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OREGON WILDLIFE

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Our mission is to protect and enhance
Oregon's fish and wildlife and
their habitats for use and enjoyment
by present and future generations.

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FROM THE DIRECTOR



have banned the use of leghold traps, while others such as California no longer allow the harvest of cougars. Some groups have actively campaigned to make all fishing illegal.

As we look back on Oregon's history of fish and wildlife management in the last century, we've had our share of disappointments and success stories. More and more decisions about managing wildlife have been made at the polling booths and through the political process, where lobbying has replaced sound wildlife management, science and research. There has been a long-term degradation of our fragile high desert ecosystem with a corresponding effect on the plants and animals that live there. And we've lost a great deal of our riparian zones, those important buffers along streams that keep our rivers flowing cool and clear. Loss of riparian habitat, construction of dams and pollution have contributed to several of our salmon species being placed on the endangered species list.

But Oregon has had its share of success stories, as well. Restoration of the Warner and Klamath basins and other wetlands has been a significant achievement for waterfowl that breed in and migrate through our state. Whereas elk were scarce in Oregon in the early 1900s, Oregon can now boast having the second largest elk herd of any state in the nation. In 1947, bighorn sheep no longer existed in Oregon because of competition for forage by domestic sheep, diseases contracted from domestic sheep and unregulated hunting. Today, populations of California bighorn sheep and Rocky Mountain bighorn sheep in Oregon total 2,700 and 700, respectively. And coastal streams have been greatly enhanced in recent years in anticipation of improved salmon runs.

What does the future hold for fish and wildlife management in Oregon and what will people 100 years from now say about our efforts in this coming century? What tools will we have to manage fish and wildlife populations 100 years from now? What tools will we lose? And, will Oregonians in the year 2999 look forward to fall with the same vigor, enthusiasm and love of the outdoors as we do now? I'll be thinking about these things during this season of harvest; I hope you do, too.

Effective fish and wildlife management has given Oregon one of the most bountiful ecosystems in the nation; this is the time of year for Oregonians to enjoy the results.

SEASON OF HARVEST

FALL IS the season of harvest for Oregonians. While many partake of nature's bounty year-round, it is the changing of the season from summer to fall that incites this tradition of harvest. From crabbing in the bays of Oregon's rocky coast, to mule deer and elk hunting in the high desert, to waterfowl hunting in the Warner basin, to steelhead fishing in the Deschutes, fall takes our citizens from cities, suburbs and small towns to forests, fields and streams.

It is this season of harvest that reminds Oregonians of the special place in which we live and the important role each of us plays in conserving those resources integral to quality of life.

There has been a movement afoot in our nation for quite some time to stop harvest or to severely restrict methods of harvesting wildlife. States such as Massachusetts and Colorado



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Design and Production
The Felt Hat

JAMES W. GREER | Director



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COVER Good angling on Carl Lake in the Mt. Jefferson Wilderness. Photograph by Paul R. Mort

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By teaching women the skills they need to enjoy hunting and fishing without intimidation, oow is helping to make an important part of our past a part of our future.

KEEPING TRADITION ALIVE

by LISA A. DEBRUYCKERE

WHEN I SAW HIM in the minivan, he was asleep, dreaming of other days and other times. En route to the grass field on the E.E.

Wilson Wildlife Area, I watched him undergo a transformation.

As we neared the field, it was as if a sixth sense informed him we were close. He became alert and anxious, and his breathing changed. His eagerness peaked as the door to the minivan opened and he sprang from the van, all of his senses

As our population becomes increasingly urban, and as more families are headed by a single female parent, generations of youth are not being exposed to hunting and fishing traditions. The best way to give Oregon women and children opportunities to learn about, enjoy, experience these pursuits is through programs like oow and the BOW.

Andrea Waller participated in the E.E. Wilson Pheasant Hunt in September. For \$50, she spent a day learning about hunting ethics and safety considerations when hunting with dogs. She had an opportunity to shoot 25 rounds of clay birds, and she experienced the thrill of watching a bird dog do what he does best —

find birds. Waller said, "It's a neat concept to actually be around women who hunt." Waller



NOTES AND COMMENTARY FROM AROUND THE STATE Field Journal

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converging to give him the information and skill he needed to do his job.

He began a methodical process of surveying the field. He used all of his senses, what little moisture was available on this dry, warm Saturday, and the talents he was given at birth, to make the hopes and dreams of his owner — and a new recruit to the sport of pheasant hunting — a reality. Such is the life of a bird dog, and such is the joy I experienced as a participant in the Oregon Department of Fish and Wildlife's Outdoor Woman (oow) Program.

The oow program was initiated in 1993, and since then, 42 workshops have been held for 2,181 female enthusiasts. The purpose of the program — a spin-off of the national Becoming an Outdoors-Woman program — is to provide outdoor recreational experiences in a supportive, non-intimidating environment.

Studies conducted by national program staff demonstrated that the greatest barrier to women participating in hunting and fishing activities is the intimidation they feel and their lack of knowledge. Let's face it: most girls aren't raised like boys. I know I didn't get a BB gun for my birthday when I came of age — and I doubt many girls do.



enjoyed the camaraderie and atmosphere of the event.

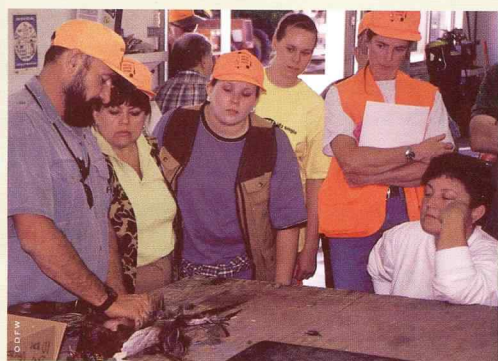
Bill Westover of the PortVan Dog Club, a club comprised of pointing dog enthusiasts, said, "If we don't perpetuate this sport, it won't last much longer." That's bad news for bird dogs that live and breathe to locate, point or flush birds, and retrieve.

Westover particularly enjoys bringing dogs to the oow workshops because he finds women much easier to work with than men. He notes women listen and arrive at the workshops with few preconceived ideas or bad habits because their exposure to hunting sports has been minimal.

Richard Homer, a Master Hunter and Volunteer Hunter Education Instructor, said that he finds working with the Oregon Outdoor Women program rewarding because he takes pleasure in watching people enjoying a new and success. Homer also noted that women are less competitive and more willing to take risks than men. The risk, of course, is the chance of being embarrassed while learning how to shoot.

COUNTERCLOCKWISE FROM LEFT:

Springer Spaniel brings in a ring-necked pheasant; oow workshop participants practice on clay pigeons at the range; later, they show off the day's harvest and learn to prepare the bird for cooking.



Wes Preis is a Master Hunter and Volunteer Hunter Education Instructor. He gives freely of his time to help women learn how to hunt pheasants because he feels that there aren't enough women that appreciate the shooting sports. He enjoys helping them learn to shoot, and watching them succeed.

I enjoyed my day afield, despite not harvest-pheasant. But when you attend a workshop like this, you learn that it's the camaraderie, the tradition, the shooting skills, and the relationship of an owner to her bird dog that makes the day complete. And best of all, you get to watch bird dogs do what they do best. There simply is no greater thrill.

Trapping has long been part of Oregon's industry, and responsible wildlife management has ensured we will enjoy the company of these animals for many years to come.

TRAPPING: A DELICATE BALANCE

by LARRY COOPER

TRAPPING FURBEARERS for their fur, meat and other natural products has a long tradition in the Pacific Northwest, dating back to aboriginal people. The first non-native Americans came to Oregon primarily in pursuit of abundant furbearer species. Trapping brigades deployed by trading companies like Hudson Bay and the Northwest Fur Company nearly eliminated beaver and other furbearers in Oregon by the late 1800s. In 1893,

➤ CONTINUED ON PAGE 6

To learn more about the 13 Oregon Outdoor Women workshops that will be held in 2000, call (503) 872-5264 ext. 5358. Or write to Oregon Outdoor Women, Oregon Department of Fish & Wildlife, Information and Education, 2501 SW 1st Ave., Portland, OR 97207

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laws were finally enacted to protect dwindling numbers of furbearers remaining in the state.

