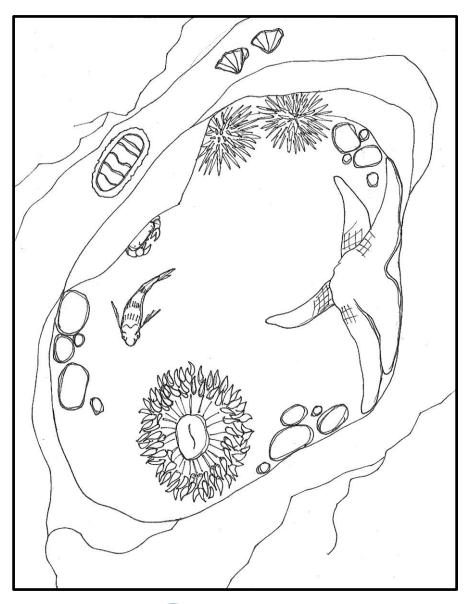
### The ABCs of MPAs

A colorful journey through the marine protected areas of San Diego County





#### What is a marine protected area, or MPA?

Marine protected areas are places in the ocean where plants and animals, and even shells and rocks and archeological artifacts, have special protections that keep them safe. They are often very beautiful places that we want to enjoy for years and years to come. You can think of them like parks, but underwater!

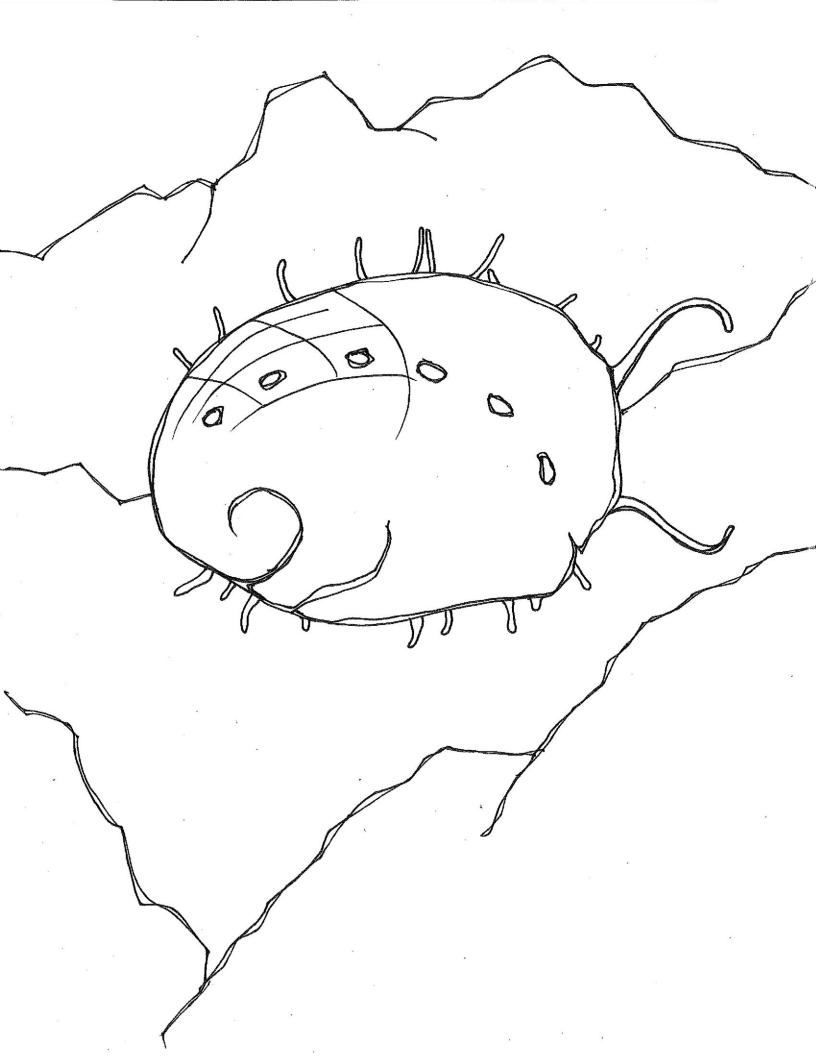
San Diego County has eleven marine protected areas, and each one is a special and unique place. You can enjoy these marine protected areas in many different ways, from swimming and surfing to bird watching and nature hiking.

Each MPA has its own set of rules, as well as its own special animals and plants and historic sites, so it's good to do a little research before visiting.

Let's dive in and explore our MPAs a little more deeply, letter by letter!

#### A is for Abalone

An abalone is an animal with a big shell that live in San Diego's ocean waters. They were an important food source for native people for thousands of years! They are now endangered and hard to find, but MPAs are helping them return to their native waters. The white abalone became the first marine invertebrate to receive federal protection as an endangered species.



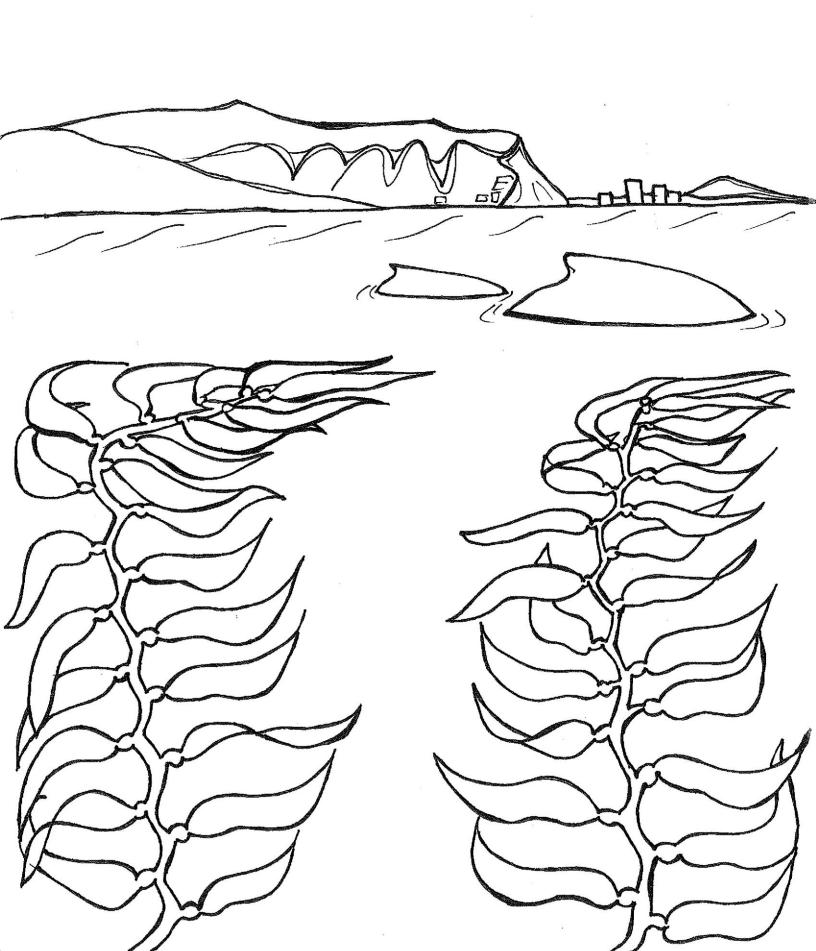
### B is for Batiquitos Lagoon

Batiquitos Lagoon is a beautiful MPA in Carlsbad. You can visit with your family to hike the trails and observe nature. Many birds and bugs and fish live here!



