

# Oregon State GAME COMMISSION BULLETIN

Vol. II

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No. 8

## Willamette Chinook Catch

A survey of the Willamette River sport fishery conducted jointly by the Fish Commission and Game Commission indicates that approximately 12,000 spring chinook salmon were taken by anglers in 1947. Of that number about 5,500 were caught in Multnomah Channel and in the lower Willamette River. The remaining 6,500 were taken between Ross Island bridge and the falls at Oregon City.

On February 21, the season's first salmon was reported taken near Milwaukie. Fishing continued through May but the peak of the runs was reached between April 14 and April 27.

The average weight of salmon taken in 1947 with 16.3 pounds which, if applied to the total catch, would mean that 195,000 pounds or 97.5 tons has been taken in the sport fishery.

The amount of fishing increased from a calculated 29,483 boat days in 1946 to 43,728 expended in 1947 while the catch per boat dropped from 0.418 to 0.271 in 1947.

The escapement of salmon over the Oregon City falls was approximately 41,000 (unpublished records of Fish Commission) in 1947 as compared to 55,000 salmon in 1946. Considering the facts that approximately an equal number of salmon was taken by anglers each year and that water conditions did not vary appreciably, the above figures may mean that the 1947 run was generally smaller than that of the previous year.

Similar surveys conducted by Craig and Townsend in 1941 and 1942 and by the Fish Commission and Game Commission in 1946 revealed catches of 30,000, 12,000 and 12,630 respectively. If it is assured that Willamette spring chinooks are largely five years old at maturity, the catches of 1941 and 1946 and those of 1942 and 1947 are probably directly related, the run of the earlier year being the parent run of the latter.

In general the catch of

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## 1947 Game Outlook

By JOHN McKEAN, Chief Biologist

The Oregon Game Commission, after due consideration of all the information available as presented by sportsmen, livestockmen, foresters, and its own field staff, has assembled regulations for the 1947 hunting seasons. It will be observed that many of the seasons are more conservative than in past years; however, recognizing the fact that over 200,000 hunters must share the available game and comparing this with 94,000 hunters in 1940, the Commission considered it obvious that conservative seasons must be applied if an adequate stock is to be maintained.

This opportunity is taken to explain the reasoning followed in establishing these regulations and indicate the need for better sportsmanship when we go into the mountains and valleys in quest of game this fall.

### Deer Season

The deer season is scheduled to open on October 1 and close on October 20 with a

bag limit of one forked antlered deer as in the past. A midweek opening was recommended by many sportsmen because the opening day pressure has been so great during the past two years that neither the deer nor the hunter has had a fair chance of survival. The early closing date was also requested by sportsmen to protect the deer herds during the fall migration and rutting season.

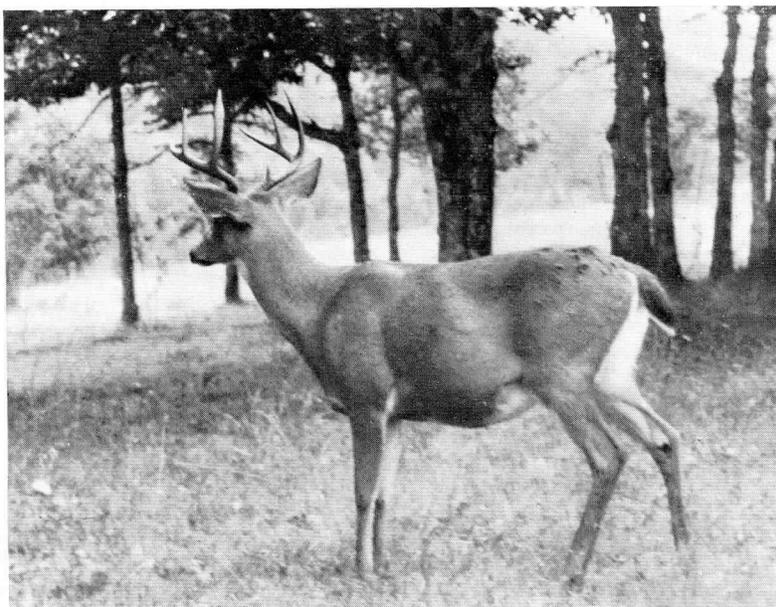
The need for a more conservative deer season is indicated by field data obtained during the past three years. Herd composition data indicates that 21 per cent of the mule deer were legal bucks in 1944, 15 per cent in 1945, and 12 per cent after last fall's season. This trend is further indicated by a classification of the bucks harvested last fall which indicated that 38 per cent of the mule deer bucks harvested were forked horns or yearlings. Census data does not show a rapid decline in the total deer population on most ranges but there is a downward trend in the number of legal bucks available. In view of these facts, it is anticipated that legal bucks will be scarcer than usual.

Lake, Harney and Deschutes counties should provide the best mule deer hunting again this year, with a few isolated areas such as the Snake river canyon providing excellent sport for those prepared to make the trip.

Good blacktail hunting can be expected in the many logged and burned-

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**SUMMARY OF 1947  
HUNTING REGULATIONS  
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A Columbian Blacktail Deer.

## The Supervisor's Column

We have read a great deal about weather conditions affecting the fishing. The moon phases and the tides, which are very closely related, no doubt have some effect on whether or not the fish feed readily or not at all.