Thanks to effective wildlife management and conservation strategies, most furbearers are still abundant in Oregon. Wildlife management activities have assured their continued presence by maintaining a balance in furbearer populations. While trapping was the primary reason for the decline of furbearers in the late



LEFT:
Adaptable and always ready to capitalize on any food source, raccoons forage a dumps



1800s, today it is a valuable wildlife management tool. Trapping is controlled through strict, scientifically based regulations. It can be used to reduce or prevent damage to agricultural crops and private property, help control wildlife diseases such as rabies, prevent wildlife from overpopulating and causing destruction to their habitat, and as an effective means of capturing animals unharmed for restoration efforts.

Population management

WILDLIFE BIOLOGISTS manage furbearer populations in much the same way they manage other fish and wildlife populations such as deer, ducks and eagles: they determine management goals for each population depending on whether the population is increasing, decreasing or stable. When a furbearer population is causing damage by threatening the restoration of endangered species or is creating a hardship for landowners, wildlife managers may adjust trapping and hunting regulations to curb the population. Conversely, there are situations when it is desirable to increase furbearer populations. These occur when efforts are being made to restore an extirpated species, or when a severe

population reduction caused by poor habitat conditions has occurred. In such cases, wildlife managers might restrict or prohibit harvests for a time to encourage populations to increase.

Reintroduction programs

FOOTHOLD TRAPS are sometimes used to capture rare or endangered species so that native animals can be introduced into favorable habitats to reestablish healthy populations. Missouri now has a thriving river otter population from animals captured in foothold traps in Louisiana and released unharmed into new areas. Similar otter restoration programs have been successful in Pennsylvania, Maryland, New York, West Virginia and many midwestern states.

Foothold traps also play an important role in protecting the health and viability of many established or newly reestablished populations of rare and endangered species. The foothold trap is a particularly important management tool for protecting rare or endangered species from predation by fox and coyote. When coyotes threatened nesting sandhill cranes in southeastern Oregon, foothold traps were employed to protect the chicks and nesting adults.

Damage

WILDLIFE MANAGERS, responding to public concerns, have also implemented furbearer management programs at both the state and federal levels to curb habitat damage. Habitat loss can be a direct threat to wildlife populations. When habitat becomes fragmented or eliminated because of development, wildlife managers are confronted with new challenges such as coyotes killing pets, beavers cutting ornamental trees and flooding roads, and raccoons invading buildings and threatening public health with diseases and parasites. These kinds of human-wildlife conflicts reduce tolerance and appreciation of furbearers.

A growing dilemma for wildlife managers is the reality that furbearers offer recreational, economic and intrinsic values to society, yet they are also an increasing public liability. The challenge, magnified in and near urban areas, is to balance the needs and interests of people, while practicing sound wildlife management.

Disease control

THE VALUE OF TRAPPING in controlling the spread of wildlife disease has not been proven, despite claims by both its opponents and proponents. However, disease occurrence in wildlife populations is often associated with high densities of animals. Reducing local densities of furbearer populations through harvest can reduce disease transmission and potential for human contact. While disease may persist in the population, the intensity of outbreaks may be reduced. In a study conducted in Canada, severity of fox rabies outbreaks were reduced by intense, government-funded trapping, while fur harvests at normal levels showed little effect on rabies reduction. It was also noted that greater levels of harvest in southern Ontario decreased the severity of rabies outbreaks in red foxes.

Best management practices

PROFESSIONAL wildlife managers often find themselves clarifying misconceptions about trapping and furbearer management. Many people are concerned that trapping may cause unnecessary injury to the animal, but regulated trapping in North America is a safe and effective method of management.

State wildlife agencies and trappers working through the International Association of Fish and Wildlife Agencies (IAFWA) Fur Resources Committee are developing *Best Management Practices* (BMPs) for trapping in the United States. BMPs include recommendations about how to improve trapping activity by using sound scientific research while considering regional, social and economic factors.

Furbearer biologists from all regions of the country are involved in this effort. Traps and

trapping systems are evaluated based on animal welfare, efficiency, selectivity, user safety and practicability. Recommendations and information on trapping system performance will be presented to the states by the IAFWA. Those recommendations will be reviewed by ODFW staff and presented to the Fish and Wildlife Commission for consideration and possible adoption.

The Wildlife Society, an international non-profit scientific and educational organization serving professionals in all areas of wildlife ecology, conservation and management, has published a policy on traps, trapping and furbearer management that best represents the views of wildlife biologists. The Wildlife Society's position statement recognizes that "Internationally accepted principles of natural resource conservation stipulate that resource management activities must maintain essential ecological processes, preserve genetic diversity, and ensure the existence of species and ecosystems. Regulated trapping in North America is consistent with all three criteria and is a versatile, safe, effective, and ecologically sound method of har-



LEFT:
*Typical beaver
damage.*

vesting and managing species of furbearers."

Professional wildlife management practices have successfully restored, preserved and ensured the continuing viability of wild furbearer populations. The harvest and use of animals within furbearer populations does not threaten the continuing survival of those populations. In fact, this practice has contributed most of the funding to study and manage those populations. In the United States, most funding comes from two sources: hunting and trapping license revenues, and federal excise taxes on firearms, ammunition and archery equipment. Without regulated trapping, wildlife managers could not effectively deliver the programs that have restored so many species to areas where they have not prospered for centuries. They would have fewer options to offer the public relief from agricultural and property damage, or to protect human health and safety; and they could not ensure the continued public use of furbearer resources. Trapping in Oregon is a long tradition that provides income and recreation, while continuing to be an important technique wildlife managers use to restore and enhance the incredible diversity of wildlife found across the state.

They're not very attractive. They're not very ambitious. And they're not very popular. But Pacific Lampreys are quite a catch in the Northwest ecosystem, particularly if you're planning for the future.

IT'S A WONDERFUL LIFE!

by PAT WRAY

THE PACIFIC LAMPREY has a wonderful, free lifestyle. It spends a few years in its natal (home) stream, takes a scenic cruise out to sea for two or three more years, then comes back home for a year, relaxing in its retirement community while making a few thousand babies. Then, it quietly donates its body to the river. It just doesn't get much better.

A lamprey is an elongated, snake-like fish, maybe 30 inches long and weighing a little more than a pound, but without scales. It has a smooth, bluish gray or brown skin that is slimy to the touch. Its mouth is round and downturned with suction-cup lips surrounding a series of circular rows of teeth. The

life of a lamprey begins one day in the spring when it

emerges from

its egg in stream gravel and makes its way to a back-water or eddy where it finds plenty of soft organic sediment to burrow. There it embarks on its larval stage. It enjoys the feast of the filter feeder, a veritable smorgasbord of microscopic plants and animals that keeps it occupied and happy for the next four to six years. During that time, it grows an inch or more each year, so that when it's ready to leave, it's an adult, though still only five inches in length.

Now, some people might consider spending an entire childhood in the mud to be excessive, but there's a lot to see and do down there, and if one can just get past the trout, crawdads and birds that consider lamprey an appetizer, it's not such a bad life after all. Unless, of course, a lamprey has the bad luck of being born in a stream with poor quality habitat. Poor quality streams have lost the complexity typical of a natural system. Stream complexity refers to lots of woody

debris, deep pools and eddies, as well as associated wetlands and backwaters where lamprey young can safely grow.

Some streams have been channelized and otherwise altered to the point where they have more in common with a ditch than a healthy stream system. Few lamprey young will be born in these streams and those that do, well, their chances for survival are not good. With few areas protected from winter and spring freshets, young lampreys, which cannot swim well, will have scant hope of surviving heavy flows.

Of course, lampreys may have to deal with the pollution thing. You know, filter feeders have trouble in areas where pollution has invaded the water column and sediments.

After a short few years (time flies when you're living in mud), a lamprey migrates to the ocean and enters the next exciting phase of life...that of the PARASITE! It clamps its suction cup lips on to a fish and slowly chews through its skin and flesh until it begins to extract fluids for breakfast, lunch and dinner over the next two



or three years. At this stage of its life, it never has to swim; it just gets pulled along. You know, kick back, relax and it always has lunch right at its fingertips, er, lips. Its host may not last as long as the lamprey, but there are plenty of other fish in the sea.


