

This report card summarises the **2021** Native Fish Report Card (NFRC) survey in the Wimmera River.

SITES: 8

ELECTROFISHING

Fish found in the Wimmera River for NFRC

▶ Target Species

✓ recorded in 2021



✓ **Golden Perch**

Macquaria ambigua



✓ **Freshwater Catfish**

Tandanus tandanus

▶ Non-target species

✓ recorded since 2017*

Large-bodied native species

✓ Silver Perch

Small-bodied native species

✓ Australian Smelt

✓ Common Galaxias

✓ Carp Gudgeon

✓ Flatheaded Gudgeon

Exotic species

✓ Common Carp

✓ Eastern Gambusia

✓ Goldfish

✓ Redfin

✓ Roach

* These non-target species were incidentally captured during NFRC surveys since 2017 but not measured as for target species.

Fish community

The NFRC Program began in 2017, with a focus on targeting the monitoring of population dynamics of key iconic fish species that have high recreational and/or conservation values, in large rivers across Victoria. In the Wimmera River, the target species are Freshwater Catfish and Golden Perch. Surveys occur in February/March each year, at eight sites from Gross Bridge at Drung Drung to just upstream of Lake Hindmarsh, Jeparit. The equipment and habitats surveyed are focused on these species, which are measured to determine population structures. Other fish species that are incidentally captured are recorded, but not measured to determine their population structures.

Summary of key health indicators for target species in 2021

Species	Key Health Indicators		
	Recent recruitment	Multiple size classes	Mature fish present
Golden Perch	No	Yes	Yes
Freshwater Catfish	-	-	-

Recent recruitment means young-of-year fish

** - cannot be determined due to low abundances*

Both Freshwater Catfish and Golden Perch are considered translocated populations in the Wimmera River.

Non-target species

The non-target fish species that have been incidentally recorded in the Wimmera River during NFRC surveys since 2017 are:

Large-bodied native species

Other large-bodied native species recorded in fish surveys are Silver Perch. Silver Perch are considered a translocated species in the Wimmera River.

Small-bodied native species

Some of the small-bodied species recorded within the Wimmera River include Australian Smelt and Flatheaded Gudgeon. Carp Gudgeon are a lowland species and are more common in slower flowing habitats, often hard to detect via boat electrofishing. The Common Galaxias is considered a translocated species and is likely to have entered the system via water transfers from the Glenelg River system.

Exotic fish species

Common Carp, Eastern Gambusia, Goldfish and Redfin are widely distributed across sampling sites, and have been detected in all sampling years. Roach were detected in 2018 and this is the first confirmed record of this species in the Wimmera River system.

Other native fish species known from the Wimmera River

Some fish species known to occur in the Wimmera River have never been recorded during NFRC surveys. For example, no Obscure Galaxias, River Blackfish and Southern Pygmy Perch have been detected in the surveys. Southern Pygmy Perch are more common in offstream habitats such as billabongs, wetlands and lagoons. Southern Pygmy Perch and River Blackfish are still present in the Wimmera River system upstream of the areas where NFRC surveys occur. Obscure Galaxias are difficult to detect using the NFRC sampling methods.

Other notable species

Surveys have also recorded Yabbies and Long-necked Turtles.

Environmental and Management Context

Environment

Low flow conditions were present in all five sampling seasons.

River rehabilitation efforts in the Wimmera River

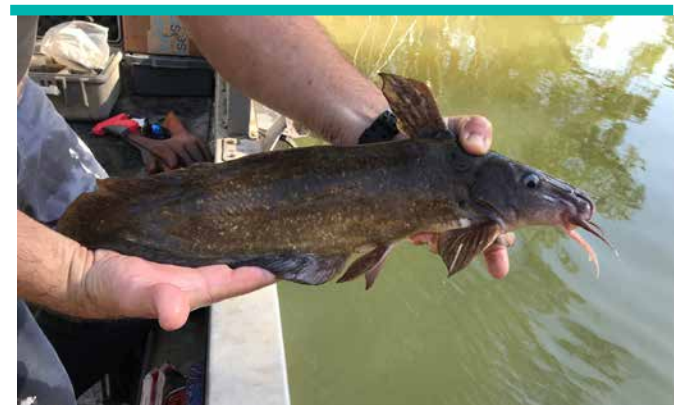
Many rehabilitation actions have occurred, and are underway, to improve the health of the Wimmera River and its fish community. These are informed in particular by the Wimmera Waterway Strategy 2014-2022. These include actions to improve water quality, manage erosion and sedimentation, improve riparian habitats through revegetation, weed control and fencing of riparian areas, installation of fish habitat and angler access platforms, allocations of water for the environment, fish stockings and control of Carp. Some monitoring of the fish community occurs including as part of the Victorian Environmental Flows Monitoring and Assessment Program (VEFMAP). The [Wimmera Catchment Management Authority](#), DELWP and the [Victorian Fisheries Authority](#) support rehabilitation and management of the Wimmera River and its fish community.