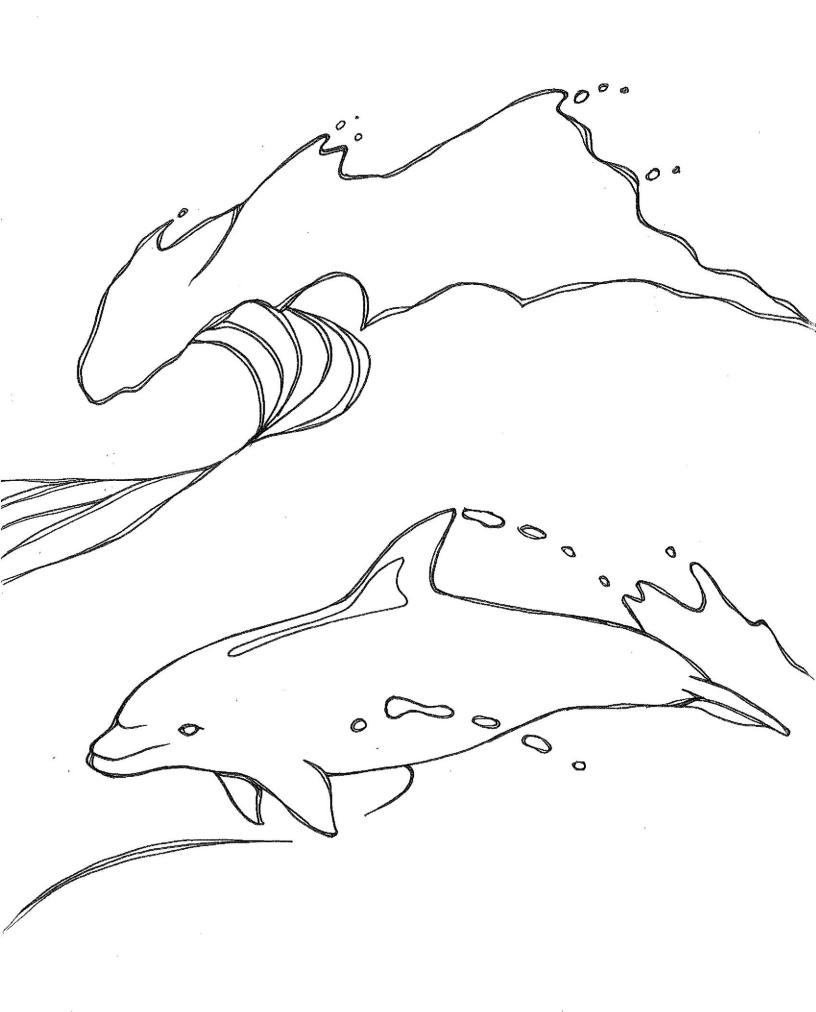
### C is for Cabrillo

Cabrillo State Marine Reserve is another great marine protected area. It has tide pools that are filled with sea life and a kelp forest that is just offshore. Many animals live in the tide pools and in the kelp forest, and every winter, whales pass by on their great migration. There is so much to see here!



### D is for Dolphin

Dolphins love to play in the surf at the San Diego - Scripps Coastal State Marine Conservation Area. You can often see them from the beach! Dolphins love to surf almost as much as San Diegans do.



# E is for Estuary

An estuary is an area where a river meets the sea. This creates a unique wetland habitat for creatures adapted to live where saltwater and freshwater meet. There is an estuary next to the Tijuana River Mouth State Marine Conservation Area that is home to many amazing animals and a wide variety of birds. It is a great place for bird watching!



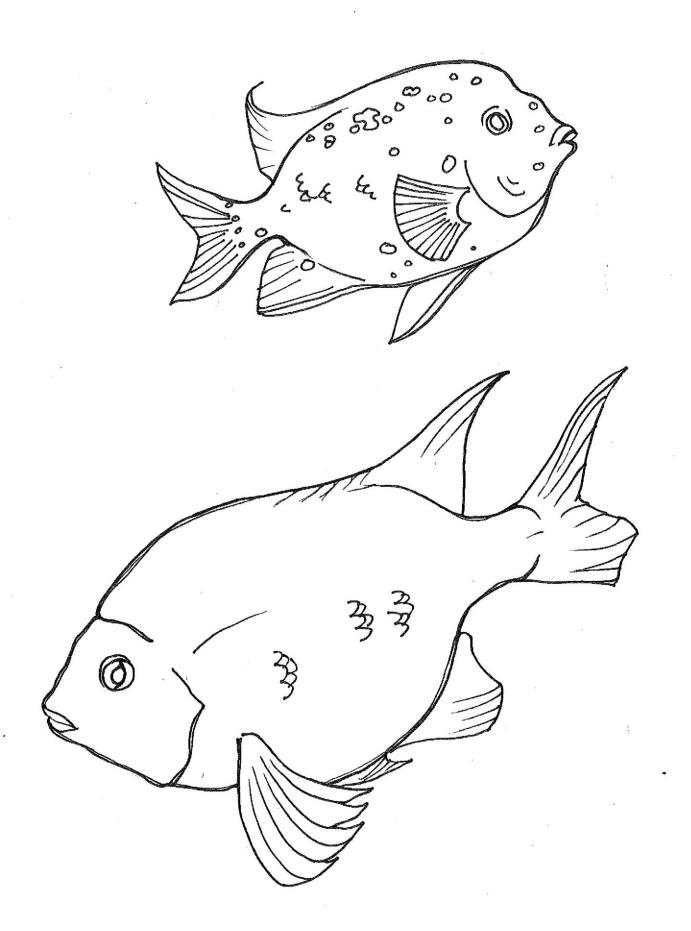
### F is for Fishing

Fishing is a fun activity to do in a lake or river or even at the beach! Did you know you can even fish in some of our MPAs? When you are going fishing, it is important to know the rules so that you can be a sustainable fisherperson, so check the rules and regulations before you go, then have fun!



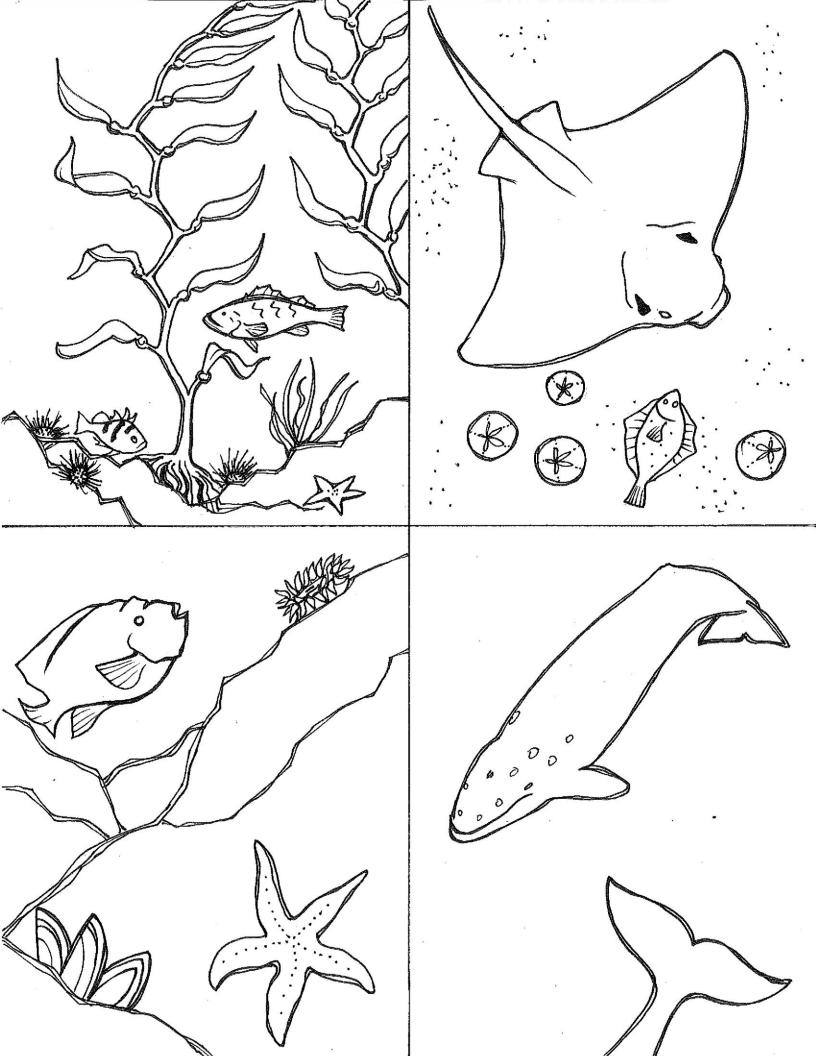
#### G is for Garibaldi

Garibaldis are bright orange fish that live right here in San Diego. Their babies are orange with bright blue spots. They love to live in rocky areas like La Jolla Cove. Did you know that the Garibaldi is the "state marine fish" of California? They are not as shy as most fish, and sometimes even try to chase people away!