Actually, that may be a little problem, that part about plenty of other fish in the sea. Decreases in the numbers of whiting and other species which have historically hosted Pacific lampreys may have contributed to the drastic decline in the Pacific lamprey population in the last two decades.

After two or three years of the good life in the ocean, it heads back to its natal stream, where it arrives sometime between early spring and late summer. Thirty or so years ago, it would have had to run a gauntlet of Native American nets and traps; Pacific lamprey was a staple food of Oregon's coastal Indians until the 1970s, when the lamprey population began a precipitous decline that continues today. Since the 70s, lamprey returns no longer justified the effort of a fishery.

A lamprey wanders into a low gradient section of its natal stream and just hangs out for a year. During this one-year period it won't eat.

Period. For one year. It just hangs out in the mud or gravel and stays out of the way, so it doesn't have need for a lot of food.

The following spring, it gets the urge to spawn, which it does in much the same way as on. It digs out *redds*, or nests, and the females deposits between 10,000 and 100,000 eggs which the males then fertilize.

After spawning, its days are numbered and the number is four. Within four days, it dies and its body degenerates into the essential nutrients upon which Pacific Northwest ecosystems are built. At one time, the total biomass contributed to streams and rivers by Pacific lamprey may have equaled or even exceeded that of salmon. And thus is the life of a Pacific lamprey, filled with adventure, travel, and excitement. 

Hundreds of thousands of birds call Oregon home, at least for a short time each year. And that makes for some of the most spectacular displays in the country for viewers and hunters alike.

LIVING IN THE GOOD OLD DAYS

by BRAD BALES

THE WHISTLE OF wings resounding out of the marsh mist on a frosty morning. The hushed whine of the retriever as birds circle overhead. The gunner's racing heart with the anticipation of the first shot of the day. These are all memories that waterfowlers throughout Oregon share with a passion. A deep conservation spirit is embedded in the Oregon waterfowl hunter — a tradition of teaching the hunting heritage and the pride of conservation efforts that are paying big dividends with abundant waterfowl numbers taking wing as the new millennium quickly approaches.

Almost every species of duck and goose found in the Pacific Flyway resides in or visits Oregon during a year. Hundreds of thousands of birds stop over while migrating to southern destinations, or winter throughout many regions, providing a wide diversity of hunting opportunities. Birds arrive in Oregon during the winter months from as far away as the Canadian Arctic and Russian Siberia. But young birds are not just hatched out in the far north. The state also supports large breeding populations of some species contributing to the abundance of flyway populations.

Significant increases in many duck and goose numbers this year have triggered very liberal seasons. These are direct results of habitat management programs throughout the western states and provinces with some help from Mother Nature. Abundant rain and snowpacks have helped drought stricken areas of the U.S. and Canada and triggered dramatic increases in waterfowl. Vegetation has been nourished once again by abundant water. Ponds and wetlands have come alive. Just this year, the total number of ducks from Canada jumped to 43.4 million — the highest number ever recorded in nearly 50 years of record keeping. Numbers of resident ducks in Oregon jumped over 40 percent from last year. Most northern goose populations are very robust and outstanding numbers of birds are wintering here. The familiar v-flight and call of local Canada geese are becoming a common sight in all parts of the state.

Oregon has ample hunting opportunities for waterfowl with plenty of public access to numerous marshes and rivers. And this year there are plenty of days to trek to the field for great outings with family and friends. An historic 107-day duck season is getting underway in October with plenty of birds coming with the traditional migration. At no time in this century has such a liberal season been offered. These truly are the days to make hunting memories and view the spectacular flights of birds.

Oregon is blessed with many diverse habitats that offer different hunting, whether decoy hunting or jumpshooting. South central Oregon areas such as the Klamath and Summer Lake Basins offer some of the best early season hunting offered anywhere in the United States. Birds from the north begin streaming through these areas as early as September. The productive marshes of the region also host numerous home grown birds that fill the skies. Areas such as the Summer Lake and Klamath wildlife areas, and the Malheur and Klamath Forest national wildlife refuges, all provide public access for some great hunting in the field.

But when the desert marshes freeze in November, it's time to visit some of the major river systems of Oregon that hundreds of thousands of ducks and geese congregate on every year. The milder climates of western Oregon and the upper Columbia Basin offer ample hunting chances into late January. Miles of Columbia River shoreline between Umatilla and Arlington offer the decoy hunter some prime shooting. The Umatilla National Wildlife Refuge plays host to wintering birds every year and ODFW programs have opened up tens of thousands of acres of private agricultural lands in the Columbia Basin to the bird hunter. Don't forget the Snake River area near Ontario as birds

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move between farmlands and water sanctuaries. The anticipation of a goose flock floating down over your field decoys is a great feeling and nothing compares to a long swimming retrieve of a downed mallard by your favorite canine buddy on the river.

The lower Columbia River between Portland and Astoria offers hunters the opportunities to take to their boats and explore the many islands

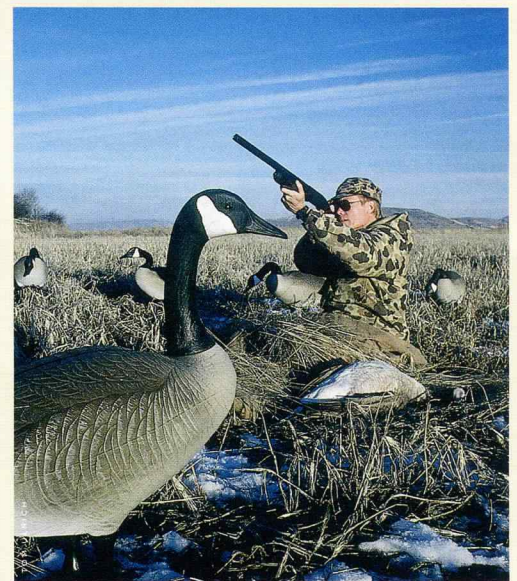
awe, as the winds blow and the mornings turn brisk, surrounded by the sounds of millions of birds moving through the flyway. Oregon's waterfowl resources are secure and abundant and contribute to the heritage of our region. Take the time to get out and enjoy all that is offered in our great outdoors, gaze at spectacular flights of ducks and geese in wonder, and remember fondly that these truly are the good old days.



and coves that harbor birds during winter storms. The Lewis & Clark National Wildlife Refuge and Sauvie Island Wildlife Area provide a variety of hunting for ducks and geese. As winter rains flood the Willamette Valley of western Oregon, hunters who are willing to scout and obtain landowner permission can find plenty of shooting. The Fern Ridge Wildlife Area also offers public access for southern valley residents. Further south the Umpqua and Rogue River Basins offer good hunting as the seasons progress. Agricultural lands adjacent to our vast river systems also offer hunters the chance to pursue game. The Oregon agriculturist has enhanced winter habitat for many species and provided a needed resource for hungry birds.

The rugged coast of Oregon offers special opportunities for hunters of a tough breed in a harsh winter environment. Species of sea ducks—plus black brant that are found nowhere else in state—can be pursued. But common species of mallards, pintails and widgeon are also abundant. Winter storms can provide spectacular wing shooting as birds seek shelter from winds and swelling tides.

Hunters and non-hunters alike can view with



Oregon has numerous public hunting opportunities. Two publications providing great information on state and federal public hunting areas are available from the Oregon Department of Fish and Wildlife: *Game Bird Hunting in Oregon* (\$10) and *1999 Game Bird Hunting Statistics* (\$8.95), are both available by calling 1-800-845-9448. Proceeds benefit conservation efforts.

Bighorn sheep in Oregon are doing better than ever thanks to some of their biggest fans: these are people who would do anything for their favorite animals — including spending all weekend in the desert to build a very large drinking fountain.

BIG GULP

by **ERICK TOMBRE**

WILD BIGHORN SHEEP have awed hunters for centuries. In 1803, Lewis & Clark described them this way: “They have liquid amber eyes. It is said they have telescopic vision and may have some of the most beautiful eyes in the animal kingdom. It is nothing for this two to three-hundred pound animal to jump vertically fifteen feet from the ledge to ledge.” The wild bighorn sheep is one of the most prized animals in North America for their beauty and ability to thrive in unforgiving and remote habitat.

