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OFFICIAL PUBLICATION OF THE
MONTANA STATE FISH AND GAME DEPARTMENT

Santa In Montana

By J. Nort White
Helena, Montana

*Santa Claus came from out the north,
As he travels from year to year,
And paused to ponder the sportsman's worth
For gifts that might endure.
He said while smiles spread o'er his face
"I know now what I'll do:
I'll make of this a pleasure place
That blessings may ensue.*

*I'll fill the gulches from all sides
With snow to last the year,
I'll people streams with speckled tribes,
Where waters sparkle clear.
I'll moisten hills so luscious grass
May sprout in early spring
So hind and doe tho shrinking fast
True sustenance will bring.
I'll sow the sloughs with wholesome feed
So feathered friends may thrive,
I'll penalize all rampant greed
To keep our game alive."*

*So this is Santa's gift to those
Who love Montana's hills,
As o'er the streams the moonlight glows
And lights its sparkling rills.
The state that's known from coast to coast
The state that sportsmen love,
The state of which we love to boast
Enhanced by God above.*

MONTANA WILD LIFE

The Official Publication of The State Fish and Game Commission

VOL. II.

HELENA, MONTANA, DECEMBER, 1929.

NO. 7.

Montana's Fish and Game Problem

By FLOYD L. SMITH, Editor MONTANA WILD LIFE

OFFICIAL figures compiled by the State Fish and Game Department show that during the last calendar year, until the close of November, 1929, a total of 69,038 resident hunting and fishing licenses have been sold at \$2 each, netting the fish and game fund \$138,076. With another month to go, and many stubs still in the hands of dealers, the mark will approach the record-breaking total of 75,063 during 1928. Further figures compiled by the department show that during 11 months of the current year a total of 4,127 non-resident fishing licenses have been issued, 630 non-resident general licenses, 19 non-resident limited licenses and 249 alien fishing permits. Total receipts to the fund from these licenses reaches \$157,790.50.

These figures are significant. They emphasize the necessity for keeping streams and forests stocked to meet the heavy demand being made upon them for fish and fowl.

Figures compiled by national authorities for the season of 1927-28 show that 6,462,556 sportsmen bought licenses for which they paid a total of nearly \$10,000,000, or, to be exact as shown in the accompanying table, \$9,338,173.88. What's the answer? If Montana and her sister states are to have continued sport afield and in brooks and rivers, she must bear down on the vast program of conservation outlined and pursued by the State Fish and Game Commission, assisted by wholehearted sportsmen of the Treasure State.

Harry B. Hawes, United States senator from Missouri, recently delivered a ringing address that should be in the scrapbook of every Montana man who loves the open. He said in part:

"It becomes necessary to bring an understanding to our citizenship which will cause it to consider it a crime to rob America of its outdoor lands, and that our nation's welfare and health depend upon the conservation of our woods, waters, and wild life. Personally, I think this conservation makes for better citizenship. It preserves some of the frontier spirit of our forefathers.

"It is said these forefathers came with the Bible in one hand and a rifle in the other. Some of their descendants have lost the rifle; some the Bible; some both the Bible and the rifle. We must restore the confidence and strength that a knowledge of the rifle brings, while we are preserving the spiritual strength that comes from the Bible.

"We must bring back, by purchase, as much of the 'big outdoors' as pos-

Licensed Hunters During 1927-1928

State	License	Money Returns
Alaska	269	\$18,870.00
Alabama	87,044	99,858.00
Arizona	38,765	52,499.35
Arkansas	101,500	117,500.00
California	228,696	464,145.00
Colorado	* 107,725	227,612.50
Connecticut	37,924	105,402.00
Delaware	* 2,314	5,410.00
Florida	60,021	223,154.25
Georgia	79,802	108,781.84
Idaho	76,032	150,567.95
Illinois	305,067	319,317.00
Indiana	* 130,721	287,058.80
Iowa	* 165,010	168,277.00
Kansas	115,257	116,545.00
Kentucky	108,281	109,031.50
Louisiana	102,653	108,536.00
Maine	* 43,523	71,578.55
Maryland	70,866	132,834.55
Massachusetts	110,496	231,427.00
Michigan	365,273	530,196.48
Minnesota	118,235	127,497.40
Mississippi	231,890	275,908.12
Missouri	75,324	155,736.00
Montana	* 163,580	166,772.00
Nebraska	5,478	9,410.50
N. Hampshire	* 57,720	109,576.35
New Jersey	* 185,221	266,427.10
New Mexico	* 17,415	79,660.25
New York	* 675,780	699,873.52
N. Carolina	145,268	207,900.00
N. Dakota	35,271	56,727.00
Ohio	368,485	369,997.00
Oklahoma	153,332	157,918.00
Oregon	* 58,186	210,711.75
Pennsylvania	517,729	1,006,159.70
Rhode Island	10,586	21,527.00
S. Carolina	112,364	167,590.00
S. Dakota	* 104,188	174,938.00
Tennessee	63,306	78,527.32
Texas	105,191	221,606.00
Utah	* 40,932	95,663.00
Vermont	* 38,266	54,711.30
Virginia	118,698	199,637.40
Washington	* 202,075	371,356.00
W. Virginia	* 151,151	148,381.00
Wisconsin	173,120	189,892.00
Wyoming	* 25,467	69,507.50
Total	6,462,556	\$9,338,173.88

*Combined Hunting and Fishing.

sible, where strong men in spiritual power find their best nourishment.

"When we lose our 'pep,' when good food tastes bad, when friends do not satisfy, when life becomes a bore, when music seems out of tune, when the old dog annoys, when the doctor fails, and the good wife irritates, there is but one remedy for the run-down, and it is found in the forests and on the streams in the 'big outdoors.'

"There we go to church and worship God by conversing with the things that He made, listening from sermons from rocks and trees and choir music from the birds.

"If you need a fresh start and want to lose the run-down feeling and get back your 'pep,' go fishing.

"It is a notable fact that of the Twelve Apostles selected by Christ, four were fishermen.

"They were natural philosophers who made their living in the big, wide open; who knew the stars, the tempest, the sea, the sun, the moon, the winds, and the calm.

"They were prepared for a campaign for men because they had first campaigned with the elements of nature.

"Study of nature had prepared them for a study of men, and their thoughts and teachings were big, like the outdoors from whence they came.

"Every great man we have had was an outdoor man. Every man with big thoughts is at some time compelled to get away from the little things that cramp and bind, and forced to seek a revitalization, new energy, and a broader perspective by contact with nature.

"The city bed and fancy sanitation are luxuries made more attractive by a week on the ground; the camp fire makes the radiator endurable; the flapjacks, the bacon, and the browned fish bring the 'comeback' after hard work and the hotel menu.

"The city and the town have their call, but they have a sameness and a 'too sureness' to be palatable for all of the 12 months.

"To find rest we must find a change. The same streets, the same roofs, the same faces, the same sights—though of the best—like food of the same kind, pall upon the appetite and tire the brain.

"We must find real rest by seeking contrast, by finding the 'big outdoors,' by not living too much and too long indoors."

