

inds blow cooler now, twilight comes earlier. The sky is a deep lustrous blue. The sun has moved southward and the seasons are changing.

During autumn, elk bugle while other animals and plants busily

prepare for the coming winter. Small animals store the last of the seeds and nuts, and pack on layers of fat. They will need the fat to survive the winter deep beneath the many feet of snow that will blanket the meadows of Paradise and Sunrise. Migrating birds will launch their travel plans to spend winter in a warmer place, hundreds of miles to the south. Plants will complete the process of preparing for winter by releasing seeds for the next generation of flowers and trees. Although summer officially gives way to autumn during the autumnal equinox on September 23, for most of us it begins when we see green leaves changing to shades of red, vellow, orange, bronze, purple or brown.

Predicting exactly where and when fall color will begin or peak is difficult since there are both internal and external factors to consider. Some trees and shrubs such as cottonwoods simply

produce more yellow pigment (carotenoid) in their leaves, while others such as blueberries produce more brown pigment (tannin), and still others such as vine maples produce more red pigment (anthocyanin). Pigmentation differences are examples of internal factors that influence the colors leaves turn during autumn. When nights begin to lengthen in September, the production of chlorophyll (the dominant green pigment related to photosynthesis) diminishes and eventually ceases. The cessation of chlorophyll production allows the other pigments in leaves

to appear.

Weather and soil moisture are external factors which affect the leaves' color-producing pigments. For example, the cool nights and warm days typical of an "Indian summer" favor production of anthocyanin, which develops anew in autumn leaves. Direct sunlight sometimes stimulates the formation of this red pigment so powerfully that a partly shaded leaf will turn bright red on its sunlit portions but remain green or yellow on its shaded parts. Since weather and soil conditions vary from year to year, no two autumns are exactly alike. Sometimes fall colors come early, sometimes late, sometimes hardly at all.

When the days of autumn shorten sufficiently, a chemical change takes place in the cells at the base of each leaf stalk where it joins the twig. The substance binding cells breaks down

and the leaf eventually falls to the ground or is carried off on a gust of wind.

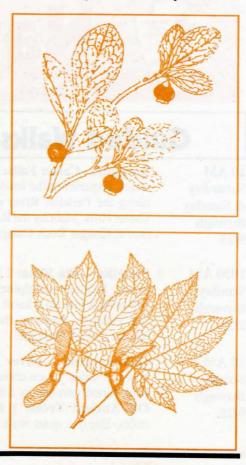
In the forests that surround Mount Rainier, a variety of trees and shrubs produce beautiful fall colors, brightening hillsides and river valleys with dazzling intensity.

PACIFIC DOGWOOD (*Cornus nuttallii*) can be found scattered in the lower forests around Mount Rainier. Dogwood leaves put on quite a show in the fall with foliage colors of plum, bronze, russet and magenta. Trees can grow up to 60 feet tall but are more often dwarfed by the shade of surrounding conifers, joining vine maple and western yew in a tall shrub understory.





CASCADES BLUEBERRY (Vaccinium delicious) bushes provide 90% of the gorgeous red-bronze color characteristic of autumn at Paradise, Tipsoo Lake, Chinook Pass and other subalpine slopes around the mountain. Blueberry bushes grow to 18 inches tall and favor rocky areas or sites next to trees where the snowfree growing season is longer than in nearby meadows.





DOUGLAS MAPLE (*Acer glabrum douglasii*) forms tall shrubs or trees up to 40 feet high. Although common east of the Cascades, these maples are found only occasionally in westside forest openings. Leaves of the Douglas maple turn a showy red - orange during autumn.



BIGLEAF MAPLE (*Acer macrophyllum*) trees grow to 65 feet tall, the largest of all maples. Their leaves are generally 5 to 12 inches wide and long, turning a rich yellow color during autumn. Bigleaf maples are widespread below 2000 feet elevation. They favor open sites where conifers have failed to form a deep shading



SITKA MOUNTAIN-ASH (Sorbus sitchensis) generally grows to tall shurb size alongside blueberry bushes in subalpine areas. Its bright yellow autumn foliage and red to orange berries top off the fall color of the mountain's high meadows. canopy. Look for bigleaf maples near Nisqually, Ohanapecosh and Carbon River entrances.

