

OREGON STATE

GAME COMMISSION BULLETIN

JUNE, 1953





Senor Alejandro Goni of South America believes in complying with the angling regulations of any foreign country he visits. On May 12, three days before the May 15 deadline, Senor Goni's salmon-steelhead tag card was received in the Oregon Game Commission office after being mailed earlier in the month from Buenos Aires, Argentina. His accompanying letter read: "Here I enclose the card I get when they gave me the fishing license last year in Wemme, Ore. I've been in there for the fishing season and I hope to be there again next year enjoying that sport."

* * *

The Sandy River smelt license sales for the 1953 run exceeded those of any other season. The Game Commission issued 59,503 non-commercial dipping permits. The big run, which started April 19 and ended April 29, enabled almost everyone to take his limit of 25 pounds. This run was unusually late in arriving. The only other run known to have occurred later was in 1920 when the newspaper records show that the smelt entered the Sandy on April 24.

* * *

Numerous inquiries have been received concerning the channel catfish in Oregon.

The species is to be found in the Snake River between Ontario and Robinette, and on rare occasions one is seen in the Bonneville ladders. The Idaho Fish and Game Department planted the catfish in the upper Snake several years ago, and for a time it appeared that it was adapting itself to the river, but the catch has fallen off.

The bag limit regulation of 5 channel catfish in possession was set up in an endeavor to limit the catch until such a time as the fish could become better established. The species has been in the Columbia for many years, and was stocked there originally in 1893. Angling success for the channel catfish will probably be limited until such a time as the fish may become firmly established.

COVER

Game field agents prepare for a pack trip into the high country of Wallowa county. (Photo by C. B. Walsh.)

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CHANGE OF ADDRESS

Please report promptly any change of address. Send in both the old and new address with notice of change.

* * *

Through courtesy of E. Huckeba of Bend and the Deschutes county sportsmen's association, four fence stiles on Mr. Huckeba's property along the Deschutes River in the Camp Abbott area now provide improved access to the stream for anglers.

May Meeting of the Game Commission

The Game Commission at its meeting on May 8 in Portland acted upon the following matters.

Diamond Lake regulations were relaxed in view of the impending eradication of the trash fish population at the end of the 1954 season. The season in 1953 will be open from May 16 to October 18 and a daily bag limit of 10 fish of any size will prevail. Weekly and possession limit will be 20 fish. Complete closures in that part of Lake creek to the North Umpqua highway crossing and in Short and Silent creeks were eliminated and these streams will be open from July 15 to October 18.

Schrader Construction Company's bid of \$17,905 for renovation of Klamath hatchery was accepted.

A contribution of \$250 to Keep Oregon Green Assn. was approved.

A Federal Aid project was approved for construction of machine shed and moving and renovating of residence on the Sauvies Island Management Area at a total estimated cost of \$9,500.

It was decided to exercise three additional options for land acquisition. The options covered 250 acres in the Wena-ha area and 92.98 acres in the Sauvies Island Management Area.

L. E. Inman and L. E. Moore appeared before the Commission to ask that no action be taken to prohibit the use of automatic gaff hooks by anglers. The matter was tabled for consideration at the January hearing.

Summer Camps Scheduled

Wildlife, in all its interesting phases, will be the subject of an extensive youth education program in organized summer camps to be conducted this summer by the Oregon Game Commission's department of Information and Education. Starting its fourth year of summer camp program work, the department expects the demand for its service to exceed the 105 camp sessions scheduled last summer. Bill McCaleb and Roger Vorderstrasse are the college seniors in game management who will assist in the work this summer. Many organizations have already submitted dates for summer camps, and the schedule should be completely filled by June 15. It is significant to note that over fifty organizations submitted requests before the announcement of this year's program was made.

BIG GAME REVIEW

Harold Cassin Smith



By R. U. Mace, Chief, Big Game

Periodically it is well to review the condition of big game as well as other fish and game resources in Oregon. Sportsmen whose activities afield are confined to a few short days each fall continue to remain interested throughout the year. Such a review is particularly timely following Oregon's generous deer season last year and prior to July when 1953 hunting regulations will be established.

Reliable information is of vital importance in the management of big game. To secure facts, a permanent field organization is assigned throughout the state. Information collected by field agents is summarized for consideration by the Game Commission along with the many recommendations from other groups and individuals in establishing hunting regulations.

It is necessary to measure the trend of big game populations. Since a tally of total numbers is impractical, the rate of increase or decrease is determined. Permanent routes are established on each big game range in the state and counts of animals are made at a similar time each year. Following this procedure over a period of years provides an index of animals per mile which can be compared with past records to determine the trend.

