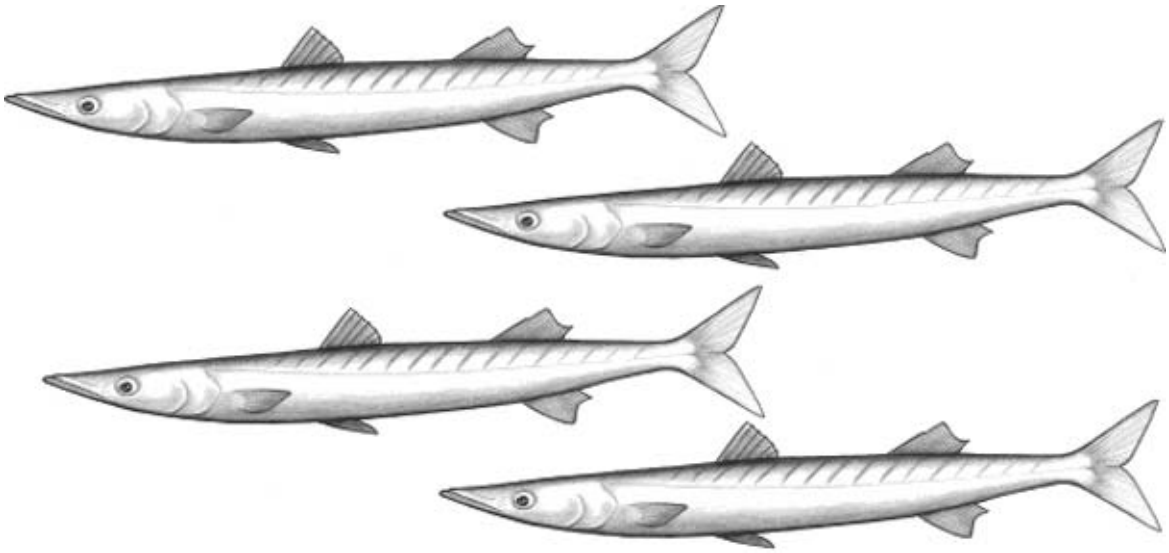
ID KEY: California Barracuda



Habitats:

- Open ocean
- Near shore in surface waters
- In the outer edges of kelp forest beds

Adaptations:

- Barracudas have counter-shading. Their bodies are bluish to brownish above and silvery underneath. The darkish color on top (dorsal side) makes it more difficult for predators to see them when looking down from the surface. The lighter coloring underneath on their ventral side may confuse predators looking up from the ocean depths and helps protect barracudas.
- Sharp teeth, large canines and long pointed snouts make barracudas fierce predators. The tip of their lower jaw extends beyond the upper one.
- Their sleek body shape makes them fast swimmers.

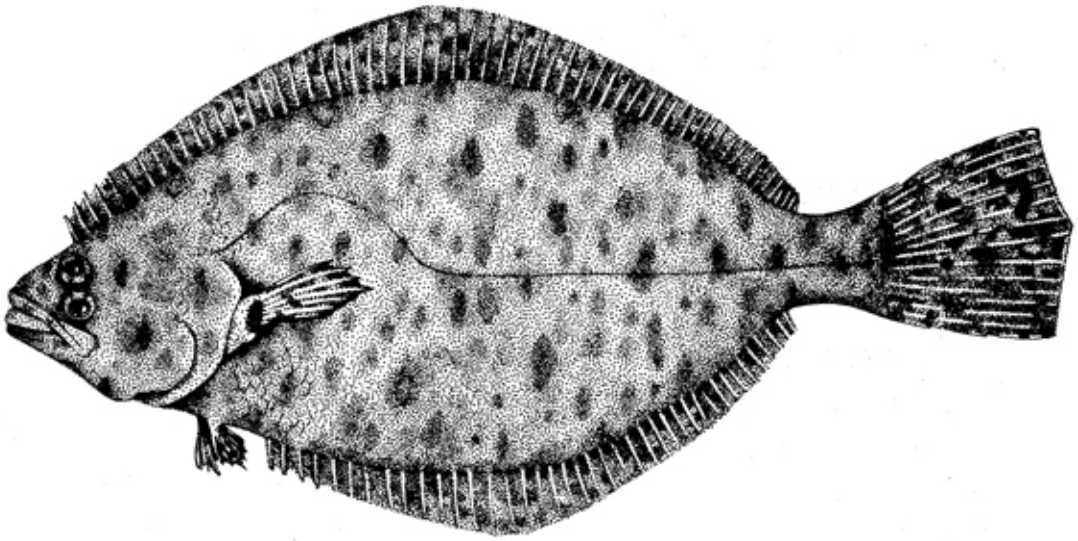
Size:

