

# Olympic Peninsula Fall Explorer Species List | September 5-12, 2024 With Naturalist Journeys



**Compiled by guides Stephen Grace and Tina Greenawalt. Our clients included Les, Bonnie, David, Cindy, Toph, Nate, Nikki, Jim, John, Lisa, and Daryl.**

Our Olympic Peninsula Fall Explorer tour coincided with the peak of fall migration, offering us a front-row seat to the seasonal movement of birds. We saw Heermann’s Gull and Brown Pelican just before they departed for the south, while species like American Widgeon and Western Sandpiper arrived in great numbers, settling in for the winter. Thousands of migrating California Gulls carpeted the water with white as they rested. When flushed by raptors, they rose into the sky in a flurry of wings, a breathtaking spectacle of movement and light.

As we explored different habitats, our encounters with shorebirds were plentiful. Black Turnstones and Surfbirds clustered on rocky points, while Western and Least Sandpipers foraged along sandy shores. The ever-charismatic Black Oystercatcher, often described as a “crow smoking a carrot,” added a striking presence at Cape Flattery. More than a dozen of these birds perched on boulders, their bright orange bills contrasting sharply with the black basalt shoreline, while distant whale spouts punctuated the horizon—a quintessential Pacific Northwest moment.

One of the greatest assets of the Olympic Peninsula is its extraordinary habitat diversity packed into a relatively small area. From tidelands to timberline and beyond, we explored a wide range of ecosystems. On the cobbled shore of the Dungeness River, we watched an American Dipper, perfectly camouflaged among the stones, reveal itself in flashes as it blinked its bright white eyelid feathers. On Hurricane Ridge, against a backdrop of rugged peaks and shining seas, several Sooty Grouse wandered nonchalantly past our group, eliciting awe and adding new checkmarks to life lists.

At Kalaloch Beach, one of our group members, Nikki Bryer, made an unexpected discovery. As someone familiar with Snowy Plovers from her home in Florida, she recognized one—a remarkable find for this region. Nikki submitted a report and photo to eBird, where the local reviewer verified the sighting and thanked her. This was the first record of Snowy Plover in Jefferson County, Washington. Later that morning, at Ruby Beach, we spotted another uncommon bird: a Wandering Tattler. Observing this species on the rugged Olympic Coast, set against a backdrop of wave-battered rocks adorned with colorful sea stars, was another highlight of our tour.

Our journey also brought us into contact with the peninsula’s ancient forests. Standing beside a massive Western Redcedar, perhaps over a thousand years old, we paused in awe of its size and history. In the hushed stillness, two Northern Pygmy Owls filled the soundscape with their distinctive tooting calls, adding an ethereal tone to the ancient forest.

The seas offered their own marvels. Alcids were a particular highlight, with sightings of the Marbled Murrelet, a seabird that nests in old-growth forests, as well as the Rhinoceros Auklet and Common Murre. Watching the black-and-white murrens dive beneath the water in pursuit of fish, it was easy to think of penguins. However, unlike penguins, murrens and their alcid relatives have retained the ability to fly.

Additional seabird sightings included the Common Loon and Red-necked Grebe, which delighted the group with their beauty. Although many birds wore drab non-breeding plumage, we were fortunate to spot a striking male Harlequin Duck and a brilliantly colored Horned Grebe, as if they had donned their finest attire early for the distant breeding season, or perhaps were still showcasing their finery from the previous one.

But the greatest surprise came in the form of a true wanderer—a Red-footed Booby. This vagrant seabird, far from its tropical home, left us stunned as it perched on a piling in Port Townsend. Later, we saw it again on the rigging of a tall ship at the Wooden Boat Festival, much to our delight.

