

Dig 'Em Up! Patience Pays Off at the Beach

Have you ever dug a clam as big as a softball? Junior Rangers who visit the Historic Alsea Bay Bridge Interpretive Center have a chance.

Located in Waldport on the sandy banks of Alsea Bay, the interpretive center offers loads of information. Learn how to identify clams and shrimp, and observe them in their natural habitat right on the beach! You can also learn about the rules for collecting them and how to read and understand tide tables.

Here's a true story about one of our Junior Ranger friends, seven-year-old Chris who visited Alsea Bay with his family last August. The story was contributed by Daniel Paeth, a seasonal ranger who spent the summer months leading interpretive walks, talks and Junior Ranger programs at the center. As you will see, Chris truly earned his IDENTIFY passport stamp. Not only did he identify a giant tidal



Chris with Daniel Paeth

mollusk called a Gaper clam, Chris dug into much more than sand in the process!

It was a cloudless, perfect day with a low tide that makes for excellent clamming. Our small group had started at the interpretive center learning about coastal ecology and sea shells we might find in the area. Next, we walked along the bay practicing our identification skills by pointing out the different types of clam holes. Chris paid close attention and soon identified an especially big Gaper clam hole.

Sand flew in many directions as we dug a huge hole. After 10 strenuous minutes, we finally found the clam. Sadly, it was lodged next to a rock in such a way I could not get my hands around it.

As we tried to figure out what to do next, the sand started to cave in. We would surely lose the clam in seconds if we didn't get it out immediately! Even

the tide was rising now and I knew this would be our only opportunity to get a live clam for the day.

In a final attempt, both Chris and I leaned deep into the hole trying to pry its bulky shell out of the sticky mud. Try as I might, my hands were simply too big to get around it. However, Chris' hands were able to wiggle underneath its oversized shell. For a good 15 minutes, the two of us struggled to break it free before the hole eventually caved in.

I sat up exhausted from working at it so hard, but Chris's thin arms were immersed in the sand, a grin on his face, his hands still clutched to the huge clam. I could see the sweat on his forehead. He was not going to give up! He looked tired but exhilarated, and slowly he pulled out the biggest Gaper I had ever seen!

The look on Chris' face cannot be described in words, but it was as if a whole new emotion had overcome him. As we washed the clam off in sea water, Chris identified its neck and the other features we had talked about earlier. Not only did he end up with a huge clam for chowder-making that evening, he had a first-hand understanding of the bay's ecology and an experience he is not likely to forget.

If you're eager to learn about what the Oregon coast has to offer, think about visiting the Historic Alsea Bay Bridge Interpretive Center. It's a stop aspiring Junior Rangers will surely dig.

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Oregon Coast Lighthouses

(listed from north to south)

1. Tillamook Rock Lighthouse

On a sea stack 1.2 miles off Tillamook Head south of Seaside

2. Cape Meares Lighthouse

10 miles west of Tillamook and U.S. Hwy 101

3. Yaquina Head Lighthouse

Off U.S. Hwy 101, 3 miles north of Newport

4. Yaquina Bay Lighthouse

On U.S. Hwy 101 at north end of the bay bridge in Newport

5. Heceta Head Lighthouse

12 miles north of Florence

6. Umpqua River Lighthouse

6 miles south of Reedsport

7. Cape Arago Lighthouse

12 miles SW of North Bend and Coos Bay off U.S. Hwy 101

8. Coquille River Lighthouse

In Bullards Beach State Park, 2 miles north of Bandon

9. Cape Blanco Lighthouse

9 miles north of Port Orford off U.S. Hwy 101

Can You Imagine?

Picture yourself out in a boat offshore, spending your day hunting for fish, crab, and other seafood. You've been out on the ocean for hours and hours, traveling a few miles out to sea and up and down the coast. Now it's time to head back to shore to bring home your catch and clean up for dinner. But wait! How do you find your way back to the right place? Of course! You'd look for familiar landmarks and rely on lots of advanced navigation instruments that are available to you. But how did people find their way before these tools were invented?

During the day, you could find the way back to your landing place by looking for piles of rocks people built and left behind as markers. But, what about at night, when you couldn't see these rock piles?

