

## Critter Cards - Rocky Shore



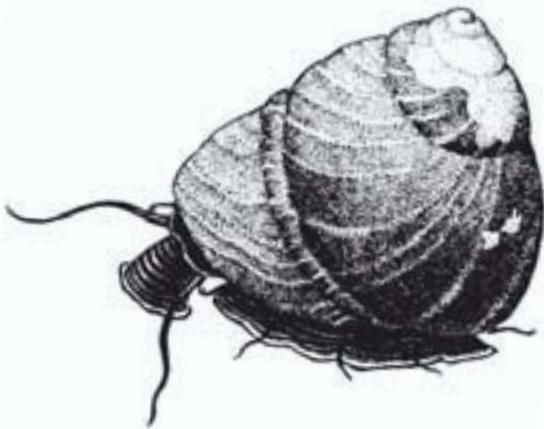
**Barnacle**

### **Barnacle**

*Balanus glandula* [size: to 1 in. (2.5 cm)]

A young barnacle cruises at sea during its first weeks. When it's ready to settle down, the barnacle glues its head to a rock. Once attached, it changes into a juvenile barnacle, a miniature of an adult. Then each builds its own fortress—an odd-shaped limestone shell with a trap door in the ceiling. As sea water rushes by, the barnacle's legs kick bits of food down into its mouth.

Its shell closes tight at low tide, so the barnacle stays moist. It makes a juicy meal for a shorebird with a prying beak.



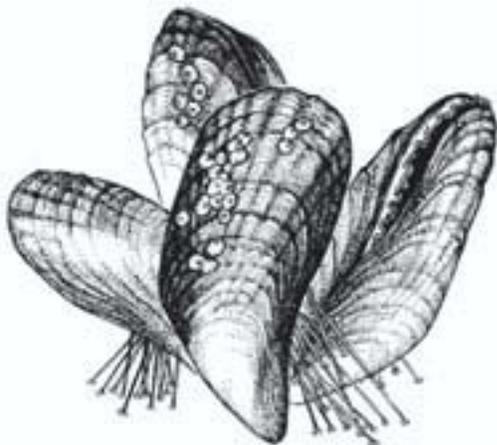
**Brown turban snail**

### **Brown turban snail**

*Tegula brunnea* [size: to 1 in. (2.5 cm)]

At low tide, the brown turban snail stays under water or low on the shore. The turban snail scrapes algae with its filelike tongue, or radula. One lick from this snail can leave scrape marks on kelp.

If a wave flips a snail upside-down, it can pick up pebbles with its foot. By rolling with the added weight, the snail can turn right-side-up again.



**California mussel**

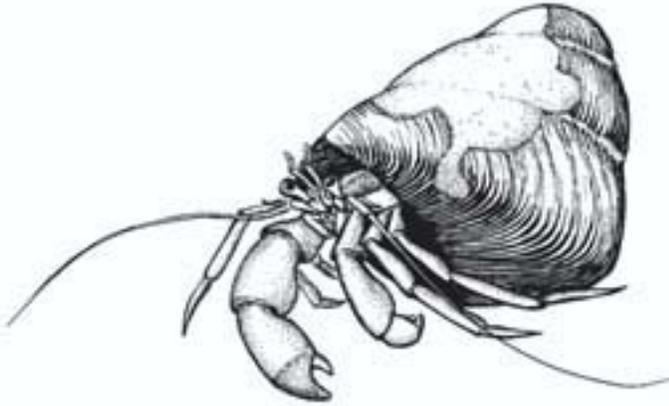
### **California mussel**

*Mytilus californianus* [size: to 5 in. (13 cm)]

Mussels crowd together on wave-swept rocks. To hang on to the rocks and each other, mussels make strong threads that look like plastic and stick better than superglue.

A mussel eats by filtering tiny plants and animals from the water. To collect enough food to survive, a mussel has to filter two to three quarts of water an hour.

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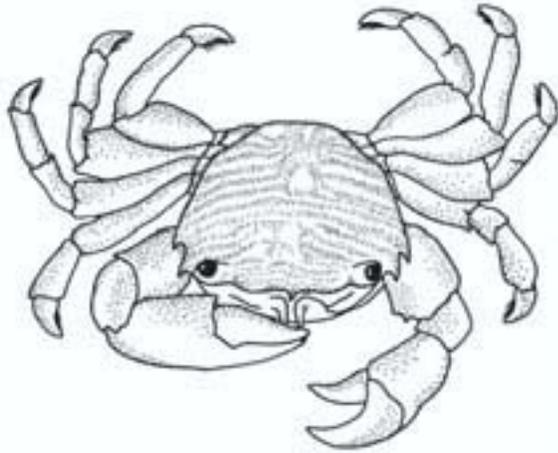
**Hermit crab**

### **Hermit crab**

*Pagurus samuelis* [size: to 1 in. (2.5 cm)]

A hermit crab wears an empty snail shell to protect its soft body. The back legs hold the shell on tight. As the crab grows, it needs bigger shells. One hermit crab will even steal a good shell from another crab.

Though a hermit crab threatens and fights with its large claws, it's not a hunter. This crab eats seaweeds and dead animals.



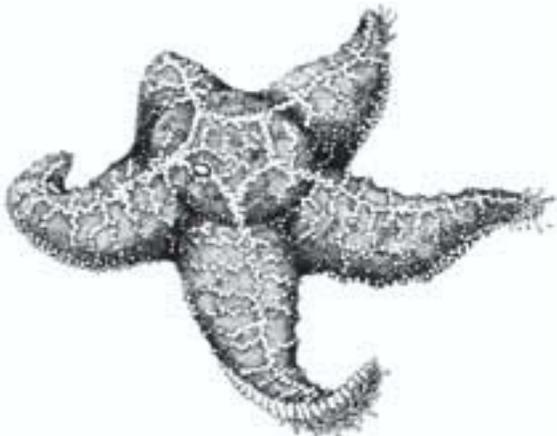
**Lined shore crab**

### **Lined shore crab**

*Pachygrapsus crassipes* [size: to 2 in. (5 cm)]

The shore crab dances sideways down to the sea and then back up over the rocks. Using tiny cups on its pincers, the crab scrapes small plants off the rock to eat.

This crab is so flat, it can hide in cracks in the rocks. If a hungry gull grabs the shore crab's leg, the crab can shed the captured limb and dash away. In time, a new leg will grow back.



**Ochre star**

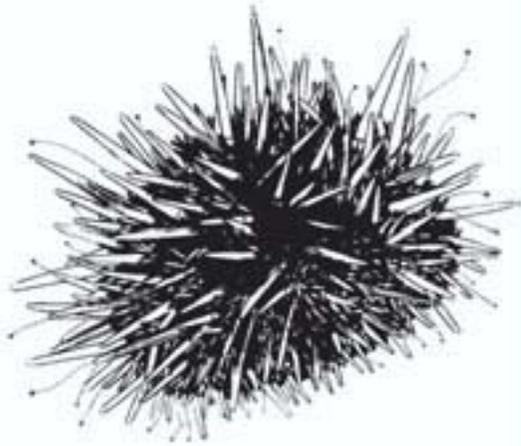
### **Ochre star**

*Pisaster ochraceus* [size: to 1 ft. (30 cm)]

This sea star has hundreds of tiny suction-cup feet under each arm that help it stick to rocks. The sea star is a real loafer; it clings motionless on a rock for weeks.

Even a hungry sea star isn't hasty. Slow and steady, its feet can pry apart a mussel. When the mussel's two shells open, the sea star slides its stomach between the shells to digest the animal inside.

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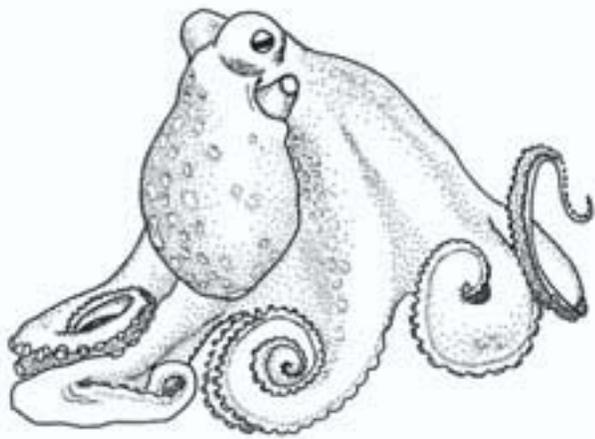
**Purple sea urchin**

### **Purple sea urchin**

*Strongylocentrotus purpuratus* [size: to 4 in. (10 cm)]

Using their spines and teeth, urchins burrow slowly into solid rock. Because they grow as they dig, some end up trapped in holes, too big to leave.

Between the hard spines, an urchin has hundreds of tube feet. Its soft tube feet are always busy: some hold the urchin onto the rock; others move kelp to the urchin's greedy mouth.



**Red octopus**

### **Red octopus**

*Octopus rubescens* [size: to 20 in. (50 cm)]

Like magic, this octopus can change its color and shape in a flash. It can also squeeze through small holes to hide in caves or under rocks.

A hiding octopus keeps out of danger. And a quick armful of suckers can surprise a crab or fish. The octopus's body is soft except for a parrotlike beak that's sharp enough to kill and tear up food.



**Sea anemone**

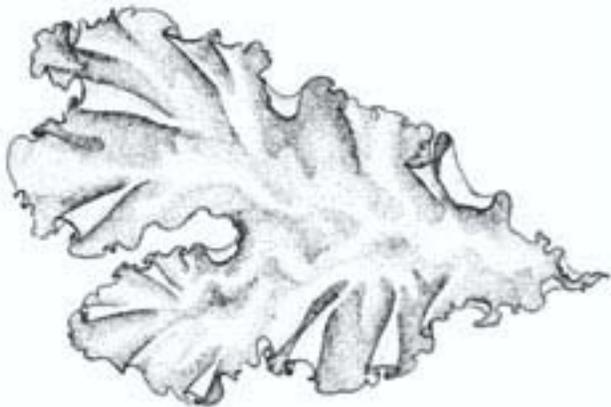
### **Sea anemone**

*Anthopleura elegantissima* [size: to 10 in. (25 cm)]

The sea anemone looks like a flower on a thick, bumpy stalk, but it's really an animal. The flowery parts are tentacles with stingers. The stingers zap small animals that get too close; then the anemone swallows them whole.

At low tide, the anemone closes up. Bits of shell stuck to the bumpy flesh help keep the sea anemone from drying out.

## Critter Cards - Rocky Shore



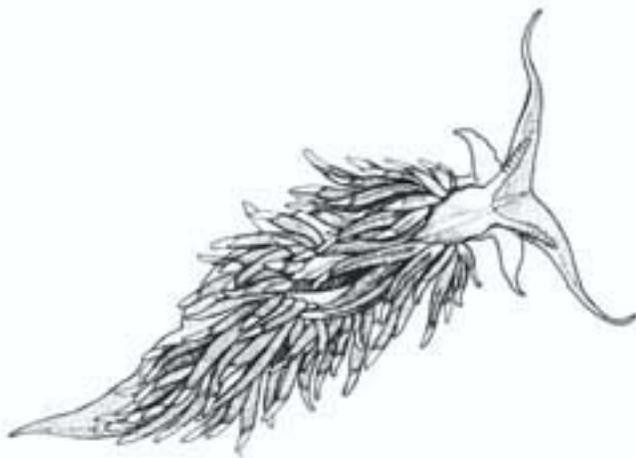
**Sea lettuce**

### **Sea lettuce**

*Ulva* sp. [size: to 8 in. (20 cm)]

Sea lettuce is as green as lettuce from land, but it's only two cell-layers thick. Although it's thin and fragile-looking, sea lettuce can survive pounding waves and drying sun.

These plants quickly overgrow bare rocks. Just as quickly, sea lettuce is gobbled up by snails and crabs.



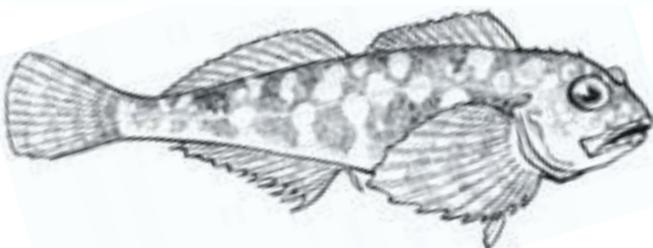
**Sea slug**

### **Sea slug**

*Phidiana crassicornis* [size: to 3 in. (8 cm)]

This blue-and-orange sea slug is a cruel beauty. It tastes terrible and it has stingers. Maybe the bright colors warn other animals, "Don't mess with me!"

This sea slug eats all kinds of animals, some small, some large, some already dead. When two hungry sea slugs meet, they may fight a terrible battle to the death. The loser becomes the breakfast of champions.



**Tidepool sculpin**

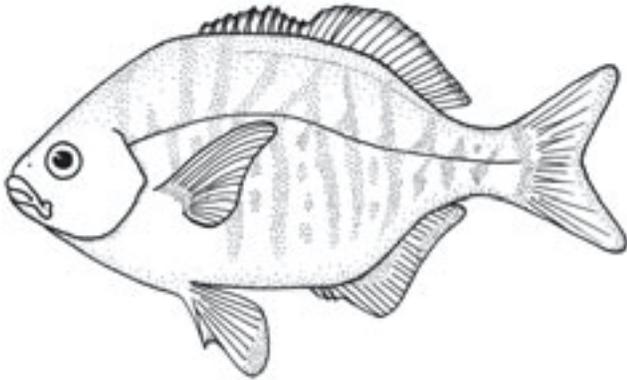
### **Tidepool sculpin**

*Oligocottus maculosus* [size: to 8 in. (20 cm)]

A tidepool sculpin is hard to see because its colors match the rocks and plants it lives on. A sculpin on sea lettuce won't look like one living on gray rocks.

At high tide, this fish travels about looking for small animals to eat. At low tide, it hurries back to its tide pool. Even if it explores nearby pools, a sculpin can find its way back home.

