

MMCP Collaboration

Overview

Background

Supported by the Joint State Governments, the MMCP Collaboration seeks to continue the commitment by the Joint State Governments, La Trobe University and CSIRO to the generation and adoption of freshwater ecological knowledge through collaboration. The Joint State Governments and the MDFRC have agreed to work together to further the aims of the MDFRC and increase the management benefits for the Joint State Governments by :

- Improving the understanding of the relationship between flow, ecosystem function and biodiversity.
- Improving managers' capacity to predict the environmental outcomes of water management and complementary natural resource management.
- Improved the capacity to evaluate the threats to ecosystem function and diversity under a range of water management and climate scenarios.
- Improving the capacity to assess ecosystem condition and identify the interventions most likely to effectively and efficiently achieve environmental objectives.

Management implications

Protect and restore water-dependant ecosystems

The maintenance of connectivity both longitudinally and laterally is recognised as being important in the protection and restoration of aquatic ecosystems. The MMCP aims to provide managers with the tools to make informed decisions on (i) how effectively the creation of longitudinal connectivity has restored native fish communities, and (ii) how the operation of infrastructure to restore lateral connectivity between will lead to changes in vegetation communities.

Protect and restore the ecosystem functions of water-dependant ecosystems

The management and restoration of native fish populations has primarily targeted the maintenance of flows and habitats that promote recruitment and growth of larvae and juvenile fish. The success of these actions may be limited due to a poor understanding of (i) what the appropriate flow regimes are required to support the growth of native fish, and (ii) whether the appropriate food resources occur under current conditions to support the recruitment and growth of native fish. The MMCP will provide water resource managers with the knowledge on how to manipulate flow regimes to support and maintain food resources and promote the growth of native fish.

Ensure that water-dependant ecosystems are resilient to climate change and other risks and threats

The MMCP will provide water resource managers with the knowledge on how best to manipulate water regimes to maintain ecosystem function and protect water-dependant ecosystems as the demand for water resources increases under climate change scenarios.

Research themes

The projects undertaken will complement and build on existing long term data sets and existing projects

- Vegetation dispersal
- Fish movement
- Fish growth dynamics
- Macroinvertebrates and foodweb ecology
- Response of basal resources to changing flows



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