

OREGON WILDLIFE

JANUARY 1981

OREGON WILDLIFE

JANUARY 1981
Volume 36, No. 1

OREGON FISH AND WILDLIFE COMMISSION

Allan Kelly, Chairman Portland
Donald Barth, Vice Chairman Newport
John Boyer Bellfountain
Kenneth Klarquist Portland
Herbert Lundy Lake Oswego
Fred Phillips Baker
Jack Steiwer Fossil

JOHN R. DONALDSON, Director

Oregon Wildlife (ISSN 0094-7113) is published monthly by the Oregon State Department of Fish and Wildlife, Portland, Oregon. Volumes 1 through 28 were entitled Oregon Game Commission Bulletin. Oregon Wildlife is circulated free of charge with second class postage paid at Portland, Oregon. Material may be reprinted, credit would be appreciated.

Readers and POSTMASTER: Send address changes to:

Oregon Wildlife
P.O. Box 3503
Portland, OR 97208

When sending address changes, be sure to send in both old and new address complete with zip codes.

Ron E. Shay, Editor
Ken Durbin, Managing Editor

WITH UNDERSTANDING, HOPEFULLY SUPPORT

As you will quickly discover, a considerable portion of this issue is devoted to Department operations and finances. We don't especially like the idea of starting off the first issue of the year with facts and figures and asking for money. However, we want to be right up front with you, our readers, and let you know there will be a bill in the legislature to increase some of the hunting and angling license fees.

We hope by explaining it to you here and answering some of the other questions asked about Department finances and operations we can enlist your support. As you realize, just because a bill is submitted to the legislature does not mean it will be passed in the original form or in any form at all necessarily.

Despite what is sometimes heard, the basic fee structure for the Department has not been increasing regularly. The last general increase went into effect in 1976 after being approved by the 1975 legislature. The previous general fee increase took effect in 1968 raising fees set in 1950. This makes two increases in the past 30 years!

The number of licenses sold has been increasing by 2 to 3 percent per year because of increased participation in hunting and angling. However, the increased funds from these sales do not keep up with the increased cost of operations. In some cases, each increased sale causes more expenditures in servicing that new participant.

But there are a myriad of facts and figures that can be used to illustrate the need for the license increase. We have covered some of the broad problems in our feature article. We hope we have also answered some of the other most commonly asked questions in accompanying articles.

But the bottom line is that we hope after digesting the material, cogitating on it and thinking about the future of fish and wildlife and about future hunting and angling opportunities you will find it possible to support the proposed fee increases.□

R.E.S.

Cover photo — How many deer and how many elk can be supported on a continuing basis in each of the state's management areas? Objectives spelling this out will be the subject of a series of town hall meetings throughout the state beginning this month. See page 14 for more information.

Photo by Bill Lightfoot

HUNTER EDUCATION PROGRAM INSTRUCTORS APPROVED

Month of November 11

Total Active 1,573

STUDENTS TRAINED

Month of November 451

Total to Date 280,184

HUNTING CASUALTIES REPORTED IN 1980

Fatal 2

Nonfatal 11

Page 2

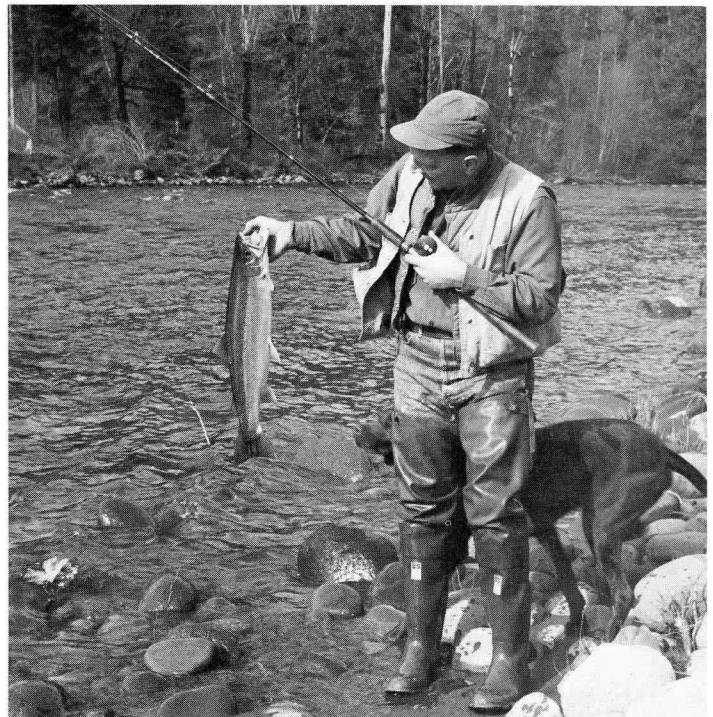
COMMISSION AND COMPACT MEETINGS

The Columbia River Compact will meet on Thursday, January 15 at 10 a.m. to consider general commercial fishing regulations and a winter season.

On Friday, January 16, beginning at 8 a.m., the Fish and Wildlife Commission will consider opening dates for 1981 hunting seasons and regulations for 1981 bear and falconry seasons. Also on the agenda is consideration of a season-dates policy and changes in controlled hunt procedures. (see page 14 for more information).

Meetings both days will be held at Fish and Wildlife Department headquarters, 506 S.W. Mill Street in Portland.□

JANUARY 1981



FINS, FUR, FEATHERS AND FINANCES

By Ron Shay

It has been said that the best bargain available to the sportsman today is his hunting and fishing license. The statement may not bring immediate agreement from all of our readers, but the individual who made it went on to explain that the license fees provide 365 days of fishing and several months of hunting each year in addition to year around support of management programs to support these activities.

Historically, management of Oregon's wildlife and sport fishing resource has been financed primarily by angling and hunting license and tag fees. Virtually all of these fees are set by the legislature. The Commission has the authority to set some of the minor fees, but the basic fee structure is state law and as such can only be changed by the legislators.

Periodic license fee changes have taken place over the years. Some of the fee changes have increased the funds available to the Department, **OREGON WILDLIFE**

others have cut into the revenue. Granting of free or reduced fee licenses to certain special groups such as senior citizens and disabled veterans are examples of the latter while the two general increases that have been enacted since 1950 have been the important ones that have increased revenue and kept Department programs going.

As you may have suspected by now, this article concerns proposed license increases that will be submitted to the forthcoming legislature. We hope you will bear with us and read on to discover what is behind the proposal. The bill with the license increases in it has been drafted and assigned the number HB 2213. This is the only piece of legislation the Department is going to submit this year. This does not mean that this will be the only piece of legislation concerning the Department or the fish and wildlife resource. Normally, there are from 50 to 100 bills from other

sources that are submitted that could have a positive or negative influence on the Department or the resources.

Obviously the license increase bill is an important one. Requests for revenue increases are not made lightly, but as has occurred with everyone operating a family or a business, the Department's dollars just aren't buying as much. The last general increase in license fees was in 1976. Any fee increases enacted by the legislature this year will not go into operation until January 1, 1982, a period of six years since the last adjustment.

