

# the woodpecker trail



### Watch Out For Us

#### Poison Oak

Contact with any part of the poison oak plant, including bare stems, causes a blistering rash. Generally this can be treated at home. More severe cases may need to see a doctor. If you know you have had contact with poison oak, thoroughly wash the affected area as soon as possible to remove the active oils. Preventive ointments are available to help avoid reactions to poison oak.

#### **Stinging Nettle**

Bare skin brushing up against a stinging nettle plant tends to break delicate defensive hairs on the leaves and stems that protect the plant from browsing animals. This releases a trio of chemicals, usually resulting in a painful skin rash, typically lasting less than 24 hours. A topical analgesic (used to treat poison oak or bug bites) can be applied to help alleviate the sting.

#### **Deer Ticks**

Ticks that carry Lyme disease are known to occur in this area. Stay on trails and check your clothing frequently. The sooner that ticks are removed, the less the chance of transmittal of the organism that causes illness. Wearing light-colored, long pants helps you spot them; tuck your pant legs inside your socks to keep them from crawling up the inside of the pant legs. Always check your body completely at the end of your hike.



**DArmy Forces Pest Management Board** 

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Poison oak turns a bright red in the fall. It's almost as if it's telling us to "stay away."

Stinging nettle has many harmless short barbs mixed with fewer long barbs on its leaves and stems. The long barbs act like hypodermic needles, injecting chemicals that create a stinging sensation and a red rash. Oscience and plants for schools



### **Going Out For A Walk**

Nature will bear the closest inspection; she invites us to lay our eye level with the smallest leaf, and take an insect view of its plain. She has no interstices; every part is full of life.

~Henry David Thoreau ~

The forests, meadows, and streams of the Point Reyes peninsula are home to a superlative diversity of plants and animals, particularly birds. Approximately 45 percent of all North American bird species—or about 490 different species —visit or nest here. The peninsula's climate, range of habitats and topography, and position along the Pacific Flyway have a powerful allure for birds.

The Woodpecker Trail is a thumbnail sketch of coastal California, giving you a taste of the variety of habitats and landforms you can see here. Ahead is a mile-long trail that combines open meadow, deep forest canopy, and a willowand alder-lined creek. Along the trail are vistas showing off the power of the San Andreas Fault to twist and stretch and thrust up the land, creating lovely rolling hills and deep valleys. An open meadow on your route is an excellent spot for catching a glimpse of coyotes, bobcats, or herons patiently hunting for pocket gophers or harvest mice. The Douglas fir and California bay laurel forest is dense and fragrant and resounds with bird calls.

This short stretch of trail encompasses a rich diversity of habitats and odd creatures. Take your time; close observation yields many hidden treasures.



A Great Blue Heron waits patiently for pocket gophers to poke their heads out of their tunnels. The heron then uses its beak to impale the gopher, tosses it up in the air, catches it in its open beak, and swallows the meal whole.



Bobcats hunt for rabbits and other mammals among the tall meadow grasses. They can reach speeds of 30 mph when chasing down prey, and they need to be fast if they are chasing jackrabbits!

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The Douglas fir trees here are riddled with holes, some of which, if examined closely, can be seen to contain acorns. Acorn Woodpeckers may drill over 20,000 holes in a single huge tree trunk for storage of their annual acorn harvest. They use these trees as granaries to store their acorn harvests for future meals.

The Acorn Woodpecker is distinguished by its clown-like pattern of black, white, and red about the head, and eyes with penetrating black irises surrounded by white. Their piercing calls resound through these mixed evergreen forests. Take a moment to listen for their repeated "waka waka" call, or the noise of their beaks drilling like jackhammers into the bark.

Acorn Woodpeckers live in close-knit communal colonies of both sexes and all ages. Acorn Woodpecker clans have a complex social structure. All clan members share in the work of gathering and caching acorns for the winter months, when their preferred diet of flying insects are not available. The acorns are relocated to smaller holes as they shrink and dry out. Clans can contain three breeding females, seven breeding males, and up to ten non-breeding helpers, which are the offspring of previous years. The helpers assist in incubating and feeding the young and defending the clan's acorn granary from interlopers like Steller's Jays and Western Scrub Jays.

These woodpeckers are cavity nesters and excavate holes in living trees and snags that they reuse from year to year. Females typically lay five eggs that take up to 14 days to incubate. Males and females participate in the incubation and feeding of their brood. Although they are sexually mature at one year, the offspring may stick around for up to five years assisting in the rearing of their younger siblings, until they can find a niche in another clan. Take note of the shape of their feet. They have two toes oriented to the front and two toes oriented to the rear, which allows the woodpecker to deftly move up and down the tree trunk.





