



LADY ELLIOT
ISLAND
Fish



FACT SHEET



Australian Government
Department of Resources,
Energy and Tourism



LADY ELLIOT ISLAND

Fish

There are over 1,500 species of fish living on the Great Barrier Reef (GBR) with an infinite number of colours, shapes and sizes. They dart between corals, twist and turn in synchrony in large schools and cruise around the reef edge. It is possible to find at least 200 different types of fish species in just one hectare of coral reef. Fish are an essential and prominent component of the GBR's complex and interdependent ecosystem.

FISH CHARACTERISTICS

Fish have bone skeletons and fall into the scientific class *Osteichthyes*. All of the 1,500 fish species on the Great Barrier Reef share the following characteristics despite sometimes looking, behaving and feeding very differently.

- A skeleton made of bone (not cartilage as in sharks and rays).
- A single gill opening on each side of the head where oxygen is extracted from the water.
- A swim bladder filled with air to maintain buoyancy.
- Skin covered in scales which provide external protection.
- A lateral line (sense organ), allows fish to detect movement and vibration in the surrounding water. It plays an important role in schooling behaviour, feeding and orientation.
- Reproduction occurs through external fertilisation.

FISH COLOUR

'Why are fish so colourful?' is one of the questions most commonly asked by visitors to the Great Barrier Reef. Reef fish have the ability to see colour, and colour is used as a form of communication underwater. A fishes' colour helps them warn or fool predators, hide from danger, and even help them find fish of the same kind. Juvenile fish often differ in colour and shape from adults of the same species, and males and females can differ as well.

FISH TYPES ON LEI

The majority of fish around LEI can be grouped into a few main families, each with considerably different characteristics that assist with identification. Things to look for when identifying fish include: mouth and body shape, habitat, behaviour and colour.

DAMSELFISH

Characterised by generally small size (<20cm), thin bodies with round or oval side view, large mouth for body size. They live in groups on the reef. Feeding on plankton and algae. Damselfish can be very aggressive when defending feeding territory and home areas.



Clarks Anemone fish

(*Amphiprion clarkii*) have a symbiotic relationship with anemones. They are omnivores and grow to 14cm.

Humbugs (*Dascyllus aruanus*) live in groups amongst branching coral. Feed on zooplankton. Grow to 10cm.



Scissortail Sergeants

(*Abudefduf sexfasciatus*) Black 'V' mark on tail. Found in groups, generally above the reef feeding on plankton. Grow to 15cm.

WRASSES & PARROTFISH

Two groups that are closely related and come in all shapes and sizes. They swim distinctively by flapping their pectoral fins like underwater birds. When mature wrasses and parrotfish tend to be brightly coloured, in particular the males. Most species have the capability to change sex from female to male. Parrotfish possess a beak like mouth for crunching coral while feeding on algae.

Bluestreak Cleaner

Wrasse (*Labroides dimidiatus*) Set up cleaning stations around the reef where they feed on parasites and dead skin on larger fish. Grow to 10cm.



Moon Wrasse

(*Thalassoma lunare*)
Deep green in colour with yellow crescent shaped tail. Feed on hard shell invertebrates and plankton. Also observed 'cleaning' Manta Rays. Grow to 22cm.



Humphead Maori Wrasse (*Cheilinus undulatus*)
Distinguished by a large 'hump' on forehead and thick lips, they are the largest wrasse species growing up to 2m in length. Feeds on fish and invertebrates including crown-of-thorns seastars.

Steephead Parrotfish

(*Chlorurus microrhinos*)
Identified by a blunt forehead and large exposed teeth. Grows to 70cm in size and generally blue-green in colour.



SURGEONFISH

The name comes from the sharp scalpel-like structures on each side of the tail base that are used for defense. They have an oval body shape and are often seen in schools feeding on algae.



Palette Surgeonfish (*Paracanthurus hepatus*)
Commonly known as *Dory* from Finding Nemo. Feeds on plankton and algae. Grows to 30cm and is also known as **Blue Tang**.

TRIGGERFISH

Brightly coloured fish with a diamond shaped body. Tend to be aggressive during the nesting season, when they rush out and bite anything that comes too close to their eggs.