## Critter Cards - Sandy Shore



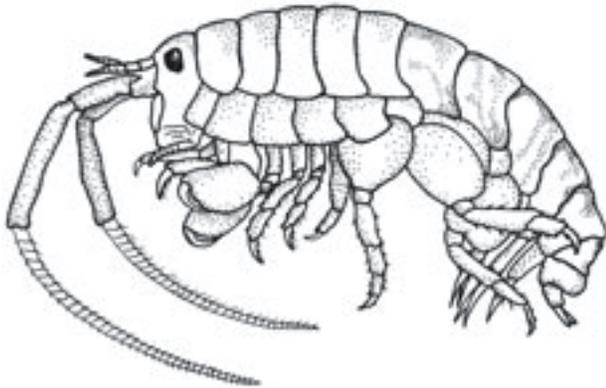
**Barred surfperch**

### **Barred surfperch**

*Amphistichus argenteus* [size: to 17 in. (43 cm)]

Barred surfperch usually live in or just beyond the waves, but also venture into waters as deep as 240 ft. (73 m). Instead of releasing eggs, surfperches give birth to live young.

Barred surfperch feed on sand crabs, clams and other invertebrates. Fishermen catch and eat surfperches, as do seals and larger fishes.



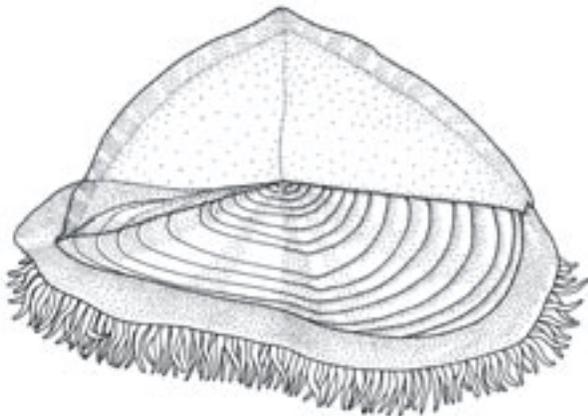
**Beach hopper**

### **Beach hopper**

*Orchestoidea californiana* [size: to 1.1 in. (2.8 cm)]

Beach hoppers live high on the beach, out of reach of the waves. They burrow during the day to keep cool and moist and to hide from hungry shorebirds. At night, they come out and hop about in search of food.

Beach hoppers eat the seaweed that washes up on the beach.



**By-the-wind sailor**

### **By-the-wind sailor**

*Velella velella* [size: to 3 in. (7.6 cm)]

By-the-wind sailors usually live far out to sea, but many get blown ashore in the spring. The angle of the sail may determine where they land. Those whose sails angle to the left are blown to our coast, while right-angled ones sail toward Japan.

These jelly relatives use their tentacles to catch passing plankton.

## Critter Cards - Sandy Beach

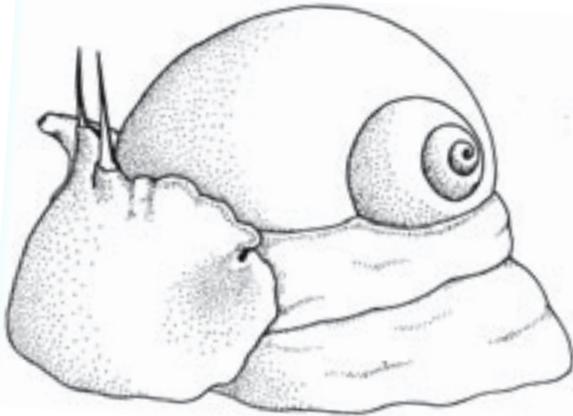


**Drift seaweed**

### **Drift seaweed**

Rough waves rip seaweed from offshore rocks and toss it onto beaches. Often these tangles bring in offshore creatures that lived on the seaweed.

These seaweeds are the only large plants you'll see on the beach, so they're centers of activity. Small animals like beach hoppers eat the decaying algae and hide beneath it. Larger animals, like shorebirds, come to hunt the smaller animals.

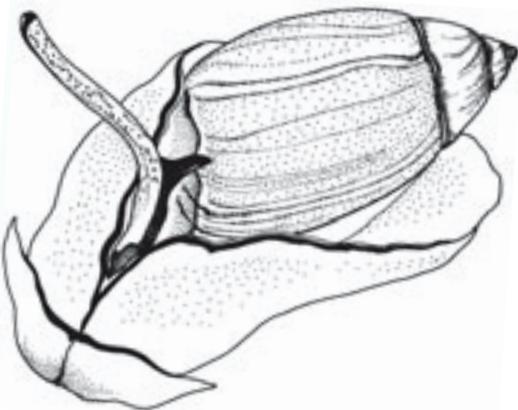


**Moon snail**

### **Moon snail**

*Polinices lewisii* [size: to 5 in. (13 cm)]

The moon snail plows slowly through the sand, hunting for clams. Finding one, the snail surrounds the clam with its huge foot. It drills a hole in the shell, rasping with its filelike tongue and softening the shell with a special liquid. When the hole is finished, the snail eats the clam's soft insides.



**Olive snail**

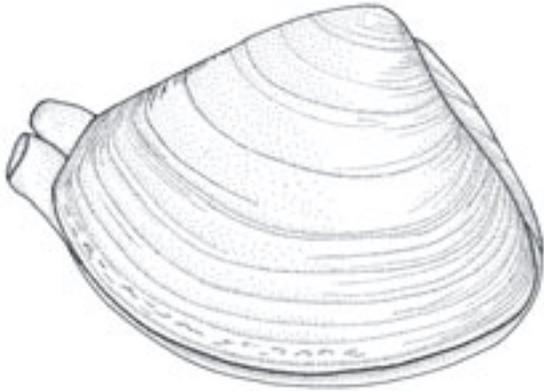
### **Olive snail**

*Olivella biplicata* [size: to 1 in. (2.5 cm)]

The olive snail plows through the sand just below the surface, leaving a furrow behind. Its smooth, streamlined shell helps it slip through the sand. To breathe, the snail sends a tube above the sand.

The olive snail eats dead animals and plants. It may also gather tiny food bits from the sand.

# Critter Cards - Sandy Shore



**Pismo clam**

## **Pismo clam**

*Tivela stultorum* [size: to 6 in. (15 cm)]

Pismo clams dig into the sand near the surf zone. To dig, a clam pushes its foot downward through the sand like a wedge. Then it anchors the foot and pulls the shell along after it.

Clams send a feeding tube above the sand. They inhale water through it, filtering out tiny plants and animals called plankton.



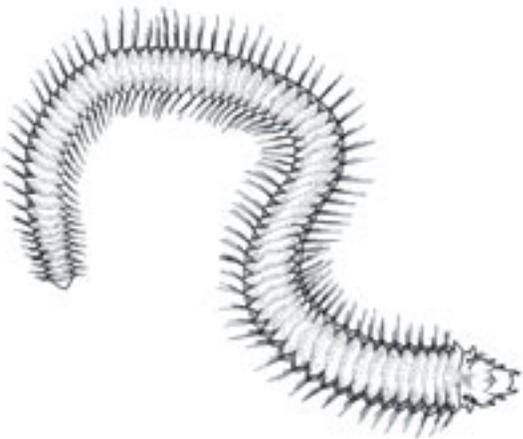
**Plankton**

(Plant plankton, top row from left: two dinoflagellates, chain diatom, diatom. Animal plankton, bottom row: sea urchin larva, crab larva, snail larva, copepod.)

## **Plankton**

Plankton are plants and animals that drift on ocean currents instead of swimming. Most are tiny; these pictures are many times larger than the actual organisms.

Plant plankton form the first link in many of the ocean's food chains. Animal plankton eat these tiny plants. Filter-feeders like clams and sand crabs eat both kinds of plankton.



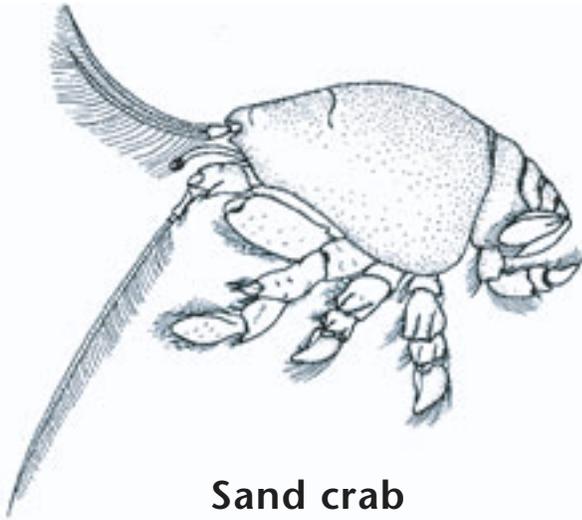
**Polychaete worm**

## **Polychaete worm**

*Nephtys californiensis* [size: to 12 in. (30 cm)]

This sandworm is similar to earthworms, but has a row of bristled flaps on each side. It burrows through the beach sand. If a wave uncovers the worm, it quickly swims down and digs in again. This worm preys mostly on smaller sand-dwellers.

## Critter Cards - Sandy Shore



**Sand crab**

### **Sand crab**

*Emerita analoga* [size: to 1.4 in. (3.5 cm)]

Sand crabs live in the surf zone, following the tide up and down the beach. To keep from washing away, they burrow tail-first into the sand. Burrowing also protects them from predators, like surfperches and plovers.

To filter plankton from the water, a sand crab sends fringed antennae up from the sand into the passing waves.



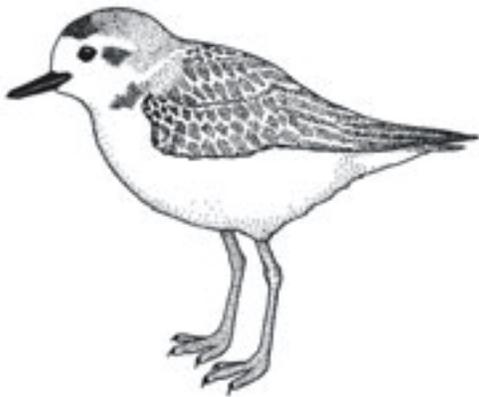
**Sand dollar**

### **Sand dollar**

*Dendraster excentricus* [size: to 3 in. (7.6 cm)]

Sand dollars live half-buried in the sand just beyond the waves. They stand on end when the water is calm, but dig in during storms using their short spines. Young ones swallow heavy sand to weigh them down.

Sand dollars feed on plankton and small organic particles found on the sand or in the water.



**Snowy plover**

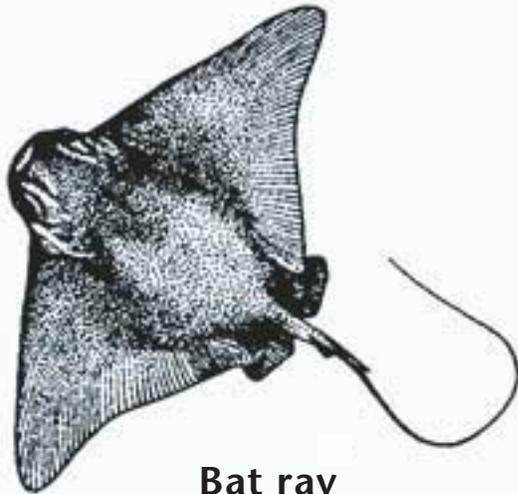
### **Snowy plover**

*Charadrius alexandrinus* [size: to 6.5 in. (16.5 cm)]

Snowy plovers skitter about on the dry upper beach. They hollow out their nests right on the sand. This is safer than it might seem; both eggs and bird blend in so well, they're almost impossible to see.

Plovers eat sand crabs, beach hoppers and other invertebrates. They hunt in quick spurts, stopping to grab a bite, then darting off again.

## Critter Cards - Wetlands



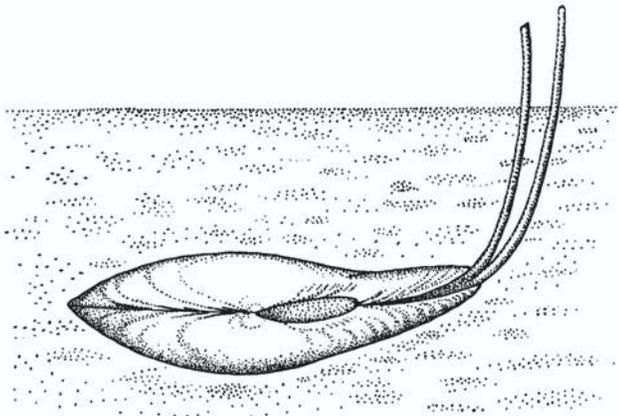
**Bat ray**

### **Bat ray**

*Myliobatis californica* [size: to 6 ft. wide (1.8 m)]

Bat rays prey on clams, shrimp, worms and other invertebrates that live in the mud. Flapping their wings to clear away mud, rays suck up their prey, crushing the shells with their strong jaws and hard, flat teeth.

In summer, bat rays enter sloughs and bays where they give birth to live young. It's a trait they share with several other members of the shark family.



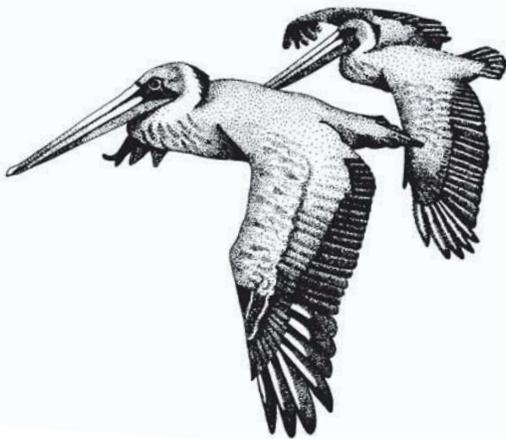
**Bent-nosed clam**

### **Bent-nosed clam**

*Macoma nasuta* [size: to 2.5 in. (6 cm)]

Using its muscular foot, this clam digs about six inches down into the mud. It rocks back and forth as it digs, like a coin sinking in water. When it finally settles, it lies horizontally, not vertically like most clams.

To eat and breathe, it sticks a tube up to the mud's surface. Like a vacuum cleaner, the clam sucks down tiny particles, mostly the remains of plants and animals, along with sand and grit. Then it sorts the food from the muck.



