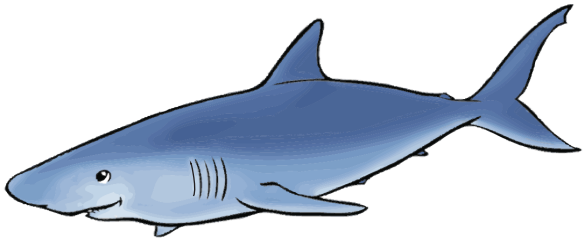
Galleria: Sharks

Look out for the sharks swimming overhead! Most sharks are great swimmers and their bodies are built for speed.
What body shape do these sharks have in order to help them be such fast swimmers? (Hint: what sports ball does their body look like?)

What other body parts do sharks have that help them swim?



View the "Sharks Circling Overhead" poster near the glass entrance doors to learn about these local sharks.

Sharks ANSWERS

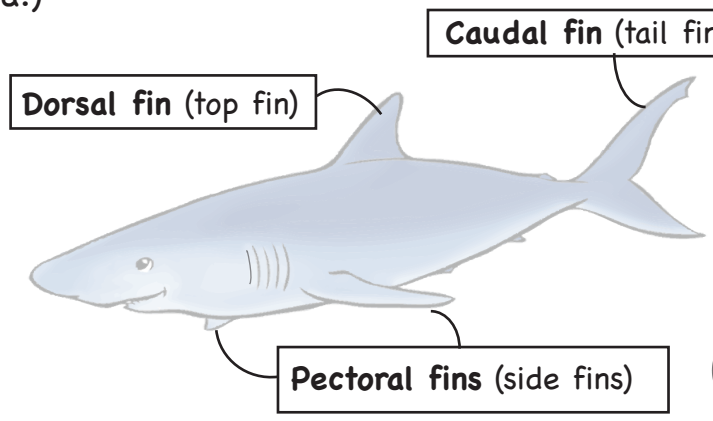
Shark bodies resemble a football, known as a fusiform shape. This shape helps them swim quickly through the water, just as a football flys quickly through the air.

Sharks also have fins to help them swim. (Point out the following fins on the models hanging in the Galleria.)

Dorsal fin:
used for stability and staying upright

Pectoral fins:
used for steering and creates lift

Caudal fin:
moves back and forth to provide the power for swimming forward



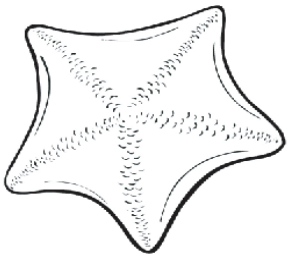
Hall of Fishes: Pacific Northwest

The cold waters of the Pacific Northwest coast make a great habitat (home) for many different types of sea stars.

Can you find a sea star that has up to 24 arms that is named after a flower?

How many different species of sea stars keep our giant Pacific octopus company in Tank #5?

Can you find the name of the sea star pictured here?



Did you know? Most sea stars have the ability to grow back a new arm if they were to loose one.

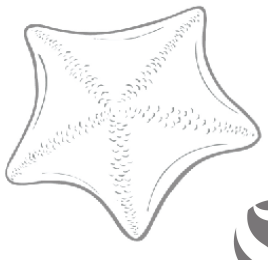
Pacific Northwest ANSWERS

The **sunflower sea star** in Tank #2 has between 16-24 arms!

There are four different species (types) of sea stars in Tank #5 that keep our octopus company.

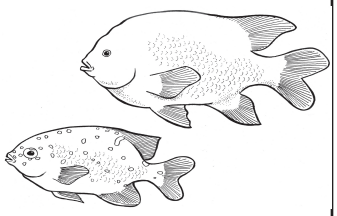
False ochre star, short-spined sea star, bat star, and netted blood star

Visit the "Meet the Species" interactive exhibit to learn more about the sea stars featured in Tank #5.



This sea star is known as a **bat star**. It has webbed arms, which resembles a bat's wings, and tough skin to protect itself. Keep an eye out for these sea stars in our Tidepool Plaza exhibit.

Hall of Fishes: Southern California



Who is that bright orange fish swimming in the kelp forest? It's the garibaldi, California's state marine fish!

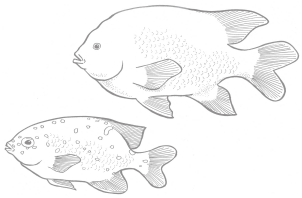
How can you tell the difference between the adult and juvenile garibaldi? Visit Tank # 15 to find out the answer.

Garibaldi live within the kelp forest growing off our Southern California coast. Continue your journey to the Kelp Tank.

Giant kelp is a large seaweed that grows to more than 150 feet tall. **What does kelp need in order to grow?** (Hint: Think about what land plants need to survive.)

Why might kelp forests be a good habitat for all the different animals that live here?

Southern California ANSWERS



Juvenile garibaldi have bright blue spots on their scales. As they grow up, they lose these spots and become a solid bright orange color. The blue spots of the juveniles help distinguish them from the territorial adults.

Kelp, like land plants, need sunlight, water, and nutrients to survive. Giant kelp, seen growing in our Kelp Tank, is native to San Diego. It flourishes under our bright sun and in our cool, nutrient-rich waters.

More than 550 different species of animals call the kelp forest their home. Kelp provides food, nutrients, and oxygen for them. It provides shelter and protection for invertebrates (animals without a backbone), fishes, and marine mammals such as seals, sea lions, and sea otters.

Hall of Fishes: Nursery

Baby horn shark and its spiral egg case.

Look at our newest arrivals in our Nursery Exhibit.
Read the exhibit signs to learn about how our aquarists are carefully taking care of them as they grow.