Figure 1. Map showing the section of Wimmera River where NFRC sampling occurs.

Figure 2. A Golden Perch

Figure 3. A Freshwater Catfish

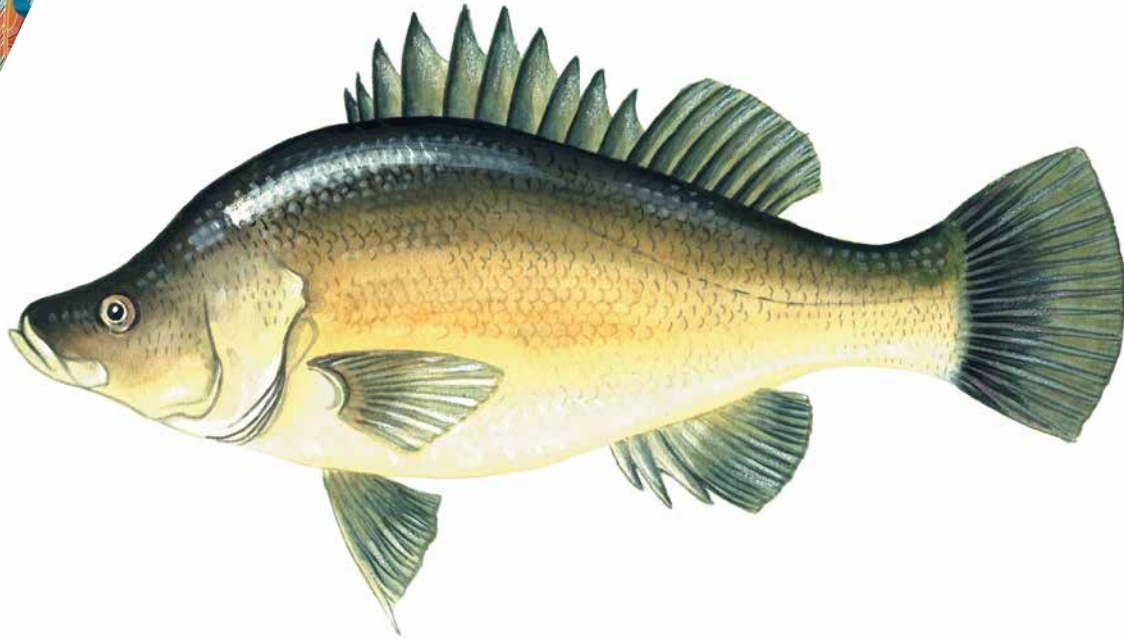


The NFRC program, and related monitoring initiatives, provide improved understanding of the structure of fish communities and how rivers can be best managed.

See the ARI website for more information about the [Native Fish Report Card program](#).

Golden Perch

Macquaria ambigua



Key Health Indicators

- ✗ Recent recruitment
- ✓ Multiple size classes
- ✓ Mature fish present

Monitoring Results

Total number of fish caught	32
Fish per 1km of waterway	2.58
Largest fish by length (cm)	47.90
Largest fish by weight (kg)	1.91
% of the catch that is legal size	56.30

WIMMERA RIVER

RECREATIONAL SPECIES

Abundances of Golden Perch were similar in all years, except in 2020 where they were lower (Figure 4). The sampling methodology included fyke nets and electrofishing in 2017-19, but electrofishing only in 2020 and 2021. Recruits of this species are difficult to catch using electrofishing sampling methodology with the recruits detected in 2018 and 2019 (Figure 4) via fyke netting. No recruits have been detected via electrofishing in all five years of sampling. Juveniles and adults have been recorded in all five sampling years, though the population is dominated by adult fish. A higher proportion of juveniles were detected in 2021 sampling (Figure 4, Figure 5). All Golden Perch in the Wimmera River are a result of stockings (ARI unpublished data).

Stocking

Eighty thousand Golden Perch were stocked in 2016; 110,000 in 2017; 150,000 in 2019; 80,000 in 2020 and 110,000 in April 2021.

