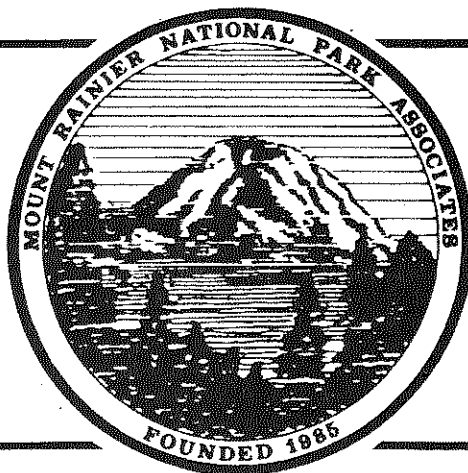


MRNPA**NEWS****NEWSLETTER OF THE MOUNT RAINIER NATIONAL PARK ASSOCIATES****ARTICLES THIS ISSUE...**

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FROM THE SUMMIT...

Erosion from high water has threatened a number of man made improvements in Mount Rainier National Park. A portion of the trail leading up to the suspension bridge below the Carbon Glacier has been washed out by the river. The west side road, which was closed earlier this summer, has again been flooded. A large section of river bank in the Longmire area has been eroded away by high water. Any one individual, visiting the park over even many decades may not see the constant erosion by water, wind and vulcanism.

The Park Superintendent, Neal Guse, has requested emergency funding from the Park Service to deal with these wash-outs. We will keep you informed as the information becomes available.

Soil erosion in the Paradise Meadow do to trampling of flowers by visitors is more evident to the casual visitor. When it is a warm and sunny spring day in the low

lands many of us rush up to Paradise only to find the snow still holding forth, with streams of water and slush everywhere. The result has been that the trails are growing wider than the meadows! The Park Service is reviewing a five year meadow repair plan to repair the damage thru revegetation and prevent future damage by the installation of signs, increased supervision and better trail design.

Mount Rainier National Parks Associates members have worked on reconstruction of Pebble Creek, Alta Vista, and Highline Trails. We will have two more work parties this summer. Come and join us! You do not need special skills and no one works harder or longer than they are capable of or feel they can handle. We always feel proud of what can be do in one day with fifteen or more volunteers.

1989 WORK PARTIES SET

July 21, 22, & 23 (potluck & overnites)
 September 9 (one day only)

OPINIONS WELCOME!

by Cy Hentges, Management Assistant,
 National Park Service
 Mt. Rainier National Park

- The draft Wilderness Management Plan will be available for a 30-day public review in mid-January. Copies will be available at ranger offices and from division chiefs. The public may review the plan at public libraries in Seattle, Tacoma, and Yakima, the regional office in Seattle, and the park headquarters at Tahoma Woods.

(See "Opinions", 2)

- The final draft of the Paradise Meadow Plan is undergoing an in-park review. A copy has also been sent to the MRNPA shelf in the Tacoma Public Library. The plan is an update of the original, 1977 Paradise Meadow Plan. The study area extends north to McClure Rock from the Paradise parking lot and is bounded on the west by the Nisqually Glacier and on the east by the Stevens-Van Trump monument. The plan addresses revegetation goals, priorities and methods; trail standards; signs; and interpretation.

MOUNT RAINIER NEWS BRIEFS

From National Park Service, Mt. Rainier N.P.

Snowshoe walks:

Snowshoe walks will be conducted in the Paradise area on weekends and holidays. The "open walks" are provided at 10:30 a.m. and 2:30 p.m. and normally last approximately 2 hours and cover 1.2 miles. The park will provide snowshoes (if you have none), but does request a \$1 donation to help offset the maintenance and replacement costs of the shoes. There is a limit of 25 people and you must be at least 10 years of age and older to participate.

Park Information:

Call (206) 569-2211, 8:00 a.m. to 6:30 p.m. Mon.-Fri., and 7:30 a.m. to 6:30 p.m. weekends; or (206) 569-2343 for a recorded message.

