

# MONTANA

# *Wildlife*

VOL. IV No. 3 Montana Fish and Game Department Official Publication



# Trophy Time . .

Nationally and locally, sportsmen are becoming more aware of trophy animals and are interested in comparing their game heads or horns with those taken by others.

**In recognition of this interest, the Montana Fish and Game Department again extends a special invitation to Treasure State hunters to enter their trophy animals in its state-wide competition.**

There is no restriction on the year in which the animal was killed as long as it has not been entered in a previous state contest. It is hoped that in this way, forgotten trophies will be brought to light.

**Winners in all classifications will receive a Trophy Award certificate and second and third place winners will receive honorable mentions.**

The Boone and Crockett Club, which sponsors national competition in heads and horns, has announced that there will be no national contest this year.

However, Montana hunters are urged to enter the state competition to determine the rank of their trophies and hold those of unusual size for the Boone and Crockett contest in 1955.

As an added convenience to hunters, more personnel have been authorized to make official measurements this year. Those who are qualified to take official measurements are Don Brown in Lewistown; Faye Couey and Ken Thompson in Helena; Merle J. Rogrud in Missoula, Joe Gaab, Livingston, in addition to Dr. P. L. Wright at Montana State University and Kenneth Roahen with the U. S. Fish and Wildlife Service in Billings.

**Official entry blanks for the state contest may be obtained by writing:**

**The Montana Fish and Game Department,  
Helena, Montana**



# MONTANA FISH AND GAME DEPARTMENT

Official

Publication



State of Montana  
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### *Our Cover - from an original drawing by Vern Craig*

Probably the most highly prized bird in any waterfowl hunter's bag is the Canada goose or "honker" as it is commonly called. It is the most widely-distributed and best known of any of the wild fowl and has a sagacity, wariness, strength and fidelity that makes it outstanding among the waterfowl. Its cleverness demands much of a hunter's skill and its illusiveness holds a great fascination for Montana sportsmen.

There are five varieties or sub-species of Canadian geese—the common Canada goose, western Canada goose, lesser Canada goose, Richardson's goose and the cackling goose. All are similarly marked and often even the experts have difficulty in distinguishing between some of the sub-species.

The outstanding features of the Canada goose are the white cheek patches and the long black "stocking" which extends over the neck, ending abruptly at the base of the neck. They are second only to swans in size with wing-spreads of 5 to 6½ feet and weigh from 7 to 14 pounds.

The 1954 migratory waterfowl season in Montana, which governs this and other species, began on October 9 and will end on December 7.

# Montana Wildlife

Vol. IV

Marjorie Mitchell, Editor

No. 3

Vernon Craig, Artist

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Fall Issue—1954

### Photo Credits

Front Cover, Inside Front Cover, Pages 10, 12-13 and 20 by Vern Craig; Pages 8 and 9 by Glendive Sportsmen's Club and Deputy John Cook; Page 5 map by Don Brown; Pages 7, 14, 15 and 16 by Bob Cooney; Page 17 by George Oliver Smith of Film Originals, Inc., Boise, Idaho; Pages 18 and 19 by Ken Thompson and H. J. La Casse; Pages 22 and 23 by Gerald Salinas.

## EDITORIAL:

# Natural Resources in Political Foreground

Probably in no previous election campaign have natural resources been so prominent in party platforms and in candidates' speeches as was evident on the 1954 political scene.

**This indicates a growing awareness on the part of elected public officials of the public's concern in matters dealing with wildlife, forests, parks, soil and water.**

Just what has suddenly brought this about is not certain but it is interpreted by conservationists as an indication that our basic resources are being brought into the proper perspective in relation to other national and domestic problems.

To say that no previous interest has been shown in our natural resources would be unfair as well as untrue—much good work has been done—but not enough. This magazine is neither qualified nor desirous of suggesting state or national resource policies but certain things are obvious.

This nation's ultimate existence hinges directly upon the abundance of natural resources which we will have at any given future date. No A-Bomb, H-Bomb or even a possible Z-Bomb can more effectively seal our fate than poorly managed and depleted soil, water, forests and other basic resources.

**There is a definite need for a qualified overall committee to study and integrate in its proper place all of the needs and demands upon our natural resources. Business and resource managers should be equally represented with sportsmen and recreationalists. Only by careful and considerate planning of this nature can we expect to progress as a nation without sacrificing some of the most essential of our resources.**

If this is done on a plan-wise basis, the concern shown by citizens and elected officials will have resulted in a desirable conclusion to a vital problem.

Why are wildlife managers interested in soil, water, forests and grass? Simply because if these resources are not properly managed and utilized, there will be no fresh, clear water for trout—no forage for game and no public places for the hunter, fisherman and recreationalist to enjoy these wildlife resources.

# *The Place Where Hunters Can't Miss*

by

**Don Brown, Big Game Biologist**



Few other states can even approach Montana's enviable position as one of the finest deer hunting states in the nation.

Recently compiled statistics of resident hunter successes in the 1953 big game hunting season indicate that Montana deer hunters were more successful, thus enjoying the best hunting, in the nation.

There are other states with heavier populations of deer than Montana (Michigan, Wisconsin and Pennsylvania for example) but these states have a far heavier influx of hunters and a far lower success ratio than Montana.

It is often facetiously said that hunters would have to be blind not to get a deer in Montana. And this is often only a slight exaggeration.

