



# Oceanarium ACTIVITY BOOK

Curated by TEAGAN WHITE  
and LOVEDAY TRINICK



Colouring,  
drawing,  
puzzles  
& facts!

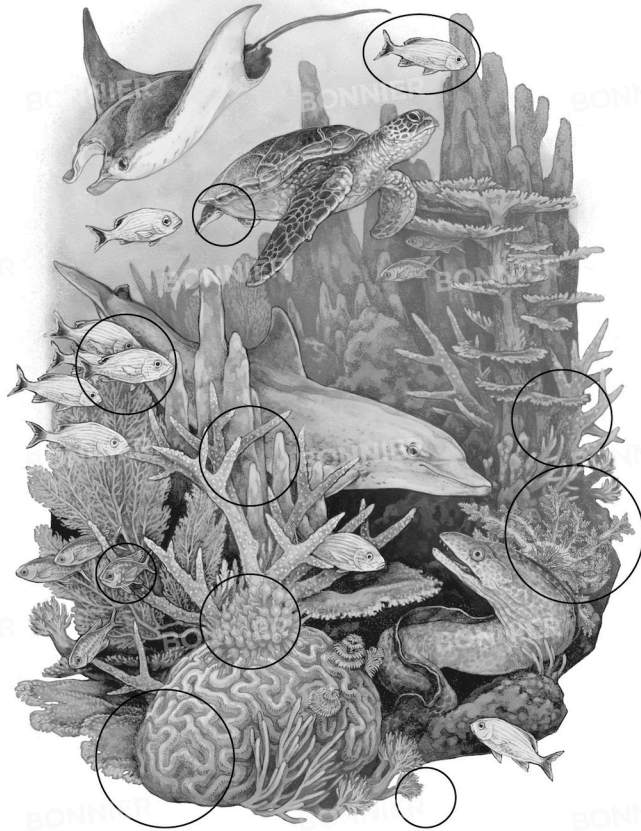


# Spot the difference

(there are 10 differences to spot)



# Answers

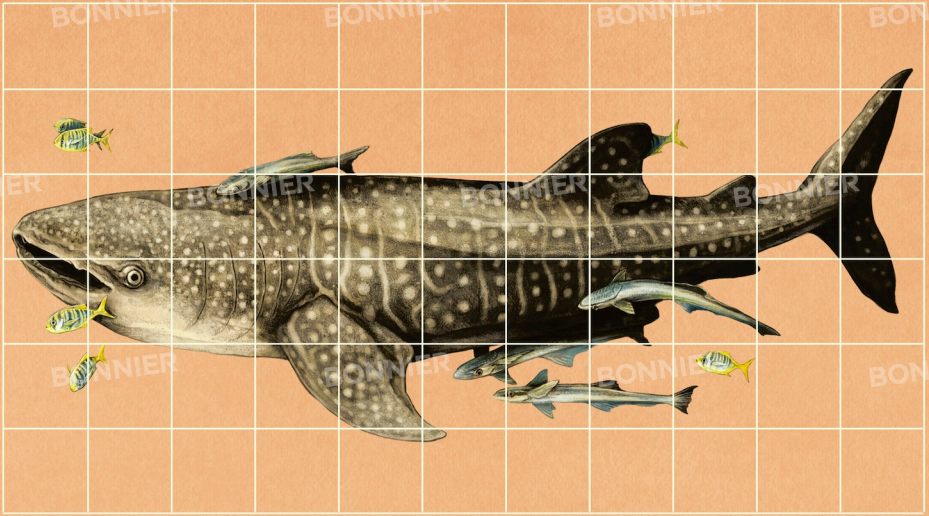


## Coral reef

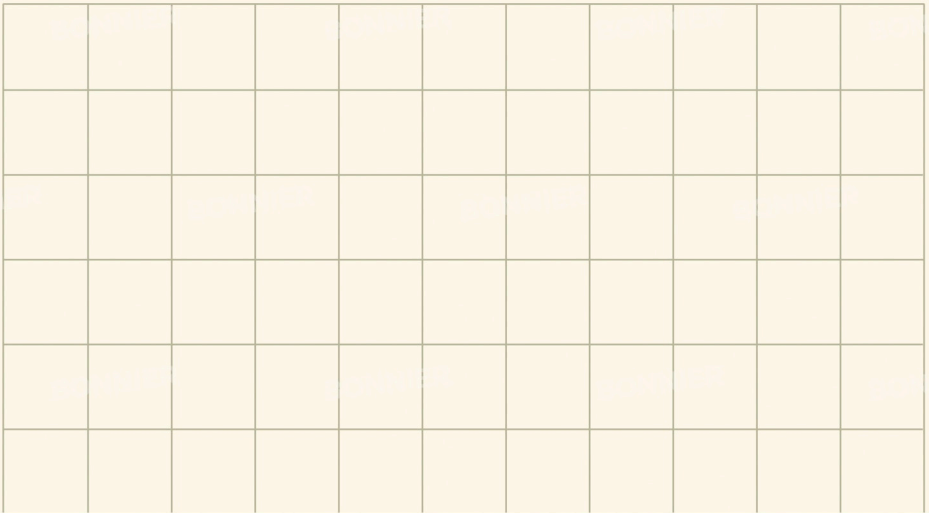
Vibrant and bustling with life, this habitat is like an underwater metropolis, supporting an incredible 25 per cent of marine life worldwide. The animals that live here seek shelter in the reef's nooks and crannies, find camouflage against its bright backdrop, and feast on an abundant supply of food within its colourful corridors.



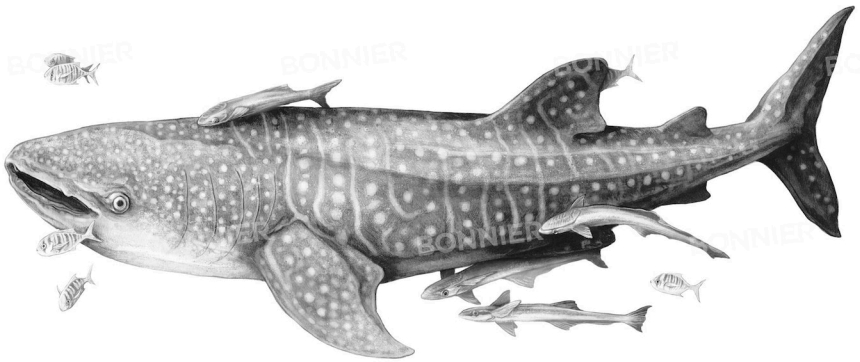
# Whale shark



## Draw the whale shark







## Whale shark

*Rhincodon typus*

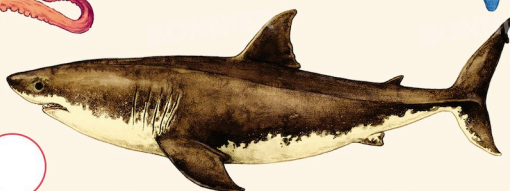
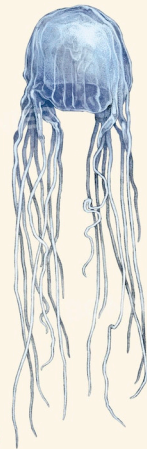
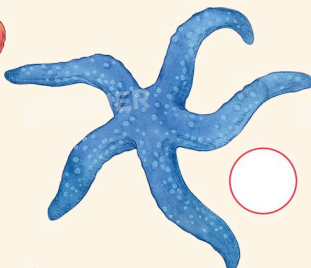
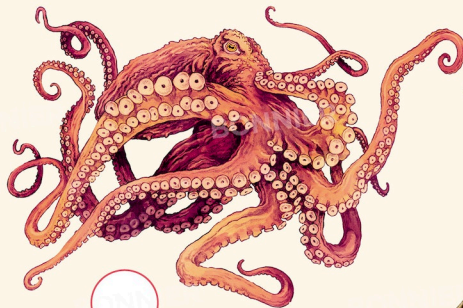
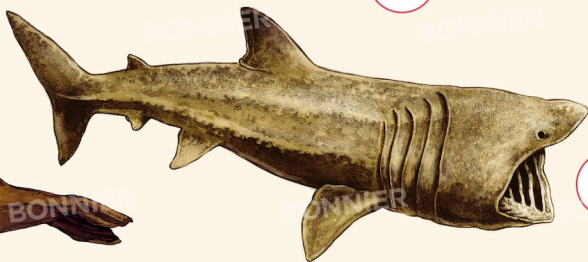
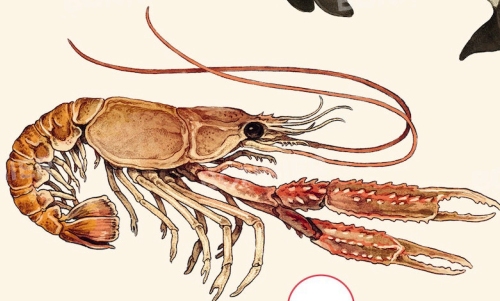
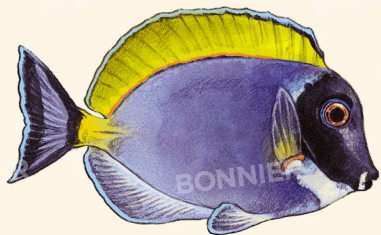
Length: Up to 18m

Whale sharks are ocean-roaming giants, migrating huge distances to reach the richest feeding grounds. They only eat microscopic plankton as well as tiny fish and eggs, filtering them from the water with their massive mouths. Reaching lengths of around 18 metres, whale sharks are the largest fish in the world.



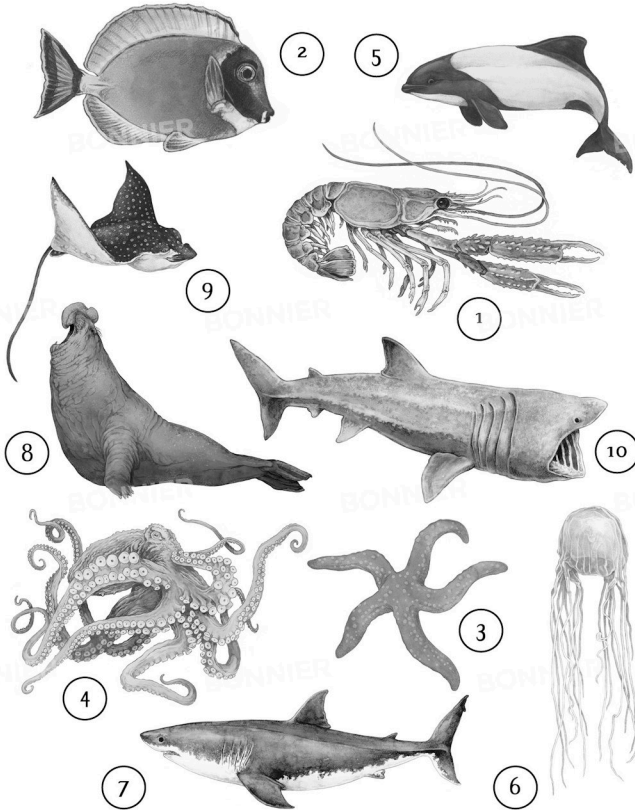
# Put these sea creatures in size order

(1 being the smallest and 10 the biggest)





