



MRNPA NEWS

Volume 7 Number 4 Fall 1993

From the Summit

by John Titland, President

As this summer ends, I am having trouble deciding what I should write in this column. The problem is not that this has been a slow summer; it hasn't. MRNPA members have participated in three work parties at the Park. One of our members was a participant on the committee tasked with making a recommendation on the Sunrise Lodge. Our members have been monitoring the progress of the Highway 410 project. We are being watchful of other events in the Park. The problem is that no matter how vigilant we are of events in the Park, it is events taking place outside the Park which are potentially most damaging.

The most telling example is the Timber Summit and adoption of the hastily drawn-up Option 9 of the Northwest Forest Plan. Does Option 9 specifically deal with Mt. Rainier National Park? No. Will Option 9 impact the Park? I'm sure it will! In fact, Option 9 reclassifies two areas on the Park's western boundary (one between the Mowich and Carbon River roads, and the other near the Nisqually entrance), moving them out of the protected category and into the commodity matrix. This change means these areas will be available for harvest or other "management" as set forth in Forest Service Management Plans. The Forest Service's "management" of lands near the Park has already left the Park as an isolated island in a landscape overwhelmed by clearcuts. (Anyone who doubts this should climb to a high point along one of the Park boundaries and look out across the bald hillsides). Isolation and fragmentation of habitat zones are far more damaging to the Park's forest and wildlife than anything proposed to take place within the Park. I know of nothing in Option 9 that will make for improvement for the Park and reducing the protection of areas

Continued on page two

Some Views on the 410 Widening Project

The following letters protesting the 410 road widening project were sent recently to Allan Stockman, Environmental Engineer, Western Federal Lands Highway Division.

"Dear Mr. Stockman:

Please enter the following comments into the official record for this project.

My objection to the proposed highway design is not an aesthetic one. You continue to treat mitigation as a visual design issue. This is not only about the mountain moonwort, mountain yew, marbled murrelet, or the northern spotted owl. Destroying old growth forest and filling first class wetlands because an occasional driver cannot keep a vehicle within the traveled way is an arrogant and unacceptable abuse of power. If the human species is going to live successfully on this planet, we are going to have to show much more respect for the natural systems that sustain us. You can simulate the environment on your computer, but you can't recreate it.

The clear zones cannot be labeled as natural areas. In this biological zone, any stable open area will revert to mixed forest in a

Continued on page three

In This Issue

From the Summit.....	1
Some Views on the 410 Widening Project	1
MRNPA Work Party - August 14, 1993.....	4
Thank you for your efforts!	5
Mending the Meadow - Part 2.....	5
Option 9 - the Ancient Forest Plan	7
"It was so easy then....."	9
The Important Influence of Fire at Mt. Rainier	10
Controlling Exotic Plants.....	10
Fish in the Park.....	11
Fall Facility Closures	14

From the Summit cont'ed...

along the Park boundaries can clearly cause damage.

I am told to not be so depressed and that the Clinton Administration is working for changes in the system. It may be, but the old ways have many defenders.

Just last week, senators from western states, including our own Slade Gorton, blocked Secretary of Interior Babbitt's effort to raise fees for grazing cattle and sheep on federal rangeland, despite the fact that the current fees charged by the federal government are about one fifth of what the State of Washington charges and one tenth what ranchers charge each other. The senators argued that continuing the current federal subsidy for ranchers is far more important than efforts to restore the condition of western rangelands managed by the Bureau of Land Management and the Forest Service.

We hear the same argument when we ask why the Forest Service has made so little effort to restore clearcuts and mitigate the damage they have caused. "It's too expensive, and besides, trees will grow back by themselves". The old ways are fine according to people who care more about short term monetary gain than the long term health of the land (and ultimately the planet).

The summer, 1993 issue of "Trout", Trout Unlimited's national magazine, contains a series of articles under the title "Can We Save America's Pacific Salmon?" In one of the articles, the author, Peter B. Moyle, Ph.D., states:

"The near-destruction of our anadromous fishes is the result of abuse of our land and waterways on a massive scale by a society with too much faith in technological solutions to environmental problems, too little view towards the future, and too little memory of what has been lost. Reversing this process cannot be done with hesitant, halfway measures. Our society will have to put back into the system some of the wealth that has carelessly been extracted from it."

The subject of Dr. Moyle's remarks was anadromous fish (salmon, steelhead, searun cutthroat, etc.) but the same observation applies to the great forests that once surrounded Mt. Rainier.

I am painting a very grim picture, but I believe it is one we have to face, if we hope to gain long-term protection for Mt. Rainier National Park and its surroundings. With a new federal administration and several new members in the Washington State delegation, there is hope of action to change the way that federal lands are "managed". Now is our best

chance. But to get any action, each of us must do more than just read what I have written in this column. Please write to your senators and representatives and to Secretary of Interior Babbitt and Secretary of Agriculture Espy. Tell them your concerns and urge action. Look outside as well as inside the Park.

If everyone in MRNPA wrote only three letters a year and sent copies to each member of the Washington State delegation, I'd bet there would be a whole lot more sensitivity to Mt. Rainier National Park. I have to add that when I first joined MRNPA, I was skeptical that this kind of an approach would yield any benefits. I still find it slow and frustrating. However, I have learned, nobody hears us if we don't speak out.

One final item, the MRNPA Board of Trustees now meets on the 3rd Thursday of odd numbered months. We are currently meeting at the Kent Public Library between 7 pm and 9 pm. If you are interested in Mt. Rainier National Park and are willing to become active in MRNPA, please call me or drop in on one of the Board meetings.

Officers of MRPNA

President	John Titland	(206) 747-1698
Vice-President	David Berry	(206) 752-3546
Secretary	John Thompson	(206) 829-0377
Treasurer	Bob Aegerter	(206) 547-4492
Editor	Joan Burton	(206) 524-1327
Layout	Bob Landen	(206) 854-2473

The MRNPA News is published periodically by the Mount Rainier National Park Associates of Seattle, WA, for the purpose of providing general information about issues affecting Mount Rainier National Park in furtherance of the goals of the Mount Rainier National Park Associates - *To Maintain, Restore, Nurture, Protect and Appreciate the natural values of Mt. Rainier National Park.*

The opinions expressed in the MRNPA News are those of the authors and do not necessarily represent the official position of the MNRPA.

Letters and articles from readers and members are welcomed. We reserve the right to edit for length, grammar or libel.

Unless specifically copyrighted, articles and graphics may be reprinted without prior permission if appropriate credit is given.

