OREGON WILDLIFE

March - April 1986

Urban Wildlife Habitat, page 4

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Ron E. Shay, Editor

The Cover

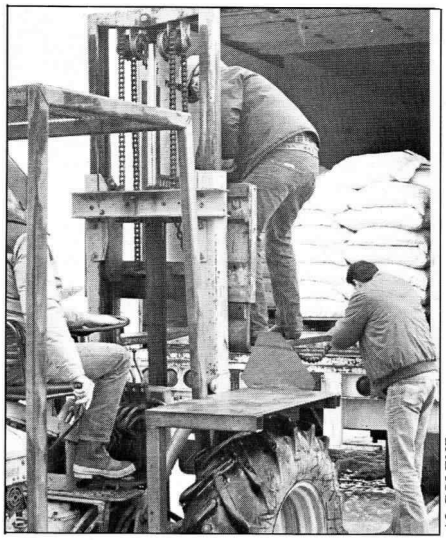
Without careful planning, urban encroachment on wetlands can mean an uncertain future for Oregon's wildlife. See page 4.

Photo by S. Bruce Craven

HUNTER EDUCATION PROGRAM

Months of Dec. 1985 and Jan. 1986

Instructors Approved	28
Total Active	1,524
Students Trained	191
Total to Date	319,236
Hunting Casualties (Reported in 1985)	25
Fatal	7
Nonfatal	18



AL POLENZ

In January, truck driver Chuck Derrick and four other Safeway drivers delivered 45,000-pound loads of deer feed pellets to La Grande, Ontario and Baker.

Hunters Sponsor Hunters

Expert mule deer hunter Kirt Darner is being brought to Oregon from Colorado to share his hunting techniques. Sponsored by the Oregon Hunter's Association, Darner will make 17 appearances throughout the state between March 20 and April 8th.

According to information from the Hunter's Association, Darner has taken more trophy mule deer than any other American hunter. There will be a $5.00 admission fee.

For a schedule of the meetings write to the Oregon Hunter's Association, PO Box 6618, Bend, OR 97708, or telephone executive director, Duane Wolfe at 378-1018 in Portland.

New Subscription Address

In addition to a new Portland headquarters mailing address (P.O. Box 59, Portland, OR 97207) and a special address for all controlled hunts (P.O. Box 470, Portland, OR 97207), *Oregon Wildlife* has a new special address for all new subscription requests and address changes. **Send subscription information only to: Oregon Wildlife, P.O. Box 3349, Portland, OR 97208-3349.**

Other information concerning the magazine's editorial content should continue to the I&E Section in Portland.

Lower Deschutes Access Completed

Public ownership of some 40 miles along both banks of the lower Deschutes River has been completed with the purchase of the Sharp family property along the east bank.

State and federal land now stretches from the mouth of the river at the Columbia 42 miles along the Sherman County side and 39 miles along the Wasco County side. Upstream boundary of the public lands is at Buck Hollow Creek near Sherars Falls.

The most recent purchase consisted of 5,158 acres at a price of $1,200,000. This provided another 3.25 miles of actual river frontage and gained access to an additional 3.5 miles of public land.

The Sharp property was acquired through cooperation of the state and Oregon Wildlife Heritage Foundation, as was the case with earlier purchases. The Department of Fish and Wildlife provided $800,000, with $200,000 of that coming through State Parks from boater pass funds. The Parks Division added another $100,000 from federal Land and Water Conservation funds. The remaining $300,000 came from the Oregon Wildlife Heritage Foundation. The foundation will deed this last piece of land to the state in the very near future. These lands, coupled with the original purchase from Eastern Oregon Land Company and U.S. Bureau of Land Management, complete the public ownership along the lower portion of this popular river.

The state lands are being managed under a coordinated resource plan developed by Federal, State and local agencies, the adjacent landowners and interested members of the public.

Commission Meetings

Commission Meetings

March 21 — Antelope, Cougar & Bighorn Sheep Seasons
Waterfowl Stamp Art Approval
North Umpqua Plan

April 25 — General Business

Both meetings will be at department headquarters, SW 5th and Mill in Portland. Starting time is 8:00 a.m.

Anglers Miss Shot at Winter Steelhead

Steelhead anglers along Oregon's central and north coast streams have had a little extra time to think between strikes this winter. Their thoughts have centered on one question. What happened to the steelhead?

After two straight seasons of excellent steelhead catches, angling success on waters such as the Wilson, Nestucca and Alsea rivers tapered off this winter. Success has been spotty on these and other popular streams in Clatsop, Tillamook and Lincoln counties. This poor showing came as an unpleasant surprise for anglers and biologists. Both expected another good fishing year.

Although no one has all the answers, weather may have played a big role in the downturn. December was the driest, and among the coldest, on record. For coastal streams this lack of rainfall meant low, clear and cold water with few steelhead in the stream. And when the rains did come in January and February, they did not produce dramatic improvement in the catch.

According to Harry Wagner, ODFW fisheries chief, "There are a lot of fish around that just haven't been caught. We are seeing this evidence at the dam counting stations, the hatcheries and even on the spawning grounds. We recognize that fishing has been lousy in some areas, but that isn't because there weren't any fish."

By early February, the department's Alsea Hatchery had taken 4,100 adult steelhead into the holding ponds; a record number for that early. Other coastal steelhead hatcheries are also getting all the fish needed for full production, according to Wagner.

The fish are not just showing at hatcheries either. Coastal biologists conducting coho salmon spawning ground surveys report seeing unusually high numbers of steelhead in smaller tributaries and headwaters.

The department speculates that the fish held in tidewater areas waiting for rain shot quickly upstream then past the anglers while the streams were high and off-color.

"There are a lot of fish around that just haven't been caught."

"In most years we estimate that the sport fishery removes 40 to 45 percent of the returning fish on major coastal streams when effort is high. This year the fishery was less effective than normal and escapement is up," Wagner says.

He notes that catch rate is not a very good indicator of the strength of any fish run due to the variables. Biologists must use other indicators such as hatchery returns and dam counts. And all of those signs are good.

"Dam counts at Willamette Falls and at Gold Ray on the Rogue River are on target or above for this time of year."

Reports from southwestern Oregon echo that assessment. "Fishing success has been good across the board on the Rogue, Chetco, Winchuck and several other small south coast streams," says department biologist Al Mirati in Gold Beach.

The story is similar on the Umpqua. Ron Bartels, the department assistant regional supervisor in Roseburg, says angling was good in the South Umpqua during December and January, and steelhead passage at Winchester Dam has been up. "We are waiting for the fish to come into the North Umpqua now and that's usually the strongest part of the run," Bartels says.

Wagner says that even some reports from north coast anglers have been good. "The stories of good fishing are coming from fishermen who altered their gear and locations to match the situation. Anglers who stuck to traditional "Hot spots" or specific drifts have not done well on the north coast.

"In December and early January the fish and the successful anglers were in tidewater. People who went down there caught steelhead."