Though our overall species count for this tour was lower than in more bird-diverse regions, many life birds were recorded by members of our group. And it wasn't just the birds that made this tour memorable. Non-avian encounters, from the tiny Pacific Tree Frog to the immense Humpback Whale, added depth to our journey. Stunning waterscapes and landscapes, from the crashing waves of the Pacific Ocean to the alpine meadows of the Olympic Range to the lush vegetation of the Sol Duc Rainforest, filled us with a sense of wonder at the vast array of life supported by these ecosystems.

Before heading to SeaTac Airport to conclude our tour, we made a final stop for some bonus birding. In a wetland and forest oasis reclaimed from urban development near the airport, we were thrilled to add several new species to our tour list, including Wood Duck, Spotted Towhee, Marsh Wren, and Orange-crowned Warbler. Seeing a California Scrub-jay, a bird rapidly expanding its range northward, prompted reflection on the challenges that all species, including our own, face in a changing world.

In the end, our tour of the Olympic Peninsula was more than a birding trip—it was an exploration of the connections between species, habitats, and the rhythms of migration. We also reflected on the conservation challenges and successes in the Pacific Northwest and across the globe. When we parted ways, we took with us not only our list of species, but also lasting memories of shared experiences and a deeper appreciation for the natural world.

**BIRDS: (110)** species were recorded, of which 2 were heard only, none were endemic, and 5 were introduced.

The eBird link below details the 110 species of birds our group observed during the tour. If you're new to eBird, be sure to click "Show All Details" on the right side of the list to expand the report and reveal where and when each of the birds were seen and how many.

Following is a list of the mammals and other species we were fortunate to observe during our tour.

[Olympic Peninsula Fall Explorer | eBird Trip Report | 5–12 Sep 2024 \(8 days\)](#)

## **MAMMALS: (13)**

**Harbor Seal** *Phoca vitulina* — These curious, confiding pinnipeds were seen many times throughout our journey. We discussed how this same species in European waters has been the source of selkie myths and folklore through the ages.

**Steller's Sea Lion** *Eumetopias jubatus* — These enormous creatures with boxy, bearlike heads were seen hauled out on a rocky island by Cape Flattery and swimming in the Pacific Ocean.

**California Sea Lion** *Zalophus californianus* or **Northern Elephant Seal** *Mirounga angustirostris* — At Cline Spit by Dungeness Landing, a huge pinniped—much larger than neighboring Harbor Seals that were hauled out nearby—provided a perplexing ID challenge. This sea mammal's dark color suggested that it was not a Steller's Sea Lion, which has tan fur, but we couldn't get clear looks at the animal's head or pectoral flippers to nail down the ID. Because of its immense size, I'm leaning toward Northern Elephant Seal, a species that in recent years has expanded its breeding range from California northward and is now breeding and pupping on Protection Island near Cline Spit.

**North American River Otter** *Lontra Canadensis* — A few of these slim and serpentine otters (compared to their more robust and rotund Sea Otter cousins, were seen swimming near the pier at Port Townsend Marine Science Center.

**Sea Otter** *Enhydra lutris* — Observed at Clallam Bay at the edge of a bull kelp forest. One of the most endearing mammals on Earth, this charismatic species appeared to be playing and grooming, as well as diving for food.

**Columbian Blacktail Deer** *Odocoileus hemionus columbianus* — A subspecies of Mule Deer. Seen several times at close range in Port Townsend and atop Hurricane Ridge.

**Humpback Whale** *Megaptera novaeangliae* — Blows and backs were sighted from Cape Flattery and Kalaloch Lodge. We discussed how these leviathans bubble-net feed, diving in unison and then reappearing at the surface with perfect coordination as they corral and confuse their prey of herring and other small schooling fish with nets made of bubbles they blow—one of the most remarkable wildlife spectacles on the planet. The return of the Humpback Whale to waters where this intelligent and highly social mammal that sings complex songs was hunted to the edge of extinction is a heartening conservation success story.