Montana hunters brought home a deer in three out of four hunting trips, and state-wide, the average for all license holders (whether or not they actually hunted deer) shows a 67 percent success. Many Montanans consider the western portion of the state as the great deer hunting country.

But Montana Fish and Game Department statistics show that the deer

hunters in eastern prairie and badlands country had ten to twenty percent better success than their fellow hunters in the west.

The map on the opposite page shows that of the hunters in the plains counties, 90 per cent of the license holders actually hunted deer and 82 percent of these were successful.

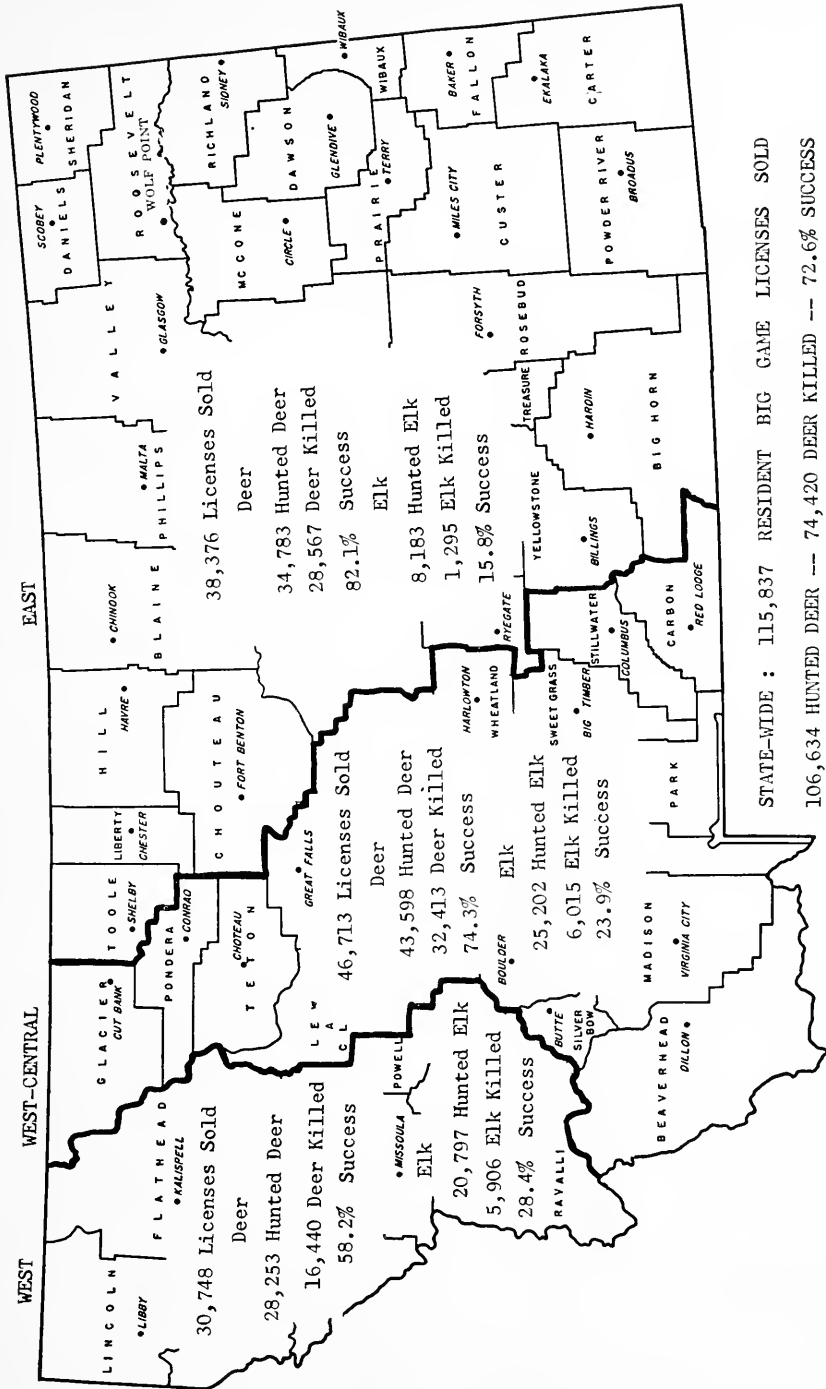
Such phenomenal success can be attributed primarily to the ease of access as well as the vast herds of deer in the eastern portion of Montana.

This is primarily the home of the mule deer which live in the badlands and along the creeks and river bottoms where hunters do not have to fight dense forests and sharply rising mountains.

Here, 38,000 hunters purchased licenses, 34,700 actually hunted and 28,567 brought home a deer.

Just west of this fabulous deer hunting country is the real stronghold of the mule deer, in the foothills and outlying mountain chains of the Belt Mountains.

In this area, 46,700 persons bought big game licenses, 43,500 actually



STATE-WIDE : 115,837 RESIDENT BIG GAME LICENSES SOLD  
 106,634 HUNTED DEER -- 74,420 DEER KILLED -- 72.6% SUCCESS  
 54,182 HUNTED ELK -- 13,216 ELK KILLED -- 24.4% SUCCESS

66.8% of License Holders Got Deer --- 11.4% of License Holders Got Elk

hunted and 32,400 were successful in bringing down their animal.

Silver Bow County, one of the state's most heavily populated counties, was included in the west-central area because it was found that most of the Silver Bow hunters went hunting in the Big Hole area of Beaverhead County.

