

OREGON STATE
**GAME COMMISSION
BULLETIN**

JUNE, 1954



E. E. Wilson Honored



THIS and THAT

The 1954 Sandy River smelt run (April 1 to 7) was a disappointment to those who remembered the big run last year. The smelt did not show up in large concentrations and dipnetters found it hard to take their limits, particularly in the day time. Only 11,662 dipnet licenses for personal use were issued by the Game Commission this year compared to 59,503 for 1953.

* * *

More than 700,000 yearling fish were liberated in the streams and lakes of the state prior to the opening of the trout season on May 1. By the end of this trout season approximately 2 million legal sized fish will have been released.

* * *

Spring releases of pheasant breeders totalled 6,842 birds, mostly hens. The birds, held over from last year, were turned loose early enough to give them an opportunity to produce a brood in the wild.

* * *

A shipment of 980,000 kokanee eggs has been received from Montana. These will be used to establish the fish in several new locations and to augment existing supplies.

* * *

The lower Rogue salmon season got off to a good start with 86 fish being taken on opening day, March 27. For the first 15 days in April there was an estimated catch of 1,067 salmon or an average daily catch of 71.1 fish.

* * *

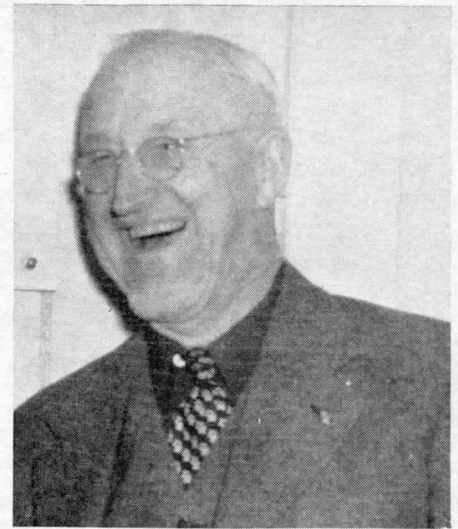
Nine elk were trapped in April at Vaughn Point in Coos County and transplanted to the Vincent Creek burn area in Douglas county. Elk were removed because of damage complaint to tree seedlings.

COVER

Site along the main Clackamas River above Estacada is seeded with lotus major and burnett by District Agent Mel Cummings as part of experiment to determine whether reseeding big game ranges can be done as successfully here as in the burned and logged off areas of the coast range. (Photo by Harold Smith.)

MR. E. E. Wilson, former member and chairman of the Oregon State Game Commission, was honored April 29 at a short ceremony held at the new headquarters office of the Northwest Region on the E. E. Wilson Game Management Area near Corvallis. Before an audience of former and present members of the Game Commission, a few personal friends and game department personnel, a bronze plaque in recognition of Mr. Wilson's services to the state was unveiled. Brief remarks pointing up his contributions to the cause of fish and wildlife were made by J. H. Van Winkle, chairman of the Commission, Theodore R. Conn, former commissioner, and P. W. Schneider, director.

Mr. Wilson was on the Game Commission from 1935 to 1949 and served as chairman the last ten years. During this period many changes took place in which he had an active hand. A new system of budgetary control was installed to place and keep the Commission on a sound financial basis. As revenues of the department increased,



E. E. Wilson

its activities were expanded and the foundations laid for the present program of scientific management of the fish and wildlife resources. Because of the Commission's interest and willingness (Continued on page 5)