Picasso Triggerfish

(*Rhinecanthus aculeatus*)
Has a bright blue band between eyes. Prefers shallow waters with lots of rocks and crevices to hide in. Feeds on invertebrates and grows to 25cm.



TREVALLIES AND JACKS

Medium to large schooling species. These fast, predatory fish are typically silver in colour. They generally have a forked tail while body shape can range from torpedo-like to deep-bodied.



Big-eye Trevally

(*Caranx sexfasciatus*)
Identified by large eyes and deeply forked tail. Commonly found during the day in large, slow moving schools. Carnivorous fish feeding mainly on fish as an adult. Grows to 120cm.

BUTTERFLYFISH & ANGELFISH

Closely related, these two families have similar characteristics. Flat disk-shaped bodies, and vibrantly coloured and patterned. Butterflyfish tend to have more elongated, thinner noses and many species pair for life. Angelfish are generally larger in size and have a protruding spine on the bottom of their cheeks.

Lined Butterflyfish

(*Chaetodon lineolatus*)
Largest of the butterflyfish growing to 30cm. Typically found in pairs. Feed on coral polyps, algae and invertebrates.



Emperor Angelfish

(*Pomacanthus imperator*)
Starts off as a juvenile with blue and white rings. This species makes a loud drumming noise when frightened. Feed on coral polyps and invertebrates. Grows to 40cm.

CODS AND GROUPERS

Characterised by a stocky body and large mouth. Typically found hiding in caves or under ledges. Mostly speckled brown to grey in colour and are carnivorous predators.

Giant Grouper

(*Epinephelus lanceolatus*)
The largest bony fish associated with coral reefs growing to nearly 3m length. Has a large mouth and rounded tail. Diet includes small sharks and turtle hatchlings.





Barramundi Cod
(*Chromileptes altivelis*)
Recognised by dipped head profile and black spots on body. Grows to 70cm and feeds on small fish and crustaceans.

GOBIES AND BLENNIES

Cryptic, bottom dwelling fish. Small in size and typically narrow and elongated in shape.

Shrimp Goby

(*Ctenogobiops feroculus*)
Have a symbiotic relationship with snapping shrimp, where the gobies stand guard while the shrimp digs out and cleans their shared burrow. Has a diet of plankton and algae.



TRUMPETFISH AND FLUTEMOUTHS

Have long, elongated bodies and are ambush predators feeding on small fish.



Yellow Trumpetfish



Longfin Batfish

BATFISH

Flat fish with tall fins and round body forming an overall spade shape. These fish are curious and will swim on their side to look at snorkellers on the surface. Feed on plankton.

SNAPPERS AND SWEETLIPS

Have typical fish shape with sloping forehead. Snappers have a forked tail whereas sweetlips have a squared-off tail and large fleshy lips.



Dotted Sweetlip

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SCORPIONFISH

Get their name due to the venomous spines on their fins. Usually cryptic, hiding in caves and crevices. Wounds from the spines can cause severe pain.



Lionfish (*Pterois spp.*)
magnificent pectoral and dorsal fins with venomous spiky fin rays. Red and white in colour; these fish are nocturnal predators feeding on small fish and crustaceans.

MORAY EELS

Normally hiding in crevices in the reef. Long, slender snake-like body with a dorsal fin that extends from head to tail. They constantly open and close their mouths to pump water over their gills. Size range from 20cm – 220cm.



Giant Moray Eel

THREATS TO FISH

Over fishing is the biggest threat to fish. Fishing is now controlled on the Great Barrier Reef through the Great Barrier Reef Marine Park Authority before Zoning Plan, but globally overfishing is still a major issue. Worldwide about 90% of the stocks of large predatory fish stocks are already gone. Scientists predict that eventually we will be left with only jellyfish and plankton.

WHAT YOU CAN DO TO HELP PROTECT OUR FISH

- Do not disturb fish when in the water by chasing or getting too close.
- Never feed fish. This is only to be done by island staff during the fish feeding sessions, in which approved fish pellets are used.
- Choose to eat fish caught from sustainable populations and in a sustainable way. Check out the *Australian Marine Conservation Society Seafood Guide* and *Marine Stewardship Council* website.