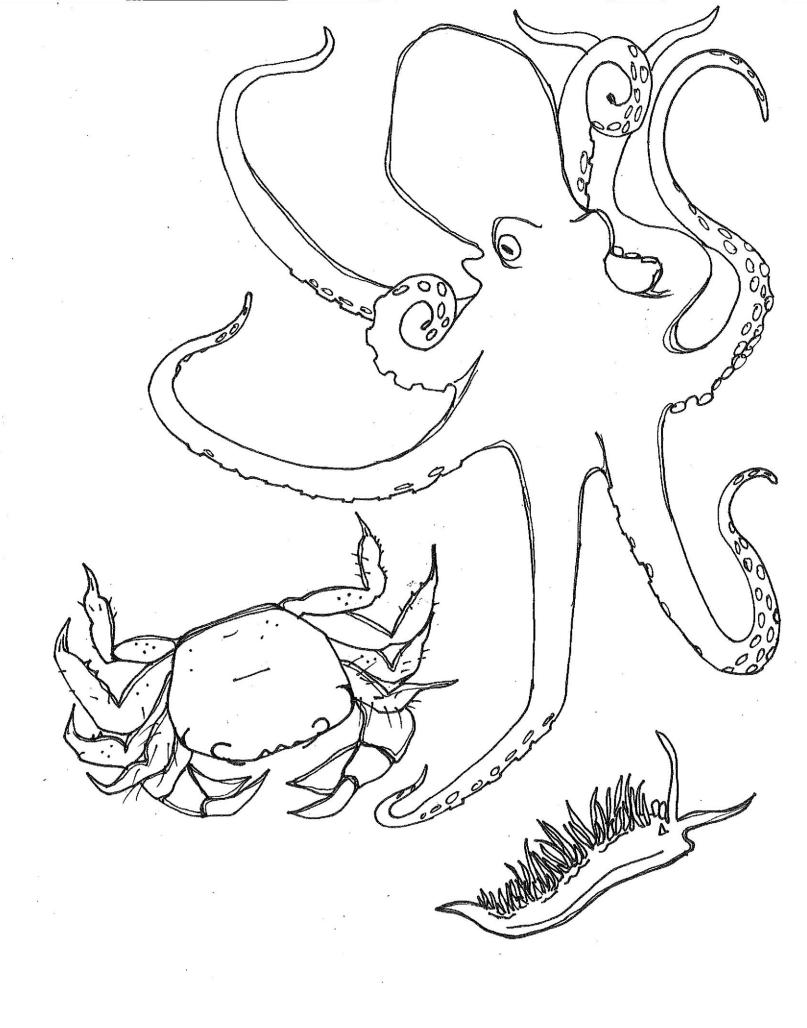
#### H is for Habitat

A habitat is a place or type of place where a plant or animal lives. For example, kelp forests are a habitat for rockfish, sea bass, urchins, and more. Rocky reefs are a habitat for anemones, sea stars, mussels and more. Sandy seafloor is a habitat for sand dollars, sanddabs, bat rays and more! There are many kinds of habitats protected by our MPAs.



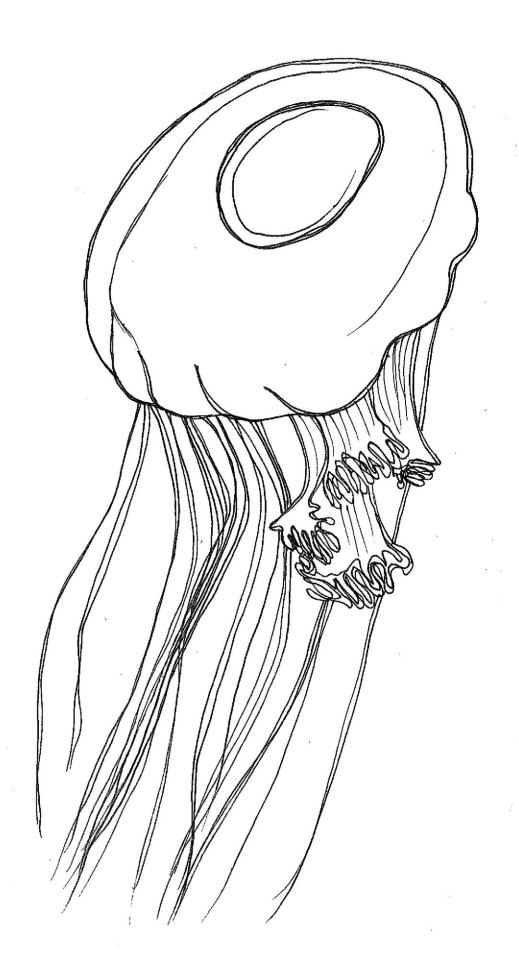
#### I is for Invertebrate

Invertebrates are animals without a spine, like a worm or a snail or a crab. There are many invertebrates in the sea! These are some of the invertebrates of San Diego's MPAs.



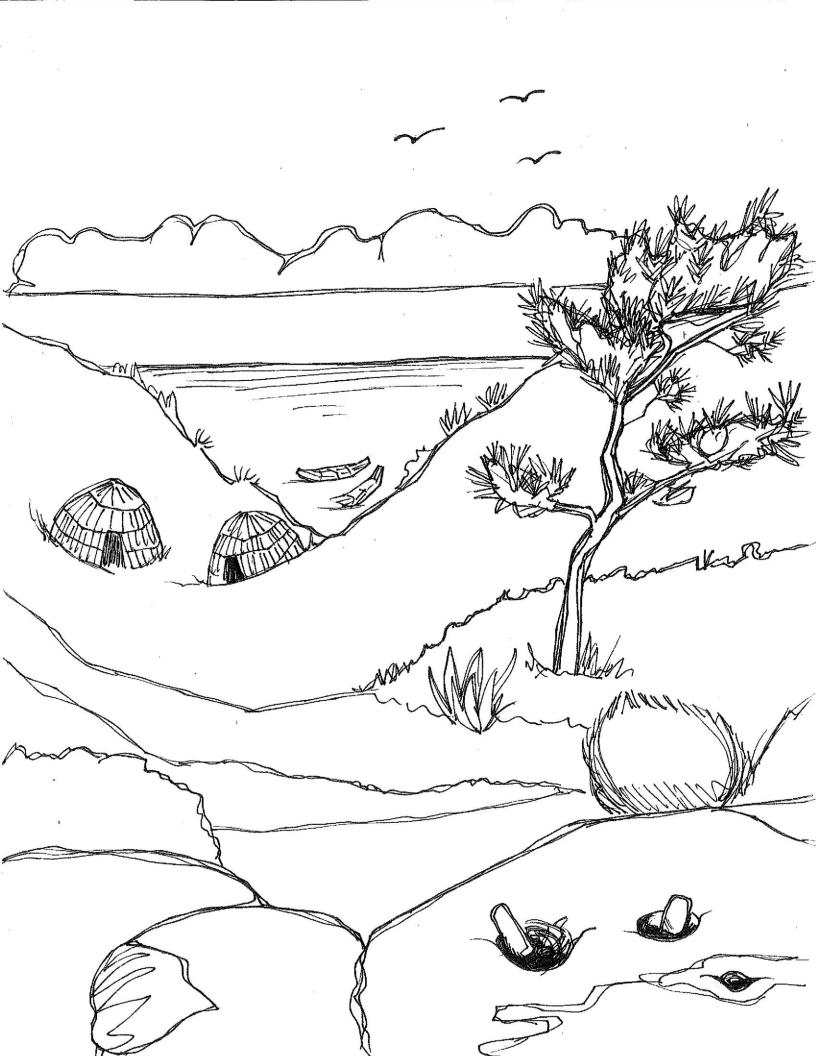
#### J is for Jellies

Some people call them jellyfish, but they are not fish at all! The fried egg jelly is a jelly that you might see in San Diego if you are lucky. Does the name give you a hint about its colors?