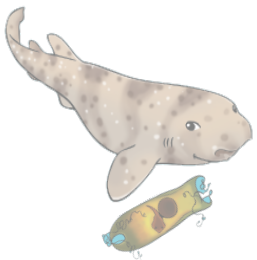
One major benefit in raising our own babies here at the aquarium is that we do not have to take marine animials out of the ocean or harm their habitats.

Read the back of this page to learn more about the local species of sharks we raise here at the Birch Aquarium at Scripps.

Did you know? Some sharks are born from egg cases, like the horn shark shown in the image above.

Nursery

Horn sharks are bottom-dwelling sharks that feed on fishes and invertebrates near the ocean floor. They have spines on their dorsal (top) fins that aid in protection. Their maximum adult size is four feet. The unique spiral shape of their egg cases allows the mother shark to secure the egg between rocks on the ocean floor.



Swell sharks are also bottom-dwelling sharks that feed on fishes and invertebrates. As their name suggests, this shark can swallow large amounts of water and swell up its body to twice its normal size. Swell sharks grow to be about three and a half feet in length. Their egg cases are known as mermaids purses.

BIRCH AQUARIUM
at Scripps Institution of Oceanography
UC San Diego

Self-Guided Explorations

Lower Elementary

www.aquarium.ucsd.edu

Tidepool Plaza: Tide Pools

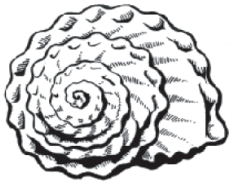
When the tide is low and the rocks are exposed, it's a great time to explore the tide pools! Tide pools are rocky habitats along the shore that become great homes for small marine life.

Roll up your sleeves and gently touch these intertidal animals with one or two "science" fingers.

Tide-pool animals face many challenges, especially when it comes to protecting themselves from predators, such as seagulls.

Can you think of some ways that the following animals protect themselves from predators in the tide pools?

Bat stars Sea snails Sea urchins



Did you know? The mouth of sea stars and sea urchins is located on the underside of their bodies.

Tide Pools ANSWERS

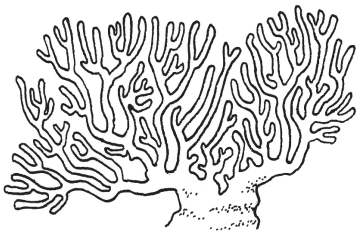
Tide pools are areas along the rocky coast that are exposed during low tide. Water becomes trapped between the rocks creating small pools for animals to survive in until the high tide returns.

Sea snails have hard shells to protect them from predators. They have a large foot (flat bottom surface used for crawling) that suctions firmly to rocks making it hard for predators to pull them off.

Sea stars have hundreds of sticky tube feet (hair-like projections used for locomotion) to help them hold on to intertidal rocks. They also have the ability to grow back an arm if they were to loose one to a predator.

Sea urchins have spines to protect them from predators. They also have tube feet that help them firmly grasp to the rocks of the tide pools.

Hall of Fishes: Coral Reefs



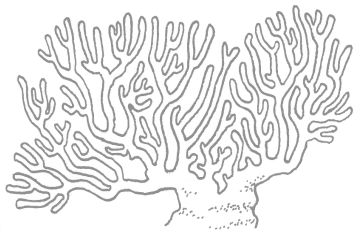
Continue your journey to the warm Tropical Seas and view the bright colors of the corals all around.

The fishes that live in this habitat are brightly colored to help them blend in with the coral reefs. **What color fish do you see swimming among the corals?**

Fish living in the coral reefs also use pattern to help them blend in. **Can you find a fish with spots? Can you find a fish with stripes?**

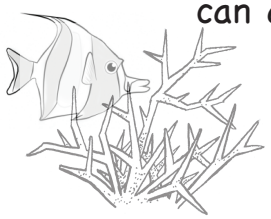
Did you know? California is home to many species of cold-water corals that inhabit our deep sea.

Coral Reefs ANSWERS

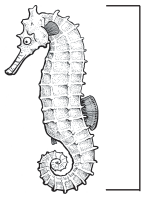


Coral-reef fish display a variety of colors to not only blend into their colorful environment, but also to attract mates. Color can also be used as a warning to inform predators that they are poisonous.

Fish also use patterns to help them blend into their environment. Stripes and spots can confuse predators about the exact location of the fish. For example, if a group of fish are closely swimming together, it is difficult for the predator to determine where one fish ends and another begins. Patterns can also aid in hiding the fish among the branches of corals.



There's Something About Seahorses



Can you find the nams of the seahorses and their relatives by using the clues below?

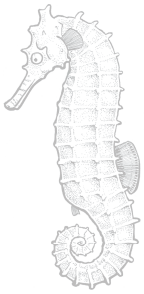
This is the smallest type of seahorse, growing no bigger than one inch tall. **What is the name of this tiny seahorse?**

This seahorse's name implies it has the biggest belly of all! **What is the name of this seahorse?**

These fishes are not dragons at all, but instead relatives to the seahorse. **What are the names of the seadragons on display?**

Did you know? Baby seahorses are referred to as fry. Visit our Seahorse Nursery to see our latest addition of fry species.

There's Something About Seahorses ANSWERS



The smallest seahorse species are **dwarf seahorses**, growing to a maximum length of one inch in adulthood.

Although its name suggests that it has a large belly, male **pot-bellied seahorses** have large pouches that are used for attracting females and raising their young. Male pot-bellied seahorses will pump their pouch full of water to impress a potential mate.

Leafy seadragons and **weedy seadragons** are relatives of seahorses. They have leaf-like fins and appendages that assist them in blending in to the seaweeds and seagrasses of their ocean habitat.