We should add that there have been some minor changes in between, and a number of the nonresident fees were increased last January. However those adjustments really don't mean that much of an increase in revenue. This is true because only three percent of all of the licenses sold go to nonresidents and only one percent of the tags. Also in the period

PROPOSED FEE INCREASES

Type of License/Fee	Current Fee	Proposed Fee
Resident Combination	\$15.00	\$17.00
Resident Hunter	7.00	8.00
Resident Deer Tag	4.00	5.00
Bird Stamp (New)	-0-	5.00
Resident Angler	9.00	11.00
Juvenile Angler	2.00	3.00
Nonresident Angler	25.00	40.00
10 Day Angler	10.00	15.00
Daily Angler Without Salmon-Steelhead Tag	2.50	3.00
Daily Angler With Salmon-Steelhead Tag	2.50	4.00
Salmon-Steelhead Tag	2.00	5.00
Antelope Tag	5.00	10.00

since the last general license increase, the beaver tag was dropped as unnecessary and the disabled veteran license which was priced at \$1.00 for angling and the same for hunting was changed to a free license. Some miscellaneous other minor tag fee adjustments were made, but the overall effect was minimal when total dollars are considered.

We don't want to go into a long listing of things that have caused the need for the increase. We all are living with them. However, it probably would be well to mention just a few items that have really impacted the Department budget. In carrying out the job of the Department, biologists, fish truck drivers, screen maintenance personnel and all of the others who use vehicles burn some 370,000 gallons of regular gasoline per year. The mileage being driven has been cut a couple of times, however if the job of managing the resource is to be accomplished with accurate information, people must be able to get out into the field. There is a bottom limit for cutting mileage.

While the OPEC countries have been raising the price of petroleum products, the ripple effect has not only caused price increases in the gasoline used, but also the heating oil to heat the hatcheries and other fixed stations and the fish food has gone up from 20 cents per pound to 37 cents per pound. When this is multiplied by hundreds of thousands of pounds, it becomes highly significant.

But we don't want to go on with a litany of inflation. All sorts of things you use that the Department needs for operations have been in-

creased such as tractor rental, tire chains, outboard motors, shotgun shells, printing of tags, licenses, regulations, etc. The consumer price index based on 100 for 1967 stands at 245 in May of 1980.

One reaction to all of this might be, "okay tighten your belts, we all are doing it." The Department has. As we mentioned mileage has been cut, not only to save energy, but also to cut costs. Operations have been tightened up and programs limited ... the next step is program cutting.

The license fee income simply has not been keeping up. The proposed increases still would not take as big a chunk out of personal income as did those a number of years ago. For example, using U.S. Department of Commerce figures, in 1976 it took 1.85 hours of work to earn the money to purchase a resident angling license. Currently it takes 1.36 hours and if the proposed increase goes into effect in 1982 and the hourly wage follows trends, it will take 1.42 hours. Comparable figures show the hunting license in 1974 took 1.18 hours of work to purchase and in 1982 with the proposed increase would take 1.04 hours of work to purchase.

In looking at the proposed increases contained in the chart accompanying this article, it becomes apparent the angler is being asked to come up with more bucks. For a great many years, some of the hunting license dollar has supported fishery operations. The total dollars taken in from licenses and tags have never been earmarked specifically for a particular use. This has been desirable since it makes for less complex budg-

eting and improves management flexibility. However, over the past few biennia, the Commission in reviewing and approving the budget has been attempting to bring balance between the income and expenditures of the two divisions.

The single most expensive operation the Department has is the fish hatcheries. They have always been a costly operation and as we mentioned earlier some of the things they use have escalated in price even more than the cost of living in general. In attempting to even up the income and expenditures in the fish and wildlife division, the recent license increases have had to be unequal. It simply does not cost as much to provide the hunting opportunities and to protect the wildlife habitat as it does to accomplish the same things for the fish resource.

As the proposed license increases would suggest, wildlife programs have been hit less than ones on the fishery side. While the basic purpose of the license increase is to keep up with inflation, some of the money will also be used to respond to new demands.

In the wildlife operations, there is an increasing demand for control of wildlife damage. This inevitably grows when humans and wildlife come into contact more frequently. As Oregon's human populations continue to increase and wildlife habitats are decreased this problem gets worse. Funds for hazing of animals, fencing of severe damage areas, purchase of repellents and for the institution of other methods of damage control are needed. Additionally, more emphasis will be put on improving the pheasant populations of western Oregon. Finally, more development for waterfowl in the southern Willamette Valley will take place and some funds will be spent on creating opportunities for people to view wildlife at various locations. This will be in addition to the funds coming from the nongame checkoff program that is earmarked for the protection and preservation of nongame and its habitat.

Things are a bit more complex on the fishery side. Lack of increased funds will not only cause serious cuts in existing programs, but will eliminate some programs that have been

requested. If an increase is not obtained, slightly over one million dollars worth of programs will have to be cut. About half of this would come from the fish propagation operations by eliminating some replacement equipment needed at several hatcheries, reduction of fish truck mileage and of hatchery personnel, the reduction of fish food quantities and cuts in the number of trout produced in the state.

In other areas of operation, a cut in the amount of habitat protection would take place. About a third of the dollar loss would be absorbed by the management activities. This would mean the district biologists would have less opportunity to get out and monitor the harvest of fish and would have less chance to work on protecting the habitat, measure fish populations and carry out a variety of field activities. With the increased demands on our water resources from all directions it is felt the Department already is short of the necessary data when land and water use decisions are being made. Cutbacks would give the resource even less representation and protection.

If the increase is approved, obviously the current programs can be continued. But in addition, some areas of concern expressed by numerous people can be addressed. A number of the hatcheries can be repaired and remodeled for more efficient operation. The three hatcheries with major needs are Cedar Creek, Roaring River and Klamath. These three combined produce over four million fish annually.

Along with the hatchery work it would be possible to mark more fish for better assessment of returns and also to release fish from the hatcheries in a more timely manner with the addition of two new liberation trucks. Warmwater fish production facilities would be improved as would be fish disease investigation facilities.

The fishing access program would receive a small boost. Associated with habitat protection is a proposal to purchase the water rights for unallocated storage in Prineville Reservoir. This \$115,000 project would guarantee that an acceptable minimum pool would always remain in this popular central Oregon fishing reservoir. Cur-

OREGON WILDLIFE

rently there is no assurance the pool will not be drawn down so low that it would be destructive to the fine populations of trout and warmwater fish found there.

Fish and Wildlife law enforcement is carried out by the Game Division of the Oregon State Police. The number of hunters and anglers in Oregon has increased by two or three percent annually for the past 15 years or so. However, the number of positions in the Game Division of the Oregon State Police has increased by only nine since 1969. Obviously the enforcement effort is falling behind. Additionally, increased hunting and angling pressure has caused more complex regulations and has made the job of enforcement more difficult. If the license increase goes through, seven additional full time positions will be added to the Game Division and 19 seasonal cadet positions.

So this is the broad view of why the Department and Commission is asking the legislature to approve an increase in the license fees starting in 1982. The reasons for the request are the same ones that have caused requests for more salaries and larger budgets in all parts of the U.S. . . . in-

flation. Most of the western states are in the same condition and are going before their legislators with similar requests. Our increases would keep us about on par with the other states. One exception to the rule is California. They will not be going to the legislature because they have a law that allows automatic escalation of the fees to keep up with increased costs. This permits small increases each year instead of the larger jumps necessary when the process takes place several years apart. However, it is pointed out that this sort of an arrangement is inflationary itself and it not being recommended here.

Oregon sportsmen have indicated in the past that they want to retain and even improve the recreational opportunities the fish and wildlife resource provides. As the state's population continues to increase (500,000 in the last 10 years), the job becomes more difficult. Increased pressure on the habitat and on the resource directly coupled with the decreased buying power of the dollar have forced the reluctant decision by the Commission to request a license fee increase for 1982.□

HOW MUCH WOULD YOU PAY TO HUNT?

