



Volunteer Work Party -- en route to Cascade Pass, NCNP, WA. The Millers, Bill Lester and helpers.

-William Lester Photo

The Greening of the North Cascades


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With all our concerns in Washington State about population pressures, pollution, transportation, oil spills, loss of ancient forests and endangered species et cetera et cetera, it is refreshing to be able to report that North Cascades National Park is a greener, less impacted place than when Congress passed the enabling legislation in 1968. Since my wife, Margaret, and I played some part in this felicitous outcome, I have been asked to tell briefly how it came about.

The first superintendent, Roger Contor, was a man of boundless energy who quickly made it his business to learn as much as possible about the assets and problems of the superlative piece of real estate he had inherited from the Forest Service. One of his first actions in the park's first summer was to contract with Dr. Dale Thornburgh of Humboldt State University to survey human impact at Cascade Pass and make recommendations for its possible restoration. Thornburgh's report came out in January, 1970, and included detailed maps of the 42 worn camping areas and the numerous social trails in the Pass vicinity, a description and map of the plant communities, and some suggestions for revegetating the area.

Contor promptly closed Cascade Pass (and the other subalpine passes) to camping and fires at the beginning of the 1970 season. He had previously enlisted the Millers in 1969 as volunteer researchers to fill some other blanks in the park's data bank -- a survey of what existed in the soon-to-be flooded (everyone thought) Big Beaver Valley, and a comparison of the western redcedar plant communities in four of the park's low level valleys. Knowing that, as long-time dirt gardeners, we would probably snap at the bait, he sent us a copy of Thornburgh's report and invited us to a staff meeting at Cascade Pass in August, 1970.

The meeting, which included a number of desk-bound staff members who were seeing Cascade Pass for the first time, was held on one of the worst beat-up campsites just over the Pass. We had first seen the Pass in the early 60's before the Forest Service extended the Cascade River road and built the parking lot and the new trail with the jillion switchbacks. We considered Cascade Pass to be a subalpine slum even then and went on to contribute to the degradation of Sahale Arm by camping on the heather. The Pass was in much worse shape now, and the assembled brass agonized over ways to halt its decline without any money to spend on it. The upshot of it was that increased ranger patrols and signing would try to halt the illegal camping, and the Millers, invincible in our ignorance of high altitude growing conditions, would try to revegetate it. The only caveat was that we would use only native plants in our efforts.



We made five visits to the Pass during August and September that year, driving from our home in Bellevue and camping at the Mineral Park Forest Camp. Acting on suggestions from Thornburgh and George Douglas, a doctoral candidate from the U. W., who had studied the plant communities of the park, we collected ripe seeds of nine different plant species in the area and planted specific numbers of seeds in half-meter square test plots on aspects facing each of the four compass directions. All very scientific! We also dug and planted one of the big bare campsites with 140 10cm circular plugs of partridge foot, *Luetkea pectinata*, with a miserable plugging device given us by the Park Service. Finally, we let our dirt gardening bias take over, and we dug up four of the bare campsites and planted them with a duke's mixture of every kind of seed we could find in the area. Early snow caught us before we finished our labors.

During the winter months we hit the books and journals in the Science and Forestry Libraries at the U Dub trying to find some

helpful information on subalpine revegetation. There was an abundance of detailed studies of human impact and trampling -- things like how many steps with hiking boots it takes to make a social trail across a heather meadow, but zilch on the grunt work of trying to replant already worn areas. About all we could find were some reports of seeding high altitude mine spoils and road cuts with commercial seed mixtures, and this was of no help. We were pretty much on our own, and anything we tried would be frankly experimental.

In 1971, in between continuing our survey work in Big Beaver and beginning a wildfire plant succession study on three of the 1970 burns, we made five more trips to Cascade Pass. Weather conditions had been hot and dry, and there was little evidence of germination on the test plots. Only 52 of the 140 plugs of vegetation transplanted the year before had survived. We toted a 4 cubic foot bag of peat moss (in bags) to the Pass, dug up the planting areas with a spading fork, replanted the test plots with new seed and planted 59 more plugs. We also collected cuttings of several species to try propagating them in our little greenhouse at home.

