

# Cairns Turtle Rehabilitation centre

"Our Mission is protecting and promoting the conservation of marine turtles"



CAIRNS TURTLE  
REHABILITATION CENTRE



# Cairns Turtle Rehabilitation Centre

Non-profit, volunteer & donation based organization

Founded by Jennie Gilbert & Paul Barnes in 2000

Rescued over 500 turtles from 4 different species

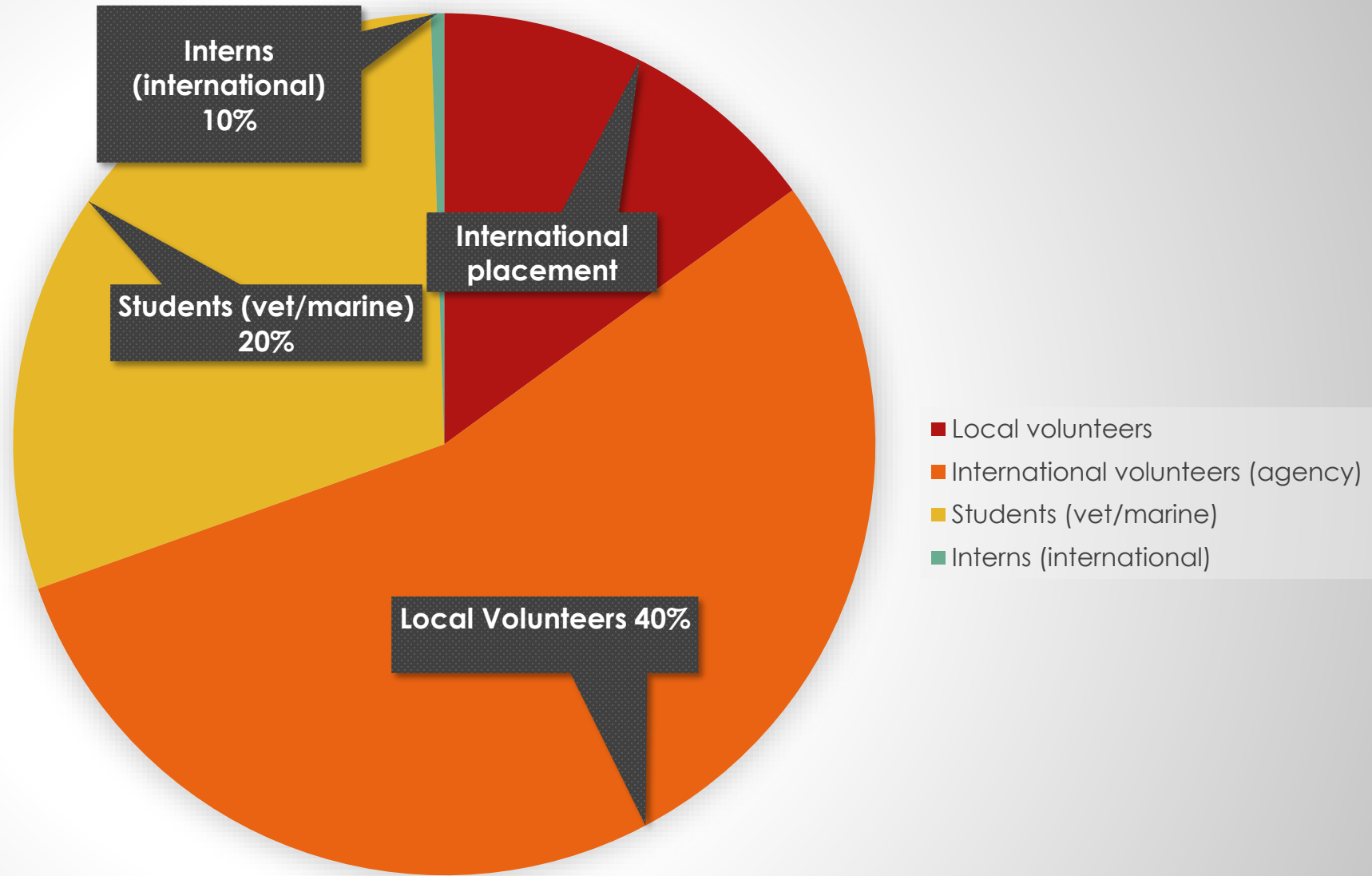
Has a current roster of 100 dedicated and amazing volunteers



Located at Fitzroy Island, James Cook University, Cairns Aquarium and satellite centre at Mission Beach