Very few Oregon hunters ever get the chance to hunt bighorn sheep. It is no surprise that there are more sheep enthusiasts in Oregon than sheep hunters. Bighorn sheep were reintroduced in Oregon starting in 1954 after disappearing for nearly five decades. Today, healthy popu-

lations exist throughout north and southeastern Oregon. In 1965 the first bighorn season opened when ODFW offered six tags on Hart Mountain. Populations are now doing so well that new herds are splintering off from established herds. One such herd of 60 sheep call Blue Mountain in southeastern Oregon’s Malheur County home. This population moved on its own from their previous range in the Trout Creek Mountains.

Oregon’s bighorn sheep population has flourished due in large part to careful management by ODFW. But ODFW’s work wouldn’t be complete without the help of sheep enthusiasts throughout the West. Wildlife management agencies are dealing with tighter budgets and are expected to do more with less. Volunteers are an integral part of ODFW’s operations and provide the people power to expand resources.

In 1998, a group of Oregon sheep enthusiasts met in La Grande to form the Oregon chapter of the Foundation for North America Wild Sheep (FNAWS). “The group formed because a some of us realized that Oregon was one of a few states with a bighorn sheep population and no chapter of FNAWS. People from other states were doing projects in Oregon. We needed to hold up our

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ABOVE:
Wild bighorn sheep thrive in remote areas of Northeastern Oregon.



BIGHORNS > CONTINUED FROM PAGE 11
end,” said Lee Martin, a retired rancher from Kent, Oregon, who is the chapter’s first president. “We see our group as an intermediary between the general public and ODFW, to help with projects where there otherwise wouldn’t be the manpower.”

Once the Oregon chapter was formed, they immediately began to work on a project to benefit wild sheep, which came in the form of a bighorn sheep *guzzler*—a self-contained watering hole—for the new population of bighorn sheep on Blue Mountain. What sheep need most for survival in this desert region is a consistent supply of water throughout the year.

Bill Olsen, a retired ODFW wildlife biologist

Sure, it was hot work in the sun, but nobody was slowed by heat exhaustion; in fact, nobody seemed to slow. Oregon FNAWS member Brian Hoge noted that “Everybody meshed as a group. We worked hard with one goal in mind; to build a guzzler for wild sheep.”

from Ontario, scouted the area for a suitable guzzler location. Once the location was determined, an environmental assessment was completed for the Bureau of Land Management for permission to install the guzzler. The final requirement was funding.

A week before the national FNAWS convention in Reno, Nevada, Elko Bighorns Unlimited, an organization loosely affiliated with FNAWS, held its annual crab feed. Proceeds from the sellout fund-raising event fund projects to benefit wild sheep. Elko Bighorns Unlimited bought the guzzler for the Blue Mountain project. At the fund-raising auction at the FNAWS convention, Wayne Knapp of Syracuse, New York, was the highest bidder on a trip to install the guzzler.



His donation deferred the costs of installation. After months of planning by ODFW and Oregon FNAWS, the project was set to begin. Seventeen men and Wayne's brave fiancée showed up at camp the first night. Most had never seen a guzzler. Its large pieces were spread out near the base camp, where the helicopter was to pick them up the next morning for delivery to the guzzler site seven miles away. Large plastic containers and wraps of heavy-duty textured plastic lay in disarray among the sagebrush.

On the first night, ODFW Wildlife Habitat Biologist Stuart Love warned us of the heat: temperatures were likely to reach 100 degrees during the day; each of us was to be sure to drink eight quarts of water. Eight quarts is a lot of water.

Early the next morning as the red sun rose to the east, we feasted on pancakes, energy food for the exhausting day ahead. Nobody knew how long the project would take to complete. Two and a half days in the searing heat was Stuart's best guess. Soon, the sound of a helicopter broke over the horizon. After a helicopter safety meeting, all volunteers were treated to helicopter rides to the installation site. The first passengers spotted 30 bighorn sheep near the site.

Guzzler projects are a gamble because as Don Whittaker, ODFW's Assistant Staff Biologist for Big Game, explained, there is no guarantee that the sheep will find and use the guzzler. "However," he added, "the probability that they'll use this one is high because we ran off sheep from the site this morning."

For the better half of the first day, the helicopter flew supplies to the installation site. Once pickaxes and shovels arrived, we began picking rocks and chopping sage along the slope of the hill where the water catchment tarp would be installed. The space cleared measured only 25 x 100 feet. Basque settlers to the region had to clear hundreds—even thousands—of acres along the nearby Owyhee River to make the land suitable for agriculture. My respect for those early settlers grew with each rock pounded, chipped and dug out of the ground.

Cautious predictions about the heat during the installation were wrong, much to the relief of the volunteers. There could not have been a more perfect time to work in the arid desert. Temperatures during the day didn't reach over 80 degrees and a light breeze kept the crew cool.

Building wildlife guzzlers is part of a strategy used by wildlife biologists to manage wildlife habitat. As Stuart Love explains, adequate habitat for transplanted species is the most important requirement for long-term survival. "Without proper habitat management, transplanted species don't survive very long. This guzzler improves wild sheep habitat by keeping wild sheep separated from domestic animals. Sheep won't have to travel through habitat that will put them in danger from coyotes and fences," he said.

In addition to wild sheep, other species—mule deer, upland game birds, migratory songbirds, reptiles and amphibians—will all benefit from the consistent water source. The smooth sides of the drinking hole are covered in plastic mesh to allow lizards and small mammals to crawl safely out of the tank if they fall in while drinking. This keeps the water clean of animals who otherwise might drown. And, guzzlers are easily maintained. The material lasts for up to 75 years and only needs to be checked once a year for damage. Even the material used for the water catchment tarp is durable. Mining operations use the same material to line cyanide leach tanks at gold mines.

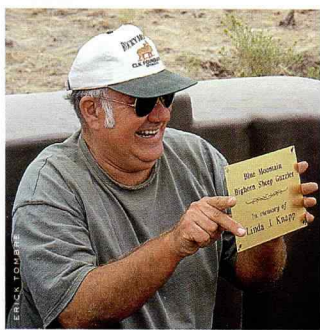
With the help of two mules, one of whom hauled nearly two tons of rock to place around the perimeter of the tank, installation was completed by noon of the second day, well ahead of schedule. Once all the supplies were packed,



we poured forty gallons of surplus drinking water onto the catchment tarp to christen the guzzler. Wayne Knapp dedicated the guzzler to his late wife, Linda. Our task completed, we hiked back to camp to eat a good meal and, as on earlier nights, tell and re-tell hunting stories.

At the camp, Wayne explained his commitment to his late wife and to bighorn sheep. "I spent 20 good years with my wife," he said. "This project is for the long-term benefit of wild sheep in a remote corner of the world. Fifty years from now, somebody who probably hasn't even been born yet will get a chance to see their first bighorn sheep because volunteers gave their time, money and hard work to this project."

With extremely small odds of ever drawing a bighorn sheep tag in Oregon, FNAWS chapter president Lee Martin explained why hard-working people would take time out of busy schedules to work in the dust and heat of the Oregon desert. "Projects like this are about giving something back to wildlife. Our motto is *putting more sheep on the mountain*. With this very successful volunteer effort, we'll help this population flourish. Sheep people are activists. They're doers. In the future we'd like to do more projects like this to help bighorn sheep." □



FROM LEFT: Enthusiastic volunteers bring pickaxes and hard labor to Blue Mountain to build a guzzler for wild sheep; Wayne Knapp shows off plaque dedicating the Blue Mountain guzzler to his late wife; volunteers inaugurate the guzzler with leftover drinking water before heading back to camp.



FROM LEFT:
Mark Wade, Doug Curtis, Ted Wise
and Wayne Hunt prepare to transfer
hatchery fish to air stocking device.

BELOW:
Tiny fish are weighed and measured
before loading into the fishcargot.

On the ground, fish experts including Oregon Department of Fish and Wildlife High Desert Region Fisheries Biologist Steve Marx, and colleagues roll up their sleeves. It's time to get wet — good work on a hot, sweaty day in a gravel pit between Sisters and Suttle Lake.

