

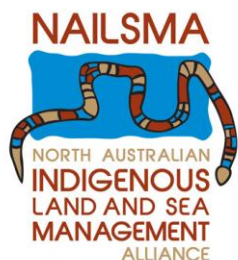


National Environmental
Research Program

NORTHERN AUSTRALIA *hub*

Collaborative Research to Manage Freshwater Habitats on Lama Lama Country, Cape York

Far North Queensland Pest Forum
Ingham, Thursday 21st November 2013
C. Davies, M. Down, M. Jackson



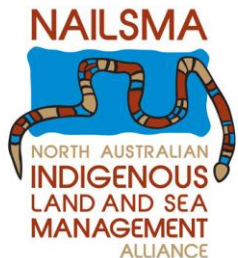


National Environmental
Research Program

NORTHERN AUSTRALIA *hub*

PROJECT PARTNERS

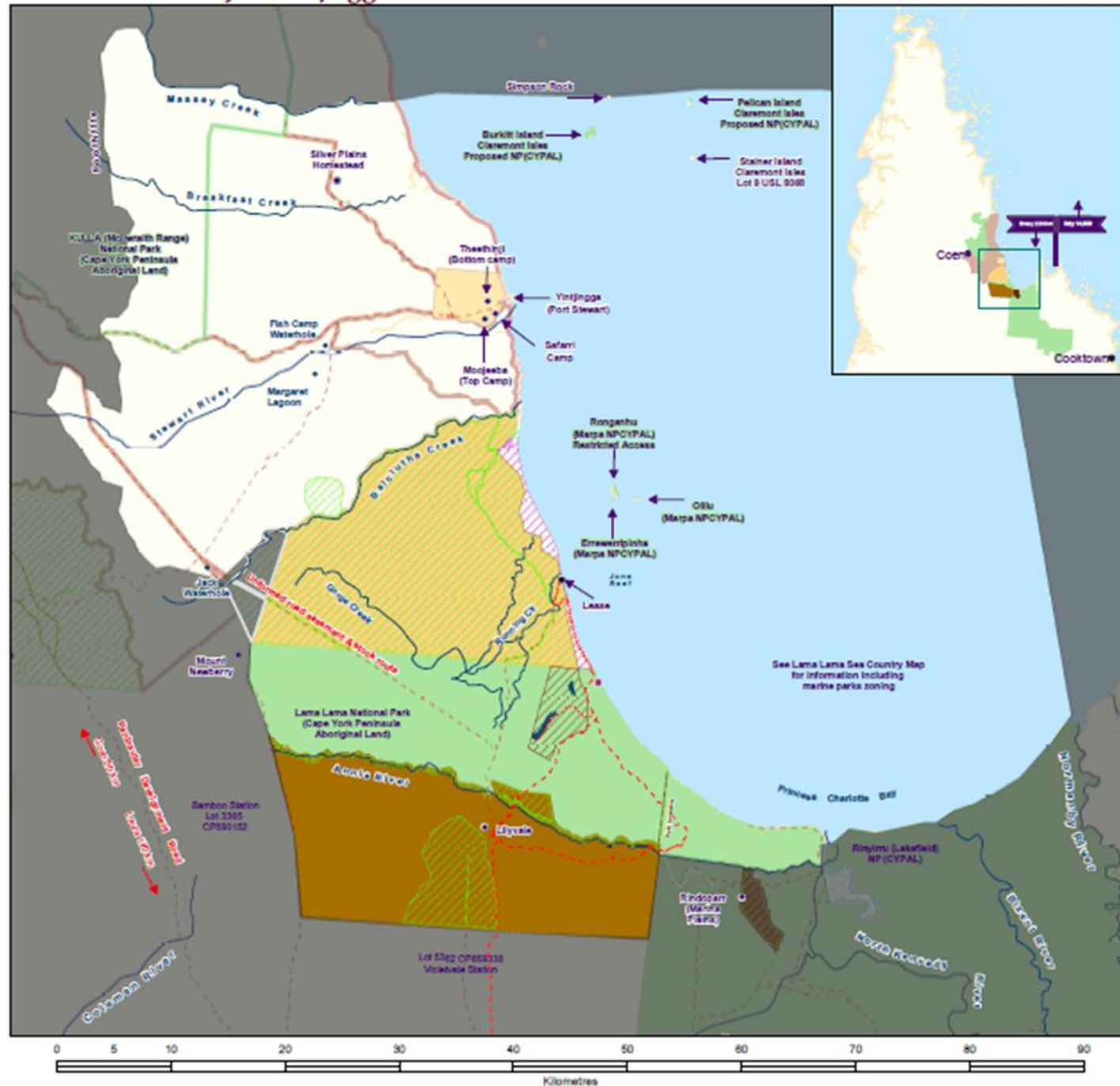
Yintjingga Aboriginal Corporation's
Lama Lama Rangers
Griffith University
NAILSMA
South Cape York Catchments