VINE MAPLE (Acer circinatum) leaves develop intense color in late summer and early fall. They are a magnificent source of seasonal red and gold on multistemmed shrubs to 20 feet tall or small trees to 30 feet. Vine maples flourish at all forested elevations in the park. The maples seem most colorful when surrounded by luxurious green forest such as near Ohanapecosh, or on rocky avalanche slopes. An autumn drive along the Stevens Canyon Road between Ohanapecosh and Paradise offers excellent views of these colorful vine maple-covered slopes.

Tahoma + 1

Services & Facilities

? Visitor Centers

LONGMIRE MUSEUM: 9 a.m. - 5 p.m., daily, through September 25; then 9 a.m.-5 p.m., Saturday and Sunday, 9 a.m.-4:15 p.m., Monday-Friday, through winter.

PARADISE: Henry M. Jackson Memorial Visitor Center: 9 a.m. - 7 p.m., daily, through September 25, then 9:30 a.m.-6 p.m., daily, September 26 - October 10; then 10 a.m.-5 p.m., Saturday, Sunday and holidays only, October 15, through winter.

OHANAPECOSH VISITOR CENTER: 9 a.m. - 6 p.m., daily through October 2, then Friday, Saturday, Sunday and holidays only through October 16.

SUNRISE VISITOR CENTER: Closed for the season.

CARBON RIVER ENTRANCE STATION: 8 a.m.-4:30 p.m., Saturday & Sunday through September 25.

Hiker Information Centers (Permits)

LONGMIRE: 8 a.m. - 4:30 p.m., Sunday - Thursday; 8 a.m.-6 p.m., Friday; 7 a.m.-6 p.m., Saturday through September 30. Permits available for overnight trips. The Center is located in the lobby of the large log and stone building behind the flagpole. Obtain permits at Longmire Museum beginning October 1.

WHITE RIVER: 8 a.m. - 4:30 p.m., daily, through September 29, when it closes for the season. Obtain backcountry permits for overnight trips and hiking information in the ranger station at the White River Entrance.

D Food & Lodging

LONGMIRE - NATIONAL PARK INN: Lodging desk 7 a.m. - 10 p.m., daily. Dining room hours 7 a.m. - 7 p.m., Sunday-Thursday, 7 a.m.-8 p.m. Friday, Saturday and holidays. For reservations call: Mount Rainier Guest Services at (206) 569-2275.

LONGMIRE - GENERAL STORE: Open 10 a.m.-5 p.m., daily. Longer hours when ski touring equipment is available here in December. Located near the National Park Inn.

PARADISE - HENRY M. JACKSON MEMORIAL VISITOR CENTER: Food, showers, and gifts. Open 10 a.m.-6 p.m., daily, September 11 - October 10; then 11 a.m.-4:45 p.m., Saturday, Sunday and holidays, October 15, through winter. **PARADISE - PARADISE INN:** Lodging & Restaurant: Hotel front desk open 24 hours, daily through October 2. Dining room 7 a.m. -9 a.m. for breakfast through October 3; 12 noon - 2 p.m. for lunch, 5:30 p.m. - 8 p.m. for dinner, through October 2; Sunday Brunch: 11 a.m. - 2:30 p.m., through September 25; Glacier Lounge open 12 noon - 11 p.m. daily, through October 2; snack bar open 10 a.m.-7 p.m. daily, through September 25. Gift shop open 8 a.m.-8 p.m., daily, through October 2. For reservations call Mount Rainier Guest Services (206) 569-2275. The Paradise Inn closes for the season after serving breakfast on October 3.



PARADISE: Henry M. Jackson Memorial Visitor Center: Lower level. Available 10 a.m.-6 p.m., daily through October 10 then 11 a.m.-4:45 p.m., Saturday, Sunday and holidays, October 15 through winter. Towels and soap available at visitor center gift shop.

