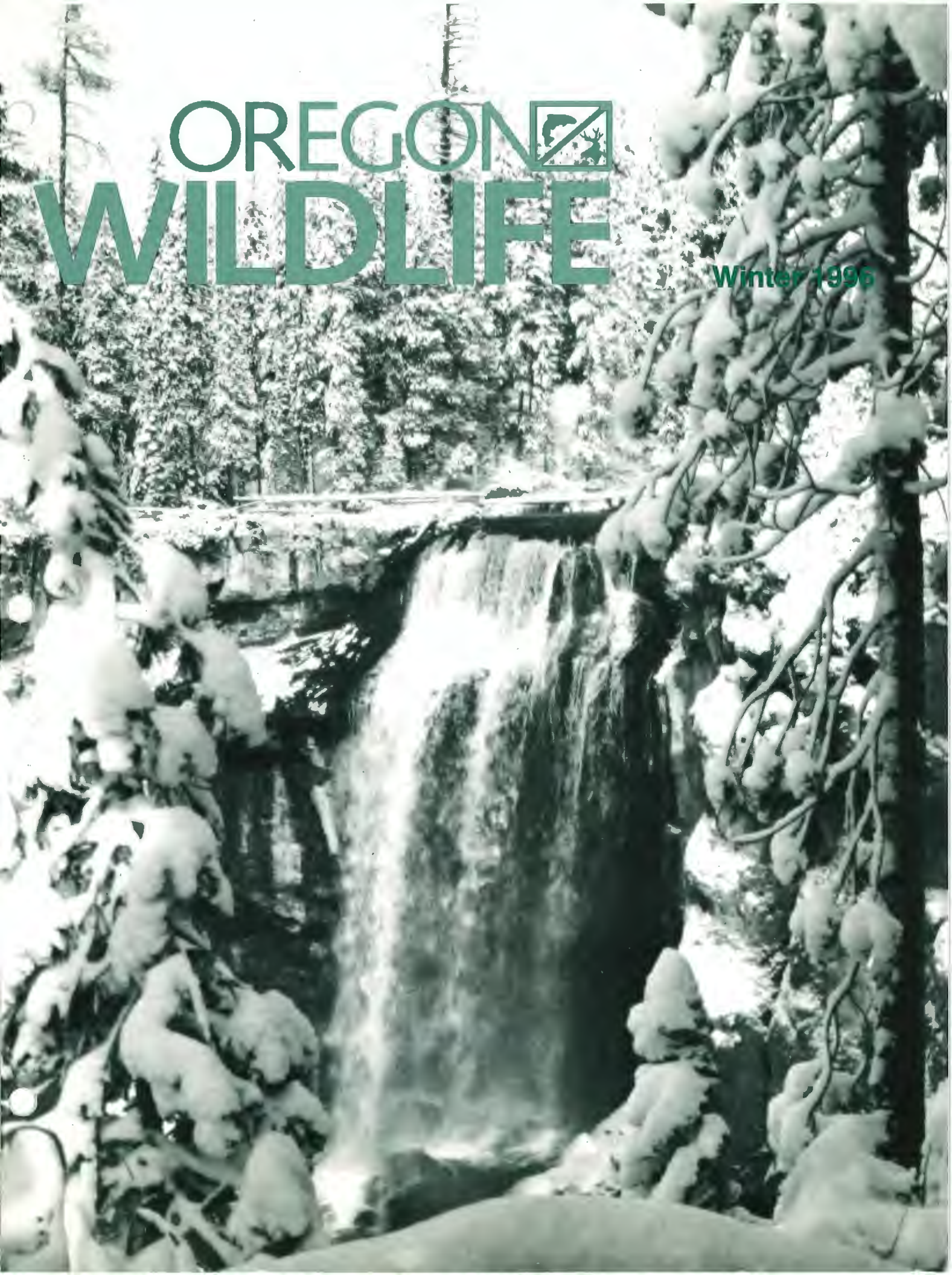

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The Cover

Winter waterfall. *ODFW Photo*

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FROM THE DIRECTOR

Help Improve 1997 Regulations

In October I had the pleasure of fishing for salmon in Tillamook Bay. Like thousands of other anglers who fish the bay, I stopped into a bait shop for a package of herring and a last look at the regulations before going on the water. Despite my own involvement in the process, I found myself struggling to understand what was legal. I heard several people comment out loud that "the regulations are too hard to understand."

Because of a need to avoid harvesting wild fish, regulations for Tillamook Bay were carefully crafted - to reduce incidental catch of coho. Many anglers had a hard time understanding the rules, but the choice here was between having complicated regulations or allowing little or no fishing. Complex rules are necessary sometimes to balance fishing opportunity with conservation needs.

On the other hand, we do not need complexity where a more simple, direct approach could serve as well. The challenge is to sort out needed rules from unnecessary complications. Anglers around the state have asked ODFW to make the regulations easier to understand. In response, Department of Fish and Wildlife biologists and enforcement officers of Oregon State Police (OSP) have spent more than a year talking to anglers about ways to make our angling regulations more consistent, understandable and enforceable.

A new publication called *The Angling Regulation Review* provides an overview of this project; gives examples of possible statewide changes; and provides a list of proposed changes in each fishing zone. Initially this effort began with a focus on rule "simplification" but we soon realized that making certain regulations more simple could either reduce fishing opportunity or affect fish conservation needs. As we moved forward in discussing rules, we began placing more emphasis on making rules easier to understand.

