Climate Change Adaptation Research Grants Program
- Marine Biodiversity and Resources Projects

Project title:
Preadapting a Tasmanian coastal ecosystem to ongoing climate change through reintroduction of a locally extinct species

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Lead organisation: University of Tasmania

Objectives:
1. Develop and promote a national framework to evaluate potential translocations of native marine species.
2. Determine the feasibility of reintroducing blue groper as a test case.
3. Design a monitoring and evaluation program to determine the effects of a trial re-introduction
4. Reach the critical decision point on whether to re-establish blue groper in Tasmania, or to take an alternative approach indicated by the research. Develop a proposal to support this outcome.

Methods:
The loss of top predatory fish on temperate and coral reefs is apparently ubiquitous throughout the world. A goal for this project is to develop the awareness, expertise and protocols that could lead to the reintroduction of many locally extinct (or near-extinct) species, where it would increase system resilience and promote local awareness of the marine environment.

This proposal has three components:
1. Develop rationale, protocols and risk-based strategies for deciding whether and when to proceed with species translocations. This is primarily a desk-based job, using scientific knowledge to build on existing national protocols created for species translocation of fish species. The Blue Groper will be used as the test case for this work, but the recommended protocols would be designed to be relevant to all native marine (and possibly freshwater) species. One outcome of this research would be a position paper proposed for consideration by the MACC, through the Biodiversity Working Group (subject to direction of the Steering Committee)
2. A feasibility study for translocating blue groper from New South Wales to Tasmania. This would apply the developed translocation policy and risk assessment to the blue groper as a test case. Other species may also be considered as indicated by the research of this project and others including Dan Gledhill's - spearfishing and climate adaptation project.
3. Areas suitable for the release of larger male blue groper would be identified, discussed with the local community and surveys completed (diver and/or AUV) to establish a baseline against which to monitor future change. This section of the study would also consider whether changes in the local environment (and our interaction with it) have provided the conditions where the blue groper could now survive in Tasmanian waters. Methods would be standard methods developed by TAFI and expanded through the Reef Life Survey (RLS). The RLS approach would be targeted for long-term monitoring as a mechanism to engage the local community and to create “ownership” of reintroduced fish.

This proiect would lead to a critical threshold after two years, when the scientific, legal and social feasibility of reintroducing the blue groper to Tasmania can be presented for a decision to be made on whether to proceed. We have stopped short of proposing in this proposal to reintroduce the blue groper because the timing of such an introduction will depend on local, state and commonwealth government agreement, and it woudl be premature to propose the introduction the relevatn protocols and risk assessments are completed.