

TAHOMA

Activity and Program Guide: April 6 - June 30, 1992

Mount Rainier National Park

Volume 18 No. 1

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24 Hour Information

For information on Mount Rainier National Park, tune your AM radio to 1610KHz, near Nisqually Entrance. Dial (206) 569-2211 for up-to-date information on park roads, trails, facilities and weather, 24 hours a day.

Field Seminars 1992

Most Ranger led activities will begin on July 1, but you can enhance your visit by attending one or more Field Seminars taught by paid instructors offered by the Pacific Northwest Field Seminars at Mount Rainier throughout the summer season. Subjects vary from birds, alpine ecology, old-growth forests, meadows, glaciers, volcanoes, weather, and wildflowers, to nature writing, painting, photographing and astronomy. If you have time to invest in understanding the resources of Mount Rainier and want to increase your enjoyment of the park, ask a park ranger at any visitor center for a catalogue of courses or write to Pacific Northwest Field Seminars, 83 South King Street, Seattle, WA, 98104 or phone (206) 553-2636 for information or registration.

Stevens Canyon Road

Stevens Canyon Road is expected to open for the 1992 season on Memorial Day Weekend, May 22. This important trans park road connects Longmire and Paradise areas on the western side of the park with the eastern side of the park near Ohanapecosh.

Westside Road

Westside Road is expected to be partially opened for the 1992 season in late June. Only the first three miles of the roadway (to Dry Creek crossing) will be open for vehicle travel this summer. Foot travel and bicycles only will be allowed beyond Dry Creek due to glacier outburst flooding and damage brought on by early winter torrential rains on Tahoma Creek. The National Park Service is exploring means to stabilize the roadway and make it safe for travel in future years. Hikers planning to visit Indian Henrys Hunting Ground should begin at Kautz Creek or Longmire because the Tahoma Creek trailhead and trail have been washed out.

Spring Arrives Early!!

Spring came early at Mount Rainier and elsewhere in the Cascade Mountains this year. Normally spring arrives weeks after the date circled on the calendar. During this mild winter, only 10 to 15 feet of snow blanketed higher elevations of Paradise and Sunrise, while at lower elevations of Longmire and Ohanapecosh there was almost no snow on the ground.

As we anticipate the summer hiking season, we expect an early snow meltout on most park trails. Elevations below 4500 feet will likely be snow free by late May, while higher elevations retain snowpack into July. Because of the factors of weather and snowpack the best hiking occurs in August and September.

Normally peak flower bloom occurs in the sub-alpine meadows in late July or early August, months after spring has become summer at lower elevations. This year the peak bloom could come as early as mid July.

Spring is a good time to enjoy the lush vegetation of the lower old-growth forest around Longmire, Carbon River and Ohanapecosh. There are self-guiding nature trails in each of these locations to help you to explore and understand the natural and human history of the park.

The warmth of spring causes park streams to swell into torrents, making waterfalls especially powerful. Swift water and slippery rocks near streams can be deadly, beware. Look for Christine Falls, Narada Falls or Silver Falls on your park map or ask a Park Ranger for directions to these or other picturesque waterfalls.

Walking or hiking on higher elevation trails around Paradise or Sunrise in this early season requires extra responsibility to preserve the integrity of the meadow. Please stay on snow or follow flagged routes which mark the trail surface below. Please do not walk on bare ground so that, when the snow has melted, the meadows will not be damaged by early season hiking. Wear appropriate shoes or expect to get cold, wet feet. Check with the park staff for details about trail conditions, weather and suggested hikes.



Mountain Named For Peter Rainier In 1792

This year as we celebrate the finding of the North American continent by Europeans five hundred years ago, Mount Rainier National Park remembers the two-hundredth anniversary of the naming of the Mountain. On May 7, 1792, Captain George Vancouver of the British Royal Navy mentioned a "remarkably high, round mountain covered with snow". The next day he named the mountain for his friend, Rear Admiral Peter Rainier (pictured above).



