Predicting the effect of climate change on embryonic flatback (*Natator depressus*) and green (*Chelonia mydas*) sea turtles in the Kimberley region of Western Australia

Status Underway, Blair Bentley PhD Candidate

Aims To investigate population-specific pivotal temperatures in flatback and green turtles and in particular investigate difference between summer and winter nesters. In addition, the thernal maxima of developing embryos will be estimated to determine the limits of populations within both species. Mechanistic models will be produced using NicheMapR to allow high resolutions and accurate predictions of sex ratios and mortality of embryos.

Relevance Global warming is a recognised pressure for sea turtles and is predicted to cause feminisation of rookeries and increased embryronic mortality. The ability to predict climate change impacts on rookeries and stocks is essential for managers to understand changes and potentially implement management actions they may increase resilience stock wide.

NWSFTCP Code P3 R

Partners DBCA, University of Western Australia, CSIRO