

# Desert Ramblings

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Oregon  
Natural Desert  
association

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## THE FEDERAL ENDANGERED SPECIES ACT

by Karen Swirsky

*"If we seriously intend to slow the rate of human-caused species extinctions... the Endangered Species Act must be implemented and enforced with the urgency of a last-ditch rescue attempt. The stakes are high. Thousands of species face extirpation as the result of human activities. Time is short. Continued growth of the human population and skyrocketing demands for resources threaten to deepen the extinction crisis. Only genuine determination on the part of federal and state bureaucracies to conserve listed species, cooperation from the private sector, and public support and vigilance will insure the continued existence of grizzly bears and gibbons, whales and white wartyback pearly mussels, hairy rattleweeds—and humans." — Daniel Rohlf*

Between the spotted owl and our native salmon, the Endangered Species Act (ESA) has been much in the news recently. Most of us know that the ESA does something to protect species of wildlife and plants that are in danger of vanishing, and most of us are aware that the ESA has some power—enough to cause large industries and politicians to be concerned when its name is invoked. The truth is that the ESA is indeed a powerful piece of legislation, and understanding its mechanics as well as its strengths and weaknesses is important to anyone who wishes to be a part of the critical land use decisions that will be made in the coming years. The following discussion is an overview of the most important points of the ESA. For those who would like to really get to know its workings, *The Endangered Species Act: A Guide to Its Protections and Implementation* by Daniel J. Rohlf is highly recommended.

The ESA became law in 1973. It has been described as "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." The ESA elevates the goal of the conservation of species listed as Threatened or Endangered above virtually all other considerations. Its relatively plain language has made its basic tenants extremely difficult to challenge successfully, and Congress has repeatedly shown a reluctance to weaken the ESA.

### What is the Endangered Species Act?

Congress enacted the ESA as the culmination of a long and evolving legislative history, beginning with the Lacey Act of 1900, which was a direct response to the overwhelming tragedy of the extinction of the passenger pigeon. The Congress' stated intent for the ESA was to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such... species.... In order to qualify for ESA protections, a species must be officially listed as either Endangered or Threatened. *Endangered* species are defined by law as those species likely to become extinct within all or a significant portion of their range. *Threatened* species are defined as those species likely to become Endangered in the foreseeable future.

The Secretary of the Interior, acting through the U.S. Fish and Wildlife Service (FWS) and the Secretary of Commerce, acting through the National Marine Fisheries Service (NMFS), has authority to make additions to the Endangered and Threatened lists based on whether a species faces extinction from any variety of natural or human-caused factors. The Secretaries may also delete species from the lists if it is shown that their populations have recovered or have been determined to be extinct. The Secretaries must also designate critical habitat and create recovery plans for each listed species, setting forth conservation goals and specifying actions necessary to achieve them.

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An important point, and one that often gets lost in the complex shuffle of plans and political posturing, is that the purpose of the ESA is to *bring species to recovery*—so that they can be removed from the lists. To use the spotted owl as an example, this means that enough habitat must be provided and managed properly to allow the bird to *recover* sufficiently from its present status of Threatened to be removed from the list. This is the law.

At this time, the current Threatened and Endangered lists include over 560 species occurring within the United States as well as over 500 species occurring elsewhere in the world.

### Who Makes the Lists?

The FWS and NMFS share the authority to list species. NMFS is authorized to list marine mammals, and FWS all other organisms, including plants. The ESA also allows private individuals to petition to list or change the status of a species. The Secretary must make a preliminary finding within 90 days of the receipt of a petition to list a species. Because of the huge backlog of petitioned species that now exists, most petitioned species wind up with a *Candidate* designation, indicating that either enough information was submitted with the petition package to warrant listing, but that the species must wait in line (a Category 1 Candidate), or that more information is needed before the petition for listing can proceed (a Category 2 Candidate). Because it became apparent in the 1980's that a number of species were suffering serious population declines or even becoming extinct while they were waiting for the protection of being listed, Congress in 1988 amended the listing procedure (Section 4) to require that a system be established which monitors the status of Candidate species. In many cases, this means that studies are conducted by FWS or NMFS to determine the status of Candidate species. Both of these agencies depend on the input of private researchers for a portion of their information.

