



OREGON

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WILDLIFE

A publication of the Oregon Department of Fish & 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



seemed so vast, there was simply no way they could ever be overfished. The crash of Atlantic cod stocks off George's Bank in New England, and the recent significant reductions in ground-fish stocks off Oregon's coast have changed our values about the oceans and their bounty. The public now places a strong emphasis on sustaining our ocean resources and ensuring the long-term health of fish stocks, even if it means there will be fewer Oregonians whose very livelihood is dependant upon fishing.

Pacific Northwest salmon are a part of our culture and heritage and help define who we are as a people and as land stewards. Our salmon populations are, on average, at five percent of historical levels. We are working diligently with state, federal and private partners to enhance habitat and increase wild fish production in many ways. But public values are changing in the process.

Our agency landed in court last fall because a group of individuals objected to the way we dispose of hatchery fish when they return to the hatchery after one to three years at sea. It is important to our staff and the public that we treat this resource humanely. Unfortunately, it's difficult to convince some people that any method of killing fish is humane.

The value our agency places on hatcheries is changing with the public's perception of hatcheries. Hatcheries can play a significant role in providing supplemental fish for recreational and commercial fishing. But these stocks have to be carefully managed and propagated to ensure they do not compete with depressed wild stocks. The Alsea River Basin has excellent fish habitat and is one of several basins in the state where the prognosis for recovery of wild salmon is very good. But we should stop producing the domesticated stock of hatchery fish from the Fall River Hatchery in that basin if we are to abide by the Wild Fish Policy and provide the best potential for recovery of wild salmon in that basin. Tough choices, but we have to make some short-term concessions to ensure the long-term viability of our fish and wildlife.

One thing for certain is that public values change. What was once acceptable 50 or 100 years ago, or perhaps even five years ago, may not be acceptable today. Despite changes in public values and attitudes towards fish and wildlife over time, one thing remains unchanged—healthy fish and wildlife and their habitats will always equate to quality of life in Oregon.

Values and opinions constantly change, and issues concerning wildlife management are certainly not exempt. What held true yesterday doesn't hold true today. And what will tomorrow bring? We're working on that.

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CHANGING VALUES

VALUES DEFINE who we are as a people and a society. As director for a state agency responsible for the management, protection and enhancement of Oregon's fish and wildlife, it's important that we keep a strong pulse on public values concerning fish and wildlife management. These values have indeed changed over time.

The public's demand for quality fur contributed to the settlement of the West, including Oregon. Historical accounts of trappers like Jim Bridger identify who we were as a people when our nation was settled. In those days, the public and our friends across the sea and to the north placed greater value on a quality fur hat than on the methods used to harvest furbearers. Many people think differently today.

Until very recently, Americans once viewed our ocean resources as limitless. The oceans

JAMES W. GREER | Director



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Design and Production
The Felt Hat

OMISSION: The designer of the "fish-cargot" in "Stocking Feet" in the September/October issue was Bruce Jackson. We regret the error.



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COVER Northern elephant seals at Cape Arago, Oregon.
Photograph by Robin Brown

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Hard as it may be to believe today, Portland suburbanites weren't the first people to discover Sauvie Island. For hundreds of years indigenous peoples and at least two explorers have enjoyed the beauty of the island...not to mention a few birds. Still, it's amazing what's waiting just the other side of the bridge.

ERIC J. HANSEN



ABOVE: Canada geese set their wings over the wildlife area's 12,000 acres in the fall and winter. **LEFT:** Sauvie Island's historical wetlands continue to offer food and shelter for ducks and geese.



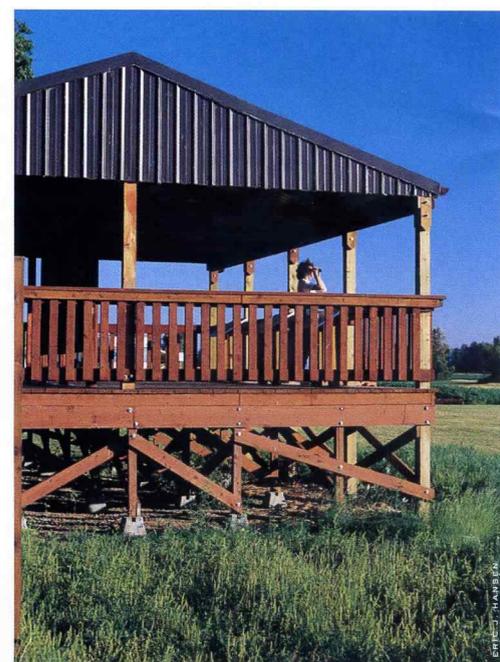
SAUVIE ISLAND REFUGE URBAN OASIS

by **ERIC & SUE HANSEN**

CROSSING THE BRIDGE connecting the populace of Portland to the peaceful surroundings of Sauvie Island, concrete and crowds are left behind while up ahead countrified folks share the neighborhood with nature. The island's roads, fields and farmhouses are next door to land protected by the Oregon Department of Fish and Wildlife: a water-enriched wildlife refuge providing both recreation and rest, depending on the species migrating through.

➤ CONTINUED ON PAGE 6

CLOCKWISE from right: wild rice is a nutritional food source for waterfowl; pintails are the fourth most common ducks at Sauvie Island; new bird viewing platform offers year-round waterfowl sightings near the East Side Check Station; manager Mark Nebeker talks with one of the 10,000 hunters who flock to Sauvie Island for waterfowl. "I could not sleep for the noise kept by the swans and ducks. They were immensely numerous and their cries horrid," wrote William Clark in 1805.



SAUVIE > CONTINUED FROM PAGE 5

Situated at the confluence of the Willamette and Columbia Rivers, Sauvie Island — named for French Canadian Laurent Sauve, a Hudson Bay employee in charge of the company's island dairy in 1838. The island attracts almost 500,000 fun-seeking humans a year along with 200,000 ducks and geese during the fall and winter months. For the 10,000 hunters handling decoys and dogs, Sauvie Island Wildlife Area offers pleasurable pursuit of these wetland birds. For weary waterfowl wanting to set their wings for a spell, the refuge's 12,000 acres—5,000 of which are water—are a wintering welcome mat.

Preserving half of the island as a state wildlife area in 1947, Sauvie's wetland habitat is historical. A few millennium in the making, rain-washed topsoil from nearby hills formed a fertile floodplain filled with nourishing lushness. Multnomah Indians discovered the island's many palatable plants several centuries ago, as did wandering waterfowl.

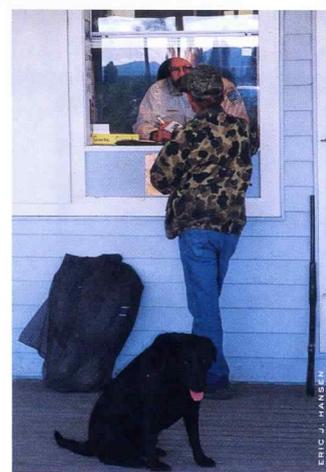
So abundant were the birds that when Lewis and Clark arrived in the autumn of 1805, their stay on Sauvie was brief due to the noise level from feathered flocks. Wrote William Clark in his journal, 'I could not sleep for the noise kept

by the swans and ducks. They were immensely numerous and their cries horrid.'

Today, this ancient area still supports large numbers of vocal ducks—mallards and wigeons, green-winged teal and pintails, shovelers and gadwalls—as well as Canada geese that gather by the thousands. Web-footed descendents drawn back to the main lure of the land: food.

Linking past to present, food also ties together the wildlife area's two 'official' seasons: farming and hunting. Traditionally, more than 1,000 acres of row crops—corn and millet, buckwheat and sorghum—have been planted to entice hungry waterfowl into shotgun range. Now, an innovative idea is taking root at the refuge to reintroduce native wetland plants to increase Sauvie Island's natural smorgasbord. "It's a different approach to moist soil management with potential to produce twice the food for twice as long," says ODFW's refuge manager Mark Nebeker.

Though funds from Natural Resources Conservation Service, Ducks Unlimited, ODFW and private citizens are used for most wetland restoration projects, acreage around one tract of land on Sauvie Island—the Mudhen Unit—is being enhanced solely by Sauvie Island Wildlife Area



ERIC J. HANSEN



staff. One of the most popular hunt units, Mudhen has become a testing ground for native plants growing alongside planted crops. Beyond the white-walled eastside check station, agriculture has taken a step back in time.

Marking the margins of two duck ponds, skinny stems of green water plantain are edible sentinels around head-high wild rice, its pinkish grains bending gently in the breeze-like swells across a grassy sea. Beneath the water, stiletto-shaped leaves of smartweed remain submerged, while clusters of slender pink flowers stand erect above the surface. And the well-known *wapato* or wild potato—a starchy tuber first harvested by early Native Americans—continues to be a favorite main course for ducks and geese.