**Harbor Porpoise** *Phocoena phocoena* — This shy, introverted porpoise was briefly glimpsed in the Pacific Ocean a few times. We had good looks at Harbor Porpoises that swam alongside our ferry in Puget Sound as we neared Seattle.

**Deer Mouse** *Peromyscus maniculatus* or **Keen's Mouse** *Peromyscus keeni* — A cute and confiding little mouse with a long tail scurried across the floor of the Hoh Rainforest and climbed a tree a few feet in front of us. The ability of native mice to store food for winter and their impressive agility, including strong climbing and jumping skills, make them key species in seed dispersal and important prey items for raptors and other predators.

**Douglas Squirrel** *Tamiasciurus douglasii* — This small, charismatic squirrel with prominent ear tufts and reddish fur was seen several times during our tour and was heard regularly in forests chattering and making sounds like a laser gun as it twitched its tail. One audacious little squirrel dragged a giant cone across the trail near our feet as we walked toward Dungeness Spit.

**Townsend's Chipmunk** *Neotamias townsendii* — This charming member of the squirrel family is difficult to distinguish from its endemic cousin, the Olympic Chipmunk, but the two species live at different elevations, with Townsend's in the lowlands and Olympic in the upper elevations.

**Olympic Chipmunk** *Neotamias amoenus caurinus* — We observed this species, which is exclusive to the Olympic

Peninsula, at Hurricane Ridge. This small, agile rodent is characterized by its alternating dark and light stripes and has evolved to store seeds and nuts in its cheek pouches, hoarding them in burrows for winter. It plays a crucial role in the ecosystem by aiding in seed dispersal and serving as prey for various predators. The Olympic Chipmunk's limited geographic range and specialized adaptations make it a symbol of the region's biodiversity, reflecting the evolutionary processes in the Olympic Mountains, which were once an isolated island surrounded by water and ice, separate from the flora and fauna of other regions.

**Olympic Marmot** *Marmota Olympus* — The Olympic Marmot is another charismatic rodent endemic to the Olympic Peninsula. With a playful, curious demeanor, marmots are the Sea Otters of the mountains. Adapted to the rugged terrain and cool, moist climate of its habitat, the Olympic Marmot plays a crucial role in its ecosystem as a seed disperser and prey for larger predators, including Golden Eagles. Its limited range and specialized lifestyle make it a symbol of the Olympic Peninsula's distinct natural heritage and a key indicator of the health of its alpine meadow habitat.

**OTHER SPECIES** (Some species that intrigued our group—not a comprehensive list)

### **FISH**

**Salmon** *Oncorhynchus spp.* — In the Sol Duc River, below Salmon Cascades, Cindy saw what was likely a salmon. These iconic Northwest fish not only provide food for eagles, bears, and humans. The carcasses of salmon that die after returning to their natal streams to spawn fertilize the temperate rainforest, nourishing trees with vital nutrients that these fish accumulate in their bodies while feeding in the ocean. The five species of Pacific salmon—Pink (Humpy), Coho (Silver), King (Chinook), Sockeye (Red), and Chum (Dog)—link forest and sea, knitting together the terrestrial and marine ecosystems of the Pacific Northwest.

**Pacific Herring** *Clupea pallasii* — We studied a specimen washed ashore at Ruby Beach and considered the vital role that forage fish such as herring, anchovy, and sardine play in ocean ecology by serving as a primary food source for larger predators like salmon, seabirds, and whales.

### **AMPHIBIANS**

**Pacific Tree Frog** *Pseudacris regilla* — Several color morphs of this charming little frog along the boardwalk at Nisqually wowed our group. The Pacific Tree Frog has remarkable color-changing ability—this amphibian can alter its skin color from bright green to various shades of brown, allowing it to blend with its surroundings and avoid predators. This adaptive camouflage, combined with its distinctive, high-pitched call, makes the Pacific Tree Frog a standout species in the Pacific Northwest.