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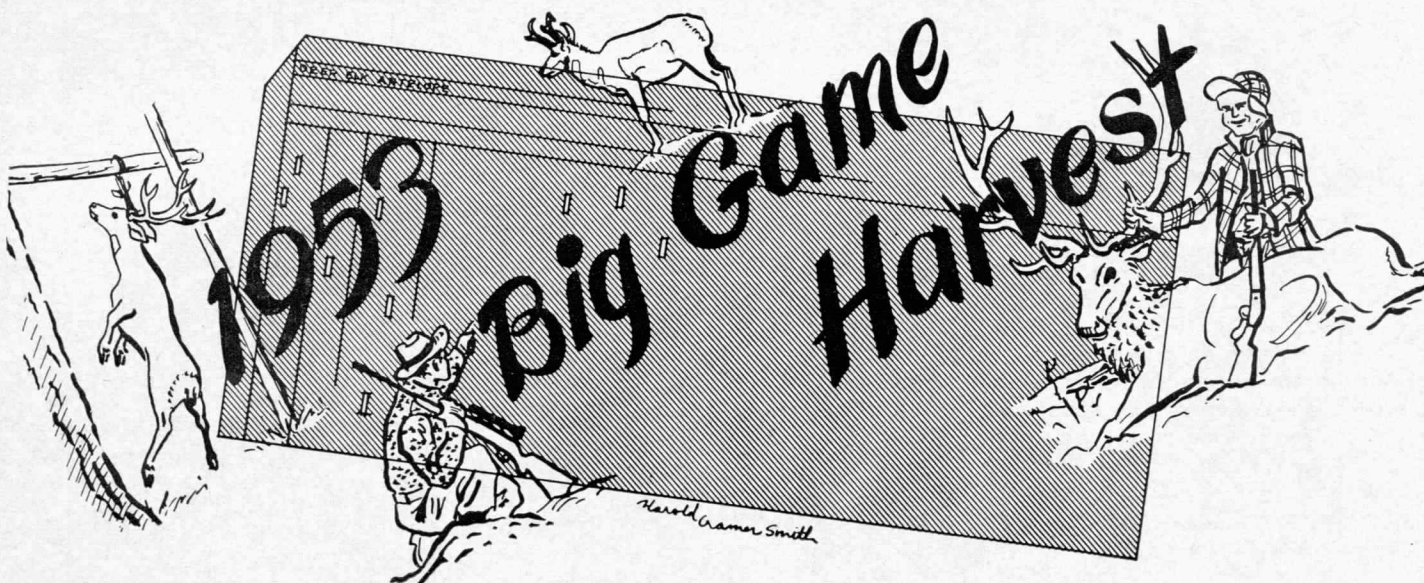
NOTICE OF HEARING

To consider recommendations with reference to the 1954 hunting regulations, the Oregon State Game Commission will hold a public hearing beginning at 10 a.m., Friday, July 9, 1954, at its Portland office, 1634 S.W. Alder Street.

The hearing, which is required by statute, will be recessed for a period of two weeks to provide an opportunity to publicize the tentative findings of the Commission. Final regulations covering seasons, methods of taking, and bag limits for game animals, game birds and furbearers, will be adopted when the hearing is reconvened on July 23.

REGIONAL OFFICE MOVED

The Northwest Regional headquarters were moved early in May from Albany to the E. E. Wilson Management Area eight miles north of Corvallis. The offices will be located in a remodelled building on the former Adair Village tract, title to which was just recently acquired by the Commission. The new mailing address for the regional office is Route 1, Box 325, Corvallis. Leslie Zumwalt is the regional supervisor in charge of Game Commission operations in that area.



By R. U. MACE
Chief Biologist, Big Game

ALTHOUGH Oregon's 1953 big game seasons are past, a record of the total harvest provides interesting food for thought. At no time in the history of the state has such a bountiful return been available to Oregon's citizens. Efficiency of game management should be measured in terms of game and recreation provided and Oregon is one of the nation's leaders from the standpoint of total big game harvested and hunter success.

The 1953 deer season was the most generous on record. Continuing the pattern established in 1952, the state-wide buck season was followed by a four-day hunter's choice season during which those with unused tags could bag a deer of either sex. The area open during the hunter's choice season included agricultural areas in western Oregon and nearly all of eastern Oregon.

Elk hunting regulations remained comparable to those in effect during past years. Western Oregon was limited to bulls with three or more points per antler while any bull with antlers was legal in the northeastern portion of the state. Hunters were permitted an elk of either sex in southeastern Oregon.

The taking of antelope was on a controlled-hunt basis, only 400 permits being authorized. Open areas included portions of Lake, Harney and Malheur counties with bucks only permitted.

Three controlled elk hunts and one controlled deer hunt were held while eight special archery seasons were prescribed.

With the antelope season commencing on August 22 and the first archery season on September 12, it was possible to hunt some species of big game almost continuously until the Lewis and Clark controlled elk hunt concluded on December 31.

It might be well to explain the methods used in computing big game kills. Since 1948 a separate deer tag has been issued with an attached report card to be returned by the hunter. Separate elk and antelope tags have also been used for several years. Cards submitted by big game hunters serve as a basis for determining the kill.

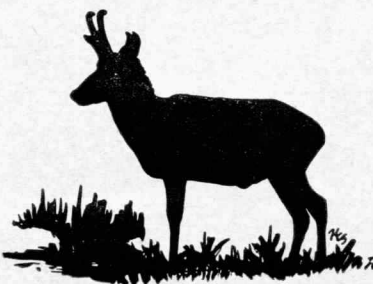
Information from the return cards is tabulated by machine. Such information includes the county, date, sex of kill and other pertinent data. If all cards were returned by hunters, we would have a fairly reliable summary. Some hunters are not cooperative, however, and a complete report is not received. In 1953 a total of 123,176 deer return cards, or 60 per cent of those issued, and 14,459 elk return cards, or 54 per cent, were received and analyzed. Computing the total kill on the basis of those cards

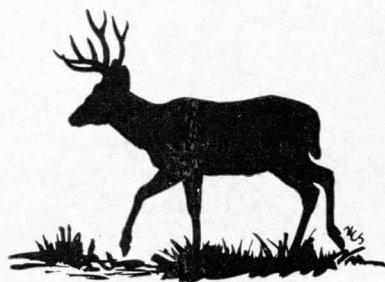
received would be in error since there is a tendency for more of the successful hunters to report than the unsuccessful ones. Hence, such a computation would be high.

