

# Encyclopedia of Undersea Life

for Young Readers

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# CETACEANS – TOOTHED WHALES

## Beluga whale

The name *beluga* comes from the Russian word for its color – white. This 16-foot-long cetacean lives around the coasts of Arctic seas. It can often be seen in groups with a mother and several offspring.

## Sperm whale

Of all toothed whales, this one is the largest – and that’s not the only record it holds. It can dive nearly two miles down, its brain weighs 20 pounds, and its 14-inch-thick skin is almost bulletproof.

## Vaquita

This porpoise is the smallest cetacean in the world. At just over three feet long, it lives off the coast of Mexico. Its distinguishing feature is the dark rings around its eyes. Sadly, it is an endangered species.

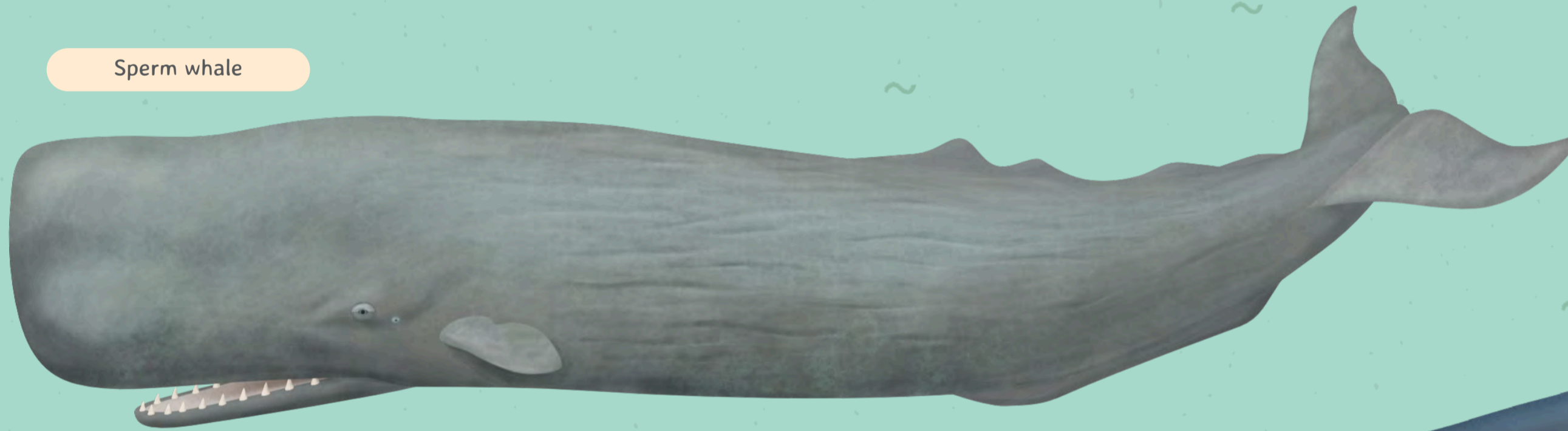


Beluga whale



Narwhal

Sperm whale



Common dolphin



Vaquita



Orca

Many cetaceans have teeth. Unsurprisingly, we call them toothed whales. One example is the narwhal, which you can recognize by its one long tooth – like a real-world ocean unicorn! But whether they have teeth or whalebones, all cetaceans share one thing in common – their songs. Whales create an incredible blend of whining, barking, and whistling sounds that can travel for miles. Sometimes their songs sound hollow like bells, and other times it’s like children’s laughter. Some whales even compose new songs each year, adding to their repertoire.

## Narwhal

A resident of the Arctic Ocean, it’s famous for its “tusk” – which is actually a tooth growing through its upper lip, up to 10 feet long. It uses this long tooth to do many things, like breaking through ice, detecting sound and temperature, and in mating rituals.

## Common dolphin

This very social creature often swims in large groups close to the shore, jumping out of the water playfully and riding the big waves.

## Orca

Easily recognizable by its black and white spots, the orca swims in groups in which all members look after the young. They communicate by whistling and could catch a shark for dinner without any fuss at all.

# Cartilaginous fish

## LARGE SHARKS

### Great white shark

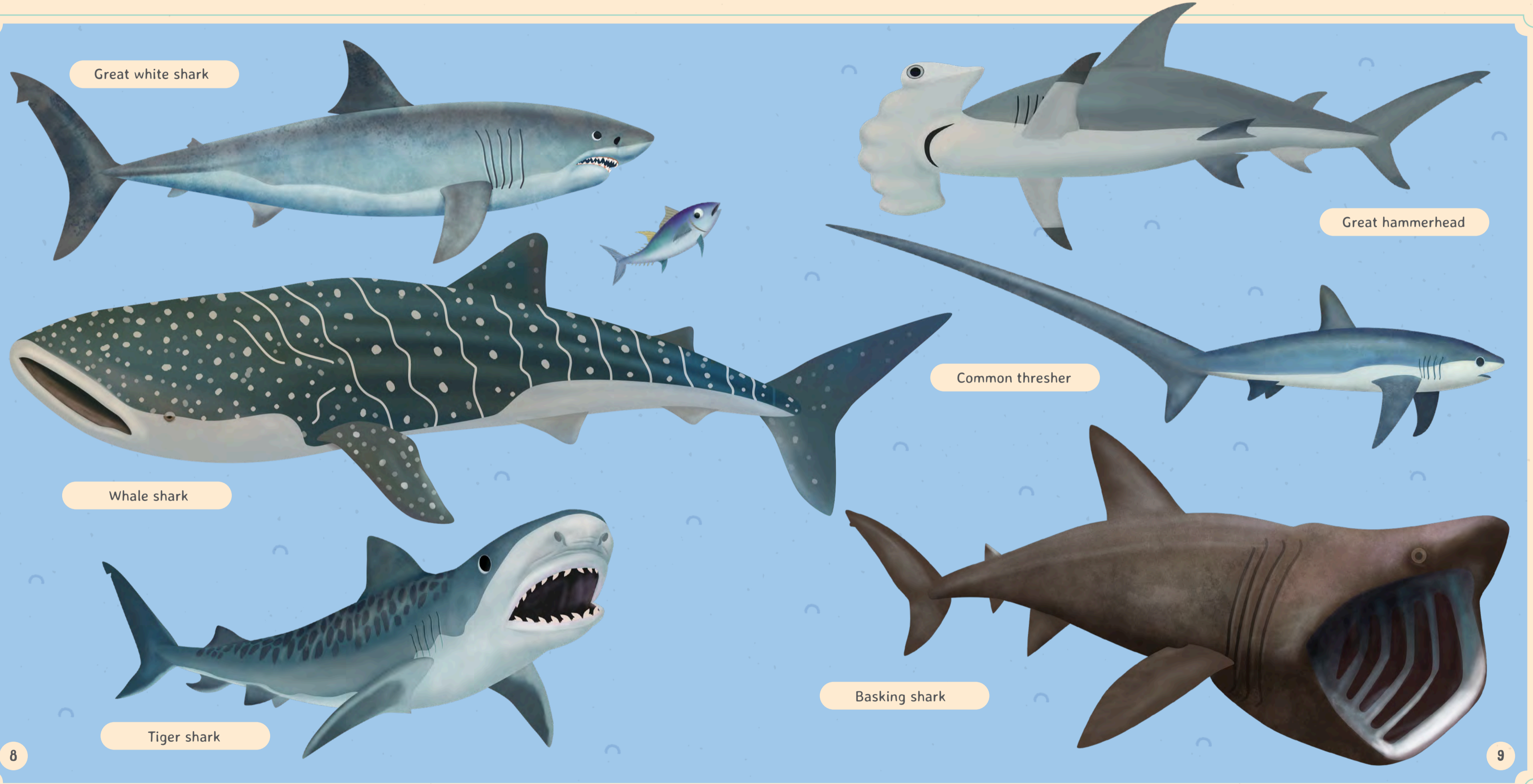
This large shark is very fast and extremely dangerous. It will attack not only swimmers but also small boats. However, it is not the undisputed lord of the oceans – it would be easy prey for an orca.

