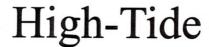


Of The Intertidal Zone





Written and Illustrated by York 7 Students
King Middle School
Portland, Maine

THE ABC'S OF THE INTERTIDAL ZONE

HIGH TIDE

WRITTEN AND ILLUSTRATED BY YORK 7 STUDENTS
KING MIDDLE SCHOOL
92 DEERING AVENUE
PORTLAND, MAINE 04102

JANUARY, 2003

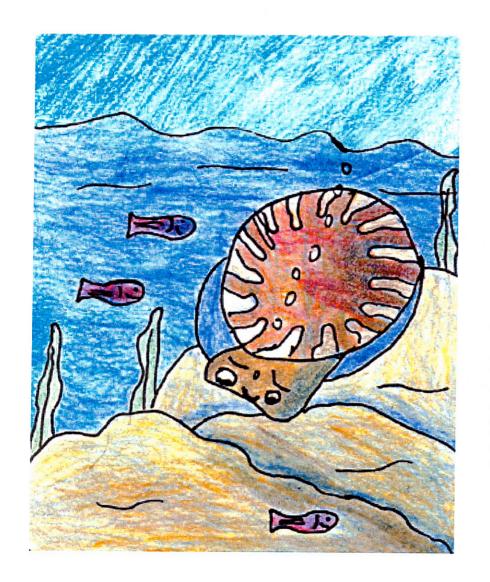
During the past few months, we have been working on an expedition called *In the Zone*. As a kickoff, we went to Kettle Cove to get hands-on experience with intertidal life. Then we each focused on a specific type of marine life found in the area. Notes from research turned into the scientific pages that are found in the back of the book.

Next, we wrote brief stories that shared a few facts in an interesting and fun way. Some of us even tried to include alliteration in our piece! To go with our writing, we created cartoon-type drawings to personify or animate life in the intertidal zone. While we were creating these pages for our book, we were learning about pollution and the impact of the cruise ship industry on the intertidal zones in our area.

In the end, we all worked hard to complete this alphabet book on intertidal life. We thank all the teachers and volunteers who supported our work. We hope you enjoy and you learn something about this important habitat.

Jen Mulkern, Matthew Mulkern and Echo Presgraves
And

York-7 teachers: Catherine Anderson, David Grant, Paul Michaud, Paula Murphy, Ellen Norton, Steven Payne, and Bruno Yomoah



A a is for Atlantic Plate Limpet

I am an atlantic plate limpet. I am a simple and small creature that lives in a tiny shell with a brown top with white stripes on it. I only eat at night, I stay in one little place my hole life. I live on little rock, all by my little self, in one little place, my whole simple limpet life.

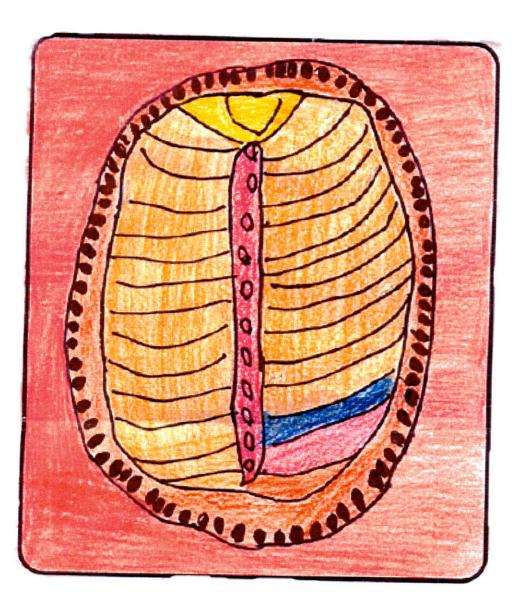
William



Bb is for **Blood Worm**

I am extraordinarily red and smooth. I am a puny, yet powerful carnivore. I am a slithering worm in search for my next mouthful. I am an advertisement for fish hooks everywhere. My days as a free and careless marine life blood worm are numbered. Those hungry fishermen have gotten thier hooks sharpend for me.

Hoda



Cc is for Chiton

Chitons love to dive well. Their diet includes sea weeds and sea animals, such as sponges and protozon. They love to

touch one another as they cling to rocky shores. They'll surely roll into balls when you touch them.

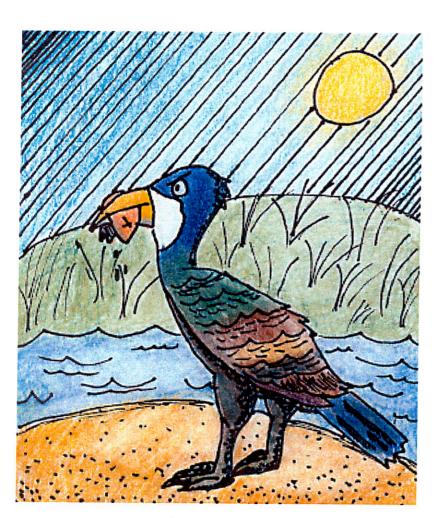
Bella



Dd is for the double-crested cormorant

I am the double-crested cormorant known for an odd little ritual that I have to do over and over again. To dry myself, out I spread my wings out wide and wait in the groovy, warm sun for my feathers to dry. Uh-oh? Snack time in the water I go to start the cycle again.

