Chapter 5: Indigenous engagement, collaboration and knowledge exchange for the Kimberley Node Turtle Project

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Executive Summary

Indigenous engagement, collaboration, knowledge exchange and Indigenous employment were fundamental components of this project. From the beginning funds were allocated to ensure appropriate levels of collaboration and participation in the project, which amounted to approximately one quarter of the budget. Onground project planning could only commence once funding was received which meant the project did not have the money to engage prior to project scoping. However, flexibility in project scope meant that adjustments to this project following engagement through face to face meetings was possible. The willingness of groups on the ground to progress this project and to discuss turtle issues led to common ground for planning this project. To help implement the project we employed a senior research scientist through DBCA that had both science and Indigenous engagement skills. Several independent trips were made to the Kimberley prior to any field work being conducted to ensure that appropriate consultation was conducted. During the project we met independently and repeatedly with 11 traditional owner or ranger groups that co-manage significant turtle resources across the Kimberley coast and offshore islands.

Information exchange occurred during 50 Indigenous engagement meeting and 32 field trips that collected data. Two-way knowledge transfer occurred between

Over 31 educational products had been prepared at the time of the WAMSI November 2017 conference, including posters, seminars, and support of TO participation in national and regional conferences.

A central aim of all field trips was knowledge exchange with rangers which included delivery of hands-on training in marine turtle techniques to build capacity for ranger groups for ongoing monitoring opportunities. During these trip rangers shared cultural background about the coast and islands and relevant information from their previous visits to the islands.

1 Introduction

Indigenous engagement, collaboration and knowledge exchange were a fundamental component of this project. Indigenous knowledge and two-way communication between onground managers and western science is recognised and valued for conservation outcomes across the world (Berkes at al 2000; Drew 2005; Vigilante et al. 2013). In Australia, the value of these partners are displayed through the commitment of State, Territory and Commonwealth governments in programs such as land and sea ranger programs, Indigenous Protected Areas (IPAs) and cross border initiatives such as the Northern Australian Indigenous Land and Sea Alliance (NAILSMA). The benefits of such programs often are far reaching and with outcomes benefiting other sectors including health, employment and education. Indigenous engagement and collaboration was a fundamental component of this project, with its importance enhanced because marine turtles hold high value as food and in ceremony for coastal Indigenous communities.

2 Aims

The aims of this component were integrated through all other components of the project and included:

- Incorporating Indigenous knowledge into project planning and field work planning
- Developing opportunities for Indigenous engagement and employment during the project period
- Conducting collaborative field trips to enhance training opportunities
- Delivering products back to the communities including data layers that can be used for local area management
- Enhancing the capacity for continued turtle research ad monitoring beyond the life of WAMSI Kimberley Node.

3 Indigenous engagement

Project Scope and budgeting

The initial project scoping by the WAMSI partners acknowledged the cultural significance of marine turtles to Traditional Owners and recognised that need to incorporate existing traditional knowledge into the planning and deliver of the project. For this reason, a substantial budget was allocated for meetings, employment, feedback of information and products. The budget allocation was about a quarter of the total budget.

Project Staff

There were mixed levels of Indigenous engagement experience amongst the staff and students from WAMSI partner organisations for this project. It was emphasised to all staff and students that worked on this project that the Indigenous engagement process was extremely important and that this project would follow the advice from the traditional owners and Kimberley Land Council. DBCA specifically recruited a staff member for this project who had both turtle experience and Indigenous engagement experience.

Planning

Funding for the WAMSI Kimberley Node was delivered by a process which meant that projects and total budgets were allocated prior to initial engagement. Broad scopes of work were already developed prior to any project being provided with funds to allow project development. In future, it would be preferable if project funds could be provided in advance to allow for project scoping prior to the detail project development. There was some flexibility in the original project design that allowed changes to the project to be made based on the advice of traditional owners. Face to face meetings were conducted across the Kimberley at key locations that inlcuded Kununurra, Kalumbaru, Derby, Broome and One Arm Point to ensure that there was a collaborative approach to this project.