Please understand a very important point up front. The proposals listed in *The Angling Regulation Review* are just that - a mix of proposals from biologists and OSP officers. The next essential ingredient is public input. Making practical and effective changes to Oregon's sportfishing rules requires your best thoughts and ideas.

If you want to have a voice in this process, please review a copy of the *Angling Regulation Review* (get one from your nearby license agent or ODFW office) and give us your recommendations. Some of the listed proposals may not be equally popular with everyone. They come from many sources and are provided here for your comment. Tell us what you like and don't like.

This publication offers no pushy sales jobs. Instead we share these ideas as a starting point. We expect changes, additions, deletions and serious debate before 1997 regulations go to the Fish and Wildlife Commission next September. If you don't like one or more proposals, or something just does not make sense - then tell us your solutions to problems and how to make improvements. We have several months to work on this together. Let's make good use of that time.

Rudy Rosen, Director

UPDATE

Fishing Regulation Simplification Continues – *Anglers' Opinions Wanted*

There are many good reasons why Oregon's fishing regulations are complex. But the very complexity that evolved from allowing as much angling opportunity as possible can turn well-meaning people into law breakers by mistake. Recognizing the problem, fishery managers in 1993 began devising a process to make the regulations more consistent and easier to understand.

The process included review of sport fishing regulations to see if they could be simplified as well as an opinion survey sent to 500 Oregon anglers.

This process resulted in a list of agency-proposed regulation changes which are available now for the public review. These agency proposals serve as a starting point for the next step where interested people statewide get involved.

Following is the timeline for 1997 regulations revision which concludes with final Fish and Wildlife Commission action in September, 1996.

- December 1995 through February, 1996: Anglers review and comment on initial draft agency proposals and submit additional or alternative proposals.
- March - April, 1996: Department and State Police review, organize and consolidate public proposals.
- May, 1996: The department will conduct more than a dozen public meetings around the state to allow interested people to review and discuss all agency and public proposals.
- June - July, 1996: Department fishery biologists meet with people within fishery districts to discuss and resolve local issues where possible.
- August, 1996: A new set of draft rules will be distributed for public review and comment.
- September, 1996: Fish and Wildlife Commission will conduct a public hearing to decide on a final rule package that will make up the 1997 Sport Fishing Regulations.
- December, 1996: New, 1997 regulation booklets reflecting both rule changes and more readable publication format will be available at license agent outlets statewide.
- January, 1997: Angling regulations developed during the preceding two-year process go into effect.

Once complete, the regulations will have a more clear and consistent look. In addition, expect to see detailed color maps and elimination of the need for a key at the front of the regulation publication.

New Members Join Commission, Retiring Members Bid Adieu

The face of the Oregon Fish and Wildlife Commission changed greatly in recent months with the addition of four new members in November and December.

John L. Perry, of Junction City, fills the Fourth Congressional District position, replacing Jim VanLoan, of Steamboat. Jeffrey Feldner, of Logsden, fills the Fifth Congressional District, replacing Pete Barnhisel of Corvallis. Janet McLennan, of Portland, fills the First Congressional District position. She replaced Bob Jacobson, of Newport. Paul McCracken, of Portland, fills the Western Oregon position, formerly held by Phil Schneider, of Portland.

Commissioner Schneider, who is also a past director of the Oregon Game Commission, will remain active in the commission, serving as a Commissioner Emeritus. This honorary title was created by Governor John Kitzhaber to recognize his valuable contributions as a Fish and Wildlife commissioner, and his tireless service to the agency.

Commissioner Perry works for International Paper as a Manager, Wildlife/Recreation. Commissioner Feldner works in fisheries research as a fleet manager for Natural Resource Consultants, Inc. Commissioner McLennan has served on the Oregon State Board of Forestry since 1987 and has served as chair since 1990. Commissioner McCracken is a Portland businessman and timberland owner.

Bighorn Sheep Die-off Prompts Action

Pasteurella appears to be the cause of death for 30 bighorn sheep found in or near the Snake River canyon in early December.

Washington biologists found the first dead bighorn during deer census routes. Soon, Oregon and Idaho biologists joined Washington in recovering dead animals. When the virus pasteurella - which is extremely deadly to bighorns - was confirmed, the three states joined together to capture as many bighorns as possible in the three-state area. Using emergency funds from the Foundation For North American Wild Sheep, wildlife agencies hired a helicopter crew to trap as many bighorns in the area as possible. Nearly 60 were netted and transported to an Idaho university for testing and treatment.

Of the sick sheep, four are from the group transplanted from Alberta, Canada in February, 1995. Sheep will be treated until the strain of pasteurella is determined. If treatment is successful and the bighorns become non-infectious, they could eventually be released back into the wild.

No dead sheep were found in Oregon, but the sheep herds apparently migrate back and forth or interact to some degree, say biologists. They will continue to monitor the sheep carefully.

An Affection For Oysters;

Native oyster spat attached and growing on shell material.

When John Johnson talks about bringing back native oysters to Oregon's estuaries, the experienced biologist has the enthusiasm of a 10-year-old. Johnson, Shellfish Project Leader from the Department's Marine Region in Newport, has been quietly working to improve conditions for the once-abundant native oyster, *Ostrea lurida*. Also called the Olympia or Yaquina oyster, it is the only oyster indigenous to the west coast of North America.