To measure the average success of all hunters in the state, a random sample of 5,000 hunters is questioned by mail. Questions on upland game and waterfowl hunting success are included as well as big game in order to complete the kill statistics. Those who fail to answer the questionnaire by mail are personally interviewed by department personnel to obtain a complete return. On the basis of the survey the total state-wide deer and elk kill is determined. The total kill is then prorated among the counties according to the percentages indicated by the machine analysis of the return cards. A combination, therefore, of the return card report and a random survey of all hunting license holders is necessary to estimate the annual big game harvest. Since 1948, identical procedures have been utilized each year in tabulating the kill figures. Sound statistical advice and procedures have been followed and tests of the deer kill total invariably indicate a confidence error of less than 2 per cent. General season deer and elk kill statistics are, therefore, considered very reliable.

The operation of checking stations on controlled hunts provides a complete tally of the kill. Antelope hunters are not numerous and those who fail to submit report cards are reminded by

(Continued on page 4)





1953 Big Game Harvest

(Continued from page 3)

mail so a fairly complete record is obtained. Those who participate in special archery seasons are also asked to submit report cards in order to measure the archer kill. Voluntary cooperation by all big game hunters in returning report cards is to be encouraged since the reliability of kill figures rests heavily upon such assistance.

Deer:

Table I summarizes the 1953 deer kill statistics. A total of 204,808 deer tags were sold of which 196,351 actually hunted, bagging 105,236 deer during the general season. An additional 39 deer were taken during the Adair controlled deer season and the eight special archery seasons resulted in the bag of 326 animals. The grand total amounted to an estimated 105,601 head, the greatest deer kill on record. The number of hunters also exceeded that of any previous year.

Success during the general season averaged 53.6 per cent, ranging from a low of 24.1 per cent in Hood River county to a high of 73.5 per cent in Wallowa county. Bucks represented 64.2 per cent of the total bag while antlerless deer made up the remainder. Lake county led with a kill of 8,489 deer, followed by Klamath, Grant, Lane, Crook, Deschutes, and Harney in that order. Approximately 64 per cent of the kill was made up of mule deer bagged east of the Cascades, the remainder being blacktails from western Oregon.

A comparison of the buck kill since 1948 when a measurement of the deer harvest first became possible is interesting. The 1953 bag of 67,539 bucks exceeds that of previous years by a wide margin. The annual buck kill from 1948 through 1952 varied from 39,785 to 57,260, averaging 50,056. In 1953, the five-year average was exceeded by over 17,000 bucks in addition to the antlerless deer added to the bag. The total 1953 kill exceeded that of 1952, the second highest year on record, when a similar hunter's choice season resulted in the harvest of 77,659 deer.

Daily percentages of kill are presented graphically in Figure I. Following the trend of past years, success on the opening week end was high. Increased success was also apparent on succeeding week ends and during the last few days of the season. Approximately 27 per cent of the total kill was made the first week end of the buck season and 8 per cent the second week end. The opening week end of the hunter's choice season accounted for about 34 per cent of the total bag.

Elk:

The 1953 elk kill is summarized in Table 2. Of the 26,956 elk tags sold, 25,576 hunters participated. Hunting pressure exceeded that of any previous year except 1951 when 28,772 tags were issued. The kill totalled 3,980 elk during the general season and 165 during three controlled hunts, a grand total of 4,145 animals.

General season success averaged 15.6

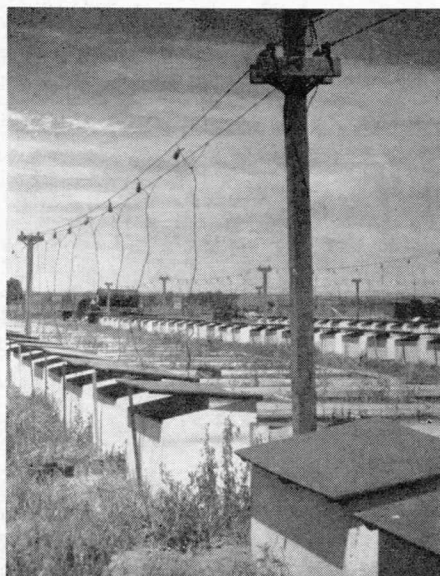
per cent, being highest in northeastern Oregon where 17.4 per cent of the hunters were successful, as compared to 10.2 per cent in western Oregon. A total of 673 bulls was bagged in the Coast and Cascade ranges of western Oregon with Clatsop county leading and Coos county in second place. Union, Wallowa, Grant, and Umatilla counties recorded the highest kill in northeastern Oregon. In eastern Oregon 85 per cent of the kill was made up of bulls while antlerless elk comprised the balance.

