



National Environmental
Research Program

eatlas.org.au



eAtlas.org.au

Australia's Tropical Land And Seas

e-delivery of scientific and environmental knowledge

Eric Lawrey (AIMS)



Australian Government



AUSTRALIAN INSTITUTE
OF MARINE SCIENCE



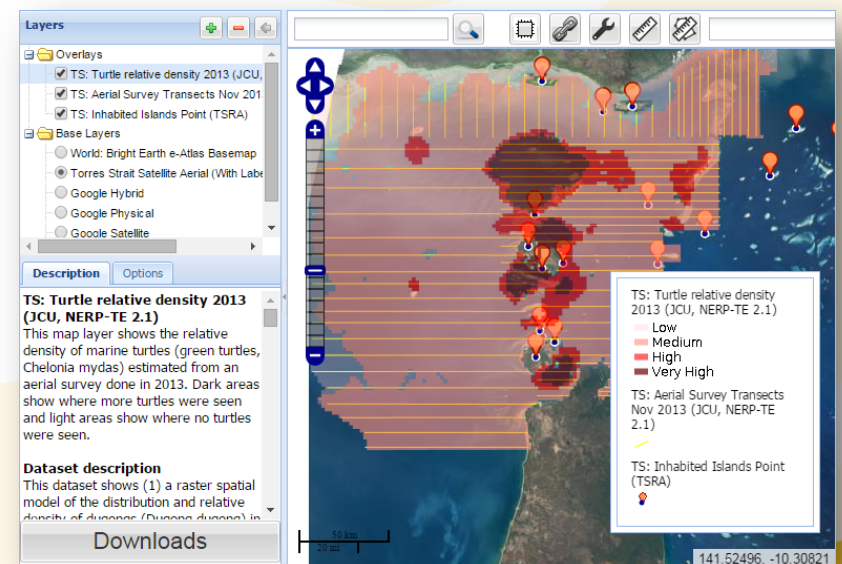
Problem

- Historically research has been closed.
- Difficult to discover, obtain and reuse data.
- Makes research and management more difficult.
- Global movement to open up research data and make it accessible.
- Public access is a guiding principal of the NERP.
- eAtlas provides the platform for public delivery of environmental science.



What is the 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.





National Environmental
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DEMONSTRATION



Website

- Projects
- Articles
- Datasets
- Maps

The screenshot shows the eatlas.org.au website. At the top, there's a navigation bar with 'Regions / Sites' and a search box. Below this is a banner with the eAtlas logo and four small images of marine life. A secondary navigation bar lists 'Home', 'Projects', 'Articles', 'Interactive Map', 'Datasets', and 'About eAtlas'. The main content area features a headline about environmental research for the Great Barrier Reef, followed by sections for 'Recent articles' and 'Recent datasets'. Each section includes a thumbnail image, a title, a brief description, and a 'read more' link.

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

eAtlas.org.au
Australia's Tropical Land And Seas

Home Projects Articles Interactive Map Datasets About eAtlas

Latest environmental research, maps and data for the Great Barrier Reef and Queensland Australia

Want to publish a dataset with the eAtlas? Please use the [eAtlas Dataset Report form](#).

Recent articles

Wet versus wetter on the Great Barrier Reef; River runoff, water clarity and reef communities
Published on 29 October 2014

 The last decade in north Queensland has seen a striking contrast of summers of below median rainfall (2002-2006) and 'big wets' (2007-2012).

[read more](#)

Recent datasets

Persistence of glyphosate in seawater. Glyphosate concentrations recorded over time in standard flask experiment 2013. (NERP TE 4.2, AIMS and UQ)
Modified on 4 November 2014

 This dataset shows the concentrations of the herbicide glyphosate remaining over time in a simulation flask persistence experiment conducted in 2013.

[read more](#)