### **REPTILES**

**Northwestern Garter Snake** *Thamnophis ordinoides* — Observed by a few members of our group as it slithered across a path at Nisqually. Commonly found in the Pacific Northwest, this snake plays a key role in controlling insect and slug populations in diverse habitats from forests to coastal grasslands.

### **MOLLUSKS**

**Pacific Banana Slug** *Ariolimax columbianus* — Some lucky members of our group got to see this glorious slug. One of the largest slugs in the world, this creature is coated with protective slime that numbs the mouths of predators. This special slime has captivated the attention of scientists and material engineers, who are studying the liquid crystal structure of this substance that exists in a state somewhere between liquid and solid—the

slime has dual properties, acting as both an adhesive, allowing the slug to stick to vertical surfaces as it climbs, and a lubricant, allowing the creature to glide across horizontal surfaces on its muscular foot. The Banana Slug plays an integral role in the forest ecosystem by consuming nitrogen-rich lichen like lungwort and fertilizing the soil with its droppings. Its intriguing reproductive strategy includes hermaphroditism, elaborate courtship rituals, simultaneous fertilization, and parental care for the eggs until they hatch.

**European Black Slug** *Arion ater* — Seen several times on our tour, unfortunately. This species was introduced to much of the Pacific Northwest and is now a garden pest and disruptor of the native ecology.

**California Mussel** *Mytilus californianus* — These bivalves are favorite prey of Black Oystercatchers, Surf Scoters, and sea stars. We examined the strong and stretchy byssal threads of mussels that tether the creatures to rocks—the composition of these byssal threads inspired a new material for medical sutures.

**Whelk Snails** *Nucella spp.* — While exploring the shore, we found empty shells of whelks, predatory snails that feed on creatures like bivalves and barnacles.

**Limpets** *Lottia spp.* — Snail relatives protected by a conical shell that helps them withstand wave energy in the intertidal zone.

**Giant Pacific Octopus** *Enteroctopus dofleini* — Seen in an aquarium at the Port Townsend Marine Science Center, this octopus species is the largest in the world, with arms that can span up to 20 feet and a remarkable ability to camouflage itself by changing color and texture. This mollusk is also highly intelligent, known for solving puzzles, opening jars, and escaping enclosures.

## **CRUSTACEANS**

**Amphipods** (Order: Amphipoda) — We studied specimens on the beach near the Tree of Life at Kalaloch. These little creatures with a rigid, segmented exoskeleton look like insects but are crustaceans. They are a favorite food of Gray Whales, which scoop up mud from the seafloor and blast it out through their baleen, trapping amphipods and consuming more than a ton of these crustaceans per day.

**Dungeness Crab** *Metacarcinus magister* — This species is a signature food of the Pacific Northwest and an important part of coastal economies, as well as ecosystems. Carapaces of this species were seen on shore.

**Acorn Barnacles** *Balanus spp.* — When the trap doors of barnacle shells open underwater, you can watch the crustaceans inside feed by filtering seawater with a feathery foot. We found several molts of these feet washed up along the shore. Charles Darwin was fascinated with the sex life of this hermaphroditic creature that has the largest penis relative to body size (nearly eight times the total body length) in the animal kingdom. This adaptation allows these animals anchored in place to reach and fertilize nearby barnacles.

**Thatched Barnacle** *Semibalanus cariosus* — A larger cousin of the acorn barnacle, this crustacean makes a shell that resembles a thatched roof. We examined some specimens that were attached to mussel shells.

**Gooseneck Barnacle** *Pollicipes polymerus* — We looked at the necks, or peduncles, of these hermaphroditic, filter-feeding crustaceans that had washed ashore.

## **ODONATES**

Many dragonflies, including several species of meadowhawks and darners, were observed at Nisqually, and damselflies were also abundant.

