

Desert Ramblings

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Oregon

Natural Desert
Association

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CONSERVATION CORNER

by Dick Vander Schaaf

The vegetation of Oregon's High Desert has been under siege from a number of forces for over a century. Livestock grazing has impacted millions of acres of sagebrush steppe resulting in changes in plant community composition as well as causing soil compaction, degraded riparian habitats, and being responsible for the actual loss of specific habitats. Mining has also threatened the desert flora by targeting specific habitats and soil types with the direct result being complete upheaval of the specific sites and other indirect affects being observed downstream or in the immediate area. With the influx of people to the intermountain west there has also been large scale, man-caused ecological changes. Fire suppression has resulted in a dramatic increase in western juniper and a loss of grasslands and aspen forests. Trapping by the earliest white trappers wrought changes in the hydrology of the region as beaver dams deteriorated and streams raged during spring runoff causing damage to riparian areas.

There has also been more localized affects on the flora of the desert wherever human habitation has occurred. Isolated ranches and small towns have typically sprung up where precious water resources are found and where valley bottoms have allowed limited farming and pasturing. Native marshes were ditched and diked for water control such that freshwater and alkaline wetlands alike have suffered extensive losses and modification. More recently, recreation has begun to selectively target certain habitats with sand dunes being a focus of ORVs and mountain meadows being favored by hikers and packers.

Surprisingly with all of these assaults on the natural desert environment there have been relatively few documented extinctions of plants in Oregon. The harsh environmental conditions of the desert have favored species that possess adaptive strategies for survival. With water in short supply some annuals take advantage of wet years and germinate quickly and flower, such as the volcanic ash endemics in the Owyhee Uplands. Other species take the long view, being perennials, and put down deep extensive root systems and weather through droughts, sometimes shedding leaves to conserve energy. The strategies are varied as many species have evolved from other regional floras to meet the changing conditions of the present day intermountain region that predominates in southeastern Oregon.

To date, the only known plant extinction in eastern Oregon is Malheur wirelettuce (*Stephanomeria malheurenensis*), a federally listed species which the BLM is now attempting to reintroduce into its former habitat in Harney County. The Malheur wirelettuce has now been found in the wild for two years in a row in its former habitat. The list of threatened species is long, though, and the threats are not diminishing. Furthermore, knowledge of plant species in general is still very incomplete for eastern Oregon such that we really do not know what the native flora may have included before white settlement. So how is it that species on the lists above have been able to hang on in face of continued impact and why are more species not federally protected?

The unusual habitats occupied by many threatened species may be partly responsible for their ability to survive. Many of these species have very restricted ranges and are found on specific soil types that contain little natural forage and may not be conducive to grazing. The volcanic ash endemics present in the Owyhee Uplands centered around Leslie Gulch are these types of plants. While grazing may not pose a

(continued on pg. 2)

(Conservation Corner, continued from pg. 1)

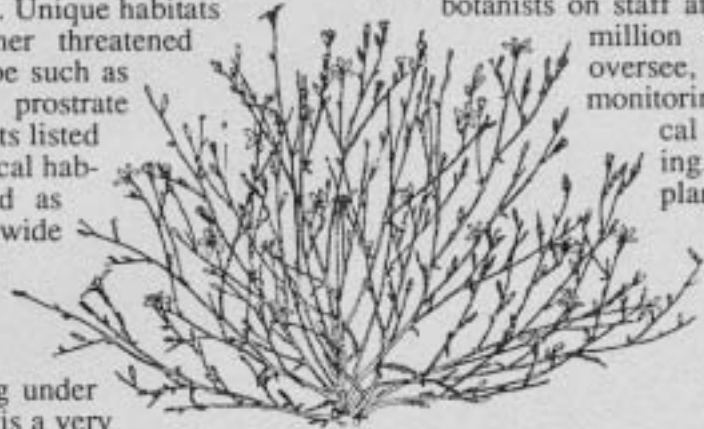
major threat, these unique soil types are currently being targeted by microscopic gold and bentonite (industrial clays) interests. Unique habitats are also implicated in other threatened plants in the sagebrush steppe such as Cusick's buckwheat and prostrate buckwheat. Some of the plants listed above are found in more typical habitats in eastern Oregon and as such are still subject to wide ranging impacts such as grazing, wetlands conversion, and juniper expansion.