Many people think that fish feed regularly every day. This is not the case and in many instances wild fish will feed only two or three times a week. Some persons who have studied these weather and meteoric conditions as they affect the fish have tabulated the feeding hours for each day, and we are not so sure that they are not partially right at least. We have all seen the calendars which are published for the fisherman. Each date has a fish below it and the darker the fish, the better the fishing is supposed to be. We have checked these dates to some extent, but find that there are so many elements entering into the picture that it is hard to say they are accurate.

We have written before about the effect of barometric pressure on the activities of the fish. There is no doubt that a falling or varying barometer is not conducive to good fishing. Storms, especially, affect lake fishing as they will put the fish down to the bottom for several days. There they do not bite readily and about the only way to catch them then is to sink bait down to them, and even then the results are not always satisfactory.

Now we come to another phase of the fishing situation. We have observed that some seasons were generally poor and other seasons generally good. You might say it is due to weather and water conditions. Perhaps it is, but it is hard to believe that weather conditions affect the whole state at the same time. Some fishermen will come back and say that the poor fishing one season is because the Game Commission didn't plant enough fish the year before. Of course, you have to have fish in the waters before they can be caught, but poor fishing is not always due to the fact that the fish are not plentiful.

Let's get down to cases. The stocking of fish in all Oregon waters has been about the same for several years. We are not apologizing for these plantings nor are we patting ourselves on the back. We are merely making the statement and volumes could be written on it, but it is off the subject as far as this article is concerned. However, very definitely the season so far for this year, except the opening week, has been generally better than usual. When I say generally, I mean just that. Some areas may not show up so well, but we are looking at the general picture. Take some of our more popular Cascade lakes for instance. Last year the complaints were many about the poor fishing. This year the very same lakes are providing good fishing. Again next

season may be generally poor, although more fish than for several years will be planted this year. We wish we knew the answer to these season irregularities, but we don't. Perhaps some biologist will sometime figure it out but in the meantime we are frank to confess we don't know the answer.

### Thirteen More Game Officers Appointed

The game division of the Department of State Police has been enlarged by the appointment of thirteen additional officers which will make it possible to provide more intensive game law enforcement throughout the state.

The men are being assigned to following locations: Astoria, Clackamas county, Pendleton, Salem, Corvallis, Roseburg, Klamath Falls, Gilchrist, Madras, Fossil, Jordan Valley, Eugene and Milwaukie.

Two new men have also been appointed as replacements at Enterprise and John Day to fill vacancies caused by retirement.

Captain Charles H. McClees, head of the game division of the Department of State Police since it was first established and prior to that a game warden for many years under the Game Commission, retired on June 30. His position is being filled by Lieutenant Bert Walker, who has been connected with game law enforcement for a long period.

### McKenzie River Investigations Are Started

The Oregon State Game Commission began a program of sport fish investigations on the McKenzie River and its tributaries on July first. This is the start of studies which are planned to continue for several years. The objectives are to secure information which will form the basis for future Game Commission policies in this important sport fishing area.

Immediate studies are for the purpose of determining the most suitable sizes and numbers of trout to be planted for the maximum catch by sportsmen. The sports fishing in this stream and its principal tributaries has become so heavy since the war that there is a severe drain upon the famous reddsides of the McKenzie.

Before the next fishing season there will be liberations of marked legal size fish in the McKenzie as a part of the new program. There is being set up a system of collecting records of fishermen's catches in the McKenzie which will go into effect during the present season.

The current season work is being done by Christopher C. Jensen and Lawrence D. Townsend.

### July Meeting of the Game Commission

The Oregon State Game Commission on July 10 reconvened its meeting adjourned from June 14 and transacted the following routine business:

A suggested hatchery site in Columbia county was referred to the department for investigation.

The matter of a beacon light for the Summer Lake shooting ground to be used in addition to a siren to warn hunters of closed shooting hours was considered and deferred until the next meeting.

A request for a game refuge in the Troutdale area was referred to the game division for a further and more comprehensive investigation.

It was moved that Eel Lake be offered for sale in one parcel upon basis of sealed bids to be in the hands of the Commission at its meeting on September 13, and that the Commission reserve the right to reject any and all offers; and that a certified check for 10 per cent of the amount of the bid accompany each bid.

The budget allocating the first half of \$12,000 appropriated for cooperative predatory animal control work was approved as submitted by G. H. Hansen, District Agent for the Fish and Wildlife Service.

Purchase was authorized of seven more three-bedroom prefabricated houses to be placed at the various stations requiring new residences.

The following applicants for positions with the game division of the State Police were added to the recommended list:

Roy Milton Jones, Drain  
Otto Elvin DeBell, Pendleton

The Supervisor was instructed to offer the facilities of the Commission at its headquarters building to the Legislative Interim Committee when holding its meetings and conducting its investigations.

### Oregon State Game Commission Bulletin

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## Pronghorn Problems

By **ARTHUR S. EINARSEN**, Leader  
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Today antelope are found over much the same range that they occupied at the time of the early explorers. There has been some shrinking of habitat, it is true, but even now central and southeastern Oregon carries herds which extend against the borders of the adjoining states of Idaho, Nevada and California.

It is generally known that there are many interchanges of antelope herds between states. Montana and Dakotas have such a problem. There is even a drift periodically between Canadian and American ranges. Wyoming and Colorado likewise have invisible boundaries which complicate herd management, and it is common knowledge that Oregon herds drift to the three afore-mentioned states. Oregon recognizes this problem in its management of its Pronghorns, and, when learning that the same herds were being enumerated in both Oregon and adjoining states with harvests on that basis, the Game Commission came to the conclusion that there was time for some coordinated thinking on the subject. They planned action.

