



National Environmental
Research Program



Torres Strait eAtlas

ts.eatlas.org.au

e-delivery of scientific and environmental knowledge for Torres Strait



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Australian Government



AUSTRALIAN INSTITUTE
OF MARINE SCIENCE





Problem

- Significant research has been undertaken in Torres Strait but very little is broadly accessible.
- Access to research and reference maps is vital for good environmental management.
- The eAtlas is a platform for making environmental research and reference data accessible via the web.
- Develop quality accessible base maps for Torres Strait.

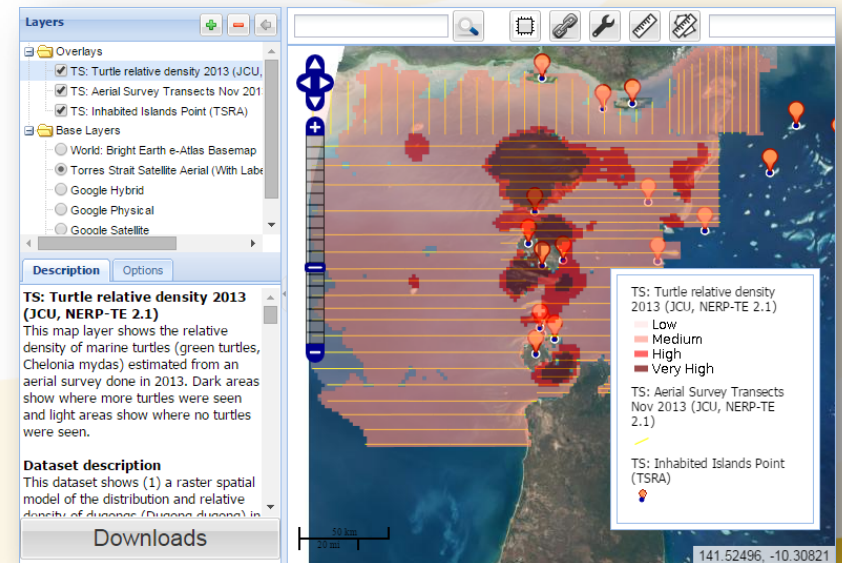




What is the Torres Strait eAtlas?

- Website and mapping system for making environmental research available online.
- Intended to improve access and use of science.
 - Researchers, Managers, Public
- Maps, data, meta-data, visualization tools, articles.
- Regional eAtlas to remove clutter of the main eAtlas covering the GBR and Wet Tropics.

The screenshot shows the homepage of the Torres Strait eAtlas. At the top, there is a navigation bar with links for Home, Projects, Articles, Maps, Weather, and About. Below this, a section titled "Latest environmental research, maps and data for Torres Strait" features two main articles. The first article, "Winds of Zenadth 2014 - Torres Strait eAtlas stall", is dated 25 September 2014 and includes a small image of a festival. The second article, "Pigs in paradise", is dated 5 September 2014 and mentions feral pigs. To the right, a "Recent datasets" section highlights "Marine turtles and dugongs of the Torres Strait - Spatial models of dugong and turtle distribution and relative density of aerial surveys from 1987 - 2013 (NERP TE 2.1, JCU)", dated 13 October 2014, with a small map thumbnail.





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DEMONSTRATION



Website

- Projects
- Articles
- Datasets
- Search
- Maps
- Weather

Powered by eAtlas Regions / Sites ▾ Articles, metadata, images, etc. Search

Torres Strait eAtlas


Home Projects Articles Maps ▾ Weather ▾ About ▾

Latest environmental research, maps and data for Torres Strait

Recent articles and projects

[Winds of Zenadth 2014 - Torres Strait eAtlas stall](#)

Published on 25 September 2014



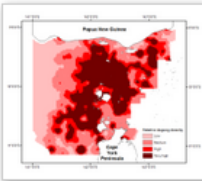
The Winds of Zenadth Cultural Festival takes place every two years on Thursday Island.