In the far western portion of Montana, where white-tailed deer outnumber mulies, 30,400 residents purchased licenses, 28,200 actually went after deer but only 16,400 were successful.

This is definitely not because of any lack of deer population, but rather may be attributed to the mountainous terrain in this area where the hunter is at a considerable disadvantage because of the heavy timber, underbrush and steep going.

But if these figures on deer hunters' success seem outstanding, the success of elk hunters in Montana is equally outstanding when all factors are considered concerning this species.

It must be remembered that elk are hunted only in the western portion.

This means that these animals receive intensive pressure by hunters from all parts of the state. In addition, these big animals have a far wider range which is often in the more remote, rugged sections of the mountains. By their very nature, they are more wary than deer and harder for the hunter to line up in his sights.

Montana is one of the eleven states in the nation where elk may be hunted and hunter success is comparatively high. In the western sector, 66 percent of the license holders hunted elk, 28 percent were successful.

In the west-central portion, 58 percent of the license holders actually hunted elk and nearly 24 percent were successful.

State-wide, one of every four elk hunters were successful.

Hunters can look forward to similar successes in the 1954 season and for many seasons to come. Careful management has built up Montana's deer and elk populations to stand even greater pressure than is presently exerted.







## Montana Educator Receives National Award

Mrs. Lilian Peterson of Somers, recently retired State Superintendent of Rural Schools, was one of three individuals in the nation recently selected by the National Association of Conservation Education and Publicity\* for their annual "Award of Merit."

The award was given for her efforts in bringing conservation education to Montana schools.

During her years in the Montana educational system, Mrs. Peterson was instrumental in integrating the principals of sound resource management into the Montana curricula.

She has operated on the philosophy that knowledge about the state's natural resources will lead automatically to a concern about their proper utilization.

Mrs. Peterson accepted the award (above) from Ken Thompson, Director of the Information and Education Division of the Montana Fish and Game Department, who represented the N.A.C.E.P.

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\* At its May meeting in Asilomar, California, the National Association of Conservation Education and Publicity voted to change its name to the American Association for Conservation Information. AACI's membership includes personnel from 48 agencies and 41 states, two Canadian provinces and one in Hawaii.

# Montana Sportsmen's Projects

(NINTH IN  
A SERIES)



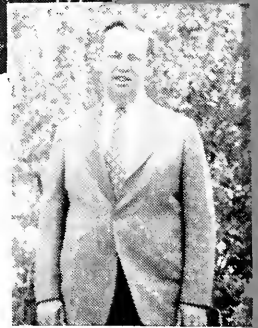
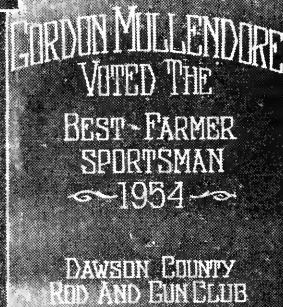
Bob Larimer

Dawson County offers sportsmen in the Glendive area excellent opportunities for mule deer and antelope hunting, several species of the upland game birds and good fishing in the lower Yellowstone river and stock reservoirs.

However, because much of this section of Montana is under cultivation in vast fields of grain, sportsmen in the area are often faced with the problem of posted lands.

The Dawson County Rod and Gun Club at Glendive, over a period of years, has endeavored to improve hunting and fishing conditions and to promote better relations with land owners. To encourage its members toward this goal, the Club annually awards a special plaque (shown above) for the best sportsman and for the best farmer-sportsman.

The idea for selecting an outstanding member of the Club as the recipient of a special award started five years ago and is the main feature of the Club's annual banquet. The winner of the 1954 best sportsman's award was Bob Larimer, president of the North and East Wildlife Associa-



Gordon Mullendore

tion, for his efforts in promoting the ideals of sportsmanship.

The award for the best rancher-sportsman of 1954 was presented to Gordon Mullendore for his consideration in allowing hunting and fishing on his property, with permission, even though such trespass was often an inconvenience.

The awards were presented by Noel Carrico, state Chamber of Commerce president.

Two years ago, Deputy Game Warden John R. Cook suggested that the small fry of Glendive, especially those under 12 years of age, be included in the prizes awarded at the Club's spring banquet. Cook offered to donate a box of his hand-tied flies, valued at more than \$25.00, if the Club would match whatever amount the flies would bring at an auction.

In the first year of the auction, the high bid of \$25.00 was matched by

the Club and two Glendive firms also matched the bid for a total of \$100.00.

Last year, the high bid was \$40.00 which was matched by the Club and a Glendive firm also donated \$20.00, again bringing the total to \$100.00.

This money was used to purchase a complete fishing outfit for a boy and for a girl. The winners are chosen for the number of times they have been seen fishing.

Last year's winners were Larry LaFond and Cheryl Dix.

These awards of the Dawson County Rod and Gun Club and the requirements of sportsmanship necessary to receive them were designed to include as many levels of the community as possible.

Such recognition of accomplishments and encouragement for its potential are worthwhile aims and objectives of any sportsmen's organization.

Cheryl Dix (left) winner of the Glendive Sportmen's Club junior girls award last year and Larry La Fond (right) winner of the junior boy's award. The youngsters were selected for their interest in fishing and each received a complete fishing outfit.





## This is Fishing Pressure ?

by

**Perry Nelson, Fisheries Biologist**

In the "good old days" the native Montana angler could go fishing in his favorite trout stream for days, and usually not see another fisherman.