The 1953 kill exceeded that of 1952 when 3,333 elk were bagged. Since the season was opened in 1933, the annual bag has averaged 2,817 elk, this average being exceeded by approximately 1,000 animals during the 1953 season. With the exception of 1949 when a generous either-sex season was authorized, the elk kill from 1948 through 1953 has remained very stable under similar hunting pressure each year.

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Table 1 — 1953 General Deer Season

County	Number of Hunters	Kill			Per Cent of Hunters Successful	County Area in Square Miles	Deer Harvested per Square Mile
		Bucks	Antlerless	Total			
Baker.....	7,050	2,853	1,851	4,704	66.7	3,084	1.5
Benton.....	4,220	1,332	970	2,302	54.5	647	3.6
Clackamas.....	3,279	782	565	1,347	41.1	1,890	0.7
Clatsop.....	4,082	993	610	1,603	39.3	820	2.0
Columbia.....	4,545	883	1,041	1,924	42.3	646	3.0
Coos.....	5,093	1,806	813	2,619	51.4	1,611	1.6
Crook.....	10,595	3,634	2,658	6,292	59.4	2,980	2.1
Curry.....	1,304	479	261	740	56.7	1,622	0.5
Deschutes.....	12,887	3,471	2,418	5,889	45.7	3,041	1.9
Douglas.....	9,217	3,554	1,311	4,865	52.8	5,062	1.0
Gilliam.....	702	332	119	451	64.2	1,211	0.4
Grant.....	12,034	5,026	2,809	7,835	65.1	4,532	1.7
Harney.....	8,976	3,883	1,908	5,791	64.5	10,132	0.6
Hood River.....	1,430	259	85	344	24.1	529	0.7
Jackson.....	6,296	1,683	863	2,546	40.4	2,817	0.9
Jefferson.....	2,055	872	281	1,153	56.1	1,794	0.6
Josephine.....	2,379	518	320	838	35.2	1,625	0.5
Klamath.....	14,686	5,087	2,853	7,940	54.1	5,973	1.3
Lake.....	14,047	4,755	3,734	8,489	60.4	8,270	1.0
Lane.....	12,443	4,229	2,195	6,424	51.6	4,594	1.4
Lincoln.....	1,653	537	.....	537	32.5	1,006	0.5
Linn.....	5,658	1,973	1,060	3,033	53.6	2,294	1.3
Malheur.....	4,385	1,916	852	2,768	63.1	9,870	0.3
Marion.....	4,293	1,189	1,017	2,206	51.4	1,173	1.9
Morrow.....	2,670	1,070	581	1,651	61.8	2,059	0.8
Multnomah.....	367	68	48	116	31.6	424	0.3
Polk.....	3,598	1,284	500	1,784	49.6	739	2.4
Sherman.....	421	179	56	235	55.8	830	0.3
Tillamook.....	6,997	2,424	.....	2,424	34.6	1,115	2.2
Umatilla.....	5,574	1,802	855	2,657	47.7	3,231	0.8
Union.....	5,591	2,091	1,385	3,476	62.2	2,032	1.7
Wallowa.....	4,171	2,046	1,018	3,064	73.5	3,178	1.0
Wasco.....	3,402	822	580	1,402	41.2	2,387	0.6
Washington.....	2,297	656	281	937	40.8	716	1.3
Wheeler.....	5,254	2,321	1,274	3,595	68.4	1,707	2.1
Yamhill.....	2,700	730	525	1,255	46.5	709	1.8
Tagholders Not Hunting.....	8,457						
Totals and Averages.....	204,808	67,539	37,697	105,236	53.6	96,350	1.1



Chukar brooder units at the Hermiston game farm

HERMISTON GAME FARM

GAME bird production at the Hermiston game farm might well be termed "mechanized maternity" considering the process now being used to produce chukar partridge.

This farm, formerly raising Mongolian pheasants, has now turned the majority of its efforts toward the production of the newly introduced Asiatics. This transition has not taken place, however, without considerable experimentation and setback.

Historically, the farm was purchased in 1946 and used mainly for the raising of pheasants until 1950 when the production of chukars was begun. However, it was not until 1953 that the farm was turned into a full-scale chukar production plant.