Sometimes, friends of the fishermen would light a bonfire on a high cliff above the ocean to help guide the way. Later, people used a pole or tripod to hang a metal basket with its contents on fire as a way of signaling.

Still later, lighthouses were built at locations that were known to be tricky or dangerous to navigate. Lighthouses are tall towers with very bright rotating lights at the top. At night, these lights are visible for miles and miles. Each lighthouse had a different pattern of flashing signals so that, no matter where you were along the coastline, you could recognize your location from the repeating light pattern. That's how lighthouses have helped many people over the years find their way home. Phew! What a relief!



Yaquina Bay Lighthouse



Heceta Head Lighthouse



Umpqua River Lighthouse

Q: Oregon has seven counties with oceanfront property. Of these seven, can you name the northern-most county and the southern-most county?

Hint: Both names start with the letter C and have something to do with food!

A: (Clatsop - "ketchup" and Curry) Yum, what a great combination!



Cape Blanco Lighthouse



Coquille River Lighthouse

Off to the Beach!

Bright and early the next morning, J.R. climbed into the basket on the front of Molly's bike and off to the beach they rode. J.R. loved the way the wind felt against his face as they zipped down the bike path. All the sights, sounds and smells intrigued him. The sound of churning water and seagull cries filled his ears. He smelled the tangy salt air and tasted salt on his lips. This was really a new experience, and he was having the time of his life! As the bike turned around one of the biggest bends in the trail, he drew in one big breath and gasped at what he saw—mountains of sand going on for miles and then... that huge expanse of water. Large waves washed up to the sand in regular, comforting rhythms. And, right there in front of him was the skeleton, lying there like huge animal.

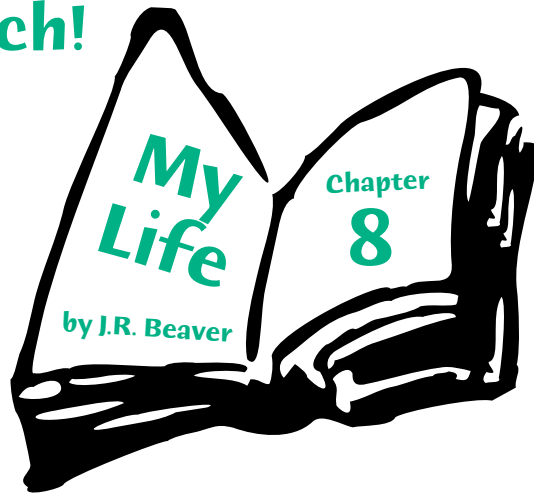
"I always enjoy seeing this old shipwreck," said Molly's mom, as she pulled up her bike and parked it alongside them. "It reminds me of the awesome power of the ocean."

"Yeah, whenever I see it, I'm reminded to be especially careful whenever I'm out on the beach," said Jordan.

Learning more about the shipwreck convinced J.R. that he had a lot to discover about the world outside his den.

Family Time

J.R. and the entire family spent the rest of that morning exploring the beach at Fort Stevens. They built sandcastles, flew kites and even splashed in the waves. J.R. was surprised to find the water so salty. Even though he was a very good



swimmer, he only waded in the water a bit to cool off. The rangers at last night's program warned that the ocean was not the best place to swim. It could be unexpectedly dangerous if a giant wave snuck up. You could lose your footing and be swept out by those big waves in no time. The water was also a little colder than he was used to, and the rolling motion of the waves made him a little nervous.



The morning had zoomed by and now a bright afternoon was upon them. J.R. soon remembered his plan to explore places that Lewis and Clark's men had visited. He began thinking about his travel plans when he realized it was time to say

goodbye to these kind people who had shared such great times with him. J.R. truly felt like he had a new adopted family.

Once Again, On His Own - Visiting Fort Clatsop

After they all hugged and promised to meet up again, J.R. was off on his own and ready to explore. After all, he would always be a busy beaver with more parks to see and new things to learn. And now, J.R. had a plan. Since learning about



Fort Clatsop from the ranger last night, he just knew he had to visit where the fort used to stand. He was sad to learn about the recent fire that burned the 50-year-old replica nearly to the ground, but he was still eager to make the trip. He soon climbed aboard a shuttle bus and found himself riding along the highway free as a bird... well really, free as a beaver!