Why we love the Queensland Wet Tropics
Published on 29 October 2014

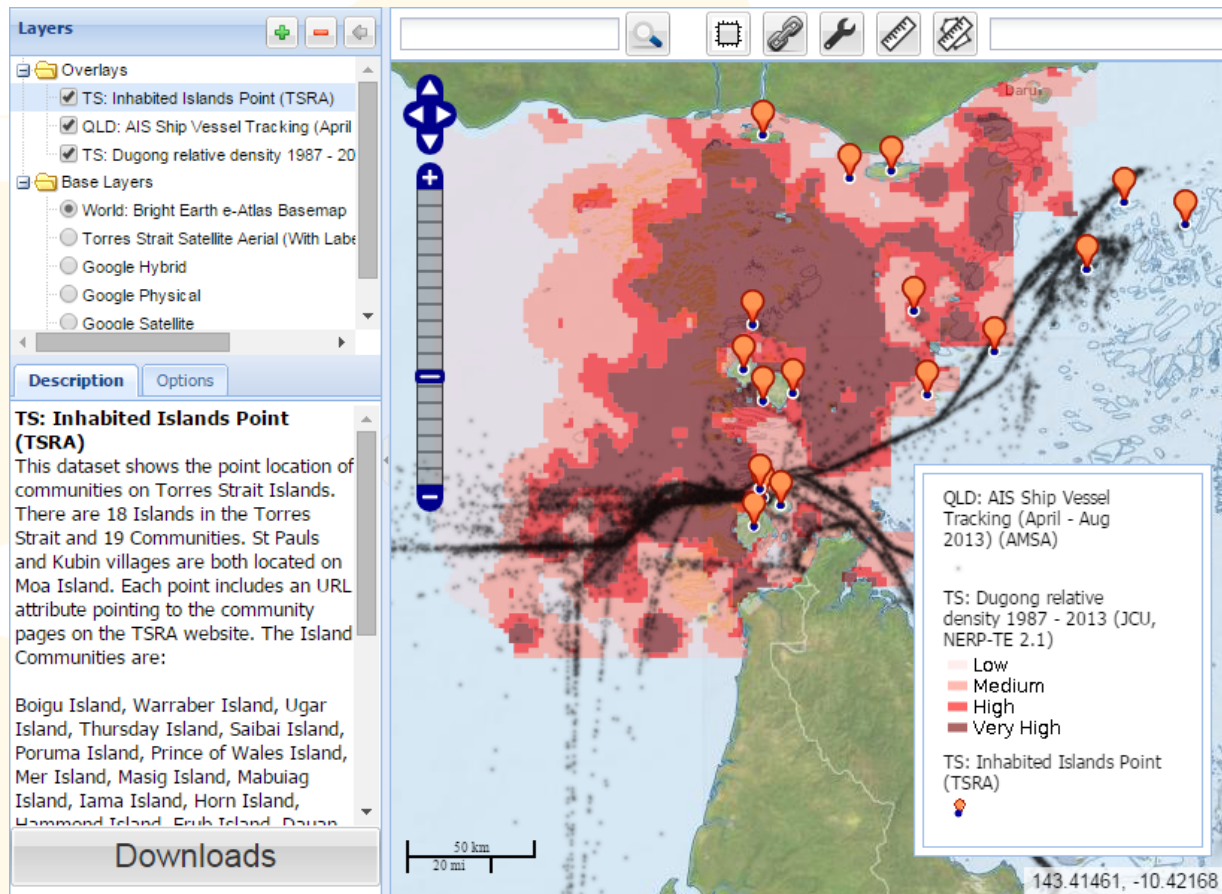
 It will be no surprise to anyone who has visited the Wet Tropics World Heritage Area (WTWHA)

Torres Strait Dugong Sanctuary TSRA (2003)
Modified on 4 November 2014



Interactive maps

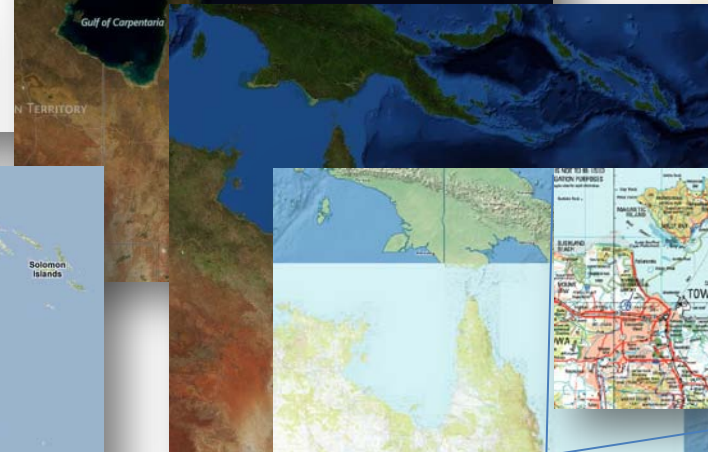
- Add layers from a collection of over 800 layers.
- Create quick maps for reports.
- Download data directly from the mapping system.
- Displays linked metadata.





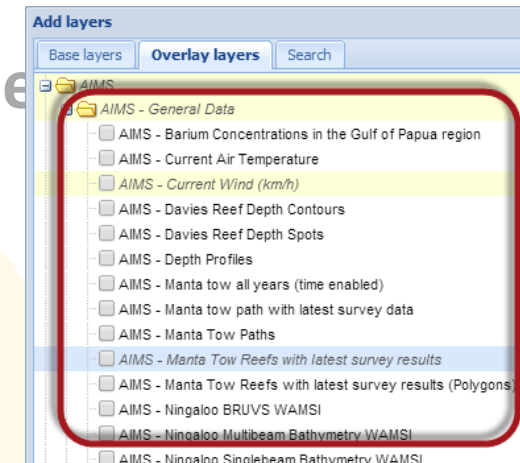
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What will you find on the eAtlas? - Basemaps