The first Northwest oyster beds were "discovered" in Willapa Bay, Washington, in 1850, though Native Americans harvested oysters long before in both Oregon and Washington. Soon, successful gold miners in San Francisco restaurants couldn't get enough of the tasty bivalves, and a market was born.

Appetites for the native grew fast, and soon led to searches for other Northwest oyster beds. Since Yaquina Bay, Oregon was already considered by some to be a potential "San Francisco Bay of the Northwest," it seemed a good bet for both harvesting and shipping oysters. Sure enough, large beds of native oysters were found in Yaquina Bay around 1860. It wasn't long before schooner loads of the two-inch oysters were being harvested and shipped to San Francisco. One bed at least a mile in length was directly responsible for the settlement of nearby Oysterville. Daniel Boone's great grandson was a member of an oyster association that was formed there. Two hundred thousand pounds of native oysters were harvested in Yaquina Bay alone in 1895.

By the end of the 19th century, native oysters were all but eliminated from Yaquina Bay, a combination of overharvest, habitat destruction and water pollution. "Early oystermen damaged the habitat by failing to replace the shell they harvested, leaving no place for the juvenile oysters, known as spat, to attach and grow," notes Johnson. "At the same time, logging operations clogged the rivers with silt and lumber mills added a good deal of sawdust, making it impossible for oysters to establish themselves and live."

In the early 1900s, the search for a replacement oyster for Oregon's estuaries resulted in plantings of the Pacific oyster, *Crassotrea gigas*, also known as the Kumamoto oyster, from Japan. This much larger oyster eventually formed the basis of the Pacific coast oyster industry that we know today, and is grown in Tillamook, Netarts, Yaquina and Coos bays for commercial harvest.

"Coos Bay probably had the largest population of natives in Oregon," says Johnson. "Massive shell deposits indicate a very large population there, but we believe few if any of the nat remain. We suspect they were wiped out by fire-caused sedimentation and were gone before non-natives came to Oregon." Meanwhile, at least some native oysters survived in Yaquina Bay.

Biologist John Johnson checks some Yaquina Bay native oysters planted earlier in Netarts Bay for survival success.

Oregon's natives find a champion

Story and Photos by Bill Hastie

And it is this population that gives the native oyster a future in Oregon.

Johnson has been interested in re-establishing native oysters in their former habitats for several years. In 1992, he transplanted six million natives to Netarts Bay, followed by a smaller planting in Alsea Bay in 1994. Johnson studies historic records to find out specifically where native oysters were found in these bays. He then collects and spawns oysters from the Yaquina Bay population to plant in areas that are likely to be friendly to the oysters; areas where the water is two to three percent dissolved salts (sea water is about three and one-half percent), water temperatures between 40 and 70 degrees Fahrenheit, river currents that are constantly bringing food (mostly plankton) and nutrients to the oysters, and of course, areas that have shell or that could hold shell material for young oysters to settle on. He is carefully watching Netarts and Alsea native populations for signs of successful new growth.

But Johnson really gets excited when he describes his latest project to help native oysters. "Yaquina Bay is the only bay in the state where we are sure that native oysters exist naturally," notes Johnson, "and I want to be sure this population is healthy and growing." With the help of the U.S. Army Corps of Engineers Dredge Yaquina, often seen maintaining the channels of Oregon's estuaries, Johnson saw a chance to improve oyster habitat.

Late in October, while working in Yaquina Bay and with Johnson aboard, the Dredge Yaquina scooped up about 1500 cubic yards of shell and rock material in two loads from the bottom of the lower bay and headed upstream. Johnson already knew where he wanted the shell spread - a site half way between Toledo and Newport where large beds once existed. The crew carefully nudged Yaquina's nose into the site and deposited a two-foot-high crescent shaped reef. A second mound-shaped reef was laid just downstream on the next trip.

Having just created some dandy areas for oyster spat to settle and grow, Johnson is ready for the next step. "We'll rear native oysters and deposit the spat on the reef areas we've created, beginning next spring. But I'm hoping that natives already in the area will spawn and the spat will settle on the new reefs naturally."

Johnson has put together an impressive team of cooperators for the project: The Corps of Engineers, Oregon Oyster Farms, and the City of Newport. "There's not enough money or time for us to do this alone," says Johnson.

Native oysters appear to have a future in Oregon, thanks to a combination of an innovative biologist, cooperation among agencies and the private sector, and perhaps a little luck.

A pair of big bull trout on the McKenzie River.

"This Is How It Should Be Done"

by Randy Henry

Comprehensive Effort To Protect and Restore Bull Trout Starts From the Ground Up

"This is incredible," said Jan. "You wouldn't think catching a 20-pound trout was possible here. What a gorgeous fish."

In the dusk of a chilly spring day on the Metolius Arm of Lake Billy Chinook, Jan held the big bull trout at water's level, the lure still hooked in its jaw. She bent the lure back and pulled it free. She rocked the fish back and forth a few times, then released it smoothly into the cool black water.

Once thought of as finned vermin and often killed on site because of its predation on other salmonid species, the bull trout is now considered worthy of extensive conservation efforts. A program bringing federal and state agencies together with private industry and sport groups is reaping big rewards for the troubled fish. It has become a model for other recovery efforts and has helped build bridges between groups sometimes at odds over declining species.