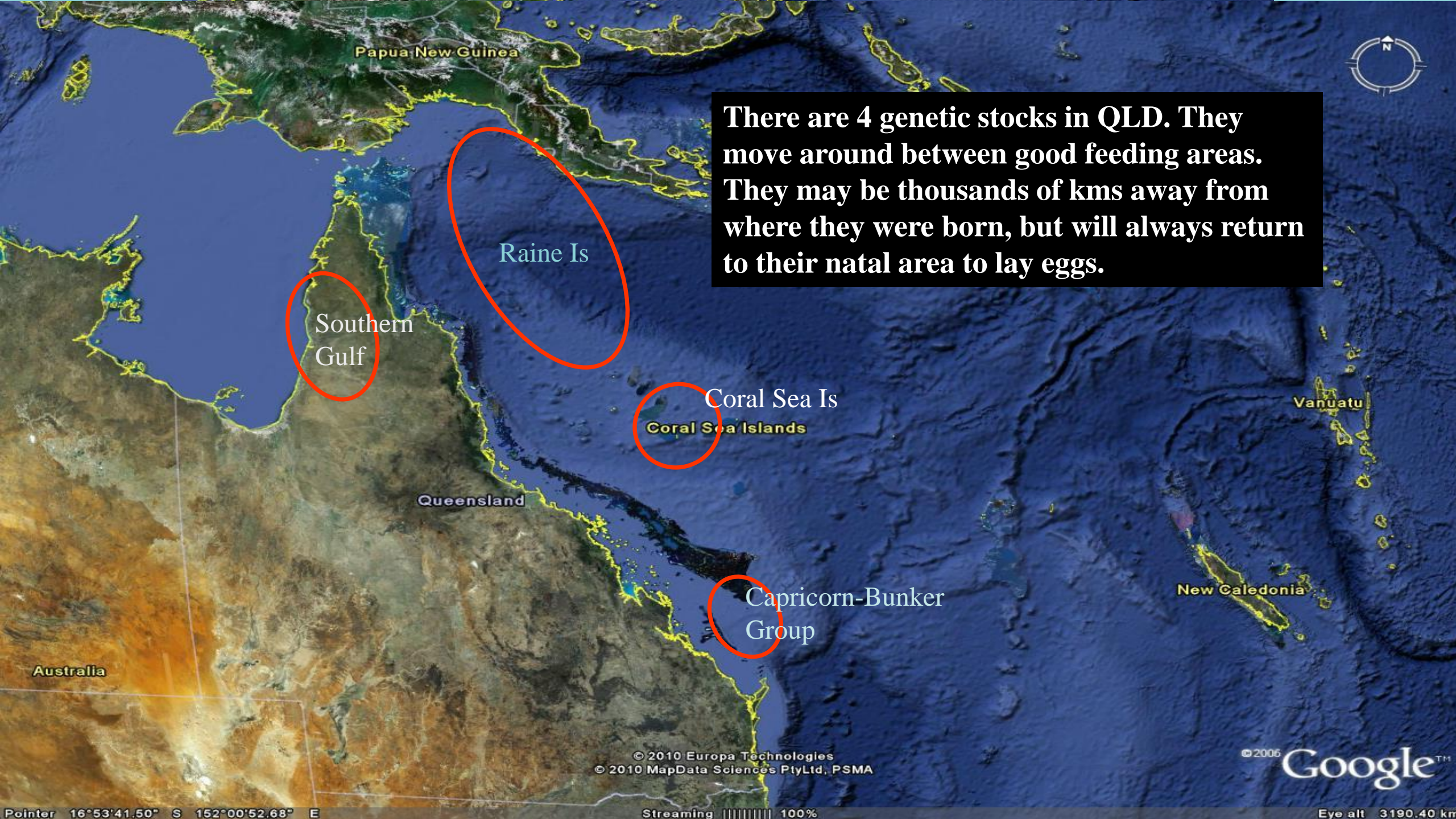
Type of Volunteer	Number
Local volunteers	600
International volunteers (agency)	547
Students (vet/marine)	400
Interns (international)	15

# Volunteer/Students since 2014





- Globally there are 7 species of marine turtles, in Australia we are lucky enough to have 6 of the 7
- Sadly all species are on the IUCN (International Union for the Conservation of Nature) red list, classified as vulnerable, endangered or critically endangered.



**There are 4 genetic stocks in QLD. They move around between good feeding areas. They may be thousands of kms away from where they were born, but will always return to their natal area to lay eggs.**