As a result, a common bond of interest is developing between the game workers in the adjoining states, and our Commission took further steps in having the Oregon Cooperative Wildlife Research Unit present a paper on the desirability of a coordinated management program at the recent conference of the Western Association of Fish and Game Commissioners at Santa Fe. In the presentation of this paper it developed that California showed increases of nearly 50 per cent in some herds in a year, when annual reproductive increases rarely reach 20 per cent.

Figure I.

### California Census Records

County	1942	1943	1944
Modoc .....	656	1103	1167
Lassen .....	3050	3962	4504
Siskiyou .....	37	273	305

Upon investigation it was found that the drifting nature of the herds in Oregon had resulted in the increases in the California herds. This occurs both in Idaho and Nevada or may be reversed when their herds choose to occupy Oregon ranges.

It is a timely program to work out a coordinated management policy between states to prevent over-optimistic census figures from resulting in excessive harvests which may doom the Pronghorn to become only a remnant species rather than a fine trophy animal with a yearly open season. Wherever these facts are presented, sportsmen quickly concede the practical aspects of this approach. The first seed has been sown, and it is anticipated that the Pronghorn herds of the

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## Field Rearing Pheasants

In addition to this years game farm production of approximately 55,000 pheasants, over 2,000 pheasants are being reared by the department experimentally on refuge areas. One of these areas is a refuge unit north of Harrisburg in the Willamette Valley where 800 young pheasants were started on June 21, and the other is a refuge area near The Dalles in Wasco county where 2,300 day old chicks were started on June 11. The object of these projects is to demonstrate the the practicability of such a procedure and determine if birds raised in this manner have a higher survival than farm reared stock.

Observations to date indicate that birds can be reared more efficiently this way than on the game farms, because only a very small investment is needed and little maintenance work is required, whereas on

a game farm the actual operation during the rearing season is only a small part of the year around cost of operation and maintenance.

This procedure provides that eggs are collected and hatched on the game farms and the day old chicks with their foster mothers transplanted into coops on farm lands within a refuge area. The birds receive the attention and protection of an attendant until they are six weeks of age at which time the hens are removed and the birds forced to forage for themselves and scatter over adjacent lands.

Over 1,100 of the estimated 1,700 birds reared in Wasco county have been banded and local sportsmens clubs are going to cooperate in a campaign for the return of these bands during the coming pheasant season, so that the distribution and survival of the birds can be determined.

If successful this procedure may be used in other areas in future years.



Pheasant coops on refuge area in Wasco county.

## Willamette Chinook Catch

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salmon depends largely upon size of run, fishing intensity, and water conditions. Were these factors identical during the time that records have been kept, this year's total catch might be interpreted as meaning that the 1942 run had maintained itself in 1947. The catch in 1946, however, was less than half of the number taken by anglers in 1941, and may indicate that the 1941 parent run did not maintain itself.

The present value of the Willamette spring chinook salmon has been estimated to be in the neighborhood of \$1,000,000 (unpublished records of the Oregon Fish Commission). If proper consideration is given to the salmon when the sites for

proposed flood-control dams are selected, and if the program for alleviation of pollution in the Willamette River system is carried out, the Willamette salmon runs may possibly be increased.

Collection of data for the Willamette River sport census was done by Donald Johnson and Chester Mattson of the Fish Commission and by Christopher Jensen of the Game Commission.

A wild goose has been photographed at an estimated height of 29,000 feet, almost 5½ miles high.

The Ivory Gull is found in the Polar Sea at 85 degrees North, less than 350 miles from the Pole, the most northerly record of any bird.

## 1947 Game Outlook

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over areas in western Oregon.

Three areas will be open for deer hunting by archers this fall. One is the deer damage problem area at Cove in Union county which was treated with a special late season last year. This area will open to rifle hunters during the regular deer season. The Canyon Creek area will be open to archers from September 23 through October 20. The Deschutes refuge area as described in the 1946 regulations will be open to archers on September 23 but will be closed to all hunting after September 30. One hundred and eighty-three archers participated in last year's hunts but only eleven deer were harvested and no evidence of loss by crippling was found. It is therefore concluded that application of the bow and arrow in deer hunting should be encouraged because this procedure provides for a maximum of recreation at a minimum of cost in game.

No special antlerless deer seasons have been found necessary this year. However, several deer damage problem areas are developing and future special seasons may be needed. These areas consist largely of agricultural lands and the principal reason of occurrence is that few persons hunt the areas in question and the deer have learned by experience that they are much safer along the edge of the farm lands than on the higher ranges where most of the hunters concentrate.

The following areas are suggested to sportsmen who would like to hunt deer without going into the mountains: Silverton hills area from Butte creek to the Santiam river in Marion county; the Chehalem hills in Yamhill county; and other foothill areas on both sides of the Willamette Valley and in Josephine county. Another area which should be heavily hunted is the White river area in Wasco county and the forest fringe from Wapinitia to Friend.

### Elk Seasons

With the exception of two small special areas, no cow elk will be legally harvested next fall. The regular elk season will follow the usual pattern, beginning on October 25 and closing on November 2 in western Oregon and November 16 in northeastern Oregon.