**Brown pelican**

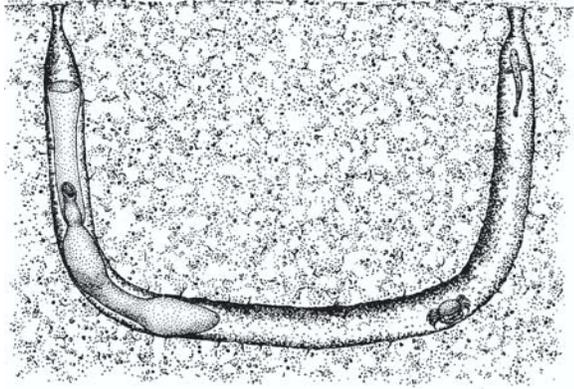
### **Brown pelican**

*Pelecanus occidentalis* [size: to 7 ft. wingspan (2 m)]

Thousands of pelicans visit Elkhorn Slough in summer and fall. In late fall, they migrate south to Mexico and South America where they build saucer-shaped nests on the ground or in trees and raise two to three young.

In the 1960s, heavy use of the pesticide DDT nearly killed all the brown pelicans. Today, DDT is banned in the United States. But its use in Mexico and other countries along with habitat loss within the pelican's range are still threats.

## Critter Cards - Wetlands



**Fat innkeeper worm**

### **Fat innkeeper worm**

*Urechis caupo* [size: to 20 in. (51 cm)]

An innkeeper worm digs a U-shaped tunnel in the mud. At one end, it attaches a mucous net that it secretes from special glands. Slowly pulsing its body, the innkeeper pumps water through its tunnel. As water flows through, the net traps tiny plankton floating in the water.

When the net is full, the innkeeper eats both it and the trapped food. Worms, crabs and even goby fish share the tunnel, eating anything the innkeeper misses.



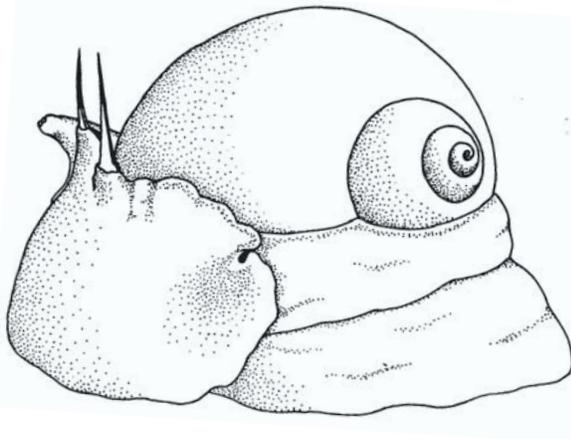
**Great blue heron**

### **Great blue heron**

*Ardea herodias* [size: to 6 ft. wingspan (1.8 m)]

Great blue herons live year-round at the slough. They depend on the slough to eat, rest and raise their young. Look for them standing still in shallow water, quietly waiting to snatch and eat small fishes that swim by.

In early spring, great blue herons build nests in the tops of trees. Made of twigs and leaves, each nest shelters three to five bluish-green eggs. Both the male and female incubate the eggs which take about two months to hatch.



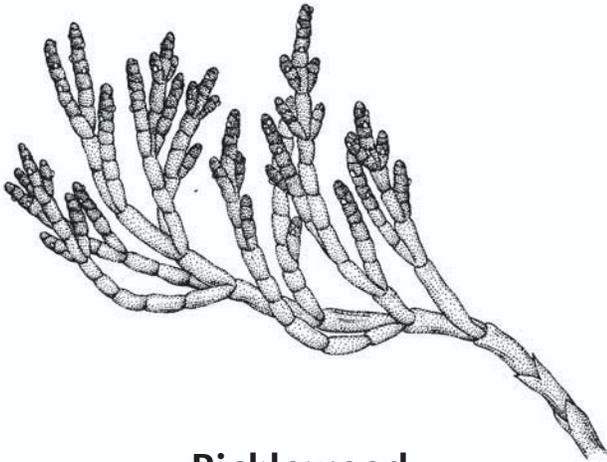
**Moon snail**

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*Polinices lewisii* [size: to 5 in. (13 cm)]

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## Critter Cards - Wetlands



**Pickleweed**

### **Pickleweed**

*Salicornia virginica* [size: to 25 in. (63 cm)]

This plant can withstand salty conditions that would cause other plants to wither and die. Pickleweed draws the slough's saltwater into its stems and stores the extra salt in the tips of the stems. In fall, the stems turn color, becoming an orange or rosy red. Then they wither and drop off, taking the stored salt with them.



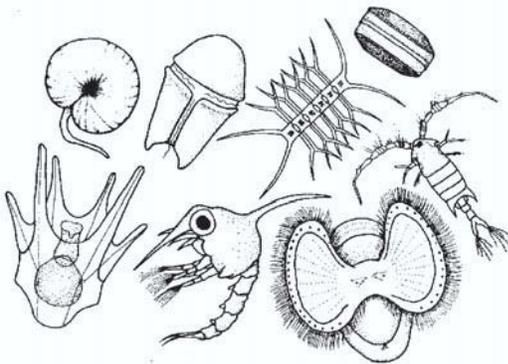
**Pipefish with eelgrass**

### **Pipefish with eelgrass**

*Syngnathus leptorhynchus* with *Zostera marina*  
[size: pipefish to 13 in. (33 cm); eelgrass to 3 ft. (91 cm)]

With its long and thin green body, a pipefish blends in well with the eelgrass blades it lives in. It even sways back and forth with the currents like eelgrass does.

Eelgrass, unlike most flowering plants, lives with its roots in mud under the water. Its matted roots trap sediments, helping to keep the mud in place and providing a stable home for many animals.



**Plankton**

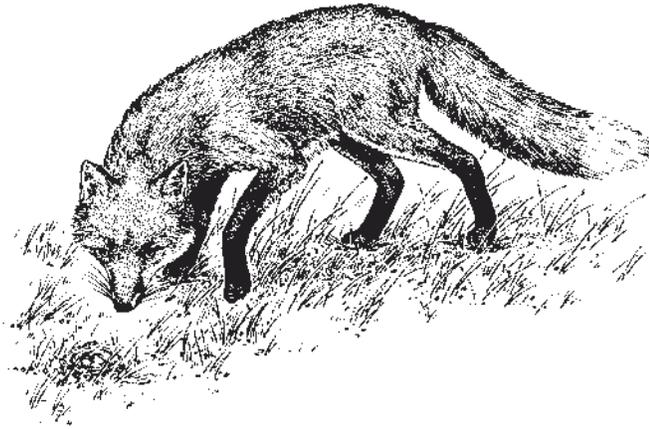
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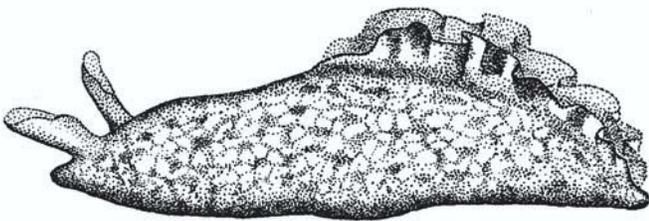
**Red fox**

### **Red fox**

*Vulpes vulpes* [size: to 3.5 ft. (106 cm)]

A red fox stalks its prey at night, feeding on ground-nesting birds, their eggs and small animals. During the day it returns to its home in the uplands, a den dug down in the ground.

Many people are concerned about red foxes at Elkhorn Slough. Unlike native gray foxes, red foxes were brought to the slough by people. Without natural predators, the red fox's population grows unchecked. And as red fox numbers grow, populations of its prey decline.



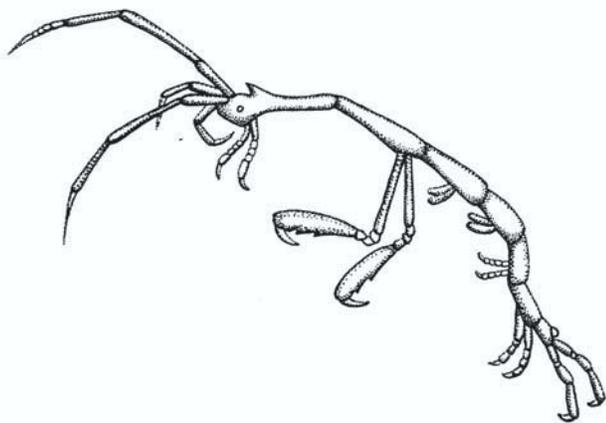
**Sea hare**

### **Sea hare**

*Aplysia californica* [size: to 16 in. (41 cm)]

A sea hare glides along the muddy bottom, searching for algae to eat. With its filelike tongue, called a radula, it scrapes up its food, eating nearly 10 percent of its body weight a day.

An adult sea hare is both a male and a female, but it must mate with another sea hare. After mating, it lays strings of greenish eggs that look like spaghetti. Each string contains up to a million eggs.



**Skeleton shrimp**

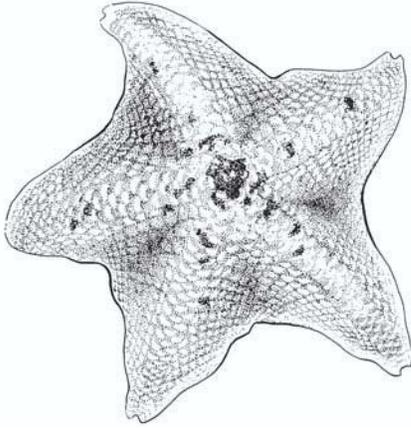
### **Skeleton shrimp**

*Caprella californica* [size: to 1.5 in. (4 cm)]

You have to look closely to find skeleton shrimp. Their small, clear, sticklike bodies blend in well with the eelgrass where they live. They cling to the plants with three pairs of legs, and use their clawlike "arms" for grabbing food, fending off predators and cleaning themselves.

A skeleton shrimp eats whatever it can. It feeds on smaller plants and animals and scavenges for other bits of food.

## Critter Cards - Kelp Forest

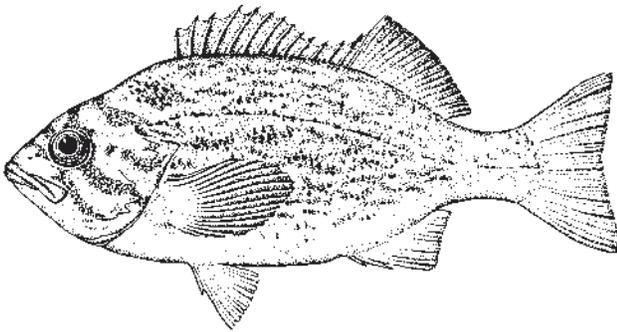


**Bat star**

### **Bat star**

*Asterina miniata* [size: to 8 in. (20 cm)]

Bat stars live on the kelp forest floor. They eat seaweeds and small animals, and scavenge dead animals on the seafloor. A bat star's stomach comes out of its mouth and covers its food to eat. The stomach can feel around on the seafloor for bits of food.



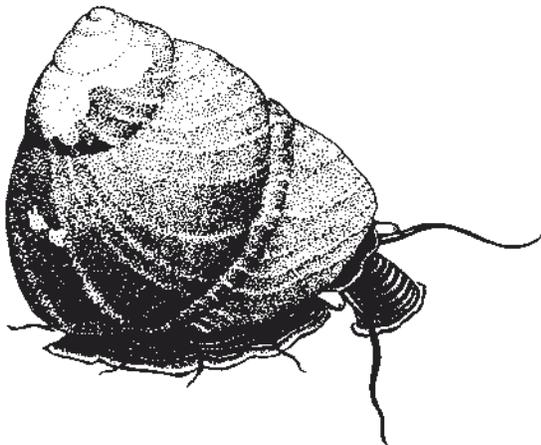
**Blue rockfish**

### **Blue rockfish**

*Sebastes mystinus* [size: to 21 in. (53 cm)]

Schools of blue rockfish swim among the kelp plants. Sport fishers often catch these fish, but they must be careful when they do: rock fishes have poisonous spines on some of their fins.

Blue rockfish eat small floating animals, like shrimp and jellies.



**Brown turban snail**

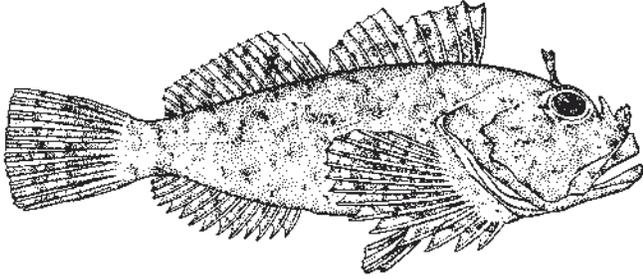
### **Brown turban snail**

*Tegula brunnea* [size: to 1 in. (2.5 cm)]

Brown turban snails live on kelp plants, most often on the upper blades. Predators like the sea star live on the seafloor below, so the turban snail is safer up high in the canopy.

Kelp provides lunch as well as a living-place for the turban snail. The snails rasp away the algae with their filelike tongues.

## Critter Cards - Kelp Forest



**Cabezon**

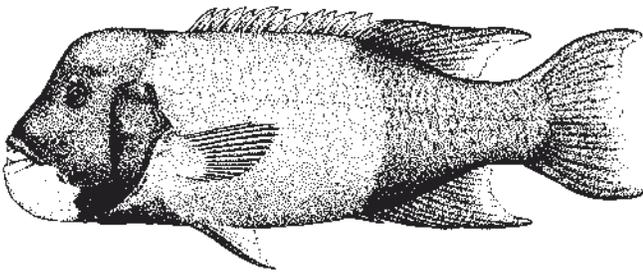
### **Cabezon**

*Scorpaenichthys marmoratus*

[size: to 3.25 ft. (99 cm)]

Like their relatives, the small tidepool sculpins, cabezons live on the bottom in rocky areas. When they sit still, their waving fins and mottled color blend in with the surrounding seaweed.

Cabezons eat invertebrates like crabs and snails, and some fishes. They swallow abalones whole, then spit out the shells. "Cabezon" means "big head" in Spanish. This fish has a big mouth, too—it can gulp large prey.