**THE YINTJINGGA ABORIGINAL CORPORATION'S
LAMA LAMA RANGERS**

Lama Lama Country of Yintjingga Lama Lama families



Legend

Lama Lama Land Trust

- 133D21
- Running Ck 25P161903
- Lillyvale 73P189948
- Rindoparr 178P148785

Other features

- Balooltha MI-A'ijun Land Trust
- Neighbouring areas
- Goose Swamp & Bull Swamp RAA
- 2HN6 Camping & Water Reserve
- 10SD18 Beach Protection Reserve
- 65P161903 (Proposed reserve)
- 35P161903 (Proposed reserve)
- 45P161903 (Proposed reserve)
- 6AP14383 (Proposed reserve)
- Nature Refuges 2012 PCB
- KULLA Land Trust 165P121904
- National Park (CYPAL)
- Dwelling / Homestead
- Track / Road
- Major road

Lama Lama Land Trust and Yintjingga Aboriginal Corporation are happy for you to look at this map of Lama Lama country.

It is for the benefit of Lama Lama people and discussion with others. It is a one dimensional representation of three dimensional country.

It depicts Lama Lama country of primary responsibility to "Port Stewart" Lama Lama families, plus neighbouring areas for reference.



LAMA LAMA LAND TRUST



YINTJINGGA Aboriginal Corporation

Source: Yintjingga Aboriginal Corporation & LLLT cultural information, OSM cadastre and other mapping data sets (2011). With thanks to ESRI Australia.

Disclaimer: Due to varying sources of data, spatial locations may not coincide well when overlaid. This map is indicative only. It is not intended for use in resource dealings. This map is compiled from information supplied to Lama Lama Land Trust (LLLT). Whilst all care is taken, LLLT and Yintjingga discharge any responsibility for any loss or damage which may result from inaccuracy or omission in this map from the use of information contained here in.

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Nature refuge

Rindoparr Area B Nature Refuge & Rindoparr Co-ordinated Conservation Area

This is a protected area under the
Nature Conservation Act 1992.

Access is only by permission of
the land-holder.



PRIVATE PROPERTY

**LAMA LAMA
TRADITIONAL LANDS**

NO HUNTING

NO SHOOTING

NO DISTURBING CATTLE

NO UNAUTHORISED CAMPING

NO UNAUTHORISED ACCESS

Trespassers will be prosecuted

Scrubby Lagoon







SOUTH CAPE YORK CATCHMENTS

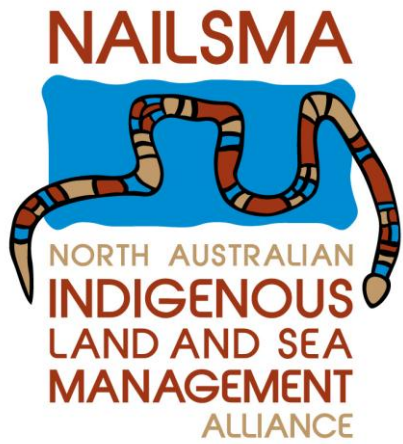


Local community natural resource management group, based in Cooktown

Worked with Lama Lama to undertake condition assessments of 5 wetlands in 2009 and 2010

Used the Cape York Freshwater Wetland Assessment (CYMAG) methodology developed by Cape York Marine Advisory Group Environmental Inc.





North Australian Indigenous Land and Sea Management Alliance Ltd (NAILSMA)

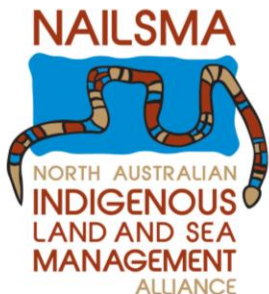
NAILSMA is an Indigenous-led not-for-profit organisation that empowers Indigenous people across north Australia to care for country and future generations of Australians.