In early August of 1972 we received a short and shocking letter from the new superintendent who had replaced Roger Contor when the latter moved on to higher things. We were instructed to discontinue any further plantings at Cascade Pass until "Firm Natural Science Proposals (Study Plans) were formulated." Questioning of our contacts in the park disclosed that a graduate student at the U Dub had submitted a thesis proposal in which he would make a five-year study of "revegetation processes along lines of ecological parameters" and would "evaluate quantitatively as to density, cover and frequency of successes relative to prepared and unprepared substrates." This apparently sounded more dignified to the park people than our pragmatic, horticultural approach to revegetation.

We appealed to the Regional Scientist, pointing out that laboratory conditions do not prevail at Cascade Pass and that carefully controlled test sites are like as not to be destroyed by the thoughtless minority of campers who were continuing to sneak up to the Pass between ranger patrols. Probably because we constituted cheap (free) labor and anyone else would have to be paid, we finally received clearance to go ahead, but the 1972 planting season was lost.

We had by now decided that direct seeding in any but the most favorable moist sites was hopeless and that transplanting plugs of vegetation, while fairly successful, was precluded at the Pass by the very limited availability of undamaged meadow vegetation. The cuttings and divisions of plants we had taken down in 1971 had thrived in our unheated greenhouse, and in 1973 and 1974 we concentrated on carrying back to the Pass rooted plants grown down below. In September, 1974, we enlisted the aid of friends who helped us as volunteer Sherpas in carrying 340 pounds of plants to the Pass and planting them. When we evaluated the plantings in early August, 1975 and found better than 85% survival despite the six weeks of dry weather after we had put them in the ground, we knew we had the answer.

Skagit District was convinced, too, and built us a 12' x 4' coldframe from plans we submitted, and we stocked it in the fall of 1975 from cuttings and divisions brought down from the Pass. In August, 1976, the flats of rooted plant material were dumped out into plastic bags and carried up to Cascade Pass by a group of the backcountry staff to whom we were supposed to demonstrate planting techniques. It was one of those more miserable days when the cold, wet wind howls through the Pass and almost blows the plants out of the ground. We all had to cache the bags and retreat to Marblemount before hypothermia set in. A small, plastic-covered greenhouse was built later that year which we stocked with cuttings. Unfortunately, someone in the District neglected to water it during the winter, and another year was lost.

So the revegetation project rocked along, alternating between benign neglect and official indifference until early 1978 when William Lester, the new backcountry ranger, came on duty from his previous post at Olympic. A human dynamo, Bill quickly reconnoitered every part of the Skagit District backcountry and determined that restoration of those areas degraded by human impact was both essential and practical. Kathy Lester, Bill's wife and an equally energetic person, had previously worked in a commercial greenhouse and possessed the proverbial green thumb. She volunteered to take charge of the little Marblemount greenhouse and began to produce plants for Cascade Pass in quantity.

While waiting for the fall planting season in the subalpine, Bill began a full scale revegetation program in the park's forest zone. Without a budget for restoration work, he used Student Conservation Association volunteers to develop comprehensive plans for repairing the many old scars along the trails and then carry out the work. The

seasonal backcountry techs were trained in revegetation techniques and in teaching minimum impact camping to visitors. During 1980, using YACC labor and mainly local materials, Bill designed and built a large propagating greenhouse that was a model of its kind and the envy of other parks in the Northwest. With this facility, the production of plant material for repairing Cascade Pass was vastly expanded.

There had never been a really strong commitment from the Skagit District for his revegetation/restoration work, and a change in administration during the two-year period from 1983 to 1985 brought active opposition. Lester managed to maintain site restoration activities during this unfortunate period by insisting that protection of the resource was the most important of his duties despite what his supervisor believed.

Budgeting for staff is always a problem in the Park Service, and Bill Lester managed to keep his revegetation projects going and ever expanding by creative use of volunteers. The Student Conservation Association is firmly committed to rehabilitation of the nation's wildlands, and every year it provided capable and talented young people to work as greenhouse technicians, evaluators of backcountry impacts, revegetation specialists, and even as the developer of the computer programs to keep track of the restoration work. Several of these young people went on to become paid seasonal and permanent employees of the wilderness staff. The dedication of the seasonal backcountry people over the years, who willingly added revegetation to their regular duties, was responsible for much of the success of the program. For a number of years the Washington Native Plant Society has provided volunteers to work at transplanting in the greenhouse in the spring and doing the planting at the Pass in the fall.