### Whale shark

Strangely enough, the biggest shark of all isn't dangerous to humans. It eats small fish and even smaller plankton. This slow swimmer can live to be a hundred years old!

### Great hammerhead

This shark has a really cool head that's shaped like a hammer. Weighing up to half a ton, it likes to hunt by itself, and its favorite snacks are stingrays, though it also has a taste for octopus.



Sharks are some of the oldest creatures on the planet. Wherever they swim, they get a lot of respect, and most animals stay out of their way. Their bodies are shaped like torpedoes, so they can move very fast. But what scares people the most are their powerful jaws and many sharp teeth. If a shark bites into something tough and loses a tooth, no problem – a new one quickly grows in its place.

### Tiger shark

The name of this shark comes from its colors. When it's young, it sports dark stripes along its back that look like a tiger's pattern. Just as fierce as its namesake on land, it will attack anything that comes too close.

### Common thresher

Easy to recognize because of the unusually elongated upper part of its tail fin, this shark doesn't just use it for show – it uses it to stun its prey. Despite this ability, it's actually a timid creature and won't harm humans.

### Basking shark

The world's second-largest shark is quite nomadic. It swims near Indonesia at times and can also be spotted off the coast of Canada. Sometimes, people mistake it for a great white shark.

# FISH WITH STRANGE HEADS

*In the oceans, there are some fish with really strange things on their heads. One fish looks like it's wearing red lipstick. Another has devil-like horns. And one has so many growths on its head that it could be mistaken for seagrass. Buried in the sand on the seabed, it might look like a snack. There's even a fish with a see-through head. Do you know which one it is?*

## Blue-barred parrotfish

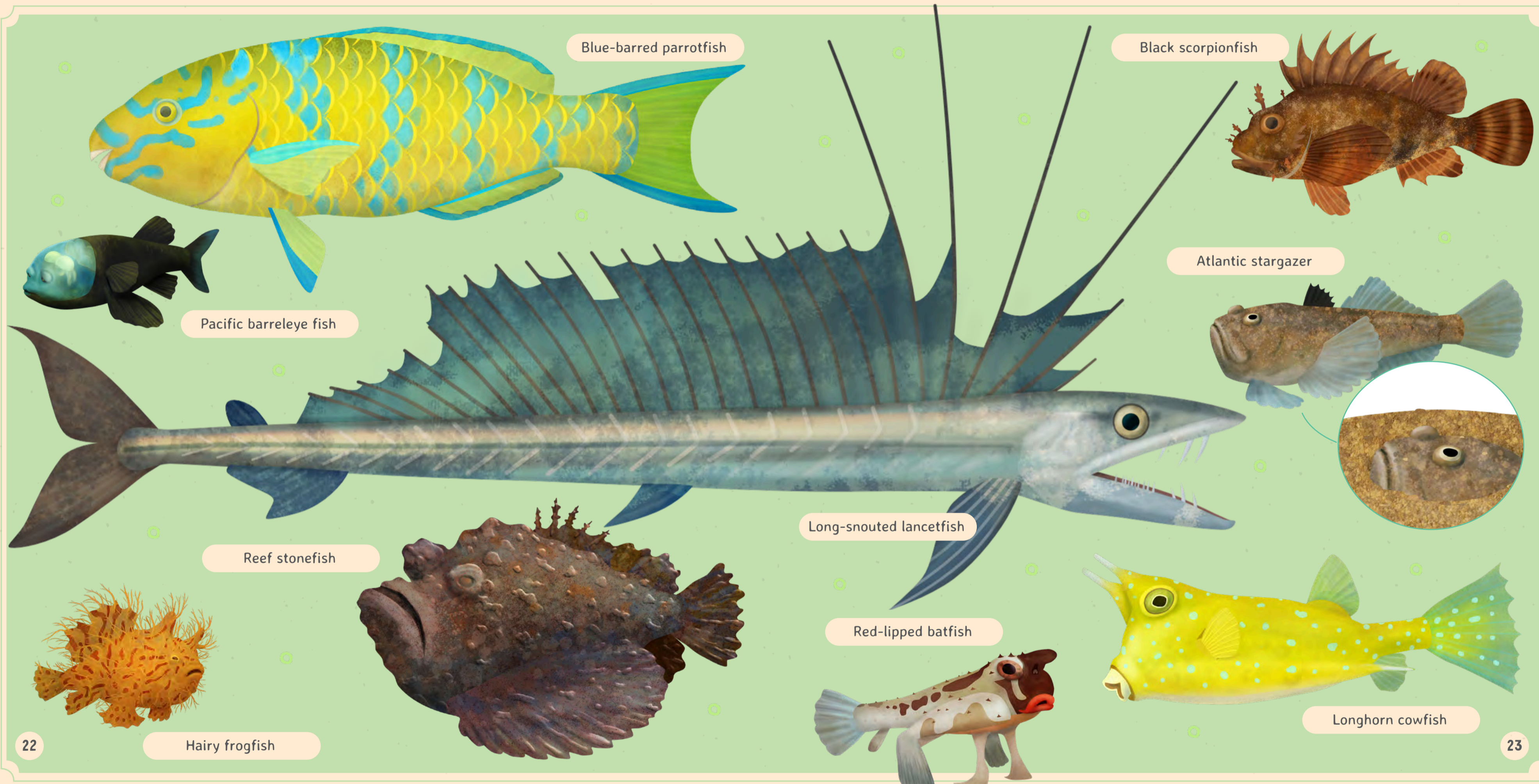
Doesn't this colorful creature remind you of a parrot? This fish, with teeth fused together like a beak, is named after the bird. But it's no cuddly pet – instead of chirping, it uses its beak to scrape things sharp!

