

Improving Fish Habitat in the Nambucca River



Nambucca Valley Landcare

This project focused upon riverbank restoration and riparian plantings to help improve fish habitat, water quality, and biodiversity of the Nambucca River. River

The issue

The Nambucca Valley experienced constant rain and numerous floods throughout 2021 and 2022. Due to these excessive rain and flood events, as well as historic poor land practices such as clearing and set stock grazing on the river's edge, the result has been significant loss of land at many locations along the Nambucca River. Repairing the most actively eroding areas is a priority as it will improve water quality and fish habitat, and through riparian plantings increase the biodiversity along the river.

The solution

Nambucca Valley Landcare delivered a project funded DPI Fisheries Habitat Action Grant with assistance from Nambucca Valley Council. This project was to undertake riverbank restoration to repair areas of significant erosion. Landcare worked with the landholder to install rock and timber fillets along the riverbank which act as mangrove and fish habitat. Soon, these fillets will be full of mangroves, which in turn provides fish breeding habitat and results in a healthier fish population throughout the catchment.

This property does not run cattle, but a fence has been installed to ensure no cattle will be able to access the bank into the future. The landholder agreed to fence off in line with best practice river restoration - the fence is a minimum of 20m from the rivers edge, along the entire 175m of river frontage. This provided us with the opportunity to plant over 2,800 endemic plants with the help of a community planting day which will form a complex plant community which will work to ensure bank stability into the future and increase habitat for local wildlife.

The impact

This property is in between two other properties, and downstream from a third, all of which had similar works completed last year. The result is that a whole reach of the Nambucca River has had bank restoration works undertaken and will lead to a combined outcome that will improve water quality of the Nambucca River. The immediate outcome was a reduction in sediment entering our waterways. The installed fillets captured any sediment from bank erosion and the fillets have provided a safe place for mangrove seeds to germinate.

This project has resulted in a collective of neighbouring properties along the Nambucca River having had bank restoration works completed, with supporting riparian plantings. The initial properties were assessed 8 months after completion of the works and there were over 700 mangrove seedlings already becoming established, and great diversity of aquatic life was identified (over 8 different species of fish, stingray, mud crabs and prawns) in December 2023. The impact of working with neighbouring landholders is that the outcomes of works are cumulative and will increase the overall benefit to the river system by providing a refuge for mangroves, fish and wildlife to become established.



Key facts

- Riverbank restoration works help to improve fish habitat and water quality.
- Having a deep setback off the river allows plantings of many diverse plants to help stabilise the riverbank.

Project Partners



This initiative is made possible by the NSW Landcare Enabling Program, a collaboration between Local Land Services and Landcare NSW supported by the NSW Government.