When J.R. got off the bus, a national park ranger led a guided tour into the visitor center where he watched a film and saw photos of the fort. As soon as the film was over, he rushed right outside. He couldn't wait to see the place! "Oh yeah, darn!" J.R. stopped right in his beaver tracks as he reminded himself that the fort was no longer standing. October's devastating fire had left next to nothing. He wouldn't be able to see it after all. After traveling so many miles, he had a hard time believing he had arrived too late to see for himself where the Lewis & Clark party had spent that long, wet winter 200 years ago.

But looking around, J.R. noticed a lot of hustle and bustle everywhere. People decked out with hard hats and tools were making their way up the short trail. He joined the group and learned that over the past few months, people had traveled here from all over to help rebuild a model of the fort, making it even more authentic than the last one.

All the building activity, helping hands and smiles soon made J.R. forget about the fire. It was clear a lot of people truly cared about getting the new fort built soon. He settled down on a bench to listen to more stories the ranger told

Oregon's Rocky Shores

Did you know that Oregon's coast is 362 miles long? It's true!

Almost half of those miles are considered to be rocky. When you stand on the coast looking out to sea, you might see large dramatic headlands jutting out into the water or isolated rocks in the sand. These places are often referred to as "rocky shores," and they can be wonderful for families who are tide pool explorers.

Tide pools are chock full of marine plants and animals. Although they can withstand the force of large waves, they can easily be damaged by human visitors. Both you and your tide pool friends will benefit if you follow these excellent safety tips:

Please:

- Walk carefully! Whenever possible, try to walk on sand or bare spots to avoid crushing fragile inter-tidal creatures. Watching where you put your feet will also help you to avoid the most slippery spots. Wet green algae and seaweed growing on the rocks can send you on a spill before you know it.
- Handle plants and animals very gently. Prying them from the rocks can cause serious injury or kill them. Better yet, just look at them where they live and feed.
- If you do choose to pick up an animal to look at it closer, don't move it from one place to another. Each is specialized to live where it does, and may not survive in another area. If moved, tide pool animals may be dangerously exposed to the hot sun and to predators who are looking for something good to eat.

- If you move rocks or plants, replace them carefully. This is someone's home and they may not appreciate you re-arranging the furniture!
- Do not climb on cliffs and offshore rocks. Seals, sea lions and seabirds often rest and nest in these areas. They are very sensitive to people and dogs getting too close. Enjoy them from a distance.
- Help J.R. and your other Junior Rangers and Oregonians to keep our coast free from litter by putting your trash in the proper place.
- If you want to save the memory of your great tide pooling day, take some photos! Please leave the critters in their marine habitats for others to enjoy.

THANK YOU!

Before You Go:

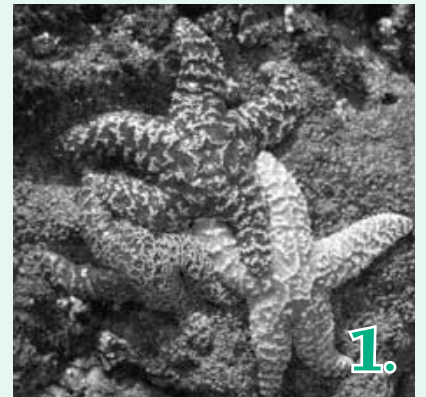
Plan to be in the tide area at least one hour before low tide. At this time, you will begin to see hermit crabs, small fish, shrimp and other marine life scurrying about.

Free tide tables can be picked up at your nearest coastal state park, many local fishing tackle shops, Oregon Fish & Wildlife sites or through the Hatfield Marine Science Center website. Type this into your Internet browser for the tide times at Yaquina Bay, near South Beach State Park in Newport: <http://hmsc.oregonstate.edu/weather/tides/tides.html> Once there, scroll down and click on "Oregon Coast Tide Adjustment Table" for your coastal location.