# Answers



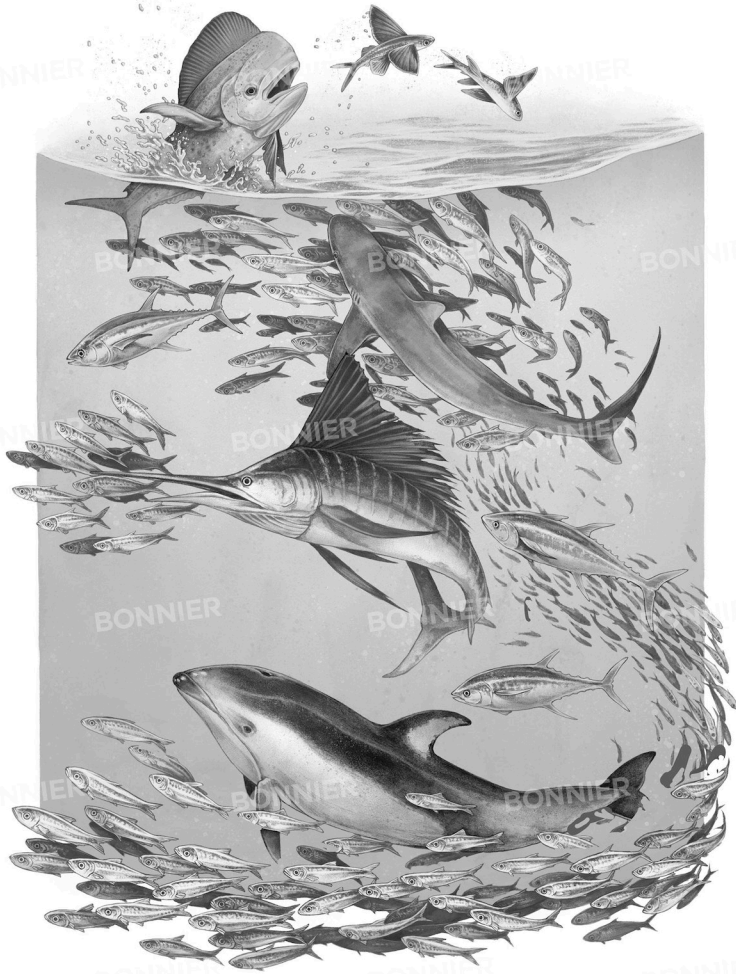
- 1 - Harlequin shrimp – length: up to 5cm
- 2 - Longnose butterflyfish – length: up to 22cm
- 3 - Blue starfish – length: up to 30cm
- 4 - Giant Pacific octopus – length: up to 50cm
- 5 - Commerson's dolphin – length: up to 1.5m
- 6 - Box jellyfish – length: up to 3m
- 7 - Great white shark – length: up to 5m
- 8 - Southern elephant seal – length: up to 5.8m
- 9 - Spotted eagle ray – length: up to 6m
- 10 - Basking shark – length: up to 8m



Add some fish to this ocean scene





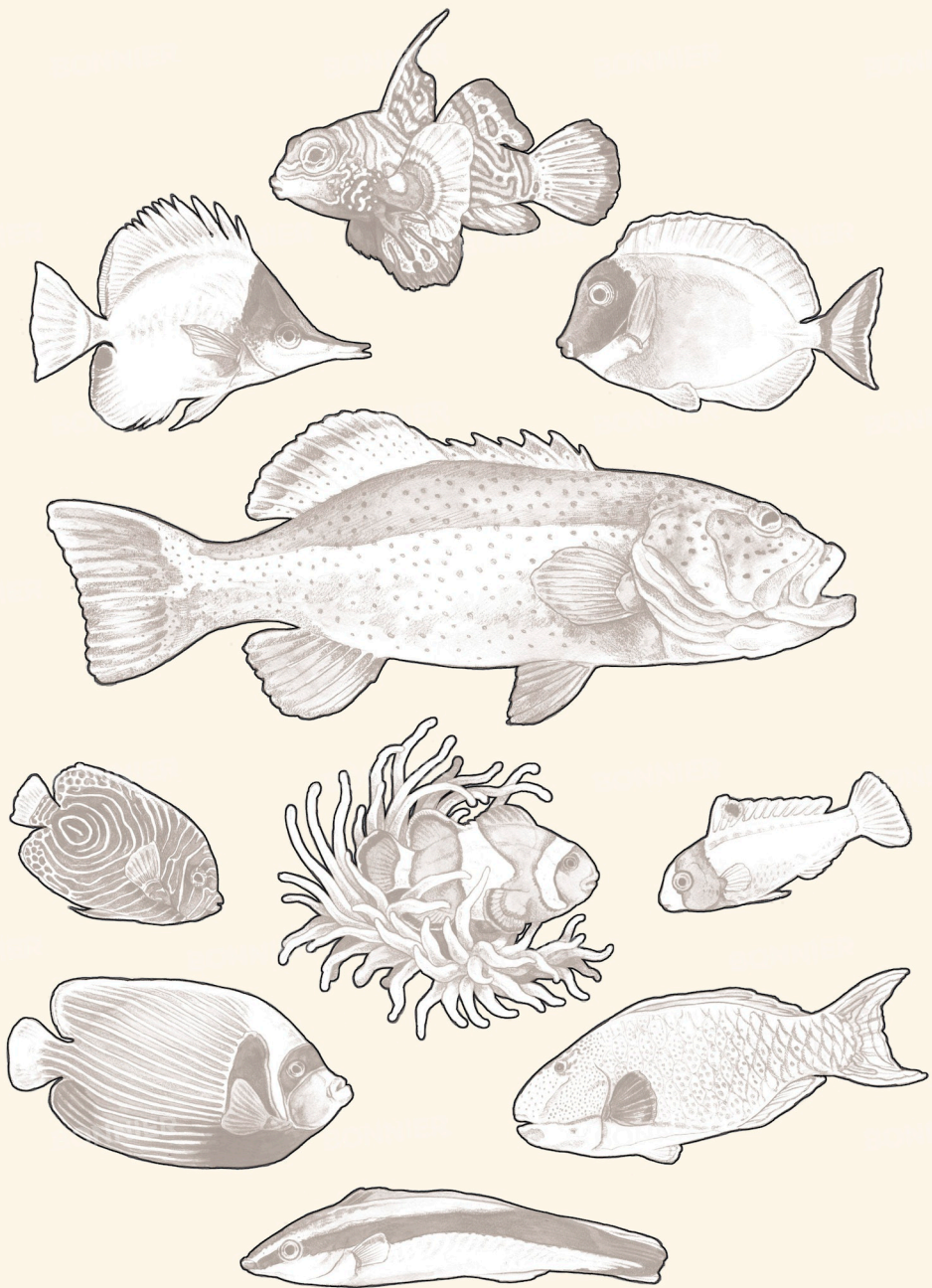


## Open ocean

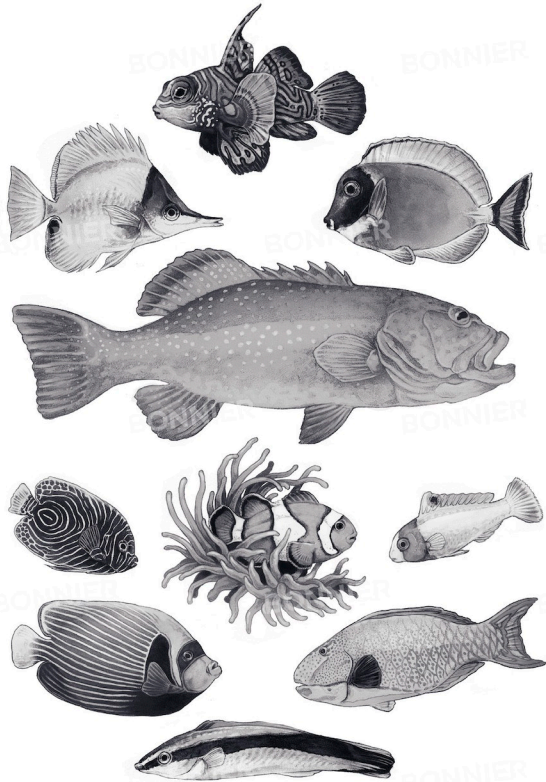
Move away from the coast and you will eventually reach the open ocean: a vast expanse of water where there is no land in sight. In open water, smaller creatures often make up for their size by forming shoals. This group behaviour provides protection from predators through safety in numbers – in a larger group, predators are faced with a mass of moving fish, making it difficult to pick out any one.



# Colour in the coral reef fish







### Coral reef fish

Coral reef fish are known for having beautiful patterns and bright colours, and are often flamboyant. These patterns and colours serve several purposes, from simply identifying members of the same species to helping the fish camouflage against the coral. Certain colours can also give a warning – reds and yellows often mean that an individual has venomous spines, poisonous skin or a sharp bite.



# Spot the difference

(there are 10 differences to spot)





# Answers



## Deep sea

The deep sea is an alien, unfriendly place: it is constantly dark and cold, and the pressure is strong enough to crush most creatures. For a long time, people thought life could not survive here – but with the use of underwater vehicles, scientists have discovered life throughout the ocean's depths, and documented the astonishing species whose features and behaviours enable them to survive in the most hostile conditions on Earth.

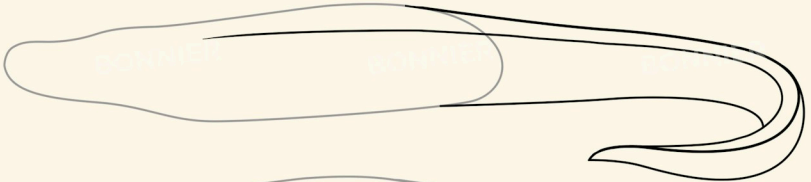


# How to draw a crocodile

1



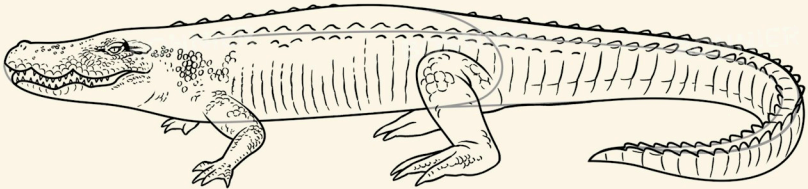
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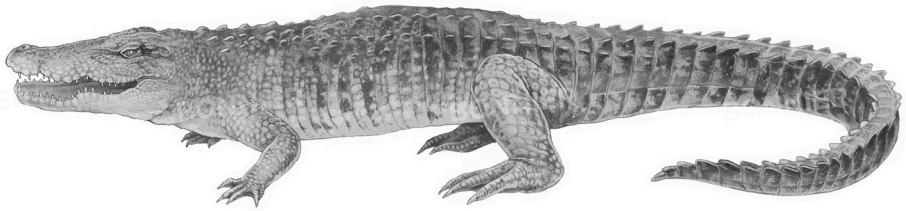


4



## Try it yourself





### Saltwater crocodile

*Crocodylus porosus*

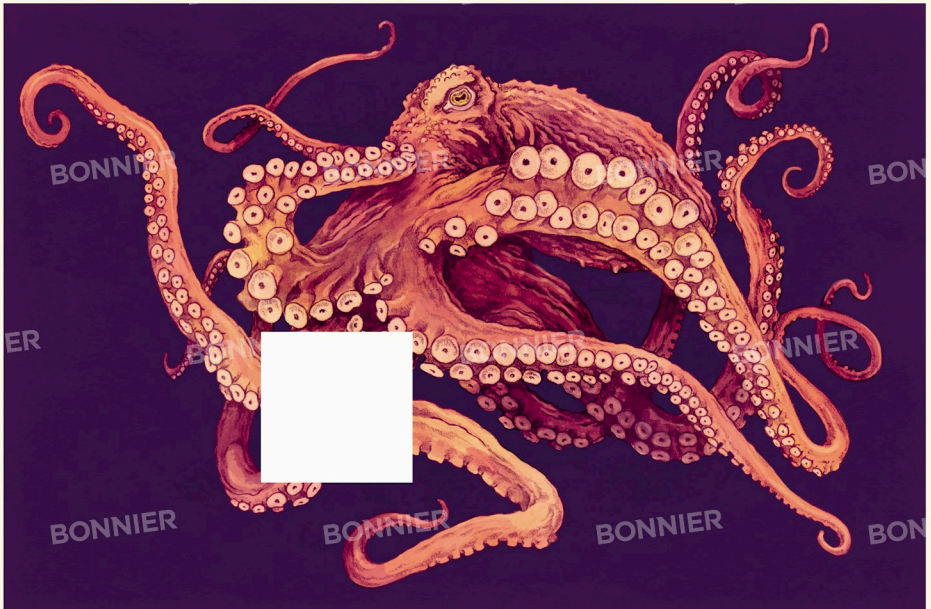
Length: Up to 3.5m (females)

/5.2m (males)

Saltwater crocodiles are the biggest living reptiles in the world. With massive, powerful bodies, including a formidable set of jaws and a long muscular tail, these creatures are capable of ambushing large prey such as zebras, buffalo and even sharks. They are often found in estuaries where the river meets the sea.