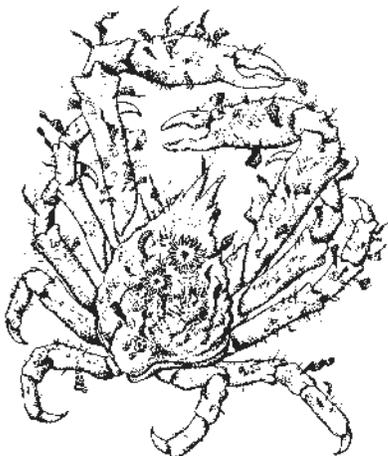
**California sheephead**

### **California sheephead**

*Semicossyphus pulcher* [size: to 3 ft. (91 cm)]

Sheephead swim above rocky areas. These fish are all born female, but turn into males when they grow to about 12 inches. They also turn color, from red to red-and-black with white chins.

Sheephead eat snails, crabs, urchins and other shellfish. They're good to eat, so divers often catch them.



**Decorator crab**

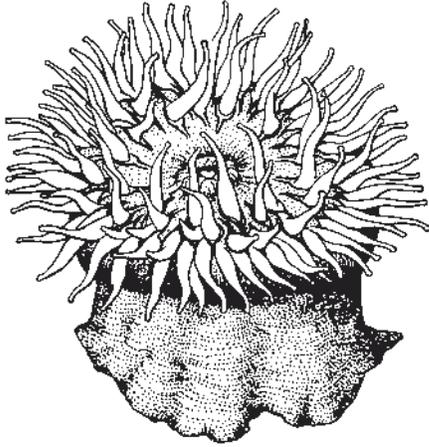
### **Decorator crab**

*Loxorhynchys crispatus* [size: to 3.5 in. (8.8 cm)]

A decorator crab camouflages its shell with algae, sponges and other things that grow on local rocks. When the crab sheds the shell for a new one, it has to redecorate. Often, the crab will transfer material from the old shell to the new.

Decorator crabs eat algae, sea urchins, small crustaceans and sponges.

## Critter Cards - Kelp Forest

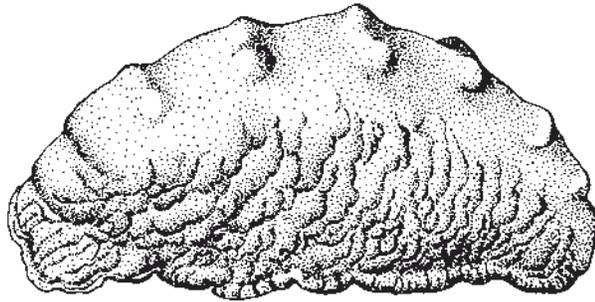


**Fish-eating anemone**

### **Fish-eating anemone**

*Urticina piscivora* [size: to 8 in. (20 cm)]

This anemone snares shrimp and small fishes. Its stinging tentacles shoot thousands of tiny harpoons into the prey to hold it. A poison from the harpoons stuns the prey. After making a catch, the anemone stuffs the meal into its mouth then closes up to digest it.



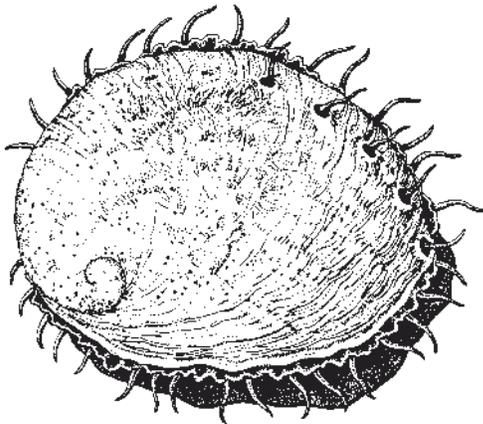
**Gumboot chiton**

### **Gumboot chiton**

*Cryptochiton stelleri* [size: to 12 in. (30 cm)]

The gumboot chiton is the largest chiton in the world. It lives on the kelp forest floor, clinging to rocks with its single large foot. It looks like half a football, but is related to snails and clams. Its eight shells are inside, like a skeleton.

A gumboot chiton eats mostly red seaweeds, rasping with its filelike tongue.



**Red abalone**

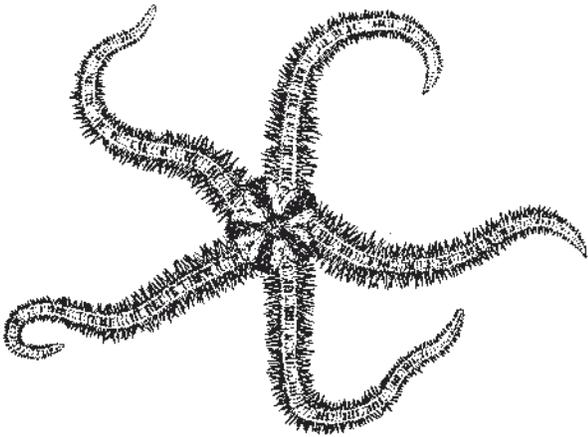
### **Red abalone**

*Haliotis rufescens* [size: to 11.8 in. (30 cm)]

Red abalone live in crevices, rarely moving far from a chosen spot on the rock. The holes in the shell are outlets for water circulation.

These abalone catch passing seaweed for food. When the tentacles sense a large piece of drifting kelp, the abalone rears toward it, then grabs the seaweed with its big foot.

## Critter Cards - Kelp Forest



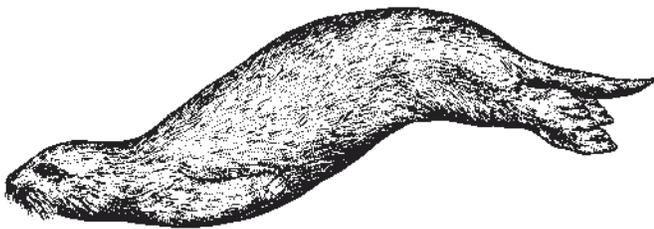
**Spiny brittle star**

### **Spiny brittle star**

*Ophiothrix spiculata* [size: to 5.7 in. (14.4 cm)]

Brittle stars hide among rocks and in the rootlike kelp holdfasts, anchored into cracks by their long spines. Their delicate arms break easily, but also grow back quickly.

Brittle stars catch suspended food particles by waving their arms through the water. Small tube feet on each arm transfer the food to the mouth.



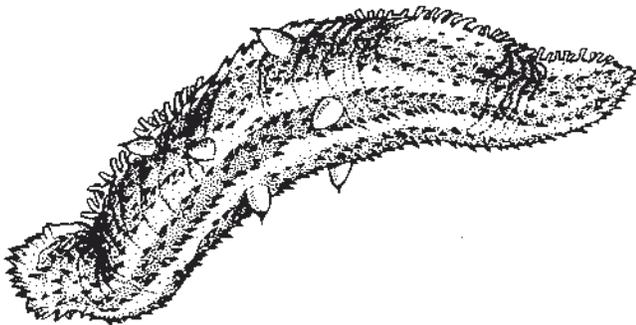
**Sea otter**

### **Sea otter**

*Enhydra lutris* [size: to 5.5 ft. (1.7 m)]

For warmth, the sea otter relies on its thick fur coat with 600,000 hairs per square inch. The otter spends nearly half its waking hours grooming its fur coat to keep it waterproof.

The otter dives for shellfish, then eats lying on its back at the surface. Because it consumes abalones and crabs, the otter sometimes competes with people for food.



**Sea cucumber**

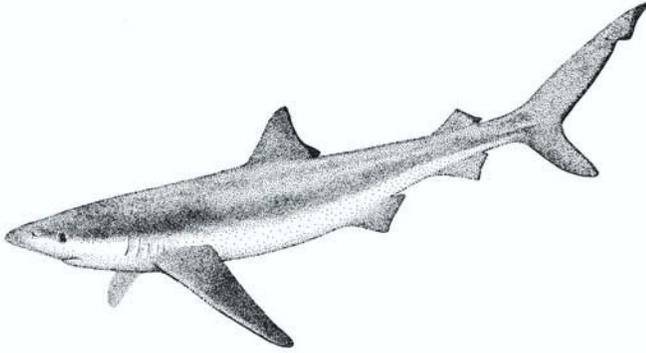
### **Sea cucumber**

*Parastichopus californicus* [size: to 16 in. (40 cm)]

Sea cucumbers creep slowly across the kelp forest floor. Relatives of the sea stars, they use hundreds of tiny suction cup feet called "tube feet" to move.

The tentacles around a sea cucumber's mouth are also a type of tube foot. The sea cucumber brushes the tentacles across the seafloor as it moves, collecting organic particles and stuffing them into its mouth.

## Critter Cards - Open Sea



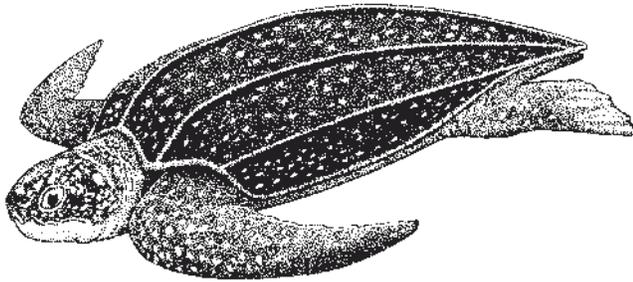
**Blue shark**

### **Blue shark**

*Prionace glauca* [size: to 13.5 ft. (4 m)]

Blue sharks usually live offshore but visit the nearshore waters of Monterey Bay in late summer and fall. They make seasonal migrations of thousands of miles. Sleek and graceful, they use their front fins for gliding, a swimming method that is especially efficient at low speeds.

Blue sharks feed mostly on fishes and squid.

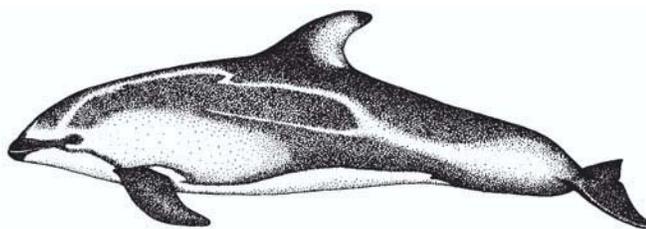


**Leatherback sea turtle**

### **Leatherback sea turtle**

*Dermochelys coriacea coriacea*  
[size: to 6 ft. (1.8 m)]

Sea turtles eat jellies. When plastic bags and balloons get in the ocean, they look like jellies. Sometimes turtles eat the plastic by mistake, then they choke and starve.



**Pacific white-sided dolphin**

### **Pacific white-sided dolphin**

*Lagenorhynchus obliquidens* [size: to 7 ft. (2.1 m)]

Resident pods of hundreds of white-sided dolphins streak through Monterey Bay. They swim in formation with other dolphins and sea lions, sometimes leaping from the water in spirited somersaults.

Each dolphin is unique, from the patterns on its body to the noises it makes. High-pitched squeaks, clicks and whistles help it communicate with its family pod.

## Critter Cards - Open Sea



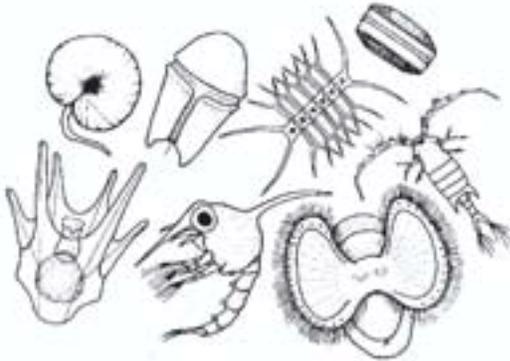
**Purple-striped jelly**

### **Purple-striped jelly**

*Chrysaora colorata*

[size: to 2.5 ft. diameter of bell (80 cm)]

In certain seasons, when the currents run just right, purple-striped jellies mysteriously appear near the shores of Monterey Bay, California. When the jellies arrive, it's wise to keep your distance (their sting isn't fatal, but it can be painful). Since divers have seen ocean sunfish eating these jellies, we know some fishes must be immune to the sting.



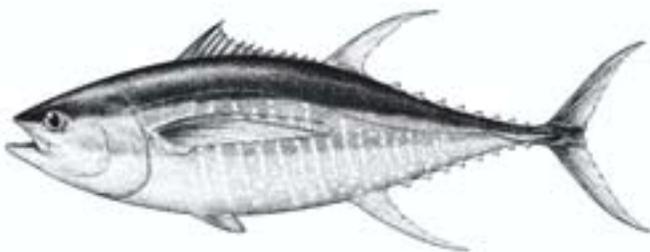
**Plankton**

(Plant plankton, top row from left: two dinoflagellates, chain diatom, diatom. Animal plankton, bottom row: sea urchin larva, crab larva, snail larva, copepod.)

### **Plankton**

Plankton are plants and animals that drift on ocean currents instead of swimming. Most are tiny; these pictures are many times larger than the actual organisms.

Plant plankton form the first link in many of the ocean's food chains. Animal plankton eat these tiny plants. Filter-feeders like clams and sand crabs eat both kinds of plankton.



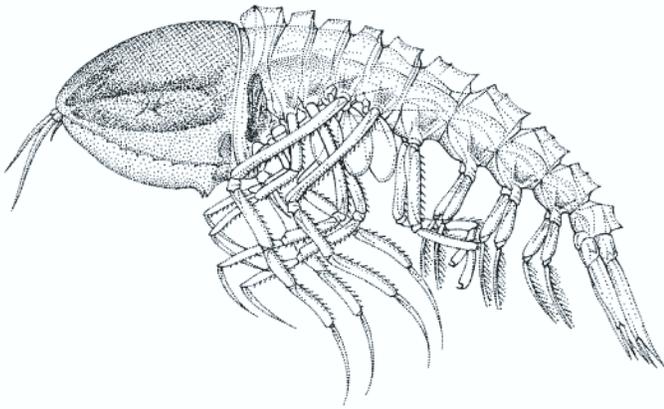
**Yellowfin tuna**

### **Yellowfin tuna**

*Thunnus albacares* [size: to 6.5 feet (2 m)]

Sleek, streamlined and fast, yellowfin tuna travel the Indian, Pacific and Atlantic oceans. Local laws can't protect these international travelers from overfishing. This makes the problem of tuna conservation a global one—which means we need to find global solutions.