Orphans? Let 'Em Be!

Spring heralds the arrival of new born animals at Mount Rainier National Park. You may see many of these young animals without their parents. Being good samaritans, we may feel compelled to help these "orphans" by picking them up and taking them to a ranger station. However, our well intentioned actions will most probably hinder a young animal's chances of survival and alter its life forever. Animals picked up by humans must be hand raised, and consequently lose their natural fear of humans which prevents them from being returned to the wild. These animals often die or are placed in zoos, fenced game preserves, or rehabilitation centers, situations that are hardly beneficial for a wild animal.

Young animals are often left by their parents for several hours while the adults are foraging for food. Nature has provided these young with a variety of adaptations to cope with temporarily being left alone. A deer fawn instinctively stays still, its camouflage coat and lack of odor making it invisible to natural predators. The doe purposefully stays away from her young while foraging; if she were to come too close, a predator may be alerted that young are near. For this reason a fawn will frequently appear orphaned, the doe not showing herself until any possible threat is gone. Upon their return, if they find their young gone, the adults will leave the site.

The young of birds are put in a similar situation when learning to fly. Young birds must learn to fly on their own. Since



young birds grow at varying rates, the first to hatch are most often the first to fly. As a result, younger siblings are often tempted to try to fly before they are ready. These premature flyers typically fail and are unable to get back to the nest. In this case, parents will care for their young wherever they land, since the young birds will often be flying by the next day. If you see a young bird on the ground, stay back an appropriate distance. Moving too close to the young bird often causes it to flee. Birds, especially young birds, have a very high metabolism rate and any extra movement means a waste of very precious energy needed for growth.

Some young animals, such as bear cubs, are allowed to wander a short distance from their parents; sow (female) bears often permit their cubs to explore and test their skills. However, the sow is always nearby and ready to protect her

young. A squeal from a frightened cub will bring an immediate response. Incidences of hostile encounters with bears can occur if we get too close to the cub(s) and the sow instinctively becomes protective. When we happen upon young animals it is always best, for both the well-intentioned human and young wild animal, to stay a safe distance apart. To the unwary visitor, a lone bear cub may appear to be lost or orphaned, but be aware.

Mount Rainier National Park was established in part to preserve the natural processes occurring within its boundaries. When you see a young animal alone and feel the urge to assist it, remember that you may alter its life forever. For an animal to be truly "wild" it must live its life free from human assistance. Please consider the cost to the young animal you are trying to save.

Longmire/Cougar Rock

In 1883, while on a climbing trip to Mount Rainier, James Longmire found this meadow and mineral springs that now bear his name. Enchanted by the beauty of the area, he and his family returned and established a resort and health spa from which they extolled the healthful qualities of the mountain air and mineral water. With the establishment of Mount Rainier National Park in 1899, the Longmire area became the early center of park activity.

The National Park Inn, the main structure dating from 1917, is the survivor of three hotels that were constructed at Longmire between 1890 and 1918. It represents a rustic style of architecture that was used in western national parks until World War II. Visit the remodelled Inn and enjoy the many services provided by Mount Rainier Guest Services.



Information & Services

? **Longmire Museum:** 9 a.m.- 4:30 p.m., daily. Enjoy historic exhibits on geology, natural history, early park exploration and Northwest Native American culture. The Northwest Interpretive Association offers books, maps and slides for sale.

? **Longmire Hiker Information Center:** Opens June 19. 8 a.m.-6 p.m., Sunday - Thursday; 8 a.m. - 7 p.m., Friday; 7 a.m. - 7 p.m., Saturday. Backpackers can obtain permits for overnight trips and hiking information. The Center is located in the lobby of the large log and stone building next to the flagpole.

? **"Trail of the Shadows" Self-guiding Trail:** 30 minutes, .7 mile. Walk around the Longmire meadow, and see the former site of the Longmire Springs Hotel.