Herd composition, or percentages of males, females, and young, is measured each year. A portion of each herd is sampled at a time when the animals are most easily observed and undisturbed by hunting or other influences. Herd composition ratios are useful in measuring the annual crop of young and also in determining the numbers of males available for reproduction.

During late winter and early spring, mortality checks are made on each big game range. Again, representative portions are sampled to serve as a guide in measuring losses. All carcasses observed along the sample routes are tallied as to age, sex, and cause of death. Comparing results over a period of years establishes an index of loss which is useful in determining the health and vigor of the herd.

Range conditions affect the welfare of most big game animals. Deer and elk populations, particularly in eastern Oregon, are controlled by the amount of food available throughout the winter months. Not all plants are eaten by big game. The abundance and food value of various plants vary on each winter range. Key plant species are selected for study to determine the condition of the range. A key species is one palatable to the animals and supplying a large share of the diet. By preventing overuse of key species, the range can be maintained in a healthy condition to support a wintering big game herd in future years. Representative plants of the key species are permanently marked and yearly records maintained of forage production and utilization.

As far as sportsmen are concerned, the results of big game management are determined during the hunting season. Each year a surplus of big game is produced for harvest. When ranges can support more animals without undue conflict with agriculture and other interests, the harvest consists mainly of males. On ranges stocked to capacity, the harvest includes antlerless animals to fully utilize the annual crop.

Hunters are provided an opportunity to assist in measuring the yearly big game harvest through the report card system. Attached to each tag is a return card to be filled out and returned to the Game Commission. Each hunter, regardless of success, should promptly fill out and mail the card. A machine analysis is made of cards returned to provide a breakdown of kill by county. Since all cards are not returned, a random sample of 5,000 hunters is conducted by questionnaire and its results applied to the number of hunting licenses sold to determine the total kill. The total kill is then prorated among the counties to complete the report.

Although the collection of data is not as yet complete for consideration by the Commission in July, results to date can be used in drawing some conclusions.

Deer:

Table 1 summarizes the 1952 general deer season. The sale of deer tags increased substantially over previous years with a record total of 188,250. A total of 175,242 hunters actually participated, bagging 77,659 deer for an average success of 44.3 per cent. In addition to the general season kill, 202 deer were harvested during the Newbridge special season, and 1,940 archers took 224 deer on six archery areas.

The 1952 season marked a step-up in the Commission's program to adequately harvest deer surpluses. Special seasons in effect since 1938, limiting the number of hunters authorized to take antlerless deer in prescribed areas, proved unable to handle the situation as more areas required treatment than

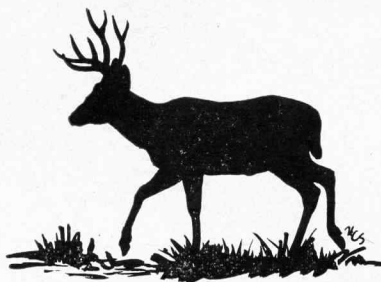
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Big Game Review

(Continued from Page Three)

time or manpower would permit. Organized sportsmen throughout the state registered approval of a more generous harvest of deer at the July regulation hearings. Recognizing public support and the need for expanded either-sex hunting to protect winter ranges from overuse and agricultural crops from excessive damage, the Commission authorized a three-day hunter's choice season throughout specified sections. Buck hunting was permitted from October 1 to October 17, while a deer of either sex was legal on October 18, 19, and 20 for those with unused tags.

The hunter's choice season was generally limited to those portions of western Oregon within one mile of agricultural lands where deer damage was most severe. Much of southeastern Oregon was open as well as portions of northeastern Oregon outside national forest boundaries.



An unusually dry summer and fall upset the plans of many deer hunters. A lack of rain and resultant fire hazard necessitated the closure of most of western Oregon to entry, although hunting was permitted in eastern Oregon after October 4th. The fire closure remained in effect during the first of the hunter's choice season, resulting in a very light harvest of deer adjacent to agricultural lands. Although the buck season was extended, removal of antlerless deer in western Oregon was so limited as to be ineffective.

The highest kill of antlerless deer was made in Lake, Grant, Harney, and

Klamath counties, averaging from 37 to 46 per cent of the total harvest. Over the state as a whole, the antlerless bag averaged 33 per cent of the kill. By limiting the season to the last three days, restricting participants to those with unused tags and confining the open areas, the hunter's choice regulation proved to be a conservative method of harvest. Although ineffective in western Oregon because of the fire closure, the eastern Oregon season was considered a success. Recognizing the difficulty of controlling large numbers of hunters under any conditions, lawlessness was no more apparent than during a general buck season. Hunting pressure appeared to be fairly uniform and no breeding herds were jeopardized. Many hunters were surprised by the ability of antlerless deer to take care of themselves.