Wimmera River densities of Golden Perch size classes from 2017 to 2021

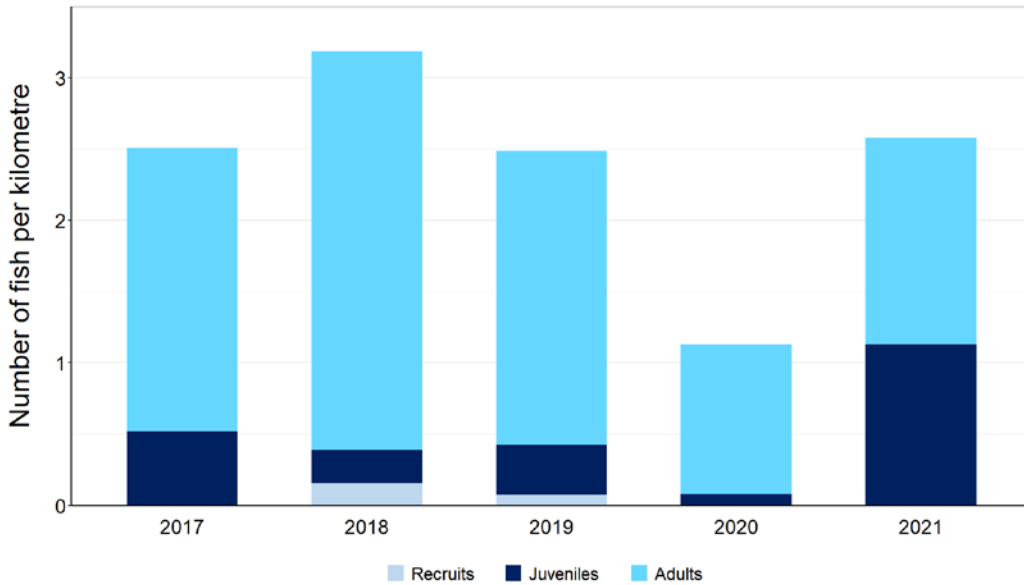


Figure 4. The densities of recruits, juveniles and adult Golden Perch for NFRC surveys in the Wimmera River from 2017 to 2021

Golden Perch size range percentage for Wimmera River in 2021

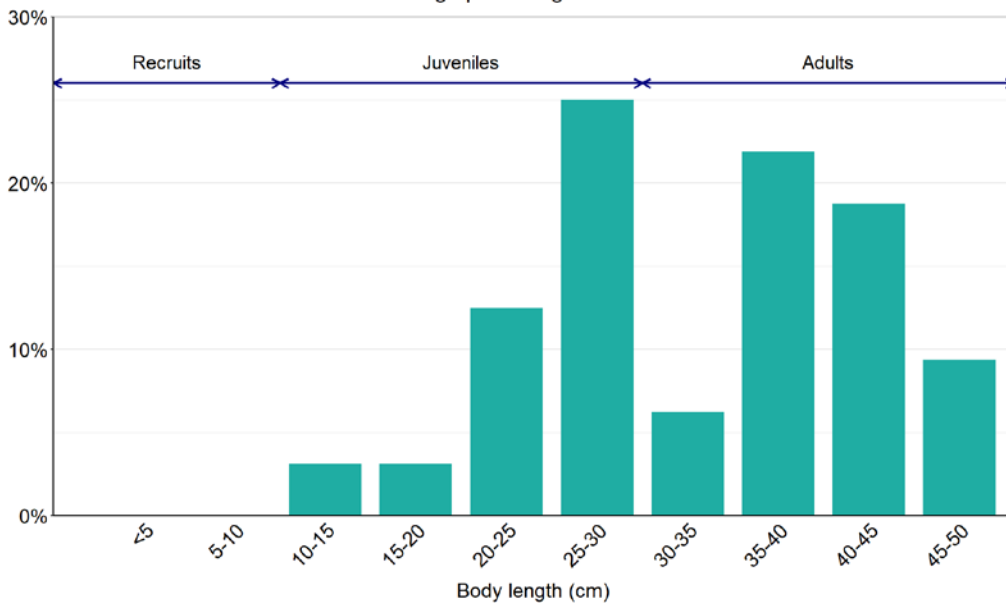
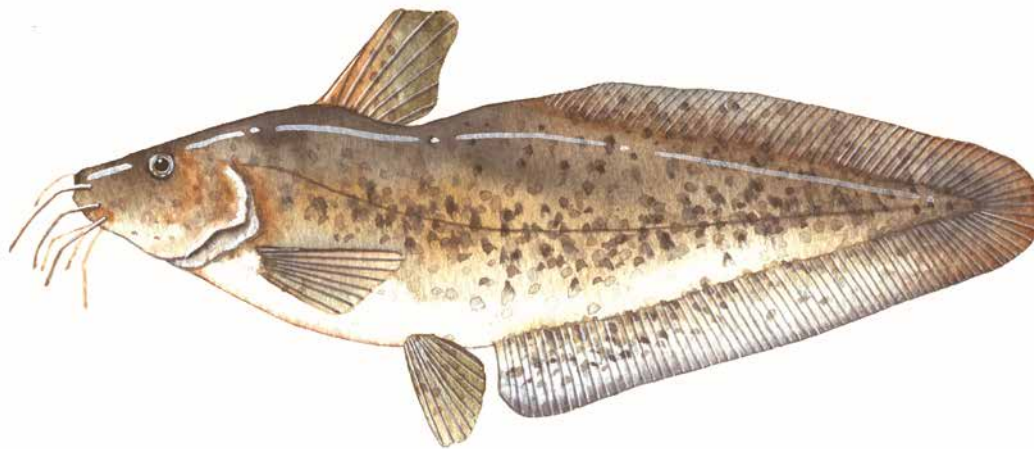


