

OREGON WILDLIFE

November-December 1986



OREGON WILDLIFE

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The Cover

The Youngs Bay commercial salmon fishery near Astoria has become a textbook example of successful state/local cooperation to develop a resource. See pages 8-10 for the story. Photo by S. Bruce Craven.

Commission Meetings

November 14 - General Business
December 12 - Willamette Plan
General Business

HUNTER EDUCATION PROGRAM

Months of August and September 1986

Instructors Approved.....	'73
Total Active	1,271
Students Trained	2,872
Total to Date	324,103
Hunting Casualties, Reported in 1986	
Nonfatal	2
Fatal	0

Fisher to Lead Fish and Wildlife

An experienced administrator with a life-long interest in fish and wildlife resources will be the new director of the Oregon Department of Fish and Wildlife beginning November 10.

Fish and Wildlife Commission Chairman Don Barth announced the appointment of Randy Fisher, of Washington state, during a commission meeting in Portland, October 9. Fisher will replace out-going director John R. Donaldson who plans to retire from state service November 7.

Barth described Fisher as a "proven administrator" and "avid outdoorsman. . . with a genuine concern for the environment."

Fisher is currently director of the Washington State Department of Veterans Affairs, a post he has held since 1981.

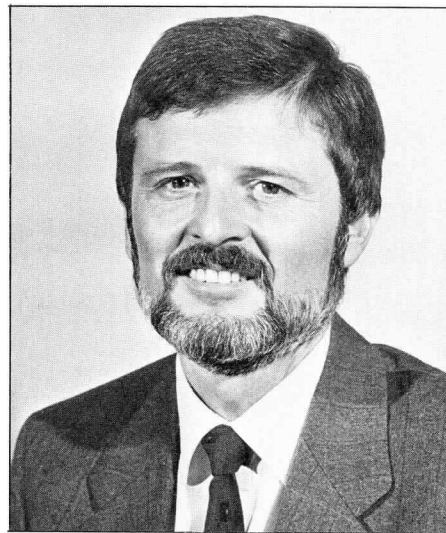
Oregon is not new country for Fisher. His parents have lived in the Bend area for 25 years. He regularly hunts and fishes around the state, and skis at Mt. Bachelor.

Being closer to his family and favored recreation areas had some influence on his decision to seek the director job, according to Fisher. His past experience at Washington Department of Ecology, which is similar to Oregon's DEQ, also fueled an interest in dealing with resource issues. "I liked that kind of work at the time and wanted to get back to it," he said.

There was also the feeling that his job was complete at Veterans Affairs. "I felt I had achieved my goals at that agency. It was time to move on to new challenges," he said.

The position of Fish and Wildlife Director also combines his two primary interests, says Fisher. "I enjoy working as a manager, and I enjoy wildlife. This job offers a chance to put my training and experience to work in an area of great personal interest," he said.

He is aware the director's position will likely provide plenty of new opportunities for challenge. "I am looking forward to the job. In fact, I can hardly wait to get started," he



BOB KUHN

New department director Randy Fisher begins his job November 10.

said. "I also welcome the chance to work with the professional staff and the public. We can avoid considerable difficulties by working together in a group effort," he said.

Fisher is also aware that his appointment breaks with a tradition that the director have a background in biological science. "I see my role as director as a people manager, a person with a broad knowledge of all aspects of the agency. I am not a medical doctor, and yet I have successfully managed a veterans agency that included two large nursing facilities. My job is to make certain the agency works smoothly from top to bottom so the people within the agency can do their jobs," he said.

His lack of a track record on natural resource issues has also raised some questions about whether Fisher will be an advocate for the needs of fish and wildlife. "I can understand why people would want to know my position. But this is a situation where I feel action speaks louder than words.

"I caught my first fish at age 4, and took my first deer at 13. I believe in the protection and wise use of our natural resources. Beyond saying that, I see my intention to be an advocate as something I must prove, rather than talk about," he said.

UPDATE

Burned Lands Restored

Fires burned more than 400,000 acres of forest and range lands in eastern Oregon this summer. But the ground had hardly cooled before work to restore these areas began. Together, the Department of Fish and Wildlife, U.S. Forest Service, Bureau of Land Management and private landowners assessed the damage and began reseeding projects.

About 60,000 acres have been seeded with a variety of plants and grasses that benefit wildlife. Much of the seed has been provided by the department, with the federal agencies and landowners handling application and sharing other costs.

Fires burned so quickly in many areas that plant roots were not destroyed. Regrowth has already returned--aided by September rains.

Tax Checkoff Increases

Oregon taxpayers donated almost \$324,000 to the department Nongame Program this year through the state tax checkoff. The total contribution from refunds on 1985 state tax returns is the third highest in the seven-year history of the checkoff, and the best since 1980. The department received an additional \$8,000 from donors who did not have a tax refund coming.

More than 59,000 people filing returns for 1985 donated all or part of their state tax refund by marking a box on the tax form. The average contribution was \$5.37 per return--a record-high rate.

Trout Stamp Available

A "First of State" wild trout stamp by artist Vic Erickson is now available for purchase. The stamp is reproduced from an original watercolor of two summer steelhead.

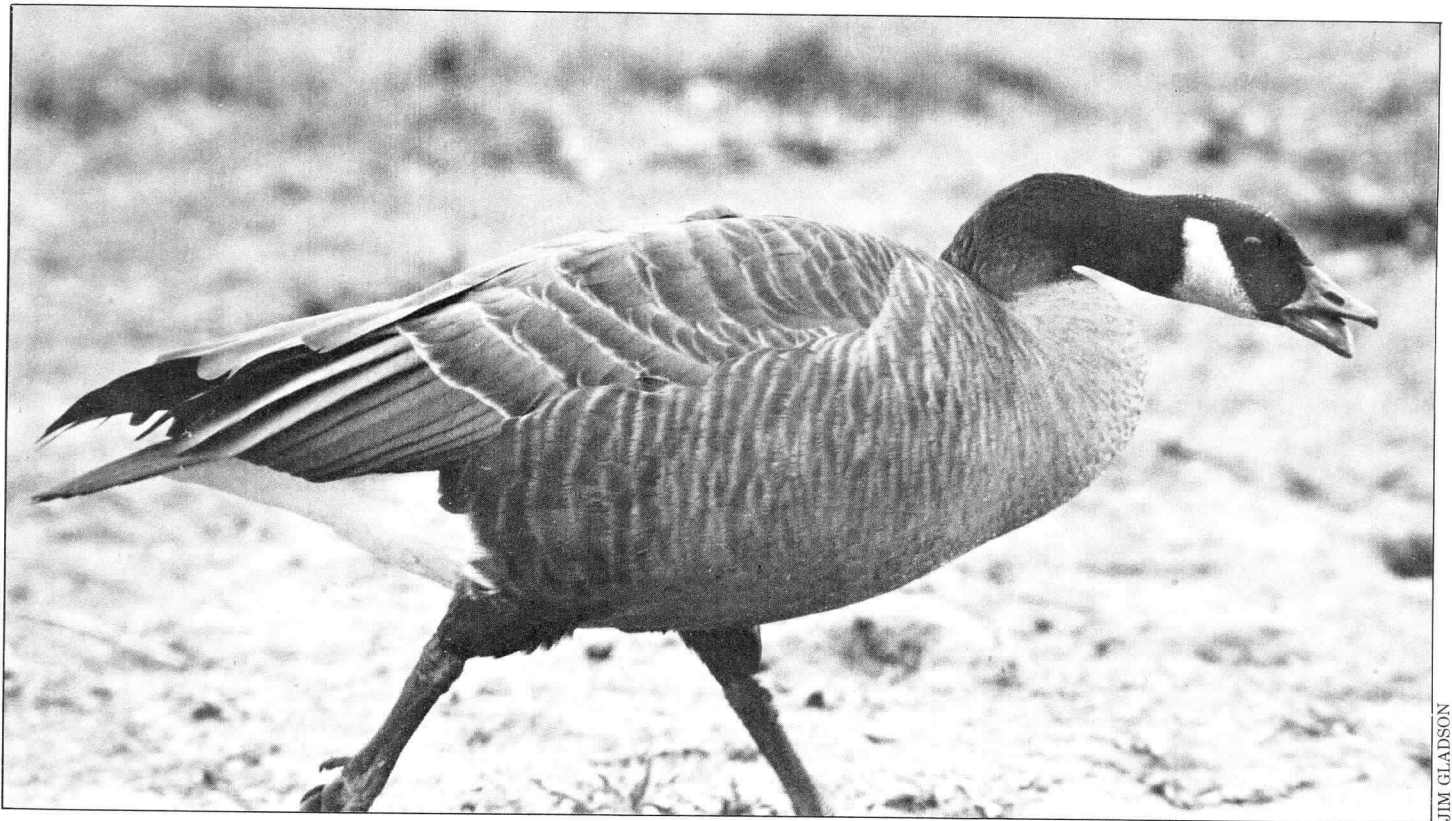
The stamp and limited edition print of the watercolor are being sponsored and sold by the conservation organization Oregon Trout. Proceeds from the stamp sales will go to an Oregon Trout/Dept. of Fish and Wildlife cooperative program for wild trout. Purchase of the stamp is strictly voluntary. It is not required to angle for trout or steelhead.

