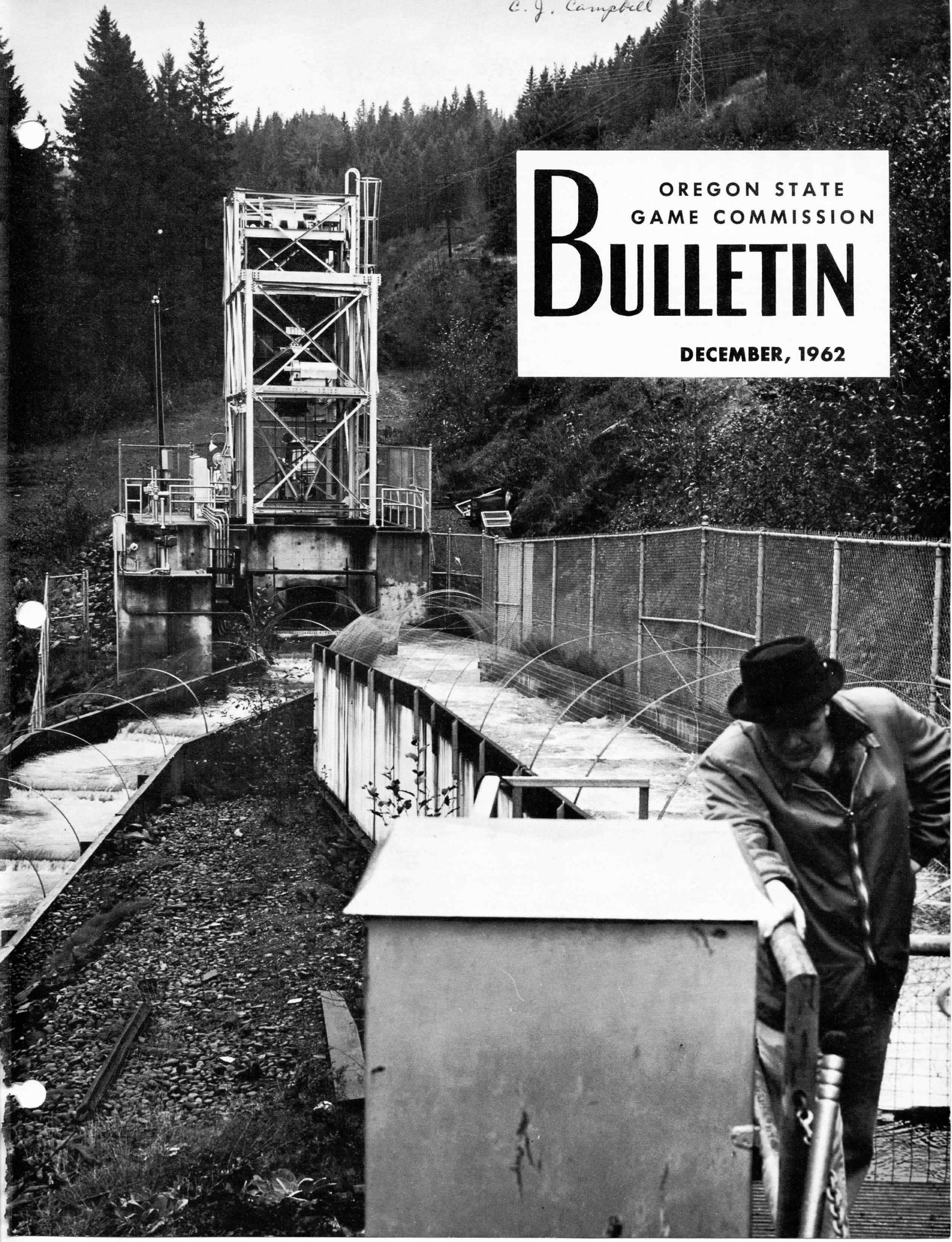


C. J. Campbell

OREGON STATE
GAME COMMISSION

BULLETIN

DECEMBER, 1962



BULLETIN

OREGON STATE
GAME COMMISSION

DECEMBER, 1962

Number 12, Volume 17

Published Monthly by the
OREGON STATE GAME COMMISSION
1634 S. W. Alder Street — P. O. Box 4186
Portland 8, Oregon
MIRIAM KAUTTU SUHL, Editor
H. C. SMITH, Staff Artist

MEMBERS OF COMMISSION

Joseph W. Smith, Chairman.....Klamath Falls
Rollin E. Bowles.....Portland
John P. Amacher.....Winchester
Tallant Greenough.....Coquille
Wayne E. Phillips.....Baker