Engagement and Collaboration

The planning meetings were a great way to establish formal and informal relationships to progress planning and discuss employment options. At the commencement of the WAMSI Kimberley node, most systems and processes around research agreements and access permissions were ad hoc for each group and different between groups. The Kimberley Land Council supported a Research and Ethics Committee (REAC) process and received

applications on behalf of some groups across the Kimberley. Project applications were communicated to the right people and advice or permission was provided back to the researcher. This process was not suited to all groups and communication was not always consistent. Since then, common research protocols have been adopted for the Kimberley under the Kimberley Saltwater Science Project and are available for all groups to use.

The early planning meetings and subsequent engagement led to collaborative work where there was an agreed working relationship and communication protocol. This was often informal but with some groups a formal schedule was developed that was appended to an initial WAMSI MOU. These schedules outlined the scope of the project, the working relationship between the Turtle Project and the individual groups.

The following is a list of actions by the Turtle Project to ensure best endeavours were undertaking to engage appropriately:

- Used existing documents, such as healthy country plans to align objectives to achieve mutual benefit (see references)
- Ensured that contact was made with the appropriate people in each group
- Met face to face with groups to ensure appropriate introductions and agree of way forward
- Used emails and telephones to communicate regularly between face to face meetings
- Submitted REAC application to the Kimberley Land Council
- Provided advice on development of WAMSI protocols
- Once developed, followed WAMSO General MOU principles.
- Develop specific contact agreement between Turtle Project and two individual groups
- Paid part PBC meeting costs to one group to ensure that we could introduce the project
- Offered salary to all Indigenous groups who worked on the project
- Always offered participation in field work
- Always offered training in turtle research techniques
- Ensured that information and photographs were delivered back to each group

4 Summary of activities and shared knowledge

We completed 32 field trips and 50 engagement meetings for the project as detailed in Tables 4.1 and Table 4.2.

Aerial survey

The aerial surveys of Summer and Winter 2014 yielded over 45,000 images that were shared with each TO group in 2015 via a portable hard drive and the data within their boundaries was delineated.

Ground truthing

The verification of turtle tracks or nests by species occurred with ranger participants at least one of the major rookeries for each of the TO groups. Those significant rookeries are detailed in the Chapter on Distribution and Abundance. These field trips provided opportunities for training and knowledge exchange (See Figure 1.).

TO knowledge exchange as a collective overview

Leatherback- Rarely seen, the individuals migrating through Kimberley are not known to nest there. The Wunambal Gaambera recall an elder's story of a leatherback turtle whose flipper were entangled in a boat line and it dragged the fisherman and his boat along until the line was cut.

Olive ridley- Rare nesters in Kimberley, but individual nesting has been documented on Camden Sound beaches. The recent decade has slowly accumulated records of single nests on Cape Leveque, within Camden Sound at Darcy Island, Vulcan Island, on Smokey Bay and Deception Bay, and an unconfirmed account at Langii. These accounts led to more focus on the Dambimangari track counts for Deception Bay where the light tracks of olive ridleys may be mis-identified.