The purpose of the hunter's choice season on eastern Oregon ranges was to harvest more deer prior to the winter period. From 20 to 25 per cent of the

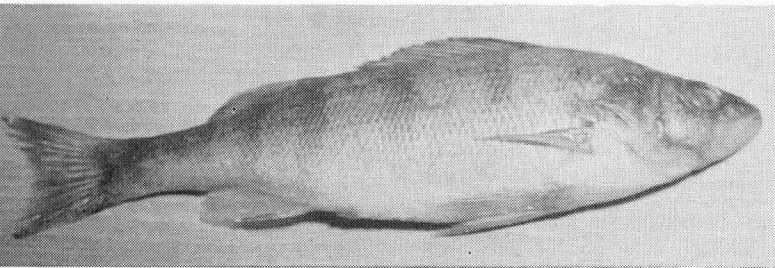
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Table 1 — 1952 General Deer Season

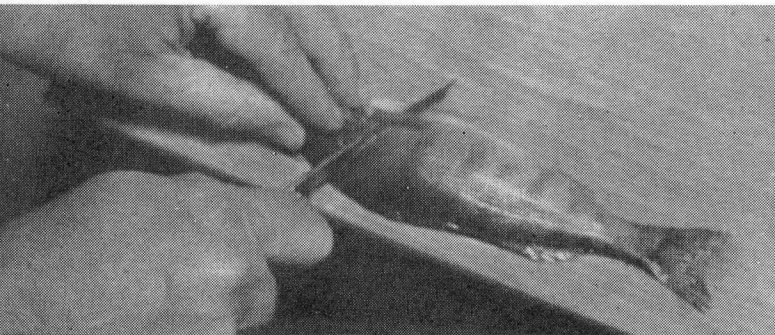
County	No. of Hunters	Kill				Per Cent of Hunters Successful	Per Cent Forked Antlers	County Area in Sq. Miles	Deer Harvested per Sq. Mile
		Bucks	Does	Fawns	Total				
Baker	7,725	2,671	1,693	346	4,710	61.0	42.3	3,084	1.5
Benton	2,787	1,008	292	42	1,342	48.2	42.6	647	2.1
Clackamas	2,112	494	114	18	626	29.6	47.7	1,890	0.3
Clatsop	3,596	1,035	284	24	1,343	37.3	46.4	820	1.6
Columbia	2,453	608	175	15	798	32.5	46.3	646	1.2
Coos	4,449	1,633	442	21	2,096	47.1	45.5	1,611	1.3
Crook	8,757	2,720	1,364	186	4,270	48.8	43.9	2,980	1.4
Curry	1,097	520	101	5	626	57.1	43.9	1,622	0.4
Deschutes	14,347	2,719	884	128	3,731	26.0	38.3	3,041	1.2
Douglas	6,751	2,425	579	32	3,036	45.0	45.9	5,062	0.6
Gilliam	424	235	-----	-----	235	55.4	47.3	1,211	0.2
Grant	12,351	4,088	2,229	275	6,592	53.4	47.7	4,532	1.5
Harney	10,152	4,033	2,111	278	6,422	63.3	40.0	10,132	0.6
Hood River	1,444	193	80	15	288	19.9	30.4	529	0.5
Jackson	6,196	1,625	464	27	2,116	34.2	34.1	2,817	0.8
Jefferson	1,459	482	-----	-----	482	33.0	44.2	1,794	0.3
Josephine	1,976	518	175	7	700	35.4	35.7	1,625	0.4
Klamath	14,384	3,643	2,100	232	5,975	41.5	39.9	5,973	1.0
Lake	14,712	3,033	2,288	293	5,614	38.2	50.7	8,270	0.7
Lane	8,651	2,666	564	37	3,267	37.8	45.1	4,594	0.7
Lincoln	1,485	611	-----	-----	611	41.1	42.1	1,006	0.6
Linn	3,561	1,128	355	50	1,533	43.0	39.4	2,294	0.7
Malheur	4,822	1,869	852	145	2,866	59.4	38.5	9,870	0.3
Marion	1,922	433	186	24	643	33.5	46.2	1,173	0.5
Morrow	2,504	775	439	108	1,322	52.8	56.2	2,059	0.6
Multnomah	297	45	47	6	98	33.0	56.3	424	0.2
Polk	2,804	1,019	171	34	1,224	43.7	40.3	739	1.7
Sherman	342	160	-----	-----	160	46.8	32.4	830	0.2
Tillamook	4,823	1,223	-----	-----	1,223	25.4	55.0	1,115	1.1
Umatilla	5,992	1,525	792	148	2,465	41.1	48.4	3,231	0.8
Union	5,814	1,674	1,065	236	2,975	51.2	48.8	2,032	1.5
Wallowa	2,966	1,610	743	134	2,487	83.9	43.1	3,178	0.8
Wasco	3,665	719	496	90	1,305	35.6	37.9	2,387	0.5
Washington	1,428	408	52	6	466	32.6	55.7	716	0.7
Wheeler	5,128	2,037	1,163	194	3,394	66.2	47.3	1,707	2.0
Yamhill	1,866	438	167	13	618	33.1	48.0	709	0.9
Tagholders Not Hunting	13,008								
Totals and Averages	188,250	52,023	22,467	3,169	77,659	44.3	44.0	96,350	0.8