Travel for November	Nov '88	Nov '87	1988 to Date	1987 to Date	Percent
Visitors	65,556	108,409	1,760,936	1,794,372	- 2% yr
Hotel Guests	339	289	37,650	36,913	+ 2% yr
Auto Campers	401	463	116,936	118,611	- 1% yr
Backcountry Campers	109	263	29,331	31,776	- 8% yr

CALLING ALL VOLUNTEER STEWARDS

If anybody out there has worked 25, 50, 100, 500, or 1,000 hours as a VOLUNTEER STEWARD of Washington's natural resources during 1988, the Volunteers for Outdoor Washington (VOW) would like to hear from you!

To recognize their efforts, VOW would like to present patch awards to those who have worked as resource field volunteers in areas such as trail maintenance and

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TYPISTS: Peg Engel, Sally Soest

LAY-OUT: Van Perdue, Jeff Goulden

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MEMBERSHIP: Margie Goulden

TRAILS/OUTDOOR: Larry Carreau

VISITOR IMPACT: Roger Garrett

revegetation projects (MRNPA work parties count, of course!). Volunteers eligible for patch awards will receive them at VOW's Annual Awards Banquet. This year's dinner is planned as a potluck and will be held on January 28, 1989. For further details, please contact Kim Latimer of VOW at 545-4868 (day) or 776-2237 (evenings). Thanks again for your help! When comes to volunteer stewardship of our natural resources, everybody ends up a winner!!!

Necessary and not necessarily evil

by Peg Engel, MRNPA member

On Saturdays this summer, one of the compelling sights from the Skyline Trail was the shining sea of cars covering the Paradise parking lots and spilling down the shoulders of the roadways. The air quality at Paradise was remarkable, too, as streams of cars cruised slowly through the congested lots. Ugh! Surely we weekend visitors, at least, are ready to promote transit alternatives!

On my first visit to the Grand Canyon 11 summers ago, the west side road on the south rim was closed to cars. Instead, rubber-tired trains took off at frequent intervals, roaming quietly along the scenic drive, stopping regularly to discharge or take on passengers who chose to take breaks or walks. It was at first an unwelcome sign that we were not adventurers, but tourists. However (constrained that trip to staying up on the rim), we found the shuttle provided our most delightful day, allowing private strolls along the rim and (this being before the worst of the air traffic) many hours in the legendary quiet and acoustic drama of the place.

Since then we've used mini-trains and shuttle buses in Dinosaur, Yellowstone, and Mesa Verde Parks, where they are used for interpretive tours or to control access to fragile treasures. Usually quiet, odorless, and open to the air, they can provide relaxing transit.

Yosemite developed legendary traffic jams before shuttle buses were introduced there to take some of its visitors out of their cars. While not an ultimate solution to the problems in that small valley, they showed that many visitors welcome an alternative to driving, and will gladly leave their cars behind.

No other park's experience is exactly applicable to Mount Rainier, with its weekend surges in visitation, where the biggest parking lots are already in subalpine meadows, and the gear of climbers and backpackers adds to the bulk being transported. But, granting the challenges, let's consider some of the advantages that make very appealing the idea of modern mass transit at Mount Rainier.

Interpretation. For many visitors, the only contact with a ranger is a fleeting glimpse at an entrance station. We see the effects of this uninformed mass of users in the maze of trails across the meadows, in dogs romping down the trails, in motley, begging wildlife at viewpoints. Imagine

having staff on shuttles to introduce the park to visitors -- to convey not only the options for enjoying the park, but also its limits, regulations, hazards, and fragility. Are Mesa Verde's cultural treasures more precious than Mount Rainier's pedicularis? Maybe access into subalpine country should be comparably controlled.

Safety. We've all come around corners en route from Paradise or Sunrise to find a car stopped in our lane, or wandering into it from oncoming traffic. It's really better for many people not to have to drive while gaping at scenery! Moreover, even if shuttles do not replace cars but merely join them, their leisurely pace can enforce sane speeds.

Air quality. Imagine Paradise smelling as it should! Do children visiting the park today (those too small or numerous to get into the backcountry) have any idea how fragrant en masse all the subtle smells of the high country can be? We often justify park roads as providing access for less-than-vigorous visitors -- but where have they gotten to if they're not even out of the fumes?