[read more](#)

Recent datasets

[Marine turtles and dugongs of the Torres Strait - Spatial models of dugong and turtle distribution and relative density of aerial surveys from 1987 - 2013 \(NERP TE 2.1, JCU\)](#)

Published on 13 October 2014

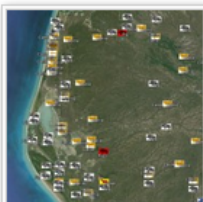


This dataset shows (1) a raster spatial model of the distribution and relative density of dugongs (Dugong dugong) in the Torres Strait region based on an aggregate of 27 years (1987 - 2013) of systematic aerial surveys; and (2) a raster spatial model of t

[read more](#)

[Pigs in paradise](#)

Published on 5 September 2014

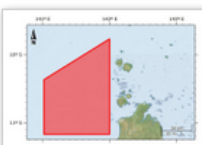


Feral pigs (*Sus scrofa*) are widespread in northern Australia. Pigs are on our farm lands, in the bush, on the beach and in the world heritage areas of the Wet Tropics rainforest.

[read more](#)

[Torres Strait Dugong Sanctuary TSRA \(2003\)](#)


Published on 3 September 2014



This dataset shows the extent of the dugong sanctuary in the Torres Strait which prohibits the taking of dugong (area, gear and method restrictions).

[Dump the kids and take off](#)

Published on 1 September 2014



The coral reef islands on the



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Project information

- Collation of products of each project
- Overview of project and outcomes
- Reports from NERP Tropical website
- Datasets
- Photos

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Torres Strait eAtlas

Home Projects Articles Maps Weather About

Funded by
National Environmental Research Program

Project leaders
Prof. Helene Marsh

Team members
Dr Mark Hamann

Host organisation(s)
JAMES COOK UNIVERSITY AUSTRALIA

Articles
Seagrass in Torres Strait

Latest outputs
Project 2.1 Technical Report - An assessment of the distribution and abundance of dugongs in the Northern Great Barrier Reef and Torres Strait
Posted on 22 September 2014

NERP TE Hub Torres Strait Research Snapshot - July-December 2013
Posted on 13 February 2014

NERP TE Hub Torres Strait Research Snapshot - Jan-June 2013
Posted on 6 September 2013

WWF welcomes Australian Government investment in turtle and dugong conservation
Posted on 22 July 2013

WWF welcomes Australian Government investment in turtle and dugong conservation
Posted on 22 July 2013

Conservationist demands end to dugong hunt as numbers plummet
Posted on 22 July 2013

Conservationist demands end to dugong hunt as numbers plummet
Posted on 22 July 2013

NERP TE Hub Torres Strait Program Update - December 2012
Posted on 29 May 2013

Project 2.1 NERP TE Hub Conference 2013 Poster
Posted on 29 May 2013


2013 NERP TE Hub Conference Presentation - Helene Marsh
Posted on 13 May 2013

more


NERP TE Project 2.1 - Marine turtles and dugongs of the Torres Strait (JCU)

Project summary

The project is studying the status of threatened marine (green, hawksbill and flatback) turtles and dugongs in the Torres Strait and threats to these populations. The researchers will investigate links between different populations of dugongs and turtles in terms of movement and habitat use. They will also assess the abundance of dugongs in the Torres Strait using aerial surveys.



The significance of the GBR for dugongs and turtles was one of the reasons for its World Heritage listing.



The GBR has a globally significant population of hawksbill turtles, and through the NERP we aim to improve knowledge of their status.

Why this research is needed

The project will improve stakeholder understanding, capacity and skills to better manage these priority species and provide valuable data that is useable and understandable to those making decisions about turtles and dugongs.