Under our highly organized industrial system hours of labor have been shortened, hours of leisure multiplied. The profitable employment of those leisure hours becomes the problem of the Montana individual and of the nation. Perhaps no other source offers greater, surer returns in physical and spiritual values than life spent in the great outdoors. That Americans become increasingly outdoor-minded is a reassuring fact. The recreational value of life in the open fully justifies state and national activities in securing, not only to this but to coming generations, the wealth to be found in woods and waters.

Montana is confronted with the problem of the summer tourist. To them

a strike, or can fool a fish with a bit of red bandanna for bait.

Because of their very abundance they have followed the buffalo and big game, and only by the enactment of wise laws and their stringent enforcement can we hope to even partially bring them back.

My experience with game has been varied and peculiar. During 56 years, a considerable portion of which was spent on the plains and in the mountains from southern Texas to Montana, and outside the boundaries of civilization, or habitation, I have killed every kind of big game excepting a buffalo and a mountain lion.

During the latter 70's I was all over the buffalo country, crossing numerous fresh trails of big bands, but never having the time to hunt them, being otherwise engaged, so never sighted or shot at one.

As to mountain lions, I have hunted them but never had more than a fleeting glimpse of one. For two winters on several occasions I trailed one that had a track like an African lion, but could never catch up with him, although once or twice I could nearly smell his breath.

At the same time a man who had not lost any mountain lions was nearly knocked down by one in the same section, and scared to death. I have seen hunters making big wages on the Brazos River bottoms in Texas killing antelope and shipping them to Galveston. They would take a drag or stone boat drawn by a yoke of oxen that had been trained for the work, and lying on it would prod them out toward the antelope, shoot them, load them aboard and repeat until they had a load.

Coming up the Green River in Wyoming I have seen antelope as thick and numerous as sheep on the range. Black and white tailed deer were almost continually in sight along the Snake and around Jackson Lake. An occasional moose on Fall River and in the Park, bear, deer, mountain sheep and elk were an hourly, almost continuous sight through the Park, frequently trailing along but a short distance away, several elk being shot from our camp fire. In the late 80's there were two nice bands of antelope in what is now Carbon county, one on Clark's Fork and the other on Horseman's Flat over on the Stillwater.

For several years thereafter a band of about 75 elk would come down on that flat each winter. A little beyond it on Castle Creek one could count 50 or 60 blacktail in a day's hunt and on Limestone Butte a band of about 50 mountain sheep used. Of upland game birds there was a profusion of all sorts, and in season numerous flocks of waterfowl would tarry a while. Bear were plenty thick and I could tell some great tales about my personal experiences with them; tales that if unfolded would make each separate hair on your head stand erect, like the quills upon the back of a fretful porcupine (or words to that effect), but I will spare you, having already inflicted too much on you.

Angry Customer: "I say, that horse you sold me has dropped down dead."

Dealer: "Can't 'elp that, sir. 'E never did that while I 'ad 'im."

Secret of Bird Life

MANY men are disposed to accept the idea that the days of great discoveries are over; that the face of mother earth no longer contains secrets hidden from the eyes of man. There are, however, certain places on the earth which have not yet been invaded by the intrepid explorer and which await the enterprise and energy of future exploration.

A recent discovery which has attracted the attention of naturalists over the entire world has been made by a young naturalist of Canada, J. Dewey Soper, of the Northwest Territories and Yukon branch of the Canadian Department of the Interior. After six annual expeditions covering 2,300 miles of travel Mr. Soper has finally returned with the news of the discovery of the breeding grounds of the blue goose never before seen by man.

At the recent annual American Game Conference held in New York City December 2 and 3, Mr. Soper related the stirring incidents of his final expedition which resulted in success and exhibited interesting pictures showing the terrain over which the blue goose nests and raises its young and pictures of the nests, eggs and young on the nesting grounds. It has long been known that the blue goose nested somewhere northeast of Hudson Bay but no one knew exactly where. This mysterious bird migrates in large numbers between the Gulf coast in Louisiana and Texas and its nesting grounds in the Arctic re-

gions. In its spring migrations to the north it passes over the vast grain fields of the northern Mississippi valley and southern Manitoba at the time when the grain is just sprouting and in many instances these birds have been observed in flocks of hundreds of thousands feeding on the freshly sprouted grain. Their migration to the north is by easy stages, the birds feeding from south to north over the grain fields in their deliberate advance. In the fall season when the birds return from their nesting grounds to the Gulf they take a different course, passing down the Missouri and Mississippi River channels, stopping at intervals along the way to feed on the shallow bars and islands of the rivers.

The United States Bureau of Biological Survey and the American Wild Fowlers in cooperation have been making an extensive study of the blue goose in its migration and southern feeding grounds.

SEND IT IN

If you have a bit of news, send it in;
Or a joke that will amuse, send it in;
A story that is true, an incident that's new,
We want to hear from you, send it in;
Never mind the style,
If the news is worth the while,
It may help or cause a smile,
Send it in!

FEMALE OF THE SPECIES

Miss Tourist: "What is the difference between a fort and a fortress?"
Guide: "A fortress is harder to silence."

Helena Hunters Get Bucks In Magpie Gulch



MONTANA'S enforcement of the buck law is filling the woods with deer, according to statements of observing hunters. Here's a picture that makes things run up and down an envious sportsman's spine. Mr. and Mrs. Harry Moore and Mark Rowan of Helena spent a few days in the Magpie Gulch territory during the open season. Two bucks bagged on the trip are shown on the automobile. Moore is at the left and Rowan at the right. The big buck, killed at the head of Crowfoot Creek up Magpie Gulch, weighed 194 pounds dressed. The smaller buck, alongside Mr. Moore, weighed 125 pounds dressed. The big fellow had seven prongs on one side and eight on the other.

Streptococcic Infection Among Beaver

By M. M. ATWATER, Manager of Black Beaver Fur Farms, Inc.

AMONG animals which are raised for their fur, beaver are singularly free from disease. They are not, however, immune. The following account of the outbreak of streptococcic infection among the beaver in our pens should prove valuable to all fur breeders:

This microbe—the streptococcus—little understood even by medical specialists, attacks all living creatures, including man. It is extremely virulent and the course of disease is rapid, accompanied by breakdown of the blood, congestion of the lungs, and other symptoms. It invariably ends in death after a longer or shorter period, depending upon the resistance of the victim, unless immediate steps are taken to control it.

The methods by which the microbe gains its foothold are not clearly understood. It is universally present, apparently, and makes its entrance into the body most easily through open wounds. Yet cases of infection are comparatively rare.

The outbreak of disease among our beaver and its progress were typical.

During the course of the summer we captured a number of beaver alive on our ranches and placed them in pens for purposes of experiment and observation.

Among these beaver were several with slight injuries received in trapping and transportation. The injury in every case consisted of a wound on the nose, the beaver's most tender part.

The first fatality occurred on October 6. We were not alarmed at this time as the beaver was an old one and we believed that he had died of homesickness and the sudden change. On skinning him, however, we found a number of pus pockets about the head.

The second fatality occurred on November 8, more than a month later.

which led him to pronounce pneumonia as the cause of death.

While we were pondering what steps to take the third beaver died on November 12, once more an animal with a wounded nose.