How much is hunting *really* worth to you?

If it cost you \$5 extra per day, would you still hunt? \$10 extra? \$30? When would you draw the line and say, "I can't see spending that much money just to go hunting."

Years ago, Oregon State University researchers quizzed hunters around the state and learned that most of them would dig deeper into their wallets before they'd give up hunting. The obvious question: how much deeper?

The study was done in 1968, when gasoline cost about one-third what it does now and researchers figured mule deer hunters were spending an average of \$55.46 per day. In 1980 dollars, that's roughly \$130. (Sounds high, but the OSU people also tried to include expenses for clothing and vehicles in addition to firearms, ammo, food and the typical trip expenses).

In 1980 dollars, hunters statewide agreed they'd pay an additional \$12.90 extra — for each day of the hunting season — if they had to.

That was the statewide average. Hunters from different parts of Oregon felt differently about how much extra they'd pay for the pleasure of hunting. Hunters in the southeast section generally said they'd stop hunting rather than pay \$12.90 in additional charges. They wouldn't tolerate even half that extra cost, according to the OSU researchers.

At the other end of the scale, hunters from northeastern Oregon were ready to go as high as \$21.60 in additional daily costs before they'd give up the sport. Central Oregon hunters surveyed by OSU said they'd fork over another \$13.60 in extra expenses, a number that's fairly close to the state's average.□

Reprinted Courtesy of
The Bend Bulletin

WHAT'S IT ALL WORTH?

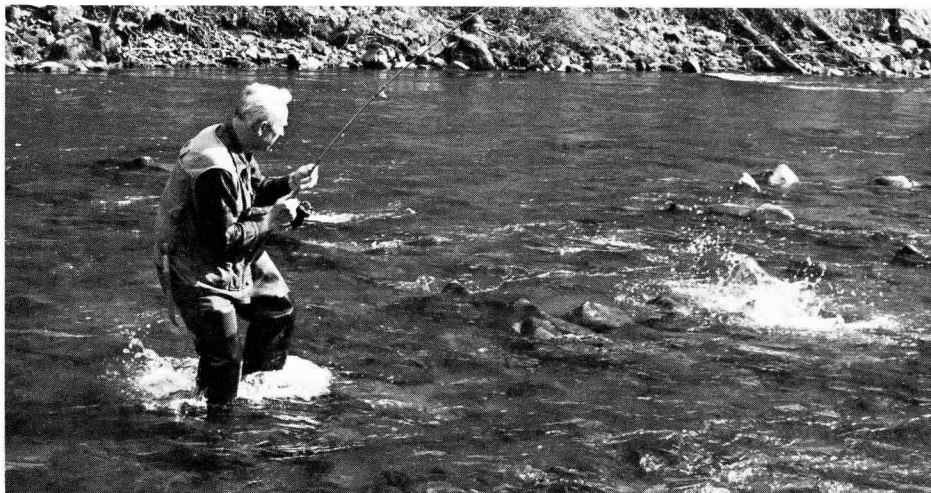
A CAPSULE SUMMARY OF ECONOMIC INFORMATION

As we said in an article a few months ago, it is difficult to put a dollar value on fish and wildlife. It is rather easy to tell how much the commercial fishermen receive for the fish they land. From there on, the waters get muddy. There are various multipliers that have been used to try to determine how much additional money the fish product produces as it goes through the various parts of Oregon's economy, but there is no agreement on what sort of multiplier should be used.

When one tries to tie a value to sport fishing and hunting, the chore becomes even more difficult. There is the actual meat value, but most everyone agrees that is a minor part of the value. Associated with taking the fish and game species is a tremendous expenditure for equipment, supplies, travel, etc. Another assessment of value has been used on occasions when people were asked how much they would pay to participate in certain activities. In other words, when would it get so expensive to go hunting or fishing that they would stop doing it?

As with the nonconsumptive uses of fish and wildlife, there is a tremendous aesthetic value that cannot be evaluated in dollars and cents. This value is there for the hunter and angler as well as the nonhunter and nonangler. Additionally, not a small amount of money is spent by the nonconsumptive users in the pursuit of their hobbies such as bird watching, photography and other related activities.

We asked Department economist Chris Carter to give us a list of values that could be assigned to the fish and wildlife resource of Oregon. Chris qualified his answer with many provisos, but did come up with the following information, based on the studies indicated. He stressed that any such information is open to criticism and contradiction, but the figures given are those derived by the studies that are listed. With these qualifications, we pass the information along. □



Some things can be measured in dollars and cents. But how do you place a value on this man's joy in hooking a steelhead?

OREGON

FISH AND WILDLIFE ECONOMIC INFORMATION

I. Commercial Fishing

1979

Value to fishermen	\$ 66.9 million
Estimated value added in processing and marketing	\$100.4 million
Total	\$167.3 million

II. Sport Fishing (Angling)

1977

Oregon angler expenditures (O.S.U. Study)	\$176.8 million
--	-----------------

1977 Expenditures on guides and charter boats for sport fishing	\$ 8.8 million
--	----------------

III. Hunting

1975 hunter expenditures (U.S.F. & W.S. Study)	\$103.0 million
---	-----------------

IV. Trapping

Fur Value for 1978-1979 season (Expenditures by trappers related to this activity and recreational benefits to trappers have not been adequately measured).	\$ 1.2 million
---	----------------

V. Nonconsumptive Activities

1975 Expenditures on wildlife observation (U.S.F. & W.S. Study)	\$ 12.1 million
--	-----------------

Note: The dollar figures from the different categories should not be compared with one another; nor should conclusions about the relative importance of one activity versus another to Oregon's economy be drawn from the information presented.

DEPARTMENT REVENUE SOURCES & EXPENDITURES

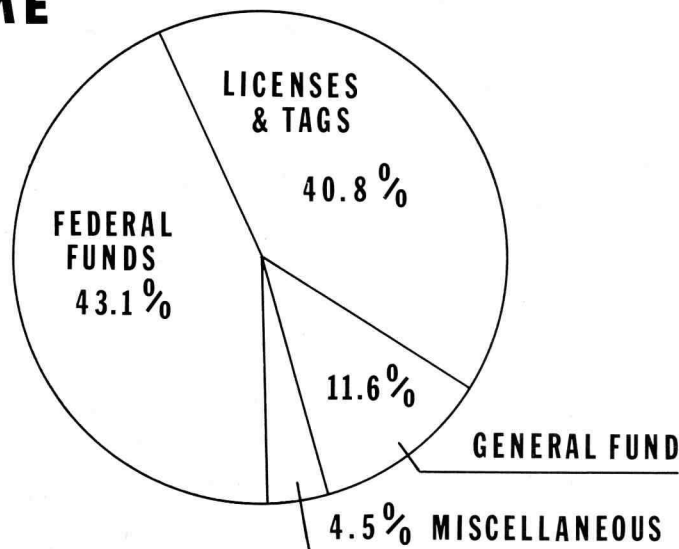
The pie charts indicate the percentages of the Department's budget received from various sources and how the money is spent. It should be noted that funds from commercial licenses and fees go into the state general fund. Money from the general fund is then allocated to the Department for use in management of the commercial fishery.

Monies from hunting and angling licenses and related tags go into the dedicated state wildlife fund and are spent on the sport fishing and wildlife resource.