Oflythebirdpath

#### Mixed Evergreen Forest

Around 65 million years ago the earth's climate began a period of cooling that led to more seasonal variation in the temperate latitudes. Although some trees were unable to deal with these new conditions and became extinct, others evolved in response to these changes and, at Point Reyes, became the mixed evergreen forests familiar to us here. The Woodpecker Trail is characteristic of coastal Northern California, a place of great diversity.

The plant communities are adapted to specialized niches where differences in slope, soil moisture and type, and amount of sunlight determine the types of plants you find there. The moist, dark, mixed evergreen forest is bisected by a creek, and supports a lush understory of bracken ferns and horsetails, elk clover and elderberry, and alder and hazel. At the forest edge fragrant schrub communities pass into open, sunny meadows. A crazy, quilt-like pattern emerges, blanketing the land in bold mosaics.

Birds and other wildlife thrive in this diversity of trees. Red-breasted Sapsuckers, a specialized variety of woodpecker, add nutritious sap to their insect diet. Look at the evidence of their incessant probing attacking the California laurels like holes drilled a half inch apart, in very geometric patterns. The squawking of the Stellers Jay, the melodious fluting of the Swainson's Thrush, the thrumming of the Allen's Hummingbird, and the drumming of the Acorn Woodpecker, as it drills into the bark, provide a musical counterpoint to your experience.





Mixed evergreen forest communities are hosts to a surprising variety of plants and animals.



**©USFWS\_Pacific** 

Sapsuckers leave the very symmetrical evidence in the alders and laurels of their relentless drilling for food.



Horsetails or Equisetum, grow along the creeks and in the moist areas on the forest floor.

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#### Living on the Edge

Out from the shadows and into the sunshine. Why has the forest here given way to meadow? Could wind and fog patterns influence this change? Is the slope or orientation to the sun different, favoring new forms of life? The answers to these ecological questions are in the changing relationships between the physical and biological factors that provide varied opportunities for life. Things live where they live because they cannot live anywhere else.

These edges where forest and meadow meet, called ecotones, are places rich in plant and animal diversity. This border provides different types of resources to shared populations; for example, rabbits find shelter near grazing sources, while owls find a perch for resting during hunting forays over the meadow. Coyotes hunt for small rodents burrowing underneath the surface of the meadows. They stand patiently cocking their ears, listening for the tiny noises mice, moles, and gophers make, then leap into the air and burrow down to where the creatures live.

The coast live oak growing overhead is one of two oak species at Point Reyes. Oak acorns provide food for many species of animals that forage under their branches—black-tailed deer, tree squirrels, woodpeckers, and, in the past, bears. The first people who lived on the Point Reyes peninsula are the Coast Miwok. They also made use of acorns, which they gathered in the fall to store over winter. Acorns are a rich source of protein and fat and, in ideal conditions, can be stored for a year. Acorns contain an acid that must be leached or washed from the seed before cooking and should never be eaten raw.



Coyotes can be seen stalking its prey in the open meadows.



The pocket gopher forages for food and nest material around the entrance to its burrow. It must be very vigilant of bird and mammal predators who would like to have it for lunch!



Live oaks are bursting with ripening acorns in September and October. They are an important source of food for many animals native to Point Reyes.

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#### A Changing Landscape

For millennia, the grasslands here were a brilliant gray-green with needle grass and bluegrass. Tight bunches of these perennial grasses survived the summer drought through miles of roots that were able to reach enough water for them to flourish. The Coast Miwok used the seeds from these grasses for food, much as we use wheat today. The introduction of annual grasses and cattle from Europe eliminated much of the native flora. The so-called "golden hills of California" are the result of less than 200 years of human activity, as the nonnative oats and grasses have out-competed the native grasses.

Across the grassland the mixed evergreen forest reappears, and, in its shelter, a riparian woodland flourishes. Water is the key to this environment. Follow its influence—traced in alder, willow and maple cascading down the hill—to where it converges with Bear Valley Creek, meandering through the rift zone below. Scan the treetops for Red-tailed Hawks in search of prey hidden among the grasses.

Vision is an extremely important sense for all birds, but birds of prey are particularly reliant on sight for locating moving prey at great distances. Humans with 20/20 vision see an object twenty feet away as if it is twenty feet away. In contrast, hawks, like the Red-tailed Hawk, see objects twenty feet away as if they were only two feet away. Soaring overhead or perched in trees or on posts, these stunning raptors are magnificent to watch in their quest for the next meal.

The hill country of Marin County remains a place of wild, natural beauty despite over one-hundred years of grazing and logging. From here you can see Sir Francis Drake Boulevard fade over the horizon, along the same route as the earliest foot trails that gave way to a rutted wagon road in the 1860s. Though San Francisco is only an hour's drive away and roads now wind through these hills and valleys, and, this landscape remains much as was for the Coast Miwok, or for Sir Francis Drake in 1579.