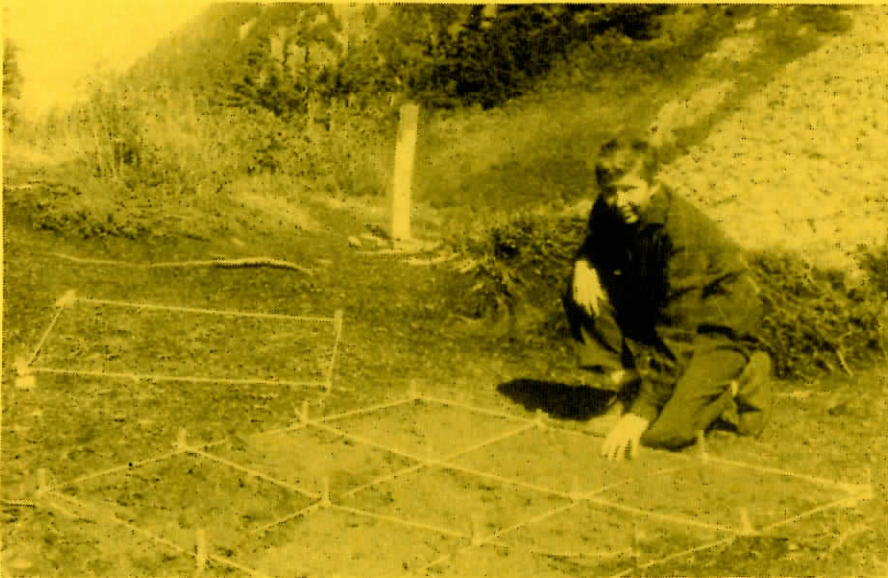
Since the Skagit District was spending more on mowing grass around the office than on backcountry restoration, Bill also developed some creative ways of funding the work. A grant from the Skagit Environmental Endowment Commission enabled him to begin revegetation at Whatcom Pass, an area we had studied and recommended for rehabilitation back in 1979. A contract with Baker-Snoqualmie Forest to grow plants for Heather Meadows at Mt. Baker provided funds for greenhouse materials. A major project to grow native landscaping materials for the new Visitor Center at Newhalem enabled him to keep on a full-time greenhouse technician.

His new position as manager of the Wilderness District, comprising about 95% of the park and recreation areas complex, has brought greatly increased responsibility as well as a larger scope for his talents as a healer of man's scars on the wilderness. With the exception of one two-day revegetating trip by us to Park Creek Pass in 1976 and a restoration workshop we ran at Lake Juanita in 1978, almost nothing has been done to rehabilitate impacted areas on the east side. Because of heavy use by horse and hunting parties in the Lake Chelan NRA, there is much work needed, and Bill has begun to carry this out. As in all his other revegetation work in the park, gene pools are carefully maintained by using only plant material and stock from the immediate area of the site to be restored.

Bill Lester's major scientific breakthrough has been in developing a technique for growing sedges from seed, something that has eluded other investigators and that greatly facilitates the production of great quantities of material for revegetating the high country. His successes have greatly enhanced his national reputation and have made the North Cascades a model for other parks and wilderness areas.

It was a most rewarding experience for Margaret and me to visit Cascade Pass last year on the 20th anniversary of the beginning of its restoration. Together with Bill Lester and others of our Park Service backcountry friends and a large group of volunteers from the Bellingham Chapter of the Washington Native Plant Society, we celebrated with coffee and cake. We then planted the 4,000 plants brought up the day before by helicopter, and it was hard to find a piece of bare ground in which to put them. We truly never thought back in 1970 that we would live to see that beautiful, threadbare place green again.





*Margaret Miller at test plots on
campsite 2, south aspect,
Cascade Pass*

--Joseph Miller Photo



*Margaret Miller planting at
Cascade Pass*

--William Lester Photo