Trail access. How about starting your hike by being dropped off at the trailhead, rather than half a mile up the pavement, past the cars overflowing the trailhead parking?

Wildlife. Wouldn't reduced traffic on the park's roads make them less serious barriers to wildlife? Wouldn't quiet, predictable vehicles enhance our chances of seeing wildlife?

Step off into "backcountry". Roadside vistas now accompanied by the noise and flying grit of passing cars could become quiet stop-off's -- picnic spots with birdsongs and winds for sound-effects, viewpoints where we could hear the waterfalls across the valleys.

Nonetheless, the risk of being restricted to mass transit can appall a regular Mount Rainier visitor. It's a trip we associate with a semblance of freedom, after all -- not the orchestrated people-moving of Disneyland. What about our backpacks? the drive-in campgrounds? the Inns? And where are the lowland parking lots to support trains or shuttles, anyway?

No, Mount Rainier doesn't have an ideal history or design for mass transit, and it certainly poses logistic challenges. On the other hand, it also poses real rewards for introducing alternative transportation -- including the fragrances and sounds of our childhood visits, and maybe even recovery of its legendary meadows. And then maybe "Paradise" wouldn't be the embarrassing misnomer it seemed to be on Saturdays this summer.

CONFERENCE ON

NATIONAL PARK WILDERNESS

by Jon Soest, MRNPA Board

In October, a two day conference was held in Seattle to discuss Wilderness issues and opportunities in the Pacific Northwest National Parks. This conference was very timely, since the Wilderness Bill for Mount Rainier National Park (as well as for Olympic and North Cascades) was concurrently progressing through Congress.

The conference, organized by citizen environmentalists, was attended by several hundred Wilderness and Parks enthusiasts, and by officials from a number of federal agencies including the Park Service, Forest Service, and Fish and Wildlife Service. MRNPA was a cosponsor of the conference, and was well represented by board and individual members.

Attendees heard about proposals for Wilderness in the Northwest Parks, the ecosystem concept for Park resource protection, threats to the Parks and plans for new parks, and long range plans for Wilderness protection.

Several well-known national environmental leaders gave inspiring and informative talks about the Wilderness Act, the National Park concept, and the future of both. Included in this list of speakers: David Brower (Earth Island Institute), Richard Cellarius (Sierra), Rupert Cutler (Defenders of Wildlife), Brock Evans (Audubon), Destry Jarvis (NPCA), Mike McCloskey (Sierra), Doug Scott (Sierra), and Edgar Wayburn (Sierra).

Representatives of the three corresponding citizens' groups reviewed Wilderness proposals for the three Washington parks. MRNPA President Bob Aegerter spoke about the MRNP Wilderness proposal.

Mountaineers President Carsten Lien discussed the long struggle for protection of wilderness in the Olympic National Park, and why the battle will never be over, particularly in a resource (i.e. timber) rich region like the Olympic Peninsula (or in those remnants of old growth forests that still surround Mount Rainier!)

The ecosystem concept of protection of natural resources was introduced by a number of citizen conservationists, particularly author Michael Fromme of Huxley College (WWU). This idea broadens the view of resource protection to include all the ecological zones that are essential to preserve the habitats of the plant and animal residents of the Parks. In most cases these zones extend far beyond the

artificial Park boundaries that were defined long ago in some remote government office - usually with the willing assistance of the resource "developers". Several governmental agencies also had representatives speak to this concept. Unfortunately, in my opinion, they were not able to rise above the idea of bureaucratic cooperation as a panacea for the problems introduced by historical agency squabbles and outdated ecological concepts.

Kevin Coyle of the American Rivers Council made an important presentation on the need for the Wild and Scenic Rivers designations around National Parks. This is a current issue in Washington State, where many rivers have been proposed for inclusion in this system, and where a hot and heavy battle seems to be forming.

Finally, new National Park proposals in Idaho (Sawtooth, City of Rocks, Hell's Canyon, and Craters of the Moon), and in Oregon (Siskiyou) were discussed. The audience expressed strong support for new National Parks in the Northwest.