Federal protection via listing under the Endangered Species Act is a very slow process that too often has been used as a last ditch effort to protect species that are teetering on the edge of extinction. Recovery of listed endangered species is anything but a sure thing with re-establishment of species such as the Malheur wirelettuce at just one site often requiring herculean effort. There are currently twenty-four plant species on Category 1 and 2 lists in the Oregon desert alone that are deserving candidates for federal protection. The backlog nationally, though, is so tremendous and resources so limited that only a few species receive listed status each year. A recent development in California and Hawaii where successful lawsuits petitioned the U.S. Fish and Wildlife Service to list all Category 1 species has the potential to fast track listing of endangered species. A similar lawsuit has been contemplated for Oregon.

In 1991 a petition was filed by the Native Plant Society of Oregon, ONDA, Portland Audubon, ONRC, and Concerned Citizens for Responsible Mining to list seven plant species that are threatened by mining in the Oregon desert. Listing of three of the species in the petition (*Astragalus sterilis*, *Mentzelia mollis*, *M. packardiae*) were previously determined to be warranted but precluded by other listing actions. The petition is currently undergoing review by the USFWS with a decision due within a year.

Federal listing still remains only a partial and often incomplete answer to the threatened plant species problem. USFWS is encouraging agencies to develop pre-listing packages to provide protection for threatened species and their habitats in the absence of listing. All land management agencies have policies dealing with threatened, endangered and sensitive species which are designed to prevent species from needing federal listing. But the agencies are hampered by old legislation such as the 1872 Mining Law as well as limited funds and a limited ability to make significant management changes in traditional uses of public lands.

The BLM has had an active botany program in Oregon for a number of years with professional botanists on staff at all Districts. Yet with 12 million acres of public lands to oversee, the job of inventorying, monitoring and research of botanical resources is overwhelming. As a result, threatened plant protection has often come in doses too small to effectively protect endangered species.



Malheur Wirelettuce

Threatened and Endangered Plants in the Oregon Desert

Listed Endangered
Stephanomeria malheurensis

Category 1 Candidate Plants
Amsinckia carinata
Eriogonum chrysops
Hackelia cronquistii
Pleuropogon oregonus
Senecio eriterae

Category 2 Candidate Plants
Artemisia ludoviciana ssp. *estesii*
Astragalus mulfordiae
Astragalus solitarius
Astragalus sterilis
Castilleja pilosa var. *steenensis*
Collomia renacta
Eriogonum crosbyae
Eriogonum cusickii
Ivesia rhypara var. *rhypara*
Ivesia rhypara var. *shellyi*
Lepidium davisii
Lupinus biddlei
Lupinus cusickii
Mentzelia mollis
Mentzelia packardiae
Rorippa columbiae
Thelypodium eucosmum
Trifolium leibergii
Trifolium owyheense

BLM Sensitive Species
An additional 50 species for eastern Oregon



MINING

by Gary Brown

It is as if we started with a supertanker with double hulls, state-of-the-art communications and electronic navigational systems, and an intensively screened and a highly trained crew; but, ended up with the Exxon Valdez.

-Larry Tuttle, Oregon Regional Director,
The Wilderness Society (Testimony before
Oregon Environmental Quality Commission
(EQC), Oct. 10, 1991)

Remember the Titanic

Captain's Log: April 12, 1991 - We are riding the crest of a wave. The weather is good.

We just reviewed the first copy of the Oregon Department of Environmental Quality (DEQ) proposed rules for chemical process mining. It would be an understatement to say that the rules are visionary relative to rules enacted in other states. What a pleasure and surprise!!

Captain's Log: October 9, 1991 - A storm is brewing.

Larry Tuttle arranged a press conference today at Pioneer Square in Portland. Valerie Kitchen of The Wilderness Society prepared colored paper cutouts of clothing and she printed documented mining violations upon them. Valerie took her clothes and pinned them on a clothesline at Pioneer Square. She "hung out" the miner's dirty laundry while others pointed out that the EQC board was succumbing to industry pressure.

Captain's Log: October 10, 1991 - We're entering icy water, but we're holding steady.

Larry Tuttle testified at the DEQ hearings. "We are at a loss to explain this reversal in the second draft of the rule The risk to the environment, and the potential costs to the State of Oregon, because of failed systems or illusory protection related to chemical mining operations are as real as the Exxon spill. Since many of the proposed mines are in remote locations, the relationship of chemical mining to the environment and human safety is sometimes difficult to visualize. . . . As we saw with the Exxon spill, a single accident in a remote location only makes response more difficult, not less devastating."