Looking after Our Country... Our Way

NAILSMA's approach

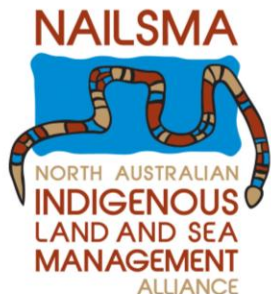
- Practical solutions that support Indigenous people and the management of their lands.
- Assist Indigenous people through livelihoods and employment on their country.
- Culturally appropriate programs focusing on Indigenous knowledge and contemporary science.
- Supporting Traditional Owners to contribute to healthy country and healthy people on traditional lands.



Looking after Our Country... Our Way

Looking after our country...our way

- The North Australian Indigenous Experts Forum on Sustainable Economic Development
- **I-Tracker**
- Water Resource Management
- Saltwater People Network
- Carbon Program



Looking after Our Country... Our Way



•What is I-Tracker? (Indigenous Tracker)

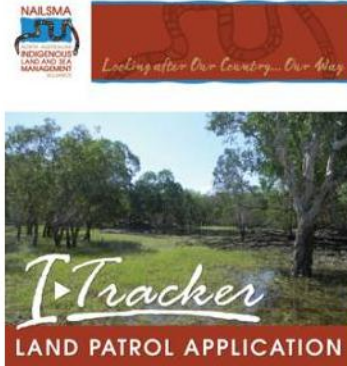
- I-Tracker, is short for Indigenous Tracker;
- Gives Indigenous communities the power to record, analyse and map land and sea management data locally;
- Provides a network across north Australia of ranger groups collecting and managing information.
- Partnering with scientists and researchers
- Provides training, development and technical support for Indigenous rangers.

Looking after Our Country... Our Way

I-TRACKER DATA COLLECTION TOOL

1

I-Tracker applications are custom built using CyberTracker software.



2



Applications are installed onto rugged PDA for use on country.

3

Rangers collect data



4



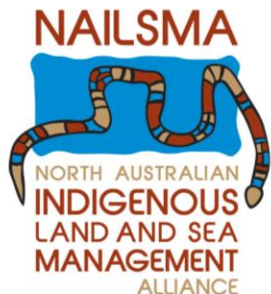
Rangers sync PDA with computer. All data goes onto the ranger computer. Reports are generated.

Lama Lama Rangers and I-Tracker

The Lama Lama Rangers are part of the NAILSMA I-Tracker network

Already using I-Tracker applications for some patrol work

Discussed issues of freshwater management with NAILSMA during training visits



Looking after Our Country... Our Way



Australian Government

Department of the Environment, Water, Heritage and the Arts



IMPACTS OF FERAL PIGS ON TROPICAL FRESHWATER ECOSYSTEMS

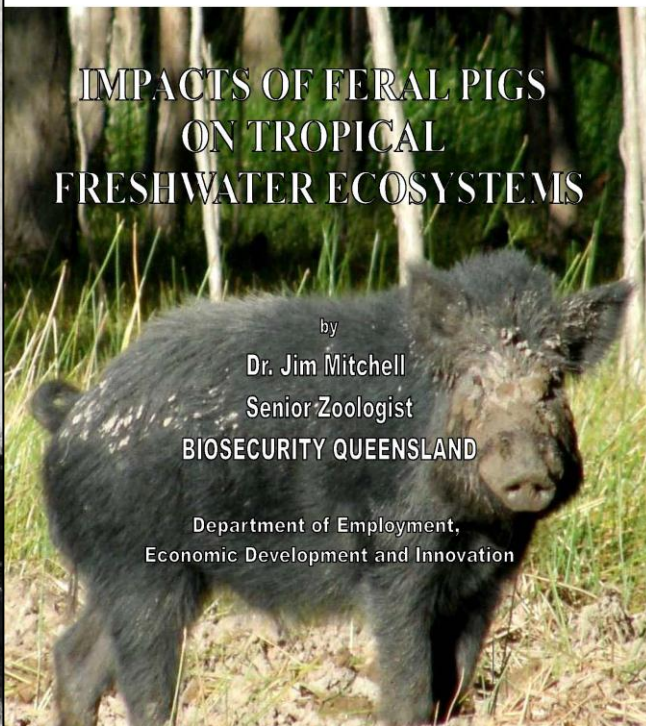
by

Dr. Jim Mitchell

Senior Zoologist

BIOSECURITY QUEENSLAND

Department of Employment,
Economic Development and Innovation



Pig management on Lama Lama Country Shooting Baiting



Pig management on Lama Lama Country Fencing

Bassani: Fencing completed
2010

Fish Camp: Fencing almost
complete

Future fencing works will be
undertaken, sites to be
prioritised



THE PROJECT

- Repeat indepth CYMAG condition assessments of 5 sites and add additional sites
- Develop a rapid assessment technique based on CYMAG method, and a customised I-Tracker tool to collect and manage the data
- Link data from satellite imagery to onground knowledge of country to provide a picture of recent history of wetland conditions
- Plan for ongoing freshwater monitoring for Lama Lama
- Build local capacity for research and monitoring (training and data collection tools)
- Share the methodology and I-Tracker application with other Indigenous ranger groups across the region