## Pacific barreleye fish

Can't figure it out? This fish has a black body and fins, but its head is see-through. It uses this transparent shield to protect its very sensitive eyes.

## Black scorpionfish

This fish with a very knobby head loves hanging out in places where seaweed grows. That's where it hunts at night. It lives in the Mediterranean Sea and around the Azores and the Canary Islands.



## Long-snouted lancetfish

This slender fish has a tall, upright dorsal fin that stands up like a sail. It's also known as a sea dragon. With a large mouth lined with a row of long, sharp, pointed teeth.

## Hairy frogfish

You have to look really closely to see the fish hiding in that shaggy ball. It has a little fishing rod-like thing sticking out of its head, which it uses to attract prey. When its dinner gets close enough, it quickly gobbles it up.

## Reef stonefish

Named for its oddly shaped body, this fish always looks angry. Maybe it's trying to warn us that the venom in its dorsal spines is very dangerous.

## Red-lipped batfish

This fish is very surprising. Its mouth is painted with the deepest red lipstick, and its body looks like a bat. It's not very good at swimming and usually moves along the seabed using its side fins.

## Atlantic stargazer

With eyes on the top of its head, this strong fish spends its life gazing up at the sky. But it doesn't use its eyes to hunt – it stays buried in the sand and lures prey with a bait that sticks out of its mouth.

## Longhorn cowfish

This yellow fish has two horns on the front of its head and a boxy body. It lives in coral reefs and likes to be alone. It eats small fish and sponges, picking them out from corals and the seabed.

# FISH WITH SPECIAL SKILLS

*Staying safe from enemies isn't easy. If you're a slower fish and want to stay out of trouble, you need to be smart. You can look like a predator so others stay away, or live in really cold water where no one else wants to go. Some fish even flap their fins and fly. So, what do you say? Ready to explore these special skills and see how they help fish stay safe?*

## Atlantic flyingfish

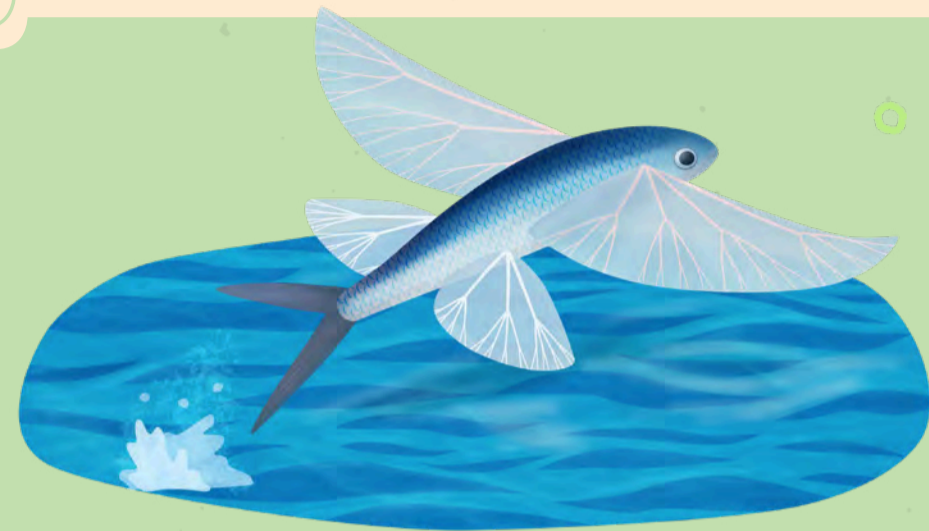
This fish can fly like a bird. When it senses danger, it spreads its fins like wings, flaps them a few times, and then leaps out of the water. It soars through the air for a few yards before diving back in.

## Blackspot tuskfish

This was the first fish to show scientists that it could use tools. In 2006, diver Scott Gardner took a photo of this fish holding a clam in its mouth. The fish smashed the clam against a rock over and over until it opened. Amazing, right?!

## Blackfin icefish

This fish loves the icy waters of Antarctica. Its blood doesn't have any red blood cells, which freeze easily. Instead, it has a special substance in its body that works like antifreeze, keeping it safe in freezing cold water.



Atlantic flyingfish

Blackspot tuskfish



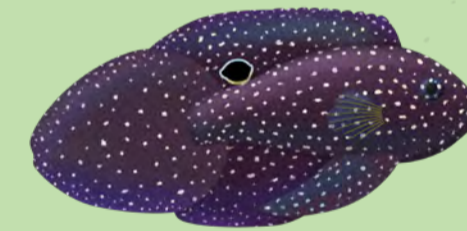
Blackfin icefish

Moonfish



Spot-fin porcupinefish

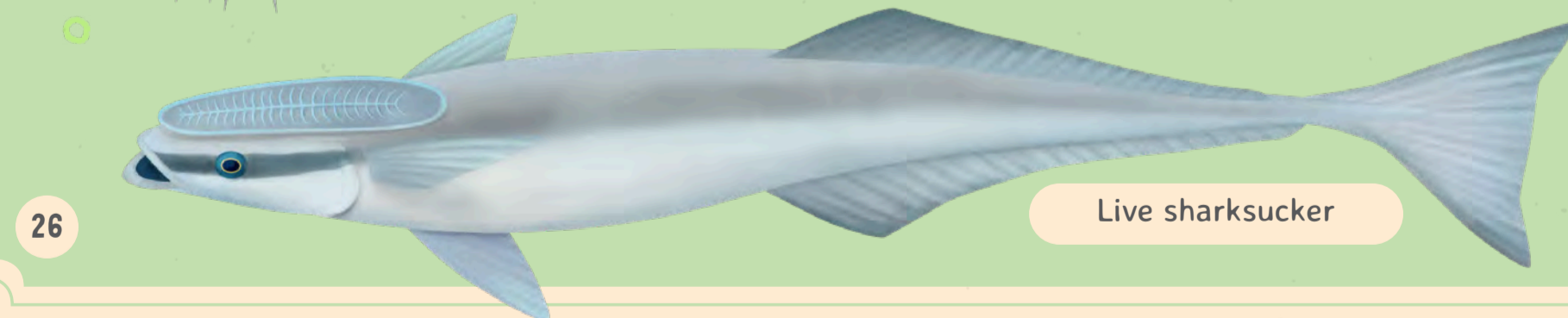
Plainfin midshipman



Comet



Northern stargazer



Live sharksucker

## Spot-fin porcupinefish

This large-eyed fish has a clever way to stay safe. When it feels scared, it puffs itself up like a balloon by swallowing a lot of water. It also sticks out spines all over its body, just like a hedgehog.

