



Max Mallett

BSc (Hons) Applied Ecology

max.mallett@griffithuni.edu.au

<http://orcid.org/0000-0003-3094-964X>

Summary

Freshwater biodiversity constitutes a valuable natural resource, providing important economic, scientific, aesthetic, cultural and recreational ecosystem services. Despite this, global freshwater ecosystems are some of the most poorly managed, with declines in freshwater biodiversity far greater than those of terrestrial ecosystems. In the Murray-Darling Basin, the health status of individual fish is a contributing factor to overall biodiversity. However, anthropogenic disturbances such as hydrological alteration are increasingly challenging the ability of fish to maintain their health. To manage for long-term resilience of native fish populations in the MDB, drivers of individual fish health and the implications of poor health for population success need to be better understood. The importance of individual fish health for broader species populations in the MDB has been identified as a key knowledge gap. There are numerous ways to assess fish health, yet very few studies have investigated the use of fish health assessment methods that are responsive to hydrological disturbances. The proposed research aims to identify health assessment methods that provide a mechanistic understanding of the interaction between hydrological stressors and fish health. This will provide a greater understanding of the link between ecological stressors and population success, in turn facilitating more targeted management interventions.

Research Expertise

- Freshwater Ecology
- Trophic Ecology
- Stable Isotope Analysis