Saoussen



Ee is for Ever Present Great Cormorant

Eddie was an ever present great cormorant. He ate crabs, crustaceans, various aquatic insects, frogs and fish. One day, Eddie dove deep into the Atlantic Ocean.

A fearful fish saw Eddie and started swimming swiftly away. He swam as fast as he could, but I'm afraid he was not fast enough. Look what Eddie has in his beak!

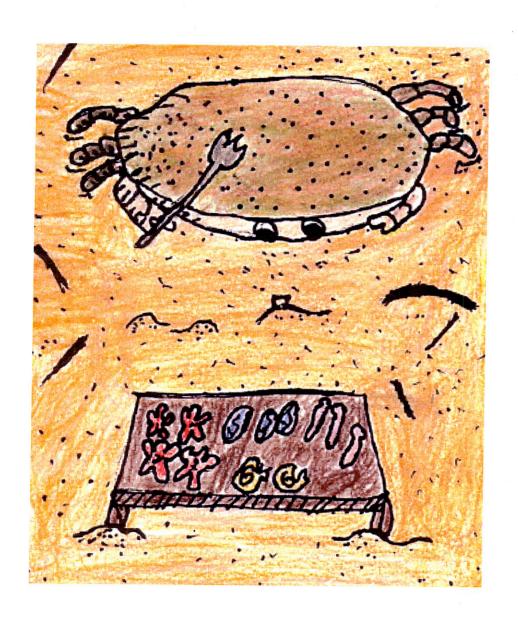
Crystallee



Ff is for Frilled Sea Anemone

My name is Fresno the frilled sea anemone. I acquired my name from my frilly hair style. My best friend is Claudia the clown fish. She helps me manage my rebellious poisonous hair, with her delicate mouth.

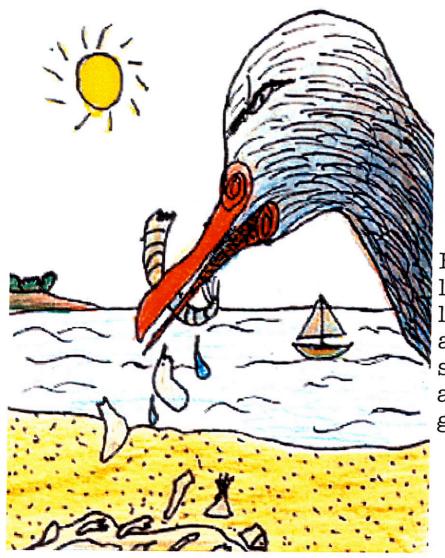
I hop happily over to Claudia's Home Salon on my one stalk like leg. Last time I was there some of my hair fell out, and grew into a brand new baby anemone. Good thing it was "two for one" day! by Patricia



Gg is for Green Crab

I am the hungry green crab with a giant claw. The ocean floor is like my personal buffet table. These are the some of today's choices: clams, worms, snails and sea stars. Later, I will be having dinner. Will you be there?

Felipe



Hh is for Herring Gull

Herring Gulls eat all sorts of beach leftovers. With their sharp shear-like beaks they can shred through almost anything! From garbage and shrimp to fish and crabs, the beach is a giant picnic table to the herring gull.

by Diana

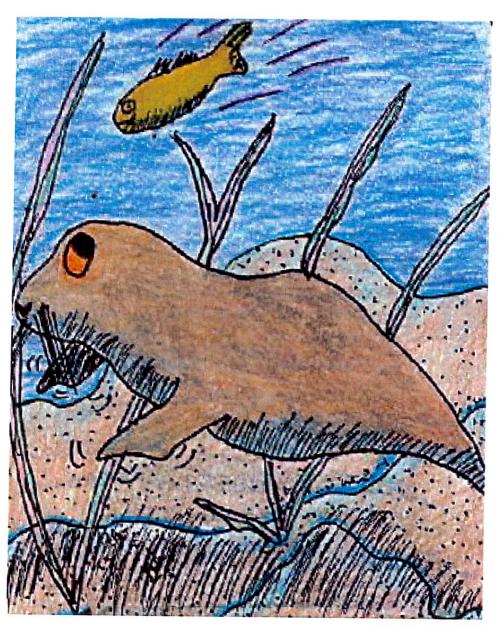


Ii is for Intriguing Blood Star

I am an old and aging blood star, whose arms sometimes just fall off. The worst thing is when those fiesty fish think I am on today's menu.

But thanks to my magic regenerative powers, my arms can grow back over time.

Eva



Jj is for Jumping Harbor Seal

Did you know that the harbor seal is sometimes called a dog face? Its unique and unusual head suspiciously slinks and slides like a spy dog swimming in cool Casco Bay. Instead of paws and a tail, it has funny, flipping flippers for floating, and fetching fish all day. Here fishy fishy fishy! Courtney



K is for Kettle Cove

With its rocky shore and sandy beaches, Kettle Cove sits on the coast of Maine. It greets anyone that visits with a wave.