Purchase information is available by writing Oregon Trout, PO Box 19540, Portland, OR 97219.

Calendar Available

The new Oregon Wildlife Calendar for 1987 is now available. The calendar contains a wealth of information on dates and events related to Oregon's fish and wildlife. Dates of 1987 hunting and fishing seasons, best times for viewing many types of fish and wildlife, plus biological information about everything from elk bugling to bird houses. Wildlife drawings by artist Sharon Torvik are featured each month. Proceeds from sales support activities of the Oregon Wildlife Federation and the department's Watchable Wildlife Program.

The 1987 Oregon Wildlife Calendars can be purchased through department regional offices or the Portland headquarters. Send mail orders to Calendar, Oregon Wildlife Federation, 2753 N. 32nd, Springfield, OR 97477. Cost is \$5.00 each.



JIM GLADSON

THE DUSKY DILEMMA

CAN WE BRING BACK THE BIRDS?

By Jim Gladson

The Alaskan earthquake of 1964 was an undeniable disaster. Collapsed buildings, great cracks in the earth and the loss of human life were obvious signs that something terrible had happened.

Today, the battered communities of southeastern

Alaska have rebuilt, and the tortured landscape is healing. The emotional trauma caused by the loss of friends and loved ones remains, but life goes on.

The ground did not shake in Oregon that spring day. There were no signs of damage. And yet, a different sort of aftershock is still being felt here—twenty-two

years after the event.

Because of that quake, western Oregon goose hunters have faced restricted hunting seasons since 1983. Willamette Valley grass growers and farmers have endured crop damage. And a major race of Canada goose could be headed for the endangered species list.

No TV cameras were there that day on the Cooper River Delta near Cordova, Alaska to record what has become one of the most lasting effects of the earthquake.

Several square miles of land at this river mouth rose two to six feet above the pre-quake ground level. The only known nesting area of the dusky Canada goose was changed, perhaps forever.

Prior to 1964, the delta was an ideal spot for the nesting geese. It featured expanses of sedge meadows with low shrubs growing on slightly higher ground. The area was laced with a network of tidal sloughs and inlets.

The mix of fresh and salt water where the Copper River met the sea controlled the type of plants that could grow there. The brackish water was alive with plants and small organisms that ducks and geese eat.

A survey in the 1950's showed the dusky preferred the low shrub terrain for nests. Nest predation by gulls was minimal, and predatory mammals were rare on the outer delta. Flooding occasionally caused nesting losses, but nesting success was generally high.

The time it has taken for the dusky Canada goose nesting ground to change from ideal to hostile would not even rate on the geologic time scale. But the impact on the birds has been catastrophic.

Uplifted delta lands grew drier. Salt water could not move as far inland. A habitat of sedge and low shrubs progressively changed over the years. Today the area has a mix of alder and willows 10 to 15-feet tall. The brush is also higher. Scientists speculate that food supplies have dwindled for waterfowl because brackish water is usually more productive than predominantly fresh water.

In general, the land became more favorable habitat for new predators such as coyotes and bears, and less hospitable for geese.

The change of nesting ground terrain and the onslaught of nest and chick-destroying predators there have had a tremendous impact on the dusky population. Very few birds are hatching. Those that

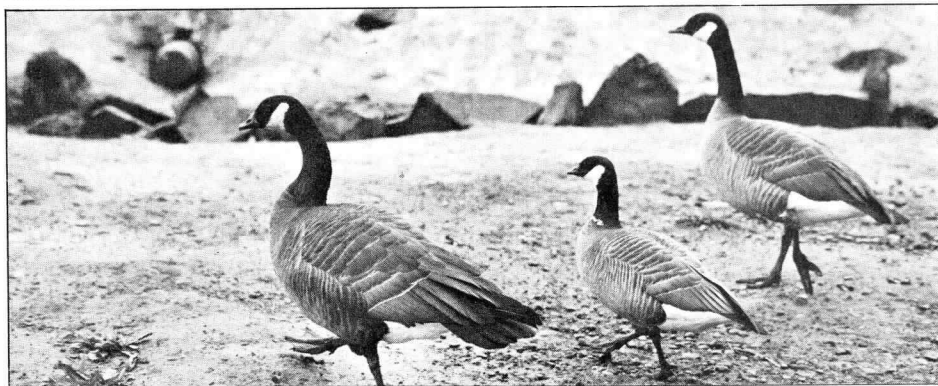
The only known nesting area of the dusky Canada goose was changed, perhaps forever.

Very few birds are hatching. Those that do hatch are not surviving well.

This reversal of dusky goose fortunes eventually showed in Oregon. By 1979, the number of birds using the primary wintering grounds in the Willamette Valley began to decline. Once the decline started, it dropped quickly.

do hatch are not surviving well.

Fewer than one in 10 chicks survived to migrate in 1985. The losses are attributed to an extended period of ice and cold on the nest grounds, and heavy predation. The numbers look slightly better for 1986, but still well below a desirable level.



Telling the difference among Canada goose species and sub-species is relatively easy when they walk side-by-side (l-r dusky, cackler and Taverner). Doing the same in the field is something else again. Goose identification classes are designed to help.

But all the trouble was not confined to the northern breeding area. This reversal of dusky goose fortunes eventually showed in Oregon. By 1979, the number of birds using the primary wintering grounds in the Willamette Valley began to decline. Once the decline started, it dropped quickly.

In 1979, a winter index estimated 25,500 dusky geese using the valley and part of southwest Washington during January. By January 1984, that number had dropped to just over 10,000 birds. The next year, the index was down to 7,500 birds, although the 1986 index of 12,300 dusky geese indicates the 1985 figure was undoubtedly too low.

In five of the last six years, the take of young birds during goose hunting seasons has exceeded the annual production. This serves to aggravate an already poor situation.

Oregon began restricting harvest in 1983 with an emergency closure of the season two weeks before the scheduled ending date. Seasons were progressively more restrictive the following two years.