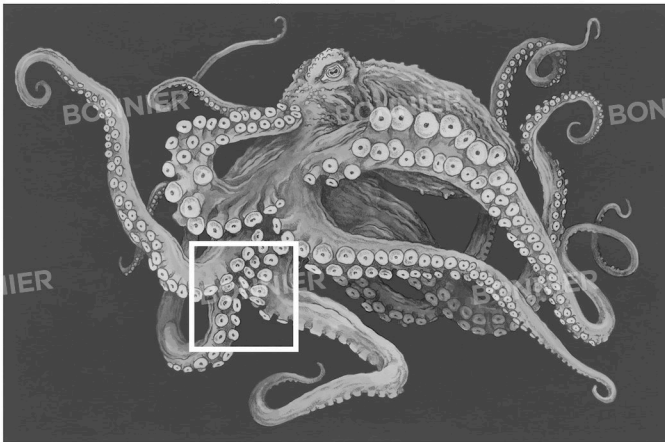
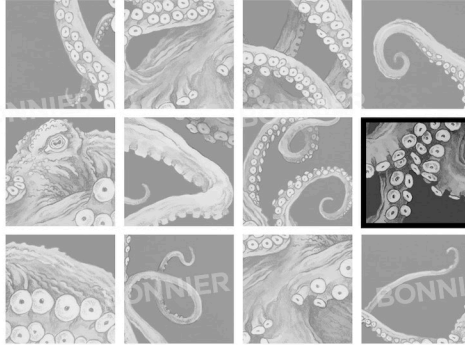


# Find the missing square





# Answer



## Giant Pacific octopus

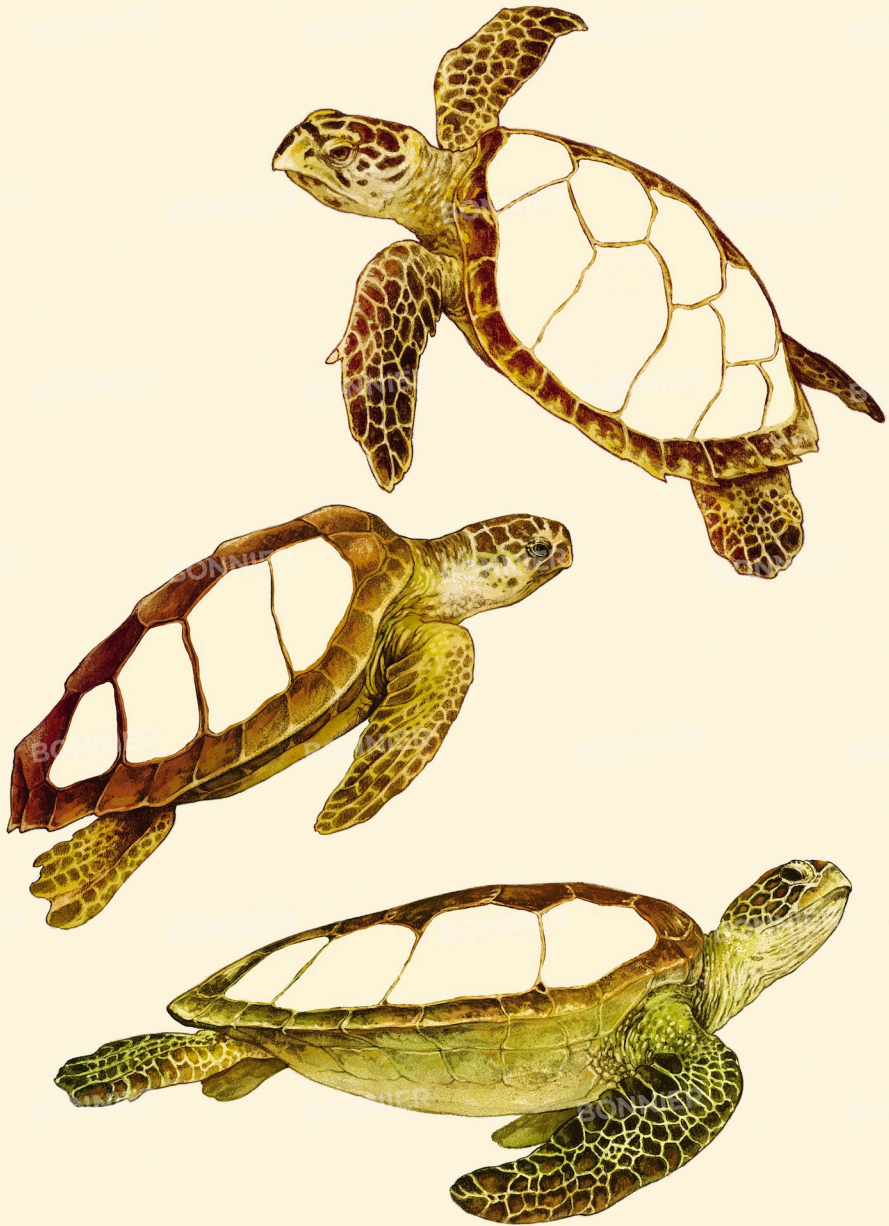
*Enteroctopus dofleini*

Mantle length: Up to 60cm

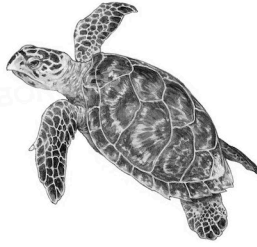
Octopuses are highly intelligent and research has proven that they are able to problem-solve and remember solutions. This means that they can be highly efficient escape artists, who, aided by their lack of bones, can squeeze their whole bodies through the tiniest of spaces to evade danger. The Giant Pacific octopus is the largest known species of octopus and can weigh around 60 kilograms.



# Fill in the patterns on the sea turtle shells







### Hawksbill turtle

*Eretmochelys imbricata*

Shell length: Up to 90cm

This species' shell is unique in that its shell sections overlap, creating a beautiful, distinctive pattern.

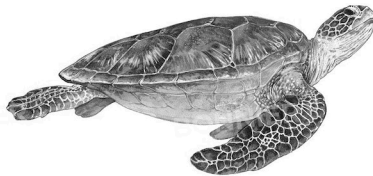


### Loggerhead turtle

*Caretta caretta*

Shell length: Approx. 1.2m

Named for its large head and strong jaws, these turtles are able to crush clam shells and crunch sea urchins.



### Green turtle

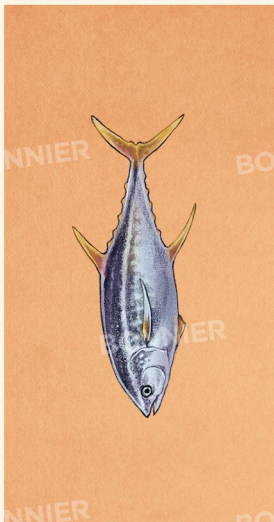
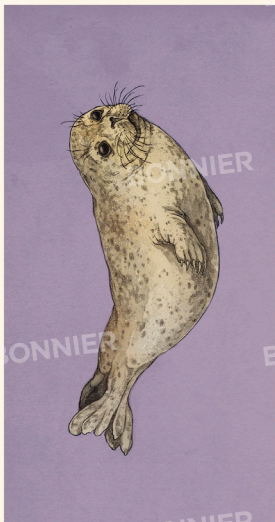
*Chelonia mydas*

Shell length: Approx. 1.2m

Of all the sea turtle species, green turtles are the only turtles that are herbivores (an animal that eats plants) as adults. They are also the only sea turtles to leave the water for purposes other than egg laying – they will sunbathe on beaches to keep warm.



Match the predators to their prey

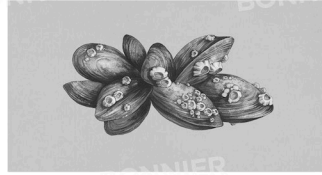




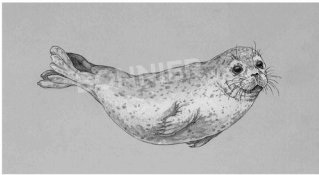
## Answers



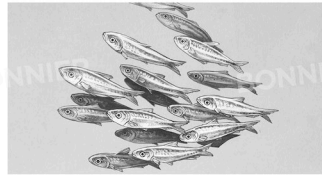
Crimson knobbed starfish



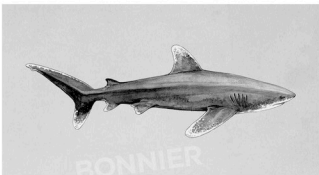
Common mussel



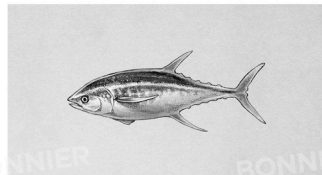
Harbour seal



Herring fish



Oceanic whitetip



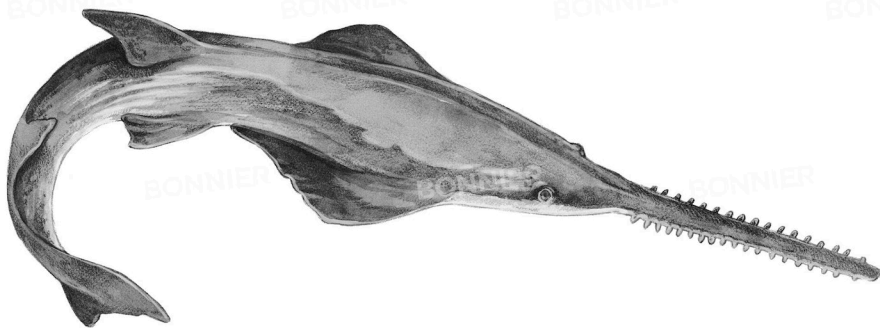
Yellowfin tuna



Draw a sharp snout on this knifetooth sawfish







### **Knifetooth sawfish**

*Anoxypristis cuspidata*

Length: Approx. 3.5m

Sawfish all have a long, tooth-edged nose, which has pores for detecting electrical fields. The sawfish can use this to detect hidden prey, who give off electrical impulses.