Herd composition data and kill records follow the same trend in Rocky Mountain elk as in the mule deer, with the sex ratio averaging one bull to nine cows in northeastern Oregon and 37 per cent of the kill in that area being spikes instead of the normal 28 per cent. In order to assure a future crop of bulls in the herds, spike elk should be protected now. This procedure has been used successfully with Roosevelt elk for the past two years in Clatsop county, where the herds are increasing and a larger percentage of legal bulls are becoming available. It has been found necessary to specify three points

or over, because in many instances spike antlers may have small nodules of sufficient size to hang a ring and therefore held to be forked horn elk. Two-point elk antlers are extremely rare in both Roosevelt and Rocky Mountain elk, with male animals normally bearing spike antlers as yearlings and blossoming out with four-point antlers in their second year. Elk do not normally breed until their second year. The brow tine or eye guard will be considered an antler point on all elk harvested under this regulation.

Evidence of the illegal killing and wanton waste of deer during the elk season last year prompted the Commission to provide for more rigid enforcement and consider the practicability of concurrent deer and elk seasons. An investigation of the programs of neighboring states indicates that Oregon and Washington are the only states which have comparable elk and deer populations but do not shoot concurrently. Idaho, Wyoming, Montana and Colorado all shoot deer and elk concurrently and state that the crippling loss and wanton waste of game is much less than with separate seasons. Other states such as Utah, Arizona and New Mexico favor a split season because they have only a few small herds of elk and must control the number harvested. A concurrent elk and deer season appears to have the following advantages:

1. Hunters would have at least twice as much area available to hunt as during a November season when most of the mountain roads are blocked by mud or snow. Weather conditions have made it impossible for hunters to utilize many of Oregon's best elk ranges during the past two years.

2. Deer would be protected during their migration and rutting season.

3. More people would be allowed to participate in the hunting of elk.

The principal disadvantages appear to be as follows:

1. Hunters may not take proper care of the elk meat and a considerable quantity allowed to spoil while in camp or in transit home. It is true that much elk meat was allowed to spoil during the first open seasons because many hunters tried to handle them as deer, but it is known that by immediately skinning and quartering an elk and keeping it dry and cool, the meat can be held for several days in comparatively warm weather and it is believed that most hunters would observe the precautions necessary to save their meat.

2. A concurrent season might cause a concentration of hunters in the areas where elk are most abundant. The Commission has no way of knowing how many deer hunters there are in the state, but it is possible that half or more of the 200,000 license holders hunt deer, whereas 16,000 is the greatest number of elk hunters yet recorded. Although it is probable that a concurrent season would bring a heavier hunting pressure on elk areas

there is some question as to whether a greater concentration of hunters for a shorter period on the steep, brushy, summer ranges would harvest more game than a fewer number of hunters over a longer period, including the late fall months when storms have driven both the deer and elk from the brushy summer ranges out onto the low open winter ranges where the deer are concentrated and in their rutting season.

Recognizing the possible merits of a concurrent season, the Commission originally authorized the trial of this procedure on the deer ranges south of the John Day Highway (No. 28) and east of the Dalles-California Highway, including the western half of Deschutes county where a part of the McKenzie elk herd summers. This provision might not have provided a fair evaluation of the efficiency of this type of season because only a small part of the area has elk on it and there is danger of concentration of hunters and heavy kill of deer on the few areas where elk occur. However, close observation would have provided information on the spoilage of meat and effect of such a season on both elk and deer numbers without jeopardizing a large part of the available big game herds. This area has been open for the hunting of elk of either sex since 1943 in an effort to prevent a conflict between elk and deer on browse ranges on which deer should have the preference. Small elk herds are scattered from Ironside mountain in Malheur county through the Ochoco forest and on the east slope of the Cascades in western Deschutes county. The small herd in western Klamath county will be protected by a closed season this year. The final regulations provide that all of the area east of the Dalles-California highway as well as all of Deschutes county will be open for hunting of elk having antlers with three points or more during the regular season.

The season for Roosevelt elk in western Oregon will close on November 2 and be limited to Columbia, Clatsop, Lincoln and designated portions of Lane, Douglas and Coos counties with a bag limit of one bull elk having not less than three antler points.

Special elk seasons have been authorized for damage problem areas in the vicinity of Baker and Ukiah, with the boundaries about the same as last year and the dates from November 22 to 30 at Baker and December 13 to 16 at Ukiah. All holders of an unused elk tag will be entitled to participate in the Baker hunt, but only 100 permits will be issued for the Ukiah area. The similar special seasons held last year were effective in driving elk away from these problem areas but future damage can be anticipated if the elk are allowed to return in large numbers.

These special seasons are not recommended as an easy place to bag an elk.

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## This and That

Weed control experiments under the \$25,000 recently appropriated by the legislature will be started first at Siltcoos and Tahkenitch lakes in Lane and Douglas counties under the direction of William E. Pitney, field agent. All equipment and chemicals have been ordered and other preparations made.

\* \* \*

Beaver live-trapping operations were started in July and were preceded by stream surveys to establish planting sites. Emphasis in transplanting will be placed in areas in southwestern Oregon where there is potentially extensive habitat and not too many beaver.

\* \* \*

An estimated 1,500,000 chubs were poisoned recently in Big Lava lake by the trash fish control crew of the Game Commission under the direction of John Dimick, field agent. No game fish were reported killed. Seining operations at East Lake also have yielded a large amount of chubs and this activity will be continued through the season.

\* \* \*

Salvaging of spiny-rayed fish left stranded in the pot holes on Sauvies Island in the Willamette and Columbia slough area was started the early part of July. A crew of five men is working under the supervision of F. O. Haldeman. The fish rescued will be turned back into deeper waters in the area and some will be hauled out to stock waters in other sections of the state.