Marx coordinated this year's stocking program for about 450 high lakes in the Cascade Mountains, favorite destinations for anglers and backpackers. The shuttle he watches isn't spacebound. The 11-foot aluminum machine with 30 pneumatically operated cylinders carries fingerling brook, cutthroat and rainbow trout destined for the lakes. Most of these lakes, fed by melting snow, are in federally designated wilderness.

By late July, approximately 380,000 tiny fish had floated like leaves from the shuttle's water-filled holds. Heli-Jet Corporation pilots like Wayne Lannin of Salem maneuver to 200 feet or closer to the lake's surface to deliver their cargo.

"It's worked flawlessly so far," Lannin says of the shuttle while biologists measure and load fish. "The only drawback is you have to fly slower, 70 to 80 knots, instead of 90 to 95 knots." The

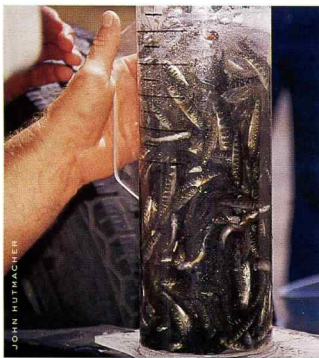
Backcountry lakes have become a popular destination for anglers looking for a little seclusion. But have you ever wondered how trout got into those remote areas? It gives a whole new meaning to the term "fly fishing."

STOCKING FEAT

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by **MICHELE LABOUNTY**

THE THROATY *whomp-whomp-whomp* of blades above the high desert near Black Butte washes over the waiting crowd before anyone sees the metal bird and its catch. Eyes turn north. Over the pines, the helicopter comes into view. A mini space shuttle lookalike hangs from a cable 50 feet below the helicopter's belly.

shuttle tips the scales at 2,000 pounds when fully loaded. Combined with thinner air at higher elevations and hot days, performance of the Bell 212 diminishes.

But the tanned, white-haired Lannin takes mountain flying in stride. He's flown helicopters since 1965 in Vietnam, and this is no problem. "The fish aren't shooting back," he says with a smile.

Technology and fish science merge on the shuttle. It's an efficient way for the state to stock lakes accessible only by air or trail. Roads aren't part of the wilderness experience, which rules out standard fish hauling trucks from backing up to the lakeshore.

Gone are the days when crews would hang out the door of a fixed-wing plane and dump fish. Sometimes the fish landed in the targeted lake. Other times, they flopped into boats or in campgrounds.

However, tried and true methods to unite fish and water aren't left behind. Wayne Hunt, from the Salem ODFW office, and volunteers backpacked fish to 28 lakes in the upper Santiam basin. Laura Jackson and volunteers led horses loaded with fingerlings to 19 lakes in the upper Umpqua basin. The Central Oregon Llama Association donated time and about 30 animals to carry brook trout to Blow and Doris lakes in the Three Sisters Wilderness. Another batch of fingerlings arrived by air. "The llamas allowed us to use (shuttle) compartments to pick up four other lakes," says Marx.

Recreational anglers reap the benefits of the program started decades ago to increase sport

per hour. "On a favorable day, a helicopter can stock 30 lakes an hour," Corrarino says.

Patience, precision, a certain amount of luck and plenty of hands makes the project work in a time of tight money and expanding science about the effects of introducing species into a watershed. In many cases, fish weren't native to the high lakes. Controversy about the effects of introduced fish on frogs, salamanders and other native aquatic life in the wilderness surround this program and others like it in western states.

Throughout the West, planting fish for food and recreation has gone on for nearly a century. The Wilderness Act of 1964 allows states to



Controversy about the effects of introduced fish on native aquatic life surround this program and others like it in Western states. Some lakes have been scratched from stocking to complete surveys for frogs and other amphibians.

fishing opportunities. By next summer, fish that survive the winter and avoid predators should be big enough to catch. Many of these stocked lakes above 2,500 feet have become favorites among anglers searching for places of solitude.

"This provides a unique angling opportunity that's only accessible 10 to 12 weeks a year," says Charlie Corrarino. He organized fish distribution from hatcheries in Sandy, Wizard Falls, Fall River and Klamath to cover the state from the northwest to the southwest.

Only lakes without naturally bearing fish and those without an outlet are stocked after the early summer thaw, typically after July 4. But Oregon's record-breaking snowfall forced a two-week delay this year. Even so, some lakes were still cocooned in ice and snow when the helicopter passed over. There will be no fish for those spots this year.

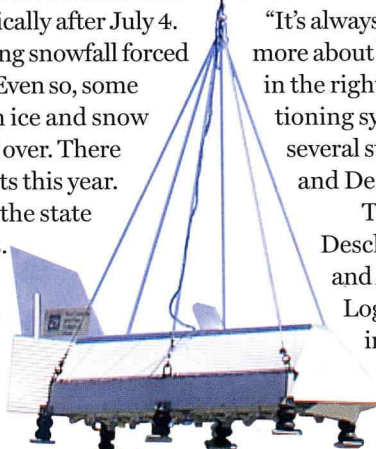
Shrinking funds forced the state to fly fish in alternate years. This year's aerial stocking price tag is about \$70,000, a fee Corrarino says is cost-effective. Heli-Jet Corporation was awarded the contract for \$1,925

continue stocking lakes in wilderness areas if stocking was underway before the area was officially protected.

ODFW and the U.S. Forest Service are working together to gather baseline data about the effects of introduced trout on amphibians and what those species need for survival in high Cascades lakes. According to Mark Wade, ODFW Assistant District Fish Biologist in Springfield, some lakes, including June and Penn lakes, have already been scratched from stocking to complete more surveys for frogs and other amphibians.

"It's always an evolving process as you learn more about lakes," says Wade. He sat in the right hand seat with his global positioning system maps to guide the pilot on several stocking flights in the Willamette and Deschutes national forests.

The state's High Desert Region, Deschutes National Forest, Wild and Aquatic Monitoring Center in Logan, Utah, and other agencies are in the middle of a project to record information on amphibians, such as long-toed salamanders, in what's called a "paired



lakes" study. Six lakes in Three Sisters Wilderness haven't been stocked for at least five years. Preliminary data was collected on zooplankton and aquatic insects. Later this year, lakes will be restocked with fish and information gathered on their effect on native species. "The key is ODFW cooperation. It's been phenomenal from the beginning," says Tom Merritt, Fisheries Program Manager for the Deschutes National Forest. "Steve (Marx) is interested in finding the truth as much as us."

Meantime, stocking proceeds in an annual tradition with new and safer innovations, like the shuttle designed by ODFW engineer Russ Coffman, a 37-year department veteran. Coffman usually designs earth-bound equipment like electrical units for hatcheries, emergency generators and heating systems. This summer marked the third year of shuttle flights.

"I was looking for ways to make it fly," he says of the evolving design. He added the nose cone, wings and tail section two years ago to improve aerodynamics because it wasn't flying right. In fact, it tried to fly sideways or spin like a top at the end of the cable.

Coffman and associates in the engineering division call his creation the "fishcargot" — a play on *escargot*. Field staff dubbed it the "flying fish device." By any name, the machine gets the job done with good survival of the light, free-falling fish, say Marx and Wade. Each cylinder or compartment holds five pounds of water and an air stone that bubbles oxygen into the tank. Timing is everything. The mission is to stress fish as little as possible from the time they're

weighed and counted at the hatchery before being poured down a funnel into the shuttle's cylinders.

On this day, Mike Sims, assistant manager at Wizard Falls Hatchery, calculates the number of fish per pound — 275 for brook and 265 for rainbow. Cutthroat trout from another site weigh in at 468 per pound.

At high noon in the middle of the gravel pit, an assembly line of biologists wastes no time. The number of fish deposited in each lake is calculated in advance. A biologist shouts the compartment number and poundage. On top of the fish truck beside the shuttle, someone else nets fingerlings and pours them into a tall, clear plastic beaker that calculates weight by water displacement. Other hands take the full beaker and slosh the fish down a funnel. The sequence repeats 30 times.

By 12:20 p.m., all the fish are aboard. Something seems wrong with the oxygen in one of the cylinders. Marx rolls up his sleeve and sticks his arm in to check. Oxygen pumped in through porous air stones at the bottom of compartments can be consumed if fish foul the water, he says.

