



Siuslaw National Forest | September 2021

PAWN Old Growth Trail



This three-quarters of a mile trail is part of a 10-acre area of the Siuslaw National Forest. It is an Old Growth Management Area, allowing natural conditions and processes to dominate while providing recreation to the public. The PAWN Trail is named for four families that were very important in the establishment of the Post Office on the upper part of the North Fork Siuslaw River in the early 1900s: Poole, Ackerly, Worthington, Norlands. The W later stood for the Woosley family.

This area was set aside as the PAWN Trail in 1991 when the communities of Mapleton and Florence and local loggers realized their forests were losing old growth. Together, they asked the Forest Service to save this patch of woods, an area used by local families for recreation and hiking. Due to local concern for this area, the Forest Service agreed that these acres would not be harvested and would be left for the public and future generations to enjoy.

By preserving this priceless parcel of forest, timeless stories of positive human and natural interactions can be told again and again. Learn, explore, enjoy!

1. Bare Rock to Forest

This is a quarry, a place where rock was once excavated as a resource to be used by pioneers, early settlers and local farmers to build good roads to access their land. The volcanic rock you see here continued to be quarried by the Forest Service until the 1960s to be used on forest roads. This quarry is not as bare as it seems from a quick glance. As time has passed, wind and rain have weathered the rock. As it erodes, lichens, ferns, and other small plants have started to grow and, eventually, the quarry will blend in with the forest.

2. Blackened Bark



The blackened bark of this Douglas-fir tree is a consequence of fire. In this area fires typically occur every 125-175 years. The last major fire was in the 1860s.

Fire is one of the many natural and human-caused events that can drastically change a forest. The fire here removed much of the old growth in the Siuslaw, leaving only pockets of these ancient trees rather than entire forests, greatly changing the structure and composition of the area. While it is unfortunate to lose the old growth, this allowed for new growth: all part of the forest life cycle.

Feel the thickness and roughness of the furrowed bark that protects these trees.

3. Living in a Rainforest

Along your hike notice the dense, lush green vegetation surrounding you. Did you know you are in a temperate rainforest? Most temperate rainforests are found in coastal areas with mountains. As water evaporates from the ocean and condenses over the mountains, massive amounts of rain are poured onto the forests below. This forest gets about 100 inches of rainfall a year- that is as high as your living room ceiling!

Temperate rainforests have the most biomass of any ecosystem, meaning that they have the greatest concentration of living matter, like trees, moss, mushrooms, and all the green plants in the understory. Most of the biomass in this forest exists beneath your feet in a form of mycorrhizal fungi, which are types of mushrooms. These fungi are interconnected under the forest floor and are considered the largest organism on our planet. On average, a temperate rainforest has 400 tons of biomass per acre, equivalent to having 70 elephants in a football field.

4. Snag Central

Snags are standing, dead trees. Snags are an integral part of an old growth ecosystem. Even though they are dead, they are teeming with life! Woodpeckers create holes as they search for bark beetles. Insects feeding on the wood create an elaborate system of tunnels throughout the snag. Fungi spores are blown by wind into the holes and feed off of the decaying wood. Cavities in the wood provide protected nesting sites for birds and great places for squirrels and chipmunks to hide nuts and berries. As the cavities grow larger over time, they provide shelter for owls and even raccoons. Hawks and other birds perch on the branches on the high reaches of snags as they spy on their prey on the forest floor.

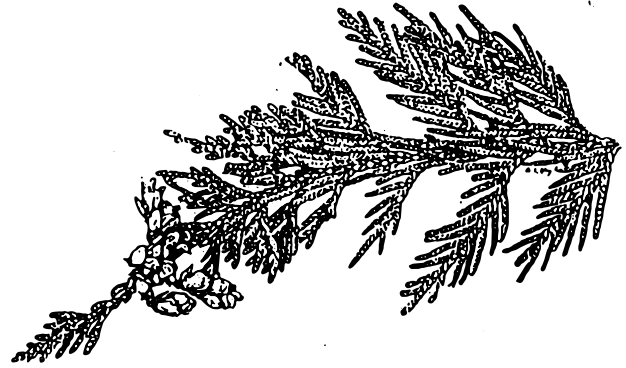
See what you can observe on and in these "forest hotels".



5. Hemlock Grove

These lacy-looking trees do well in the shade of Douglas-firs. Hemlocks can grow slowly for years with little sunlight, while young Douglas-firs cannot survive long in the shade of their parents. As the Douglas-firs in the overstory die of old age, the small western hemlocks that have been waiting in the shade grow up in their place. This process of changing from one type of plant community for another is called "plant succession."