▲ **Cougar Rock Campground:** Opens May 8. Located 2.5 miles from Longmire on the Paradise Road. Cougar Rock has 200 campsites for tents and trailers; 5 group sites. Site fees are \$6 per night on a first-come, first-served basis. Only group sites can be reserved and cost \$2 a night per person.

▲ **Cougar Rock Picnic Area:** Opens May 8. Located across the road from the Cougar Rock Campground.

▲ **Sunshine Point Campground and Picnic Area:** Located 6 miles west of Longmire, .25 mile east of the Nisqually Entrance. Sunshine Point has 18 sites for tents and trailers. Site fees are \$5 per night on a first-come, first-served basis.

🛏 **National Park Inn:** Lodging desk 8 a.m. - 6 p.m., Monday - Thursday; 8 a.m. - 10 p.m., Friday, Saturday and holidays; 8 a.m. - 7 p.m., Sunday. **🍴** Beginning June 13, 8 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. Beginning June 13, 7 a.m.-8 p.m., daily. Post Office open 8:30 a.m.-5 p.m., Monday - Friday. Beginning June 13, 8:30 a.m. - 12:30 p.m., Saturday. For reservations call: Mount Rainier Guest Services at (206) 569-2275.

🏪 **General Store:** Open 10 a.m. - 5 p.m., daily. Beginning June 13, 8 a.m. - 8 p.m., daily.

🛢 **Gas Station:** Open 9 a.m. - 5 p.m., Monday - Friday; 9 a.m. - 6 p.m., Saturday, Sunday and holidays. Beginning June 13, 9 a.m.-7 p.m., daily. Located near the National Park Inn.

Naturalist Programs

Campfire Program: 45 minutes. Discover Mount Rainier through a slide program presented by a Park Naturalist at the Cougar Rock Campground Amphitheater.

Friday - 9 PM
Starts May 22

Saturday - 9 PM
Starts May 23

Paradise

So where are all those spectacular sub-alpine wildflowers? Most are still sleeping under the remnants of last winter's snowfall. Paradise, on Mount Rainier's south slope, averages 630 inches of snow each winter and often receives much more than that. The meadows may still be melting out well into July! As the melting snow recedes upslope, look carefully at its edges. Here avalanche and glacier lilies burst forth through the final inches of snow as they strive to get an early start on a short growing season. Soon entire slopes are covered with drifts of white or yellow lilies. Towhead baby, mouse-on-a-stick, old man of the mountains - the western anemone has many



nicknames, most of which refer not to its buttercup shaped flower but to its distinctive



seed head. Look for this early blooming flower alongside the lilies.

Information & Services

? **Henry M. Jackson Memorial Visitor Center:** 10 a.m. - 5 p.m., Saturday, Sunday and holidays, April 6 - May 1. Then 9:30 a.m. - 6 p.m., May 2 - 19; then 9 a.m. - 7 p.m., daily. Exhibits on animals, glaciers, geology, wildflowers and mountain climbing. A half-hour program is shown on the hour and half-hour. The slide program "Is the Mountain a Museum" rotates schedules with the movie "Fire and Ice." The Northwest Interpretive Association provides books, maps and slides for sale across the lobby from the information desk.

🍴 **Food Services, Showers and Gifts:** Available in the Henry M. Jackson Memorial Visitor Center, 11 a.m. - 4:45 p.m., Saturday, Sunday and holidays, April 6 - May 1. Then 10 a.m.-6 p.m., May 2 - June 12; then 10 a.m.-7 p.m., daily.

🛏 **Paradise Inn:** Opens daily for food & lodging May 20; dining room hours for breakfast: 7 a.m.- 9 a.m.; lunch: noon-2 p.m.; dinner: 6 p.m.-8 p.m. through June 12 then 5:30 p.m.-8:30 p.m.; Sunday Brunch: 11 a.m.-2:30 p.m.; Glacier Lounge open noon-11 p.m., daily; Snack bar: 10 a.m.-7 p.m., daily through June 12 then 9 a.m.-8 p.m. Gift shop:

8 a.m.-8 p.m. through June 12 then 8 a.m.-9 p.m., daily. Post Office 9 a.m.-5 p.m., Monday - Friday, 9 a.m.-12 noon, Saturday. For reservations call: Mount Rainier Guest Services at (206)569-2275.

