

# THE e-ATLAS – a great new tool

## WHAT IS THE e-Atlas?

The e-Atlas is a new initiative, launched in 2009, that gathers together an amazing amount of data related to the tropical regions of Queensland - including the Great Barrier Reef and its catchments, the Wet Tropics rainforests and Torres Strait areas.

It is a 'one-stop shop' for accurate, up-to-date data, easy-to-understand information, maps, reports and scientific papers. It not only stores lots of data from different databases all in one location, but it also allows you to select and compare various data sets. Furthermore, this data can be displayed in regional maps that are easy to understand.

## A COOPERATIVE PROJECT

It has been, and continues to be, an immense project, involving partnerships between many research providers, including the Australian Institute of Marine Science (AIMS), Australian government, Department of Environment, Water, Heritage and the Arts, Great Barrier Reef Marine Park Authority (GBRMPA), Reef & Rainforest Research Centre (RTRC), the Great Barrier reef Foundation (GBRF) and EDS.



The idea of the e-Atlas was the result of a growing need to access increasing amount of biological, physical and economic data being produced about the Great Barrier Reef and associated tropical terrestrial ecosystems.

The concept of the e-Atlas was to take all the information that had been generated over decades and was 'out there' and gather it in such a manner that the data could be easily compared and contrasted. Until this happened, little of this information has been used to its full potential. But now, for the first time, the data can be easily shared and used to help determine trends and identify significant events in the region.

The e-Atlas is now one of the most comprehensive web-accessible integrated knowledge management systems. It currently houses data contributed by nine different national, state and local institutions – and it is growing every day!

### **And the best part of the e-Atlas...**

The information is readily available to just about anyone - researchers, environmental managers, teachers, students, community groups and interested public.

**Table 1 - Topics listed on the e-Atlas website**

Biology And Biodiversity	Human Use And Economics	Threats And Risk Assessment
<ul style="list-style-type: none"> <li>• Coral Reefs</li> <li>• Freshwater Systems</li> <li>• Jellyfish Of The GBR</li> <li>• Mangroves</li> <li>• Rainforests</li> <li>• Seafloor</li> <li>• Seagrass</li> <li>• Species Of Conservation Concern</li> <li>• Wetlands</li> </ul>	<ul style="list-style-type: none"> <li>• Fishing &amp; Harvest</li> <li>• Shipping</li> <li>• Socio-economy</li> <li>• Tourism</li> </ul> <hr/> Physical Environment & Geography <hr/> <ul style="list-style-type: none"> <li>• Climate &amp; Weather</li> <li>• Geographic Features</li> <li>• Marine Water Quality</li> <li>• Oceanography</li> </ul>	<ul style="list-style-type: none"> <li>• Climate Change</li> <li>• Diseases</li> <li>• Fishing</li> <li>• Invasive Species</li> <li>• Resilience &amp; Ecosystem Health Measures</li> <li>• Shipping</li> <li>• Water Quality</li> </ul>

## WHAT CAN YOU DO ON THE e-Atlas WEBSITE?

The e-Atlas website is a fantastic resource – and easy to navigate. Everything is searchable by topic. There are four major components to the e-Atlas:

1. A series of information pages that summarizes the newest information, scientific findings and important issues facing Australian coastal & reef environments.
2. A collection of recent published reports and articles written by experts in their fields;
3. Interactive maps with different layer options that allow comparisons between various categories; and
4. A repository of data sets and metadata that can be searched and analyzed.

## THE INTERACTIVE MAPS

The interactive map section of the e-Atlas is probably the most impressive part of the website, and is both fun to use and immensely interesting.

You can generate maps showing various environmental conditions and distributions of different animals and plants. These, in turn, can be used to clearly identify biodiversity hot spots (where are the most species found), problem areas with high risk factors (what areas have the most impacts), trends in environmental health (where are the issues the worse) and species variation with environmental conditions (how do species diversity change in different regions).