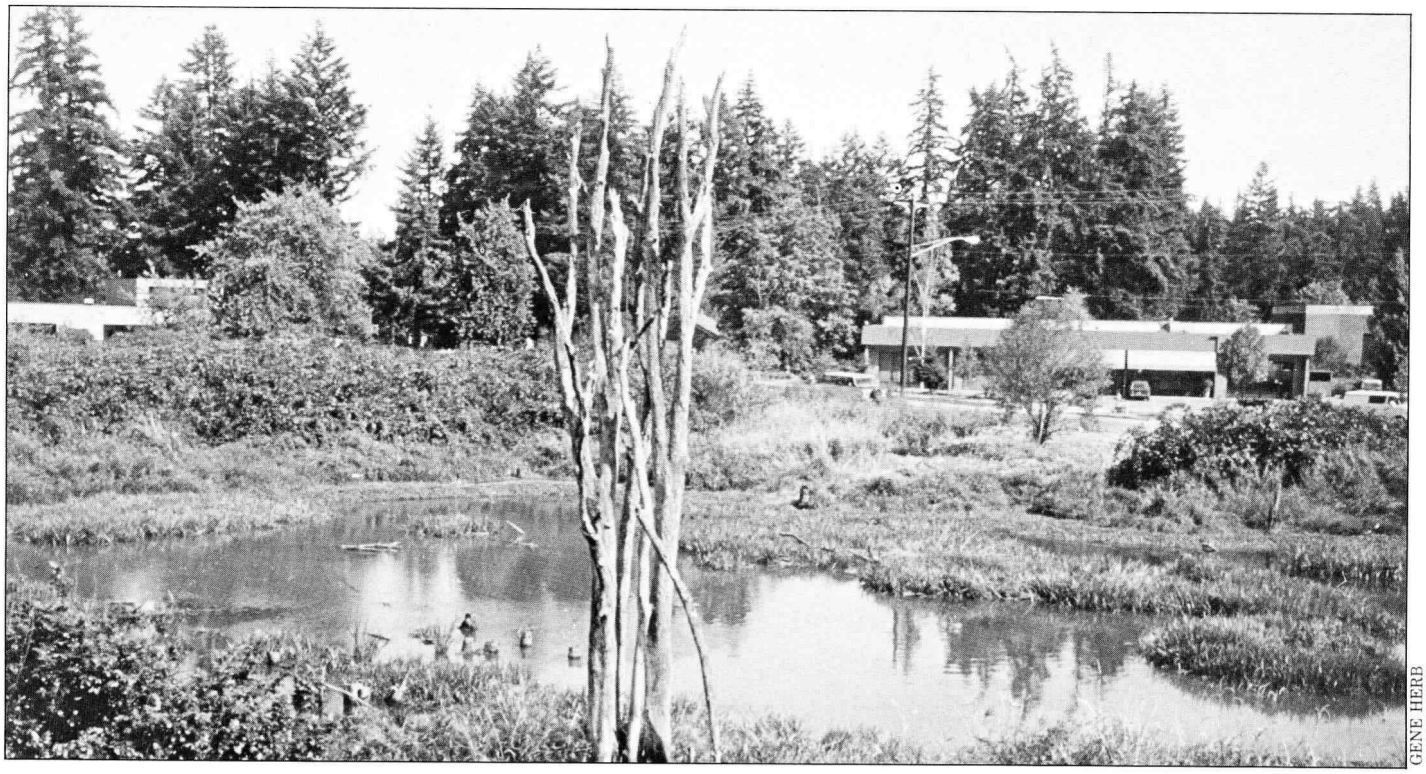
The low, clear water during that period also required the use of lighter gear. "Methods similar to those used for summer-run fish seemed to work better. Six-pound line with smaller baits and plugs were effective," added Wagner.

Dam counts and hatchery returns have been good.

After the fish moved rapidly through the normal fishing areas during higher flows, the success shifted to the smaller streams higher in the system, according to the fisheries chief.

"The people who fish from drift boats have been at a disadvantage. The put-in and take-out sites limited them to using the unproductive portions of the stream. Bank anglers with more mobility to go down to tidewater or higher in the stream systems had better luck this year," he said.

On the bright side, steelhead egg-take should also assure a full hatchery program this year. There should also be plenty of eggs for volunteers operating streamside hatchboxes for the Salmon and Trout Enhancement Program (STEP).



GENE HERB

Urban Wildlife Habitat *Can It Be Maintained?*

By Gene Herb

Editor's Note—

The Sunset Corridor! Just the name of its brings forth visions of progress. Exotic names, new products, growth, and all things good and wonderful. But just a minute . . . are there any things negative? Are there trade-offs?

If you are a creature directly dependent on the land and water base, the creation of roads, housing projects, parking lots and all of the other things that go with such, industrial development can be downright distressing.

Trying to see that some of the necessary habitat for the wild creatures of the urban area is maintained is not any easy chore. Most wildlife biologists, when they were going to school, probably had visions of roaming the fields relating to the world of wildlife and trying their best to see that all remained optimum for the critters.

But the real world doesn't always come out the way dreams picture it. District biologist Gene Herb was born and raised in Washington County. After acquiring a degree in Fish and Wildlife Management and experience in other areas, Gene has ended up in his original "stompin' grounds" as district biologist.

Instead of spending a great deal of time just surveying wildlife populations in the Portland metropolitan area, Gene is working with developers, builders and planners trying to retain some of the quality of life that attracts folks to the area. Unlike the biologists in some of the other areas of the state where habitat is measured in hundreds or thousands of acres, Gene may be working at 10 and 20-acre sites.

One might look at the work of Gene and other metropolitan area biologists as that of dealers in precious jewels. Each small wetland or piece of wildlife habitat retained presents an area of beauty to the beholder. The natural setting and the wildlife inhabitants remind us of Oregon's quality of living and why we want to be here. And, again like precious jewels, these areas will very likely grow in value as time goes by. Here are Gene's observations on his work.

Wetlands and streamwide vegetation provide the richest type of wildlife habitat that exists.

The basic conflict between human developments and wildlife occurs because of the tremendous pressure to fill wetlands for building sites.

The population of Washington County in the late 1950's was about 50,000 people. Today it is 285,000 and by the year 2005 is predicted to be 400,000. People need to have a place to live and work. As a result, open fields and woodlots are rapidly being transformed to housing subdivisions, hi-tech commercial buildings and roads.

As one drives through the Beaverton-Tigard area, hundreds of signs are seen advertising land for sale for hi-density development. All of this activity has caused a sharp decline in the habitat base for both game and non-game creatures.

However, despite a rather pessimistic, general picture, one type of habitat is now receiving state and federal protection. State law requires a landowner to obtain a permit from the Division of State Lands whenever placing or removing over 50 cubic yards of material from a stream or wetland. Under federal law, a permit is also required from the Corps of Engineers to fill wetlands.

It may be asked, "Why protect wetlands?" Studies show that wetlands have a high value of flood control storage, sediment control, pollution control, ground water recharge, and wildlife and recreation. Wetlands and streamside vegetation provide the richest type of wildlife habitat that exists. Large numbers of wildlife use these areas because of the abundance of water, food, cover and nesting areas. Great numbers of aquatic wildlife including ducks, geese, herons, shorebirds, beaver and muskrats depend upon wetland for survival. Many non-aquatic species, such as songbirds, pheasants and raccoons use wetlands for cover and feeding areas.

The Portland Metropolitan area still has a fair amount of wetland left because of flood plains along the Columbia River and marshy areas along the Tualatin River and its tributaries. The challenge to the Fish and Wildlife Department and other resource agencies is to maintain a habitat base in this urban setting to provide wildlife for non-consumptive uses, such as bird watching, photography and scientific and educational use. In these densely populated areas, retention of hunting opportunities is virtually impossible.