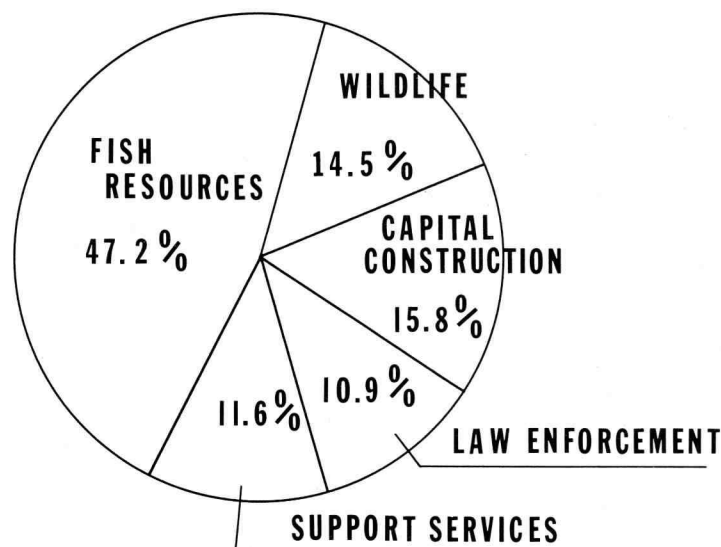
The breakdown shown here is for the current biennium, but does not vary greatly from year to year. The Governor's recommended budget for the Department from the 1981-83 budget period is \$84,399,501. Of this, over \$23 million is recommended for capital construction and capital improvement projects, a big portion of which would go for fish hatchery construction, expansion and renovation. Much of this is federal money. Federal funds include money from:

National Marine Fisheries Service:
 Columbia River Fisheries
 Development
 Anadromous Fish Act
 Research & Development Act
 U.S. Corps of Engineers
 U.S. Bureau of Reclamation
 U.S. Forest Service
 U.S. Department of Interior
 Pittman-Robertson Act (Excise
 tax on sporting arms and
 ammunition)
 Dingell-Johnson Act (Excise
 tax on sport fishing
 equipment)
 Land and Water Conservation
 Act (B.O.R.)
 Bonneville Power Administration
 Pacific Marine Fisheries
 Commission
 Pacific Northwest Regional
 Commission
 Comprehensive Employment
 Training Act
 Marine Mammal Act

INCOME



EXPENDITURES



Support services portion of the pie is further broken down into the following units:

Business & Personnel	— 40.3%	= 11.6 percent of total budget
Administration	— 32.9%	
Data Processing & Biometrics	— 12.0%	
Information & Education	— 9.3%	
Engineering & Lands	— 5.5%	



BIENNIAL HIGHLIGHTS

The Oregon Legislature meets every two years, and every two years state agencies present a documented summary of activities to the legislators when the session begins. This summary, called "The Biennial Report", outlines the activities, accomplishments, problems and vital statistics during a two year period ending July 1 of the year preceding the new legislative session.

For the Department of Fish and Wildlife, the Biennial Report covers everything from trapping and transplanting of big game to salmon production in Department hatcheries. Following are highlights of that report covering a period from July 1, 1978 through June 30, 1980.

Wildlife Division

The Wildlife Division reports hunting pressure up for most species, especially big game. Elk tag sales reached an all-time high in 1979 with 124,705 hunters buying tags.

Trapping and transplanting of big game for redistribution continued at a steady pace. During the reporting period 501 Roosevelt elk, 254 Rocky Mountain elk and 29 bighorn sheep were trapped in areas where herd density was high and moved to other suitable habitat that could support more animals.

The two year period also saw a major shift in the upland bird man-

agement program. Work started on the trapping of wild pheasant for use as game farm breeding stock.

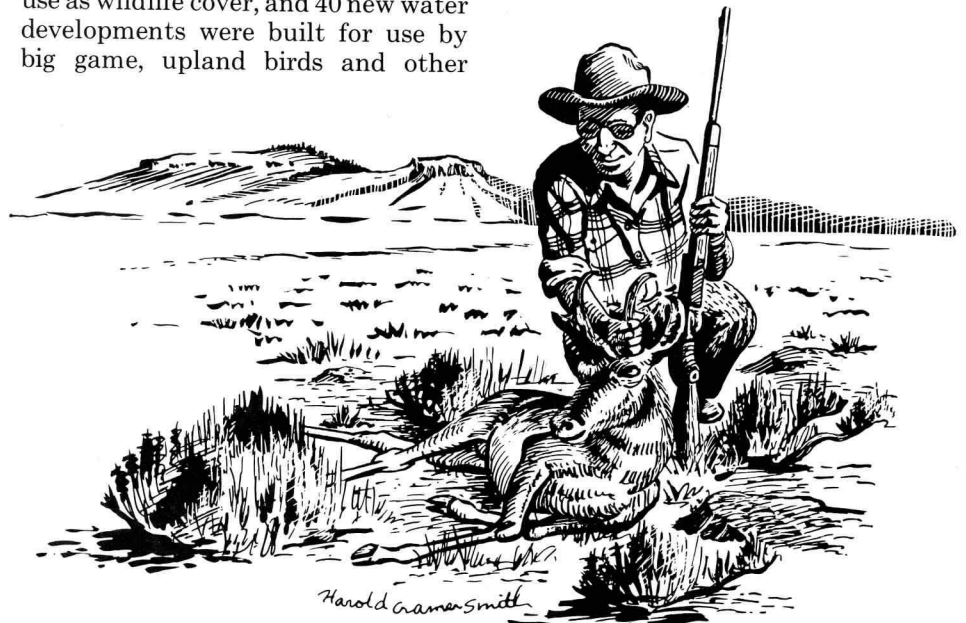
The aim of the program is to restore wild characteristics to game farm birds in hopes of increasing adaptability and survival in the wild.

Wildlife habitat improvement work continued with the seeding and fertilizing of more than 10,000 acres of big game range and almost 5,000 acres of seeding for upland bird, waterfowl and nongame bird food crops.

Over 70,000 shrubs were planted for use as wildlife cover, and 40 new water developments were built for use by big game, upland birds and other

nongame wildlife. Artificial improvements included construction of 837 nesting facilities such as wood duck nest boxes, goose nesting platforms and nesting islands. Over 4,000 nongame bird nest boxes were also built and placed during the period.

Two major wildlife research projects were completed during the biennium. The Steens Mountain Study sought to find reasons for the high fawn death rate in that area.



Harold G. Smith

A second project called the Rocky Mountain Elk Cover Study sought to determine the types of habitat needed and used by elk in some areas of northeastern Oregon. The conclusions sifted from years of data will assist timber managers in the planning of timber sales so as to have minimal impact on elk herds.

The 1979 tax year was also the first in which Oregon taxpayers had the opportunity to check off a portion of their tax refund for the nongame wildlife fund. In all, taxpayers donated more than \$337,000 to the fund which will allow a much expanded program of nongame management in the state.

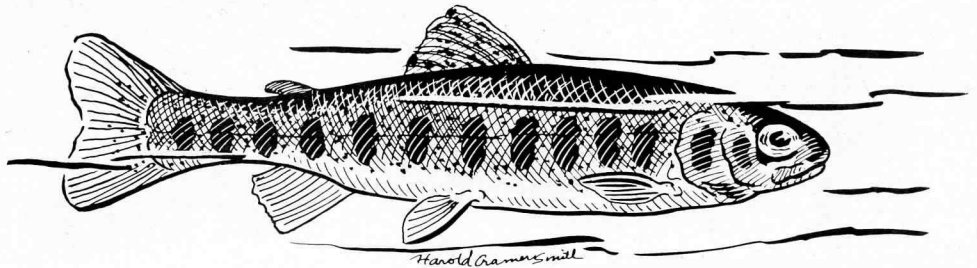
Fisheries Division

The Department fish culture section showed a continued rise in hatchery fish production. Hatcheries took almost 145 million eggs from salmon, steelhead and trout in 1978, and nearly 156 million eggs in 1979.