Now he has to share the stream with several fellow fishermen, which gives the Montana angler the urge to throw away his pole and loudly complain that fishing pressure has ruined the fishing.

Fishing pressure has been blamed for innumerable things; however, with fair evaluation of causes for fishing decline in Montana, fishing pressure apparently can be blamed for very little.

A decline in fishing success has

usually been the result of some other factors.\*

Montana probably has less fishing pressure per area of water than 47 other states.

Next time an out-of-state friend or relative sends pictures of trophy fish caught in his state, look in the background, and if the picture was taken on a stream there will probably be ten more people fishing, or if the picture was taken on a lake, in most instances, there will not be room for the trolling fishermen.

\*Refer to C. K. Phenicie, "What's Robbing Us of Our Fishing?" *Montana Wildlife*, Vol. IV, No. 2.

When the U. S. Fish and Wildlife Service completed its Creel Census and Expenditure Study on the Madison River in Montana, it gave fishery biologists a good comparison on how the fishing pressure on the Madison River compares with the pressure in other states.

This river is considered by most people to be one of the most heavily fished areas in the State of Montana.

Many resident and non-resident fishermen make extended fishing trips to the Madison every year.

In addition to resident licenses, 28 percent of the non-resident and 33 percent of the tourist (6-day) fishing licenses were sold in Madison and Gallatin Counties.

A recent creel census report on Rush Creek, California, completed by Elden H. Vestal of the California Fish and Game Commission shows some excellent comparisons regarding fishing pressure.

On Rush Creek, in California, the average fishing pressure amounted to 25,682 hours annually, with a catch of 13,187 trout. This represents considerable fishing.

The estimated fishing pressure and yield on the Madison River amounts to 100,986 hours and a catch of 52,424 trout.

At first look, the pressure in California appears quite low.

But in reading further, the California report shows that Rush Creek is only 3.7 miles long, as compared with the 98 miles of the Madison River.

So in order to understand heavy fishing pressure in Montana, it would be necessary to take all of the people that normally fish the Madison River and consolidate them into 14.6 miles of the river.

Think of that, restricted to 14.6 miles of river!

But to get really technical, it would not be a fair comparison between Rush Creek in California and the Madison River of Montana because the Madison River averages about five times wider than Rush Creek.

So to compare pressure on surface area of water available to the fishermen instead of linear miles, all of the people that normally fish the Madison River would have to fish along 2.9 miles. This would be fishing pressure as it is known in California.

Montana certainly has more fishing pressure now than it had in the "good old days" and it is increasing every year.

If Montana can keep its present abundance of water it will be able to stand much more pressure without adversely affecting the productivity of our waters.

After all, the Madison River is roughly 33 times larger than Rush Creek, California, but has sufficient pressure to harvest only four times the amount of trout.

In the future the main factor that will be responsible for a decline in fishing pressure in Montana will not necessarily be more anglers, but a decrease in the amount of fishing water available to the angler.

# I Am An Airplane

(A Success Story)

As Told To Ralph Cooper.

Department Pilot

Six years ago when the Montana Fish and Game Department purchased me, I was somewhat of an experiment—a step-child in a field where airplanes were considered a necessity by some—a nuisance by others. Some accepted me for my main purpose in life, a tool for finding the shortest most rapid distance between two points. Others who were more dubious thought of me as an infernal machine which would only stampede antelope and scuttle all the fish in the Missouri River drainage.

But by keeping my flaps down and my prop ready, I soon found a warm place in the hearts of all Montana fish and game conservationists. Biologists, wardens and administrators found so many jobs for me that they had to call in three of my brothers to help.

I am retired now, replaced by a younger, more energetic super-cub just like the other three planes of the department. My successors are stationed permanently at Helena, Lewistown, Bozeman and Miles City. Sometimes, for special jobs, the department enlists the assistance of larger planes and some of the jobs they tackle are quite unusual while some of the unusual jobs are now routine.

Members of my family have helped department biologists with salting operations for big game animals since 1942. They have carried hundreds of tons of salt into remote areas during the early spring months to help break up concentrations of game. Salt has proved a major factor in drawing animals off their critical, often over-browsed winter range, and on to the higher elevations. Normal growth of grasses and shrubs is thus possible for the following winter's food supply.

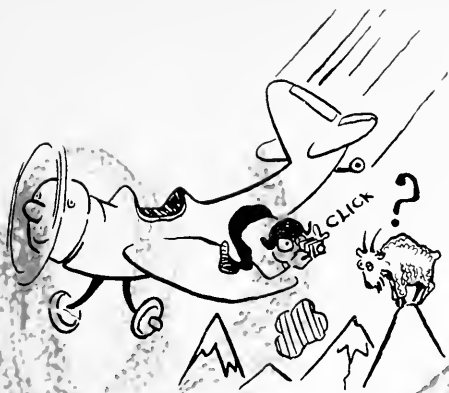


We regularly count elk and antelope from the air and also herd the pronghorns into huge V-shaped traps where they are marked for transplanting to other areas. But in the past year, I have assisted aerial crews in indexing beaver populations in all major streams of the state, counted grouse when they do their mating dance and appear on the open prairies, and even observed fish spawning in fast riffles.