\* \* \*

Surveys and other preliminary work are under way at the McKenzie hatchery preparatory to getting started with the large improvement and development program recently authorized by the Commission.

\* \* \*

As the final hunting regulations were not adopted until the latter part of July, printed copies of the 1947 hunting synopsis cannot be made available for several weeks but will be distributed to license agencies as soon as possible.

The 1947-48 Oregon game code is in the process of being printed and will be ready for distribution in approximately another month from the Commission office.

## Notice of Meeting

The legislative interim game committee will meet on September 13 at Roseburg with sportsmen's groups from the Fourth Congressional District, it is announced by Senator Lew Wallace, chairman of the committee.

Fawns are devoid of any tell-tale scent, but Mother Deer takes on additional odor in order to lure predators away from the hidden youngsters.



District agents observing demonstration of forage sampling

## Anglers Successful at South Twin Lake

The opening of South Twin Lake on June 28 in the Deschutes National Forest again attracted an unbelievable number of anglers to this productive body of water. Approximately 1,826 rainbow trout weighing 1,804 pounds were brought to the checking station during the opening weekend June 28 and 29. To make this catch, nearly 1,010 anglers fished 5,427 man hours for an angling effort of 2.9 hours per fish and a success of 1.8 fish per angler.

From all appearances, it seemed as if the majority of anglers in Oregon converged on this experimental lake. Camp grounds were filled to over capacity; it was even difficult to find a parking space. Approximately 125 to 130 boats were on the 130 acre lake at all times during these first two days.

The trout caught ranged in size from 7 to 20 inches, the largest weighing 3 pounds and 8 ounces. Fifty-nine per cent of the catch was in the 8-12 inch size group and 36 per cent in the 14-18 inch division. The average weight was about one pound per fish.

Nearly 95 per cent of the fish taken from the lake have been marked by clipping of fins. It is therefore necessary to have all fish caught checked at the station so that they may be properly classified and recorded. Cooperation from sportsmen has been excellent in this respect and the continued support of all anglers fishing South Twin Lake is urged.

The Carlsbad Cavern bats eat several tons of insects each night.

## Forage Utilization Studies Conducted

District Agents of the Commission's Game Division recently completed a two-day refresher short course in methods of determining forage utilization. The course was held on the Starkey Experimental Range in Union County.

Elbert Reid, Forest Ecologist, Pacific Northwest Forest and Range Experiment Station and stationed at La Grande, conducted the course, assisted by R. U. Mace, Range Examiner of the Commission's staff.

Work of this nature has come to be accepted as one of the important phases of modern game management essential to maintenance of big game herds in a healthy condition. Since forage and soil constitutes the basic resource upon which we must maintain our big game, continuous appraisal of forage conditions must be made as well as inventories of densities of game and evaluations of annual harvests. With the state-wide program of big game management well under way, District Agents are establishing permanent forage utilization sites in main herd ranges which can be used in future years to determine trends in range conditions. The accompanying photograph shows the District Agents observing the demonstration by Mr. Reid in the proper method of sampling the various types of forage by use of the square foot density method.

Turtles have no teeth, but their jawbones are often very sharp and the jaw muscles extremely powerful.

## 1947 Game Outlook

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Good elk hunting is anticipated in northern Willamette and Umatilla counties, providing the weather will permit access to these excellent elk ranges.

### Antelope

Oregon's antelope herds declined rapidly during the war from a peak of an estimated 20,000 in 1940 to less than 10,000 in 1945. Little was known of the cause of this loss except that fawns were conspicuously absent from 1943 through 1945. A study of fawn survival in the spring of 1946 indicated that coyotes may have been a principal limiting factor of young fawns and in that season an average of only 1 fawn to 2.5 does survived until July first.

Last winter the U. S. Fish and Wildlife Service with the aid of the Game Commission poisoned coyotes over much of the antelope range and at the first of July this year the existing ratio was 1 fawn to 1.2 does, which is double that of 1946.

Although antelope numbers increased slightly with last year's closed season and a better crop appears to be in the making, many of the antelope herds are too small to justify the hazard of an open season this fall.

### Refuges and Closures

Special closures have been provided for four logged-over areas in western Oregon with the intention of building populations of blacktailed deer and Roosevelt elk. These areas include the 1945 Tillamook burn area, the Siletz river closure, and additional closures of the Onion Peak area in southwest Clatsop county and a portion of the North Santiam watershed in the vicinity of Detroit. These areas will be protected until an adequate breeding stock is available and then opened for hunting.

An evaluation of legislative refuges indicates a need for a more flexible arrangement so that surpluses can be cropped and boundaries shifted to include adjacent understocked areas. For example the Deschutes refuge in southern Deschutes county which includes about 280,000 acres of excellent deer forage but little water has been protected since 1912. In recent years, deer food problems have occurred on both summer and winter ranges of this protected herd, and the distribution of deer within the refuge is far from equitable. After a thorough study of the problem, a small winter range area at the south end of the refuge has been opened to hunting and a closure of similar size has been made on the west side of the Deschutes river to protect a small herd of deer which utilizes an excellent stand of browse north of the refuge during the winter months. This area can support many times the number of deer now present whereas special antlerless deer seasons have been necessary to control deer numbers on the south half

of the refuge. A similar procedure will be used with the Ochoco refuge.

