

# Live Beaver Able Ally of Farmer and Stockman

William L. Finley, D. Sc. and Ed F. Averill  
Write These Wild Life Articles

## Corvallis P. M. Sees Starlings In Back Yard

Judge Victor P. Moses who, when he is not serving as county judge of Benton county is serving as postmaster for Corvallis in which position he is at present, sends in the first report of the starling being seen that far south in Oregon. It will be recalled these birds were imported from England to Vancouver Island, British Columbia, and that they are apparently spreading south to Washington and into Oregon.

In writing to this department about his observation, Judge Moses says: "In yesterday's Journal I read with interest an article on the page containing the wild life articles, the article referring to the 'starling,' and noted that Ira Gabrielson had recently seen one of these birds in Portland.

"Some two weeks past there was a flock of from 10 to a dozen of these birds in my yard. I called Mrs. Moses out of the house to look at them. The white on the wings and the tufted bill were striking. We were so interested in the strange bird that we visited the Corvallis library to try to find out just what this bird was, but were unsuccessful. This flock took possession of my rear yard, where we have accommodations for birds, such as drinking and baths and food, having quite a flock of robins, several thrush, and numerous sparrows, and canaries that live with us, and seem to know us. The starlings came in a rush, and fell into the bath, and began picking up the green food and ground bread and oats I had scattered. As soon as I noted the picture in The Journal, page 5, section 2, I knew the bird, and it was recognized by Mrs. Moses.

"I thought this item might be of interest to you, in that none had been noted south of Portland."

### TUCKY HAS BIG BAND

Lexington, Ky., Oct. 19.—The University of Kentucky Wildcats are being cheered on by the largest band in the university's history. The band has more than 100 members.

## Beavers Thwart Bobcat

### Water Dwellers Co-Operate to Cheat Hungry Feline of Rodent Meal—Grabs Tail and Tugs

How one beaver, engaged in a fierce battle with a hungry bobcat, was pulled into the water by another beaver and thus saved is told by B. E. Kennedy, formerly editor and publisher of the Baker Herald. Kennedy, who now lives at 5315 N. E. Cleveland street, Portland, was guest of his brother-in-law, William E. Love, at the latter's Wauna lake cabin in November, 1934. Late one afternoon as he was strolling along the shore of Blue lake he heard a commotion on a tiny artificial island constructed

by beavers on the top of a tree that had fallen into the lake. An investigation disclosed the fighting participants. The beaver seemed to be striving desperately to reach the water and the bobcat seemed just as determined to keep him on land. Presently a larger beaver appeared, grasped the fighting clansman by the tail with his fore paws and backed slowly into the lake. The foiled cat, soon discovering the presence of a human being, made use of the tree trunk bridge to escape into the woods.

## New Game Study At O. S. C. Popular

The new course in "Game Management" at Oregon State college is proving so popular that all facilities are taxed to the limit, according to word received from Corvallis. Planned for a possible beginning class of 25, a total of 110 is being cared for. Of this number 70 are freshmen and 40 upper classmen. Two young women are taking the course. Professor R. E. Dimick is at the head of the new department.

## Pilchards Produce Lots of Meal, Oil

Pilchard meal is the largest single source of fish meal in the United States, according to statistics. In California some pilchard meal is prepared from the whole fish and some is made from cannery refuse. This situation is due to the California state law which permits a certain percentage of the whole pilchard catch to be converted into a meal and oil and requires that the balance be preserved for food purposes.

## Michigan Stingy On Sunday Hunting

Sunday hunting is entirely or partly banned in 13 counties of South-eastern Michigan. In three counties no hunting at all is allowed. In seven counties the land owner may permit Sunday shooting on his land, while in three counties only the owner or tenant is permitted to shoot on Sunday. In some of the counties the prohibitory regulations are limited to certain townships.

It all sounds rather complicated to a Western sportsman.

### Must Have Stamp

The federal law requires all duck hunters to purchase a \$1 hunting stamp before they attempt to hunt any waterfowl. This is in addition to the state license. These stamps may be had at any postoffice.

## Transplanting Beaver Found Best Solution

Along Crooked river just south of Prineville the water is sluggish and bordered by cat-tails and willows. This is a typical area for beaver. Breeding here, they have spread out and become bothersome to farmers along irrigation ditches.

Formerly when beavers were damaging orchards or crops, the state game commission was accustomed to grant permits to kill and reduce the beaver numbers. To guard against people killing beaver merely to sell their hides, the commission compelled any person holding a permit to turn the hides over to the state. The money from such sales was used to purchase large wire traps in which beavers could be captured alive.

### GOOD WORK CARRIED ON

A valuable work now is being carried on in the counties of Eastern Oregon. These live traps have been lent the biological survey of the department of agriculture. Now, whenever a complaint is made of beaver doing damage, federal trappers capture the beavers alive and the federal forest rangers transfer them into the national forests.

A beaver live-trap is a metal frame about four feet square and covered with heavy wire. It is held open by springs. This is set in a beaver run-way where the water is about six or eight inches deep. As the beaver swims over this, he kicks the trigger and the trap springs shut, enclosing him without injury in a locked wire basket. The beavers trapped along Crooked river under the direction of Fred Sankey of the biological survey are transplanted into the Ochoco National forest, in charge of Supervisor Lester Moncrief.

Headwaters of Silver creek come from the south side of the Ochoco National forest. This was a good angling stream. Years ago, with a good water supply, this was a valuable area for stock.

### BLOW TO STOCKMEN

During the winter of 1911-12, two men trapped and took out some 600 beaver pelts from the headwaters of Silver creek and its tributaries. With no beavers left to keep up the dams, the ponds began to disappear and the water supply lessened each year. Instead of thousands of tons of pasturage for stock, the amount was reduced to a few hundred tons. As the stream dried up, ranchers had to dig wells and pump water during the summer for their stock. Farm lands on the lower stretches of Silver creek, lacking water, produced nothing.

The trappers in one season had gained about \$4000, but this was like killing the goose that laid the golden egg. If you balance this against the yearly loss of approximately \$15,000, you can readily see the value of a beaver is not in its hide. Stockmen and ranchers through Eastern Oregon have learned by experience, and killing beaver is in about the same class as stealing cattle.