Figure 5. The size range percentage of Golden Perch measured from the Wimmera River during NFRC surveys in 2021.

Freshwater Catfish

Tandanus tandanus



Key Health Indicators

- Cannot be determined
- Cannot be determined
- Cannot be determined

Monitoring Results

Total number of fish caught	5
Fish per 1km of waterway	0.40
Largest fish by length (cm)	44.9
Largest fish by weight (kg)	0.83
% of the catch that is legal size	60

WIMMERA RIVER

RECREATIONAL SPECIES

The NFRC does not expect to capture enough Freshwater Catfish to measure key health indicators. However, by collecting data for a translocated species including Freshwater Catfish will allow a greater understanding of the current status of the populations providing essential information to the management on these species. Due to the low abundances of Freshwater Catfish collected during NFRC the key health indicators cannot be determined. Although low numbers of Freshwater Catfish were caught in all five years of sampling, there has been a mix of recruits (2017-2019), juveniles (2017 and 2021) and adults (2018-2020) (Figure 6). The sampling methodology included fyke nets and electrofishing in 2017-19, but electrofishing only in 2020 and 2021. Recruits of this species are difficult to catch using electrofishing sampling methodology with recruits primarily detected via fyke netting, with only a single recruit detected via electrofishing in 2019. In 2021 the Freshwater Catfish collected were all sub adults (nearing maturity) and adults (Figure 7).

Stocking

No stocking has occurred.