## Plainfin midshipman

This fish lives along the eastern shores of the Pacific Ocean. When it's time to find a mate, the male sings to the female at sun sets. He makes a loud humming sound by shaking his swim bladder, which helps him attract a partner.

## Live sharksucker

This slim fish has a big oval disc on its back that works like a suction cup. It uses this disc to stick to sharks and even ships. Once it's attached, it feeds on bits of food that fall out of the shark's mouth.

## Comet

This clever fish knows how to fool both predators and prey. When it feels threatened, it hides its head in a hole and shows the end of its tail, which looks like the head of a scary moray eel. The fake eye on its tail scares other fish away.

## Moonfish

Since this fish is warm-blooded, it makes its own heat by moving its fins as it swims. It's like having a built-in heater. Because of this, it can be found in cold waters, where it hunts for fish and jellyfish.

## Northern stargazer

It hides in the sand with just its eye and jaws sticking out. When a fish swims by, it takes a big gulp of water, catching the fish along with it. If something else comes too close, it gives an electric shock to scare it away.

# Other inhabitants CEPHALOPODS

*Octopuses are smart little underwater geniuses. They can copy other animals and even create traps to catch their dinner. Their bodies are soft, but they have hard beaks that help them eat. Amazingly wherever their beak goes, their whole body can follow – that's how small they can make themselves. And guess what? They can even crawl on land!*

## ★ Vampire squid

This bright-red cephalopod (a type of sea creature with arms) looks a bit like a rocket. It has been living deep in the ocean for tens of millions of years. Moving gracefully through the deep waters, it feeds on whatever floats down from above.

## ★ Greater blue-ringed octopus ★ Giant squid

Small but dangerous, this tiny octopus living around the coasts of the Pacific Ocean is one of the most venomous creatures in the ocean. When it gets upset, blue rings show up on its body. Its bite can be very dangerous for people.

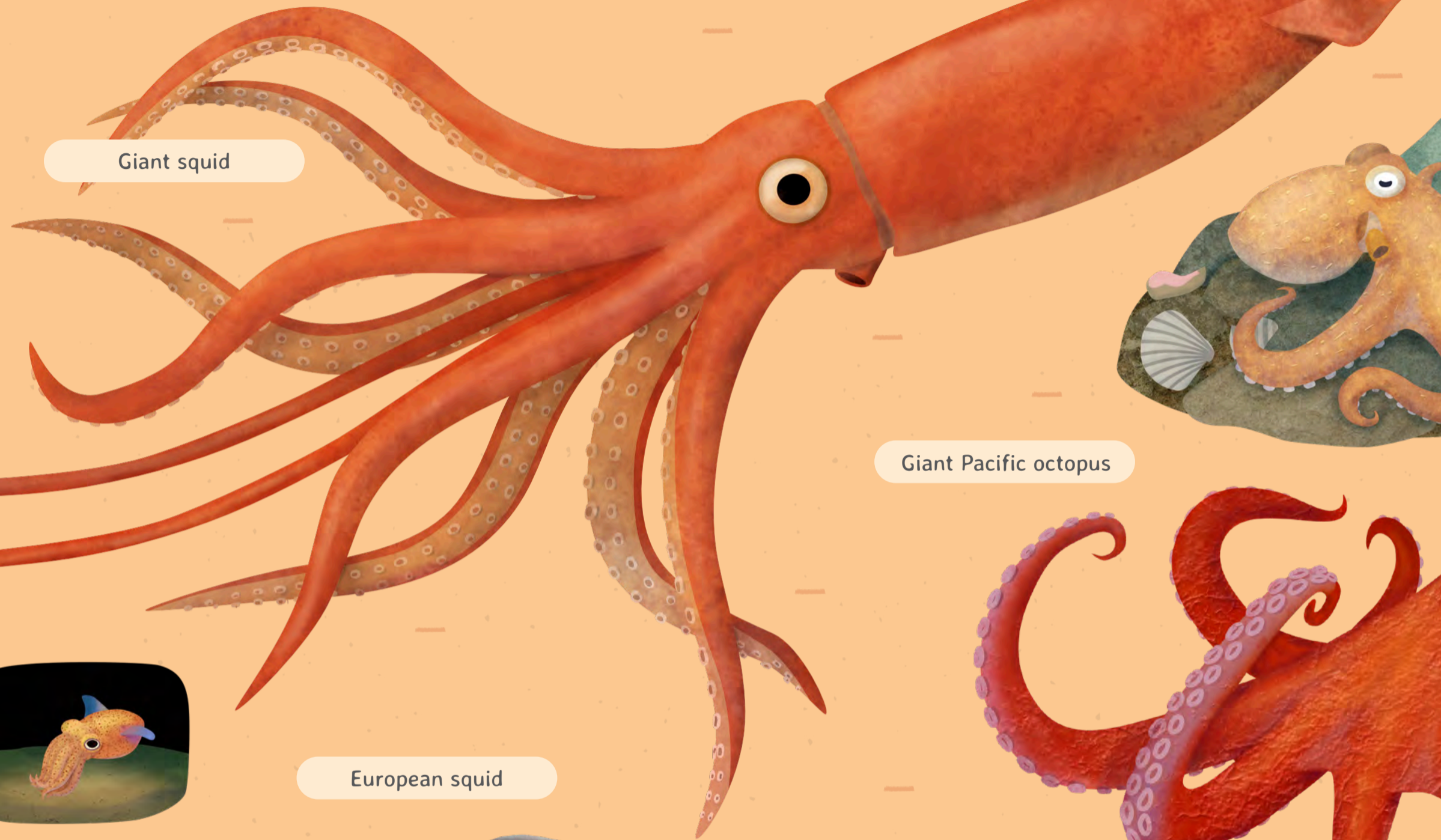
This animal is one of the ocean's most mysterious creatures. Scientists think it can grow up to 65 feet long, including its tentacles, and might even be able to challenge sperm whales. It has the biggest eyes in the world, with each one as large as a basketball.