410 Widening Views continued ...

very few years. If you will not tolerate plant material over 4 inches in diameter, the areas will have to be artificially maintained by trimming or mowing. This is not a natural area.

I request that you use the 16 foot minimum clear area recommended by AASHTO standards as the maximum, and increase the use of guard rail and guard wall to minimize the destruction of natural resources. A significant portion of the trees cut are outside the clear zone. This can be minimized by the use of retaining walls and other structures to reduce the impact on the environment.

Chip the slash and use it for mulch; don't burn it as proposed. Don't sell the timber that must be cut; use it in the disturbed areas to speed the restoration. One of the reasons the areas cleared in the 1930's did not recover quickly is that your predecessors mistakenly thought they were in their mothers' kitchens and cleaned the floor with misdirected diligence.

You have acknowledged that the proposal is not finalized, and further design decisions having an impact on the environment are still being made. The design has not been developed far enough to justify the EA determination. Involve the public in the further project design decision making before you finalize the environmental assessment process. Make the review of spotted owl impact by the Forest Service Technical Oversight Committee process open to the public. Fully comply with the Yew Tree conservation program. Wind throw of standing trees at the new edge will be a significant problem where additional clearing is performed.

I encourage the upgrading of campgrounds as proposed by the Forest Service.

Reduce the speed at the approach to the Park entrance. In the winter this is often a chain-up area. There is a difficult-to-see turn to the Crystal Mountain Ski Resort. In the summer out-of-state people about to enter the Park are looking for the entrance station. For enforcement, sign and use the Silver Creek Guard Station as State Patrol.

I am most disappointed to find no mention of the joint effort by Park Service, State Highway Department, State Patrol and Forest Service to relocate facilities to a joint operations center. This document is incomplete without it.

The White River is proposed for Wild and Scenic designation. There should be no intrusion in the wetlands of the river system. Make the documentation for the Corps of Engineers Section 404 permit and Pierce County Shorelines Management Permit available to the public. Issue written invitation for their participation.

The impacts of the Cow Flat Rock Pits are a part of this project and decisions about their location, extent, and mitigation cannot be made after this EA has been finalized without jeopardizing the process.

An alternative that would repave the road and shoulders without rebuilding the road prism is a legitimate alternative to be studied under this EA even if the funding source would be different.

Reevaluate the presentation of the accident data. Safety is the only significant justification presented for rebuilding the road rather than simply repaving. If the data has been represented in a misleading way, the NEPA process has not been served. Reevaluate the data and reissue an amended EA.

In a number of ways, this document is incomplete. You are well advised to listen carefully to the citizen comments, carefully redesign the project, building on what you have learned, and reissue a revised and adequate EA. Failure to do so may unnecessarily entangle the project in appeals.

Thank you for the opportunity to comment on the design and sufficiency of the EA for this project."

Sincerely,
Bob Aegerter

Dear Mr. Stockman;

"At the May 11 public meeting in Enumclaw I said I would write a letter of comment on the Mather Memorial Parkway Environmental Assessment. This statement is made on behalf of the South Sound Chapter of the Washington Native Plant Society.

Landscaping 9.9 miles in variable widths up to twenty feet wide on both sides of the highway would be an expensive proposition. Is the plan simply to cut the objectionable trees for much of the way, leaving roots in the ground and leaving the undergrowth? How much of the roadside, where trees will be cut, has undergrowth which can be expected to survive in increased sunlight? Is grading and revegetation contemplated only where steep slopes need to be stabilized or where slopes need to be lessened for recovery purposes? Answers to these questions are needed for an adequate environmental assessment. A promise to develop a vegetation plan later is not enough.

Also, how will the recovery area be made to look natural?

We are concerned by the lack of detailed planning for revegetation. The EA does not give an adequate inven-

continued on next page

410 Widening Views continued ...

tory and assessment of the vegetation now growing in the highway corridor, and how many of the species could be used on a cleared roadside. The Forest Service analysis of the effects of reconstruction on the White River as a wild and scenic one, refers several times to revegetating slopes beside the river with native plants. The Mather Memorial Parkway Newsletter, April 6, 1993, states that consideration is being given to a contract with the US Soil Conservation Service to collect seed and to reproduce native species of grasses, forbs, shrubs and trees. No native grasses with soil-covering potential exist along this stretch of highway; whatever is along the edge now was introduced. Forbs native to the area, which would adjust to life without tree cover, also are scarce. Shrubs should not be reproduced with the time-consuming seed method, but with the quicker and more efficient process of taking cuttings.

A factor which needs attention is that of exotic (non-native) plants. Conditions conducive to natural re-seeding of natives will be even more favorable for invasion by weed propagates, much more abundant than 60 years ago, when this highway was built without cleared recovery zones. Non-native plants are present in all disturbed areas of the state, and are too easily moved into newly disturbed ones. Most of these non-natives are better adapted to sunlight and dry conditions than are the shade-tolerant plants of the forest. Examples of highly undesirable weeds likely to invade the roadside include Canada thistle, spotted and diffuse knapweeds, Scotch broom, Dalmatian toadflax, and the list could go on. Oxeye daisy and St. Johnswort and others now on this roadside will spread into cleared areas. The best defense is to clear as little as possible.

Your report of the scoping meetings included many requests to refrain from cutting trees. The EA does not give adequate reasons for cutting a clear zone. Was there public input into the guidelines of the American Association of State Highway and Transportation Officials?

Forest ambiance, which is the reason for the Memorial Parkway, is partially lost by widening the pavement. This ambiance is lost completely when additional expanse is cleared for flattened slopes and for recovery zones. Without the forest leading into mountain scenery, the mountains lose their natural base. The road no longer will fit Stephen Mather's vision; the parkway dedication might as well be rescinded.

The Mather Memorial Parkway is a scenic road; travelers with time constraints should choose another route to Yakima, or conversely to the coast. A speed limit of 45 miles per hour would reduce safety concerns with-

out ruining scenic value. (Forests, as well as distant views, are scenery.) Although the statement is true that for a portion of the year the parkway serves as an alternate route for travelers between the Yakima Valley and Puget Sound areas, this fact need not determine highway conditions in a recreational area.

The parkway designation in 1931 stated: "Utilization shall not be permitted to impair the scenic value of the area." This would include the use of the road as a through route.

We would appreciate an opportunity to review the decisions of the SEE Team on trees to be left and areas to be cleared. We also would like to review plans and species lists for revegetation.

Thank you for your consideration."

Mary Fries
Washington Native Plant Society

MRNPA Work Party August 14, 1993

by Dick Baker, MRNPA

Does a water bar sound like a good place where you can't get beer? That would have been as good a definition as I could have come up with before this work party. Though I have hiked across thousands of them, I didn't know the slabs of wood embedded in sloping trails to slow erosion were called water bars.