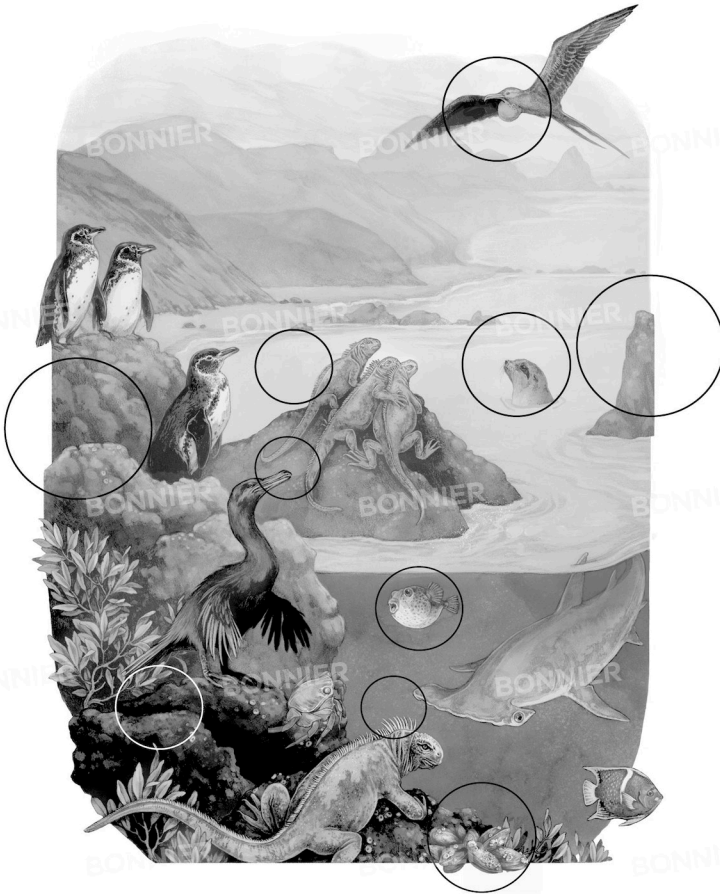
# Spot the difference

(there are 10 differences to spot)





# Answers

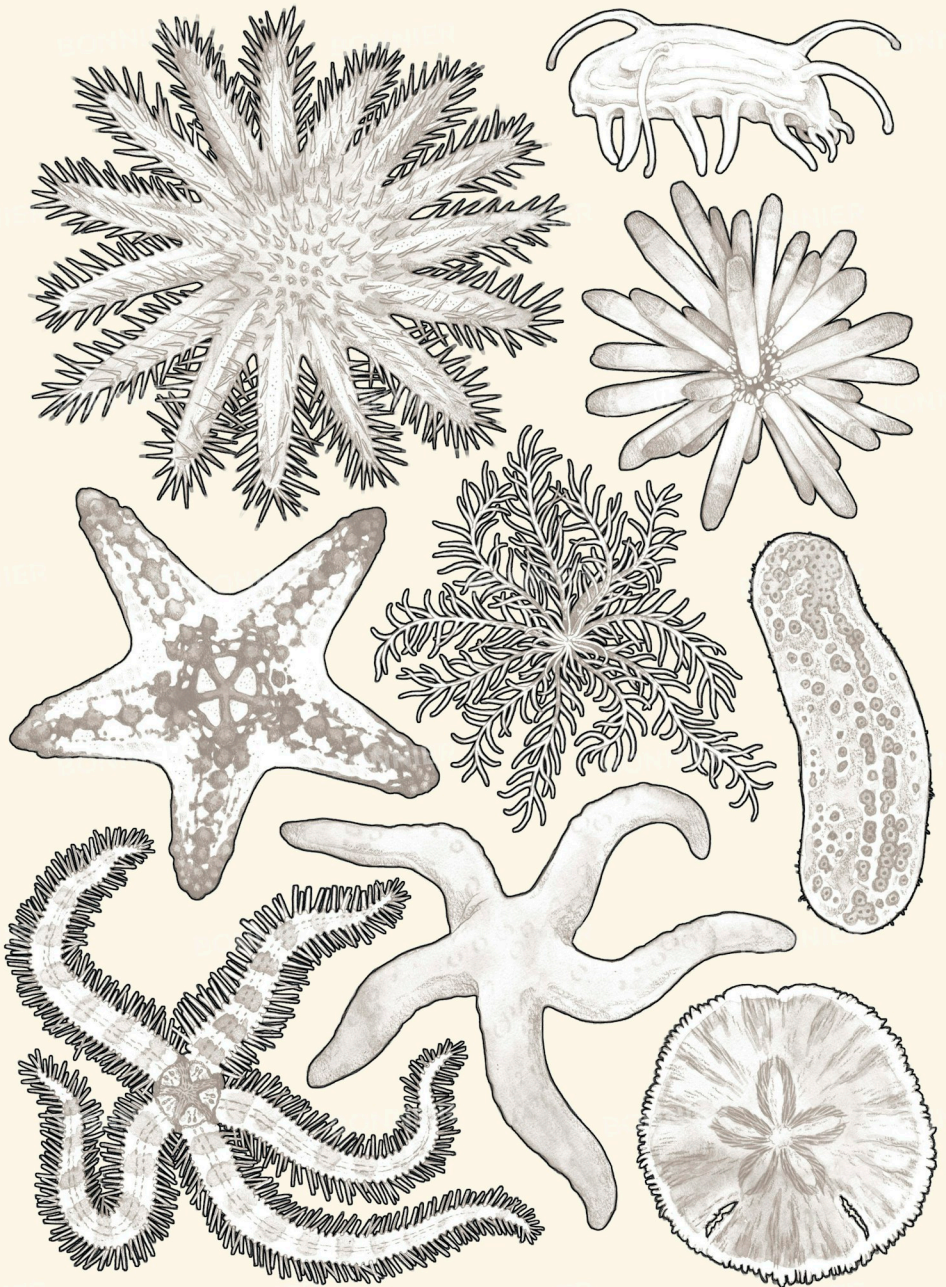


## Galápagos Islands

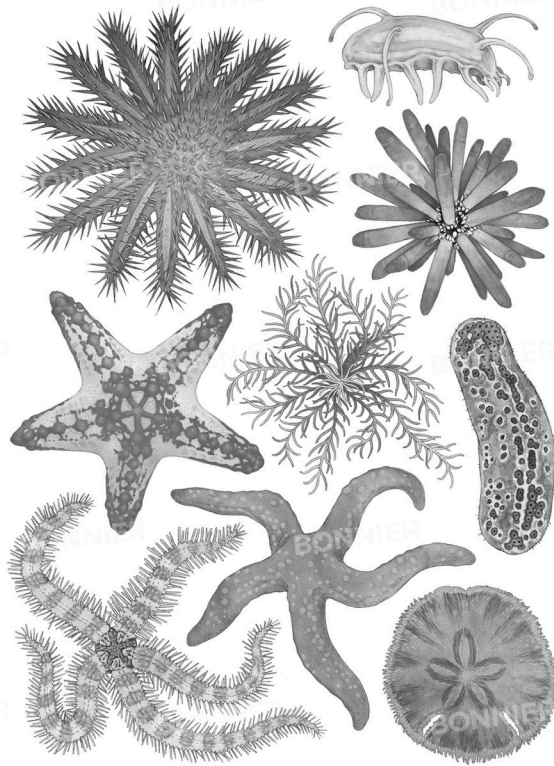
The Galápagos Islands are home to a range of unique species, many of which occur nowhere else on Earth. Around 3,000 marine species live and feed in the Galápagos region. As a result of this impressive number, the islands are now a marine protected area (MPA). By limiting fishing and protecting wildlife, the MPA aims to protect the unique nature of this incredible corner of the world.



# Colour in the echinoderms





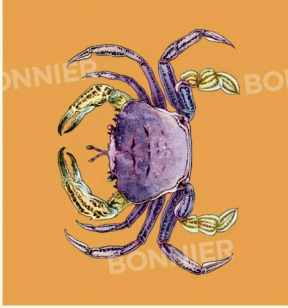


## Echinoderms

Found in every part of the ocean, from the shallows to the deep sea, echinoderms either creep slowly over the seabed or are anchored in one place, gently sifting food out of the water as it passes by. In appearance, this group which includes starfish, sea cucumbers and sea urchins, can seem passive and defenceless. However, these creatures are in fact amazing predators and are capable of living in some of the most extreme environments on the planet.

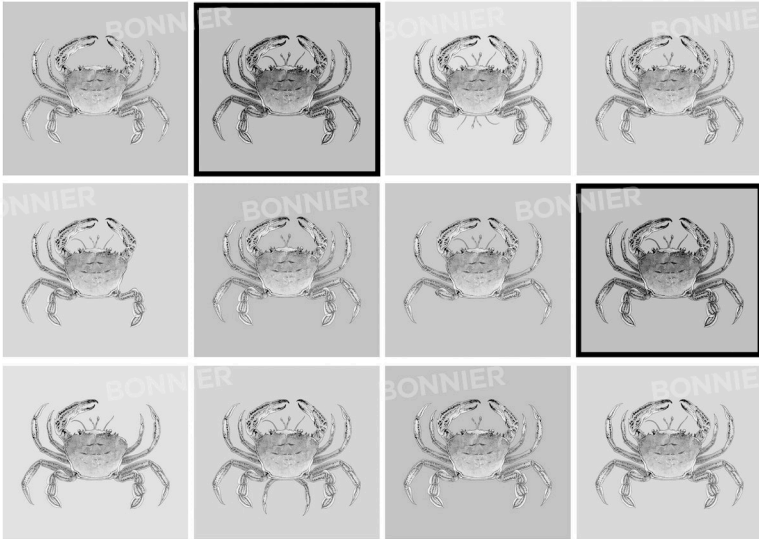


Find the matching pair of velvet swimming crabs





## Answer



### Velvet swimming crab

*Necora puber*

Carapace width: Up to 10cm

Crustaceans are members of a group called the arthropods, which include insects and arachnids. These are some of the most successful animals that have ever lived on our planet and, in fact, account for around 80 per cent of all known living species.

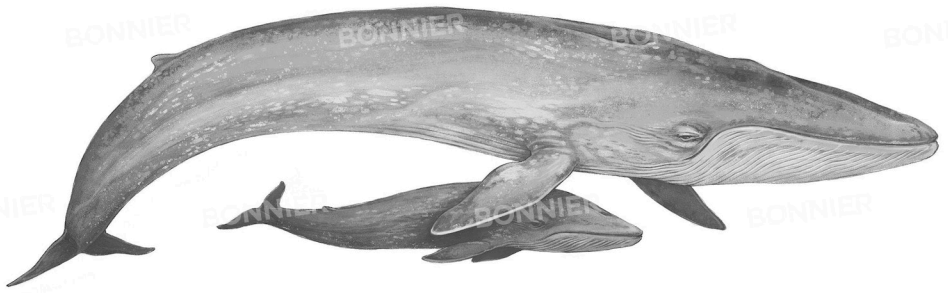
The red-eyed velvet swimming crab is a particularly feisty crustacean, earning it the alternative name of 'devil crab'.