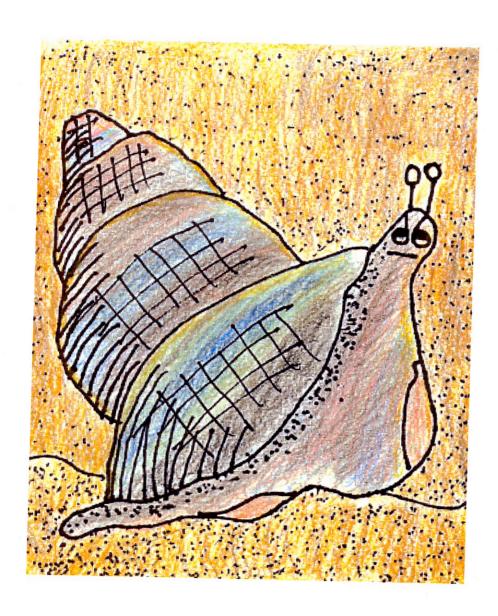
School busses roll in filled with students, eager to explore the unknown.



Ll is for Laughing Gull

He circles above you, waiting for you to go for a swim. On his way down, all you hear is "HAHAHA." If your bologna and blueberry butter sandwich is gone when you get back, you may have just been besieged by the laughing gull. Your chewy cheese chips are next!!!

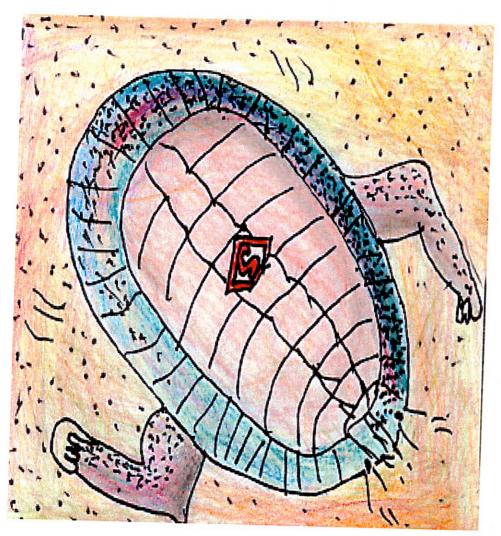
Amber



Mm is for Mud Dog Whelk

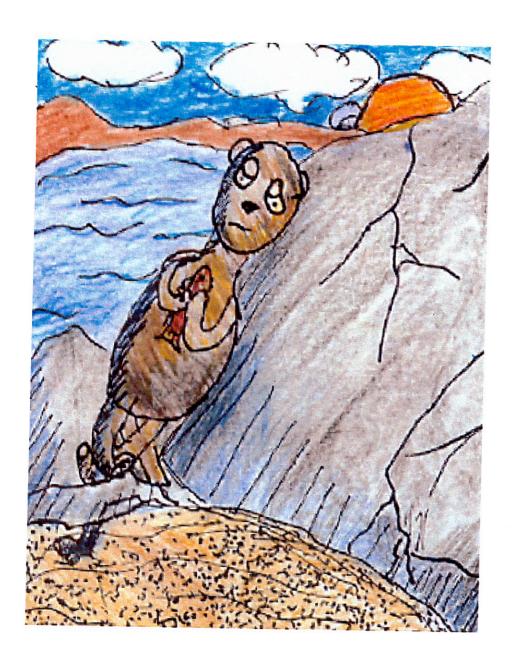
My name is mud
dog whelk. I get my
name from the way
I live and how I act.
I live in the mud,
searching for
leftovers, before a
bird makes a
leftover of me! Will
this frown on my
face frighten you
away? Or will
eating me, be your
feast for the day?

Stefan



Nn is for Northern Red Chiton

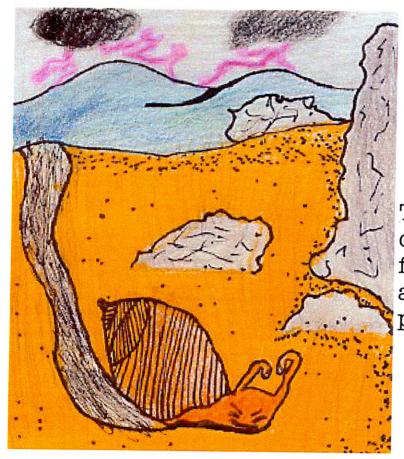
Like superman, the northern red chiton defends itself with it's strong outer shell. In the face of danger, along the rocky sea floor it can protect itself by turning into a rolled up, hard little ball. Who do you think are the chiton's enemies?



Oo is for Otter

We otters eat our breakfast in a different way then you kids. We eat clams and mussels for breakfast, fish and crabs for lunch, and then we eat starfish and sea urchins for supper! We crack the shells open by placing a rock on our stomach and putting on shell and smashing the shell open with great force. Is that show you open your lunch?

Jessica



Pp is for Common Periwinkle.

This cool looking creature is called the common periwinkle. It has a big strong foot with slime on it to crawl slowly along the sandy sea floor. The lonely periwinkle's travels are never done.

Shawn



Qq is for Quiet Isopod

The Baltic isopod acts like a little bug crawling from here to there. If you saw one, you might even think it was a little, living worm, and not this hungry and hyper little isopod.

Baltic isopods are scavengers, or creatures who will eat anything dead that they find on the bottom of the ocean floor. Are you a scavenger at your lunch room table, too?