The basic conflict between human development and wildlife occurs because of the tremendous pressure to fill wetlands for building sites. Marshy areas that were not practical to build on years ago are now being considered for development. Also, streams and their associated vegetation have often been considered "in the way" when land is being developed. In the past, some of these waterways have been put underground to allow more land for other uses. This practice is obviously detrimental to wildlife because these streams are the "highway systems" wildlife use to travel through urban areas and are often the only habitat remaining in the area.

The Department of Fish and Wildlife and others are working with developers to resolve potential conflicts that can occur when wetlands and streams are involved. Since a permit is required, it gives an opportunity to evaluate the impacts of wildlife. The early consultation in the planning process assists developers in attempts to maintain open space and green belt areas. Sometimes there is simply no way a wetland can be filled or a stream altered without causing substantial losses to the wildlife resource. Number one preference is to leave all wetlands in a natural state. However, on many projects, attempts are made to retain the wildlife values of a particular wetland and still allow development.

Several methods are used to accomplish the dual purpose:

Replacement of Wetlands. Under this concept, the land developers builds a new wetland to compensate for area lost. A detailed plan of how this will be done is generally attached to the permit. Careful monitoring is then done to determine success of the project. Some early results are fairly encouraging, but much is yet to be learned. Wetlands are a fragile environment.

Enhancement of Existing Wetland. Some wetlands have a potential for enhancement by creating shallow ponds with year-round water, changing the vegetation makeup and planting surrounding uplands with fruit and seed producing trees and shrubs.

In some cases, a combination of wetland creation and enhancement of existing wetlands is the best answer. Again, we are learning as we go and each case is different because of difference in soils, water availability, water quality, vegetation, human disturbance, presence of adjacent upland buffer areas, and a complex combination of all of the

Many developers have found that a marsh can be a valuable amenity to their tenants.

Even areas that may look virtually lost for wildlife can be nurtured back with tender, loving care. The natural processes of nature can be aided by appropriate plantings which stabilize the soil and speed up the process of creating habitat. Values for humans are also greatly enhanced by the trees and other plant materials.

GENE HERB

factors.

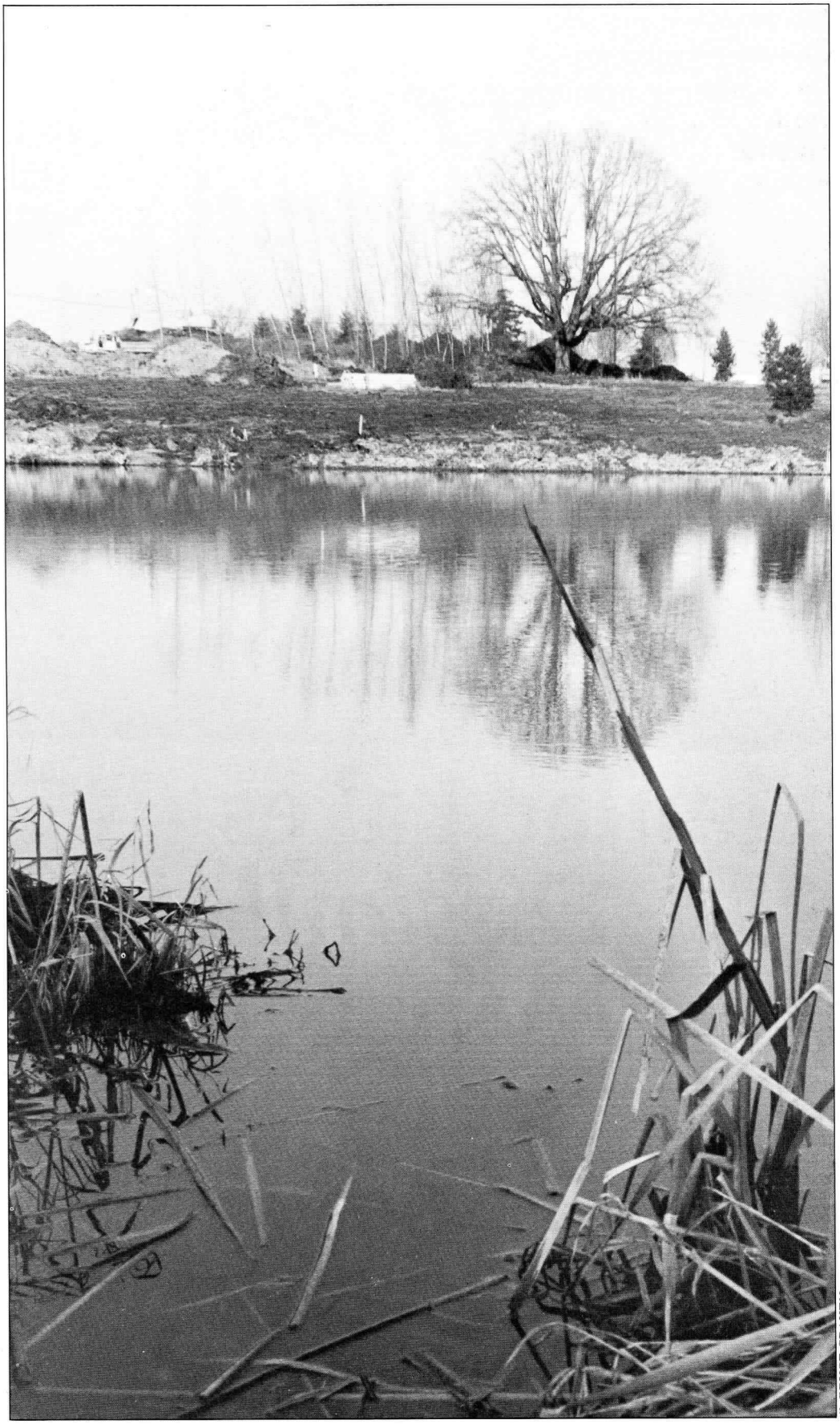
Good cooperation by most landowners has been the key to achievement of mutual objectives. Many developers have found that a marsh can be a valuable amenity to their tenants. For example, an office space overlooking a wetland with its associated wildlife is esthetically much more pleasing than one overlooking certain other landscapes, another building or a parking lot.

Landowners can also get an attractive tax break by donating these lands to a local government or a conservation group, such as The Wetlands Conservancy.