Hatcheries released around 111 million salmon, 11.3 million steelhead and 22.2 million trout during the two-year span. Production was also started at the new hatchery on the Clackamas River where one million spring chinook will be released annually.

The Department fisheries management section oversees management and harvest of marine, freshwater and migratory fish as well as shellfish including clams, crabs and shrimp.

While salmon get the most attention from fishery managers, the



report notes that over 50 percent of the recreational angling effort in Oregon is aimed at trout. Interest is also growing in angling for warmwater game fish such as bluegill, catfish and bass.

The management and harvest regulation of anadromous fish, which include salmon and steelhead, was a major sore spot during the reporting period. Many Columbia River runs were still declining as they have for years, but in 1977, returns of coho salmon to coastal streams also began to drop after years of high production. This trend continued through 1979.

The court mandated-division of the Columbia River salmon harvest between Indian and non-Indian fishermen continued to generate controversy and create difficulties during the period.

The Department's fisheries research section was conducting no less than 30 different studies during the biennium. Many of the projects concentrated on the varied conflicts that arise between migrating fish and dams. These included research on streamflows, water temperatures, and up and downstream passage. Other research centered on salmon distribution, movement and habitat.

In marine fisheries activities, biologists reported an expansion of both recreational and commercial fishing for rock and groundfish such as lingcod and sole. This increasing pressure

has generated new studies of these fish and catch restrictions to prevent overharvest.

Record landings of shrimp were noted for the 1979 commercial season. The number of boats fishing for shrimp increased dramatically over the two-year period.

Support Services

Several field support sections operate from Department headquarters in Portland. Among them are the lands, engineering, environmental management, data and biometrics sections.

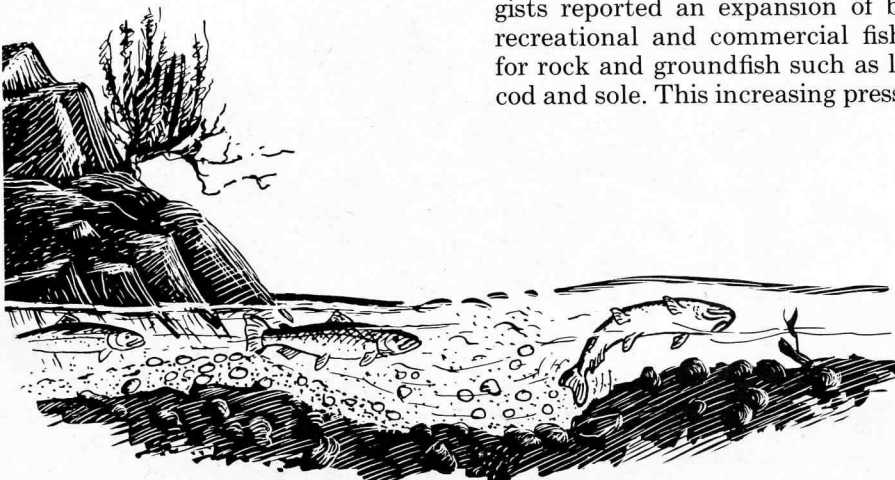
The lands section reported acquisition of 37 new river access locations for anglers. These additions bring the total number of Department administered boat and bank access sites to 300 throughout the state.

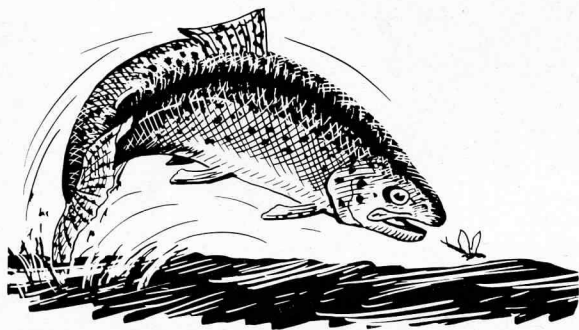
The engineering section reported completion of the Clackamas Hatchery. Reconstruction and expansion of Rock Creek Hatchery in southern Oregon was also completed.

In addition to its regular workload, the environmental management section reported an increase in staff time spent investigating a flurry of proposals for small hydroelectric dam projects called low-head dams.

The data and biometrics sections reported increased sophistication and depth in the computer storage and retrieval of statistics for such programs as commercial catch reporting and controlled hunt application handling. □

Jim Gladson





EXCERPTS FROM THE GOVERNOR RECOMMENDED DEPARTMENT BUDGET

In early December, the Governor released his suggested budget. The portion that discusses the Fish and Wildlife Department operations is too long for including entirely here, but some of the highlights may be of interest.

Under the section entitled **RECOMMENDED PROGRAM LEVEL**, the following comments are made, "The recommended budget includes enhancements in wildlife programs — increased bird release and survival rates, new habitat improvement projects, development of timber management plans, and increased attention to nongame species. Fisheries programs are enhanced on the upper Columbia River and lower Snake River systems as a result of federal mitigation programs. Fish production is maintained at approximately the current level. All existing hatcheries and rearing ponds are continued, and a new steelhead hatchery will be constructed (with federal funds) in addition to other renovations and improvements to fish rearing facilities. New coastal fisheries enhancements are also proposed, including the Salmon and Trout Enhancement Program (STEP).

In more detail, the planned operations of the two divisions of the Department are listed.

Wildlife Resources

Wildlife resources programs are directed toward providing optimum recreational benefits from Oregon's wildlife resources and habitat. It is estimated that during 1981-83 this program will maintain or enhance populations of game animals, furbearing mammals, and game birds to furnish 10.1 million recreational days of hunting. Additional opportunities will be provided for the public to view and photograph wildlife, including nongame species.

Fish Resources

Fish resources programs are aimed at achieving the optimum economic, recreational, and aesthetic benefits from Oregon's fish resources and habitat. This program will result in the harvest of 37 million pounds of fish and shellfish by the sports fishery and 244 million pounds by the commercial fishery. □



THIS AND THAT

Compiled by Ken Durbin

Lead Vs Steel Review

The National Wildlife Federation has prepared a 31-page review of the literature published since 1976 concerning the controversy over lead versus steel shot for use in hunting waterfowl. The review summarizes 57 studies done on the crippling rates of steel and lead shot, availability and ingestion of lead and steel shot, lead poisoning, and ballistics.

Free copies of the NWF review can be obtained by writing Dr. Michael Berger, National Wildlife Federation, 1412 16th Street, N.W., Washington, D.C. 20036.

*

Collision Course

The inhabitants of a remote South Seas tropical paradise face an imminent collision with modern high technology. Their islands, now under American protection, are the target for Japanese plans to build a billion dollar superport providing oil transfer and storage facilities. A recent scientific expedition identified 13 new species of fish there. Throughout the world you might expect to find less than 100 in a year. To build a superport would devastate all this — one accident could destroy the fragile ecosystem.

African Wildlife

*

Oldest Fossils Found

While the desert of northwestern Australia may bear little resemblance to the Garden of Eden, it has produced fossil evidence of what scientists believe to be the oldest known life-forms on earth. Cabbage-shaped "bumps" in the Precambrian rock, called "stromatolites", were long thought to have been built by primitive algae or bacteria-like organisms. Scientists have now determined that the layered structures are actually the fossilized cells of the organisms themselves. Their age has been estimated at 3.5 billion years.