Comparisons between different categories are easy to see by simply displaying side-by-side maps.

## WHO CAN USE IT?

Basically, anyone with an interest in the Great Barrier Reef and associated regions.

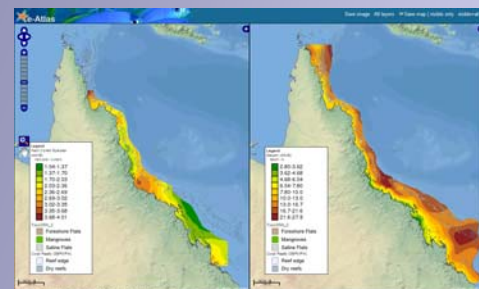
- **Scientists** – to compare, contrast and analyse a wide range of data from multiple datasets
- **Environmental managers** – to review historical information, identify present conditions and predict future trends
- **Tourist operators** – document the environmental features of their area of operation as well as better understand the threats and impacts affecting them
- **Guides & Naturalists** – to enhance personal knowledge of the local area, to understand how the environments are linked and what they should look out for
- **Community groups** – to better understand what is going on in their local area and what role they can play to assist in environmental protection
- **Teachers** – to develop classroom exercises
- **Students** – for collecting data and writing research project
- **Interested general public** – to better understand what is going on in their local area

## TRY COMPARING...



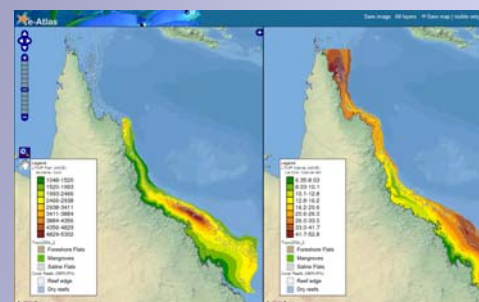
Dugong numbers with sea grass abundance

## WHAT ABOUT...



Hard coral abundance with water visibility?

## OR MAYBE...



Fish abundance with live coral cover

## IT'S EASY WITH E-ATLAS

*There are hundreds of possibilities to try.*

## THIS MTSRF PROJECT

The e-Atlas project lies within two of the MTSRF research themes:

### **Theme 1: Status of ecosystems**

Program 1: Status and Trends of Species and Ecosystems in the Great Barrier Reef

Project 1.1.5: Reef Atlas: Risk, Resilience and Response

*led by: Dr Katharina Fabricius, Australian Institute of Marine Science*

[www.rrrc.org.au/mtsr/theme\\_1/project\\_1\\_1\\_5](http://www.rrrc.org.au/mtsr/theme_1/project_1_1_5)

### **Theme 2, Risks & Threats to the Ecosystems**

Program 5i: Climate Change: Great Barrier Reef

Project 2.5i.1: Regional climate scenarios

*led by: Dr Andreas Schiller, CSIRO Marine and Atmospheric Research*

[www.rrrc.org.au/mtsr/theme\\_2/project\\_2\\_5i\\_1](http://www.rrrc.org.au/mtsr/theme_2/project_2_5i_1)

## RELEVANT MTSRF RESEARCH

The Marine and Tropical Sciences Research Facility (MTSRF) is part of an Australian Government initiative to “develop collaborative, public benefit research between Australia's best tropical environmental researchers to support the conservation and sustainable use of North Queensland's environmental assets - the Wet Tropics rainforests, the Great Barrier Reef and the connecting coastal regions”.

The Reef and Rainforest Research Centre (RRRC) is contracted to administer the MTSRF Research Programme in North Queensland.

There are 5 main themes of study:

- Theme 1      Status of ecosystems
- Theme 2      Risks and Threats to the Ecosystems
- Theme 3      Halting & Reversing decline in water quality
- Theme 4      Sustainable use and management of natural resources
- Theme 5      Enhancing Delivery