Serving an indigenous diet to waterfowl provides two important benefits. First, it's cost effective because there's no need to use tractors for preparing the ground, seeds don't have to be planted and agricultural chemicals aren't applied. "We can save a couple thousand dollars per year just on manpower and equipment," says Nebeker.

And unlike row crops where birds come in, feed and deplete, different native plants help produce seeds at different times, resulting in a

constant food source. This provides greater nutritional diversity for waterfowl and other wildlife at Sauvie Island.

Along with the possibility of winter meals extending into spring snacks, more ducks and geese should stay on Sauvie Island for nesting season. Sauvie Island is not known for brood production. Nebeker hopes the native plant project will keep flighty paired-off partners on the island for parenthood.

Food for thought while sitting in cold blinds camouflaged with corn stalks, staring up at rain-soaked skies dotted with ducks and geese. Throughout the wildlife area, it's easy to see that Sauvie's soil sustains life. Multnomah Indians knew this, as did Lewis and Clark. Now, modern-day hunters continue to reap winged rewards retrieved by duck dogs.

Surprisingly, Sauvie's wetland sustenance is a secret to most visitors who consider the island a city park—and Nebeker a park ranger—instead of a wildlife area manager. "The majority of people don't realize there's an area here with wildlife-oriented recreation," says Nebeker. "In exploring the area, they would experience a world of wilderness." A world also planted with spiritual food for the outdoor soul. ☐

ABOVE:
One thousand acres of row crops are planted to entice hungry Canada geese.



Oregon's marine mammals have made an impressive comeback just a few decades after their protection. But success isn't without its difficulties, especially when people and wildlife share the same resource.

BALANCING ACT

by **ROBIN BROWN**

MARINE MAMMALS are a group of animals that may not immediately come to mind when thinking about wildlife in Oregon, yet they are common and abundant in our nearshore ocean. Coastal residents and visitors are likely to encounter at least a few of the whales, dolphins and porpoises (cetaceans) and seals and sea lions (pinnipeds) that live here.



There are 29 different species of marine mammals that live in or migrate through Oregon's coastal waters, from gray whales, Pacific white-sided dolphins and Dall's porpoises to elephant seals, Steller sea lions and northern fur seals. Many of these 29 species are cetaceans that may not venture close enough to land to be seen unless they are ill or injured. The more common representatives of this group include gray whales, Risso's dolphins, and harbor porpoises. Seals and sea lions are the most easily observed marine mammals in Oregon because they gather along the shoreline, in coastal bays and haul out on land to rest and care for their young. California sea lions, Steller sea lions and Pacific harbor seals are the most common and abundant pinnipeds in Oregon.

Marine mammals and issues related to their conservation and management elicit strong emotions and differing opinions from the public. Over the past two centuries, marine mammals were viewed as natural resources to be harvested for food or clothing. Large whales were hunted all along the West Coast through the mid-1900s for oil, meat and other products. Bounties were offered for pinnipeds in the Pacific Northwest

LEFT TO RIGHT:
Pacific harbor seals are among the most common pinnipeds in Oregon. The conservation and management of marine mammals like these Steller sea lions on Rogue Reef, Oregon and gray whales are the focus of debate.

Finding ways to limit potentially negative impacts to marine mammals with increased human activities on the nearshore ocean is a challenge.



ROBIN BROWN

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LEFT TO RIGHT: Killer whales are among the 29 species of marine mammals that live in or migrate through Oregon's coastal waters. Fishing was managed near Stellar sea lion rookeries to reduce disturbance to sea lions during the breeding season.

MARINE MAMMALS > CONTINUED

and many thousands were killed indiscriminately because they were viewed as predators, competitors for valuable fishery resources. Public sentiment about marine mammals began to change significantly in the 1960s as whale populations declined and other species were killed in large numbers, incidental to various fishery operations around the world. The general public began to perceive marine mammals not just as resources to be harvested, but as important elements of marine ecosystems. As a result, Congress passed the Marine Mammal Protection Act (MMPA) in 1972 providing broad protections for all marine mammals occurring in U.S. waters. The law began working to reduce mammal mortalities in fisheries and it eliminated local bounties by transferring management authority for these animals to the federal government. Indiscriminate killing of marine mammals was reduced by threat of fines and imprisonment under the MMPA.

Due in part to protection provided by U.S. and international law, many marine mammal populations have rebounded from low levels caused by hunting and killing. These include the gray whale that has recovered to historic popu-

lation levels and now numbers approximately 26,600 individuals. The northern elephant seal, once estimated to number less than several hundred animals in Mexico, has now recolonized breeding areas throughout California, and the U.S. population has grown to nearly 90,000 individuals. Over the past decade, the abundance of elephant seals at Cape Arago on the southern Oregon coast has increased and a small number of pups have been born at this site. In the Pacific Northwest, other pinniped species have also rebounded and today their populations are healthy and growing. The U.S. population of California sea lions has increased at about eight percent per year since the mid 1970s and now numbers about 210,000 individuals. Steller sea lions breeding on the Oregon coast have increased more slowly from about 2,000 animals in the mid 70s to over 4,000 today, even though the species is listed as threatened due to serious declines in other parts of its range. Pacific harbor seals on the Oregon and Washington coasts have increased from several thousand animals in the 1960s to about 18,000 in the mid 1990s. While true historic population levels for these pinniped species in Oregon are not known, it is believed they may be at

or very near those levels at this time.

The Oregon Department of Fish and Wildlife (ODFW) has been monitoring pinniped population status and trends in Oregon and their interactions with various human activities since the mid 70s. At that time, harbor seal numbers in coastal bays and estuaries were relatively low and sightings of California sea lions were uncommon. After years of harassment, both species were rarely seen foraging in coastal rivers. Today harbor seals are common and abundant along the entire Oregon coast year-round, numbering from several dozen in the smaller bays to many hundreds in larger estuaries and on coastal rocky islands, to several thousand in the lower Columbia River. California sea lions have also become common in bays, estuaries and coastal rivers from fall through spring. Seals and sea lions are now frequently found anywhere from several miles to more than 100 miles up rivers in Oregon.

As both pinniped and human populations along the Oregon coast have grown, interactions between these animals and sport or commercial fisheries, recreational boating, and wildlife viewing have increased. Finding ways to limit potentially negative impacts to marine mammals with increased human activities on the near-shore ocean is a challenge. In the early 1990s, sport and commercial fishing activities near Steller sea lion rookeries on the southern Oregon coast were managed in relatively minor ways to minimize disturbance to sea lions during the spring and summer breeding season. ODFW worked with the fishing industry, local govern-

When a fish stock has been reduced to low abundance levels, predation by pinnipeds may have a negative effect on their recovery. In these cases, management actions designed to reduce predation may be warranted.

ments and others to educate ocean users to avoid disturbance to sea lions on the breeding rookeries. In concert with that effort, the Oregon Fish and Wildlife Commission implemented seasonal closures to fisheries harvest around the offshore rocks most important to sea lion reproduction. On the north coast, working with the U.S. Fish & Wildlife Service, ODFW gathered information on disturbance caused to Steller sea lions by various types of boating activities at Three Arch Rocks National Wildlife Refuge. Working with scuba diving groups and with local charter boat operators running fishing trips and wildlife viewing tours, ODFW helped provide information on ways to avoid disturbance to wildlife at the refuge. This effort, combined

with an Oregon Marine Board seasonal closure to vessel traffic within 500 feet of the rocks, resulted in a major reduction in disturbance to sea lions at the refuge.

While many people enjoy the opportunity to easily observe seals and sea lions along the coast, others have a different view based on less positive encounters with these animals. Harbor seals and California sea lions commonly take fish out of commercial fishing gear and remove hooked fish from lines in sport fisheries. Significant economic losses to commercial fishing operations have been documented in some areas. Both seals and sea lions will take fish used as bait from crab rings in bay sport fisheries. In many areas, California sea lions have taken to hauling out of the water to rest on public and private docks and even on boats moored in marinas. They frequently destroy docks, break water and power supplies, and have been known to sink small boats. Sea lions are large, aggressive and can be very dangerous when confronted by people working on the waterfront. Some have been threatened, charged and even bitten by sea lions. These are wild animals and care should be taken near docks occupied by sea lions, particularly when small children are present. ODFW has worked with port officials and private dock owners to keep sea lions away from these areas with limited success. These animals are bold, quick to learn and largely immune to any non-lethal methods of deterrence, the only actions currently permitted under the MMPA.