Gasoline

Gasoline is **NOT AVAILABLE** in the park. Service stations are located in the nearby communities of Ashford, Elbe, Packwood, Greenwater and American River. Be prepared - check your gauge.



Firewood Sales: Cougar Rock Campground 4 p.m.-9 p.m., Friday, Saturday and Sunday only, September 6-18. Longmire General Store 10 a.m.-5 p.m., daily, September 6-18.

Campgrounds

SUNSHINE POINT: Open year round. 18 sites. Located 6 miles west of Longmire and .25 mile east of the Nisqually Entrance. Site fee is \$6 per night on a first-come, first-served basis. No group sites available.

COUGAR ROCK: 200 campsites for tents and/or trailers, 5 group sites. Located 2.5 miles from Longmire on the Paradise Road. Site fee is \$8 per night on a first-come, first-served basis. Only group sites can be reserved and cost \$3 per night, per person. Cougar Rock Campground closes October 17 or earlier as weather conditions dictate.

OHANAPECOSH: 205 sites, no group sites. Site fee is \$10 per night on a first-come, first-served basis. The Ohanapecosh Campground closes October 17.

WHITE RIVER: 117 sites, no group sites. Site fee is \$8 per night; on a first-come, first-served basis. Closes September 26, or earlier as weather conditions dictate.

IPSUT CREEK: 29 sites, 2 group sites. Located at the end of the Carbon River Road. Site fee is \$6 per night, on a first-come, first-served basis. Group sites can be reserved for \$3 per person per night. No potable water after September 26. Closes when weather conditions dictate.

A Picnic Areas

SUNSHINE POINT: Located 6 miles west of Longmire and .25 mile east of the Nisqually Entrance.

COUGAR ROCK: Located across the road from Cougar Rock Campground. The picnic area closes October 17 or earlier as weather conditions dictate.

PARADISE: Located .25 mile below the Jackson Visitor Center. Closes October 24 or earlier as weather conditions dictate. Picnicking is **NOT** allowed on the fragile meadows at Paradise.

OHANAPECOSH: Located across from the Ohanapecosh Visitor Center in Loop A of the Campground.

TIPSOO LAKE: Located near Chinook Pass on Highway 410, 17 miles north of Ohanapecosh, and 11 miles south of the White River Entrance arch. No water.

BOX CANYON: Located between Ohanapecosh & Paradise on Stevens Canyon Road. Closes September 26.

IPSUT CREEK: Located at Falls Creek, 2 miles from the entrance, and in Ipsut Creek Campground at end of road. Closes when weather conditions dictate.

Climbing

The Guide House at Paradise: 9 a.m. - 5 p.m., daily. Summit guided climbs, climbing instruction, and equipment rentals are available. For those not experienced on a glaciated peak, RMI offers a 3 day package: 1-day climbing seminars, combined with a 2-day summit climb. Last snow school September 23 and last summit climb September 24. For more information call (206) 569-2227, through September 30, then call (206)627-6242.

Post Offices

PARADISE - Inn: Open 8:30 a.m. - 5 p.m., Monday - Friday, 8:30 a.m.-12 noon, Saturday. Closes October 1.

LONGMIRE - National Park Inn: Open 8:30 a.m. - 5 p.m., Monday - Friday, 8:30 a.m.-12 noon, Saturday.



Guided Walks

10 AM Saturday & Sunday through 9/25 Longmire - Carter Falls: 2 hours, 2 miles. Experience the lowland forest along the Paradise River enroute to Carter Falls. Meet by the Ranger Station at Cougar Rock Campground.

1030 AM Sunday through 9/25 **Paradise - Alta Vista:** 2 hours, 1.5 miles. Explore subalpine meadow life on this hike to a knoll overlooking Paradise. Meet at the Jackson Visitor Center Flagpole.

