

Native Fish Report Card

Thomson and Macalister rivers 2025

West Gippsland Region

This report card summarises the **2025** Native Fish Report Card (NFRC) survey in the Thomson and Macalister rivers



SITES: 9

ELECTROFISHING

Fish found in the Thomson and Macalister rivers in our 2025 surveys

Target Species

✓ recorded in 2025



✓ **Australian Bass**

Perkalates novemaculeata



✓ **Australian Grayling**

Prototroctes maraena

Non-target species

✓ recorded since 2017*

Large-bodied native species

- ✓ Golden Perch[#]
 - ✓ Long-finned Eel
 - ✓ Pouched Lamprey
 - ✓ Short-finned Eel
 - ✓ Short-headed Lamprey
 - ✓ Tupong
- + a further five estuarine fish species (see following pages)

Small-bodied native species

- ✓ Australian Anchovy
- ✓ Australian Smelt
- ✓ Common Galaxias
- ✓ Flatheaded Gudgeon
- ✓ Flinder's Pygmy Perch

Exotic species

- ✓ Brown Trout
- ✓ Common Carp
- ✓ Eastern Gambusia
- ✓ Goldfish
- ✓ Oriental Weatherloach
- ✓ Rainbow Trout
- ✓ Redfin
- ✓ Roach

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

[#] Native species translocated outside its natural range.

Fish community

The NFRC Program began in 2017 to monitor population dynamics of key iconic fish species that have high recreational and/or conservation values, in large rivers across Victoria.

In the Thomson and Macalister rivers, the target species are Australian Bass and Australian Grayling. The equipment used and habitats surveyed target these species, which are measured to determine their population structures. Other fish species that are incidentally captured are counted, but not measured. Surveys occur in March each year, at nine sites from the junction with the Latrobe River to Lake Glenmaggie on the Macalister River, and to Denison on the Thomson River. The site at Denison on the Thomson River just downstream of Rainbow Creek junction was shifted to the Rainbow Creek just upstream the Thomson River junction in 2021 and 2022 due to access logistics. The original Denison site was again surveyed in 2023, 2024 and 2025 after flooding changed the instream channel, allowing the whole site to be fished. The Thomson and Macalister River surveys use boat electrofishing.

Summary of key health indicators for target species in 2025

Species	Key Health Indicators		
	Recent recruitment	Multiple size classes	Mature fish present
Australian Bass	Yes	Yes	Yes
Australian Grayling*	-	-	-

Recent recruitment means young-of-year fish

* - cannot be determined due to low abundances

Australian Bass in the Thomson and Macalister River systems are towards the westernmost extent of their natural range. Historically they occurred no further west than Wilsons Promontory. Australian Bass are an important recreational species, and the population is supplemented by stockings. Australian Grayling was once widespread across coastal Victoria, including these rivers. Changes to flow regimes and addition of barriers negatively affect this species.

Non-target species The non-target fish species incidentally recorded in NFRC surveys since 2017 are:

Large-bodied native species Estuary Perch, Golden Perch Long-finned Eel, Short-finned Eel and Tupong were recorded in the 2025 survey. Other species recorded in previous NFRC surveys are Black Bream, Pouched Lamprey, River Garfish, Short-headed Lamprey, Sea Mullet and Yellow-eye Mullet. Long-finned and Short-finned Eel, Pouched Lamprey, Short-headed Lamprey and Tupong are diadromous species (migrating between freshwater and the sea). Five of the non-target large-bodied species (Black Bream, Estuary Perch, River Garfish, Sea Mullet and Yellow-eye Mullet) are estuarine species. Golden Perch is a native species translocated in these rivers.

Small-bodied native species Australian Smelt and Flatheaded Gudgeon are common species distributed across Victoria and have been recorded in all nine NFRC surveys, including in the 2025 survey. Common Galaxias and Flinder's Pygmy Perch are regularly recorded (five of the nine) during the NFRC surveys. The Common Galaxias is a diadromous species found across coastal Victoria. Flinder's Pygmy Perch (listed as vulnerable in Victoria under the *Flora and Fauna Guarantee Act 1988*) are common in offstream habitats such as billabongs, wetlands and lagoons. Australian Anchovy, an estuarine species, have only been recorded once in NFRC surveys (2019) and are only expected to be detected at the lowest site/s (i.e. closest to the estuary).

