

FACT SHEET – BIODIVERSITY IN THE NOOSA RIVER SYSTEM STUDY

Background

- *Bring Back the Fish* is a \$1.4m co-funded research program aimed at understanding biodiversity in the Noosa River, Lakes and Estuary to inform effective management.
- *Bring Back the Fish* is a joint initiative of the Noosa Biosphere Reserve Foundation, Noosa Parks Association and The Thomas Foundation. Read more: <https://noosabiosphere.org.au/portfolio/bring-back-the-fish/>
- The *Biodiversity in the Noosa River System* baseline study is the third component of *Bring Back the Fish*, in conjunction with the Keep it in Kin sediment mitigation projects and the Oyster Reef Restoration Pilot Study.
- The *Bring Back the Fish* program addresses the core components to understand the level of resilience in the Noosa River, Lakes and Estuary – reducing sediment inputs, restoring structure/habitat for fish and fish food (this study).
- The *Biodiversity in the Noosa River System* baseline study received NBRF funding of \$157,800 under the 2015 grant round, awarded to a University of Queensland research team led by Professor Greg Skilleter.
- Due to generous support from UQ and project partners, this component of the *Bring Back the Fish* program leveraged the NBRF grant funds 3:1, with a total project value of \$444,800. Generating a baseline of estuarine biodiversity will be invaluable for future investment and protection of our natural places.

Biodiversity in the Noosa River System

- Final Report by Skilleter et al. (2019) titled *Biodiversity in the Noosa River System: Assessment of Prawn & Estuarine Biodiversity Recovery in the Noosa River*, reveal the status of estuarine communities and possible recovery and management options for the Noosa River system.
- Researchers developed a novel approach for developing a sampling program to detect cumulative human impacts on estuarine communities (including benthic invertebrates, fish and prawn).
- Sampling of the benthic communities were undertaken over two periods in May (Autumn) and November (Spring) 2018 - the most extensive sampling ever conducted in the Noosa River system.
- Benthic communities include the small animals (worms, snails, clams, and crustaceans including prawns and crabs) that live in or on the sand and mud (sediment) and make up a key component in the diet of many of the fish targeted by both recreational and commercial fisheries.
- Data from 2018 was compared against previous assessments completed in the same locations in 1998 with a 30-65% decline in number of benthic species recorded in 2018.
- A build-up of fine sediment in the system is the most likely cause of the decline in these animals.
- Prof. Skilleter's work provides an essential baseline and framework for monitoring biodiversity and measuring the response of estuarine communities to management interventions in the future. Ongoing monitoring relative to this new baseline provides a valuable early warning mechanism to measure the health of the estuary into the future.

About the Noosa Biosphere Reserve Foundation

- In 2007, the Noosa Shire achieved global recognition for the high values of its natural environment with the United Nations Educational, Scientific and Cultural Organisation (UNESCO) consenting to the designation of our Shire as the Noosa Biosphere Reserve.
- The Noosa Biosphere Reserve Foundation (NBRF) is a not-for-profit organisation established by the Noosa Shire Council to support projects and ideas that align with the aims of the UNESCO Man and the Biosphere (MaB) Program. www.noosabiosphere.org.au