The Commission was impressed with the testimony presented and with technical information submitted by the environmental community. Henry Lorenzen

of the EQC board surprised everyone by saying that heap leach mining operations should be treated as hazardous waste dumps. Adoption of the proposed rules is scheduled for December 13.

Captain's Log: October 11, 1991 - There has been a break in the weather. The sun is shining and we are drifting.

We are resting on our laurels and reveling in our victory.

Captain's Log: December 12, 1991 - We have been in a fog for the last few weeks, but we are beginning to see clearly now....

Environmentalists were told today that Atlas has been going to great expense to fly experts in on a daily basis to meet with members of the EQC board. Indications are that adoption of the revised rules will be postponed.

Captain's Log: Friday the 13th - We have encountered ice.

Carol Whipple and Henry Lorenzen of the EQC board suggested that adoption of the proposed rules be postponed until an independent third party could review the rules. Clearly, this is a victory for the mining industry.

Captain's Log: Late December 1991 - Our ship is sinking. We are taking on water.

The DEQ rules are being "watered down" again. Apparently, the mining industry is writing letters to, and may be meeting individually with, EQC board members. We have obtained a copy of a memorandum from Richard Bach of Stoel, Rivers, Boley, Jones and Gray (Atlas attorneys) to John Parks (Atlas) which says, "I am at a loss to understand how the Commission could feel confident about not having 'gone over the edge' (to use Commissioner Whipple's words) if it does not know where the edge is. And without analysis of the cost/benefit ratios, risk assessments, and the other elements of practicability that were mandated by HB2244, the Commission has no railing at the brink."

Captain's Log: SOS SOS SOS SOS SOS SOS SOS SOS WE NEED ASSISTANCE. THIS IS AN EMERGENCY!!!

The *only* concern of the Commission should be the protection of Oregon's citizens and environment. The economics of operating a mine profitably should not be a consideration in the rulemaking. We wait and see what the final outcome will be.



ANIMAL DAMAGE CONTROL

by Barbara Butler

In 1967 I saw the carcasses of the coyotes near my land on the high desert of Oregon. Their bodies were contorted in death from poison. I asked the Fish and Wildlife Service to remove the killing station. I didn't want my dog lying there beside the coyotes.

The coyotes song was gone, their tracks no longer marked in the sand. There would be no more pounce for the mouse, nor race for the jackrabbit. Not from these.

ADC, with a budget of almost \$30 million is under the jurisdiction of the U.S. Department of Agriculture, and exists to control predators on public lands. Livestock owners are the recipients of this service. Four-fifths of this money is spent in the west.

Eastern Montana College biology professor, Jay Kirkpatrick, is quoted as saying, "It's a proven fact: the faster you reduce coyote populations, the better and faster they reproduce. You want to control the offending animal, not wipe out every one." He is correct. When you interfere with the social structure of the coyote, you eliminate the breeding females, and females which would not ordinarily breed will do so. More coyotes are produced. More business for ADC.

Wildlife as a natural resource certainly has equal value to livestock. The amount spent for killing coyotes per livestock loss is extremely high. The state of Kansas manages successful predator control program on \$75,000 annually. Livestock owners are responsible for certain protections of their livestock. If livestock owners in Kansas want to use lethal means, they pay for it themselves. Trained guard dogs of certain breeds and llamas are found to be deterrents to predation. Herders reduce predation. Electric fences and shed lambing protect sheep. Dayton Hyde, southern Oregon cattle rancher has never had a problem with coyotes and writes about it in *Don Coyote*. In addition, there is simply inadequate documentation of livestock loss to coyotes. We depend upon the rancher's word. And he depends upon the subsidy from the ADC by their eradication of the coyotes.

Techniques used by ADC include inhumane and indiscriminate leghold traps. Any living creature is vulnerable. Aerial gunning produces a high numerical count at a high price. But it only compounds the problem by not identifying the animal responsible for livestock loss. Spring-loaded M-44 devices inject lethal sodium cyanide into the mouths of coyotes when they pull on scented baits. When a coyote punctures a sheep collar of Compound 1080, a toxic poison so lethal that one pound could kill a millions pounds of animal life is released. Denning, the killing of coyote pups when they are still in the den is also popular.



