Marine Turtles of the Kimberley- WAMSI Project 1.2.2

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Marine turtles are long lived and have complex life histories that include the use of multiple habitats over large geographical scales. Globally, they are highly valued by the general public, indigenous and subsistence communities and the scientific community. Despite these values there are many gaps in our understanding of marine turtles, especially in the Kimberley of Australia, where limited knowledge of the distribution and abundance of nesting species inhibit development assessments, management planning and the establishment of long term monitoring. For these reasons the WAMSI turtle project has focused on the nesting phase of the life history including the following three components:

1) inventory of distribution and abundance of species through surveys and Indigenous Knowledge;
2) stock identification using genetics; and
3) the impact on nesting from temperature increases through climate change.

The WAMSI turtle project has conducted the following activities:

- engagement with Indigenous groups across the Kimberley to establish agreed work plans;
- aerial surveys of most Kimberley beaches in summer and winter;
- on- ground track verification across the Kimberley from Eighty Mile Beach to Cape Domett;
- collection of turtle genetic material across most of the Kimberley; and
- collection of eggs for climate change impact experiments and sex ratio studies.

Current outputs of the project include a completed honours thesis, one published scientific paper, three conference presentations, community posters and presentations and more than ten meetings and presentations to Indigenous groups. Outputs also include shared aerial images with the WAMSI Crocodile and Reef Geomorphology projects.

Expected management outcomes of this project will directly inform the assessment of development projects, planning of Marine Park zones and management plans and assist in establishing long-term monitoring. Genetic analyses will define the stocks while the climate change component will assist in predicting future impacts to these stocks. Both components will assist in planning for management and establishing a monitoring program.

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CSIRO

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The University of Western Australia

Curtin University

ECU Edith Cowan University

Western Australian Museum

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waGOOS western australian global ocean observing system

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