Exotic fish species Common Carp, Goldfish and Redfin were the only exotic species recorded in the 2025 survey. Common Carp and Redfin have been detected in all nine NFRC surveys, whilst Goldfish have been detected in seven. These species are widespread through the lower reaches of the Thomson and Macalister rivers. Goldfish are present in both rivers, in low abundances. Other exotic species recorded during previous NFRC surveys are Brown Trout, Eastern Gambusia, Oriental Weatherloach, Rainbow Trout and Roach. Brown Trout and Rainbow Trout are restricted to the upper sites in the Macalister River. Eastern Gambusia were detected in Rainbow Creek in 2021 and the Macalister River in 2022 and are often found in slower flowing waters. Roach, which prefer vegetated waters and are often a schooling species, have been recorded twice in the Thomson-Macalister system [2021 (not NFRC survey) and 2023]. Oriental Weatherloach is a habitat generalist but prefers muddy waters and can tolerate a wide range of conditions including oxygen depleted waters. Oriental Weatherloach has only been captured in the Thomson River three times since being first recorded in 2010.

Other native fish species known from the Thomson and Macalister rivers

Some fish species known to occur in the Thomson and Macalister rivers have never been recorded in the nine NFRC surveys (e.g. Climbing Galaxias, Mountain Galaxias, Spotted Galaxias, River Blackfish). The Climbing Galaxias and Spotted Galaxias are diadromous species, with patchy distributions in coastal Victoria. They occur in lowland areas but are hard to detect using NFRC sampling methods. The Mountain Galaxias is found on both sides of the Great Dividing Range from Melbourne eastwards in Victoria. In the Thomson and Macalister rivers the species has a patchy distribution and is relatively uncommon in the lower areas but more common in higher altitudes and is hard to detect using the NFRC sampling methods. The River Blackfish is a lowland species, generally found at altitudes below 200 m. This species has declined in distribution and abundance across the State and was historically considered relatively widespread throughout the Thomson basin¹. This species is still present in the Thomson River, although upstream of NFRC sampling sites.

Other notable species Surveys have also recorded Eastern Long-necked Turtles.

Environmental and Management Context

Environment

Low flow conditions were present from 2017-2025, albeit slightly higher in 2021.

Waterway and fisheries management efforts in the Thomson and Macalister rivers

Many rehabilitation actions have occurred and are underway to improve the health of the Thomson and Macalister rivers. These are informed by the [West Gippsland Waterway Strategy 2014-2022](#). Efforts include revegetation, weed control and fencing of riparian areas and floodplain wetlands, delivery of water for the environment, removal of migration barriers and erosion control. Some monitoring of the fish community occurs, including related to management efforts above. The [West Gippsland Catchment Management Authority](#), DEECA, [Victorian Environmental Water Holder](#) and [Victorian Fisheries Authority](#) support rehabilitation and management of the Thomson and Macalister rivers.

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

¹Lieschke et al. (2013). The status of fish populations in Victorian rivers 2004–2011 – Part A. Arthur Rylah Institute for Environmental Research Technical Report Series No. 246. Department of Environment and Primary Industries, Heidelberg, Victoria.

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



Figure 1. Map showing the section of Thomson and Macalister rivers where NFRC sampling occurs.



Figure 2. An Australian Grayling



Figure 3. An Australian Bass

Australian Bass

Perkalates novemaculeata



Key Health Indicators

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

Monitoring Results

Total number of fish caught	50
Fish per 1km of waterway	7.9
Largest fish by length (cm)	42.5
Largest fish by weight (kg)	1.06
% of the catch that is legal size	36

Thomson and Macalister rivers

Recreational Species

Australian Bass (*Perkalates novemaculeata*) - formerly *Macquaria novemaculeata* - are a targeted recreational fishing species in the Thomson and Macalister rivers. Recruits, juveniles and adults were collected in the 2025 survey and have been collected in seven of the nine years (2017-18 and 2021-25), with recruits absent in 2019 and 2020 (Figure 4). The number of adults increased in 2025, after a decrease in 2024 (Figure 4). A wide range of sizes was detected in 2025, ranging from recruits to large adult fish (Figure 5). The absence of recruits in 2019 and 2020 is possibly due to stocking having occurred away from NFRC sites, rather than the recruits not surviving.