This Conference was renewing and invigorating for the attendees, and we can expect actions and proposals to reverberate throughout the Northwest for years to come. Special thanks go to MRNPA board members and activists Polly Dyer (also President of the sponsoring organization), Bob Aegerter, Norm Winn, Nancy Baker, John and Yolanda Thompson, and many others for their assistance with organization or participation in presentations during the conference.

Watch for the announcement of a follow-up Wilderness Conference in the fall of 1989.

NOTES FROM EDITORIAL COORDINATOR

by Margie Goulden

1. A BIG THANK YOU to the Editorial Staff who so willingly give of their time to produce this newsletter four times a year. It's a big job -- one that I cannot do by myself. I really appreciate the enthusiasm, the cheerfulness, and the always positive YES response I get whenever I ask for help.
2. Not to forget those special child-care friends who lovingly care for my daughter, Molly, while I coordinate newsletter items and run errands. Thanks to Nancy & Anne Scraggin and Ellen Ostern -- MRNPA members doing their parts, too!
3. If anyone else would like to join our bright, cheerful, and productive team, please contact Margie Goulden at 863-3265. We can always use help with lay-out, typing, and mailing. Thanks again, everyone. I'm looking forward to a good year and a good newsletter.

CARBON RIVER SCENIC

RIVER DESIGNATION PROPOSED

by John Thompson, MRNPA member

Twelve years ago the Washington legislature set in motion a process to preserve a few of the many rivers of the state. At last, during this year of our centennial, we may be able to save some from further alteration by designating them as scenic rivers. As a result of the recent work of the Washington State Scenic Rivers program, six rivers are to be presented to the legislature for addition to the state's Scenic River System. They are:

1. Carbon -- full length
2. Cispus -- full length
3. Green -- Kent to Kanasket State Park
4. Lewis -- headwaters to Swift reservoir
5. Little Spokane -- highway 395 to Spokane River
6. Washougal -- full length

Additionally there are twelve more that have been thoroughly studied for submission and designation at a later date.

What now and what's next? First, become familiar with the law. Essentially, once a river has legislative designation, all related public agencies must work in accordance with a comprehensive management plan for that river. The plan is a set of policies and objectives cooperatively developed by concerned people, local government, and state agencies, based on the law and the premise that the river is to remain scenic and free flowing.

Private landowners along the river are not directly impacted; no power of condemnation or denial of land use exists in the law. The Scenic River program does encourage the participation of all parties concerned -- citizens, communities, clubs -- in the formulation of the management plan for the river corridor.

What needs doing next is a concerted effort to make our legislators aware of the public interest in designating and preserving these rivers as scenic. So, as usual, call -- write -- put on the pressure. As for MRNPA, the Carbon should be of particular concern as a major portion of the Park's northern boundary. And, though the Carbon valley outside the Park currently is (for the most part) an unsightly mess of clearcuts, it WILL be green again and could be one of the more scenic approaches to the Park; the Scenic designation would be a very major assist.

For more information, contact Steven A. Starlund, Manager, Scenic Rivers Program, State Parks and Recreation Commission, 7150 Cleanwater Lane, KY-11, Olympia, WA 98504-5711.

Carbon Country
by Larry Carreau

Scattered souls prance
through these parts --
The snowshoer and the fawn.
She awaits in glistening silence --
To greet their noisy throng.
How many souls have touched this trail? --
Where faint impressions lie.
Lovers stumble and ravens wail!
Their home is in the sky !!!

JUST WHAT IS PARADISE ?

The following letters appeared in the Tacoma News Tribune in 1988. Larry Carreau is an MRNPA member dedicated to the preservation of our parks. What is Paradise to you?

Rainier Parking. TNT 1-29-88

The article on Mount Rainier National Park visitors (TNT, 1-9) about limiting vehicles within the park is a waste of Washington state's No. 1 attraction. We should be finding ways to better the facilities, not limit them. Why not some land for more parking areas? A few trees and a few flowers removed would not hurt the beauty of the park -- and besides, what good are the trees and flowers if we can't get inside the park to see them? More park rangers are not the answer -- more parking space is.

I have always been proud to answer the question "Where do you live?" with "on the road to paradise." Let's make a paradise out of Mount Rainier for everyone who wants to make the trip. Half the enjoyment of going is driving those beautiful tree covered, curvey, scenic roads and finding a parking space upon arrival.