Research-user focus

The project aims to enhance the ability of government and community to manage these threatened species and also add value to the evolving dugong and turtle management plans and the Torres Strait Land and Sea Ranger Program. Identified research users include the Torres Strait Regional Authority, the Department of Sustainability, Environment, Water, Population and Communities, the Great Barrier Reef Marine Park Authority, the Australian Fisheries Management Authority and the Queensland Government.

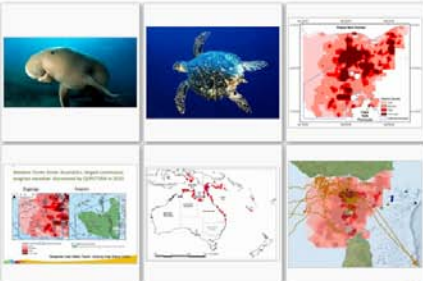
Outcomes

- The project should lead to the following outcomes:
- Improved population viability and stability of marine turtles and dugongs.
- Improved stakeholder understanding, capacity and skills to better monitor and manage priority species.
- Improved non-Indigenous participants' knowledge of traditional ecological knowledge and cultural aspects of dugong and turtle management.

Reports, Publications and News

For more information see Project 2.1 'Marine turtles and dugongs of the Torres Strait' on the NERP Tropical Ecosystems Hub site.

Photos



more

Datasets

Marine turtles and dugongs of the Torres Strait - Spatial models of dugong and turtle distribution and relative density of aerial surveys from 1987 - 2013 (NERP TE 2.1, JCU)

Publication on 13 October 2014

This dataset shows (1) a raster spatial model of the distribution and relative density of dugongs (Dugong dugong) in the Torres Strait region based on an aggregate of 27 years (1987 - 2013) of systematic aerial surveys; and (2) a raster



Map Gallery

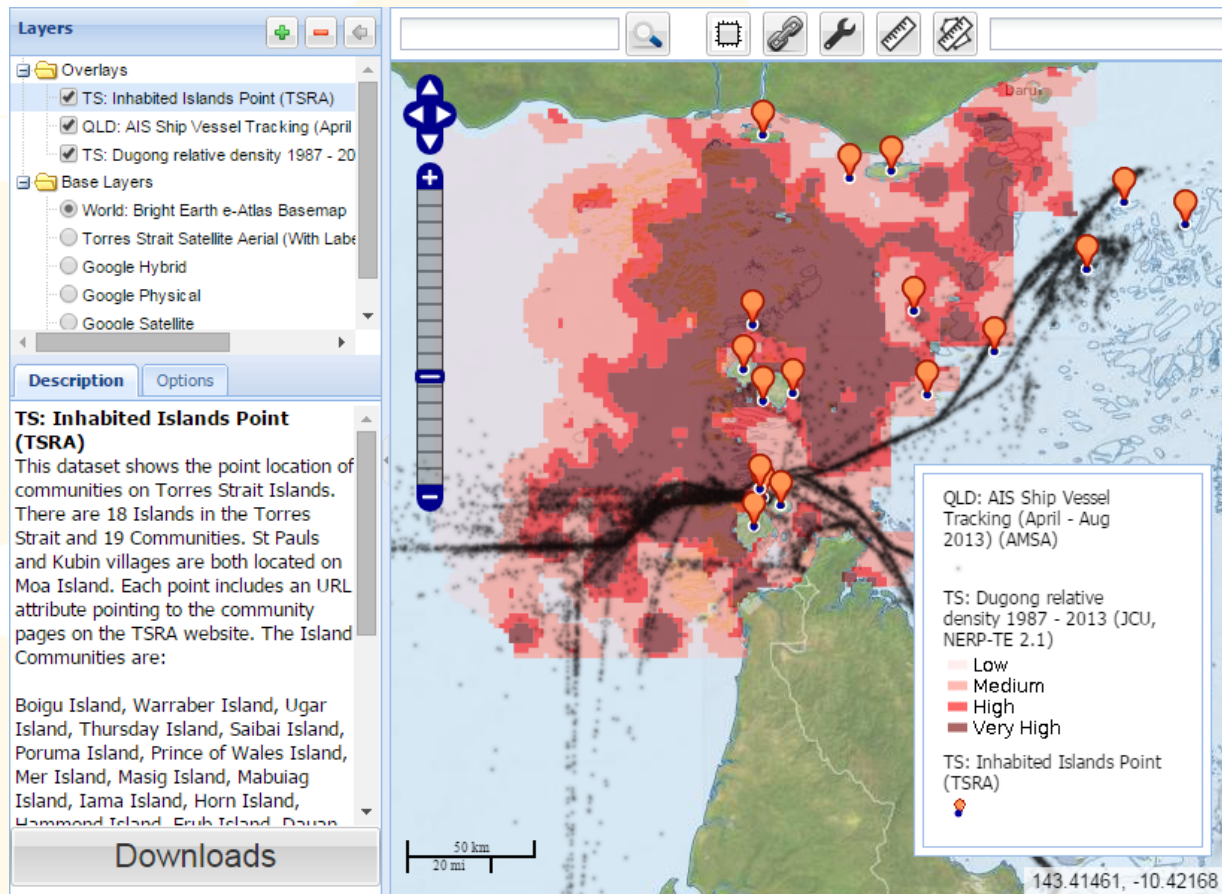
- Highlights of some of the mapping layers to get users started.