Stocking

Nine thousand Australian Bass were stocked in 2016; 28,500 in 2017; 10,000 in 2018 and 2019; 25,000 in 2020; 26,000 in 2021; 27,000 in 2022; and 25,000 in 2023 across the Thomson and Macalister Rivers. No stocking has occurred in either river since 2023.

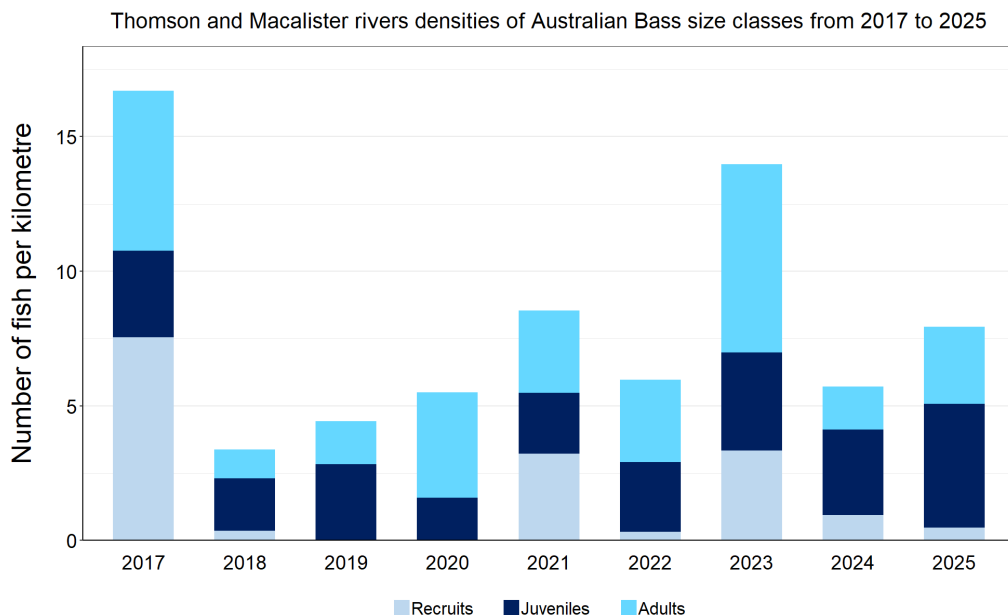


Figure 4. The densities of recruits, juveniles and adult Australian Bass for NFRC surveys in the Thomson and Macalister rivers from 2017 to 2025

