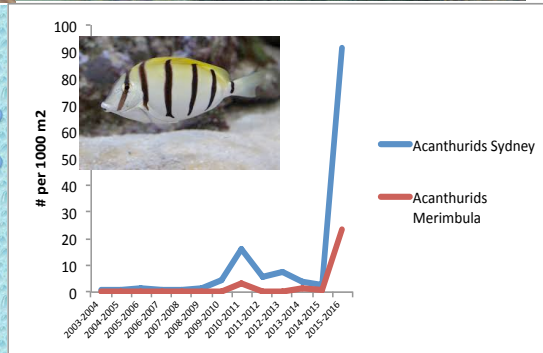
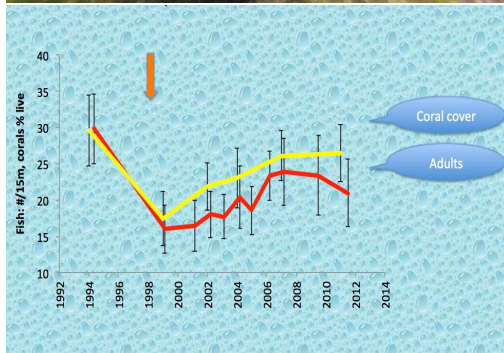
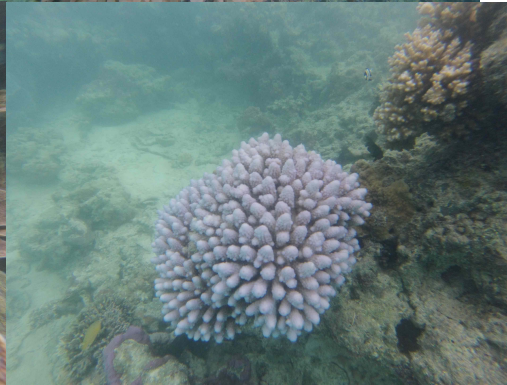
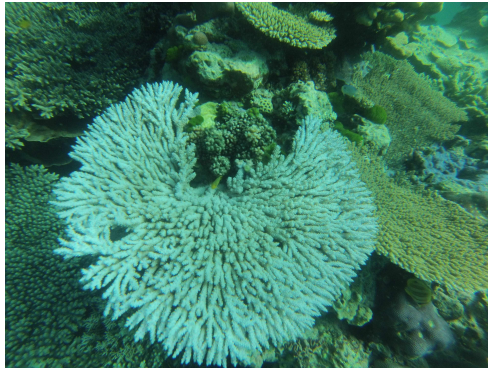
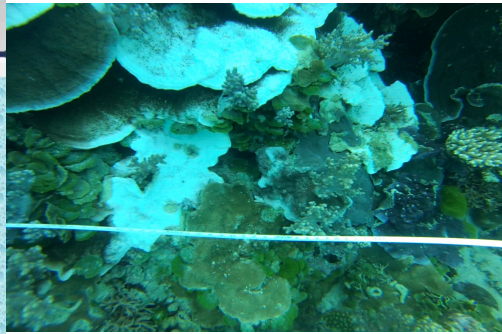


**MARINE CLIMATE CHANGE**  
IMPACTS & ADAPTATION REPORT CARD AUSTRALIA 2012

- **EAC strengthening** (350 km further south in last 50 years, expected to continue)
- **SST rising poleward** (partly EAC-related)
- **Habitat destruction** (eg bleaching on coral reefs, loss of estuarine seagrasses)
- **Habitat expansion poleward** (urchin barrens and coral habitat spreading poleward)



**Booth DJ, N Bond and PM Macreadie (2011)** Have there been range shifts for Australian fishes in response to climate change?

*Marine and Freshwater Research* 62, 1027–1042

**Booth, DJ and Beretta GA (2002)** Changes in a fish assemblage after a coral bleaching event. *Mar. Ecol. Prog. Ser.* 245: 205-12

Devillers R., B. Pressey, A. Grech, J. Kittinger, G. Edgar, T. Ward, R. Watson (2014) Reinventing residual reserves in the sea: are we favouring ease of establishment over need for protection? *Aquatic Conservation: Marine and Freshwater Ecosystems* 25: 480–504 (2015) DOI: 10.1002/aqc.2445

Feary D.A., Fowler A.M. Ward T.J. (2014) Developing a rapid method for undertaking the World Ocean Assessment in data-poor regions - a case study using the South China Sea Large Marine Ecosystem. *Ocean and Coastal Management* 95, 125-137

Ward T.J. (2014) The condition of Australia's marine environment is good but in decline. *Ocean Coastal Management* 100, 86-100.

Ward T.J., **Booth, D.J.**, Fairweather, P.G., Ford, J.R., Jenkins, G.I., Keough, M.J., Prince, J.D. & C. Smyth (2016) Australia's coastal fisheries and farmed seafood: an ecological basis for determining sustainability. *Australian Zoologist*, in press. DOI:

<http://dx.doi.org/10.7882/AZ.2016.016>