Native Purple Needle Grass and Blue Wildrye flourished in the meadows of Point Reyes before grazing practices introduced non-native grasses.



Red-tailed hawks, like other birds of prey, have evolved to have powerful eyesight that allows them to detect prey at great distances.



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Stately in their old age, two ancient Douglas fir trees tower 220 feet above. The Douglas fir is the premier industrial tree in the world, used for frigate masts and framing for the newest subdivisions. Protected here from the buzz of the saw, its importance far transcends its commercial uses.

Pick up a fir cone and study the leaf-like bracts extending like miniature mouse hindquarters—tails and all—tucked in between the scales. With experience, you'll recognize the Douglas fir from a great distance: look for the dense, compact crowns, dark green foliage, deeply furrowed bark, mast-like trunks, and downward-sweeping boughs.

As you walk along, search moist places along the creek for the Pacific Wren. This dark reddish-brown bird favors dark recesses under the overhanging banks of downed branches.

Look straight ahead at the forest floor and slowly tilt your head skyward scanning the vertical green wall of life. Each tree, shrub, or understory plant is perfectly suited to its spot, adapted to the available light, water and type of soil. They compete by exploiting their niche to the utmost, seeking to exclude all others. The arrangement is not haphazard. All is purposeful, yet the variables are so great that no two trees or forests are ever quite the same.

Adapted to live in the shadows are the rugged tanbark oak and the willowy California bay laurel tree. They in turn influence a third layer composed largely of the California hazelnut. Living below, in even dimmer light, is a layer of shrubs, and, finally, a soft fleshy ground cover of herbs. This is a good place to look and listen for the Spotted Towhee, often seen foraging in the leaf litter.



Douglas fir cones hang from the trees branches, showing the bracts that look a bit like mouse feet and tails.



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A Pacific Wren perched with its tail cocked at a jaunty angle.



It's spring, and this Spotted Towhee is singing his heart out, seeking to attract a mate.

### Above the Buckeye

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Directly above is the California buckeye. This beautiful tree is a deciduous member of a predominantly evergreen community. Note how it stands in stark contrast to the somber needle-leafed evergreens. With pale gray and crooked boughs, the buckeye is full of individual character.

The buckeye is quick to burst its brown buds in early spring and just as quickly drops its leaves, even as early as midsummer, especially if it is a drought year. Efficient use of available water permits a brief, but glorious explosion of broad leaves and showy flowers, followed by the formation of massive buckeye seeds. By late summer only the seeds remain, hung like ornaments taking turns to fall.

The bark, leaves, and fruits contain a neurotoxin. The Coast Miwok and Pomo people ground-up the buckeye seeds to stupefy schools of fish in small streams to make them easier to catch. Buckeye wood also makes a good fireboard for use with a bowdrill or hand drill. Native groups occasionally also used the nuts as a food supply when the acorn supply was sparse. After leaching the toxin out of the nut meats, they would grind the them into a meal similar to that made from acorns.





A Buckeye tree with a typical profusion of conical bloom spikes. Each spray of flowers yields just one seed.



In late summer and fall the buckeye seed pods split open and reveal the large shiny fruit inside.

#### The Woodrat Nest

Look straight ahead, focus your eyes, and a piece of architecture will emerge. It is a home of many rooms, built by its owner the dusky-footed woodrat. Although nocturnal, the woodrat is one little animal you are apt to see if you spend much time in wild places.

The dusky-footed woodrat builds domed nests several feet high. Woodrat "houses" contain sticks, rocks, and, often, dried horse and cow manure. The nests are so dense that predators, like coyotes, find it difficult to enter. Woodrats are solitary, except during the mating season, but often build nests near each other in a communal way. Dens contain a nest and up to several rooms that they use to store food such as leaves and nuts. They have earned the nickname "packrat" because interior decor can run to soda cans, camp knives, a shiny cell phone, or anything else you may absentmindedly leave on the trail.

Porches, bedrooms, bathrooms, nurseries and storage chambers are all part of the basic floor plan. So ample are the woodrats quarters that spiders, mice or others may move in, without causing the owner harm.

In California these inventive mammals place California bay laurel leaves around the edges of their nest to control parasites such as fleas. The leaves contain organic compounds toxic to flea larvae.



Woodrats have large round ears. When disturbed, you may hear them making a rattling noise by hitting their tails against branches.



What the inside of a woodrat's nest may look like.

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## **Lightning Struck Forest**

Natural fires from lightning strikes have swept through the great temperate forests since these forests first appeared in the Age of the Dinosaurs. Regular, naturally occurring, fires help to clear dead wood and open forests up for new growth.