## Critter Cards - The Deep Sea

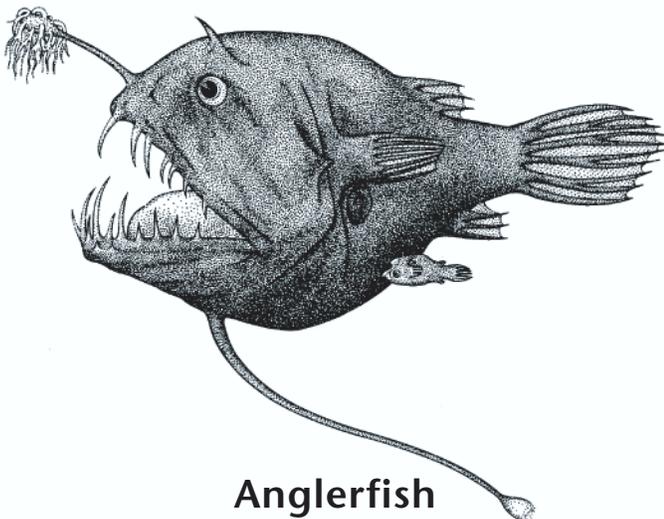


**Amphipod**

### **Amphipod**

*Cystisoma fabricii* [Size: to 6 in. (15 cm)]

This amphipod swims slowly through the water, paddling its three pairs of swimming legs located near the rear of its body. Swimming slowly may be fine; its crystal-clear body probably makes it hard for predators to see in the dim light. This crustacean's two huge compound eyes may help it to scan the dimly lit water in search of prey, though scientists don't know yet what it eats.

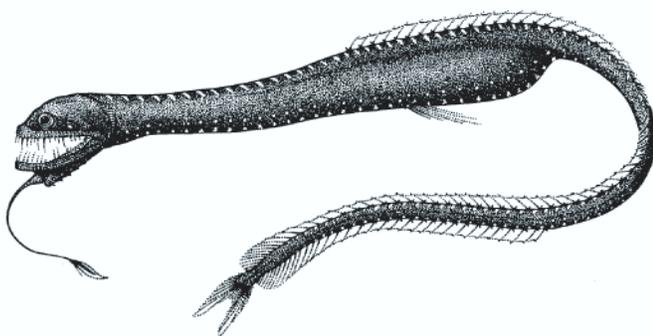


**Anglerfish**

### **Anglerfish**

*Linophryne coronata* [Size: to 4 in. (10 cm)]

A female anglerfish may attract prey with lights: part of her top fin looks like a fishing pole with bait that lights up. The glowing bait may lure fishes to her huge mouth. A male, barely half the female's size, depends on a female for food. Once mature, he may use his keen sense of smell to find a mate. Then he bites her and hangs on. His body fuses to hers and they become mates for life.



**Blackdragon**

### **Blackdragon**

*Idiacanthus antrostomus* [Size: to 15 in. (38 cm)]

How can you tell a female blackdragon from a male? A female is darker and larger, and a long whiskerlike barbel dangles from her chin. At night, she swims hundreds of feet up to the sea's surface to feed. At dawn, she makes her way back down to the deep sea. Without a working stomach, a male doesn't migrate for food. Unable to eat, he may only live for a year, just long enough to mate.

## Critter Cards - The Deep Sea

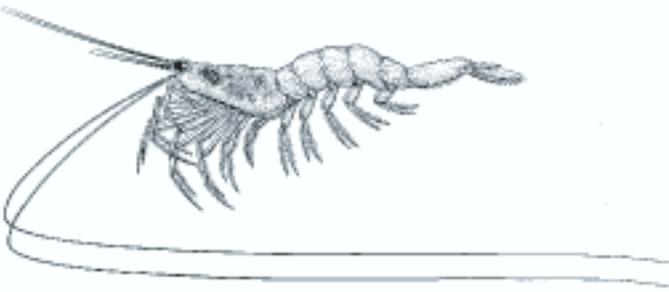


**Bristlemouth**

### **Bristlemouth**

*Cyclothone sp.* [Size: to 3 in. (8 cm)]

Many species of bristlemouths live below 1,000 feet (300 meters) where there's little light. Like many deep sea fishes, some of these bristlemouth species have poorly developed eyes and must rely on other senses to make their way in the darkness.

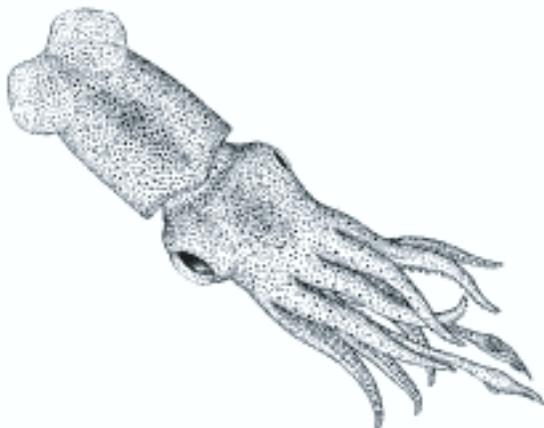


**Deep sea shrimp**

### **Deep sea shrimp**

*Sergestes similis* [Size: to 1.5 in. (4 cm)]

This shrimp's long antennae—nearly four times the length of its body—may help this animal find food or mates by sensing chemicals produced by other animals. This shrimp also uses bioluminescence to help it survive. Light-producing organs dot the underside of its red-and-white splotched body. The lights may attract mates, or they may help the shrimp hide from hungry predators.



**Deep sea squid**

### **Deep sea squid**

*Histioteuthis meleagroteuthis*  
[Size: to 12 in. (30 cm)]

All squids, from this foot-long deep sea species to its 50-foot-long relative, grab prey with their two longest tentacles. And all squids use their eight arms to carry prey to their mouths. But unlike other squids, the deep sea squid's left eye is much larger than its right one. Each eye works differently, but no one's sure why. How do you think the different-sized eyes might help this animal survive?

## Critter Cards - The Deep Sea



**Lanternfish**

### **Lanternfish**

*Stenobrachius leucopsarus* [Size: to 5 in. (13 cm)]

Each species of lanternfish has its own pattern of light-producing photophores. Lanternfishes may use these patterns to find mates of their own species. Some males may attract mates by flashing a large photophore near their tails. Or maybe this light confuses predators, causing them to attack the male's bright tail instead of his darker head. What do you think the lanternfish uses its taillights for?



**Shining tubeshoulder**

### **Shining tubeshoulder**

*Sagamichthys abei* [Size: to 13 in. (33 cm)]

Tiny tubelike projections above each pectoral fin set this fish apart from others. Tubeshoulders can squirt a bioluminescent cloud from their tubes, perhaps dazzling predators with a flash of light as they slip away into the darkness. Tubeshoulders, born with gray-blue bodies and white tails, become shiny black as adults. As they grow, photophores develop along their undersides and on their heads.



**Siphonophore**

### **Siphonophore**

*Apolemia sp.* [Size: to 98 ft. (30 m)]

A siphonophore is a chain of specialized parts; each one plays a role in the life of this animal. A floating buoy leads, followed by a cluster of round swimming bells that pulse to propel the chain (which can stretch nearly half the length of a football field). To eat, a siphonophore dangles a curtain of stinging tentacles that stun shrimp, ellies and other prey. The tentacles carry the prey to one of the mouth parts.

## Critter Cards - The Deep Sea

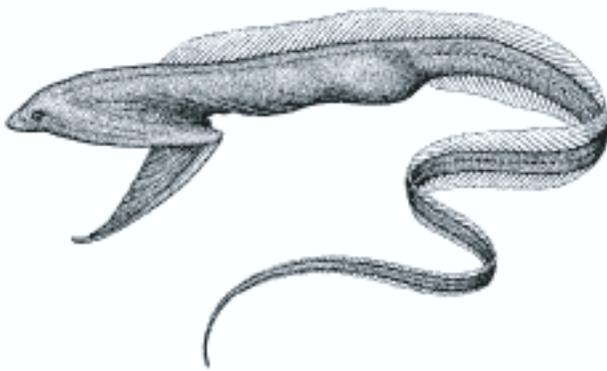


**Filetail catshark**

### **Filetail catshark**

*Parmaturus xaniurus* [Size: to 22 in. (56 cm)]

A filetail catshark swims gracefully along the muddy seafloor. Gray-brown above and pale below, this fish blends in with its benthic habitat. Its large green eyes look upward, unlike those of shallow-water sharks. Catsharks lay eggs with curly corners. The curls catch on edges of rocks and sponges to anchor the egg case near the deep seafloor. Here it'll stay for two years while a tiny catshark grows inside.

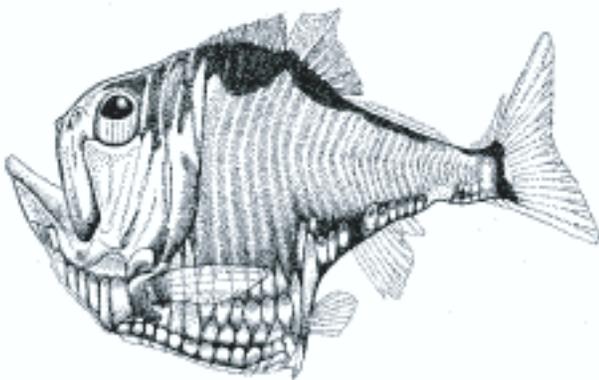


**Gulper eel**

### **Gulper eel**

*Eurypharynx pelecanooides* [Size: to 16 in. (40 cm)]

The gulper eel's species name, *pelecanooides*, comes from its pouchlike mouth that looks like a pelican's bill. This fish usually eats prawns and small fishes, but with its huge mouth, it may swallow even larger prey. When hungry, this flexible fish may wriggle its tail in front of its mouth. The tail's tip glows in the dark and may lure prey close.



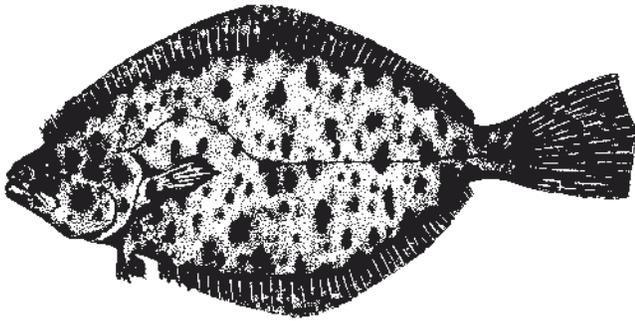
**Hatchetfish**

### **Hatchetfish**

*Argyropelecus sp.* [Size: to 4 in. (10 cm)]

Shaped like the head of a tiny hatchet, this fish is countershaded to hide it from predators. Its back is dark; its belly is shiny silver with two rows of glowing photophores. A hatchetfish scans the water above for prey with tubular eyes. Its eyes can focus near or far, but only upward. Its large mouth points upward, too, ready to snap up prey once it's been seen.

## Critter Cards - Suited for the Sea

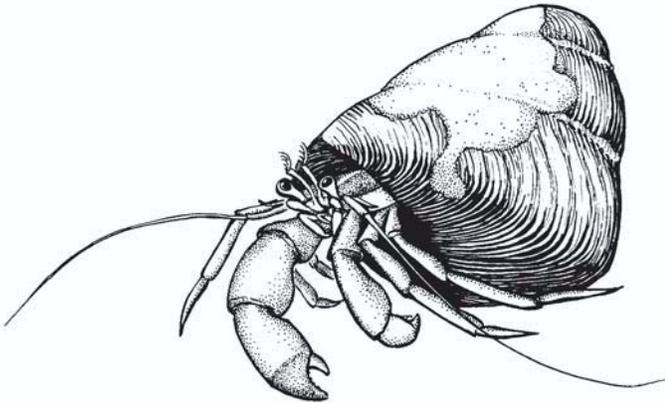


**California halibut**

### **California halibut**

*Paralichthys californicus* [size: to 5 ft. (152 cm)]

A halibut has both eyes on the same side of its head. It lives on the sandy seafloor, always lying on one side of its body. The halibut wriggles its flat body into the sand; its two eyes stick out above the sand to watch for approaching predators and prey.



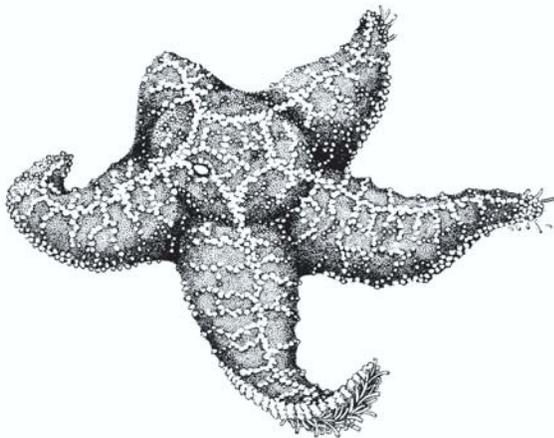
**Hermit crab**

### **Hermit crab**

*Pagurus samuelis* [size: to 1 in. (2.5 cm)]

A hermit crab wears an empty snail shell to protect its soft body. The back legs hold the shell on tight. As the crab grows, it needs bigger shells. One hermit crab will even steal a good shell from another crab.

Though a hermit crab threatens and fights with its large claws, it's not a hunter. This crab eats seaweeds and dead animals.



**Ochre star**

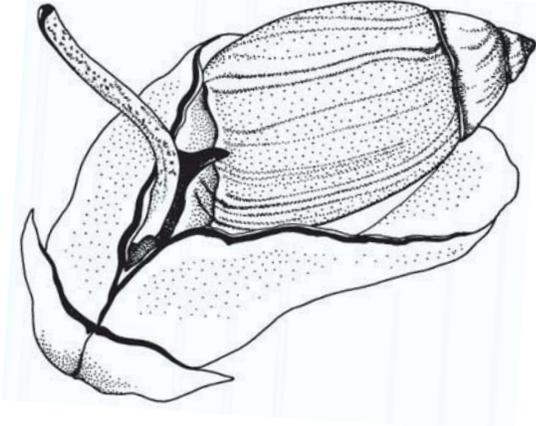
### **Ochre star**

*Pisaster ochraceus* [size: to 1 ft. (30 cm)]

This sea star has hundreds of tiny suction-cup feet under each arm that help it stick to rocks. The sea star is a real loafer; it clings motionless on a rock for weeks.

