



# Improving fish stocks through better floodgate management within acid sulfate soil catchments



## WHAT IS THIS PROJECT ABOUT?

NSW Fisheries and the Fisheries Research and Development Corporation (FRDC) are conducting a 3-year research project, to enhance fish and prawn stocks in acid sulfate soil catchments.

The main objective of the project is to develop guidelines for floodgate design and management, in order to enhance recruitment and migration of fish and prawns, as well as to improve water quality.

Field work takes place in the Clarence River, the Macleay River (Yarrahapinni broadwater), and the Hunter River (Hexham Swamp).

## WHAT HAVE WE FOUND SO FAR?

In the 1<sup>st</sup> year of this project, we compared fish and prawn populations in drainage systems with floodgates, to those in natural creeks without floodgates, using a seine net (10m x 2m x 6mm stretch).

We found that commercially significant species are largely absent in gated systems, but occur in healthy numbers in non-gated, natural creeks.

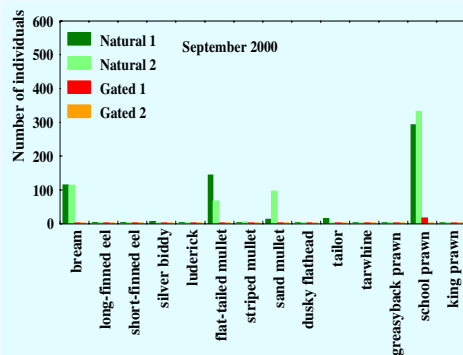


Figure 1. Number of individuals per species, in two natural creeks and two gated systems, in the Clarence River.



Photography: Matt Barwick

Sampling using a seine net



Photography: Frederieke Kroon

Fisheries staff and land owner opening a floodgate

## THE NEXT TWO YEARS

1. Future field work will involve monitoring fish and prawn populations, as well as water quality and habitat parameters, as floodgates will be opened up more regularly.
2. Ultimately, our results will be used to develop guidelines for floodgate design and management, in order to enhance fish and prawn stocks in acid sulfate soil catchments in New South Wales and Queensland.
3. To ensure our findings will be implemented, we are presenting our results to landowners, industry groups and government agencies, at field days and workshops, and through information bulletins and newsletters.

## WHO WILL BENEFIT?

1. **Commercial and recreational fishers:** We expect that fish and prawn recruitment will improve with changed floodgate management, eventually enhancing the commercial and recreational fisheries. This project is funded by FRDC, and FRDC gets its funding from levies paid by commercial fishers, as well as the Commonwealth Government. It is therefore more than appropriate that fishers will be the primary beneficiaries of this project.
2. **Landowners:** We expect that water quality in drainage systems will improve with changed floodgate management, eventually improving the productivity of their land.
3. **General community and other user groups:** We expect that changed floodgate management will aid in restoring coastal floodplains and wetlands, eventually resulting in increased amenity.

## WHERE CAN I GET MORE INFORMATION?

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