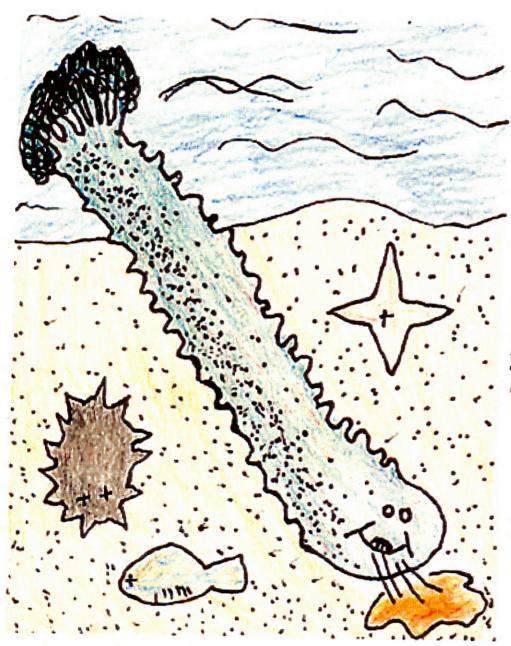
Tamarra



Rr is for Razor Clam

Waking up to a seagull beak banging on your shell is no way to start the day. If that seagull thinks he can gobble me up he has another thing coming. I quickly dig myself deep into the cold mud. It only takes me a swift seven seconds. I'm lucky that I'm so fast or I would have been seagull lunch.

Jordan



Ss is for Sea Cucumber

Sea cucumbers are super unusual. We do weird things, like throwing out our stomachs to confuse our enemies. We also like dining on dead animals. Sea cucumbers live for about five years. Then they become someone else's dinner.

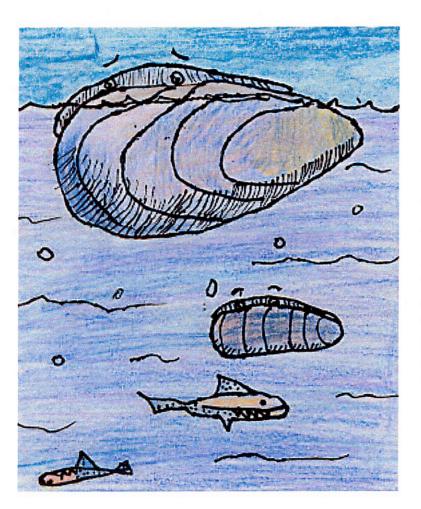
Fred



Tt is for Common Tern.

The Common Tern is a sea bird that catches fish with a sudden swoop. Like jet fighters in a dive they descend down on their prey and wisk them out of the sea. Run little fish, or you'll be dinner tonight!

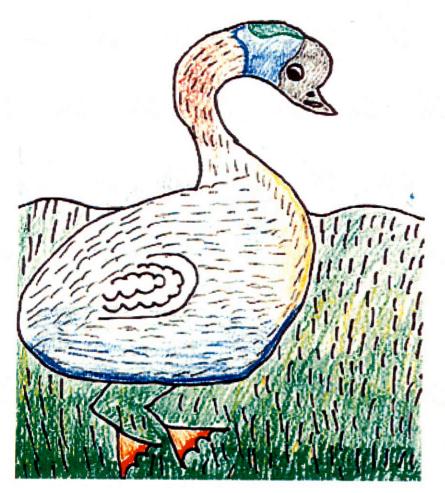
Stella



Uu is for unbelievable Mussel

The magnificent blue mussel is a versatile creature who can live anywhere in the ocean. Its bright blue shell can grow up to 100 mm long. Only when it is time to eat, does it come up to the surface to peek out at the world.

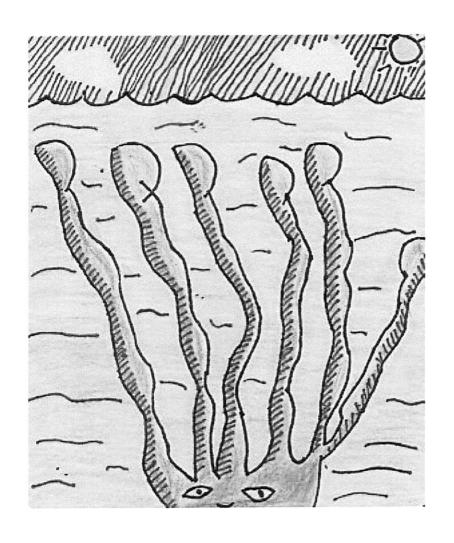
Helene



Vv is for Very Cute Eider

I have very big
webbed feet, and very
small powerful wings.
This looks good on me
because I am a very
cute eider. If you
were an eider what
would you think you
would look like?

Sinit



Ww is for weed rockweed.

The bubbels on the end of my skinny wet arms, lift me to the surface. I am found on exposed rocks, tide pools, and in quiet shallow bays near the low tide mark. I need to be close to the surface of the ocean to get sunlight for my favorite breakfast and lunch. Do you eat sunlight too?