This amended version of Section 4 also requires the Secretary to make "prompt use" of emergency listing procedures to prevent "a significant risk to the well-being of any [candidate species]." This requirement has come to the aid of a number of species that were languishing as Candidates. The ESA expressly permits any person to file suit to compel the Secretary to use the emergency listing procedure, if it can be shown that the species involved faces a significant risk. Most recently, the desert tortoise has benefited from an emergency listing. This species had been a Category 2 Candidate for a number of years, suffering from habitat loss, predation by ravens (whose population had been increased by

local dumps and increased human presence), injury and death from off-highway vehicle recreation, and disease. An emergency listing immediately gives the affected species all the protection provided an Endangered species, and is in effect for 240 days, at the end of which time the species may be permanently listed or given another status. The desert tortoise was permanently listed as Threatened last Fall.

### Critical Habitat

When a species is listed, critical habitat is established, and a recovery plan is written. Enough critical habitat must be established to allow the species to recover. This means identifying and setting aside presently unoccupied habitat. This also means that the habitat requirements of the species must be sufficiently understood. Private lands cannot be designated as critical habitat. Although Congress is clear that listings of species must be done solely on the basis of biological criteria, it allows the consideration of economic factors in critical habitat designation decisions. Critical habitat is not identified for all species; Section 4 of the ESA states that critical habitat designation be accomplished to the "maximum extent prudent and determinable." Because of the other protections provided by the listing of a species, Congress allows listings to proceed if even the critical habitat identification for the species is expected to be delayed for up to a year.

### Recovery Plans

Since the goal of the ESA is to bring populations of listed species to healthy, self-sustaining levels, federal agencies responsible for the species are required to prepare recovery plans. Species whose recoveries have been identified as potentially in conflict with development or other economic activities must receive priority in the formulation of recovery plans. Recovery plans must contain "objective, measurable criteria" to gauge the effectiveness of the plan. Although recovery planning can take years, and the enforceability of the plans remains unclear, they serve an important role in identifying needed conservation steps and responsible parties.

### Section 7

Section 7 of the ESA is probably the best known section of the Act. This section contains some of the ESA's strongest protection for listed species, protecting both Endangered and Threatened species and their critical habitat. It directs federal land managers and other federal agencies to absolutely insure that their activities (including actions, fundings, and authorizations) will not jeopardize any listed species or adversely modify critical habitat. In practical terms, this means that federal agencies cannot do

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anything that would push a listed species significantly closer to extinction.

Section 7 requires federal agencies considering a specific action to formally consult with FWS or NMFS in order to obtain expert biological advice every time an agency takes an action which might affect a listed species. Following the consultation, FWS or NMFS issues a written "biological opinion" using the best scientific data available, including non-governmental sources. This opinion includes the biological information important to the species, details the potential impacts of the proposed project, and suggests project alternatives, modifications, or mitigation measures. During the time that the study is underway, the agency is prohibited by law from beginning the action in any way, including committing any resources to the action. Although the agency requesting the biological opinion makes the final decision on the project, in actuality very few agencies will proceed if they have received an opinion stating that the project may place a listed species in jeopardy, mainly because the ESA makes this so clearly against the law.

In 1978, Congress amended the powerful Section 7 in response to the famous snail darter case. This amendment allows a committee composed of Cabinet-level officials to grant exemptions to the absolute protections of Section 7. This so-called "God Committee," which has frequently been mentioned in reference to the spotted owl, has actually rarely convened, and has granted only one exception in its history.