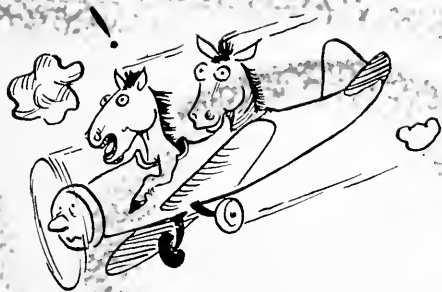


We airplanes have been the downfall of many poachers and other violators of fish and game laws, too. All of us are equipped with two-way radios and if we detect any suspicious activity on the ground, we can report it to a cruising warden for investigation. Our radios are in direct communication with highway patrolmen and sheriffs, too, and we have been able to assist in many emergencies.

Rocky Mountain goats have been steady passengers, too. Eight new herds of goats have earned their wings and are now established in suitable habitat throughout the state. Populations of these as well as many other species of game animals which inhabit remote, often inaccessible places, are best determined by aerial photographs. Excellent footage for future movies is often obtained by the aerial photographer.



One of the department's airplanes is equipped with fish planting tanks, and can carry 5,000 small fish for planting in remote lakes. This method requires only a fraction of the time it would ordinarily take for pack horses to carry the fish into the back country in water tanks. The fish are dumped (water and all) from the airplane at about 300 feet. Losses from this method are considerably less than from the tedious pack trip and the fish do not seem to suffer from their "high dive."



Probably our most unusual job to date was completed last spring when the department needed a couple of horses in the South Fork of the Flathead to assist fisheries workers in transplanting spawn taken from native black spotted cutthroat trout. The horses were necessary to carry heavy tanks of eggs from the streams to a nearby landing field for further transportation to hatcheries. Access to the designated area over high, snow covered passes was impossible by pack string so the horses were anesthetized and flown in with no ill effects, although Uncle Tri-Motor complained of strained horsepower for a few days.



All planes are equipped with a special type of ski which pilots can lower to land on snow or retract when wheels are necessary.

...So, you see, we airplanes are never idle for long. We have many characteristics that enable us to perform fish and game work with increased efficiency. It's beginning to look as though we have replaced the horse and buggy in conservation work.



# JUDITH ELK

by

**Bob Cooney, Director  
Wildlife Restoration Division**

Located near the headwaters of the Judith River in the foothills of the Little Belt Mountains is one of Montana's key game management areas which is known as the Judith River Game Range.

Historically and biologically, this is an immensely interesting part of the state. It was here that Charley Russell, a kid with a yen for the West, spent his first years in Montana. He lived in a log cabin on the

South Fork of the Judith with a trapper and hunter named Jake Hoover. Here he learned about elk and deer and gained a background of natural history and pioneer living from which he drew material the rest of his life.

## **Early Problems**

Land around the Judith River has always been game country with many of the problems inherent in the growing-up of the West. Game ani-



mals wintering on the ranch lands along the foothills, livestock summering with the game in the mountains, maintaining access areas for hunting and fishing over private land (all important to the economy of the community and the state) created problems in land utilization.

Conflicts existed chiefly in the foothills where elk and deer, pushing out of the high country in the winter, used the haystacks and pastures needed for livestock in certain sections.

These were some of the intricate problems of dual land use in the Judith Country.

### **Purchase of the Game Range**

It was in an effort to solve this complex problem that the Fish and Game Commission purchased approximately four thousand acres of range located just outside the forest boundary near the confluence of Yogo Creek with the Middle Fork of the Judith River, known locally as Pig Eye Basin. This was an area long sought by game as winter range — a region of scattered timber and rolling grassland.

### **Management of the Area**

Last winter, between six and seven hundred elk and several hundred deer used this range.

Bert Goodman, manager of the area for the Fish and Game Department, spent much of his time drifting

and herding game onto the range away from neighboring ranch lands. This was the first winter that the area has been fully effective.

The program had taken twelve years to round out. A stock-proof fence was constructed about the boundary. Reseeding of grasslands, completed several years before, yielded a heavy stand of forage.

It is expected that elk will drift more readily onto this area each succeeding winter. They are quick to associate an abundance of forage and the lack of disturbance offered by such a winter range.

An extended elk season south of the area, tried for the first time last year, aided materially in holding elk on the range reserved for their use.

### **Elk Counts**

In order that necessary information could be gained regarding numbers of elk using the area, a careful annual count has been carried out. An airplane has been found useful and increasingly important in this work.

Don Brown, pilot-biologist for the Department, has done much to develop the most effective methods of counting game from the air. It has been found that although the Little Belt elk mingle during the summer months, they separate into two distinct groups in the winter.

By far the largest number spend the winter months on or adjacent to

**Headquarters buildings for the Judith Game Range at Utica**



the Judith Game Range with a small group as far north as the Dry Wolf. The rest spend the winter on the Musselshell River drainage.

The table below, based upon air and ground counts, shows the ratio of the two wintering groups and also indicates a reasonable stability in numbers as effected by recent hunting seasons:

AREA	1950	1951	1952	1953	1954
Judith River Area	585	488	756	609	803
Musselshell Riv. Area	307	309	318	251	251
Little Belt	—	—	—	—	—
Range Totals	892	797	1074	860	1054

It is now felt that the Little Belt Range would carry approximately one-thousand head of elk. This figure is based upon the available range and other important land uses in the area. It can be seen that a kill amounting to approximately the annual increase of the herd would now hold it at this estimated carrying capacity.