Seals and sea lions are fish eaters and they consume thousands of tons of fish in Oregon coastal waters annually. Many people involved in fisheries recognize that pinnipeds will take greater amounts of fish each year as their populations continue to grow. Some are concerned about the possible negative impacts of this predation on the status of important sport and commercial fishery resources. It's important to remember that pinnipeds and marine fishes have successfully coexisted as predators and prey for thousands of years. Most problems with Pacific Northwest fish stocks that are currently in poor condition are more likely due to declines in habitat, water quality and quantity, poor land use practices, over-harvest, and natural fluctuations in ocean productivity. However, when a fish stock has been reduced to low abundance levels, it is possible for predation by locally abundant pinnipeds to have a negative effect on the recovery of such stocks. In these cases, management actions designed to reduce pinniped predation may be warranted.

Over the past 10 years a small, but increasing number of California sea lions have been observed at Willamette Falls at Oregon City, 128 miles upriver from the Pacific Ocean. From March through May these sea lions feed on spring chi-

nook and steelhead attempting to use fishways to pass the falls. In recent years, an ODFW monitoring program has estimated that 200-400 salmonids are taken by sea lions here each year. While not a large number of fish, both species were recently listed as threatened under the federal Endangered Species Act due to overall declines in their abundance. Willamette basin winter steelhead may be the most seriously threatened fish passing the falls and a large portion of the fish taken by sea lions are steelhead. Sea lion numbers have been increasing each year and efforts to deter or catch and move the animals have so far been unsuccessful. ODFW is continuing to monitor this situation and is reviewing other non-lethal options allowed under current law that might reduce predation by sea lions at the falls.

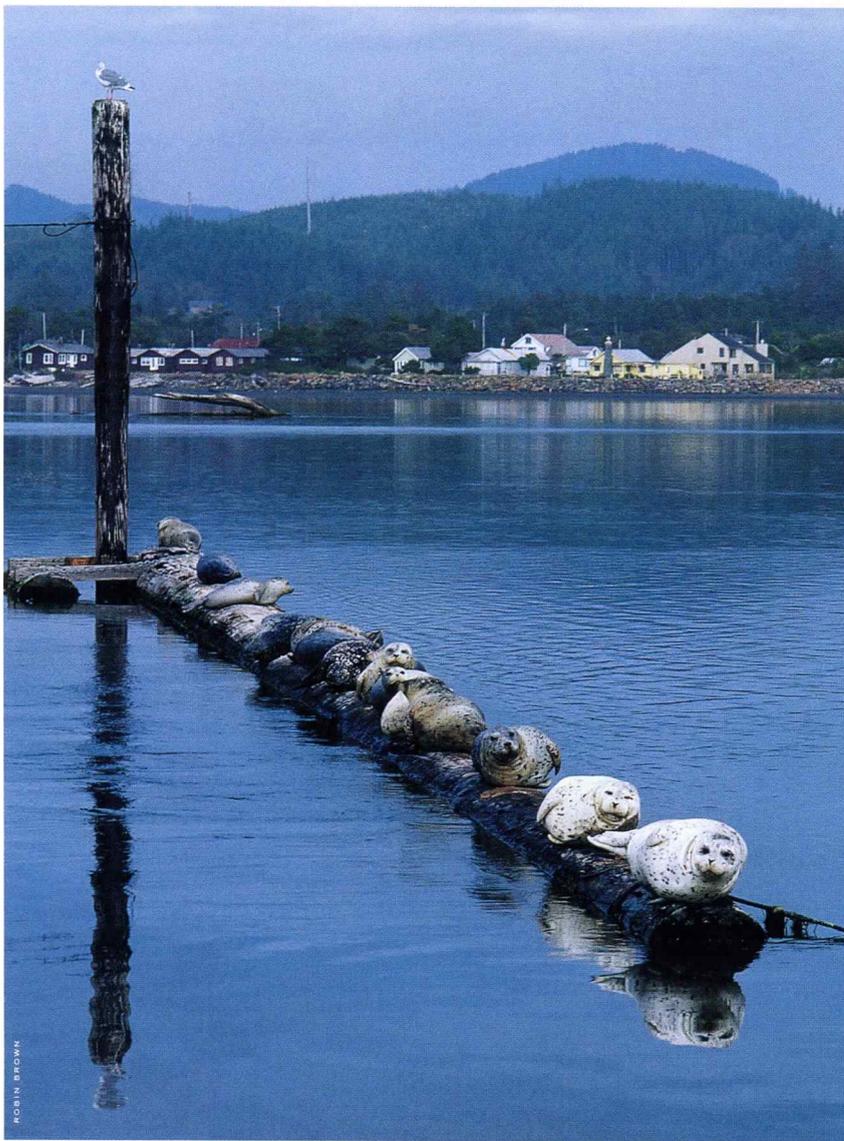


ABOVE: A California sea lion feeds on a chinook at Willamette Falls, Oregon
RIGHT: California sea lions and harbor seals at Cape Arago, Oregon

Conflicting laws that result in situations where predation by federally-protected pinnipeds may have a negative effect on the recovery of state- or federally-listed fish stocks is a conundrum that must someday be resolved by a more coordinated approach to marine resource conservation and management. Until that time, ODFW will continue to examine and evaluate interactions between abundant pinnipeds and declining fish stocks. Over the past three years, ODFW has conducted studies of pinniped predation on adult salmonids in the lower Rogue and Alsea rivers. Direction for this new research was provided by the Oregon Plan for Salmon and Watersheds and by the Oregon Legislature. The overall objectives of this work are to describe the levels of pinniped predation on specific salmonid stocks and to evaluate the impact of such predation on the recovery of those stocks. This work is being conducted as part of a west coast working group that includes state and federal researchers doing similar projects in California and Washington.

What should be done in situations where increasing numbers of seals and sea lions from healthy and abundant populations are preying





ROBIN BROWN

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ROBIN BROWN

ABOVE: Harbor seals like these in Siletz Bay, Oregon are common and abundant along the entire Oregon coast year-round. **LEFT:** The Oregon population of Steller sea lions is healthy and numbers 4,000. However, the species is listed as threatened due to serious declines in other parts of its range.

on threatened or endangered fish from declining populations? How can issues around interactions between pinnipeds and human activities such as sport and commercial fishing be effectively resolved? Under current federal law, the State of Oregon can only use non-lethal harassment techniques to reduce predation and minimize interactions. ODFW has no direct authority to manage these resource conflicts in ways that would include options for lethal removal of individual pinnipeds. What management actions are appropriate to reduce the level of predation on a severely depleted salmonid stock by abundant predators from very healthy populations? The quick answers may seem simple. Some would say remove the predators at all costs. Others would say leave the predators alone and more aggressively manage the other factors affecting fish recovery. From the view of wise resource management, the solution would include options for both actions. In specific cases where small numbers of predators from healthy populations are taking fish from threatened or endangered stocks, options should be available to remove the offending pinnipeds, once non-lethal methods have been determined to be ineffective. This type of management action is frequently taken in similar situations with terrestrial mammals without negatively impacting the mammal population in any way.

In a recent Report to Congress, the National Marine Fisheries Service (NMFS) has recommended modifying the MMPA to allow more management discretion at the state level and to provide greater options for state and federal resource managers to resolve some of the conflicts described above. In particular, the NMFS proposals would permit the lethal removal of small numbers of harbor seals and California sea lions that are preying on threatened or endangered fish stocks at areas such as Willamette Falls. These proposals do not include larger scale management actions designed to reduce or manage the size of pinniped populations in any way. Some people may not be in favor of this small addition to management options. Others may feel the NMFS proposals do not go far enough. ODFW considers the proposals to be reasonable, prudent and necessary to provide new management options in those cases where they are clearly needed. The NMFS proposals have gained support from the Oregon Fish and Wildlife Commission, the Governor's Office, and the State Legislature. Congress will be considering amendments and reauthorization of the MMPA sometime in the year 2000. The NMFS Report to Congress will be considered at that time, along with other proposals from many groups and individuals. Input from all Oregonians on these issues is important. ODFW welcomes your comments on these and other issues of fish and wildlife conservation and management as well. ☐

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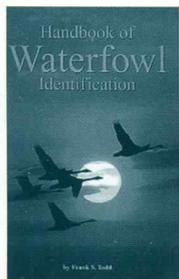
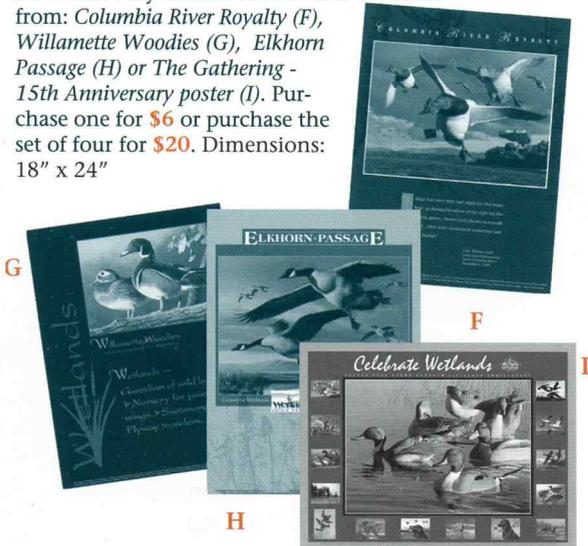
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F/G/H/I Oregon Wetlands Posters