Upon dissecting this beaver we found the expected signs of lung congestion as well as an anemic condition of the blood. This last condition complicated matters and Dr. Burgman had a culture made of the blood. Thus we discovered the presence of the streptococcus.

Dr. Burgman immediately took steps to have a vaccine prepared from infected parts of the beaver.

On November 19 we began treatment with the vaccine. A small dose was injected hypodermically into each of the remaining beaver in the pens.

As there were no precedents to guide us we proceeded very carefully and slowly for fear of killing more animals by an overdose.

The vaccine was administered in four doses. Treatments were given on November 19, 23, 26 and 29. Doses were increased with each treatment. After the second we noted a reaction in some of the animals in the shape of mattery eyes.

Up to the present date, nearly a month after the infection was recognized, there have been no more fatalities. Unfortunately, all the wounded beaver had died and we could not be certain that any of the others were sick. Normal temperatures were recorded by all the beaver we tested.

It would have been scientific practice to leave a few of the animals unvaccinated as a control. But we yielded, selfishly perhaps, to the desire to save the remaining stock.

In the case of beaver, phlegmatic and slow-moving animals, it is extremely difficult to recognize the first symptoms of illness. In other more active animals it should be easier.

In view of our experience it might be laid down as a law that any animal should have an open wound thoroughly cauterized. It should be placed under closest observation. The body of an animal which dies suddenly and without apparent cause should be dissected and a culture made to determine the reason of death. The St. James hospital laboratories in Butte are available for this type of work.

It can not be too strongly emphasized that a skilled veterinarian should be called in at once, preferably one who has had some experience in treating disease in wild animals. In fact, any fur breeder who operates without the consulting services of a medical expert is only asking for trouble.

And fur breeders should bear in mind that they themselves are as open to attack from the streptococcus infection as any animal on their ranches. I have pointed out that the microbe is present everywhere awaiting the proper conditions for attack. The son of ex-

President Coolidge died from this cause.

If precautions are taken there is no danger. But carelessness will bring its own penalty.

The beaver in his wild state has always been particularly interesting because of its ability to plan its existence and to take into consideration various factors in its mode of living. It over-



Mr. Atwater is shown here tagging beaver for purposes of identification in case he strays away from the fur farm.

comes, by remarkable engineering feats, obstacles which would daunt other forms of wild life.

This ability is demonstrated in the careful way in which it plans a home. When it selects a location, it makes a careful survey and if it finds the water deep enough and the flow of the stream steady, it builds without further preparation. If the water is not deep enough, however, it dams up the stream and raises the water to the height desired. The dam built is always suited to the particular stream which has been chosen. If the flow is slow and meandering, the dam is built straight across; if subject to floods, a stronger dam is built, possibly convex upstream, and a secondary dam may be built to help protect the first.

In the actual construction of the dam, the beaver first prepares a "studding" to which it adds smaller sticks. When a firm structure has been raised, the beaver dives down and kicks up mud, which is carried by the stream into the cracks, plastering them and making the dam water tight, usually. Grasses are used to fill holes too large to hold the mud.

The beaver's house is either an underground chamber or a house rising from three to seven feet above the surface of either the pond or the bank. In either case the home can not be reached except through a passageway opening under the water. Though the house is thoroughly ventilated, it is built strongly enough to withstand the attacks of animals as large as bears.

For food the beaver depends on the bark of trees, which it stores away in the pond or stream near its home. It selects a tree from 2 to 8 inches in diameter, and sitting upright with its tail used as a prop, gnaws all around the tree about 15 to 20 inches from the



Breaking the ice at the Atwater beaver fences in the creek.

Again the beaver that died had a wounded nose. This time we suspected that other than ordinary causes were at work. We called in Dr. Burgman, the well known veterinary surgeon of Butte.

He dissected the dead animal and found evidences of lung congestion

ground. Just as the tree is ready to fall, the beaver slaps its tail on the ground as a signal and thus warns all other beavers which might be near enough to be injured by the falling tree.

The branches are trimmed off, and the trunk is cut into lengths of from three to six feet. These are dragged or rolled to the beaver pond.

When all suitable trees near the pond are gone, the beaver builds a canal and floats the logs down to the pond. This canal may be 25 or 30 yards long, 2 feet deep and 3 feet wide.

The beaver belongs to the rodent family, being the largest of this species. It grows to a weight of 35 to 55 pounds. Its hind feet carry toe nail combs, and each beaver spends much time primping.

The beaver walks with a slow, shuffling gait, usually dragging its tail. It is at a disadvantage on land and apparently realizes this, as it rarely cuts trees that are not close to the water. It is quite at home in water and can swim half a mile without coming to the surface.

Beavers played a greater part in the early history of our nation than any other animal. Its fur was the principal article of trade among the early settlers and Indians, and its value was so constant that its pelt was often used as a medium of exchange. Many fortunes, including that of the Astor family, owe their origin to the trade in beaver skins.

Reindeer Dishes

RAISING reindeer is now looked upon by the United States Department of Agriculture as one of the most practical agricultural industries in Alaska. Studies for its improvement have been made by the Biological Survey of the department in order to supply both food and income for the natives. Herds of reindeer have now increased to such a point that there is considerable meat available for export, and some of this is finding its way to the United States.

Reindeer meat was first marketed in the northwest, then on transcontinental trains and in metropolitan hotels. Under improved refrigeration facilities and methods of handling, reindeer meat is being more generally distributed, and many housewives have asked for information as to its use.

Reindeer meat differs but little in composition from beef or veal of the same grade. In general it contains less fat and slightly more protein. Feeding conditions vary so much from those prevailing elsewhere that differences in vitamin and mineral content are to be expected. The flavor is characteristic and different from beef or veal; it is gamy but not strong. The texture is fine, and most of the meat is tender. As the reindeer is different in size and shape from either beef cattle or sheep, the cuts vary accordingly. Reindeer meat is shipped frozen and must be handled with the same care as any other frozen meat. It should be allowed to thaw slowly at a low temperature before preparing for the table.

Says Swiftwater Bill---

HUNDREDS of Montana sportsmen have enjoyed the wit, artistry, and the sparkling humor of J. J. Meany, deputy game warden in the Plains area, whose lovable characteristics, his wizardry with the oil brush and his big, wholesome mannerisms have endeared him to men with whom he comes in contact. Deputy Meany is ever alert on the trail of yarns for readers of MONTANA WILD LIFE. This month he submits this one told by Swiftwater Bill, accompanied by one of his own sketches. So, believe it or not, here it is:



"Swiftwater Bill, of Thompson Falls, may not be the biggest or the smoothest liar in the world. In fact we don't know that he ever tells anything that is not true, but we do know that Sanders county will back him to a man against any bunch of hand picked liars Montana can produce.

"The story related here is only one of the many incidents which Swiftwater Bill claims has happened during the many years he has hunted and fished in western Montana. As to the truth of this narrative, we beg the reader to draw his own conclusions.