### Tagging

The size of the spring, summer and fall range affected directly by the acquired winter range tract represents important information.

With this in mind, nearly one-hundred elk were captured and tagged on the game range last

winter. The recovery of tags by hunters will show where these elk were killed, thus yielding important factual information on the fall distribution of elk that winter on the game range. The success of this program will depend upon the cooperation by sportsmen in turning in the tags.

### Elk Increase

In summary the elk herd wintering in the Judith River drainage has increased materially since the original plant of 86 animals in the winter of 1927-28.

With this increase, conflicts with livestock interests and heavy use of forest lands created a problem of management.

The recent purchase of the Judith River Game Range, located in the heart of the wintering area, plus carefully worked out hunting seasons, as well as herding activities, have gone a long way toward working out this problem and placing this important herd on a sustained yield basis in harmony with its environment.

Sportsmen, ranchers and the Forest Service have worked carefully with the Fish and Game Department in bringing this about.

Live-trapped elk await ear tagging before they are released on Judith Game Range.





"I didn't notice the storm behind me . . ."



"I forgot to count the ridges and it was getting cold . . ."



"I found I was crossing my own trail . . ."



"I wonder if an airplane can see my smoke"

# Lost Hunter



Anyone can get lost—even experienced hunters. It does not require special talent to lose the way in unfamiliar country.

How do hunters get lost?

What do they do when they are lost?

What can be done to prevent becoming lost—or what should hunters do if they find that they are lost?

These and other questions are answered in a new film produced by George Smith of Film Originals, Inc. The movie titled "Lost Hunter" tells the story of how an experienced hunter and woodsman became confused while hunting in a new area with a friend.

He discovers how, with only a few easily carried accessories and by using a little common sense, he could have spent a much more comfortable time in the forest and would have been found more quickly by the search and rescue party.

As a precaution against the time when getting lost is no joke, all sportsmen should see this new sound and color movie.

It is available for showings through the Montana Fish and Game Department for sportsmen's clubs, schools and other interested groups.

# ANIMAL FAIR

One of the outstanding features at many Montana fairs this summer was the Montana Fish and Game Department's annual exhibit of the state's wild-life species which attracted an estimated 200,000 people.

It was the biggest display (more than 75 animals) to be shown since the exhibit was started.

The last showing of the animals was in Missoula and other appearances included Shelby, Great Falls, Havre, Chinook, Terry, Baker, Miles City, Sidney, Glasgow, Kalispell, Hamilton and Deer Lodge.

The main exhibit was transported from fair to fair in a 2½ ton truck at night to avoid the excessive heat of the day which is detrimental to the animals.

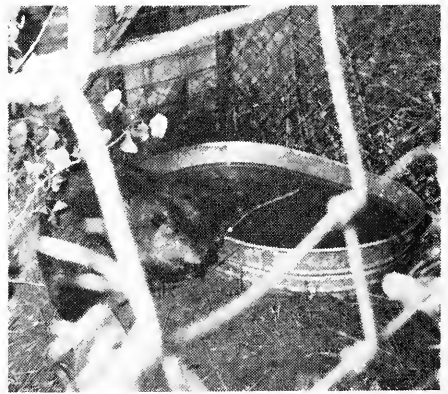
A daily diet of raw meat, canned pet food and an egg went to the meat-eaters, the birds were given wheat and poultry mix and the deer and antelope fawns consumed a dozen cans of condensed milk and some fresh leaves every day.

Fair boards were required to furnish adequate pens and food wherever the animals were exhibited. Many of these housing facilities were constructed for permanency and will continue to show the exhibit year after year.

Some of the animals will be held over the winter at privately-owned zoos, others were released in protected areas and those that could care for themselves (the beaver, muskrats, turtles, snakes, etc.) were released in the wild.



This big-eared fawn was one of five young mule deer in the exhibit. Two white-tailed fawns and two young antelope were also shown. Most of the deer were confiscated from persons who were illegally possessing them.

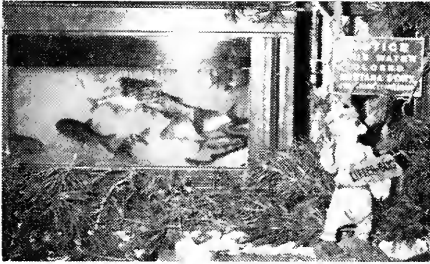


This eager beaver found that he was not able to build a dam in his small tub of water, but he seems to be enjoying his lunch of fresh willows and aspen. The beaver were also fed fresh vegetables.



Mr. Raccoon makes short work of his favorite dish—a raw egg. Although these little bandits are not native to Montana, they have drifted into the Yellowstone Valley where they have become quite well established.

The shaggy coat of a badger can be seen at the lower left.



The fish exhibit was shown only in Great Falls and in Glasgow where tank facilities were available. The display included fish found locally in each area. The Glasgow showing featured sturgeon, catfish, bass and other species while the display at Great Falls included several species of trout, whitefish and chars.



Children loved to watch the half-grown bear drinking soda pop, a commodity he consumed at the rate of two-and-one-half cases a day until the practice was discontinued for the bear's own welfare.