Ten of us showed up early Saturday morning to provide the person-power for trail supervisor, Steve Scott. We hiked up the Upper Reflection Lake Trail near Paradise for about a mile. From a stash of split cedar we carried and placed the bars strategically about every five feet. Lots of good dirty labor dug them into trenches with a couple of inches protruding. The exception was a spot with a yellow jacket nest in the dirt bank next to the trail. Fog, and later, drizzle allowed us to focus on the meadow's lovely flowers and trees, rather than the long mountain views.

Like good unpaid laborers, we decided our own lunch hour, and Steve gave in to join us. Mary Fries was so occupied in transplanting the flowers and seedlings that had to be dug up from the trailside that she needed a personal invitation to stop. The system became finely honed in the afternoon. John Titland and John Wald attacked roots and dirt forcefully. Jane Titland was dry and warm, as well as effective, in her bright yellow rainwear. Other teams were Bob and Mary Jo Aegerter, Sue and Howard Selmer, and Jeanette Franks and Dick Baker.

continued on next page

August Trail Party continued ...

After the hike out and tailgate refreshments, the group retired to Cougar Roack Campground. John Wald made excellent spaghetti as a main dish to accompany wonderful potluck contributions. Notably, the campfire discussion included locating some Park sites on Jeannette's map on her T-shirt. Bob Aegerter forgot his tent poles, so there was an ingenious webbing of ropes in the trees to dangle their tent. Otherwise, we spent a very peaceful night in a beautiful section of the campground.

Sunday was a day for hikes and the drive home. A small black bear was spotted from the road below Paradise Inn, and we can recommend the five-mile Bluff Trail out of Longmire.

Mark your calendar now for August 14 and 21, 1994, the tentative dates next year for the work party/potluck. The MRNP needs the help, probably on the north side, and the weekend is a joy.

Thank you for your efforts!

from S. V. "Scotty" Scott,
MRNP Trail Maintenance

Dear Associates,

The Trail Crew and I would like to express our thanks to all of you who participated in and supported the recent trail work party at Mt. Rainier. The eighty or so erosion bars that were dug into the tread of the Lakes Trail will aid in keeping it one of the best subalpine hikes in the Park.

The Trail work parties have contributed significantly to the repair and maintenance of the trail system at Mt. Rainier. Large scale projects that the Association has helped with are as follows:

Skyline Trail rebuilding

Glacier Vista Trail rebuilding

Carbon Glacier Trail on-going maintenance

Lakes Trail erosion control

Chenuis Falls Trail rebuilding

Fourth Crossing Trail rebuilding

The thousands of work hours spent on these other projects is deeply appreciated. So come on up to the Park soon and admire your work. I hope to see you on the trail.

Mending the Meadow - Part 2

*continued from the last MRNPA News
by Regina Rochefort and Stephen Gibbons
from Restoration and Management Notes,
Winter 1992
Published by the University of Wisconsin
Arboretum*

Sociological Studies: Signs, Barriers and Rangers

In 1985 we contacted Darryl Johnson and Thomas Swearingen of the National Park Service's Cooperative Park Studies Unit about conducting sociological studies in the Paradise meadows. We felt that unless we could protect restored areas and reduce future damage resulting from abuse and overuse, we would never be successful in repairing and maintaining the natural meadow communities. Prior to this study, signs and barriers such as ropes, split-rail fences, or dead trees had been used to discourage use of damaged areas. Our rangers found, however, that our standard signs were ineffective, and that even carefully constructed barriers were often only slightly effective in reducing off-trail activity. More recently, rangers had started to use yellow polypropylene rope strung between wooden posts to block access to damaged areas. Although this barrier seemed effective and was easier to construct than split-rail fences, most of us regarded the posts and rope as an eyesore in the meadow and a last resort for site protection. Basically, we felt we needed to know who the "non-compliers" (Off-trail hikers) were, so we could communicate with them effectively. With these concerns in mind, Darryl Johnson and Tommy Swearingen (now at the University of South Alabama) undertook a study to determine the effectiveness of several control methods and to develop a profile of off-trail hikers.

They conducted field tests using seven different sign texts, two kinds of barriers, and the presence of a uniformed National Park Service employee. They found that signs did reduce off-trail hiking, but the least effective sign featured the text in use in the Paradise meadows at the time of the study. The most effective sign was one indicating sanctions for non-compliance by stating "Off-trail hikers may be fined". Approximately 1.7 percent of hikers who passed this sign subsequently left designated trails, while nearly three times as many or 4.9 percent of those who passed the old standard NPS sign later walked off-trail. The second-most-effective sign text was "Stay on Paved Trails

continued on next page

Mending The Meadow continued ...

and Preserve the Meadows". Johnson and Swearingen estimated that the sanction sign reduced off-trail use by 75 percent, while the second-most-effective sign reduced it by 52 percent. A humorous sign was slightly more effective than the old standard sign; it was modeled after one used at the San Diego Zoo, and it read "Do not tread, mosey, trample, step, plot, tiptoe, trot, traipse, meander, creep, prance, amble, jog, jump, stumble, trod, sprint or walk on the plants".

One of the most interesting findings of the study was that "the mere presence of a uniformed person reduces off-trail hiking to a negligible level." This result is both interesting and disappointing because it suggests that most visitors did know they were supposed to stay on maintained trails, but chose to walk off-trail. It also shows us that if we could increase staffing levels and schedule uniformed employees to "rove" heavily-visited areas within the Paradise meadows, we would have an effective means of meadow protection. The study also showed that both split-cedar rail fences and yellow polypropylene rope were effective barriers, but the latter was more effective. Johnson and Swearingen felt that polypropylene ropes were the more effective barrier because many Park visitors were from cities and equated ropes with site closures, but regarded split rail fences as decorative features. We also took under consideration observations Rangers Rick Kirschner and Garry Olson had been making for ten years, suggesting that a major problem was simply that we didn't have enough rest areas from which people could sit and enjoy the view. This was eventually supported by the sociological studies.

To develop an idea of who non-compliers are and what they think off-trail hiking does to meadow vegetation, Johnson and Swearingen handed out questionnaires to visitors who were seen off-trail. The results showed that off-trail hikers are typically from the local four-county area, are disproportionately non-white (a large number of foreign origin) and under the age of twenty years, are usually traveling in large groups, and do not have a college education. Off-trail hikers generally perceive the effect of off-trail hiking as less harmful than those who stay on the trails. Similarly, off-trail hikers typically perceive much less human impact in the Paradise meadows than those who stay on trails. Off-trail hikers are less likely to read signs, and the presence of one off-trail hiker increases the probability of additional off-trail use.