DRESSING PERCH

The perch is one of the predominant species in our larger coastal lakes and is often taken in great numbers. It can be caught with the simplest of tackle; hence, an excellent fish for the family outing. The photographs here are presented to encourage better utilization of this large fisheries resources. The erroneous belief that warm-water game fish are not palatable because of the presence of large numbers of bones has led many to shun these species. In reality, they can be dressed in such a way as to have fewer bones than a trout cleaned in the conventional manner. Many methods may be employed in dressing perch, but the method illustrated can easily be mastered by the average angler.



A perch in the round.

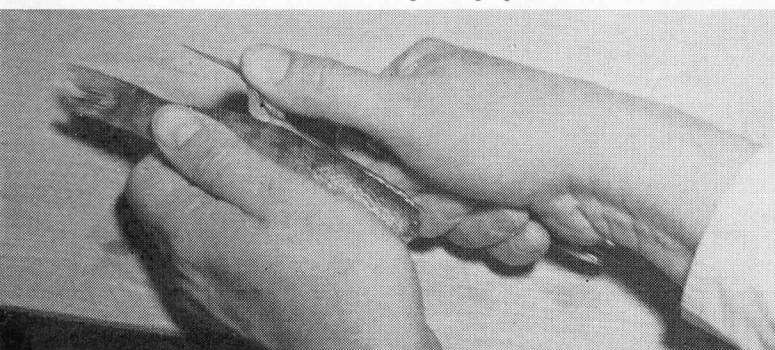


With a sharp knife sever the head from the body just back of the paired fins.

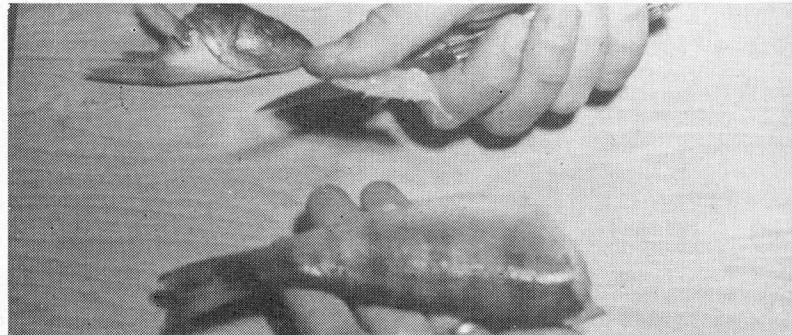


Cut skin on both sides of the dorsal fin by inserting knife in flesh as shown in this photograph.

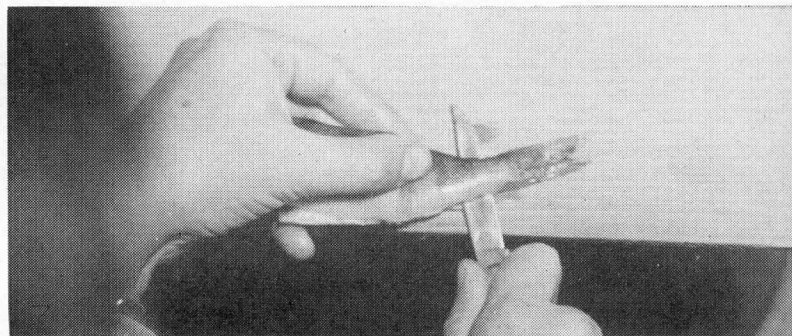
Grasp the rear portion of the dorsal fin between knife edge and thumb and remove by lifting upward.