The whitetailed deer refuge in Douglas county and the Mount Emily refuge in Union county will be closed for the first time in several years. Other legislative refuges will be open as last year.

### Upland Game

It will be observed that upland game bird seasons are scheduled to open on Wednesday, October 22, to concur with recommended opening of the waterfowl season. The combination of a midweek opening and also the start of waterfowl season should alleviate the heavy initial hunting pressure and provide better sport on following days. Upland game census data indicates a slight increase in pheasant and quail populations in most counties during the past year; however, it is known that some broods were lost during the heavy rains which occurred throughout the state in June. It is unfortunate that hunting regulations must be set in July because an accurate evaluation of the current crop cannot be obtained until August when most of the crops are harvested. Observations of 293 broods prior to July 10 indicated an average of 7 pheasant chicks per brood but a large percentage of the hens observed did not have a brood, so a good crop could not be assured at that time. Brood counts obtained from July 10 to 25 indicated an average of 6 pheasant chicks per brood but only 65 per cent of the hens observed had broods so a bumper crop cannot be anticipated for this season.

Pheasants and quail continue to present a problem in the Willamette Valley. A census conducted prior to the breeding season in 1946 indicated an average density of 8 pheasants per 100 acres in the Willamette Valley and a similar measurement in 1947 indicated an increase to 14 pheasants per 100 acres after a closed season last fall. This small increase is encouraging. However, in view of the extremely heavy hunting pressure in the Willamette Valley, it is anticipated that even a very limited season would harvest more than the current year's crop and little if any progress would be made toward providing an adequate breeding stock of 20 to 30 pheasants per 100 acres. It is believed that with the cooperation of sportsmen and land owners it will be desirable to allow pheasants to increase until a satisfactory breeding stock is available and then carefully harvest only surpluses of male birds and in that way hope to maintain good shooting on a permanent basis rather than provide only fair shooting periodically with frequent closed seasons. A special effort will be made by both the Game Department and the Oregon State Police to control the illegal harvest of pheasants and quail in the Willamette Valley, but the cooperation of all sportsmen and land owners will be urgently needed. A fox control program is being initiated in the Willamette Valley this month to re-

duce the loss of upland game birds and poultry by this predator.

Census data indicates that highest pheasant densities occur in Umatilla and Malheur counties with most other eastern Oregon counties providing fair populations.

Grant county is expected to provide the best valley quail hunting, but good hunting can be expected in most of the other counties open.

Of the several species of grouse occurring in Oregon only the blue or sooty grouse in the coastal counties is in sufficient abundance to provide hunting.

Sage grouse numbers have increased during the past year and are beginning to climb after a five-year low.

Mountain quail, bobwhite quail and Hungarian partridge will be protected by a closed season throughout the state this year.

Summer Lake Valley will be used as a pheasant study area again this year throughout the waterfowl season. However, only cock birds may be taken and the bag limit will be 3 per day or 6 in possession. All pheasants taken are to be checked out at Summer Lake or Paisley checking stations. Much valuable information on the survival and habits of farm-reared pheasants was obtained during the season last year and with the cooperation of the sportsmen, much more information can be made available.

### Migratory Birds

The United States Fish and Wildlife Service had not, at the time this went to press, announced the regulations for this year for migratory game birds. The Commission, however, recommended two seasons of 14 days each, October 22 to November 5 to harvest migratory birds in Lake and Harney counties and resident birds in other counties, and a second period from December 24 through January 6, which should provide good shooting in western Oregon, the Columbia basin and other eastern Oregon counties.

Doves will be protected in most counties this year at the request of sportsmen, the reasoning being that there are not enough of them to provide good shooting and the September season results in the illegal kill of upland game species.

The bandtailed pigeon season will concur with Federal regulations except that the possession limit has been reduced from 10 to 8 pigeons. Although fair pigeon hunting can be anticipated in the coast range this fall, the pigeon is rapidly increasing in popularity and it is not believed that a species of such low productivity (1 egg per year) can be expected to survive heavy hunting pressure.

### Summary

Although this summary of the outlook for the 1947 hunting seasons may not appear attractive to sportsmen thinking of conditions as they were ten or twenty years ago, we must recognize that there

(Continued on Page 8)

## 1947 Hunting Regulations

### ANTELOPE

No open season.

### DEER

**General Season:** October 1 to 20, inclusive; bag limit, one blacktail or mule deer having at least forked horns.

**Area:** Entire state except Sherman county and certain other closures listed hereinafter.

#### Archery Season for Deer:

September 23 to 30 in special area at Cove (Union county) and in same portion of Deschutes refuge open last year.

September 23 to October 20 in same portion of Canyon Creek refuge open to archers last year.

**Bag limit:** One deer of either sex.

All archers required to register and have deer tagged.

### ELK (Eastern Oregon)

**General Season:** October 25 to November 16. In that portion of the state east of The Dalles-California Highway (U.S. 97) and all of Deschutes county.

**Bag Limit:** One bull elk having antlers with three points or more.

**Special Elk Seasons** (eastern Oregon).

**Baker Area:** November 22 to 30, inclusive. Bag limit, one elk of either sex. General elk tag to be valid in this area. Checking stations at North Powder, Baker, Salisbury.

**Open Area:** Beginning at the city of Baker, thence south along State Highway No. 7 to junction of the Sumpter Valley road at Salisbury, thence west along the Sumpter Valley road to Sumpter, thence north along the Fruit Creek road to the summit of the Blue Mountains, thence north along the summit to posted junction with the Anthony Lake road, thence east along the Anthony Lake road to North Powder, thence south along U.S. Highway No. 30 to the city of Baker, the point of beginning.