"Ye see that black snag up thar?" (There was no black snag where Swiftwater Bill was pointing, but Bill's eyesight is not as good as it used to be.) "Wall, when that snag was a tree I was huntin' up here one time and just as I comes up over this ridge I spots a big doe and a fawn standin' under that tree. I'm lookin' fer meat, but I don't want no fawn, so I pulls my old .33 Winchester down on that doe and cuts loose.

"When my old .33 lets a roar out of her, that doe makes one jump and she's in the brush and goin' strong but the fawn just stands thar and don't make a move.

"I bats my eyes a time or two, fer that's the first time I ever pulls my old .33 down on anything and don't have to reach for my skinnin' knife for the next move.

"Wall, I mosies up thar, 'cause I can't figger why that fawn's standin' thar unless I'd pinned him to the tree.

"I slips up on him kind of easy and when I gets up within about ten feet

or so of him, I sees he's as blind as a bat and that he's holdin' somethin' in his mouth.

"When I gets a little closer I see it's his mother's tail. By crapes, I feels bad about that, fer she's been leadin' him through the woods by havin' him hang onto her tail and when I blasted with my old .33 I just cuts her loose. The fawn can't see what's happened, so he just stands thar. Wall, I takes hold of that tail and leads that fawn ten miles back to camp. I doctors him thar all winter and by spring I've got him so he can see better than I can. I figger I did the square thing by the fawn but it's always bothered me a lot to think of that doe havin' to get along all these years without her tail."

Call of the North Woods

I'm tired of the rustle and hustle,
I'm sick of the racket and din,
I want to cut loose from the bustle,
And go out where the rivers begin.
I long to get up in the open,
'Monst the cedar and tall tamarack;
I want to make camp on a lake shore,
In a tent or old lumber shack.
I'm tired of the pomp and grandeur,
I'm sick of the falseness and bluff;
I want to get up where the country
Is virgin and wooded and rough.
I long to awake in the morning
And pull on an old flannel shirt
And corduroy pants that are mended,
And moccasins covered with dirt.
I care not a cuss where the place is,
Nor how far away it may be,
So long as it's up in the open
Where I can unleash and be free.
Where the odor of cedar and hemlock
Will greet me when'er I awake,
And the moon casts its shadow at nightfall
Of the pine on the wind-rippled lake.
Just give me my pipe and tobacco,
Some coffee and bacon, and then
Turn me footloose away in the forest,
Far off from the pathways of men.

To Glacier Waters

If I could choose my pathway out of life
'Twould be from some high hour with
beauty rife,
Through some deep lake whose quiet
water lies
Rimmed by the mountains under summer
skies,
Its emerald edged with sapphire in the
sun
Changing and shifting as the ripples
run;
Or, by a swirling pool of beryl green,
Foamy with bubbles in a rainbow sheen,
Flung from the spray where glacial
waters fall
Between the singing pine trees straight
and tall.

—EDNA F. TOWNSEND.

Hunters War on Predatory Animals

By FLOYD L. SMITH



TREED

ers now in the woods and on the plains have killed 374 predatory animals during the month, of which 308 were coyotes, hence indications point toward a hot winter for these prairie pests which annually take heavy toll.

According to figures of Mr. Bateman the federal government has 11 hunters in the field who worked 285 days in November at a cost of \$1,275.

The Fish and Game Department has 14 hunters who worked 349 days at \$1,492 in November.

The State Livestock Commission has 13 hunters who worked 336 days at a cost of \$1,423.

During the month these 38 hunters put out 4,603 poison baits and the toll for November was as follows: Bear 3, bobcats 14, coyotes 308, mountain lion 1. Among the fur-bearing animals and predatory birds were badger 9, young wolves 10, eagles 9, hawks 9, skunks 7, weasels 12, porcupines 22, magpies 26 and ravens 3.

Keen rivalry exists among hunters of the three divisions for the heaviest kill of predatory animals. Federal hunters are topped for November by J. E. Hurley of Wisdom, who bagged 15 coyotes. The State Fish and Game Commission hunters are also engaged in a tight race. E. B. Warren of Lingshire and L. A. Jordan of Ashland have each killed 11 coyotes and Palmer Carlson of Deer Lodge and Fred Reinhardt of White Sulphur Springs have each killed 10. The Livestock Commission hunters are led by Chauncey Brown of Lee, in Rosebud county, with 12 and E. M. Jensen of Glendive with 9.

According to figures compiled by Jack W. Carney, chief assistant state game warden, the total number of trappers' licenses issued for the season of 1928-29 has reached 1,777. In addition, the total

number of beaver trapping permits has attained 583. These licenses are sold at \$10 each.

If the present rate of beaver tagging continues, the figure for 1929 will come near the high mark of two years ago when the total passed 9,000. On November 1 the State Fish and Game Department had tagged 8,094 beaver hides at 50 cents each, all trapped under permit provided by the state legislature. Inroads being made on the beaver, whose history dates back to the pioneer days of the state when fortunes were built up in the fur industry, have for years been a source of worry to members of the State Commission and sportsmen eager to protect them. They are trapped, however, when damage to farms is caused by dams and backwater.

Analysis of the figures showing receipts of sales of hides taken by predatory animal hunters shows interesting results. The hides are held until a large collection is accumulated and they are then auctioned at Billings by the leader of predatory animal control. During the year thus far, receipts from these fur sales have netted \$5,314.25. During January, 1929, the sale included 95 coyotes, 7 bobcats, 2 weasels and 1 badger, bringing \$1,787.75. In February the sale included 66 coyotes, 5 bobcats, 1 badger and 4 mountain lions, totaling \$1,285. No sales were held in March and April. In May 94 coyotes were sold, 9 bobcats, and 1 lion, bringing \$1,577. During June, July, August and September, when the fur is not prime, the animals taken by predatory hunters are buried, with no attempt at sale. In November 71 coyote hides were sold, 5 bobcats, 6 badgers and 4 bear, bringing \$562.50.

The following hunters are now in the field:

Federal Hunters

Lewis Bakken, Miles City.
R. E. Bateman, Billings.
R. C. Burns, Ringling.
Oscar M. Evans, Ovando.
J. E. Hurley, Wisdom.
Ted Johnston, Sheridan.
L. G. Mason, Lavana.
Walter Standish, Lodge Grass.
M. M. VanDeusen, St. Ignatius.
Major Vermandel, Billings.
Ben P. Vogler, Gold Creek.

Fish and Game Commission

C. E. Beebe, Columbia Falls.
Palmer Carlson, Deer Lodge.
Ray Catron, Billings.
Charles Frost, Harlowton.
Mark Huston, Adel.
L. A. Jordan, Ashland.
John Krause, Jackson.
Burt Pasma, Havre.

E. W. Rader, Choteau.
Fred Reinhardt, White Sulphur Springs.
Roy Vance, Canton.
Lee Vermandel, Carterville.
E. B. Warren, Lingshire.

Livestock Commission

S. C. Boyce, Glasgow.
W. L. Chestnutt, Toston.
M. C. Daniel, Martinsdale.
F. D. Davis, Hardin.
S. A. DeSilva, Blakeslee.
George Ellis, Bridger.
L. O. Englund, Castagne.
Chauncey Groom, Lee.
Dock Groom, Brandenburg.
Ed Gunther, Terry.
E. M. Jensen, Glendive.
John Matchett, Dupuyer.
Miles Standish, Lodge Grass.

