



JTReefDreaming

Reef Workbook 1



Australian Government
Great Barrier Reef
Marine Park Authority

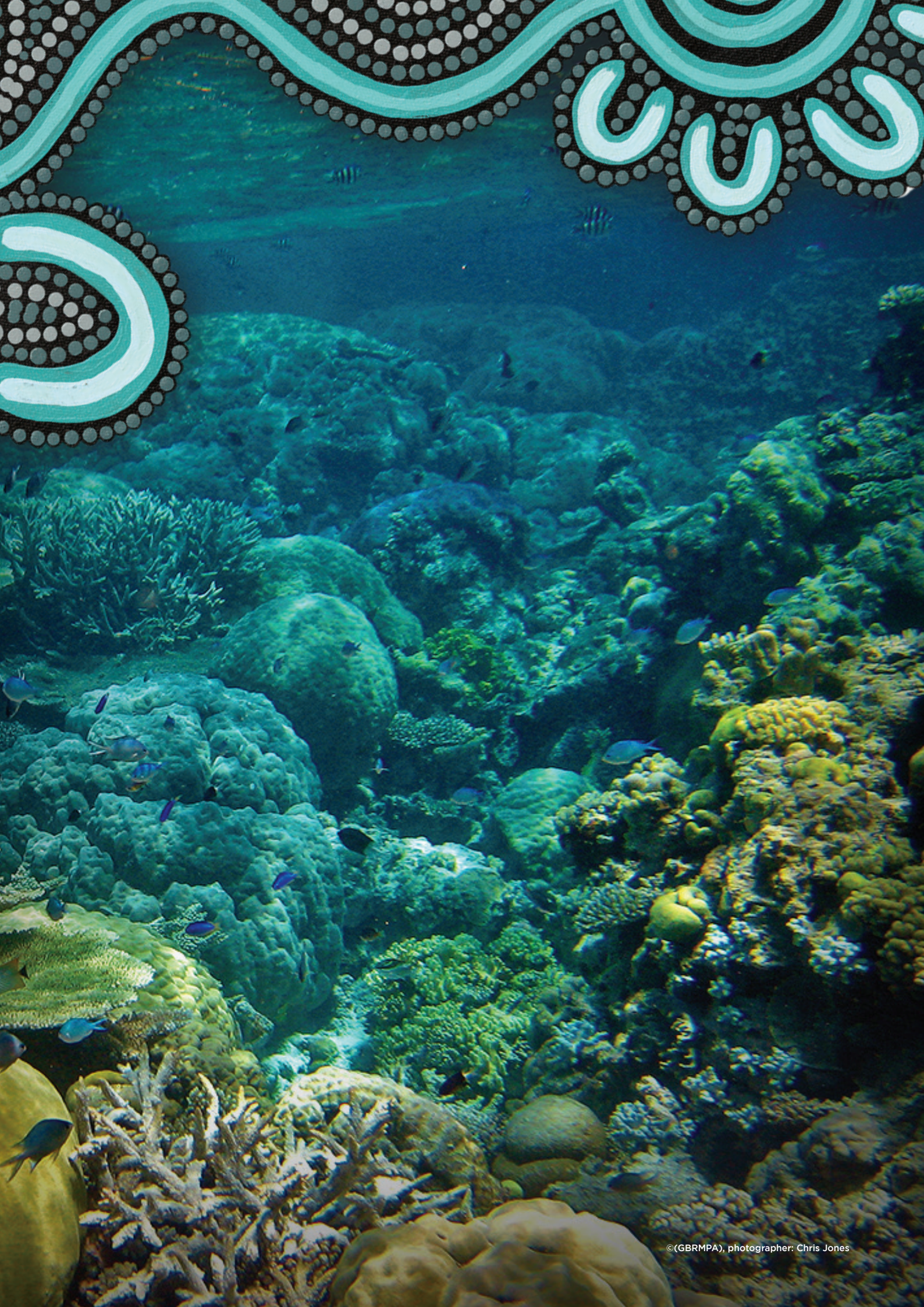


reefHQ
Great Barrier Reef
AQUARIUM



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ACADEMY





ABOUT THIS WORKBOOK

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ACKNOWLEDGEMENT TO COUNTRY

We acknowledge the Traditional Custodians of Country throughout Australia and their continuing connection to land, waters and community.

We pay our respect to their Cultures, Country and Elders past, present and emerging.





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The Great Barrier Reef

The Great Barrier Reef makes up about 10 per cent of the world's coral reef ecosystems, and is one of the best known and most complex natural systems on Earth.

Today the Reef is a Marine Park and World Heritage Area, and is recognised worldwide for its unique habitats and biological diversity. It's a national icon and one of the world's natural wonders.

Some key facts about the Great Barrier Reef Marine Park:

An infographic set against a teal background with silhouettes of fish and coral. Six white speech bubbles contain key facts about the Great Barrier Reef. The background features a gradient from light teal at the top to darker teal and reds at the bottom, where stylized coral and reef structures are depicted in shades of red, orange, and yellow.