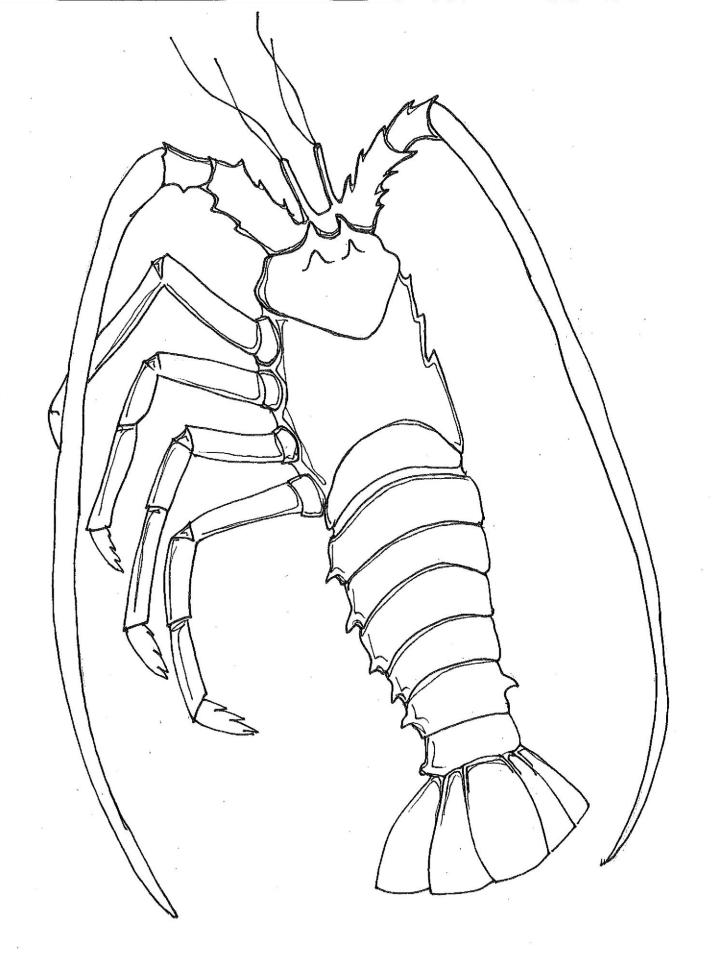
# K is for Kumeyaay

The Kumeyaay people have lived in San Diego for many thousands of years. These first Californians were good stewards of the lands and waters we now must protect in MPAs. There is evidence of their activities across the land. Have you ever seen a Kumeyaay grinding stone? Treat them with respect, and sit and think about the long history of the people of this land.



#### L is for Lobster

The California Spiny Lobster is bright red and lives in San Diego's oceans. See their spiny antenna? Can you tell what makes them different from other lobsters? (Hint: How could they pinch you?)



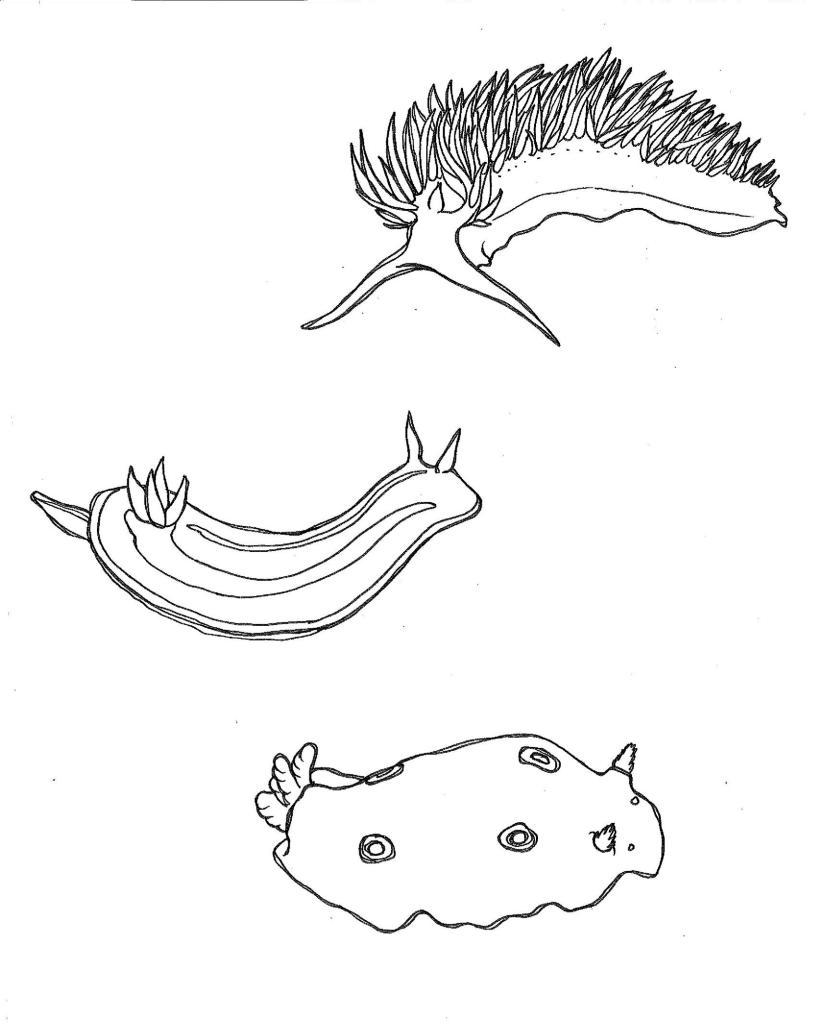
# M is for Matlahuayl

Matlahuayl State Marine Reserve is the MPA that covers La Jolla Cove. This MPA is home to many different habitats and amazing animals. The word "Matlahuayl" comes from the Kumeyaay language, and means "place of the caves." Can you say Matlahuayl? Try "mat-la-HOO-ahl." Good job!