Yy is for Young Black Headed Gull

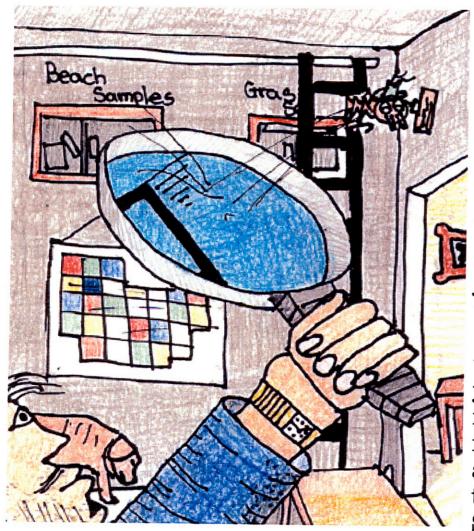
I am a young black headed gull, who is sweeping silently across the ocean's edge. I take a dip and daringly, I snatch up a fish fighting fiercely. Another gull eyes my catch, but he is no match for my might. Until another daring day I will rest away in my secret hideaway.



Xx is for Xtra Special Jingle Shells

I am called a jingle shell, because when you shake a bunch of us together we jingle. I am usually attached to hard objects like rocks, shells, or pilings. I can change my shape, depending on which surface I am calling home.

Sam



Zz is for Zany Seashore Springtail

The springtail is an excellent jumper, it can leap up to 100 times it's size. The seashore springtail is smaller and tinier than tin shavings. If you can see this zany critter in mid leap you might mistake it for a flying flea. If a seashore springtail was as tall as a human it would make Spider man jealous.

Anthony

Atlantic Plate Limpet Notoacmaea scutum

Food Habits:

The plate limpets eat scraps of microscopic algae and encrusting red algae. The food preference is red algae.

Physical characteristics:

The plate limpet's size is 64 mm long and 51 mm wide. It is cone shaped, and brownish to greenish with interrupted radial rows of whitish spots. Inside is whitish with a dark spot in the center of a dark brown rim.

Behavior:

The plate limpet moves up and down on rocks as the tide rises and falls. Apparently it stays with the water level as the water goes up and down.

Habitat:

Plate limpets live on rocks protected from strong surf action between high and low tide lines.

William

Blood Worm Glycera dibranchiata

Food Habits:

Blood worms feed on marine worms, mollusks, and other invertebrates while moving through the sand.

Physical Characteristics:

The color of a marine blood worm is creamy pink segmented with small fleshy projections that allow the red body fluid to show through their pale skin. They can grow up to 15 in. The way they eat is affected by the way they grow.

Behavior:

During the winter blood worms swim to another area because they need a special area to mate and lay eggs. The eggs that they lay then turn to larva. They then divide into multiple larvae.

Habitat:

Blood worms live in sandy muddy or silty clay of the intertidal zone and subtidal regions.

Hoda

Chiton

cephalapad

Food Habits:

They eat plants in the seas. They also eat tiny animals such as sponges and protozoans.

Physical Characteristics:

Chitons are flattened oval creatures with a row of 8 broad but short valves along the back.

Behavior:

It clings to a surface with its strong legs. When you touch it, it turns into a ball.

Habitat:

They lived on rocky shores in the Indian Ocean

Bella

The Double-Crested Cormorant Plalacrocorax auritus

Food Habit:

Cormorants dive for fish and marine invertebrates from the water's surface. After catching a fish the cormorant surfaces, flips the bird in the air, and swallows it head-first.

Physical Characteristics:

The double-crested cormorant is a little more than two feet long, with a wingspan of about four feet long. It has dark brown to black feathers, a long hooked bill with an orange throat pouch, a long tail, and webbed black feet. Adults have tufts of feathers over their eyes.

Behavior:

The double-crested cormorant doesn't have well developed oil glands and isn't waterproofed very well. It often dries its feathers by perching on a pole or tree limb and stretching its wings out.

Habitat:

The double-crested cormorant lives on lakes, rivers, swamps, and coasts. It lives on the coast of Alaska but can also be found along the Atlantic coast south of Mexico in the Bahamas.

Saoussen

Great Cormorant Phalacrocorax carbo

Food Habits:

The great cormorant is a carnivore. They eat fish, crabs, crustaceans, various aquatic insects, and frogs. During the day they can dive to great depths and catch their meal. A typical dive can last about 60 seconds.

Physical Characteristics:

The great cormorants are big and are covered in black or dark colored feathers and have white feathers bordering their throat. A young great cormorant is usually brown. They are warm-blooded. They have large black webbed feet and can be up to ninety-seven inches long. It is the largest cormorant species. Their wingspan is between 100 cm and 150 cm long. Their hooked bill can be up to 7 cm in length. Their eyes are usually green. They weigh 2.5 kg.

Behavior:

The great cormorant is usually seen fishing alone but it flies in groups. It is a predator to fish and other freshwater organisms.

Habitat:

The great cormorant lives in North America, Europe, Africa, China, India, Southeast Asia, New Zealand, Papua New Guinea, and Australia. They hang around water and eat fish. It lives in the high tide zone.

Crystallee

Frilled Sea Anemone Metridium senile

Food Habits:

Frilled sea anemones eat shrimp, fish, plankton, mussels, and worms. It eats with its mouth that's on top of its head. It swallows its food whole.

Physical Characteristics:

Sea anemones have tube like tentacles that have a mild poison. When an animal comes too close it will be stung and eaten. They can pull their tentacles up close and curl into a little ball. This makes them look like a small upside down bowl. A sea anemone can lose some of its body tissue or tentacles and it will grow into a full size anemone. They have no senses like seeing or hearing. They have radial symmetry.