Extends along the Queensland coast from Cape York Peninsular down to Bundaberg

Covers 344,400 km² in area

has an average depth of 35 metres in its inshore waters, while on outer reefs, continental slopes extend down to depths of more than 2000 metres

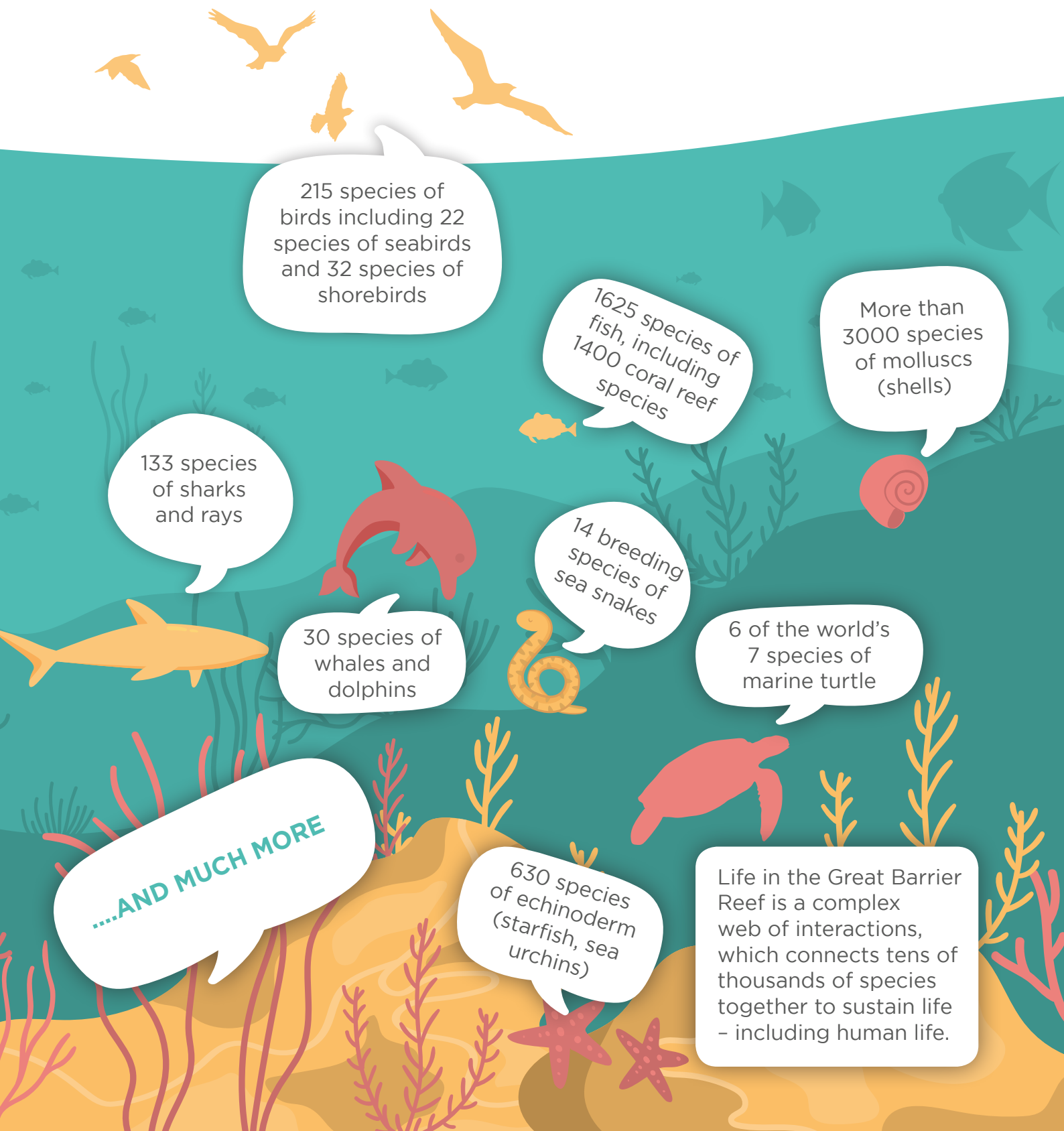
is between 60 and 250 kilometres in width

Includes the world's largest coral reef ecosystem

Includes some 3000 coral reefs, 600 continental islands, 300 coral cays and about 150 inshore mangrove islands

The Great Barrier Reef Marine Park contains much of Australia's distinctive biodiversity. It is home to many unique species that are only found here, some of them are listed as rare or threatened species.

The Great Barrier Reef Marine Park is home to approximately:



215 species of birds including 22 species of seabirds and 32 species of shorebirds

1625 species of fish, including 1400 coral reef species

More than 3000 species of molluscs (shells)

133 species of sharks and rays

30 species of whales and dolphins

14 breeding species of sea snakes

6 of the world's 7 species of marine turtle

....AND MUCH MORE

630 species of echinoderm (starfish, sea urchins)

Life in the Great Barrier Reef is a complex web of interactions, which connects tens of thousands of species together to sustain life - including human life.

Land and sea country

More than 70 Aboriginal and Torres Strait Islander Traditional Owner groups have long, continuing relationships with the Great Barrier Reef region and its natural resources that date back more than 60,000 years.

Aboriginal and Torres Strait Islander groups share both similarities and differences in their sea-related customs. Each group has their own distinctive culture and identity, and within these groups there are many clans and kinship groups whose discrete characteristics distinguish one from the other.

Ancestors, languages and ceremonies can provide a link between coastal clan groups and their particular areas of land and sea country. Today trade networks, beliefs, music, art, creation stories, traditional lore and customs maintain a living culture.