10 AM Sunday through 9/25 Ohanapecosh - Silver Falls: 2
hours, 3 miles. Learn about the low-
land forest enroute to Silver Falls.8 PMOR Ancient Trees: 1 hour, 1.2
miles. Enjoy a quiet walk along the5 atur
hours, 1.2

Ohanapecosh River through an ancient forest to the Grove of the Patriarchs. Check at the visitor center for destination and meeting location.

8 PM

Friday &

Saturday

through

Wednesday

- Saturday

9/24, Then

Friday 9/30

& Saturday

through

10/1

10/1

9 PM

Paradise - Nisqually Vista: 1.5 hours, 1.25 miles. Discover the geology and glaciers of Mount Rainier on this easy walk to an excellent view of the Nisqually Glacier. Meet at the Jackson Visitor Center flagpole.

Evening Programs

8 PMCougar Rock Campground Amplitheater: 45 minutes. EnjoyFriday &phitheater: 45 minutes. EnjoySaturdayMount Rainier through a slide program presented by a park naturalist.9/24Program titles are posted on the

230 PM

Saturday

& Sunday

through

9/25

campground bulletin board.

Ohanapecosh Campground Amphitheater: 45 minutes. Enjoy Mount Rainier through a slide program presented by a park naturalist. Program titles are posted on the campground bulletin board.

Paradise Inn Lobby: 1 hour. Illustrated programs explore a variety of subjects on Mount Rainier. Titles are posted in the Jackson Visitor Center and the Paradise Inn.



2 + Tahoma

Hiking & Backpacking

Permits for Overnight Trips & Climbing

If you are planning a backpacking trip, be sure to stop at the Hiker Center at Longmire. Located in the log and stone building beside the flagpole, the Center features a relief map of Mount Rainier and information on Minimum Impact Camping.

Rangers on duty will be happy to answer your questions, assist with trip planning, and issue backcountry permits. The main purpose of the permits is to control the number of people in one place at one time and thereby limit the impact from litter, human waste, and trampling of the ground. A second Hiker Information Center, offering similar services, is located at the White River Entrance Station. Carbon River Ranger Station also issues permits and offers information on the northwest area of the park.

Camping at all trailside camps as well as Camps Muir and Schurman is available on a firstcome, first-served basis.

Anyone intending to go above the high camps at Camp Muir or Camp Schurman, or to travel on any glacier, must obtain a climbing card in lieu of a wilderness permit.

For additional information, write: Backcountry Desk, Mount Rainier National Park, Tahoma Woods, Star Route, Ashford, WA 98304, or call (206) 569-2211, extension 3317.



Meadow Alert!



Every year, many of the 2+ million people who visit Mount Rainier hike the meadow trails. Imagine the problems created when one person, multiplied by a thousand, leaves the constructed trail. The best possible solution is for all of us to prevent damage from occuring by staying on the constructed trails.

Self-guiding Trails

One of the best ways to experience Mount Rainier is by taking a walk or hike. Please remember that dogs and other pets, bicycles, weapons and motor vehicles are not allowed on park trails. Have a safe and fun trip.

Longmire Historic District Tour: 1 hour, 1.25 miles. Tour maps available at Longmire Museum.

Longmire "Trail of the Shadows": 30 minutes, .7 mile. Experience the natural environment and see the former site of the Longmire Medical Springs operation on this walk around Longmire Meadow.

Paradise "Nisqually Vista": 1 hour, 1.2 miles. Walk where the clouds go and see how weather shapes the landscape, plants, and animals of these high country meadows. Excellent views of Mount Rainier and the Nisqually Glacier may be enjoyed on this easy walk.

Ohanapecosh "Life Systems": 30 minutes. .5

mile. Explore the forest and hot springs of Ohanapecosh on this walk, starting at the visitor center.

Ohanapecosh "Grove of the Patriarchs": 1.5 hours, 2 miles. Walk among 1,000 year old tree giants of the old-growth forest. See these ancient trees on an island in the Ohanapecosh River.