Southern Gulf

Raine Is

Coral Sea Is

Coral Sea Islands

Capricorn-Bunker Group

Papua New Guinea

Queensland

Australia

Vanuatu

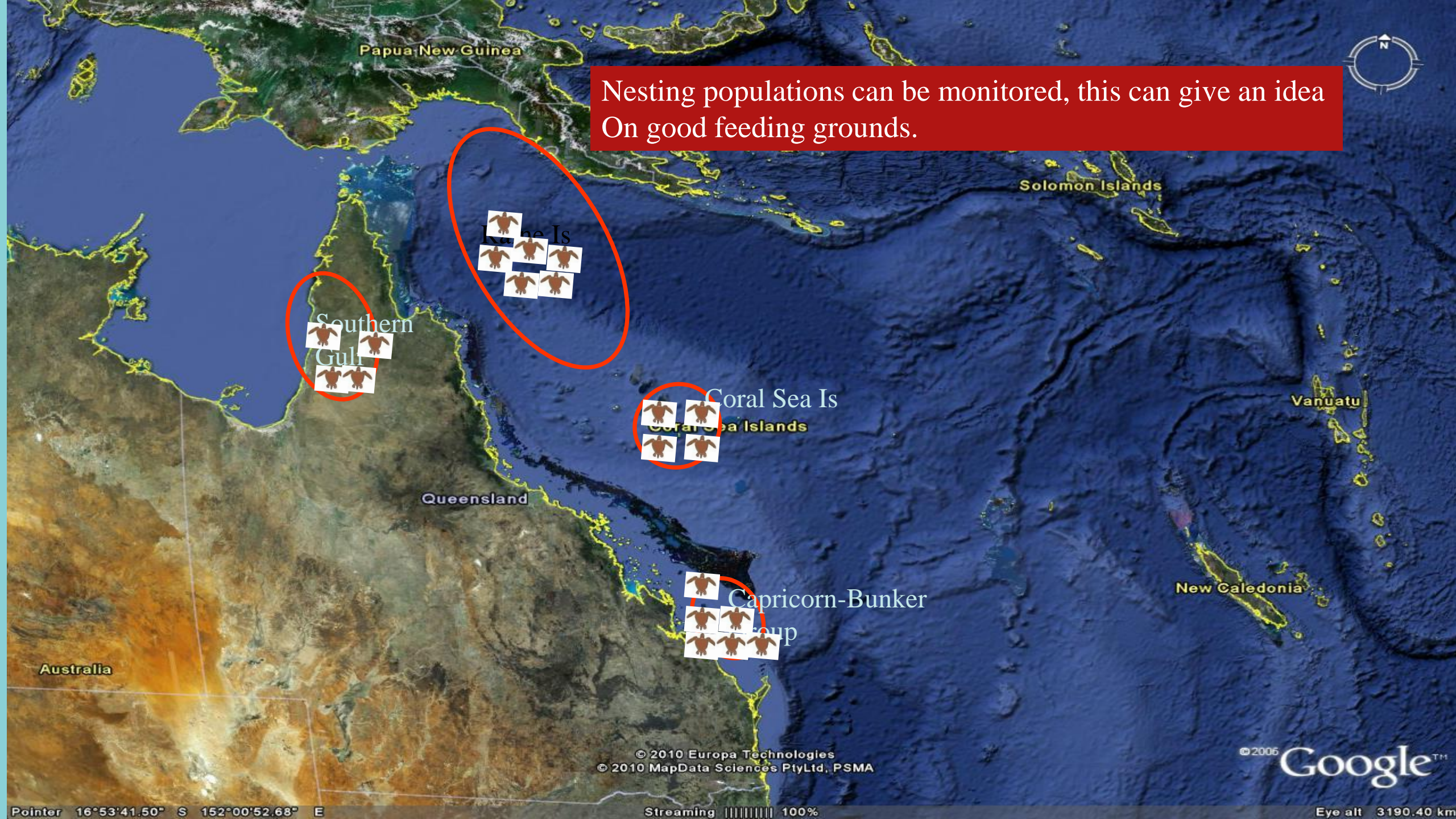
New Caledonia

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Nesting populations can be monitored, this can give an idea  
On good feeding grounds.



Papua New Guinea

Solomon Islands

Vanuatu

New Caledonia

Southern  
Gulf

Kange Is

Coral Sea Is  
Coral Sea Islands

Capricorn-Bunker  
Group

Australia

Queensland

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Papua New Guinea

Solomon Islands

All females return to nest at the area they were born  
This is called the "genetic stock"

Coral Sea Islands

Queensland

Vanuatu

New Caledonia

Australia

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Pointer 16°53'41.50" S 152°00'52.68" E

Streaming 100%

Eye alt 3190.40 km

We share stocks between south pacific islands



Papua New Guinea

Solomon Islands

Southern Gulf

Raine Is

Raine Island

Coral Sea Is

Vanuatu

Queensland

New Caledonia

Capricorn-Bunker Group

Australia

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The most common threats  
and injuries that come into  
rehabilitation