Add a whale calf swimming next to this blue whale







### Blue whale and calf

*Balaenoptera musculus*

Length: Up to 30m

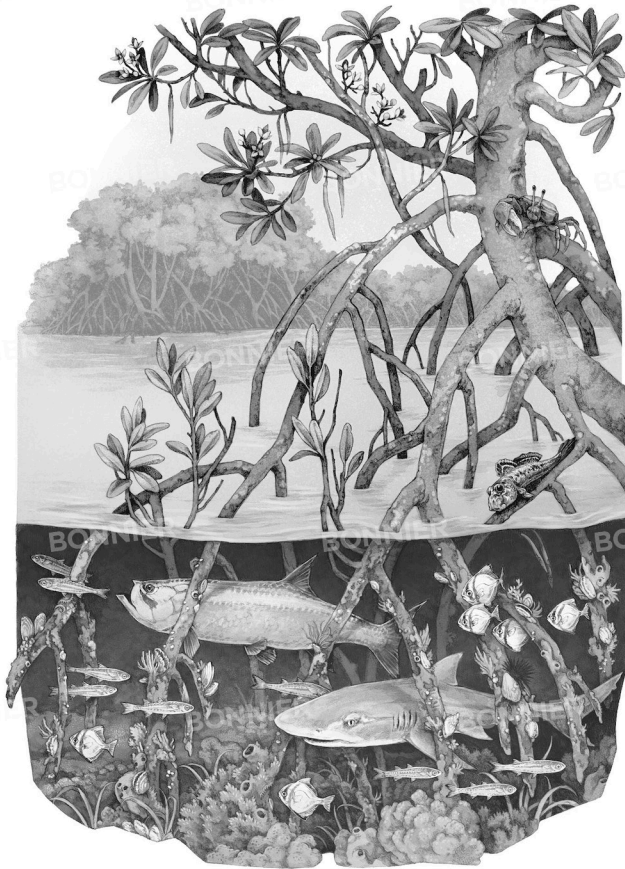
Blue whales are the largest animals that have ever lived on our planet, reaching lengths of up to 30 metres. They migrate between cold and warm waters, spending the warmer months feeding at the poles, and the cooler months nearer the Equator where they meet to breed. Females have babies every two to three years and are pregnant for around a year before giving birth to a seven-metre-long calf.



Add some fish to this  
mangrove forest habitat







### *Mangrove forest*

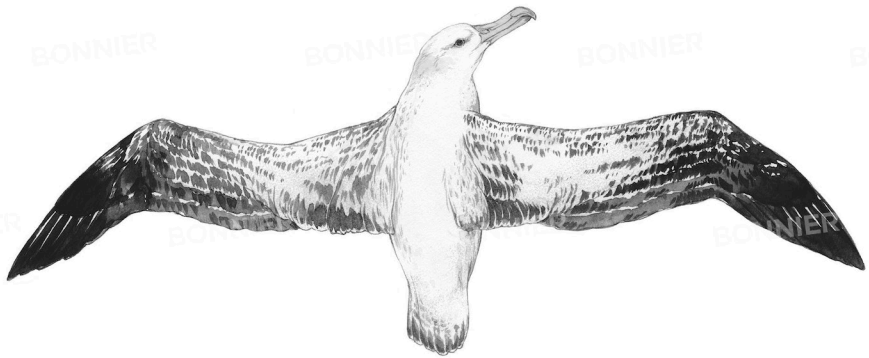
Mangrove trees can survive conditions that would kill most other plants. Growing in tropical coastal areas, these resilient plants can withstand salty water; intense sunshine, changing tides and crashing waves. Where their roots enter the water, mangroves create caves and tunnels – the perfect hiding places for fish and other small animals.



# Finish the albatross







### Wandering albatross

*Diomedea exulans*

Wingspan: Up to 3.5m

Wandering albatross have the largest wingspan of any bird and can spend years at sea without returning to land once. They have been known to fly around 10,000 kilometres in a single journey, barely flapping their wings. Instead, they use the wind, catching updrafts to keep themselves airborne and to conserve energy.

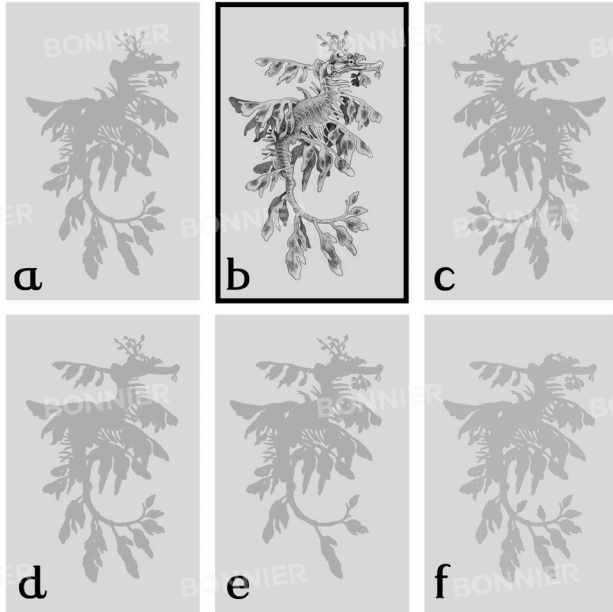


Which silhouette matches this leafy seadragon?





## Answer



### Leafy seadragon

*Phycodurus eques*  
Length: Up to 24cm

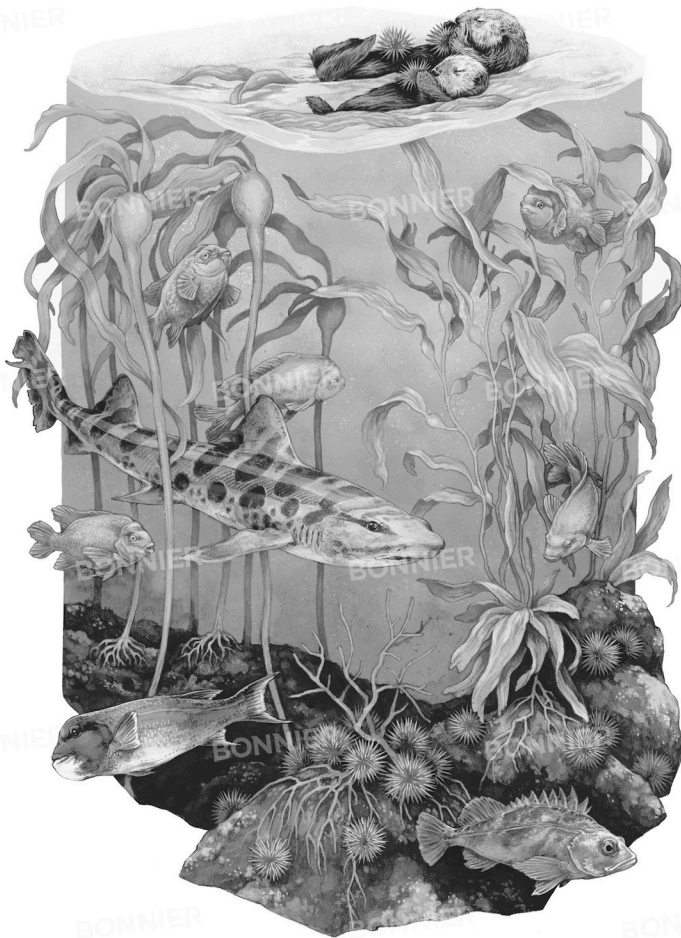
The amazing leaf-like structures on the body of this Australian seahorse are purely for camouflage. They make it difficult to distinguish the seahorse from leafy seaweed fronds.



# Add some fish to this kelp forest



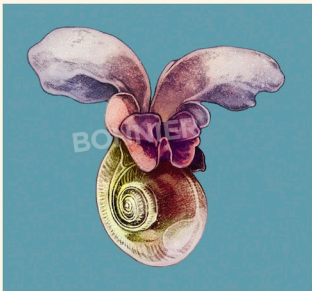
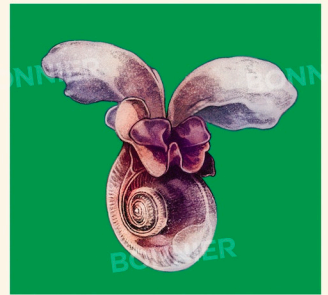
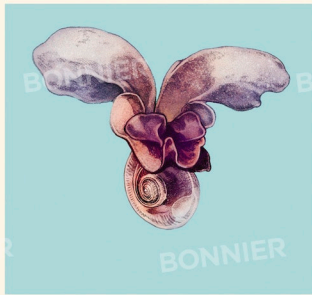
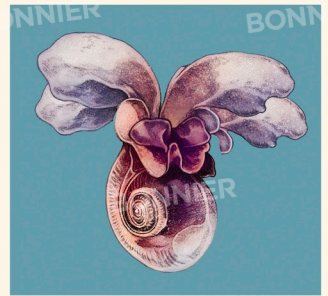
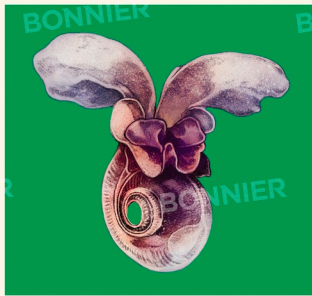




### Kelp forest

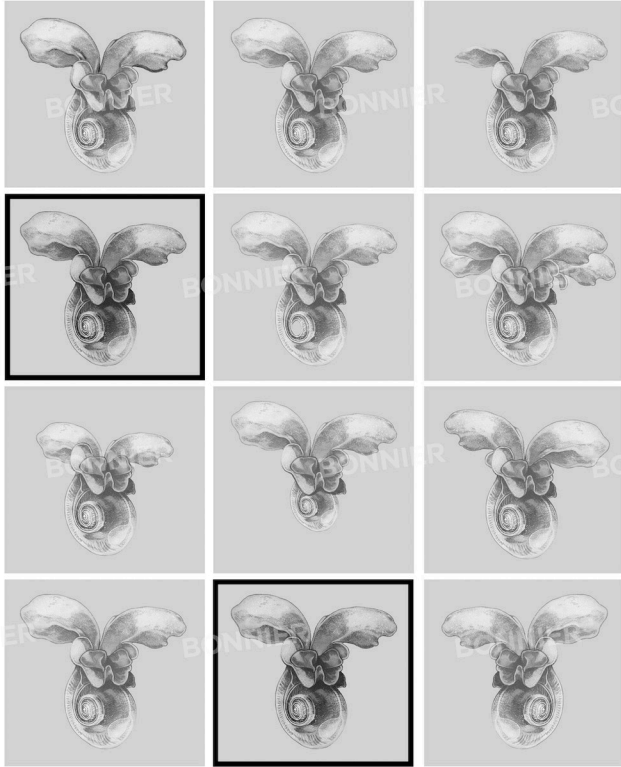
Kelp is a kind of seaweed that grows in cool coastal regions. Some types of kelp grow as tall as 45 metres, forming vast forests that tower above the seabed. Just like a rainforest on land, this ecosystem has several layers where animals can shelter and find food: otters snooze in the canopy; sharks stalk prey in the kelp's corridors; and invertebrates shuffle slowly across the seafloor.

# Find the matching pair of sea butterflies





# Answer



## Sea butterfly

*Limacina helicina*

Shell width: Up to 6mm

This tiny snail is particularly important to one sea slug called a sea angel which feeds almost exclusively on it.