In 1985, goose hunting was shut down completely in much of northwestern Oregon except for experimental hunts on Sauvies Island and at, and adjacent to, Ridgefield National Wildlife Refuge across the Columbia River in Washington. The dusky harvest quota was 160 birds in Oregon. No more than 100 dusky geese were allowed on Sauvies Island Wildlife Area. That quota was reached and the goose season closed December 9.



JIM GLADSON

Dusky Canada geese settling onto an agricultural field is not a welcome sight to Willamette Valley farmers and grass growers.

Hunters did not reach the 60-bird dusky quota on Sauvie Island private lands. That season continued to the scheduled close of January 12.

This year, the dusky quota concept has been expanded to include goose seasons at Ankeny National Wildlife Refuge and on private lands surrounding William Finley and Baskett Slough refuges. The maximum dusky harvest will be 210 birds. The breakdown by area includes: Sauvie Island Wildlife Area, 70 birds; Sauvie private lands and Scappoose Flat, 50 birds; and 30 birds each for Ankeny refuge, private lands around William Finley and private lands around Baskett Slough.

Like last year, hunters wishing to participate in these hunts must attend a class on goose identification. The aim is to avoid taking any duskys, if possible, while concentrating on the more plentiful Taverner's Canada geese.

Hunters who took the identification classes last year do not need to attend a class this year. Those who plan to hunt should contact the department. They will be issued a 1986 permit.

For the casual observer in the Willamette Valley, this talk of declining numbers of wintering geese must seem like a fantasy. If anything appears likely, it would be

that more geese were coming in these days. These observers would be right. And that is yet another aspect of the problem.

As dusky numbers have declined, another sub-species has flourished, and yet another is increasing its use of the Willamette Valley. The bulk of this total is Taverner's geese. They too nest in Alaska, but over a much wider area in the central plains and west coast. Twenty years ago, this sub-species was relatively unknown in the Willamette Valley. Now they outnumber the troubled dusky geese by at least four to one.

Prior to last year, efforts to direct more hunting pressure toward the Taverner's and away from duskys was not very successful. The reason—duskys are simply more vulnerable to hunters. The birds prefer the type of habitat that is also ideal for blinds. The Taverner's are also much more wary. If something looks wrong down below, the Taverner's won't come in. Duskys lower gear and flaps as they drop into heavy flak.

Before the strict quota was put in place last year, the duskys comprised 10 to 15 percent of the population, yet 50 percent or more of the total harvest.

As if the situation were not complicated enough, the number of cackling Canada geese, or cacklers, is also on the rise in the valley. The hunting season on these birds

has been closed since 1984 because of declining populations.

This mixture of birds that should not be shot among birds that could easily stand additional hunting pressure is a concept familiar to fishery managers. Protection of wild coho salmon among more plentiful hatchery stocks has meant complex ocean fishing regulations for almost ten years.

Why not just shut everything down? Why go to the bother of having these special hunting areas, identification classes and such? Those are questions Ken Durbin, department waterfowl biologist, hears often. He confesses that a total closure to goose harvest in northwest Oregon would certainly be more simple.

However, there is another factor which is a big consideration. Willamette Valley grass seed growers and grain farmers sustained considerable crop damage in some areas last year. Geese that were undisturbed by hunting pressure settled in on private lands. Expansion of hunting to include portions of the valley is intended to reduce this depredation.

Hunting pressure, combined with increased food crop planting on the state-owned management area, did help reduce the problem on Sauvie Island last year.

"This season, especially in the three new areas, is aimed at reducing the goose damage to crops. But

another important point is that failure to allow some harvest of the abundant Taverner's would be a waste of recreational opportunity," says Durbin.

Most of the goose identification classes were set for the first week in November. However, there will be one more class at the Sauvie Island School November 13. That session begins at 7:30 p.m., according to Durbin. Hunters are required to take one of the classes to help them avoid shooting at Dusks and target on Taverner's.

"These classes are intended to get hunters thinking in terms of there being several races of geese wintering in the Willamette Valley and Lower Columbia, and also to explain why it is necessary to regulate on this basis," he said.

In addition to the expanded hunt areas, there are two other dif-

ferences in the season this year. First, hunters will be limited to taking only one dusky goose during the season which begins November 15—almost one month later than the general waterfowl season. Once a hunter bags a dusky, his or her goose hunting season is over in northwest Oregon.

The second difference is one of access. "There is concern that these areas in the valley do not have the well-defined access boundary we have at Sauvie. This increases the potential for hunters to go in and out of the area without going through a check station," says Durbin.

Trying to get around the rules could cost hunting opportunity for all hunters in the area. "Success of this season is heavily dependent on hunter cooperation. It will only work if we have hunters committed

to making it work. If we learn that hunters are cheating the system, it will have a strong bearing on our proposals for next year," he added.

The selective harvest approach worked fairly well last year, except where a small number of hunters had a poor attitude about the program, according to Durbin. The relative few who ignored the request to avoid shooting dusks forced adoption of the one dusky per season rule this year.

"Generally, the season worked better than most of us thought it would. It is clear that most hunters understand the problem we have here, and are working to help correct it. If this season works as well as last year, and we have reasonable production on the delta, we will try to expand the hunting opportunities even more in 1987," he said.

Stamp Programs Underway

Funds received from the sale of the state waterfowl hunting stamp are now being used in a variety of programs, including an effort to improve nesting habitat for dusky Canada geese on the Copper River Delta in Alaska.

The dusky was the subject for the first stamp issued by Oregon in 1984. So far, sale of the annual stamps, collectors prints and other related art pieces through mid-1986 have added about \$1.2 million to the department budget for waterfowl management.

Appropriately, some of that money has been used to improve nesting conditions for the troubled dusks. The department provided \$100,000 to Ducks Unlimited for construction of goose nesting platforms and islands on the delta. About 200 artificial sites have been completed so far, with another 200 planned for next year. The aim is to provide sites that are relatively safe from predators, and thus improve nesting success.

Since the dusks have shown no inclination to move elsewhere, making the delta area more productive appears to be one of the better approaches at this time. This work is part of a general effort by the Forest Service, Alaska Fish and Game Department and U.S. Fish and Wildlife Service to study the dusky problem. This work includes nesting and habitat surveys on the ground, a comprehensive legbanding



and collar-marking program.

Alaskan wildlife managers are also studying the feasibility of methods to reduce coyote and bear predation on the delta.

Working with dusks in Alaska is one of the more visible uses of the stamp revenue. However, other programs are also on line in Oregon. Most of the remaining funds either spent, or earmarked, go to habitat improvement and acquisition, as well as hunter access programs.

More than \$160,000 has been spent on crop development and habitat preservation work in the Willamette Valley. Some of this is aimed at providing more food crops on state and federal refuges so wintering birds can be held there and thus reduce damage to surrounding private lands.

