

# Caring for curlews and the coastline

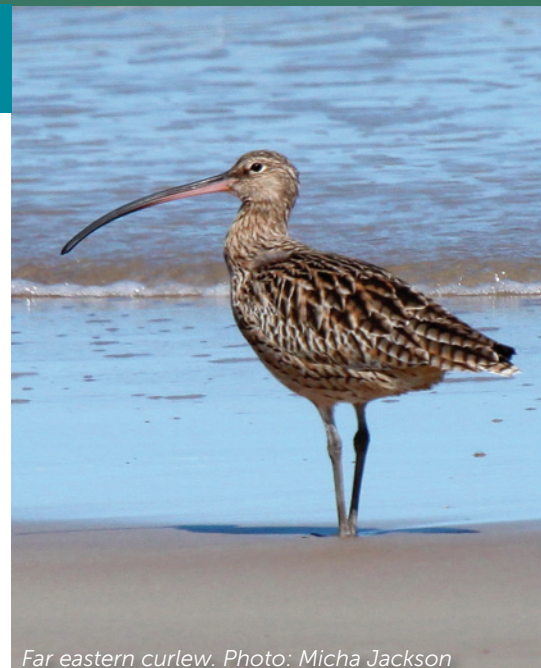
## Project 5.1.1

### What is the problem being tackled?

The Far Eastern Curlew is a critically endangered shorebird that breeds in Siberia and northern China, and then travels to Australia where it spends summer along coastlines feeding on shellfish in the mud.

We are studying the Curlew to learn more about how this shorebird uses the coastal area around Darwin.

This bird uses coastal areas that are culturally important to Larrakia People. We have already seen some habitat loss, so we need to know more about the importance of coastal habitat for shorebirds that fly thousands of kilometres to arrive in Darwin every year. Mangrove and saltpan habitat is usually viewed as not very valuable, but we are finding out that it is important for the curlew and other shorebirds.



Far eastern curlew. Photo: Micha Jackson

### KEY MESSAGES

*Far Eastern Curlew are critically endangered.*

*Coastal areas and salt pans are very important for migratory shorebirds.*

*Shell midden sites are culturally important to Larrakia People.*

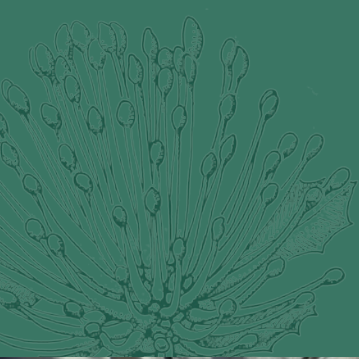
*Salt pans and mangroves provide shellfish for Larrakia People and for coastal shorebirds.*

*We can protect the coastal environment and the birds as they overlap in this area.*



Larrakia Rangers Jessica Puntoriero and Nelson Williams-Browne collecting salt pan samples. Photo: Amanda Lilleyman





Periwinkle. Photo: Amanda Lilleyman



Amanda Lilleyman with a great knot.  
Photo: Amanda Lilleyman



Larrakia Rangers looking for far eastern curlew.  
Photo: Michael Lawrence Taylor



A shell midden. Photo: Amanda Lilleyman

## Why is this important to Larrakia Rangers?

The curlew project links in with some of our land management work in the Shoal Bay area of Darwin Harbour. We undertake revegetation work on coastal monsoon forest; this is a habitat type that sits between the coastal beach and the saltpans near the mangroves. This area is culturally important to us as it provides bush foods and shellfish to us. Working with Charles Darwin University on the curlew project helps us get out to areas that we wouldn't normally access.

We have been involved in sea monitoring through a number of projects based in Darwin Harbour, but these have mainly been on the sea or in the bush. This project within the intertidal zone is new for us and gets us onto land where we can monitor shell middens. Darwin Harbour coastline has lots of shell middens. They are sites of cultural importance and tell us about the hunting and gathering history of the area.

## How is the project being undertaken?

We work in muddy mangrove and saltpan environments, so we can monitor and harvest bush foods such as longbums, mangrove periwinkle, mangrove worms, and mud mussel.

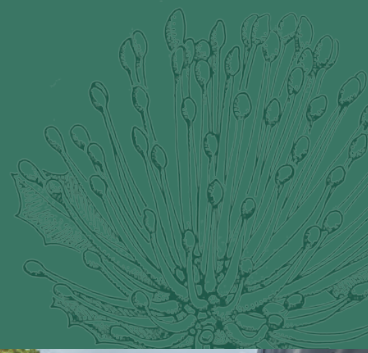
We monitor the local climate within saltpans to see how the temperature, humidity and salinity changes over time. This will help us understand if these things affect how curlew behave in this kind of environment.

We also monitor invertebrates that curlew feed on. We collect samples of mud from Darwin Harbour and count the shellfish from each sample to determine how much food is available for the birds.

We also help catch curlew for tracking studies and look at where the birds move to. GPS trackers were put on two curlew at the end of 2017.

So far we know that curlews roost above the high-tide mark at places like the dredge ponds at Darwin Port, and then feed on the intertidal mudflats and in the saltpans bordered by coastal mangroves. The GPS trackers also show us where the birds go during the dry season. They flew to China and Korea and then Russia during our dry season.





## Benefits for Larrakia Rangers

We want to learn more about curlews in coastal habitat, so we can protect the birds and also conserve the environment. If we know what's out there and how resources are being used, then we can continue to protect it.

The areas that curlew use overlap with culturally important sites, so while we are working on the

curlew project we can also learn about good places to hunt and gather. We want to be able to pass on this kind of information about the coastline and shell middens to future generations. We also want to keep looking after shell midden sites around Darwin Harbour, as some are becoming vandalised or damaged.



Leaving for a helicopter habitat survey.  
Photo: Michael Lawrence-Taylor.



Larrakia Ranger Sarah Rolland holding a great knot. Photo: Amanda Lilleyman



Far eastern curlew. Photo: Dominic Sherony CC BY-SA 2.0



Longbuns. Photo: Amanda Lilleyman

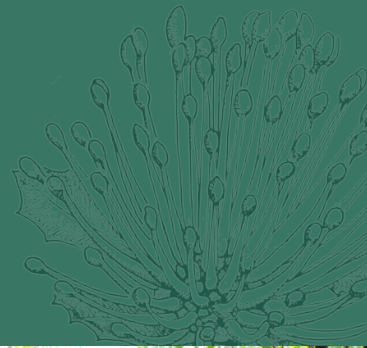
## Who is involved?

The whole team from Larrakia Rangers works on the curlew project. We work with researchers from Charles Darwin University. We have also worked with Conservation Volunteers Australia on a community engagement event for the curlew.



Mudflats in Darwin Harbour.  
Photo: Michael Lawrence Taylor





## Where is the work happening?

We work on the salt pans and mudflats in the intertidal zone of Darwin Harbour and parts of Shoal Bay.

## When is the work happening?

The project started in 2017 and will run until 2020.



*Collecting bush foods. Photo: Amanda Lilleyman*

## More Information

If you want to talk to someone about the research project you can talk to:

**Nelson Tinoco  
and Jessica Puntoriero**  
Ranger.teamleader2@larrakia.com  
08 8948 4685

**Amanda Lilleyman**  
Amanda.lilleyman@cdu.edu.au  
08 8946 6470



*Attaching a GPS tracker to a far eastern curlew. Photo Gavin O'Brien.*