Carbon River "Rain Forest": 20 minutes, .3 mile. Rain forests seldom occur far from coastal areas, so the forest that grows in this valley is special. Explore the only true inland rain forest at Mount Rainier.

Westside Road

You may drive 3 miles to the parking area at Dry Creek. From there travel into the scenic west side of the park is by hiking and bicycling. Bicycles must remain on the roadway. Hikers may explore the many miles of trails branching off the roadway into the wilderness. Be sure to pick up your permit if planning to stay overnight.

Hikers, Watch Your Step!

Tripping and falling are common accidents on park walkways and trails, especially in slippery and icy conditions.

X

Rock climbing and scrambling continue to be leading causes of injury and death to the unprepared and inexperienced. Routes are often more difficult than they appear and even a short fall can cause serious injury or death. Before you scramble or climb on Mount Rainier's rocks or glaciers, provide yourself with proper equipment and training.



Beware of rocks and debris falling on trails and rolling onto roadways. Refrain from throwing rocks over cliffs. Don't let gravity spoil your or someone else's vacation!



Stay back from streams and riverbanks and avoid "rock hopping." Rocks near the waters' edge can be dangerously slippery and have caused fatal accidents.

Protect Your Valuables

Keep all valuables with you or lock everything of value in the car's trunk. Also, lock all doors and windows.

Drink Treated Water

Please drink water only from treated, piped water systems. In the backcountry, boil your water or use an adequate filtration system.

Winter Weather

Rapidly changing weather conditions require hikers, climbers and drivers to be prepared for early closures, and/or slippery trails and icy roadways. Highways 410 and 123 over Cayuse and Chinook passes, and the Stevens Canyon Road will close for the season at the first heavy snowfall. The roadway between

Longmire and Paradise will close nightly after mid-October when weather conditions dictate; reopening each morning when roadway is safe for travel.

Hunting Is Prohibited

Hunting of any kind is **NOT** allowed in the park. Weapons are restricted.

Mount Rainer & Orympic Fund

Imost a century ago, citizens nationwide recognized the spectacular beauty of the Puget Sound region, and later estab-



lished Mount Rainier and Olympic National Parks. The goal was to permanently protect these extraordinary lands and their world-renowned ecosystems.

Today, these precious parks are in jeopardy. In just the past five years, park attendance has increased dramatically. In 1994 alone, more than five million people will visit the two parks.

At the same time, federal allocations to the parks have failed to keep pace with inflation. If the magnificence and diversity of Mount Rainier and Olympic National Parks are to endure, we must aggressively work for their restoration and protection today. The Mount Rainier & Olympic Fund is a private, independent, not-for-profit organization established to support and enhance

these two national parks. The fund works with individuals like you - as well as business, foundations and allied organizations - to undertake specific projects to improve the parks.

Your participation will make a difference. Please join the Mount Rainier & Olympic Fund today.

For detailed information about how you can help, contact: Kim M. Evans, Executive Director, The Mount Rainier & Olympic Fund, 1221 Second Ave., Suite 350, Seattle, WA, 98101, or call (206) 621-6565. Look for donation boxes and envelopes at all park visitor centers and at the National Park Inn.



If you would like to make a contribution to assure that your national parks will continue to be enjoyed by future generations, then consider becoming a VIP for the National Park Service.

To apply for a VIP position at Mount Rainier National Park, or to receive more information on the VIP program, contact a park ranger at any visitor center or ranger station; or write: Clay & Dixie Gatchel, Lead VIP Coordinators, P.O. Box 1344, Renton, WA, 98057-1344.

Construction Projects

Laughingwater Creek Bridge

on Highway 123 north of Ohanapecosh had deteriorated to poor condition. The bridge has been replaced with a new structure adjacent to the old one. During removal of the old bridge, expect temporary travel delays near the construction zone as the Federal Highway Administration works to provide a new, safer bridge for park visitors.

Deadwood Creek Bridge Expect travel delays on SR 410 between the White River road junction and Cayuse Pass this fall. Contractors are constructing a new bridge spanning Deadwood

Creek. Flaggers, signs and signals will inform travellers of hazards and reduced speeds near the construction zone. A one lane, temporary bypass bridge is in place. Work on a new, safer bridge will continue through the 1995 season.

