Identifying Fish

Learning Objectives
At the end of this field activity, students will be able to:
- Identify a number of fish.
- Identify body parts of fish.
- Describe the biodiversity of fish on the reef.

Equipment
- Mask, snorkel, fins
- Waterproof slate with pencil
- Underwater camera (if available)
- Waterproof ID guide (if available)
- ID reference books

Instructions
1. Go snorkelling and look for fish that you are not familiar with.
2. Draw the basic shape of the animal on a waterproof slate and make notes about the colour, size and specific features.
3. If possible, take a photo.
4. Record where they occur - near a particular coral type, on the sand, in the water column, etc.
5. Estimate the approximate numbers of fish of each species you observed (e.g. 1, 2-10, 50+).
6. When you are back on shore, use fieldguides, your photos and field notes and try to identify the fish you have seen. Use the Observed Fish Table to record the scientific or common name.
7. Compare your results with the class.
8. Answer the following questions:
   a. What fish species do you find on the reef and how can you identify them?
   b How many species did you find?
   c. Are there certain groups of fish that were common in your area?
   d. Did you observe a different in the number of fish species (or types of fish) in each zone?
   e. List 3 ways that fish help to keep keep reef ecosystems healthy.

Teacher notes
- *It can be useful to laminate the ID-sheets with common groups of fish, and take them into the field.*

Common reef fish families

Phylum Chordata
Class Osteichthyes
Order Perciformes

Families

Pomacentridae (Damselfish)
Labridae (Wrasses)
Chaetodontidae (Butterflyfish)
Pomacanthidae (Angelfish)
Apogonidae (Cardinalfish)
Serranidae (Groupers, Basslets)
Scaridae (Parrotfish)
Acanthuridae (Surgeonfish)
Blenniidae (Blennies)
Gobiidae (Gobies)
Lutjanidae (Snappers)

Fish

OBSERVED FISH TABLE

Observer(s):

Location: Date:

Weather conditions: windy / calm / cloudy / sunny

Scientific name	Common name	Number

Disk-shaped/Colourful: Butterflyfish, Angelfish, Spadefish

Pygoplites diacanthus (Regal Angelfish)

*Chaetodon mertensii (*Merten's Butterflyfish)

Ovals: Butterflyfish, Angelfish, Spadefish

Acanthurus nigricans (Goldrim Surgeonfish)

Chromis flavapicis (Yellowtipped Damselfish)

Sloping heads/Tapered bodies: Snappers, Coral Breams, Emperors

Lethrinus miniatus (Redthroat or trumpet Emperor)

Scolopsis lineatus (Lined Bream)

Silvery: Jacks, Barracudas, Tunas, Needlefish, Mullets, Flagtails, Grunters

Sphyraena jello (Pickhandle Barracuda)

Haemulon sciurus (Bluestriped Grunt)

Fish

CORALWATCH

COMMON GROUPS OF REEF FISH

Slender/colourful: Fusiliers, Anthias

Caesio Teres (Blue and Yellow Fusilier)

Pseudanthias dispar (Peach fairy basslet)

Heavy bodies/large lips: Groupers, Soapfish, Hawkfish, Sweetlips

Plectorhinchus lineatus (Diagonal Banded Sweetlip)

Parupeneus crassilabris (Thicklipped Goatfish)

Swim with pectoral fins: Parrotfish, Wrasses
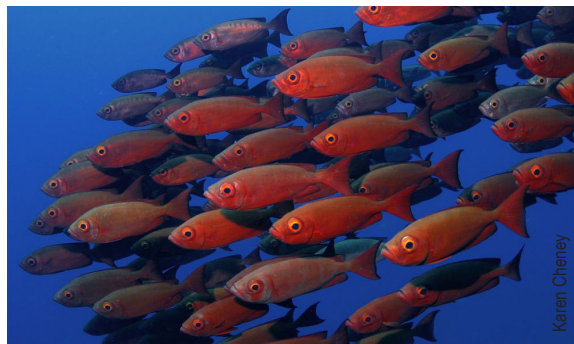

Scarus ghobban (Blue Barred Parrotfish)