With this as a beginning, Schroer and Stocker soon had the ducks answering their own calls with real "duck-talk" that was truly music to their ears, and the rest was chiefly a matter of selection for the final manufacture of the master record.

On the finished product one side is devoted to the calls of a balanced stool of hens and drakes. It requires 3 minutes to play.

The other contains four separate types of call, to be played separately. One is the call of a single hen. The second mimics a pair of drakes. The third part consists of the feeding talk of a group of ducks and the fourth may be called a "distance lure," the excited gabble of 50 hens, all chattering and babbling at once.

## Work of Resourceful Beavers More Valuable Than Furs



## Own Quacks Helped Make Duck Records

Two Missouri hunters made phonograph records of duck calls in the hope of being able to circumvent the new regulations prohibiting the use of live decoys.

However, Ding Darling, chief of the biological survey called attention to the provision which prohibits the use of live decoys either directly or indirectly. And when the inventors sought a court injunction to prevent interference by game wardens the court upheld the minions of the law.

The real yarn is how they managed to get the right calls.

The two are joint lessees of a 30-acre duck lake in the Grand river bottoms near Brunswick, Mo., where they have about 50 live decoys. The birds are English callers, mallards and mixed breeds. A master recording out fit was rented and taken to the scene. How to get the ducks to call was a problem. They tried making the birds hungry, then "laying" for them at feeding time.

After two days they managed to record snatches of calls, and hit on the plan of tricking the ducks with the sounds of their own voices.

The "bits" were played, and the ducks began playing up. They answered, and a bit more sound was recorded.

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The beaver—an aquatic wonder—is being salvaged now instead of being killed by the government. Above on the left is one of the animals after being taken from a trap and on the right the trap, which catches the beavers along Crooked river. Below is a typical beaver dam.

## Tastes for Artistry Appear to Vary in Birds; Adaptation Theory, However, Obsession With Nature

A strong tendency in nature is toward harmony and adjustment of each outdoor creature to its environment. There is a leaning toward adaptive color. The lichen matches the rocks or trees. The song sparrow that lives more in the damp and wooded areas is darker brown, while the song sparrow that dwells in the sand and sage has a lighter and more grayish coat.

The ptarmigan, or snow grouse, is often cited as a good illustration of protective coloration. It is white in winter and grayish or brown in summer, the color blending with the environment. It is the same with the weasel and snowshoe rabbit living in the North.

The rufous hummingbird that nests in Oregon builds a tiny cup of greenish moss and the nest is generally saddled on a little limb. It is almost a universal habit for the bird to shingle the outside of her home with some lighter green lichens. One might compare this to the black-chinned hummingbird in Southern California, which commonly nests in the sycamore trees. Her nest is nearly always light brownish or buff in color, because it is made almost entirely from the down on the under side of sycamore leaves.

These nests might be considered as most remarkable exhibits of protective coloration, yet the question might be raised as to whether the selection of nesting materials is made more for the purpose of disguising the nest so it will not be seen by enemies or whether the colors are selected

to match the blend with the surroundings. Lichens certainly give the nest of our rufous hummingbird an artistic touch. It so often looks like the branch on which it is placed and might suggest something like an artistic taste in the builder.

Nests of the wood peewee and some of the gnat-catchers and flycatchers are made of moss and fibres and are saddled on limbs with cobwebs. The material is weather worn and inconspicuous. It is not a case of birds taking the material that may be close and handy. They hunt for neutral colors. The outside of the cup then is finished off with lichens so it is a remarkably beautiful structure. It all leads one to think that birds are like people; some have little taste and others are artistically inclined.

## Value of Fur Small Part of Actual Worth

A beaver can't look at a stream of water without itching to build a dam. He is a born reclamationist because his one idea in life is to store up water. His dams may not look as neat as those put in by reclamation engineers, but he is always on the job to see that his dam holds water. His industry is proverbial. As an animal engineer, his fees for services are nothing. Thereby hangs an important tale for farmers and stockmen.

In Eastern Oregon and other places where water is scarce, a beaver in the right place is worth more than some domestic animals. In the valleys or in an irrigated district, he is a nuisance. If he is discovered doing any damage, the first idea some people have is to kill him. This is a mistake. If an old hen flies over the fence and scratches out the garden seeds, she is not killed, but put back in the right place. It is the same with a cow that gets into the corn.

When white people first came to America the beaver was found in great numbers from the Atlantic to the Pacific. The abundance of this animal and the high value of its fur greatly influenced the exploration and early development of North America. It was an aquatic animal covered with coarse hair and a dense, silky under-fur. In frontier days a beaver pelt was a medium of exchange.

Too many people still have the impression the value of a beaver is in its fur. A beaver hide may be worth \$10 or \$15. In many of the arid areas the West, a live beaver in its proper place is worth \$200 or \$300.

From 1853 to 1877 the Hudson's Bay company sold 2,965,389 beaverhides in London, the average being 118,615 skins annually. During the last quarter of the 18th century about 150,000 beaver hides were exported each year by American fur companies. The Hudson's Bay company marketed about 50,000 annually.

It is a matter of history and mathematics to figure out the numbers of beaver that have been killed in America and the approximate value of these hides. As far as the knowledge of the writer goes, no man has yet attempted to look back through the ages, study the topography of America and try to evaluate the industry of millions of beaver that inhabited this country. Who can estimate their services in storing water, stopping erosion of the soil and creating the first meadows that later developed into thousands of fertile valleys? In these valleys, new generations of beaver established ponds and marshes for fish, waterfowl and other fur-bearing animals.

Through centuries of water conservation the beaver has aided in maintaining the water table which has prevented the land from reverting to a desert.

## 12-Gauge Gun Deemed Best All-Arounder

A few days ago a friend of this department asked the writer for his opinion of the 12-gauge gun. Our reply was that while we were personally rather partial to the 16, undoubtedly the 12-gauge would continue to retain its popularity for many years to come.

One of the best gun experts in the country recently answered the question: "What is the best all-around shotgun?" by saying that in his opinion a 12-gauge, shooting two or more shots, with a 28-inch barrel, modified or full choke, filled the bill.

There is no doubt of the popularity of this type of gun. Using No. 7 to 10 shot it will kill game in the field up to 45 yards. It is heavy enough with No. 4 or 6 shot to handle wild geese.