Marjorie Sarver, Ashford

Paradise Parking. TNT 1-6-88

Marjorie Sarver's letter (TNT, 1-29) expressing the need for more parking lots in Mount Rainier National Park prompts my response.

I think we should be looking at ways to reduce (not strengthen) the the crush of humanity our beloved park is currently facing. More parking lots? Our park's fragile alpine meadows deserve much better than that.

(See "Paradise", 6)

("Paradise," continued from 5)

A shuttle-bus service is my answer. Adequate busing would relieve the park of "indigestible lumps of weekend visitors," and still provide "aesthetic access" to the high country. And just think, there would be less park traffic to boot. Now that on its own would be "paradise" for me.

Larry Carreau, Puyallup

THE JOKULHLAUPS OF RAINIER

by Larry Carreau

"Gather around, MRNPA NEWS readers, and you shall hear --

What transpires when cavities lose their fillings on Mount Rainier.

Jokulhlaups ("yo-kul-h-loips") is the Icelandic term,

Also known as glacial outburst floods and debris flows,

Which originate from meltwater stored in subglacial cavities --

(As USGS glaciologist Carolyn Dreidger's study shows)."

Here are two excerpts from Dreidger's report, Geology In Action -- Jokulhlaups On Mount Rainier.

Those who have witnessed jokulhlaups at Mount Rainier tell of an experience long remembered. The jokulhlaup flood wave is a noisy, tumbling, churning mass of mud and rocks that is sometimes accompanied by local winds, thick dust clouds, and the smell of freshly crushed vegetation. It sounds like a freight train as it travels down-valley at speeds of 10 miles per hour or more. Witnesses close to the flood plain report that little more than 2 minutes may elapse between the time the thundering sound of a jokulhlaup is first heard and the time that it roars by the observer. It moves faster than a person can run to escape from the center of its path in a boulder-strewn valley. The almost deafening noise is caused by the impact of rocks and boulders, some the size of large automobiles, as they strike one another or immobile rocks on the bed and banks. The ground near the flow shakes violently from the impacts.

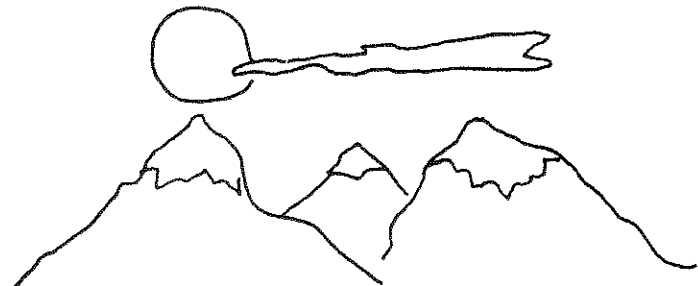
Tahoma Creek was the center of jokulhlaup activity in the park during 1987 and 1988. At the Wonderland Trail bridge, five floods flushed through the valley between October 1986 and September 1987, raised the water level by about 30 feet, and scoured the valley bottom upstream to a depth of 6 feet or more. Similar floods occurred again on July 14 and 26, 1988.

I recently spoke to Carolyn Dreidger at the U.S. Geological Survey Headquarters Office in Tacoma. Dreidger expressed her respect for northwest glaciers. "Every glacier has its own dynamic response," she said.

Earlier this year, Dreidger took part in an aerial survey of the S. Tahoma Glacier. What she saw was plenty of rockfall, but NO "steam columns" or additional visible evidence of geothermal heating. Her continuing study will focus on sub-glacial plumbing, (particularly beneath the South Tahoma Glacier). In her concurring report, Dreidger adds, "Mount Rainier National Park was established to conserve not an extinct volcano, but one that is dormant and ever-changing."

(NOTE: On October 16, 1988, USGS devices being used to record passing floods were washed away and destroyed by the Tahoma Creek debris flow. And the park states that current closure of the flood-ravaged West Side Road "is not expected to be lifted until after next summer." The saga continues....)