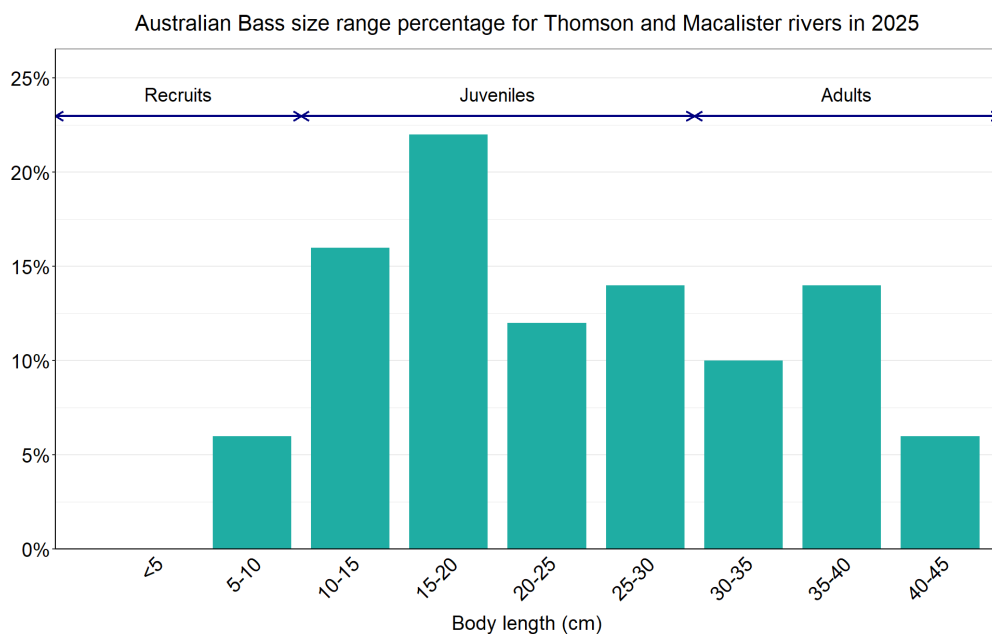
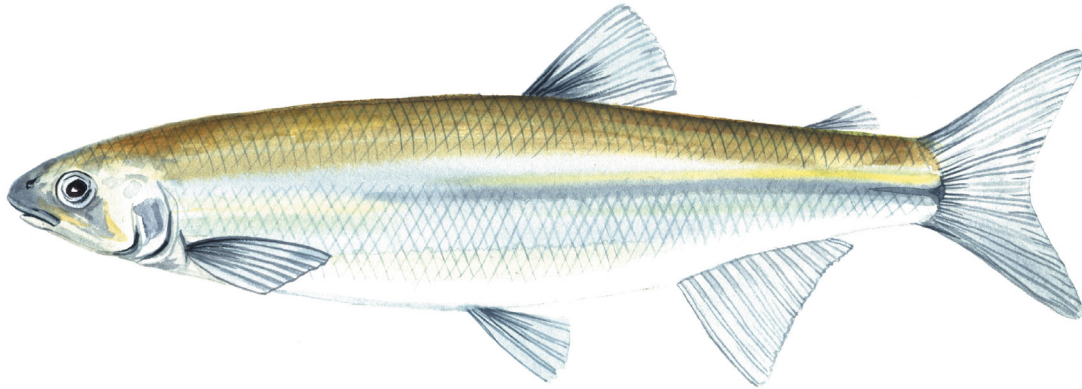


Figure 5. The size range percentage of Australian Bass measured from the Thomson and Macalister rivers during NFRC surveys in 2025

Australian Grayling

Prototroctes maraena



Key Health Indicators

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

Monitoring Results

Total number of fish caught	3
Fish per 1km of waterway	0.48
Largest fish by length (cm)	22.1
Largest fish by weight (kg)	0.10
% of the catch that is legal size	NA [#]

[#] This species is a Protected Freshwater Species and taking or possessing is prohibited (Victorian Recreational Fishing Guide 2025)

THOMSON + MACALISTER RIVERS

THREATENED SPECIES

Australian Grayling (*Prototroctes maraena*) is a diadromous species that has undergone declines in distribution and abundance across its range. The species is listed as endangered in Victoria (*Flora and Fauna Guarantee Act 1988*) and nationally (*Environment Protection and Biodiversity Conservation Act 1999*). While NFRC expects to only capture low numbers of this species, the monitoring can provide a greater understanding of the current status of the populations which is essential to inform management of this species.

Two adults and one recruit were detected in the 2025 survey (Figure 6, Figure 7). This is the first time recruits have been recorded in NFRC surveys in this system. Although abundances have been low, Australian Grayling have been captured in seven of the nine NFRC survey years (2017-18, 2020-21 and 2023-25), with the highest captures being five in both 2018 and 2020. No Australian Grayling were detected in 2019 or 2022. Adults have been captured in 2017-18, 2020 and 2023-24 with juveniles also detected in 2020 and 2021 and recruits in 2025 (Figure 6). Due to the low abundances of Australian Grayling collected during NFRC, the key health indicators cannot be determined. However, the presence of juveniles in 2020 and 2021 and recruits in 2025 (Figure 6) suggests successful recent immigration by recruits into the Thomson and Macalister rivers. This indicates stream conditions attracted recruits into the system and supported their subsequent upstream dispersal and survival in 2019, 2020 and 2025.

Stocking

No stocking has occurred.

