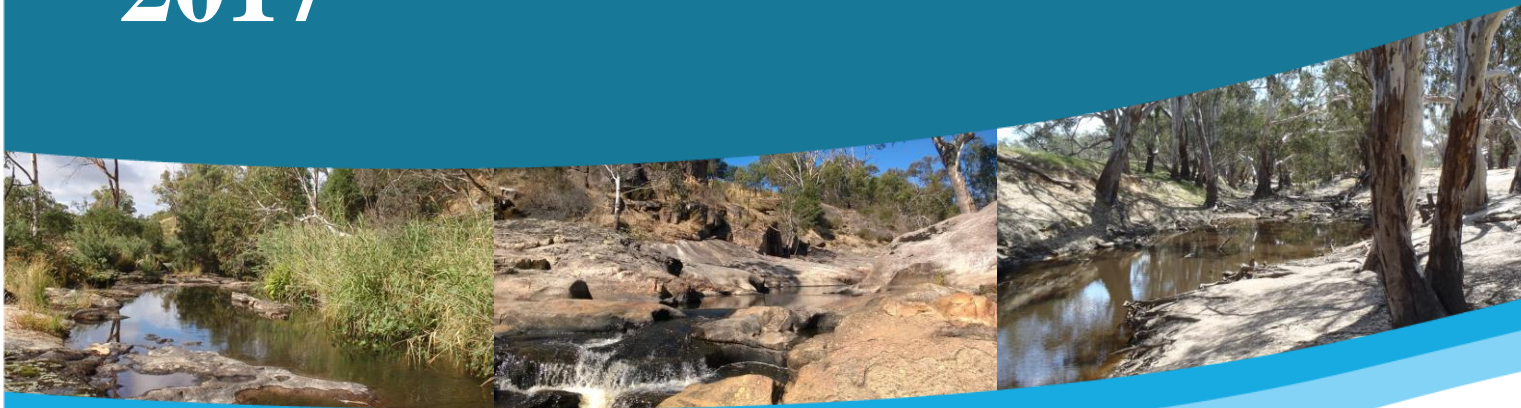


Seven Creeks Fish Survey 2017



Key points

- Dry conditions during 2015/2016 affected numbers and breeding of Macquarie perch and trout cod below Gooram Falls.
- Redfin were detected in high numbers in Polly McQuinns weir and were also found below Gooram Falls for the first time since 2012.

Survey methods and sites

During late February and early March 2017, 28 sites were surveyed in the Seven Creeks from approximately 1 km downstream of Galls Gap Rd to Polly McQuinns Reservoir.

Twenty-four sites were surveyed below Gooram Falls and four sites surveyed above (Figure 1). Sites were surveyed using single pass backpack electrofishing or medium boat electrofishing. All fish were released after being measured and weighed.

Water quality, electrofishing effort (total seconds fished) and distance fished were recorded for each site, along with an assessment of key habitat attributes.

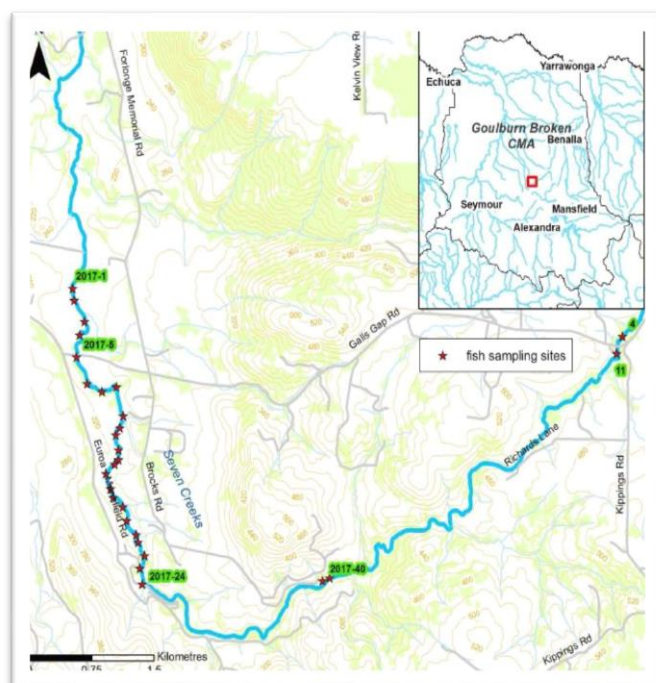


Figure 1. Map of survey sites in Seven Creeks during February/March 2017.