Ref.: U.S. Geological Survey Open-File Report 88-459, Carolyn Dreidger, 1988. A glaciologist, Dreidger has conducted extensive field work on glaciers in the western U.S. and Alaska since 1978. Recent studies include glacier-volcano interaction and the book, A Visitor's Guide to Mount Rainier Glaciers. Carolyn is continuing her study of glacial outburst floods within the park.



GLACIERS OF MT. RAINIER

Volcanic eruptions, snowstorms, sun, running water, and mud flows.... How have they formed the 25 glaciers on Mt. Rainier? What glacial processes can we see on The Mountain today?

Slide presentation by Carolyn Dreidger, glaciologist with USGS, author of A Visitor's Guide to Mt. Rainier Glaciers.

Tuesday, Jan. 31, 7:30 p.m.
Prusik Room, Mountaineers
300 3rd Ave. W., Seattle

Refreshments

THE VANISHING BACKPACKER

by Glenda Chui
Knight-Ridder News Service

National Park officials may have to add another endangered species to the list: *Backpackus americanus*.

Sightings of this distinctive beast, with its denim hide and clunky footwear, have fallen sharply.

While record crowds are jamming the national parks, backpacking has dropped 40 percent since its peak in 1976. It's now at its lowest level since 1972.

Where did all the backpackers go? There are plenty of theories, but no firm answers.

Maybe backpacking was just a fad, a child of the back-to-nature movement that has faded in the pastel '80's.

Maybe people are deserting the trails for more exotic recreation, such as sea kayaking or rafting the Zambezi.

Or maybe the backpacking generation has simply grown up.

"They have 2.3 kids, two cars and more of a real job than they really want to know about," offered Dave Getchell, associate editor of *Backpacker* magazine. "They just don't have time to devote to those kinds of things."

"I think what happened is that the trendiness, the fashion wore off," said Laurel Munson, assistant wilderness unit manager at Yosemite National Park. "So the only ones of us who are still doing it are the ones who liked it."

It's a paradox: Visits to national parks are soaring. Last year they were up 33 percent over 1976, for a record high of 287 million.

But the crowds are jamming into the most accessible areas of the parks, leaving wilderness areas relatively empty.

In Yosemite 90 percent of visitors gravitate to the main valley, which becomes so congested on holiday weekends rangers have to restrict traffic. As of June, total visits were up 17 percent over last year.

Yet overnight stays in the back country have fallen by almost half, from 236,000 in 1975 to 125,000 in 1987. Only a quarter of the park's 75 trailheads routinely fill up.

Nationally, an increasing percentage of park visitors are dropping in just for the day. When they do spend the night, they're more likely to take it easy in a motel or other lodging run by a concessionaire; this type of stay has increased by 20 percent since 1976.

Tent camping, an old mainstay of families with children, is holding its own. But backpacking, the domain of the hale and hearty, fell off by 40 percent.

Some backpackers may have been lured away to U.S. Forest Service lands, where there are fewer regulations. But since the Forest Service doesn't keep statistics on backpacking, it is impossible to tell.

The decline of backpacking may be a matter of demographics. According to surveys at Yosemite, the average backpacker is 16 to 24 years old. That age group has shrunk by 3 million in the past 12 years.

Indeed, industry observers say fewer young people are getting into backpacking.

"The average backpacker seems to be aging, and there doesn't seem to be a lot of growth in the younger groups," said Getchell, whose magazine tracks the backpacking audience.

And increasingly, he said, older nature lovers seem to want their wilderness experience in short bursts, fueling a boom in sports that can be enjoyed in a day or two: rock climbing, mountain biking, sailboarding.

"I think it's something that's generally happening in America, that people are after instant gratification. In all kinds of sports you see it," said Galen Rowell, a Berkeley photographer who has hiked and climbed all over the world.

In the past, he said, people would travel long distances to climb a peak. Today, "Rock climbing is...a gymnastic sport where people wear Lycra tights and do things on short cliffs within sight of the road."

More prosperous nature lovers can choose from the exotic offerings of the "adventure travel" industry, from trekking in the Andes to rafting in New Zealand.

Pam Montgomery, editor of *Outdoor Retailer*, a trade magazine based in Southern California, thinks this explosion of choices may have lured people away from backpacking.