ADMINISTRATIVE STAFF

P. W. Schneider.....Director
C. B. Walsh.....Assistant Director
John McKean.....Chief of Oper., Game Division
C. J. Campbell.....Chief of Oper., Fishery Division
R. C. Holloway.....Chief, Inf. and Educ.
H. J. Rayner.....Chief, Research Division
W. D. DeCew.....Controller
John B. Dimick.....Chief, Supply and Property
William E. Pitney.....Chief, Basin Investigations
A. V. Meyers.....Chief, Lands Section
George Kernan.....Engineer
H. R. Newcomb.....Personnel Officer
Roy C. Atchison.....Attorney

REGIONAL SUPERVISORS

Leslie Zumwalt, Region I.....Route 1, Box 825, Corvallis
J. W. Vaughn, Region II.....Box 577, Roseburg
L. M. Mathisen, Region III.....Parrell Road, Bend
W. H. Brown, Region IV.....Box 742, La Grande
W. V. Masson, Region V.....Box 8, Hines

Second-class postage paid at Portland, Oregon.

Please report promptly any change of address.
Send in address label from a recent issue with
notice of change.

At the present time the Bulletin is circulated free
of charge to anyone forwarding a written request.

the cover

Bill Pitney, Chief of Basin Investigations for
the Game Commission, inspects fish passage
facilities at Portland General Electric Com-
pany's North Fork Coos Dam on the Clackamas
River. (Photo by RON SHAY)

BULLETIN HUNTER SAFETY TRAINING PROGRAM

Instructors Approved

Month of October 23
Total to Date 3,373

Students Trained

Month of October 1,947
Total to Date 51,547

Firearms Accidents Reported 1962

Fatal 5
Nonfatal 29

SEPTEMBER AND NOVEMBER MEETINGS OF GAME COMMISSION

The Oregon State Game Commission
at its meeting on September 24 in Port-
land took the following actions:

Chemical Treatment. Approved treat-
ment of Unity Reservoir; also study of a
few high mountain lakes with view of
possible treatment and stocking with
golden trout.

Access. Accepted from Depoe Bay
Chamber of Commerce gift of land adja-
cent to present boat ramp for expansion
of parking area. Authorized \$5,000 toward
boat access project at Harrisburg in co-
operation with city and Linn County.

Libby Pond. Through memorandum of
understanding with Salmon Unlimited,
agreed to take over operation and man-
agement of Libby Pond for rearing of
salmon on an experimental basis.

Capital Outlay. Approved: Construc-
tion of new fish liberation unit, a water
control at Ladd Marsh, a safety fence
at Cedar Creek Hatchery; and purchase
of a fence weaving machine, material for
pheasant holding pens and miscellaneous
equipment for management areas.

On November 16 the Commission act-
ed upon the following matters:

Siuslaw River Access. Authorized funds
for development of parking area and
ramp at Farnham Hole access site. Also
accepted easement to use one-half acre
tract on Lake Creek and authorized \$700
toward development of this access site.

Pondosa Pond. Contingent upon ob-
taining satisfactory water rights, author-

ized purchase of easement of former log
pond near Pondosa with view of develop-
ing a fishery.

Deschutes Access. Authorized pur-
chase of additional right-of-way across a
small tract of private land.

Bids. Accepted low bid of \$18,791 by
Westbrook Construction Company for a
new residence at the Alsea Hatchery.
Authorized call for bids for following
projects: ramp and parking area, Stan-
buck access site on North Fork Coos Riv-
er; development of Gates access site on
Umpqua River; and boat ramp at Wocus
Bay, Klamath County.

High Mountain Sheep Order. Ap-
proved submitting jointly with Fish Com-
mission exception to order of Federal
Power Commission regarding High Moun-
tain Sheep Project requesting inclusion
of more comprehensive provisions for
protection of the fish and wildlife re-
sources.

Buzzard's Roost Project. Reviewed
Petition to Intervene with the Federal
Power Commission in regard to Coos-
Curry Electrical Cooperative's application
for a preliminary permit to study the
Buzzard's Roost Project on the lower Illi-
nois River. The petition was jointly filed
by Governor's office, State Water Re-
sources Board, Fish Commission, and
Game Commission.

E. E. Wilson Area. Authorized \$3,384
for construction of water supply for new
bird holding pens.

Hearing on Angling Rules Scheduled

Friday, January 11, is the date for the
Game Commission's hearing on angling
regulations for the 1963 season. It will
convene at 10 a. m. at the Portland office
of the Commission. Consideration will be
given to seasons, bag limits, and methods
of angling all species of game fish.

The first hearing will be adjourned for
two weeks, during which time publicity
will be given to tentative regulations pro-
posed by the Commission. The hearing
will be reconvened at 10 a. m. Friday, Jan-
uary 25, when final action will be taken.