Wade and Hunt climb aboard the helicopter. Wade sits to the left of the pilot and Hunt in the back. Hunt controls each drop from a panel of 30 switches, keyed to arm and open the cylinder doors. Fish fall out in five to eight seconds.

Lannin, the pilot, commands the biggest button up front — the one that drops the shuttle from the helicopter in an emergency. For the record, the button has never been pushed. The fishcargot is an original.

FROM LEFT:

Fishcargot on ground and suspended from helicopter; Pack strings used to transport fingerlings to high Cascade lakes early in the century; Transplanted fish feeding at sunset.

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In 30 years of fighting the good fight, ODFW veteran Jim Martin has learned that the best way to save nature can often be found in the wilderness of politics.

LEADER BY EXAMPLE

by DEIRDRE STEINBERG

WHEN Jim Martin began his career with the Oregon Department of Fish and Wildlife in 1969, all he wanted to do was row his drift boat silently down a quiet river, counting and sampling fish. To him, being a scientist and unlocking the secrets of nature were the best things a man could do with his life. Martin had grown up hunting and fishing with his father, stepfather, and grandfather — and he knew from age five on that he wanted to be a biologist.

But 30 years later, as he closes out a phenomenal career with the ODFW, Martin is doing anything but rowing quietly down a river with his beloved fish. He is leaving behind a unique and indelible imprint as one of the strongest leaders in fish and wildlife resources management the agency has ever known.

One look at this 52-year-old powerhouse and you'll see why *leader* is a word that often comes up when people describe him. Martin's hearty handshake and big grin say *people person*. His laughter is infectious—and he does a lot of it. He looks like a man who spends as much time as possible in the outdoors—and loves every minute he's out there.

Political fighter with an attitude

STEVE WILLIAMS, who used to work under Martin and is now ODFW's Deputy Director of Natural Resources, describes Jim Martin's standard way of operating in the world as "moving around with his hair on fire." The description fits. Martin is a man passionate about fish and wildlife, and he's a wild optimist who believes, despite all the naysayers, that in the end fish and wildlife can be saved.

"I have dedicated a good share of my life to wading in and trying to make the political system more *ecologically literate* because I fundamentally believe that peoples' values are there—that they want to save fish and wildlife," he says. "The key problem is *environmental illiteracy*. People are worried that fish and wildlife can't be saved. But people need to have hope because the information does exist to help us make good decisions."

After working for six years in the late 1970s and early 1980s as a fish biologist for ODFW, Martin made a jarring career U-turn. He left the field and stream and came into the boardroom—as a harvest manager and policy maker. Martin credits one of his mentors, Harry Waggoner, then the Head of Fisheries, as challenging him to get into the political process and make a difference with his background as a scientist. "He essentially challenged me to step out of the background and up to the plate so that I could help apply good science to good policy making," Martin explains. "Boy, I sure took him up on it. I wanted to be the guy translating good science into good policy. I wanted to be a leader."

Salmon advisor to a governor

IN A NEAT succession of years, Martin progressed from field biologist to harvest manager, to assistant chief of fisheries then on to chief of fisheries for the state (1989-1995). In 1995, he went on loan from ODFW to the Oregon statehouse where he served as Governor John Kitzhaber's salmon technical advisor—a position he held for three years

before returning to the agency in 1998 to finish out his 30-year tenure. During the time with the Governor, Martin helped draft the Oregon Plan for Salmon and Watersheds—an ambitious fish and wildlife conservation program that has been hailed nationwide as one of the most innovative of its kind in existence. In fact, the Oregon Plan has received the National American Fisheries Society's President's Award for Conservation and is one of ten finalists in the U.S. for Innovations in American Government from the Ford Foundation.

Martin is working on special assignments in the policy area for ODFW until his retirement is official on December 1, 1999. His most recent project is the Willamette Restoration Initiative—a conservation plan that considers how to sustain fish and wildlife and their habitats in a highly altered, industrialized and developed urban basin.

If you're not working in a controversial political mess, you're not working on anything relevant.

—Jim Martin

"There's no other plan like this in the world," Martin declares proudly. "We're talking about saving fish, wildlife, and streams at the edge of the city in a rapidly urbanizing valley where you have intensive agricultural and industrial use right up to the edge of the creek or the stream. Where you have 13 hydro dams altering the flow and temperature of every major tributary in this basin. Where the entire setting is altered and it isn't going back to its natural state. In fact, it's not only *not* going back, but we have to figure out how to fit another 1.7 million people or so over the next 20 years into this valley. It's quite a challenge."

Change over time

TO MARTIN'S WAY of thinking, it does no good to cry over the spilled milk of lost species or streams. The key, for him, is to make smart public policy decisions that will conserve what is left. Martin believes there is no better place to do this than Oregon.

"We have one of the most ecologically rich settings in the world," he says, with more than a hint of statehood pride. "Oregon is diverse, with its high Cascade Mountains, its big deserts,

> CONTINUED ON PAGE 20

its large streams, its small streams, the coastal environment and the rich inland valleys. We have lost a lot, but there's still so much to preserve."

If Martin has a mantra for conservation policy-making it might be *over time*. He uses this phrase to describe the way policy can work to mesh development and conservation. He is an ardent believer in democracy and thinks that with the right information and "good science" *over time* politicians and their constituents will do the right thing by fish and wildlife.

As much as Martin has changed over the past 30 years, he believes the agency he's worked for has changed as well. "Thirty years ago, our main job was to set harvest seasons and limits," he recalls. "Today, in addition to continuing that function, our key job is to advise the public on how to balance conservation with other economic and development decisions and to have the science to back up that advice." He believes that fish and wildlife issues have jumped "from the sports page to the front page" over the past 30 years, indicating the critical importance of natural resources management in the continuing development of the state.

When he leaves ODFW in December, Martin plans to continue his work as Conservation Director for Pure Fishing, the nation's largest manufacturer of fishing tackle. He will also be penning a kind of Pacific Northwest "Profiles in Courage" book on 12 people who have made significant contributions to fish and wildlife conservation in the region. The book, due out in 2001, will be published by Oregon State University Press. Currently, Martin has a courtesy appointment at OSU teaching natural resources management to a new generation of Oregon biologists. He says his students are "just as idealistic as I was, but a lot more savvy. They understand the need to get into the political fracas."

There will also be time, he says, for the gentler things in life: spending afternoons on his 27-acre spread of forest, pasture and stream in the dream house he and his wife, Carolyn, built recently near Mulino. He will continue to train labradors, a passion he's indulged for decades, and to play with his three labs. His two grown children—Art, a fisheries biologist with ODFW, and Marianne, a veterinarian in Oregon City, also have three labs between them. When the family gets together, Martin says, "it's one hell of a pile of labs running around."

What does Martin want to be his legacy after three decades with ODFW?

"My best skill was not as a researcher," says Martin. "My best skill was as a communicator and a leader. I would hope that's what I'll be remembered for and that's what I hope I've taught other people."

With growing development, human-bear interaction is on the rise...and so are complaints. The state has implemented an innovative method to collect information that will help better manage our black bear population.

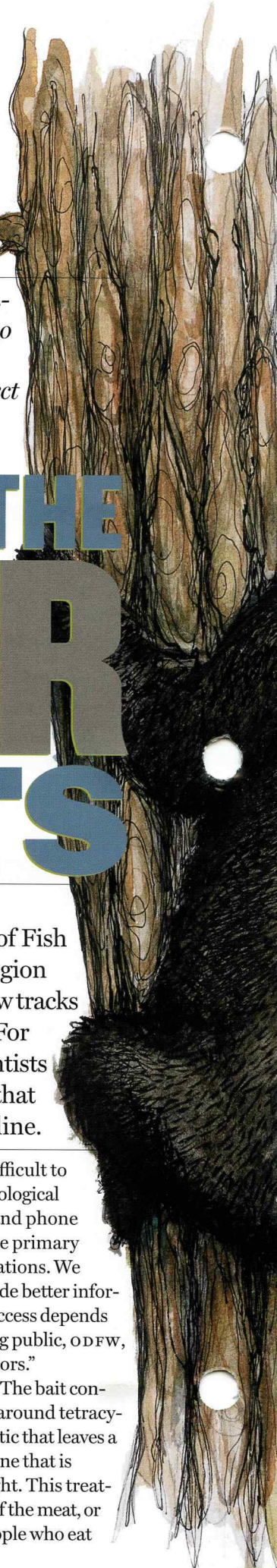
GETTING THE BEAR FACTS

by SARA DANIELS

THE OREGON DEPARTMENT of Fish & Wildlife's Southwestern Region Research Office is making new tracks in the census of black bears. For the first time in Oregon, scientists are testing a mark-recapture method that uses the common antibiotic tetracycline.