Pay attention to the time. It's easy to get so absorbed in what you are seeing and learning that

Yes, You Are... a Tide Pool Sleuth!

Match up the pictures and descriptions of these fascinating intertidal animals! Your job is to number the descriptions to match the photos. Then you should be ready to go searching for these and other creatures on your own:



you can lose track of time. Know in advance when the tide will come in, so you don't get caught surrounded by water. Getting a little wet from splashing around is fun, but getting stranded is not!

Have a Blast, But Remember to Play it Safe!

Once you get started looking, be sure to practice safe beach behavior!

— Have you seen a brilliant greenish-blue animal with wavy tentacles? It is called an *anemone*. The green color you see is actually a colony of tiny algae growing inside the anemone's flesh. The algae get a home while they give the anemone some nourishment. The sticky feeling you get when you touch an anemone comes from tiny harpoons, which it uses to "capture" food such as mussels.

— Can you find a creature called a *sunflower star*? Bright red-orange or dark purple to dull brown in appearance, they are very soft and slippery to the touch. But, please don't handle them because their arms break off easily. As young stars, they usually have six arms, but grow more—up to 20 or more—as they get older. Sunflower stars move rapidly compared to other sea stars and are voracious eaters.

— Several types of barnacles are found on rocks along the shore, but the most common, by far, is the *acorn barnacle*. Its outer shell is white and looks like a volcano. Can you identify the acorn barnacle in one of the pictures? If not feeding, it has a "trap door" covering the hole in the top of its shell. When under water, it feeds on plankton by waving its legs in the air. It can live up to 8-10 years, sheltering hundreds of tiny animals.

— *Ochre sea stars* come in shades of orange, purple and rose. A single star uses hundreds of tube feet to hold on to its rocky habitat even against the powerful force of ocean waves. If you pull one from a rock, you will injure its delicate feet. It also uses these feet to gradually pull apart shells. It then inserts its stomach and slowly digests dinner. The rough skin on its back helps protect it from being eaten.

— Believe it or not, these spiny creatures can catch fish—dead fish, that is. The showy spines of the *sea urchin* can grow up to three inches in length and not only protect, but can also snare, drifting pieces of algae and other bits of food. Tiny pincer-like projections between the spines attempt to pinch away anything that comes too close for comfort. Look for these creatures at the lowest tidal times.

— You may find this creature moving along slowly as it feasts on small mussels and barnacles. Or you might just find an empty shell, a home left behind by its former occupant. Called a *whelk*, but more commonly known as the snail, it can drill a hole into the shell of another tidepool critter and eat the meat from the inside-out.



Answers:
 anemone=2; sunflower star=3;
 acorn barnacles=6; ochre sea
 stars=1; sea urchin=5; whelk=4

- Don't turn your back on the ocean! Unexpected waves called "sneaker waves" may appear suddenly. They are unpredictable and may come rushing high up on the shore, often with deadly force. Sneaker waves are strong and can knock you down and drag you out to sea if you don't see them coming. Make sure you always have a friend or your family with

you to be your lookout. Keeping an eye on the ocean is a good rule to always remember.

- Ocean spray and heavy rains can make rocks and trails unstable. Watch for signs and stay behind fences. They are there for your safety. Do not go near cliff edges as they may not support your weight, and please don't stand under overhanging cliffs. When

hiking, make sure you are wearing the right shoes, and stay on marked trails.

- Logs on wet sand or in the water are especially dangerous. The ocean is strong enough to pick up even the biggest log and plop it down right on top of you. If you see a log in the surf or on wet sand, keep your feet on the ground and stay off it.

My Life, Continued from pg. 3

about the many challenges the men faced to survive. While waiting for better weather for their return trip east, it had rained for many days and nights. There must have been mud everywhere! J.R. chuckled to himself just thinking about this. He knew a lot of people didn't really like that kind of weather, but he actually preferred it. It was cool, damp, and muddy, just as he liked it!