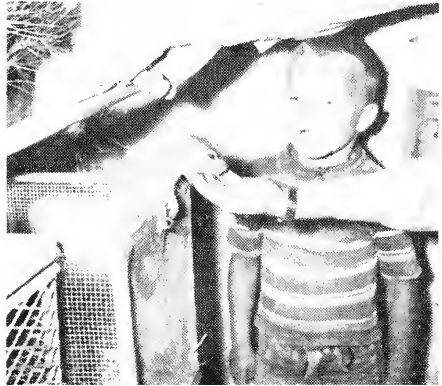
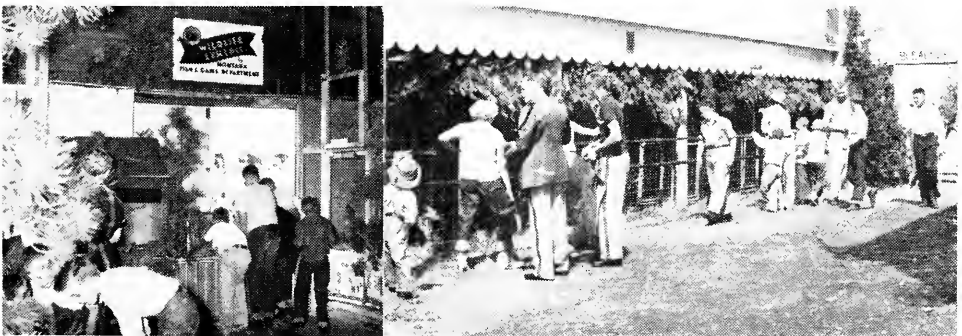


Exhibit managers encouraged children to help them feed many of the animals. Here, a prairie dog gets his daily ration with an assist from a very interested friend.



The Montana wildlife exhibit was a focal point, indoors and outdoors, at 14 state and county fairs. In the picture at left, a sleepy owl (upper right) looks down on the crowds which seem too pre-occupied to notice him.



# Turkey Talk

by

William R. Bergeson  
Upland Game Bird Biologist

It will soon be turkey time again, the time to gather around the festive board to give thanks for many blessings.

But for Fish and Game Department upland game biologists, turkey time has another meaning—the introduction of wild turkeys into suitable Montana habitat.

**On November 13, department biologists transplanted 13 wild turkeys in the Lime Kiln area of the Judith Mountains northeast of Lewistown.**

Hunting of any kind will be strictly prohibited in this area and a predator trapping program is being conducted to give the birds a chance to get started.

The birds, eight hens and five toms, were transported nearly 1,300 miles from Colorado by the author and Robert Eng. The turkeys were placed in special crates, each of which held two turkeys in separate compartments. The trip required 40 hours of continuous travel, making it the longest trip ever made with captive wild turkeys.

If all goes well, this plant may form the nucleus for further transplants in other suitable areas in Montana.

Biologist Robert Eng will make a detailed study of this transplant to determine the practicability of further releases.

**Wild turkey introductions in Montana are not new, since at least three plants have been made by sportsmen's clubs at Billings and Forsyth as well as through independent efforts in the Kalispell area.**

All have been total failures probably because the planting stock was not adapted to the rigors of Montana's climate, or because the birds were unable to adjust themselves to their new habitat.

However, during the past ten years, Montana's neighboring states—Wyoming and South Dakota—have had fair success with introductions of the Merriam turkey obtained from New Mexico and Colorado.

Accordingly, department biologists have made investigations in South Dakota's Black Hills turkey country and in southern Colorado which lies within the ancestral range of this big bird.

In "History and Management of Merriam's Wild Turkey," Ligon, the recognized authority on these birds has summarized what is known about them. The following is quoted directly from Ligon's account:

"The Merriam or mountain-inhabiting turkey is a hardy strain of the American wild turkey formerly indigenous to much of midwestern and southwestern United States. Charact-

eristics of this strain, in contrast with the eastern turkey, are primarily adjustment to a distinctive habitat and the white markings of the wing and tips of the tail pattern.

"The ancestral range of this turkey is the Ponderosa pine-oak forest of the intermountain regions at elevations of from 6,000 feet to more than 10,000 feet, from central Colorado southward almost to the United States—Mexico border."

The pinon nuts and acorns which are staple articles of diet for Colorado and New Mexico turkeys are not present in the west slopes of the Black Hills or in Wyoming's turkey range. However, the birds have apparently made adequate dietary substitutions on which they have thrived. Of interest also is the fact that for four consecutive years, Colorado has not had a satisfactory acorn crop; yet the birds have fared well on other items of diet common to areas in Montana where it is proposed to introduce the species.

**As a result of seeing ancestral turkey range at first hand in Colorado as well as areas where this bird has been successfully introduced, department biologists are of the opinion that Merriam turkeys may have a spot in Montana's wild-life picture.**

Possibly at some time in the future Montana sportsmen, like their Pilgrim forefathers, can bag themselves a tasty holiday dinner.



# OUTLET FOR FREEZOUT

by

**Gerald J. Salinas & Richard W. Trueblood**

**Waterfowl Biologists**

On September 7 of this year, water began flowing through a ditch from the north end of Priest Lake into the Teton River.

This one and one-third mile ditch completes the most difficult segment of an eight-mile drainage canal from Freezout Lake, two miles northwest of Fairfield, to the Teton.

Construction of this canal represents the initial phase of the development of Freezout Lake by the Montana Fish and Game Department as an important game management area. Construction began August 4, 1953.

For many years, there has been an urgent need for a plan of action on Freezout.

