



National Environmental Science Programme

Caring for Curlews and the Coastline

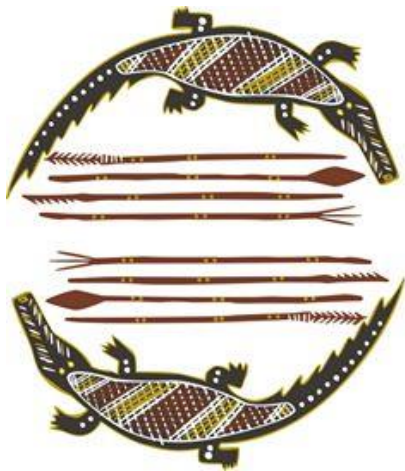
Strategic Planning for the Far Eastern Curlew

Larrakia Rangers and Charles Darwin University



Larrakia Rangers

- The Larrakia people are the traditional owners of the Darwin region, with land extending to the Cox Peninsula in the west, to Gunn Point in the north, Adelaide River in the east and down to the Manton Dam area southwards.



LARRAKIA
NATION



Larrakia Rangers

- Larrakia Rangers look after Larrakia land and sea country whilst providing employment and training for Larrakia and other indigenous people.



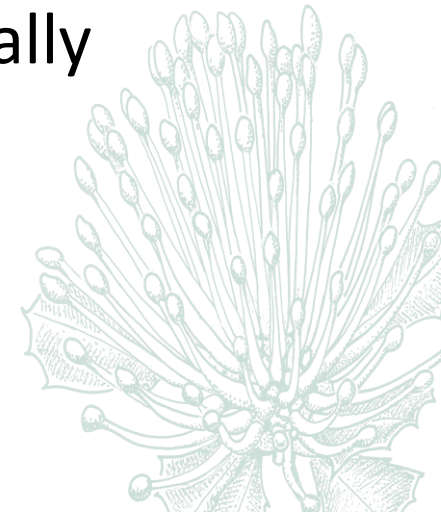
The Curlew Project

- One of the projects we work on is The Curlew Project with Amanda Lilleyman from Charles Darwin University