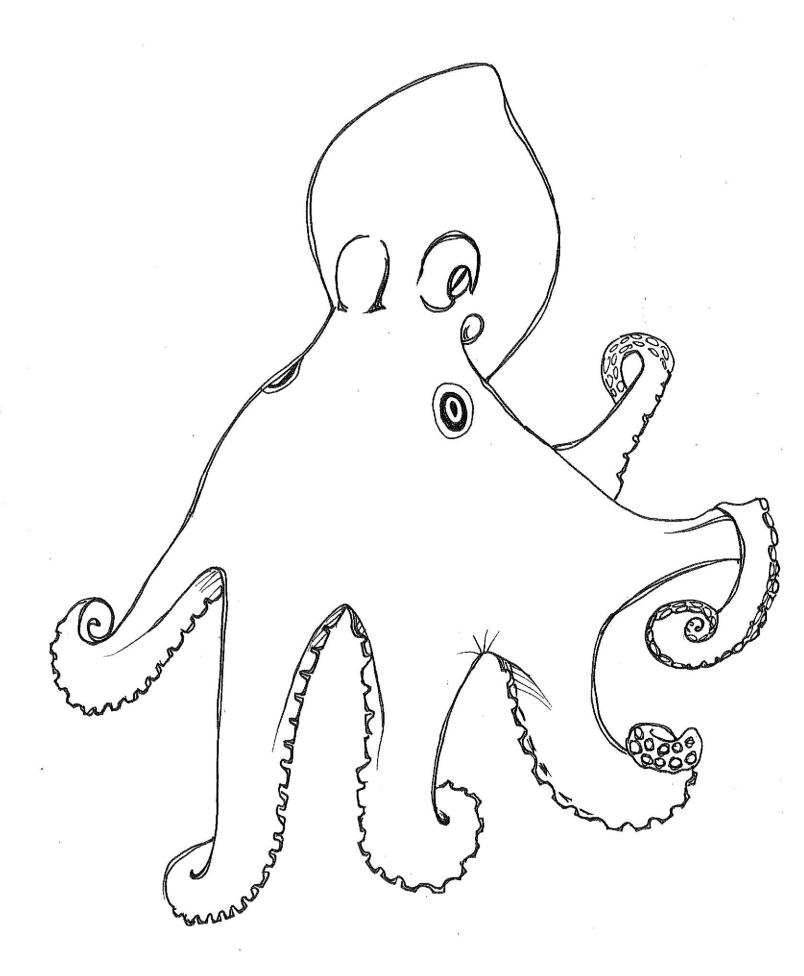
#### N is for Nudibranch

Nudibranchs are like the fancy little slugs of the sea! They come in many incredible colors, like bright purple and orange, and electric blue and yellow, and hot pink!



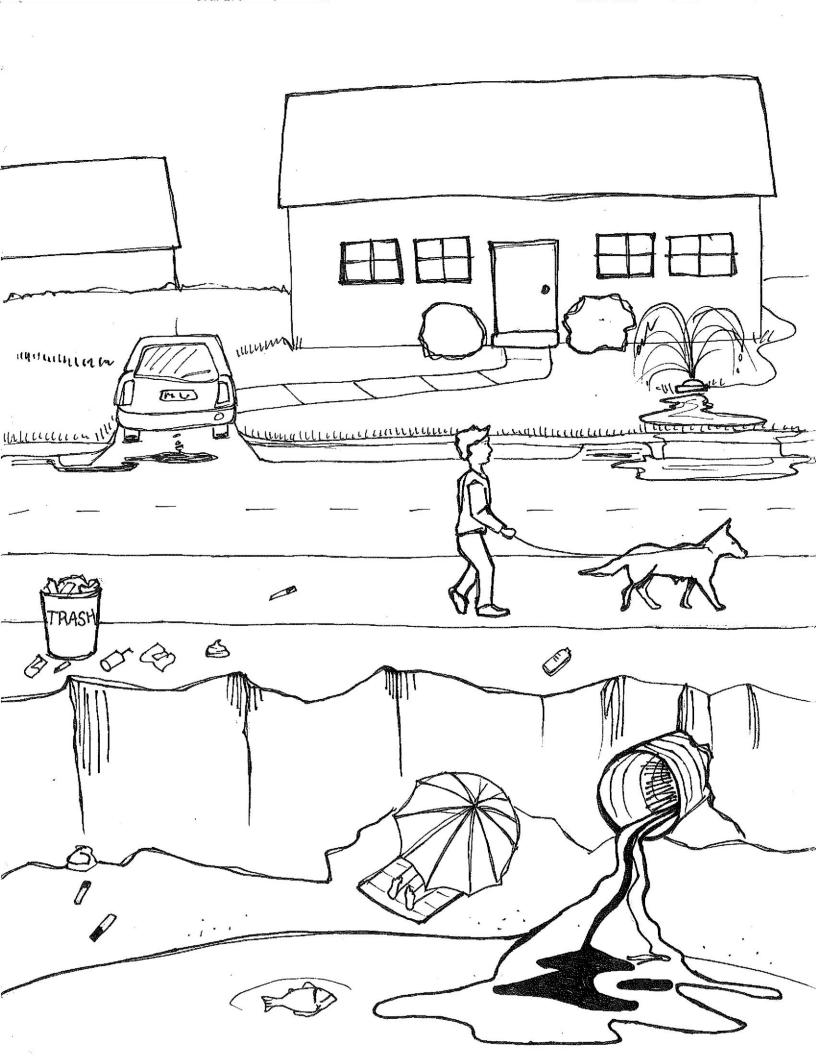
### O is for Octopus

The Two-Spot Octopus is a species of octopus that lives in San Diego. Did you know that the Two-Spot Octopus can change its color to match its surroundings? What color would you be right now if you could do that?



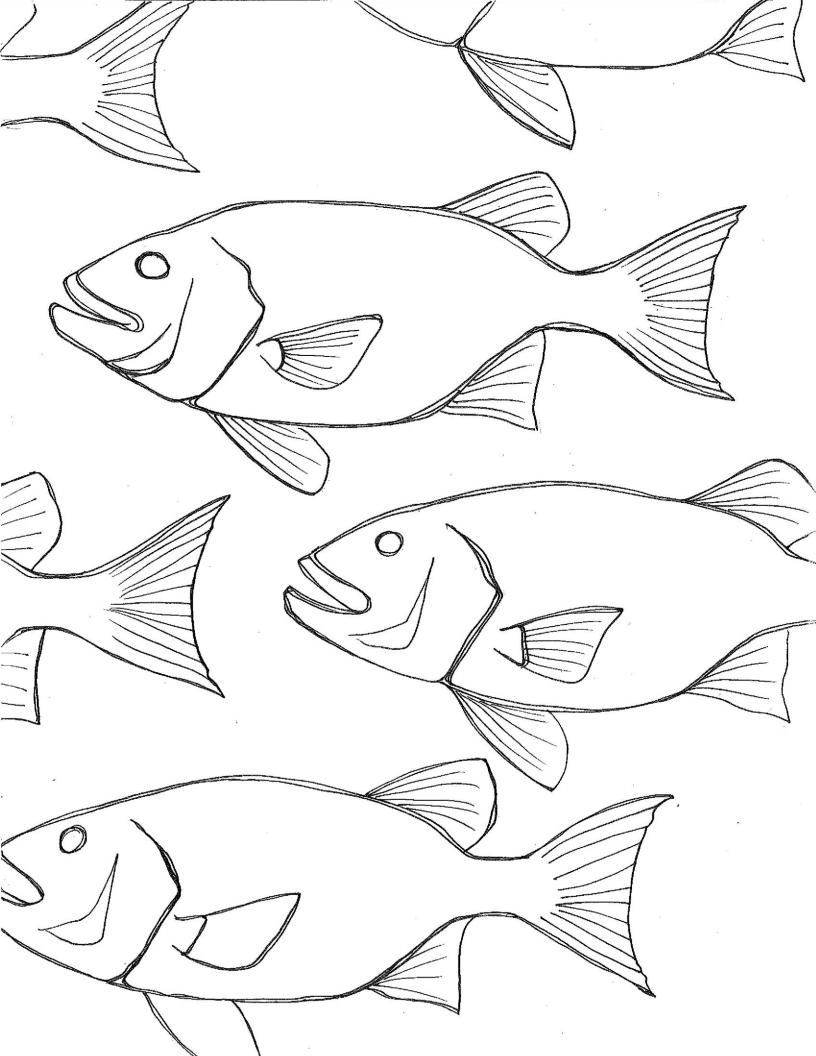
#### P is for Pollution

Pollution happens when something makes our water dirty and unsafe. Pollution in our oceans can come from many sources, like oil or fertilizer or even dog poop! Yuck! When the water is polluted, it is harmful to people and animals who use that water. But there is good news! We can all work together to stop pollution and keep our waters clean for everyone.