Game Commission personnel have been
active in stream clearance work this fall
on the upper Siuslaw River. Shore line
debris was stacked and burned at Carter
Lake in a cooperative project with U. S.
Forest Service. More water was made
available for trolling.

Annual Fish & Game Enforcement Report

The State Police annual report for
1961-62 shows a total of 5,231 arrests
and 2,445 warnings issued for game law
violations. Fines assessed totalled \$174,-
022.13.

Highest number of arrests was made
for angling or hunting in prohibited
areas, during closed hours, or with illegal
methods, with a total of 1,016 anglers and
686 hunters apprehended.

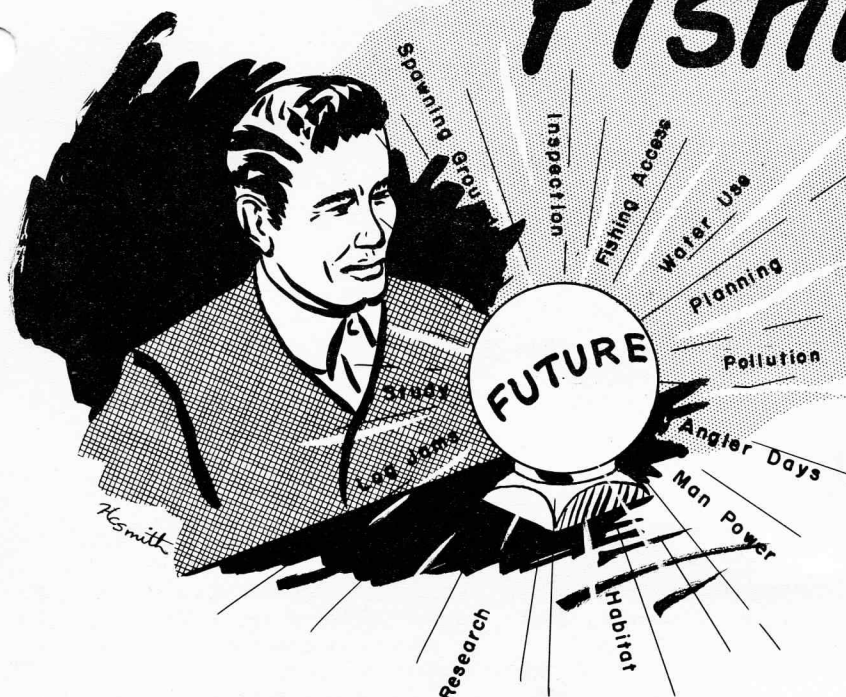
Failure to tag game properly resulted
in 981 arrests and 599 warnings.

There were 561 people arrested and
556 warned for angling without a license.

The State Police checked 172,893 resi-
dent angling and hunting licensees, 50
guides, 414 non-residents, and 225 trap-
pers. They also took 9,040 creel census
reports, and made 36,148 searches.

John Day area rotary screen bypass
traps salvaged 34,000 steelhead and 426
chinook migrants during October.

Fishing in the Future



By C. J. Campbell, Chief of Operations, Fishery Division

HOW clear is your crystal ball?

A fortune-telling sphere that could show us precisely what will occur in all the many fields related to fish and fishing in the next ten years would be worth its weight in diamonds. Such an instrument is not available, but by looking at past and present conditions, prediction can be made in which we can place considerable confidence.

From angling license sales and from data on the number of days each angler fishes, we learn that in 1961 there were over 6,500,000 angler-use days chalked up in Oregon. By using these figures with population growth estimates made by experts in that field, we can predict that this will increase to over 8,500,000 in 1970. Two million *additional* man-days of fishing are going to be required in that year.

Past history and present trends also indicate that other uses of water will compete more and more fiercely for the available supply. Much stream mileage and some lake and reservoir acreage will become unavailable to the average angler through diversion to other use, closure for private interests, or loss of productivity due to pollution or other causes. On the brighter side there will be some new aquatic habitat provided through impoundment and better water management. These in some instances may aid

resident fish species, but in many will be detrimental to anadromous ones—the salmon and steelhead.

In short, more anglers are going to require more angling days from essentially the same or a smaller amount of aquatic habitat. These new angling days can be provided if the money and man power are available to apply the knowledge now in existence and that being rapidly acquired through fishery research. It will not be easy, but it is possible.

Salmon and steelhead will be the most difficult to maintain in adequate supply. Their life cycle requiring long, hazardous journeys from headwater streams to the open oceans and back, plus their requirements for relatively undisturbed spawning grounds, makes them vulnerable to many things. Migration blocking dams, irrigation diversions, silted spawning gravels from improper watershed practices, and pollution all take a toll of these fish, as does their exposure to various fisheries.