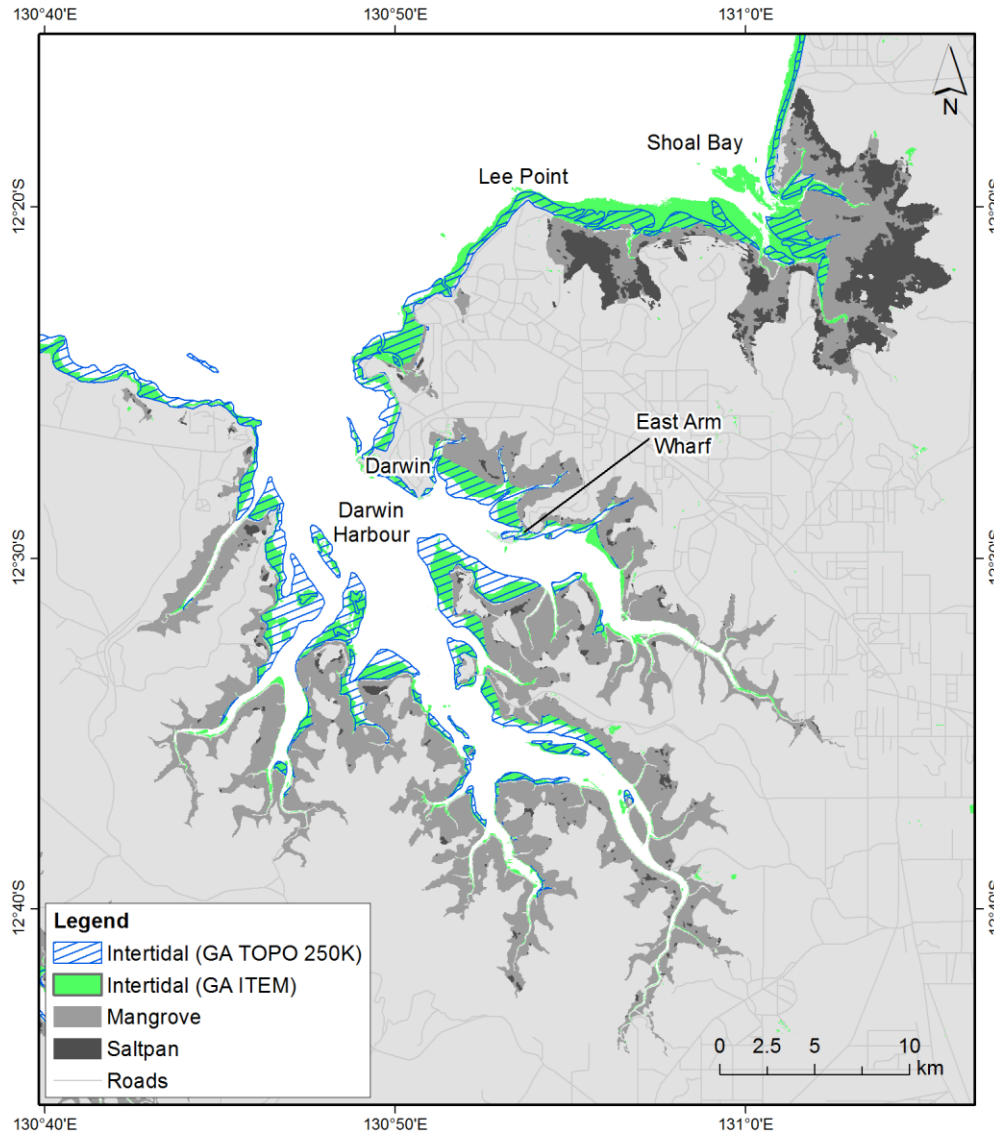


Far Eastern Curlew

- The Far Eastern Curlew is a critically endangered migratory shorebird.
- It breeds in the northern hemisphere – in Siberia. It travels through eastern Asia to Australia where it then calls Darwin home for up to eight months of the year.
- This bird uses coastal areas that are culturally important to Larrakia people.



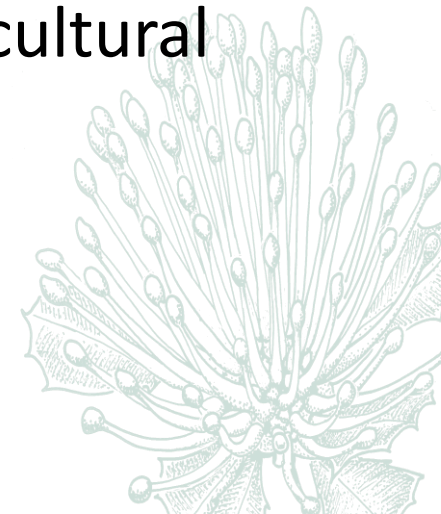
Where is the work happening?



- There are 7 sites we collect measurements from in Darwin Harbour and Shoal Bay.
- Saltpan sites and mangrove areas are in pristine condition and located so close to Darwin city, but are hard to access.
- Different levels of land tenure and protection.

Why we need to understand these birds and the coastal environment

- We are collecting baseline data on how these birds use the coastal environment. And in the process, we are also learning about the cultural values and importance of the shared environment.
- Mangrove and saltpan habitat is usually viewed as not very valuable, but we are finding out that it is important for shorebirds, shellfish, fish nurseries and Larrakia people as it holds significant cultural values and food resources.

