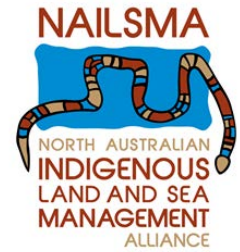




Numbulwar Numburindi



National Environmental Science Programme



# Malak Malak country, Sawfish country

Indigenous partnerships for management of euryhaline species

*Aaron Green<sup>1</sup>, Christy Davies<sup>2</sup>, Rob Lindsay<sup>1</sup>, Peter Kyne<sup>3</sup>*

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[www.nespmarine.edu.au](http://www.nespmarine.edu.au)

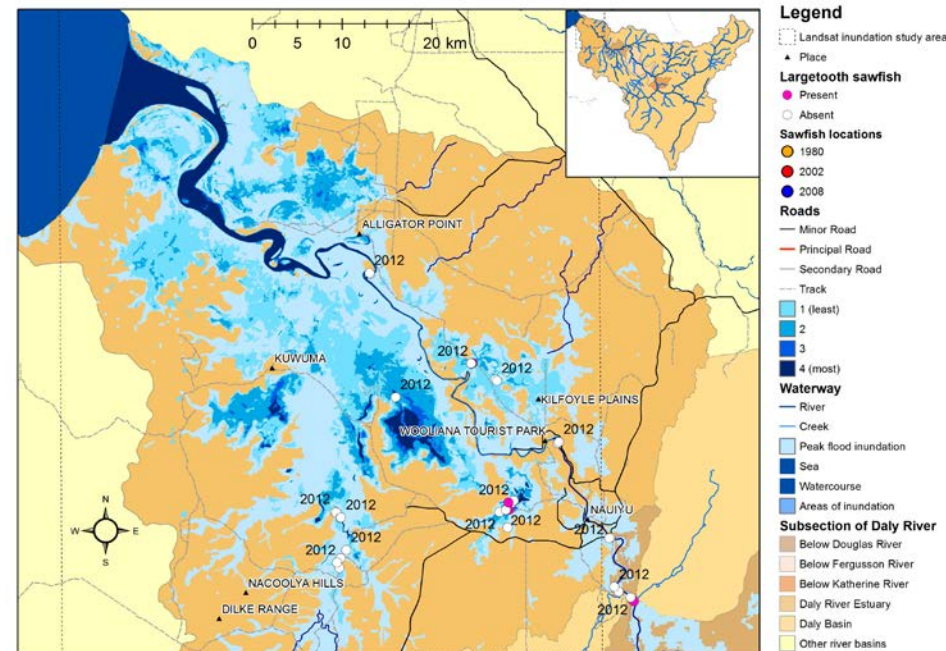
# Why the scientific interest in Largetooth sawfish (*Pristis pristis*) ?

- Critically Endangered (IUCN Red List)
- Protected species in Australia
- Northern Australian hotspot
- Euryhaline life-cycle
- Daly River genetically distinct



# Where it all began...the Daly River

- 52,577 km<sup>2</sup> catchment
- Perennial river with extensive floodplains
- Recreational fishing
- Commercial gillnetting
- Pastoral lands
- Small areas of private land
- Indigenous land including Malak Malak traditional country





# Malak Malak Rangers



## Ranger team:

- Cultural advisor
- 4 Full time
- 2 casual
- 1 coordinator

## Some of the work the rangers do:

- WoNS and other weed management
- Fire management
- River patrols
- Other collaborative research
  - Fish and flows
  - River bank erosion
  - Shark and catfish



# In the beginning.....aims of original project

- Occurrence of *P. pristis* in the Daly River region
- Molecular studies
- eDNA (a late addition only made possible by local knowledge, collab with JCU)