"By nature, black bears are difficult to census," said Doug McAlister, Biological Aid. "Voluntary tooth returns and phone surveys of hunters have been the primary means of monitoring the populations. We hope this new method can provide better information on bear densities, but success depends on the cooperation of the hunting public, ODFW, and private hunting license vendors."

The study itself is intriguing. The bait consists of layers of bacon wrapped around tetracycline, a broad-spectrum antibiotic that leaves a fluorescent stain in teeth and bone that is detectable under ultra-violet light. This treatment will not affect the quality of the meat, or cause staining in the teeth of people who eat



FROM LEFT:

it at each testing station is at least eight feet up, forcing a bear to climb for it—and leave claw marks for identification.

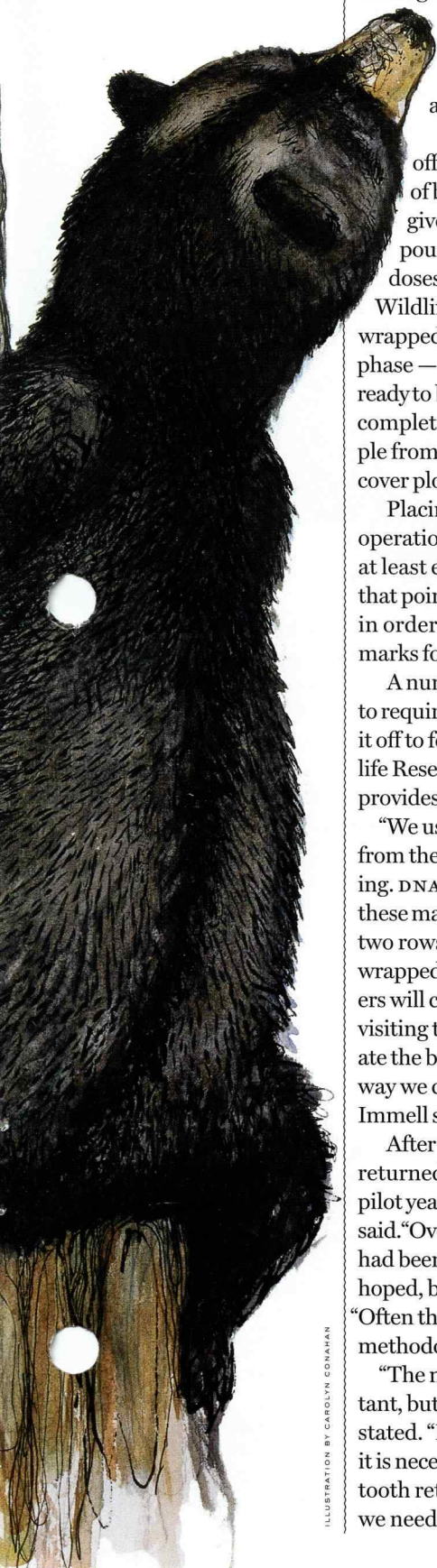


ILLUSTRATION BY CAROLYN CONAHAN

the meat. The bait itself is approximately the size of a grapefruit—just enough for one hungry bear.

"We started the study by plotting a four and half-mile grid spacing system across 10,000 square miles of southwestern Oregon to assure baiting different bears," McAlister said.

"Approximately 420 bait stations were established throughout the entire region." But the real fun began after mapping.

Anyone who walked into the regional office garage was greeted with a whiff of bacon. Two seasonal employees were given the greasy task of wrapping one pound of bacon around 4,500 milligram doses of tetracycline that was donated by Wildlife Safari. When all the baits were wrapped and placed in mesh bags, the next phase—placing all those bait sacks—was ready to begin. However, a task like this isn't completed easily. Thirteen teams of two people from each district worked for seven days to cover plots across the region.

Placing the bait at each station is a strategic operation. The sack of treated meat is hung at least eight feet up a tree. Any limbs below that point are removed to force a bear to climb in order to reach the pot of gold, leaving claw marks for identification.

A numbered bite board is placed on the bait to require the animal to bite down and pull it off to feast on the meat. According to Wildlife Research Biologist Dave Immell, this board provides a wealth of information.

"We use teeth imprints and saliva samples from the animal for later identification and testing. DNA information can also be gained from these markings." About three feet below the bait, two rows of four-prong barbed wire are wrapped around the trunk of the tree. Researchers will collect hair samples from any animals visiting the sight to verify that it was a bear that ate the bait. "The hair samples are another way we can get additional DNA information," Immell said.

After three weeks in the field, the same teams returned to the stations to retrieve data. "The pilot year of the study went very well," Immell said. "Overall, around fifteen percent of the baits had been taken. This is not as many as I had hoped, but we have found ways to improve." "Often the first year of a study is used to define methodology and processes," McAlister added.

"The next step in the study is the most important, but also our largest obstacle," McAlister stated. "In order for the project to be a success, it is necessary to have hunter compliance with tooth returns. We've marked the animals, now we need to know how many are harvested."



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To encourage cooperation, the department has extended the check-in time to seven days, offers patches to those hunters who participate, and has established a number of check-in locations in the area. Throughout southwest Oregon, 47 private vendor stations have been established for this study. At these locations, which include sporting goods stores, markets, and taxidermy shops, a premolar tooth will be collected along with a small tissue sample.

Other information, such as the date and location of kill, sex of the bear, and the hunter's name and tag number will also be recorded. This information is then compiled and used in population estimates. A marked to unmarked ratio of teeth will allow biologists to generate those numbers.

Teeth will also be collected from bears taken on damage complaints and accidental deaths to increase the project's sample size. With a larger tooth sample, population estimates become more accurate.

"Population estimates are a critical piece of information we need to properly manage southwestern Oregon's stable, and in some areas, increasing bear population," said Steve

➤ CONTINUED ON PAGE 22

Denney, Wildlife Biologist and Assistant Region Supervisor. "With a growing human population and urban sprawl, we're seeing more human-bear interaction, and bear damage complaints are rising."

Although there are some consistent trends in bear-human conflict, there is no simple solution that solves all situations. There are three general types of bear-human conflict that ODFW or its representatives are frequently asked to address. Nuisance situations involve bears rummaging through garbage, eating pet foods left outside, or feeding from wild bird feeders. Damage situations involve bears harassing or killing livestock or pets, or damaging crops or commercial timber. Human safety situations arise when bear behaviors put people in danger.

The decision on how to handle a particular situation is made by the local district biologist. Casual sightings are not counted as conflict and no management action is required. Several options are available to manage bears causing a nuisance or damage. The most effective solution is removing or controlling whatever attracted the bear. Although relocation may be considered, individual bears habituated to people or presenting a human safety concern

With growing human population and urban sprawl, we're seeing more human-bear interaction, and bear complaints are rising.

—Steve Denney

ODFW ASSISTANT REGION SUPERVISOR

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will likely be humanely destroyed. Years of systematic research and monitoring across the country indicates that bears habituated to human foods that are relocated to more remote areas either return to the area from which they were trapped, or resume nuisance activities in the new location. Because bears are very territorial, bears relocated into existing bear habitat may be killed by resident animals. There is also the potential of disease transmission when moving bears from one area to another. Rehabilitation is only a limited option for bears less than six months old and can only occur at facilities capable of maintaining wild behaviors.

There are many preventative measures that individuals can take to minimize bear-human interactions. Trash cans and pet food can be secured inside. Electric fencing, guard dogs or even guard llamas can help deter bears for those landowners with orchards and livestock.

