

Friday, 21 Jun 2019 | **4 pm** | DBS Conference Room 1

Hosted by A/P Peter Todd

Plasticity of marine fish to ocean warming



By Jenni Donelson

Postdoctoral Research Fellow, ARC Centre of Excellence
for Coral Reef Studies, James Cook University, Australia

Knowledge of the capacity for species to acclimate and adapt to rapid climate change is critical for understanding likely species responses, as well as for effective management and conservation of ecosystems in the future. Much of the research to date uses the present-day performance and sensitivity of populations or species to infer the capacity for persistence in predicted future environments. This research generally suggests negative impacts to most organisms and very little capacity for species to cope with expected future change. However, for marine species projected environmental change will occur over years and generations allowing for plastic and adaptive processes to take place. Recent research is showing that some species may be able to improve and maintain performance when altered conditions are experienced early in life or when previous generations have experienced conditions. I present a series of studies on the capacity and limitations of tropical reef fish to acclimate to projected ocean warming within and across generations.

Jenni Donelson is currently a Postdoctoral Research Fellow at the ARC Centre of Excellence for Coral Reef Studies, James Cook University. Jenni received her doctorate from James Cook University in 2012 for research on the potential for thermal acclimation in a common coral reef damselfish, following this she was a Chancellor's Postdoctoral Fellow at the University of Technology Sydney. Her research focuses on the plasticity of fish in the face of changing environmental conditions. Specifically, on the capacity for developmental and transgenerational plasticity of reef fish to potentially enhance performance in future environment.

<http://jenniferdonelson.weebly.com/>