However, for those who prefer a lighter gun with all the killing power one needs there is a choice of many models of 16 and 20 gauge. We believe the 16 is growing in popularity for it is considerably lighter to carry. In the hands of an expert it is ideal for upland game.



# Not All Ducks Go South for Cold Weather Stay

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## Trout Tackle Salmon Catch Exciting Sport

Taking Silverside salmon in the Pacific ocean off Depoe Bay with ordinary trout tackle is the thrilling sport enjoyed by several Portland anglers the last two seasons. The "inventor" of this sport is George Tuma, ably assisted and abetted by Captain Fred West of the police department. Using 6-ounce rods with 28-pound test Japanese gut lines and 12-ounce test leaders, these sportsmen and their friends have found a way of getting real thrills out of ocean fishing.

The rest of the equipment consists of a large reel to provide a spool big enough to carry the few hundred feet of line, necessary when a plunging, fighting salmon takes the bait, and a No. 2 Steelhead hook. The bait used is the side of a frozen herring cut and attached to the hook in such a way that when it is drawn through the water it resembles the wobbling of a wounded fish.

### HERRING IS BEST

According to Tuma, experiments conducted with frozen smelt, shad and chub show they are not as good as the herring. The final item of equipment is a one-ounce lead weight of wedge shape.

The fishing is carried on six or seven miles offshore, the boat being allowed to drift with it will with wind and tide. The bait is cast out 20 or 30 feet and allowed to sink. The line is then "stripped" back into the boat—not onto the reel, Seldom do the fish bite as the bait is going down but when it starts back up, and especially when it gets near the surface of the water and within sight of the boat, do the big fellows strike. Then the fun begins.

Recently a party of five friends was taken out by the two "inventors," Jim Brooks, Harbormaster Carl Phrehm, Bill Brandes of the California Ink company, Fred Young and Harry Powers. The fish took the lures so rapidly that as many as five were "on" at one time.

### MUCH EXCITEMENT

More than 100 were hooked in the course of the day, 22 of which were landed. As Tuma expressed it, there was certainly plenty doing when four or five men each had a fish on his light tackle outfit at the same time. Needless to say there were many mixups which added to the excitement.

When the weather and sea are both in good humor is the most enjoyable time, but some good sport has been had when the waves were rather high. Some days the sharks are attracted by the bait and scatter the salmon. Then the boys get out their heavy trolling equipment, hook a few sharks for Captain West to kill with his gun. According to Tuma these are blue sharks, running up to 15 feet.

### TRAINED FISH JUMP

Bluegills that jump through a hoop to hit a piece of bread tied at the top are the pride of Harry E. Gavitt of Topeka, Kas., who has trained them. The fish will jump eight to ten inches for the bread.

### LOOKS LIKE EARLY WINTER

Because he caught a codfish off the coast of New Jersey in September, Captain Bill Tracy of Long Branch, is sure we will have an early winter. He says codfish do not ordinarily appear in the vicinity of Long Branch till December.

## Darling's Aide And Finley Eye Oregon Refuges

J. Clark Salyer, who is in charge of all waterfowl refuges under "Ding" Darling, chief of the biological survey, received a personally directed tour of the Eastern Oregon lakes last week from William L. Finley and Stanley G. Jewett. The latter now is in charge of all refuges in Far Western states.

Acting on telegraphic request of Chief Darling, Dr. Finley met the government man at the Malheur-Blitzen refuge. After inspecting the Tule and Upper Klamath lake areas, Salyer went up the coast into Washington, from where he will return to Washington, D. C.

Paul H. Appleby, secretary to Henry Wallace, head of the U. S. department of agriculture, arrived in Portland this afternoon to be met by Dr. Finley and William Rush. The latter is district supervisor for the biological survey. The two Portlanders will accompany Appleby on a tour of the Malheur and Klamath districts. Appleby, according to Dr. Finley, has been of great assistance to the wild life conservation movement.

## Bird Shortage Puzzle; Many Reasons Given

Chinese pheasants are scarce in Malheur county, according to Portland hunters who were there for the opening of the season. Most of the birds killed were old ones. A poor nesting season was given credit for the shortage by local residents. Some ranchers say the hens nested earlier than usual and that after the young birds were hatched they were subjected to a two-weeks' period of cold wet weather that killed many of them.

Other farmers report finding many nests with unhatched eggs. This may be due to illegal killing of hens in the spring by ranchers who feel the birds are a menace to their crops. The state police officer in that territory is said to have told farmers they could kill the birds doing damage to their crops at any time.

The shortage in the number of young birds may be due to other causes. It seems to be the history of Chinese pheasants that they thrive when first introduced into new territory and then after a few years start a decline which seems to be more or less constant, such as has been experienced in the Willamette and Yakima valleys. Whether this is due to some inherent weakness or to disease spread by birds raised in captivity, is not known. It would seem to be a subject worthy of scientific investigation.

## A Good Day in the Field



Sherman Harkson, Danish vice consulate (left), and Walter Grebe and the result of their one day's "chink" shooting near Condon last week.

## Utility Wires Death Trap to Flying Ducks

The Klamath river drops out of Upper Klamath lake, swirls among the boulders at the edge of the city and passes into the smooth waters of Lake Ewauna. This stretch of water has a drop of about 60 feet and is called Link river because it links the two lakes, and Linkville was the old name for Klamath Falls.

The stretch of water is always inhabited by various species of waterfowl. Near the center of the city, it is an attraction to persons who want to watch the flocks of birds from the bridge and shoreline. During the summer the white pelicans fish for chubs that swim in big schools. Many kinds of ducks, grebes and coots gather along the stream, not only in summer but in winter. It is an important feeding and resting area because it does not freeze.

### PENS FOR SICK DUCKS

A few blocks up the right bank the biological survey has built permanent pens with fresh running water for ducks that seem affected by a disease called "western duck sickness," a form of botulism. These sick ducks are brought in from the shallow alkaline areas in different parts of the county. They are unable to fly but when given fresh water and food in the pens they soon recover and are released later.

Some of the citizens of Klamath Falls have suggested that the river and Lake Ewauna should be set aside as a bird sanctuary. Under present conditions, the river is a constant menace to bird life because of the traps unintentionally built by the telephone company and the California-Oregon Power company.