ON-THE-GROUND EFFORT MEANS QUICK ACTION

"Our approach has been different from other states," said Bob Hooton, ODFW Trout Program Leader. "Ours is an on-the-ground effort of surveying populations, identifying problems, bringing local land managers and private landowners on board and then working quickly to get local solutions to local problems."

"Because of that approach, different regions are at different stages in their bull trout recovery efforts. But we've seen excellent results in some key areas," he added.

METOLIUS RIVER AND LAKE BILLY CHINOOK

"We started looking at bull trout in the Metolius River and Lake Billy Chinook in 1986," said fish biologist Amy Stuart, "when people became aware that their existence was threatened." The working group includes the Department, Portland General Electric, the Deschutes and Ochoco National Forests, Confederated Tribes of the Warm Springs Reservation, Trout Unlimited, Central Oregon Fly Fishers and Bureau of Land Management.

The working group performed extensive surveys to learn about spawning areas, habitat conditions, life histories and harvest. As a result of the surveys, the department adopted new regulations limiting bull trout harvest to one fish per day in Lake Billy Chinook. Bull trout were protected from harvest in the Metolius since 1983, adding to the success. The work group fixed riparian areas and added woody debris in the river, further helping bull trout.

"We've found in our creel surveys that we're dealing with very well educated anglers here and they really care about maintaining the fishery."

Amy Stuart, ODFW Biologist

In 1986, biologists counted 27 spawning nests, called "redds," in the Metolius. In 1994, biologists counted more than 300 redds. And ironically, the number of anglers releasing their bull trout jumped from 40 percent in 1990 to 85 percent in 1995. "We've found in our creel surveys that we're dealing with very well educated anglers here and they really care about maintaining the fishery," said Stuart. Surveys and habitat work continue as biologists take the next step, looking at how this population relates to other populations in the Deschutes River now physically separated by dams.

MCKENZIE RIVER BULL TROUT GET HELP

Big bull trout still live in the McKenzie River, though dams, culverts and unknowing anglers sent populations on a downward spiral. Department biologist Jeff Ziller works closely with his working group members, which include the Willamette National Forest, Eugene Water and Electric Board, Oregon Department of Transportation, Trout Unlimited and the Oregon Council Federation of Fly Fishers.

"We had a real lack of knowledge of where bull trout spawned, reared and resided, and how adults and juveniles migrated," said Ziller. Staff spent countless hours snorkeling rivers and reservoirs looking for and counting bull trout.

Using that research, several key habitat projects have re-opened miles of historic bull trout spawning areas. The Oregon Dept. of Transportation replaced two huge culverts - one on Sweetwater Creek in 1992 and another on Olallie Creek in 1995, which had blocked spawning grounds for decades. The working group planted bull trout fry above the culverts to reintroduce the fish to the new habitat. That's when something remarkable happened.

"Bull trout don't spawn until they are five years old, so we planned to stock fry above the culverts for five years. But after just one planting, we counted nine redds above the Olallie Creek culvert - bull trout just naturally moved in as soon as passage was reopened," said Ziller. There appears no need to continue stocking fish there, adds Ziller.

A lot of other work has been done on the McKenzie, including habitat restoration and changes to angling regulations. Redd counts have increased steadily in recent years, from seven in 1989 to 30 or more now. Ziller cites the cooperative effort as an example of how different groups can work together to help a species in trouble.

KLAMATH BASIN BULL TROUT

Biologist Roger Smith just returned from a field trip - the kind he likes because it shows the best that cooperative efforts can yield.

He traveled with a Weyerhaeuser biologist to look at the results of hard

"This cooperative effort is our best opportunity, and we haven't spent millions of dollars doing it."

Roger Smith, ODFW Biologist

efforts by that company to fix bull trout habitat. "Back when our working group formed, Weyerhaeuser did a watershed survey to identify all areas where bull trout live. Then they actively went out to fix problems - replacing culverts that blocked bull trout passage, closing and planting trees in roads that muddied rivers and limiting livestock use in bull trout streams," said Smith.

The Klamath Working Group has representatives from the department, Winema and Fremont National Forests, Sprague River and Klamath Basin Water Users Associations, Crater Lake National Park, Klamath Tribes, U.S. Fish and Wildlife Service, Pacific Corp and Weyerhaeuser. "Our main area of focus was to identify what the problems were affecting bull trout and turn those problems around," said Smith.

Randy Henry

Workers install a new culvert at Sweetwater Creek on the McKenzie River with special baffles that make fish passage possible.

Angling pressure on bull trout is generally low in the Klamath Basin, meaning a different set of issues contributed to bull trout decline. "Some biologists point at brook trout introductions as a major cause of decline," said Smith. "While that may be a problem in some areas, we have brook trout in just three waterways in our basin, yet other populations are also depressed. Also, we get very little angling pressure on many of these populations, so changing angling regulations to catch-and-release for wild trout as they did on the Metolius wouldn't have much benefit here," said Smith. "Our problem is habitat, and our land base is National Forests and private. This cooperative effort is our best opportunity, and we haven't spent millions of dollars doing it."

THE FUTURE OF BULL TROUT

Other bull trout working groups are organizing in the state. Each work group is developing a conservation strategy. The strategy describes populations and programs to stop bull trout declines and increase populations while building a base of support to enable further conservation plans to succeed, says Hooton. Information from the stream surveys is entered into a computer, allowing the department's geographic information system (GIS) staff to produce maps linked to detailed survey data. All the information is available to other land managers to help them make responsible management decisions influencing bull trout.