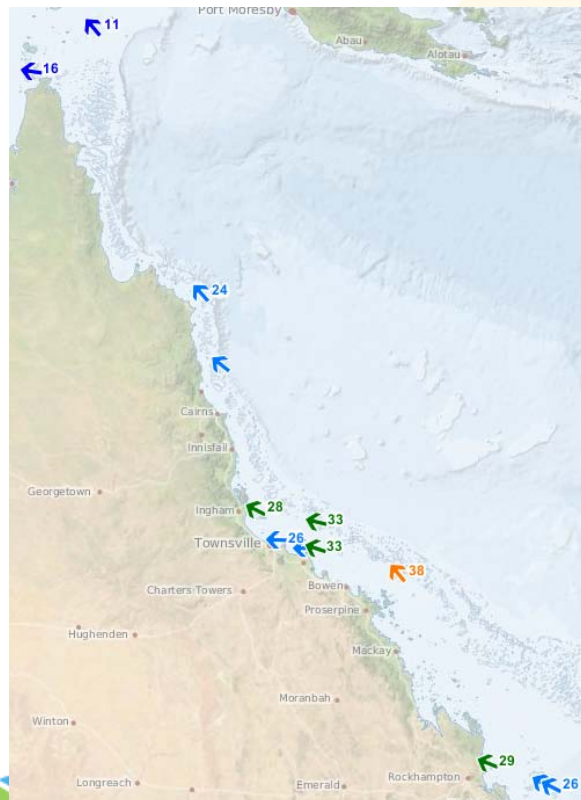


Direct from AIMS

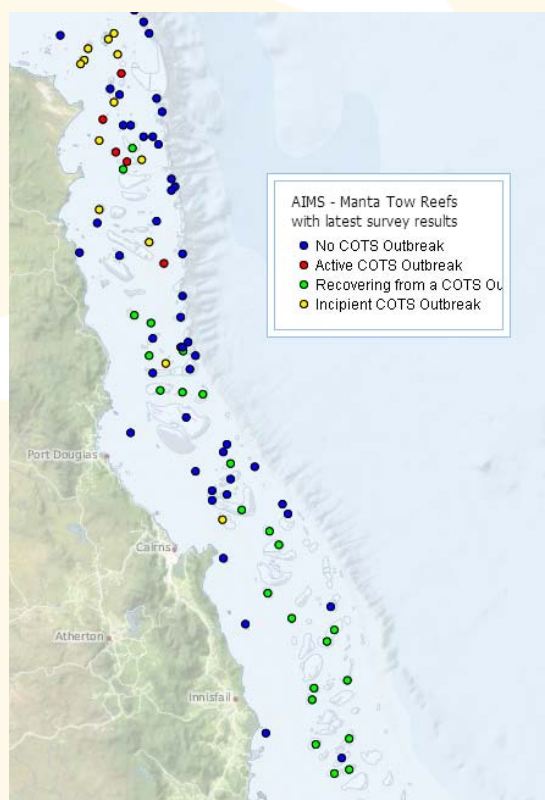
- Real-time wind and temperature
- Survey results from Long Term Monitoring Program



