

Protecting the next generation: Do green zones contribute to regional recruitment on the Great Barrier Reef?

1. Background:

- A fundamental goal of conservation and fisheries management is to protect enough breeding adults to maintain recruitment of juveniles and sustain populations
- Here we apply new genetic tools to assess the potential contribution of coral trout populations within green zones to securing future generations of fish and fishers

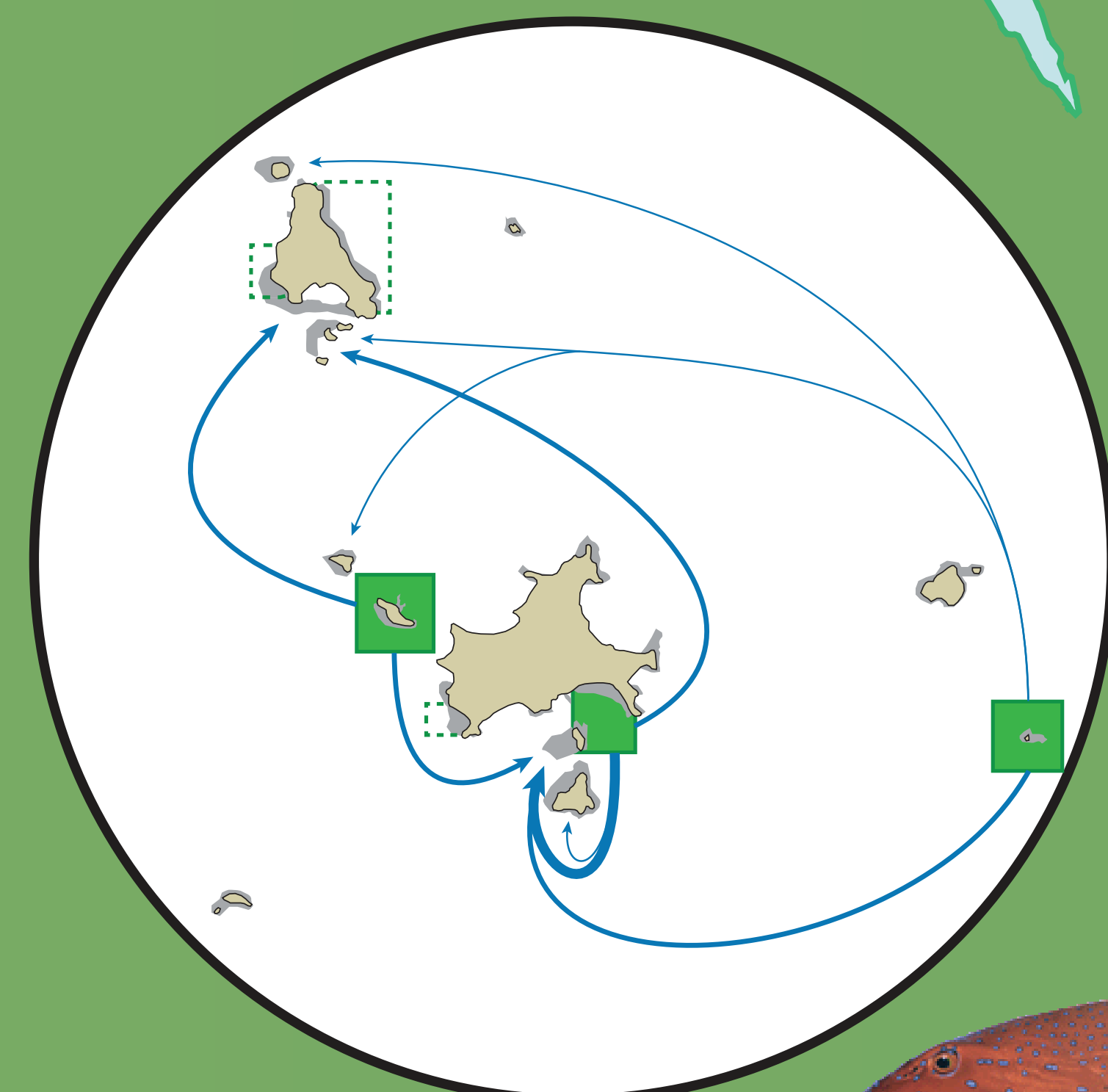
2. Objectives:

- Track the dispersal patterns of coral trout larvae in the southern GBR region
- Quantify the levels of larval exchange between reefs and the contribution of the green zone network to population sustainability