Above the bridge and across the river in various places are stretched a series of wires and cables. All these are just about the right height above the water to catch the flying flocks that cruise this regular flyway.

### MANY BIRDS KILLED

When it's clear weather the birds swing above or below the wires but at night time or in foggy weather it is a most effective death trap. The swift-flying birds hit the wires and are either killed outright or break a wing. In the electric cable running across from the power plant, I saw two dead ducks still hanging that had been caught between the wires.

During the fall and spring, if the air happens to be thick with fog, one can pick up 20 or 30 dead and wounded birds in a watch of a few hours. The game warden estimated that at least a thousand ducks were killed by the wires each year. These companies could conserve many birds by changing the wires.

Certainly there is no lack of cover or feed in the Willamette, Yakima or Malheur valleys. It is equally certain that adverse weather can not be blamed for a continued decrease in the number of birds each season over a long period of years.

## Banding Aids Government in Checking on Migratory Birds



Scenes taken in Southern Oregon showing activities of the government in keeping tab on the life history of ducks. Upper left is a banding pen and upper right one of the banded bird releasing stations. Below, left, a close-up of a band on a duck's leg and lower right, a menace to ducks, live wires from an electrical station on Link river near Klamath Falls. Many birds are killed as the result of flying into the wires in foggy weather.

## Ducks Evade Decoys, Blinds With No Grain

Oregon and Washington wild ducks did not take so kindly to wooden decoys in ponds containing no grain, according to reports from hunters out for the opening of the season Monday. The birds were plentiful enough—possibly more than a year ago, say some hunters—but they steered clear of the blinds.

Porter Yett, who owns a place on Sauvie's island, reported a limit kill, but he thinks he is fortunate in having "an ideal place."

"Blinds located near the resting lakes probably will enjoy good shooting under the new regulations, but those located at a greater distance will be out of luck," he says.

Few ducks were brought across the ferry at Burlington, according to reports reaching the offices of State Game Supervisor Wire and William Rush of the biological survey. "Not more than 50," said Rush.

Most of the ducks taken were "sprigs" and teal. The mallards, which had been abundant on Sauvie's island for several weeks, were conspicuous by their absence on opening day. Later in the week they were back in their accustomed haunts.

Yett accounts for this by saying the mallards had scattered into the surrounding country with the coming of the rain but are coming back now that frosty weather has arrived.

Rush does not think more than 50 ducks have been killed on Sauvie's island any day since the season opened. It has not been many years since this was considered a fair day's kill for two men.

## Spider Horde Takes to Air Ways Sought To Check Kill Of Bird, Beast

Birds are not the only creatures that breed and migrate from the marsh area around Malheur Lake bed. A few days ago I saw what seemed to be a great migration of spiders. The tops of the reeds and bushes were covered with fine, silvery webs. As the current of air swirled across the marsh, a veritable army of small dark gray spiders jumped off the reed tops, and hanging by a single strand, were lifted up. Each spider spun out more and more thread forming a little parachute that was whirled up and away. I caught two or

three of the little travelers in my hand, but they immediately jumped off as if intent on the flight.

Looking up toward the sun was an unusual sight. A circle of clouds was painted in all the colors of an abalone shell. In the glow of the sun the silvery skeins shimmered and glistened as the little spiders serpentine higher and higher. They were ballooning in the breeze to some unknown land. How far they would go or when they would land, no one could tell.

## Ways Sought To Check Kill Of Bird, Beast

A predatory animal management program, based on scientific study and examination of the stomachs of predatory animals and birds has been determined on by the Michigan department of conservation. Adolph M. Stebler of the University of Michigan has been secured to make the necessary survey.

In Michigan, as in most other states, the matter of predatory animal control has been the subject of discussion for half a century. There are those who advocate letting nature take its course. There are many staunch advocates of the bounty system. Still others insist the bureau of biological survey has the right system with its salaried hunters and supervised control.

Stebler is to determine what forms the diet of wolves, bobcats, foxes and coyotes in all sections of the state where these animals are found. Conservation officers, refuge keepers and individuals are to assist in the work, which the Michigan game department anticipates will serve as the basis for its future policy.

Government hunters and trappers operating in the range states of the West have examined the stomach contents of many thousands of these animals. It will be interesting to know whether the appetite of a Michigan coyote is any different from that of his Oregon cousin. A tabulation of these results in the Northwest seems to indicate that the coyote principally uses that food which is most abundant and most easily obtained in his territory.

## Bands Reveal Queer Data on Bird's Flight

During the last few years as the waterfowl population of the country decreased so noticeably, it has become necessary for game experts to collect more complete data on the breeding and feeding habits as well as the travels of birds. As it is impossible to follow any block of birds from one place to another, some method of tagging these travelers was necessary so as to know the migration routes from the summer homes to the winter feeding grounds.

The simplest and best method hit on was a little aluminum band like a bracelet that could be fitted loosely around the leg of the bird. Each band had a different number stamped in the metal with the words "Biological Survey, Washington, D. C."

Many thousands of waterfowl have been live-trapped and banded on the breeding grounds and in various places during migration. Since many ducks and geese are killed during the open season, thousands of bands have been taken off by hunters and returned to the biological survey. By checking the records, many facts have been discovered that lead to the better protection of various species.

The common idea is that ducks and geese move north in spring and south in the fall. Banding records show that birds move in all directions seeking areas where food is abundant. A large number of mallards banded in Montana migrate both west and south. On the other hand, redheads banded in the Bear River marshes of Utah have for some reason a very unusual schedule of travel. They move north and then east across the northern part of the country and spend the winter on the south Atlantic coast.

Since Malheur Lake reservation is both a breeding area for waterfowl and also a resting and feeding area for flocks traveling north and south, it is a good place to trap and band waterfowl and collect facts relating to the life histories of these birds.

Near the mouth of Blitzen river where it flows into the bed of Malheur lake, the biological survey has a trapping and banding station. This is handled by Philip A. Dumont. These pens are covered with wire, and a runway from the outside leads to the point of a V with a little opening where ducks can enter easily but can't find their way out. Grain is scattered inside the pens and outside the V-shaped entrance. A few ducks inside with plenty to eat soon attract others. From the large enclosure, the birds are driven into a smaller pen where they are caught, banded, the numbers and species recorded and then released.