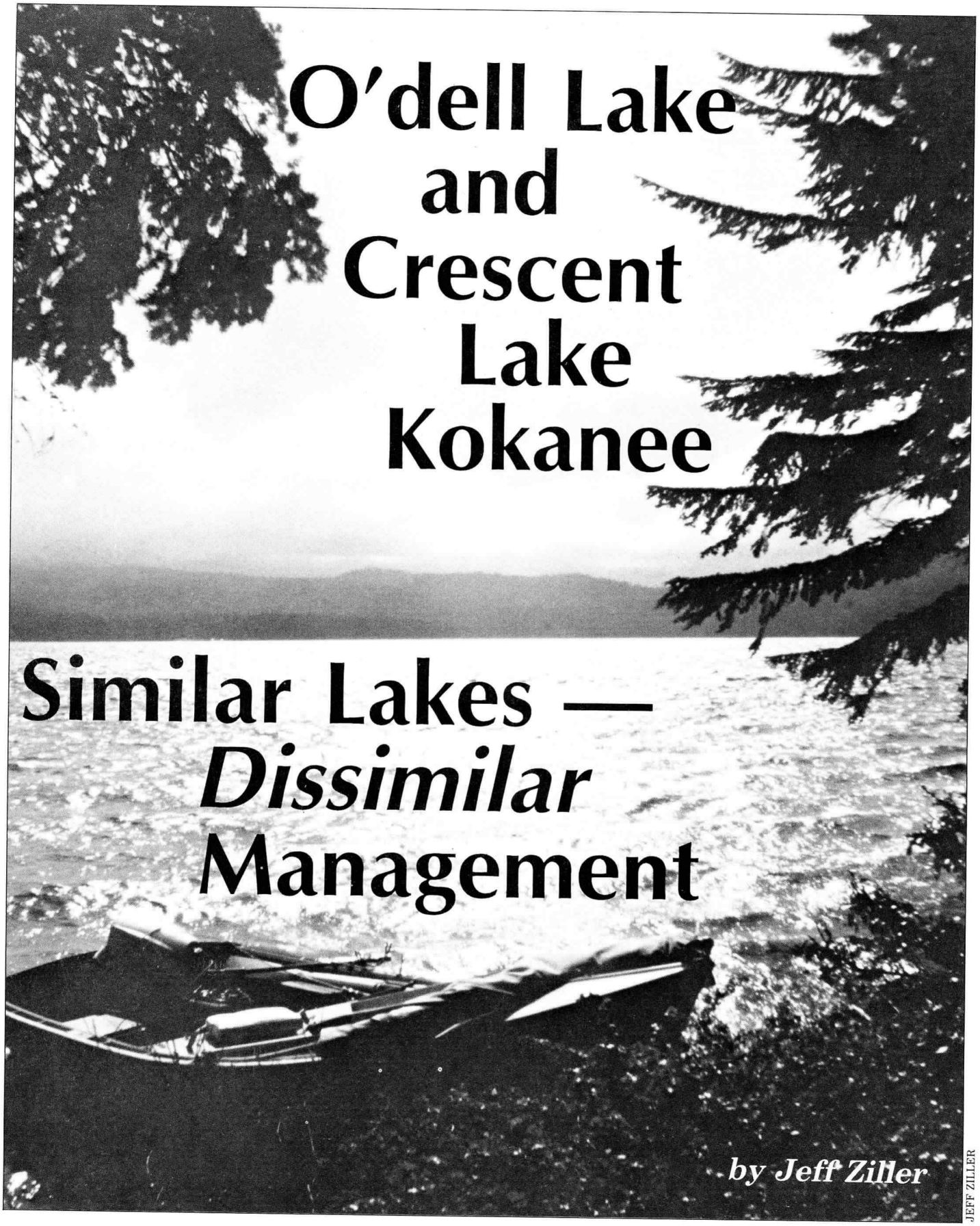
The long-range forecast shows that the population of the Portland Metropolitan area will continue to grow at a high rate. However, with careful planning, wetlands and stream corridors can continue to provide wildlife for people to enjoy in various ways. Protection of these important wildlife areas will not be easy. The end product can be a metropolitan area retaining wildlife values as part of the natural heritage and liveability — values that will in time become the envy of many large urban areas throughout the U.S.

Gene Herb is district biologist in Forest Grove

The Department of Fish and Wildlife and others are working with developers to resolve potential conflicts that can occur when wetlands and streams are involved.



S. BRUCE CRAVEN



O'dell Lake and Crescent Lake Kokanee

Similar Lakes — *Dissimilar* Management

by Jeff Ziller

JEFF ZILLER

Odell and Crescent lakes are two of the most popular bodies of water for kokanee angling in Oregon. These lakes are only four miles apart and lie just south of Hwy 58, about 70-80 miles southeast of Eugene. The similarities between Odell and Crescent are numerous:

— Similar geographical area and elevation (about 4,800 ft.)

— Similar surface area (Odell 3,593; Crescent 4,008 acres).

— Similar water temperature profiles and chemistry.

— Both drain into the upper Deschutes River basin.

— Both have self-sustaining populations of lake trout, mountain whitefish and tui chubs.

— Both have the fish parasite *Ceratomyxa shasta* that kills most hatchery stocks of rainbow trout.

—ODFW has recently completed fish management plans for Odell and Crescent lakes, and although the lakes resemble each other in many respects, there are enough differences to preclude similar management.

Odell Lake was formed by geologic processes and is about five miles long by one mile wide. For a high elevation lake, it produces a relatively large amount of plankton (small aquatic plants and animals).

Fishes native to Odell Lake are Dolly Varden trout (bull trout), mountain whitefish, sculpin and perhaps rainbow trout and tui chubs. Rainbow, brook and lake trout, Atlantic and kokanee salmon, and grayling have been introduced into the lake. Of the introductions, only lake trout and kokanee have done well.

Kokanee were originally released into Odell Lake in 1931 and millions have been released since that time. In 1962, evidence of natural reproduction was found. Spawning areas were found in the springs that well up at Shelter Cove, in Trapper Creek and a few other locations around the lake. Research found that, in some years, over 80 percent of the kokanee fry production in the lake came from the Shelter Cove site.

The number of wild kokanee that survive to one year of age is linked to the amount of food (mainly zooplankton) produced in the lake during the spring. However, the production fluctuates from year to year most likely due to changes in nutrients and temperature.

ODFW has attempted to stabilize the angler catch in the lake by supplementing wild production with hatchery-reared kokanee. During the 1960's and 70's, hatchery fish made up about 13 percent of the catch. From 1983 to 1985 however, hatchery fish averaged less than 4 percent of the catch. These numbers indicate that the fishery is being carried by the wild production and releasing 100,000+ hatchery fish each year does not increase the catch substantially.

Although the catch of kokanee begins slowly during most years, catch rates quickly increase during May to a peak in June. The catch will generally continue at a good rate into August before "dying" in late August or early September.

Odell, kokanee anglers tend to be self-regulating when it comes to harvest. When a year-class of fish is strong, the word spreads quickly and angler numbers increase dramatically. Although the catch is high on these years, there have always been plenty of kokanee left to spawn. When a poor year-class of fish is present, anglers quickly lose interest due to poor catch rates and a high percentage of the population escapes to spawn.

Odell Fish Management Strategy. Under the Wild Fish Management Policy, the Oregon Fish and Wildlife Commission has three options for managing fish in lakes and streams:

- Management exclusively for wild fish
- Management for wild, plus hatchery fish
- Management exclusively for hatchery fish

After assessing the information available on Odell Lake, the department proposed to manage it exclusively for wild trout. The reasons for this decision are:

- Present kokanee and lake trout fisheries are successful and angler catch does not appear excessive.
- Spawning requirements for kokanee and lake trout are met and spawning success is adequate to populate the lake.
- Kokanee population size appears to be dependent on the productivity of the lake. Releases of hatchery-reared fish do not increase the catch appreciably and may cause a degree of replacement of wild fish with hatchery fish.
- Monies spent on rearing hatchery fish for Odell Lake would be of greater benefit to anglers if used elsewhere.

Under the proposed management strategy, current angling regulations will continue, spawning areas will be protected or enhanced (especially the Shelter Cove site), and the department will continue to monitor the catch and population trends.

Like Odell Lake, Crescent Lake was formed by geologic processes. However, a dam on the outlet has increased the depth of the lake by 24 feet. Because of this, the lake level recedes during the summer as water is drawn out for irrigation. The fluctuation reduces the potential production of aquatic insects and vegetation in shallow waters of the lake. Fishes native to Crescent Lake were likely identical to those in Odell and introductions of rainbow, brook and lake trout and kokanee have been made. In addition, brown trout were released into the lake in 1925, 1982 and 1985. *Ceratomyxa shasta* probably killed most of the rainbow and brook trout; however, lake trout, brown trout and kokanee appear resistent to the disease.