Rabinowitz

John Grandy, Vice President for Wildlife and Habitat Protection for The Humane Society of the United States is a member of the National Animal Damage Control Advisory Committee to the U.S. Secretary of Agriculture. The

HSUS is leading a group of national and local organizations and has agreed to bring a legal challenge on behalf of interested organizations. More information will be available soon to ONDA. In the meantime, you may write to:

Gary E. Larson, Director, Operational Support Staff
ADC-APHIS-USDA
Room 820, Federal Building
6505 Belcrest Road
Hyattsville, Md. 20782

The Ochoco National Forest has put a hold on decades of ADC activity to develop an EA on the practice. Write to:

Byron Cheney, Acting District Ranger
Crooked River National Grasslands
P.O.Box 687
Prineville, Or. 97754

Edward Cole, Ranger, Hells Canyon
Rt. 1 Box 270A
Enterprise, Or. 97828

Nature does not necessarily renew her resources. Threatened and Endangered species, sheep and cattle - which is the renewable resource?

(Editor's Note: People interested in modification or elimination of the steel leghold trap should call 382-0755 or 548-7147 to set up a meeting.)



DESERT NOTEBOOK

by Barbara Butler



Since Stephen DeStefano wrote in the January, 1991 issue of *Desert Ramblings* that the Kit fox still exists in southeast Oregon, I would like to acquaint you with their tracks. Although I have seen but one Kit fox, near Sagehen Springs in 1966 or 1967, and it was little more than a flash, and I have seen only one set of tracks in Nevada a few years ago. Let me, nevertheless, tell you what to look for, for I have tracked other fox.



Tracks will be very difficult to assess on the sands and hard-baked ground, but patience and concentration on the disturbances on the ground often reveal the tracks of wild creatures. Attention to them helps you become familiar with different markings. At some time somewhere a creature will make a distinct mark. At this time you can look behind and ahead for the other tracks in poor ground, and begin to familiarize yourself with poor tracks. These are the ones you see the most of. Identification of the track of this creature will then put you in the running for possibly identifying this animal's tracks later on, in spite of the fact that you might not have a distinct track.



Some of the necessary ingredients to tracking are the stride (distance from one foot to the next foot) and straddle (distance between the feet). These differ between species due to their size, the length and the width of their body, and the speed they were traveling. Consider most their normal walk on level ground, and then extrapolate from there by using common sense, and a field guide to tracking. The size of the foot of the creature is first in importance, but keep in mind that different soils in different moisture conditions change the size of the track, as well as does the movement of the creature.



The Kit fox track, if made in firm garden soil (which it won't be) would be 1-1/8 to 1-3/4 inches long, and 1-1/8 to 1-1/4 inches wide. Measure the full foot, but not the slope of soil leading into the track. So in loose sand, which would quickly fall into the track, the track would seem smaller, and would probably not give any real definition of shape. However, following the



tracks (should you be fortunate enough to be able to pick up enough in spite of poor ground conditions) you can begin to measure the stride and straddle to assist you in a hypothesis about the identity of the animal. Should the ground be wet and soft, the track may mark larger than the expected size.



In firm, soft, damp ground (a premium in the desert) you would get a good definition of a walking track. Thus you have to take into consideration the differing ground conditions and the differing movements of the animal, when assessing the size of the track.

The front feet of this fox can register on the ground from 1-1/8 to 1-3/4 inches long, and 1-1/8 to 1-1/4 inches wide. Olaus Murie reports some Kit fox tracks as being two inches long, but he did not specify the condition of the ground in which they were found. The hind feet of canines are narrower than the front feet. The stride of the Kit fox can be from about seven to ten inches, and the straddle would be very narrow, for it is smaller than the gray fox whose straddle I have measured at about three inches.



The den of the Kit fox I saw in northwestern Nevada in 1988 faced a remote dirt road, and had another one or two openings nearby. I never found a distinct configuration of the tracks, but the fox had been there recently. It had walked so slowly and criss-crossed its path, that it took me a time to decipher the tracks. The sand had fallen in and the tracks were very tiny. It had a long enough stride and narrow enough straddle to have ruled out any other desert creature.



At Steve's presentation at the River Rendezvous in 1990 on the Kit fox, he indicated to me the best place to look for Kit fox tracks. Why haven't I gotten out there? Who would like to go?

If you find some tracks photograph them from directly above the track, and put a ruler, keys, or some other measurable object in the photo.

Take a lot of photographs at different exposures. Film is cheap. Do your tracking with the sun on the other side of the tracks. Noon is the worst time. Go slowly, be very careful not to step ahead and obliterate the tracks you are seeking. Find the next track before you move ahead. Take your time. Find the legal description, mileage between known points in the area where you found the tracks. And please call me at 382-0755.



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