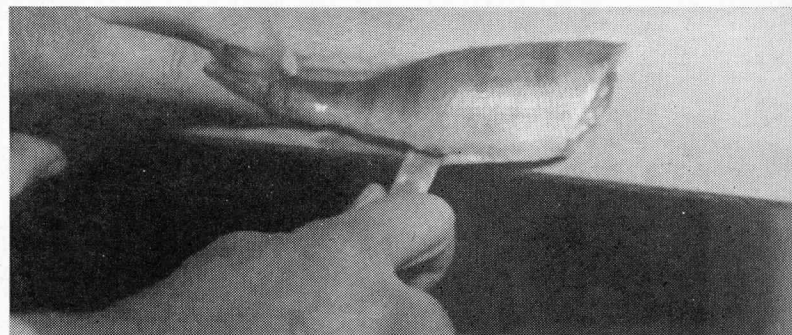
Make similar cuts around the anal fin with the first cut splitting the abdomen.



Grasp anal fin between thumb and knife edge and remove by twisting motion. Watch out for sharp spine.

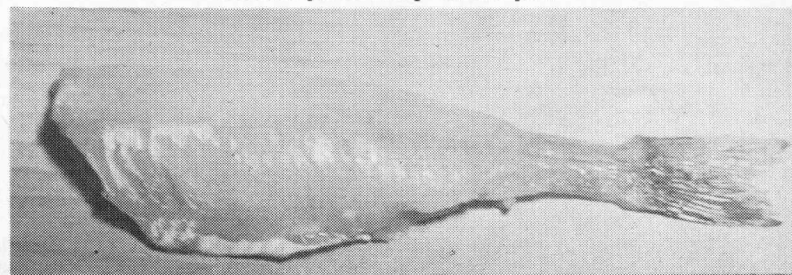


Insert knife under skin one and one-half inches in front of tail. Cut back and sever at tail.



Press flaps on firm surface with middle and forefingers, and remove skin by knife motion as shown in photograph.

Dressed perch ready for the pan.



Big Game Review

(Continued from Page Four)

fall population in a given herd may be taken by hunters each year, permitting total numbers to remain stable. Since 100 mature does will produce an average of 150 fawns, such a harvest certainly is not excessive. Restricting the kill to bucks only removes an estimated 10 per cent of the herd. To realize maximum returns from a range stocked to capacity, an equal number of antlerless deer should be included in the bag. Last year the antlerless kill remained conservative, making up but one-third of the kill. After fawns are dropped this spring, total populations will again be at a high level. Continued removal of antlerless deer is considered desirable to stabilize the herds, protect winter ranges from overuse, and permit maximum utilization of the resource.

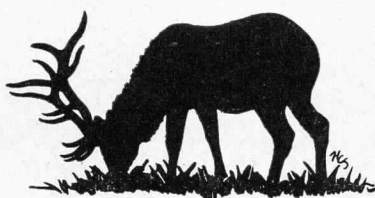
The trend of mule deer as measured on winter ranges during past months shows little change over that of recent years. The extremely mild weather conditions have permitted a widespread distribution of the herds. Observing deer on the sample routes has been difficult since many wintered at higher elevations where cover was dense. The inventory data during open winters is always more conservative than during severe winters because of the difficulty mentioned. Despite this, a total of 21,181 deer were observed on 1,744 miles of permanent sample routes, an average of 12.1 deer per mile, which compares closely with the density of 11.7 in 1952, 12.0 in 1951, and 12.2 in 1950.

Mild weather conditions, coupled with a more generous harvest last fall, reduced the mortality among mule deer on winter ranges. Carcasses have been difficult to find, the loss being negligible. Although conditions were favorable, use of key shrub species on many winter ranges remains higher than permissible if the plants are to reproduce and maintain themselves.

Little change in the status of black-tailed deer in western Oregon is evident. Although observations to determine population trends will not be made until mid-summer, field agents report excellent survival last winter. Due to confusion created by the fire closure, few deer adjacent to agricultural lands were harvested last fall and the damage problem remains serious.

Elk:

Table 2 summarizes the 1952 elk kill. In addition to the general season, 100 elk were taken during two special



seasons, 54 in the Troy area of Wallowa County and 46 in the Walla Walla area of Umatilla County.

Hunting conditions in eastern Oregon were unfavorable last fall. Dry weather persisted until the last of elk season, making it almost impossible to stalk animals in dense cover. Although most hunters reported ample sign, they were unable to approach elk in the absence of snow or moist conditions.

Many hunters apparently recognized the difficulties involved for the sale of elk tags declined from that of the previous year. A total of 25,867 tags were issued compared to the record of 28,745 sold in 1951. Of the 23,828 who actually participated, 3,333, or 14 per cent, were successful. This total is below the 1940 to 1952 average of 3,808.