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L Calendar, Stories of the Willamette River

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M Amphibians of Oregon, Washington and British Columbia, A Field Identification Guide by Corkran and Thoms



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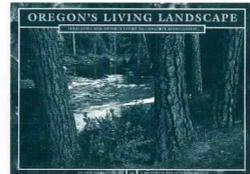
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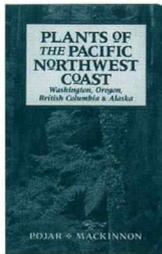
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P Oregon's Living Landscape

Product of the Oregon Biodiversity Project, part atlas, part report; a mix of geography and conservation biology, technical analysis, and common-sense recommendations. Color. 232 pages. **\$29.95**



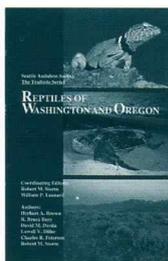
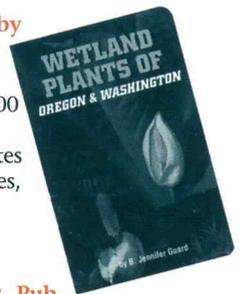
Q Plants of the Pacific Northwest Coast, Washington, Oregon, British Columbia & Alaska, compiled and edited by Pojar and MacKinnon



This easy-to-use field guide features 794 species of plants commonly found along the Pacific coast from Oregon to Alaska, including trees, shrubs, wildflowers, aquatic plants, grasses, ferns, mosses and lichens. The guide includes: 1,100 color photographs; more than 1,000 line drawings and silhouettes; clear species descriptions and keys to groups; descriptions of each plant's habitat and range, and 794 new color range maps. 527 pages. **\$19.95**

R Wetland Plants of Oregon & Washington, by Jennifer Guard

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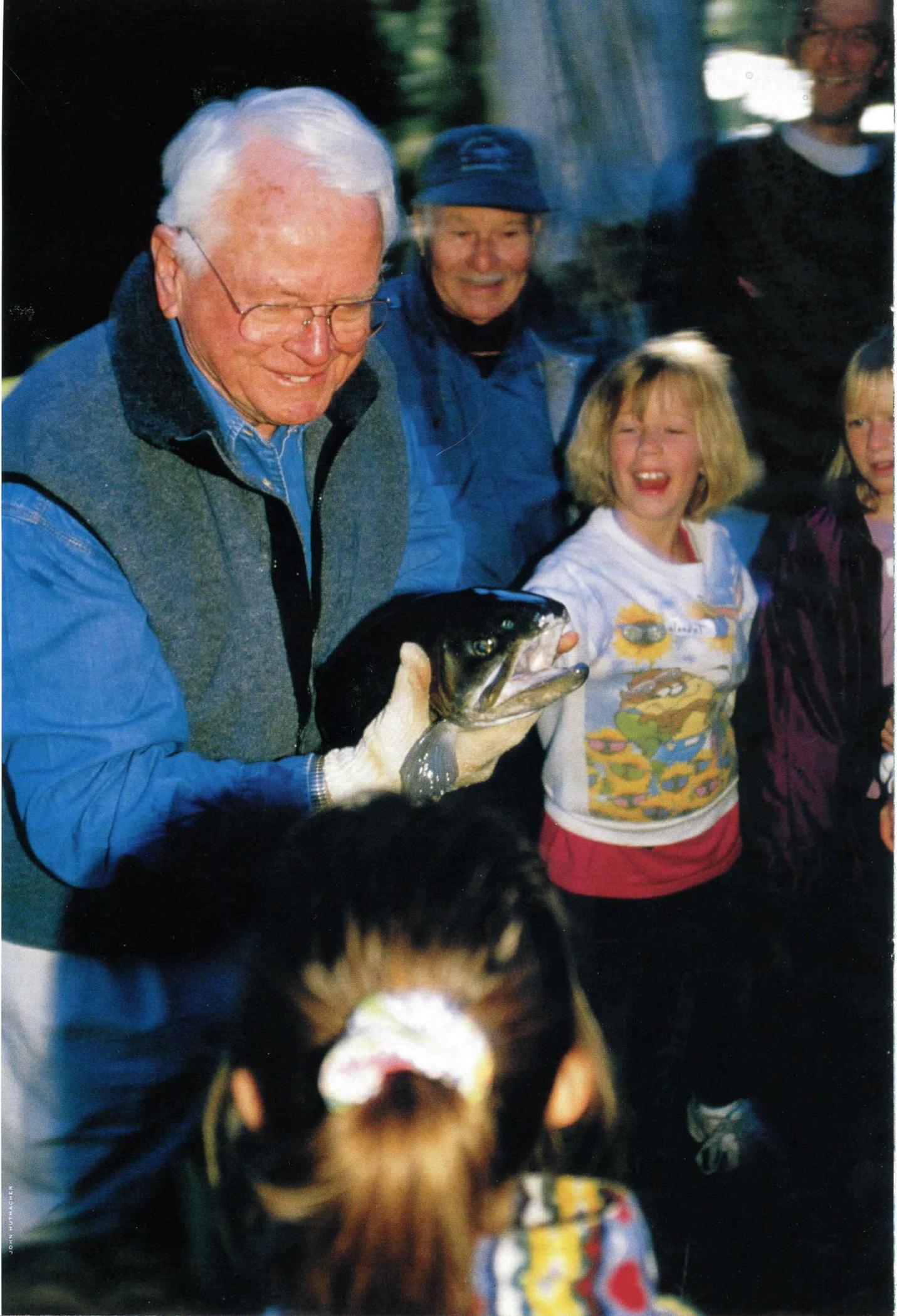
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Every fall the show comes to town and draws kids by the busload. But you won't find any clowns, rides or cotton candy at this festival, because things here are a little different.



WELCOME TO THE KOKANEES KARNIVAL

by MICHELE LABOUNTY

CAMP SHERMAN — Spawning wild kokanee glisten red in a shallow stretch of the Metolius River as the sun rises over a peaceful pine forest in Central Oregon. The quiet will be temporary today—kids are on the way. Mimi Graves' fourth-grade class from Bear Creek Elementary School in Bend piles off the bus about a half-mile away and excitedly makes a bee-line to the river. The Kokanee Karnival is about to begin.

Don't look for clowns or ferris wheels. This carnival combines science and fun in a hands-on aquatic education program that has expanded to 10 central Oregon elementary schools and about 350 youngsters for 1999-2000. A dynamic partnership of volunteers, biologists and teachers makes this program a success. They come from Central Oregon Flyfishers, Sunriver Anglers, Central Oregon Llama Association, Oregon Department of Fish and Wildlife, and Deschutes National Forest and elementary schools.

The heart of the Kokanee Karnival centers on third through sixth-graders learning about sal-

mon and trout, fish habitat and recreational fishing. The four-part program starts in September with a field trip to a stream to watch spawning kokanee and to study habitat, life cycles, insects and microscopic creatures that fish eat.

Winter and spring finds children tending fish egg incubators in their classrooms. In late April, kids spend a day at an angling clinic to study fish biology, fishing rules and to cast lines into a pond to catch a trout. The final piece is a community service project chosen by the class.

It's difficult knowing who gets more out of the carnival—kids or volunteers. Hands down, it's an adventure in learning for everyone, says Ken Cannon, a Salmon Trout Enhancement Program (STEP) biologist with the ODFW's High Desert Region in Bend. He has guided the carnival for nearly three years in cooperation with Patty Bowers, an ODFW biologist based in Hines.

"Teachers say it's hard to get kids interested in science," Cannon says. "This is making science fun. It's why teachers and volunteers like it. They see kids learning about things they're interested in. There's a huge reward for volunteers to share their treasures." Students love hands-on learning. Adults do, too. "It's a total immersion

ABOVE: Tom Merritt, Deschutes National Forest fisheries program manager, points out the gills of a kokanee at "nature's restaurant."

FAR LEFT: Joe McGuckin of Sunriver Anglers holds a squirming rainbow to show the difference between a male and female fish.



JOHN HUBBARD

ABOVE:
Kids line the bank of Browns Creek to watch the fall parade of spawning kokanee swimming upstream.

KARNIVAL > CONTINUED FROM PAGE 17
into fish biology," he says.

And in the bigger picture, children explore their niche in nature.

"We're trying to heighten their awareness of the environment and see how human activity from recreation to development has an impact," Cannon says. "If we can't make the world a good place for fish and owls, we're not making it a good place for us."