CONDITION ASSESSMENTS

CYMAG condition assessment is a very comprehensive methodology

- Connectivity
- Riparian vegetation (including weeds)
- Aquatic vegetation (including weeds)
- Water quality
- Human disturbance
- Habitat
- Acid sulphate soils (where required)
- 4 site assessment for bank condition includes quadrats for measuring feral & managed animal impacts



CONDITION ASSESSMENT RESULTS

Lilyvale	Late Dry 09		Early Dry 10		Early Dry 13		Late Dry 13
Bassani			60	?	67	?	52
Beach			70		72		60
Bull	47				79		59
Goose	60				75		55
Scrubby	66				73		71

>85%	Excellent
76 – 85%	Very good
66 – 75%	Good
56 – 65%	Medium
46 – 55%	Average
35 – 45%	Poor
<35%	Very poor



New sites assessed Nov 2013

Port Stewart: Fish Camp 1 & 2, 7 Mile and 5 Mile

Silver Plains: Homestead, Alligator Hole, Pikers, Joe's Lagoon and 1 Mile

MONITORING WATERHOLES USING SATELLITE IMAGERY: DOUG WARD AND KENN TEWS



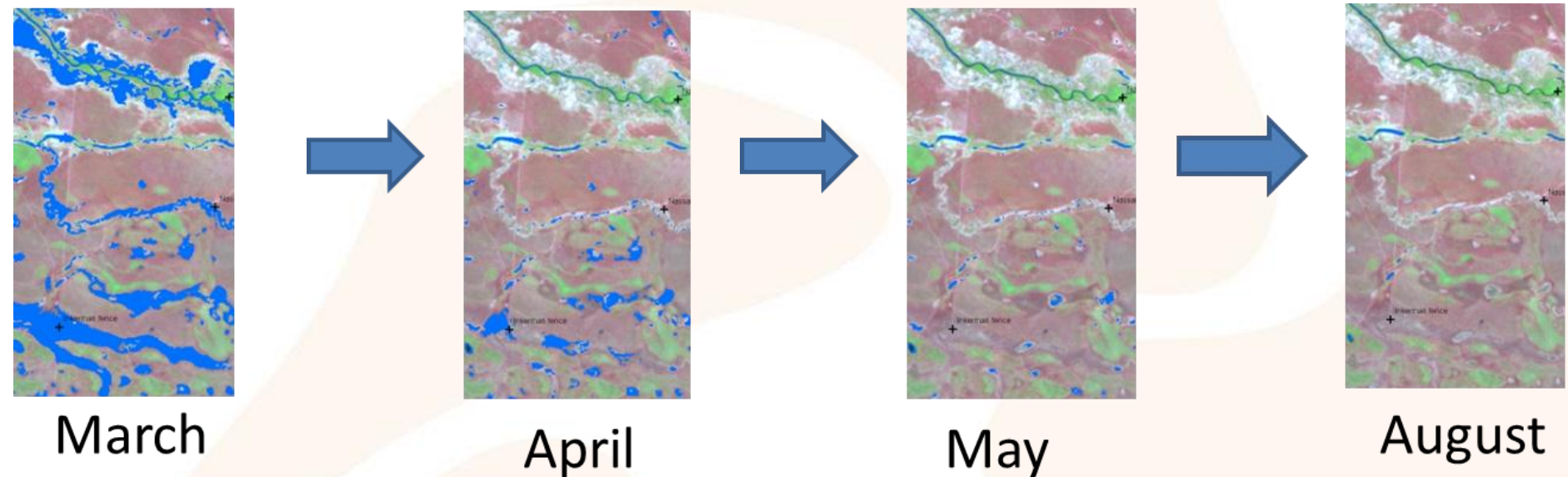
Landsat data is FREE
and easy to obtain
Takes a image of the
same place every 16
days
Has a 20 + year image
archive that is easy to
access