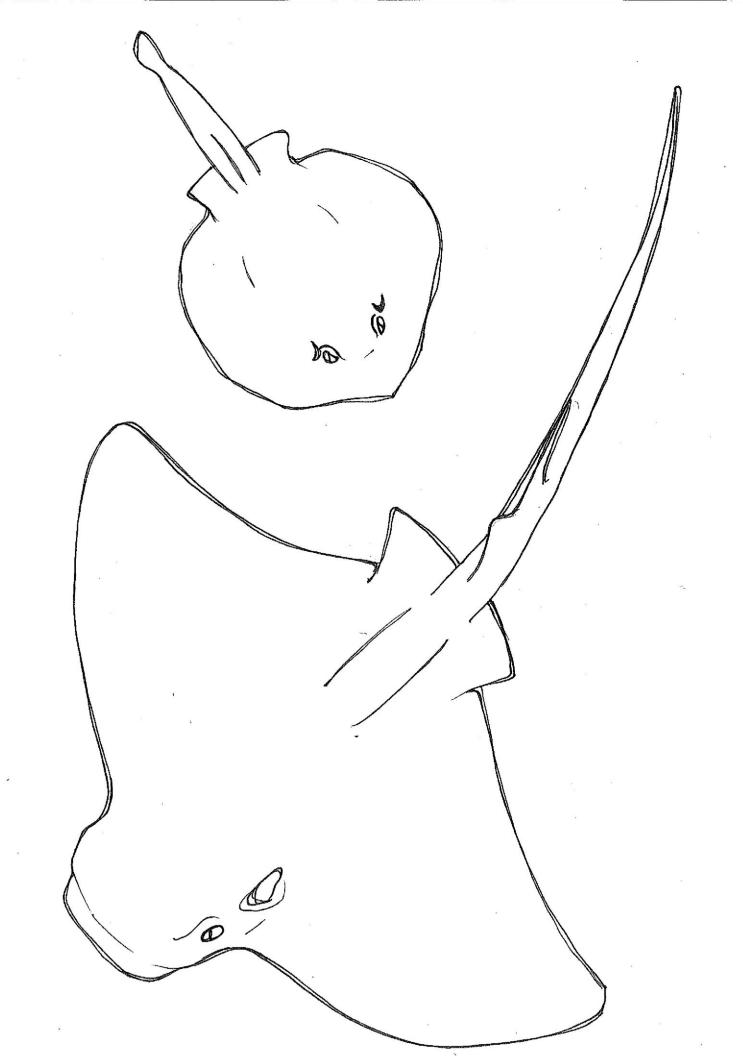
# **Q** is for Quantity

Marine Protected Areas increase the quantity and size of fish in an area by providing them with a safe place to reproduce and grow. The larger population then spills over into surrounding waters, increasing the quantity of fish in other areas as well!



## R is for Ray

Rays are fish that are closely related to sharks! They live on sandy seafloors and hunt for prey such as mussels, shrimp, crabs, and clams. Rays do not have sharp teeth like sharks do, but they do have a barb on their tail for defense. Watch where you step when you are walking on the seafloor, and shuffle your feet so you don't accidentally step on a stingray!



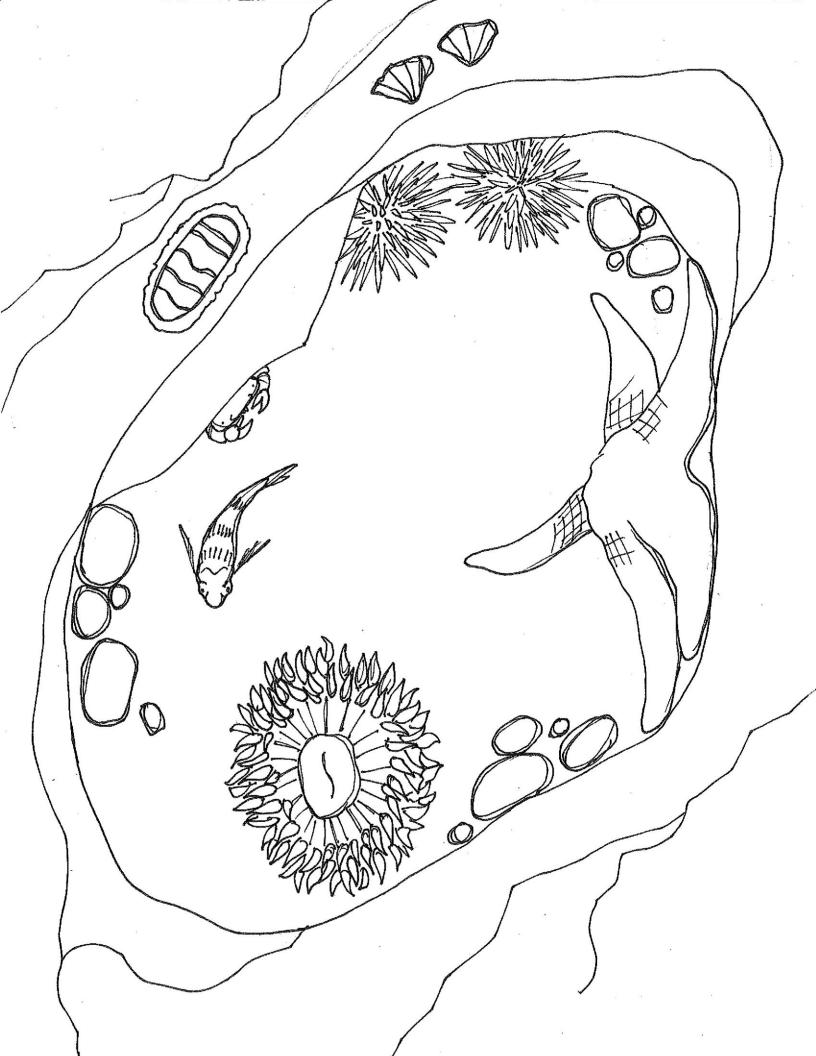
## S is for Snorkeling

Snorkeling is a really fun activity where you use a mask and a snorkel to swim around and see unique and interesting plants and animals and formations in their natural habitat. Many of our MPAs have great places to snorkel!