Kokanee Karnival organizers keep this proverb in mind through each step: "Tell me, I forget... Show me, I remember... Involve me, I understand," says Don Johnston, volunteer coordinator for Central Oregon Flyfishers. He and Bowers founded the carnival four years ago, basing it loosely on Oregon Trout's Salmon Watch. The idea took shape after Bowers' conversations with Chip Dale, ODFW High Desert Region Director, about ways to show children that egg incubators are models for what happens in the wild. Bowers, a former high school teacher, jumped at the challenge. They started with four schools, and set a goal of 12.

In the carnival's four years, its popularity with children, teachers and volunteers has reached into communities from Madras to

We're trying to heighten their awareness of the environment and see how human activity from recreation to development has an impact.

Ken Cannon

STEP BIOLOGIST WITH
ODFW'S HIGH DESERT REGION IN BEND

LaPine. The carnival is a natural fit in a region where fish, water and the environment are top concerns. Partnerships have been forged among volunteers and ODFW staff. About 70 to 80 volunteers invest more than 1,800 hours mentoring carnival students in the field and in classrooms, where eggs develop into fry.

Many volunteers are retired. Others work full-time and arrange days off during the two-week fall field trip to the stream and hatchery, and the week-long angling clinic in April. Volunteers work with ODFW staff on scripts that capture kids' interest. They rehearse presentations and set up colorful props.

Through it all, they always have a smile for kids whose hands shoot up with questions, such as, "How do you tell a girl fish from a boy fish?"

Rex Henton, a volunteer and member of Sunriver Anglers, grins when asked why he volunteers. "Sharing is caring," he says.

"I've grown tremendously, working with the kids," says Diana Norem, a board member of Sunriver Anglers and a regular Kokanee Carnival instructor. "The kids are what the program is all about."

Kids love it. Adults love it. Heather Renz, a fourth-grade teacher at Vern Patrick Elementary in Redmond, has been involved from the beginning. Her excitement spills over to students, who create memory books and write letters to sponsors and volunteers.

"Kokanee Carnival is way cool," Renz said, on behalf of her students at a potluck honoring volunteers. "The consensus this year is that 'nature's restaurant' was the most popular with kids."

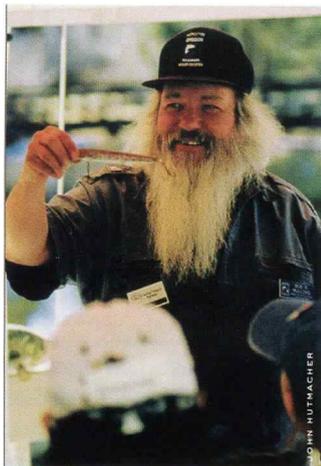
"Nature's restaurant" is one of the streamside stations in the fall field trip that kicks off the carnival in September. By starting in the fall, the program coincides with spawning kokanee, which are land-locked sockeye salmon. Classes visit the Metolius River to watch the fish swim upstream and Wizard Falls Hatchery near Camp

I loved seeing the kokanee spawn in the wild. ...Most of all, I liked the way that they taught me stuff I'd never know.

Michael Diamond

KOKANEE CARNIVAL PARTICIPANT

RIGHT: Bob "the Cap'n" Mullong, Central Oregon Flyfishers, displays a lure at the tackle station of the Angling Clinic. Mullong is central and southeast Oregon representative on the state Salmon Trout Enhancement Program Advisory Committee.



Sherman. Or they travel to Browns Creek and Fall River Hatchery south of Bend.

While one class is at the hatchery, another meets at the stream. The stream is home for the popular "nature's restaurant." A menu shows a trout's favorite foods - worms, leeches, mayflies, scuds and other macroinvertebrates. Kokanee, the kids discover, pick from a different menu of phytoplankton, zooplankton and tiny insects. Trays of freshly collected aquatic critters give kids the real thing to touch and examine with magnifying lenses.

At the "comforts of home" station, children play the roles of rocks, logs and birds of prey to understand the "furniture" that fish need to survive in rivers. At the "incredible journey" station, kids discover how hard it is for fish to survive. The kids draw lots to represent their fates.

Hatcheries offer the classes a glimpse of a more controlled fish life. Kids learn how hatchery workers collect eggs from brood fish, how fish are milked and fingerlings fed with automated machines. They inspect different kinds of nets and get a close look at the heavy metal posts of a weir. Adeline Miller, a 78-year-old elder in the Confederated Tribes of

ABOVE: Adrienne Griffin, Central Oregon Llama Association, gives everyone a closeup look at llamas that help stock high Cascade lakes with tiny fish. Adeline Miller, an elder in the Confederated Tribes of Warm Springs, captivates children with stories of the importance of fish in Indian culture.

➤ CONTINUED ON PAGE 20

Warm Springs, sits with children in a quiet spot under pines. She gives children what they can't get from a book — a personal glimpse of Plateau Indian culture and the significance of salmon. She regales them with a story handed down for generations of how coyote helped salmon pass a dam built by the greedy swallow sisters. Coyote destroyed the dam and turned the sisters into birds.

Another area of the hatchery introduces

tackle and fish anatomy. They play “hooks and ladders,” a game simulating fishes’ journey to the ocean, back upstream and around dams to spawn. And of course, the kids fish for trout with volunteers as coaches. For many, this is the first time they will reel in a fish. Some kids keep their fish, others toss it back. The choice is up to them.

The carnival wraps up with a community service project—a chance for more hands-on activities and a way for children to show



ABOVE: John Champion, Central Oregon Flyfishers, helps students understand what life is like for a fish at the “comforts of home” station. Kids pretend to be rocks, birds of prey, logs and fish.

children to ways that fingerlings are stocked in high lakes: by llama, helicopter, horse and backpack. Llamas eye the kids closely as hands reach out to stroke their long necks and touch the canvas packs that carry fish. As interesting, but not as much fun to pet, is ODFW’s space shuttle lookalike — an 11-foot aluminum machine that dangles below a helicopter and drops fingerlings into remote lakes.

The second phase of the carnival keeps classes indoors. During late fall and winter, volunteers deliver trout or kokanee eggs to classrooms for kids to raise in incubators as part of STEP, a project established by the 1981 Oregon Legislature. Participating central Oregon schools receive eggs in February. “Raising eggs in incubators helps children understand what happens to wild eggs in their redds in the river,” Bowers says. Students sample pH, water temperature and water quality as they monitor the growth or death of the tiny eggs.

April takes Kokanee Karnival kids and volunteers back into the field at Bend’s Shevlin Park for the fishing clinic. The Oregon Angler Education Manual is their guide. It’s also a time for volunteers to renew their acquaintances with kids, who learn about ethics, knots, casting,

Kokanee Karnival organizers keep this proverb in mind through each step: Tell me, I forget... Show me, I remember... Involve me, I understand.