The Trip to Ecola

The ranger spoke about a new trail that went from the fort all the way to the sea. Although he would have liked to visit the ocean again, it was getting late and he needed to find a place to spend the night. He had heard about some little overnight shelters in another park to the south. The shelters were made of logs and were at the top of a coastal trail in Ecola State Park near the town of Cannon Beach.

"Log cabins!" blurted J.R. to no one other than himself. "Now we're talkin'... that's just my style!"

So J.R. started looking for a way to get to the park with the strange sounding name. Some nice people soon offered him a ride and, on the way, explained what the name meant. "Ecola is the Indian word for whale," said one of his new traveling companions. "Captain Clark and other members of the Corps of Discovery called it that after hiking there to see a beached whale. They traded some of their supplies with the Indians for some whale blubber to eat and use as oil for their lamps."

J.R. couldn't wait to see everything and daydreamed about times long ago. He imagined himself walking right alongside those great explorers.

J.R. was jilted out of his daydreams as the car pulled into the parking lot of a place called Indian Beach. Checking to make sure he still had all his hiking

gear in his vest, J.R. thanked his companions and headed off in the direction of the Clatsop Loop Trail.

The trail followed an old road up the steep hillside. It traversed through deep pockets of spruce-hemlock-fir forest and crossed streams where a thick covering of red alder trees grew. He read signs saying the biggest Sitka spruce trees here were nearly 200 years old! That means these trees were probably growing up as little seedlings when Captain Clark and his men had visited. What an amazing forest!

J.R. climbed and climbed up the hill. He was getting a little tired and was ready to take a break when he rounded a bend and came upon a welcome sight. There in front of him stood three little cabins and a state park ranger.

"Well hello J.R.," said the ranger. "Nice to see you. What brings you up this way?"

J.R. always felt a little bit surprised, but flattered when people recognized him, but then again, rangers all across the state had become his good friends, and his picture was everywhere.

"I heard some people talking about these log shelters, and boy, am I glad to see them!" sighed J.R., tired and hungry from his long, adventurous day.

"Are you planning to stay the night? You are welcome to, you know!"

The Sleepover

The ranger explained that the new shelters had recently been built and were free for anyone who wanted to hike up and use them. Each cabin had four bunks and a canvas door to keep out the rain. There was even a campfire ring and a nice covered picnic shelter.

The ranger explained that they were made out of recycled wood.



"All these materials were used as something else before being brought up here. The logs for the cabins used to be telephone poles. We didn't cut down

any trees to build them," said the ranger. J.R. was happy to hear that because, of course, being a beaver, it meant more food for him!

As J.R. curled up on a recycled wooden bunk that night, he thought again of Lewis and Clark's incredible travels to this very area. What stories the expedition members must have told when they returned! Who could imagine such grand adventures and experiences? He considered that for just a moment, his last thought for the evening. Maybe, just maybe, he thought as he drifted off to sleep, he could.

Where will J.R.'s travel adventures take him next?

Look at the map of Oregon on the State Parks website at: www.oregonstateparks.org/searchpark.php Find some other parks where you think J.R. might like to visit. How will he get there? Why do you think your park is the best one for him to visit? What are some of

YOUR favorite activities there? Write a letter to J.R. with your suggestions. You just never know what may happen!

Send letters to:
J.R. Beaver
725 Summer St. NE, Suite C
Salem, OR 97301-1271



Dear J.R.,

My mom and me like to go camping. We like to rent yomes a lot. I like to help our environment too. When we see cans or bottles or paper, we recycle them. When we are going to leave, my mom will give me a bag and she says, "Make the site cleaner than it was!"

Leia, Age 7

Hi Leia-

You have made me smile so wide that both my big front teeth show and my cheeks almost hurt. I can't tell you how good that makes me feel to know you are cleaning up so well after you camp. Can you just imagine how beautiful this whole world would be if every single person did what you do? It brings tears of joy to my eyes just thinking about it.

The other thing that made me smile is your new word... yomes. I think you probably mean that you enjoy the little round huts we provide in many of our parks. The park rangers call them "yurts." Maybe the "Y" for yurt and the fact that they are comfortable homes made you think of yomes. I like that! Can I borrow that word for future use?

Thanks again!

- J.R.