Turn around and look at the tree above you. The odds of being struck by lightning are slim indeed, but for this old Douglas fir it was a direct hit. There is no evidence that a forest fire followed the strike, but the charred, cleanly topped crown, and the bizarre new growth verify the event. Note the new vertical shoots growing straight for the sky. Keep looking up, and you may see turkey vultures, scanning the landscape for carrion.

The third-story shrub layer in this green highrise is well represented here by California hazelnut, a shade tolerant, water-loving plant best known for its edible fruit, the filbert nut. Barren in the winter, the hazelnut responds to spring with soft velvety leaves, beautiful pollen-bearing male flowers that hang in catkin clusters, and solitary female flowers ripe with bright red stigmas.



Although often thought of as a destructive force, lightning-caused fire is an essential element of forest ecology.



Foraging turkey vultures often follow the flight paths of other vultures to locate food sources.



Male catkins and red female flowers of the California hazelnut.

## A Natural Symphony

Have a seat. Be very quiet and listen to nature sing.

In spite of their "bird brains" which are often smaller than their eyes, birds have evolved more languages than any other class of animals. Bird vocabularies instruct the young: summoning them, scolding them, alerting them of danger, telling them about food. And, in adult relations, they utter expressions of suspicion, challenge, triumph, submission, affection, and more. Local dialects develop that migrating birds must learn to communicate fluently on their travels.

Bird populations move in and out of the forest throughout the year. Their migrations are observable if one knows where and when to look.

Allen's Hummingbirds herald the new year, by returning from Mexico. By March, flocks of swallows gather around streams and ponds. In April look for land birds from the tropics, such as the Western Flycatcher, Wilson's Warbler, and Blackheaded Grosbeak. In autumn, see dazzling flocks of warblers heading south to winter in Central America. The Chestnutbacked Chickadee, Song Sparrow, and American Robin reside here year-round.



Tiny, but very aggressive, the Allen's Hummingbird may buzz by you if he feels you are invading his territory.



In spring, the Wilson's Warbler can be heard singing in the branches above. His high-pitched song is a quick series of "chip, chip, chip, chip."



In contrast to the Wilson's Warbler, the Chestnut-backed Chickadee has a beautiful, flute-like call, "fee-bee."

## **California Laurel**

The Mediterranean laurel was sacred to Apollo and victory crowns for athletes and poets were woven from its branches. The aromatic leaves also have culinary and medicinal uses.

Breathe in the aromatic incense cast by the lush growth of the California laurel trees. Crushing a leaf releases its rich, spicy aroma. Like the European laurel, our tree was used by Native American tribes, throughout its range. The leaves of the tree were a treatment for headache and stomachache and had important spiritual significance, but the seeds of the California tree are much more potent, containing more of the volatile oil that provides the odor and flavoring. The Coast Miwok and Pomo people roasted the seed to remove the volatile chemical, and ate them. The seed provided waxy fats that were very beneficial in their subsistence diets.

Grand old specimens, as noble in stature as oaks, may reach 300 years of age. Oftentimes, as can be seen in the dense groves of younger trees, the trunk, limbs and foliage are bent at bizarre angles in a competition for light. So intense is the search for light that maturing trees may reach out too far and topple over. But they are no sooner down than the race begins again. The trunk will often then sprout whole new trees shooting for the sun.





California bay laurel branches reaching up for sunlight.



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#### At Trail's End

Once more out of the deep shade of the forest and into the brightness of the open meadow. Ahead is a grove of Douglas fir trees surrounded by open meadow. These trees host jays and woodpeckers and other birds and animals that feed, and nest, and hunt from within their cover. Stop a moment. Watch and listen for activity in this island of trees. You may hear a fairwell "shack shack shack" from the Steller's Jay. Hold on to this and keep the feel and sound of wildness in your life.

The Woodpecker Trail ends near the Morgan Horse Ranch. On your walk back down to the Bear Valley parking area, take a moment to admire these noble horses, and learn a little of the history of this powerful American horse.

There are 150 miles of trails within the Point Reyes National Seashore. Each mile provides opportunities for deepening your knowledge and appreciation of this special place, its plants, animals, and weather patterns and chances to enrich your understanding of yourself.





A Steller's Jay, perched in a snag, observes the scene below.



**©NPS** Photo

The Morgan horse is an American breed known for its power and placidity. In many National Parks mounted park rangers ride Morgans on backcountry patrol.

# happy trails...





National Park Service U.S. Department of the Interior

Point Reyes National Seashore Bear Valley Visitor Center 1 Bear Valley Road Point Reyes Station, CA 94956 Closed December 25

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