Staff research biologist Dave Buchanan is in charge of developing a statewide status report on bull trout, leaning heavily on surveys and information gathered from working groups. In addition, Buchanan is working on a research contract for the Bonneville Power Administration to study the genetics and life history of bull trout in the Columbia Basin, "which is pretty much the whole state except for the Klamath Basin," says Buchanan.

Buchanan's work will give a detailed look at each bull trout population, basin by basin - how their life histories differ, how they migrate and distribute, how they are genetically related and more. The data are important because the information helps biologists be as effective as possible when restoring damaged habitats and populations.

What all this has taught Buchanan, Hooton and other biologists working the project is that bull trout populations are generally weak but can be helped. Because bull trout don't respect political boundaries, however, it takes the cooperative effort of all landowners and managers to solve the problem.

If they fail to work together, a listing under the federal Endangered Species Act could follow, with perhaps more populations of bull trout becoming extinct along the way. The listing process can be expensive, both monetarily and in the relationships between users, landowners and government agencies.

"We're in the process of recovering bull trout and we've accomplished a lot of work in a very short time," said Smith about the Klamath Basin. "We've done all this without a federal listing and without stopping the major economic uses of the land - we still have livestock, we still have timber harvests and we still have recreation."

Home is... well, almost anywhere

by Stephanie Bigman, ODFW Intern

Some critters live in the most interesting places

Have you ever noticed a pile of sticks lying on the side of a riverbank? It may be the home of North America's largest rodent, the beaver.

Not all beavers live in lodges behind dams. Many Northwest beavers make their homes in rivers and creeks too large to dam, so they build their lodges on the side, at the waters' surface. They are often unseen by passerby because these bank-lodges don't usually take on the characteristic roundness of the true beaver lodge.

The lodge is always at the waters' surface because entrances into the lodge are usually from underwater. The beaver also makes several entrances which can be used to make a hasty exit.

The size of a beaver lodge grows during the autumn when the animal adds branches and small trees to it. Many of these branches act as a winter food supply, should the winter weather become too severe for the beaver to find food.

Packrats also build their homes out of sticks. They build their nests on the ground, in trees, or in low, roofed-over ditches. The most common type in the Northwest is a mound of twigs, branches, bark, herbs, moss, and earth. The "packrat" gets its name for its trait of taking anything it fancies. Broken china, a vanity mirror, coins, kitchen cutlery, small stones, sticks, straw, and dung of various animals have all been found in their nests.

Of all the stick homes, bird nests are some of the most elegant. Bald eagles build the largest and most impressive in tall trees, snags or similar structure; some even use telephone poles. These birds use branches to build a platform which serves as the nest base.

Each year a breeding eagle pair adds more branches to the nest. They have been known to use the same nest annually for more than 20 years. Some of the largest eagle nests weigh more than two tons!

Trees are a common place to look for birds, but one place that you might not look is underground. The burrowing owl can be found in the Columbia Basin in abandoned badger burrows. Because the owl is at a disadvantage on the ground, it has to find a way to disguise its presence. It does this by lining the burrow with livestock dung to hide its scent.

The badger leaves a perfect home for the owls. The badger burrow (called a sett) will vary between being complex and simplistic, depending on the location and soil type. They usually have several entrances that lead to at least one bed chamber filled with grasses and leaves.

Badgers may create intricate tunnel systems and eagles may own the high rises, but barn and cliff swallows are masters of mud. Each swallow nest takes over 1,000 mud pellets from start to finish. The swallows must carry each pellet on a separate trip and cannot apply a new layer until the last layer is completely dry, which becomes a time consuming construction project.

Cliff and barn swallows both build their homes under overhangs to keep their masterpieces from rain, but that is where the similarities end.

Barn swallows build their nests in a cup shape, using organic materials, like hay, in the construction. Because they use organic materials they often build their nests close to the source of the material, hence "barn" swallows. Barn swallows also are solitary nesters, finding more than two nests near each other is unusual.

Cliff swallows build nearly round nests and use lots of sand. They form nesting communities where nests can number in the hundreds, making it hard to tell where one cliff swallow home ends and the next begins.

Fire danger at Klamath Falls' Moore Park almost created an

Eagles or People?

situation. A group of people dedicated to natural resources and to the city found a solution that benefits people and the bald eagles that nest there.

by Pat Wray

The problem was fire danger, caused by the abundance of dead trees and underbrush. Most of the trees were killed by beetle infestation but they would not have been so vulnerable had an extended drought not already weakened them on the steep, shallow, rocky soil. Controlled fires might have reduced the numbers of white fir trees, standing dead on the hillsides like big silver tinderboxes, but fire was not an option, because of the tremendous volume of dry wood in Moore Park, within the Klamath Falls city limits, and because the Lynnewood Subdivision adjoins timbered areas of the park.

Concern for the Lynnewood residents' lives and property was

mirrored in the city's 1993 plan to reduce fire danger by logging many of the dead and dying trees.

"We were very apprehensive about the safety issue," said Klamath Falls Mayor Todd Kellstrom. "And about the city's liability for loss."

Unfortunately the city's plan did not take into account bald eagle nest sites in the immediate area.

"If there's a lesson here, I think it is there are solutions to every problem, if people are just willing to work together and find them."