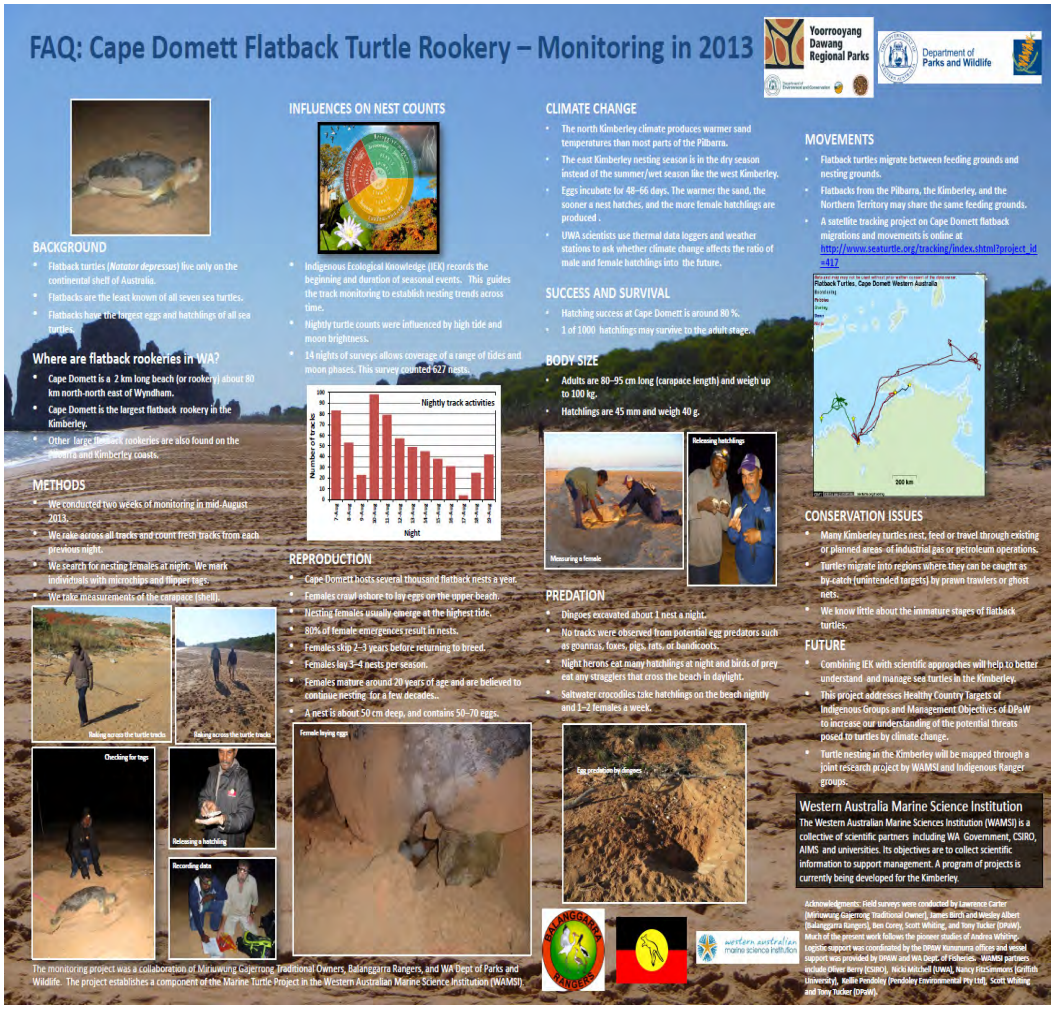
Loggerheads- Known but rare locally. One observed by Bardi rangers near Cygnet Bay Pearl Farm. Often seen in creeks with muddy water.

Hawksbills-known but rare locally. No recent knowledge of the Jones Island rookery reported by Macassans and early explorers but may relate to survey timing or lack of access. Several tracks seen during Vansittart surveys and one adult female carcass on Troughton Island found with WG rangers. Reports were also noted from Sir Graham Moore Island and Scorpion Island. Several juveniles observed in-water during Montgomery Reef survey with Dambimangari rangers. The Healthy Country plans mention that hawksbill turtles are sometimes poisonous (identifies Lewis Island as having poisonous sea-grass or soft corals).

Flatbacks-known and common, taken for eggs when a rookery is close to a settlement. Seldom taken for meat, and then is usually mistaken for a green turtle. Said to be common in Prince Regent River in Dambimangarri country. A juvenile was observed in Mayala country at Helpman Island by Bardi Jawi rangers. Bardi Jawi identify the eastern-most summer nests of flatbacks at One Arm Point, and Nyul Nyul report the western-most winter nests around Lombadina Point.

Greens –known and common. Harvested differently by size and sex but in general there is a preference for breeding females as having more fat and better tasting. Most of the TO group's calendar of seasonal events include the times of married turtles, and turtle reproduction, and egg availability.

Figure 1. Training activities during ground truthing field trips across the Kimberley. Activities undertaken during WAMSI field trips included data collection, hatchling success, morning track counts, hatchling success measurements, turtle measurements, turtle tagging, paper GIS, data logger excavation, weather station installation, boat surveys, morphometrics and samples from carcasses, genetic samples, satellite tracking of females, predator evaluations.



5 Discussion and Conclusions

This turtle project could not have been conducted without the help of traditional owners and rangers. The benefits of the collaborations have been immense and future turtle research and monitoring is being planned. A combination of tools which include, Healthy Country Plans, WA Marine Park Joint Management, Indigenous Protected Areas and Commonwealth Marine Parks, all provide individual and partnership opportunities to develop critical and long-term conservation actions

6 References

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Marine Turtles in the Kimberley: key biological indices required to understand and manage nesting turtles along the Kimberley coast

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