## Section 9

Section 7 applies only to federal agencies. Section 9 applies to private individuals, corporations, and state and local governments. It makes it illegal for anyone to "take" an Endangered species. A "taking" includes not only the infliction of direct physical harm, but also the adverse alteration of habitat in a way that may result in the death or injury of members of the species. The ESA does not automatically prohibit the taking of Threatened species, but the Secretary may apply these same prohibitions to species listed as Threatened, and in most cases has done so. Section 9 also prohibits any sort of commerce, domestic or international, in any part of a listed species.

The ESA allows some exceptions to the prohibition on taking. Federal agencies can "incidentally" take listed species provided such takings do not violate Section 7 and the agency can show that it had taken steps to minimize such takings. Private individuals could also take a protected species if they designed, and FWS or NMFS approved, a habitat conservation plan for the species.

## Weaknesses of the Endangered Species Act

Although the ESA is a strong piece of legislation, it is not without its weaknesses. The Act was originally conceived in a time when our knowledge of the subtle interactions of ecosystems were less understood than they are now, and it has been criticized for its single-species approach. It is difficult to use the ESA to protect biodiversity. In addition, the ESA tends to focus recovery attention on high-profile species. This is mainly because the agencies attempt to maintain a positive public perception of their species recovery programs by emphasizing those species with high public appeal. It has been easy to see this weakness in Southern California over the past few years, where several species that are resident in coastal sage scrub, a rapidly disappearing habitat type, are or will soon be listed as Threatened or Endangered. What is in trouble there is the entire ecosystem, but protection must be gained on a species-by-species basis. A similar situation is found in the old-growth forests of the Northwest. Single-species protection is effective for preserving biodiversity only if a "keystone" species with large and general habitat requirements is listed.

Another problem is the ESA's failure to define the thresholds that determine when a species is Endangered, Threatened or, for that matter, when it is recovered. This task is left to the FWS and NMFS, who have also failed to set specific standards for systematically differentiating the point at which a species is in danger of extinction. This makes it easier for non-biological forces to color an agency decision (such as the timber lobby's influence on how FWS chose to initially define "danger of extinction" for the spotted owl). It also makes it easier for the agencies to again focus on high-profile species.

In addition, many of the biological determinations made under Section 7 are not adequately documented to allow public review. When FWS or NMFS determines that a project will not have an adverse effect on a listed species, they are not required to document their findings, as is required when the potential of an adverse effect is found to be associated with a project. This makes it difficult or impossible for the public to review a decision finding no adverse impact.

It has also been a concern to many biologists that the ESA does not preserve and protect sufficient habitat to allow a species to recover. Remember, this is the ESA's ultimate mandate—to bring listed species to full recovery. However, the designation of critical habitat has been one of the most politically charged aspects of the ESA, and since 1978

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the ESA has allowed the agencies to exclude areas from critical habitat designation on economic or other grounds.

## Conclusion

In spite of these and other difficulties with the ESA, it is one of the most powerful and effective pieces of environmental law ever enacted. It requires the participation of the public to keep it so. We must be informed. The scientists among us must contribute information to the agencies and must keep a learned eye on their decisions. The activists among us must continue to challenge decisions that we feel compromise the intent of the ESA. And we must all make it clear to our elected officials that we expect them to support the ESA.

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## OREGON'S THREATENED AND ENDANGERED SPECIES ACT

by Chris Carey

The Wildlife Policy of the State of Oregon proclaims as its first goal to "maintain all species of wildlife at optimum levels and prevent the serious depletion of any indigenous species." In 1987 the state legislature signed into law the statutes that established Oregon's Threatened and Endangered Species Act. While these laws are strong on intent, they provide for less than adequate protection and conservation across all the lands of the state.

There are presently thirty-three species of mammals, birds, fish, amphibians and reptiles on the Oregon list of threatened and endangered (TE) species (see table 1). Four species were recently added to the Federal list and, by law, will be proposed for the state list. The western snowy plover, kit fox and wolverine are the only state-listed species not also on the federal list.