There is also money in the habitat acquisition program budget, but to date

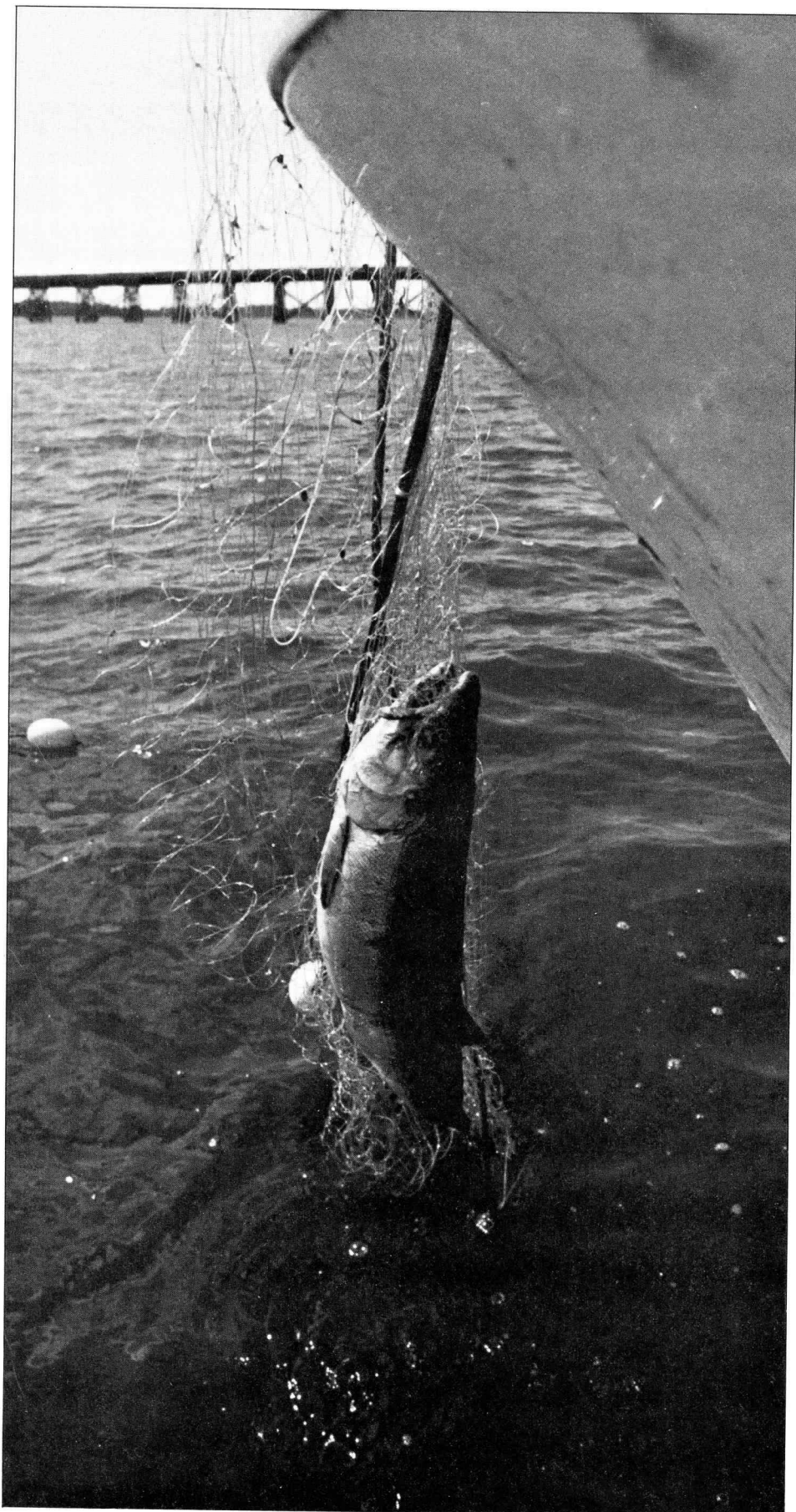
no land has been purchased. Wildlife managers explain that landowners are reluctant to sell during a time when land values are low. Never-the-less, negotiations are continuing for several parcels around the state.

Stamp money has also been used to secure hunter access. The most notable is the access program underway in the Boardman area. About \$61,000 has been used to cover the costs of overseeing hunter entry and use of the privately-owned lands.

Oregon's third waterfowl stamp, featuring the Pacific black brandt, is on sale now. Purchase of this stamp is required for anyone aged 14 and over who plans to hunt waterfowl this fall. The stamps are available at license dealers around the state. Since the 1984 issue, the stamps and related art materials have also been very popular with collectors.

All 1986 art items, other than stamps, must be purchased through art galleries. Persons interested in buying a brandt print by wildlife artist Michael Sieve must place an order by January 1, 1987. These are limited edition works of art. All unordered copies will be destroyed after January 2.

For the name and location of the nearest art gallery, contact the print publishers in Eugene at (503) 345-5032 within Oregon, and Toll-Free from outside the state at 1-800-DUC-WEST.



For much of the year, Youngs Bay appears idle. As backwater bays go, it is somewhat shopworn. Its shoreline supports the usual collection of abandoned buildings and boats.

Twice a day the bay fills with brackish water when the ocean tide pushes into the nearby mouth of the Columbia River. Twice a day the ebb tide exposes its secrets: root wads, sunken logs and nutrient-rich mudflats important to an assortment of wildlife species.

It is a bay that could be easily missed in the comings and goings of Astoria—something to be passed over or around on the way someplace else.

Such an automotive first impression is misleading though. There is much more to Youngs Bay. There is a fall tradition that changes this tranquil setting to one of frantic activity.

From mid-August through October, Youngs Bay basks in the glory of a fishery that makes it unique in Oregon. This annual harvest of chinook and coho salmon pumps new vitality into the Clatsop County economy, and new vigor into the men that work their nets in its waters.

The waters of the bay have yielded a big harvest this year. The coho catch was a record for the second year in a row. Chinook harvest has been steady.

Photos and story

Modern day Columbia River salmon stocks have a history of their own—population peaks and valleys. This unstable pattern has made the Youngs Bay commercial salmon fishery difficult, to say the least.

During the 19th Century, spawning habitat offered by streams feeding into Youngs Bay, was either destroyed or blocked by tide gates. To help counter this, one of Oregon's first state fish



The salmon catch at Youngs Bay brings millions of dollars to the Clatsop County economy.

THERE'S SILVER IN THEM THAR GILLS!

by *S. Bruce Craven*

hatcheries was built on the north fork of the Klaskanine River in 1911.

In spite of the hatchery, salmon returns during the early 1900's continued to decline. Ultimately the fishery was closed there in 1931.

For the next two decades, the seasons stayed closed while hatchery techniques were improved to produce smolts that would have better survival to return as adults. By 1962, this program had worked well enough to

reopen a limited commercial fishery.

The early 1970's were some of the best of the good old days for both sport and commercial fishermen on the Columbia. The worst of the bad old days followed immediately in the mid-1970's—another boom, another bust.

This up-and-down cycle of salmon returns can create a hard life and a depressed economy in areas dependent on the fish. Clatsop County is such an area.

In 1975, a group of local resi-

dents met to try and deal with such troubles. The group became the Clatsop Economic Development Committee (CEDC). The work of the CEDC fisheries sub-committee has been instrumental in the Youngs Bay salmon turnaround of the mid-1980's.

The proximity of Youngs Bay to the Columbia River mouth means its salmon returns are available for sport angling in both the ocean and the lower river. The size and shape of the bay also makes it ideal for a terminal commercial

gillnet fishery.

The runs are not mixed with other stocks needing escapement protection. Almost all of a given return would be available for harvest. Combined, these factors make Youngs Bay an excellent site for an intensive effort to boost run sizes.

A project called the Youngs Bay Enhancement Program began in 1976. This was a joint effort between the Oregon Department of Fish and Wildlife and the CEDC. The successes of this joint venture are chrome-bright examples of what involvement, innovation, cooperation and plain hard work can accomplish.

Much of the early work centered on bolstering the fall chinook stocks. The Tule fall chinook releases increased dramatically over the first few years, from a starting point of under one million to production of seven million smolts. This was accomplished by transferring fish from other Columbia River hatcheries, such as Bonneville and Big Creek, to the Klaskanine station for release.

While these efforts continue today, returns of tule fall chinook lately have been disappointing. Given this, and the low commercial value of this stock anyway, other ways to realize the fisheries' potential of Youngs Bay were also started.

Today, coho salmon are the bread and butter of both the sport and commercial salmon fisheries. Coho releases into the bay have grown dramatically. Since the Klaskanine Hatchery can raise and release about 1.4 million coho, additional coho are trucked to the Klaskanine release site.