"There are five nest sites within the park and adjacent city property," said Beth Waterbury, assistant district wildlife biologist in Klamath Falls. These are used on a rotating basis by two mating pairs of bald eagles. One pair has used the site for a short time but the other pair has successfully raised 20 youngsters in the last 17 years."

"At that time the city really didn't have the expertise to develop a logging plan that met the requirements of the Forest Practices Act," said Forest Practices Forester Mike Townsend of the Oregon Department of Forestry. "After consultation with ODFW we denied the plan in September 1993 with recommendations for improvement."

The city submitted a second logging plan in June of 1994 but it also failed to adequately address bald eagle concerns and was not approved.

"At that point, we were extremely frustrated," said Mayor Kellstrom. "There was only a very short window of time (September 1-December 31) when the land could legally be logged without affecting the eagles and we were about to miss the second of those windows in two years. We decided to sell a 104 acre portion of timbered land with an eagle nest on it, in the belief that a private corporation would be better able to deal with the restrictions imposed by the presence of the eagles."

The proposed sale generated a storm of public protest, however, and resulted in the creation of a citizens action group, Friends of Moore Park. Concerned citizen Suzette Machado led the charge of the citizens and petitioned the city planning commission to drop plans for the sale. In May, 1995 the planning commission did so, gaining a pledge from all parties to work together to get the logging accomplished.

"It took a lot of hard work and hours from people who cared...and who believed in Klamath Falls," said Machado.

"At that point, we were pretty much back to square one," said Beth Waterbury. "There was a high frustration level on all sides but there were areas of agreement we could build on. Everyone agreed the area had to be logged to reduce fire danger and get a handle on the insect outbreak. It was obvious that a fire would destroy eagle habitat as well as endangering human lives and property. We also agreed it could be done without having a drastic effect on the eagles. So it just became a matter of figuring out how to do it."

How to do it fell to forestry consultant Ed Kupillas, who was hired by the City of Klamath Falls from a list of private consultants provided by the Oregon Department of Forestry. In September, 1995 Kupillas put a plan together that balanced the needs of eagles and people.

"We had to remove the dead trees, except those necessary as eagle nest and perch sites, we had to contend with power lines and phone lines, we had to do it economically and safely on a very steep slope and we had to leave the park looking like a park. It was a very challenging project," Kupillas said.

To implement the plan, Kupillas needed to find a logging company capable of undertaking such a difficult operation. He came up with Crutchfield's Custom Logging.

"One of our major concerns was the hillside itself; it was very steep and there were a lot of boulders that could easily have broken free and rolled down through one of the Lynnewood homes," Randy Crutchfield explained.

Crutchfield's loggers dealt with that threat by felling trees at the bottom of the hill first, thus creating a dam of sorts that protected the homes from rolling rocks. Then they removed timber from the top down, leaving the dam until the very last.

"We had several boulders break loose and roll down the hill but the trees stopped them. We were able to complete the project without any damage," Crutchfield said.

"This is the only city in Oregon with bald eagles nesting within the city limits," Beth Waterbury explained. "Because a bunch of people from different backgrounds and different priorities came together with a common purpose, Klamath Falls will be able to maintain that claim and everyone, including the eagles, will benefit.

"If there's a lesson here, I think it is there are solutions to every problem, if people are just willing to work together and find them," Waterbury continued.

Spencer Creek

Story and Photos by Pat Wray

Take one 52,000 acre watershed, slightly degraded ❧ Add four natural resource agencies, one large timber company and several private cattle ranchers ❧ Combine all ingredients in one medium-sized Coordinated Resource Management Plan and stir well ❧ Add generous portions of responsibility, commitment and cooperation ❧ Allow ingredients to mix well in meetings for several years ❧ Simmer over low heat created by concerns for water quality and health of fish and wildlife resources ❧ Sprinkle with trust. Then spoon into individual servings – there's plenty for everyone. Note: Not everyone will consider this dish their absolute favorite, but it will be something that everyone can live with and enjoy.

Spencer Creek is the only known Oregon tributary of the Klamath River in which native Klamath River rainbow trout spawn. Its spring-fed headwaters originate from Buck Lake, elevation 5,000 feet. Buck Lake is not really a lake at all, but a 1,600 acre pasture and one-time marsh, ditched, dug and drained for cattle use. Hugh Charley runs cattle there, as his father and grandfather and great-grandfather did before him. If things had worked out as planned, however, Hugh would have been rounding up muskrat instead of cattle.

Weyerhaeuser forester Chris Sokol (left) and rancher Lester Hinton examine the now clear waters of Goshawk Spring.

"My great-grandpa dammed the creek to flood the marsh in the late 1930s," said Charley. "He was going to raise muskrats, but the bottom fell out of the market during the war so he drained the lake to create a pasture and fell back on cattle."

The problems involved at Buck Lake are typical of wetlands adapted for cattle grazing. Stream sides lose vegetation, leading to erosion, high water temperatures and poor water quality; a tough way for a stream to start out.

From Buck Lake, Spencer Creek winds its way through timber land, 80 percent of which belongs to the Weyerhaeuser Corporation. This is a business enterprise, so Weyerhaeuser tries to find as many ways as possible to make money from company land. In addition to timber harvest, one of the best ways is to lease grazing rights to nearby ranchers, people such as Lester Hinton.