Vampire squid



Greater blue-ringed octopus



Giant squid



Common octopus

Giant Pacific octopus



Chambered nautilus



Hawaiian bobtail squid

European squid



Common cuttlefish



## ★ Chambered nautilus

As one of the oldest cephalopods, this animal wears a shiny, hard shell made of mother-of-pearl – a shiny, rainbow-colored layer inside some shells. The shell is spiral-shaped and has several chambers inside it.

## ★ Hawaiian bobtail squid

An inhabitant of coral reefs around the islands of Hawaii, this nocturnal hunter glows like the moon on its underside. This clever trick means it casts no shadow and is harder for predators to see.

## ★ European squid

This cephalopod has a well-developed head and ten tentacles with suckers. It's an excellent swimmer and hunter, reaching speeds of up to 20 miles per hour to catch its prey. It moves by pushing water out of its body cavity.

## ★ Common cuttlefish

One of the largest cuttlefish, this creature has ten arms and can change color to blend in with its surroundings. It has an amazing memory and can remember what it ate, when it ate, and where it ate.

## ★ Giant Pacific octopus

Along with the giant squid, this is one of the largest mollusks. It lives deep in the ocean, moving along the sea floor using its tentacles. When it's scared, it turns pale. When it's angry, it turns red.

## ★ Common octopus

This octopus is one of the smartest creatures in the ocean. It lives around rocky coasts, and you can find lots of empty crayfish and crab shells scattered around its home.

# SEA TURTLES AND SEA SNAKES

Turtles are among the oldest reptiles on Earth. Sea turtles only spend a short time on dry land while they lay their eggs in the sand. Once the little ones hatch, they scurry into the sea as fast as they can. When they swim, sea turtles use their front legs to push themselves forward and their back legs to steer.

## ★ Hawksbill sea turtle

This critically endangered sea turtle is one of the smallest. Unlike other turtles that travel long distances, it prefers to stay close to coral reefs, where it feeds on what it can find on the sea floor.

## ★ Leatherback sea turtle

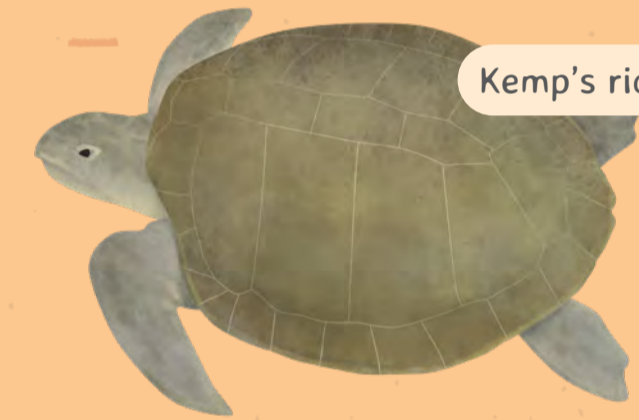
Weighing up to 1,700 pounds, this is the largest turtle in the world. It's a skilled hunter that dives down to 3,000 feet deep to find its favorite food – jellyfish. Unlike other turtles, it doesn't have claws on its flippers.

## ★ Green sea turtle

This species of sea turtle is one of the most common. When it's time to lay eggs, it travels over 620 miles to a quiet beach. Adult turtles eat seagrasses and sea plants, while young turtles prefer jellyfish and small sea creatures.