For the last five years, these coho releases have averaged about 2.5 million smolts annually.

Another interesting facet to the CEDC enhancement effort also began to take shape in the mid-1970's. From the start, the group was intrigued with the possibilities for direct involvement. After studying the problem, they decided how best to become part of the solution. They wanted to develop and operate a second hatchery program for Youngs Bay in cooperation with

the Department of Fish and Wildlife.

A local family donated a small farm pond that drained into the bay. The pond had excellent potential as a rearing pond; and \$15,000-\$20,000 worth of donated labor and materials later, it was in operation rearing 50,000 coho smolts provided by the department.

The program was beginning to take off, and enthusiasm for the effort was becoming contagious. But for a program like CEDC's to thrive over the long haul, people knew that community support and involvement was critical. This is where the people of Clatsop County have really succeeded.

Given the independent nature of the commercial fishing industry, something extraordinary has happened that dramatically underscores this community support. Youngs Bay commercial fishermen and fish processors have both assessed themselves a voluntary five-percent poundage fee to help fund the program.

So far, more than \$200,000 has been raised. This year there will be 100 percent participation in the poundage assessment program. Add to that the volunteers, and the two local high school fisheries programs that help raise the fish, and it is easy to see how this program could grow.

And grow it has. This fall the CEDC broke ground for an incubation facility on a new site leased from a local timber company for a nominal fee. Of the seven million-plus fall chinook released into Youngs Bay last year, nearly half came from the CEDC's three rearing ponds. Fifteen percent of the bay's coho smolts also came from their facility.

Success does not bring complacency. For the last four years, the group has also been part of a five-year experiment to establish a run of Rogue River bright fall chinook in Youngs Bay.

These are higher quality fish than the tule chinook that bring a corresponding higher price at the processor. While it is too early to tell for sure, the returns so far look

promising.

All of these cooperative efforts are beginning to pay handsome dividends to the community as well. Last year the Youngs Bay fishery provided about a half-million dollars to fishermen, and added millions more to the local economy.

The 1986 Youngs Bay coho catch is certain to surpass the record 1985 catch of 51,000 coho.

Given the inconsistency of weather, changing ocean conditions and a host of other resource-affected complexities, up-and-down salmon population cycles are certain to continue.

The work at Youngs Bay will go far to smooth the peaks and valleys of such inevitable cycles. But the real success of the Youngs Bay Enhancement Program goes beyond raising more fish. It is the cooperation, the community involvement and the commitment to be part of the solution that makes these fish such a valuable asset.



Gillnetting salmon on the lower Columbia River has been the work of some families for generations.

A Fall Feast of Salmon

This is November. How many salmon have you caught? If you take this sport seriously, then chances are high your tag has more than a few lines filled in. As salmon years go, this has been one of the best in several—both on the ocean and inland.

Commercial fishermen have also seen coho catches rise dramatically and chinook harvest improve this year as well.

Biologists predicted last spring that coho numbers in the ocean could total more than two-million fish—the best return since the record runs of 1976. Good chinook returns were also expected.

A full accounting of actual salmon catches and escapements will not be complete until early next year, but a look at catches this summer and fall show both projections appear to be on track.

The inland sport fishery began in earnest during mid-August with the opening of the lower Columbia River at Buoy 10. By mid-October anglers had landed more than 100,000 coho and about 10,000 chinook. Though much smaller in scale, other bay fisheries have also been successful.

These fisheries in the estuaries and lower rivers followed an ocean sport season where limit fishing for coho was almost routine. But these good catches, combined with excellent weather and high effort, also used up catch quotas much more quickly than hoped.

From Coos Bay to Tillamook, the sport season was over by August 13. Ocean fishing off the Columbia River shut down a few days later. For the fourth time in five years, most of the ocean was empty of salmon anglers on Labor Day. Only ports south of Cape Blanco enjoyed a full Memorial Day through Labor Day season.

The early shutdowns were difficult for some anglers and coastal business people to understand. There appeared to be plenty of fish. Why not keep catching them?

As salmon years go, this has been one of the best in several—both on the ocean and inland.

Since February, state and federal biologists had been wrestling with the dilemma of the 1986 coho season. Projections showed good returns of hatchery coho were likely. Unfortunately, the run of coho that spawns naturally in Oregon coastal streams was expected to be very poor.

These fish were the offspring of the adult salmon that spawned during the 1983 El Niño. The coastal natural coho escapement that year was only 57,000 fish, a record low. A low number of spawners can only produce a minimal number of smolts. A full-blown harvest of available hatchery fish could nearly wipe out the natural spawners and continue the downward spiral for the stock.

A quota of 189,000 coho for the sport fleet was calculated to be the maximum number of fish that anglers could catch south of Cape Falcon without risking overharvest of the natural stocks. Following a predetermined allocation formula, the Pacific Fishery Management Council (PFMC) also allotted over 400,000 coho to the commercial troll fleet as well.

Both quotas were the best in three years, but the harvest rate was only expected to be about 41 percent of the total coho available. The remainder had to escape inland to protect the natural spawners. North of Cape Falcon, a similar scenario was played out to protect coho bound for the north Washington coast.

The good fall fishing in the bays, and the spectacular coho return to the Columbia, are products of both improved survival and the reduced ocean catch.

The early sport season closures do have significant economic impact on the coastal economy.

Fishery managers have been studying ways to prolong the seasons and still meet obligations for inland escapement for spawning, as well as Indian and non-Indian fisheries in fresh water.

This year, sport fishermen south of Cape Blanco had a full season because an agreement was negotiated with Indian tribes on the Klamath River in California. This plan established a formula for rebuilding the depressed chinook run there, while also allowing ocean and in-river fishing.

An Oregon Fish and Wildlife proposal to adjust the formula for allocating coho among the sport and commercial fisheries south of Cape Falcon was also approved by the PFMC in September. The plan will shift some coho out of the troll quota in years of low available coho harvests.

This reallocation schedule will go into effect for the 1987 seasons. The result should be a longer, more secure, sport season. Had the same allocation formula been in effect during the 1986 season, the sport fishery would have likely continued through Labor day.

Fishery managers are also negotiating with treaty Indian tribes on the Columbia and in northwest Washington, in an attempt to further improve the fishing prospects north of Cape Falcon.

The goal for department managers is a return to full summer sport fisheries in the ocean off Oregon. But this goal must also mesh with the biological needs of the various intemixed salmon stocks, and the legal requirements for inland escapement and sharing of these fish with treaty Indian tribes as well as non-Indian fishermen.

Wait till next year is usually the statement of losers. In this case, however, the movement toward more equitable allocations, longer seasons and especially the prospect of improved coho returns, could make 1987 a very good year indeed.

THE COASTAL RAIN FOREST

Lovers of sunny beaches and wide open spaces—stay away from here. This is, pardon the cliché, the forest primeval. Beneath the canopy of Sitka spruce and hemlock it is often dark and always damp. The air is thick and appears tinted an interesting shade of green.

There is not a square inch of the place where something is not growing. People visiting here can feel an uncomfortable need to keep moving, lest some plant take root on their person and swallow them up.

The west face of the Oregon Coast Range mountains is where storm clouds from the sea hang up, dumping most of their rain before crawling inland. The combination of moisture, soil and temperature found here is a potent force for growing trees—some of the largest in the world. It is the classic rain forest.

Within this ecosystem live a variety of plants and animals—each interdependent on the other, and all dependent on the forest. One mammal and two birds can be used as examples of this intertwined relationship.