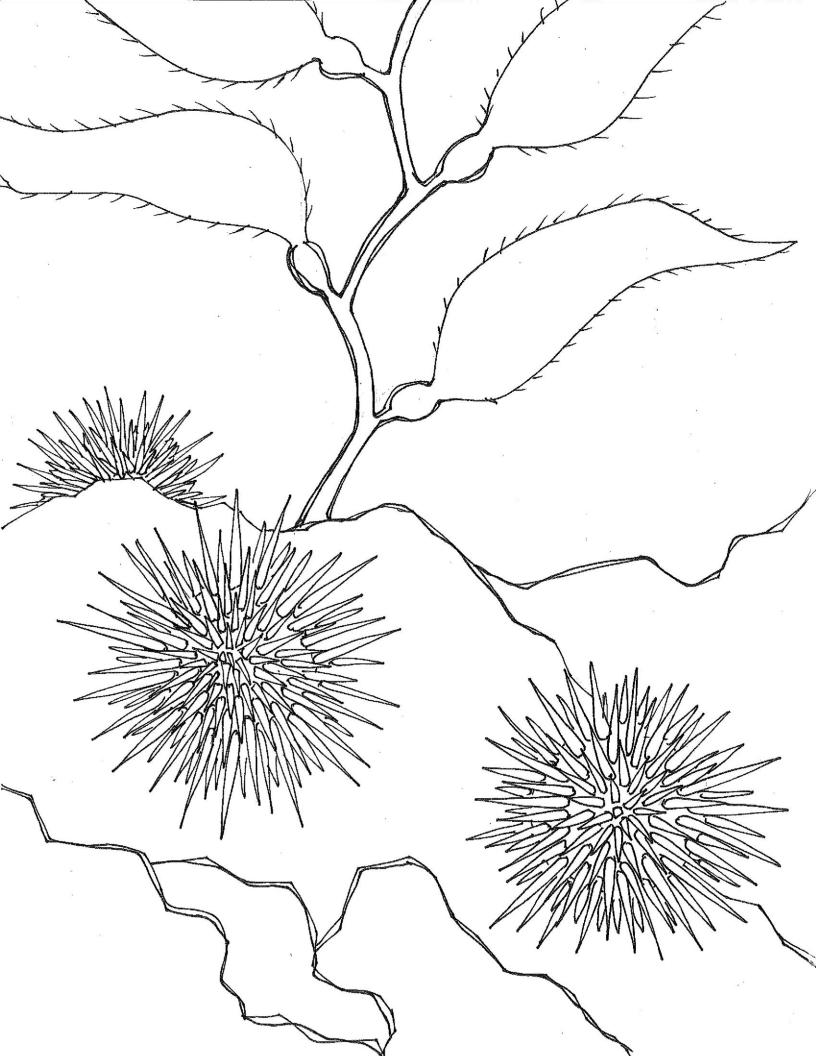
#### T is for Tide Pools

Tide pools occur when water is trapped in low-lying rocks along the coast. These pools are like little windows into the sea. Many animals make their homes in tide pools. We can be smart, polite tidepoolers by treating the animals there with respect. Observe them in their natural habitat, but remember not to poke or touch them. Even a gentle touch can be scary and painful to a little tide pool creature!



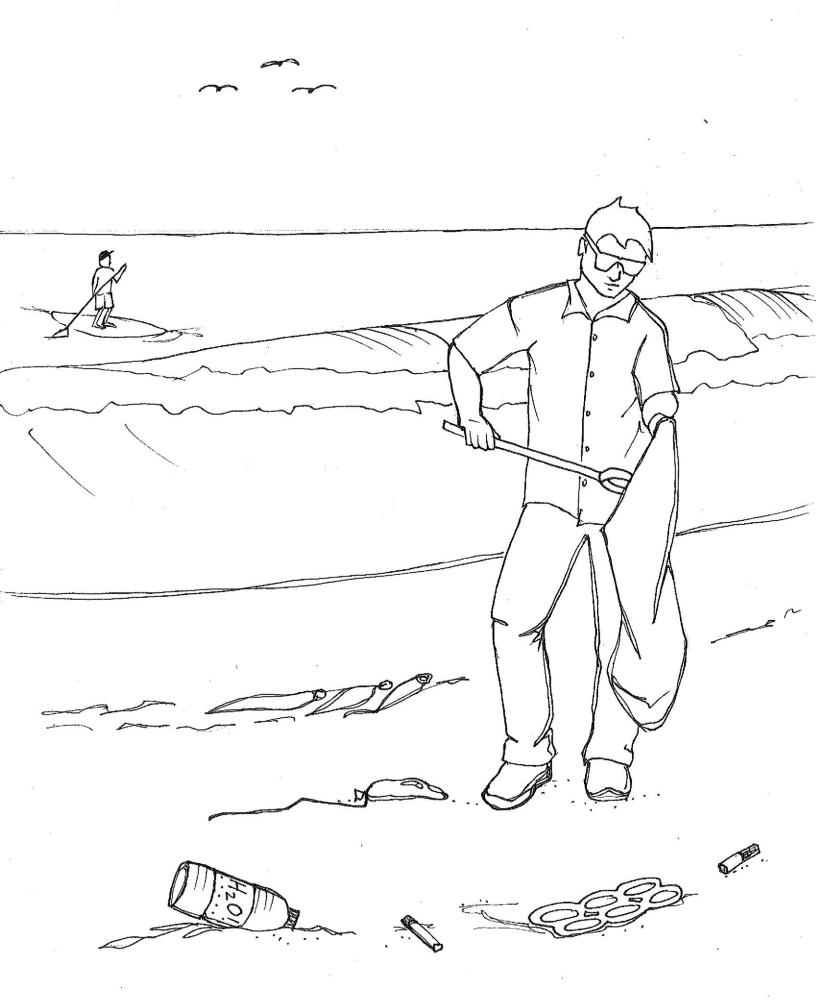
### U is for Urchin

A sea urchin is a round creature covered in spikes. Many live in San Diego's tide pools and coastal waters. They move slowly on the ocean floor eating algae - even giant kelp! Some people think urchins look like underwater hedgehogs.



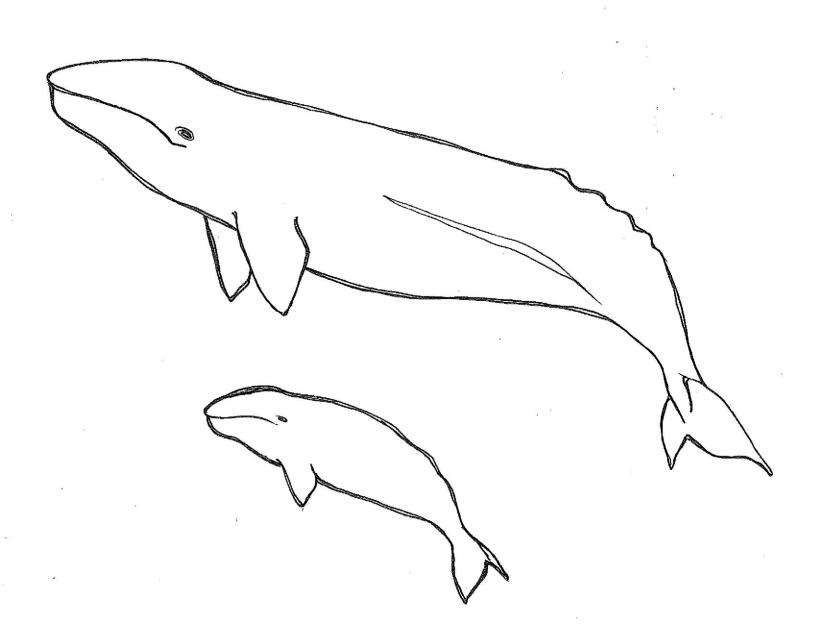
#### V is for Volunteer

Volunteers are people who give their time to help a cause. In San Diego, volunteers clean up trash from beaches so that the trash cannot enter the water and harm the environment. Volunteers are heroes! You can volunteer by coming with your family to a beach cleanup event.