Management authority for establishing, publishing and reviewing the list of TE wildlife is the responsibility of the Wildlife Commission, a seven-member board appointed by the governor. The Oregon Department of Fish and Wildlife provides biological and technical information to the Commission and can petition for species listing. To list a species, the Commission makes a decision based upon documented and verifiable scientific information about that species' biological status. The necessary scientific

evidence must show a declining population trend and one or more of the following: 1) That most populations are undergoing imminent or active deterioration of their range or primary habitat 2) That overutilization of the species or its habitat is occurring or likely to occur 3) That existing state or federal programs or regulations are inadequate to protect the species or its habitat.

Any person may petition the Commission to list, remove or reclassify any wildlife species on the state list. A copy of the administrative rules outlining the procedures and required biological information is available from the ODFW.

The Wildlife Commission and ODFW establish programs for the conservation and protection of state-listed species. These programs include research, law enforcement, habitat acquisition and maintenance, status surveys, transplantations and other activities.

The weakness in the Act is in implementing habitat conservation programs. These activities only apply to state-owned lands, lands leased by the state or lands which the state holds a recorded easement. Nothing in the statutes and rules is "intended to require an owner of private lands to take any action to protect threatened or endangered species, or impose any additional restrictions on the use of private lands" (ORS 496.192). On privately-owned timberlands, greater protection is provided to state-listed species from the Forest Practices Act than from TE species laws. Federally-listed species are protected by the Federal Endangered Species Act and apply to all lands regardless of ownership.

Federal agencies recognize state-listed species and generally design resource management activities to minimize impacts or provide for mitigation if habitat loss occurs. Presently, the Act's greatest influence is occurring along Oregon's coast where management of the beaches must address the biological needs of the snowy plover in the face of an ever increasing demand for recreational opportunities.

Biological data and other supporting evidence is being collected and analyzed for several species and, if warranted, ODFW will petition the Commission for state listing. These species include the upland sandpiper, yellow rail, marbled murrelet, red-necked grebe, western spotted frog and Townsend's big-eared bat.

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(Editor's Note: Chris Carey is the Central Region nongame biologist for ODFW in Bend.)



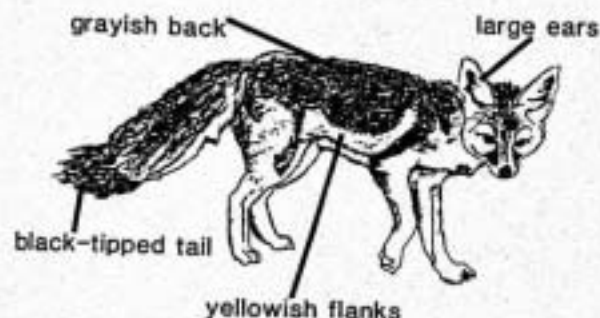


## DESERT NOTEBOOK

by Stephen DeStefano

It is early July in the Great Basin. The sun has just disappeared behind a ragged ridge of faraway mountains, taking with it the intense summer heat. As it begins to grow dark and the earth cools, scurrying can be heard among the sagebrush and desert shrubs - kangaroo rats, pocket mice, and other small rodents are beginning their nightly forays for food.

### KIT FOX



#### HAVE YOU SEEN THIS ANIMAL?

From within a nearby hole, sand and gravel slide downward in small trickles as an animal emerges from its den. A sleek muzzle bordered on both sides by dark stripes, a pair of bright inquisitive eyes, and two oversized ears appear above the surface of the ground and test the wind and sights and sounds of the desert. This expressive face is followed by a body with a grayish back and yellowish flanks and finally by a long, bushy tail that almost matches the body in length and ends in a tip of black. A kit fox has stepped out into its desert world to begin a night of hunting.