## **DIPLOPODS**

**Yellow-spotted Millipede** *Harpaphe haydeniana* — This eye-catching black and yellow creature with two pairs of

legs per segment (diplopod) lacks the fierce jaws of centipedes. It uses warning coloration to signal its chemical defenses to potential predators. When threatened, it releases a toxic compound that smells like almonds, containing cyanide-based chemicals that deter animals from eating it. Many of us sniffed this almond-scented substance when I picked up one of these millipedes near Dungeness Spit.

## **ECHINODERMS**

**Ochre Sea Star** *Pisaster ochraceus* — This sea star (scientists prefer the term “sea star” to “starfish,” as this is not a fish) has a profound effect on the ecology of the intertidal zone. A “tiger of the tidepools,” this predator consumes vast numbers of mussels, freeing up space on rocky substrate for other organisms to make a living. If this sea star species disappears, it is like removing a keystone from an arch—the balance of the ecosystem collapses. The concept of “keystone species,” a cornerstone of ecology, came from studies of this sea star species at Tatoosh Island—the island we saw from Cape Flattery. At Ruby Beach, through binoculars and scopes, we observed a rainbow of color morphs for this species, from brick red to bright purple to orange.

## **CNIDARIANS**

**Lion’s Mane Jelly** *Cyanea ferruginea* — Although its bell can grow to eight feet in diameter and its tentacles can exceed 100 feet, this organism, the largest jelly in the world, is considered plankton, along with all other jellies. Jellies, no matter their size, cannot outswim ocean currents—plankton are ocean drifters at the mercy of currents, whether microscopic phytoplankton or gigantic jellies. Scientists prefer the term “jelly” to “jellyfish,” as this is not a fish. A group of jellies is known as a “smack.” We saw a smack of these stinging creatures pulsing their bells in the ocean around Cape Flattery. Their mesmerizing movement competed for our attention when we were scanning the ocean for shorebirds and whales. We examined the gelatinous remains of this species on the shore at Ruby Beach. Their bodies were so decomposed that their stingers were no longer active.

**Giant Green Anemone** *Anthopleura xanthogrammica* — This cousin of jellies and coral polyps that looks like a pretty flower is a predatory animal that uses its vibrant green tentacles to capture and immobilize invertebrates and fish—even small birds—with venomous stingers. Its brilliant green color comes from symbiotic algae living within its tissues, contributing to its energy needs through photosynthesis.

**Aggregating Anemone (Clonal Anemone or Elegant Anemone)** *Anthopleura elegantissima* — These elegant predators of the intertidal zone that attach themselves to rocks are intriguing for their ability to reproduce by cloning, creating large colonies of genetically identical individuals. These clones can engage in “clone wars,” where neighboring colonies fiercely battle for space using specialized stinging cells to defend their territory.

## **PHYTOPLANKTON**

Although we didn’t look at phytoplankton under a microscope to see individual diatoms, we witnessed these organisms in aggregate. The emerald color of Pacific Northwest seas is due to phytoplankton, and the green foam we saw when we walked the ocean shores was caused by trillions of tiny diatoms. When phytoplankton near the sea surface are bathed in sunlight during long summer days, and they have access to nutrients carried toward the surface on cold, upwelled currents, these organisms photosynthesize and bloom in uncountable numbers, feeding zooplankton (microscopic animals that drift through the sea). Zooplankton graze on floating pastures of phytoplankton. Larger zooplankton predators eat the smaller zooplankton grazers, and small schooling forage fish—such as herring we saw washed up on shore—eat the zooplankton. Puffins and Humpback Whales are sustained by herring and other forage fish. The murky green seas of the Pacific Northwest are among

the most productive marine environments on the planet because of phytoplankton, the most fundamental strand of the oceanic food web. Diatoms and other phytoplankton also produce more than half the oxygen we breathe.

## **KELP**

**Bull Kelp** *Nereocystis luetkeana* — Can grow 10 inches a day! Forms vast undersea forests that are home to thousands of species of marine organisms and sequester vast amounts of carbon, like forests on land. Sea Otters, like the ones we saw in Clallam Bay, love bull kelp forests. Mothers strap their pups to blades of bull kelp, using the fronds like seatbelts, so they don't drift away.