These results proved critical to the development of the protection section of the Paradise Meadow Plan. This included the recommendation that the standard sign ("Meadow Repairs, No Hiking") be replaced with the humorous sign text and reworded version of the second most effective sign: "Protect the Meadows, Stay



A trail through Paradise...

on the Paved Trails" or "Protect the Meadows, Stay on the Rock-lined Trails". We decided that at this time we were not willing to use the sanction sign because we would prefer to gain compliance through education rather than the threat of fines. In keeping with this policy, Interpretive Rangers Doug Buehler, Ron Warfield, and Bill Dengler designed new trailhead signs and interpretive signs which stress the ecology of the subalpine meadows. We also decided to use rope barriers more frequently than split rail fences, but to look for a brown rope to replace the yellow one. Since this has proven more difficult than expected, we still use yellow polypropylene, but also use a 0.25" brown wire which is less conspicuous. Meadow roves by uniformed personnel have also been increased, with rangers emphasizing education rather than law enforcement.

Prioritizing Sites for Restoration

Regina Rochefort, Susan Fritze (now at Yosemite National Park), and Dr. William Ripple of Oregon State University developed a protocol for prioritizing the 913 bareground social trails and rest areas for restoration. Since our objective in the Paradise meadows is to protect native plant communities and to preserve natural processes, we have developed the rating system to quantify relative damage and the potential for continued damage at each site. The rating is the product of two numeric values: the soil erosion potential and the aesthetic or visual quality of a site. We use seven factors to estimate soil-erosion potential: vegetation type; soil texture; length, depth, and width of the disturbed area; slope; and percent bare ground. We consider three factors in determining the aesthetic value or importance of a site: distance from a developed trail, visibility, and accessibility. We also take into consideration a number of qualitative factors: safety hazards; presence of rare, threatened, or endemic species; laws or

continued on next page

Mending The Meadow continued ...

regulations affecting the site; and its potential influence on water or wildlife.

Sites listed for any of these reasons are automatically placed at the top of the priority list for further review, regardless of their numerical rating. We record all measurements, and qualitative notations on data sheets, then enter the information into a computer data base developed by Dr. Richard Frenzel. The program calculates numeric rating values for each site, prints reports (which include numeric values and qualitative factor notations), and calculates supply need for restoration of the site (for example, soil, gravel, plants, and so forth). The program also contains modules for entering reports on restoration efforts (supplies used, hours spent, costs, materials, etc.) and monitoring results. This program has been invaluable to us not only in planning and carrying out restoration efforts, but in the preparation of annual progress reports.

The Paradise Plan

We completed the Paradise Plan in 1989. The highlights of the plan were recommendations for changes in the trail system, plans for development of additional interpretive exhibits and changes in existing sign policies, and a restoration plan, including revegetation methods and five-year restoration goals. Although restoration of social trails in Paradise had been an integral part of the Park's resource management program for at least 20 years, it was expanded in 1986 concurrently with plan development. Protection of undamaged meadows and recently restored sites was improved by the addition of "meadow roves" by National Park Service interpretive rangers following the recommendations of the sociological study. We also recommended expansion of the trail system by the addition of twelve interpretive exhibits, six trails, 11 large rest areas, and over 30 benches.

Our current landscape architect, Dianne Croal, and Rick Kirschner have worked together to determine the best size and shape of rest areas in order to direct and contain use. New rest areas are delineated by a rock border and interior gravel surface, consistent with adjacent trails. We are also bringing in wooden benches or large sitting-rocks, flying them in by helicopter when necessary, to provide inviting sitting areas.

Five new trailhead signs with maps and interpretive message panels were installed in 1991. The interpretive message panels call visitors' attention to the meadow restoration program and enlist their help in maintaining the integrity of the meadows. The interpreters have developed a program with the slogan "Don't be a Meadow Stomper". Buttons are available at visitor-center desks, and visitors are encouraged to educate visitors whom they might see walking off-trail.

This program has been very popular, and we feel it has been very effective, especially considering the problems caused by fluctuating NPS budgets. Six new interpretive signs were developed for the meadow and will be installed in 1992. A new museum exhibit at the Jackson Visitor Center at Paradise highlights the fragility of meadow vegetation, summarizes restoration and protection efforts, and requests visitor support for meadow preservation. All these projects are being carried out with the help of a special allocation from the NPS of \$100,000 per year for three years.

(To Be Continued in the next issue of MRNPA News)

Clinton Administration Announces Ancient Forest Plan

by Norm Winn, MRNPA

On July 1, 1993, the Clinton Administration announced its plan, known as Option 9, to resolve litigation over protection of spotted owl habitat in Washington, Oregon, and California. The Clinton plan and accompanying Draft EIS were submitted to Judge William Dwyer in Federal District Court in Seattle on July 16, 1993. Under federal law, there is a ninety-day comment period during which organizations and individuals can comment on the plan and Draft EIS. After that period, the Forest Service will issue a final EIS which includes its responses to the public comment. Judge Dwyer will not make any decision until the Final EIS has been filed with the court.

Environmental organizations will do a careful and detailed analysis of Option 9 when the plan and Draft EIS are available for public review. The major organizations will send an Alert to their members providing more detailed information on the plan at a future date. Individuals are encouraged to write to the Forest Service with their own comments on Option 9.

According to newspapers reports, Option 9 was requested by the Clinton Administration because the first eight options did not provide a harvest level sufficiently high to satisfy the Administration. Option 9 reportedly does provide a higher level of timber harvesting than the other plans proposed by the Interagency Scientific Team headed by Dr. Jack Ward Thomas.

Option 9 involves approximately 7.5 million acres of federal forest land in the three Northwest states managed by the Forest Service and Bureau of Land Management. Approximately 5.5 million acres are already off-limits to logging because these lands are included

continued on next page

the 'Ancient' plan continued ...

in national parks, wilderness areas, wildlife refuges, and areas that are exempt from logging under current Forest Plans. Therefore Option 9 deals with approximately 20%, or 2 million acres, of the total federal forest lands.

Option 9 supposedly differs from the earlier eight options in not focusing on spotted owl habitat conservation areas, or "spotted owl circles." Instead, Option 9 focuses on protection of watersheds and riparian corridors along rivers and streams. However, Option 9 does insure a high rate of protection for future viability of the spotted owl population. By focusing on the watersheds and riparian corridors, the Plan also provides significant protection for salmon and other fish species. Further, a number of studies show that 80% of all wildlife species use riparian corridors, so this approach will provide protection to a much wider variety of species than "owl circles."