For centuries this scene was repeated nightly throughout much of the deserts and shrub-steppes of northern Mexico and the western United States, as far north as southeastern Oregon and southwestern Idaho. More recently, however, there has been a question as to whether the kit fox still lived in the High Desert of southwestern Oregon. A family of foxes, last seen in 1985, denned behind the cafe at Burns Junction, and in 1987 a single animal was seen crossing the road south of Fields, but few sightings in recent years seemed to indicate that the species may no longer be a permanent resident of the state.

The kit fox was probably never as common in Oregon as in more central portions of its range. However, it is believed that kit fox populations in the state were reduced to all-time lows because of poisoned baits used to control coyotes in the 1950's to early 1970's. Kit foxes will scavenge for food, as well as hunt for prey such as jackrabbits, cottontails, small rodents, and an occasional bird, and they are easy, if unintended, victims of poisoning campaigns used for predator or pest control. Trapping, shooting, and predation by coyotes may also have been important causes of mortality. Once kit foxes have been eliminated from an area or their densities have been reduced to very low levels, they may be slow to recolonize and build up their numbers.

Regardless of the specific causes of the decline, state and federal wildlife biologists believed that the kit fox was an integral member of the desert ecosystem in Oregon, but that human activities probably caused a decline in numbers to the point that the species may have been extirpated from the state. This concern caused the Oregon Department of Fish and Wildlife (ODFW) to list the northern kit fox, the subspecies that inhabits Oregon, as a threatened species in the state in 1975, and the BLM to establish a kit fox habitat management area in 1983. The northern kit fox is not listed on the federal level because adequate numbers exist in Nevada and Utah. "Threatened" means that a species or subspecies is in trouble of becoming endangered, "endangered" means that it is on the brink of extinction, and "extinct" means that it exists no more.

Despite the concern for the status of kit foxes in Oregon, the question of whether the species still existed in the state was open for debate. ODFW, through its Nongame Research Program, decided to try to answer this question by funding an investigation of the status of the kit fox in Oregon from February to July 1990.

Museum records, reports by trappers, and sightings during the past several decades indicated that kit foxes inhabited southeastern Harney and southwestern Malheur Counties, and this is where the search took place. The kit fox is the smallest fox in North America, weighing only about four to six pounds, but it was more the immensity of the High Desert rather than the diminutive size of this fox that made for a "needle-in-the-haystack" search. Over 5,000 square miles were included in the study area, which was bordered on three sides by mountains: the Sheepheads in the north, the Pueblos and Trout Creeks in the south, and Steens Mountain in the west. The area around Burns Junction was also a focus of the search.

This wild corner of Oregon is dominated by gently to steeply rolling hills alternating with broad valleys. Buttes, rimrock, dry washes, and playas such as the Alvord Desert and Coyote Lake are interspersed throughout much of the region. Large expanses are dominated by stands of big sage, and sand dunes are present on the leeward side of playas and are either bare and shifting or stabilized by desert plants. It is country that looks monotonous only to those who whiz by in air-conditioned cars at 80 mph on Highway 95. To anyone who takes the time to get out and walk or to just stand on a ridge-top at dusk while the sun turns the sagebrush from green to purple to deepening shades of orange and brown, it is rich and varied country, filled with a solitude that is at first disquieting, then comforting, and finally as peaceful as any place on earth.

Several methods were used to locate kit foxes or their sign. Scent stations, designed to attract predators who would then leave their tracks on a bed of finely sifted dust, were set up along roads and trails. Miles of desert were hiked in a search for dens and the small doglike tracks of the kit fox, and even a helicopter was employed in an aerial search for dens. And on moonless calm nights, the distress calls of a rabbit or other species of prey were broadcast over a loud speaker and a spotlight was used to sweep the desert in order to catch the eyeshine of approaching predators. This night-lighting method was used on over 500 miles of road throughout the study area.