Vol. 533: 237–244, 2015  
doi: 10.3354/meps11354

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Published August 6



## Whole mitogenome sequencing refines population structure of the Critically Endangered sawfish *Pristis pristis*

Vol. 30: 109–116, 2016  
doi: 10.3354/esr00731

ENDANGERED SPECIES RESEARCH  
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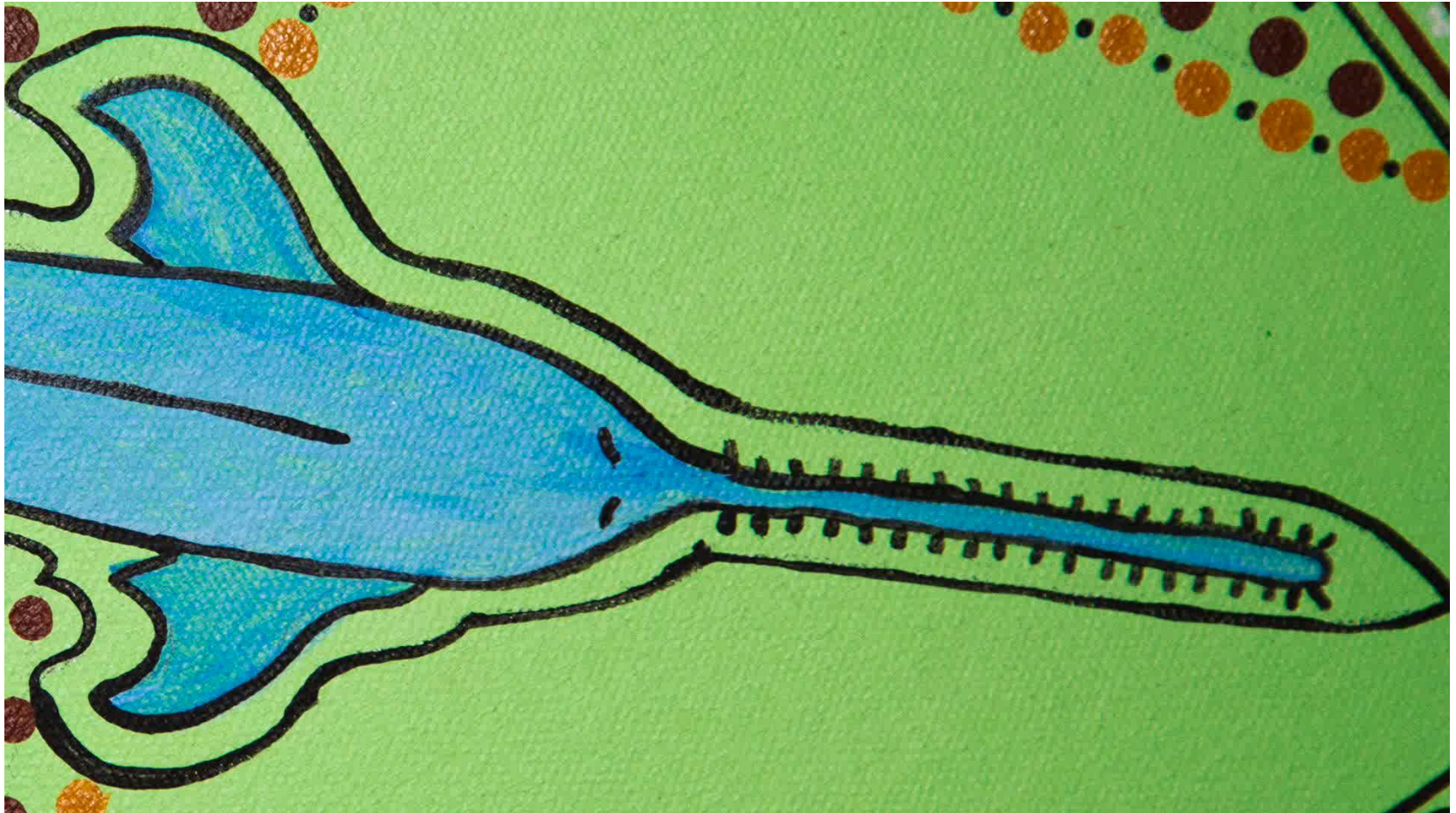
Published May 12



