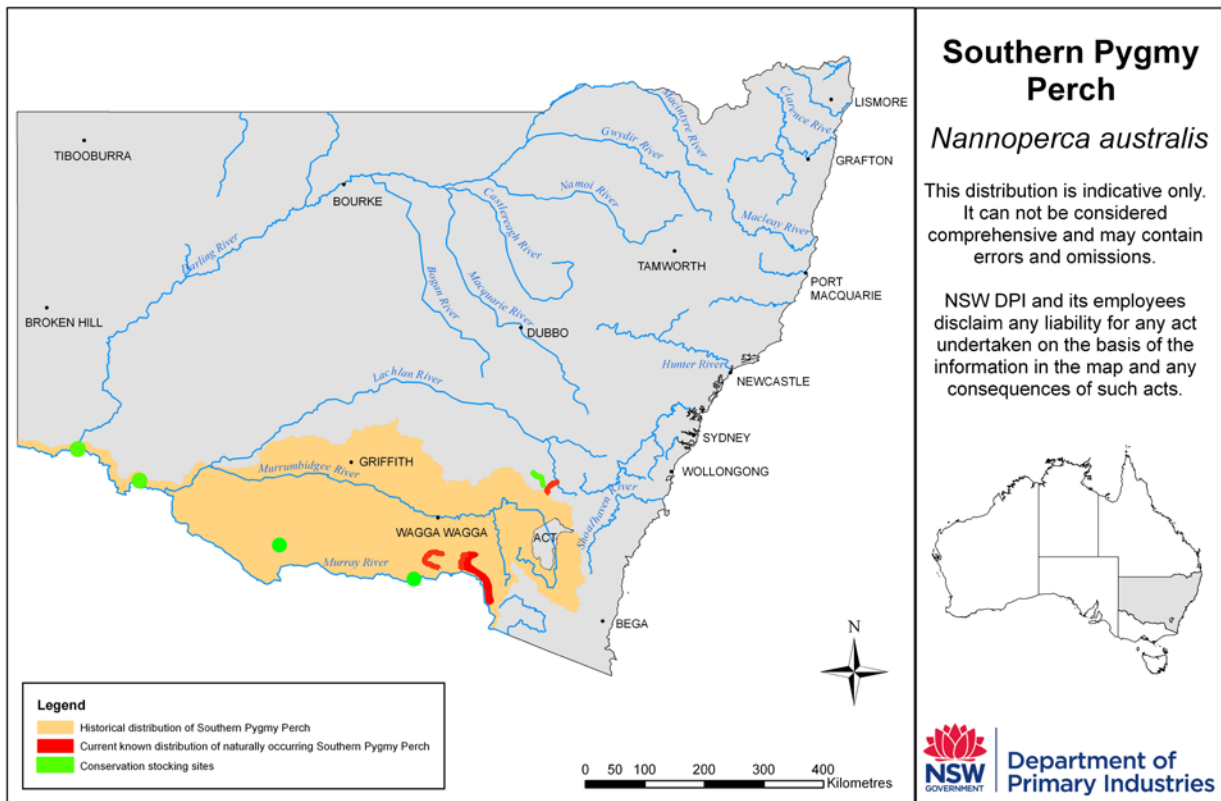


Figure 2: Historical and current known distribution of Southern Pygmy Perch in NSW.

Habitat and ecology

- The Southern Pygmy Perch is found in well-vegetated, slow-flowing or still waters including streams, lakes, billabongs and other types of wetlands.
- The species is carnivorous, feeding on a range of aquatic crustaceans and insects.
- Southern Pygmy Perch reach sexual maturity in their first year, when males are about 30 mm and females about 33 mm long.
- Breeding occurs from late winter to early spring in response to rising water temperatures.
- During the breeding season, males defend a territory in which, after a courtship display, spawning takes place.
- Each female can produce up 4000 small, transparent, non-adhesive eggs which are scattered over vegetation or rocks on the bottom.
- Newly hatched larvae are 3 - 4 mm long and emerge 2 - 4 days after fertilisation.
- Loss or modification of floodplain wetland habitats by flood mitigation works, such as levees and wetland drainage.
- Modification of natural river flows and temperatures as a result of river regulation, leading to drying and fragmentation of wetland habitats and spawning failures.
- Predation by, and competition with, introduced fish species, such as Redfin Perch (*Perca fluviatilis*) and Eastern Gambusia (*Gambusia holbrooki*).

Figure 3: Southern Pygmy Perch (Photo: Gunther Schmida)



Why is the Southern Pygmy Perch threatened?

- Habitat degradation including loss of aquatic and riparian (riverbank) vegetation.

Conservation and recovery actions

- Conserve and restore aquatic and riparian vegetation and use effective erosion and sediment control measures.
- Monitor effectiveness of conservation breeding and stocking programs for the species, and implement improvements where indicated.
- Ensure that all fish stocking activities within the natural distribution of Southern Pygmy Perch comply with appropriate environmental and genetic protocols.
- Allocate and manage environmental flows in regulated rivers, to restore natural seasonal flow patterns and reduce the impact of cold water pollution downstream of dams.
- Develop and implement control programs for introduced pest species.
- Conduct further research into the distribution, biology and ecology of the species to assist conservation planning.
- **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>

Legal Implications

It is illegal to catch and keep, buy, sell, possess or harm Southern Pygmy Perch (or any other threatened species in NSW) without a specific permit, licence or other appropriate approval, and significant penalties apply. For endangered species, 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.

Clearing that constitutes a routine agricultural management activity, and certain routine farming 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 Southern Pygmy Perch 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 species.

Figures 3 and 4: Examples of Southern Pygmy Perch habitat. Note the abundant in-stream vegetation (Photos: Luke Pearce)



Bibliography and further reading

Kuiter, R.H., Humphries, P.A. and Arthington, A.H. (1996) Family Nannopercidae – pygmy perches. pp. 168-175. In: *RM McDowall (ed), Freshwater Fishes of South-Eastern Australia* (second edition). Reed Books, Sydney.

Lintermans, M. (2007) *Fishes of the Murray-Darling Basin: An introductory guide*. Murray-Darling Basin Authority, Canberra.

Llewellyn, L.C. (1974) Spawning, development and distribution of the southern pygmy perch. *Nannoperca australis australis* (Günther), from inland waters in eastern Australia. *Australian Journal of Marine and Freshwater Research* 25(1): pp. 121–149.

Morris, S.A., Pollard, D.A., Gehrke, P.C. and Pogonoski, J.J. (2001) Threatened and potentially threatened freshwater fishes of coastal New South Wales and the Murray-Darling Basin. NSW Fisheries, 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 January 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

PUB07/132

Figure 5: Southern Pygmy Perch (Photo: Luke Pearce)



Figure 6: Female (above) and male (below) Southern Pygmy Perch (Photo: Luke Pearce)