The northern flying squirrel is a fairly common animal. Most people have to take that fact on faith since its nocturnal habits keep it out of sight during the day. Its eyes are large for its body—also testimony to its habit of moving about in the dark.

This squirrel does not really fly. But it does glide amazingly well. A fold of skin attached at its front and rear legs allow it to move, feet thrust outward, among the trees. It can travel 150 feet or more from a single launch.

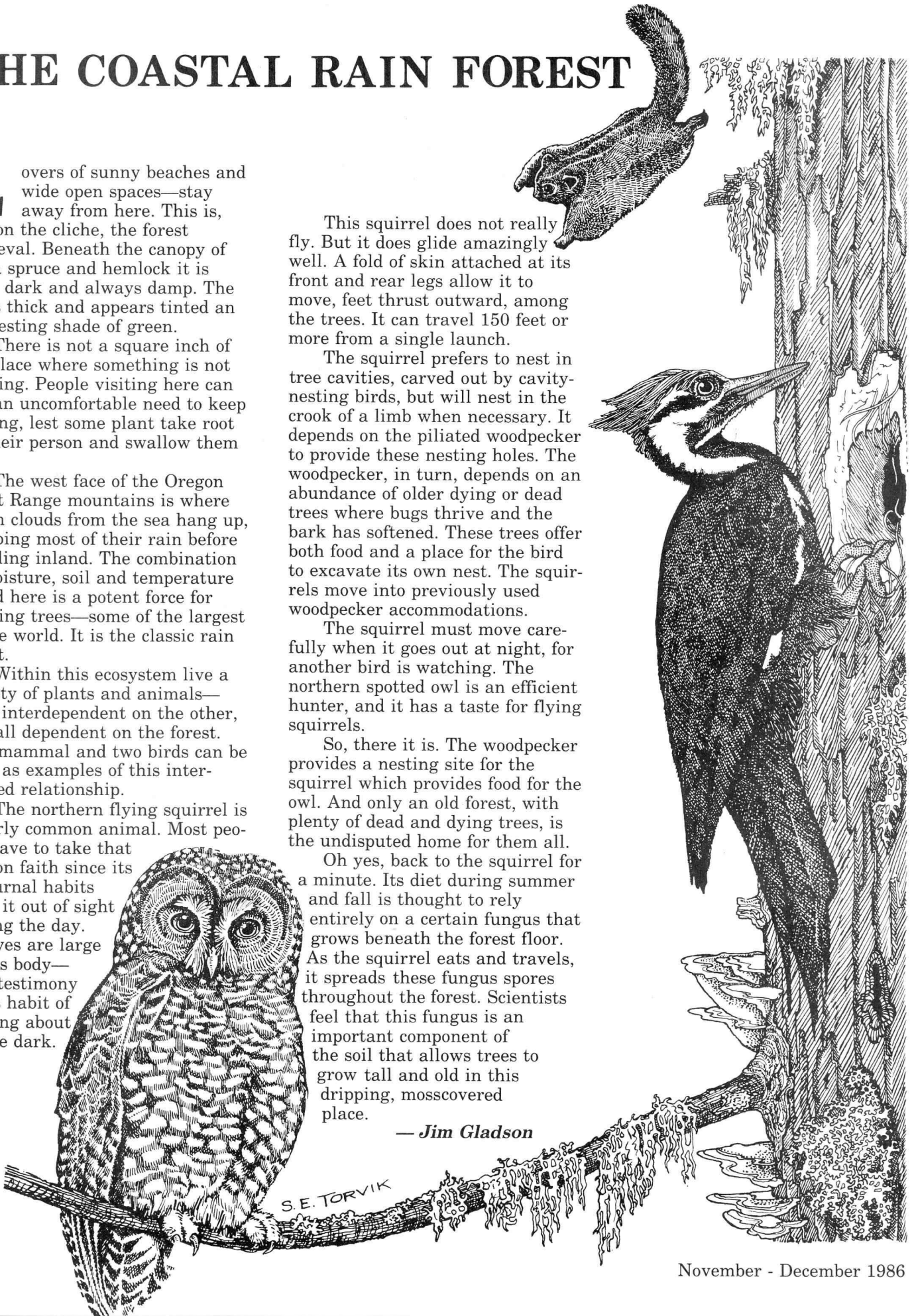
The squirrel prefers to nest in tree cavities, carved out by cavity-nesting birds, but will nest in the crook of a limb when necessary. It depends on the piloted woodpecker to provide these nesting holes. The woodpecker, in turn, depends on an abundance of older dying or dead trees where bugs thrive and the bark has softened. These trees offer both food and a place for the bird to excavate its own nest. The squirrels move into previously used woodpecker accommodations.

The squirrel must move carefully when it goes out at night, for another bird is watching. The northern spotted owl is an efficient hunter, and it has a taste for flying squirrels.

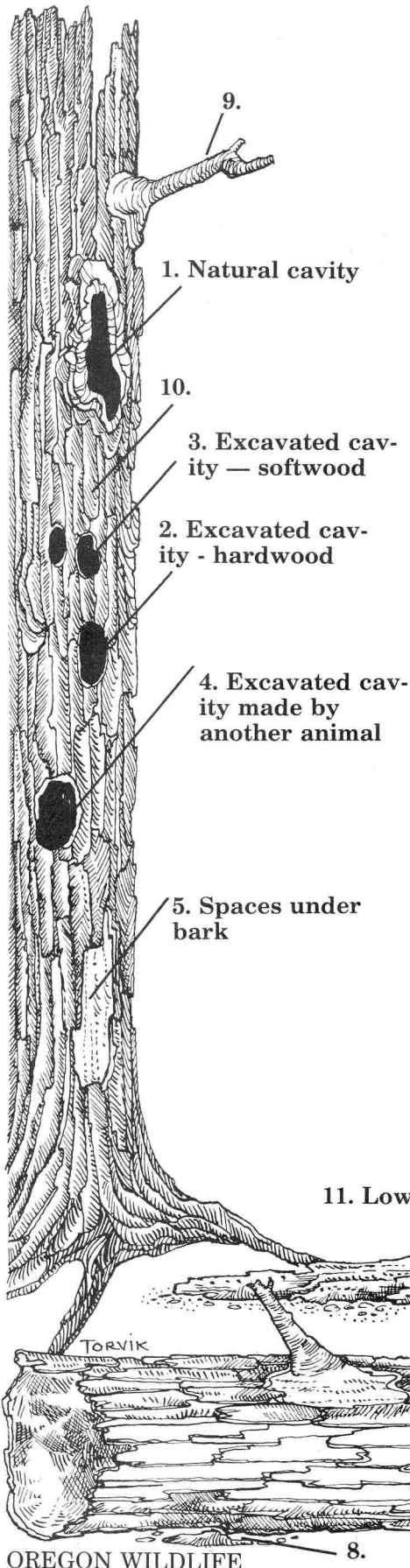
So, there it is. The woodpecker provides a nesting site for the squirrel which provides food for the owl. And only an old forest, with plenty of dead and dying trees, is the undisputed home for them all.

Oh yes, back to the squirrel for a minute. Its diet during summer and fall is thought to rely entirely on a certain fungus that grows beneath the forest floor. As the squirrel eats and travels, it spreads these fungus spores throughout the forest. Scientists feel that this fungus is an important component of the soil that allows trees to grow tall and old in this dripping, mosscovered place.