Results

A total of 707 fish, representing nine native and two introduced species, were captured during surveys of the Seven Creeks. The most abundant native species were Macquarie perch (170) and trout cod (120). Other notable captures were river blackfish (24) and southern pygmy perch (9). (Table 1) Trout cod and Macquarie perch were also the most widespread species recorded at 89% and 86% of sites.

Common Name	Below Gooram Falls (24 sites)	Above Gooram Falls (4 sites)	Total
Trout cod	81	39	120
Macquarie perch	170		170
River blackfish	3	21	24
Golden perch	1		1
Murray cod	1		1
Mountain galaxid	5		5
Carp gudgeon		1	1
Southern pygmy perch		9	9
Long-finned eel	1		1
Carp*	92		92
Redfin*	50	233	283
Total	404	303	707
*exotic species			

Table 1. Fish abundance both above and below Gooram Falls. 24 sites surveyed below Gooram Falls, 4 sites above Gooram Falls

Although Macquarie perch and trout cod were the most abundant native species captured, there was a substantial decline for both species between Galls Gap Road and Gooram Falls over the past year (Figure 2). A possible reason is the very low flows during spring and summer 2015/16 downstream of the Euroa offtake where the creek stopped flowing. During this time, fish were found in extremely poor condition with some found dead. Larger adults appeared to have been particularly susceptible with only one Macquarie perch and 22 trout cod over 300 mm collected during this survey.



Large trout cod caught during 2017 surveys

For the first time since 2012, young of year Macquarie perch and trout cod were not collected in the reach between Galls Gap Road and Gooram Falls. However, successful recruitment was observed for trout cod upstream of the Euroa offtake. This suggests that a combination of poor condition and/or loss of mature fish has had a negative impact on breeding in the reach for the species.

A high proportion of Macquarie perch and trout cod collecting during the survey were between one and three years old. This demonstrates the importance of regular recruitment, as had these age cohorts not been present in the system, the consequences of the low flow event could have been catastrophic for both species.

The surveys have confirmed the upstream range of trout cod in the Seven Creeks to be approximately 800m upstream of the Euroa offtake. This reach also appears to be good habitat for spawning with juvenile fish collected within the reach. A similar pattern for river blackfish was also evident.

Redfin were detected in the lower reach (between Galls Gap Road and Gooram Falls) for the first time since 2012 (Figure 2). The increase in redfin can be attributed to good rainfall and associated flows during spring 2016 which either facilitated downstream movement of individuals from the source population in Poly McQuinn's weir or upstream movement of fish outside the current monitoring area.

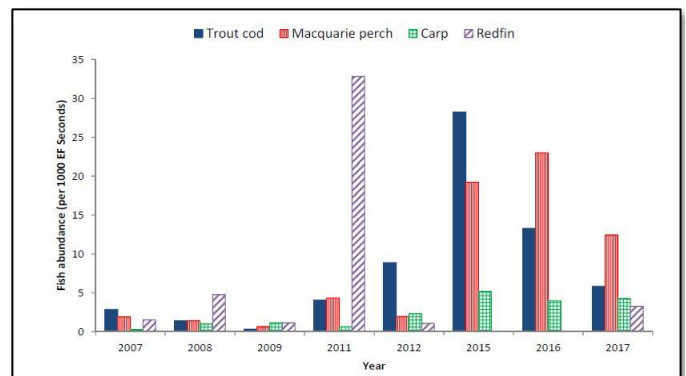


Figure 2. Abundance of trout cod, Macquarie perch, carp and red fin in Seven Creek (Galls Gap Road to Gooram Falls) 2007-2017.

This project is funded by the Victorian State Government. Arthur Rylah Institute was engaged to undertake these surveys on behalf of the Goulburn Broken CMA.