🧗 **Rainier Mountaineering, Inc.:** Operates the Guide House at Paradise, 9 a.m.-5 p.m., daily (June - September). 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. For more information call (206) 569-2227.

Naturalist Programs

Evening Program: 45 minutes. Discover Mount Rainier through a slide program presented by a Park Naturalist at the Paradise Inn.

Friday - 9 PM
Starts May 22

Saturday - 9 PM
Starts May 23

Sunday - 9 PM
May 24 Only

Special Programs: Offered at various times during the spring season. See the Jackson Visitor Center and Paradise Inn Bulletin Boards.

Examples of old-growth forest seen by settlers in the Pacific Northwest are few in number today. The Ohanapecosh River Valley is one place where old-growth forest remains. Here you can walk back in time among stately Douglas-fir, western hemlock and western redcedar, 500 to 1,000 years old. The self-guiding nature trail in the Grove of the Patriarchs is an excellent place to experience the sublime qualities of the old forests.

The sparkling clear water of the Ohanapecosh River stands in stark contrast to the brown, milky streams originating from active glaciers. Flowing from an inactive

glacier and snowfields, the Ohanapecosh River reflects the green of the forest and the blue of the sky. Only a mile from Ohanapecosh Campground, the river cascades as beautiful Silver Falls.

Early settlers to the Cowlitz Valley were attracted to Ohanapecosh by the hot springs that bubble from the ground. A complete resort with cabins, bathhouses and other facilities was developed around the springs. Today the buildings and baths are gone, but the shallow springs remain. The self-guiding trail, "Life Systems: the Forest and Hot Springs of Ohanapecosh," describes the beauty and history of this interesting area.



Ohanapecosh

Information & Services

? Ohanapecosh Visitor Center: 9 a.m. - 6 p.m., weekends, May 23/25 & 30/31, June 6/7 & 13/14, then 9 a.m. - 6 p.m., daily beginning June 15. Exhibits feature animals, old-growth forest and local history. The Northwest Interpretive Association provides books, maps and slides for sale.

▲ Ohanapecosh Campground: Opens May 22 for the season. 205 campsites for tents, trailers and/or recreational vehicles, but no group sites are available. Camping fee is \$8 per site per night on a first-come, first-served basis.

🚶 "Life Systems" Self-guiding Trail: 30 minutes. .5 mile. Explore the forest and hot springs of Ohanapecosh on this walk starting at the visitor center.

🍴 Box Canyon Picnic Area: Between Ohanapecosh and Paradise on Stevens Canyon Road.

Naturalist Walks & Programs

Guided Walks to: Grove of the Patriarchs and Silver Falls. Check campground and visitor center bulletin boards for details.	Saturday, June 27 10 AM	Sunday, June 28 10 AM
History Walk: 1 hour, .5 mile. Naturalist led walk through Ohanapecosh Campground. Discover CCC Camp, Hot Springs Resort, Forest Museum, etc. Meet at Ohanapecosh Visitor Center.	Monday, May 25 10 AM	Sunday, June 28 10 AM
Campfire Program: 45 minutes. Discover Mount Rainier through a slide program presented by a Park Naturalist at the Ohanapecosh Campground Amphitheater.	Saturday May 23 & June 6, 13, 20, 27 9 PM	Sunday May 24 & June 28 9 PM

? Sunrise Visitor Center: Opens July 3rd. 9 a.m. - 6 p.m. Exhibits feature the ecology of the park's subalpine environments. The Northwest Interpretive Association provides books, maps and slides for sale.

🍴 Sunrise Lodge: Opens June 27. 10 a.m. - 7 p.m. Food service and gift shop. Provided by Mount Rainier Guest Services.