DUCKING THE STORK

John, aged six, was told that he had to go to the hospital to have his tonsils removed, and his mother was bolstering up his morale. "I'll be brave and do just what you tell me, mother," he promised, "but I betcha one thing, they don't palm off no crying baby on me, like they did on you when you were in the hospital."

WHEN I GROW OLD

When I grow old
God grant that every child
Will feel the youthful texture of my soul
And will not turn away from me
As from a shade or shrunken vine
When I grow old.

When I grow old
God grant that I may have some task
Which must be done or some one fare
the worse—
That in some corner of the earth
Someone will need my hand,
When I grow old.

MISLEADING!

Brown and Smith were telling stories about large families with whom they had come in contact. Brown happened to remark that he was a member of a big family himself.

"Indeed!" said his friend. "How many of you are there?"
"Well, there were ten of us boys," said the other, "and each of us had a sister."

"Good gracious!" exclaimed Smith. "Then there were twenty of you?"
"No, only eleven," was the answer.

UPKEEP AND UPSET

Smith: "It is not the cost of the car that worries the average motorist but the upkeep."

Jones: "And sometimes the turnover."

MONTANA STATE FISH AND GAME COMMISSION

COMMISSIONERS.

Thomas N. Marlowe, Missoula, Chairman.
 G. T. Boyd, Great Falls.
 Joseph L. Kelly, Anaconda.
 W. K. Moore, Billings.
 E. A. Wilson, Livingston.



ROBERT H. HILL, Helena
 State Fish and Game Warden
 Secretary.

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SPORTSMEN MEET IN JANUARY

MEMBERS of the Montana Sportsmen's Association, which has battled year in and year out against obstacles that have seemingly threatened disruption, are due to send representatives to the state convention in January. At the last annual meeting the association weathered an internal storm and emerged stronger than ever after an adjustment of dues and the ironing out of difficulties. With Glen A. Smith of Missoula at the helm, greater achievements are promised during the coming year.

Montana is being made a better state in which to live through activities of these local clubs of sportsmen, co-operating with the State Fish and Game Commission. Clubs affiliated with the state association are in a position to decide best what is required in the way of open and closed seasons, the planting of fish, the creation of game preserves and the location of rearing ponds. They are in a position to recommend action to the Commission and never has a deaf ear been turned to a meritorious matter.

With the close of the season on migratory waterfowl and big game, clubs throughout the state will resume their regular meetings. They will review achievements of the last 12 months and prepare for the next year. Their programs, their problems and their plans are those of the State Department and cooperation brings results. Every Montana sportsman owes it to himself to become affiliated with the club in his district and take an active part in its work. His chores are not all done when he pays \$2 for a resident license. The thrill of making his first catch of fish is worth more than the cost of the license.

Secretaries of dormant clubs throughout the state must shake off the moss, start things moving in their own bailiwick, call the boys together, remit club dues and prepare for a rousing meeting in January.

Live in the past and you won't live well in the future.

BETTER CITIZENSHIP

ALWAYS interested in the building of better citizenship and the development of character among the people, the South Carolina Department of the American Legion has passed a resolution endorsing a policy for the encouragement of the development of state parks, forests, and game refuges, and commending to each post an active program for the promotion of projects in their communities.

The American Legion has always fostered and encouraged the upbuilding of the nation and state and for the conservation and development of influences and resources that are for the benefit of our people.

HUNTING IS AN ENDURING SPORT

GAME hunting is as old as man. It began with the necessities of subsistence. It became contributory to the means of subsistence and to supplying a commercial market. In most American states game no longer can be marketed, but may be hunted to a limited extent for the sport of the chase and for individual or family use. Only the withdrawal of game from the market has prevented its extinction. Even as now restricted, the number of hunters is greater than ever before, according to the statistics of the Department of Agriculture for the 1927-28 season, for which six and one-half million licenses were granted, an increase of 50 per cent in three years. We know of no way to explain this extraordinary increase in the number of hunters except the facilities of good roads and motor cars, penetrating near and often into the remaining game areas.

Americans are hunters by tradition. Early history is romantic in tales of game shooting. If the instinct is primitive, it is nevertheless enduring. Country boys have learned to shoot as soon as they were big enough to carry guns. Even when country boys are transferred to the cities, the impulse for adventure with game remains. In a sense, once a hunter, always a hunter. A great many who once enjoyed shooting have foregone the practice because of humanitarian considerations. Yet they never quite outlive the impulse to take the trail, to employ their knowledge of game habits, to demonstrate their skill with rifle and shotgun.

Game for food is now an incidental incentive. It is the sport, arduous, fatiguing and sometimes involving exposure to unfriendly elements, that lures the man with the gun and the companionable, understanding dog. This sport calls the young men of the farms from the fields and entices the city dweller from his common recreations of golf, tennis and motoring.

Before you sympathize with folks who are miserable, determine if they enjoy being miserable. There are people who are never happy except when they're miserable.—Atchison (Kans.) Globe.

WHAT IS A SPORTSMAN?

THE word sportsman is a much abused term. To the nature lover who would kill no form of wild creature the term is anathema. To the average gunner it is any man who goes afield with a gun in search of game. It has remained for William B. Mershon of Saginaw, Mich., nestor of American sportsmen, to clarify the term. In a notable address before the recent game conference held at New York City December 2 and 3, Mr. Mershon defined the term. He pointed out that sportsmanship during the passage of the years has changed in technique but not in principle. When this country contained only thirty or forty millions of people and an abundance of game, when firearms were primitive and transportation slow it was sportsmanlike to shoot without limit, provided none of the game was wasted. Today that is not the case. Vast increase in population, in efficiency of firearms and in rapid transit, have made it necessary for more stringent restrictions so that today the true sportsman is not the man who looks upon the size of his bag. Time was when it was perfectly legitimate to shoot a partridge out of a tree but no sportsman would now put a bevy of quail or shoot a duck on the water. Unfortunately, there are gunners who do these things but they are not entitled to the designation of sportsmen. With changed conditions we must of necessity raise our standards of sportsmanship.

THE SPORTSMEN MUST PAY

WITH full realization of the growing drain upon Montana's fish and game resources by visitors and residents alike, the argument over increased license fees bobs up whenever a group gathers. Montana has everything desired by the angler, big game hunter, and lover of the field. It's just a question of the length of time that this situation may be preserved.

It is pointed out clearly by William C. Adams, director of the Division of Fisheries and Game of Massachusetts, in his annual report, that fishing and hunting can no longer be regarded as cheap sports. Free hunting and fishing can no longer be enjoyed in America in the sense that it can be had for nothing. It is only within comparatively recent years that the hunter and angler has paid anything for his sport in the way of license fees, which are as yet ridiculously small when it is considered what is expected by way of return for the expenditure. It is unreasonable to expect the investment of a dollar or two to yield the maximum of game and fish which the hunter and angler is allowed by law to take within each open season. It is time that sportsmen realize that the fish and game they bring to bag can only be in proportion to the investment they make in it. Elaborate and expensive equipment is necessary to maintain the propagation plants which must be supported by the State Fish and Game Department to produce the large numbers required for planting and there must be greatly increased facilities for management and protection.

