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# OCEAN Emporium

Written by Susie Brooks Illustrated by Dawn Cooper





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## Welcome to the Emporium

Deep, mysterious oceans sweep across our planet, making up 99 per cent of the living space on Earth. Beneath their rolling waves lies an extraordinary web of life, where colourful creatures great and small depend on each other to survive.

#### Small fish

Small fish often strive to protect themselves from predators by swimming in shoals, or schools.

#### Octopus

An octopus is an adept hunter, able to break into shells for food or paralyse fish prey with its toxic saliva.

#### Plankton

Most marine life depends on these tiny plants and animals, which drift on ocean currents as they cannot swim.



Many marine molluscs live in shells, and feed by sifting plankton from the water.

### Large fish

In the open ocean, even large fish must beware of seabirds, sharks, toothed whales and other predators.

#### Krill

These tiny crustaceans feed on plankton, and in turn are devoured in swarms by larger animals.

> There may be more than a million species living in the world's oceans. They vary incredibly, from the largest animal that ever existed to creatures too small for the human eye to see. While some duck and dive in sunlit surface waters, others lurk thousands of metres below in the pitch-black abyss. Prepare to discover their amazing world as you plunge into the Ocean Emporium!

#### Corals

#### Sharks

The fiercest sharks, such as the great white, are apex predators with most other sea life at their mercy.

#### Whales

Amazingly, vast humpbacks and other baleen whales survive primarily on feasts of tiny krill.

Corals are very much alive. They are made up of soft-bodied organisms called polyps, which feed on plankton.

## Crabs

These active animals scuttle sideways under helmet-style shells, fighting over hiding holes or mates. They can communicate by drumming or flapping their pincers, which also serve to seize prey and dig.

> Arrow CRAB Stenorhynchus seticornis



Uca tetragonon

Common edible crab Cancer pagurus

Gaudy clown crab Platypodiella spectabilis

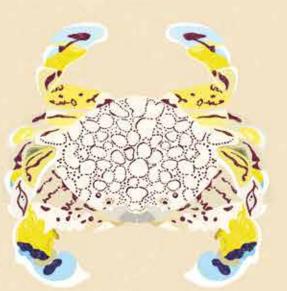
Corrugated crab Liomera rugata

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Common hairy crab Pilumnus vespertilio

CANDY CRAB Hoplophrys oatesii

JAPANESE SPIDER CRAB . Macrocheira kaempferi



Zebra crab Zebrida adamsii

Flower moon crab Matuta planipes

Atlantic blue crab Callinectes sapidus

## Hermit crabs

There are more than 1,000 species of these remarkable soft-bellied relatives of lobsters. They live in colonies on tropical shorelines and in shallow coral reefs, as well as on cooler coasts and in the deep sea. They work together to trade homes or find food, and can be found piled up on top of one another when they sleep.

#### A new home

It is a constant house search for a hermit crab. At any given time, 30 per cent of them are living in shells that are simply too small for them. They are always on the lookout for a larger home, combing the beaches and shallows for suitable 'properties' to move into.



Common Hermit CRAB Pagurus bernhardus

Sea anemones are useful bodyguards for hermit crabs, warding off predators with their stinging tentacles. Often the crabs attach anemones to their shells and carefully move them to any new shell that they adopt.

BLUEBERRY HERMIT CRAB Coenobita purpureus

HARLEQUIN SHRIMP Hymenocera picta

> TIGER PISTOL SHRIMP Alpheus bellulus

SCARLET SKUNK CLEANER SHRIMP Lysmata amboinensis

## Shrimps and lobsters

Feeling their way with alien-like antennae, shrimps swim while lobsters mainly crawl or walk. These colourful crustaceans are related to crabs but are longer and more streamlined. Many use their claws to deadly effect - in the case of the pistol shrimp, to shoot out bullets of bubbles that stun its prey.

Emperor shrimp

Periclimenes imperator

Honeycomb moray eel Gymnothorax favigeneus

The honeycomb moray eel and the cleaner shrimp have a great relationship. The tiny shrimp feeds on the parasites that could harm the larger animal. The shrimp searches all over, even inside the eel's mouth.

PEACOCK MANTIS SHRIMP Odontodactylus scyllarus Common European lobster Homarus gammarus

American lobster Homarus americanus

> JAPANESE FAN LOBSTER Ibacus ciliatus

> > DEBILIUS REEF LOBSTER Enoplometopus debelius

Lobsters are loners, usually living in dark cracks or burrows on the sea floor. They are slow on their feet, but able to flee danger by curling and uncurling their abdomen to soar backwards in a reverse kind of butterfly stroke.

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