

Maple Glade Rain Forest Trail

Quinault Valley – Olympic National Park

Welcome to the Maple Glade Rain Forest Trail, a 30-minute half-mile stroll through giant trees, ferns and carpets of moss. This magnificent temperate rain forest is nurtured by mild temperatures, summer fogs, and 140 inches of annual rainfall. Here you might encounter the song of a winter wren, rustle of a Roosevelt elk, or sparkling, silvery slime of the northwest's largest land mollusk – the banana slug! This timeless world may appear motionless, but a close look will reveal an endless struggle for life's precious moments.

Cross the bridge over Kestner Creek and follow the numbered posts.



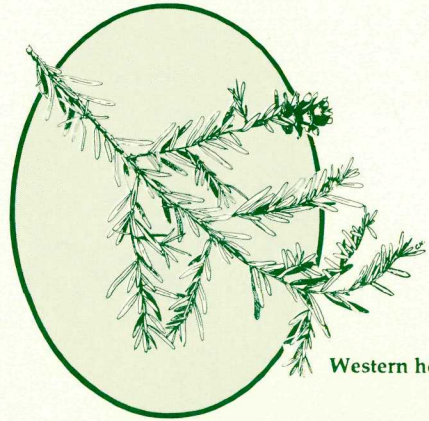
1. Setting the Scene

You are surrounded by an impressive cast of characters. Ahead to the right of the trail stands a grove of red alder trees. Their root nodules fix nitrogen, a critical nutrient recycled in the forest for centuries. To the left of the trail bigleaf maples' huge 8–12" leaves catch the sun's rays and seemingly tint the air green. The maples' sturdy outstretched branches support mosses, clubmosses and other epiphytes or air plants. Immediately behind you is a massive nurse stump whose decaying surface gives rise to conifers, shrubs and herbs — part of the everlasting cycle of life, death and renewal.



2. Evergreen Monoliths

Two of the rain forest's most populous species grow from the huge stump beside the trail. Sitka spruce has very sharp needles and scaly bark, similar to corn flakes or potato chips! Western hemlock's short, soft needles have rounded tips, and its bark has shallow vertical grooves or furrows. As seedlings, these trees survived on nutrients trapped in the stump. Now their roots extend to the soil below.



Western hemlock



Sitka spruce

3. Maples Worth Mentioning!

Extending from your feet to the limits of your vision is a special rain forest community that develops on avalanches or other coarse soils. Mature temperate rain forest is usually dominated by Sitka spruce and western hemlock, with alder growing on new soils. But in the Quinault Valley, where bigleaf maples are more common than in most rain forest communities, maples mingle with spruce and alder trees. Although not prevalent in most temperate rain forests, maples' clubmoss draperies often bring to mind rain forest images.

4. Landscape Architects

During summer, yellow buttercups color the understory, suggesting that grazing has occurred here. Is there a game trail? Do the brush and shrubs show signs of having been topped? Elk and deer feed in this area, contributing to the openness of the rain forest.



5. Olympic Competition

Competition for space races in all directions. Skyward – each leaf seeks its share of sunlight in the dense forest canopy. Earthward – wildflowers thirst for waters from a periodic stream and seedlings struggle to gain a foothold on fallen logs or disturbed soil. Only the fittest win these Olympic events.

6. Moss Draperies

Mosses and clubmosses grow everywhere in the rain forest. Bigleaf maple branches sometimes break under the weight of these moisture-laden epiphytes, which use the branches for support and derive sustenance from air and water. In return, maple branches send adventitious roots into clumps of moss to tap water and nutrients.

7. ...Not a Drop to Drink

Even the wet rain forest can experience drought! This channel of Kestner Creek often dries up during summer. In this three-dimensional world, the crowns of trees, like the huge Sitka spruce behind you, are adapted to conserve summer moisture. Their topmost branches collect fog and condense rain – precious droplets of life for forest creatures.

8. Rain Forest Nursery

Like soldiers in formation, this colonnade of trees arose from a nurselog many years ago. Unable to survive competition on the tangled forest floor, hemlock and spruce seedlings begin life on decaying logs like the one you see here. Tree roots grow around the log to reach soil and as the nurselog decays, the trees seem to stand on stilts.



9. An Extended Family

Evidence of at least three generations of forest life is revealed here. The first generation of trees was eroded by time. All that remains is a hole under the roots of a later generation, two large twin Sitka spruce trees attached at the base. Two smaller western hemlock trees represent an even younger generation. When the spruce and hemlock trees fall, they will provide a growing surface for yet another generation of trees. Please remain on the trail to avoid compacting the soil and threatening surviving trees.

10. Wetter Yet!

The biological clock has been reset in this marshy land. Exposure to standing water drowned these trees and left only snags. Woodpeckers, owls and squirrels nest in the snags and use them for shelter and food storage. Alder trees are already invading the perimeter of the area, in the continuing cycle of life. The next stop may provide a clue as to why this marsh formed.

11. Leave It To Beaver

On both sides of the path you can see where alder trees have been chewed down. Beavers colonized this site years ago. We don't know if the beavers were caught by a predator, depleted their own food supply and moved on, or left because the stream dried up during a summer drought. Beavers create ponds which increase their protection and mobility. Ponds in turn diversify the forest, providing food and homes for many animals.

12. Meadow Motion

This meadow has been here for decades. Domestic livestock grazed here years ago, when pioneer families braved depths of rain to continue staunch family traditions. Today, grazing elk keep the forest open. A dense carpet of grasses, flowers and shrubs further thwarts the start of woody giants, whose seedlings cannot gain a foothold on the forest floor.

13. An End Is Just A Beginning

At this impressive finale of the Maple Glade Trail, a sturdy hemlock grows from an enormous rotted stump. Close examination reveals the hemlock's "trunk" to be a major root — the trunk commences some 20 feet above your head. Other roots of this tree can be traced along tortuous pathways down the stump. One day, perhaps decades or centuries from now, the hemlock itself will topple and become the nurse stump or nurse log for other trees.



We have come full circle on the Maple Glade Rain Forest Trail. We have walked through space and time, and have witnessed renewing cycles of life and death. As the forest matures, this struggle will continue. Let the mystery and majesty of the rain forest lure you back again.



"It started to rain and it rained for three or four weeks, and the river got very high... Big trees came down with a bang and broke in two.

Well, the water finally came into the house and extinguished the fire in the stone fireplace, which was elevated eighteen inches above the dirt floor. ...we were afraid the water would wash the dirt out from under us and carry the house away downstream.

So I waded in the water up to my arm pits, and pulled the canoe toward a spruce tree three or four feet in diameter that stood on the highest point of ground on the island. There I fastened up the canvas and got a little fire started. ...the water rose and put out our fire...

Then we decided to get into the canoe and tie it to an overhead branch of the tree as high up as we could reach. Suddenly the rain stopped, and by daylight I was able to go back to the house. There was mud on the floor a foot deep.

After that experience, we decided not to live there."

The Byron Loomis Family, Quinault, 1892



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