Landsat data can help identify

Inundation patterns: How much water is in the various wetlands, how long it is retained each year, connectivity between wetlands

Wet season flooding

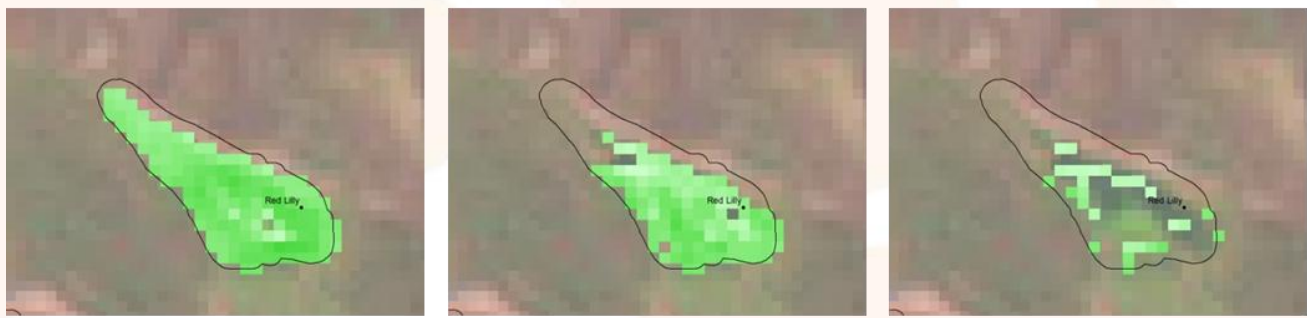
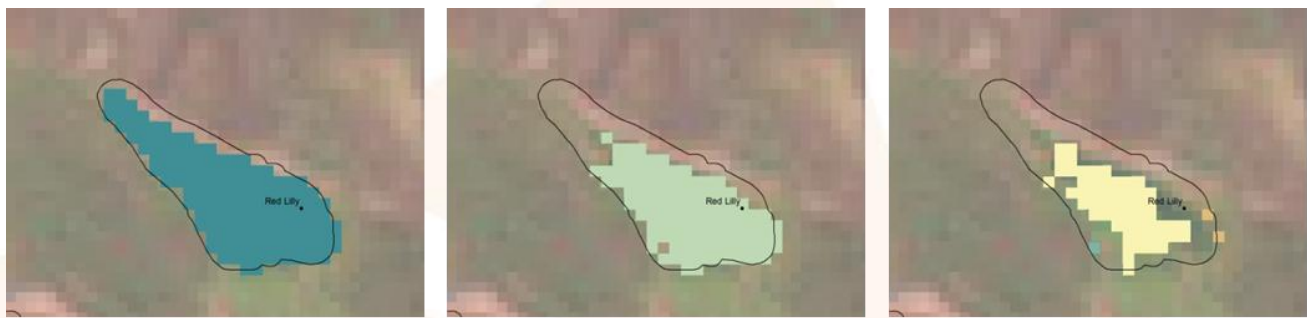
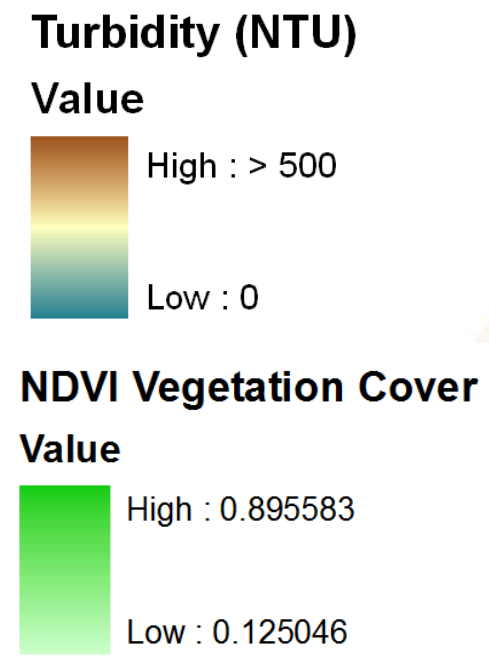
Dry season waterholes



Landsat data can help identify

How wetland turbidity changes over time

% of the surface is covered by aquatic vegetation seasonally



June 2010

August 2009

October 2009



Remote sensing workshop wet season 2013-14

Repeat full assessments + trial & update rapid assessment method and I-Tracker application early dry 2014

Outreach phase mid 2014 to share outcomes and tools with other Indigenous land and sea management groups



Thanks
Any questions?