One might think that when these wild birds are caught and banded the fright would keep them from coming back. Such is not the case because there are many repeats. A good dinner often makes more of an impression than the fear of being trapped.

Frequently a duck enters a trap showing a band on the leg that is well worn. The records may show this bird was banded two, three or four years before. It has been lucky enough to survive the many guns of an open season. Normally a duck's life is not more than two to four years, yet some have been banded and returned, showing that they have lived at least seven or eight years.

A majority of birds banded at Malheur lake the early part of the season are mallards and pintails. Returns on the bands of these birds that have been killed show that a large majority were shot in the Sacramento valley and south to southern California.



# Public Sentiment Factor in Saving Elk Populace

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## Public Domain Man-Care of Grazing Rights Wild Animals Hard Problem Ill-Fated Step

Throughout the Western states are 142,000,000 acres of public domain which for many years have been grazed by stock without federal regulation. Over-grazing has greatly reduced the carrying capacity for both stock and game animals by destroying natural plant life and in many places has caused a destructive erosion of the soil.

The Taylor grazing act passed by congress was an important step toward correction of these evils. However, the act has not yet been put into effect. An amendment proposed at the last session of congress was passed but vetoed by President Roosevelt. It seems likely there will be no federal regulation on the public domain until certain management difficulties can be worked out.

One serious objection to the act is that all these lands were placed in charge of the department of the interior. This necessitates building up an entirely new service in the department to regulate grazing. It means a complete duplication of the work now carried on by the forest service of the department of agriculture.

### DIFFICULT PROBLEM

In conserving the outdoor resources of this country, no department of the government has built up a better organization devoted to an important cause than the federal forest service. These men for many years have had to deal with practical outdoor problems where private interests were strong and yet where it was most important to guard the property of the public. The most difficult problem in the nation today is to protect and conserve that which belongs to all the people as a whole against private selfishness. It is almost impossible with resources like the streams, lakes and rivers of the country, which are public property and yet subject to public use. The waterfowl and other game resources and the public domain are typical examples of resources that are hard to conserve.

Wages of rangers and supervisors have been low, but men have been attracted by outdoor service. With heart and soul in the work, they have developed courage and intelligence to act for a more permanent and general interest instead of a temporary local or political interest.

### MOST VITAL RESOURCES

Around the forested areas of the country center our most important public resources. The control of the ever-threatening menace of forest fires is a big job. Another is the handling of forests on a sustained yield basis. It also requires careful study of soil and plant life and proper regulation to prevent erosion of the soil. Grazing of domestic stock is inseparably linked with federal forest areas, also a constructive plan of game management. The co-operative use of forests by the public for recreational purposes is vital, yet certain regions are essential as wilderness areas. Federal foresters are handling these problems on a business basis for the highest public use.

## Bronx Zoo Gets Poisonous Toads

Four "birds of paradise" of the reptile world have been secured for the Bronx Zoo from the Amazon regions where they were valued by the Indians for the poison their brilliant skin concealed.

Less than an inch long, the toads belong to a genus which has ebony bodies, with backs beautifully striped in brilliant colorings. They are avoided by other animals which apparently know instinctively that they are poisonous. Indians used the poison on the tips of their arrows.

Problems covering conservation of big game animals in the West, such as elk and antelope, have been given careful study the last few years by experts of the forest service and biological survey. From experience gained with the Jackson Hole elk herd it has been definitely determined that this herd should be limited to about 20,000 animals. These elk have always had an abundant summer range on the mountain slopes of Yellowstone park, but the winter range has been a serious problem.

Years ago this southern Yellowstone park herd was accustomed to spend the winter in the Jackson Hole country where food was abundant. As this area was taken up by settlers and fenced, the elk tackled the farmers' haystacks.

### HAD TO BUY HAY

High fences had to be built around each stack, then large numbers of elk starved to death during the winter. To prevent this, the government was compelled to buy hundreds of tons of hay each season and feed the herds.

Experts have discovered that wild animals like elk, when forced to depend on hay during the winter become affected by disease and therefore cannot be handled like domestic stock. In order to restore the natural range of this herd, 12,000 to 15,000 acres of land, now privately owned, will have to be purchased by the government. To this area will be added some of the surrounding public domain, which will restore the winter elk range to the conditions of pioneer days.

Inasmuch as settlers and stockmen must be protected outside this proposed federal elk refuge and since the natural winter pasturage on this area is limited, the elk herds will have to be kept within the number of about 20,000. Any excess should be disposed of by hunting, by transplanting to other desirable areas, or, if necessary, by regulated killing.

### BIG REFUGES NEEDED

Inasmuch as there is a definite program through the West to take adequate steps to prevent extermination of big game like elk, antelope, mountain sheep, muledeer and others, at least one large federal refuge must be established for each species. East refuge must be considered largely from the standpoint of the natural summer and winter range of the animals. It is highly important that such animals should not be artificially fed during the winter time. It also will be necessary to keep the numbers from increasing beyond the carrying capacity of the range, which eventually causes destruction of plant life, erosion of the soil and disease to game animals.

### Prehistoric Blooms

California's 2000 or more endemics, or "orphan plants," are accounted for by Prof. W. L. Jepson, of the University of California, as survivors of prehistoric flowers on prehistoric islands along the coast, which now are part of the California mainland. The orphans, found in limited areas near the coast, and nowhere else in the world, are a significant factor in the state's 5000 species of higher plants.

### Go South Early

Reports from the middle western states are to the effect that ducks and geese are flying southward earlier this year than for many seasons. Similar accounts come from different parts of Oregon and Washington. There was an unusually heavy flight of these birds over Willamette valley points Tuesday of last week.

## Oregon's Elk Population Increased by Importations



## Disks Just What Beavers Needed

R. D. Shelley of the Sumpter Valley Dredging company, after reading the story of transplanting beaver in the Sunday Journal of October 20, writes that in their dredging operations they are bothered by the beavers damming up the intakes.

He says they put up shining tin disks in the ditch. These were tied by wires and acted as spinners. The beavers took them down to reinforce their dam. They also took a shovel which was left standing by the ditch. Since it takes one man an hour every morning to clean out the intakes, he is in need of some live traps so the beaver can be transplanted up into the national forest.