Traditional use of marine resources is the undertaking of activities as part of Aboriginal and Torres Strait Islander people's cultures, customs or traditions, for the purpose of satisfying personal, domestic or communal needs.



Traditional use of marine resources activities may include:

- fishing
- collecting (for example shellfish)
- hunting
- looking after cultural and heritage sites

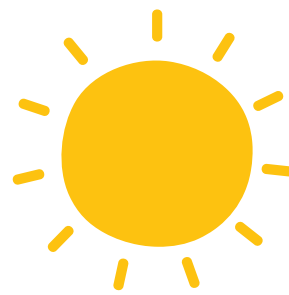
Many Aboriginal and Torres Strait Islander people undertake traditional use of marine resources activities to:

- educate younger generations about traditional and cultural rules, protocols, practices and activities on sea country
- practice their living maritime culture
- provide traditional food for families

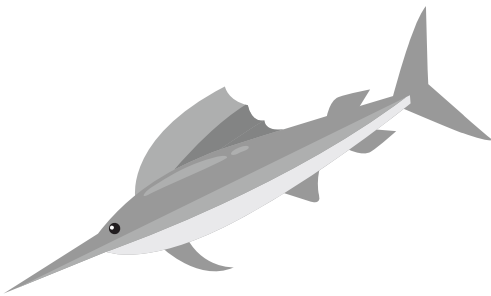


Food web

All animals have to eat in order to survive. Some only eat one type of food, whereas other animals will eat a variety of different foods. **Construct a food web by drawing an arrow from the food source to the animal that eats it.**



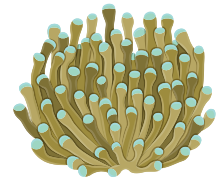
Sun



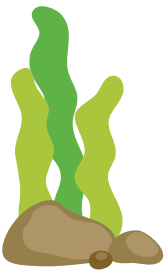
Carnivorous Fish



Algae



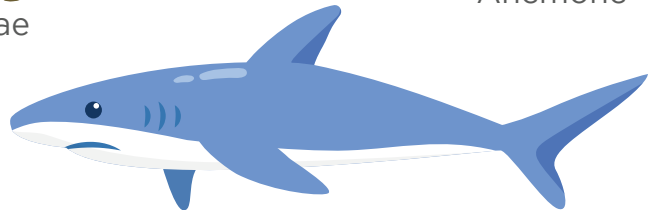
Anemone



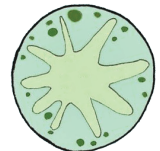
Sea Grass



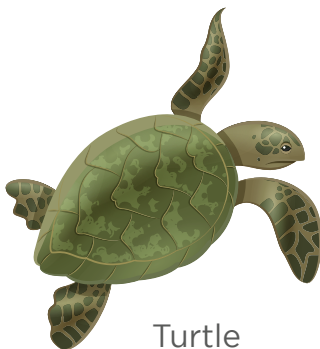
Snail



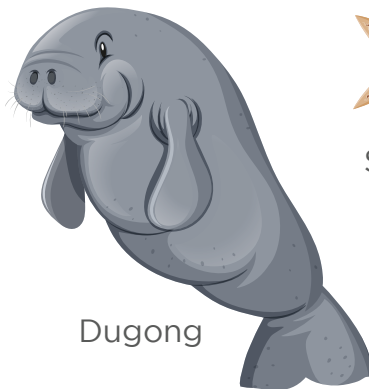
Shark



Plankton



Turtle



Dugong



Sea Star



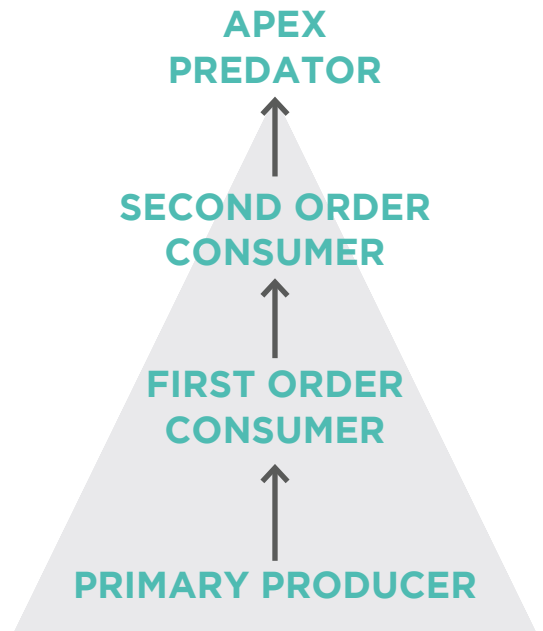
Herbivorous Fish



Trophic pyramid

Complete the trophic pyramid based on your food web.

All the animals that form part of a food chain can be classified into trophic levels. Based on your food web write an animal name into each level in the pyramid in the text box.



- What might happen if all the apex predators were to become extinct?