Option 9 does permit some level of salvage logging and pre-commercial thinning and commercial thinning in the two million acres. Many environmental organizations and individuals are concerned about this prospect, particularly in light of numerous abuses of salvage logging in the past by the Forest Service. Option 9 addresses these concerns by providing that any commercial thinning is limited to stands under eighty years of age (which therefore do not have old growth characteristics.) Further, any commercial thinning must include a re-review by an Interagency Oversight Team to insure that the harvesting is neutral or beneficial to the creation or maintenance of late successional forest conditions. The purpose of the pre-commercial and commercial thinnings is to accelerate achievement of late successional forest conditions, particularly by thinning densely stocked stands (sometimes known as "dog hair fir") where none of the trees are able to grow enough to achieve old growth characteristics.

Option 9 contemplates that there will be salvage activities to accelerate development of suitable conditions for owl habitat, while reducing the risk of natural disturbances such as catastrophic insect, disease, and fire threats. Salvage is restricted to areas where catastrophic loss exceeds ten acres. Priority will be given to salvage in areas where it will have a positive effect on late successional forest habitat, but salvage operations will not diminish habitat suitability now or in the future.

Because of past salvage abuses, the plan provides specific guidelines for salvage. Harvesting will occur only in stands where natural events have reduced the canopy to less than 40%. All standing live trees will be retained, and management will focus on retaining

snags, which provide benefits for a variety of wildlife species.

Other late successional reserves result in protection of all forest sites occupied by marbled murrelets outside the larger reserves. There will also be some protection buffers for other species associated with old growth forest based on existing provisions for such species.

Option 9 provides riparian buffers along rivers and streams as follows:

1. Fish bearing streams and all watersheds have a buffer of 300 feet or greater on each side of the stream.
2. Permanent flowing non-fish-bearing streams have a buffer of 150 feet or greater on each side of the stream.
3. Intermittent streams in key watersheds have buffers of 100 feet or greater on each side of the stream.
4. Intermittent streams in all other watersheds have buffers of 50 feet or greater.

Option 9 also includes a program called Adaptive Management Areas, where broad guidelines are developed in each area to manage forest for a variety of values, including late successional forests. These areas will be managed after broad public participation to integrate ecological, social, and economic objectives. The purpose of these areas appears to be to provide timber dependent communities with more opportunity for participation and input into management of forest lands.

You Are Welcome To Attend A MRNPA Board Meeting

**The Board meets the 3rd Thursday of
odd-numbered months (November, January,
etc..) from 7:00 pm to 9:00 pm
at the Kent Public Library, located at
212 2nd Ave N in Kent, Washington.**

"It was so easy then....."

The following is an extract from the
1932 circular of information on
services available at Mt. Rainier
National Park

1. Automobiles. The park is open to automobiles operated for pleasure but not to those carrying passengers who are paying, either directly or indirectly, for the use of machines.
2. Motor trucks and buses. Motor trucks and buses are admitted to the park under the same conditions as automobiles, except the superintendent will establish limits of size and tonnage.
3. Permits. The fee for automobile or motorcycle permit is \$1.
4. Speed. Speed is limited to 15 miles per hour on grades and when rounding sharp curves. On straight open stretches the speed may be increased to 30 miles per hour.

At Longmire the National Park Inn is operated on the European plan, with cafeteria meal service. A number of housekeeping cabins and camping tents are operated.

2 persons in 3-room housekeeping cabin, furnished with bedding, linen, and maid service, per day \$7.50

1 person in tent equipped with linen, blankets and maid service, per day \$1.50

Paradise Inn-Open July 2 to August 29

1 person in room without bath, with meals, per day \$6.00

Hotel meals:

Single meals, table d'hôte

Breakfast 1.25

Luncheon 1.50

Dinner 1.50

Beauty Shop

Marcel 1.00

Shampoo75

Plain facial massage 1.00

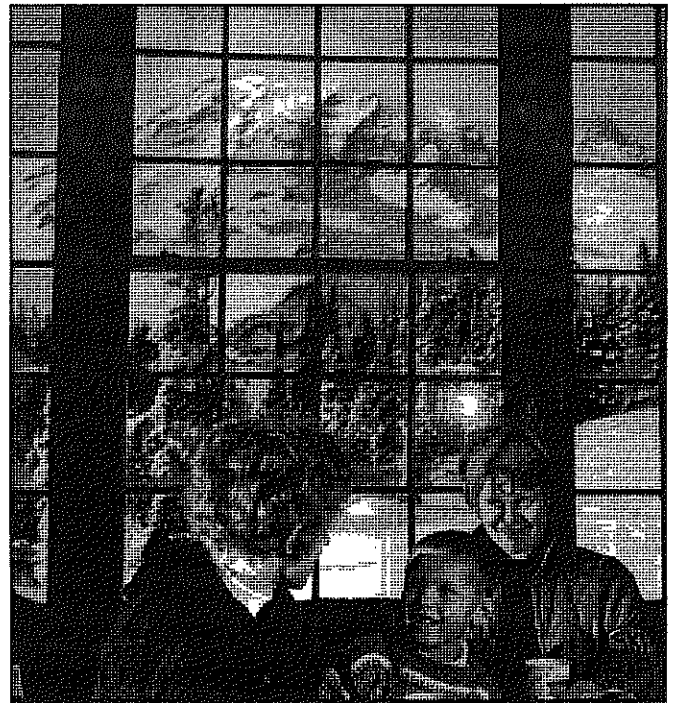
Paradise Housekeeping Cabins

Furnished with blankets, linen, and maid service

1 or 2 persons in 1-room cabin, per day 3.75

Furnished without blankets, linen, or maid service:

..... 2.75



An afternoon break.

Golf Course

The 9-hole golf course, one of the most scenic in America, is located a short distance from Paradise Inn. Every green and tee offers a striking mountain scene and is also a test of golfing skill.

9-hole play 1.00

18-hole play 1.50

Rates for Guide Service

Summit climb, 1 person 25.00

Camp Muir Climb, Guide service and clothing,
minimum of 3 people, per person 7.00

Nisqually Glacier Ice Caves, Guide service and clothing 2.50

The Wonderland Trail encircles the mountain, total travel distance, 145 miles. If the complete trip is taken, it means 12 days of life in saddle and camp; of endlessly changing panoramas of mountain and glacier, canyon and forest, lakes and rivers, and wild flowers. Comfortable open-air camps, good food, and cozy sleeping bags are supplied.