Western hemlock will become the climax forest, the peak of the process of succession in this grove as the transitional Douglas-firs slowly die. Elk enjoy the coolness that the western hemlock canopy provides during the summer and its warmth in the winter. Look around you for evidence of elk trails, beds, browsing or droppings.



6. Old Growth Tree

This is an old growth Douglas-fir tree. The tree in front of you is over 500 years old and could live to be 1,000! As the tree grows older, the branches grow bigger, and mosses that cover the branches get thicker and thicker. The dense beds of moss on these trees are very important to an endangered bird called the Marbled murrelet.

Marbled murrelets are small coastal birds that nest sometimes over 30 miles inland along rivers. The birds choose only the highest reaches of the oldest of old growth trees because of the dense beds of moss that grow there. They do not gather any nesting materials, but rather, they nestle into the moss and lay one egg. Old growth trees in the Siuslaw National Forest are protected so these endangered birds have suitable nesting habitat.

7. Walk Through Time

Wind and disease toppled this mighty tree. Stop and guess how old this tree could have been. Do you have your guess? Now to see if you were close, count the rings at this cut. Each ring represents one year of growth for the tree. A wide ring indicates a year that the tree had lots of water, light and nutrients.

Do you see any knots? Knots are scars where limbs once grew.

Take a look at the bark. This thick covering protects the tree from injuries caused by fire, insects and other natural causes.



8. Alder Stand

The stand of trees before you is different than many others in the temperate rainforest. These are alders, and they are deciduous- they lose their leaves in the fall, unlike the evergreen conifer trees which have needles.

Alders are called a pioneer species. Much like the pioneers who came to the west and started settlements that grew into towns and eventually cities, alders are one of the first species to appear in the succession of a forest. After a great disturbance, in which an opening is created in the forest, alders are able to grow in the new sunny patch before any other trees. Alders are nitrogen fixers, unlike most other plants. They can take nitrogen, an important nutrient from the air and transform it into a form that can be used by other plants.

Try to find their seeds, scattered on the ground.

9. Taking Root

Where you are standing lies a downed tree called a nurse log. After the tree fell, microscopic organisms like fungi, lichens, and small insects shred the wood fibers, providing a nutritious substrate (nursery) for new life to begin. Seeds have a much easier time growing on top of a nurse log than on the ground.

Huckleberry, fern, western hemlock and red cedar use this nurse log, as do amphibians, reptiles, and small mammals seeking the shelter it provides. As the nurse log weathers, it eventually crumbles into fragments and returns to the forest floor. The new trees stand tall on exposed roots that support them like stilts. Look for other nurse logs (and stumps) as you hike the remainder of the trail.

10. Healthy Waterways

Logging that occurred in the early/mid-20th century had great consequences on stream habitat. Habitat loss led to a decline in salmon population and now one Oregon coastal species, Coho salmon, is threatened. Salmon are a keystone species in this ecosystem, meaning that they play a unique and crucial role for ecosystem health. Without them, the temperate rainforests would be dramatically impacted. Salmon of all ages are eaten by animals (131 species depend on them to survive). The waste from animals that eat them is left in the forest which means nutrients from the sea that are found in bodies of salmon are distributed to the soils. Salmon carcasses also add ocean nutrients to streams, which improve water quality for other aquatic species. Today salmon are important to native tribes, the economy, and tourism.

Streams are restored to help improve habitat and ultimately increase the salmon population. Woody debris that naturally accumulates in streams and healthy old forests is absent from many streams today that have been heavily logged. To mimic that process, large logs have been strategically placed to slow down stream velocity and create resting pools for adults and developing juveniles. Vegetation is planted along streamside's to help keep water temperatures cool and prevent sediment from washing out into the waterways. These stewardship efforts have been assisted by local volunteers and school children. From late August-November you may see adult Chinook salmon in the waters below; December-January, Coho salmon; February-March, Steelhead.

11. Tree of Life

This large tree is a Western red cedar. In this forest cedar was historically the most valuable tree species in the forest to Native Americans and early pioneers. They split planks for housing, fences and often lined the walls with the tree's bark. They made red cedar canoes by the thousands and fashioned nets, blankets, ropes, shawls, skirts, baskets and mats from the inner bark. The Native Americans also used the inner bark and moss to make diapers.

Its oils protect it from rot and insects. Pinch a needle and experience the unique aroma that is characteristic of cedar.