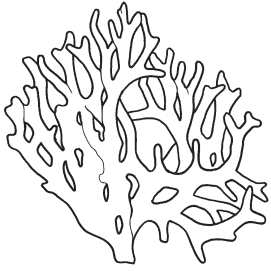
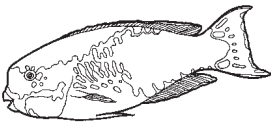
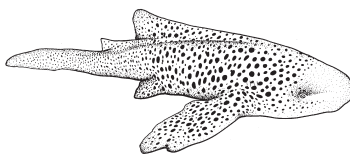
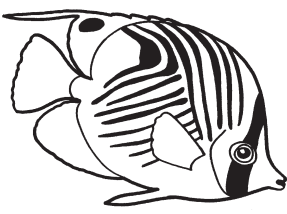
- What might happen if all the second order consumers were to become extinct?

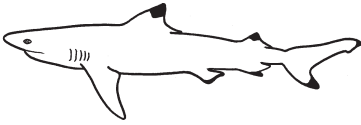
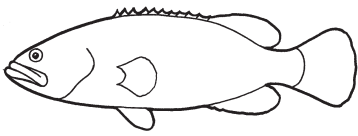
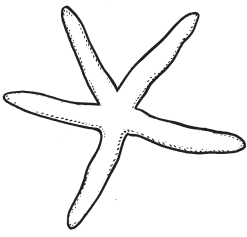
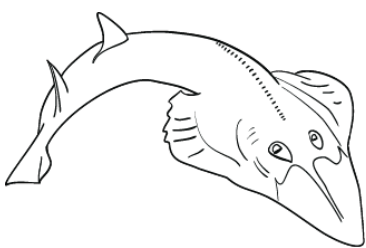
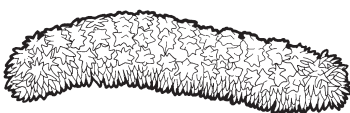
- What might happen if all the primary producers were to become extinct?



What is that?

Complete the table below using your knowledge of animals seen on a coral reef and see if you can find out the name of these animals in traditional language.

	Name	Traditional Language Name
	<u>C</u> <u>O</u> <u>R</u> <u>A</u> <u>L</u>	
	<u>P</u> _____	
	<u>L</u> _____ <u>S</u> _____	
	<u>B</u> _____ <u>F</u> _____	

	Name	Traditional Language Name
	B _ _ _ _ T _ _ R _ _ _ _ S _ _ _	
	G _ _ _ _ _	
	S _ _ S _ _ _	
	S H O V E L _ _ _ _ _ _ _ _	
	_ _ _ _ _ _ _ _ _ _ _ _	

CREATURE



FEATURE





Dugong

DUGONGS

- Dugongs are the world's only fully vegetarian marine mammal. They mostly eat seagrass.
- Dugongs can live for at least 70 years.
- Dugongs can grow up to 3m long and weigh up to 400 kgs!
- Dugongs only have one calf at a time, and only bred every 2-5 years.
- Calves remain with their mother for around 18 months after birth.
- Dugongs closest land relative is the elephant.
- Dugongs are a protected species in the Great Barrier Reef Marine Park.

CULTURAL SIGNIFICANCE

Dugongs are an important element of the culture for Aboriginal and Torres Strait Islander people living along the Great Barrier Reef. Aboriginal and Torres Strait Islander people have a very good knowledge of dugongs, their habits and their environments. The custom and practice of hunting dugong and preparing the meat is of great cultural significance. Aboriginal and Torres Strait Islander communities help to conserve dugong populations by hunting sustainably and protecting dugong habitat in the Marine Park.

YOU CAN HELP PROTECT DUGONGS

- Don't litter: even if you throw a piece of rubbish on the ground in your school, it can make its way into the ocean.
- Keep drains and gutters clear and free of rubbish and chemicals.
- Encourage your teachers and parents to use garden beds or vegetation strips around your home and school to capture rainwater.

This ensures our behavior on land does not impact on dugongs in the ocean.







Barramundi

BARRAMUNDI

- Barramundi can live for at least 20 years and have been recorded at more than 1.5m long and 55kgs.
- Barramundi are born as males and become sexually mature at 3-4 years old.
- Males then turn into females from 5-6 years of age. They need saltwater for this sex change.
- At the beginning of the wet season (October), adults migrate from freshwater rivers to coastal estuaries to spawn.
- A large female can produce up to 32 million eggs during the spawning season.
- At the end of the wet season (April), floodplains begin to dry and most juveniles migrate upstream to freshwater.

CULTURAL SIGNIFICANCE

The word barramundi originates from traditional language from Central Queensland groups. Since the time of the dreaming, the Darumbal people have called the fish with the large scales the barramundi (pronounced 'bardda-moon-di').

'Barra' are highly targeted by recreational fishers. They are famous for their great tenacity when hooked, and are a great game and sports fish. They are also pretty tasty to eat.

YOU CAN HELP PROTECT BARRAMUNDI

- Follow your local Fisheries rules about the minimum and maximum size limits and possession limits that you can catch and keep barramundi. This makes sure there are plenty of fish of breeding size to keep populations stocked.
- Look after your local ecosystems like floodplains and mangroves. Not littering and ensuring there is clean run-off will improve water quality and ecosystem health.







Coral reef

Choose an animal that is found living on a coral reef. Write its name below.

Hint: this could be an animal you see in the Coral Reef Exhibit at Reef HQ.

List 5 features, characteristics or behaviours of that animal.