**Ukiah Area:** December 13 to 16, inclusive. Bag limit, one elk of either sex. Number of permits to be issued: 100.

Checking station at Ukiah.

**Open Area** includes that portion of the Camas creek drainage described as follows: Beginning at the town of Ukiah, thence south along the Bridge creek road to junction with the Pearson Guard Station Road, then east along said posted road past Pearson Guard Station to junction of the Hidaway Springs junction, thence east and north along the posted road to Bear Wallow Guard Station, thence west along the Yellow Jacket road to junction with U. S. Highway No. 395, at a point 2 miles south of Battle Mountain State Park, thence south along Highway No. 395 to Ukiah junction and east along the main traveled road to Ukiah, the point of beginning.

### ELK (Western Oregon)

**General Season:** October 25 to November 2, inclusive. Bag limit, one bull elk having antlers with three points or more.

**Open Area:** Clatsop, Columbia, Lincoln,

Lane county with exception of the area south and west of the Siuslaw river, and the following described area in Coos and Douglas counties: Beginning at the junction of the Umpqua River Highway No. 38 with U.S. Highway 101 at Reedsport; thence east along Highway 38 to junction with U.S. Highway 99 at Drain; thence south along U.S. Highway 99 to junction with the State Highway 42 near Dillard; thence west along State Highway 42 to junction with U.S. Highway 101 at Coquille; thence north along U.S. Highway 101 to Reedsport and the point of beginning.

### AREAS CLOSED TO HUNTING

Camas Creek area near Ukiah in Umatilla county.

Tillamook Burn.

Siletz area, same as last year.

Onion Peak Area, in Clatsop and Tillamook counties.

Detroit Area in Marion county.

Wanoga Butte Area in Deschutes county.

McKay Creek area in Crook county (closed to deer hunting only.)

Northwest corner of Ochoco Refuge.

Whitetailed deer Refuge in Douglas county.

Deschutes Game Refuge with exception of a portion at southern end.

Mt. Emily game refuge, Union and Umatilla counties.

Mountain Sheep refuge, Wallowa county.

### REFUGES TO BE OPEN TO HUNTING

Salt Creek, Grass Mountain, Myrtle Park, Steens Mountain, Cow Creek, Mule Deer, Warner Game Refuge outside the Federal Hart Mountain reserve, Ochoco game refuge except the northwest corner, Canyon Creek refuge except that portion set aside for archers, that part of the Deschutes Refuge south of the posted Stage Road from Shevlin's Camp on Fremont Highway 31 to the Cabin Lake Ranger Station; that part of the Oregon Caves refuge outside the Lake and Cave Creek drainages; and Three Sisters game refuge. Also Wallowa mountain refuge will be open to migratory waterfowl hunting only.

### PHEASANTS

Open season October 22 to November 2 in Douglas, Coos, Josephine, Jackson, Klamath, Deschutes, Crook, Hood River, Wasco, Sherman, Gilliam, Wheeler, Morrow, Umatilla, Union, Wallowa, Baker, Grant, Harney and Lake, except Summer Lake Valley is closed during regular pheasant season.

Open season October 22 to November 9 in Malheur county.

No open season in Willamette Valley counties.

Summer Lake Valley to be open concurrent with waterfowl season.

**Pheasant Bag Limit in Open Counties:** Three cocks a day and not more than six in possession.

### VALLEY QUAIL

**Open Season** concurrent with pheasant

**season in the following counties:** Coos, Josephine, Jackson, Klamath, Deschutes, Crook, Hood River, Wasco, Sherman, Gilliam, Wheeler, Morrow, Grant, Lake, Jefferson and Harney.

**Bag Limit:** 5 quail a day, 10 in possession.

### BLUE GROUSE

**Open Season:** October 1 to October 20 in Josephine, Clatsop, Columbia and those counties west of the summit of the Coast Range.

**Bag Limit:** Two grouse a day but not more than four during the entire season.

### CLOSED ENTIRE YEAR

Mountain Quail, Hungarian partridge, ruffed grouse, sage grouse.

### SMALL GAME

**Silver Gray Squirrels:** Open season, September 27 to October 20 in all counties except Hood River and Wasco. Bag limit, 5 in possession.

### FURBEARING ANIMALS

Open season November 15 to February 15 for mink, muskrat, raccoon and otter.

Closed season entire year: marten, beaver, fisher, ringtail cat.

State refuges to be open to trapping of furbearing and predatory animals except the following: Summer Lake Management Area, Lake Oswego Game Refuge, Sturgeon Lake Game Refuge, Whitetail Deer Refuge, and all city and municipal watersheds now in refuges.

### MIGRATORY BIRD REGULATIONS

Regulations for migratory game birds will be set by the federal government.

**Band-tailed Pigeons:** Bag limit, 8 a day or 8 in possession. Season as set by federal government.

**Doves:** Bag limit and season to be as set by federal government in the following counties: Lake, Klamath, Deschutes, Jackson, Josephine, Coos, Curry, Crook, Wasco, Sherman, Jefferson, Hood River, Wheeler, Gilliam, Morrow and Douglas. All other counties to be closed.

### AREAS TO BE CLOSED TO MIGRATORY WATERFOWL HUNTING

Coos Bay between highway 101 bridge and railroad bridge and Pony Slough (North Slough excluded).