▲ White River Campground: Opens June 12. 111 sites, no group sites. Camping fee \$6 per site per night, on a first-come, first-served basis.

? White River Hiker Information Center: Opens May 22. 8 a.m. - 4:30 p.m., Monday through Thursday; 8 a.m. - 9 p.m., Friday; 7 a.m. - 7 p.m., Saturday and Sunday. Obtain backcountry permits for overnight trips and hiking information in the ranger station at White River Entrance.



🚶 "Sourdough Ridge" Self-guiding Trail: 1 hour. .5 mile. A moderate walk through flower fields rich in color to a panoramic viewpoint of four high volcanic peaks - Mount Baker, Glacier Peak, Mount Adams and of course, Mount Rainier.

Sunrise- White River

Naturalist Programs

Campfire Program: 45 minutes. Explore the geology and history of Mount Rainier with a Park Naturalist at the campfire circle in White River Campground.	Saturday, July 4 8 PM	Sunday, July 5 8 PM
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🚶 "Carbon River Rain Forest" Self-guiding Trail: 20 minutes. .3 mile. Rain forests seldom occur far from coastal areas; thus, the forest that grows in this valley is special. Explore the only true inland rain forest at Mount Rainier National Park along this trail.

▲ Ipsut Creek Campground: Opens May 22. Has 31 sites; 2 group sites. Only group sites can be reserved for \$2 per person per night. Site fee: \$5 per site per night, on first-come, first-served basis.

🍴 Picnic Tables: Located at Falls Creek, 2 miles from the entrance. Tables are also located in the Ipsut Creek Campground near the end of the Carbon River road.

📡 Campfire Program: Check local bulletin boards for schedules of programs which will begin the first week of July.



Carbon River

Don't Be A Meadow Stomper!

Welcome to Mount Rainier National Park. We value the meadows of Paradise and Sunrise. The flower fields melt out in July and early August and beautiful displays of blossoms spring up as the snow disappears. These lush meadows are very fragile and need special care. Please walk only on the constructed pathways. Do not pick any flowers or trample any plants. Stay on pathways when taking photographs. Picnic only in designated areas - not on the meadows. We want the meadows to remain beautiful for all the world to see.

Bienvenido Al Mount Rainier

Las praderas de Paradise y Sunrise despiertan en nosotros un especial cariño. Los campos de flores se deshuelan en julio y comienzos de agosto y, a medida que desaparece la nieve, florecen los campos con un bello despliegue de colorido. Estas frondosas praderas son muy frágiles y requieren de cuidados especiales; por consiguiente, le rogamos caminar únicamente por los senderos especialmente construidos para tal fin, no cortar las flores ni pisotear las plantas. Permanezca en los senderos al tomar fotografías y haga sus meriendas campestres en las áreas designadas para ello - no en las praderas. Nuestra intención es preservar la belleza de estas praderas para que el mundo entero pueda disfrutar al admirarlas.

Willkommen Im Mount Rainier

Die Bergwiesen von Paradise und Sunrise liegen uns sehr am Herzen. Die Blumenfelder tauen im Juni ab, und im frühen August, wenn der Schnee verschwindet, erscheint eine wunderbare Blütenpracht. Diese üppigen Bergwiesen sind sehr empfindlich und bedürfen besonderer Pflege. Bitte gehen Sie nur auf den gebauten Wegen und pflücken Sie keine Blumen, und treten Sie bitte nicht auf Pflanzen. Wenn Sie fotografieren, bleiben Sie bitte auf den Wegen. Picknicks können nur in den bezeichneten Bereichen abgehalten werden - nicht auf den Bergwiesen. Wir wollen die Schönheit der Bergwiesen für alle erhalten.