# Natural and Human Threats to Marine Turtles

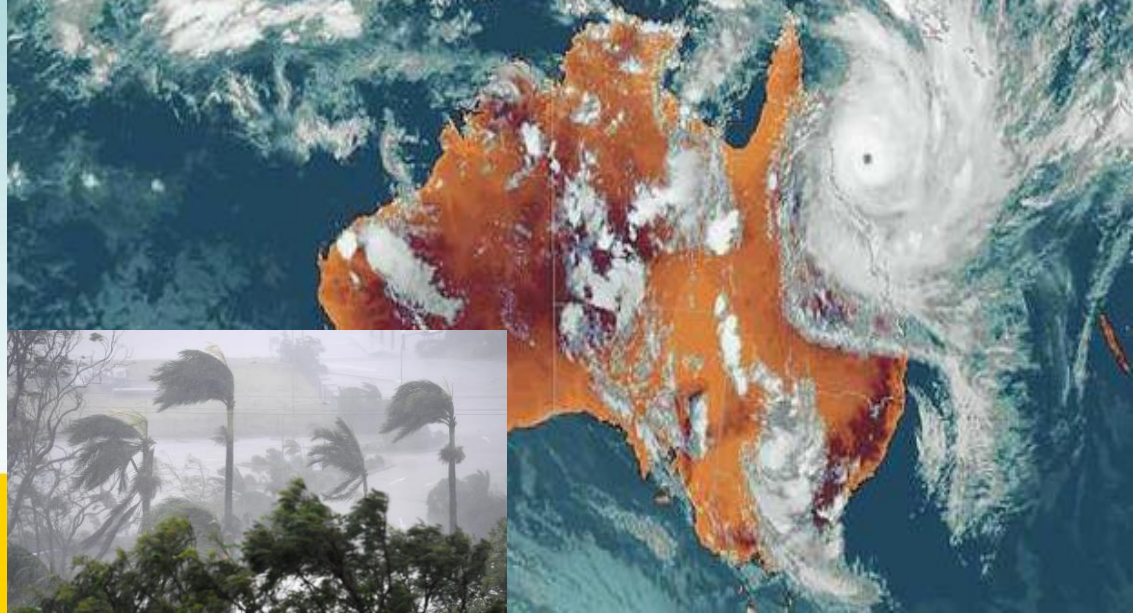


### NATURAL THREATS

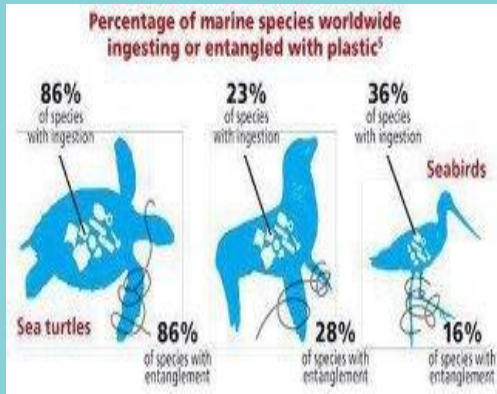
- Predation on the beach
- Floods
- Predation at sea
- Disease

### HUMAN THREATS

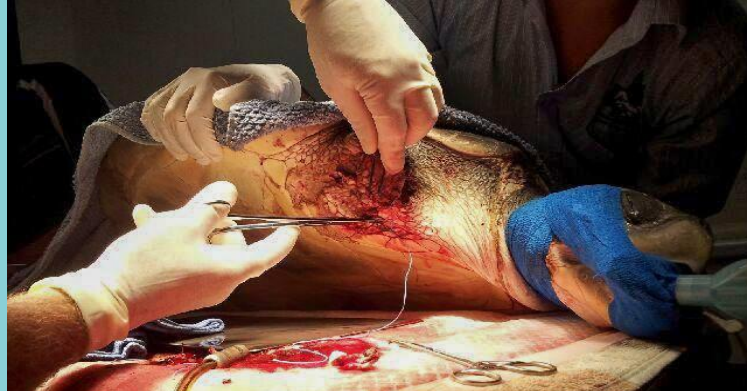
- Poaching for illegal trade
- Bycatch
- Habitat destruction and alteration
- Climate change
- Obstacles on the beach
- Boat strikes
- Direct harvest
- Ghost fishing
- Pollution
- Disorientation due to light pollution
- Disturbance by human activities on the beach
- Contamination



# Turtle Injuries & Threats

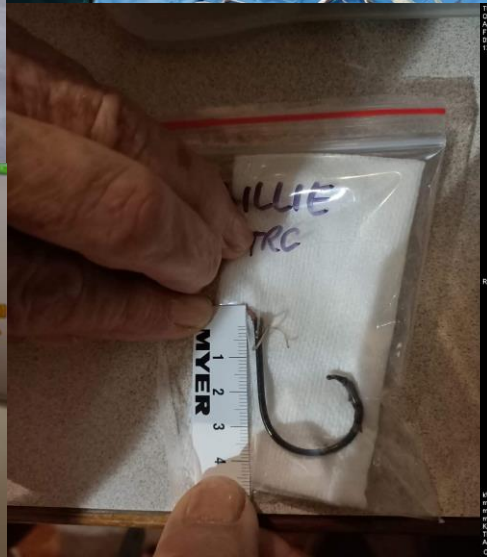


- Turtles in a season may lay up to 1,000 eggs, Unfortunately the odds are against them as **1 in 1000 will survive** to adulthood
- They are subjected to natural challenges from when they emerge
- However, human threats are outweighing natural threats, which is causing populations to decline around the world.



# Diagnosis and treatment

Initial treatment x rays. We also have the use of a CT scan at QLD x ray which gives a better diagnostic tool