There are things that can be done and are planned for the next decade to aid them. Basic to any management is accurate inventory work on both the habitat and the resource itself. In the years ahead this will require a more precise check of the sport catch of these fish at sea and in the bays and rivers. A similar precise check and continuous surveillance of hab-

itat will provide timely information on conditions there that will affect this resource. This knowledge will provide the basis for better regulation, and for maintenance of the environment through barrier removal and pollution abatement.

In the past, anadromous fish have seldom been aided substantially by artificial propagation. However, techniques and methods for use in this field are continu-

(Continued on Page 5)



Fishery biologist Ralph Grenfell checks fish populations in Devils Lake.

You Can't Stockpile Game

By Milt Guymon



Nature has her own method of taking care of the surplus if game is stockpiled beyond the carrying capacity of the winter range.

YOU can't stockpile game. It would be nice if we could so that every hunter would find a bull elk on every ridge, a beautiful buck deer behind every mahogany thicket, or a bag limit of pheasants every time he went afield. For sure this would be Utopia, but such a hunter's paradise exists only in Utopian dreams.

There is little doubt that Oregon is one of the finest hunting states in the nation and will continue to be so. But hunters should remember that game numbers will fluctuate from year to year with the amount of game produced depending entirely on the quantity and quality of habitat. In addition, as the hunting pressures and competition between hunters increase—and it has at about 3 per cent annually—the individual hunter's chance to score will decrease proportionately.

One thing about wildlife—and other living things as well—they are determined to inherit the earth. It's one of the built-in secrets to survival that characterize living things.

Most game birds and animals are geared to heavy annual losses, whether hunted or not. Small game is especially so, with spring populations winding up at around the same levels. Big game, because of slower reproductive potentials, are a little slower in bouncing back following a disastrous winter. But come back they do, providing the habitat is there in which they can live.

Game habitat is the complex of soil, water, and plants commonly called cover in which game birds and mammals exist. It is the life range that must include escape cover, winter cover, food and water, cover to rear young, and even cover to play. A lack of one or more of these

cover requirements will materially reduce the harvestable game numbers an area will support.

One of the most important concepts to remember and understand in both fish and game management is that of carrying capacity. Sportsmen, and even fish and game departments, too often forget that a given piece of land or body of water can support and maintain from year to year only so many pounds of animal life.

Every farmer raising livestock thinks in terms of carrying capacity, whether he realizes it or not. He knows that his pasture will carry just so many head of cattle on an average year. And he must gear his production to average years and not on bumper years. If he attempts to hold more cows in this pasture than it can take care of, two things will happen. His animals will become undernourished, and the pasture will be overgrazed so that in future years it will support fewer cows.

Many people who accept this principle for growing livestock fail to recognize that it is equally applicable to fish ponds, pheasants in the field, or deer in the forests and range lands. But the fish and game manager must be constantly alert to avoid overstocking and to recognize the danger signals of overpopulation.

When he examines the fish population of a lake and finds that a large per cent of the specimens are too small for their age, his first suspicion will be that there are too many fish for the carrying capacity of the lake.

Similarly, he will be more concerned about finding too many deer in an area than too few, since he knows that the excess deer will reduce the food supplies to the extent that in future years that same range will have a lower carrying

capacity for deer. On the other hand, a smaller number of deer would have meant larger animals and these would produce more fawns per year.

Unfortunately, most hunters remember only the bumper years in the production of game, be it bird or mammal, and use this as a yardstick from season to season. Here in Oregon, pheasant gunners look back on the sudden mushrooming bird population of 1958 and the heavy bag of birds brought home during that season. This is the yardstick by which they measure succeeding seasons, and anything less results in bitter grumbling.

Last year Oregon deer hunters recorded a record breaking harvest of almost 165,000 deer and in the future will undoubtedly accept anything less as being a poor season and evidence of depleted deer herds. However, they forget the mild winters of the past eight years when winter weather failed to take its annual toll allowing herds to build far beyond the carrying capacity. They forget that in 1953 more than 105,000 deer were taken—considered by all to be an excellent season—and that in 1948 less than 40,000 animals were taken, also considered a good season at the time. They forget that in 1948 only 24 per cent of the hunters were successful, while last year when deer were abundant the success ran almost 60 per cent.

The peak in Oregon's mule deer herd population was probably reached in 1955 while the blacktail herds continue to climb. Herd trend data gathered on all ranges show these trends.