- Up to 4 feet (1.2 m) long

Diet:

- Fishes

ID KEY: California Halibut



Habitat:

- Sandy shore

Adaptations:

- Halibuts have a large mouth and a lateral line that arches high over the side fins.
- Both eyes are on one side and point upward. Their eyes are sensitive to patterns.
- A flatfish begins life as a normal-looking fish larva with an eye on each side of its head. But in about 13 days one eye starts roving and migrates around the head to take its place next to the other eye. When the change is complete, the halibut is still less than one inch (2.5 cm) long, but it is ready to live life sideways.
- The topside of the fish is brown or blackish with light and dark splotches. The underside is usually white. This coloration helps the halibut camouflage.
- A California halibut matches its skin coloration with whatever sandy or pebble bottom it rests on.
- The fish hide by burying themselves up to their eyes in the sandy seafloor. Although they seem to be a lazy fish, they're quite active.

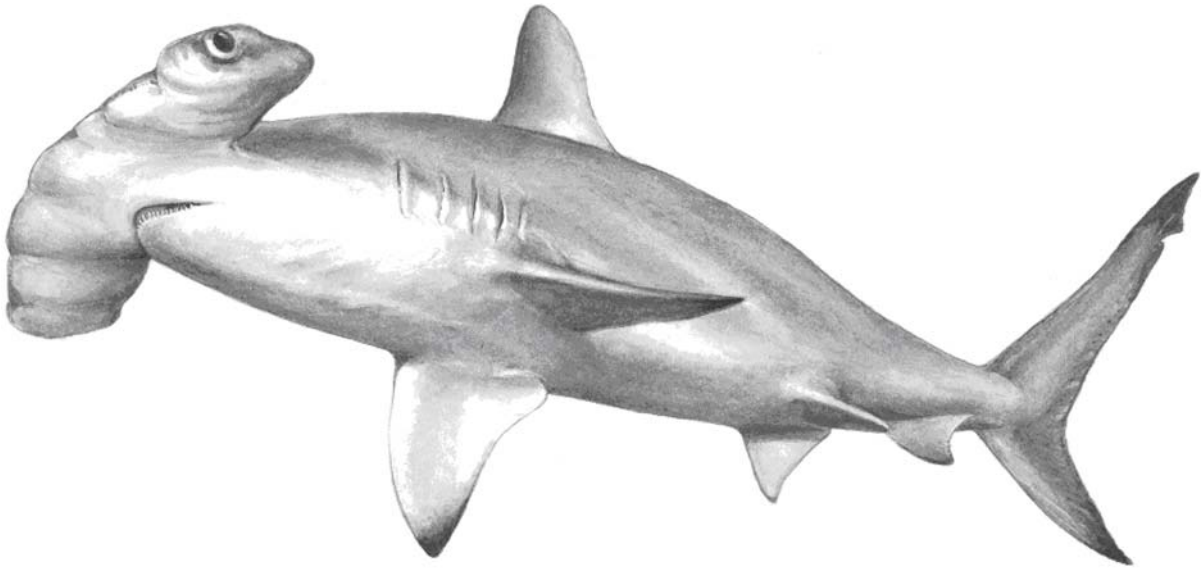
Size:

- Up to 5 feet (1.5 m) long
- Weigh up to 72 pounds (32.7 kg)

Diet:

