

Assessing fish species composition in the southern Gulf of Carpentaria, and links with cultural knowledge

Project information



National Environmental Science Program



The Leichardt River flows into the Gulf of Carpentaria. Photo: Michele Burford

This project is working collaboratively with Traditional Owners in the Gulf of Carpentaria's southern Queensland region to combine cultural knowledge with scientific knowledge, train rangers on fish sampling and identification, and ensure they to ensure they have the skills and capacity to carry out future surveys.

Project details

The Gulf of Carpentaria's southern Queensland region is earmarked for significant water-development that could potentially impact ecologically and culturally important fish species.

This project is examining fish species across a range of habitats throughout the southern Gulf of Carpentaria, to get a list of present species and determine which species are culturally important and used as bush foods for Traditional Owners.

We're recording the length and weight of all fish species caught and recording the presence of any pest species in waterways. The information collected will be combined with data on water quality and hydrology to map and analyse fish species composition in the context of threatening processes.

Hub researchers are working collaboratively with Wellesley Islands Land Sea Social Economic Development Pty Ltd and Carpentaria Land Council Aboriginal Corporation rangers to train local rangers in fish identifications and survey techniques. Doing so will help build the capacity for ranger networks to conduct future surveys and continue to accurately

assess the health of waterways in the southern Gulf of Carpentaria region.

Key research goals

To better understand the ecological and cultural importance of fish species in the south Gulf of Carpentaria, this project is:

- characterising freshwater fish species (as assessed using environmental and cultural values) and the presence of pest species to inform catchment development
- analysing data on fish species in the context of water quality data to determine areas vulnerable to environmental stressors
- ensuring that rangers trained in fish identification and sampling can continue a sampling program in the longer term, providing a longitudinal dataset in a poorly-studied region of Australia



Sleepy Cod, *Oxyeleotris lineolatus*. By Stephen Faggotter

What is the NESP Resilient Landscapes Hub?

The Australian Government's National Environmental Science Program (NESP) funds environment and climate research. NESP currently supports 4 multi-disciplinary research hubs, each hosted by an Australian research institution. The program:

- provides evidence for the design, delivery and on-ground outcomes for environmental programs
- helps decision-makers, including from Indigenous communities, build resilience
- supports positive environmental, social and economic outcomes.

This project is funded by the NESP Resilient Landscapes Hub, which is hosted by the University of Western Australia. The Resilient Landscapes Hub's research supports the management of Australia's terrestrial and freshwater ecosystems and makes them more resilient to extreme events and pervasive pressures.



McAdams Creek joins to Gregory River. Photo: Michele Burford

Further information

The project is being led by Professor Michele Burford and Stephen Faggotter from Griffith University.

This document and further information are available from the project website at neslandscapes.edu.au/projects/nesp-rlh/fish-gulf-of-carpentaria/.

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