Don Johnston

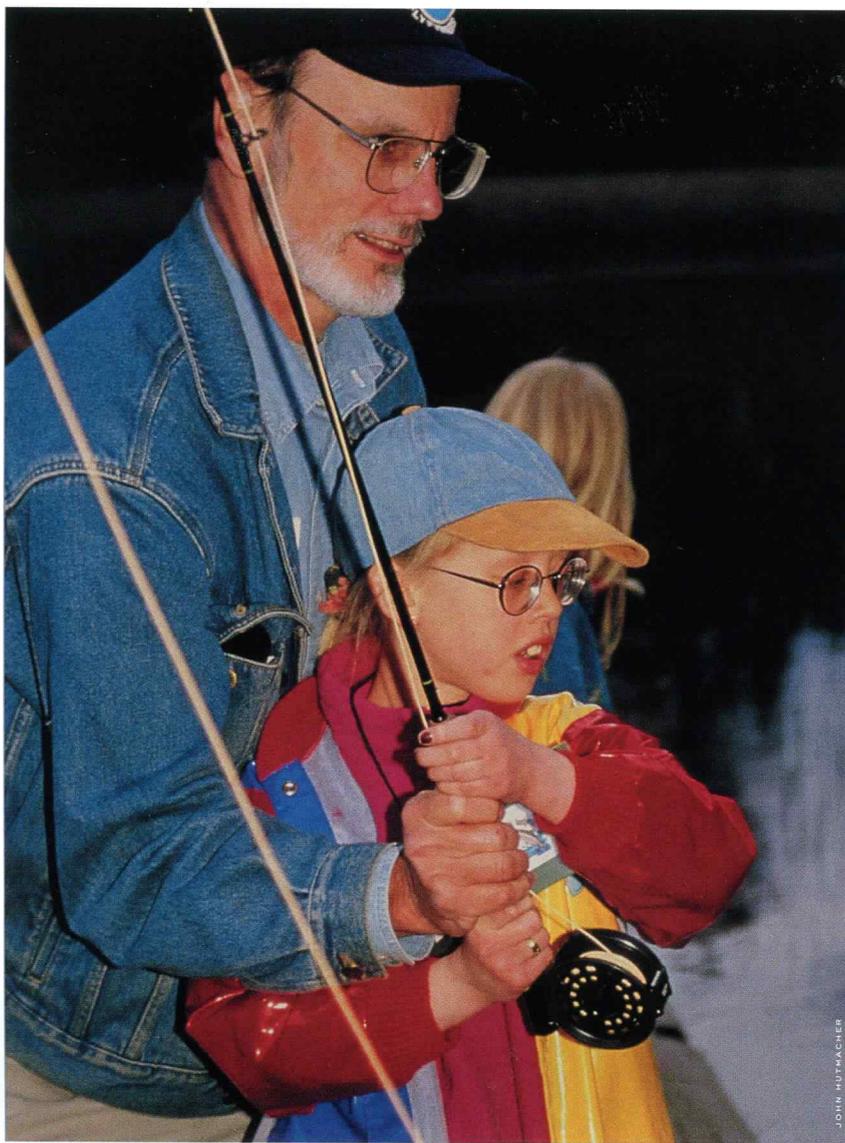
VOLUNTEER COORDINATOR
CENTRAL OREGON FLYFISHERS

what they’ve learned about fish and water resources. Marking storm drains, planting willows by a stream, picking up trash by rivers and pulling noxious weeds are a few ways they invest in their watersheds.

Thirty sponsors, dubbed “spawnsors” by organizers, allow the Kokanee Karnival to be self-supporting, a bonus in times of tight school budgets. Sponsors represent a spectrum of interests from individuals to conservation groups and corporations. They donate cash (\$12,500 this year) and in-kind contributions (\$43,000 is estimated). A sampling of the sponsors: Oregon Federation of Fly Fishers, Oregon Trout, Pacific Power, Bend Research Inc., Central Oregon Environmen-

RIGHT: Ned Austin, Central Oregon Flyfishers, coaches a future angler on the fine points of fly fishing.

BELOW: Kids run through twirling jump ropes in the game "hooks and ladders" to find out what it's like to be a fish caught in a dam's turbines.



JOHN HUFMACHER



JOHN HUFMACHER

tal Center and Portland General Electric.

Partnerships and cooperation make the carnival the success it is. Field trips and classroom visits are arranged by volunteers and agencies. Cannon and Bowers handle the state's responsibilities. They job-share eastern Oregon's STEP position and cover 67,000 square miles of territory. Deschutes National Forest biologists Tom Merritt, Tom Walker and Nate Dachtler work closely with their state counterparts.

Growing pains are inevitable. More volunteers are needed as schools are added. Johnston is investigating recruiting volunteers from AmeriCorps in a partnership with Central Oregon Community College. Cannon is talking with a high school biology teacher about involv-

ing students as mentors.

Johnston envisions a future in which the carnival includes education for middle and high school students. "We would have a continuous step-by-step aquatic education program," he says.

Partnerships, affiliations and more community support are essential to growth, he says.

Volunteers, meantime, have their hands full with 10 schools. On a late September day, more than a dozen volunteers check their gear at the Metolius River. They ready trays of macroinvertebrates, "nature's restaurant" menus, illustrations of fish cycles and props.

At nearby Wizard Falls Hatchery, other volunteers prepare for inquisitive kids. Excitement is in the air — the curtain is about to go up on a new year for the Kokanee Carnival. Just as Mimi Graves' class arrives at the river, students from Terrebonne pull into the hatchery.

When they get home, they'll have stories to tell about red fish, new friends, eagles soaring over the river, llamas and insects that fish love to eat.

"I think these kids remember a whole lot," Cannon says. "It's often the little things you say that stay with them." □

THE KOKANEE KARNIVAL brings together ODFW programs in aquatic and angler education. It also highlights education and information opportunities available through the Salmon Trout Enhancement Program (STEP).

Certified volunteer instructors present the state Aquatic and Angler Education program at no charge to the public. School Districts, Boys and Girls Clubs, Police Activity Leagues, 4-H Clubs, Boy Scouts, Girl Scouts, and park and recreation departments are among venues through which the program reaches out.

The goal of the Aquatic and Angler Education program is to provide an awareness and understanding of the aquatic ecosystems that fish inhabit and the relationship that these systems have to the sport of angling says Lindsay Berman, ODFW Aquatic and Angler Education Coordinator.

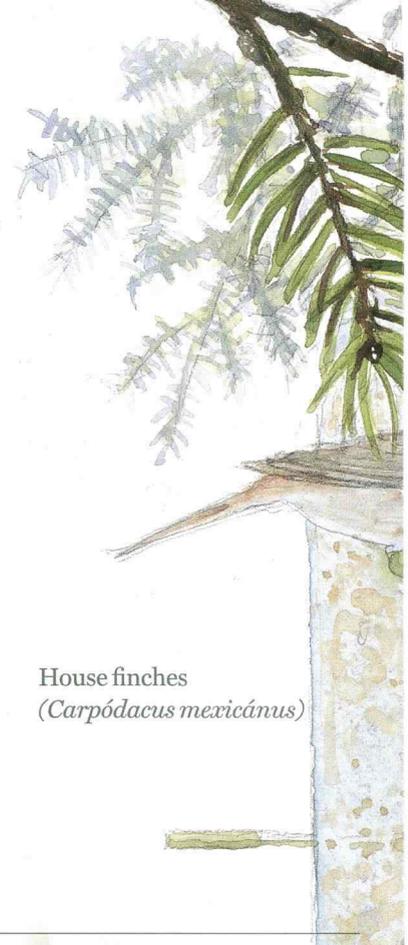
Primary areas of instruction include conservation and stewardship, ethical conduct and responsibilities, water safety, and basic fishing skills.

The STEP program brings together thousands of volunteers who give time, money and equipment to improve stream habitat. They often work in rugged conditions alongside biologists to survey habitats and fish populations. STEP volunteers have completed stream habitat restoration work, conducted surveys, helped with education projects, and hatched and reared several million salmon and trout eggs. They also work with classroom teachers in the STEP Classroom Incubator Program—a program designed to introduce students to raising fish eggs to fry. Several Kokanee Carnival volunteers spend their summers on STEP projects.

STEP offers a rich source of educational materials. They include The Stream Scene, a curriculum guide about watersheds; Storm Drain Marking, a program about the hazards of dumping household chemicals into storm drains; Fish Eggs to Fry: Helping Kids Raise Fish, a guide for classroom incubators; and Stream Care, a guide for landowners to protect and enhance habitat.

More information is available from ODFW's Information and Education Division, 503-872-5264 or the department's web page at www.dfw.state.or.us.

Nurturing hungry animals is rarely a good idea and often does more harm than good. But this time of year the effect of wildlife feeding is even more profound, making it important that we follow nature's lead.



House finches
(*Carpodacus mexicanus*)

THE WINTER RULES

OREGON
WILDLIFE

22

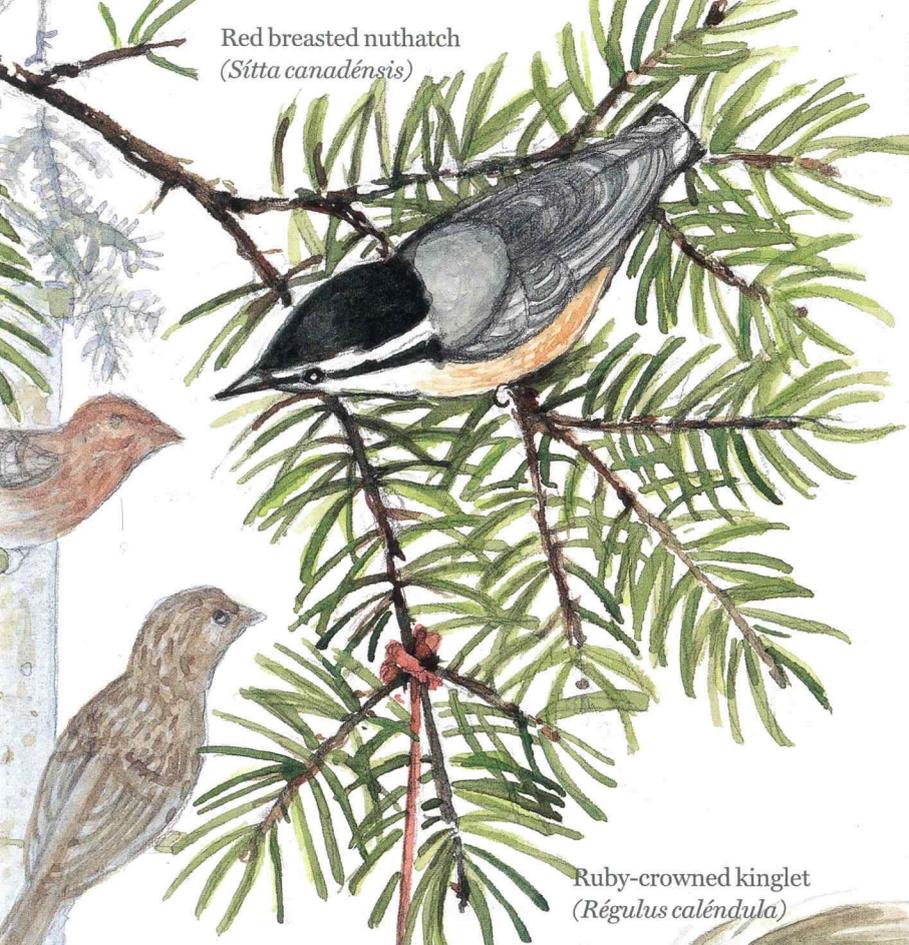
Volume 55
Number 5

by **MARNIE MCPHEE**

EVERYONE IS TOUCHED BY THE SIGHT of a deer struggling in deep snow, or a bird fluffed up on a telephone wire on a frigid day. They look hungry. Naturally, many people try to save them. Unfortunately, even their best-intentioned efforts usually don't succeed. That's why the Oregon Department of Fish and Wildlife (ODFW) urges Oregonians not to feed wildlife, especially in the winter.