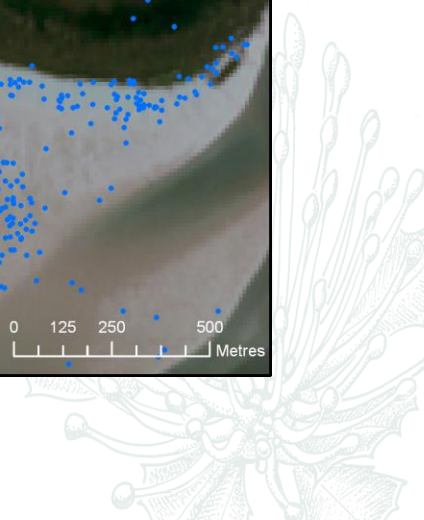
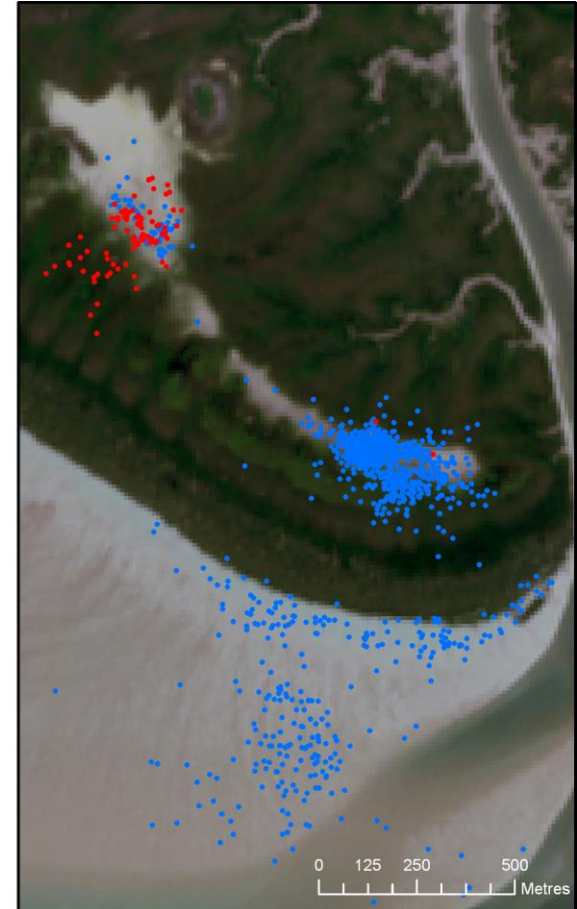


What did we do?

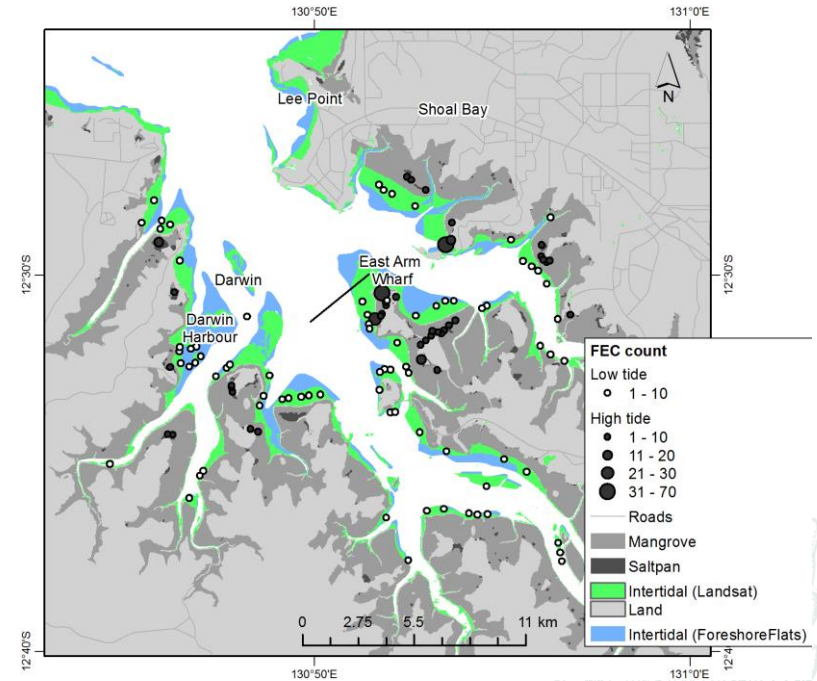
We caught Curlews and tracked them with GPS tags



Curlew movement in Darwin



Aerial survey to count birds



Results published here:

Lilleyman et al. 2018. Distribution and abundance of migratory shorebirds in Darwin Harbour, Northern Territory, Australia. Northern Territory Naturalist. 28. 30-42.

Saltpan microclimate measurements

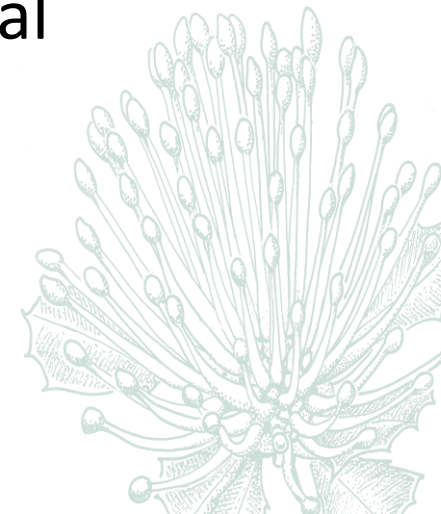


Invertebrate sampling and labwork



Importance of history

- From the saltpan measurement data we can see how important these sites are for shorebirds, and it is also culturally important as it provides bush foods and shellfish to people.
- Collecting saltpan data gives us the opportunity to check on shell middens and it also tells us that Larrakia people have been using this coastal environment for thousands of years.