"We're very careful with our land " said Weyerhaeuser forester Chris Sokol. "We monitor our lease operations and we won't stick with an operator who abuses our land. What we want to find are people who treat

r land like it was their own.
eople like Lester."

But Lester ran into problems just as typical of a timber grazing operation as Hugh Charley's were of a reclaimed wetland—degradation of water sources.

"We've always just put our cattle out in the spring and pulled them back in the fall," said Lester. "But the problem is that cattle left alone will camp out around springs and turn them into sewers. That was what happened at Goshawk Spring."

Further downhill, Weyerhaeuser faced difficulties typical of many timber land owners.

"We found that a great deal of the sediment showing up in Spencer Creek was coming from our system of logging roads," said Chris Sokol.

Each of these problems...and a few others...were contributing to a steady decline in the health of Spencer Creek. None of the problems were unique but their variety, and the involvement of multiple landowners, made workable solutions very difficult to achieve.

"What we needed was a forum," said Sokol. "Something that would bring us all together and help us to agree on a common goal. Then we could work on the steps that were necessary to achieve it."

That forum developed in 1988 with creation of a Spencer Creek Watershed Coordinated Resource Management Plan. In addition to individual and corporate landowners, participants included user groups, state and federal land management agencies and agencies like the Oregon Department of Fish and Wildlife, which provided expertise on fish and wildlife resources. The people taking part in the plan have helped to guide actions on behalf of Spencer Creek for quite some time.

"It takes a lot of time and a lot of commitment to lay the groundwork for efforts of this magnitude," said Roger Smith, Klamath Falls District Fish Biologist. "But once the groundwork is laid, problems identified and the goals established, things can happen pretty quickly, particularly on private lands.

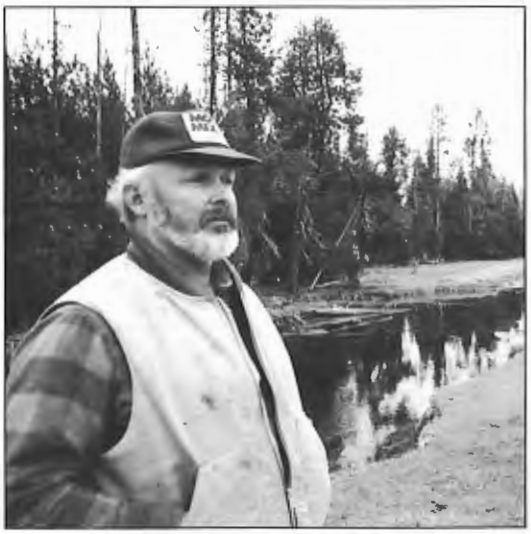
"Weyerhaeuser was great to work with," said Smith. "They brought in a multi-disciplinary team of people to evaluate the problems and make recommendations. Three weeks after they knew what to do, Weyerhaeuser had people out there doing it."

"We did some culvert work, closed some roads and eliminated others," said Sokol. "The loss of roads can be inconvenient but in projects like this everyone has to give up something and Weyerhaeuser has a stake in a healthy Spencer Creek."

Lester Hinton gave up grazing access to nearly five acres of land surrounding Goshawk Spring. Using fence provided by Weyerhaeuser and materials and labor provided by himself and his family, Hinton erected nearly one-quarter mile of fence around the spring, then piped water downhill 200 yards to a stock tank where cattle and wildlife can drink water free of mud and feces. And the spring water which reaches Spencer Creek is clean.

"There is a good bit of effort and some expense in something like this," Lester said. "But it's kind of the price of doing business these days. The water around that spring sure wasn't healthy for cattle or anything else the way it was."

Hugh Charley is giving up some of the ease of being able to turn his cattle out onto a 1,600 acre pasture and forget about them...the six miles of fence now crisscrossing his land requires a good bit more hands-on management. Funding for the fencing was provided by the Ecosystem Restoration Office and administered by the Natural Resources Conservation Service (formerly the Soil Conservation Service). Charley's new fencing will not only keep cattle away from the springs and stream channels around Buck Lake, but will help him practice more intensive management than was previously possible.



Rancher Hugh Charley looks out over 1,600 acre Buck Lake.

"My father and I wanted to do a lot of fencing here but the time and the money never worked out quite right. I think he'd be real proud," Charley said.

Chris Sokol summed it up. "What we've done for Spencer Creek is very important but maybe not as important as the way we've come together to trust each other and learn each other's problems. I think what we've done here could serve as a model for other places around the state."

