

**Please Note:**

Due to dangerous cliffs with sudden drop-offs, children should be watched closely. Dogs must be kept on leashes.

**8 Reshaping the Forests**

Like most forests in the area, logging, fires and replanting have helped reshape this forest. Note the even-sized trees on the nearby ridge: that's a hand-planted forest on a slope that has been clearcut. In contrast, the surrounding forest resembles the mix of sizes that Clark described.

Hand-planting forests speeds up the time it takes to restore a canopy dominated by conifers (about 40 years instead of 100 years). That's because foresters begin with nursery-grown conifer seedlings that are better able to outgrow competing brush and hardwoods.

**9 The Captain's Impressions and Hiker's Camp Orientation**

After hiring a native guide, the party scaled the north slope of Tillamook Head on a well-established but difficult Indian trail. It was here that Clark described the vista as "... the grandest and most pleasing prospects which my eyes ever surveyed, in front of a boundless Ocean..."



Following express orders from President Jefferson, Lewis and Clark took note of previously undocumented plant and animal species along the way. In the damp huts of Fort Clatsop, they kept their quill pens flying, describing and sketching dozens of plants and animals. All told, 140 plants and 65 animals were described west of the continental divide, including salal, Sitka spruce, and Roosevelt elk.

**10 The Constancy of Change**

On the ridgetop, you can see windthrown trees lying on the ground, as well as pits once occupied by their roots. These root systems decay over time, leaving mounds of soil and wood debris next to the root pits. The resulting "pit and mound" topography you see here is common on ridgetops exposed to high winds. This constant restructuring of the forest canopy distinguishes the spruce-hemlock forest of the coast from the Douglas-fir forest farther inland.

**11 Murrelet Mansion**

Big Sitka spruce, like the one you see here, provide ideal nest platforms for the marbled murrelet—a rare seabird that likes to nest on big branch platforms. This tree once stood in an opening that allowed the branches to spread out widely until the other trees closed in. Now its branches must grow upward, making it look like a giant candelabra.



**12 The Making of a Meadow**

Coastal tribes often burned back the forests to maintain meadows of berries and edible plants that could not survive in the forests. Also, elk grazed in the meadows, creating concentrated hunting grounds. The meadow William Clark explored was larger than the one you see now, because forests have enclosed most of it since Clark was here.

**13 Sweet 'n' Salal**

Clark and his party "were obliged to Support and draw our selves up by the bushes & roots for near 100 feet" when they ascended Tillamook Head. These bushes were salal, the dense shrub you see along the path. Clark provided the first scientific description of this plant, which thrives near the ocean. Salal berries were a primary plant food of the Tillamook. They were eaten whole, or pulverized and dried into "fruit leather" that was kept in wooden boxes for winter use.



**14 Burial Canoes**

"I proceeded on down a Steep decent to a Single house the remains of an old Kil a mox Town...I observed large Canoes...and found they were the repository of the dead..."

*6 to 20 feet long) and calculated to see most common among the like marks among the mounding of. A few from 20 to 50 ft. 2 1/2 feet in the beam and about 1/2 in. in the depth and shape of*

Although the Tillamook village that Clark wrote about is gone, the landscape surrounding you is very similar to the "butifull" sight that Clark and his party witnessed in 1806.

**CULTURAL HISTORY**

*The Corps of Discovery & Native Americans*

In November 1805, members of the Lewis and Clark Expedition established a winter camp south of the Columbia River. The explorers chose a site that would provide protection from the elements, plentiful elk for food and clothing, and close proximity to the coast for salt-making purposes. They built Fort Clatsop, a log stockade with seven huts, 3 1/2 miles east of the Pacific Ocean.

On January 3, 1806, a group of Clatsop Indians brought the explorers a gift of fresh whale blubber. Clark wrote, "... near one of their Villages a Whale had recently perished. this blubber the Indians eat and esteem it excellent food. our party from necessity have been obliged to Subsist some length of time on dogs..."

Determined to find the beached whale, William Clark, Sacagawea and a party of explorers left Fort Clatsop on January 6 to search for the "monstrous fish" beached south of a high mountain headland. Led by a native guide, the explorers scaled the northern face of Tillamook Head, which Clark described as "the Steepest worst and highest mountain I ever assended..."

**NATURAL HISTORY**

*Changing Landscape Molded By Forces of Nature*

In many ways, the forest around you is remarkably similar to the forest encountered by Clark and his exploration party. Yet it is quite different, too.