- Anchovies and other small fishes
- Squid

ID KEY: Scalloped Hammerhead Shark



Habitat:

- Open ocean in temperate waters

Adaptations:

- The hammerhead shark's eyes and nostrils are located at the extreme ends of its head. Perhaps this unusual shape gives the shark added lift and lets it make sharper turns than other sharks.
- Hammerheads have uncommonly small mouths. Scalloped hammerheads usually prey on stingrays. Scientists don't know much about how the stingrays' venomous barbs that get imbedded in the sharks' mouths and jaws affect them or how the sharks get rid of them.
- Their pups are born in warmer, shallower coastal lagoons. They migrate offshore later in life.

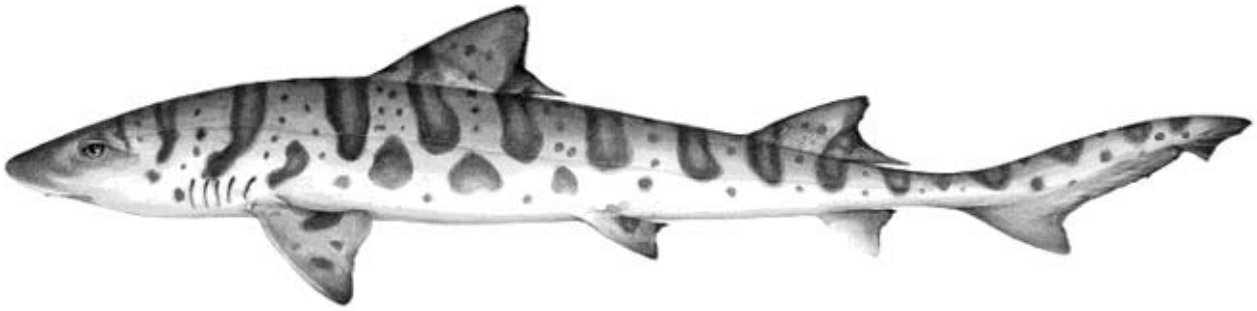
Size:

- Up to 14 feet (4 m) long
- Weigh up to 350 pounds (160 kg)

Diet:

- Fishes
- Squid
- Crustaceans
- Stingrays

ID KEY: Leopard Shark



Habitats:

- Kelp forest
- Slough
- Rocky shore

Adaptations:

- Leopard sharks have electro-receptors in their snouts that help them locate buried prey in shallow water along sandy or rocky bottoms.
- They nip off clam siphons and suck worms from the mud.
- They bear live young.
- When young, their spotted and barred coloring camouflages them against the seafloor. When they are large enough to live in deep water, their spots disappear!

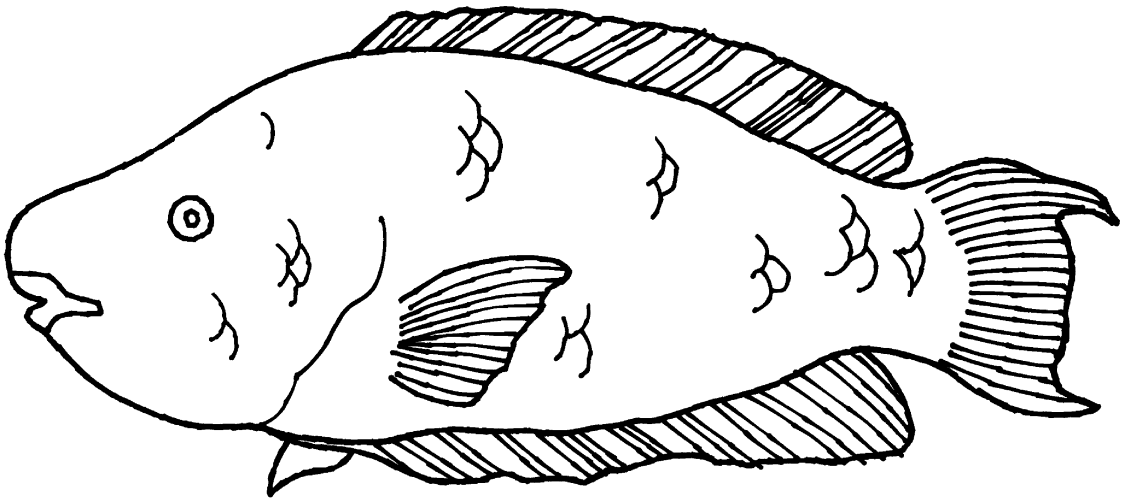
Size:

- Up to 6.5 feet (2 meters)

Diet:

- Fish and fish eggs
- Invertebrates, such as crabs, worms and clams

ID KEY: Parrotfish



Habitat:

- Coral reefs

Adaptations:

- Parrotfish have fused teeth that form beaklike plates, giving them a parrotlike appearance. They have strong jaws for crunching and scraping coral.
- They have large thick scales that, in some species, are strong enough to stop a spear.
- There are about 60 species, and most are brightly colored to blend in with the colorful and crowded coral reef communities.
- Males and females of the same species generally look quite different. Female parrotfishes may change into males.
- Parrotfishes produce tons of coral reef sand each year! The sand-making process begins as the fishes graze on the algal film that grows on coral. To feed on the algae, the fishes munch on pieces of coral. Molarlike teeth in their throats grind the coral, which then travels through their digestive systems and is deposited in the reef as white coral sand.
- They swim by rowing themselves along with their pectoral (side) fins.
- These daytime creatures burrow in the sand or hide in crevices at night. Some species even secrete a clear mucous cocoon around themselves at night, which probably masks their scent and helps protect them from predators, such as sharks and moray eels.

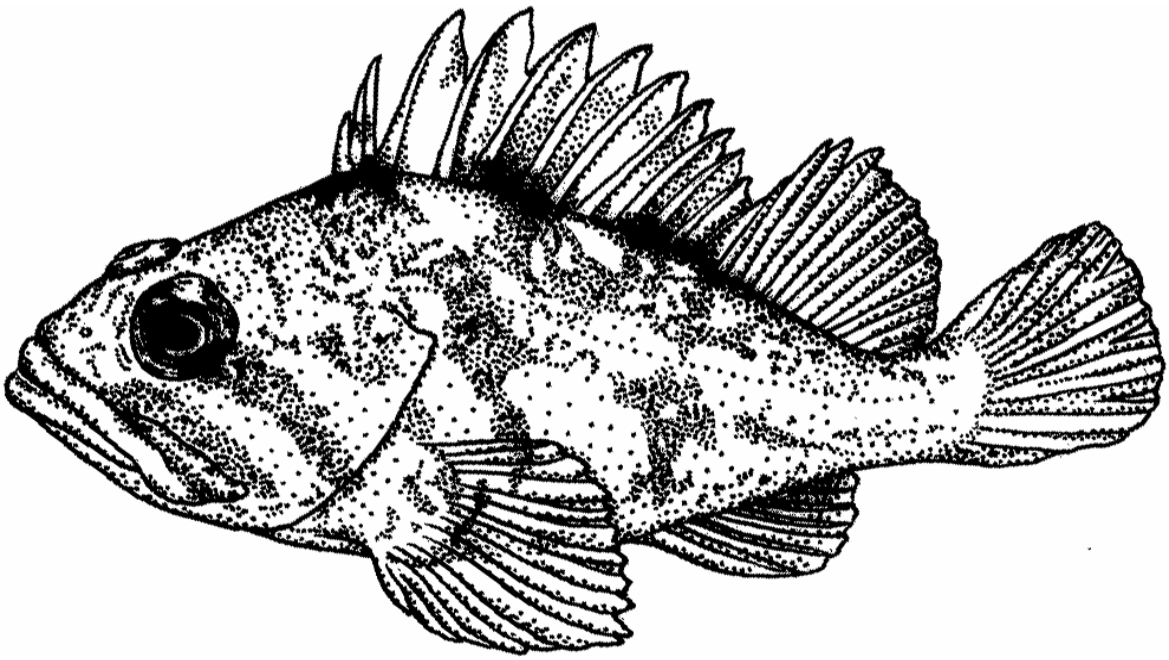
Size:

- 1.5 – 4 feet (.5-1.2 m)

Diet:

- Algae that covers coral and the reef bottom

ID KEY: Rockfish



Habitats:

- Rocky shore
- Kelp forest

Adaptations:

- Rockfishes come in more than 100 species and many different shapes, sizes and color patterns. Colors vary from black and drab green to bright orange and red, and some rockfishes have stripes or splotches.
- Their heads feature large eyes and thick, broad mouths that dip downward at the corners.
- They are known for the bony plates on their heads and bodies and the heavy spines on their fins.
- Rockfish live in a variety of habitats. Some live on rocky reefs or seafloors in nearshore shallow waters. Others live on the deep seafloor or in the water column. In giant kelp forests, rockfishes hover motionless under the kelp canopy, buoyed by their air bladders. Some species rest on rocks at the bottom of the kelp forest.
- They are one of the longest-living fishes. Some species live 100 years or more.
- Some rockfish don't reproduce until they're 20 years old and they only have a few young. Rockfish can't reproduce quickly enough to keep up with demand and are overfished.

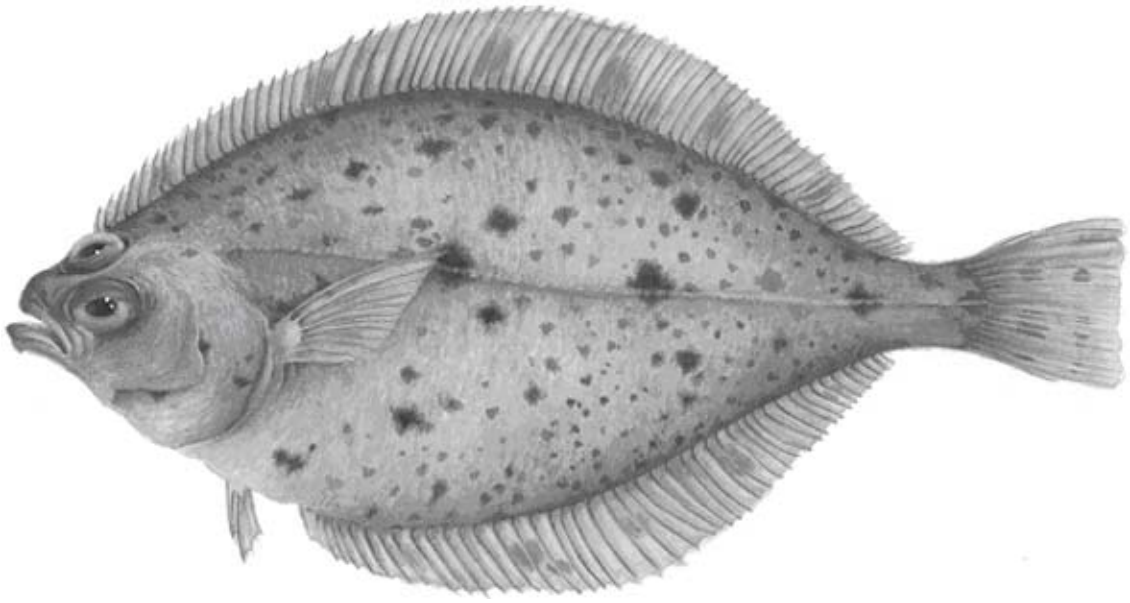
Size:

- Five to 41 inches (12-104 cm) depending on the species

Diet:

- Small crustaceans
- Fishes
- Plankton

ID KEY: Sanddab



Habitat:

- Sandy shore

Adaptations:

- Sanddabs are masters of camouflage. They are quick-change artists that change color and pattern to match their surroundings.
- Like other flatfish, sanddabs spend their lives lying on their sides.
- They shuffle into the sand and cover themselves until only their eyes protrude. They are often so well hidden that predators and prey overlook them.
- Both eyes are on one side and pointed upward. A sanddab begins life as a normal-looking fish larva with an eye on each side of its head. But in about 13 days, one eye starts roving and migrates around the head to take its place next to the other eye.