Interactive maps

- Add layers from a collection of over 800 layers.
- Create quick maps for reports.
- Download data directly from the mapping system.
- Displays linked metadata.



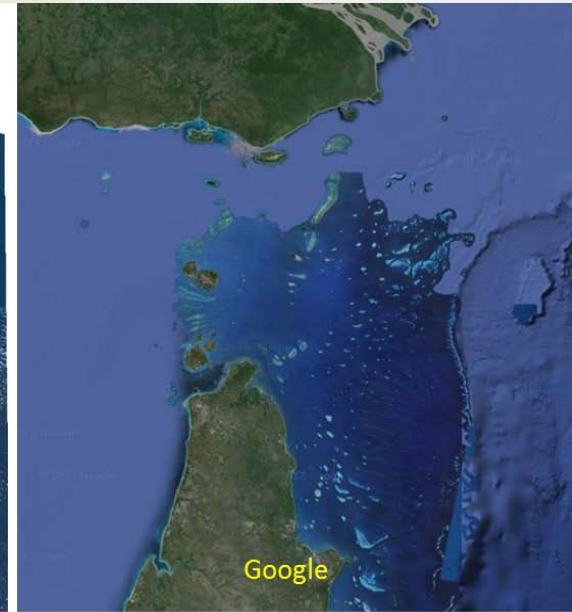
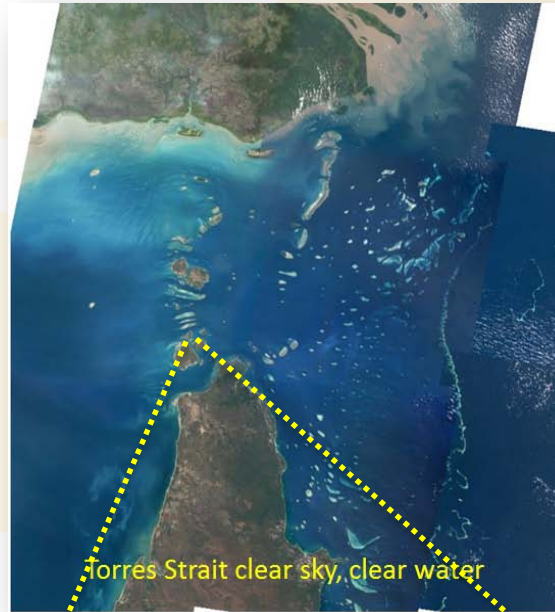