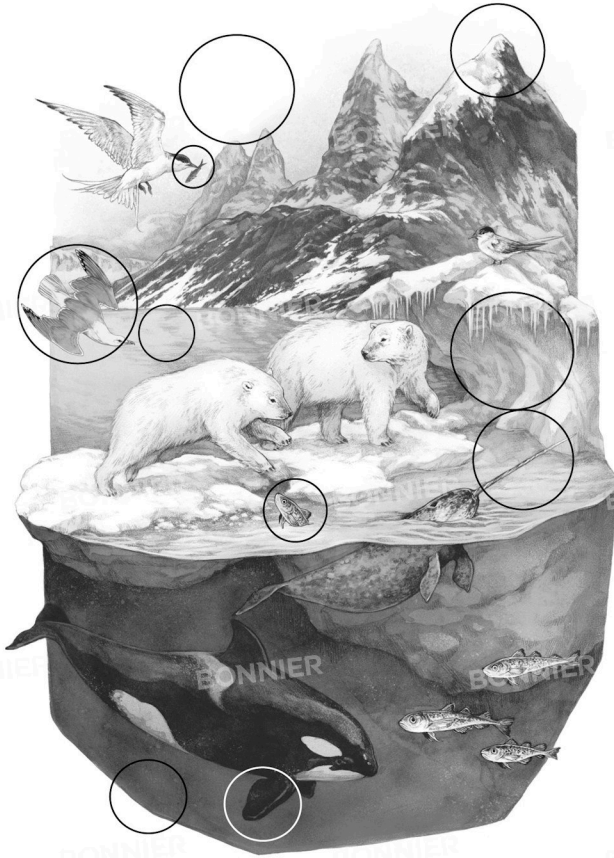
# Spot the difference

(there are 10 differences to spot)





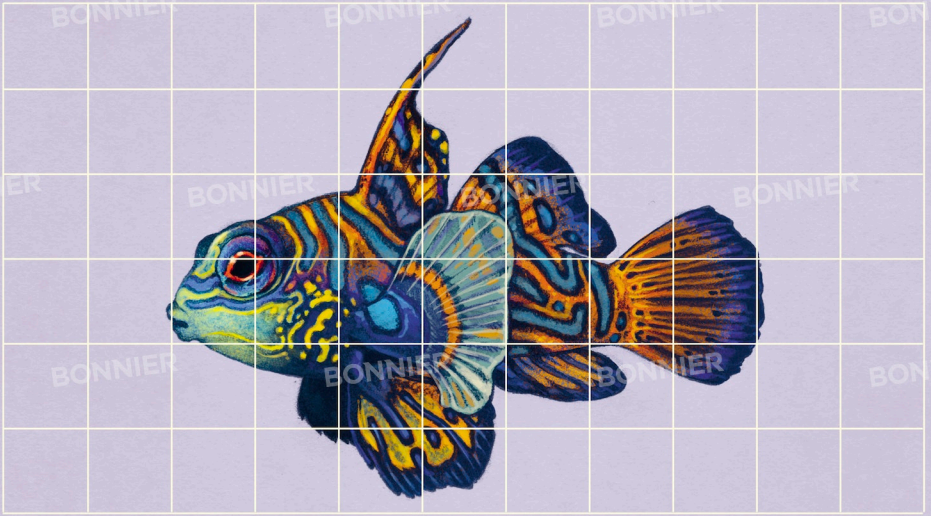
# Answers



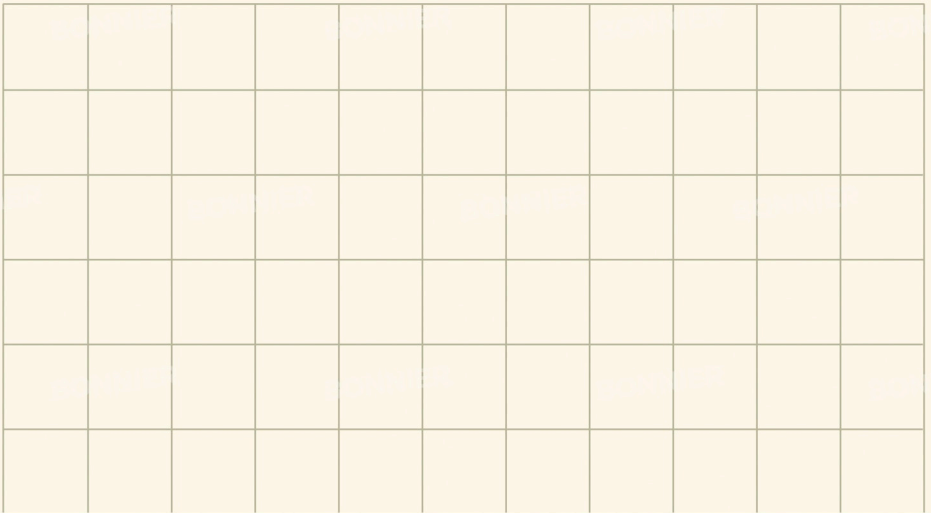
## The Arctic

Antarctica is found at the southernmost tip of our planet and is a continent that is covered in and surrounded by ice. First impressions might suggest that it would be difficult for life to thrive here, yet the Arctic is home to many animals, from mystical-looking narwhals to majestic polar bears and a host of migratory seabirds and sealife.

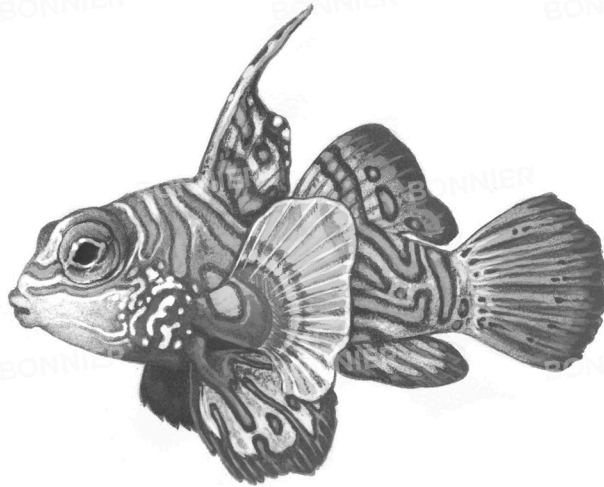
# Mandarinfish



Draw the mandarinfish







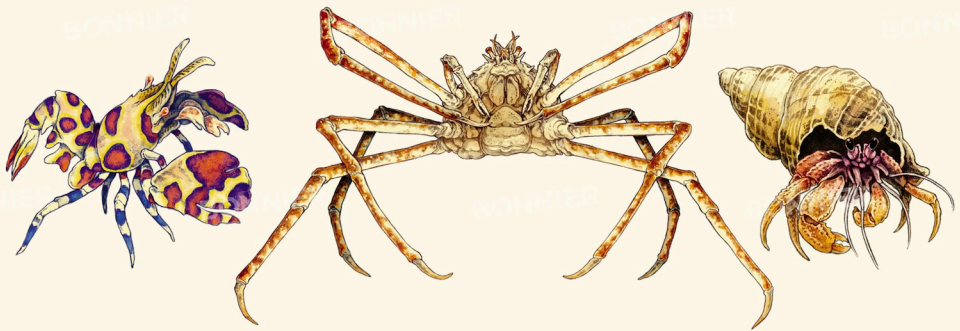
### *Mandarinfish*

*Synchiropus splendidus*

Length: Up to 6cm

These beautiful fish don't have scales. Instead, they have a mucus coating (a slimy substance), which protects them from bumps and scrapes as well as parasites.

# Create your own sea crustaceans





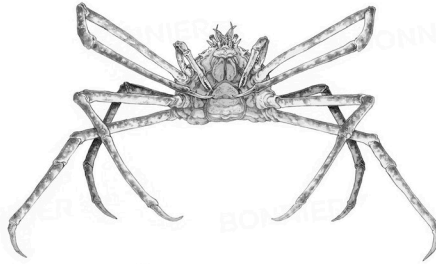


### Harlequin shrimp

*Hymenocera picta*

Length: Up to 5cm

This species exclusively feeds on starfish, and will work together to flip them over, carry them back to their reef crevice and feed on them.



### Japanese spider crab

*Macrocheira kaempferi*

Carapace width: 40cm

The largest known arthropod, the long legs of this crab can grow up to four metres. They often break, but can be regrown.



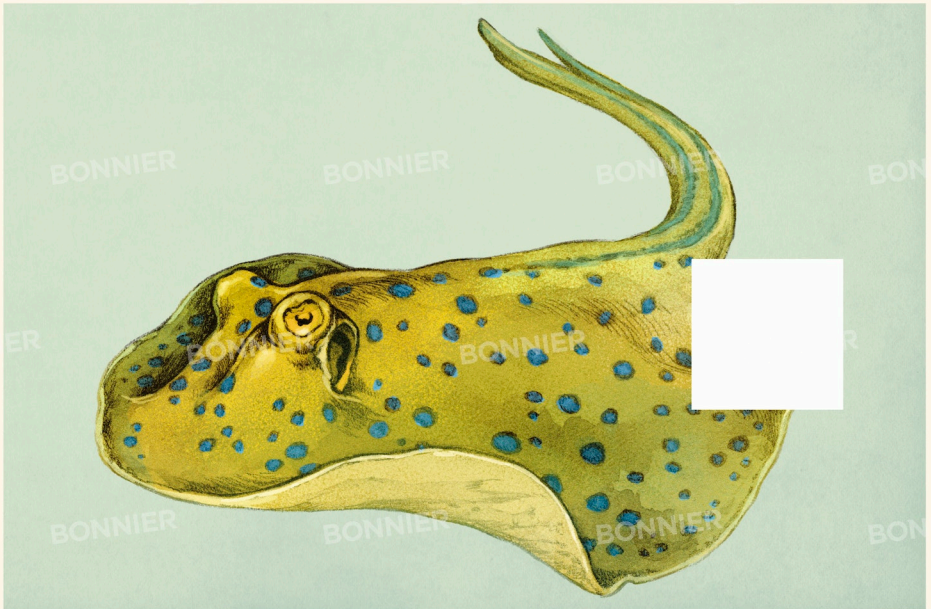
### Common hermit crab

*Pagurus bernhardus*

Carapace length: Approx. 3.5cm

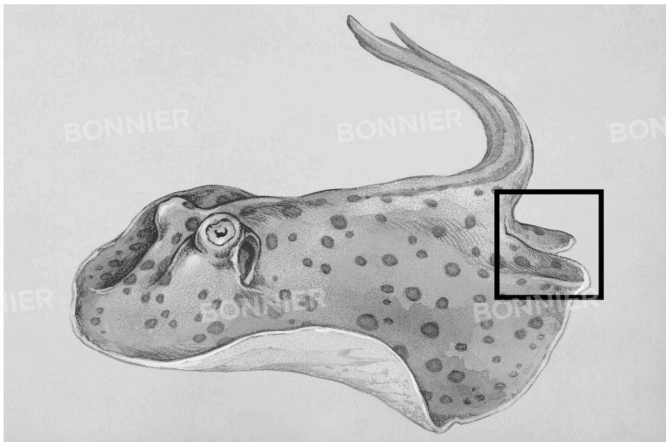
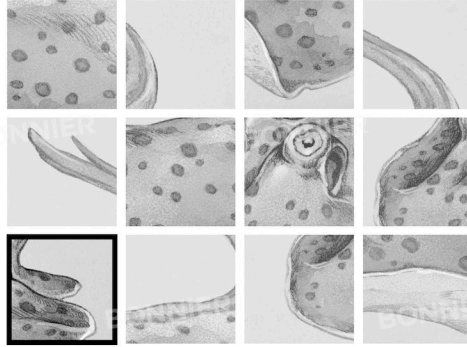
These crabs have no exoskeleton on the rear half of their bodies. They have been known to use plastic litter, such as bottle tops, as replacement shells.

# Find the missing square





# Answer



Bluespotted ribbontail ray

*Taeniura lymna*

Width: Approx. 35cm

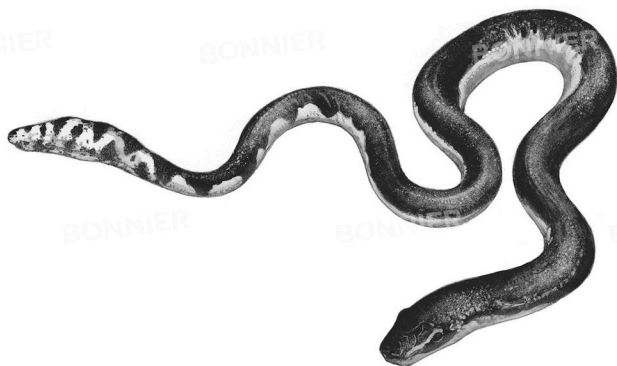
Gracefully gliding through the water or resting undetected on the seafloor; rays are animals with a skeleton made of cartilage (tough, flexible tissue). Rays have adapted highly effective ways of staying safe from predators – from spots and speckles to marbled tones.