Habitat:

They can be found from the tide pools in the high tide zone to the shallow waters in the low tide zone. They have also been found up to 150 feet down in the sea. They live in close contact with a fish called the clown fish. The clown fish is unaffected by the sea anemone sting. The anemone protects the clown fish and the clown fish cleans the anemone's stingers.

Behavior:

Though they can move on the one stalk-like foot that they have, anemones normally stay in one place. They have a glue that's on their foot that helps them stick to a rock and stay. They are very passive. They will try to hide when threatened. One of the defenses it has besides curling up is discharging long white threads from their stingers, hoping to scare away the enemy.

Patricia

The European Green Crab

Carcinus maenas

Food Habits:

The green crab can survive on a wide range of foods: plants, insects, clams, oysters, worms, snails, mussels, chitons, urchins, sea stars, and other crabs and fish. It improves its prey-handling skills while foraging. Males generally forage at high tide, while the females do their foraging mostly at night.

Physical Characteristics:

It has claws to protect itself. During its molting cycle the green crab's color actually varies from green through orange to red . The abdomen has patches of yellow and there are five spines on each side. The adult green crab ranges from 2 1/2 to 3 inches long.

Habitat:

The green crab can be found in a lot of places like coastal communities of South Africa, Australia, and North America. The green crab's larvae can stay in the ocean for up to 80 days in algae and plankton, giving them excellent chances to travel up to 1,200 miles during the larval stage.

Behavior:

The adult green crab moves into deeper water when the temperature falls. On the shore the green crab shows movement up and down the shore line.

Felipe

Herring Gull Larus argentatus

Food Habits:

Herring gulls eat fish, trash and dead animals. It gets its food by tearing trash bags and following fishing boats to get fish that have been left and thrown out.

Physical Characteristics:

Herring gulls have sharp beaks, like scissors, that help them tear their food. The herring gull's back is black. It helps them hide from their enemies, like an eagle. When the herring gull is feeding it sits on water and eats fish. It's back is black and the water is blue so it looks like a rock. Herring gulls have enemies-eagles, cats and dogs.

Behavior:

Herring gulls live in warm places. When it is cold they leave to go to Africa and Europe. They live together in large groups at night on sheltered land and water.

Habitat:

Most gulls are found in the northern quarter during winter months in Europe and West Africa. Herring gulls are also found in Maine and New Jersey. They go to Africa and Europe because it's warm.

Diana

Blood Sea Star Henricia sanguinolenta

Food Habits:

Blood sea stars feed on most sponges and some rocks.

Physical Characteristics:

The blood sea star has smooth skin. On top is the color of bright red blood, but it may also have cream, rose, orange, purplish or white. The under side is white. The blood sea star is about 2.5 to 4 in wide (5 to 10 cm).

Behavior:

Like most sea stars, the blood sea star has the ability to grow new arms if its arms are cut off, or eaten by other creatures.

<u> Habitat:</u>

Blood sea stars hang out in tide pools, and rocky bottoms, and from the low tide line to about 80 ft deep (24m).

Eva

Harbor Seal Phoca vitulina

Food habits:

Harbor seals can eat 6 to 8% of their own body weight in a day. Their diet consists of small fish, cephalopods and tiny crustaceans. Male seals can become so aggressive while eating that when they are bothered they can end up killing another seal, female or male.

Physical characteristics:

Baby seal pups can swim almost immediately after being born. Most male harbor seals don't live longer than female harbor seals. This is probably because of all the fighting the males do in the mating season. Most male harbor seals don't live longer than 25 years, but female harbor seals live about 30 years. Seals eyes are set halfway between their ears and tip of their nose. Their nostrils are in the shape of a heart or a v. Their coats of fur can be found in many different colors like brown , black, red, tan and sometimes spotted.

<u>Habitat:</u>

Over 6,000 harbor seals live in the Gulf of Maine. They also have been spotted in places as far down as the Carolinas and the coast of New Jersey. As you can tell harbor seals love the colder climate. They can't survive in weather that gets hotter than 80 degrees.

Behavior:

Harbor seal live in pacts and they almost rarely travel alone because of all the predators they have. The female harbor seal can have up to 10 baby pups in one mating season. The males hunt for the food and then bring it back to the females and pups. They lounge around on rocks all day and sleep. They almost never move from place to place.

Courtney

Laughing Gull Larus atricilla

Physical Characteristics:

It is 15-17" long. It is a slender, medium-sized gull with a black hood. In summer the adult's back and wings are dark gray. The trailing edge of its wing is white and wing tip is black, without white spots. In winter, it lacks a hood. Young birds have dark brown wings.

Food Habits:

The laughing gull has a highly varied diet. It is a carnivore as well as a scavenger. In the wild, it will eat insects, fish, shellfish, and crabs. They can get their food from the water while they are airborne by either skimming the surface or diving.

Behavior:

Laughing gulls are noisy, aggressive, quarrelsome birds who often steal the prey of other birds. They also feed on the eggs and young of other birds, including those of their own kind. The laughing gull is also a very sociable bird that migrates, rests, hunts, and scavenges with other laughing gulls. The laughing gull is named for its call, which sounds like, "Ha ha ha."