In 1947 on the blacktail ranges of western Oregon the average deer density overall was 1.1 deer per mile as recorded

(Continued on Page 6)

Fishing in the Future

(Continued from Page 3)

ally being modified and improved. There are indications that these improvements may make this a more effective tool in salmon and steelhead management. If natural pond rearing of these fish, now being done experimentally, proves successful in providing large numbers of healthy downstream migrants, it can be expanded. It would then help provide the needed angler days—but it will cost substantial sums to provide the necessary ponds and hatcheries.

All of these programs for the benefit of anadromous fish are in the planning for the next decade. They must be employed if this resource is to be maintained.

Resident fish, such as the various trout and warm-water game species, do not present some of the management problems that anadromous species do, but they have some others of their own. Good fishing for such species no longer just happens. One segment of the fishing picture is supported by the production and release of catchable-size trout. Development of new fish cultural techniques has enabled us to hold the unit cost of production down in spite of increasing costs of labor and supplies, but expansion of such a program is dependent on more financing. There are plans that will enable this phase to be enlarged as it becomes necessary.

A more satisfactory and economical method of providing angling is that in use in Oregon's more productive lakes and reservoirs. Fingerlings from hatcheries are released to complete their growth naturally. There are also plans that will increase this part of the program. Again money and physical plants are needed.

To meet the increased demand, all possible waters must be brought into production. This frequently means chemical treatment to reduce competition from undesirable fish species. The inexpensive and easy reclamation projects of this type have been done, and the difficult ones remaining will require much expensive study, planning and equipment to complete. There are waters, such as some of the Willamette flood-control impoundments and the upper Deschutes drainage that will have to be made to produce better in the future if we are to meet our goals.

One of the most important elements of the projected program is the construction of new public fishing waters. Impoundments will be built in areas where angling opportunities are limited. These in addition to the waters brought into increased production will require additional fish

(Continued on Page 7)



Research biologist pumps water from standpipe to measure conditions beneath the surface of spawning gravel as part of study on the effect of logging activities on the anadromous fishery.

The Siuslaw River watershed has been the scene this fall of intensive stream clearance work. Many large log jams like this one have been removed by the Game Commission in cooperation with local agencies.



CONSERVATION UMPIRE

Dan Sauls

Reprinted from Missouri Conservationist

A Conservation Commission, like a baseball umpire, calls 'em as it sees 'em from the best spot to view the action. Even when the decision is right and the play isn't even close, some of the more rabid fans like to bellow, "Kill the umpire!"

The reason nobody likes cops, umpires, and bosses is because they make decisions. And the reason bosses, cops, and umpires have to make decisions is because there is a difference of opinion that has to be resolved . . . This is the "why" of fish and game regulations established by the Missouri Conservation Commission . . .

Commissioner Ben Cash once said, with a wry grin, that we ought to make regulations with which everyone would agree. The only one we could think of was to permit the unregulated take of man-eating sharks, and this seemed a little silly in view of the gross shortage of sharks in these waters. Besides, there's undoubtedly an organization devoted to

sharks—piscatorial variety—and our callous attitude would have been the subject of an indignant letter.

A public relations authority once told me that the gravest survival problem of all hunting-fishing agencies was the regulations they made or were made for them. "Whatever you fellows permit or forbid," he said, "automatically makes emotional enemies. Every time you move, you step on toes."

I protested we were always hearing from people who want new regulations and who get angry if they aren't passed.

"Sure," he said. "People who agree with the umpire feel any fool could have made the decision. Everyone else hates his guts."

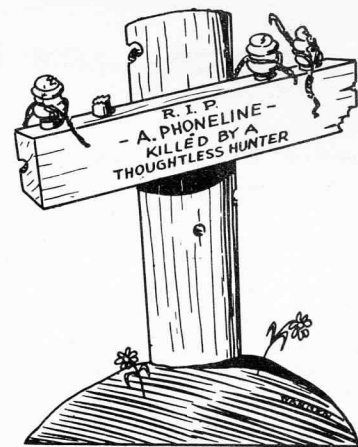
Still, we mostly agree that regulations have to be made, even if we never quite agree on details. For when there are more than 4,000,000 people living where once 100,000 lived, you've got to control the traffic.

losses were felt in central Oregon and in the Klamath area, but hardest hit were the ranges in Malheur and Harney Counties of southeastern Oregon and on some ranges in the northeast part of the state. Hunters were advised of these losses late last spring when they were informed that forked-horn deer and yearlings would be found in fewer numbers on these ranges this fall.

You can't stockpile game without disaster. A combination of favorable circumstances resulted in the stockpiling of deer on all ranges in eastern Oregon for the past 8 to 10 years. The inevitable is bound to happen, and for the first time since the stockpiling began a severe winter on some of these ranges may have accomplished what game managers have been trying to accomplish for a number of years.