Results in eastern Oregon were below those of 1951. A substantial increase in the percentages of spikes among the kill of bulls occurred. From 29.5 per cent in 1951, the percentage increased to 42.7 per cent. In Wallowa and Morrow counties, spikes made up over half the total kill of bulls. Generally, such an increase indicates very heavy hunting pressure and success under a bull regulation will continue to go down.

The open winter had made it difficult to measure the trend of elk in eastern Oregon. Airplanes are utilized to sample herd ranges in the early spring as elk concentrate on exposed slopes where green grass first becomes available. Animals have remained scattered in dense timber at higher elevations rather than concentrating where they can be easily observed. In Umatilla and Union counties, 1,524 elk were observed in 371 miles of flying, an average of 4.1 elk per mile. This figure indicates a slight increase over the average of 3.7 per mile in 1952. The light harvest should result in more elk being carried through to this spring.

(Continued on Page Seven)

Table 2 — 1952 General Elk Season

County	Number of Hunters	Kill				Per Cent of Hunters Successful	Per Cent Spike Bulls
		Bulls	Cows	Calves	Total		
Benton	13	1	.....	.....	1	7.7	.....
Clackamas	18	1	.....	.....	1	5.6	.....
Clatsop	2,518	263	.....	.....	263	10.4	.....
Columbia	107	7	.....	.....	7	6.5	.....
Coos	1,448	193	.....	.....	193	13.3	.....
Curry	17	1	.....	.....	1	5.9	.....
Deschutes	44	.....	.....	.....	.....	0.0	.....
Douglas	487	51	.....	.....	51	10.5	.....
Hood River	4	.....	.....	.....	.....	0.0	.....
Klamath	28	1	.....	.....	1	3.6	.....
Lane	206	16	.....	.....	16	7.8	.....
Lincoln	141	21	.....	.....	21	14.9	.....
Linn	5	2	.....	.....	2	40.0	.....
Marion	5	.....	.....	.....	.....	0.0	.....
Tillamook	216	16	.....	.....	16	7.4	.....
Wasco	41	1	.....	.....	1	2.4	.....
Western Oregon Subtotals	5,298	574	.....	.....	574	10.8	.....
Baker	2,738	140	170	53	363	13.3	26.2
Crook	288	7	10	4	21	7.3	.....
Gilliam	3	1	.....	.....	1	33.3	.....
Grant	2,928	207	119	36	362	12.4	33.9
Harney	280	8	16	8	32	11.4	.....
Jefferson	16	.....	2	1	3	18.8	.....
Lake	5	.....	.....	.....	.....	0.0	.....
Malheur	295	13	11	6	30	10.2	18.2
Morrow	549	74	.....	.....	74	13.5	53.1
Umatilla	3,199	472	.....	.....	472	14.8	42.3
Union	3,732	491	128	28	647	17.3	39.3
Wallowa	4,170	590	106	37	733	17.6	52.4
Wheeler	327	14	6	1	21	6.4	33.3
Eastern Oregon Subtotals	18,530	2,017	568	174	2,759	14.9	42.7
Tagholders Not Hunting	2,039	.....	.....	.....	.....	.....	.....
State Totals and Averages	25,867	2,591	568	174	3,333	14.0	42.7

Big Game Review

(Continued from Page Six)

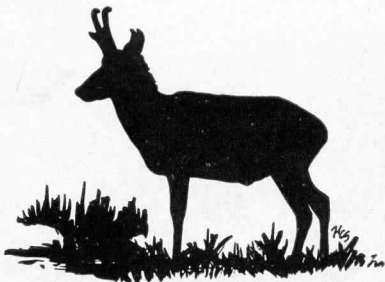
Antelope:

A total of 448 bucks were bagged by 1,076 antelope hunters last fall for an average success of 42 per cent. The highest kill was made in eastern Harney and southern Malheur counties. Success was below that of 1951 when 600 bucks were taken by approximately the same numbers of hunters.

Not only did the kill decline, but the population as measured by aerial survey in February showed a downward trend. A summary of the 3,639 miles annually flown totalled 5,529 antelope, an average of 1.5 per mile. From 1950 to 1952, the average density was 2.3 per mile on the sample routes, noticeably higher than that measured this year.

The factor responsible for the decline in population is unknown at present. A normal crop of kids is apparently being dropped each spring. However, survival is poor. During the last three years the number of kids per 100 does has consistently declined by August when herd composition is measured. From an average of 91 kids per 100 does in 1950, the ratio dropped to 49 kids in 1952. Lower kid survival is also evident in February when population trends are determined.