(971) 4057 6033

SORRY  
WE'RE  
CLOSED

MARLIN  
VETERINARY

MARLIN COAST  
VETERINARY HOSPITAL

Marlin Coast Veterinary Hospital









# Boat Strike





DISEASE FROM POOR WATER  
QUALITY OR STRESS



BBC

BLUE PLANET  
LIVE

FROM  
**RESCUE  
TURTLE**  
TO  
**REEF  
SCIENTIST**



1 in 1,000 hatchlings survive to breed

Warmer ocean brings in new predators

Increasing sand temperature: 99% females

# Global environmental threats on marine turtles into the future.

Human induced threats increasing

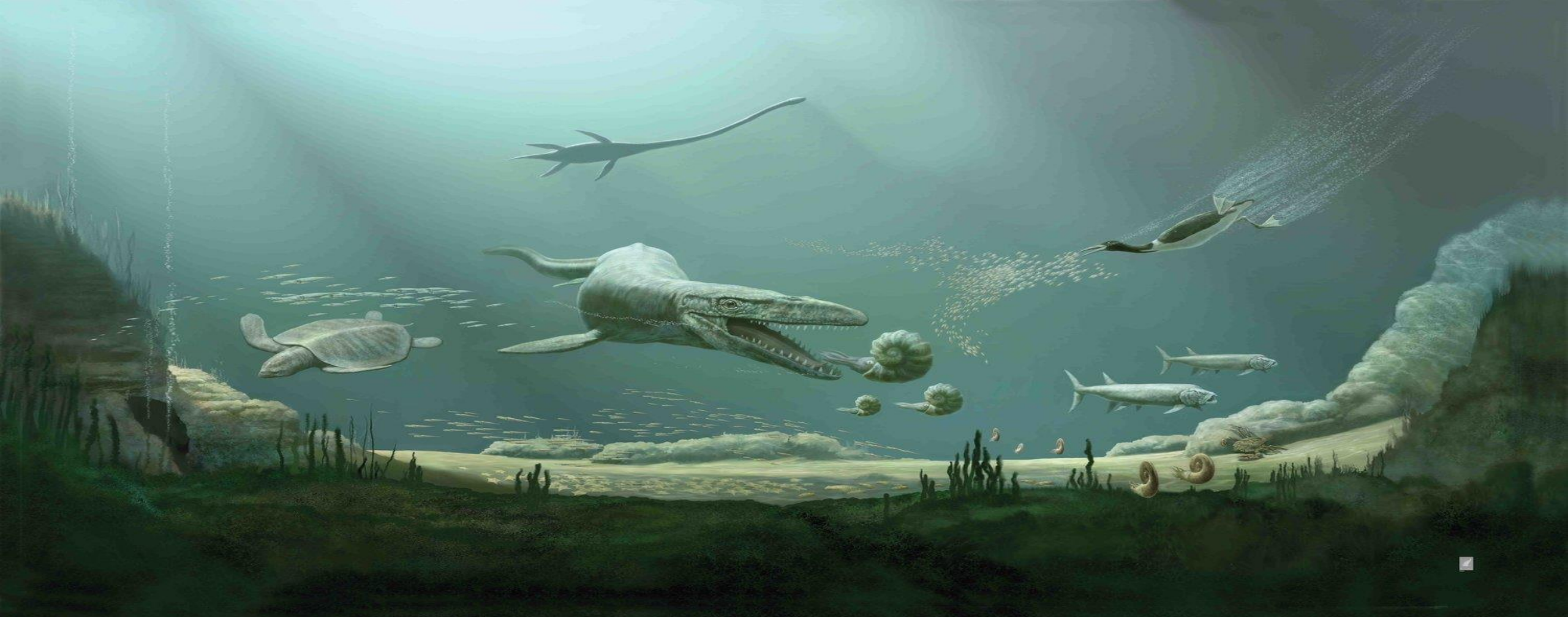
Plastic and microplastic increasing

Increasing threats from toxins

Sea level rise

Stronger storms eroding beaches

- Climate change is now presenting greater threats



Marine turtles have been swimming the oceans for over 150million years. They have outlived many of their reptilian relatives such as the mosasaurs and plesiosaurs. Understanding how sea turtles responded to past climate changes could paint a picture of how they would survive threats from present-day climate change. Although climate change during this period was gradual unlike the current climate change which is accelerating so rapidly many species of animals are unable to adjust and are dying

Turtle ancestors roamed the Ocean over a 100 million years ago surviving temperature changes