Crescent Lake received it's first kokanee in 1954 and since that time releases have been made every year except 1975.

Kokanee spawning has been documented in Crescent. Unlike Odell, however, the total area of these spawning sites is small and the quality of the spawning substrate is poor.

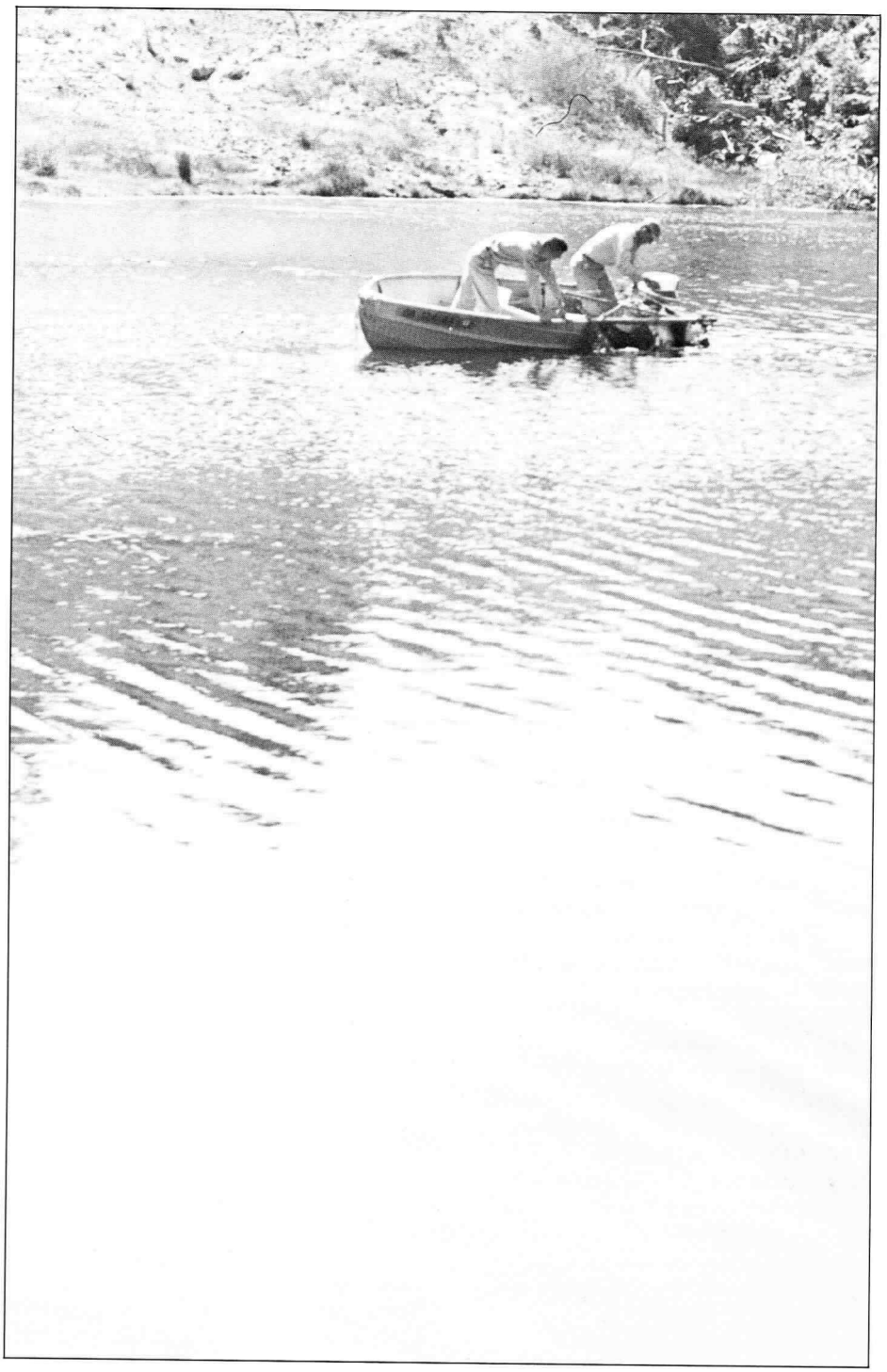
In addition, food production (especially zooplankton) in Crescent Lake is well below that in Odell Lake. In some years Odell has over four times more zooplankters per unit of water than Crescent.

Due to low spawning success and fry survival, the angler catch of kokanee in Crescent Lake can be increased substantially by releases of hatchery-reared fish. Between 1980 and 1982, an average of 37 percent of the kokanee caught were of hatchery origin. This catch was the result of releasing about 100,000 fingerlings per year.

It may be possible to increase the survival of hatchery-reared kokanee by releasing them during early August rather than late June or July. Production of zooplankton peaks in August and the hatchery fish could benefit from the easy pickings. In addition, wild kokanee fry may benefit by having reduced competition with hatchery fish during June and July when zooplankton populations are much lower.

Creel surveys conducted from 1980 to 1982 indicated nearly all of the catch in Crescent occurs during April, May and early June. Due to this "fast start" many anglers fish Crescent early and then switch to Odell during June.

To provide an additional fishery later into the year ODFW has started a brown trout release program (5,000 per year) in Crescent Lake, where some of these fish will grow to trophy size. In addition, the department plans to release Deschutes rainbow trout (resistent to *C. shasta*) at a rate of 20,000 per year to supplement the small native population.



Crescent Lake Fish Management Strategy. Unlike Odell Lake, the department plans to manage Crescent Lake for wild, plus hatchery fish. Releases of kokanee, brown and rainbow trout would be made annually. Available spawning habitat will be protected and when possible, enhanced.

The Crescent plan takes into account:

- Kokanee populations are limited by poor spawning habitat and fry survival.
- Hatchery-reared fish can increase population size and angler catch rates.
- Additional fisheries are needed in the lake after the kokanee fishery slows in late June.
- Lake trout are self-sustaining and provide a successful deep water fishery.

Those desiring more information on the Odell and Crescent fish management can obtain a copy of either plan by contacting Jim Griggs in our Portland office.

Jeff Ziller is a fisheries biologist in Klamath Falls

Duck Stamp Money

Money from the sale of Oregon's waterfowl stamp is being used to help fund a nest building program in Alaska. The department has given $100,000 to Ducks Unlimited as part of an effort to help the struggling dusky Canada geese.

The duskies nest on the Copper River Delta of Alaska, but winter exclusively in the Willamette Valley and a portion of southwestern Washington. The 1964 Alaskan earthquake uplifted the nesting grounds, causing the area to change from marsh to brushy uplands making the birds vulnerable to predation by bears and coyotes.

The funds given to Ducks Unlimited will be used to help construct 400 nesting islands and floating structures. The effort is being pursued in cooperation with the Alaska Department of Fish and Game and the Chugach National Forest. This is the first Ducks Unlimited project in Alaska and one of the few dealing with geese. Most of the work of the non-profit group is with ducks in central Canada.

Coho Recovery Expected

After nine straight years of poor returns, biologists of the department expect a turn-around in coho returns to hatcheries this year. Predictions are for more than two million coho off the Oregon and Washington coast this summer. This would be the highest count since the record four million tallied in 1976.