Thalassoma quinquevittatum (Fivestripe Wrasse)
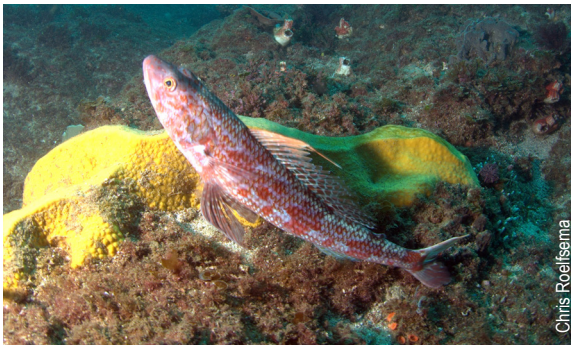
Reddish/Big Eyes: Soldierfish, Squirrelfish, Bigeyes

Myripristis kuntee (Blackbar Soldierfish)

Priacanthus hamrur (Moontail Bigeye)

CORALWATCH

COMMON GROUPS OF REEF FISH

Elongate sand and bottom dwellers: Dartfish, Lizardfish, Jawfish, Dragonets
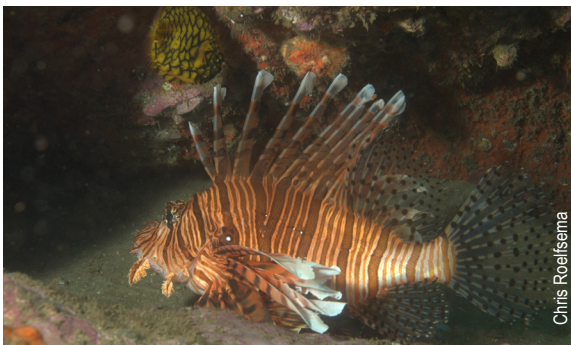

Synodus variegatus (Reef Lizardfish)

Nemateleotris magnifica (Fire dartfish)

Odd-shaped bottom dwellers: Frogfish, Batfish, Gurnards, Scorpionfish, Stonefish, Flounders

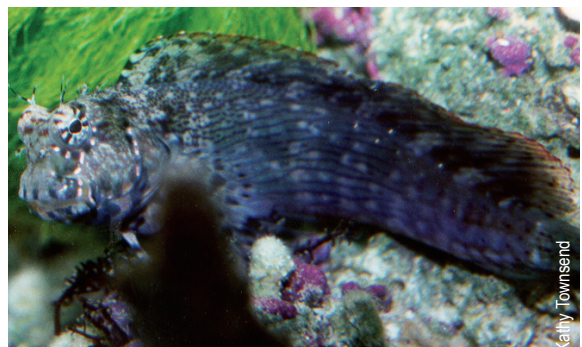*Pterois volitans* (Common Lionfish)

Scorpaenopsis venosa (Raggy Scorpionfish)

Small, elongate bottom dwellers: Gobies, Blennies

Ecsenius fourmanoiri (Fourmanoir's Blenny)

Salarias fasciatus (Jewelled Blenny)

Odd-shaped swimmers Boxfish, Goatfish, Trumpetfish, Sweepers, Puffers, Molas, Filefish, Remoras

Aulostomus chinensis (Trumpetfish)

Ostracion meleagris (Spotted Boxfish)

Fish

COMMON GROUPS OF REEF FISH

Eels: Morays, Snake Eels, Conger eels, Garden Eels

Rhinomuraena quaesita (Ribbon Moray)

Gymnothorax fimbriatus (Darkspotted Moray)

Pipefish and Seahorses: Ghost Pipefish, Seahorse, Pipefish

Hippocampus bargibanti (Pygmy Seahorse)

Doryrhamphus pessuliferus (Orange-banded Pipefish)

Sharks, Rays:
Wobbegongs, Bamboo Sharks, Cat Sharks, Whale Sharks, Zebra Sharks,
Hammerhead Sharks, Guitarfish, Coffin Rays, Stingrays, Eagle Rays, Cownose Rays, Manta Rays

*Manta birostris (*Manta Ray)

*Triaenodon obesus (*White Tip Reef Shark)

Pastinachus sephen (Cowtail Stingray)

Orectolobus maculatus (Spotted Wobbegong)

CORALWATCH