The expense of the trip, including saddle horse, board, lodging, guide and pack service, is arranged on a sliding scale, thus: 1 person, \$25 per day; 2 persons, \$18 per day each; 3 persons, \$15 per day.

Boating, Bathing and Fishing

During the summer season the Rainier National Park Co. provides rowboats, bathing suits, fishing tackle,

continued on next page

Early rates and prices continued ...

etc. at Reflection Lakes for those desiring this kind of service. A competent attendant is in charge.

Rowboats may be rented at 50 cents per hour. Bathing suits and fishing tackle may be rented or purchased at reasonable rates.

The Important Influence of Fire at Mt. Rainier

A book review by John Titland

A forest fire at Mt. Rainier!...not a welcome thought. For those of us who grew up steeped in Smoky Bear, the romance of living at lonely fire lookouts, and the bravery (if marginal sanity) of smoke jumpers, forest fires are destructive events to be prevented, or to be fought with all means available. But in summarizing the fourth chapter of his book, Forests of Mount Rainier—A Natural History, author William Moir states, "Much of the forest diversity enjoyed at Mount Rainier is the result of many past fires... Were it not for these old and recent burns, the forest over much of the landscape would be rather monotonous—and probably composed mostly of Western hemlock and silver fir. To be sure, other disturbances—floods, avalanches, volcanic eruptions, mud flows, landslides, wind throw, insect outbreaks—also initiate forest diversity. But fire is the most extensive and ubiquitous shaper of forest patterns, and for this reason we must appreciate the contribution of catastrophic fire to the richness of forests here." We should appreciate the contribution of catastrophic fire? That's a concept for Smoky Bear to consider!

However, Forests of Mount Rainier—A Natural History, is not a book about forest fires, at least not directly. It is a book about the forests surrounding Mount Rainier. It is also a book that changed the way I look at forests and magnified many times the enjoyment I find in hiking the forested trails on Mt. Rainier. It explained to me what to look for and what to see. In far more instances than I ever would have suspected, I now see forests which have grown up after fires.

As I began reading Forests of Mount Rainier—A Natural History, I have to admit that I was a little disappointed. The first two chapters describe various forest types in detail that seems excessive. I have been told that botanists are divided into two factions: splitters who see differences and joiners who see similarities. William Moir is clearly a splitter. The idea that forest types can be characterized by the associations of the tree varieties with understory plant varieties was new and interesting to me, but I wasn't quite expecting

to be told that a Silver Fir/Huckleberry forest was distinct from a Silver Fir/Foamflower forest or a Silver Fir/Oregon Grape forest. At the beginning of the second chapter, Mr. Moir even comments on the seeming ultra-analysis, stating that it is necessary. As I read the second chapter, I didn't believe. As I read on, I was converted. In the second chapter, Mr. Moir also begins a story line, carried through the remainder of the book, that provides a break from the facts he presents.

For me, all the facts and details came together in Chapter 4, entitled "Fire", and Chapter 5, entitled "Fire Succession." These chapters present the evidence for believing catastrophic fires shape forest patterns and explain how the forest types result from fire. These chapters also contain several graphics showing the tree age distributions that have resulted from historic fires. One graphic I found fascinating was a map of Rampart Ridge, including the area from below Longmire to above the Cougar Rock Campground, that shows the mosaic of forest ages zones that have resulted from a minimum of five major fires in the last 1,000 years.

In the remaining chapters, Mr. Moir also discusses the impact that mud flows and glaciers have had on the forests at Mt. Rainier. But the evidence he presents is very clear; fire is the major shaper of the forests at Mt. Rainier.

So how did all this information affect me? As I stated previously, I now see more as I walk through the forest. I find more than a natural garden. I see patterns in the tree ages, the species distributions, and the borders between tree stands. I find myself looking much more at the forest and much less at the trail three feet in front of my boots. I see evidence of fires and I have come to accept that forest fires in Mt. Rainier are something that we should understand and appreciate as a part of the natural process.

For anyone interested in forests or in the contribution of fire to forest diversity, I recommend Forests of Mount Rainier—A Natural History, by William Moir as excellent reading.

Controlling Exotic Plants

Problem Statement:

National Park Service Management Policies state "Management of populations of exotic plant and animal species, up to and including eradication, will be undertaken wherever such species threaten Park resources..." Policies further state that high priority will be given to the management of species which have a

Continued on next page

Exotic plants continued ...

substantial impact on the resources and which can be successfully controlled.

There are approximately 109 exotic plant species in Mount Rainier National Park. These species are of concern because their presence in the Park is the result of human intervention, not natural migration. Approximately 10% of Mount Rainier's exotic species are aggressive, capable of invading undisturbed, natural areas and dominating native plant communities. Exotic plant distribution studies should be conducted periodically, aggressive species identified, and control measures implemented. Priority problem exotics in Mount Rainier are species which can be controlled by reasonable measures.

Exotic plant distribution surveys have been conducted on a recurring basis within the Park. These studies have documented a steady increase in the number of species from 69 documented in 1937 to 109 documented in 1989. Most species grow in disturbed habitat along roads, trails, and developed zones below 5,500'. Aggressive species have invaded native plant communities on a limited basis. Species which have recently invaded the Park have primarily been aggressive exotics with a high potential for displacing native species.

Current Activity:

A limited control program is directed toward aggressive exotic species:

- common burdock *Actium minus*
- spotted knapweed *Centarea maculosa*
- Canada thistle *Cirsium arvense*
- bull thistle *Cirsium vulgare*
- tansy ragwort *Senecio jacobea*
- common tansy *Tanacetum vulgare*
- Klamath weed *Hypericum perforatum*
- Scotch broom *Cytisus scoparius*
- flat pea *Lathyrus sylvestris*
- Japanese knotweed *Polygonum cuspidatum*
- foxglove *Digitalis purpurea*
- mullein *Verbascum thapsus*

Most species are controlled mechanically (pulling) by area personnel, as a collateral duty. Biological control programs were initiated in 1985 to control Canada thistle and Klamath weed, but have exhibited minimal results. Current research (Dr. Gary Piper, WSU) indicates that existing biological controls (*Urophor carduii*) for Canada thistle will not be effective unless new control insects or disease can be introduced in con-

junction with them. Beetles (*Chrysollina quadrigemina*) released along Stevens Canyon Road to control Klamath weed have survived, but do not appear to be effectively controlling plant distribution. It is unclear at this point if the beetles will ever be effective at that (high) elevation. Chemical control has been tested on flat pea (*Lathyrus sylvestris*) and may be the only currently effective treatment of that species.