Unfortunately, the turnaround is not universal throughout all stocks. The big recovery is expected to be in stocks produced at Oregon public hatcheries. Naturally-spawning coho on the Oregon and northern Washington coastal areas are still in bad shape. It is expected that these depressed stocks will still demand restrictions on the fisheries this summer.

The wild stocks returning this year came from a parent run that spawned in the El Niño year of 1983. Only 57,000 wild fish made it back to spawn that year. That was the lowest return on record and was only about one-third of the escapement goal of 170,000.

Hunting Accidents

Twenty-five individuals were involved in weapon-related hunting accidents in 1985. Though this is up slightly from the previous year, statistics show that only one hunter in 17,000 is involved in an accident.

According to Bill Hastie, hunter education coordinator, there was a shift in the cause of the accidents and the age groups involved. Hunters under the age of 19 accounted for 44 percent of the accidents and the number of self-inflicted accidents jumped. In 1985, 56 percent of the accidents were self-inflicted, up from the five-year average of 38 percent.

Winter Easier On Deer

Warmer weather brought dramatic relief to deer wintering conditions in northeastern Oregon according to Al Polenz, staff big game biologist. Snow and cold had been hanging in portions of the far eastern part of the state, but in early February warmer weather caused much of the snow to melt off the southern slopes. The rest of the area east of the Cascades had a normal or better than normal winter promising good adult and fawn survival according to Polenz.

All in a Day's Work

From the files of the Oregon State Police Game Division

The Klamath Falls office received CAWT information that proved very profitable for an Oregon State Police Game Officer. The caller advised of a person who was shooting deer and leaving them for coyote bait.

The Trooper soon learned that a spoiled deer had simply been dumped in a field after a family argument. It seems as though a relative of the person made a special trip from Lakeview to kill a deer. After the deer was killed and hung in the shed, an argument ensued and the brother left for Lakeview leaving the deer behind.

After the carcass had frozen and thawed a few times, it began to emit an unpleasant odor which the person found very offensive, so he threw the carcass into the field. A subsequent search of the subject's freezer turned up several packages of venison which he had harvested after the close of the deer season.

During the investigation, the name of an ex-employee also surfaced, and a search revealed a fresh boned-out deer carcass in his backyard. This deer had also been killed on the property.

When all the dust settled, the Trooper had written three citations for Illegal Possession of Killing Closed Season and two for Waste of Big Game Mammal.

An Oregon State Police Game Officer from The Dalles began investigating a complaint of a deer kill between Hood River and The Dalles. His investigation led to a nearby house where he found blood on the road, blood in the snow near the house, a forked horn buck head that looked fairly fresh and a "fecal pile" left by a dog. The fecal pile was very black in color.

No one was home, however.

Later when discussing the case over the phone with his sergeant, the Trooper was more impressed with finding the feces than the blood and fresh buck head.

When asked why the feces meant so much, the Trooper replied, "Because it was so black. You see, when feces are real black, it means it originally started as fresh meat." The Trooper became excited as he went on to explain the varying shades of the stuff.

Several days later, the suspect was contacted, and as they walked toward the house, the Trooper, seemingly uninterested, stepped over the blood in the snow. But when he came to the "dogpile," he again became ecstatic, pointing at the feces and remarking that the suspect "wasn't going to talk his way out of that."

Later the defendant admitted killing the deer, and yes, wouldn't you know it, the Trooper was right. The suspect's dog had been eating the deer because he had not secured it out of the dog's reach.

As a result of the recent inspection of fish propagators, a Senior Trooper made an interesting discovery. The Trooper was inspecting a propagator in Klamath Falls when he noticed some brightly colored fish in an irrigation ditch adjacent to the holding ponds. He returned the following day with an Oregon Department of Fish and Wildlife fish biologist and they electroshocked the ditch with some surprising results. Goldfish were doing well in the ditch, which was no surprise as they are simply a member of the carp family. It was the swordtails, danios and other species that provided the surprise. These are all species that need 65 to 70-degree water and were doing fine in a ditch that was recently covered with ice. The local fish biologist is now working with the operators to improve the screening of their ponds.

Tip of the Hat

For a number of years, Justice of the Peace Christensen of Tillamook let it be known that wildlife law violations were not to be tolerated in the area. Last year, a District Court was established in Tillamook County and according to information received from Oregon State Police Sergeant Steve Shaw, Judge Gustafson is carrying on the tradition. Shaw writes, "Judge Gustafson has made it perfectly clear he feels the wildlife resources in Tillamook County are important not only from the standpoint of recreation, but also for the economic boost hunters and anglers give Tillamook County businesses. The loss of wildlife resources through poaching will not be tolerated."

Two recent examples emphasize what the judge has said.

Two subjects were apprehended killing a deer out of season. They received the following: $700 restitution to the State for loss of the deer; $150 fine and assessments; 10 days in jail; 100 hours of community service; two-year suspension of hunting licenses; and cannot use or possess firearms for three years. The owner of the 4-wheel drive vehicle used in the violation was ordered not to sell it within 30 days pending recommendation by the District Attorney, at which time the court would consider forfeiture of the vehicle, and three years probation.

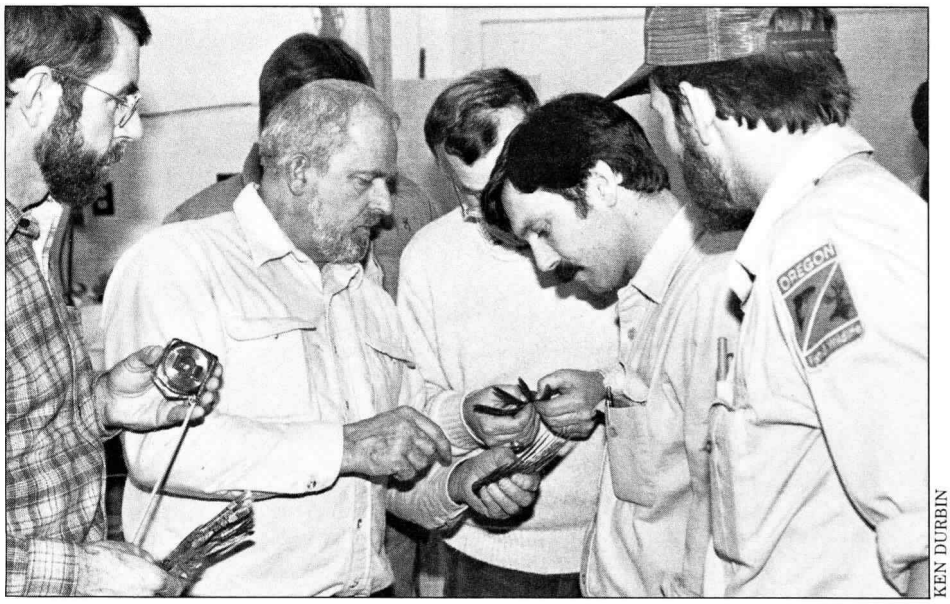
In another case, two subjects entered guilty pleas to snagging steelhead and salmon. They received the following: $100 restitution to the State for the loss of the fish; $350 fine and assessments; five days in jail; two-year suspension of angling licenses; and two years probation.

In both cases, the fines and jail sentences reflect what the subjects had to pay and serve. Additionally, the court suspended substantial fines and jail sentences under the condition they violate no law for the term of their probation. A Tip of the Sportsman's Hat to Judge Gustafson!

What is A Grouse Wing-Bee?