Mr. Adams says: "A large percentage of us still persist in nursing the hope that some miracle will occur to restore the abundance of the past. Too many of us insist on harboring the fallacy of the God-given right of free hunting and fishing. Some still nurse the chimera of a so-called American system of free fishing and hunting. These ideas must be thrown into the discard once and for all if we are to deal with this problem on its merits."

Mr. Adams would undoubtedly insist upon maintaining the maximum of opportunity for all citizens on an equal basis and to that end he strongly advocates increased hunting and fishing license fees which would enable the state to increase its facilities for supplying the streams, lakes and fields with fish and game.

"The protection and propagation of those forms of wild life which are used for sporting purposes," he says, "is today recognized as a business. In the densely settled sections of the country it is useless to hope for the return of certain species of large mammals classed as game. Likewise it is nursing a dream to expect, in the future, to fish in crystal streams flowing through primeval forests. In many of our streams and other waters, natural reproduction of the fish life can not be counted on for any appreciable additions to the wild life stock. In many sections only the artificially propagated species of game can be relied on for sport."

To get happiness is important; to give it, more.
'Tis better to struggle through life than sleep.

MONTANA IS RAISING GAME BIRDS

MONTANA has joined the majority of states in earnest in the propagation of game birds. At the new state game farm at Warm Springs things are humming. J. F. Hendricks, game farm keeper, is busy night and day with his flocks, preparing for the broods to be released next year.

Everything indicates that the solution of the problems of raising wild game in captivity at public and private game farms will be solved with less difficulty than was required to bring poultry raising to its present success. Particular attention is being given to the raising of pheasants in the northern states and Bob White quail in states where the climate is moderate. The game raisers have learned that food habits must be given careful consideration in the rearing of game in captivity; also, that the care of the young birds immediately after hatching, through transferring them to brooder coops, and later releasing them upon land that is free from unhealthy conditions that may breed disease, is most important. Great progress is being made in the science and results are showing themselves in better hunting conditions in many sections of the United States.

THE WESTERN GRAZING PROBLEM

CARLOS AVERY of the American Game Protective Association has sounded a note that merits consideration, when he writes in the current issue of American Game, as follows:

The chief game official of one of the progressive western states, discussing the problem of over-grazing on national forests and public lands, as well as on private lands, says:

"One problem of outstanding importance in the entire western portion of the country is the injudicious use of the forage resources for domestic animals. We are prone to assign almost every reason under the sun for the depleted wild-life conditions except the proper one, that of over-grazing. The game has simply been starved out and the remnant of it now occupies territory which is too rugged or too poorly watered to be of use to livestock. No one wants the livestock industry wiped out in the interest of game but the irony of it is that the livestock industry is rapidly wiping itself out as well as the game. Ranges are becoming more denuded and consequently more badly eroded every year and the time is now close at hand when the unit of area sufficient to support a cow or a sheep will be so large that economical management will be impossible. When that time comes the soil and forage plants will be in such condition that it will require many years of absolute rest to rejuvenate them to a point where they will support anything. In the meantime, the game will have vanished except from relatively inaccessible regions.

"There are still a great many millions of acres of publicly owned lands in the west which are not under any form of administration whatever and other millions under the control of states upon which administration is either partially or wholly ineffective so far as destructive use is concerned. The bulk of the grazing lands are in private ownership but they are only slightly less abused than the public lands. The livestock industry is beginning to appreciate the situation and many in that industry are ready to consider a change of policy which will permit the stock industry to regain a suitable footing and at the same time permit substantial increase in game."

Fault-finding and charity should begin at the same place.

BRINGING BACK THE BUFFALO

WITH the approach of the holiday season, and the demand for seasonal meats, nutritious buffalo meat from preserves in Canada and Montana is finding its way to the market places. All of which is conclusive proof that the monarch of the plains which was but a few years ago threatened with going the way of the dodo bird, is being brought back. On the bison range at Moiese, Mont., in Yellowstone Park and other areas the herds are increasing and because of the shortage of feed, must be thinned out for preservation.

A gratifying feature of Canada's adventure in bringing back the buffalo is the way in which herds continue to multiply and to expand beyond the capacity of their once ample grazing ranges. The case of the main herd at Wainwright, Alberta, in which there was an increase from about 700 head to 17,000 head in 18 years has often been cited. This year 1,088 young buffalo were sent from Wainwright to the Wood Buffalo Park near Fort Smith, Northwest Territories, and of the herd at Elk Island Park, 200 animals have been slaughtered and their carcasses and hides disposed of commercially. That 200 buffalo could be disposed of without wiping out the entire herd at Elk Island Park will surprise people who have not closely followed this experiment. When the original herd was purchased from Michael Pablo of Montana speedy action had to be taken to receive them. Seventy miles of stout wire fencing, such as encloses the buffalo park at Wainwright, could not be erected overnight and the first shipment from Montana was placed in Elk Island Park, a fenced wild animal enclosure, 51 square miles in area, about 37 miles northeast of Edmonton. As soon as the fencing at Wainwright was completed the shipment was moved to the buffalo park, but about 50 head, which could not readily be rounded up, were left at Elk Island to roam with the deer, wapiti, and other animals. These few animals increased like those at Wainwright and this summer a survey showed that the 50 buffalo had increased to about 800. This number, considering the other animals in the park, was felt to be beyond the grazing capacity of the area and the disposal of 200 was deemed advisable.

No Easy Cure for Ills of Wild Life

TOO MUCH emphasis on the need for new game laws and restrictive regulations, and far too little on the extreme importance of adequate enforcement of those already in effect, was said by Paul G. Redington, chief of the Bureau of Biological Survey, United States Department of Agriculture, to be the most serious drawback to wild life administration in the United States, in an address at the Sixteenth American Game Conference, held in New York City, in December, under the auspices of the American Game Protective Association. Mr. Redington recently visited Montana and made a survey of the waterfowl situation. He said that in spite of vociferous assertions to the contrary, it is obvious that there is no easy legislative cure-all for the ills that have been visited upon wild life of this continent. The preservation of habitat of migratory birds and the enforcement of the game laws are of primary and equal importance, he said.

"The passage early in the year of the Migratory Bird Conservation Act," he said, "is a long step forward in the solution of the wildfowl sanctuary problem, and I am sorry that I can not speak with equal optimism concerning the enforcement situation. I can not imagine any legal instrument better designed for the purpose of safeguarding the welfare of a great national resource than the Migratory Bird Treaty Act, representing as it does the best thought and effort of a group of men eminently qualified to frame a conservation measure of more than national importance. The act is both powerful and adaptable. The tragedy of the situation lies in the fact that its practical effectiveness in the field is mainly dependent upon a force of but 25 game protectors. The limitations of the enforcement organization allow only one United States game protector for every two states, and these men are given the all but impossible task of enforcing regulations designed to influence the conduct of close to 3,000,000 people. It is evidence of the soundness of the principles of the act—and it certainly is indicative of the character and purpose of the men employed—when we realize that since the passage of the act the former wholesale slaughter of ducks, geese and shore birds for the markets has been greatly curtailed.