Even a hungry sea star isn't hasty. Slow and steady, its feet can pry apart a mussel. When the mussel's two shells open, the sea star slides its stomach between the shells to digest the animal inside.

## Critter Cards - Suited for the Sea



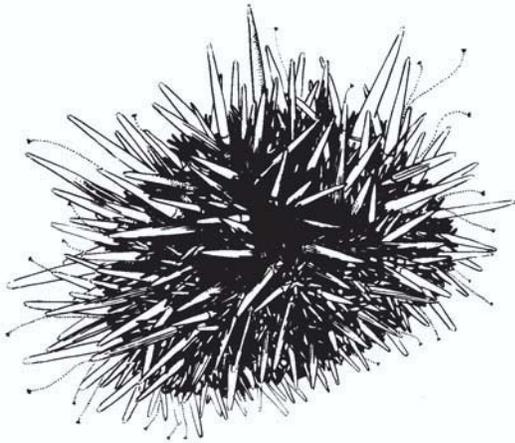
**Olive snail**

### **Olive snail**

*Olivella biplicata* [size: to 1 in. (2.5 cm)]

The olive snail plows through the sand just below the surface, leaving a furrow behind. Its smooth, streamlined shell helps it slip through the sand. To breathe, the snail sends a tube above the sand.

The olive snail eats dead animals and plants. It may also gather tiny food bits from the sand.



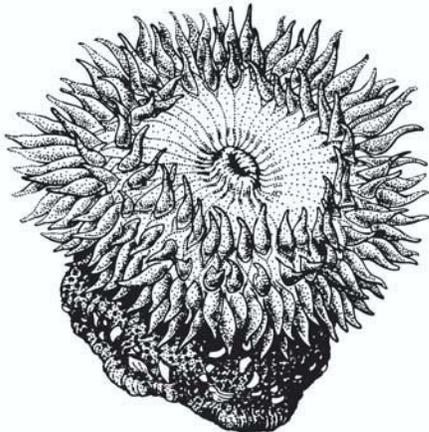
**Purple sea urchin**

### **Purple sea urchin**

*Strongylocentrotus purpuratus* [size: to 4 in. (10 cm)]

Using their spines and teeth, urchins burrow slowly into solid rock. Because they grow as they dig, some end up trapped in holes, too big to leave.

Between the hard spines, an urchin has hundreds of tube feet. Its soft tube feet are always busy: some hold the urchin onto the rock; others move kelp to the urchin's greedy mouth.



**Sea anemone**

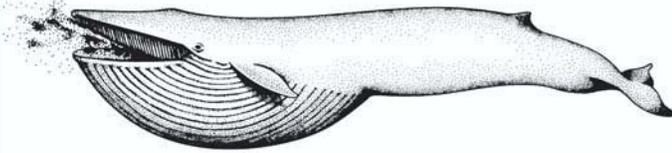
### **Sea anemone**

*Anthopleura elegantissima* [size: to 10 in. (25 cm)]

The sea anemone looks like a flower on a thick, bumpy stalk, but it's really an animal. The flowery parts are tentacles with stingers. The stingers zap small animals that get too close; then the anemone swallows them whole.

At low tide, the anemone closes up. Bits of shell stuck to the bumpy flesh help keep the sea anemone from drying out.

## Critter Cards - Marine Mammals



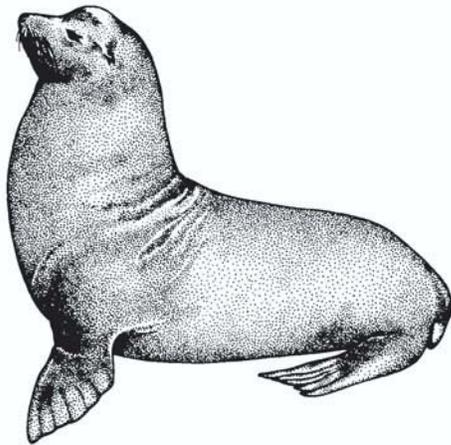
**Blue whale**

### **Blue whale**

*Balaenoptera musculus* [size: to 100 ft. (30.5 m)]

Largest of all living animals, the 160-ton blue whale consumes some fairly-small prey. Lunging open-mouthed at schools of shrimplike krill, this baleen whale can engulf and strain four tons of food daily.

The 24-foot long newborn blue whale is an impressive eater, too. Drinking 130 gallons of milk a day, the calf can double its weight in one week.



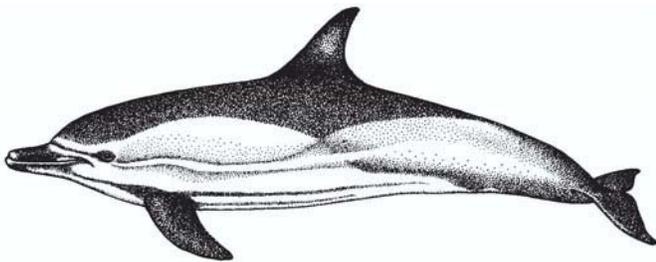
**California sea lion**

### **California sea lion**

*Zalophus californianus* [size: to 7.5 ft. (2.3 m)]

Diving 800 feet deep, the sea lion paddles with its strong front limbs and steers with its rear flippers. On land, it rotates the hind flippers forward to walk on all fours.

At mating time, the male sea lion barks and bellows to establish his territory and gather a harem of females. Never giving ground, not even to eat, the bull defends his turf from male intruders.



**Common dolphin**

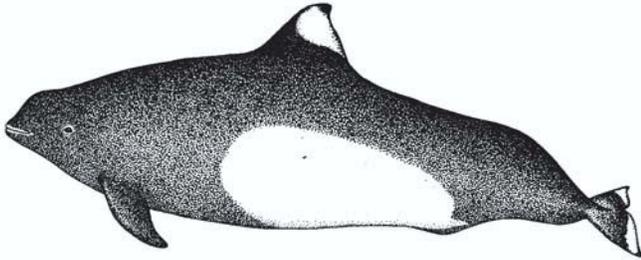
### **Common dolphin**

*Delphinus delphis* [size: to 8.5 ft. (2.6 m)]

These slender dolphins live and travel in huge groups that can cover several square miles. Even in pods of a hundred or more, the dolphins protect each other. When one is injured, the others take turns supporting it so it doesn't drown.

In some countries, people still hunt and eat dolphins. Thousands more die each year, accidentally caught in fish nets.

## Critter Cards - Marine Mammals



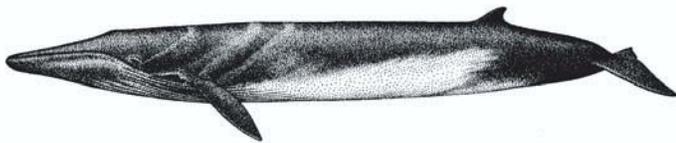
**Dall's porpoise**

### **Dall's porpoise**

*Phocoenoides dalli* [size: to 7 ft. (2.1 m)]

This stocky porpoise has a small dorsal fin and tiny flippers, but it's a spectacular swimmer. Moving like a hydroplane, it races through the water, leaving behind a "rooster tail" of spray when it surfaces for air.

For food, the Dall's porpoise favors deep sea fishing. It roams out beyond the continental shelf to hunt for squids, crustaceans and fishes.



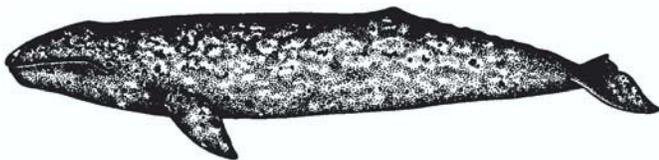
**Fin whale**

### **Fin whale**

*Balaenoptera physalis* [size: to 88 ft. (27 m)]

The world's second largest animal, the fin whale can cruise the open ocean at speeds of 35 miles an hour. Most other whales can't swim so fast for extended periods.

Uneven coloring makes the fin whale unique among all whales; its lower jaw is white on the right and black on the left. Dark and light patterns on its body may disguise the fin whale as it hunts fishes.



**Gray whale**

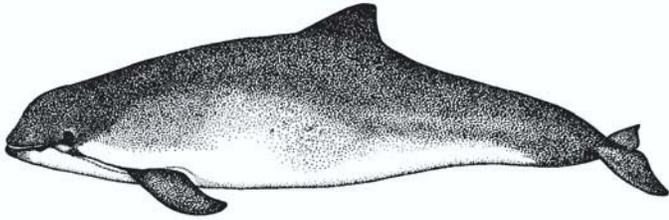
### **Gray whale**

*Eschrichtius robustus* [size: to 50 ft. (15 m)]

Gray whales make the longest migration of any mammal, swimming 12,000 miles each year. In fall, they head south to their breeding lagoons in Baja California; in spring, they return north to feed in the Bering Sea.

Unlike other baleen whales, the gray whale eats bottom-living crustaceans. The whale sucks in a mouthful of mud and strains it through the baleen to remove the prey.

## Critter Cards - Marine Mammals



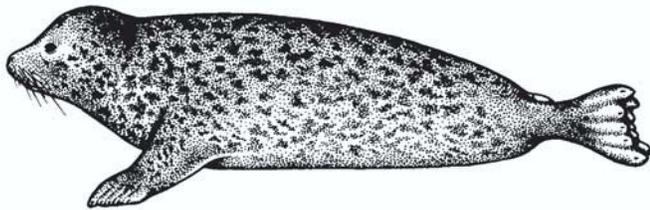
**Harbor porpoise**

### **Harbor porpoise**

*Phocoena phocoena* [size: to 6 ft. (1.8 m)]

The stocky harbor porpoise lives near shore in harbors, bays and river mouths. Wary of boats, it won't cruise alongside them, preferring to swim quietly on the surface.

Harbor porpoises work cooperatively to hunt squids and fishes. The porpoises herd a school of fish into a tight ball, then each porpoise grabs a fish head-first and swallows it whole.



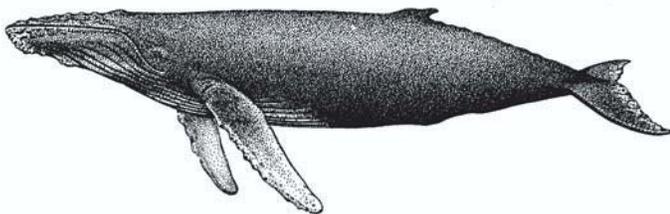
**Harbor seal**

### **Harbor seal**

*Phoca vitulina* [size: to 5 ft. (1.5 m)]

A harbor seal can't "walk" on land the way a sea lion can. On shore, the harbor seal has to inch along awkwardly on its belly, but in water, it's a graceful swimmer, powered by its webbed hind flippers.

Harbor seals don't migrate far from home. They hunt fishes, squids and octopuses near shore, using their large eyes and sensitive whiskers to help them locate prey.



**Humpback whale**

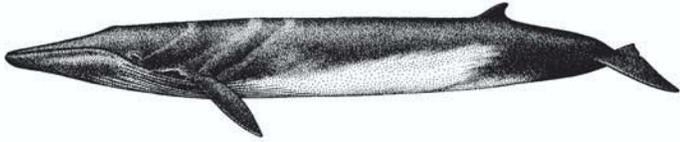
### **Humpback whale**

*Megaptera novaeangliae* [size: to 51 ft. (15.6 m)]

Humpback whales travel between their Arctic feeding grounds and tropical breeding grounds. Some migrate to Hawaii and some to Mexico; a few visit both sites in different years.

In the breeding areas, the males display their great vocal range with songs that may warn off other males or attract females. As they sing, the whales gradually alter their song, so each year it's a different melody.

## Critter Cards - Marine Mammals



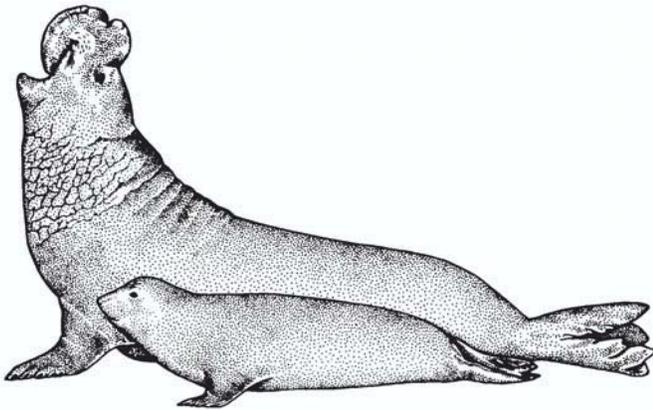
**Minke Whale**

### **Minke whale**

*Balaenoptera acutorostrata* [size: to 35 ft. (10.7 m)]

Although it's as long as a bus, the minke whale is the smallest of the baleen whales. As agile as a porpoise, it can leap from the water in a graceful arc or ride the bow wave of a passing ship.

Alone or with a companion, the minke whale hunts squids, fishes and krill. The whale jumps and splashes to gather its prey in a ball, then lunges in to scoop up the cluster.



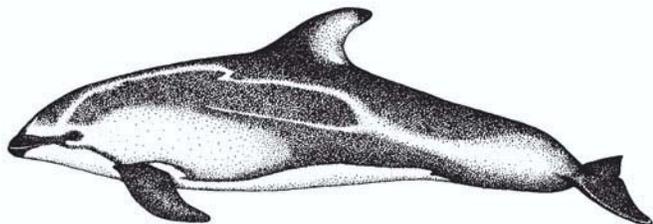
**Northern elephant seal**

### **Northern elephant seal**

*Mirounga angustirostris* [size: to 19.5 ft. (5.9 m)]

Once hunted to near-extinction, elephant seals are now breeding successfully again. At mating time, they move ashore, the males battling for position. With snorts of warning, the dominant bulls defend their females against rival males.

After breeding, the elephant seals return to the sea to feed. Diving deeper than 2,700 feet, they hunt deep water fishes and squids.