Habitat:

The laughing gull's habitat is coastal, including salt marshes, bays, and estuaries. Laughing gulls are rarely found inland. They breed along the Atlantic Coast from Maine to Texas. They also are a regular visitor to the Salton Sea in Southern California in summer and fall.

Amber

Mud Dog Whelk Nassarius abseletus

Food Habits

It eats the leftovers found in the tide pools.

Physical Characteristics

Its protection is a shell. It hides under the mud until it senses food. The foot is very thin and wide, allowing it to glide over muddy bottoms without sinking.

Behavior

It has a hard textured shell that helps protect itself. They are used as food, especially in Europe. Sometimes you can find these whelks in markets.

Habitat

They are found on mud flats above low tide line and just below shallow, muddy estuaries. The best place to find these shells is in, or near mud.

By: Stefan

Red Chiton Mopalia lignose

Sea Otter Enhydra lutris

Food Habits:

It eats small animals called algae. The chiton doesn't eat for about a month.

Physical Characteristics:

The Northern red chiton has a body which can close so fast- in more than six seconds. And it has a colorful back.

Behavior:

The Northern red chiton is always next to a rock.

Habitat:

You can find a Northern red chiton in the high tide zone. They live in high tide zone where they are next to rocks.

llunga

Food habits:

Sea Otters eat clams, sea urchins, abalone, crabs, mussels, starfish , and fish.

Physical Characteristics:

Sea Otters are efficient swimmers due to their long, sleek bodies, powerful tails, webbed feet, and short muscular legs. An otter's fur is excellent at repelling water.

Behavior:

Sea Otters float on their back in the day time. They also eat their favorite food, abalone. Sea otters open the abalone shells by placing a rock on their chest and putting on the shell and smashing it.

Habitat:

Sea otters habitats are rivers, streams, lakes, logs, space under roots, or overhanging abandoned beaver lodges, sometimes in the snow.

Jessica

Common Periwinkle Littorina littorea

Food Habits:

The common periwinkle eats many types of algae, but mainly short life fast-growing species like sea-lettuce. It cannot eat large and healthy brown algae, but eats dying plants that collect on the bottom, in seaweed banks and in crevices and depressions.

Physical Characteristics:

When they creep along a sand bottom, they usually leave a 1 cm. wide trail after them. Normally they move at a speed of up to 2 miles an hour, but if they are in a real hurry they can attain speeds of up to 5 miles an hour. The periwinkle can survive weeks. They protect themselves by withdrawing into their shells and close the opening like a lid

Behavior:

Sensitive humans get "swimmers itch" from a type of periwinkle larvae. Tentacles move by contractions of a flat muscular foot.

<u> Habitat:</u>

It usually lives in the water, but they can stay out of water for four to five days. They can do that by sealing themselves in sea moisture inside of their shells. They cling to rocks between high and low tides. They cluster together around rocks. As many as 860 million periwinkles can live on a mile of coast.

Shawn

Baltic Isopod Idotea baltica

Food Habits:

They are scavengers and eat anything that is dead at the bottom of the ocean.

Physical Characteristics:

It is 25 mm long and 6 mm wide. It is long, straight, and somewhat widened in the middle and flattened. It is tannish-green, mottled red, brown, or black and white. The 2nd pair of antennae are directed forward and bent to the side. Its eyes are at the side of the head. It has seven segments. Each has a pair of legs. The tail piece is 1/4 of the body length. The tail is squarish at the end with the point in the middle. Underneath the tail are the gills.

<u> Habitat:</u>

Baltic isopods are usually found on seaweed and rocks near the shore, or swimming nearby in shallow water. You usually find them from the Gulf of St. Lawrence to North Carolina.

Behavior:

They cling to eel grass and other seaweed. Some isopods are predators. They capture their food with their first legs!

Tamarra

Razor Clam Siliqua patula

Food habits:

The razor clam is a filter feeder. Razor clams live mostly off minute plants and animal life known as plankton, filtered from their surrounding water.

Physical characteristics:

The razor clam has a long brittle shell. It is white covered by shiny brown. It is about 6 in. long and 2.5 in. wide. Moderately thin shelled, their texture is very smooth.

Behavior:

The razor clam lives in mud which protects it. It can bury itself in 7 seconds. It uses its foot that sticks out the front of its shell and it expands and contracts to force its way thorough the mud. They live from Cape Cod to Mexico.

Habitat:

The razor clam may be found in deep water but mostly found in shallow mud. They are also found along sandy beaches of the coast.

Jordan

Sea Cucumber Cucumaria forndrosa

Food Habits:

Sea cucumbers sweep the surrounding water. They capture bits of food eating decaying matter that floats in the water or is in the sand.

Physical Characteristics:

It has a long fleshy body with spines buried deep in its skin. It has a lot of tube feet and its mouth is surrounded by tentacles. Sea cucumbers in the Philippines can be 3 ft (91 cm). Usually its 2 to 18 in long and 1/2 to 6 in wide.

Behavior:

Sea Cucumbers contain toxins so other enemies don't attack. They expel most of their internal organs to confuse enemies.

Habitat:

They live in all oceans. They mostly live in cooler water, usually buried in sand and under rocks.

Fred

Common Tern

Sterna paradisaea

Food Habits:

Common terns eat fish. They catch it with a sudden arrow like plunge. So they eat primarily small fish . They dive into the water to get fish.