It would be fine if Oregon hunters could report in with another 165,000 deer season, or the bumper 477,000 pheasants bagged in 1958, or the almost 900,000 waterfowl taken also in 1958, or the 11,000 elk taken last year. Or the other bumper seasons when weather and habitat combined to produce a bumper crop.

But habitat and carrying capacity being what it is the bumper crops are the exception rather than the rule. No—you can't stockpile game. If any species could, the accumulated annual gains would produce a plague within a few years' time. But it doesn't happen that way for the annual fall surplus, except under unusual circumstances, cannot survive to the fol-



Little Gunshot Damage by Hunters

Gunshot damage by hunters this season has been almost nonexistent, reports Pacific Northwest Bell. The company has had little of the trouble that plagued it a few years ago, a spokesman said.

Last year a dozen cases of damage to wires, cables and other equipment were caused by youths with .22 caliber rifles. These occurred during the summer and in the fall before the hunting season opened. The pattern has been the same in 1962.

It is hoped that the increasing responsibility shown by hunters will influence younger shooters. It seems that too often during or just after the time a youth with a .22 is seen in some areas that dead lines, broken insulators and pierced cables turn up.

Parents are asked to inform the younger set that some seemingly inanimate targets are very much alive, even though made of wood, wire and glass.

Aside from the inconvenience to customers and the expense of repairs, the real danger is that services vital to national safety and emergency calls for fire, an ambulance, the doctor or a policeman won't get through.

lowing spring. And hunting does no more than take part of the annual surplus.

As a result, hunting success will vary. Some years the hunter may bag three birds, while he may have difficulty taking one or two the next. Or he may have no difficulty one year in bagging a fine 4-point buck, and run into a dry spell the next. He's a pleased hunter when he scores, but there just ain't no game when he misses.

Which reminds me of an old hunter at a sportsmen's meeting one time who said, "I don't know what these Commission guys are going to do about the seasons this year yet. But whatever it is, I'm going to be bitter about it."

You Can't Stockpile Game

(Continued from Page 4)

on the permanent sample route. The trend has been generally upward ever since, reaching the highest ever recorded at 4.8 deer per mile in the 1962 census.

Mule deer herd trends show a similar pattern, peaking in 1955 at an average density of 14.5 deer per mile on the winter ranges of eastern Oregon. Compare this with the 1947 census of 9.9 deer per mile, and the 1962 census of 11.3 deer per mile.

Fluctuations have occurred on all ranges during the years, but the general trend was up until 1955, and then a tapering trend to the present. In addition, for the first time in eight years, eastern Oregon game populations suffered a severe winter, with temperatures dropping to 35 below and hanging on for two weeks or more. Snow in some areas was heavy.

Quail populations were hard hit in southeastern Oregon destroying entire coveys in some areas and in general reducing bird numbers to a bare minimum. However, this season brood production was good, and gunners are finding good numbers of quail to bang away at, illustrating how populations snap back with determination.

Other game was equally hard hit. Frigid temperatures took a toll of pheasants and partridge. Even rabbits in some areas had a hard go of it. Deer, too, were hard hit on several winter ranges. Some winter

Fishing in the Future

(Continued from Page 5)

production facilities to supply them. This activity has an encouraging start but must be accelerated.

Water and fish are of no help to the angler if he cannot reach them. Access to public water must be available, and its acquisition is of prime importance. It will never be more available or cheaper than now and in the immediate future. The finding and nailing down of suitable access to our streams and lakes is a major part of our planning for the future.

Bay and marine fisheries now supply much fishing and will provide more in the future. As it becomes possible, more emphasis should be placed here.

To keep the program over the next decade moving in the right directions and at adequate speed, continuous surveillance, inspection, study, research, and planning are essential. This requires man power. In order to do the job, the working force of the Fishery Division of the Game Commission should be doubled by 1973.

These are some of the things that we know now will have to be accomplished. The fishing opportunities that the modern substitute for the crystal ball tells us will be required can be provided. However, to provide it will require the expenditure of much more man power, money, and effort than has been expended in the past. It is a challenge gladly accepted because it can be met.



Skin diving has proved to be a practical method to find out what is going on underwater fishery-wise.

Forget Something?

Now that deer hunting season is over, you may not be interested in items you should have taken with you but forgot. However, a good way to while away a long winter evening would be to check your list of necessities against the one given below. You undoubtedly will have some more to add and perhaps will delete some of those listed. Each hunter has his own ideas as to what should be taken. Some believe in packing lightly and taking the bare essentials only. Others take everything in the book.