**Pacific white-sided dolphin**

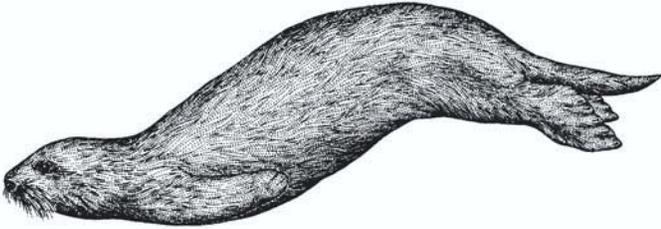
### **Pacific white-sided dolphin**

*Lagenorhynchus obliquidens* [size: to 7 ft. (2.1 m)]

Resident pods of hundreds of white-sided dolphins streak through Monterey Bay. They swim in formation with other dolphins and sea lions, sometimes leaping from the water in spirited somersaults.

Each dolphin is unique, from the patterns on its body to the noises it makes. High-pitched squeaks, clicks and whistles help it communicate with its family pod.

## Critter Cards - Marine Mammals



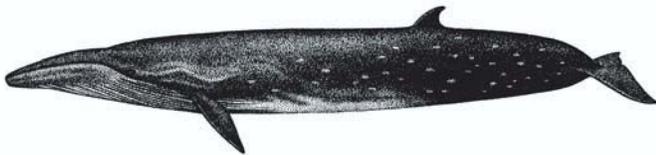
**Sea Otter**

### **Sea otter**

*Enhydra lutris* [size: to 5.5 ft. (1.7 m)]

For warmth, the sea otter relies on its thick fur coat with 600,000 hairs per square inch. The otter spends nearly half its waking hours grooming its fur coat to keep it waterproof.

The otter dives for shellfish, then eats lying on its back at the surface. Because it consumes abalones and crabs, the otter sometimes competes with people for food.



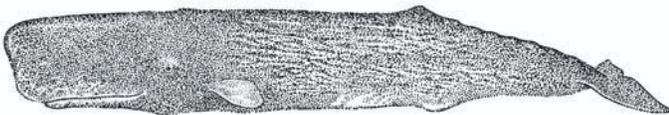
**Sei whale**

### **Sei whale**

*Balaenoptera borealis* [size: to 60 ft. (18.5 m)]

Sei whales cruise the oceans from polar regions to the tropics. Unlike other baleen whales, they don't have predictable migration routes but seem to follow their prey, trailing the northward fish migrations.

Swimming near the surface, the whale skims small invertebrates from the sea. As it feeds, the whale's throat pleats expand like an accordion to hold tons of water and prey.



**Sperm whale**

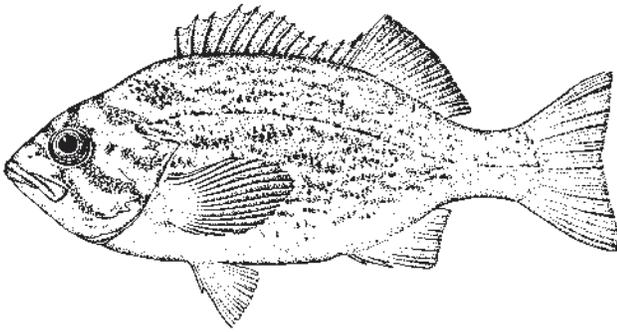
### **Sperm whale**

*Physeter macrocephalus* [size: to 62 ft. (18.9 m)]

Diving a mile or more below the surface, the sperm whale makes clicking noises to echolocate for prey. When it finds a shark or giant squid, the whale stuns it with a blast of sound and swallows it whole.

For years, whalers hunted this whale for the milk-colored oil that fills its huge square head. No one knows what the oil is for; perhaps it helps the whale focus sounds.

## Critter Cards - Fishes



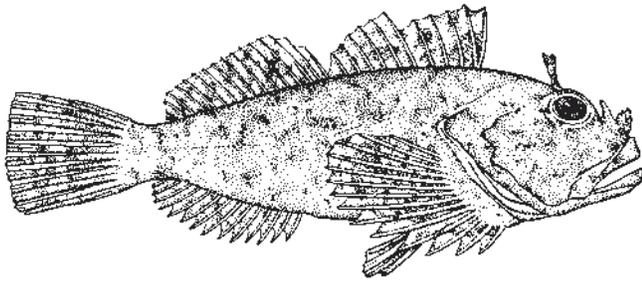
**Blue rockfish**

### **Blue rockfish**

*Sebastes mystinus* [size: to 21 in. (53 cm)]

Schools of blue rockfish swim among the kelp plants. Sport fishers often catch these fish, but they must be careful when they do: rockfishes have poisonous spines on some of their fins.

Blue rockfish eat small floating animals like shrimps and jellyfishes.



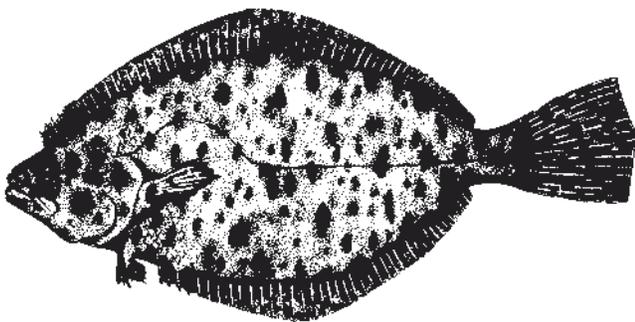
**Cabezon**

### **Cabezon**

*Scorpaenichthys marmoratus*  
[size: to 3.25 ft. (99 cm)]

Like their relatives, the small tidepool sculpins, cabezons live on the bottom in rocky areas. When they sit still, their waving fins and mottled color blend in with the surrounding seaweed.

Cabezons eat invertebrates like crabs and snails, and some fishes. They swallow abalones whole, then spit out the shells. "Cabezon" means "big head" in Spanish. This fish has a big mouth, too—it can gulp large prey.



**California halibut**

### **California halibut**

*Paralichthys californicus* [size: to 5 ft. (152 cm)]

A halibut has both eyes on the same side of its head. It lives on the sandy seafloor, always lying on one side of its body. The halibut wriggles its flat body into the sand; its two eyes stick out above the sand to watch for approaching predators and prey.

## Critter Cards - Fishes

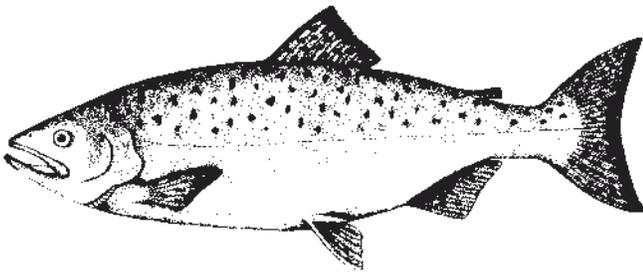


**Lanternfish**

### **Lanternfish**

*Stenobrachius leucopsarus* [size: to 5 in. (13 cm)]

Each species of lanternfish has its own pattern of light-producing photophores. Lanternfishes may use these patterns to find mates of their own species. Some males may attract mates by flashing a large photophore near their tails. Or maybe this light confuses predators, causing them to attack the male's bright tail instead of his darker head. What do you think the lanternfish uses its taillights for?

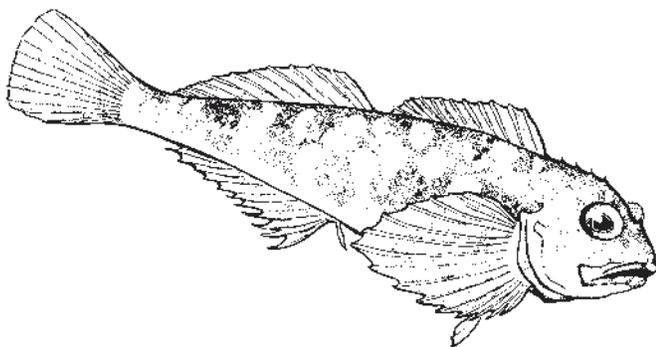


**King salmon**

### **King salmon**

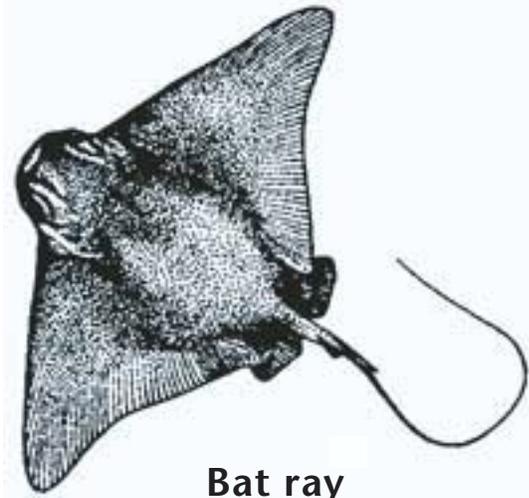
*Oncorhynchus tshawytscha*  
[size: to 5 ft. (1.5 m)]

Salmon are born in freshwater rivers, then swim to the salty sea where they spend most of their lives. As adults, they must return to the river to lay eggs. Salmon can find the way to their home streams from thousands of miles out in the ocean.



**Tidepool sculpin**

## Critter Cards - Sharks, Skates and Rays



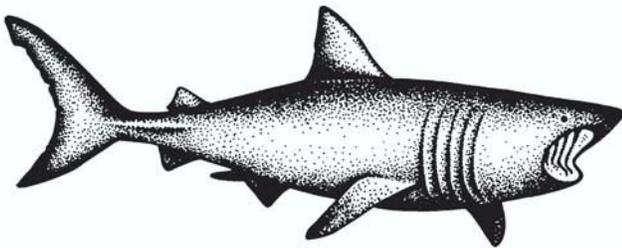
**Bat ray**

### **Bat ray**

*Myliobatis californica* [size: to 6 ft. wide (1.8 m)]

Bat rays prey on clams, shrimp, worms and other invertebrates that live in the mud. Flapping their wings to clear away mud, rays suck up their prey, crushing the shells with their strong jaws and hard, flat teeth.

In summer, bat rays enter sloughs and bays where they give birth to live young. It's a trait they share with several other members of the shark family.



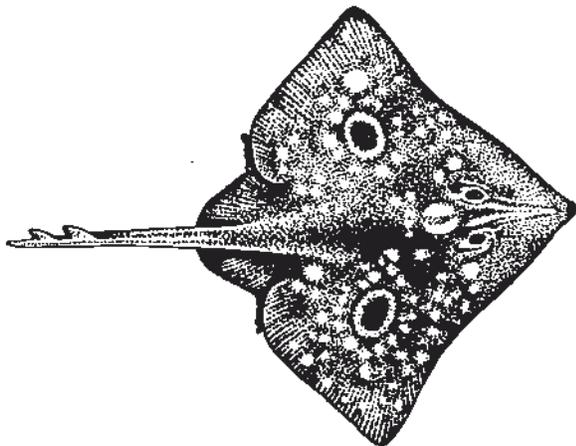
**Basking shark**

### **Basking shark**

*Cetorhinus maximus* [size: to 45 ft. (13.7 m)]

These large sharks live both offshore and near the coast and are often seen near the surface.

Basking sharks eat zooplankton (small, drifting animals like copepods and krill). To gather and strain their food, basking sharks have large mouths and long, stiff, hair-like projections called gill rakers lining their gills. Their numerous teeth are tiny.



**Big skate**

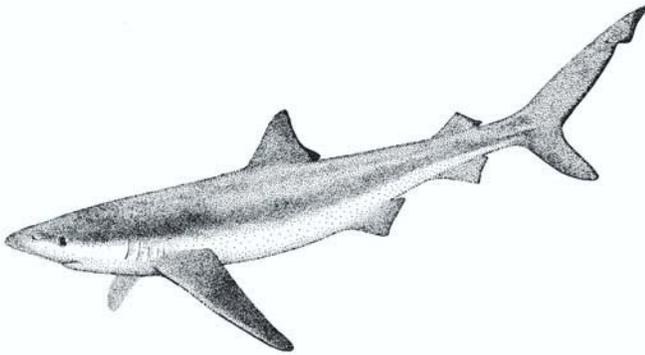
### **Big skate**

*Raja binoculata* [size: to 8 ft. (2.4 m) wide]

The largest skate in the area, big skates live on the bottom in shallow water, to 360 ft (110 m). Instead of giving birth to live young, they lay egg cases called "mermaid's purses."

Big skates eat fishes, crabs and shrimp. Their predators include sevengill sharks. Fishers also catch skates. The "wings" of the skate are the part that people like to eat most.

## Critter Cards - Sharks, Skates and Rays



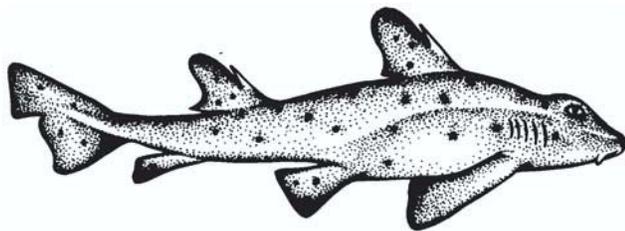
**Blue shark**

### **Blue shark**

*Prionace glauca* [Size: to 13.5 ft. (4 m)]

Blue sharks usually live offshore but visit the nearshore waters of Monterey Bay in late summer and fall. They make seasonal migrations of thousands of miles. Sleek and graceful, they use their front fins for gliding, a swimming method that is especially efficient at low speeds.

Blue sharks feed mostly on fishes and squid.



**Horn shark**

### **Horn shark**

*Heterodontus francisci* [size: to 4 ft. (1.2 m)]

Horn sharks live on the bottom nearshore, in rocky or sandy areas or in kelp forests. Their spots serve as camouflage, while flexible lower fins help them move easily over the seafloor.

Horn sharks eat small fishes and invertebrates such as shrimp and clams. Their low, flat back teeth help crush the shells of their prey.