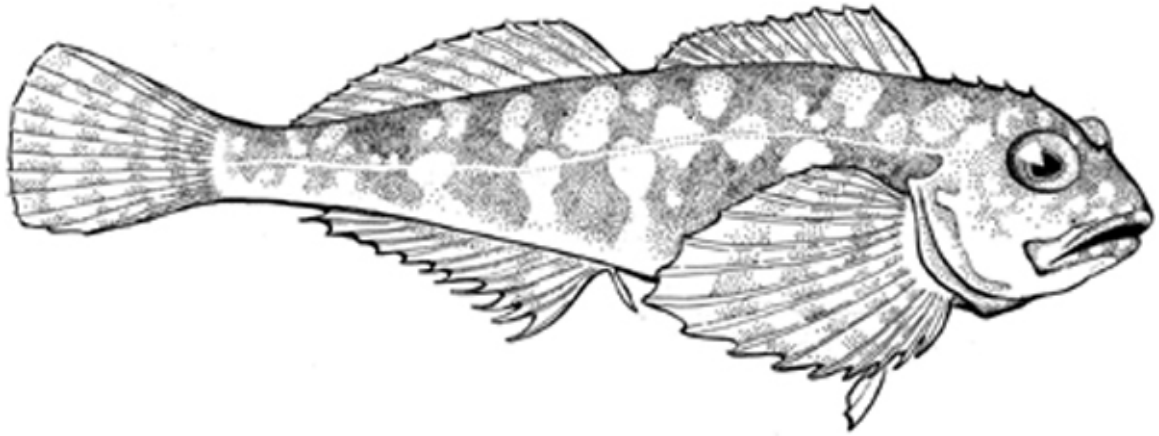
Size:

- Some species grow to 16 inches (40.6 cm) long
- Others rarely reach 6 inches (15.2 cm)

Diet:

- Worms
- Shrimp
- Squid
- Fishes

ID KEY: Coralline Sculpin



Habitat:

- Rocky shore tide pool

Adaptations:

- Sculpins commonly hug the bottoms of Pacific coast tide pools.
- These tiny fishes can be hard to see. Their colors blend in well as they hide among seaweeds and rocks.
- Their camouflage makes it hard for bigger fishes and hungry birds to find them.
- As the tide comes in, coralline sculpins often leave their home pools and follow the incoming water to hunt in pools higher up.
- When the tide falls again, they head straight back to the pool in which they started.

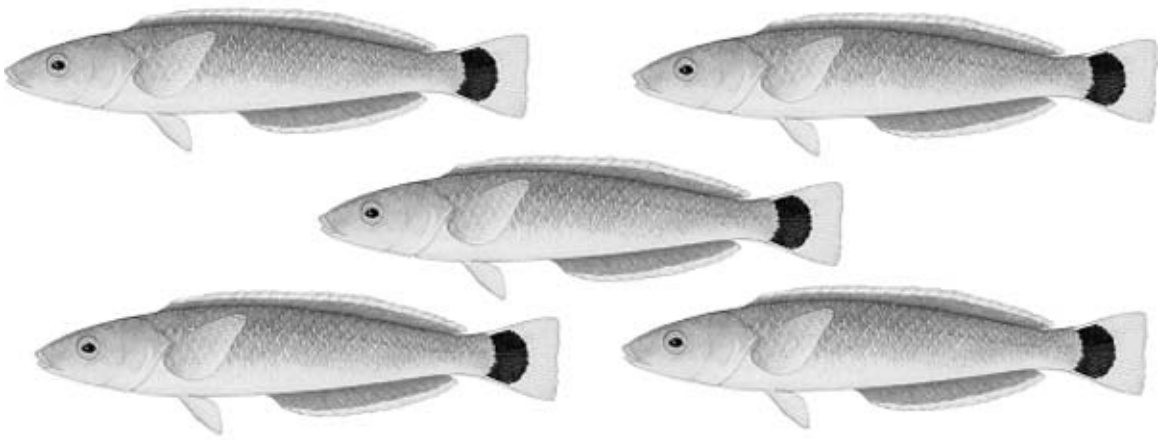
Size:

- Up to 5.5 inches (14 cm)

Diet:

- Small fishes
- Shrimp, crabs and other crustaceans

ID KEY: Señoritas



Habitat:

- Kelp forest and reefs from five to 240 feet (1.5 m-76 m) deep

Adaptations:

- Señoritas feed during the day.
- At night they search for a sandy bottom where they bury in the sand with only their heads exposed. When threatened by predators in the daytime, señoritas dart to the seafloor and hide by burrowing in the bottom sediment. Brandt's cormorants and California sea lions prey on señoritas.
- This little cigar-shaped orange fish with large black spots on its tail has large scales, small mouths and protruding teeth that are ideal for picking plankton from algae.
- They swim in loose schools.
- Known as "cleaner" fish, they pick external parasites and copepods from the skin of other fishes. They clean until they lose interest and then swim away, leaving behind disappointed fishes.

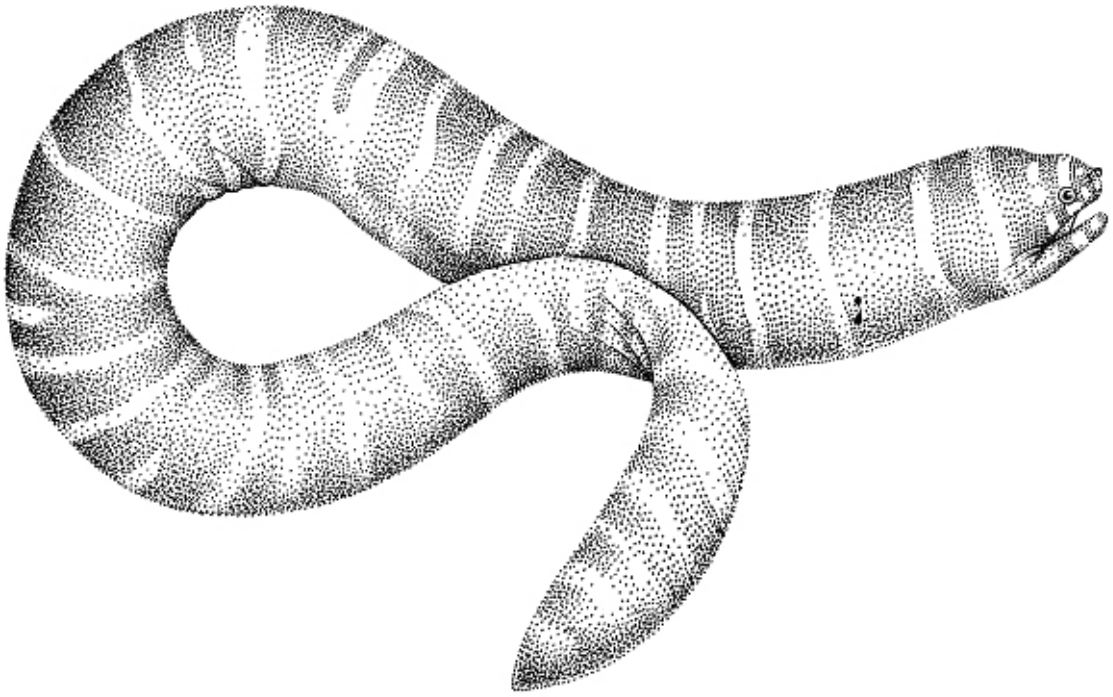
Size:

- Up to 10 inches (25 cm)

Diet:

- Small invertebrates: hydroids, bryozoans, amphipods, parasitic copepods, isopods

ID KEY: Zebra Moray



Habitat:

- Coral reefs

Adaptations:

- Zebra morays hole up in crevices and under ledges on the wave-swept outer edges of coral reefs.
- They come out to hunt at night, prowling the reefs in search of crabs, clams and other hard-shelled prey.
- Zebra morays have flat, plate-like teeth, perfect for crunching hard shells. Their teeth tell the tale of their diet. (Other kinds of morays have sharp, pointed teeth for grabbing and holding on to fishes and other slippery prey but not zebra morays.)
- Moray eels look menacing as they constantly open and close their mouths, but they're not making threats. That's just how they breathe!