An understanding of kit fox ecology also helped in the search. Kit foxes tend to stay out of areas with dense, tall stands of vegetation like sagebrush, and seem to prefer areas with sparse and low-statured desert shrubs, which allows them to detect approaching predators such as coyotes, bobcats, or golden eagles. This fox is one of the few species of carnivores that relies on dens throughout the year. These subterranean homes provide protection from predators and a more comfortable environment during the hot summers and cold winters characteristic of the High Desert. Several dens will be used by a single fox or a pair during a year. Most of these

dens have multiple openings, from two to seven, but the dens used for raising pups can be quite large and have been known to have up to 25 openings and many tunnels and chambers. Biologists have found that these large, maternal dens are a critical element in the habitat requirements of this desert fox.

Small canid tracks were discovered south of Coyote Lake in February and at four other locations during the study, but it wasn't until May that a positive identification of a kit fox was made. This individual was called in with the predator call and was seen clearly in the spotlight. Earlier in the study, an animal came close to the truck during nightlighting and it appeared that it could have been a kit fox, but it disappeared into the darkness before a positive identification could be made.

Finally, during the last week of searching, a pair of kit foxes came bounding out of the darkness and into the spotlight at 1:30 in the morning. They sat among the low desert shrubs, about twenty-five feet from the truck, listening to the tape and testing the breeze before slipping away. In total, one individual and one pair of kit foxes were seen, plus a possible sighting of a fourth animal. No active dens were discovered. Kit foxes are indeed still out there in Oregon's High Desert, but their numbers appear to be extremely low.



Now that it has been established that the northern kit fox is still present in the state, questions arise concerning possible recovery and management plans. Biologists working for ODFW and BLM are interested in obtaining more data on the kit fox and in developing ways to ensure its future in the state. Further searching is needed because six months in the High Desert is too short a time in too large an area. Additional information is needed on kit fox locations, habitat quality and availability, and prey base. The kit fox is an integral and important member of natural desert-shrub ecosystems, and heightened concerns for conserving biodiversity and preserving ecosystems with all of their interrelated components intact dictate that this small predator be included in efforts toward the conservation and management of Oregon's desert community.





## MINING

by Mike Sequeira

The recent track record of some mining companies has been pretty grim when it comes to wildlife. *Horizon Gold Shares* which has claims near Vale at Hope Butte and hopes to set up a cyanide heap-leach operation there also owns Tuscarora Mine in Nevada. Their 1990 third quarter report dated October 17, 1990 recorded 274 birds, 22 bats, and 42 small mammals killed at their ponds. Dean Hoffman, plant supervisor, explained that he did not report mortalities within 24 hours as required by law because he misunderstood reporting stipulations.

Even more dramatic is the report on McCoy Cove Mine, also in Nevada, and owned by Canadian-based *Echo Bay Minerals Co.* They recently pleaded guilty to misdemeanor criminal charges and agreed to pay a \$250,000 fine and to donate an additional \$250,000 to the Nature Conservancy in connection with the deaths of over 900 birds in cyanide tailings ponds over the period from 1989 to 1990. This is the largest fine in the history of the 76 year old *U.S. Migratory Bird Treaty Act*. The birds died as a result of ingesting water containing cyanide. Terry Fiske, Echo Bay's Vice President said, "We were using processes which we had used elsewhere and which had not been toxic. We thought we had a system that would not cause any problems."

Since 1985, over 6,700 birds and animals have died from cyanide poisoning in Nevada alone.

One difficulty is that no one really knows what "safe" levels of cyanide actually are. The most frequently quoted figure is 50 parts per million (ppm) as the threshold concentration lethal to wildlife. Yet there seem to be *no* data or documentation to support such a figure. Rory Lamp, biologist for the Nevada Department of Wildlife suggests 30 ppm as a more reasonable figure, but offers *no* data or rationale for that figure. He states, "An absolute concentration for individual tolerances of wildlife to cyanide toxicity is not known." The problem is clear.