Same portion of Summer Lake management area as last year, plus an additional 160 acres under lease.

**Chewaucan:** All property of the Chewaucan Land and Cattle Company in the upper and lower Chewaucan marshes.

### GUN REGULATIONS

#### It Is Unlawful

To use any full metal-jacketed, solid-nosed bullet to hunt elk and deer.

To use .22 rim fire shells to hunt or kill any game birds or deer or elk.

To use shotguns loaded with buck or bird shot to hunt or kill any big game.

To use rifles to hunt or kill any upland game birds such as pheasants, grouse or quail.

To use shotguns capable of holding more than three shells to hunt or kill any upland or migratory game birds.

# Oregon State Game Commission Bulletin

1634 S. W. ALDER STREET  
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PORTLAND 8, OREGON

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POSTMASTER: IF ADDRESSEE HAS  
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## 1947 Game Outlook

(Continued from Page 6)

now are many times as many people seeking recreation in our state and the quantity and quality of habitat available for most game species has been slowly declining with the encroachment of other land uses rather than increasing to meet the soaring demand.

Many of us still have the philosophy that we hunt to live rather than live to hunt. However, there are now nearly as many licensed hunters in the state as there are big game animals of all species, sexes and age classes, so we all cannot hope to bring home the bacon when only antlered males can be legally harvested.

If only the males of polygamous species such as elk, deer and pheasants were harvested during open seasons, as specified by regulations, populations should increase at a rate of at least 30 per cent each year. It is discouraging to observe the very modest increases and, in some instances, decreases which have resulted from recent conservative seasons. These conditions illustrate the need for better sportsmanship in the field, and closer cooperation in the enforcement of our game laws which are designed to assure good hunting for future years.

Most spiders have eight eyes arranged in rows across the head.

Bamboo is the world's tallest grass.

A newly born kangaroo is only about one inch long and weighs approximately 1/350 of a pound.

A school of the Piranha or man-eating fish of the Amazon Valley, Brazil, can reduce a human being to a skeleton in a few minutes. Their undershot jaws are equipped with a double row of sharklike teeth. They are only about 8 or 9 inches in length.

Puffins, small water birds, are apparently unable to rise from the ground. They launch themselves from the edges of cliffs where their burrows are located. Grebes, also, are unable to rise from the ground unless it is hard and smooth, affording them an uninterrupted runway for a take-off.

## Bounties Paid by Game Commission

June 1, 1946, to May 31, 1947

COUNTY	BOBCAT		COUGAR		WOLF		TOTAL
	No.	Amt.	No.	Amt.	No.	Amt.	
Baker .....	51	\$ 127.50	3	\$ 150.00	..	\$ ....	\$ 277.50
Clackamas .....	41	102.50	11	550.00	..	....	652.50
Clatsop .....	121	302.50	...	.....	..	....	302.50
Columbia .....	63	157.50	...	.....	..	....	157.50
Coos .....	99	247.50	4	200.00	..	....	447.50
Crook .....	44	110.00	...	.....	..	....	110.00
Curry .....	62	155.00	4	200.00	..	....	355.00
Deschutes .....	34	85.00	...	.....	..	....	85.00
Douglas .....	162	405.00	53	2,650.00	..	....	3,055.00
Jackson .....	193	482.50	14	700.00	..	....	1,182.50
Josephine .....	42	105.00	13	650.00	..	....	755.00
Jefferson .....	16	40.00	...	.....	..	....	40.00
Lane .....	146	365.00	17	850.00	1	30.00	1,245.00
Lincoln .....	52	130.00	...	.....	..	....	130.00
Linn .....	16	40.00	15	750.00	..	....	790.00
Marion .....	2	5.00	3	150.00	..	....	155.00
Multnomah .....	4	10.00	5	250.00	..	....	260.00
Polk .....	16	40.00	...	.....	..	....	40.00
Tillamook .....	101	252.50	...	.....	..	....	252.50
Wasco .....	37	92.50	1	50.00	..	....	142.50
Wallowa .....	33	82.50	1	50.00	..	....	132.50
Wheeler .....	42	105.00	...	.....	..	....	105.00
Union .....	...	.....	1	50.00	..	....	50.00
TOTALS .....	1,377	\$3,442.50	145	\$7,250.00	1	\$30.00	\$10,722.50

## 1947 Hunting Regulations

(Continued from Page 7)

To use any shot gun larger than 10 gauge in hunting game.

To use Johnson and Garand semi-automatic rifles, M1 military carbines and machine guns, and any foreign made military semi-automatic rifles and machine guns, to hunt any wild birds or animals.

To hunt or kill elk by means of guns smaller than .30 calibre except when using cartridges with bullets that either have not less than 1,400 foot-pounds energy at 100 yards distance, or weigh not less than 150 grains. Provided, long bows and barbless broadhead hunting arrows may be used.

### TAGGING REGULATIONS

All big game animals and birds taken during special seasons and all big game animals in possession in the field or in transit more than 48 hours after the close of the season must be tagged with metal seals. Tags will be available without charge at all State Police patrol stations and designated checking stations.

## Pronghorn Problems

(Continued from Page 3)

Northwest which range interstate will not be menaced in the years to come by duplication in inventories. Management will no doubt be carried out on a "herd" basis.

The fact that there is (or may be) a closed season this year means that the boys are still at work digging up facts. When completed, another "insurance" safe guard will undoubtedly result.

The female cod fish lays two million eggs a year.



**"Keep Oregon Green"**