Landslides, strong coastal winds, violent storms, earthquakes and fires have shaped Ecola State Park's "forests of change." Layers of wood found buried deep in the forest floor suggest that at least three separate forests have come and gone here during the last 123,000 years.

Heavy rainfall, steep slopes and the presence of slippery clay beneath the trees have caused frequent landslides. Historically, these landslides have occurred after almost every rainstorm, often removing everything down to the basalt bedrock.

Ecola State Park, like the entire Oregon coast, lies within the Sitka Spruce Zone, one of North America's most productive vegetative

*"The last evening Shabano and his Indian woman was very impatient to be permitted to go with me, and was therefore indulged; She observed that She had traveled a long way with us to See the great waters, and that now that monstrous fish was also to be Seen, She thought it very hard that She could not be permitted to See either (She had never yet been to the Ocian)."*

**Meriwether Lewis on Charbonnaeu and Sacagawea, January 6, 1806**

After descending the southern slope, the party crossed Ecola Creek, which Clark named after the Chinook word for whale (ekkoli, pronounced *ee koll i*). South of the creek, they found the stripped skeleton of the 105-foot-long whale. According to Clark, local Tillamook villagers were "busily engaged boiling the blubber" and extracting oil from it. Although the villagers were reluctant to part with it, Clark managed to barter for 300 pounds of blubber and a few gallons of oil. The party returned to Fort Clatsop on January 10.

Clark wrote of his acquisition on January 8, 1806, "Small as this stock is I prise it highly; and thank providence for directing the whale to us; and think him much more kind to us than he was to jonah, having Sent this Monster to be Swallowed by us in Sted of Swallowing of us as jonah's did."

On March 23, 1806, Lewis and Clark gave the fort to Coboway, a Clatsop chief, and began the journey homeward to St. Louis.

zones. The maritime climate keeps temperatures between 30-75°F, rain at an average of 75 inches per year and frosts to a minimum. This forest is dominated by the spruce, western hemlock, Douglas-fir, western red cedar and red alder that thrive in these ideal growing conditions.

*"The Coast in the neighborhood... is slipping from slides of the high hills, in emence masses; fifty or a hundred acres at a time give way..."*

**William Clark, January 8, 1806**

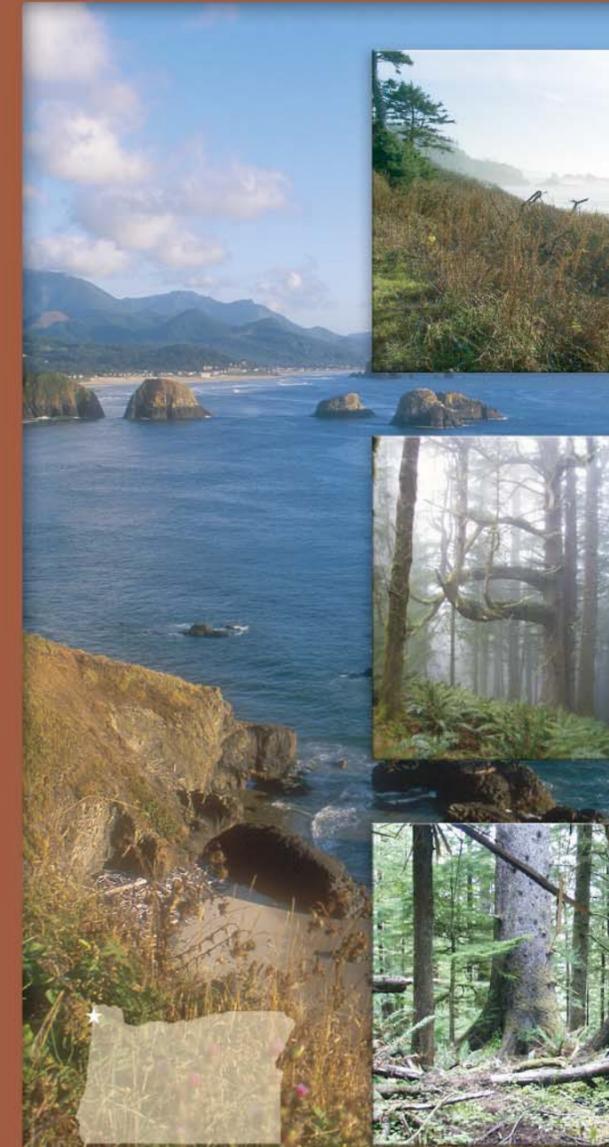
*"Change has been a constant companion of the forests of Ecola State Park. A multitude of disturbances has continually upset any trend towards equilibrium conditions in these forests. They are forests of change now; they were forests of change during the time of Lewis and Clark; and they were forests of change for millennia before Lewis and Clark."*

**James K. Agee, University of Washington, Professor of Forest Ecology**



Nature HISTORY Discovery

**Ecola State Park**  
**Clatsop Loop Trail**



**Ecola State Park**  
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Oregon Forest Resources Institute is a co-sponsor of the Clatsop Loop Trail's Interpretive materials.