"Managing Oregon's black bear populations is challenging work," Denney said. "The more we know about bear population density and movement in Oregon, the better prepared we are to make difficult decisions. The study in southwestern Oregon will help guide our management plans."

FALL/WINTER 1999

CALL

OCTOBER

- 26 Tag sale deadline for Rocky Mountain bull elk rifle first season tags
- 26 Tag sale deadline for cougar tags
- 27 Opening general Rocky Mountain bull elk rifle season

NOVEMBER

- 5 Tag sale deadline for Rocky Mountain bull elk rifle second season tags
- 6 Opening Rocky Mountain Bull Elk rifle second season tags
- 6 Opening black brant season
- 12 Tag sale deadline for mid coast-valley bull elk rifle tags
- 13 Opening mid coast-valley bull elk rifle tags
- 19 Commission meeting — Portland
- 19 Tag sale deadline for coast-valley bull elk rifle tags
- 20 Opening coast-valley bull elk rifle tags
- 20-21 Oregon Outdoor Women seminar*
Waterfowl Hunt — Bear Creek Duck Club, Eugene

DECEMBER

- 17 Commission Meeting — Portland

*For more information about Oregon Outdoor Women Seminars, call 503-872-5264 x5358

For general information on seasons, regulations, and events call 503-872-5268 or check ODFW's web site at <http://www.dfw.state.or.us>

Wildlife Viewing Opportunities

FALL & WINTER may not be the most comfortable time to get out and watch and photograph wildlife throughout Oregon, but the looking's still good. Here is a sampling of sites with sights.

Portland/Willamette Valley

- > Sauvie Island is the place for early waterfowl and shorebird migrations of **SANDHILL CRANES**, several species of **GEESE**, **RAPTORS** (including **BALD EAGLES** and **PEREGRINE FALCONS**), and songbirds (including **PURPLE MARTINS**).
- > Many waterfowl species winter at Oaks Bottom, Jackson Bottom, and Oxbow, McIver and Molalla River State parks.
- > In Salem, try the undeveloped areas around the airport, Cascade Gateway Park, McGilchrist Pond and Minto-Brown Island Park for waterfowl, raptors and wintering songbirds.
- > Some of the hottest birding near Eugene will be on Spencer and Skinner buttes, Alton Baker Park, Danebo Pond, Mahlon Airport and Fern Ridge Wildlife Area.
- > **DUSKY GEESE** can be seen at Baskett Slough, Ankeny, and William L. Finley national wildlife refuges
- > Look for **RED-TAILED & ROUGH-LEGGED HAWKS** on fence posts and utility towers along I-5.

Coast

- > Supplemental feeding holds **ELK** at ODFW's Jewell Meadow Wildlife Area until spring; **ELK** also at the Dean Creek viewing area.

- > Beautiful **HARLEQUIN DUCKS** can be seen at the rocks at Garibaldi and Barview Jetty.
- > Look for **SEALS & SEA LIONS** at Yaquina Head.
- > **CALIFORNIA GRAY WHALES** are migrating, with prime viewing at Ecola and Cape Blanco state parks, Yaquina Head and Cape Perpetua.

Southwest

- > Denman Wildlife Area is one of several ODFW sites with wintering waterfowl habitat.
- > **DUCKS**, **GEESE** and **SWANS** can be viewed at Plat-I, Cooper Creek, Emigrant and other reservoirs.
- > Waterfowl can be found in Roseburg's Stewart Park.
- > Look for **BALD EAGLES** along the Umpqua River between Interstate 5 and the coast (state roads 138 and 38).

Central

- > A variety of **WATERFOWL**, **MARSH BIRDS** and **BALD EAGLES** can be viewed along the Upper Klamath, Lower Klamath and Bear Valley national wildlife refuges and ODFW's Klamath Wildlife Area.
- > Other good birding spots are Davis Lake (**SWANS**), Rimrock Springs Wildlife Area (**WATERFOWL**, **TOWNSEND'S SOLITAIRES**), and Mithcell Riparian Zone (**SONGBIRDS**).
- > Along the Columbia River, ODFW's Rufus Islands, Irrigon and Power City wildlife areas host concentrations of wintering waterfowl.

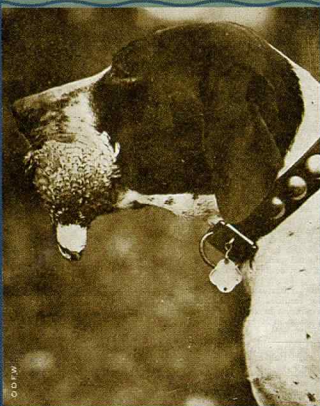
Northeast

- > As December approaches, watch for **BALD EAGLES** along the Snake River reservoirs, especially Oxbow and Brownlee. These are wintering birds from outside Oregon.
- > Opportunities abound to view **BALD EAGLES** along Brownlee and Oxbow reservoirs, the Snake River and the Wallowa River Canyon between Minam and Wallowa.
- > **ROCKY MOUNTAIN ELK**, **BIGHORN SHEEP** and **MULE DEER** can be watched & photographed in ODFW's Wenaha and Elkhorn (especially the North Powder and Auburn units) wildlife areas until warmer weather comes.
- > Lovers of **WATERFOWL** should try Umatilla National Wildlife Refuge, Ladd Marsh Wildlife Area and Wallowa Lake State Park. **MULE DEER** can also be seen.

Southeast

- > Check out the Warner Valley and ODFW's Summer Lake Wildlife Area for **TUNDRA SWANS**, **SNOW GEESE**, and a wide variety of **MARSH BIRDS**.
- > Southeast Oregon can be spectacular for birds during late winter/early spring migration (March-May). Try Summer Lake Wildlife Area, Malheur National Wildlife Refuge and the Harney Basin for **MIGRANT WATERBIRDS**. **BALD EAGLES** are attracted to these large concentrations as well.

HINDSIGHT



1924

*I look into your great brown eyes,
Where love and loyal homage shine,
And wonder where the difference lies
Between your soul and mine.*

*I scan the whole broad earth around
For the one heart which real and true,
Bears friendship without end
or bound,
And find the prize in you.*

from THE OREGON SPORTSMAN

1926

The largest team of Springer Spaniel Show Champions in the world, will journey the 400 miles from the huge

Avondale kennels owned by Mr. E. Chevrier of Winnipeg, Canada, to compete at the Pasadena show, March 12-13, afterwards moving north to the Seattle and Portland shows. Champions of England, Canada and America will be shown on the coast for the first time. They have won hundreds of prizes, ribbons and trophies in the biggest shows held in the three countries and Springer enthusiasts of the Pacific coast will be able to see real Springer Spaniel type personified in these championship winners.

It will be a treat for all spaniel lovers to look at dogs who have topped large classes at such shows as the English Kennel Club Crystal Palace Show; Cruft's Show; Royal Winter Fair Dog Show, Toronto, Canada; Westminster Club Show, NY, etc. This is the team that won 66 prizes in February 1925, at New York, Newark and New Haven Shows!

from THE OREGON SPORTSMAN



1950

The back country lakes in the Cascade mountains from the Oregon-California border to the Columbia river were planted with close to 4,000,000 trout in approximately 20 days this summer, an operation that heretofore has taken anywhere from three to four months. This was made possible by the use of an airplane equipped with a double compartmented tank capable of carrying a maximum load of 50 pounds of fish enabling the pilot to plant two lakes on a single trip.

The advantages of this means of planting over the packstring method are numerous. Far less equipment and personnel are tied up on the project. A small fraction of the time involved in packing is utilized and the fish go from the hatchery to the lake in a matter of minutes rather than hours as before. The primary disadvantage lies in the fact that general observation of the plantings can be made relatively infrequently. However, numerous observations



have been made in the last three years and in by far the majority of instances complete planting success was obtained.

Lakes as small as two acres have

been planted in this manner, but this is possible only when the topography will allow a safe approach and get-away from the lake. The fish are dropped from 100 to 300 feet and strike the water easily and



in a surprisingly short pattern. Several observations have been made when the fish were dropped immediately around the observer on the lake. The fish appear momentarily stunned but quickly right themselves and swim off in a normal manner. Approximately 300 lakes in the Cascades have been air planted this summer.

from the OREGON STATE GAME COMMISSION BULLETIN