In an effort to determine the cause, a research project is underway in the Hart Mountain area.



Summary:

In summarizing the current big game situation, we find the liberal harvest of 77,659 deer last fall had no substantial effect on the deer herds.

The mild weather permitted big game animals to remain widely scattered at higher elevations than normal and this apparently has led some to believe that numbers have been substantially reduced. In the light of inventory data, however, there is no evidence of decline in either deer or elk and it appears that similar or more liberal regulations this fall would be beneficial to both the big game resources and the public.

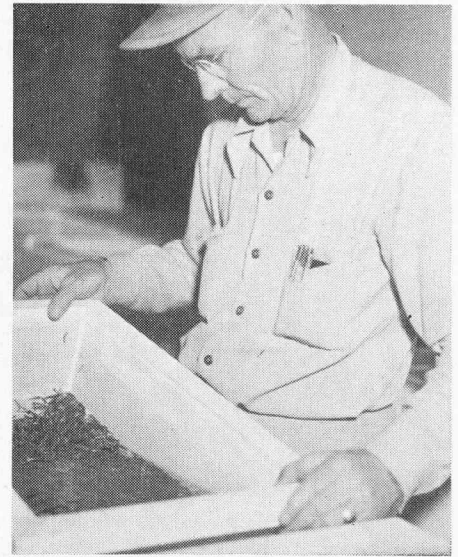
Willamette Hatchery

Sharing a clearing in the Willamette National Forest with a Fish Commission hatchery is the Game Commission's Willamette hatchery. Though somewhat in danger of being eliminated for some years, this hatchery is now in full swing raising rainbow trout to help supply streams in the Willamette Basin. The hatchery still has many reminders of past days of trout producing since not too much modernization was done during the period when the hatchery was threatened by the backed-up waters of a proposed Willamette Valley Project.

Located just behind the town of Oakridge on land leased from the U.S. Forest Service, Willamette hatchery is devoted to raising rainbow trout of legal length and in eyeing eggs of other species such as kokanee.

Hatchery Superintendent C. C. Green, who prefers to be called "Doc," started with the Game Commission about the same year as did the Willamette hatchery. In 1921, "Doc" began his work in fish propagation at the now abandoned Union hatchery on Catherine Creek. At the same time he was working at the hatchery during the winter, he operated an egg taking station at Bingham Springs where eggs were taken in the spring and hatched and held during the summer to be released as fingerlings in the fall of the same year. From there "Doc" moved through a series of hatcheries, including the Necanicum, Wallowa, Oak Springs, Klamath and Fall River until he took his present job in December of 1950. During the days when he was raising trout at Bingham Springs, "Doc" remembers grinding food with a grinder powered by a water wheel. This is a striking contrast to the present day food grinding facilities at his command since Willamette hatchery now has the largest fish food grinder in the state. Installed in 1952 the grinder is capable of grinding 2,300 pounds of food in about twenty minutes. Formerly this job would take the biggest part of a day.

Included in the same building with the grinder is a storage plant capable of holding 100 tons of food at temperatures as low as 18 degrees below zero. This cold storage plant was built in 1952 as part of the program to modernize and expand the hatchery. Cement ponds were constructed in 1950 as an



"Doc" Green, superintendent of the Willamette Hatchery, shows off some of his rainbow trout fry.

other aid to better and more efficient fish production.

Willamette hatchery raises about 175,000 yearling rainbow each year for stocking purposes besides hatching eggs for other hatcheries in the state. At present, 150,000 month-old rainbows are being held there for transfer to the Leaburg hatchery upon its completion.

