INHABITANTS OF THE DEEP

MY, WHAT BIG EYES YOU HAVE!

Light comes from above, in the dim waters of the Twilight Zone. For many creatures here, the bigger the eyeballs, the better!

The **SWORDFISH** has tennis-ball-sized eyes that heat up – all the better to see you with in the murky depths.







The **BARRELEYE FISH** got its name because its tube-like eyes turn inside its see-through head. Perfect for peering up at potential prey, such as a delicious jellyfish lunch.

The curious **COCKEYED SQUID'S** left eye is twice the size of its right eye. The left eye looks up and the right eye looks down.

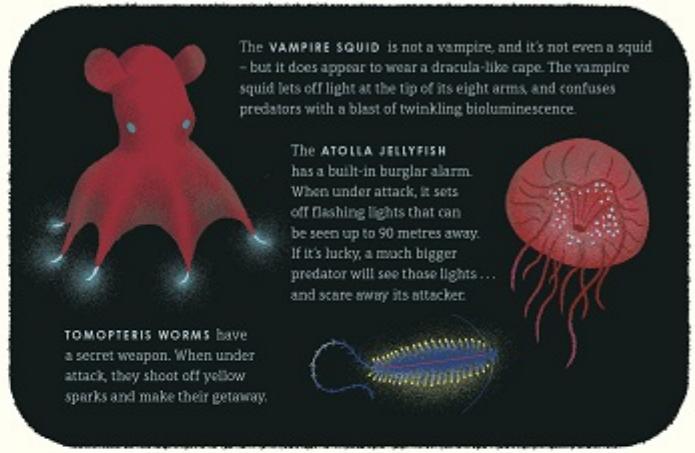
WHAT BIG TENTACLES YOU HAVE!

Jelly-like **SIPHONOPHORES** (sigh-fon-oh-fours) are giant trailing death nets. They have stinging tentacles that capture small crustaceans, and they're the longest living thing on the planet. The siphonophore can grow to a whopping forty metres long – that's longer than a blue whale.

At two metres long, the **HUMBOLDT SQUID** is as long as a man is tall. This hungry hunter latches onto its prey with its powerful tentacles and sharp beak.

WHAT BRIGHT LIGHTS YOU HAVE!

Just as fireflies glow on land, many deep-sea creatures use bioluminescence to light up the dim waters of The Deep. Chemical reactions allow these creatures to create lights to scare away predators, lure in a mate – or attract their lunch!



The **VAMPIRE SQUID** is not a vampire, and it's not even a squid – but it does appear to wear a dracula-like cape. The vampire squid lets off light at the tip of its eight arms, and confuses predators with a blast of twinkling bioluminescence.

The **ATOLLA JELLYFISH** has a built-in burglar alarm. When under attack, it sets off flashing lights that can be seen up to 90 metres away. If it's lucky, a much bigger predator will see those lights . . . and scare away its attacker.

TOMOPTERIS WORMS have a secret weapon. When under attack, they shoot off yellow sparks and make their getaway.

AND WHAT BIG TEETH YOU HAVE!

The **STOPLIGHT LOOSEJAW DRAGONFISH** is tricky to outmanoeuvre. Even if deep-sea shrimp hit it with a bioluminescent smokescreen, it simply turns on its red searchlight to scan the area, and attacks with its needle-like teeth.



The **FANGTOOTH** has frightfully big fangs. They're so long, they have to tuck up into pockets in the roof of its mouth, so it doesn't pierce its brain when its jaws close!



BUT WHAT CUTE FINS YOU HAVE!