"There's an awful lot competing for people's leisure time and money," she said. "Many of these people have less leisure time, and they probably have more money than they did in the '60's."



Scott Willis
San Jose Mercury News
Copley News Service

IT WAS A GOOD YEAR FOR YELLOWJACKETS

by Larry Carreau

Ahh, sunup in the wilderness! -- time to get out the ole frying pan. "Oooops! Hey Martha, those yellow-and-black marauders have returned to perform heinous acts of crime on our succulent slices of smoked Spam again!"

"Oh -- don't worry, Larry! Contrary to popular belief, yellowjackets are quite beneficial. They feed their brood those insects that ordinarily cause damage to trees and crops."

"Well where in the wide wilderness do these bountiful bundles of vitality set up shop?"

"There are two groups of yellowjackets: 1) those nesting in the ground or at ground level (Paravespula pennsylvanica); and 2) those nesting in trees or at tree level (Dolichovespula arenaria). Nests are built of pre-chewed wood fiber resembling paper, completely enclosed except for a small opening at the bottom. (If nests are disturbed, yellowjackets will sting repeatedly and viciously.)"

"That's great, Martha! But perhaps I'll understand these vivacious virtuosos of pestilence better if you give me the lowdown on their life cycles."

"Yellowjackets have annual colonies, and the only colony members to over-winter are inseminated queens."

"Oh, so male yellowjackets perform an important role in 'vespidian' society."

"Yes, Larry. But the males die soon afterwards. Anyway, in spring the queen builds a small nest to lay her eggs. When the eggs hatch, the queen feeds the young brood for about 18 to 20 days. Larvae then pupate to emerge as small, infertile females called workers. The workers begin rearing and feeding the brood, and the nest expands. Maximum nest size is attained in August and September. About this time, reproductive cells are built, producing new males and queens for mating. When cold weather begins, all die except for newly inseminated queens, which over-winter in leaf litter and soil. The nest disintegrates over the winter, and the cycle starts over in spring."

"Thanks, Martha! But what if my unwelcome presence within the perimeter of a 'vespidian' nesting site causes a seething mass of animosity to swarm into the midnite of my existence?"

"Simply apply a pinch of moistened table salt directly to the sting site and leave it in place 30 minutes. The differential in concentrations tends to draw some of the venom out of the flesh. This treatment can

be used in conjunction with antihistamine tablets." (Remember, some people react violently to wasp and bee stings.)

"Well, Martha, let's make tracks back down to the Puget Sound megalopolis to replenish our stockpile of smoked Spam for next summer! Sound like a deal???" (Thanks go to Steve Witcher at Washington State University Research and Extension Center for answering questions about Larry's vespid friends.)

Yellow jackets offer no protection
From the firestorms that engulf my heart.
Yet persistent stings bring resurrection
To the bodies of my poetic art.
Frenzied fever sends their cold hearts
 swarming
Into the midnight of my existence.
Another morning falls without warning --
My fractious friends fade into the distance.

(This poem won honorable mention in 1988's Washington Poets Association contest.)

Editor's Note: Ever wonder about the increased population of yellowjackets? Larry's research netted two possible theories:

- The Humboldt Effect, which creates a variation in offshore weather patterns.

- The Greenhouse Effect, which creates a gradual warming trend on the earth.

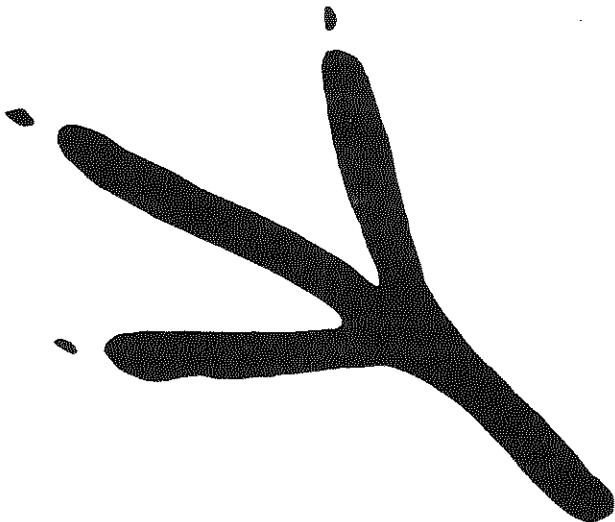
Whatever the reason for so many "yellow and black marauders", I'm glad they're doing their part to protect our trees and food supplies.