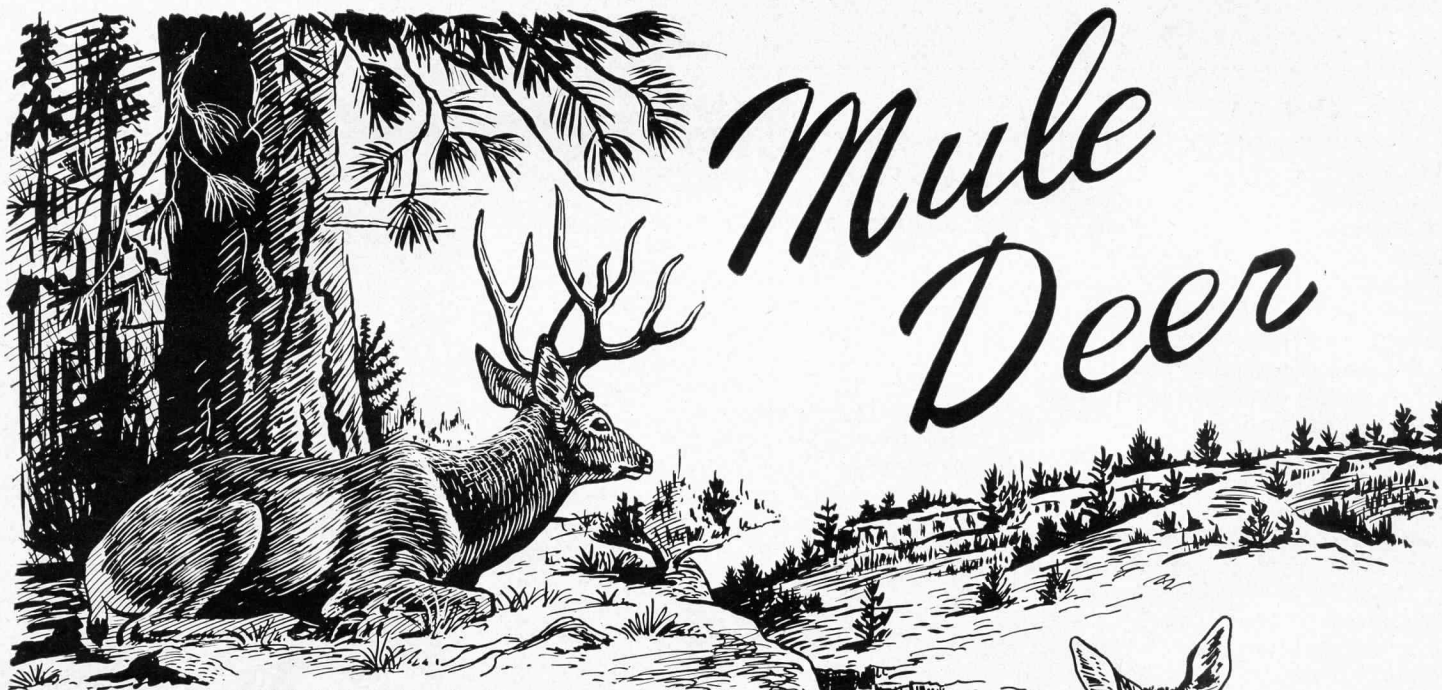
Normally employing two full-time helpers, "Doc" supervises the taking of eggs from the 500 brood fish held for spring spawning. Fall spawning trout eggs are obtained from the Roaring River hatchery near Scio.

The yearling trout raised here make their main growth between the months of May to October since the water does not warm up appreciably until this time of the year.

According to "Doc," nursing the young fish through the first month of their life "would try the patience of Job". They take an extra amount of care during this period because of their slow growth rate. Food for them is put through the grinder as many as sixteen times as they must be fed small amounts throughout the day to insure that they all get food and learn to start eating.

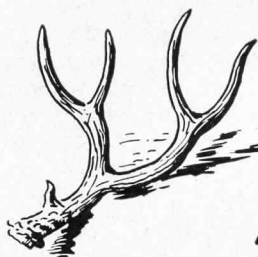
The future of the hatchery is bright. The Game Commission has recently approved a new superintendent's house and "Doc" Green has plans for improvements that will make the Willamette hatchery an outstanding unit.

Mule Deer

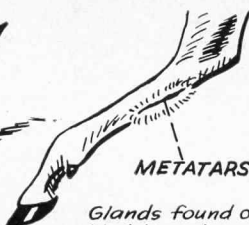


THIS CAGEY BUCK is in his favorite spot, and afternoons find him surveying the country from this vantage point. Mule deer like open range country and open forests with rimrocks and steepest, roughest country to be found. They're found east of Cascade summit scattered throughout eastern Oregon.

The large ears account for this species being called the Mule deer. Fawns are born in June, with spots which help camouflage them from their enemies. Coyotes, Bobcats, Cougars and Golden Eagles are the main predators.



Antler points branch in pairs. Short brow tine. Large and massive.



METATARSAL

Glands found on outside hind legs. Long; approx. 5 inches.



Tail with black tip. Under-surface hairless. Cylindrical in shape. Held down while running.



Bitterbrush and mountain mahogany are favorite Mule deer foods. They also feed on sagebrush, juniper, grasses, weeds, lichens and mosses. They go to water early mornings and evenings.

Summers are spent in mtns. in the aspen and lodgepole pines. Snow chases them out in fall to sheltered valleys where the snow is not so deep and stands of bitterbrush are found. Wise old does are the leaders.



Harold Gorman Smith

Oregon State Game Commission Bulletin

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