### HOT RACE FOR CONES

The annual race between squirrels and CCC workers in the Manistee National forest in Michigan is in full force. It is a race for the cones from the pine and spruce trees. The squirrels want the cones for food and the CCC workers want them for the seed to replant the forests.

## Thanks for the Shovel

### Beaver Clan Outwits Warden's Sortie to Remove Colony—Use Lantern, Tool to Remake Dam

According to Stanley Jewett of the biological survey, some beavers are good jokers. Up in Willowa county a family of beavers built a dam below the mill at Lostine. Owners of the property insisted the beavers were a nuisance and asked the game commission to get rid of them.

George Rogers, deputy game warden, knew the value of the animals and did not want to kill them. After considerable study he hit on a method of getting these little engineers to move on down stream to some other area.

The next day he went down with a shovel and ax and tore out half of the dam. As the beaver is a night animal, George didn't want to sit up all night to

serve notice on them to move. He stuck his shovel in the mud and on the top hung a lighted lantern. He figured the beavers would not work in the light and would have to move.

The next morning the warden discovered someone had stolen his shovel and lantern. The dam was all reconstructed. The beavers hadn't caught his idea, or else they had a keen sense of humor. They had used the lantern and shovel, working them into the sticks and mud and making a substantial barrier to hold back the water.

The Florida racing commission will require that all dogs raced in that state this winter be registered with the American Kennel club.

## Cats Go to Town As Hunter's Aides

Chinook, Wash., Nov. 2. — "Dot" and "Spot," big game hunters, in company with Herbert Kallstrom made an "expedition" into the "wilds" of Chinook Valley. "Dot" and "Spot"—names to the ground, Herbert with a gun. Two miles of trail travel, combined with log jumping and bush scratching—and at last, a bird. "Bang!" went the gun. "Dot" and "Spot" were forward in a flash, pouncing on the kill. The usual shaking followed, with guttural "doggian" sounds. "Dot" and "Spot" are the 6-month-old kittens of the Kallstrom family.

### BIRD HUNTER'S EDEN

Minnesota must be a real pheasant hunting state if we are to accept the word of Frank Blair, superintendent of the state game breeding farm of that state. Says Blair: "There are over 40,000,000 pheasants in Minnesota for the sportsmen to hunt this year."

## Golden Plover's Marathon Ocean Flight Marvel to Naturalists

The migration record of the golden plover is a remarkable annual jaunt. The summer home or place of nesting is from Hudson bay to the Bering sea. Records show that after the summer season the flocks about Hudson bay move across Labrador and then south to Nova Scotia. From this point of land they set sail like vikings of old or like adventuresome air pilots out across the open sea.

It is a tremendously long ocean flight of over 2000 miles, unmapped as far as we know. The suggestion has been made that the course of the plovers' flight is laid in accordance with the prevailing winds. If the birds traveled across the wind, this would shape their line of direction to the shores of South

## 19 Fine, Fat Ducks With Wings Shorn

Boasting of their prowess in bagging 19 fine fat mallards in one day's shooting on Sauvie Island, two East Side professional men were lording it over their less successful companions last week. Imagine their chagrin when a friend to whom they were exhibiting their kill pointed out that each of the birds had a clipped wing and was therefore a member of someone's flock of decoys.

### For Real Thinking

The modern man who wishes to do some "real thinking undisturbed" will go fishing if he follows the advice of Dr. George B. Cutten, president of Colgate university. Speaking before the annual convention of the New York State division of the Izaak Walton league, recently, Cutten recommended this sport as offering "a real escape from the complexities of modern life," and declared that a few hours spent with reel and rod enables the angler to return to his work refreshed in mind and body.

## Herds Seemed Doomed Until Recent Years

In early days elk were abundant in many section of Oregon. Then came a day when they were hunted almost to the point of extermination. Few herds were left 25 or 30 years ago. Closed seasons were established and still their number continued to decrease.

It seemed as though people who lived where elk ranged had decided the big animals were to be exterminated. Each man seemed to say to himself and to his neighbor, "they are soon going to be all gone. If I do not get out now and get my share it will be too late."

When it looked as though this monarch of the Oregon forests was doomed because he was hunted for teeth and antlers as well as for his meat, something happened. That something was the creation of the Oregon fish and game commission in 1911. Governor Oswald West appointed as members of that first commission men who were genuinely interested in conserving our wild-life resources.

In a few months public sentiment in favor of game law observance was developed. The different Elks lodges throughout the state were interested and their aid enlisted. In addition to the regular game monies, voluntary subscriptions were made in 1912 to a fund with which a carload of elk was obtained from the government and liberated in Billy Meadows in the Cheshinmus forest in Willowa county. The following year a second carload was brought in. Both these shipments—30 in all—were from the Jackson Hole herd in Wyoming.

The first load was met at St. Anthony, Idaho, by three representatives of the game commission. The animals had previously been corralled and crated in the dead of winter. Transported on sleds over the mountains to St. Anthony, then transferred to the boxcar they were taken to Joseph, Or., where they again were put into crates which had been built onto the sleds and hauled to Billy Meadows.

The publicity given this introduction of new blood to replenish the failing herds added greatly to the sentiment already aroused in Oregon. Hundreds of people gathered at every station along the road as soon as the train crossed over the line into Oregon.

Well treated and well fed en route, the animals soon lost much of their fear of humans. Long before the end of the journey the young ones were literally eating out of the hands of their attendants.

From that time on there has been a steady and rapid increase in elk, with the possible exception of the herd in the vicinity of Hunters Head in Curry county. More will be said about the exception later.

In the fall of 1933 Oregon hunters enjoyed the first open season in many years. That year a total kill of 579 animals was recorded. In 1934, 747 were killed or approximately one for each five hunters.

In 1933 no record was kept of the kill by herds. In 1934 with close co-operation between the Oregon game commission, state police and national forest officers the open season was handled in a more scientific manner.