ANIMAL TRACKS

Bald Eagle

These imposing, fairly shy birds are at once awesome and humorous. Where you find their tracks, you may spot them perched in evergreens or cottonwoods nearby, waiting for something edible to materialize, usually a fish. Their nests are likewise conspicuous -- huge clusters of sticks resting atop old trees or cliffs. The first-hatched bald eagle is one of the only chicks of any eagle species that does not kill its later-arriving siblings; thus couples commonly raise two or three

(See "Tracks", 9)



offspring each year. Immature bald eagles languish through four-year identity crises, during which their motley brown plumage is often mistaken for their less common golden eagle cousins. The distinctive white head and tail feathers grow in the fifth year.

Eagles' talons are adapted for grasping, not walking, and they generally refrain from walking. You can expect to find only a few tracks in any one spot, usually around a fish carcass on a riverbank or ocean beach. Often only the toes leave prints, but the talon spread of up to six inches will readily identify the maker.

Order: Falconiformes

Family: Accipitridae (hawks, kites, and eagles)

Range: Common through coastal Alaska and Canada; less common elsewhere, but slowly increasing.

Habitat: Coastlines of lakes, rivers, and oceans.

Size and weight: length three feet, wingspan to seven feet; ten pounds.

Diet: Primarily fish; also carrion, small mammals, ducklings.

Sounds: loud, abrupt, metallic "choik" or harsh "kleek-kik-ik-ik-ik."

From Animal Tracks of the Pacific Northwest, by Karen Pandell and Chris Stall.

BEARGRASS

by Mary Fries, MRNPA member

Beargrass is somewhat of a mystery. Why does it sometimes cover large areas with spectacular bloom, while in other years only a few flowers may be seen? It bloomed this past season below Yellowstone Cliffs on the Northern Loop Trail, but not on the road between Longmire and Cougar Flats where

there are many plants. Colonies of plants appear to be synchronized, but not uniformly throughout the park.

Beargrass has rhizomes, specialized underground stems which store nutrients. Each rhizome takes a number of years to mature, bloom, then die. In the meantime offshoots from this rhizome have developed to continue the process, and aboveground the plant looks like any other perennial. That the beargrass blooms only in the sun is another factor. Major changes in habitat such as clearcutting or fire can affect all plants in a patch simultaneously, resulting in a synchronized pattern thereafter. But there is still a question -- why are new rhizomes not developing continuously in such a way as to provide yearly bloom?

This curious pattern of bloom has been of interest mainly to amateurs, and no scientific studies have been made. This may change because beargrass suddenly had become an item of floral commerce. Leaves are collected and sent as far as the East Coast, where they are valued for their long-lasting quality. Their toughness was also prized by Native Americans for basketmaking. Harvest has been heavy in some areas, but should not affect the number of blooms for some time, because only the deeper-colored leaves growing in the shade are cut. The Forest Service was little concerned at first, because to them beargrass is a weed; beargrass grows thicker after clearcutting and may inhibit reforestation.

National Forests in Oregon and southern Washington have found they cannot simply sell permits, but must police pickers to be sure they do not pick more than their permits allow and that no one takes beargrass without a permit. There is some public concern that too much harvest is being allowed. A study area has been set up in the Gifford Pinchot National Forest to evaluate the effect of picking leaves and to determine which of several methods allows faster recovery. Cutting out the desired center leaves results in a truncated tuft the following season.

Deer will eat the sweet buds, leaving the lower part of the stalk. Bears eat the rhizomes, hence the name beargrass. After spring snowmelt piles of dry leaves are sometimes seen, cut in small pieces, probably the winter nest of a small rodent such as a vole.

Beargrass is not a grass but a member of the lily family. The most easily observed characteristics of this family are that flower parts are usually in 3's and 6's, seed capsules develop within the flower, and leaves are parallel-veined. Clusters of the small flowers often provide a showy, delightful display. But the mystery remains: where will they bloom next year?

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