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# Walk in the Footsteps of Lewis & Clark

Explore the Oregon Coast on the Clatsop Loop Trail, a route forged by Native Americans and followed by members of the Corps of Discovery.

Located on the south side of Tillamook Head, Clatsop Loop Trail is a segment of the Lewis and Clark National Historic Trail and the Oregon Coast Trail.

William Clark and a small exploration party walked this trail in January 1806, searching for a beached whale near present day Cannon Beach. Exhausted and seeking a new source of food, they hoped to return to their Fort Clatsop campsite with a plentiful supply of whale blubber and oil.

Journal entries and recent research that describe these forests have inspired development of this trail. This brochure unlocks some of the forest history you'll encounter as you embark on your own exploration.



## 1 Welcome to the Clatsop Loop Trail

Your journey begins at Indian Creek and ascends to Hiker's Camp on an old gravel road. From there, a narrow hiking trail brings you back.

Vegetation along the trail varies with exposure to the elements. Look near the ridgetops for evidence of storms, which cause frequent windthrow (trees uprooted by wind) and landslides. The species that thrive here – Sitka spruce and shrubs like salal and salmonberry – are tolerant of exposure to the sun and salt from the ocean. You may see thicker stands of trees in areas protected from the gusty coastal winds. These hollows harbor some of the largest Sitka spruce trees in the region.

## 2 Ekkoli: Tale of a Whale

The trails throughout Ecola State Park (including part of the trail you're now hiking) follow routes established by the Clatsop and Tillamook tribes. These trails connected various tribal villages along the north coast. Native Americans used the trails primarily during the winter when canoe travel was unsafe.

In the narrow clearing beside the road, the young Sitka spruce trees have naturally encroached into the meadow from seeds scattered by trees uphill. This results in dense stands of young trees competing for light. In time, some of the young trees will be overshadowed and die, while others will grow into large, mature trees that eventually turn the meadow into a shady forest floor.

## 3 Riparian Habitats

From this location, you can see how the dense forest heavily shades Indian Creek. The area bordering the stream (called a riparian zone) provides abundant food, water and cover foliage for a diverse range of wildlife, including amphibians, insects and reptiles. Trees also provide shade, woody material and nutrients that are important to stream health.

## 4 Forest Succession

The trees around you represent a timeline of forest succession. Seedlings grow in patches of sunlight created by recent windthrow. To survive, they must grow taller than the surrounding salal. Count the rings on the fallen tree to determine its age. It will soon sprout seedlings, too. At stop 6, you will learn how to spot where a nurse log once existed long after it has rotted away.

## 5 Forest Giants

Here you'll see some of the area's oldest Sitka spruce trees, the dominant species along this trail. To identify Sitka spruce, look for trees splayed at the base, with bark resembling overlapping scales, branches spread horizontally from the trunk, and paper-like cones 2-3 inches long. The large Sitka spruce nearby is estimated to have germinated about 1615 and was about 191 years old when William Clark walked this trail.



## 6 Cycle of Life

When one of these giants falls over in the forest, it lives on as a place for seedlings to grow and for insects and animals to hide. Some trees can last just as long in the forest dead as they did alive.

## 7 In the Wake of Wild South Wind

Winter's severe weather so captured the imagination of the Tillamook Indians that one of the most powerful of their mythic beings was "South Wind," who traveled up the coast toppling trees as he went. Throughout the park, you can see that wind damage is the most common natural disturbance.



# Trail Overview

The Clatsop Loop Trail is a steep, 2 1/2 mile trail through a lush forest of Sitka spruce. For the first 1 1/4 miles, the trail follows an old road that ascends 800 feet to Hiker's Camp (Stop 9). It parallels the course of Indian Creek and one of its tributaries.

From Hiker's Camp, the path loops 1 1/4 miles back down the western face of Tillamook Head, offering magnificent views of the Pacific Ocean.

Also at Hiker's Camp there are two other options for hiking. One short trail takes you past the ruins of a World War II radar station and ends with a view of Tillamook Rock Lighthouse. A 4-mile trail climbs another 600 feet and continues over Tillamook Head to a trailhead near Seaside.