Current management actions are limited and sporadic. Until a well coordinated program is initiated, no long term success can be expected in the control program.

Exotic plant populations growing on lands adjacent to and substantial distances from the Park provide a seed source for continued invasion onto park lands. Successful management of exotic plant populations will require coordination with state, USFS, and private land owners.

Recommended Project/Activity:

The first quantitative exotic plant survey was conducted by Robert Wakefield in 1969. Wakefield inventoried plots located along roadsides, developed zones, and a limited number of trails. Surveys were conducted again in 1987 and 1988, monitoring and expanding Wakefield's original survey. Data has now been entered into a computer database, but has not been analyzed yet.

The first step in the program will be to analyze the data, comparing exotic plant distributions with the original survey. Priority exotic species will be identified, as well as native community types most sensitive to exotic plant invasion. Using this information, a systematic exotic plant control plan and monitoring system will be developed.

Once the plan has been completed the program will be turned over to the Ranger Division for implementation. Due to the exotic species present in this Park and their distribution, it is reasonable to assume that a coordinated, annual control program could control all currently identified problem exotics.

Fish in the Park

by John Titland, MRNPA

In June, I wrote a letter to Superintendent Briggles asking about the current state of native fish populations with the Park. I was aware that the past fish management policy of planting non-native fish strains meant that any native fish populations in lakes with the Park had been hybridized with planted fish, so my inquiry was about native popula-

Continued on next page

Fish in the Park continued ...

tions in the Park's streams. I also asked if there were any opportunities for MRNPA to help the NPS in protection of native fish with the Park boundaries. In response, I received the following letter. I found it very informative and hope MRNPA members do also.

August 20, 1993

John Titland, President
Mount Rainier National Park Associates
15242 SE 48th Drive
Bellevue, WA 98006

Dear Mr. Titland:

Your letter concerning fish populations within Mount Rainier National Park has been forwarded to me for response. I apologize for taking so long to answer your questions, but we've had a very busy field season and we needed time to give your questions some thought before responding.

The present status of native fish populations in the Park is not well understood due to previous stocking activities, construction of dams outside the Park, and a general lack of knowledge of patterns of fish occurrence within the Park.

No Park lakes are known to have supported a fish population prior to fish stocking in the early 1900's. This was probably the result of natural barriers to upstream migration, frequent catastrophic events (floods and jokulhlaups), lack of suitable spawning sites, and/or low productivity (attributed to low nutrient concentrations). Official stocking of lakes and streams began about 1918, although private, informal stockings were made prior to this time. All of the larger Park streams and most of the lakes were repeatedly stocked, thereby introducing both native and non-native species into higher elevation areas which were historically cut off from lower streams by waterfalls. Stocking was halted after 1972, consistent with new NPS management policies.

Native fish species include rainbow trout (*Oncorhynchus mykiss*), cutthroat trout (*Oncorhynchus clarki*), bull trout (*Salvelinus confluentus*), kokanee salmon (*Oncorhynchus nerka kennerlyi*), mountain whitefish (*Prosopium williamsoni*), and possibly anadromous rainbow trout or steelhead (*Oncorhynchus mykiss*). Several hatchery strains of rainbow and cutthroat trout were widely stocked throughout the Park and may have hybridized or replaced native stocks within their historic ranges. Additionally, several other native anadromous salmonid species probably occupied streams within the Park in the past; including, chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), chum salmon (*Oncorhynchus keta*), and sockeye salmon (*Oncorhynchus nerka*). However, no records of these anadromous salmonids have been documented within the Park, either recently or prior to construction of dams on the lower rivers.

Construction of Electron Dam on the Puyallup-Mowich drainage and Alder and La Grande Dams on the Nisqually have completely blocked all anadromous passage to these rivers and their upstream tributaries within the Park. Mud Mountain Dam on the White River also blocks fish passage, but anadromous fish (chinook, coho, and steelhead) are transported around the dam, thereby conceivably allowing access to the White River, West Fork of the White River, and Huckleberry Creek basins. Chinook salmon have been observed in the White River drainage adjacent to the Park boundary. Salmon migration in the Cowlitz and Ohanapecosh Rivers are blocked by dams at Riffe Lake and Mayfield Lake. However, coho salmon are still transported around the dams. The Carbon River is the only major drainage without man-made dams blocking fish passage. However, a steep canyon, approximately eight miles downstream of the Park boundary may be a partial barrier during certain river discharges.

Non-native species introduced into Park waters include brook trout (*Salvelinus fontinalis*), which are widely distributed within the Park; brown trout (*Salmo trutta*), which were only planted in one of the Golden Lakes; and some sculpin species (*Cottus spp.*). Whether such introduced species have replaced native fish from their historic range is not clear and may never be known because historic ranges of native fish were apparently never documented. As early as 1959, O.L. Wallis, a National Park Service Aquatic Biologist, realized that modification of the original aquatic conditions by the introduction of many non-native fishes and the construction of dams outside the Park made it difficult to determine or to restore the natural situation.

To date, few research projects have been conducted on fish with the Park. At our request, Dr. Stan Gregory from OSU Department of Fisheries did some extremely limited electroshocking work on the Carbon River in 1988. In 1984 Park staff and two members of Trout Unlimited sampled fish in Huckleberry Creek and tributaries of the Carbon River. However, technical problems with the electroshocking equipment limited the work to visual observations only. Prior to this, voluntary creel census surveys were collected in order to better manage the fish stocking program. These census reports somewhat help to identify present distributions of fish species; however the project was discontinued after 1984.

continued on next page

Fish in the Park continued ...

At present, the Park is conducting several research programs involving aquatic resources. We are studying the effects of introduced fish populations (resulting from past stocking into previously barren lakes) on lake ecology, focusing on the specific impacts to zooplankton and amphibian communities. We are also continuing our limnologic inventorying and monitoring efforts throughout the Park, a project initiated in 1988. Research on the water quality of glacial and nonglacial streams has also been conducted for 18 sites in major watersheds in the Park and continued for one glacial (Nisqually) and one non-glacial (Ohanepecosh) system. Long-term monitoring of terrestrial and aquatic amphibian populations is also being conducted Park-wide.

I have attached a list of references you may want to review. If you are interested, you may review these reports in the Park library, after contacting Bill Dengler, the Chief of Interpretation, at 206-569-2211, ext. 3310. Bill can make arrangements for you to use the library.