When people feed wild animals, they create unnatural conditions that may harm the wild creatures. With feeding, wild animals lose their natural fear of humans—their natural survival behaviors and resiliency are reduced. Supporting wildlife through severe weather conditions may encourage populations to grow beyond healthy levels, spread deadly diseases, damage habitat, and increase predation of wild and domestic animals. In fact, animals fare better during the winter than many urban Oregonians fear. “There are many more animals around than we can see,” noted Larry Cooper, ODFW’s Non-game Manager. “Most small mammals are doing very well, but we’re so attuned to an individual

Red breasted nuthatch
(*Sitta canadensis*)



Ruby-crowned kinglet
(*Régulus caléndula*)



Blacked-capped chickadee
(*Párus atricapillus*)



Bushtit
(*Psaltríparus mínimus*)

animal's suffering that we lose sight of the whole population. If the population builds up too high, animals may damage the habitat and natural food supplies. Predation may increase and diseases may proliferate. Then the species will crash. After that, it will take a very long time for a species to rebuild so we can see them again. We'll all see more wildlife in the long run if we don't allow species to crash." To help Oregonians understand the impacts of inappropriate winter wildlife feeding, ODFW staff offered the following information.

Large mammals—deer and elk

DEER AND ELK have survived Oregon's winters for millennia by foraging for greens, shrubs, grains, seeds and other vegetable matter. To prepare for winter, deer and elk in eastern Oregon graze heavily in summer and fall to put on fat reserves (called "conditioning") to get through long cold spells. Animals in western Oregon face a different challenge. Because it rarely gets frigid or snowy west of the Cascades, the animals don't "condition." Instead, they rely on fresh foods, which are abundant year-round, but are less nutritious in winter, when gray skies block the sun that fuels photosynthesis. Late, heavy snows can devastate animals in western Oregon.

Despite the animals' natural protection, many will die in winter. "All animals lose some body weight in winter and under harsh conditions," said Dan Edwards, ODFW Game Program Manager. "But if they lose 25-30 percent of their body weight, they're not likely to survive. In deer, breeding males and fawns will die first because they have the least body reserves. The does survive best because they've stocked up all summer and fall to feed their young. Elk are more resilient than deer. They're bigger, stronger and don't lose heat as quickly, and they out-compete deer for food. Deer can't reach as high as elk or stomp down through the snow or an icy crust to walk and feed. It takes a pretty ugly winter to kill elk." Despite these animals' ability to adapt, many Oregonians feel they have to feed deer. Unfortunately, people may inadvertently harm beautiful wild animals by providing "junk food," attracting animals that then become easy prey and increasing the risk of deadly diseases.

ODFW carefully manages Oregon's large mammal populations but rarely feeds deer and elk. Rather, the department works diligently to

ensure excellent summer range and habitat to help the animals be strong and healthy going into winter. Hunting and trapping programs also help maintain appropriate population levels. The department doesn't have an official winter feeding plan, but follows these guidelines: feed wildlife only in emergencies, choose a few areas where animals are particularly visible, protect private property, enhance public safety.

Edwards identified four regular winter feeding sites: the Elkhorn Wildlife Management Area (WMA) in the Baker Valley, the White River WMA near Tygh Valley, Jewell Meadows WMA in the Coast Range and the area near Wenaha WMA, north of the Willowa Mountains. "In these areas, the traditional winter range of deer and elk is on private property," he said. "In some cases, we bought property so we can keep them from damaging private land. We've also fenced some areas to keep animals off of private property, particularly in the White River area." Many Oregon ranchers allow deer and elk to graze in their fields or eat from haystacks, even if it means financial loss. If the weather gets especially nasty, most people will help. They have offered hay, food scraps and beet pulp.

But none of these is the best food for big mammals. Deer and elk are vegetarian ruminants. They rely on bacteria in their four-chambered stomachs to digest twigs, leaves, stems and other plant matter. It takes time for their bodies to adapt to new foods. "If they're suddenly given a supplemental food, it can actually cause the animals to starve, but to die with a full stomach," Edwards explained. "The only way to make it work is to start feeding early (in November) and then wean them gradually in the spring. For these reasons, ODFW prefers to feed elk alfalfa hay and deer a specially formulated pellets. Call ODFW, (503) 872-5260 for the recipe.

Black bears

MOST BLACK BEARS in Oregon are hibernating by November, although a few might emerge briefly during a mild winter. Bears are omnivores and can be drawn to pet foods or by other wild animals at feeding stations.

Small mammals and fur bearers

SMALLER ANIMALS hole up in a nest or den for the winter, but some continue to forage year-round. And Oregonians feed them, both on purpose and inadvertently. Pet bowls are particularly enticing.

Squirrels are very active in urban areas. Unfortunately, many of these are non-native eastern gray and eastern fox squirrels, and they out-compete native western gray squirrels. Feeding can accelerate the western gray's decline. And

peanuts, which many people put out for birds and squirrels, can cause calcium deficiency and rickets. "Peanuts are squirrel junk food," said Bob Sallinger, director of the Audubon Society of Portland's Wildlife Care Center.

Many people consider raccoons endearing and feel obliged to feed them regularly. But raccoons are hardly endangered. In fact, raccoons are so abundant that distemper, a density-dependent disease that can affect dogs, is a problem in southwest Oregon and Portland. Raccoons are smart, powerful, aggressive and may prey on domestic cats. In fact, Larry Cooper, ODFW's Nongame Manager, indicated that "cats are more likely to succumb to predation by raccoons than to disease."

Raccoons don't need help to survive even the worst weather. Cooper cited two raccoon-feeding Oregonians who found that out the hard way. "One woman had been feeding raccoons out of her pet's dish," he recalled. "One day, she was late getting the food out and the raccoons were hungry. They were waiting for her on her deck and chased her into the house. When she went outside with the food bag, one raccoon scratched her. She closed the screen door, but a raccoon tore through the screen and got into the house. She'll never feed them again.

Birds

ALTHOUGH MOST BIRD species leave Oregon in the winter, many stay here in even the coldest weather. If they're here, it's because they can count on a supply of natural foods. But people, especially those living in Oregon's cities, believe they have to feed birds both to save them, and to see them.

It's unclear if this is wise. "At most, people are providing only supplemental food," Sallinger explained. "The jury is really out about whether or not feeding really helps, hurts or does nothing for birds." Nonetheless, Audubon and ODFW encourage people to feed birds, but to do so carefully, because bird feeding has several downsides.

Deadly molds and diseases can kill birds that congregate at feeders. Molds are particularly common in western Oregon. Wild foods may get moldy, but usually aren't deadly, because birds can simply find other, safer food sources. It's different at feeding and watering stations, where birds may become dependent on tainted supplies. Diseases such as salmonella and avian pox spread more rapidly at feeders. It's best to wash feeders in a 10-percent bleach solution at least once a week. If birds have been dying near a feeder, chances are it's infected with mold or diseases; it should be washed thoroughly and put away for at least six weeks. More than likely, the birds will find other foods, and the molds and diseases will disappear.

Feeding birds "junk food" is another problem. "If it's bad for us, it's bad for them," Sallinger cautioned. He recommended providing fresh, clean,

WILDLIFE FEEDING DOs / DON'Ts

DO | Observe and enjoy watching wildlife; it's one of the delights of living in Oregon but... don't feed them.

DON'T | ...feed them.

DO | Pick up excess pet food and water, and clean bowls daily if feeding pets outside.

DO | Board up basement and attic spaces so animals don't move in.