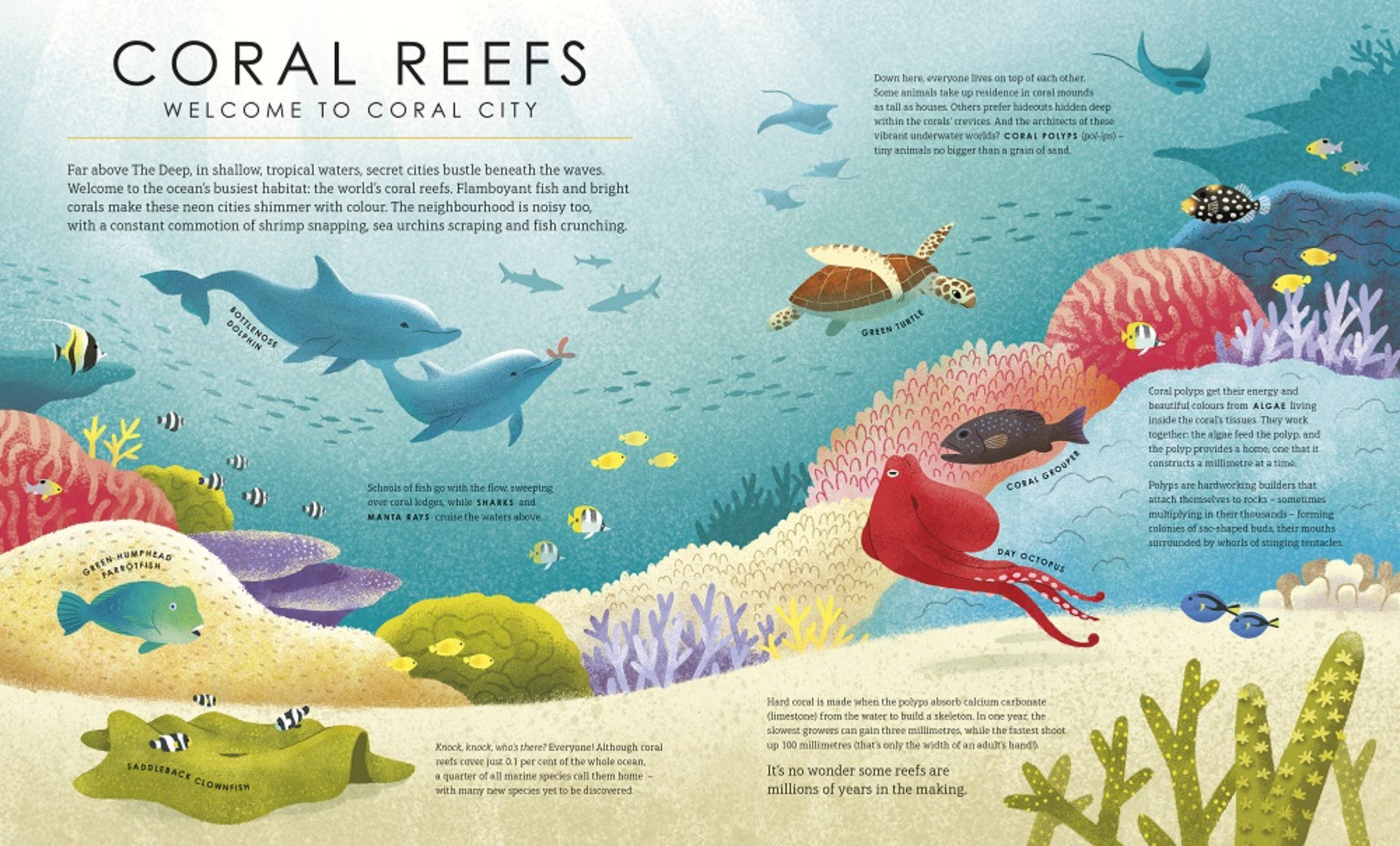
FLAPJACK OCTOPUS

Meet **FLAPJACK**, not of the biscuit variety, but the octopus kind. This adorable octopus has stubby tentacles, big wide eyes and earlike fins that it flaps like wings.

CORAL REEFS

WELCOME TO CORAL CITY

Far above The Deep, in shallow, tropical waters, secret cities bustle beneath the waves. Welcome to the ocean's busiest habitat: the world's coral reefs. Flamboyant fish and bright corals make these neon cities shimmer with colour. The neighbourhood is noisy too, with a constant commotion of shrimp snapping, sea urchins scraping and fish crunching.



Down here, everyone lives on top of each other. Some animals take up residence in coral mounds as tall as houses. Others prefer hideouts hidden deep within the corals' crevices. And the architects of these vibrant underwater worlds? **CORAL POLYPS** (pol-ips) – tiny animals no bigger than a grain of sand.

Schools of fish go with the flow, sweeping over coral ledges, while **SHARKS** and **MANTA RAYS** cruise the waters above.

Coral polyps get their energy and beautiful colours from **ALGAE** living inside the coral's tissues. They work together: the algae feed the polyp, and the polyp provides a home, one that it constructs a millimetre at a time.

Polyps are hardworking builders that attach themselves to rocks – sometimes multiplying in their thousands – forming colonies of sac-shaped buds, their mouths surrounded by whorls of stinging tentacles.

Knock, knock, who's there? Everyone! Although coral reefs cover just 0.1 per cent of the whole ocean, a quarter of all marine species call them home – with many new species yet to be discovered.

Hard coral is made when the polyps absorb calcium carbonate (limestone) from the water to build a skeleton. In one year, the slowest growers can gain three millimetres, while the fastest shoot up 100 millimetres (that's only the width of an adult's hand!).

It's no wonder some reefs are millions of years in the making.

GREEN SEAS

UNDERWATER FORESTS AND GARDENS

Just as there are green forests on land, their mirror image blooms under the sea. Underwater kelp forests and seagrass meadows, along with coastal saltmarshes and mangrove wetlands, are some of the most important – yet overlooked – ecosystems on our planet. Here, in these 'green seas', life begins, grows and is nourished.

In cold, shallow waters, green fronds drift in a delicate underwater ballet. These are the world's **KELP** forests, found along a quarter of all coastlines. Stretching up like trees above the seabed, the thick golden-brown kelp can grow as tall as a tower block (up to 60 metres), gaining as much as 50 centimetres in a single day.

Another important green seas habitat can be found from the Tropics to the Arctic: flowering **SEAGRASS MEADOWS**. They stretch along the ocean floor like prairie grasslands. In these sunlit waters you might spot **GREEN TURTLES** and **DUGONGS** as they munch away, keeping the grasses trim and healthy.

While seagrass meadows can be vital nurseries for young fish, some of the richest nurseries can be found elsewhere in the green seas: in coastal **SALTMARSHES** and **MANGROVE FORESTS**. They fringe the coastlines, and baby fish hide from hungry predators within the tangle of grass, roots and leaves.

PYJAMA SHARK

FUR SEAL

Our green seas – kelp forests, seagrass meadows, saltmarshes and mangrove forests – are some of the most crowded underwater worlds. Together they help to feed marine life across our Blue Planet.

Competition is fierce for space and food: **FUR SEALS** and **SHARKS** swim above the thick canopy, **ROCKFISH** hover between stems (called stipes), and **ROCK LOBSTERS** take cover amongst the kelp roots (called holdfasts).

ROCK LOBSTER

COMMON OCTOPUS