We have proposed, but lack funding, to conduct studies to investigate the present distributions of fish within the Park and to evaluate the data relative to past, present, and future impacts on native biota, including native fish and other organisms. Fish in historically barren lakes are likely having negative impacts on native biota and natural processes. Research into various techniques for removing non-native fish populations from lakes are presently being reviewed. Of additional concern is bull trout, a candidate for Endangered Species listing and noted as a native species of the Park. At this time, we lack funding to conduct these studies. However, if we can borrow the equipment we need, we may initiate some limited investigations of small streams during this fall, and possibly continuing next spring and summer, to determine what fish species are present.

We are pleased that the Mount Rainier National Park Associates are concerned with the status of native fish in the Park. I would be happy to meet with you to discuss your ideas concerning how your organization may assist us in protecting any remaining populations of native fish. If you are still interested in pursuing this please contact me at 206-569-2211, ext. 3372. I look forward to hearing from you.

Sincerely,
Barbara A. Samora, Resource Management Specialist
Bibliography

Gregory, S.V., R.C. Wildman and L.R. Ashkenas.
1991. *Aquatic resources of streams and rivers in Mount Rainier National Park, conceptual framework and alternatives for monitoring and evaluation. A re-*

port to Mount Rainier National Park. Cooperative Park Studies Unit, College of Forestry, Oregon State University

Larson, G.L., C. Hawkins, B. Samora, and S. Gibbons. 1990. *Water quality of glacial and nonglacial streams in Mount Rainier National Park. National Park Service, Cooperative Park Studies Unit, College of Forestry, Oregon State University.*

Larson, G.L., A. Wones, C.D. McIntire, B. Samora. *Limnology of Subalpine and High Mountain Forest Lakes in Mount Rainier National Park. National Park Service, Cooperative Park Studies Unit, College of Forestry. Technical Report NPS/PNR CPSU OSU/NRTR -92/01.*

May, D.D. 1966. *Fisheries management program plan 1966 - 1975 for Mount Rainier National Park. National Park Service.*

Wallis, O.T. 1959. *An evaluation of the fishery resources of Mount Rainier National Park and the needs for interpretation, research and management. National Park Service.*

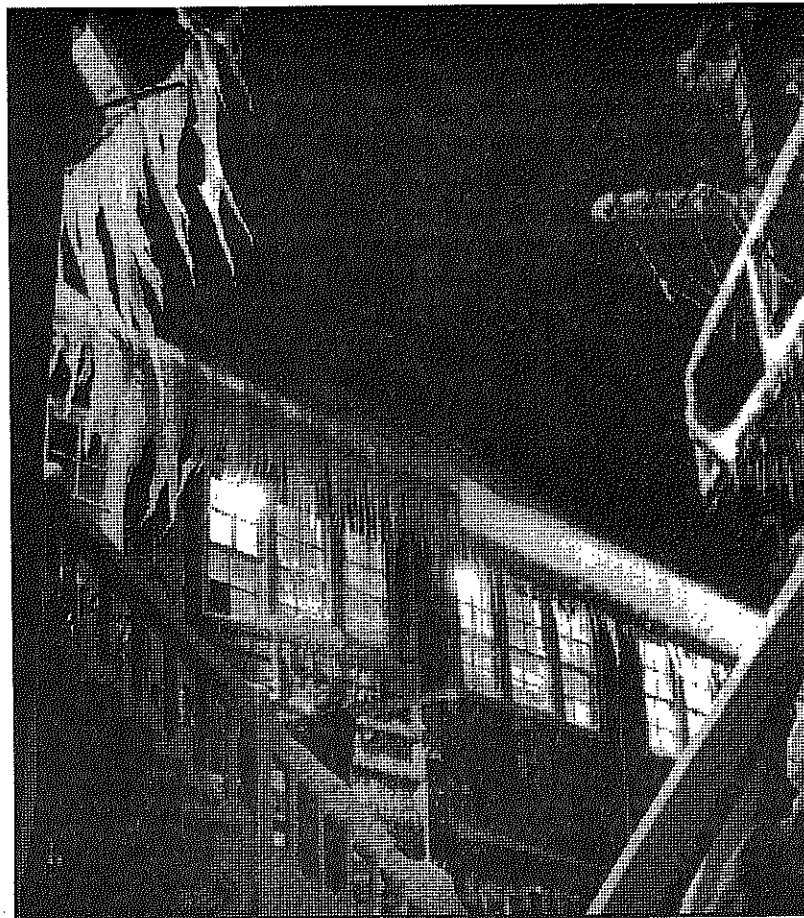
After I received this letter, I called Barbara Samora and we discussed the studies of fish distributions that are pending and proposed. This fall some limited efforts will be made to look for native bull trout in the Puyallup drainage, as a result of a report of one having been caught west of the Park. Next spring several other studies are proposed but depend on funding. The studies will be to investigate the present distributions and population sizes of fish within the Park, both in streams and lakes.

If these investigations are carried out next spring, they will involve electroshocking and netting. To avoid injuring the fish and other aquatic life (and the investigators), the work must be conducted by trained and well coordinated teams. Ms. Samora told me some volunteer labor would be welcome, but the commitment must be for more than two or three days' labor. Once team members are trained, the teams will be needed repeatedly until the investigations are complete.

If you are interested in fish in the Park and can possibly volunteer, give John Titland a call at 747-1698. He needs to know how many people would be willing to take on this kind of season-long project.

A Fish Story

Dr. Lauren Donaldson, legendary fisheries hybridizer, made an interesting confession lately. It seems that the original rainbows he used in his super trout crosses were taken from Packwood Lake. He told Joan Burton he packed them out in his backback in the early 1930s in milk cartons!



Winter's webs

Fall Facility Closures

Carbon River Area

Entrance fee collection ceased September 9.
Mowich Lake Road open through October 12, or until snow.

Ohanepecosh Area

Campground closes October 18

Paradise Area

Inn open daily through breakfast October 4.
Henry M. Jackson Visitor Center - Through September 26 open daily 9:00 am - 7:00 PM. Beginning October 16 open Saturdays, Sundays and holidays only from 10:00 am - 5:00 PM.
Picnic Area - Open through October 25 or until snow.
Paradise Valley Road - Open until November 15 or until snow.

Sunrise Area

Lodge and Visitor Center - Closed for the season September 12

Sunrise Road - Open daily through September 24. Beginning September 25 the Sunrise Road will be closed nightly through October 18 or until snow, then close for the season.

White River Area

Campground closed for the season September 13
Hikers' Center - Open through September 29
State Route 410 - Open until Department of Transportation closes for season due to snow.

Longmire Area

Cougar Rock Campground - Closes for season October 18 or snow.
National Park Inn - Open year round.
Longmire Museum - Open year round.
Stevens Canyon Road (east/west) - Closes November 15 or snow.