## **PLANTS**

**Western Redcedar** *Thuja plicata* — This majestic tree can live for over a thousand years, reaching heights of up to 200 feet. For Native American cultures of the Pacific Northwest, it was often called the “Tree of Life” due to its extensive uses and symbolic importance. The wood's durability made it ideal for crafting canoes, totem poles, and longhouses, while its bark was used for making ropes, baskets, and clothing. Due to its cultural significance and practical utility, this species has a revered status among these communities.

**Sitka Spruce** *Picea sitchensis* — A common tree species in the temperate rainforests of the Olympic Peninsula's outer coast, it thrives in the foggy environment because its stomata remain open, causing water loss in dry air. These trees can live for more than 700 years and reach diameters exceeding 18 feet. With an extraordinary strength-to-weight ratio, Sitka Spruce wood was crucial in early aviation. We learned to identify it by its distinctive “potato chip bark.”

**Western Hemlock** *Tsuga heterophylla* — This species that can live more than 1,000 years and grow more than 240 feet tall becomes the dominant tree in old-growth forests that have not experienced disturbances that reset ecological succession. We learned to recognize its “bacon strip bark” and tiny cones.

**Douglas-fir** *Pseudotsuga menziesii* — One of the most iconic trees in the Pacific Northwest, sometimes towering over 300 feet, this species plays a crucial role in the region's ecosystems. We learned to identify it by its thick, rugged bark that shields it from wildfires, and its large cones with distinctive trident-shaped scales. A cornerstone species in the old-growth forests, Douglas-fir is also pivotal to the timber industry, where it's cultivated in tree farms and harvested on 40-year rotations.

**Red Alder** *Alnus rubra* — A pioneer species that quickly occupies disturbed sites. This tree has evolved root nodules that host bacteria capable of fixing atmospheric nitrogen, rendering this essential nutrient usable for plants. For Indigenous people of the Pacific Northwest, alder was the tree of choice for making bowls and eating utensils because the wood has no odor and imparts no flavor to food. We learned how a lichen covers its trunk, turning its brown bark white like a beech or aspen.

**Madrona** *Arbutus menziesii* — We saw many of these tropical-looking trees around Port Townsend. This tree's peeling bark reveals a smooth, reddish layer underneath, adding vivid color to Pacific Northwest landscapes. Its evergreen leaves and clusters of small, urn-shaped flowers transition into bright orange-red berries, making it a visually striking and ecologically valuable species that supports local wildlife, including the Varied Thrush in winter.

**Deer Fern** *Blechnum spicant* — This evergreen plant provides food for deer and other wildlife in winter. The fronds at the fern's center are fertile and stand upright to disperse spores into the wind; fronds low to the ground produce no spores and grow horizontally to capture maximum sunlight for photosynthesis.

**Sword Fern** *Polystichum munitum* — This fern is iconic in the Pacific Northwest for its lush, evergreen fronds that contribute to the region’s distinctive forest floor habitat. Its adaptability to a range of conditions and its role in creating dense, verdant undergrowth make it a hallmark of the temperate rainforests and a symbol of the region’s rich biodiversity.

**Cow Parsnip** *Heracleum maximum* — Beware of this plant while bushwacking! The sap contains a phytophototoxin—a toxin that when activated by sunlight can cause skin rashes and blistering. Nevertheless, this is an important food source for many wild animals.

**Devil’s Club** *Oplopanax horridus* — In Sol Duc Rainforest, we admired this plant from a safe distance while avoiding its enormous thorny leaves and its nightmarishly thorny stems—horrid, as its scientific name suggests. But the berries are food for bears, and this is an important medicinal plant for Indigenous people.