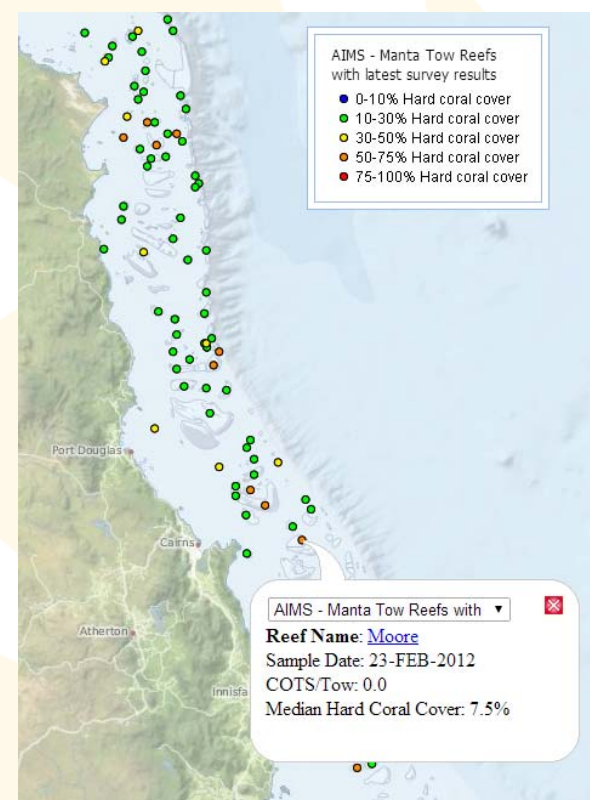
Wind



Crown of thorns Outbreaks



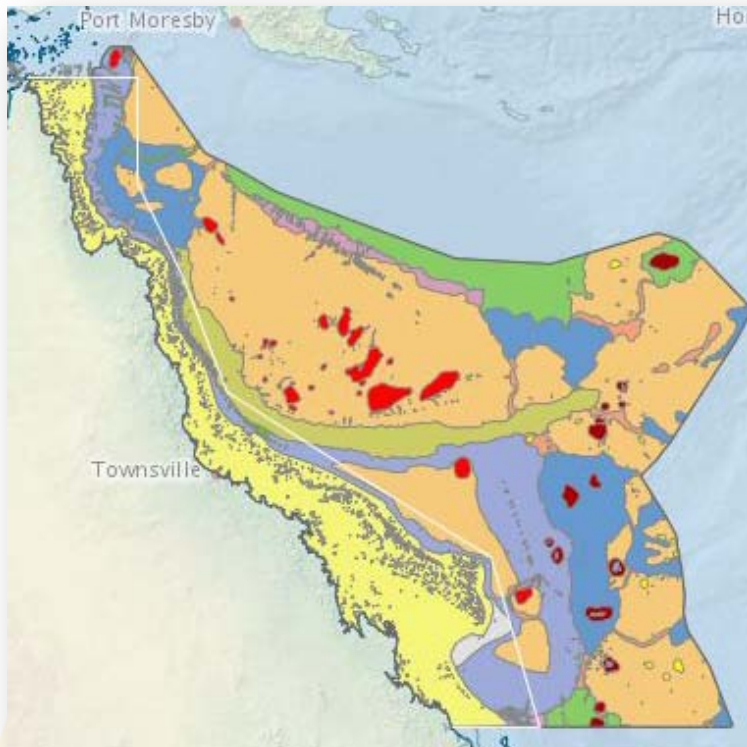
Hard Coral Cover



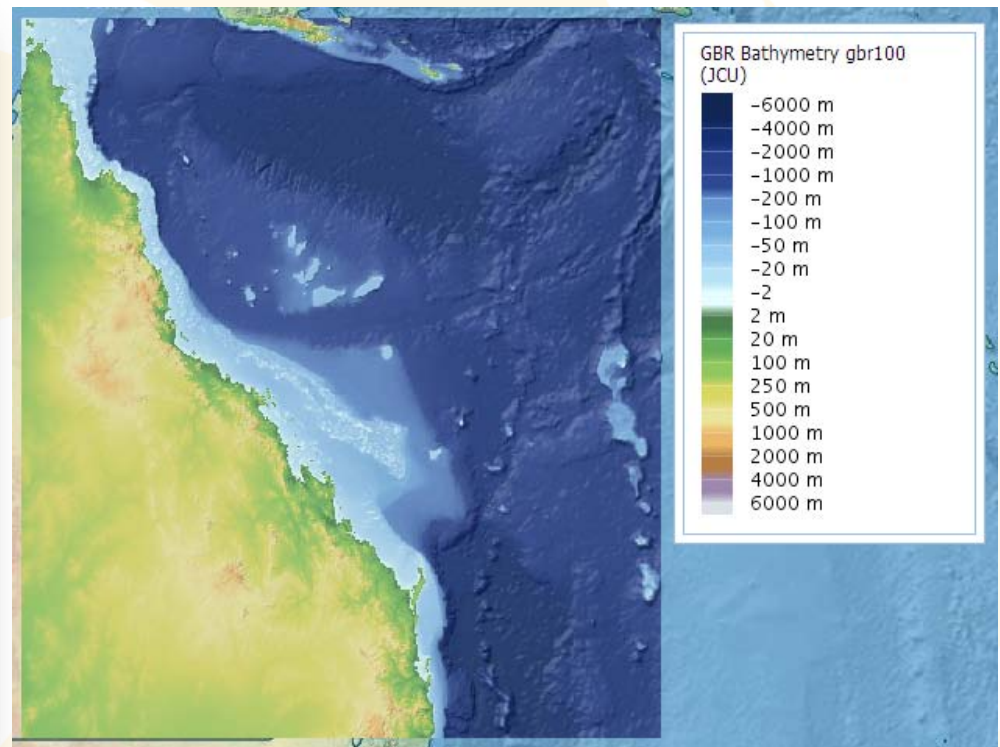


Bathymetry and Geomorphology

- 100 m grid utilises the latest available multibeam, singlebeam, lidar and satellite bathymetry source datasets



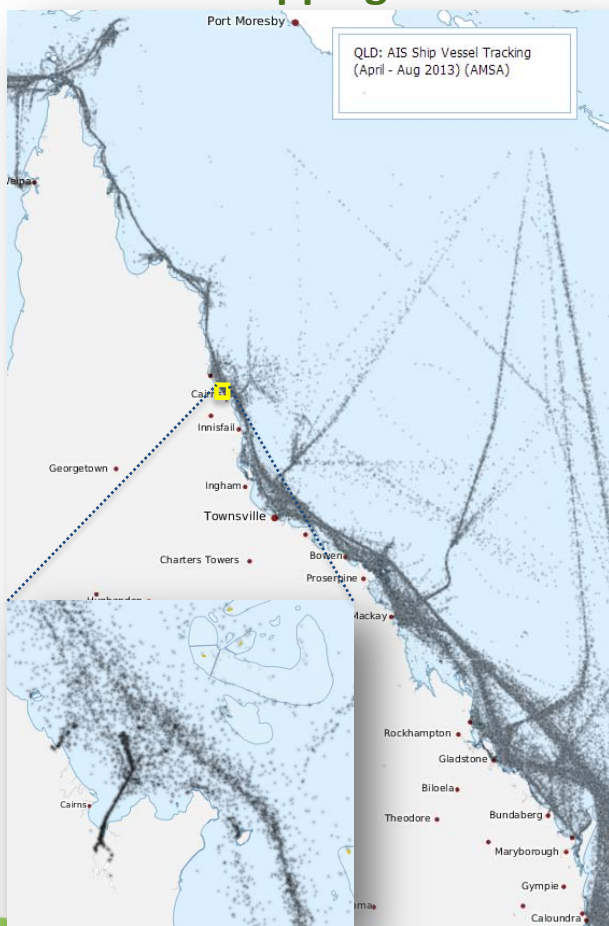
Coral Sea Geomorphology (JCU)



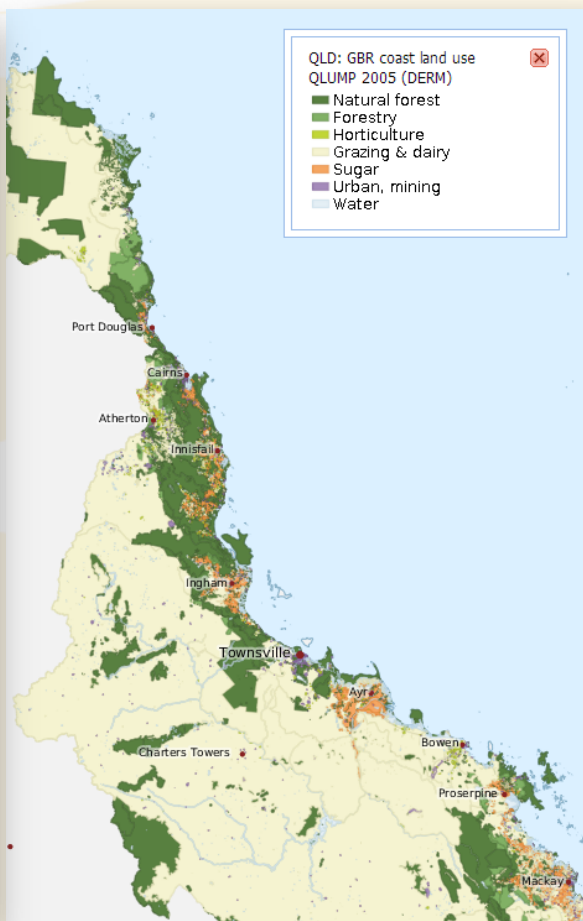
gbr100 bathymetry (JCU)