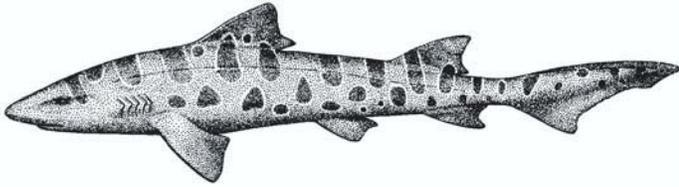
**Filetail catshark**

### **Filetail catshark**

*Parmaturus xaniurus* [Size: to 22 in. (56 cm)]

A filetail catshark swims gracefully along the muddy seafloor. Gray-brown above and pale below, this fish blends in with its benthic habitat. Catsharks lay eggs with curly corners. The curls catch on edges of rocks and sponges to anchor the egg case near the deep seafloor. Here it'll stay for two years while a tiny catshark grows inside.

## Critter Cards - Sharks, Skates and Rays



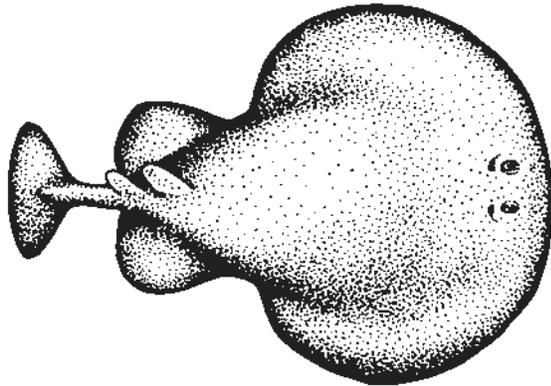
**Leopard shark**

### **Leopard shark**

*Triakis semifasciata* [size: to 7 ft. (2.1 m)]

Leopard sharks live on sandy or rocky bottoms of bays or other inshore areas. Their spotted and barred coloring camouflages them against the seafloor. Leopard sharks bear live young.

Leopard sharks eat fishes, fish eggs and invertebrates like crabs, worms and shrimps. Sevengills and other large sharks prey on leopard sharks.



**Pacific electric ray**

### **Pacific electric ray**

*Torpedo californica* [size: to 5 ft. (1.5 m)]

Electric rays live on fine sandy bottoms, often in kelp forests or near rocky reefs. They prefer shallow to moderately deep water, to 640 ft. (195 m).

Electric rays eat mostly fishes. Though they're soft-bodied and slow-moving, these rays can stun prey and fend off enemies with electric shocks of up to 200 volts



**Sevengill shark**

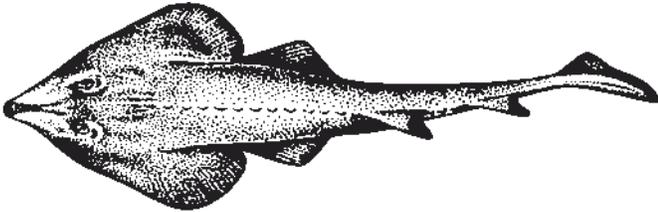
### **Sevengill shark**

*Notorynchus maculatus* [size: to 9 ft. (2.7 m)]

Sevengill sharks often live in shallow bays. They have seven gills on each side of the body, unlike most sharks, which have five. Because of their bulky bodies, sevengills and their relatives are called "cow sharks."

Sevengills eat crabs and fishes (including small sharks, skates and rays) as well as dead animals.

## Critter Cards - Sharks, Skates and Rays



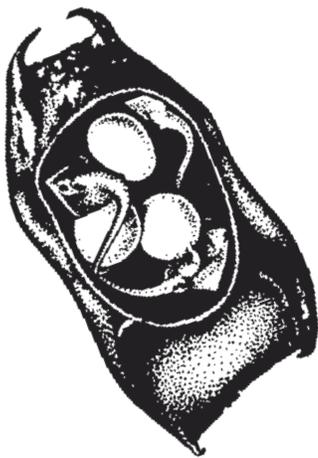
**Shovelnose guitarfish**

### **Shovelnose guitarfish**

*Rhinobatos productus* [size: to 6 ft. (1.8 m)]

Shovelnose guitarfish live on muddy or sandy bottoms inshore and in bays, burrowing in the sand when they're resting. They prefer shallow water, to 50 ft. (15 m).

Guitarfish eat small fishes and invertebrates like crabs, worms and shrimp. Their teeth are small and blunt for crushing their prey.



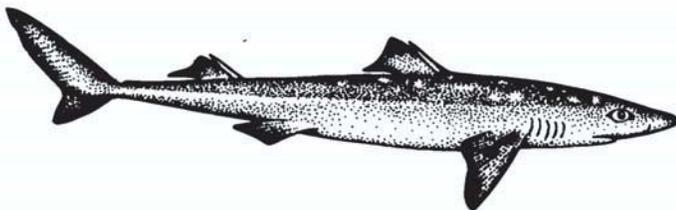
**Skate egg case**

### **Skate egg case**

*Raja binoculata* [size: to 12 in. (30 cm)]

Instead of giving birth to live young, skates lay a tough egg case containing one to seven skate embryos. The egg case, called a "mermaid's purse," has hooked corners that may help it catch in seaweed on the sand. The young skates grow and develop for many months, each nourished by a yolk.

(The picture gives you a cutaway view of the case.)



**Spiny dogfish**

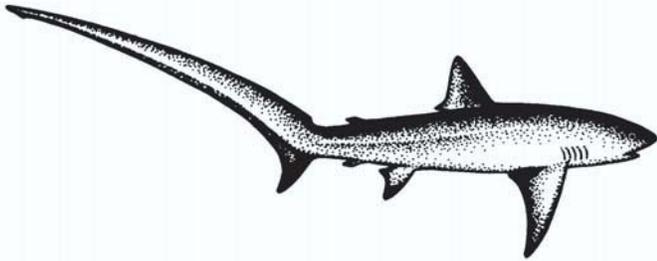
### **Spiny dogfish**

*Squalus acanthias* [size: to 5 ft. (1.5 m)]

Spiny dogfish live in schools, both near the coast (often in bays) and offshore as deep as 2,400 ft. (732 m). They've been known to live 80 years or more. A spiny dogfish has one poisonous spine in front of each dorsal fin.

They eat small fishes and invertebrates like crabs and shrimps; they're also caught by fishers for food.

## Critter Cards - Sharks, Skates and Rays



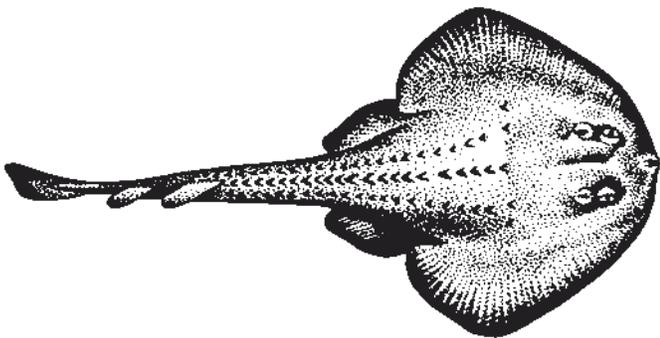
**Thresher shark**

### **Thresher shark**

*Alopias vulpinus* [size: to 20 ft. (6 m)]

Thresher sharks live in the open sea, sometimes coming closer to shore as they hunt. Their young are often found inshore off beaches and in bays.

They eat fishes, squid and other animals of the open sea. Biologists think thresher sharks use the long upper part of the tail to round up and stun prey. These sharks are caught by commercial fishers for food.



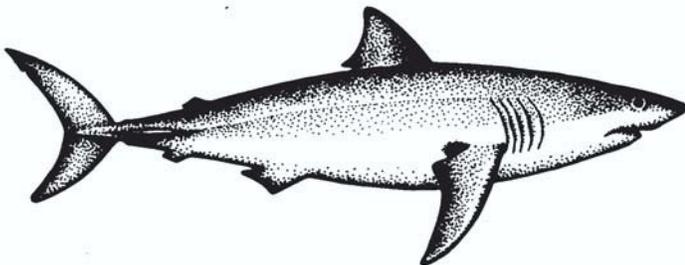
**Thornback ray**

### **Thornback ray**

*Platyrhinoidis triseriata* [size: to 3 ft. (91 cm)]

Thornback rays live on mud or sandy bottoms in shallow, nearshore areas to 150 ft. (46 m). They are often found off beaches or in bays, where they bury themselves in the sediment.

These rays eat sand-dwelling invertebrates like shrimps, clams and worms. The rows of hooked spines on their backs are probably for defense.



**White shark**

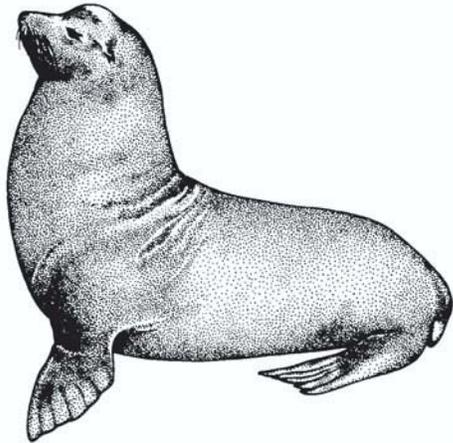
### **White shark**

*Carchardodon carcharias* [size: to 30 ft. (9.1 m)]

White sharks live both offshore and near the coast. Their torpedo-shaped bodies and symmetrical tails are adaptations for efficient swimming.

White sharks eat fishes (including sharks), sea birds and mammals, turtles and shellfish.

## Critter Cards - People and the Sea



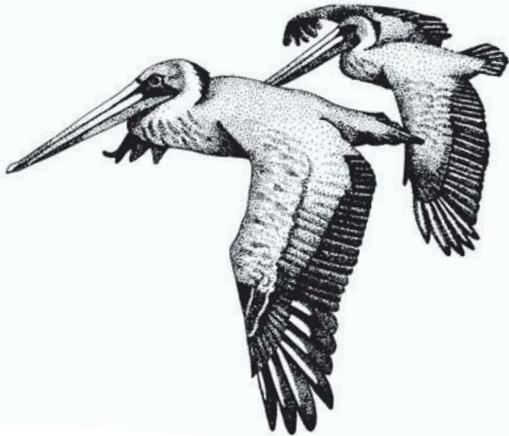
**California sea lion**

### **California sea lion**

*Zalophus californianus* [size: to 7.5 ft. (2.3 m)]

Diving 800 feet deep, the sea lion paddles with its strong front limbs and steers with its rear flippers. On land, it rotates the hind flippers forward to walk on all fours.

At mating time, the male sea lion barks and bellows to establish his territory and gather a harem of females. Never giving ground, not even to eat, the bull defends his turf from male intruders.



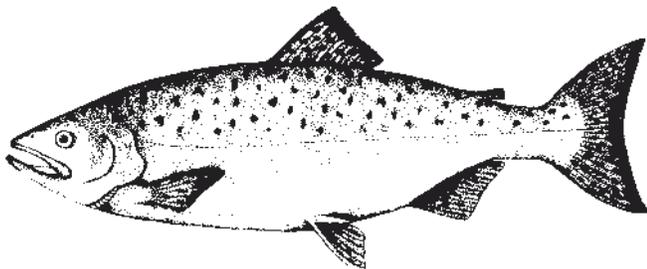
**Brown pelican**

### **Brown pelican**

*Pelecanus occidentalis* [size: to 7 ft. wingspan (2 m)]

Thousands of pelicans visit Elkhorn Slough in summer and fall. In late fall, they migrate south to Mexico and South America where they build saucer-shaped nests on the ground or in trees and raise two to three young.

In the 1960s, heavy use of the pesticide DDT nearly killed all the brown pelicans. Today, DDT is banned in the United States. But its use in Mexico and other countries along with habitat loss within the pelican's range are still threats.



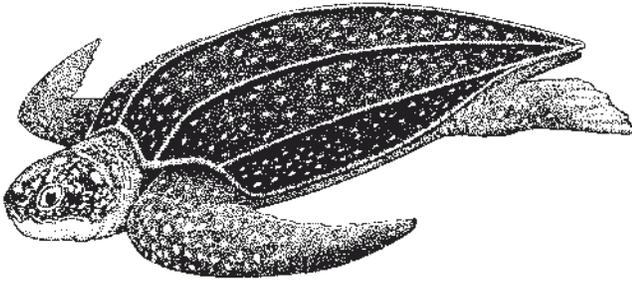
**King salmon**

### **King salmon**

*Oncorhynchus tshawytscha*  
[size: to 5 ft. (1.5 m)]

Salmon are born in freshwater rivers, then swim to the salty sea where they spend most of their lives. As adults, they must return to the river to lay eggs. Salmon can find the way to their home streams from thousands of miles out in the ocean.

## Critter Cards - People and the Sea



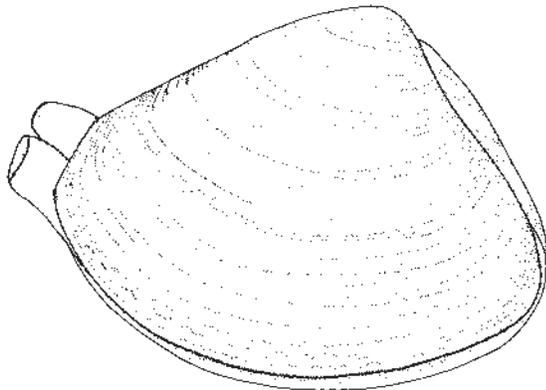
**Leatherback sea turtle**

### **Leatherback sea turtle**

*Dermochelys coriacea coriacea*

[size: to 6 ft. (1.8 m)]

Sea turtles eat jellies. When plastic bags and balloons get in the ocean, they look like jellies. Sometimes turtles eat the plastic by mistake, then they choke and starve.



**Pismo clam**

### **Pismo clam**

*Tivela stultorum* [size: to 6 in. (15 cm)]

Pismo clams dig into the sand near the surf zone. To dig, a clam pushes its foot downward through the sand like a wedge. Then it anchors the foot and pulls the shell along after it.

Clams send a feeding tube above the sand. They inhale water through it, filtering out tiny plants and animals called plankton.

How would you help protect clams?



**People**

### **People**

*Homo sapiens* [size: to 7.5ft. (2.3m)]

People are part of the ocean's food web. The more people there are, the more fishes we catch and pollution we cause. To help save the oceans, we can make careful choices: use less plastic, gasoline and electricity and have small families.

What will you do?