Physical Characteristics:

The common tern has red legs, a red bill, and a black cap. They have silvery white tips on the upper wing surface. They have black color on their tail and feathers.

Behavior:

They live in flocks. Common terns can breed once a year. They lay about ten eggs in their nest on the ground near to the water.

Habitat:

Common terns live and breed on the Atlantic seacoast from New England to Greenland and the Arctic Ocean. They like cold weather.

Stella

Blue Mussel Myltilus edulis.

Food habits:

Blue mussels eat floating particles in the water. It has two gills used for breathing and eating. The gills let out mucus which traps food from the water, mostly tiny plants.

Physical Characteristic:

We get blue mussels in two ways-on the bottom of the sea and from cultivation beds. Cultured mussels are better than the ones found in the sea because there is more meat and the shell is smoother and the meat has no dirt and pearls.

Habitat

Blue mussels live in the sea . It has cold blood. The outside of blue mussel is a glossy colored bluish-black and the inside is a silver white
The shell can grow up to one hundred millimeters in length.

Behavior

The blue mussel attaches themselves to rocks by making strong threads made of protein .It helps them to protect themselves from seagulls so they don't eat the blue mussel. They feed on plankton which they trap in their gills.

Helene

Eider Somateria mollissima

Food Habits:

An eider eats food that it finds. They also find meat and other things.

Physical Characteristics:

Eider feet are very large and webbed and their wings are short and powered by strong muscles. It can weigh up to 5 and a half pounds. (2.5 kilograms) The female typically lays 3 to 4 greenish eggs.

Behavior:

In November and December eiders mate. The feathers of the male are at their finest and he makes courtships calls. Eggs hatch in 28 days. The female eider takes care of the young.

Habitat:

The eiders are marine diving birds of Arctic and northern coasts.

Sinit

Rockweed Fucus spiralis

Physical Characteristics:

Rockweed is a brown-like seaweed. Rockweeds have finger-like shapes called wracks. These wracks have air bladders which allow the rockweed to float.

Food Habits:

The rockweed needs to be close to the surface of the ocean to get sunlight. The sunlight is needed for photosynthesis so that the rockweed can make its own food.

Behavior:

One characteristic of rockweed is that it groups together in sections called bands.

Habitat:

Rockweed is found in a variety of places on exposed rocks,in tide pools,and in quiet shallow bays near the low tide mark. Rockweed thrives in estuaries, nutrient-rich waters and may be dense in salt marches and on mud flats where fresh water is abundant.

Nicole

Jingle Shells Anomia simplex

Food Habits:

It is a filter feeder. It has two siphons, the one siphon pumps water in, while the other pumps water out. In the process the biral receives oxygen and food items and eliminates wastes.

Physical Characteristics:

It is 57 mm long and 57 mm wide. It is irregularly circular. The shell is white to yellowish-orange, silver, or brownish, with iridescent sheen, and is smooth, or with irregular wrinkles.

Behavior:

Their shape is often influenced by the shape of the object they are attached to. The upper valve is concave, while the lower is flatter.

Habitat:

It is attached to rocks, shells, pilings, and other hard objects, from low-tide line to water 30' {9m}. It is found from the Caribbean to Cape Cod.

Sam

Young Black Headed Gull Larus Ridibundus

Food Habits: It eats aquatic and terrestrial insects, earthworms, and marine invertebrates. This kind of gull also feeds on fish and grains although to a lesser extent. Adults store nutrient reserves not just for migration, but for activities as well. This kind of gull forages by swimming and snatching food from the water surface.

Physical Characteristics: It is distinguished by its dark brown or black/ grayish- black frontal hood. Its eyes, crescents, neck, and underparts are all white and so is its tail. The upper wing convert, secondaries, inner primaries, and back are gray. The secondaries are tipped with white. It has red legs and a red bill.

Behavior: In order to protect itself from predators it displays both aggressive and fleeing behaviors. The type of behavior depends mostly on the specific predator-for instance, predators that primarily take babies and eggs, such as crows and larger gulls, aggressive behavior.

Habitat: It inhabits the temperate zone. It is found mostly at low altitudes and in or around, shallow coastal or inland water bodies. In some places it has adapted to settle in salt marshes, clay pits, and some coastal dunes and off shore islands. And they adapt to places near canals.

Kya

Seashore Springtail Podura aquatica

Food Habits:

A few species feed on living plants and are occasionally regarded as pests. Most springtails feed on decaying vegetables, bacteria, fungi, algae, pollen, and other forms of organic material.

Physical Characteristics:

Springtails are small, primitive, and wingless insects. Most of the world's 6000 or more species are 0.25 - 6.0 mm long. It has 2 antennas that are 4 - 6 segments long. It has 6 legs that are 4 - 6 segments long. They may propel themselves up to 20 cm in the air (a distance 50 - 100 times their own body length). Females cover their eggs with a glaze of freshly eaten soil. This mixture evidently protects the eggs from dehydration.

Behavior:

When walking or encountering other springtails, the antennae will vibrate very rapidly.

Habitat:

Springtails often live in large groups. They float in sheltered tide pools. The species is often found in stagnant water. They live in a variety of habitats, but generally prefer moist areas.

-Anthony

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