The bright blue spots on this beautiful ray are attractive but warn of a dangerous sting.

Add some more sea snakes to the scene





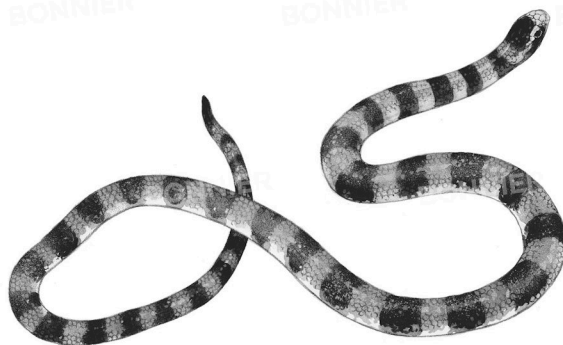


### Yellow-bellied sea snake

*Hydrophis platurus*

Length: Up to 88cm

This snake lives in the open ocean, diving under the water to hunt. They can breathe through their skin which helps them to stay underwater for longer.



### Belcher's sea snake

*Hydrophis belcheri*

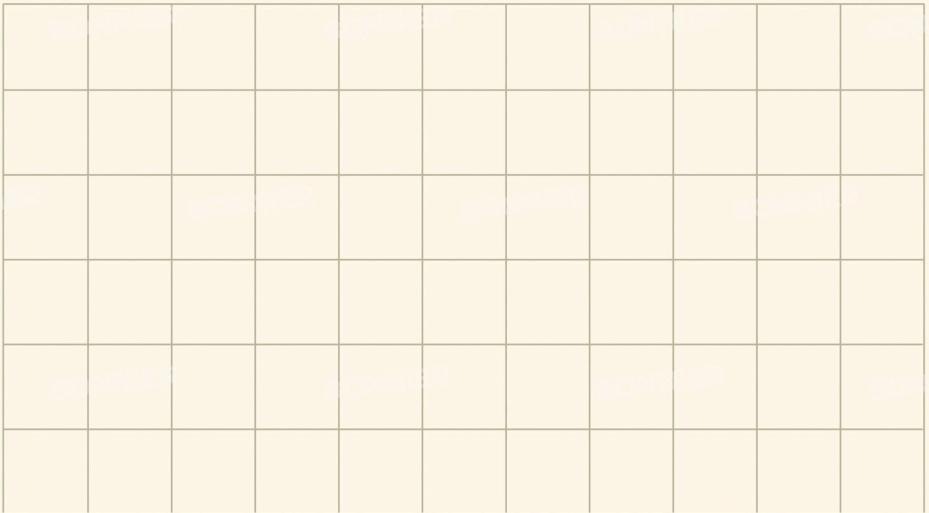
Length: Up to 1m

This sea snake is highly venomous but is docile and rarely attacks humans. If it does, it doesn't always inject toxin and its short teeth often won't pierce through a diving wetsuit.

# Emperor penguin



Draw the emperor penguin





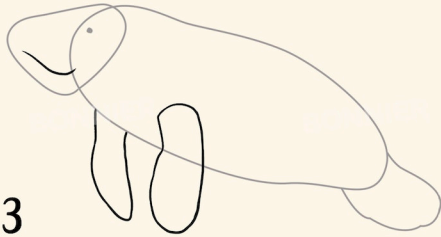
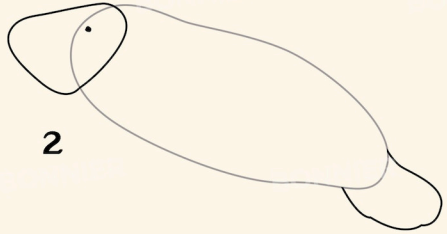
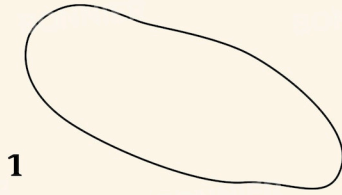


## Emperor penguin

*Aptenodytes forsteri*  
Height: Up to 1.2m

The emperor penguin is the only animal that spends the winter in Antarctica. These amazing birds will walk 80 to 120 kilometres inland to breed in colonies. Once the egg is laid and hatched, the parents will take turns to guard their chick, while the other returns to feed at sea. Only by working together can they raise the next generation of emperor penguins in such extreme conditions.

# How to draw a manatee



Try it yourself



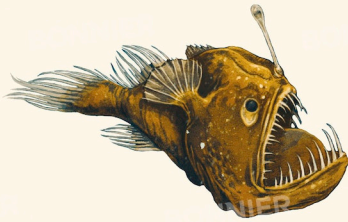


### West Indian manatee

*Trichechus manatus*  
Length: Up to 3.5m

These marine mammals were once mistaken for mythical creatures by sailors. Today, manatees are more commonly known as sea cows. With large bodies, a slow lifestyle and the need to graze for hours at a time, they do have similarities with their land-based namesake. The West Indian manatee is the largest member of this group today and is increasing in numbers thanks to conservation efforts.

Draw a line connecting each sea creature to the habitat where it lives

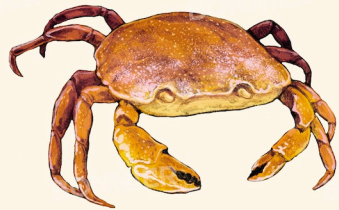
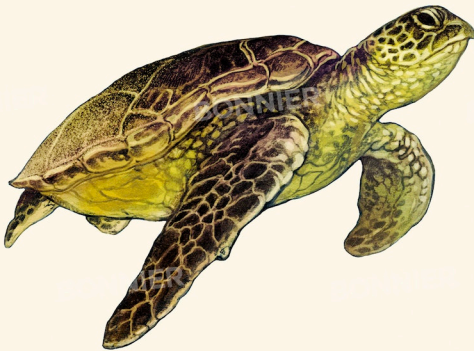


Rock pools

Coral reefs

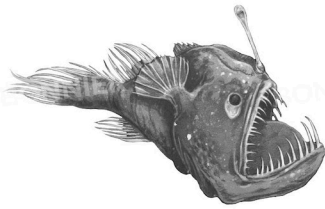
Open ocean

Deep sea

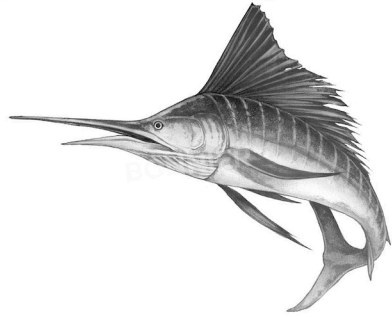




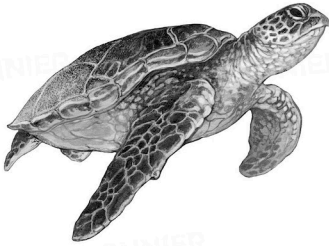
## Answers



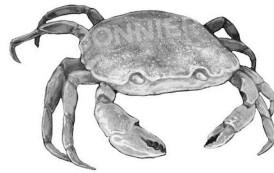
**Humpback anglerfish**  
Deep sea



**Indo-Pacific sailfish**  
Open ocean



**Green turtle**  
Coral reefs



**Shore crab**  
Rock pools

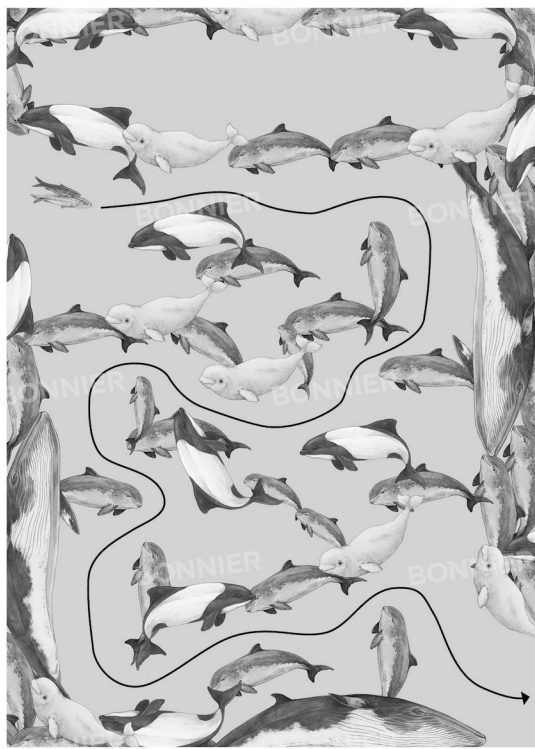
# Help the fish escape the maze of sea creatures