3. Research approach:

- Collected tissue samples from ~1600 adults and 1300 juveniles
- Apply DNA profiling and parentage analyses to identify relationships between adult fish and their offspring

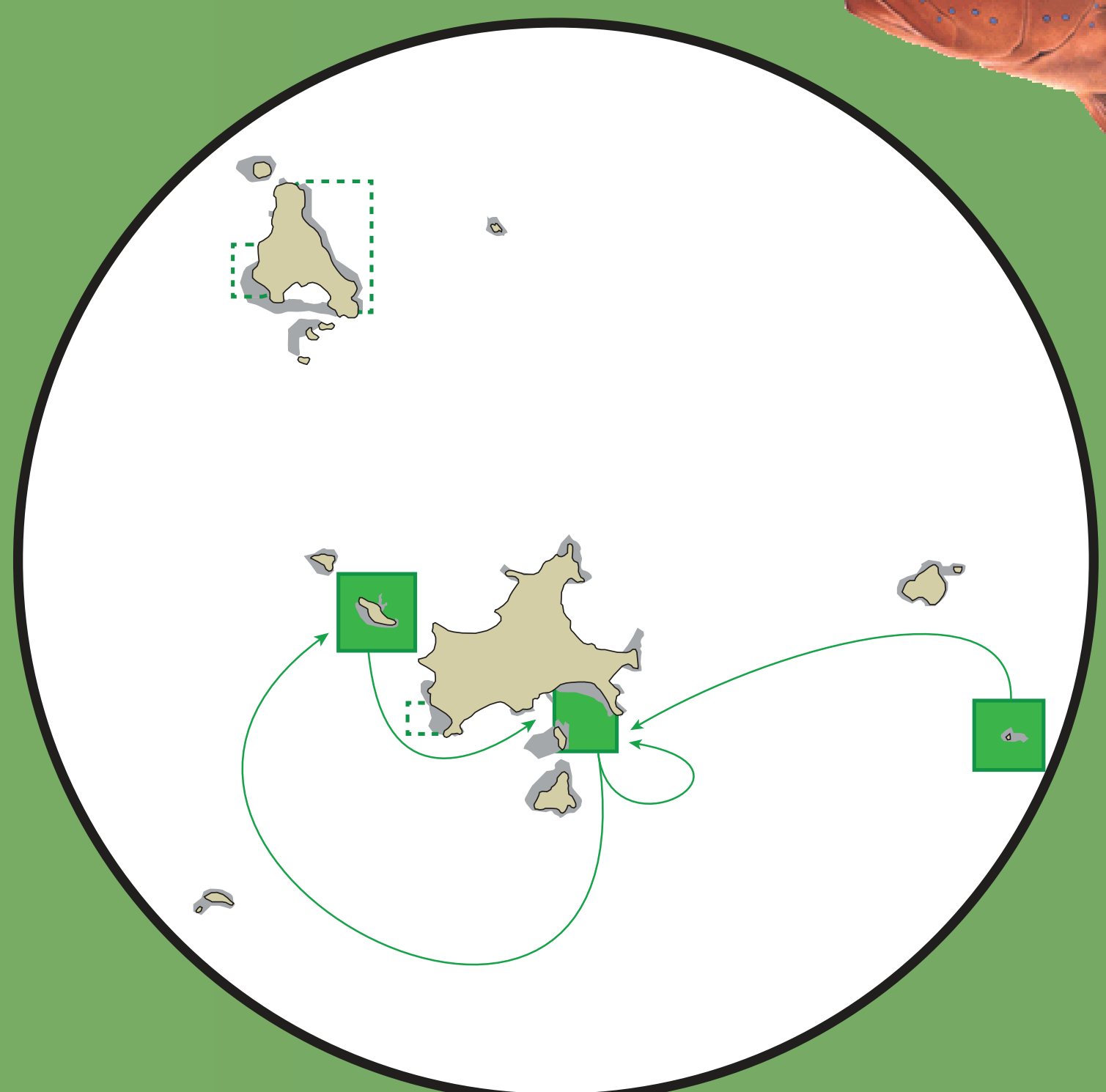
Pilot study: Keppel Islands



Green zones generated ~57% of recruitment in fished areas...



...and ~30% of recruitment within green zones



Connectivity

Keppel Islands

Local Retention

Capricorn Bunkers