Australian Grayling

Prototroctes maraena

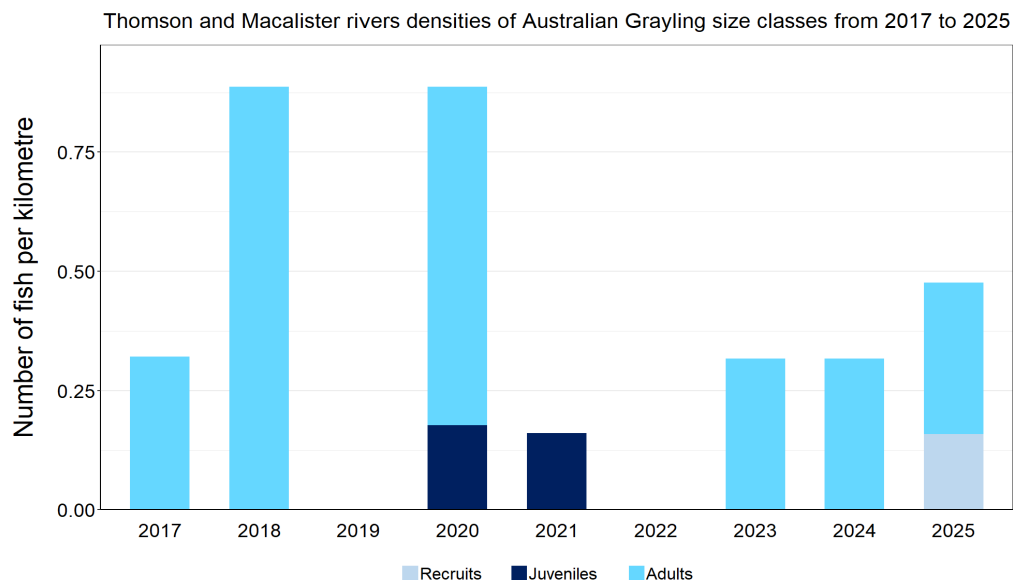


Figure 6. The densities of recruits, juveniles and adult Australian Grayling for NFRC surveys in the Thomson and Macalister rivers from 2017 to 2025

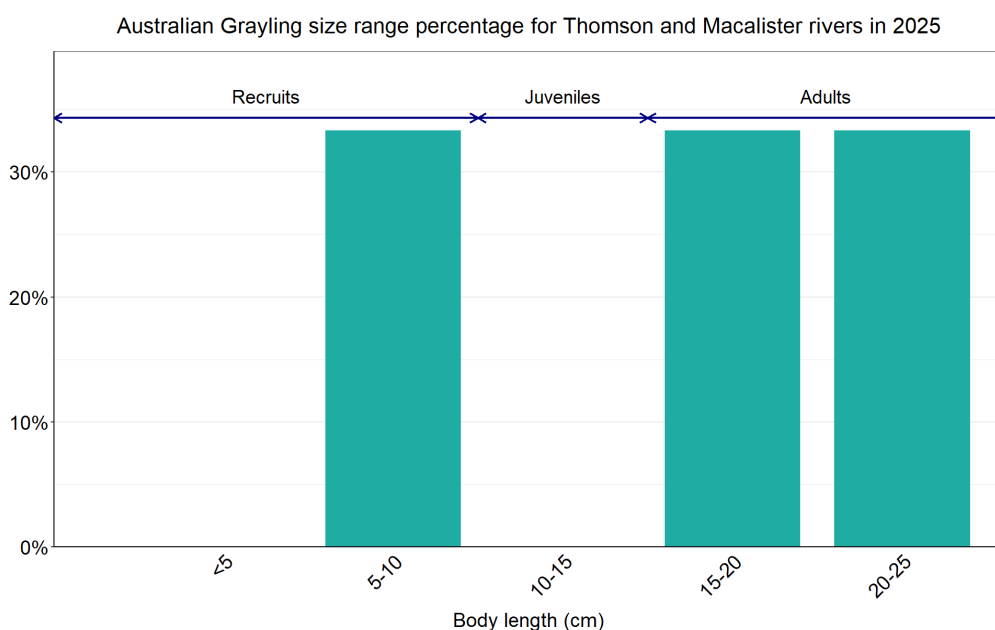


Figure 7. The size range percentage of Australian Grayling in the Thomson and Macalister rivers during NFRC surveys in 2025



We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it.

We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

DEECA is committed to genuinely partnering with Victorian Traditional Owners and Victoria's Aboriginal community to progress their aspirations.



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