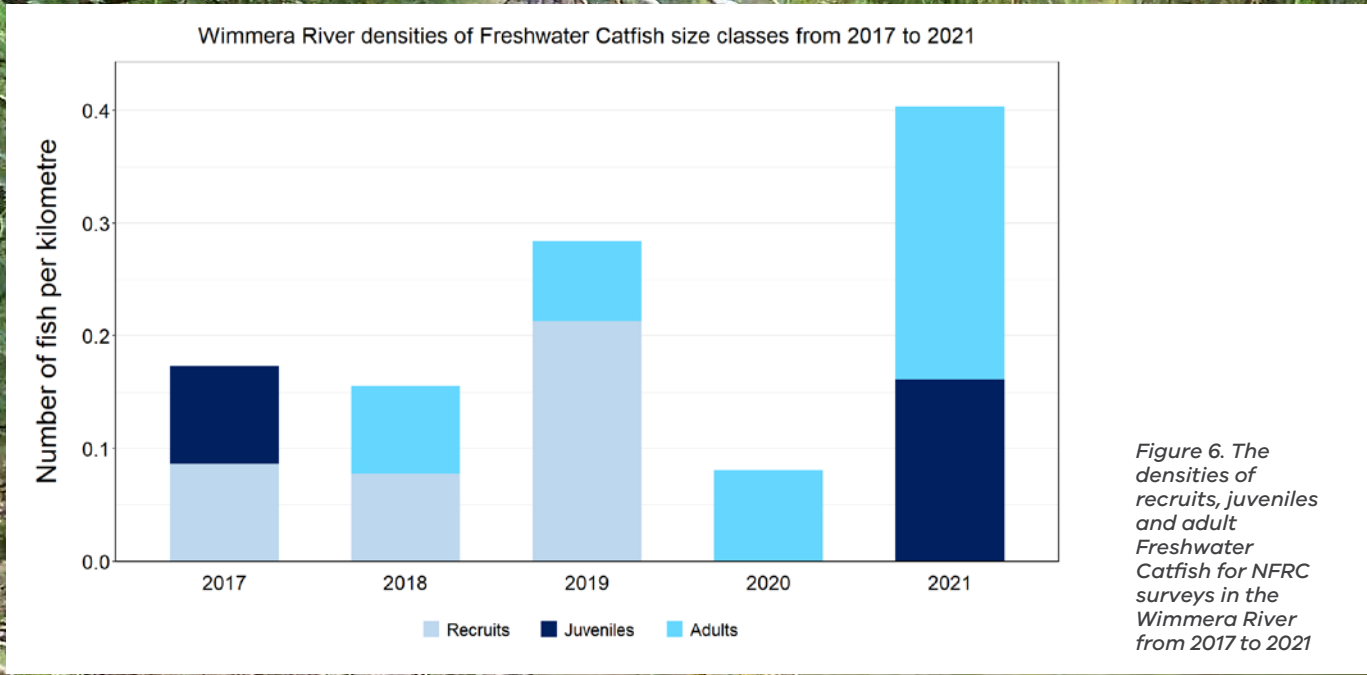


Figure 6. The densities of recruits, juveniles and adult Freshwater Catfish for NFRC surveys in the Wimmera River from 2017 to 2021

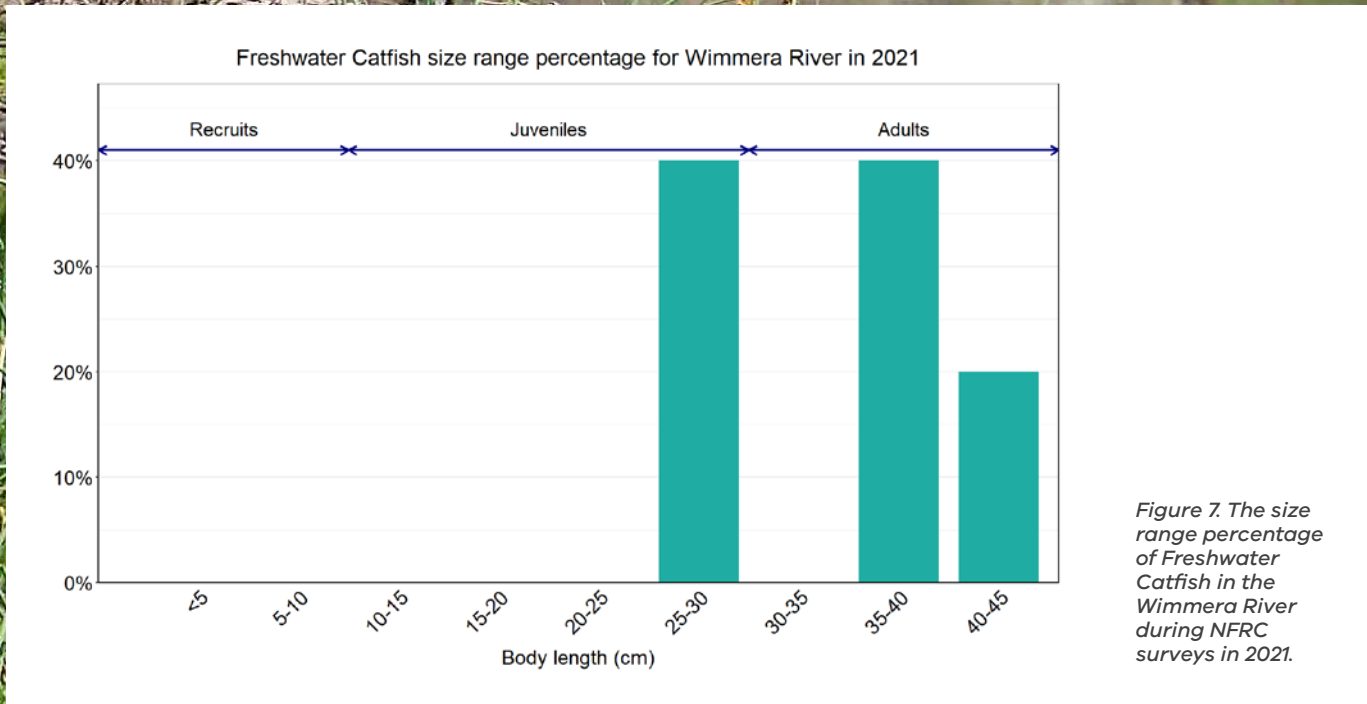


Figure 7. The size range percentage of Freshwater Catfish in the Wimmera River during NFRC surveys in 2021.