"I do not mean to infer that game is no longer bought and sold, for there is a persistent underground traffic illegally maintained by the worst type of poacher wherever these birds congregate. The losses from these sources, however, are certainly not comparable with the destruction formerly wrought. In reducing the chief losses we have strained our limited resources to the utmost, and we have required our game protectors to exhibit a type of personal courage and an unflinching attention to duty, night and day, equal to the demands placed upon any police organization in the country.

"A new and vicious type of game law violator is taking the field in numbers increasing annually. In some of the most important wildfowl concentration areas in the country we have repeatedly noted the presence of groups of individuals recruited directly from the lowest criminal element of our large cities. The profits that may be had through illegal sale of ducks and geese are often sufficient to tempt an element heretofore principally identified with other illegal transactions and their illegitimate profits.

"These men take the field equipped with every advantage that may be conveyed by the use of the automobile and the motorboat. Some at least do not hesitate to attempt murder, and in going among them the game protector must take his life in his own hands. If the full influence of these millions of people in the United States who want shooting to continue under reasonable limits and seasons and are against law violation, could be brought to bear through coordinated action to secure remedial action that would give our waterfowl protection, the bad situation which now exists might be ameliorated."

Mad Mountain Cats



G. E. WILCOX of Gardiner, Mont., the gateway of Yellowstone National Park, submits this photograph of a Mamma and Baby Wildcat defying a tourist in the rocky crags of the playground. They are in no mood for monkey business.

Mr. Redington discussed the progress of game conservation in 1929, and enumerated the forward steps that have been taken by the states, conservation organizations, and individual conservationists. "Many of the states and many of the conservation organizations concerned chiefly with the welfare of the birds and animals of the wild have moved saucily and industriously to register achievements of a distinctly progressive character," he said. "Nor has the federal government, through its so-called conservation bureaus, been a laggard in the field. The 1929 record of action stands out clearly, and perusal of it should bring, not complacency, but a great degree of satisfaction, and a desire on the part of all to forge ahead with accelerated speed to tackle the many unsolved problems which we know exist and must be solved.

"Much of the progress that has been made is due directly to the unanimity of purpose and the shoulder-to-shoulder work of the great conservation associations of the country. These bodies, powerful indeed, in the educational field, and many of them contributing much of cold cash to underwrite specific game conservation projects, have joined hands with the game administrators of both federal and state governments for the public good.

"If it had not been for the splendid educational ground work established in past years by the American Game Conference, the National Association of Audubon Societies, the American Game Protective Association, the Izaak Walton League of America, the Camp Fire Club of America, the Boone and Crockett Club, the American Forestry Association, the American Wildfowlers, the state game protective associations, and many of the scientific societies and others interested in this big field, we would not be able to enumerate and discuss here the advances that have been made. That there has been some disharmony is well known; constructive disagreement not only is to be tolerated, but by all means encouraged, for I think that we all progress as we gain the point of view of the mau who, with reason and in a friendly way, differs from us."

In the federal field he cited recent progress in the passage of the law authorizing migratory bird refuges throughout the country, and first steps by the Biological Survey in surveys and examinations of proposed refuge areas. Surveys of food resources have already been made, he said, of 150 separate units, aggregating 1,350,000 acres, and the land examinations, looking toward actual federal acquisition, have been made on 19 acres in 11 states, aggregating 617,312 acres.

Mr. Redington commended Canadian officials for their cooperation with the officials of this country in the efforts to promote the welfare of migratory birds, and spoke of the harmonious relationship existing among the four United States bureaus that represent

the major federal interests in wild life—the Forest Service and Bureau of Biological Survey of the Department of Agriculture, the National Park Service of the Department of the Interior, and the Bureau of Fisheries of the Department of Commerce—and the measures being taken to so coordinate their work as to make it more effective in the solution of the wild life problems that are common to all.

In discussing the wild life of Alaska, Mr. Redington said that "the administration of a comprehensive game law over an area nearly one-fifth the size of the United States, with a force of only seven wardens, is indeed a difficult task. Visualize, if you can, a district of over 80,000 square miles for which one warden is responsible. These men, in their patrol work, traveled more than 40,000 miles during the last fiscal year. These are Alaskan miles, incidentally, and are not to be reckoned in the same sense as in the States. Much of this distance was made by dog team and with small motor boats, by poling boat, and on foot."

Word of Caution



Dr. T. G. Pearson

MONTANA sportsmen may well heed the word of caution of Dr. T. Gilbert Pearson, chairman of the National Committee on Wild Life Legislation, which committee was responsible last spring for putting through congress the Norbeck bill for the creation of inviolate sanctuaries for wildfowl. He has sounded a note of caution to the friends of this measure in an address just delivered in New York. He said: "As we are continually pointing out, the Norbeck bill authorized certain appropriations through a period of seven years which would total \$8,000,000 for inviolate bird sanctuaries. It is customary of congress to pass authorization bills when new appropriations are contemplated, but such bills do not actually appropriate the money. After the passage of the Norbeck bill, there was secured the enactment of a provision in the second deficiency bill which provided \$75,000 for the Department of Agriculture to use in investigations for locating suitable sites for wildfowl sanctuaries. The bill authorized \$200,000 for the project the coming year. However, congress does not always vote the amount of funds as previously provided for in the authorization bills.

"The friends of conservation, therefore, should be alert and keep this before the attention of their senators and congressmen. The report of the Bureau of Budget on expenditures, as proposed by the administration, was presented to congress and became a matter of common knowledge early in December."

Elk for Goats

THERE have been lots of queer trades pulled off since the advent of man upon this earth but one of the queerest came to light when it was learned that the state of Washington has been trading elk from the Olympic Mountains for goats from the Saint Elias Mountains of Alaska.

Charles R. Maybury, director of the Department of Fisheries and Game, confirmed the report that his department was one of the principals in the unique trade. The Alaska Game Commission, he said, was the other.

"Yes," Maybury laughed, "it is true that we have gone into the goat business, so to speak. Alaska has a surplus of mountain goats. We have a surplus of the Olympic elk (cervus Rooseveltii). Alaska wants to experiment with the elk to see whether or not they will adapt themselves to certain of the coastal areas. We have some mountain goats in this state, but not nearly as many as we should have. What more natural then, that we should engineer a trade whereby each of us would be benefited?"

"In exchange for yearling elk we received adult goats. The last shipment to arrive consisted of three billies and one nanny which were turned loose on Storm King Mountain back of Lake Crescent. The animals withstood the rigors of the sea voyage from Cordova to Seattle far better than we expected and arrived in excellent condition.

"Commodore H. Morris Fisher, chairman of the Game and Fish Commission of Clallam county, personally supervised the handling of the goats from Seattle to the Storm King district."

According to Maybury the goats were trapped in the Saint Elias range, back of Cordova, at a cost to the Alaska Game Commission of between \$300 and \$400 each f. o. b. the dock at Cordova. The yearling elk given in exchange were captured in the wilds of the Olympics by Dora Huelsdonk, daughter of John Huelsdonk, pioneer settler in the peninsula regions.