Present long term detrimental effects from climate change

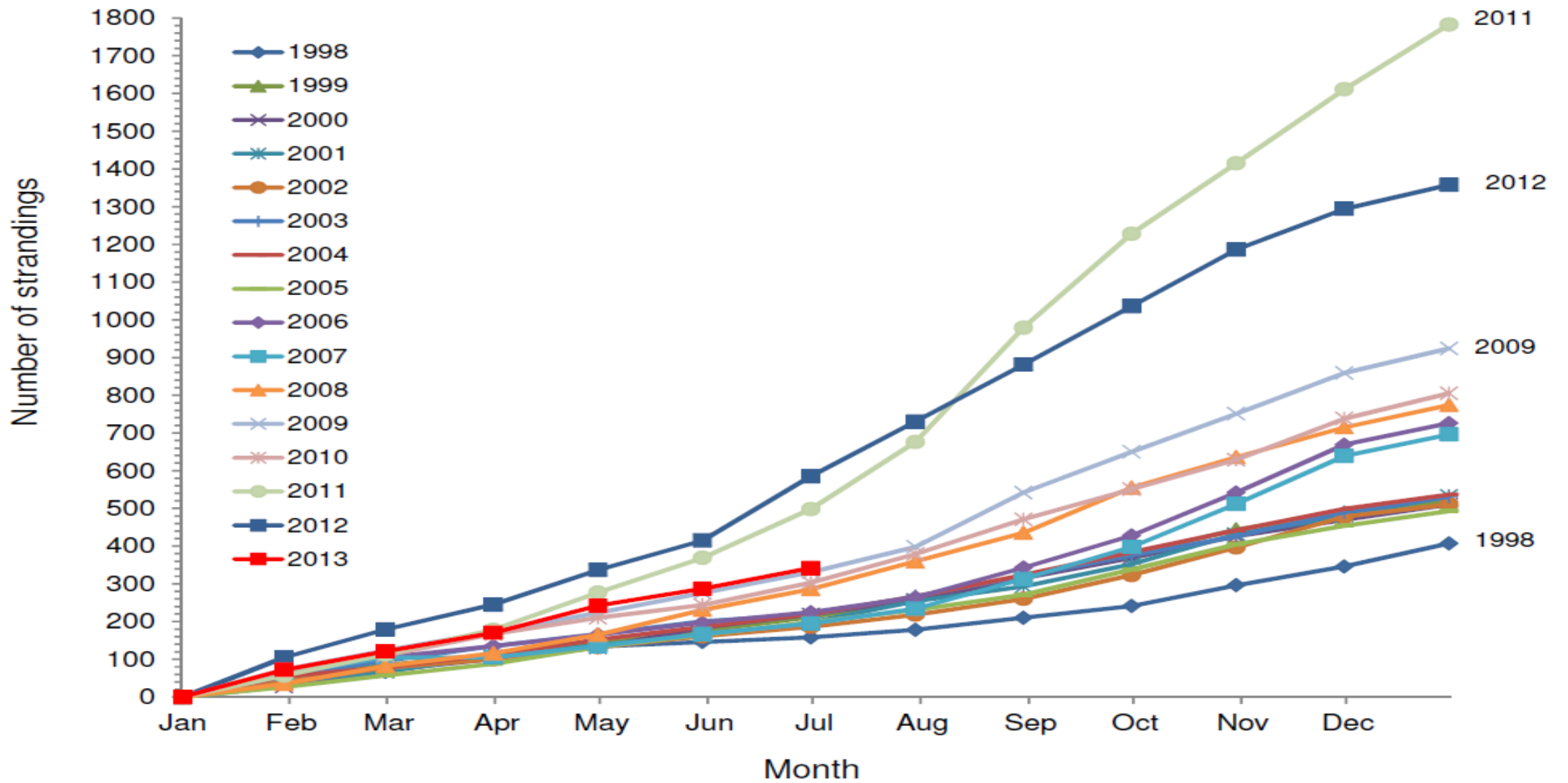
These fluctuations altered nesting beaches

Seaturtle CSI looks at past events and current data of turtles life history and then they can theorise what is

To look at the future and what can be done CSI turtle is looking at rocks, snails, penguins and the history recorded in the turtle DNA

Although they may have survived shifts in climate change over long periods. Present day rising temperatures are very rapid and the capacity to adapt is still unclear

This rapid change may compromise their long breeding periods



Monthly cumulative marine turtle strandings by year for the Queensland East Coast