Hawksbill sea turtle



Kemp's ridley sea turtle



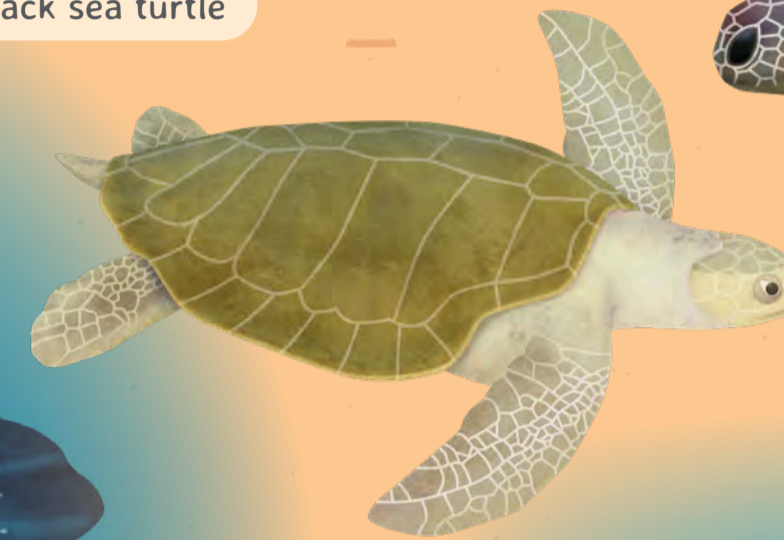
Yellow-lipped sea krait



Loggerhead sea turtle



Leatherback sea turtle



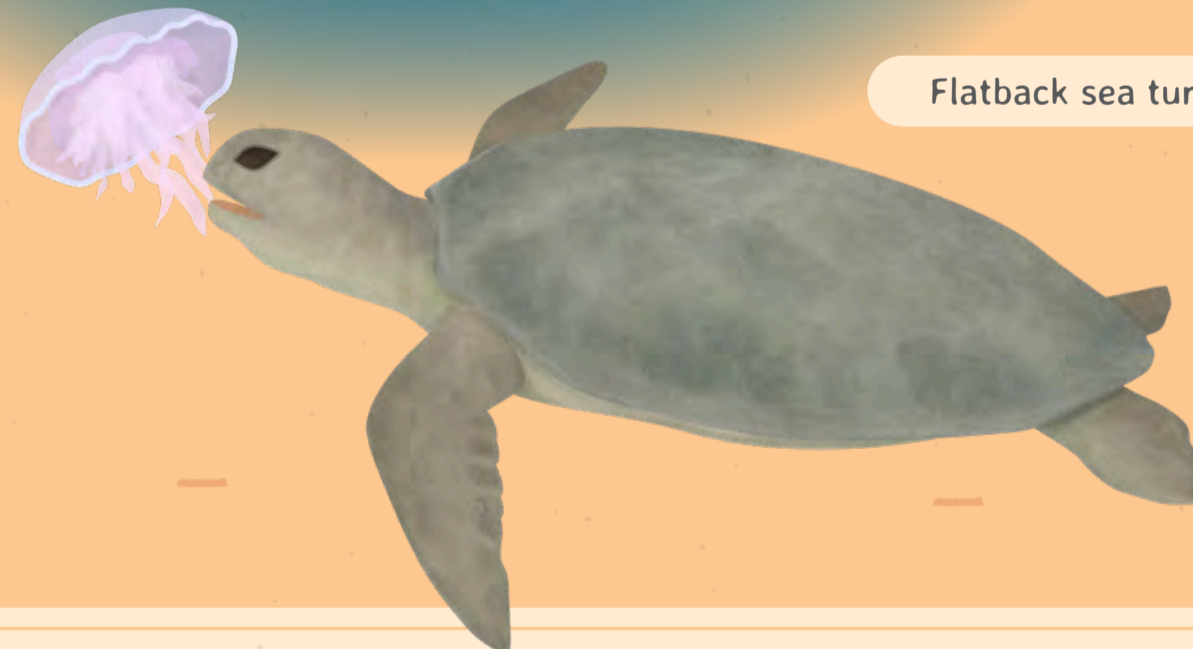
Olive ridley sea turtle



Green sea turtle



Olive sea snake



Flatback sea turtle

## ★ Kemp's ridley sea turtle

Found in the Gulf of Mexico and along the eastern coast of the United States, this turtle is the smallest sea turtle, growing to only about two feet long. Its shell is much more rounded compared to other sea turtles.

## ★ Yellow-lipped sea krait

Although this sea snake is venomous, it is not aggressive. It is most commonly seen around the coast of Australia. It breathes through its lungs and therefore has to surface regularly.

## ★ Loggerhead sea turtle

Found in the Atlantic, Pacific, and Mediterranean Oceans, this turtle has a big head and powerful jaws. It uses these strong jaws to crush lobsters and other creatures with hard shells.

## ★ Flatback sea turtle

Living in the bays and reefs between Australia and New Guinea, this turtle is also at risk of going extinct. An adult male weighs about 200 pounds and eats shrimps and jellyfish.

## ★ Olive ridley sea turtle

Named for its olive-colored shell, this small turtle is an active hunter. It feeds on crabs, lobsters, and small fish.

## ★ Olive sea snake

One of the more inquisitive sea creatures. Whenever a diver or boat draws near, it immediately swims over to check it out. It feeds mainly on fish.



# ECHINODERMS

*If you cut a starfish, you won't see any blood. That's because starfish don't have blood. Instead, they use seawater to move nutrients around their bodies. Even so, starfish have lots of eyes – one at the end of each arm. Some starfish have just four arms, while others can have as many as 50! Plus, some starfish can grow new starfish from their arms – how wild is that?!*

## Fire urchin

This dark purple to black sea urchin has spines that can grow up to 1.5 inches long, sticking out in all directions. It lives in groups in bays and can be found from the African coast to Hawaii.

## Sawtooth feather star

It looks like a flower, but it's actually a sea creature that can move. This colorful animal swims using its arms and can be red, yellow, or even striped.

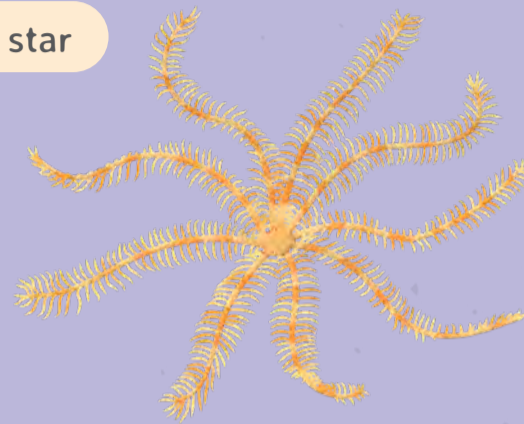
## Crown-of-thorns starfish

The venomous thorns on this starfish make it clear that it's not a harmless creature. In fact, it's a predator that leaves behind only the empty shells of coral. It can have up to 18 purple arms.