Let's be sure our state legislators understand: we do not want to make Oregon into another Nevada! Our wildlife and our land are too precious to devastate in the name of short-term profits for large, out-of-state and foreign companies. Please write to your state senator and representative and let them know that they must pass legislation during this session to regulate this industry. It is our last chance. Mining companies are watching the legislature closely, for the outcome of this debate will determine the fate of Oregon's modern gold rush. □



## GRAZING

Ranchers often assert that they "love the land." But the reality of western rangelands paints a different picture. A 1989 study of BLM lands found that a minimum of 68 percent of these federal rangelands were in unsatisfactory condition. Other studies suggest that Forest Service lands are in better shape, but still at least 20 percent of these lands were in poor ecological health as well. In total, not less than 140 million acres of public lands (about one-and-a-half times the size of the state of Montana) are in a "cow-bombed" condition.

But the abuse of rangelands does not end with publically owned lands. A 1987 National Rangelands Inventory by the Soil Conservation Service found that even more acres of private rangelands, some 270 million acres, were in unsatisfactory condition. So much for the myth that ranchers "love the land."

When one considers that more than 410 MILLION ACRES of the West are well below their full ecological potential and that this area is nearly equal to a quarter of the land area of the entire United States, it becomes easier to understand why some critics believe the cumulative impacts of the western livestock industry are responsible for more environmental degradation than any other human factor.

(Editor's Note: We received the following note from George Wuerthner, Livingston, Montana in response to our last newsletter.) □



## Threatened and Endangered Species Update

by Craig Miller

ONDA, with several other groups, has appealed BLM's decision to proceed with drilling and deepening several geothermal test flow wells near Borax Lake. The test wells, just a few thousand feet from the lake present the danger of affecting the temperature, chemical makeup, or water level of the lake which could put the endangered Borax Lake Chub in danger of extinction. The planned flow tests might clarify the connection between the proposed geothermal site and Borax Lake, but the rapid removal of superheated water from the geothermal source could lead to variations fatal to the chub. Other environmental concerns include possible negative impacts on migrating bighorn sheep and incompatibility with the National Park proposal being considered for the Steens Mountain and Alvord Basin. □



## OREGON HIGH DESERT PROTECTION ACT

by Alice Elshoff

**D**esert activists from around the state continue compiling data on the thirty general areas to be included in the OHDPA. This bill, proposed by the Oregon conservation community, will recommend for wilderness designation areas found to have outstanding values for wildlife habitat, watershed stability, T/E plant and animal protection, scientific research, archeological and historical significance and the preservation of open space for future generations.

A national park and several national monuments are being considered as well as wilderness areas as this bill takes a landscape approach to protection, choosing appropriate designations available through the legislative process.

It is not known what the impact of proposed changes in public land use will have on the livestock industry, because a clear profile of grazing permittees is not available. ONDA is sensitive to claims of adverse impacts this bill might have on public lands ranching operations and is trying to document any possible consequences. We are initiating a pilot study to assemble data on the livestock owners who use public lands. This research will address two primary questions:

Who are the permittees? Data will be gathered to provide a sociometric profile of public lands ranchers in Oregon. Specific queries include: How many permittees are there? Where do ranch owners live (on the ranch, in-state, out-of-state or country)? Do they work on the ranch? What is the total area of allotments, gross income from ranching, percent of total income derived from public lands grazing? What types of corporations are involved?

What would be the impact on permittees of eliminating grazing on public lands under four different scenarios:

1. In Oregon.
2. Within the proposed OHDPA.
3. Within the proposed Steens National Park.
4. Within the Malheur and Hart Mountain Wildlife Refuges.

A budget of \$2500 has been set for this important research. Anyone wishing to contribute, please send a check to ONDA made out to Research/ONDA.