Way  
out



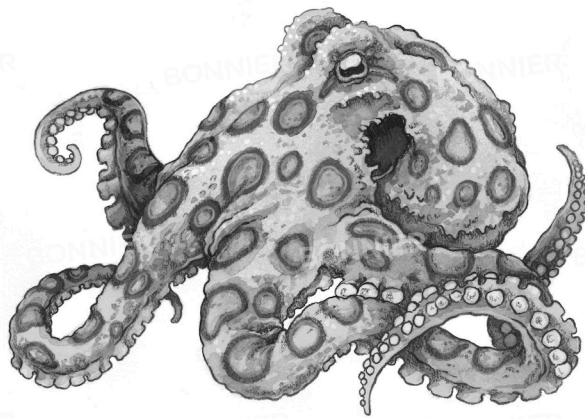
# Answer



Colour in this greater blue-ringed octopus







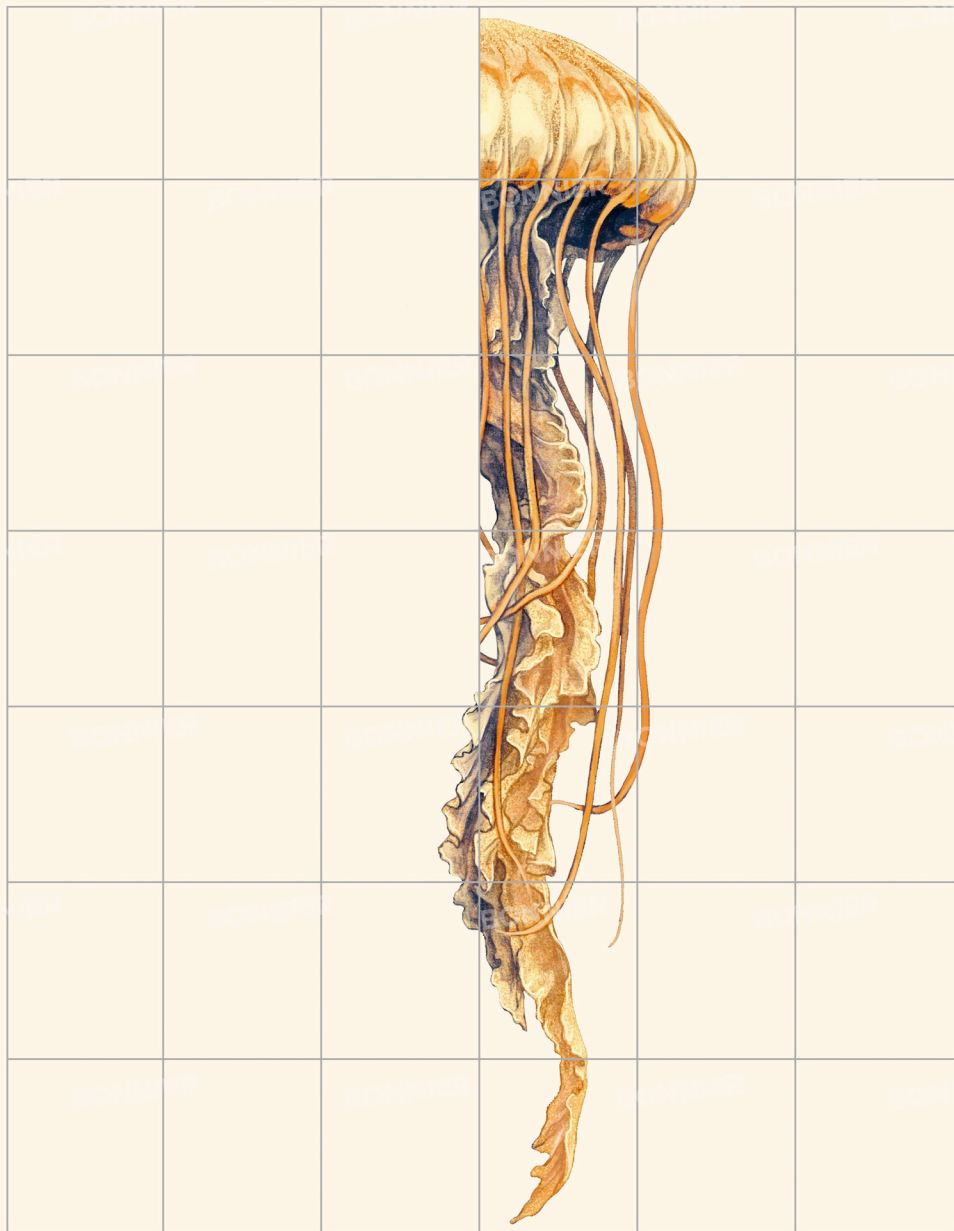
### Greater blue-ringed octopus

*Hapalochlaena lunulata*

Mantle length: Up to 4cm

The blue rings on this tiny octopus flash brightly when approached, a warning to its prey. Just one bite from this tiny creature has enough venom to kill several humans.

# Finish the pacific sea nettle







### **Pacific sea nettle**

*Chrysaora fuscescens*

Bell diameter: Usually less than 30cm

Tentacle length: Up to 4.5m

Jellyfish are wanderers of the ocean, drifting with the currents wherever the water takes them. Most jellyfish have long tentacles, which are lined with stings that dangle beneath them to catch prey.

Incredibly, some animals seek out the tentacles of the sea nettle intentionally, with juvenile fish and crabs sometimes taking shelter within them as a means of avoiding predators.

Add some sea lions to this colony







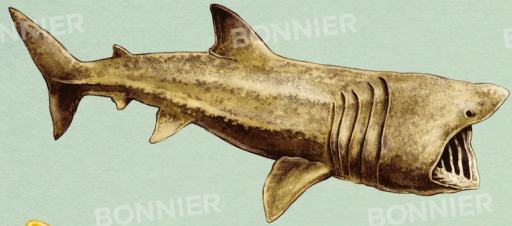
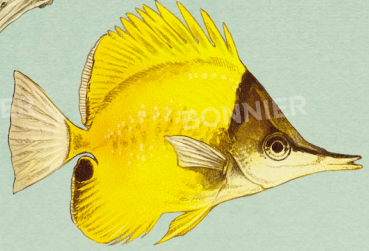
### Californian sea lion

*Zalophus californianus*

Length: Up to 2.4m

The pinnipeds are a group that includes some of the fastest and most agile marine mammals, most of which survive in the coldest waters on Earth. These sleek predators are most at home swimming underwater; but they also make use of land or ice floes as a refuge from predators. Like all pinnipeds, sea lions have vibrissae (whiskers) around their faces, which help them to detect the movements of prey in the water.

# Circle the mammals





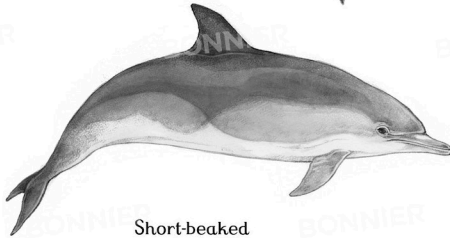
# Answers



Blue whale

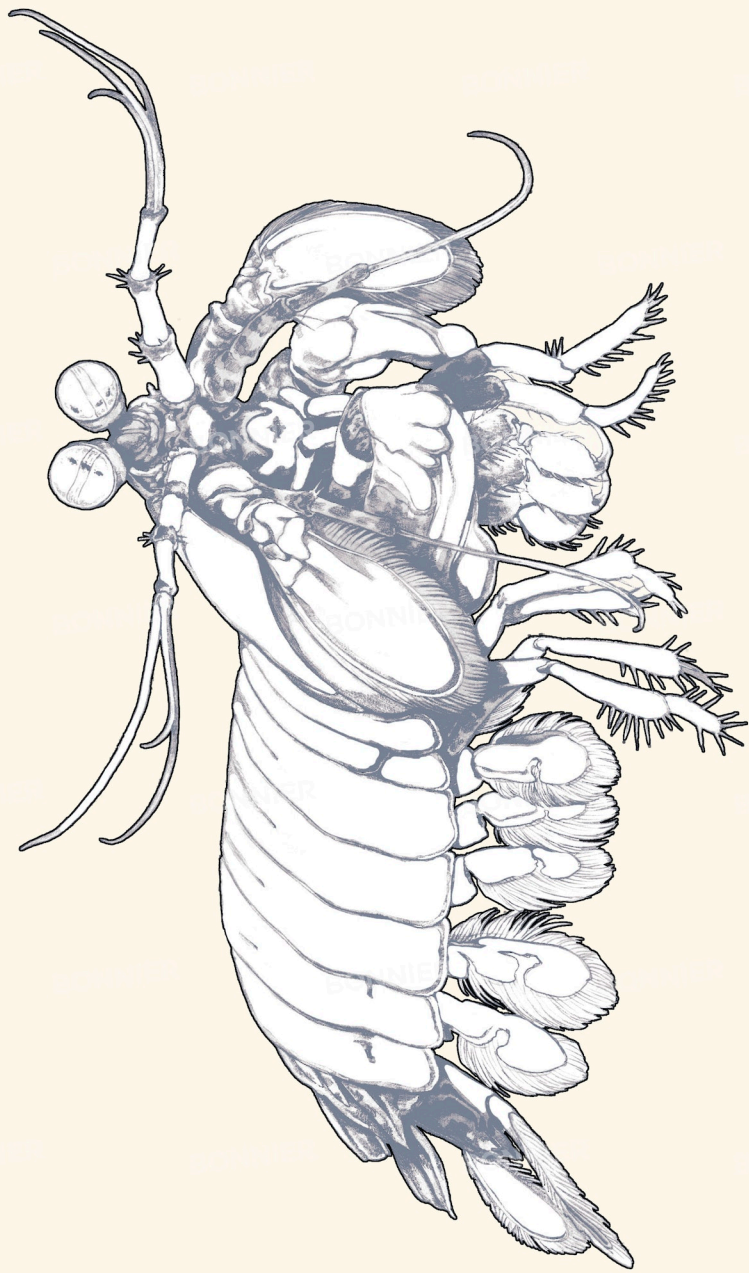


Walrus

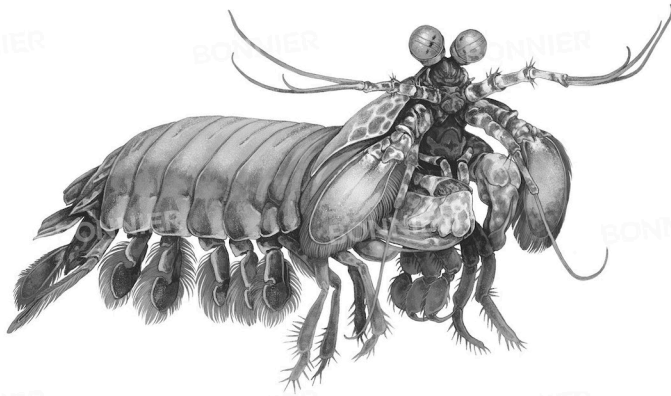


Short-beaked  
common dolphin

# Colour in this peacock mantis shrimp







### Peacock mantis shrimp

*Odontodactylus scyllarus*

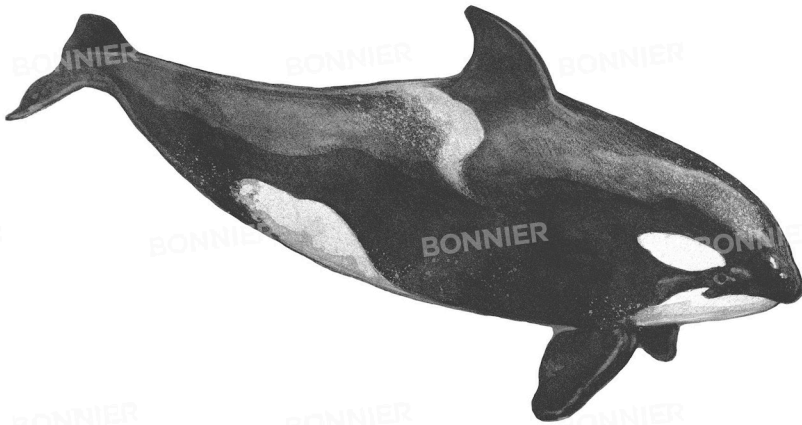
Length: Up to 18cm

Despite their small size, peacock mantis shrimp are incredible hunters and fierce defenders of their territories. Burrowing under the sand, they lie and wait for unsuspecting prey, ambushing them when they venture too close. The peacock mantis shrimp is mainly found within the Indian and Pacific oceans, and is a bright and colourful inhabitant of shallow reefs.

# Draw a pod of orcas hunting together







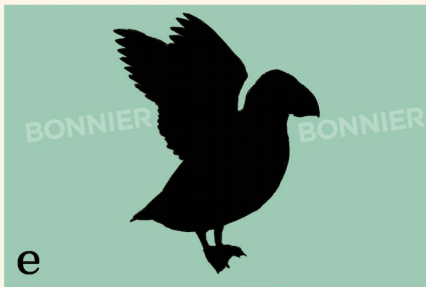
## Orca

*Orcinus orca*

Length: Up to 8m

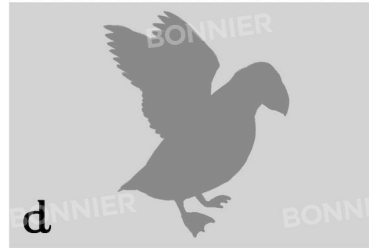
Orcas are part of a group of marine mammals called cetaceans that includes whales, dolphins and porpoises. All members of this group share special adaptations that allow them to swim enormous distances and stay warm. Orcas are apex predators that can communicate to hunt together and are one of the most intelligent cetaceans known.

# Which silhouette matches this Atlantic puffin





# Answer



## Atlantic puffin

*Fratercula arctica*

Wingspan: Up to 63cm

Seabirds make up around 3.5 per cent of all bird species. Whether they spend their lives gliding over the waves like the wandering albatross or visit the ocean only to collect food like the puffin, these birds all have a connection to the sea. Their plumage is often less colourful than other birds, which helps them camouflage against the ocean waves.