- *Example: They are a fast swimmer.*

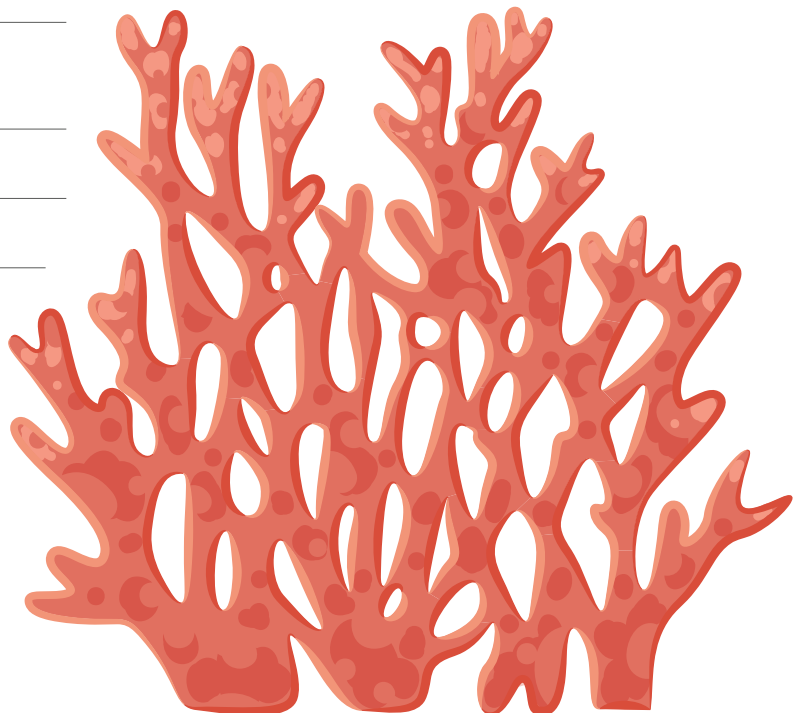
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Predator

Choose an animal that is a predator. Write its name below.

Hint: this could be an animal you see in the Predator Tank at Reef HQ.