— Jim Gladson



A SNAG IN THE SYSTEM



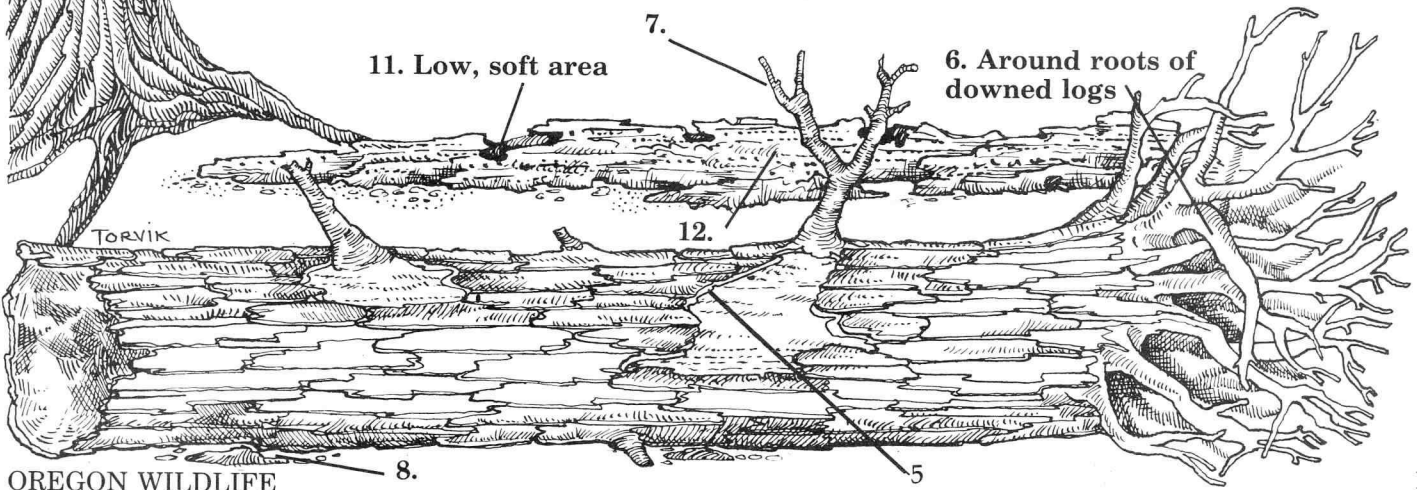
Like all living things in the coastal rain forest, trees sprout, grow, and die. For many years, people thought that these trees were useless to the forest once they died. Many of the dead trees, called "snags," were often cut down and used for firewood. People forgot that even snags were not isolated from the rest of the forest, and that other members of the forest community still depended on those snags.

With the snags removed, animals had fewer places to nest, rest, court, preen, hide, feed, sing, peck, drum, loaf, store, groom, hibernate, land, escape, climb, perch, roost, and glean. Whaaaaat a bummer! So the animals left.

Without those animals, the forest suffered. For instance, birds and other predators helped control insects that can damage live trees. And some of the animals helped decompose the trees, thus returning needed nutrients to the forest soil to be used by live trees.

So, what animals actually do use snags and down wood? Sixty-five kinds of birds, thirty kinds of animals, and two amphibians are said to use dead trees in Oregon forests (not to mention the many insects and reptiles that use them). See if you can match the list of animals with their preferred sites on the diagram. And don't get "snagged" on any of them!

— Bill Hastie



Yellow pine chipmunk and flying squirrel homes

Bat roost, beetle homes and Pacific treefrog cover

Hawk perch

Grouse dusting site, junco nesting

Wood duck nesting

Hairy woodpecker home

Bird perch and lookout

Black-capped chickadee home

Deer and elk resting place

Snake hibernation place, snowshoe hare cover and grouse nesting cover

Woodpecker food source

Squirrel and deer mouse food storage site

Answers on page 15

Sturgeon Sets Travel Record

Biologists have long known that sturgeon move freely between fresh water and the ocean. Tagging studies on Columbia River sturgeon have shown these fish even migrate along the coast. But all previous records for distance travelled were reduced to small potatoes this summer when a white sturgeon, tagged in the Columbia in 1983, was caught by a commercial fisherman near Bristol Bay, Alaska.

Ironically, that fish had travelled 2,000 miles only to be landed by an Oregon fisherman, Joe Tarabochia of Astoria. Tarabochia was familiar with the Columbia tagging program, and turned in the tag to confirm his suspicion that this might be a fish from back home.

Department biologist Steve King says past tag recoveries showed some migration of Columbia sturgeon as far north as

Puget Sound and south to Yaquina Bay, but never anything like this.

Some California sturgeon also had the urge for unusual travel this summer. A fish that received a tag in San Francisco Bay was bagged in the Columbia River. The last record of such an occurrence was in 1955.

King says he is not aware of anything unusual that would cause this sort of general movement. "It's a coincidence. It has to be," he said.

The last big seaward move of Columbia River sturgeon was in 1980, says King. That time there was a good reason. "The eruption of Mount St. Helens in May pushed a lot of sturgeon out of the lower river. We show tag recoveries ranging from the central Oregon coast up to northern Washington.

The Department of Fish and Wildlife has pursued an active tagging program since 1980, according to King. Although the program

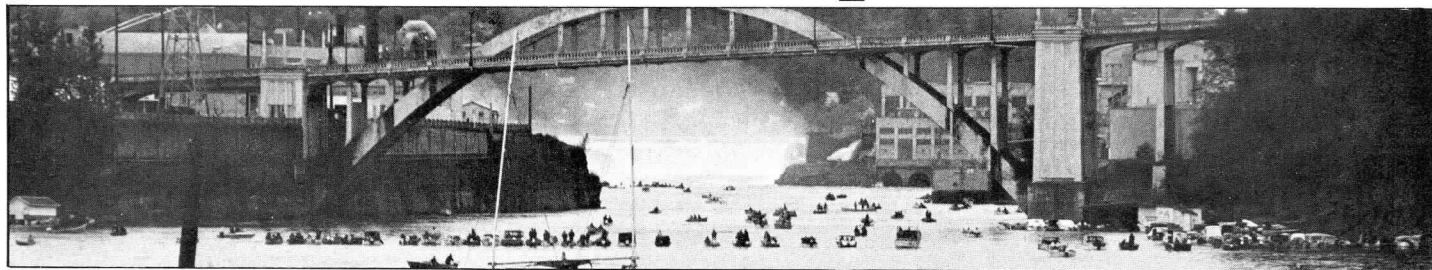
sometimes yields curious results such as those of this summer, the true focus is on the long-term health and welfare of the population.

Tag recoveries will help plot sturgeon migration, measure growth and harvest rates, and ultimately allow biologists to make a population estimate for the river. King says the Columbia sturgeon population is in good shape, but scientists must know more before the impact of increased fisheries can be fully understood.

Gathering this information becomes more important each year. King says sport fishing effort for sturgeon has tripled in the last ten years. The catch was doubled.

The commercial sturgeon catch is down on the Columbia—reflecting reduced fishing seasons. However, the price fishermen receive at the processors now makes this fish the most valuable commercial product in the harvest.

Willamette Plan Up for Review



Four races of salmon, two races of steelhead, and an assortment of resident fish species spend part or all of their life cycles in the Willamette River system.

Since 1980, how those species are managed, and how related fisheries are regulated, have been guided by the Willamette Basin Fish Management Plan. This plan spells out what the Department of Fish and Wildlife hopes to accomplish within the basin for habitat protection and enhancement, passage of migratory species over barriers, hatchery production and management of wild fish populations.

The department staff has taken a new look at the six-year-old document. A revised and updated version of the plan is now available for public review and comment.

Public information meetings are scheduled during November to go over the plan, with formal Fish and Wildlife Commission review of the proposed 1986 update during a public hearing in mid-December.

Information meeting dates are: November 7 at Astoria High School; November 12 at Linn-Benton Community College in Albany; and November 14 at department headquarters in Portland. All meetings start at 7 p.m. Copies

of the plan, or a summary, will be mailed out to interested persons beginning November 1. Copies will also be available for public review at department regional offices and the Portland headquarters.