Bienvenue Au Mount Rainier

Les pâturages de Paradise et de Sunrise nous sont très précieux. La fonte des neiges, en juillet et début août, y cède la place à de superbes champs de fleurs. Ces riches prairies sont pourtant très fragiles et requièrent des soins particuliers. Veuillez donc à ne marcher que sur les sentiers renforcés. Ne cueillez aucune fleur et n'en écrasez aucune. Restez bien sur les sentiers pour prendre vos photographies et ne mangez que dans les zones de pique-nique indiquées - pas sur l'herbe des prés. Nous voulons en effet préserver leur beauté pour que tout le monde entier puisse en profiter.

歡迎光臨 Mount Rainier (維尼亞山國家公園)!

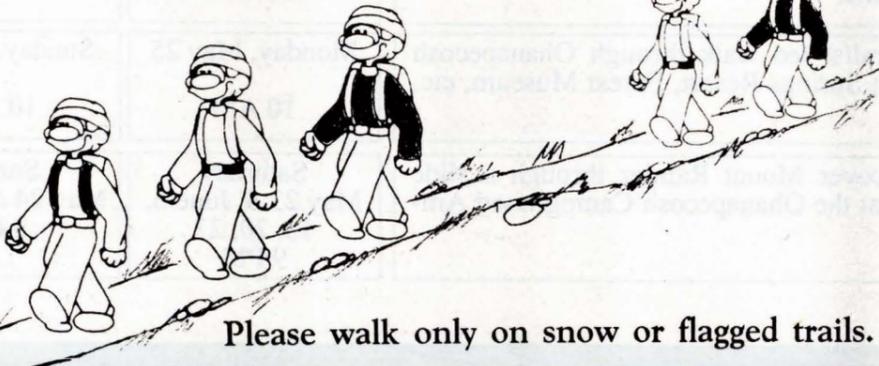
Paradise (天堂)及Sunrise(日出)的草原對我們非常寶貴。七月至八月間，花場開始融雪，冰雪一消失，美麗的花朵便會盛開。這些翠綠的草園非常嬌貴，需要特殊的照顧。請只在建築好的小徑上行走。切勿攀摘花朵或踐踏任何植物。拍照請留在小徑上。野餐要到指定的地方--不可在草地上。我們希望這些草原能保持美麗，好讓全世界觀賞。

Mount Rainier

(マウント・レーニア)

国立公園へようこそ!

草原: Paradise(パラダイス)とSunrise(サンライズ)の草原は私達にとってとても大切なものです。その自然の花畑は7月か8月の始めに顔を出し始め、雪が消えるに従い美しい花々が一斉に咲き始めます。この青々とした草原は非常に傷つきやすく、特別な手入れが必要なので、人工の歩道のみをお使い下さるようお願いいたします。花を摘んだり、植物の上を歩いたりすることは御遠慮下さい。写真撮影の場合も歩道から出ないようにお願いします。ピクニックには指定された場所がありますので、草原でのピクニックは御遠慮ください。世界中の人々に喜んでいただけるように、私達はこの草原をいつまでも美しく保っていきたく願っています。



Off-Trail Hikers May Be Fined

Mount Rainier

(마운트 레이니아 국립공원)에

오신 것을 환영합니다.

Paradise 와 Sunrise (선라이즈)의 목초지는 우리에게 매우 귀중합니다. 칠월과 팔월 초에 이 꽃들은 녹아서 눈이 없어짐에 따라 아름다운 꽃들이 피어 납니다. 이 무성한 목초지는 손상되기가 매우 쉬우므로 각별한 주의가 필요합니다. 반드시 축조된 동로로만 다니십시오. 절대로 꽃을 꺾거나 식물을 밟지 마십시오. 사진을 촬영할 때는 동로안에서 하십시오. 소풍은 - 목초지로 가지 마시고 - 지정된 장소에서 하십시오. 우리는 이 목초지가 아름답게 남아서 모든 세계가 볼 수 있도록 하고 싶습니다.

SAFETY . . . is more than a Word to the Wise!

Mount Rainier National Park presents some special challenges for people seeking an enjoyable visit.