List 5 features, characteristics or behaviours of that animal.

- *Example: They are a fast swimming predator.*

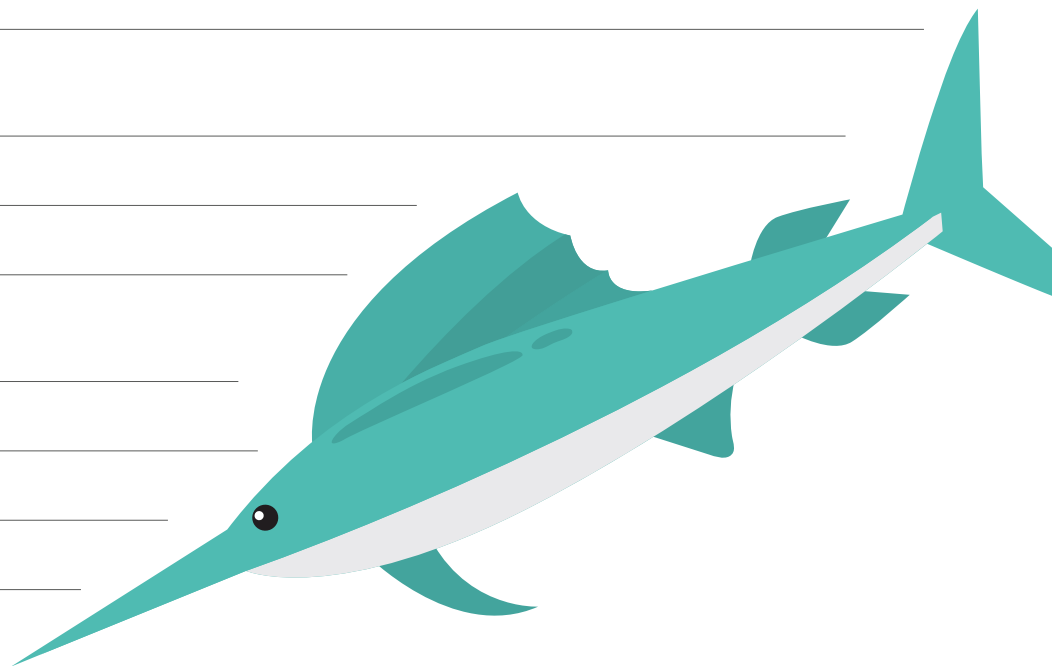
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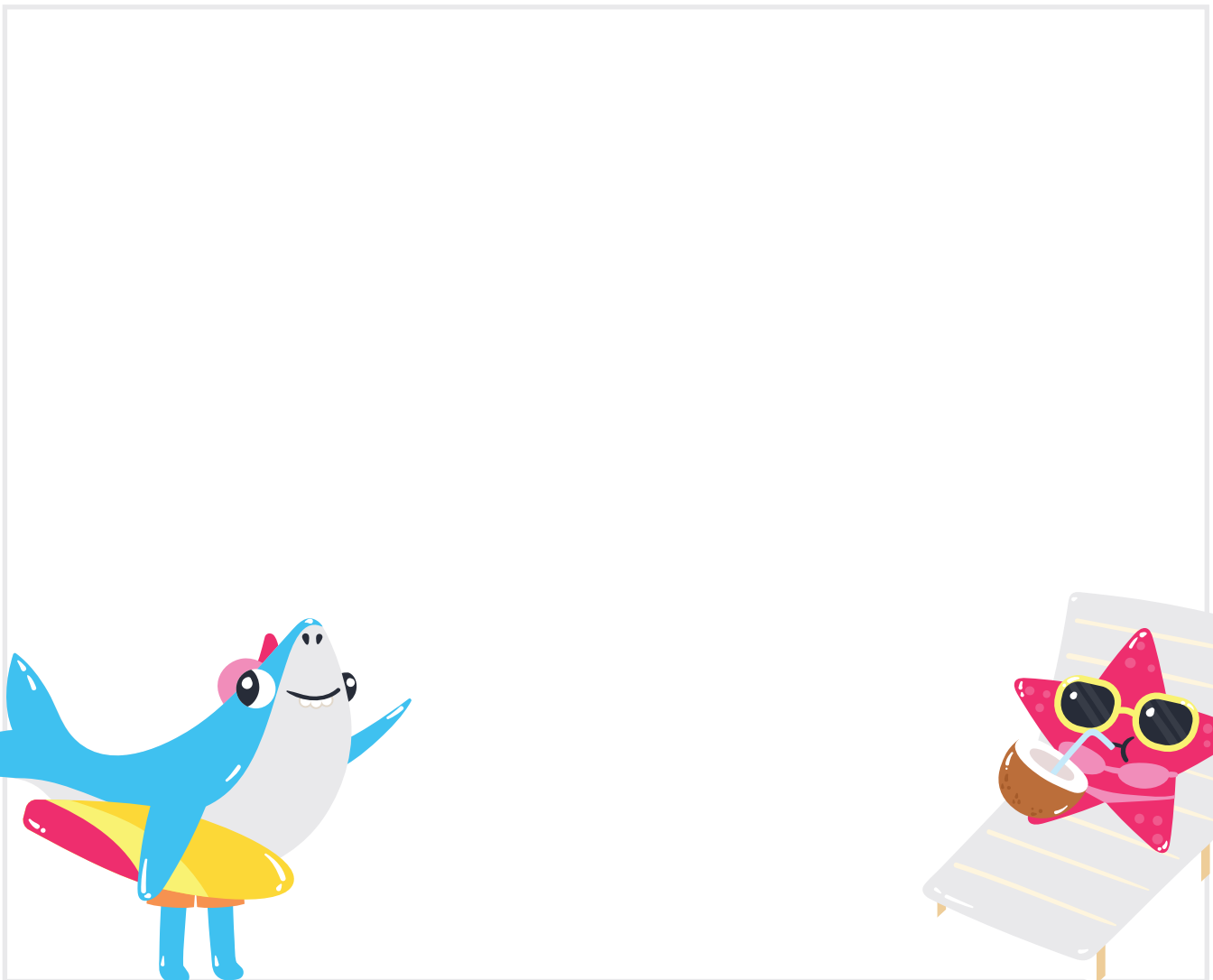