Queensland wide datasets

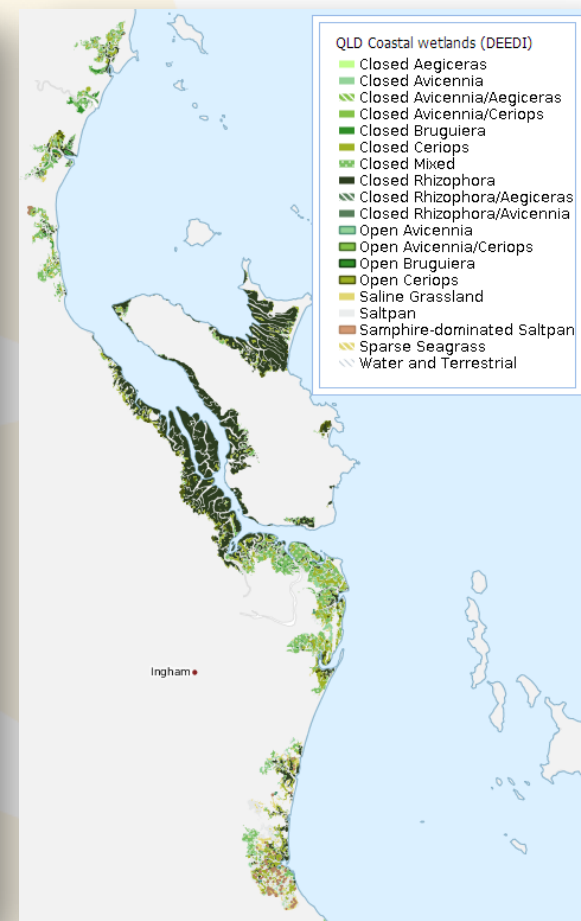
Shipping



Landuse



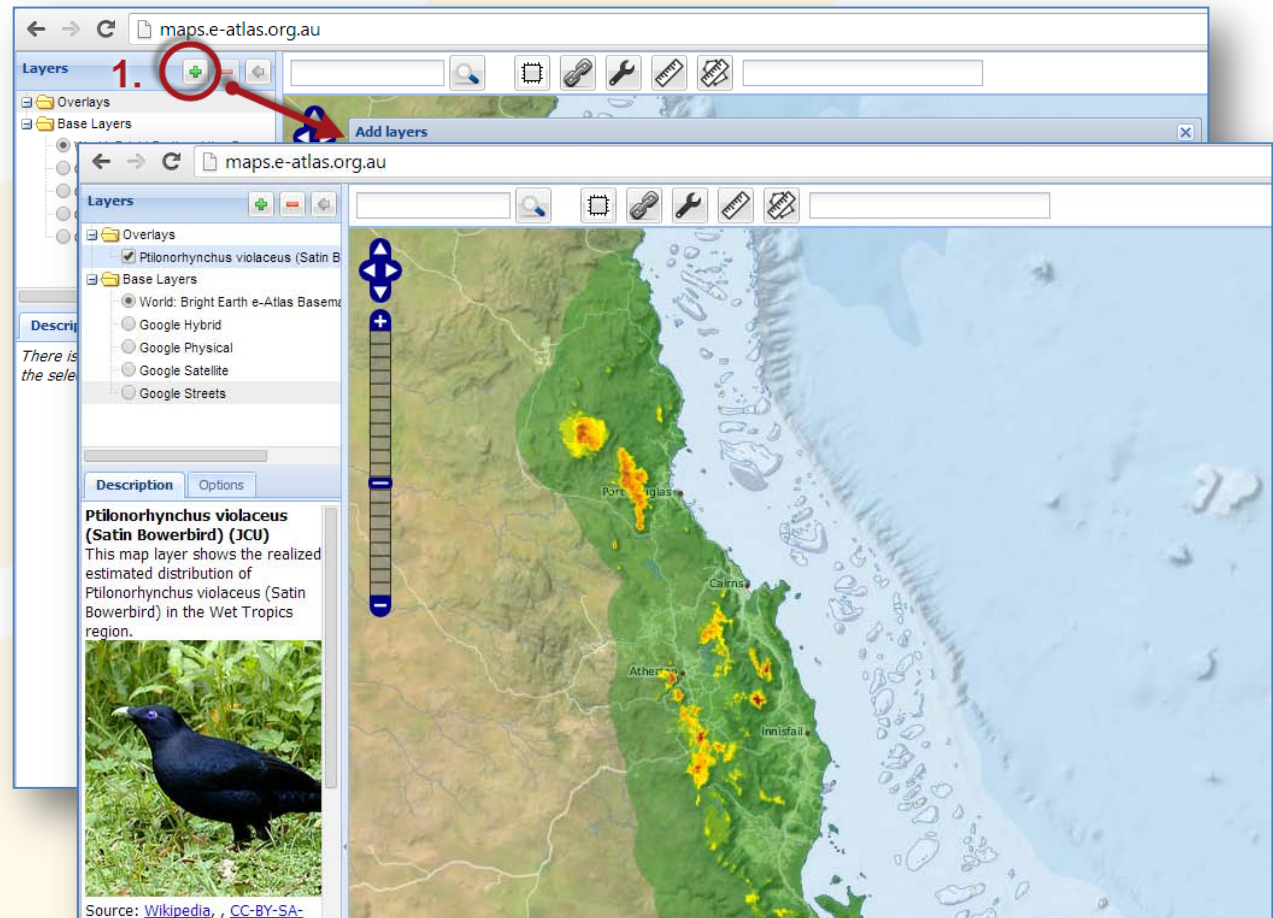
Coastal Wetlands





Wet Tropics Vertebrate Atlas

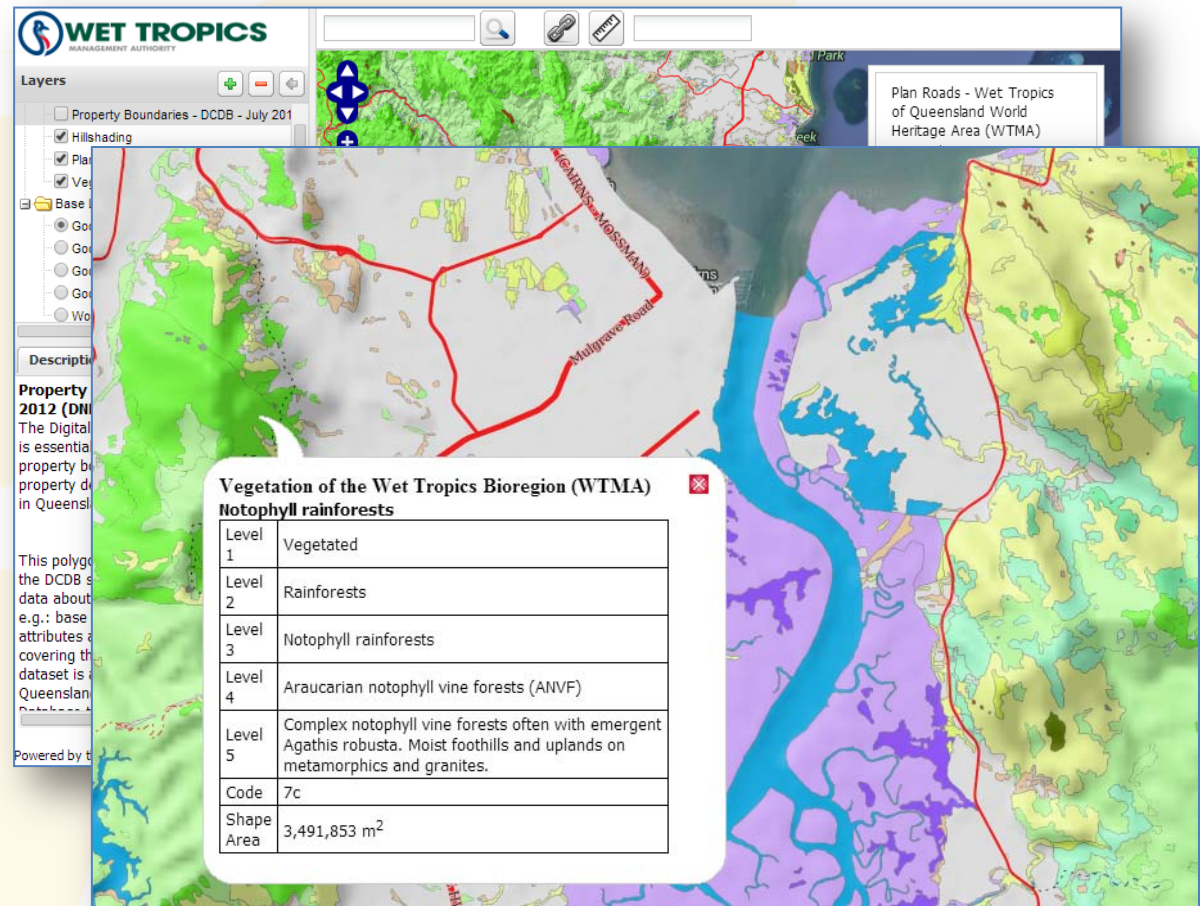
- 200 Vertebrate Species
