

Margaret River Hairy Marron Community Update

The river pools of the upper Margaret River are one of the most important aquatic habitats in south-western Australia due to their exceptionally high proportion of threatened aquatic fauna. This environment is under increasing threat from invasive species and reduced streamflow.

The hairy marron (*Cherax tenuimanus*) is endemic to the Margaret River and is now listed as critically endangered.

The Margaret River Hairy Marron Draft Recovery Plan 2015-2020 identifies competition for habitat and interbreeding by the introduced smooth marron (*Cherax cainii*) as the most likely and highest threat to the survival of the critically endangered hairy marron species.

Hairy marron have declined throughout the Margaret River, and in areas where the introduced smooth marron have existed for 20 years or more the hairy marron are no longer found. Although the Recovery Plan recognises that there is limited knowledge of the interactions between the two species in the wild, the introduced smooth marron is still considered the most likely and highest threat to the survival of the hairy marron.

The Hairy Marron Recovery Team identified reductions in smooth marron populations in those pools with hairy marron as a key conservation response for the species. For a number of years the Department of Primary Industries and Regional Development (DPIRD) have undertaken coordinated fish outs of smooth and hybrid marron in Boomerang Pool. With the help of local volunteers, Nature Conservation have undertaken fish outs in Long and Canebrake Pools since 2013.

The removal of smooth marron was assumed to decrease the amount of competition with the hairy marron, reduce the chance of hybridisation and decrease the average size of smooth marron in the pools, allowing the hairy marron an opportunity to recover. A long term aim of achieving a 40 % composition of hairy marron in these pools is a key criteria of success in the recovery of the hairy marron species.

In 2017, 20 nights of fish out activities were undertaken and over 2500 smooth and hybrid marron removed across all 3 critical pools. In excess of 10,000 smooth and hybrid marron have been removed from these pools over the last 5 years. The significant reduction in smooth and hybrid marron numbers each year have enabled hairy marron numbers to remain relatively stable in Cane Break and Long Pool and prevent the elimination seen further downstream.

Unfortunately we have not observed increases in hairy marron numbers, suggesting breeding of pure hairy marron is not occurring, or if it is, the juveniles are not surviving. We speculate that the actual numbers of hairy marron within the upper reaches are too low for them to successfully find each other, particularly when they are likely to encounter smooth marron with which they are happy to breed.

In Dec 2017 the Hairy Marron Recovery Team met to discuss the results of the 2017 fish outs. The team then made the reluctant decision to discontinue the fish out activities at Cane Break and Long Pools. Sadly hairy marron numbers at Boomerang Pool were so reduced during the 2017 fish out events that a decision was made to remove all hairy marron from the pool and relocate them into a controlled captive breeding situation. This was done in August 2017.

Into the future, it is likely that all efforts will focus on producing juvenile hairy marron in captivity, and the creation of "Ark" sites, where it is hoped that we can establish secure populations of hairy marron away from the smooth marron menace.