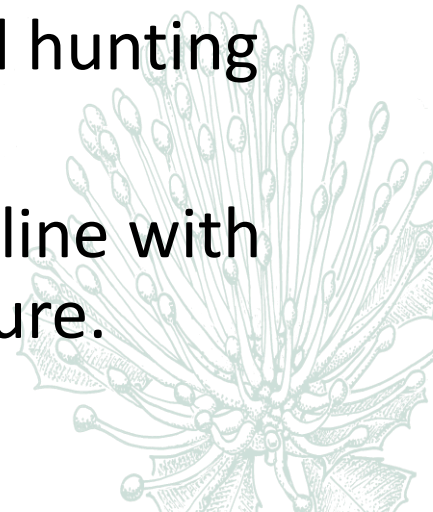
Importance of history

- Coastline has changed over time – the common shell in these shell middens is the rough-backed cockle and this species prefers sandy environments, but some shell middens are found in mangrove areas.



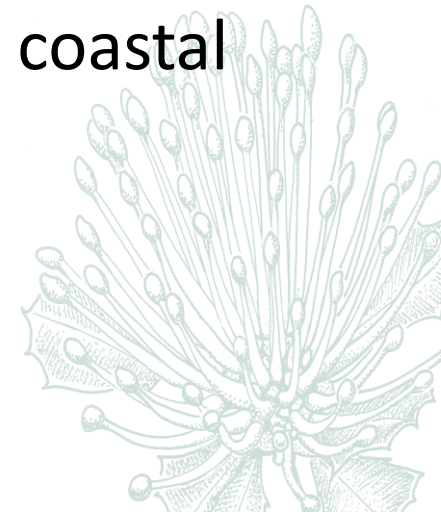
Protecting the coastline

- Coastal environments have always been popular places for humans to inhabit.
- Through the project we have identified that there is a need to protect the coastal environment and to keep Larrakia Rangers patrolling the land and sea.
- We have seen issues increase at Gunn Point due to driving on the beach, quad bikes, bogged cars, pollution, public nuisance – including illegal hunting activities.
- We have concerns for the Gunn Point coastline with the new bitumen road and increased pressure.



Protecting the coastline

- We are also seeing changes to the mudflats in Darwin Harbour, with an increase in recreational and tourism boating activities.
- We want to keep these shorebirds and other wildlife coming back to Darwin Harbour – we don't want to lose them.
- Curlews travel long distances every year to be here and we can protect them by protecting the coastal environment. This also allows us to protect culturally important sites.



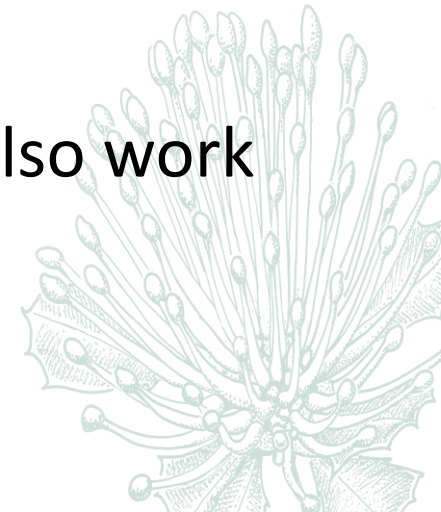
Larrakia vision:

- In the near future – we would like organisations to consider the cultural aspects of the land, and what protections to put in place to conserve biodiversity.
- We would like to see better protection of culturally important heritage sites – shell middens – fenced off.
- More patrolling presence at Gunn Point and around other coastal areas in Darwin Harbour.
- Consultation between Larrakia Rangers and stakeholders regarding educational signs and fencing/site protection.



Larrakia vision:

- Open discussions between different groups.
- We would like to have a bigger say in the management of Darwin Harbour.
- Rangers are on the frontline of issues in the coastal environment and we would like our views to be acknowledged and considered to improve environmental land use and conservation outcomes.
- Interaction with other ranger groups that also work on shorebirds and in similar environments.



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National Environmental Science Programme

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Core volunteer team members: Gavin O'Brien, Damien Stanioch