- Estimated species distribution





WTMA Portal – <http://maps.e-atlas.org.au/wtma>

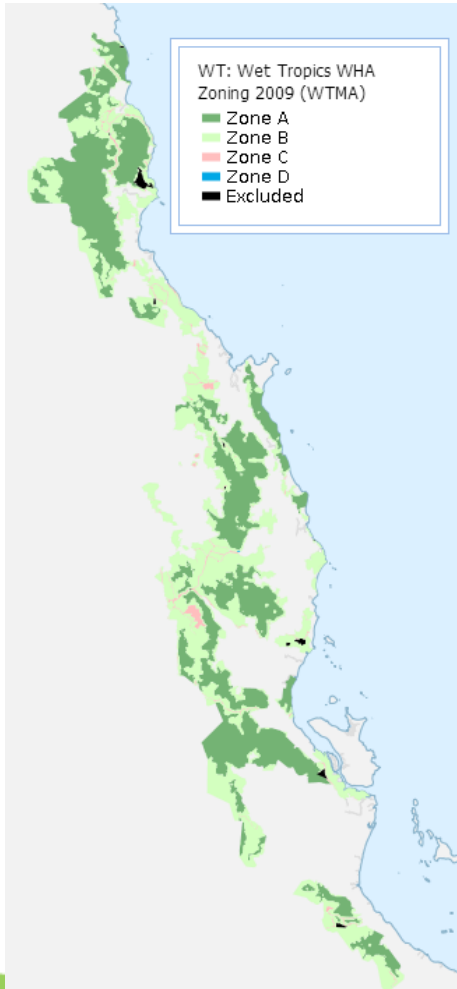
- Highlights Vegetation of the Wet Topics Bioregion
- Highly detailed
- Click for information at a particular site