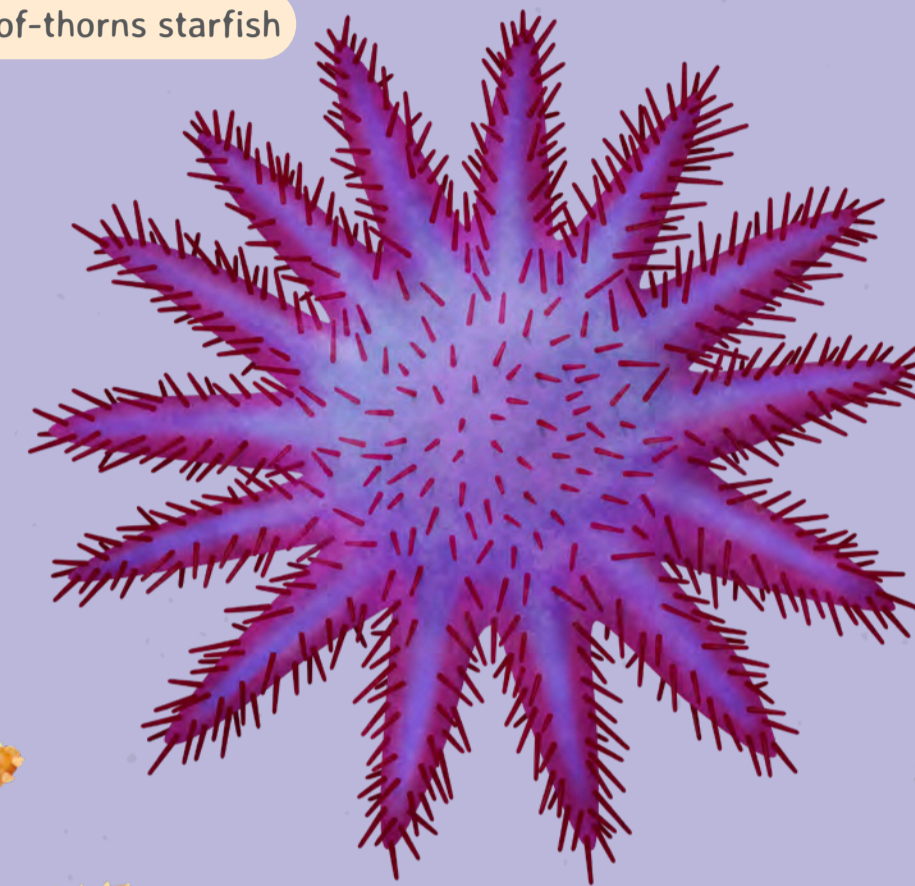


Sea potato

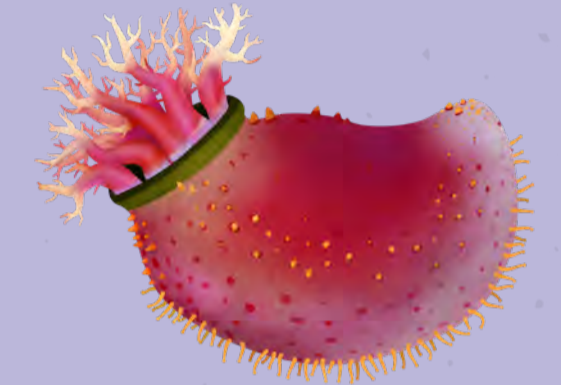
Sawtooth feather star



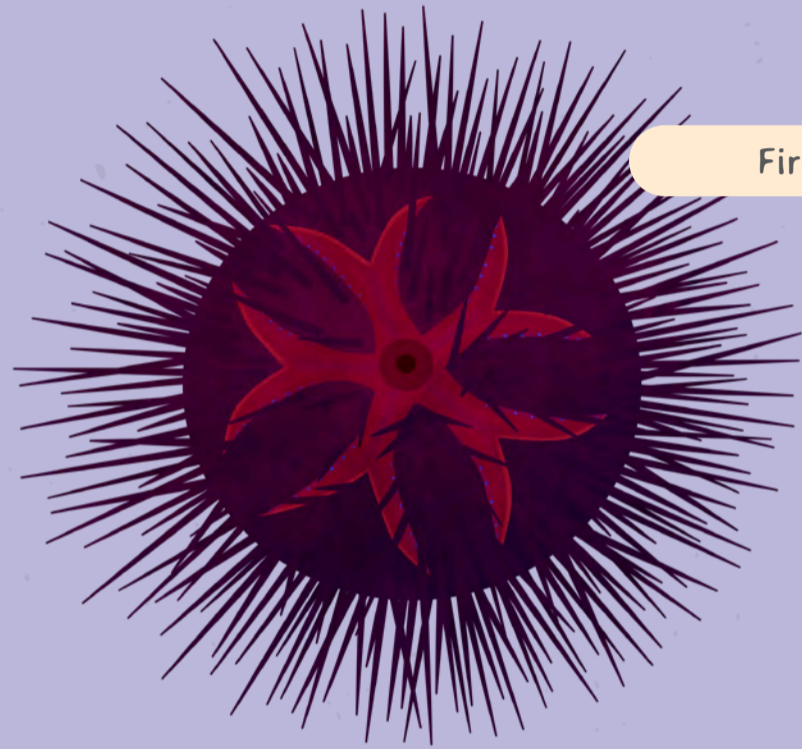
Crown-of-thorns starfish



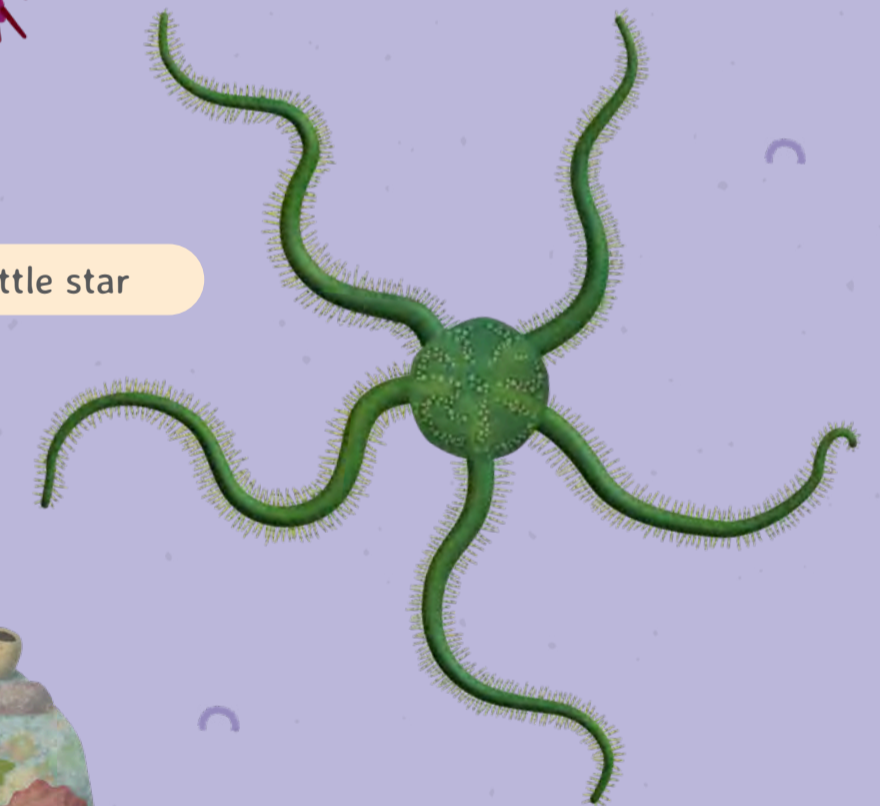
Sea apple



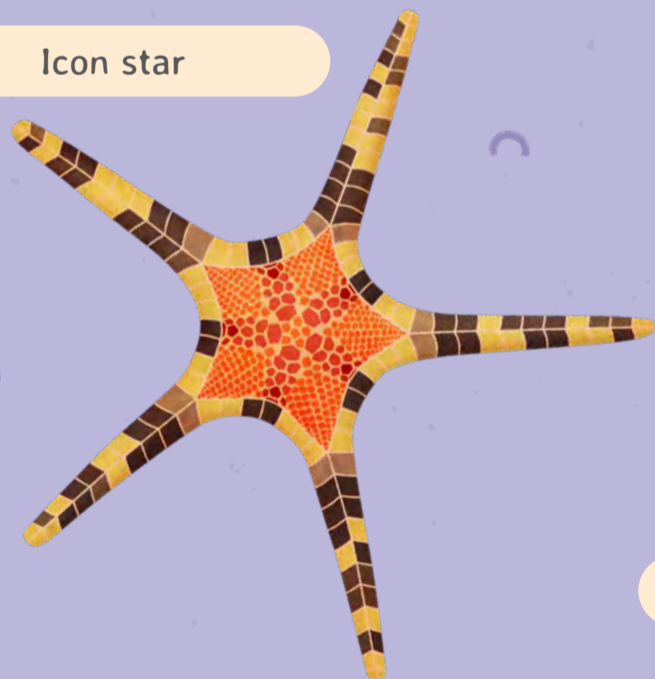
Fire urchin



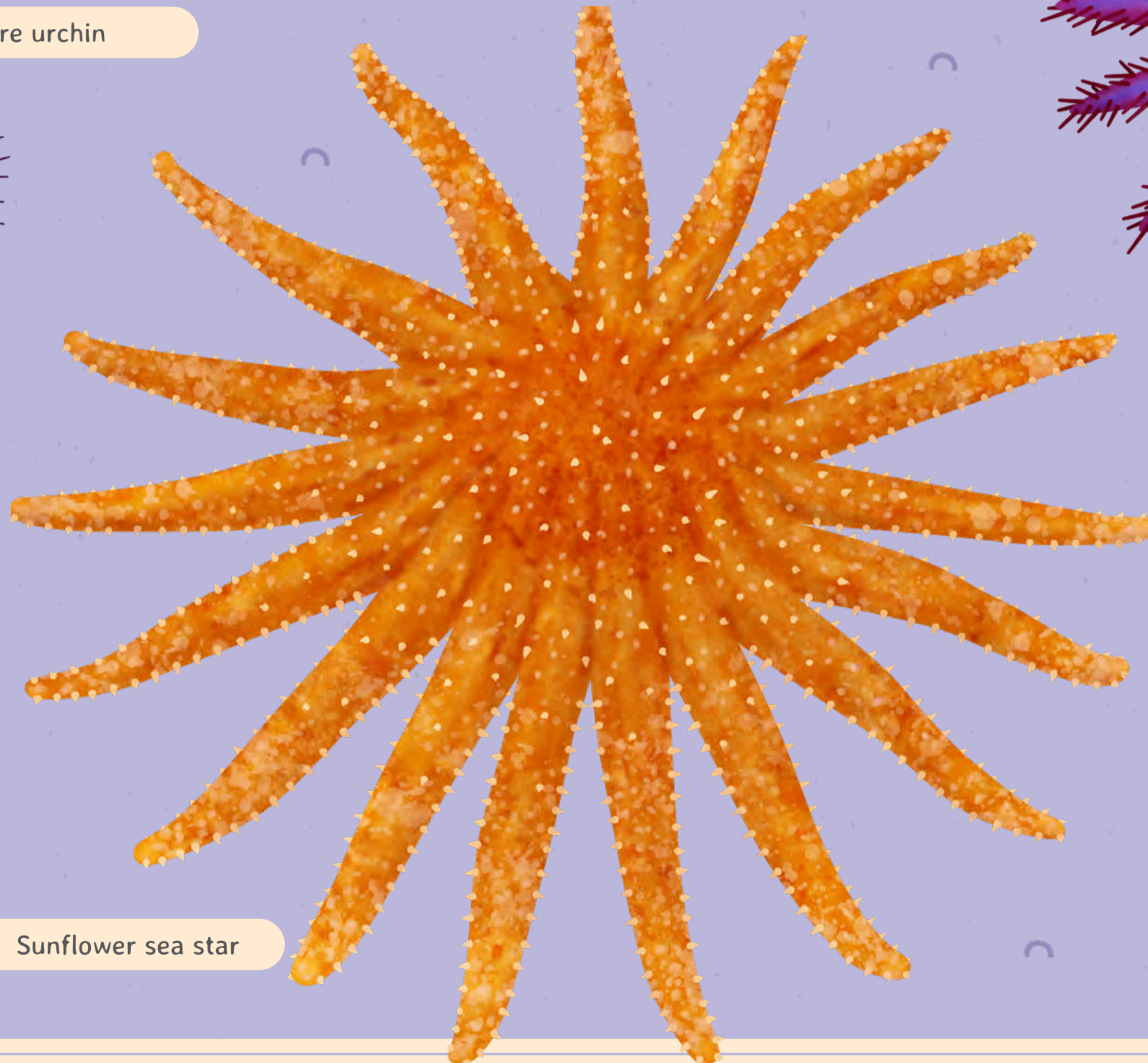
Green brittle star



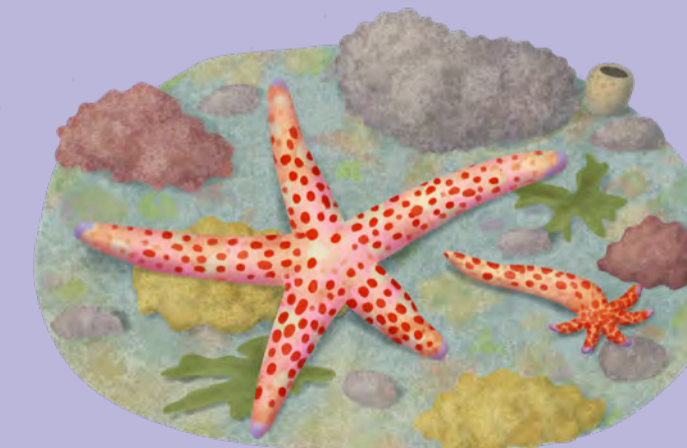
Icon star



Sunflower sea star



Mottled Linckia



## Sea potato

With its yellow-brown color and round shape, it looks like a potato. Unlike other urchins, this one's protective spines curve inward toward its body instead of sticking straight out. It lives buried in the sandy seabed.

## Icon star

What does this honey-colored starfish remind you of? Divers say it looks like a beautifully framed picture. You can find it along the shores of the South China Sea many many feet down.

## Sunflower sea star

It is one of the largest and heaviest starfish, growing up to three feet across and weighing up to 10 pounds. From a distance, it looks like a giant sunflower resting on the seabed. It feeds on sea urchins.

## Mottled Linckia

This small starfish has a special trick: it can grow a new starfish from just one of its arms. Because of this amazing ability, you often see them with fewer than five arms.

## Sea apple

Round and red like an apple, it's actually a sea cucumber. This one stands out with its wreath of tentacles around its mouth. After eating, it carefully cleans each tentacle one by one.

## Green brittle star

Resembling a small octopus, this sea creature has five arms that help it move along the seabed. It feeds mainly on dead fish but can also hunt for live prey.



Seas and oceans cover more than two-thirds of our planet's surface, making the underwater world twice as big as the land we live on! We know a lot about the continents, right? We're familiar with polar bears in the North Pole and lions and cheetahs on the equator. But have you ever wondered what amazing creatures glide through the salty waters of the Pacific, Atlantic, Arctic, and Indian Oceans?

In this book, you'll discover vibrant coral reefs, dive to depths where the weirdest-looking fish live, and marvel at the sharp teeth of sharks and whales. You'll swim with schools of sardines and meet ocean angels, butterflies, and clowns. As you'll soon see, the underwater world is full of color, mystery, beauty, and excitement. So crack open these pages and see the wonders of the ocean with your own eyes – and without needing to scuba dive.

Also available:




More info:






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