The Hermiston farm was bought to take the place of the old Pendleton game farm which was located on a small tract of land near the Umatilla Indian Agency. There are 174 acres included in the area and it was originally designed to produce 20,000 pheasants per year, though this quota was never fully reached. All pheasants for liberation in Eastern Oregon are now being raised at the Ontario game farm.

When the chukar program was started, the birds were raised both at Hermiston and Ontario from eggs obtained from the states of Washington, Idaho and Wyoming. Rather poor success was experienced during the first two seasons of raising the birds here in Oregon.

Roy Dickinson, superintendent of the Hermiston farm since 1951, started working on possible ways to prevent the mortality that was occurring in the chukar populations at the farms. It was found that the birds were very susceptible to poultry diseases. Further study revealed that the young birds were acquiring this disease from the setting hens used to hatch and raise them.

The logical solution—eliminate the setting hens. This could be done during the actual incubation of the eggs by the use of mechanical incubators, but it would have cost considerable to build a whole new system for rearing the chicks and abandon the old one.

At this point, Roy showed his ingenuity and adapted the field brooders to use electricity instead of hens. Through the utilization of a thermostatic control and a pair of light bulbs, the field coops

that were designed to hold a setting hen and her brood of chicks were modified to hold the brood of chicks with light bulbs replacing the hen. This apparently was the key to the problem and during the first year of operation of the new system, over 80 per cent success was experienced in raising chukars for liberation.

Unlike pheasants being raised on the farms, the adult brood chukars are held in a large pen for what is called flock mating. Pheasant brood birds are put in smaller pens with one cock to approximately six hens. Since it is difficult to determine sex in chukars, it would involve much unnecessary labor to use the small pen system.

Judging from the experience of other states, however, Oregon still has a number of years to wait before we can confidently state that we have an established population of chukar partridge.

In addition to raising upland game birds, the farm is also being utilized as a shrub nursery. At present the main plants being raised are black locust, multiflora rose and bladder senna. A large variety of other plants are being grown on a small scale to test their adaptability for habitat improvement plantings in eastern Oregon.

With its section devoted to the shrub nursery, the farm has four full-time men plus the superintendent and has one vacancy at present for a full-time nurseryman.

Serious troubles at the farm have

CONSERVATION GROUP MAKES NAME CHANGE

The National Association of Conservation Education and Publicity henceforth will be known as the American Association for Conservation Information as a result of action taken at the annual meeting held in Monterey, California, from May 9 to 12. The change was made to accommodate American members outside of the United States.

State conservation information and education personnel from 26 state departments, including the Oregon State Game Commission, participated in the workshop sessions held on evaluation of state publication, news releases, use of television by conservation departments, and development of education programs in schools.

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(Continued from page 2)

ness to cooperate, Oregon in 1935 was chosen as a location for one of the original group of cooperative wildlife research units established at various land grant colleges. The Oregon Unit's program was tied in closely to the department of fish and game management at Oregon State College, and thus started simultaneously the program for wildlife research and the training of personnel for fish and game work.

Now retired and living in Corvallis, Mr. Wilson (commonly known as "Ed" to his friends and as "Pappy" to a select few) has not allowed his interest in fish and game affairs to diminish. He is fortunate in living only a few miles from the game management area named after him so that he can keep in close touch with its varied activities, particularly in regard to his long-time favorite, the ring-necked pheasant. His advice and counsel are still sought by those who have worked with him.

been few with the exception of a flood in 1949 caused by washing out the Weston irrigation ditch above the farm. Also, weasels and hawks pose a threat to young birds being held in the open pens, but this situation is remedied here as at other game farms by the use of traps or shotguns.

A visit to the farm will prove interesting to anyone who has not seen the newest addition to Oregon's upland game bird populations, and since U. S. highway 30 runs along one border of the area such a visit is an easy addition to any trip to northeastern Oregon.