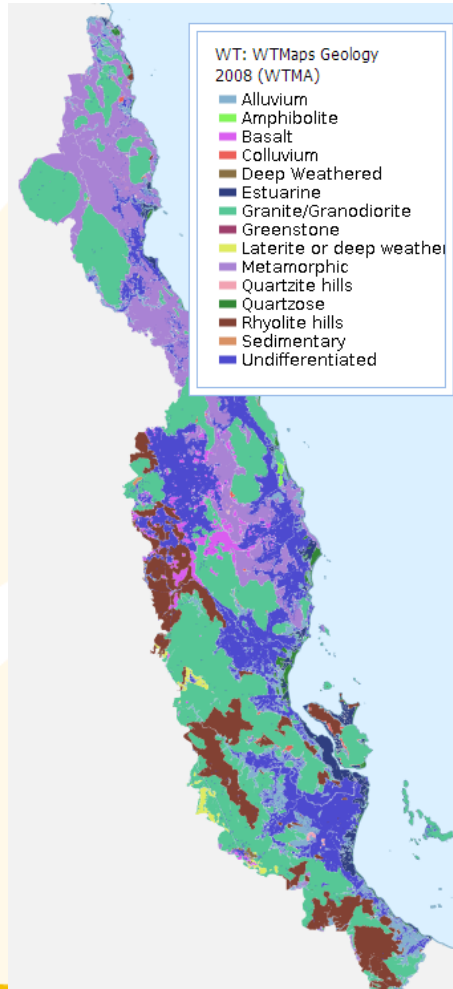


Some other Wet Tropics layers

WHA Zoning



Geology



WHA Boundary



Atherton History
Imagery 1976





Torres Strait e-Atlas: <http://ts.e-atlas.org.au>

Torres Strait e-Atlas

Home Regions **Project information and Articles** News About Torres Strait

Home > NERP TE Project 2.2 > Mangrove and freshwater habitat status of Torres Strait islands (JCU)

NERP TE Project 2.2 Mangrove and freshwater habitat status of Torres Strait islands (JCU)

Funded by: NERP-TE
Host organisation(s): James Cook University
Project leaders: Prof. Norm Duke

Project summary

This project will examine the status, diversity and condition of mangroves and freshwater habitats in the Torres Strait. This will provide a baseline against which future changes can be assessed and will also enable planning for adaptation to potential sea level rise/increased storm surge. The project builds on Torres Strait Islanders' knowledge and understanding of mangrove habitats, with scientists working in partnership with Traditional Owners.

Latest outputs

- NERP TE Hub Torres Strait Research Snapshot - Jan-June 2013
Posted on 8 September 2013

 © courtesy Prof. Norm Duke
Snapshot of aerial island shorelines will reveal...

 © courtesy Prof. Norm Duke

 Map of the Torres Strait



Imagery

Layers

- Overlays
- Base Layers
 - World: Bright Earth e-Atlas Basemap
 - Torres Strait Satellite Aerial**
 - Google Hybrid
 - Google Physical
 - Google Satellite
 - Google Streets

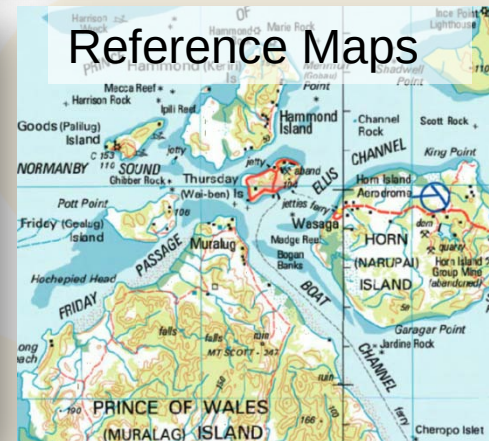
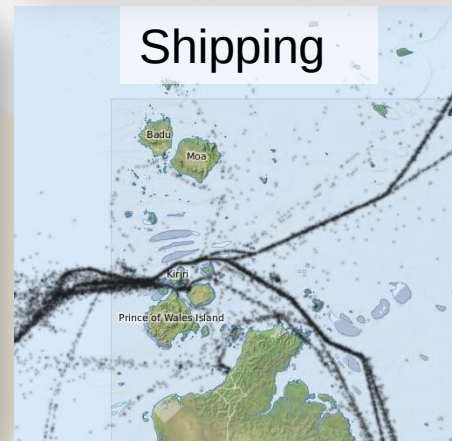
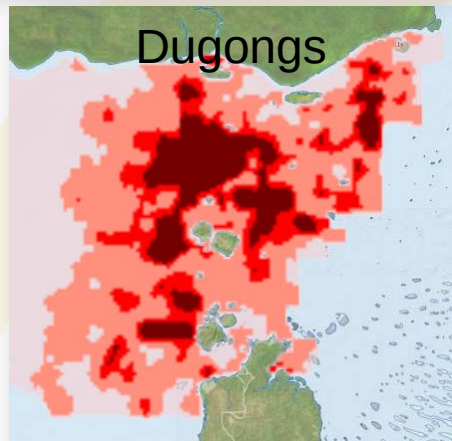
Description Options

Torres Strait Satellite Aerial
This is a baselayer that shows Landsat satellite imagery combined with high resolution aerial imagery for community areas. The high resolution aerial imagery only shows at zoom levels closer than 1:200k.