New Scientist

OREGON WILDLIFE

A Ruddy Duck Stamp

South Dakota artist John S. Wilson's tempera painting of a male and female ruddy duck sitting on the water won the 1981-82 federal "duck stamp" competition. Wilson's entry was one of a record 1,507 paintings entered in the contest.

The design will be reproduced on next year's Migratory Bird Hunting and Conservation Stamp which must be purchased by waterfowl hunters 16 years of age or older. Many additional stamps are purchased by other conservationists interested in habitat preservation or by stamp collectors. Revenue from stamp sales are used to buy additional wetlands and waterfowl habitat under a program of the U.S. Fish and Wildlife Service.

*

A Tip For Tenderness

Here's a gimmick we noticed too late for pheasant season. But if you still have a tough old rooster tucked in the freezer this idea published in *Nebraska Afield & Afloat* is one you may want to try.

"For pheasant hunters and their families who find it difficult to eat around those numerous tendons which are present in ringneck (and turkey) legs, here is a nearly perfect solution.

"Crush the leg bone below the knee joint of the bird with a pair of pliers, by both squeezing and tapping. When the bone is well crushed, bend that area over a small diameter pipe or rounded iron bar. This will start the separation, then continue pulling and all but two of those tendons will slip right out of the leg. This makes a vast improvement in the quality of the meat, and will have folks reaching for another. Some practice will make this procedure much easier, but it is well worth the trouble."

*

Small Risk

About 6,700 cases of poisonous snake bites are treated annually by physicians in the United States. Of these, fewer than twenty are fatal. Rattlesnakes are responsible for most of the bites and for nearly 90 percent of the fatalities.

Oregon Outdoors

Animal Saviours

Don't go killing off your options — or, in milder terminology, try and maintain a diversity of species was one of the messages which came out of the World Conservation Strategy published earlier this year. Why? Because animals and plants can have unexpected uses. Armadillos, for instance, are the only animals other than humans known to contract leprosy; they are now proving to be invaluable aids to the search for a cure for the disease.

African Wildlife

*

Big Game Book Reprinted

The Wildlife Management Institute has announced the availability of a new printing of its award-winning book, **BIG GAME OF NORTH AMERICA: ECOLOGY AND MANAGEMENT**, compiled and edited by John L. Schmidt and Douglas L. Gilbert.

First published in 1978, the big game book has become a valuable and popular reference for wildlife biologists, administrators, researchers, educators and students. It also has achieved considerable recognition from sportsmen and others interested in big game and big game management. The book is attractively illustrated by artist Charles W. Schwartz.

*

Nongame Proceedings Available

"Management of Western Forests and Grasslands for Nongame Birds" has been published by the U.S. Forest Service. It is the proceedings of a workshop held earlier this year. To get a copy, contact the Forest Service, Department of Agriculture, Ogden, Utah 84401.

*

By Any Other Name . . .

For generations, British fish-and-chip lovers have dined uncomplainingly on the lesser spotted dogfish — perhaps because, in the trade, it was referred to as "Rock Salmon". Now the Consumer Council of England has mounted a campaign against the popular name, on the ground that it's misleading.

Wildlife Review

HUNTING DATES POLICY, CONTROLLED HUNT CHANGES TO BE CONSIDERED

Recent years have seen a growth in what might be called special interest groups in the hunting and fishing fraternity, and a trend towards providing special seasons that extend through a larger and larger proportion of the year. Last year, for example, some type of hunting or pursuit season took place during 301 of the 365 days.

A year ago both the Fish and Wildlife Commission and biologists with the Fish and Wildlife Department began to be concerned about the trend. There have been increasing problems with landowner tolerance, difficulties providing adequate law enforcement coverage, and even conflicts in scheduling various seasons so that one would not conflict with another. There has also been unhappiness among hunters as one group gained longer or larger seasons while others found their opportunities restricted or reduced.

Another concern involves a growing potential for excessive harassment of wildlife. This can especially be a problem in the winter when animals are weakened, and in the spring and early summer when wildlife young are vulnerable.

Recognizing a year ago that it could not be possible to provide more and more seasons for more and more separate groups of sportsmen, the Commission asked Department staff to develop a framework within which seasons would take place. One, in effect, that would say how much of the hunting pie each group could expect to be given.

In January the Commission will consider adopting such a policy. The policy has already been presented to the Commission at its last meeting as general information. It establishes a big game season framework, but in addition, it sets specific dates on which major seasons would open each year.

In the past the Commission has set opening dates for the major seasons in January to aid hunters whose employers require them to set vacation dates far in advance. But even January is not soon enough for some

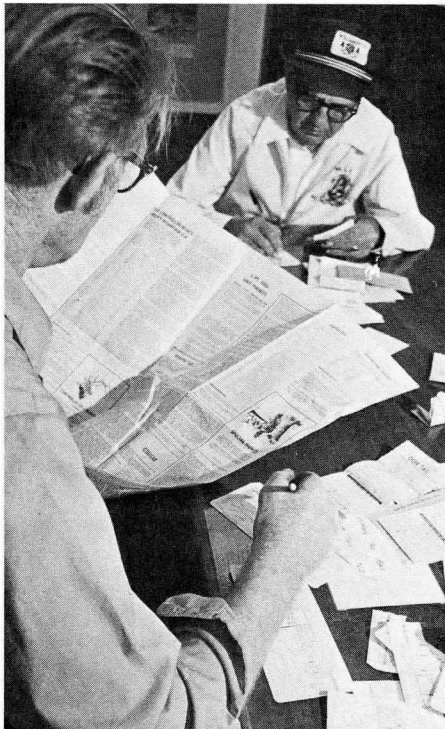
hunters. A number of the other western states have simply established standard opening dates which remain the same from year to year in order to get around this problem. In Oregon this has also been generally done in practice, but never set out as a hard and fast policy.

The general big game hunting season framework that has been proposed by Fish and Wildlife Department staff is as follows. If it is adopted by the Commission in January it will become the policy for future years.

*No general big game hunting season (one in which hunter numbers are not limited) would begin prior to August 1 or after December 15.

*Bear pursuit (no-kill) season would begin August 1 and end three days prior to the beginning of bear hunting season. The bear hunting season would begin on the Saturday nearest September 1 and end November 30.

*Buck antelope controlled season would begin the third Saturday in August.



A computer drawing for all controlled hunts? That's one option the Commission will consider this month.

*General early bowhunting season would begin the Saturday nearest September 1 and end September 25. The policy would provide for late bowhunting seasons for deer and elk to be set each year in selected areas where late hunting would not adversely impact management objectives.

*Statewide general buck deer season would begin the Saturday nearest October 1.

*Rocky Mountain bull elk season would begin the Saturday nearest November 1 (under the policy there could be one or more separate hunts).

*Roosevelt bull elk season would begin the second Saturday in November (again there could be one or more separate hunts).

*Antlerless deer and elk seasons would be scheduled as needed to control populations or ease damage problems.

*No muzzleloader deer seasons would be set prior to general buck deer season and no muzzleloader seasons would be permitted on elk.

*Handguns would be permitted only during general bear and deer seasons, during the controlled cougar season.

The Commission will also be considering changes in controlled hunt procedures proposed by the Department's staff.

The first would eliminate the \$1 application fee. A high rate of invalid applications because of failure to enclose the fee, poor acceptance of the fee requirement by many hunters, problems of sending cash through the mail, and delays in processing applications because of accounting and verification procedures are given as reasons.