By Walt Van Dyke *Mark Henjum &* *Craig L. Foster*

Biologists in several districts throughout Oregon are collecting wings and tails from hunter-harvested grouse to help determine the health and status of local grouse populations. The biologists have been assisted by Dr. John Crawford, associate professor of wildlife ecology at OSU, who specializes in upland game bird ecology.



KEN DURBIN

Participants at the grouse wing-bee in La Grande compare notes on the succession of feather replacement in a grouse wing to determine age.

Many hunters in Oregon may be familiar with a similar program long used by the USFWS for assessing waterfowl population status where they are asked to mail in wings from ducks and geese killed during the season.

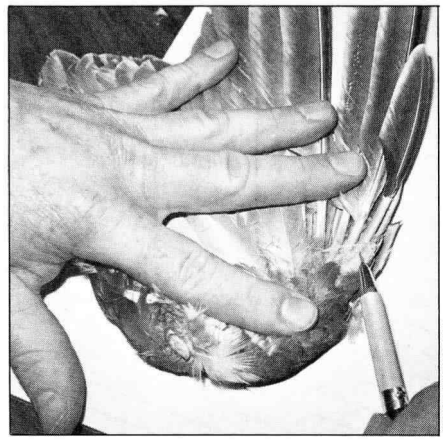
Recently biologists from eastern Oregon gathered in La Grande for a "wing-bee" to examine nearly 600 blue and ruffed grouse wings collected in northeastern Oregon during the 1985 grouse season. Western Oregon biologists held a similar session in Corvallis to evaluate an additional 250 wings and tails from grouse taken by hunters in western Oregon.

One wing and tail from a hunter-killed grouse can provide a great deal of history. Biologists can tell the sex and age of a grouse by looking at feather replacement patterns, wear, shape and coloration. By determining the age of immature birds and then backdating from the date killed, we can tell when the bird was hatched. With the information from many different wings, the population status can be assessed.

For example, if the animal collection of wings contains a high proportion of immature (bird of the year) birds, the biologist knows that there has been good grouse production and, consequently, a high potential for young birds to be recruited into the population. However, if the analysis of two to three successive years of wing data shows that a high percentage of hunter-killed birds are adults, the biologist can suspect that there may be problems with grouse reproduction. At this point, more intensive monitoring of the populations can be initiated to define the reasons for low production.

The attractive part of the "wing-bee" procedure is that a biologist can get an idea of the status of local populations without killing additional birds or spending large amounts of time and money to determine population status. The department plans to continue and expand this program.

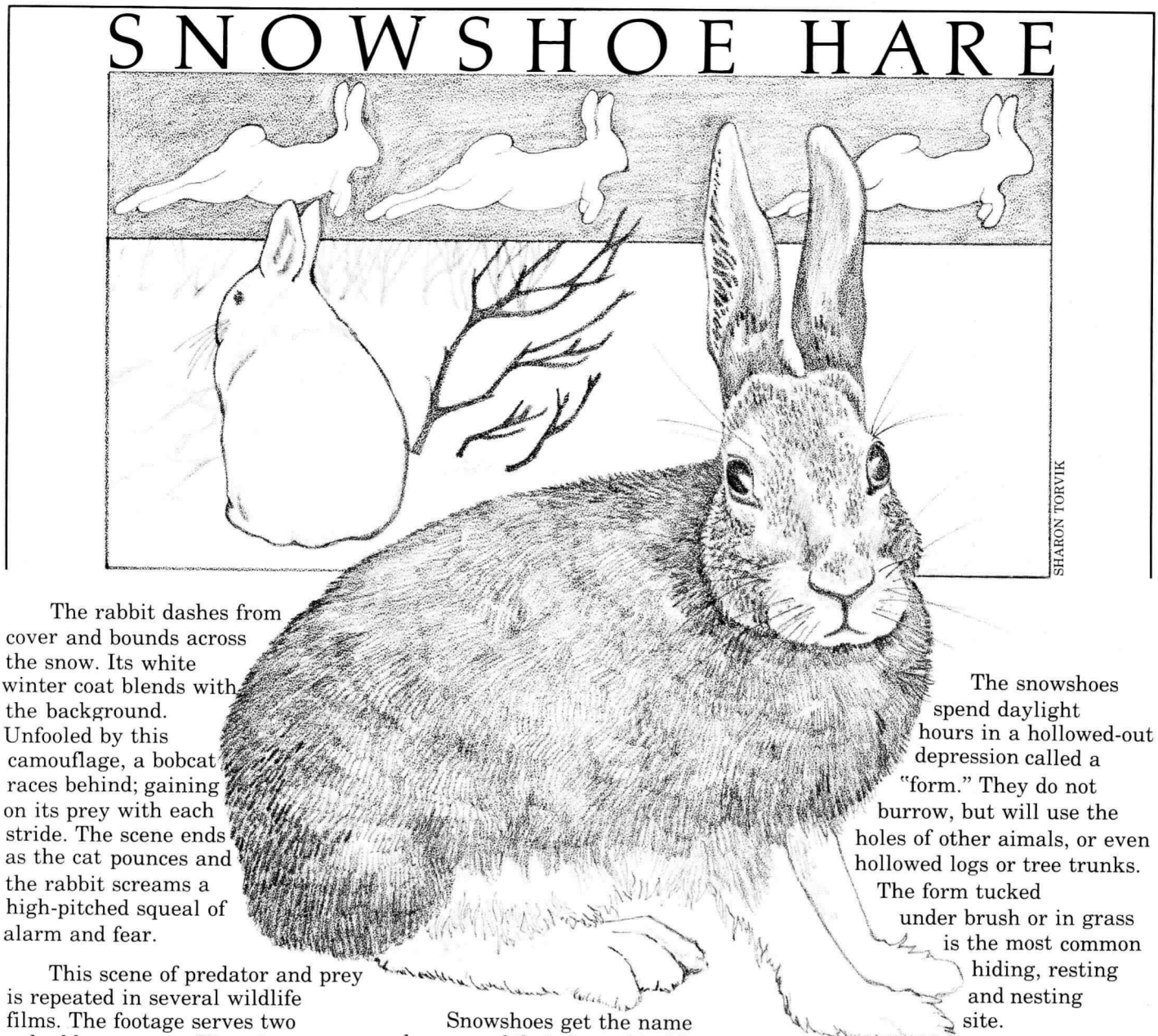
In the future, more grouse hunters will be asked to cooperate with the "wing-bee" process by saving wings and tails. Once a hunter kills a grouse, we ask that the entire wing and the tail (to include rump feathers) be cut off and placed in an envelope or bag. The wing should be cut off through the joint closest to the body. The tail should be cut off, not pulled out, because the location of each feather in the tail is important. Ruffed grouse tails should be removed with some of the small feathers on the rump and lower back still attached. The parts from each individual bird should be placed in a separate bag or envelope. Wings can be dropped off at any department office or, at some strategic locations, "wing barrels" will be distributed and parts can be dropped in these barrels.



KEN DURBIN

The outermost two primary feathers on this blue grouse wing are being replaced, indicating the wing came from an adult bird. Juvenile grouse replace all primary feathers except the outermost two, while adult birds replace all primary feathers each year.

SNOWSHOE HARE



The rabbit dashes from cover and bounds across the snow. Its white winter coat blends with the background. Unfooled by this camouflage, a bobcat races behind; gaining on its prey with each stride. The scene ends as the cat pounces and the rabbit screams a high-pitched squeal of alarm and fear.