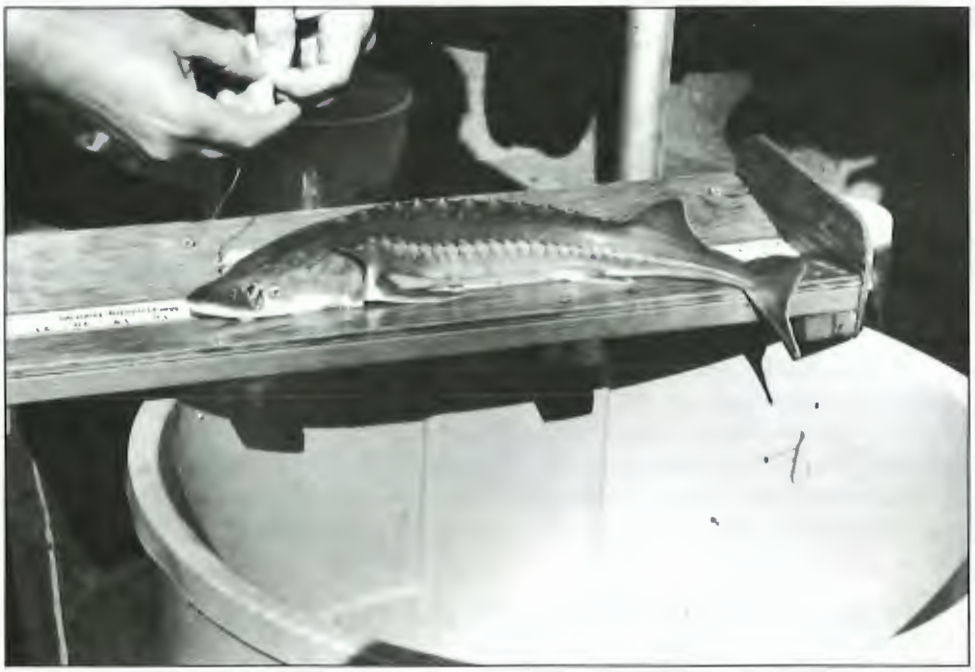
Roger Smith hopes it will. "This is a example of private citizens taking the lead and working together to get things done. The agencies helped with some money and some expertise but private citizens decided what to do and came together to get it done."

Individuals, corporations and government agencies have come together in Klamath Falls to help reclaim the health of the Spencer Creek Watershed.

Restoration and Enhancement Grant Helps Evaluate Sturgeon Transplant Project

Your sport fishing dollars at work

Story and Photos by Pat Wray



This sturgeon was probably one of several thousand juveniles planted in the Willamette River since 1989. Analysis of its growth pattern, tissue samples and feeding habits will tell biologists much about the effectiveness of the sturgeon transplant program.

The Oregon Department of Fish and Wildlife's most recent sturgeon transplant effort into the Willamette River began in 1989. Since that time, more than 40,000 juvenile sturgeon have been released above Willamette Falls. Biologists hope to establish a sport sturgeon fishery there but do not know if the transplant will take hold and thrive.

A grant from Oregon's Restoration and Enhancement Program paves the way for a study to evaluate whether the transplant effort will create a future for one of Oregon's most popular sport fish in the Willamette River.

"Until recently sturgeon from those releases weren't large enough to be caught on hooks and examined," said Al Smith, Warmwater Fish Program Leader. "And they were too small to outfit with radio tags. But now the oldest ones are big enough and we want to evaluate the program and see if it is doing well enough to warrant continuation."

A private hatchery with a permit to take eggs from wild Columbia River sturgeon, provides fingerlings for the transplants as part of the agreement allowing them to sell young sturgeon in the aquarium trade.

"We get 1,000 fingerlings for each female the hatchery spawns," said Kin Daily, Warmwater Fish Biologist in Salem. "For the first few years we just took the fingerlings from the hatchery and released them but we were concerned that such small sturgeon might not survive. So we developed an agreement with the Abernathy Federal Fish Hatchery in Washington to raise 1,800 fish for a second year in 1994 and 1,500 for release in 1995. We hoped that larger fish would be more likely to avoid predators."

Abernathy Hatchery also kept a few fish for an extra year so they would be large enough to accept radio tags in their abdominal cavities. Part of the $4,288 Restoration and Enhancement grant was used to place several radio transmitters within fish to help identify areas where sturgeon seemed to be congregating.

"We covered a lot of territory radio tracking fish from boats and from the air," said District Fish Biologist Steve Mamoyac of Corvallis. "The Oregon State Police provided time for us in their aircraft and we checked on fish from Eugene to the mouth."

After locating primary concentrations of fish, biologists set long lines, with multiple baited hooks, in those areas. Knowing the sturgeons' location was a step in the right direction but it was no guarantee of catching fish. After batting zero on several occasions, Daily and Corvallis Technician Mark Nusom finally caught four in two days.

The fish will be carefully analyzed to determine their body condition. Tissue analysis will help biologists determine how the young sturgeon are acclimating and growing in the Willamette River.

"This program has a great deal of potential," said Al Smith. "It gives us a way to develop new fishing opportunities using species native to Oregon. It also may increase the diversity of the Willamette Valley fishery by putting very big fish in a lot of people's back yards. And it is cheap, because the fish are part of a payback agreement with a private hatchery.

"There is very little downside to the program, either," Smith continued. "Sturgeon are not predatory and seem to fill a niche without harm to other species. Of course, looking good on paper may not be the same as in the river. The evaluation underway now will help us determine whether or not it makes sense to continue the program."

We need information about Willamette River sturgeon

Mark Nusom of Corvallis has been trying to pin down information about a sturgeon fishery in the upper Willamette that has developed on a previous sturgeon release from the 1950s.

"There are a few people who have targeted Willamette River sturgeon on a catch and release basis, since the fish planted in the 1950s are now much larger than legal size," Nusom said. "It would really help us to talk to folks who know something about that fishery so that we can get a feel for what the older fish might be expected to do in the river."

Anyone with information about sturgeon in the Willamette River is urged to contact Mark Nusom or Steve Mamoyac at (541) 757-4186.

Warmwater fish biologist Kin Daily uses a directional receiver to track the movement of sturgeon in the Willamette River.

Oregon's Wildlife Look to You For Help

Baby Black-crowned Night Herons

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