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END OF DEMONSTRATION

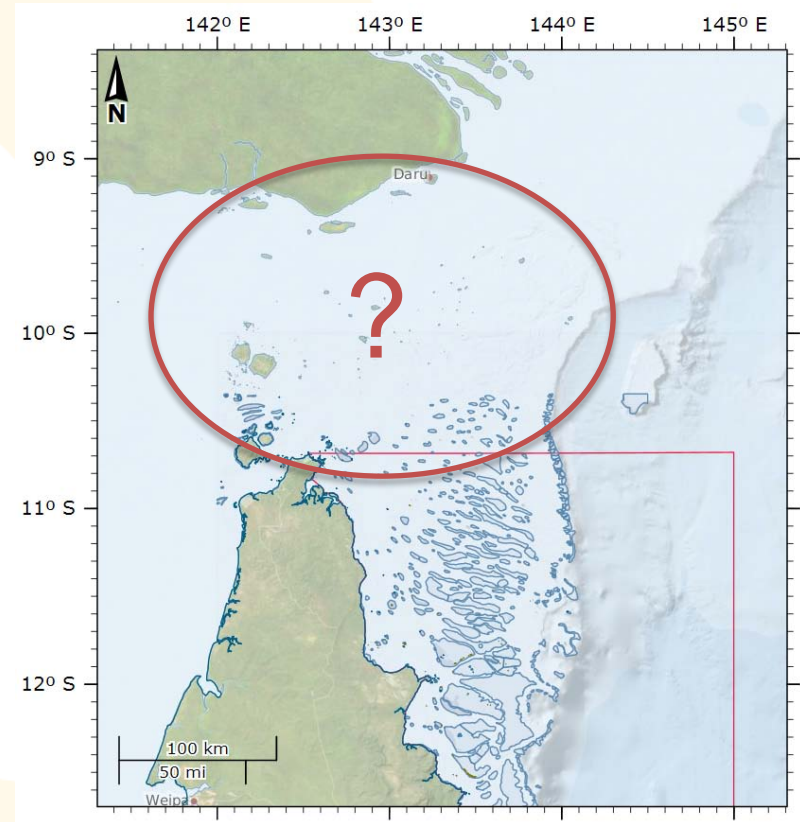
Improved Torres Strait imagery

- Imagery has broad appeal and use.
- Patchy existing coverage particularly marine areas.
- Needed to collect and process imagery for reef mapping.
- Combined best Landsat 5 over 25 years with aerial imagery from Queensland Government.
- 30 m marine areas, 10 cm community areas.



Reef mapping for Torres Strait

- No open detailed mapping dataset of Torres Strait previously exists.
 - Needed for Torres Strait eAtlas basemap.
 - Needed by GBRMPA to process RIHS surveys in Eye on the Reef.
- Extend the reef mapping north of GBR marine park.
- Use Landsat 5, 7, 8 archives and many other sources of info.
- Work is still ongoing



Torres Strait Features (1:50k mapping)

- Mapping: islands, reefs, cays, submerged sand dunes, rocks
- Torres Strait Reefs
 - 2600 reef features
 - 320 larger than 1 km²
- GBR Features
 - 3800 reef features
 - 1880 larger than 1 km²





Cultural Festival – Community Engagement

- Information stall at Winds of Zendath cultural festival, Thursday Island (Sept 2014)
- Demonstrated to over 70 locals
 - Popular with children
- Most interest in:
 - Showing others where they are from (high resolution imagery)
 - Dugongs, Turtles, Geology
- Good computer skills
- Great geographic knowledge

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Tagai State College – Community Engagement

- Four classes from Year 11 and 12 Marine Studies and Conservation and Land Management
- Activities:
 - How to find information on the site.
 - How to make maps for assignments.
- Good engagement from students.
- One class used the Torres Strait eAtlas for an oceanography assignment.
- Provided a copy of the Physical eAtlas for the Land and Sea Discovery centre.





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