A total of 650 hunters killed 125 elk in the Cheshinmus herd in Willowa county in 1933. No record of the kill from other herds in that year was kept. But in 1934 the kill by herds was:

Umatilla national forest:	
Big Meadows herd.....	50
Eden herd.....	16
Ukiah herd.....	325
Whitman national forest:	
North fork of John Day herd.....	197
Powder river.....	23
Grande Ronde.....	41
Willowa national forest:	
Cheshinmus herd.....	95



# Chickadee Gay Companion, All-Year Resident

William L. Finley, D. Sc. and Ed F. Averill  
Write These Wild Life Articles

## Nest-Building Instinct Ever True to Style

ONE of the strongest and most interesting traits in bird life is that ability to build nests true to ancestral type. The natural impulse or instinct of animals does not depend on any previous experience of the individual, and it is independent of any instruction. Some scientists claim the instinct of animals is similar to the intellect of man, although much more limited and inferior.

Some birds build elaborate and beautiful nests. A bush-tit, for instance, makes a long, gourd-shaped home with a doorway and a hall down into the pocket or living room. It is tied carefully at the top and woven so that it is strong for its purpose. This is so utterly different from the nest of its cousin, the chickadee, which digs a little hole in an old stump or finds one already dug, and carries in soft material to line the wooden house. This requires no great skill, but a bush-tit has to be a real bird architect and his inherited ability is marked.

### EXACTLY THE SAME

A young bush-tit born this season has had no experience whatever in nest building. When he mates the following season and constructs his home, it is generally a masterpiece made of exactly the same materials and shaped like the nests of his ancestors.

A young robin with no previous experience never makes a nest like a meadowlark or an oriole. His home has a foundation of grass or twigs, then a cap of mud and a lining of finer grasses. A young rufous hummingbird that makes her first migration to the South will return to the North in the spring and choose a site much like her parents selected and carefully shingle the outside of her cup with green lichens. The little nest is utterly different in materials and construction from that of other birds. It is even different from one constructed by another species of hummingbird.

### HEREDITARY INSTINCT

So we may see at a glance that there is a marked hereditary instinct that is difficult to explain. One might think that, where we have different species of birds living near each other during the nesting season, associating with each other during the spring and fall migrations, there would be some mistakes in songs, nest building and other habits. But I have never noted such cases. Two species of warblers may be alike in size and quite similar in coloring like the Audubon and myrtle warblers; yet they do not interbreed, and the location and construction of the nests remain individual. The remarkable thing is that they hold so true to racial characteristics and ancestral habits.

### 190-Acre Quail Farm

The New York state department of conservation maintains a 190-acre quail farm on which 11,000 of these birds were hatched in 1935. Superintendent M. O. Poyner reported the birds have been free of fever this year.

### Birch Bark Canoes

Indians of the Golden Lake, Ontario, region still make and sell real birch bark canoes. Science Service reports they are being sold in fairly large quantities but the market at present is limited mostly to museums.

## Birds May Yet Revel Again In Water Refuges

The drying up of some of the lake beds in Southern Oregon and Northern California has been a destructive blow to water fowl. If the dry cycle has ended, a more abundant water supply in the Klamath country will reflood some areas, and ducks and geese may regain some of their lost numbers.

There is a wide difference in conditions of the soil in and around the various lake beds of the Klamath watershed. Lower Klamath lake was a settling basin where the water flowed in and out and was maintained at the same level as the Klamath river. A large part of this lake bed was filled with decayed vegetation, yet it was so permeated with alkali that when dried up it was useless for agriculture. In its original condition, it was one of the most valuable wildlife sanctuaries in the United States.

### VALUABLE FOR CROPS

Tule lake, lying to the south and east of Lower Klamath, was fed by the waters of Lost river. It had no visible outlet, but it was always taken for granted that the water had an underground passage through the lava beds to the south. The bed of this lake was composed of decayed animal and vegetable matter with comparatively little alkali. Since it was drained, this lake bed has proved valuable for the production of different farm crops, such as alfalfa, grain and potatoes.

Business interests of Klamath Falls naturally want to see as much of this land kept under cultivation as possible because of the large crops produced. Opinion of the reclamation service from the beginning has been that only a part of this wide lake bed could be kept under permanent cultivation. A proved principle of reclamation is that where lands are irrigated, there must be a lower area where the waste water can be drawn off after the cultivation lands are sufficiently watered. Therefore the whole southern half of Tule lake bed was set aside as a sump.

### GREAT DIKE CONSTRUCTED

Instead of using the whole area as a sump, the reclamation service built a dike around 10,000 acres and pumped the waste water into this smaller sump, which by executive order was set aside as Tule Lake Wildlife Refuge. During the dry cycle of the last few years, this sump was sufficient to hold the waste water. The reclamation service leased the remainder of the sump area to farmers, who produced as large crops as those on the northern half. Last summer, the water supply would have overflowed the dikes of Tule Lake refuge if it had not been drawn off into the larger sump through the canal that flows out to the southeast.

If a wet cycle of years follows, the present sump area necessarily will have to be enlarged. This means elimination of some land now under cultivation. It may not please the present lessees who have greatly profited by large crops at a small rental of from \$2 to \$4 an acre a year. If the size of Tule Lake refuge is increased, the ducks and geese will have a big celebration. They may even have the laugh on the farmers and the reclamation service if they have to restore to its original condition some of the old lake bed that was drained.

## Cheerful Chickadees Permanent Residents of Oregon Woods



—Photos copyrighted by H. T. Bohlman and W. L. Finley.

Cold weather does not chase these little birds to the Southland. On the left is a mother at the entrance to her nest in an old tree stump. Upper right, seven young ones, two pairs of twins and a set of triplets; lower right, present, past and future of mealtime on top an old stump.

## Even Ickes Against It

Secretary Frowns on Road-building Into Wilderness as Menace to Nation's Wild Life.

Sportsmen and conservationists of the Far West are not the only ones alarmed because of the increased menace to wild life made possible by the building of so many roads into the forests by CCC crews. No less a person than Harold P. Ickes, secretary of the interior, has expressed a note of warning.

We are indebted to John Yeon for the following excerpt from an address delivered by Secretary Ickes in February, 1935, to Civilian Conservation Corps workers in state parks.

"I am tremendously interested in parks, particularly in those sections of them which are wilderness. I think we ought to keep as much wilderness area in this country of ours as we can. It is easy to destroy a wilderness; it can be done quickly, but it takes nature a long time, even if we let nature alone, to restore for

our children what we have ruthlessly destroyed.

