

## HONOURS PROJECT



**Project Title:** Nesting behaviour and spawning periodicity of scalyfins (genus *Parma*)

**Supervisor:** Dr Ben Saunders

**Project:** The south-western Australian endemic damselfish *Parma mccullochi* is an herbivore that through territorial exclusion changes the rate of herbivory on the benthos, and in doing so changes the benthic community. The fish create a nest site of filamentous turfing algae within the territory, and spawn onto the turf nest. Once the clutch of eggs hatches, the fish harvest the algae back to bare rock to grow a fresh crop of algae on which to spawn again. This project will document this behaviour over a spawning season, and assess any nutritional benefit to the fish in consuming the nest algae. We will track the periodicity of spawning, the number of clutches, the number of concurrent clutches, and the duration of the spawning period for a number of individuals.

**Special Requirements:** This project would be best suited to a mid-year start. The project will involve SCUBA diving, and a lot of field work between November and February. The student should hold an open-water diving qualification or greater, with logged dive experience, and a driver's licence.

### References:

Saunders, B. J., E. S. Harvey and G. A. Kendrick (2013). "Nesting behaviour of a temperate damselfish (*Parma mccullochi*) and its influence on algae." *Marine and Freshwater Behaviour and Physiology* 46(3): 169-182.