This scene of predator and prey is repeated in several wildlife films. The footage serves two valuable purposes. First, it illustrates graphically that it is a rough world out there. Second, it gives people what may be their only opportunity to see a snowshoe hare.

The snowshoe, known scientifically as *Lepus americanus,* lives in western Oregon and mountains in the central and northeast portions of the state. This animal is actually a hare, rather than a rabbit. The major difference between the two is that hare young are born with fur and mature quickly. Rabbit young enter the world hairless and helpless.

Snowshoes get the name because of their large hind legs and feet. They are also known as varied hares because their summer coat is grey or reddish-brown, while the winter coat is mostly white. This particular adaptation is of little use, however, in the snowless lands of western Oregon. Therefore, this subspecies keeps the darker coat year-round.

The well-adapted camouflage, and the fact that the hares usually move around only at night, make this animal a rare sight for humans. Unfortunately for the hare, great-horned owls, bobcats and a variety of other predators do not have a similar problem.

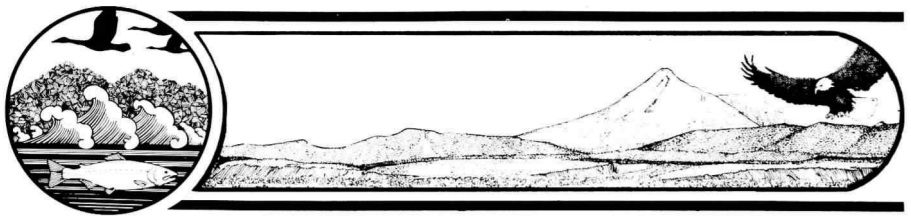
The snowshoes spend daylight hours in a hollowed-out depression called a "form." They do not burrow, but will use the holes of other aimals, or even hollowed logs or tree trunks. The form tucked under brush or in grass is the most common hiding, resting and nesting site.

A female snowshoe hare can produce a lot of little hares. Two litters per year is typical. Each litter numbers five to seven young. Breeding season starts in February with the prime birth period during May through July.

This abundance of offspring production can lead to rapid population increases. But predators, disease and food shortages normally keep this under control to the point that overproduction of young is necessary to maintain viable populations of hares.

Jim Gladson

THE WAYS OF WILDLIFE



By Bill Hastie

Be A Wildlife Poet

Have you ever wished you could write a poem, but didn't think you could do it? Almost everyone, at one time or another, has had an urge to be a poet. And it's really not hard at all! After all, a poem is really nothing more than one way of using language to say what you feel.

Writing about wildlife is a great way to begin your career as a poet. That's because it's easy to "get inspired" about wildlife, and most writers say that inspiration is important when they write. Here's one way to get started:

Go outside. Find a setting that feels comfortable. It might be a field, in a park, or a wooded area. Next, pick an animal to think about — any animal is okay. Close your eyes and imagine that you are the animal, living in a natural environment. Imagine how the animal lives, where it travels and how other plants and animals look to it. Think about how the animal keeps cool when it's hot, and warm when it's cold. What does the animal do when it rains? What does the animal eat, and how does it get its food? For a few minutes, become that animal.

Now, try writing about your experience as an animal. The poem does not have to be long. It may or may not rhyme. Or, you can write in any one of the poetry forms below. Try it! You'll find that it's not so hard to be a wildlife poet.

1. Try **haiku** (pronounced "hi-koo"). This form originated in Japan, consists of three lines: the first with five syllables, the second with seven and the last with five. Try to symbolize what you feel, and don't worry about rhyming:

The hawk soared over
Spirit bird in my living
Guide to harmony

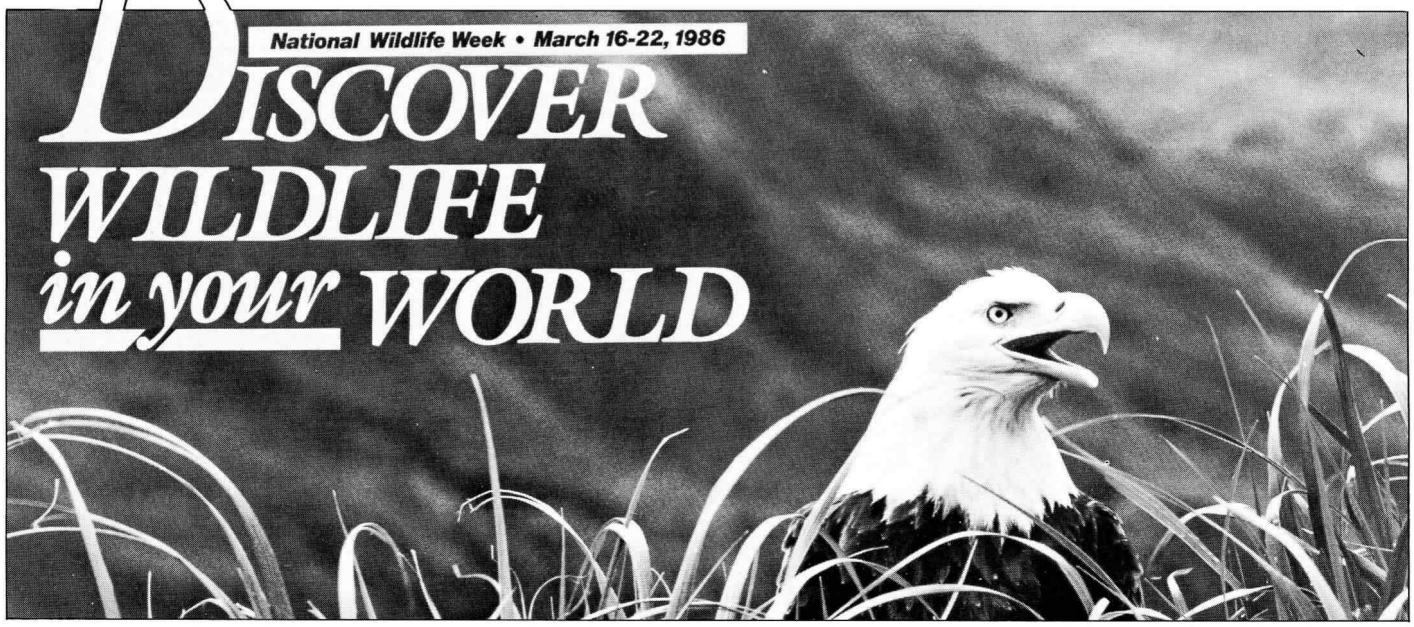
2. Or, try ***cinquain*** (pronounced "sin-kane"). "Cinquain" comes from the French and Spanish words for five. Like haiku, it is based on syllables (or words). There are always five lines, each having a purpose and certain number of syllables: Line 1 — the title in two syllables (or words); Line 2 — a description of the title in four syllables (or words); Line 3 — a description of action in six syllables (or words); Line 4 — a description of a feeling in eight syllables (or words); and Line 5 — another word for the title in two syllables (or words). It looks like this:

Panther
Vital, quiet
Moving swiftly to live
Endangered by human patterns
Near lost

3. Or, try writing your poem in patterns and shapes. For instance, you can write your poem in the shape of a diamond, a spiral, in the shape of any wild creature.

Still stuck? Try writing a poem about this question: If you had to choose between two very comfortable, safe places to live — one with, and one without, wildlife — which one would you choose? Why?

Adapted from *Project WILD*, "Animal Poetry," Western Regional Environmental Education Council, 1985. For information on Project WILD, contact Steve Andrews, Project WILD Coordinator, 503-757-4186.



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