"I am not in favor of building any more roads in the national parks than we have to build. I am not in favor of doing anything along the line of so-called improvements that we do not have to do. This is an automobile age, but I do not have a great deal of patience with people whose idea of enjoying nature is dashing along a hard road at 50 or 60 miles an hour. I am not willing that our beautiful areas should be opened up to people who are either too old to walk, as I am, or too lazy to walk as a great many young people are who ought to be ashamed of themselves. I do not happen to favor the scarring of a wonderful mountain side so that we can say we have a skyline drive. It sounds poetical, but it may be an atrocity."

## Suggest Feed Fund to Keep Birds in State

"There is a vital need for the protection and propagation of migratory birds within the boundaries of the state," declares Representative Charles H. Leach, of Multnomah county in a letter to this department. He has been chairman of the house committee on game during the last regular and recent special session of the legislature.

Leach proposes to enlist the cooperation of all sportsmen and sportsmen's organizations. His idea is that if the birds can be held in Oregon after the close of the shooting season they will not go south to be shot by California and Mexican hunters, but will remain to propagate here.

He proposes immediately to start a movement to solicit voluntary subscriptions to a fund which he would turn over to some organization of reputable citizens to be expended in the purchase of wheat or other duck food. Then just as soon as the last shot is fired on the afternoon of November 19 he would have the feed placed in all the lakes and other bodies of water over or about which the ducks and geese have been shot. His plan calls for the contribution of at least 50 cents by every person interested. Many would be willing to contribute more substantial sums, in his opinion.

Leach recommends that the birds be fed twice each week for the first 30 days and four times monthly thereafter. He thinks this will not only retain those that have survived the hunting season, but will attract other flocks that might otherwise pass over in migration.

Figuring on the basis that every nesting pair of ducks we retain in Oregon will bring four new ducklings to maturity it is his declaration that we will increase the migratory wild fowl population in Oregon four-fold.

## Deer Protection Hunt Boon

Deer Populace Mounts Apparently in Face of Increased Killing—1200 Bagged This Season

Comparative records of game in any one area and through consecutive years are important in determining the up and down trend of game birds, mammals and fish. Lester Moncrief, supervisor of the Ochoco National forest, reports that approximately 1200 deer were killed in the past hunting season within the boundaries of Ochoco.

Lyle Miller, storekeeper at Paulina, has for years counted the deer that have been tied on cars that either stopped for gas or could be readily seen as they passed in daylight. No attempt has been made to estimate the number of deer taken out at night, or no count was made of those killed by local hunters.

In 1931 Miller counted 290 deer; in 1932, 299; in 1933, 287; in 1934, 989. In the season just ended

the count was more than 600.

This shows that for four years the number of deer hunters entering this region and the number of deer taken out increased steadily. The season just past was not as favorable for hunting.

In the face of the large number of bucks that have been killed in the Ochoco forest, rangers claim the number of deer are increasing. If this is the case, it is definite proof that the protection of the does is the key to deer increase. One buck will take care of anywhere from 10 to 30 does, much the same as cattle are bred on the range. Elimination of predatory animals that kill fawns, and the setting aside a part of the Ochoco forest as a game refuge, also have helped increase the deer populace.

## No Meanness In Makeup of 'Tittlemouse'

Many children will recall the nursery rhyme, "Little Tommy Tittlemouse lives in a little house." It refers to the black-capped chickadee of the titmouse family. I used to watch a chickadee that roosted every night in a little hole in an old apple tree. He was always in bed before dark. If I came up and knocked at the door, he popped out and bobbed around on the limb above, never showing disgust at being disturbed. His was always a cheerful note of welcome, cheerful because there is no show of madness in his makeup. But the instant I turned to go, he shot back into the hole like a bullet. Later when he became better acquainted, he wouldn't come out at all after bedtime.

The chickadee is one of the most cheerful birds of the Oregon woods. The call note, "Chickadee-dee-dee," which gave him his name, is used frequently to keep the flock together. If you whistle in imitation of his high, clear call note, he is sure to come nearer to find out whether you are a member of the family or just a harmless mimic. The chickadee is always inquisitive and friendly. If the thermometer goes down, his spirits go up. He is as blithe and unconcerned as if it were always summer.

As cold weather approaches and the leaves change color, many songsters like the wrens and swallows begin packing to move south. As insects disappear they are quick to note the scarcity of food. The Oregon chickadees, like the juncos or snow birds, are permanent residents.

Anyone who lives in the suburbs or at the edge of the city and has a garden or is near a patch of woods may have bird friends every day. Along the borders of our garden is a row of sunflowers. When the seeds are ready to harvest, the chickadees keep the trail hot from the sunflowers to the apple trees. They flit down, pull out a seed and hammer it open on a limb. A red-breasted nuthatch is even more expert than the chickadee in handling seeds. During cold weather the chickadees never desert a chunk of beef suet tied firmly to the limb of a tree. This is the bill of fare that keeps them warm and cheery until spring arrives.

The titmouse family includes both chickadees and bushtits. They are tiny in size with rather long tails and sometimes flock with the kinglets. A characteristic of the winter woods of Oregon and Washington is the hissing and calling of a flock of chickadees. Like little acrobats, they cling to the limbs and tips of trees, often hanging upside down looking for insect eggs.

When on the nest the chickadee has an amusing way of trying to frighten away intruders. John Burroughs tells the following incident: "One day a lot of Vassar girls came to visit me and I led them out to the little sassafras to see the chickadee's nest. The sitting bird kept her place as head after head, with its nodding plumes of millinery, appeared above the opening of her chamber and a pair of inquisitive eyes peered down upon her. But I saw she was getting ready to play her little trick to frighten them away. Presently I heard a faint explosion at the bottom of the cavity, when the peeping girl jerked her head quickly back with the exclamation, 'Why, it spit at me!' The trick of this bird on such occasions apparently is to draw in its breath until its form perceptibly swells, and then give forth a quick, explosive sound like an escaping jet of steam. One involuntarily closes his eyes and jerks back his head."

### RIGHT FROM THE START

Poisonous snakes are fully venomous practically from the time they leave the egg.