Stay tuned for more on the outcome of our discussions. □



## ANNOUNCEMENTS

**D**esert Conference XIII will be held April 25 - 28 at the Malheur Field Station. The theme this year is "Spreading the Word." Topics to be explored include land-use issues, desert photography, writing, natural history of the area, and environmental protection strategies. There will be field trips, workshops, and presentations offered by scientists, artists, historians, writers, and others devoted to the desert. **All conference participants must register in advance.** Registration forms must be received by April 8, 1991. For a registration form or more information please write or call:

Desert Conference XIII  
P.O. Box 15115  
Portland, Oregon 97215 (503) 245-3658.

**H**art Mountain National Wildlife Refuge is developing a new management plan to bring the refuge back into line with its original legal mandate: to serve wildlife. To that end the U. S. Fish and Wildlife Service held a public meeting in Bend on January 11 to solicit public comments on issues that should be considered. Judging from the comments, by far the most divisive issue concerns grazing on the refuge. One of the most interesting topics raised dealt with the reintroduction of extirpated species, such as wolves and sharp-tailed grouse. Though there is no formal period for written public comment, anyone interested in expressing concerns is urged to write to the refuge manager:

Barry Reiswig  
Hart Mountain Refuge  
P.O. Box 111  
Lakeview, Oregon 97630

**P**lan to attend the *Oregon Responsible Mining Conference* on February 23 in Salem. Speakers and panels will explore the potential impacts of cyanide heap-leach mining in Oregon. Speakers include Phil Hocker, President of the Mineral Policies Center in Washington, D.C., Gary Brown of Concerned Citizens for Responsible Mining, and many others. Come learn about this important issue. Registration will be \$10. For more information, call Scott Greacen, 223-9001. □

### OFFICERS

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## DESERT SKIES

**J**upiter dominates the night sky rising in twilight an hour after sunset by mid January. On January 28 the earth passes between Jupiter and the sun. This position, called *opposition*, allows us to see Jupiter all night. Look to the ENE at dusk and WNW at dawn. The full moon on the 29th will be near Jupiter all night. Other planets include Mars, high to the ESE and Mercury visible at dawn to the ESE to SE. You should be able to see Venus and Jupiter in the sky at the same time by the end of the month. Venus will be setting while Jupiter is rising at twilight on January 22. □



## MARKETPLACE

ONDA short-sleeve and long-sleeve t-shirts and sweatshirts may be ordered using the form below. Colors available are *grey, navy, peach, or white*. Sizes available are *small, medium, large, and extra-large*. Some sizes and colors are limited, so be sure to indicate a second choice.

<b>Prices:</b>	Sweatshirts	\$22.00
	Short-sleeve t-shirt	\$12.00
	Long-sleeve t-shirt	\$16.00

*Logo by Signe Mason*

In addition to the ONDA shirts, we have a limited supply of the classic *Desert Wilderness* long-sleeve t-shirt available. This "collector's item" four-color t-shirt features a pronghorn on the front. All sizes are available at a price of \$16.00.

We are pleased to be able to offer Stephen Trimble's *The Sagebrush Ocean: A Natural History of the Great Basin* for \$34.95. Mr. Trimble received the High Desert Museum 1990 Earle A. Chiles Award for his accomplishments in promoting the thoughtful management of the natural resources of the intermountain west.

*"This is the best general introduction to the ecology and spirit of the Great Basin, a place where the desert almost seems to mirror the sky in size, where mountains hold ravens, bristlecone pines, winter stillness and unseen, but satisfying, the possibility of bighorn sheep."*

The *High Desert Museum* in Bend is host to a special exhibit including text and photos from Mr. Trimble's book. The exhibit, *Sagebrush Ocean: A Naturalist's Vision of the Great Basin*, runs through March 5.

If you would like to become a member of ONDA or if you are due to renew your membership, please use the form on the opposite side of this page to do so: Regular membership: \$15.00. Contributing Sponsor: \$50.00 (includes a copy of *The Sagebrush Ocean*, retail value, \$34.95)

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