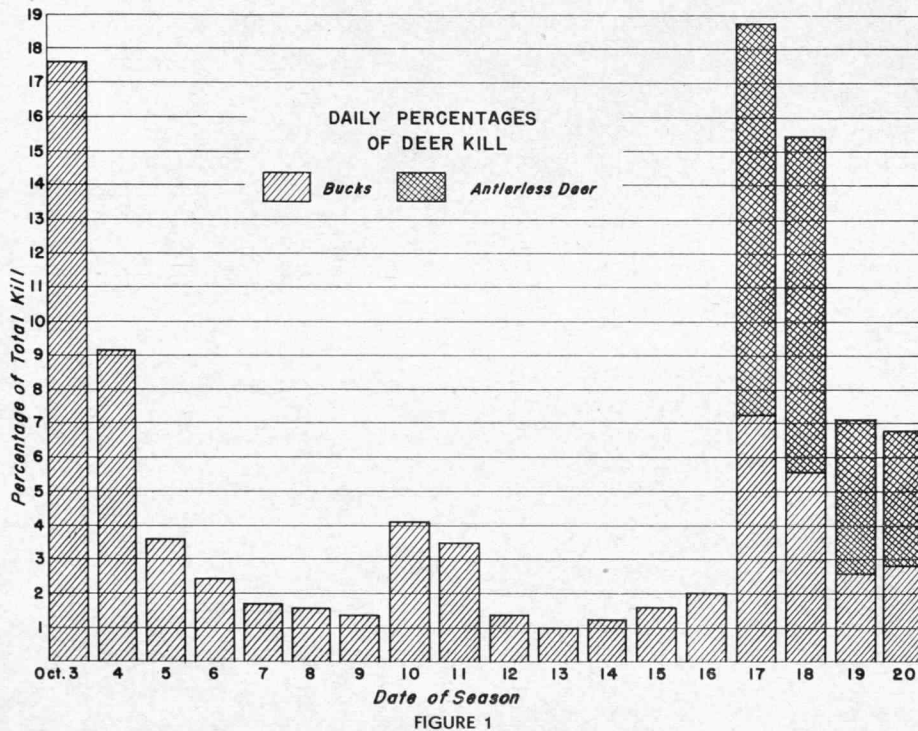


FIGURE 1

1953 Big Game Harvest

(Continued from page 4)

Figure 2 presents the trend in elk kill by dates. Success at the start of the season was even more apparent than is the case with deer. Approximately 35 per cent of the total kill was made on the opening week end. Following the first five days of hunting, success declined and remained at a low level with little fluctuation, either on week ends or at the end of the season.

Antelope:

The antelope season was operated as a controlled hunt with 400 permits authorized for portions of Lake, Harney, and Malheur counties. A total of 380 hunters participated, bagging 181 antelope. Success averaged 47.6 per cent, comparable with that of past years.

Analysis and Conclusions:

After two years' experience with Oregon's stepped-up deer harvesting program, an analysis of the past, present and future is in order. Everyone will agree that more deer have been brought to bag than at any time in our history. Most sportsmen will agree that the harvest of some females is sound management while others remain unalterably opposed to such action under any circumstances. Regardless of personal opinion, all are interested in the effects of either-sex deer hunting upon the deer resources and future hunting. Does the increased kill of the past two years mean fewer deer in the years to come

or can the annual harvest be sustained at a level higher than that possible under a buck law?

Let's examine the history of deer in Oregon and some basic factors affecting the animals before drawing any conclusions. Those who talk about the "good old days" are barking up the wrong tree when it comes to deer hunting. True, there was less competition between hunters but total deer numbers during the past 20 years have exceeded those of pioneer days. Old-timers still living can recall past deer scarcity in

many parts of Oregon. Under protection and management following the turn of the century, our deer herds have increased to the satisfactory populations of today.

One of the basic things which we must all recognize is that each unit of deer range has a definite limit to the number of animals it can support. This limit is its carrying capacity. Many factors may determine carrying capacity. On some ranges it may be too much cover with a shortage of open feeding areas. The excellent deer herds being produced on some logged and burned-over ranges in western Oregon indicate that too dense cover may be a limiting factor on some blacktail ranges. Damage to agricultural crops may require control of deer numbers on other ranges. The most important limiting factor on mule deer ranges east of the Cascades is the amount and quality of food available for winter use.

A second basic consideration is that deer reproduce at a high rate. From 25 to 40 per cent more deer may be present on a range in November than before the fawning period the previous June.

A third consideration is that deer on a fully stocked range are a perishable product. Saving them one year does not guarantee their presence the next. All too often the surplus is lost through natural causes during the interim.

Recognizing the three basic fundamentals; namely, (1) each range can support only so many deer, (2) a deer