Freezout Lake lies in a glacial lake bed and has no natural outlet. Due to abnormally high spring runoff and the annual influx of irrigation waste water, the lake level has risen steadily since 1945, and water from the lake finally inundated the adjacent highway and railroad in the spring of 1953.

Much nearby grazing and farm land also has been flooded. This flood condition has proved to be detrimental to waterfowl as well by



retarding the growth of aquatic food and cover plants.

Flocks of migrating waterfowl were attracted to nearby grain fields in years of late harvests.

The lack of a natural outlet created a stagnant swamp where waterfowl disease organisms took a yearly toll of ducks. The absence of nesting cover reduced local production of ducks to a minimum.

Freezout project will be outstanding among waterfowl areas in the country in having complete control of water levels. First, the outlet drain now being constructed will lower Freezout Lake approximately six feet below its present level. Lowering the lake to this base elevation in the fall will provide storage capacity for the spring runoff.

While the lake is at the low level, dikes and shallow-water marshes will be constructed on the natural flats bordering the lake. Through this system of dikes and water control

gates, the water in the marsh units can then be maintained at any desired level.

Full control of water levels will increase the growth of native aquatic vegetation in natural nesting and feeding areas. Such water control is the key to ideal waterfowl management.

As part of the management program, the Fish and Game Commission has purchased a necessary strip of adjacent farming and grazing land. Farm lands will be sharecropped by local farmers, with the state's share of small grains left standing as duck food.

Farming practices will follow recommendations resulting from a cooperative agreement with the Soil Conservation Service. Where it does not conflict with wildlife needs, controlled grazing will be allowed on the range land within the project.

Each year, a portion of the area will be closed to hunting. During



Part of the outflow of the main drain of Freezout Lake (left) and the dragline (right) in operation digging the main drain ditch to the Teton River.

hunting season, this refuge area will furnish large flocks of waterfowl a place to feed and rest.

Movement of birds to and from these areas will provide ideal shooting conditions on adjacent public hunting grounds. Of equal importance from a wildlife standpoint is the need to preserve a resting area for Montana's largest migratory flights of snow geese.

When completed, this management area will be the end result of a cooperative agreement between the Fish and Game Commission of the State of Montana and the Greenfield Irrigation District acting through the U. S. Bureau of Reclamation.

The Fish and Game Department pays all construction costs and will improve and manage the area for waterfowl and game bird purposes.

The Irrigation District, in turn, is providing equipment and technical assistance for the initial phases of construction work, will supply waste water as it can be used on the management area and sanctions the purchase of necessary private lands by the Fish and Game Commission.

A separate agreement between the U. S. Bureau of Reclamation and the Fish and Game Department provides for the long-term leasing of 6,040 acres of federally-owned land, most of which is now under water.

The remarkable thing about this project is that it is paid entirely by the sportsmen through funds derived from the sale of sporting arms, ammunition and licenses.

These lands purchased by the Fish and Game Commission are not removed from the tax rolls. Normal assessment is made as on any private land, and the county receives an equivalent payment in lieu of these taxes. This procedure applies to all state game management areas.

It is expected that the Freezout Lake Game Management Area will be one of the finest in the state, serving many different interests.

To the waterfowl, it will furnish sanctuary, nesting, cover and feed.

To the local ranchers and farmers in the district, this cooperative venture will solve flooding problems arising from the disposal of excess irrigation waste water.

To local businessmen, it will mean additional business and improvement of an unsightly, stagnant body of water.

To the Fish and Game Department personnel concerned with the success of the project, it will serve as a study area for research on important wildlife management problems.

Finally and foremost, to the sportsmen, it will provide outstanding public hunting grounds.



# INSURANCE

## *Sportsmen's Insurance*

Here is your opportunity to provide yourself with adequate protection while in the field . . . and at the same time open up huge tracts of posted lands for your hunting and fishing pleasure!

The program, sponsored by the Montana Wildlife Federation, will provide the moral and financial responsibility necessary to convince land-owners of sportsmen's good intentions while hunting and fishing on private property.

♦♦

For the \$5.00 premium, the individual sportsman receives:

- Up to \$5,000 bodily injury liability
- Up to \$10,000 for any one accident
- Up to \$5,000 for property damage liability for any one accident
- \$3,000 accidental death benefits on his own life or any accident resulting from any activity within the scope of the club
- Honorary fellowship in the Montana Wildlife Federation for one year

Who Is Eligible?

- Any member of an organized club affiliated with the Montana Wildlife Federation in good standing
- Any member of a club which paid dues last year but which has not yet paid the 1954 dues
- Any individual sportsman who joins a sportsman's club affiliated with the Montana Wildlife Federation

♦♦

This program is a sincere effort on the part of the Federation to open more posted land to Montana sportsmen by offering coordinated cooperation to the land-owners—and it will work.

However, the success or failure of the plan in each area rests with the local club. Land-owners aren't going to come to you . . . you must go to them. Here's how you can help:

- Appoint a special committee to contact land owners in your vicinity
- Explain the program to them and request their cooperation
- If farmer or rancher organizations in your area have meetings, be sure that a representative of your club attends to explain the program and urge their support.

**HERE IS A PROJECT WITH FAR-REACHING BENEFITS. GET AN APPLICATION FROM YOUR CLUB SECRETARY . . . OR SEND FOR ADDITIONAL INFORMATION AND APPLICATION FORMS.**

**W R I T E :    The Montana Wildlife Federation  
                  Galen Block, Helena, Montana**



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