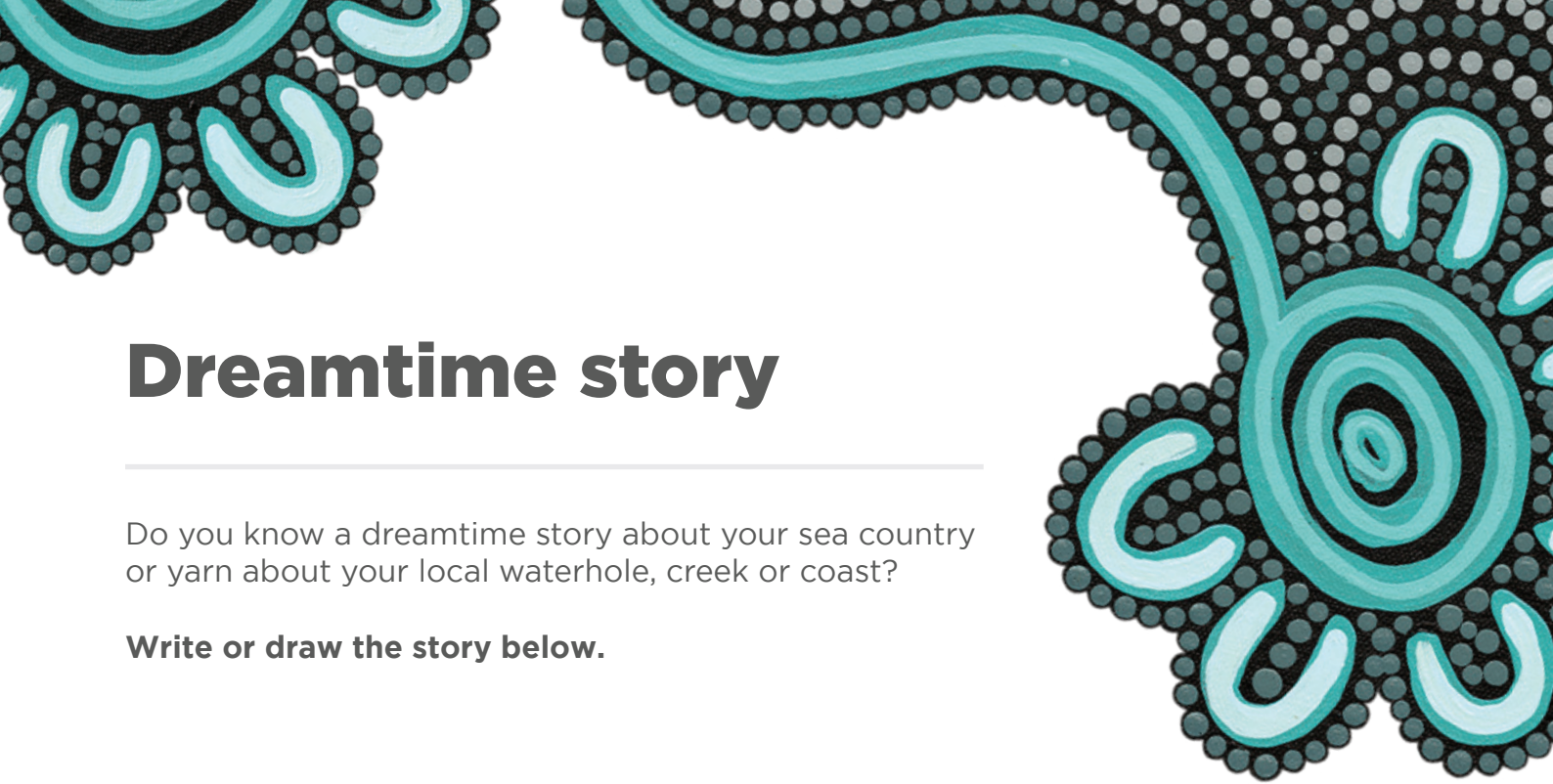
Animorph

Would YOU make good reef creature?

Have you ever dreamed of being one of the creatures living on the Great Barrier Reef? Here is your chance to see what you might look like!

Choose your favourite reef animal and in the space provided below, draw an Animorph. Create an Animorph by drawing your favourite reef creature BUT draw YOUR own face on the creature's body.





Dreamtime story

Do you know a dreamtime story about your sea country or yarn about your local waterhole, creek or coast?

Write or draw the story below.





WE TAKE SO MUCH FOR GRANTED

Author: Anonymous

Read the poem below:

We take so much for granted
It's almost beyond belief
We think that all will stay the same
Even our precious reef

Mel's thoughts just kept wandering
As she stared out to sea
Her desire to help the ecosystem
Is just how it should be

I want to do my part, she thought
And protect this precious place
Save the threatened species
Then confusion changed her face

How can I play my part to save
The dugongs from becoming extinct
What is it that they need?
Mel began to think

I know the sea grass is their home
So that's a place to start
If I become a volunteer
I can play my part

Then there are the Coral Trout
They're also under threat
From rubbish in the run-off
And small ones in the nets

We can't forget the turtles
The Loggerhead for sure
Disease and nets endanger them
It can't happen any more

The Manta Rays that glide with grace
Often look quite mean
But our reef without these wondrous rays
Would be an awful scene

And then of course the Mud Crabs
That scurry cross the floor
Are often not found on the reef
But through the kitchen door

If we just took the big ones
And left the females free
The crabs would last for ever
And not just for you and me

Pollution affects our dolphins
Gillnets do the same
Pacific Humpback numbers are in decline
But we can play the game

By buying tuna that's 'dolphin safe'
We keep their numbers high
But how can we help the Boobies
Those birds that fly so high

When diving to get their daily food
They must avoid the fishing gear
And even yucky disgarded oil
That covers them in smear

And then they flounder
And suffer so
We have to take it seriously
And act as if its though

More our home than just a reef
It's our future that's at stake
We must protect these species
It's all our choice to make

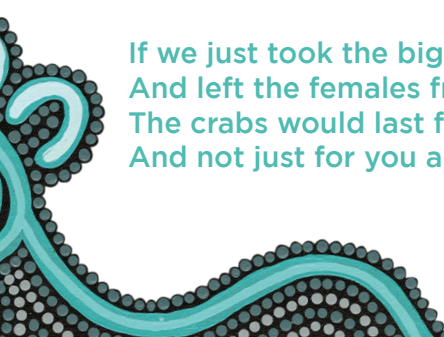
Mel then stood up
Tall and proud
I will help
She yelled aloud

I'll learn all the things I need to
To make the reef a place
Where all the creatures survive in peace
And freely live with grace

I'll get my mates to join me
My family and their friends
We'll work on doing what we can
Until the message ends up

Creeping 'cross the whole land
So everyone who comes
To see this wondrous place of ours
That glistens in the sun

Can stand and look in wonder
At creatures living free
For no more threatened species
It's up to you and me





“

THINK ABOUT HOW WE AS
INDIVIDUALS AND AS A COMMUNITY
CAN ACT RESPONSIBLY FOR LOCAL
REEF BIODIVERSITY, AND THREATENED
MARINE SPECIES AND THEIR HABITATS.





Caring for and protecting sea country

Traditional Owners have always had a unique respect for their land and sea country, recognising the importance of having a minimal impact on the environment in which they live, fish and hunt. This cultural tradition continues today with Aboriginal and Torres Strait Islander peoples actively caring for their sea country, to leave a legacy for future generations to practice age old traditions and customs as part of their culture. Think about your favourite animal and how humans can help protect it.