12. Trees Enrich the Forest

Decomposition is the breakdown of dead tissue and the subsequent conversion to more simple forms that can be used as food by other organisms. Everything dies and without decomposition, dead plant and animal material would accumulate quickly. Decomposition occurs as a result of organisms like bacteria, fungi, slugs, snails, millipedes, and earthworms feeding on decaying organic matter. In this forest, fungi have the biggest role in the process of decomposition.

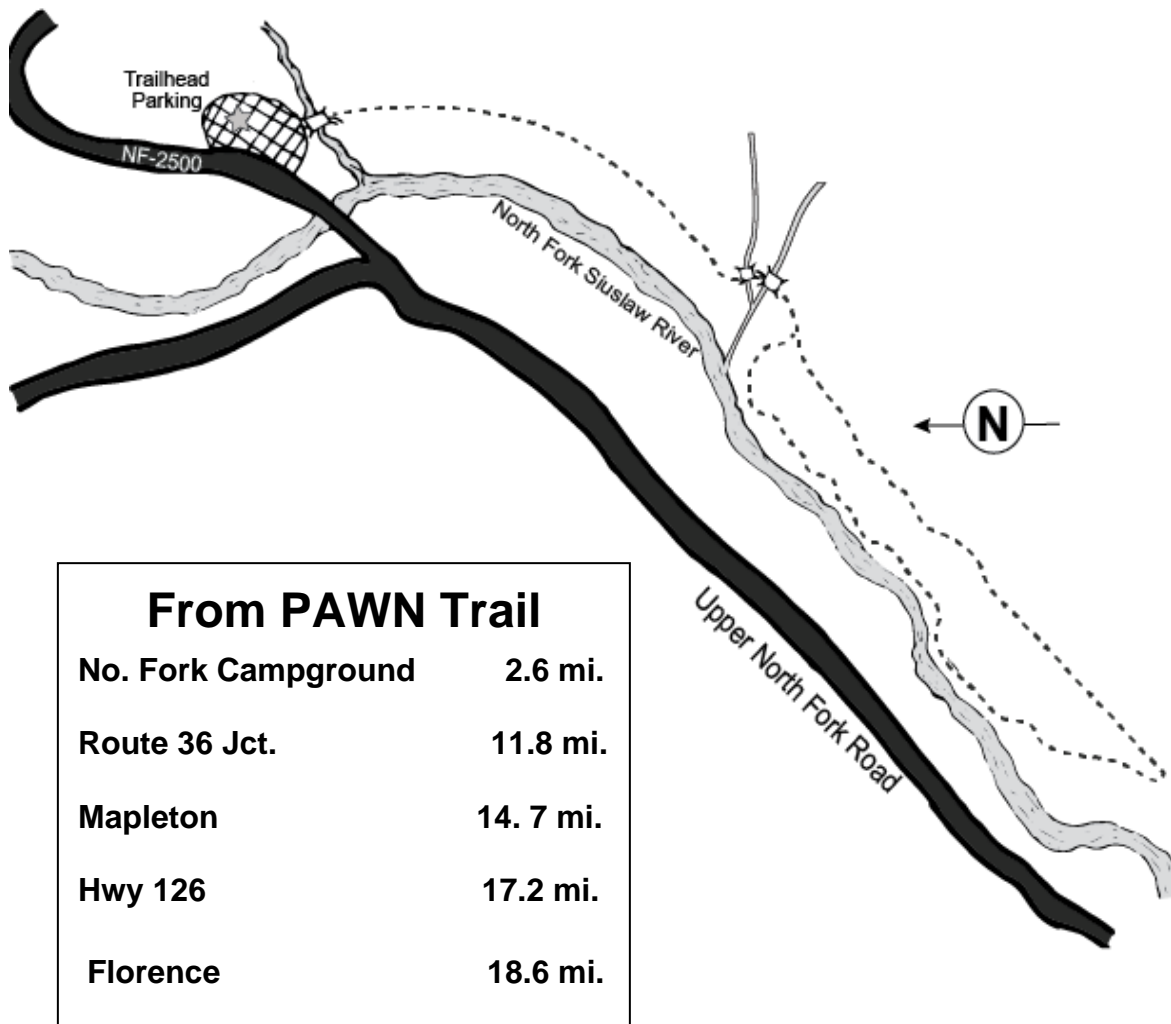
The foliage of non-woody plants takes about one year to break down back to soil. Needles of conifers take about 7 years- the wetter the material, the faster the decomposition rate. Eventually, all debris on the forest floor turns to rich soil that is used by new plant life to grow strong.

Take a moment to pick up the rich, black "duff"- feel it and smell it. You actually smell both death and the beginning of new life. In an old growth forest, the story never ends.



PAWN Old Growth Trail

.82 mile trip



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