A second change would involve elimination of the first-come, first-served procedure and adoption of a drawing for filling all controlled hunts. Unpredictable mail service has been one of the biggest problems, with applications taking anywhere from one to seven or more days to reach the Department's office. In some instances more than enough mail (re-

JANUARY 1981

ceived by the Department in large mail bags) has been received on the first day of application acceptance to fill a hunt and the "first-come" was determined by which mail bag was opened first and the order in which they were pulled from the bag. Bundling of envelopes by the mail service sometimes resulted in regional bias in filling hunt quotas.

The process has also required two application-handling systems causing huge handling problems within the Department and a large potential for inequity in filling hunt quotas. In conjunction with elimination of the "first-come" system, the program would be changed so 4-party applications could be accepted. Currently in the drawing process, no more than two hunters can apply as a party on one application.

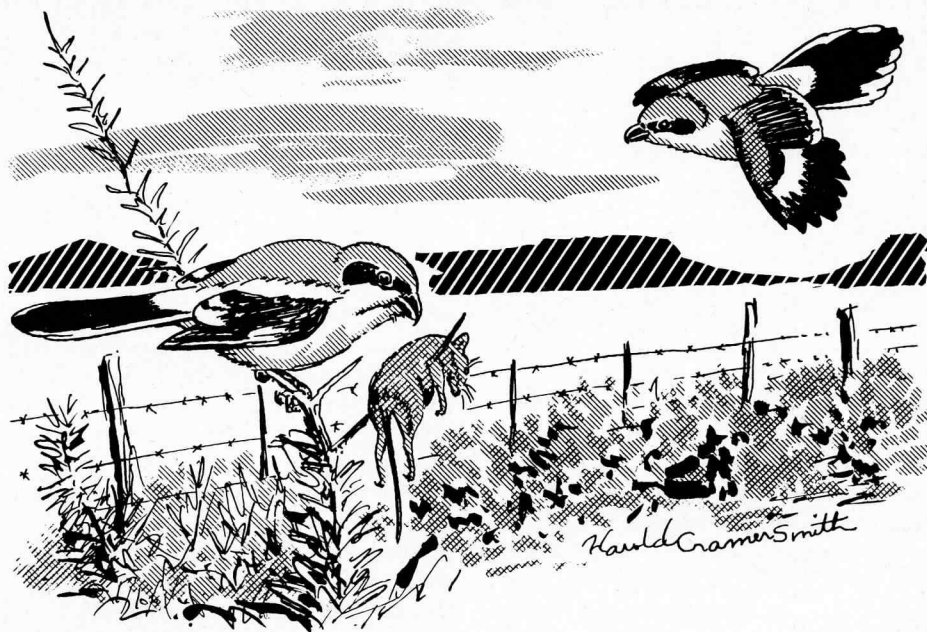
A third change in procedure would see nearly all controlled hunt tags issued by license agents rather than by the Fish and Wildlife Department. A process has been designed that would eliminate sending money and tags through the mail. Successful applicants for controlled or limited entry hunts would receive a permit which would entitle them to purchase the necessary tag from a license agent in their community.

Another problem involving tag sale cutoff dates was reviewed with the Commission. The cutoff is deemed unnecessarily restrictive, some hunters have been unable to purchase tags prior to the cutoff (perhaps because of hospitalization, out of state travel or work requirements, etc.) There have also been instances where community license agents have run out of tags on the day prior to cutoff resulting in some hunters being unable to purchase a tag before the deadline.

The regulation was originally put into effect to stop the practice of killing an animal first and buying a tag afterward. But other rule changes since then have already eliminated most of that problem.

The policy and controlled hunt procedural changes will be considered by the Commission following a public hearing on Friday, January 16. The meeting will be held at the Fish and Wildlife Department's Portland headquarters, 506 S.W. Mill Street.□

Ken Durbin



SHRIKE

It looks like any other small songbird as it sits calmly on a phone line or branch tip. It even has a song of sorts that admits it to the world of bluebirds and robins. But a shrike among its chirping relatives is comparable to a piranha swimming among bluegill in a farm pond.

A closer look at the shrike reveals a heavy, hooked beak designed not for cracking seeds or probing for insects, but for tearing flesh. The shrike does feed on larger insects like the grasshopper, but its diet also includes reptiles, rodents and other birds. Its habits, like its diet are more like a hawk than a sparrow.

One habit in particular has earned the shrike a common name of "butcher bird". Once a shrike has seized its prey it often impales the body on a thorn, a sharp twig or even a strand of barbed wire. Then the bird proceeds to rip out a meal with its tearing beak.

Ornithologists theorize this hanging of the prey on any available skewer is necessary because the shrike's feet are too weak to hold down the victim while eating like a hawk would do.

Two species of shrike visit Oregon. The loggerhead shrike is common throughout the sage and juniper country of eastern Oregon during the spring and summer. It leaves Oregon in the fall to winter in Mexico. The northern shrike does the opposite; breeding in Canada and Alaska and wintering in Oregon from October to March.

The two birds are very similar in appearance. Both have a grey back and head, black primary wing feathers and a black mask running back from the bridge of the beak through the eyes. Both birds have light colored breasts, but only the northern has horizontal grey bars visible on the chest.

The northern shrike is about robin-size. The loggerhead is slightly smaller. While the northern shrike may be seen in most nonmountainous areas of the state, the loggerhead is most common in sage and juniper habitats.

Shrikes build cup-like nests lined with feathers and fur and have four to seven eggs per brood. A favorite nest site is a thorny tree or bush. This spot is often decorated with the pierced bodies of prey hung there for future use as meals for adults and young.

The shrike is an aggressive defender of breeding territory and also a fearless defender of its nest. Those people who would investigate a shrike nest with young in it are advised to do so with heavy gloves and helmet.□

Jim Gladson

Page 13

TOWN HALL MEETINGS TO REVIEW PROPOSED DEER AND ELK MANAGEMENT GOALS

by Dan Eastman
Planning Coordinator

Department of Fish and Wildlife biologists have developed recommendations for management objectives on Rocky Mountain elk and mule deer. These objectives are designed to assist land-use planners and others, and will also serve to inform the public of surplus elk and deer that are available during the hunting seasons.

Development of the objectives required an intensive review of the history of each elk and deer population from data collected during the past decade. The next step was to determine the number of animals that each big game range could support without harming the habitat or without causing excessive damage to private lands. In each wildlife management unit a bull and/or buck ratio is proposed. In determining these ratios, two factors have been taken into consideration: (1) the level of bulls or bucks needed for reproduction; and (2) the number of male animals required for satisfactory hunter success.

Developing management objectives using total numbers of elk and deer is a pioneering effort. There are no precise formulas to determine the proper herd size in relation to other land uses in every chunk of eastern Oregon. Biologists have relied on their experience with animal survival through the winter, reproduction, observations on range conditions, and impacts on private lands to propose a 'balanced' herd level. Total population numbers have been estimated through close examination of the annual harvest, estimates of other mortality and some other assumed limitations on animal densities.

In conjunction with the development of herd size and bull and buck objectives, a hunter number has also been assigned to each unit. This number is designed to limit crowding and to maintain a certain level of 'quality' experience in the hunt. If the proposed objectives are adopted, the hunter limit in relation to the supply of adult male animals available during hunting season will provide a level

of success that has been traditional during the past decade.

Elk and deer management objectives have been reviewed with personnel of the U.S. Forest Service and Bureau of Land Management for their consideration in federal land-use planning. Several resource committees and some industry interests have requested information on departmental proposals.