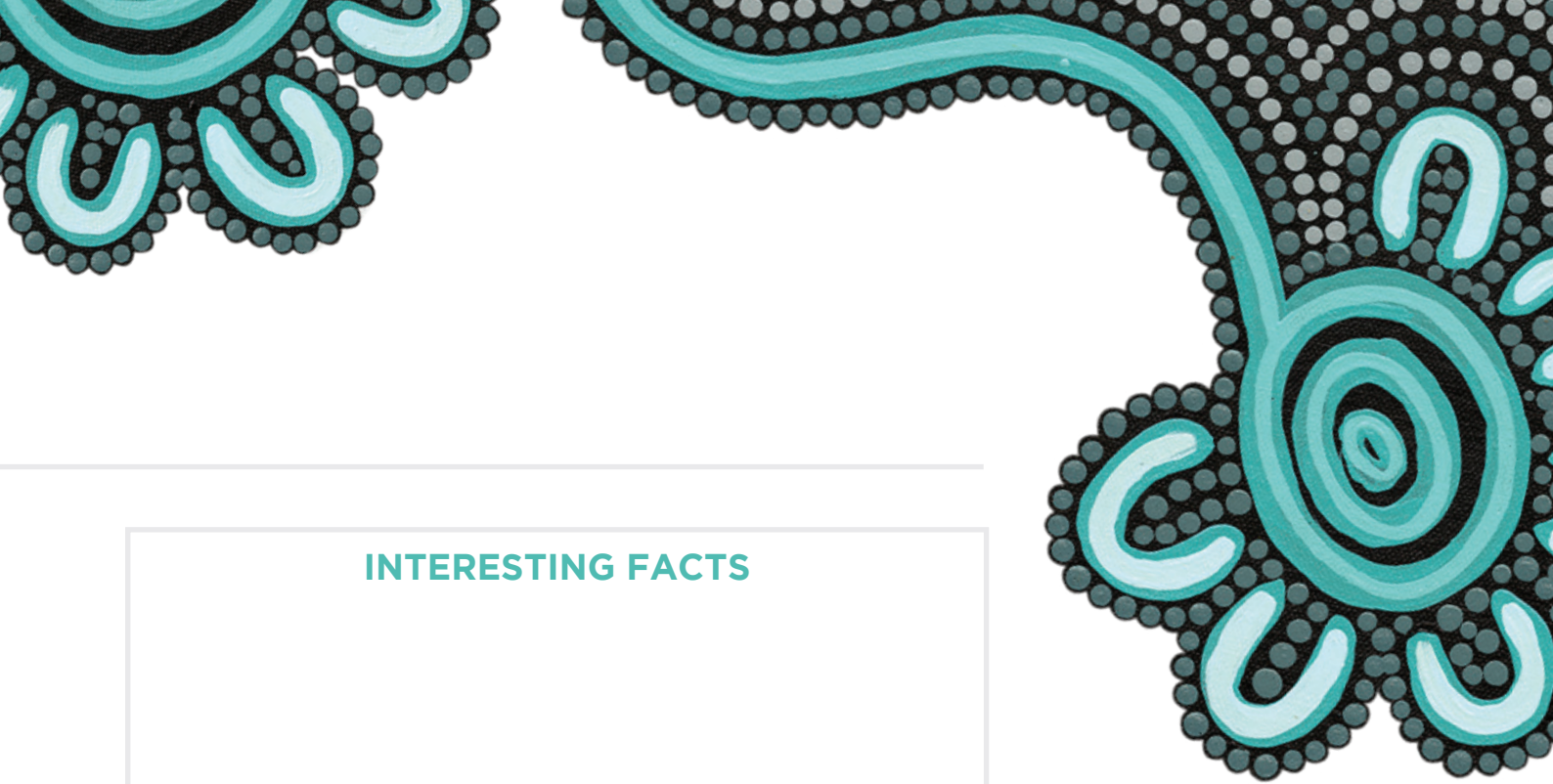
FAVOURITE ANIMAL

DESCRIBE WHAT YOUR FAVOURITE ANIMAL LOOKS LIKE.

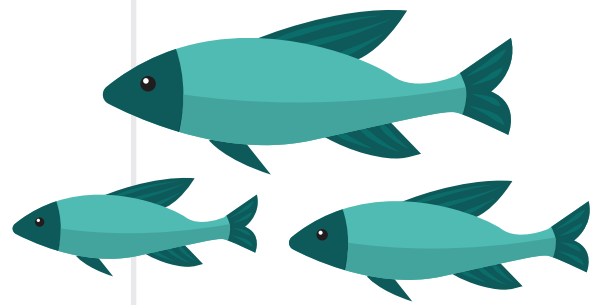
WHERE DOES IT LIVE?

WHAT DOES IT EAT?





INTERESTING FACTS



WHAT THINGS CAN HUMANS DO TO PROTECT YOUR ANIMAL AND THE GREAT BARRIER REEF?





All actions matter

All actions big or small matter. The actions that everyone collectively take will make a difference to protect the Great Barrier Reef and your environment.

List five ways you can help look after your local land or sea country?

- _____
- _____
- _____
- _____
- _____





You have completed
the JReefDreaming - Reef Workbook #1!

WELL DONE!!





Australian Government
Great Barrier Reef
Marine Park Authority



reefHQ
Great Barrier Reef
AQUARIUM