Some major objectives addressed in the proposed plan include: increased efforts to improve downstream migration of young salmon and steelhead over Willamette Falls; a continued commitment to increase the spring chinook run to a total run size of 100,000 fish; increased emphasis on natural production of trout and winter steelhead; and a new section of the plan devoted to expanded public access to fishing areas.

Tip of the Hat

Two men cited for taking undersized crab from Yaquina Bay found out the hard way that crime does not pay. In fact, it was *they* who ended up paying.

A call to the "Turn In a Poacher" (TIP) hotline directed State Police game officers to two men who had allegedly taken undersized crab while crabbing in the bay. The two were contacted by OSP, but were found to have only a few legal-sized crab.

End of story? Not quite. The person who gave the initial report contacted the TIP line again and suggested that officers take a look in the car registered to the men. The officers did look, and found 101 under-sized crab. Twenty of those were females.

They were cited to District Court in Newport, Judge Robert J. Huckleberry presiding. The judge refused to accept the scheduled bail of \$41 for the violations, and ordered the defendants to appear before him.

Judge Huckleberry fined one man \$550 and suspended his crabbing, angling and hunting privileges for two years. The second defendant was fined \$260 for participating in the illegal activity and his crabbing, angling and hunting privileges were also suspended.

Sometimes the standard bail for game violations is not enough to discourage the activity. A tip of the *Oregon Wildlife* hat goes to Judge Huckleberry for his clear message that theft of our natural resources

cannot be taken lightly.

We also tip our hat to Polk County District Judge Charles Luukinen for his defense of the resource, and for showing some real imagination in the process. He recently fined a man \$750 for Taking Elk Closed Season and for Wasting Game. He also added a jail sentence with a twist of true justice.

The violator was told to spend a weekend in jail for each conviction. For the first charge, sentence would be served the opening weekend of deer season. Time for the second charge will be served the opening of elk season. Hunting privileges were also suspended for two years.

Trooper Tales

This space normally details activities of Oregon State Police Game Officers making arrests for game violations. Recent OSP reports, however, show there are other advantages to those officers being out there.

In August, a State Police cadet saved an 11-year-old girl from possible drowning. The girl had used an air mattress to paddle out into the river to rescue her dog. She feared the animal had gotten too far out.

Instead, the girl was caught by the strong current. She was off her air mattress trying to grab a cement bridge pillar when the cadet pulled her to shore.

Another young woman from southwestern Oregon may also owe her life to a game officer who was at the right place at the right time.

While working an evening and night patrol in the Galice Creek area, a senior trooper from the Grants Pass office stopped a lone vehicle for no taillight. The vehicle was occupied by one man and a juvenile female.

This contact led to arrest of the man for kidnap, assault and menacing. The suspect had a prior criminal record, including rape and kidnap. He had just kidnapped the girl at knife-point in the Rogue River area, and was taking her forcibly to the backcountry.

An officer being at the right place also led to seven arrests at South Slough, an arm of Coos Bay near Charleston. A senior trooper there cited seven people from a group of 11 after watching them dig clams.

When contacted at their vehicles, they were found to have 400 cockles over the bag limit, and 27 Dungeness crab measuring only two or three inches in size. One suspect remained behind when the officer contacted the group.

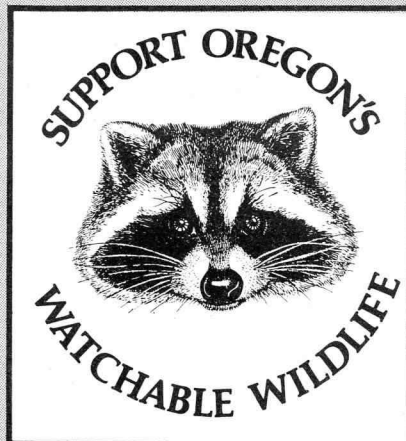
When that person finally walked in, he had only 13 cockles and one undersized crab. The senior trooper suggested a walk back out to the digging area. They followed the person's footprints in the mud to an area where more than 30 additional cockles had been buried in one pile. He was also cited.

There also remains a number of anglers who have a problem restricting their catch to the legal number. A senior trooper cited four people on the upper Clackamas for exceeding the bag limit. Between them they had 121 trout. Two of the people also lacked angling licenses.

Answers to "A Snag in the System"

- 1 or 4 Yellow pine chipmunk and flying squirrel homes
- 5 Bat roost, beetle homes and Pacific treefrog cover
- 9 Hawk perch
- 6 Grouse dusting site, junco nesting
- 4 or 1 Wood duck nesting
- 2 Hairy woodpecker home
- 7 Bird perch and lookout
- 3 Black-capped chickadee home
- 11 Deer and elk resting place
- 8 Snake hibernation place, snowshoe hare cover and grouse nesting cover
- 10 Woodpecker food source
- 12 Squirrel and deer mouse food storage site

WATCHABLE WEARABLES

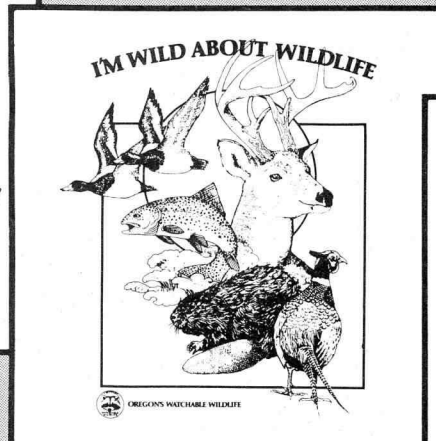


Design 1

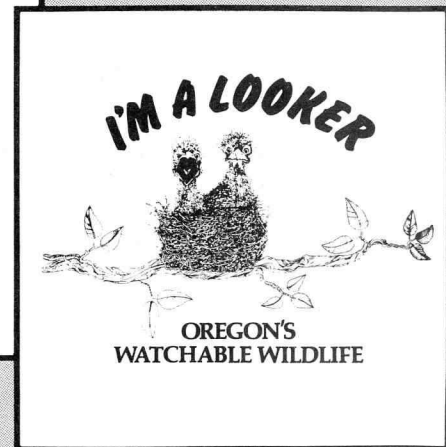
Available in Royal Blue or white garment only.

Watchable Wildlife is a unique Oregon Program. It provides opportunities for people to view and enjoy all kinds of fish and wildlife throughout the state. Although administered by the Oregon Department of Fish and Wildlife, Watchable Wildlife has no direct financial support. Development of viewing sites and interpretive materials depends on donations of money, materials, labor and the sale of specialty items like these "Watchable Wearables".

To learn about Watchable Wildlife sites and how you can help, contact your Department of Fish and Wildlife.



Design 2



Design 3

	Design Number	2-4 X Sm	6-8 Small	10-12 Medium	Youth Price	34-36 Small	38-40 Medium	42-44 Large	46-48 X Large	Adult Price	Total	
50/50 T-Shirt Yellow					\$ 7.00					\$ 8.00		
50/50 T-Shirt Lt. Blue					7.00					8.00		
50/50 T-Shirt Silver					7.00					8.00		
50/50 T-Shirt White					7.00					8.00		
50/50 T-Shirt Royal Blue	■				7.00					8.00		
50/50 Sweatshirt Yellow					\$14.00					\$16.00		
50/50 Sweatshirt Lt. Blue					\$14.00					\$16.00		
50/50 Sweatshirt Silver					\$14.00					\$16.00		
50/50 Sweatshirt White					\$14.00					\$16.00		
50/50 Sweatshirt Royal Blue	■				\$14.00					\$16.00		
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