A series of town hall meetings, beginning January 12, are scheduled in various cities around the state to give the general public an opportunity to review the proposed management objectives. At each meeting the proposed objectives, the methods

used in developing them, and an explanation of how they would be used will be given.

There *will not* be time at the meetings to accept public reaction to the proposals. Instead, the public is encouraged to study the proposals and then submit comments, preferably in writing, to the Department before the end of June. The Fish and Wildlife Commission will act on the proposals in July and a public hearing will be held at that time.

Cities scheduled for town hall meetings are listed below. The time and location of each meeting will be announced in the near future. □

TOWN HALL MEETING SCHEDULE

JANUARY	12	LaGande	21	Medford
	13	Enterprise	22	Roseburg
	14	Pendleton		
	15	The Dalles	27	Eugene
FEBRUARY	10	Gold Beach	23	Florence
	11	Coos Bay	24	Newport
	12	Salem	25	Tillamook
			26	Astoria
MARCH	9	John Day	19	Portland
	10	Baker		
	11	Ontario	23	Lakeview
	12	Burns	24	Klamath Falls
			25	Bend





Oregon's

WILDLIFE WINDOW

In the dead of winter, few subjects are more important to humans and animals alike than that of insulation. Shelter is a basic need of all animal life and in the winter insulation must be a primary feature of any shelter. Putting a vacuum between the body and the cold source is the best form of insulation. A layer of trapped, unmoving air is next best.

Deer and other large animals grow a thick winter coat that has long hollow hairs. Air trapped in the core of these hairs helps keep the cold out and retain body heat. Water animals like beaver, otter and muskrats have a dense underfur that traps air and keeps the cold water away from their skin. By fluffing up their feathers birds increase the thickness of the insulating air layer and preserve warmth while sitting. These techniques are duplicated in many of the winter clothing items humans construct too. What examples can you think of?

Insulation of the animal's body is only part of the solution of maintaining heat. Insulation value of the chosen shelter is also vital to the winter survival of many. Various materials provide a different level of protection. In building human dwellings the "R" value or resistance to heat loss is considered in the materials chosen. One foot of wood provides as much insulation as about 15 feet of stone. Three or four inches of fiberglass insulation accomplishes the same as the foot of wood. Hardwoods like maple and oak have less insulation value than the soft woods of pine and fir because

they are more dense. A bed of dry leaves, grass or wood shavings may have an "R" value approaching that of the man-made insulation.

Many utility companies and building supply houses have information on the comparative insulation values of common substances like brick and soil. A number of interesting wildlife questions can be answered with the aid of such data. For example, is a woodpecker living in a six inch diameter cavity in the heart of a 12 inch tree better protected than a bear that

has chosen a den with walls of three foot thick rock? Since insulation may also hold heat out, how deep would a rodent's den need to be to reduce a 100° summer surface temperature to 80°?

Insulation is only one of the methods nature uses to provide cold or heat-proofing for wildlife. At another time the Wildlife Window will examine others such as reducing blood supply, hibernation, smaller appendages, and special fat. □

THIS MONTH'S WINDOW

Hot or Cold?

Design an experiment to determine the insulation value of wood, grass, feathers and hair. Wet each item and test again. What happens? Why?

Obtain some animal pelts or fur pieces. Design an experiment to discover the relative insulation value of each. What kinds of animals placed the highest? Why?

Use samples of hair and feathers from various wildlife. With a microscope or good hand lens examine each item. Cut strips to look at the cross-section view. Can you see places where air could be held in pockets or cores? How does the volume of these spaces compare with your findings of relative insulation value?

ELK POACHER

An elk poacher in Tillamook County should think several times before again considering taking elk out of season. Recently he pleaded guilty to feloniously taking an elk during closed season.

He received the following sentence:

- Five years probation
- \$1,000 fine
- \$550 restitution to be paid to the Department of Fish and Wildlife for loss of the elk.
- 30 days in the Tillamook County Jail
- Four years revocation of his hunting and angling privileges.

In addition, for a period of five years, his personal vehicle and home are open to search by enforcement officers without a search warrant for the purpose of searching for game meat.

Sportsmen of the state owe a tip of the hat to Circuit Court Judge Delbert Mayer of Tillamook for his sentencing and indication of the seriousness of the offense.□

EARLY BIRDS ASKED TO "DO SOMETHING WILD" AGAIN

Although most of us will procrastinate until the last minute, there are a number of efficient taxpayers who will collect their W-2 slip, fill out the short or long tax form and file a return well before the end of January.

We'd like to take this opportunity to remind all taxpayers that the option to check off a contribution for nongame wildlife will again appear on the state income tax form, and we fervently hope those who were so generous last year will "do something wild" again on this year's form.

Those who contributed last year may well wonder what's become of that more than \$337,000. If you've been expecting great accomplishments on behalf of the nongame creatures of the state, be patient just a little longer. Under the laws and system within which we operate, the monies contributed last year (as well as a guestimated amount from this year's filings) have to be incorporated into the Department's budget and that budget approved by the State Legislature before any money can be spent.

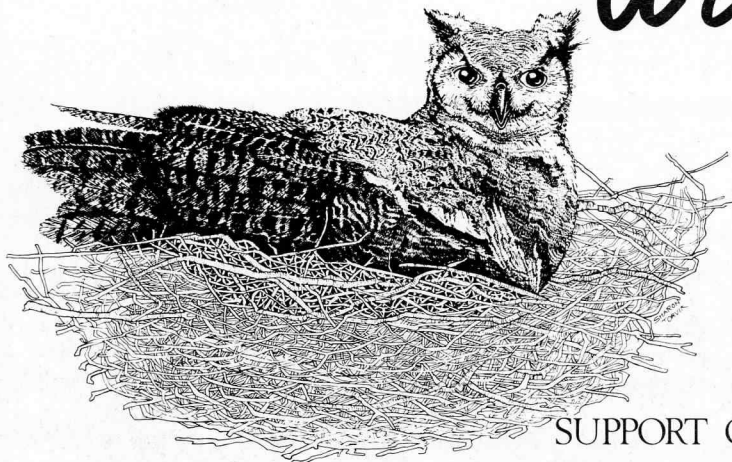
A year ago, Department biologist Frank Newton was appointed to head

a more vigorous program for assisting the unhunted wildlife of the state and one of his first jobs was to begin budgeting for the biennial period which will begin July 1 this year. His budget will include funds from the nongame tax checkoff, contributions through the "Watchable Wildlife" program, and an allocation from state wildlife funds similar to what was apportioned prior to creation of either of these first mentioned two programs.

A citizen's nongame advisory committee was named by Department Director Jack Donaldson, with members representing a wide range of expertise and interest in wildlife matters. That group has met several times with Newton and a much expanded nongame program will get underway beginning with the new budget period.

A feature article later this year will describe in more detail the Department's plans for managing nongame wildlife during the next two years. In the meantime, a healthy program depends on a steady source of funding and we hope our state's taxpayers will again choose to "Do Something Wild".□

DO SOMETHING *Wild*



This year you will have a chance to donate part of your Oregon Income Tax Refund to the Nongame Wildlife Fund. The Fund is used for the study and protection of nongame wildlife and their habitats.

Watch for the check-off box on your Oregon Income Tax Form.

Make your mark for Oregon's wildlife future.



SUPPORT OREGON'S NONGAME WILDLIFE



506 S.W. MILL STREET
P.O. BOX 3503
PORTLAND, OREGON 97208