Paradise Water Upgrades In an effort to upgrade water treatment capabilities and to correct waste water collection system deficiencies in the Paradise area, contractors will be working throughout the fall. You should expect some inconvenience in the form of reduced parking spaces, temporary public restrooms and trail detours.

Sunrise Road Closed

The road to Sunrise from the White River Campground junction closed on September 6. All facilities at Sunrise are closed for the season. The closure will allow a contractor enough time to repair road damage, located 1 mile above the junction, before inclement weather sets in.

During the closure, all visitor access to Sunrise via the roadway (including hiking and bicycling) will be prohibited, due to construction vehicles on the roadway. Hiking access through the Sunrise area via the Wonderland Trail is permitted, but no visitor services will be available. We apologize for any inconvenience these projects may cause.

Welcome To Mount Rainier National Park

マウント・レイニアー・ナショナル・ パークにようこそ。日本語で書かれた 公園設備、サービス、安全についての 注意事項、公園内の見どころなどの案 内書は入口ゲートと案内センターにあ ります。

Добро пожаловать в Национальный парк горы Рэниер. Информацию на русском языке об удобствах, обслуживании, правилах безопасности и туристских местах парка вы можете получить на станциях смотрителей парка, у входа и в туристсих центрах.

LE DAMOS UNA CORDIAL

BIENVENIDA AL PARQUE

NACIONAL MOUNT RAINIER.

HAY INFORMACION DISPO-

NIBLE EN ESPAÑOL SOBRE

SERVICIOS, LOS SISTEMAS DE SEGURIDAD Y LAS BELLE

TRADA Y EN LOS CENTROS

DE SERVICIOS AL VISITANTE

ZAS NATURALES DEL PARQU

LAS INSTALACIONES, LOS

EN LAS CASETAS DE EN-

(VISITOR CENTERS).

CHÁO MƯNG QUÍ VỊ ĐẾN CÔNG VIÊN QUỐC GIA MOUNT RAINIER. TIN TỨC CÓ SẵN BẰNG TIẾNG VIỆT NAM VỀ CO SỞ TIỆN NGHI, DỊCH VỤ, AN TOÀN VÀ CÁC THẮNG CÁNH TRONG CÔNG VIÊN TẠI CÁC TRẠM KIẾM LÂM, TRẠM ĐI VÀO VÀ TRUNG TÂM THĂM VIẾNG.

마운트 레이니어 국립공원에 오신 것 을 환영합니다.

한국어로 된 공원내의 각종 편의시설, 서비스, 안전수칙 및 자연경관등에 관 한 안내서가 공원입구 초소와 방문객 센터에 비치되어 있읍니다. 歡迎光臨 Mount Rainier National Park (維尼亞山國家公園) !

入口亭和接待中心備有關於設施、服務 ,安全及公園景觀的中文資料。

BIENVENUE AU PARC NATIONAL DE MOUNT RAINIER. VOUS TROUVEREZ DES INFORMA-TIONS EN FRANÇAIS RELA-TIVES AUX INSTALLATIONS, AUX SERVICES, À LA SÉCURITÉ ET AUX POINTS D'INTÉRÊT DU PARC, AUX POSTES D'ENTRÉE OU AUX CENTRES DES VISI-TEURS (VISITOR CENTERS).

WILLKOMMEN IM MOUNT RAINIER NATIONAL PARK. INFORMATIONEN ÜBER EINRICHTUNGEN, SERVICE-LEISTUNGEN, SICHERHEITS-MASSNAHMEN UND SEHENS-WÜRDIGKEITEN DES PARKS SIND IN DEUTSCHER SPRACHE BEI DEN RANGER-STATIONEN AN DEN PARK-EINGÄNGEN UND IN DEN BESUCHERZENTREN (VISITOR CENTERS) ERHÄLTLICH.



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September 12 - December 17, 1994