Size:

- Up to 5 feet (1.5 m)

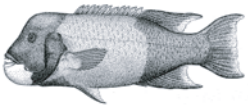
Diet:

- Crabs and other crustaceans
- Clams and other molluscs
- Sea urchins

Fish Clue Cards

Body Shapes (where it lives)

Torpedo
(open waters)

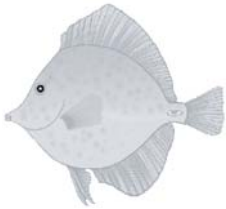


Boxy
(among coral or rocks)

Round
(tight places)

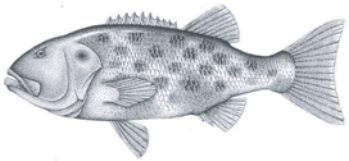
Elongated
(around or under rocks)

Mouth Shapes (how or where it eats)

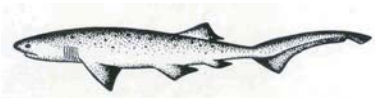


Long skinny
(probes in crevices)

Mouth on underside
(bottom feeder)



Big wide mouth
(gulps prey)

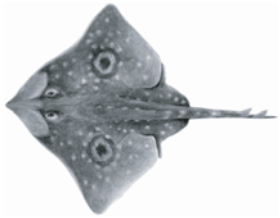


Mouth with teeth
(catches prey)

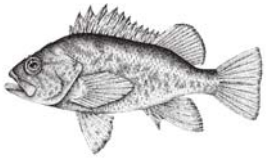
Eye Shapes (where it spends most of its time)

One eye on each side
(usually swims above the seafloor)

Both eyes on same side of head
(stays on or near the seafloor)



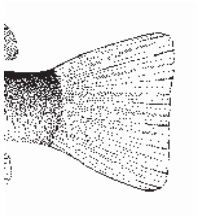
Both eyes on top of head
(stays on or near the seafloor)



Large eyes
(light gathering in deep water)

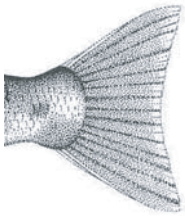
Fish Clue Cards

Caudal (tail) Fins (the speed it swims)



Squared
(moderate)

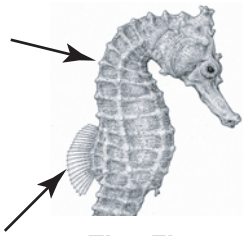
Forked
(very fast)



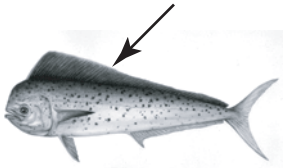
Truncate
(sprints)

Pointed
(fast)

Dorsal Fins on back (for steering and to prevent rolling)

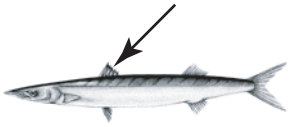


Tiny Fins



Large Fins

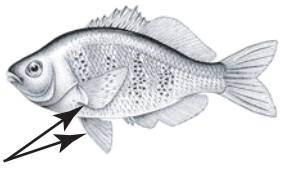
One Long Fin



Small Fins

Pectoral Fins on sides (for balance, turning and braking)

(sharp turns and fast stops)



(maneuvers quickly)

(balances, hops or sits on fins)

(stabilizer)

Monterey Bay Aquarium: Kelp Forest Habitat

Monterey Bay Aquarium: Rocky Shore Habitat

Monterey Bay Aquarium: Sandy Seafloor Habitat

Monterey Bay Aquarium: Coral Reef Habitat