*Coral growth methods – C. Benkwitt*

We tagged small branching *Acropora* colonies using numbered cattle tags ziptied to nearby substrate. Between 5-7 colonies were tagged near each of 5 islands in May 2018, and near an additional 7 islands in March 2019. All colonies were located within 300 m of shore on the lagoon sides of islands. We re-visited all sites in 2019 and 2021, with 5 sites also re-visited in 2020. No tagged corals were found at 3 islands, leaving a total of 9 islands (5 rat-free and 4 rat-infested) with corals included in the growth analysis.

We used change in planar area as our metric of coral growth because it is a commonly-used non-destructive method, is relevant for coral demography, and is tightly related to three-dimensional surface area and volume (Dornelas et al. 2017 *Proceedings of the Royal Society B*, Pratchett et al. 2015 *Oceanography and Marine Biology: An Annual Review*). Each tagged colony was photographed from above using a Cannon S110 camera with a scale bar placed level with the upper surface of the coral. Planar area was measured in each image by outlining the outer edge of the colony using the polygon tool in FIJI/ImageJ. Change in planar area (cm2/day) was calculated for each colony as the difference between the new surface area and the previous surface area divided by the number of days between measurements.