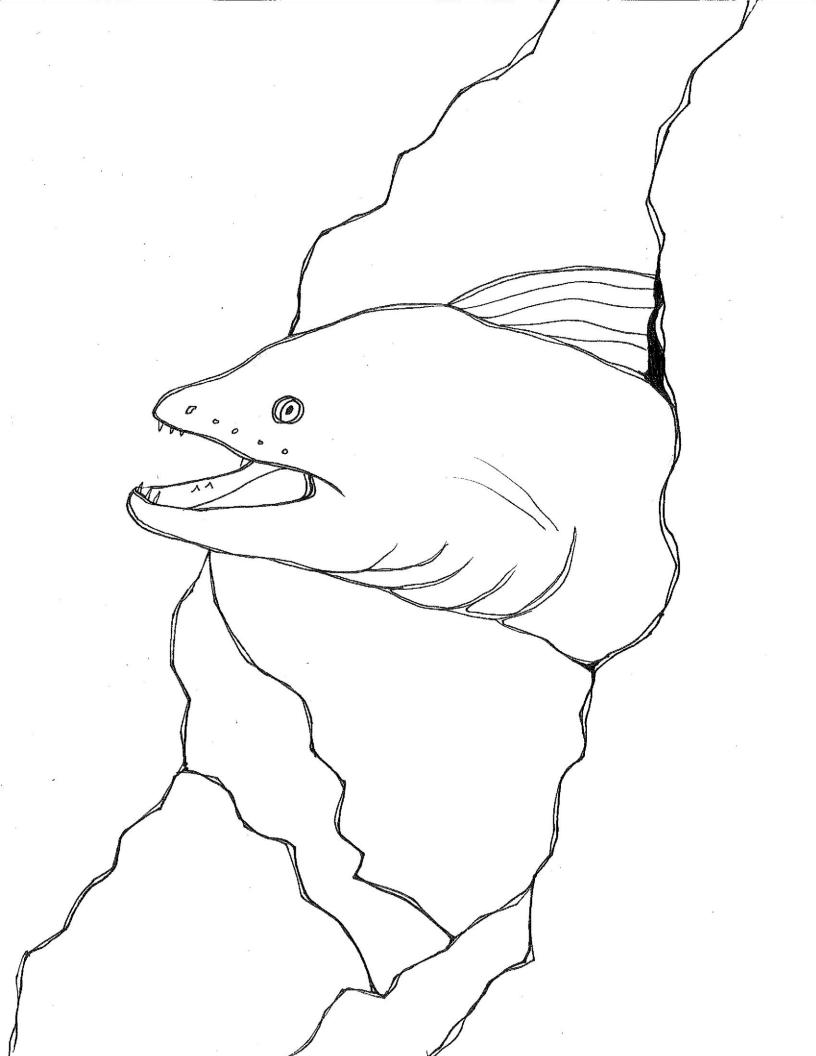
#### W is for Whales

Every winter Gray Whales swim by San Diego during their annual great migration from the cold Arctic to the warm waters of Baja California. You can go whale watching with your family to see Gray Whales pass by. It is very special to see a whale!



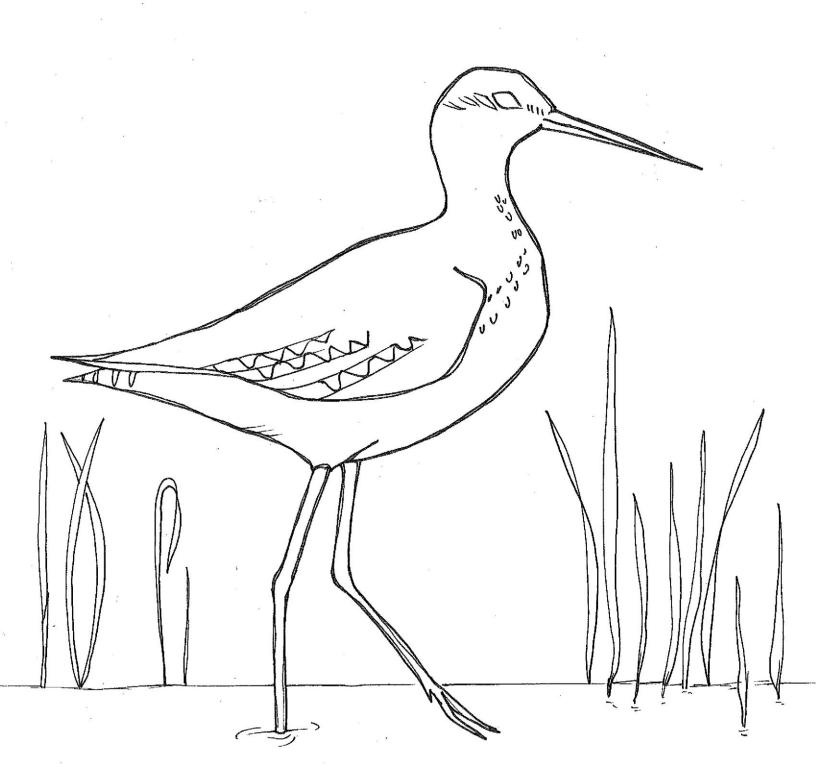
# X is for *Gymnothora<u>x</u> Morda<u>x</u>*

Gymnothorax mordax is the scientific name for the California Moray, a large eel that makes its home in rocky reefs. At night, they hunt for octopuses and fish and small crustaceans.



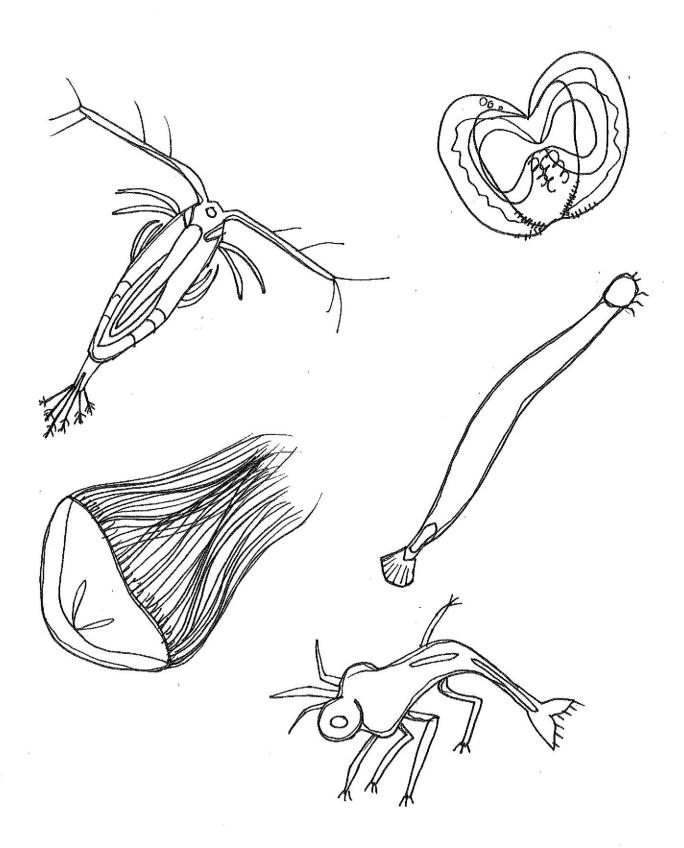
## Y is for Yellowlegs

The Yellowlegs is a type of shorebird you may find when you visit the Tijuana River Mouth State Marine Conservation Area. Many birds use the habitats in the neighboring estuary when they fly through San Diego on their migrations, making the Tijuana River Mouth a great place for bird watching!

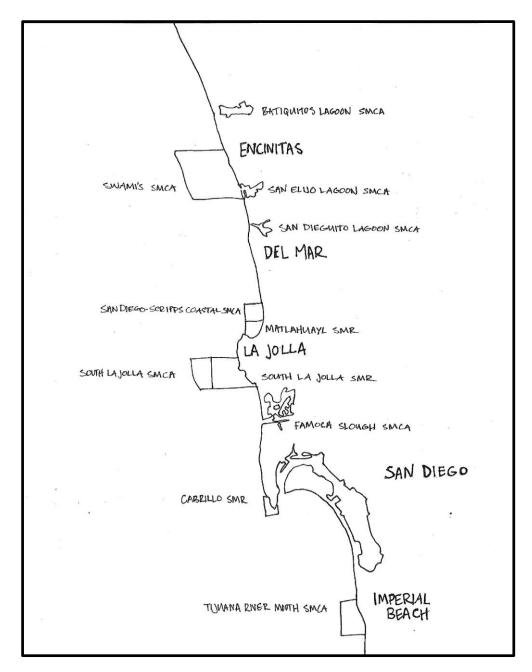


## Z is for Zooplankton

Zooplankton is the name for tiny animals that drift in the sea. Some of them are even smaller than you can see! They play a very important role in the ocean's food web.



#### **Marine Protected Areas of San Diego County**



Produced by San Diego Coastkeeper - 2015 - www.sdcoastkeeper.org