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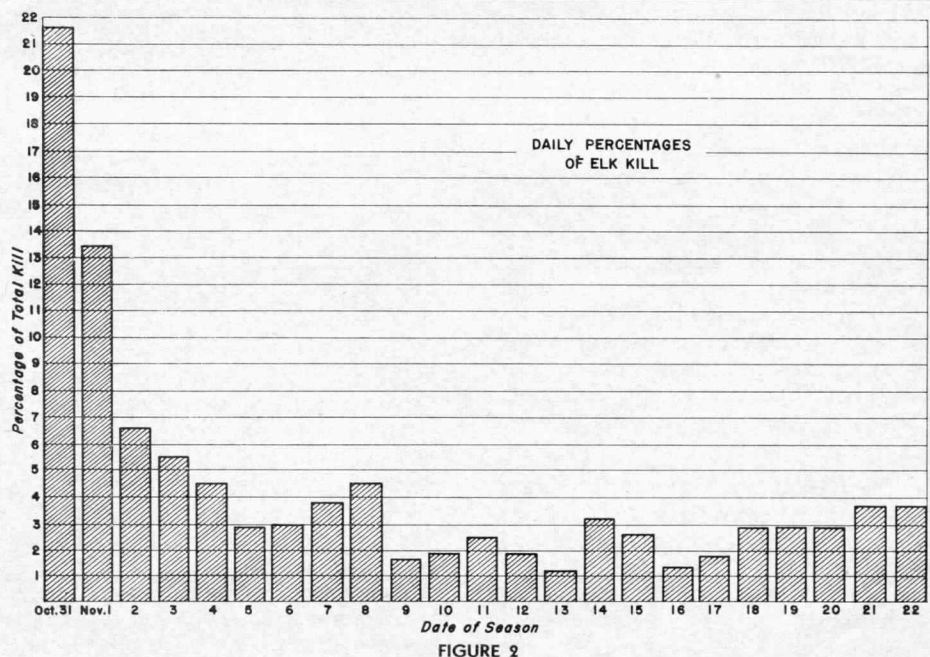


FIGURE 2

1953 Big Game Harvest

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herd has a high reproductive rate, and (3) deer surpluses are perishable, it is possible to analyze events leading to the present.

The buck law proved effective in encouraging maximum deer increases at a time when populations were low. By 1930 some eastern Oregon ranges were stocked to capacity and basic winter food supplies were being overused and killed out. Increases were no longer taking place, annual losses balancing annual production. Since the harvest of bucks only could not affect more than 10 per cent of the herd, the inclusion of some females in the bag became advisable in order to utilize those deer otherwise lost through malnutrition and to protect forage resources from overuse.

Concurrent with the situation in eastern Oregon, the expansion of farming practices into the foothills and shoestring valley areas of western Oregon created another problem. Damage to agricultural crops became serious. Since such areas were brushy and unattractive to hunters, they were lightly hunted as the opportunity of bagging a buck was limited.

Starting in 1938 controlled hunts were employed to harvest antlerless deer surpluses on winter ranges and control damage problems. Such hunts were held at the time the deer were on the range involved. It became apparent over the years that the large number of problems and the shortage of time during which controlled hunts were practical required some other solution. The hunter's choice season was adopted to more efficiently harvest the annual deer crop.

The hunter's choice regulation was limited to the last few days of the general season and provided those with an unused tag the opportunity of taking a deer of either sex. By holding the season late, hunting pressure was reduced and it was possible to limit the open area without creating undue concentrations in any one section.

Following the 1952 season, Game Commission field agents checked the condition of the deer herds closely. On the mule deer winter ranges where population trends are measured, little change in numbers was evidenced. It became apparent that increasing the 1952 deer kill a third by the simple process of adding some antlerless deer to the bag had little effect on the total

Table 2 — 1953 General Elk Season

County	Number of Hunters	Kill				Per Cent of Hunters Successful
		Bulls	Cows	Calves	Total	
Clatsop.....	3,484	307	.....	.....	307	8.8
Columbia.....	157	27	.....	.....	27	17.2
Coos.....	1,458	160	.....	.....	160	11.0
Curry.....	18	1	.....	.....	1	5.6
Deschutes.....	62	2	.....	.....	2	3.2
Douglas.....	630	88	.....	.....	88	14.0
Hood River.....	7	1	.....	.....	1	14.3
Klamath.....	8	3	.....	.....	3	37.5
Lane.....	298	39	.....	.....	39	13.1
Lincoln.....	148	23	.....	.....	23	15.5
Tillamook.....	302	21	.....	.....	21	7.0
Wasco.....	24	1	.....	.....	1	4.2
Western Oregon Subtotals.....	6,596	673	.....	.....	673	10.2
Baker.....	2,038	155	148	28	331	16.2
Crook.....	365	12	24	8	44	12.1
Gilliam.....	7	1	.....	.....	1	14.3
Grant.....	3,501	428	140	45	613	17.5
Harney.....	352	9	14	10	33	9.4
Jefferson.....	5	.....	.....	1	1	20.0
Malheur.....	287	15	13	3	31	10.8
Morrow.....	735	154	.....	.....	154	21.0
Umatilla.....	3,960	612	.....	.....	612	15.5
Union.....	3,802	704	31	7	742	19.5
Wallowa.....	3,551	718	.....	.....	718	20.2
Wheeler.....	377	10	11	6	27	7.2
Eastern Oregon Subtotals.....	18,980	2,818	381	108	3,307	17.4
Tagholders Not Hunting.....	1,380	.....	.....	.....	.....	.....
State Totals and Averages.....	26,956	3,491	381	108	3,980	15.6

population of the 51 separate herds under study. Influence of the 1952 hunter's choice season in western Oregon was not substantial, as fire closures prevented a satisfactory hunt on blacktailed deer ranges within a mile of agricultural lands where the season was in effect. The regulation was repeated in 1953 with additional areas open.