Dear J.R.,

The next time you go somewhere you should go to Memaloose campground. I'm a Junior Ranger and I've never seen you before! I think you should visit each campground at least once a year.

Sincerely,
Grace

P.S. Please put this in *Beaver Tracks*.
Thanks!

Hi there Grace!

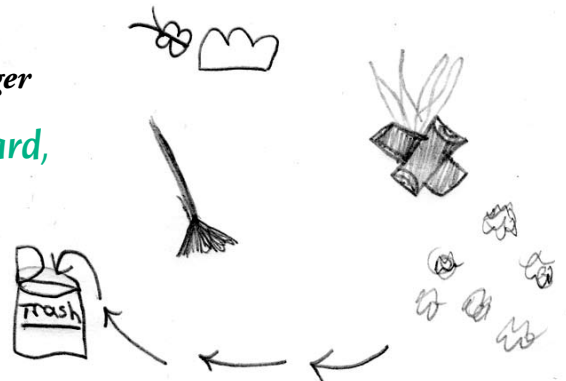
It is good to hear from you and I like your suggestion for me to get out to the parks more often. I would love to visit each campground during the camping season, but how do I get around the state? It's a lot of walking and swimming for me unless I'm able to get rides. And how will I be able to meet all the great kids enrolled in the J.R. program? This situation troubles me as I think about the best way to get out and about. Maybe I need more ideas from all those Junior Rangers out there. What do you think?

Have fun!
- J.R.

P.S. You're right! I missed spending time at Memaloose when I was in the Columbia Gorge. There are so many state parks along this river corridor in Oregon - 31 in all! Can you name even half of those?

Poem by Piper,
Cape Blanco Junior Ranger

The work is kind of hard,
but fun as can be
I hope you have a
good time, but be as
safe as can be!



Dear J.R. Beaver,

Hi! My name is Tori and I'm eleven years old. I've been a Junior Ranger for about 2 years now and I love it! It is so FUN! My friends and I also started a group called the Helping Hands Club and we help the environment and people. I'm wondering if you could send me some information about the Youth Service Program. Thanks sooooo much!

Sincerely,
Tori, Age 11
Tacoma, WA

P.S. I really like your newsletter!

Dear Tori,

Thanks for asking about this program. More kids need to know about it! See the box on page 8 for information about getting involved in the Youth Service Awards program. Remember everyone, you need to be at least 8 years old to participate, but the program is really intended for older kids who can work independently on a project. It takes at least 25 hours of service work to earn enough hours to complete the award program. Young teens can learn a lot from this valuable experience!

- J.R.



OPRD
725 Summer St. NE, Suite C
Salem, OR 97301-1271

Youth Service Awards! The “Next Step” in the Junior Ranger Program



The Junior Ranger program has been happening in some state parks for many years now, and older “graduate rangers” have completed the JR Passport Program. Is this you? Are you looking for new challenges?

What is it? A service award volunteer program for youth between the ages of 8 and 18. Children under the age of 12 are strongly encouraged to complete the JR Program before enrolling at this level.

What do you do? Projects are assigned and completed in one or more participating parks. Youth work independently where appropriate, but are supervised by park staff or host volunteers.

What is required? 25 hours of age-appropriate project work. Service projects produce things parks need, but are designed with your interests in mind. The possibilities are nearly endless. Some examples are: assisting in planting a heritage garden; building and painting fences, benches or houses for wildlife; trail clearing; photo sorting and scrap booking; helping with the JR Program, and helping with special events or in the park office.

What can you learn? You’ll learn the value of completing a project from beginning to end, and will have the satisfaction of helping your ranger and host friends in the parks you love! These are good beginning experiences for real-world jobs.

You’ll learn the steps needed to make things happen!

What can you earn? Each youth completing 25 hours of service earns a framed certificate and a special service lapel pin, plus a personalized letter from the OPRD Director expressing thanks for a unique volunteer contribution.

How do you enroll? Check with the Visitor Services Ranger at the park that interests you, or with the Statewide Youth Volunteer Coordinator in Salem. Once a project is identified and agreed to, you’ll be given a YSA Scorecard to keep track of your hours.