**Western Skunk Cabbage** *Lysichiton americanus* — Produces leaves so large, this plant with a pungent odor that attracts pollinating beetles looks primordial, like something from a lost world. Generates heat, allowing it to melt through snow and bloom early in spring with a large yellow flowerlike spathe that looks like a glowing lantern on the dimly lit forest floor.

**Downy Rattlesnake Plantain** *Goodyera pubescens* — This orchid native to the Pacific Northwest has rosettes of mottled green leaves that resemble the scales of a rattlesnake. Its unusual, spike-like flower clusters add to its charm, making it a fascinating find on our Sol Duc Rainforest walk.

**Pinedrops** *Pterospora andromedeae* Nutt. — On the dark forest floor of the Sold Duc Rainforest we saw this mycoheterotroph that does not photosynthesize to produce its own food—this plant without chlorophyll taps into the mycorrhizal network in the soil to gain nutrients.

**Evergreen Huckleberry** *Vaccinium ovatum* — Some of us munched on these delicious dark-blue berries during the Cape Flattery hike.

**Red Huckleberry** *Vaccinium parvifolium* — The bright-red berries of this deciduous shrub stood out against the greenery on our rainforest walks.

**Salal** *Gaultheria shallon* — A signature plant of the Pacific Northwest rainforest due to its adaptability to the region’s damp, shaded understory. Its evergreen foliage provides year-round cover, and its dark berries that form beneath white, bell-like flowers are an important food source for wildlife, making it a key component of the forest ecosystem.

**Salmonberry** *Rubus spectabilis* — Though the moist berries that ripen early in summer were long gone, we looked at butterfly-shaped leaves of this plant and talked about how the high water content of the berries makes them useful—when no freshwater source is present, the bushes can serve as “hydration stations.”

**Thimbleberry** *Rubus parviflorus* — The berries were long gone, eaten by people and other animals throughout the summer months. But we felt the felted leaves—so soft they are called “nature’s toilet paper.”

**Pickleweed (Beach Asparagus)** *Salicornia* spp. — Tasty! An edible plant we saw on the shore.

**Dwarf Dogwood (Bunchberry)** *Cornus canadensis* — Like a miniature version of flowering dogwood, this woodland groundcover carpets the forest floor. We saw the four-petalled white blooms and bunches of berries in the Sol Duc Rainforest.

**Pathfinder (Trail Plant)** *Adenocaulon bicolor* — We looked at the leaves with a unique two-toned appearance—a dark green top and a silvery-white underside that helps identify a trodden path. When the leaves are disturbed and flip over, they show the bright underside, creating trail markers. This feature made the plant useful to Indigenous people and early settlers navigating the dense forests of the Pacific Northwest and can save a disoriented hiker.



**Spotted Jewelweed (Touch-me-not)** *Impatiens capensis* — Prevalent around the boardwalk at Nisqually. Its seed pods explode when touched, helping to disperse seeds, and its sap is traditionally used to soothe skin irritations, such as poison ivy rash. Native to eastern and northern North America, this plant is considered invasive and a noxious weed in western Washington.

**Bluebells-of-Scotland (Harebell)** *Campanula rotundifolia* — A few of these late-blooming wildflowers added color to the tawny alpine meadows of Hurricane Ridge.

**Woolly Sunflower** *Eriophyllum lanatum* — This late-summer bloomer added yellow splashes to the autumnal palette atop Hurricane Ridge.

**Fireweed** *Chamaenerion angustifolium* (formerly *Epilobium angustifolium*) — Known as Rosebay Willowherb in Great Britain and Calendar Plant in Alaska, this plant in the willowherb or evening primrose family thrives in disturbed areas, such as land scorched by wildfire. It blooms from the bottom up—the flowers nearest the ground open first. As summer progresses, the blooms travel up the stalk, reaching the top by late summer. When the blooms of the Calendar Plant turn to cotton, “summer is forgotten.”