DO | Use only fresh, high-quality bird foods from a specialty bird store. Choose a good, solid mix of foods the birds normally eat. Avoid stale, sweet, salty, fatty and sticky foods. Keep extra birdseed in metal containers with tight-fitting lids. Wash the feeder in a 10-percent bleach solution every week.

DO | Clean bird baths or water containers daily.

DO | Feed peanuts very sparingly.



Eastern fox squirrel
(*Sciurus Niger*)



Downy woodpecker
(*Picooides pubescens*)

ODFW works diligently to ensure excellent summer range and habitat to help the animals be strong and healthy going into winter.

high-quality seeds from a specialty bird store or the Audubon Society. "Don't get fancy, and don't put out fatty or salty foods cookies and stale bread. Avoid oils and sticky things, such as peanut butter and honey. However, many birds love suet. Buy the best quality you can, or make your own. Call the Audubon Society at (503) 292-WILD for our suet recipe. Use moderation especially in rural areas. One woman was overdoing it, and a bear got into her garage to get more!"

Predation is another concern. As Sallinger pointed out, "Cooper's hawks and domestic cats can catch birds easily at window feeders. The smaller birds need protective cover. If you have cats, keep them inside or take down the feeders. We believe that domestic cats kill more song-

birds than any other predator in urban areas."

Birdseed also can attract other hungry, but unwanted animals, particularly rats. Edwards added this insight: by "feeding the little guys all the time, they may stay here too long and become too dependent on people."

Sallinger described a better alternative to feeding. "If you really care about wild animals, let them be wild. You aren't doing them any favors if you feed them. People can do more for birds and probably see many more of them, by creating natural landscapes that provide diverse natural foods, cover and habitats." For more information about turning your yard into a wildlife-friendly environment, call ODFW at (503) 872-5264 extension 5528 for a copy of *Naturescaping: A Landscaping Partnership with Nature* (new edition Spring 2000). Martin Nugent, ODFW's Threatened and Endangered Species coordinator, expanded on Sallinger's recommendation. "Bringing wildlife into your back yard (through nature-scaping) is very positive, because it creates viewing opportunities that then become educational opportunities, to make people aware of the wild and, therefore, become advocates for all wildlife." 

FEBRUARY

- 9-13** Pacific Northwest Sportsmen's Show at the Portland Expo Center
- 20** Spring Black Bear deadline to purchase controlled hunt application
- 12** Governor's Statewide Combination Hunt auction
Call Access & Habitat for information 503-872 5260
- 18** Commission Meeting — Portland
- 18-20** 21st Annual Klamath Basin Bald Eagle Conference
Call for information 1-800-445-6728
- 23-27** Portland Home and Garden Show at the Portland Expo Center

MARCH

- 31** Statewide Elk Hunt auction
Call Access & Habitat for information 503-872 5260
- 27** Commission Meeting — Portland
- 25** Statewide Deer Hunt auctions
Call Access & Habitat for information 503-872 5260

APRIL

- 1** Spring Black Bear controlled hunts begin
See 2000 Oregon Big Game Regulations for regulations, locations and dates
- 8** Oregon Outdoor Women*
Turkey Hunting Seminar, 4-H Center, Salem
- Statewide Deer and Elk Hunt auctions
Call Access & Habitat for information 503-872 5260
- 8** Oregon Chapter Foundation for North American Wild Sheep — First Annual banquet and auction, Redmond, Oregon
Call 541-968-9285
- 15** Opening Spring Turkey Season
See 1999-2000 Oregon Game Bird Regulations for regulations and dates

MAY

- 15** Antelope, bighorn sheep, deer, elk and Rocky Mountain goat deadline to purchase controlled hunt application
- 27** International Migratory Bird Day
- 20-21** Oregon Outdoor Women*
Fishing on the Rogue River

*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

- > Smith and Bybee lakes are a good spot to see **WATERFOWL, HERONS and RAPTORS.**
- > Many **WATERFOWL SPECIES** winter at Oaks Bottom, Sauvie Island Wildlife Area, Jackson Bottom and Oxbow, McIver and Molalla River State parks.
- > The Willamette Valley is a significant wintering area for **BALD EAGLES**, other **BIRDS OF PREY** and **WATERFOWL**. Excellent viewing opportunities for waterfowl can be found at Ankeny, Baskett Slough or Finley National Wildlife refuges, and state parks along the Willamette River.
- > 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.
- > Look for **RED-TAILED** and **ROUGH-LEGGED HAWKS** on fence posts and utility towers along Interstate-5.



Coast

- > **MIGRATING WATERFOWL** are in fair numbers on north coast estuaries such as the Columbia River, Nehalem, Tillamook and Nestucca Bays.
- > Check offshore rocks for the last of the nesting seabirds and migrating sea and shore birds, including **BROWN PELICANS, AUKLETS** and **MURRES**. Migrating shorebirds working the tide flats and ocean beaches will peak in the fall. Check for colorful ocean birds working the rocky ocean shores at low tide.
- > **CALIFORNIA GRAY WHALES** are migrating with prime viewing opportunities at Ecola and Cape Blanco state parks, Yaquina Head and Cape Perpetua.
- > Supplemental feeding holds **ELK** at ODFW's Jewell Meadow Wildlife Area until spring. More elk can be seen at the Dean Creek viewing area.
- > Beautiful **HARLEQUIN DUCKS** can be seen at the rocks at Garibaldi and Barview Jetty.
- > Look for **SEALS** and **SEA LIONS** at Yaquina Head.

Central

- > View points along the **POST PAULINA HIGHWAY** offer good opportunities to see bald and golden eagles, red-tailed, rough-leg and marsh hawks, prairie falcons and great-horned owls.
- > ODFW's **KLAMATH WILDLIFE AREA** provides fantastic viewing of a wide variety of marsh birds, including white pelicans, grebes, herons, bitterns, swan and Canada geese.
- > The 21st Annual Klamath Basin **BALD EAGLE CONFERENCE** is being held at Oregon Institute of Technology in Klamath Falls February 18th - 20th. The conference coincides with the presence of wintering waterfowl and eagles. For more information contact Klamath County Department of Tourism at 1-800-445-6728.
- > **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

- > Good opportunities for viewing **BALD EAGLES** along Brownlee and Oxbow reservoirs, the Snake River and the Wallowa River Canyon between Minam and Wallowa.
- > Viewing opportunities for **WATERFOWL AND SHOREBIRD SPECIES** are good along the Columbia River, Irrigon Wildlife Area and Willow Creek Wildlife Area. Viewing opportunities are also available on the Umatilla Wildlife Refuge complex.
- > **ROCKY MOUNTAIN ELK, BIGHORN SHEEP** and **MULE DEER** can be watched and photographed in ODFW's Wenaha and Elkhorn (esp. the North Powder and Auburn units) wildlife areas until warmer weather comes.

Southeast

- > Mule deer, bighorn sheep and pronghorn antelope can be viewed at **STEENS MOUNTAIN** and **HART MOUNTAIN** National Antelope Refuge.
- > 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.

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).

Letters

READER COMMENTS are welcome: send to Oregon Fish & Wildlife, P.O. Box 59, Portland, Oregon, 97207. Please include your name, address and daytime telephone number. Letters may be edited for length and clarity. The magazine is not responsible for unsolicited materials provided for editorial consideration.

To the Editor—

THANK YOU for your article: "Jim Martin, Leader by Example." I couldn't think of a more appropriate title. The first time I heard Jim speak, clearly showed me why he was in the position he was in. He held people accountable for their work and worked with these people to make them more effective in their jobs. He has always inspired me to believe that we are not out of options for our ailing fish and wildlife. We are the ones that will make the difference and we will not make a difference by pointing fingers at one another or just complaining about all the problems we face. We have to accept responsibility for the destruction we have caused, but more importantly we have to do something about it. That is Jim's outstanding quality—he did something about it and his service to the department will never be forgotten. The salmon crisis cries for a leader and although Jim is retiring from this great state agency, it is encouraging to know he will still be fighting the good fight! Thanks, Jim!

BOB REES, *Tillamook, Oregon*

To the Editor—

I FOUND YOUR May/June issue very informative. However, I was compelled to write in regard to the letter written by Diana Huntington. She would like to keep your publication out of the kids' hands.

Her numbers may not be accurate, but I do know the minority pays the majority of the funding to be used by fish and game. How much has she donated to help, either through tags and licenses or through organizations such as Ducks Unlimited, Pheasants Forever or any of the other organizations? In her defense she is a newcomer to the state and is unaware of the traditions and lifestyle that the minority enjoys, and cannot be found in the major metropolitan areas from which she came.

While my daughter is in the duck blind with me, I know she is not getting in trouble. She enjoys watching the dog work, and the whole hunting experience as much as anyone. Take your kids hunting and you won't have to hunt for your kids.

MARK FILLMAN, *Ontario, Oregon*