The following items are those that Fred Locke, member of the Game Commission's staff, considers essential when he takes a vacation from his fishery duties and goes deer hunting. He does not guarantee he has remembered everything he needs, however.

| | |
|------------------|---------------------|
| money | heavy underwear |
| licenses | toilet paper |
| tags | rain gear |
| guns | blaze orange coat |
| ammo | and cap |
| compass | pocket warmers |
| first-aid kit | lighter fluid |
| stove | can opener |
| lantern | shoe pacs |
| gasoline, white | gloves |
| mantles | rope |
| funnel | pencil |
| shovel | paper towels |
| bucket | rags |
| water can | deer hoist |
| canteen | camera |
| sleeping bag | tarp |
| air mattress | sunglasses |
| axe | string |
| matches | gun cleaning kit |
| waterproof match | maps |
| box | deer bag |
| wood saw | pack board |
| meat saw | food & condiments |
| camp chairs | cooking utensils |
| camp table | and cutlery |
| alarm clock | tent, stakes, poles |
| binoculars | flashlight, extra |
| shoes | batteries & bulbs |
| socks | knife & whetstone |
| underwear | towels, bath & wash |
| wash cloth | needle and thread |
| soap | hand tools, wire, |
| toilet kit | and nails |
| heavy coat | small plastic bags |

Fish population and aquatic insect samples made above and below the Canyon Creek relocation site above John Day show what harm can be caused through silt and making channel changes. In comparable sections, the fish population downstream from the site was 77 per cent lower than collections made above the project area. Aquatic organisms were decreased 83 per cent.

Samples of aquatic organisms taken above and below the wash-out area on the West Fork Hood River indicated that the aquatic insects were 75 per cent greater in the undisturbed area.



The Columbus Day wind left a lot of intangible damage that will be difficult to assess until several years have gone by. Unknown is the loss in value of standing timber; the cost of increased stream clearance; and additional surveillance of hatchery intakes and pipelines, fishways, and diversion screens. For example, the storm left a large number of blown-down trees and debris in the coastal streams, and the extent of the new log jams thus formed will not be known until the first high waters.

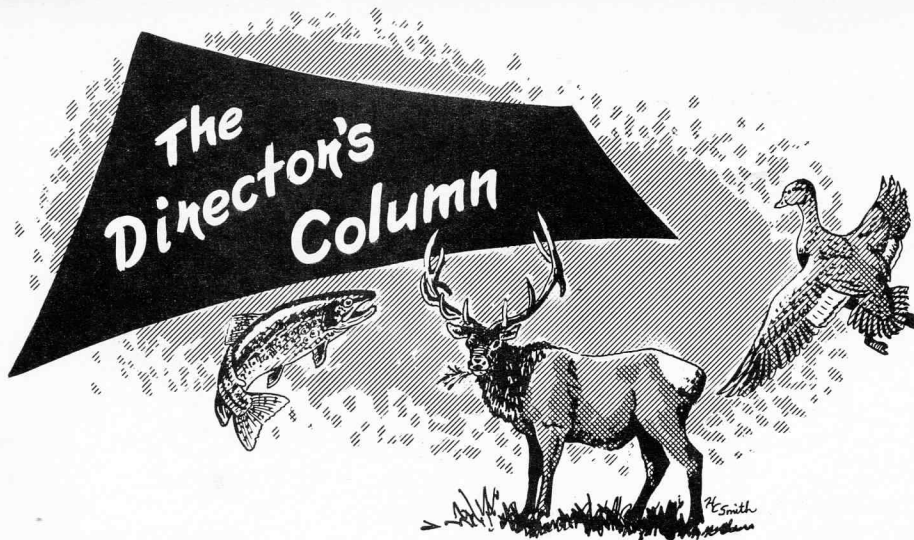
★

To provide better fishing, several reservoirs received chemical treatment in October. Malheur Reservoir was treated with liquid rotenone because its fish population consisted chiefly of 2 to 4-inch black crappies and some suckers. Unity Reservoir, also treated, had large numbers of roach, red-sided shiners, and suckers. Haystack Reservoir in central Oregon was drawn down to a 16-acre foot pool which made it possible to kill the predominant species of roach and brown bullheads. Kokanee, rainbow, and brown trout in small numbers were salvaged by the public. A heavy population of roach, shiners, and suckers, and a few rainbow trout were removed from Moon Reservoir.

★

Though over 125,000 geese and 18,000 ducks were in the Summer Lake valley the opening of the waterfowl season, shooting from the hunters' standpoint was not of the best. The 1,275 hunters checked in the Summer Lake management area on opening day succeeded in bagging only 1,660 ducks and 281 geese for a success of 1.55 birds per man. In 1961, 875 hunters took 1,718 ducks and 3,035 geese, averaging 5.44 birds opening day. Balmy weather with most of the birds spooked out into the lake is blamed for this year's lack of opening day success.