## Environmental DNA detects Critically Endangered largetooth sawfish in the wild

Colin A. Simpiendorfer<sup>1,\*</sup>, Peter M. Kyne<sup>2</sup>, Tansyn H. Noble<sup>1</sup>, Julie Goldsbury<sup>1</sup>, Rose K. Basiita<sup>1</sup>, Rob Lindsay<sup>3</sup>, Amos Shields<sup>3</sup>, Camillus Perry<sup>4</sup>, Dean R. Jerry<sup>1</sup>

# How it happened, in the rangers words



# The next step, new Project aims

- Raise the profile of the Largetooth Sawfish in communities of Northern Australia where it is known to persist
  - Communications products based on community requests
- Build a more holistic understanding of the species, including traditional ecological knowledge and values alongside western science
- Support culturally appropriate, locally driven conservation measures

\* Human Ethics approval from Charles Darwin Uni



# Project outcomes

## Conducted a floodplain sawfish survey

- Included testing a draft I-Tracker Sawfish application and sampling protocol, providing specialised equipment, demonstrating sampling techniques etc.



- Capacity building, knowledge sharing
- Community driven conservation action, to be undertaken annually

# Project outcomes

3 day sawfish themed ranger exchange, Roper River, 14 rangers 3 ranger groups (Malak Malak, Yugul Mangi and Numbulwar Numburindi)

- Applied standard sawfish sampling techniques, identified suitable sawfish habitat, discussed threats and explored peoples memories of sawfish
  - Capacity building, knowledge sharing, strengthening relationships

Also presented about the project at NZMSS and AMSA conference in Wellington last year

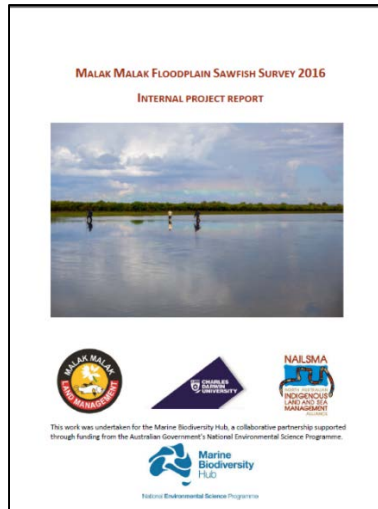
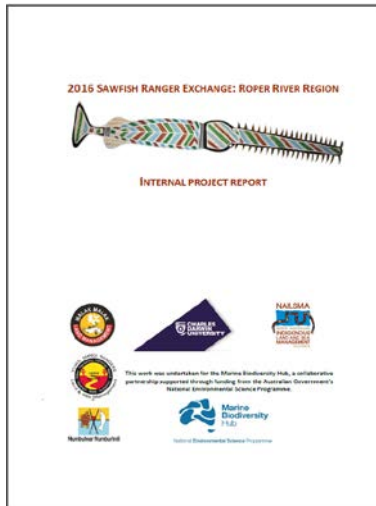
- Raising the profile of the species, and demonstrating an example of successful research partnerships

# Project outputs continued

Malak Malak Rangers I-Tracker  
Sawfish application and sampling  
protocol

Video just viewed

documenting fieldwork with a conservation  
message from the Traditional Owner  
perspective



Trip reports  
Internal project documents  
intended to assist ranger  
groups demonstrate the work  
undertaken

# Project outputs

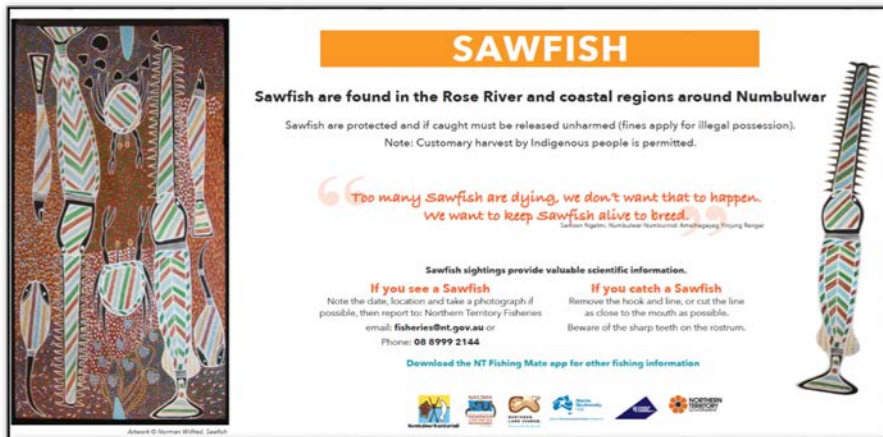
*Save a Sawfish* animation, demonstrates safe handling & release techniques, includes conservation message