Results of the 1953 season substantiated the fact that hunting both sexes the previous year had little or no effect on deer numbers. Obviously, the breeding stock had been left intact and an excessive kill had not been made. Again, the normal kill was increased a third with the addition of antlerless deer to the bag.

An inventory of winter ranges following the 1953 season showed the same results as the year before. Our mule deer ranges show little change in the population density. Some of the more heavily hunted ranges actually showed increased wintering populations over the previous year and the over-all average is very comparable with that of the past five years. The reoccurrence of numerous damage complaints in western Oregon this spring testifies to

the fact that the hunter's choice season did not eliminate the blacktails from agricultural lands.

It should be pointed out that weather conditions the past two winters have been very mild, encouraging the maximum survival of deer. Carrying excess numbers through such winters would have placed additional strain on food supplies and reduced the carrying capacity of the winter ranges involved. It must be re-emphasized that a deer crop is not money in the bank but is actually perishable and should be utilized when ripe in the fall.

There is little assurance that Oregon's big game harvest can be sustained at last year's high level because weather conditions are seldom as favorable as in 1952 and 1953. However, it is apparent that the liberal harvests enjoyed have not had a detrimental effect upon the populations and perhaps an even larger percentage of the annual deer crop can be utilized without hazard to that valuable resource.

Current inventories of big game populations reveal an excellent carry over of both deer and elk and the prospects for 1954 seasons are indeed bright.

BEAVER

East of the Cascades beaver tend to build lodges in the lake formed by the construction of dams. Beaver in western Oregon usually build their homes in stream banks, with under-water entrances.

Beaver are heavily built, round-bodied animals, with powerful chisel-shaped front teeth, short legs, fully webbed hind feet, and a flat scaly tail. They are covered with long coarse guard hairs overlying the short, dense, and silky underfur to which beaver skins owe their value. Oregon country was explored early, because of beaver, by such men as Lewis and Clark, Hunt's Astoria party, Peter Skene Ogden, and others. Bitter rivalry arose between the Hudson's Bay Co. and the North West Co. Bloodshed and pillage were so rampant the King of England ordered the companies to merge. On March 26, 1821, they became Hudson's Bay Fur Co. with headquarters at Fort Vancouver.



Humanlike forepaw



Inside edge hind foot



Split nail of second toe.

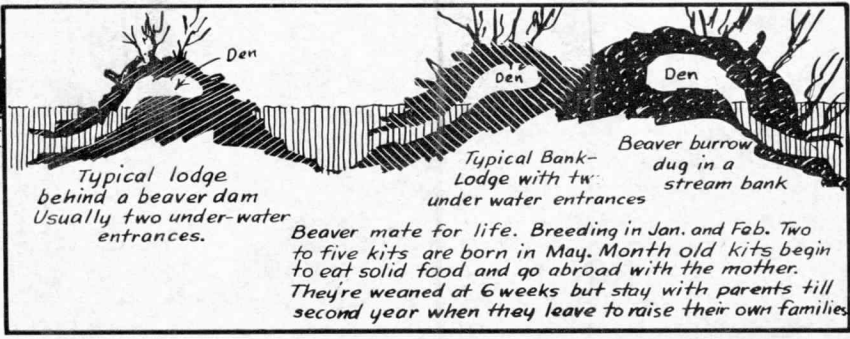
This nail used like a comb to preen fur and scratch lice. Also used as tooth-pick.



Favorite foods of the beaver are aspen, cottonwood and willow; the bark, leaves and twigs being eaten. De-barked limbs are used to construct dams or repair breaks. Barks of other trees, herbs, grasses and other succulent vegetation are important in the diet. In cold regions where ponds freeze over, food is stored on the bottom.



Main enemies are wildcat, coyote, cougar and otter. Bear frequently destroy lodges to catch the young.



Typical lodge behind a beaver dam. Usually two under-water entrances.

Typical Bank-Lodge with two under water entrances

Beaver burrow dug in a stream bank

Beaver mate for life. Breeding in Jan. and Feb. Two to five kits are born in May. Month old kits begin to eat solid food and go abroad with the mother. They're weaned at 6 weeks but stay with parents till second year when they leave to raise their own families.

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