On the Sauvie Island management area hunters averaged 2.7 birds the opening day. A total of 312 hunters bagged 827 ducks, 17 pheasants, and 5 coots.



THE prosecution of any human endeavor, whether it be in industry, agriculture, or government, depends upon people. In addition to people, however, there must be present such factors as competence, teamwork, attitude toward a job, continuity of effort, and just plain hard work.

Historically, personnel of the Oregon State Game Commission have not only possessed these factors in abundance, but have always been seeking new and better ways to get the job done in what is a diversified and complex operation. The improvement of our operations by development of better equipment, methods, and materials has traditionally been exhibited to an unusual degree by all personnel of this department. However, no formal recognition of such efforts had been made outside the department until the Employee Suggestion Program was established by the legislature by enactment of ORS 182.310-182.360. Since the passage of this legislation in 1955, there has existed a state-wide program for the recognition of contributions made to state government by all state employees.

The record of Game Commission employees' recognition in this program is attested by the remarkable number of awards received by them. Of the ideas processed through the Departmental Suggestion Committee and the State Awards Board, 24 have been approved for commendation or cash awards. A total of \$2,630 in cash has been presented to those submitting meritorious ideas. Two have received the maximum award of \$500.

Two suggestions of long standing have been held in abeyance pending refinements or evaluation of their worth. If the ideas can be brought to perfection or usefulness, they will be re-examined by the committees. There have been 47 sugges-

tions disapproved for an award for such reasons as the ideas were already in use, not sufficiently original or unique enough to qualify, submitted too late, deemed by the investigators to be unworkable under current conditions, or possible conflict with present statutes.

The 24 suggestions approved for an award are listed below. The date given indicates when the suggestion was approved by the State Awards Board although it may have been submitted some time previously.

These demonstrate why our program continues to move forward with increasing efficiency and effectiveness. Another way of saying it is that the Game Commission's program, like many other fields of human effort, must rely in a large way upon its competent, interested, and dedicated employees who over the years have contributed so much to Oregon's wildlife affairs. It is one of the more gratifying aspects of our work in a field of effort frequently fraught with rough going.

P. W. Schneider, *Director*

| Commission Employee | Date Award Approved | Suggestion |
|---------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Mel Cummings | May, 1956 | Improved method of handling game damage complaints. |
| Gene Morton | May, 1957 | Hatchery design—Gnat Creek. |
| Louis Balk | June, 1957 | More effective use of space under stairway. |
| Ray Hall | Sept., 1957 | Deflector plate to reduce loss of lubrication on gears and drives on irrigation ditch screens. |
| Bob Mace | Sept., 1957 | Use of IBM cards for applications for permits. |
| Dick Evans | June, 1958 | Pellet feeders. |
| Lynn Webb | Nov., 1958 | Disease control with malachite green. |
| Lloyd Smith | Aug., 1959 | Improved circulating system in fish liberating tanks. |
| Ron Shay | Nov., 1959 | Package mailing to fixed stations. |
| Ray Wood | Dec., 1959 | Bucket insert to facilitate rapid transfer of small fish used in turbine testing. |
| Carol Starr | April, 1960 | Revised fish stocking record forms and procedure relating to fish allocations. |
| Andy Smith | Oct., 1960 | Combination of green and eyed egg reports. |
| Willis Baker | Jan., 1961 | Cover to protect pellet feeders from inclement weather. |
| Arne Shannon | Aug., 1961 | "Slippery Joe" to facilitate easy transfer of fish from pond to pond. |
| Wendell Stout | Sept., 1961 | Improved signs. Reduce indiscriminate sign posting, protect scenic values, better communication with public. |
| Homer Clendenen | Sept., 1961 | Simple device for providing ice at Bandon Hatchery for liberation. |
| Andy Smith | Sept., 1961 | Electric alarm and water supply changing system for hatchery use. |
| Paul Vroman | Dec., 1961 | Fry grader. |
| Shirley Meliza | Dec., 1961 | Revision of pond report form for benefit of headquarters and individual hatchery record keeping. |
| Ron Shay | April, 1962 | Revision of Purchase Request and order forms to eliminate source of confusion to vendors not familiar with state purchasing requirements. |
| Leonard Smith | April, 1962 | Revised permit book for use at checking stations such as Sauvie Island, Summer Lake, etc. |
| Warren Aney | May, 1962 | Combination stream survey rod and fast water wading stick. |
| Dick Evans | May, 1962 | Simple, inexpensive water heating device for hatching eggs or increasing growth on fry and fingerlings. |
| Max Killgore | Sept., 1962 | Simplified method of rewinding rotary fish screens. |

Oregon State Game Commission Bulletin

1634 S. W. ALDER STREET
P. O. BOX 4136
PORTLAND 8, OREGON