- Features local art, Two versions with narration in English and Kriol (a local language)
  - Collaboration with Ngukurr Language Centre (relationship building)



*Educational signage from Traditional Owner perspective*

- 3 versions, aimed at recreational fishers and local community



## SAWFISH

Sawfish are found in the Rose River and coastal regions around Numbulwar

Sawfish are protected and if caught must be released unharmed (fines apply for illegal possession).  
Note: Customary harvest by Indigenous people is permitted.

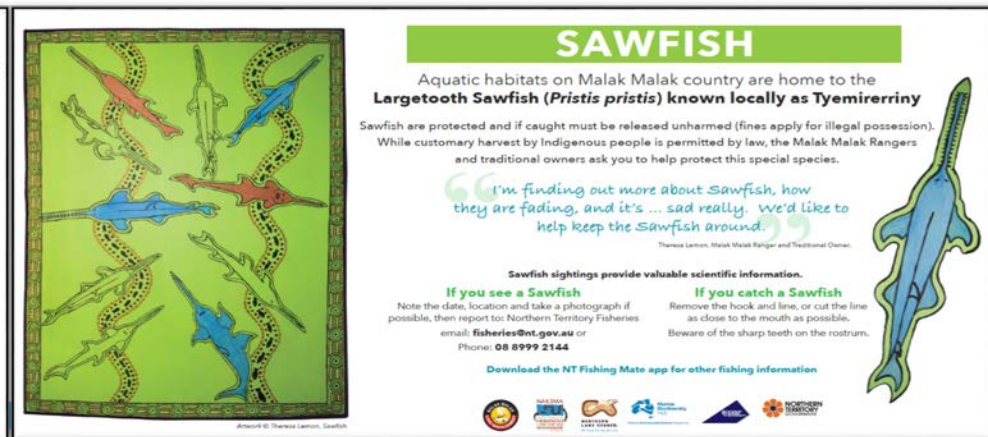

*Too many sawfish are dying, we don't want that to happen. We want to keep sawfish alive to breed.*  
Lillian Ngilak, Numbulwar Traditional Aboriginal Fishing Ranger

Sawfish sightings provide valuable scientific information.

**If you see a Sawfish**  
Note the date, location and take a photograph if possible, then report to: Northern Territory Fisheries  
email: [fisheries@nt.gov.au](mailto:fisheries@nt.gov.au) or  
Phone: 08 8999 2144

**If you catch a Sawfish**  
Remove the hook and line, or cut the line as close to the mouth as possible.  
Beware of the sharp teeth on the rostrum.

Download the NT Fishing Mate app for other fishing information



## SAWFISH

Aquatic habitats on Malak Malak country are home to the **Large-tooth Sawfish (*Pristis pristis*)** known locally as **Tyemirerriny**

Sawfish are protected and if caught must be released unharmed (fines apply for illegal possession).  
While customary harvest by Indigenous people is permitted by law, the Malak Malak Rangers and traditional owners ask you to help protect this special species.


*I'm finding out more about Sawfish, how they are fading, and it's ... sad really. We'd like to help keep the Sawfish around.*  
Thomas Lamen, Malak Malak Ranger and Traditional Owner.

Sawfish sightings provide valuable scientific information.

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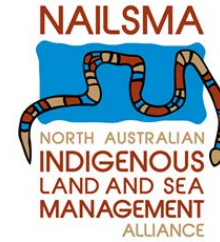
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# Thank you



National Environmental Science Programme



Numbulwar Numburindi



Northern Land Council



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