

Threatened Fishes Committee Report - December 2001

By David Crook

Welcome to another Threatened Fishes Committee report. Since the last report, Barry Hutchins from the Western Australian Museum has taken up the position as the WA representative on the committee. Barry replaces Jerry Allen who recently resigned from the committee owing to the large amount of international travel that now goes along with his work commitments. On behalf of the committee, I welcome Barry on board and thank Jerry very much for his input into the committee over the years.

At the 1996 Threatened Fish Workshop in Brisbane, the use of IUCN (World Conservation Union) categories for classifying threatened Australian fishes was discussed. Although there was some dissatisfaction expressed regarding the criteria, it was generally agreed that use of the standardised IUCN categories would help keep the ASFB list relevant to potential users. In the past few years, the ASFB list has been published with both ASFB and preliminary IUCN categories, pending the outcomes of reviews by the IUCN of their categorisation scheme. One of the outcomes of these reviews has been the introduction of a "marine caveat" to allow more flexible classification of some fishes (below).

Marine Caveat (IUCN Redlist 2000)

The criteria (A-D) provide relative assessments of trends in the population status of species across many life forms. However, it is recognized that these criteria do not always lead to equally robust assessments of extinction risk, which depend upon the life history of the species. The quantitative criterion (A1abd) for the threatened categories may not be appropriate for assessing the risk of extinction for some species, particularly those with high reproductive potential, fast growth and broad geographic ranges. Many of these species have high potential for population maintenance under high levels of mortality, and such species might form the basis for fisheries.

At the recent Threatened Fishes Committee (TFC) meeting in Albury, the classification scheme issue was revisited and the overwhelming view was that IUCN categories should be adopted: the change-over has become particularly important in view of the fact that the Environment Protection and Biodiversity Conservation Act 1999 lists species using IUCN categories. The TFC is currently in the process of restructuring the threatened fish list using the IUCN scheme (see below for the IUCN categories and criteria). We would appreciate comments and input from anyone with specialist knowledge on any threatened Australian fish to assist in compiling the new list. A preliminary list using the IUCN scheme will be published in the mid-year edition of the newsletter to give ASFB members a chance to comment on the new list before it is adopted by the TFC. Please take the time to go through this year's list carefully (particularly the IUCN

categories in brackets) – the new list will only be as good as the information that goes into it. Please contact David Crook for further details.

Nominations and Listings

Four species were nominated for consideration at the annual meeting in Albury and all four were accepted as proposed. Stuart Blanch of the Inland Rivers Network proposed that the status of silver perch *Bidyanus bidyanus* be changed from Potentially Threatened to Vulnerable under the ASFB criteria. The listing of silver perch as Vulnerable comes in response to a number of threats facing this species including habitat degradation, changed river flows, barriers to fish passage, the effects of introduced fish and the potential genetic effects of stocking hatchery reared silver perch. The most recent information suggests that stocks of silver perch have severely declined and that the species faces serious threats to its long term survival. In a nomination prepared jointly by Peter Unmack, Mark Kennard and Brad Pusey, the Bloomfield River cod (*Percichthyidae n.sp*) was nominated as Vulnerable under ASFB, changing its status from the previous listing of Restricted. This listing was changed following an assessment of the potential risks facing this unique and very geographically restricted species: these risks include habitat degradation and the effects of introduced species. A paper formally describing this fish (a new genus within Percichthyidae) has been accepted for publication and will be in print soon.

Peter Unmack also nominated the Finke and Dalhousie mogurndas for listing this year. Both species were previously unlisted and are now listed as Restricted under ASFB and Lower Risk (Near threatened) under IUCN due to their highly restricted distributions.

Threatened Fish News

[Murray-Darling Basin lowland river fish community listed in Victoria](#)

The entire lowland river native fish community of the Murray-Darling Basin in Victoria has been listed as threatened under the Victorian Flora and Fauna Guarantee Act 1988. The area covered by this listing includes the lowland reaches and associated floodplains of the Murray River upstream of the South Australian border and Victorian Murray River tributaries including the Mitta Mitta, Ovens, Broken, Goulburn, Campaspe, Loddon and Avoca rivers. Species included in the listed community are: Agassiz's chanda perch, silver perch, Murray hardyhead, non-specked hardyhead, flat-headed galaxias, western carp gudgeon, trout cod, Murray cod, golden perch, Macquarie perch, Murray rainbowfish, southern purple spotted gudgeon, bony bream, flat headed gudgeon and freshwater catfish. The listing of this community provides for legislative protection for the species and areas involved, and sets an important precedent for the way in which threatened fishes are listed and protected in Australia. It will be interesting to see how effective whole-community listings prove to be in protecting threatened fish.

Changes in Queensland fisheries

Recent changes to Fisheries management in Queensland may prove beneficial to threatened freshwater fishes. The old Queensland Fisheries Management Authority (QFMA) and the Department of Primary Industries Fisheries Group have been combined to form the Queensland Fisheries Service (QFS). Previously the QFMA were the managers of wild fisheries but had no mandate for the protection of fish habitat. QFS has responsibilities in both these areas and this should lead to a better and more co-ordinated approach. Officers from QFMA and the old Fisheries Group involved in freshwater fisheries have been combined into one group in the QFS structure. In other Queensland news, the QFS will shortly publish a book entitled ' Fishes of Lake Eyre catchment of Central Australia'. The authors are Rob Wager and Peter Unmack and the book was supported by NHT funds. The book includes reference to a number of endangered species such as the redefined blue-eye *Scaturiginichthys vermeillipinnis* and Edgebaston goby *Chlamydogobius squamigenus*. It should be available early in the new year.

Southern pygmy perch recommended Vulnerable in NSW

The NSW Fisheries Scientific Committee has recommended that southern pygmy perch *Nannoperca australis* be listed as Vulnerable in NSW under Schedule 5 of the Fisheries Management Act. It has disappeared from the Murrumbidgee River and nearly all of the Murray River. The FSC suggests that causes of decline may include loss of aquatic vegetation, alienation of floodplain habitats by flood mitigation works (e.g. levees), seasonal flow reversal, spawning failures due to cold water releases from dams, and predation by, and competition with, introduced species such as redfin perch and gambusia.

Captive breeding trials for threatened galaxias species

The recovery plan for the Swan, Pedder, Clarence, swamp and saddled galaxias identifies the need to establish methods for captive breeding of these species. The aim is to determine methods so that fish can be bred if this ever becomes necessary for species conservation. Breeding trials are underway this season for Clarence and Swan galaxias, the two endangered species for which wild fish are still abundant enough to allow removal of some to captivity. So far the fish are surviving and ripening well in captivity.

Dwarf galaxias in trouble in north-west Tasmania

Surveys for dwarf galaxias *Galaxiella pusilla* in north-west Tasmania earlier this year found the species at only one of 35 sites sampling sites. One previously known location for the species was dry and cattle-trampled, with surrounding heathland having been cleared for pasture since *G. pusilla* was found there in 1997. *G. pusilla* has also disappeared from a site in the north-east of Tasmania, again due to habitat destruction by cattle trampling. Unfortunately there is no ongoing work to protect habitats and determine the distribution of this species, which is suffering death by a thousand cuts as wetlands are drained, trampled or inundated by farm dams.

Thanks to Peter Jackson, Stuart Blanch and Jean Jackson for information used in this section.