■While Driving - remember that mountain roads are narrow and winding, with short sight distances. Park speed limits are lower for these and other reasons. Wild animals and park visitors often dart out into vehicle paths. Rocks and trees seem to "jump out" onto roadways at every curve. Snow and rain cause slippery road conditions at any time of year. Drivers sometimes pay closer attention to the scenery than to road conditions. For your safety and the protection of park animals and trees - please slow down and park in pullouts to enjoy the scenery. At a slower pace, you just might enjoy the park more. Now, isn't that what you came for?



■Protect Your Valuables - "Don't be a victim," says Park Ranger John Jensen. Vacationers generally are in a relaxed frame of mind, and don't practice the same precautions against thievery as they might at home. Unfortunately, thieves visit Mount Rainier along with the good folks. Rangers urge locking everything of value in the car's trunk, or putting it out of sight, and locking all doors and windows. Purses, billfolds, cameras and other valuables can be prizes for a thief.



■What is Falling on Your Head? Beware of rocks, snow avalanches, and debris falling on trails and rolling onto roadways. Climbers wear hardhats for safety. All of us should keep a sharp watch for what is dropping from overhead.

■Lyme Disease is an illness transmitted by ticks. Not all ticks carry the disease, but several cases have been reported in the Pacific Northwest.

Symptoms can be severe, including arthritis, meningitis, neurological problems and/or cardiac distress. These symptoms can occur a few weeks to over a year after the tick bite. Early signs include a rash around the infected tick bite and flu-like symptoms. Timely treatment can cure or lessen the severity of the disease. If you experience these symptoms and were bitten by a tick, be certain to tell your doctor. If you are diagnosed as having Lyme disease, and you believe that you were bitten at Mount Rainier, have your doctor contact the park at (206)569-2211.



■ Watch your step! Park trails are steep and full of rocks and other hazards. Slips, and falls from small boulders, can mar a vacation just as quickly as a flying leap over a 1000 foot cliff.

■Be Careful Near Streams! Slippery rocks on stream banks cause falls and swift water carries away unwary waders and swimmers. Supervise children near streams and waterfalls and at Box Canyon to avoid drowning.

■Jokulhlaups may be the greatest danger in stream crossings. Jokulhlaups - an Icelandic word pronounced "yo-kul-h-loips" - are flash floods of water that burst from glaciers and race down valleys moving trees, boulders and other objects



in their path. At Mount Rainier, jokulhlaups leave us a legacy of twisted trails and highway bridges amid boulder-strewn streambeds. They can affect human activity where trails or roads cross the stream valleys. This happened at Kautz Creek where a flood buried the roadway under twenty feet of mud and rock in 1947. Several jokulhlaups obliterated the Tahoma Creek Trail in 1988 and closed the Westside Road until a suitable alternate route can be constructed.

People who have witnessed jokulhlaups at Mount Rainier say that the flood waves arrive with local winds and the smell of freshly killed vegetation. The floods sound like freight trains as they travel downvalley at speeds of 9 feet per second or more.

Most Jokulhlaups occur during summer or fall, and in late afternoon or evening. If you intend to observe flood damage at Tahoma Creek or Kautz Creek, be alert. If you hear the onrush of the flow, see the dust cloud upvalley, or feel a sudden change in valley winds, move up hill away from the stream instead of up or down stream. Don't be caught near the streambed. Please heed park regulations regarding travel near flood-prone areas.

■ Before You Drink the Water, BEWARE! The gushing mountain streams and springs of Mount Rainier may be beautiful to look at and delicious to drink from, but too often the waterways are home for some nasty little creatures that can give you less than pleasant memories. Unfortunately, micro-organisms like Giardia have been brought to Mount Rainier by humans. These organisms remain here harbored in native animal populations. Contrary to historic claims, Longmire Mineral and Ohanapecosh hot spring waters are NOT safe to drink. Rather than "curing what ails you," water from these springs could cause severe intestinal upsets. Please drink water only from treated, piped water systems.