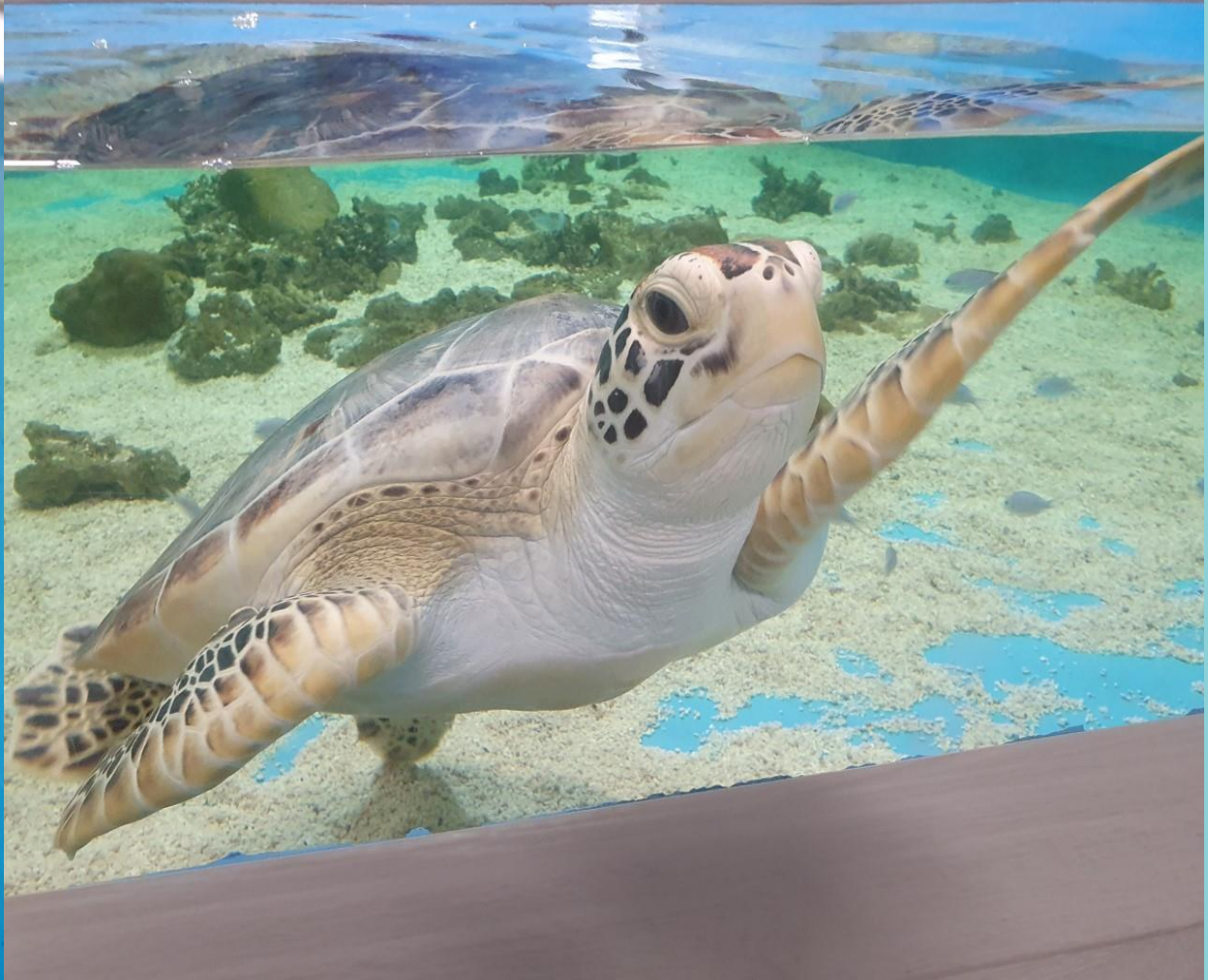


A whole  
new ocean:  
A whole  
new world





My name is Tilly:  
I am a green  
turtle  
hatchling.  
I would like to  
share my journey  
through my eyes

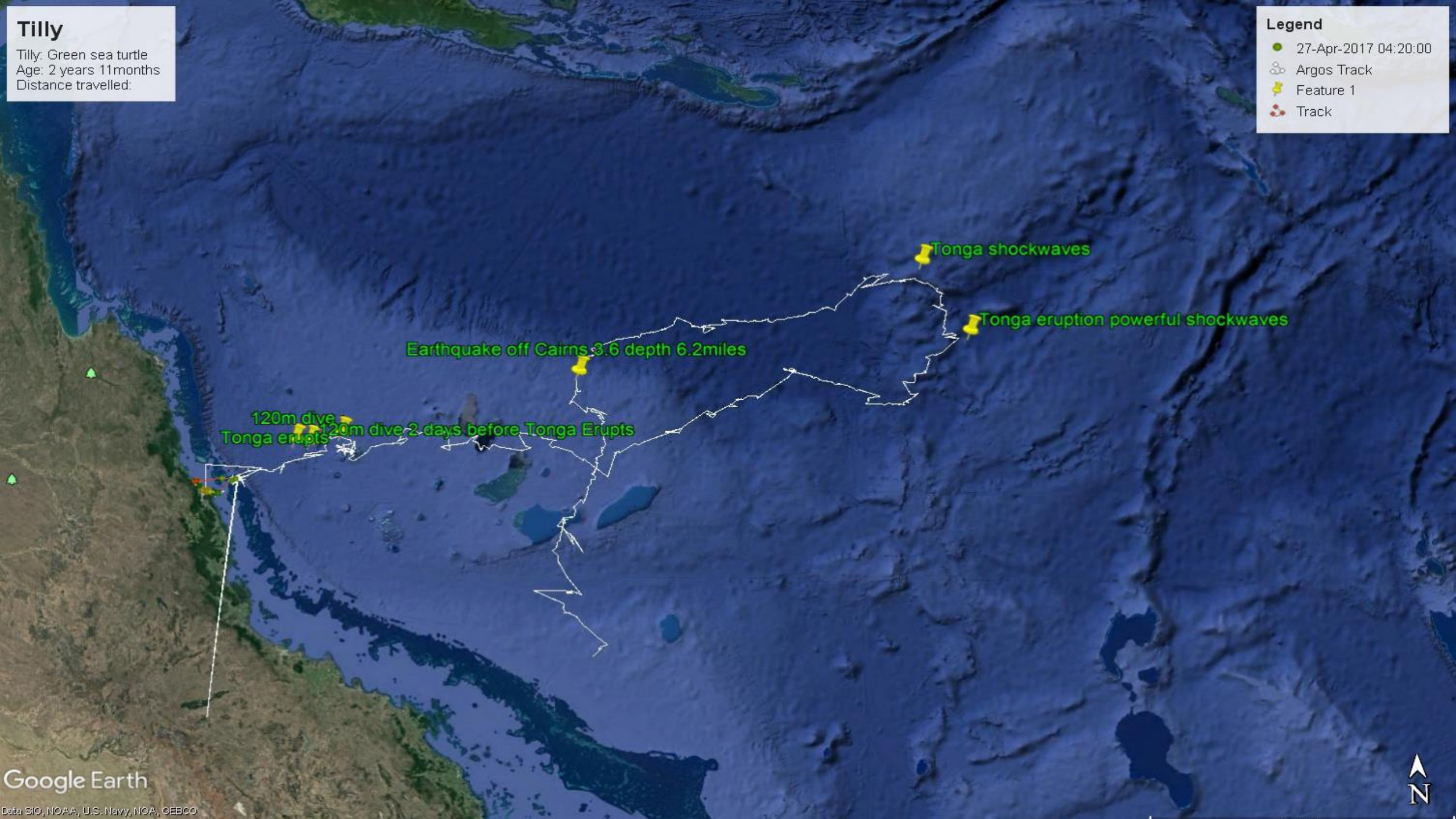


# Tilly

Tilly: Green sea turtle  
Age: 2 years 11months  
Distance travelled:

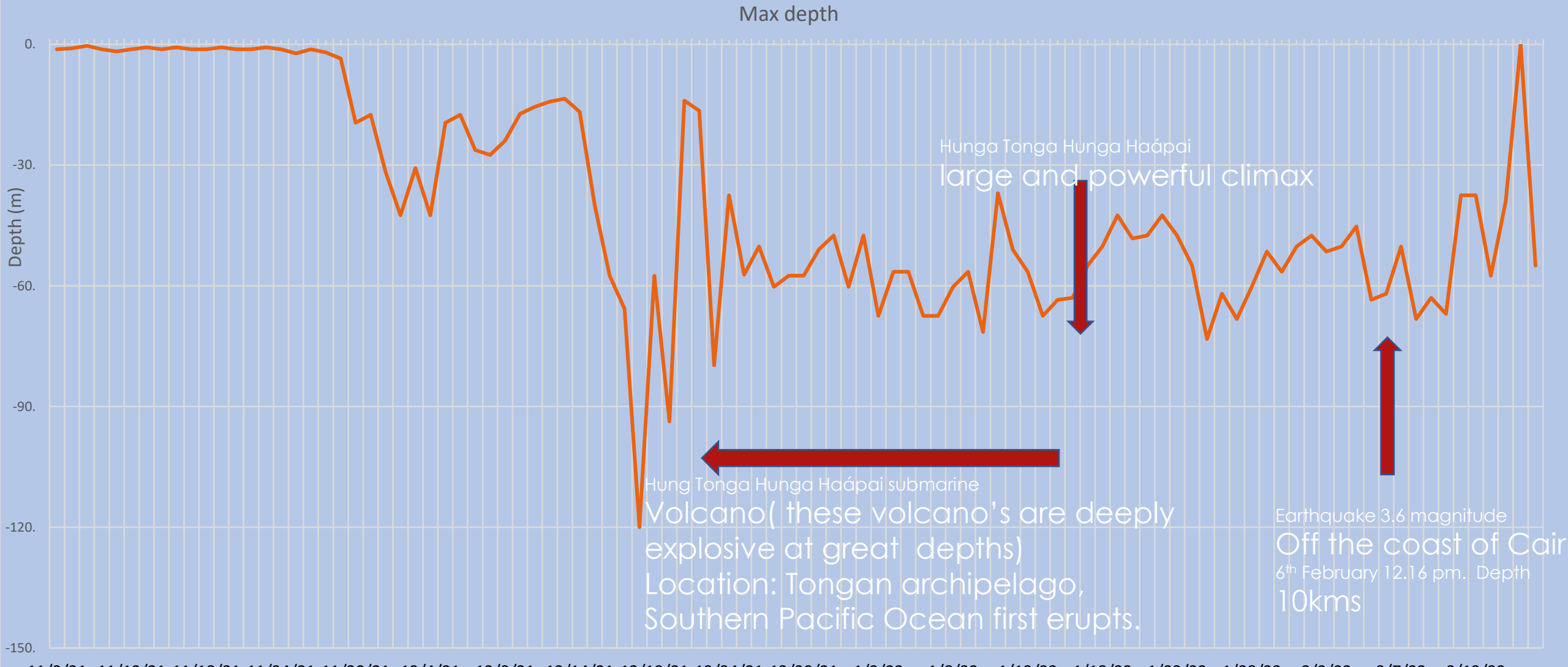
## Legend

- 27-Apr-2017 04:20:00
- Argos Track
- ★ Feature 1
- Track



Max depth  
Tracker 226099  
MK 10 Wildlife computers

Tag no	Date	Time	DMin	
226099	0.5 Transmiss Mk10	18-Dec-21	2:10:00	1.5 1.75 29.3 0.3
226099	0.5 Transmiss Mk10	18-Dec-21	2:20:00	1.5 1.75 29.3 0.3
226099	0.5 Transmiss Mk10	18-Dec-21	2:30:00	120 14.25 25.2 0.3
226099	0.5 Transmiss Mk10	18-Dec-21	2:40:00	120 14.25 25.2 0.3
226099	0.5 Transmiss Mk10	18-Dec-21	2:50:00	1.5 1.75 29.3 0.3
226099	0.5 Transmiss Mk10	18-Dec-21	3:00:00	1.5 1.75 29.3 0.3
226099	0.5 Transmiss Mk10	18-Dec-21	3:10:00	1.5 1.75 29.3 0.3
226099	0.5 Transmiss Mk10	18-Dec-21	3:20:00	1.5 1.75 29.3 0.3







# CARRYING AND TRANSPORT











Time to go  
back out  
where I  
belong