This combines layers from [Torres Strait Aerial Imagery 2011 \(DHRM, TSRA\)](#) and the [Torres Strait clear sky, clear water Landsat composite \(e-Atlas, AMS\)](#) datasets.

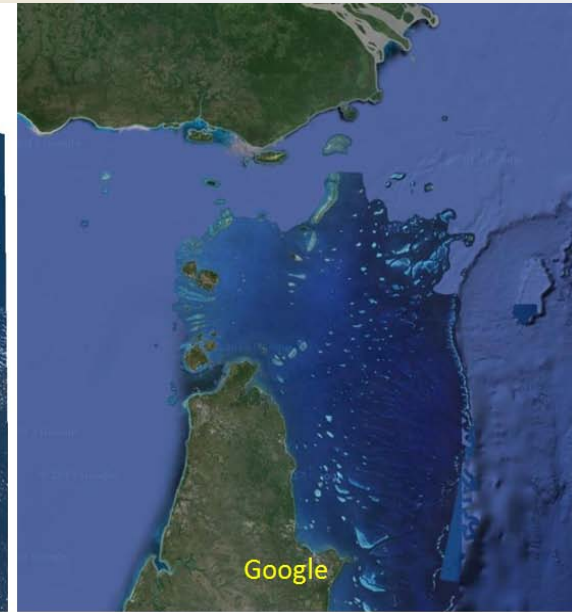
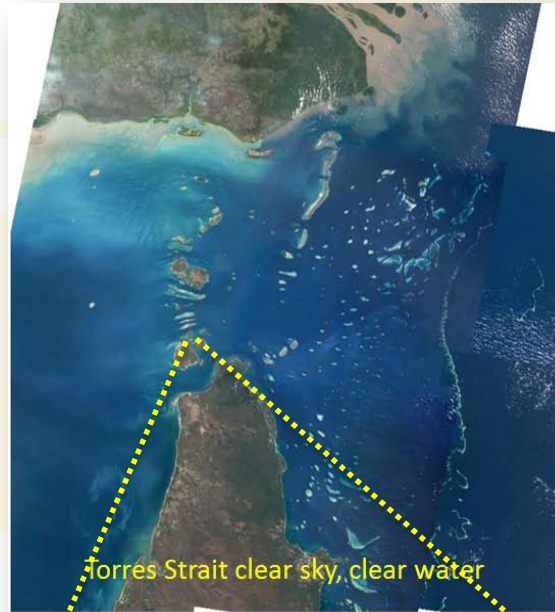
Layer id: ts-ea_TS_eAtlas_Satellite-aerial





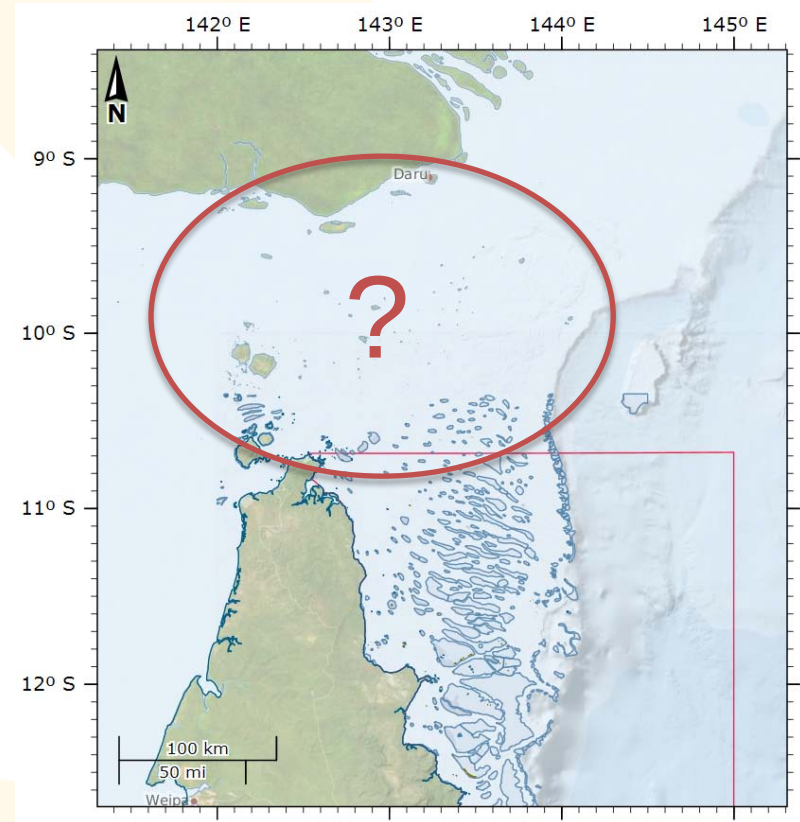
Improved Torres Strait imagery

- 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



<http://eatlas.org.au>



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