**Baldhip Rose** *Rosa gymnocarpa* — This plant that lends fragrance and charm to the edges of Pacific Northwest forests also pleases the bees. Though its small, fragrant flowers were long gone, we saw its distinctive bald hips. Named for its characteristic fruit, the sepals drop off, leaving the rosehips bald (or gymno, naked).

**True Mosses** (Order: Bryopsida) — With some 700 moss species carpeting the Pacific Northwest, we barely scraped the soft surface of this diminutive and exquisite plant. Mosses thrive in the moist, shaded conditions typical of the Pacific “Northwet,” contributing significantly to this damp region’s unique ecological tapestry. Some species we examined included Sphagnum Moss, Menzies’ Tree Moss, Oregon Beaked Moss, and Stairstep Moss.

**Sphagnum Moss (Peat Moss)** (Order: Sphagnales) — In the Hoh Rainforest, we observed this moss thriving on wet logs. Unlike many other mosses, sphagnum moss has specialized cells that retain water, enabling it to create extensive peat bogs and wetlands. These unique adaptations make it crucial for carbon sequestration and habitat creation. Because of its fluid-retention and antiseptic properties, Indigenous people have traditionally used sphagnum moss to dress wounds.

## **FUNGI**

**Brown Cubical Rot** (Order: Polyporales) — This decomposer of dead trees creates a distinctive decay pattern, breaking wood into cube-like fragments reminiscent of a Picasso painting. Brown cubical rot plays a vital role in forest ecosystems by recycling nutrients back into the soil, breaking down woody debris and supporting plant growth through the transformation of old life into new life.

**Fly Agaric** *Amanita Muscaria* — A few of our group members spotted this striking species with yellow caps speckled with white under the boardwalk at Cape Flattery. Because of its psychoactive properties, this mushroom, more commonly found with red caps flecked with white, has been used in various cultural rituals and traditions, from Viking warriors to Siberian shamans.

**Short-stemmed Russula** *Russula brevipes* — A loose specimen of this short, stout-stemmed species was picked up from the forest floor. This species is ecologically important as a mycorrhizal fungus, forming symbiotic relationships with tree roots and contributing to forest health.

**Cauliflower Mushroom** *Sparassis crispa* — This species was a highlight of our Sol Duc Rainforest walk. I didn’t harvest this delicious edible mushroom that is shaped like a convoluted brain because we were in a national park.

## **LICHENS**

**Lungwort** *Lobaria pulmonaria* — We all liked this lichen as much as we liked puns. Known for its leafy, lung-like appearance, historically it was linked to traditional herbal remedies for respiratory ailments. Thriving in old-growth forests, it serves as an indicator of clean, unpolluted air due to its sensitivity to air quality. Lungwort plays a crucial role in nitrogen fixation, converting atmospheric nitrogen into a usable form for plants, enriching the forest ecosystem. Additionally, it has a unique relationship with the Banana Slug, which feeds on the lichen, aiding in the dispersal of its spores and the distribution of nitrogen across the forest floor.

**Witch's Hair** *Alectoria sarmentosa* — This long, stringy pale-green lichen dangles from trees in moist forests, resembling strands of hair. It plays a key role in nutrient cycling and provides food and habitat for various animals in the Pacific Northwest, including deer and flying squirrels.

**Methuselah's Beard** *Usnea longissimi* — One of the longest lichens in the world, the pale green strands can grow up to several feet, resembling a long, flowing beard. It thrives in old-growth forests and is sensitive to air pollution, making it an important indicator of forest health and air quality. The strands are stretchy like elastic bands.

**Fairy Vomit** *Icmadophila ericetorum* — Seen in Sol Duc Rainforest, this was a fan favorite on this tour! The bright green patches, similar in hue to mint chocolate ice cream, give this lichen a whimsical appearance. It thrives on decaying wood, making it an important decomposer in the nutrient cycle of its ecosystem.