"The department considers itself fortunate in securing animals of the age and condition of those last received. Typical of the rugged crags on which they make their home in the very heart of the mountains, goats are one of the hardest animals in the world to capture alive. Even as the beautiful flowers of the mountain meadows wilt in confinement so do mountain goats. They can not stand captivity and it is necessary to handle them as expeditiously as possible."

PERMANENT WAVE

Most of the family were at the parlor window watching the parade go by. Suddenly the mother turned to her daughter, "Where's your auntie?"

"Upstairs," came the reply, "waving her hair."

"Mercy!" exclaimed the mother, "can't we afford a flag?"

Extremes In Fish

IF ONE searches this old world over, he can find unique fish of all descriptions. The smallest known fish is the tiny Goby of the Philippine waters. Average adult length is about half an inch.

The largest known fishes are perhaps the Basking Shark of sub-Arctic waters, and the Carchardon of the tropical waters near Australia and New Zealand. They both grow to a length of about 45 feet.

The most extraordinary fish is the Vampire Ray of the West Indian waters. It reaches a width of about 25 feet across the wings.

Fresh water catfishes of the Danube River sometimes reach 10 feet in length and 400 pounds in weight.

The most remarkable fish is the Regalecus or "King of the Herrings," of the littoral waters of northern Europe.

Plant Wild Celery

WILD celery brings the diving ducks. Canvasbacks, redheads and bluebills darken the sky over the wild celery beds. Wild celery is fully as important as a food plant for the diving ducks as wild rice is for the marsh ducks. These divers migrate thousands of miles to find wild celery and feast upon the tender white shoots and buds which are produced very abundantly. Wild celery is also a very important food and cover plant for fish, supporting countless numbers of animal life which the young fish feed upon, also providing hiding places where they may escape the larger fish which feed upon them. Wild celery is a hardy submerged plant which will grow in almost any fresh waters from 2 to 12 feet in depth and does the best on a mud bottom. It grows well in slow running streams or rivers, also in lakes or ponds which are not landlocked. Extreme spring floods do not affect the growth of this plant. Seed of the wild celery should be planted during early fall when it is freshly gathered. Fifty pounds will plant an acre.

Wild Duck Speed

Here is an authentic table showing the speed of wild ducks in flight:

Duck	Ft. per Sec.
Mallard	55 to 90
Spoonbill	55 to 85
Black Duck	55 to 90
Wood Duck	70 to 80
Pintail	60 to 100
Widgeon	80 to 100
Gadwall	80 to 100
Greenwing	100 to 130
Redhead	100 to 130
Bluewing	120 to 140
Canvasback	130 to 160

Brant are credited with being able to make 90 to 110 feet per second and Canada geese 100 to 120 feet per second.

Early Day Fishing and Hunting in Montana

By DAVID HILGER, Librarian, Historical Society of Montana



Dave Hilger

the early days of Montana. In doing so I will briefly relate notes taken from the Journals of Lewis and Clark's record for we must go back 125 years to get this information. Of course, the Journals often refer to catfish caught in the Missouri River below Great Falls but I am now referring to trout, grayling and whitefish. Captain Lewis writes in the Journal, August 19, 1805:

"This evening I made a few of the men construct a seine of willow brush which we hauled and caught a large number of fine trout and a kind of mullet 16 inches long which I had not seen before. The scales are small, the nose is long and abtusely pointed and exceeds the under jaw, the mouth is not large but opens with folds at the sides. The color of its back and sides is of a bluish brown and belly white. It is by no means as good as a trout."

I defy any of our present anglers to give a better description of a whitefish. On August 27, 1805, we read:

"Late in the evening I made the men form a bush drag and with it in about two hours they caught 528 very good fish, most of them large trout."

On the same day Lewis gives us the first description of a Montana grayling when he writes:

"I now for the first time saw ten or a dozen of a white specie of a trout. They are of a silvery colour except on the back and head where they are of a bluish cast. The scales are much larger than the speckled trout but in their form, position of their fins, teeth, mouth, etc., they are precisely like them."

Could a better description of this fish be given now after a lapse of 125 years? This fishing was done on the Upper Beaverhead River near Armstead and it was from this point that the fish diet superseded that of buffalo, deer and elk. On the west side of the range salmon came into use but the change from a wild meat diet to a fish diet made the men sick. It will be remembered that buffalo only ranged over the great prairies bordering on the Missouri and Yellowstone Rivers and were not found on the west side of the Bitter Root Mountains.

I remember that the Blackfeet and Crow Indians as a stigma of reproach referred to the Indians of the Columbia River and its tributaries as "fish eaters." The Blackfeet and Crows were meat eaters and accordingly a more warlike and superior race. The Columbia River tribes lived largely on salmon, fresh and dried, with the camas and other roots and an occasional deer or elk.

Lewis and Clark record the fact, however, that the mountain streams of Montana were alive with trout, grayling and whitefish.

Coming down to territorial days of 1865 it is interesting to note that the first law on the subject of protecting the fish, trout only being mentioned, if you please, was passed by the Bannack Territorial Legislature and I will give it in full:

"An Act Relating to Trout Fishing." Be it enacted by the Legislative Assembly of the Territory of Montana:

Sec. 1. That a fishing tackle, consisting of a rod or pole, line and hook, shall be the only lawful way that trout can be caught in any of the streams of the territory.

Sec. 2. That said hook shall not be baited with any drug or substance poisonous to any kind of fish, whatever.

Sec. 3. That it shall be unlawful for any person or persons in the Territory of Montana to make any dams, or use any nets, seines, or any similar means for catching trout, or to use any drug or poisons intending to catch, kill or destroy any species of fish.

Sec. 4. Any person or persons offending against this act, on conviction thereof, shall forfeit and pay for every such offense a penalty of not less than fifty dollars nor more than two hundred dollars, to be recovered, with costs of suit, in civil action, in the name of the Territory of Montana, before any court having jurisdiction. One-half of the fine so collected shall be paid into the county treasury for the benefit of the common schools of the county in which the offense was committed and one-half shall be paid to the person or persons informing the nearest magistrate that such offense has been committed.

All such fines and costs shall be collected without stay of execution and such defendant or defendants may, by order of the court, be confined in the county jail until such fine and costs shall have been paid.

Sec. 5. This act to be in force and take effect, from and after its approval by the governor.

Approved, Feb. 7, 1865.

Here we have the first law enacted by the legislature of Montana for the protection of trout and it is amusing to note that it was not a criminal action but the fines and costs were to be by civil action. However, if a conviction was secured the offender must pay or go to jail.

It left the field open for killing of fish with dynamite and when going on

a hunting trip we generally carried a few sticks of giant powder, fuse and caps, and when trout failed to bite in the mountain streams during the late fall or winter, a half stick of powder with a short fuse was pitched into a hole; the result was an abundance of fish, trout if you please, for the frying pan of the hunters. Of course, subsequent legislation put a stop to this method of catching trout and no other game laws were considered at that time as necessary but trout reigned supreme as a protected game fish.

Later legislatures got busy with all manner of laws for the protection of fish and game and in 1907-8, W. J. Scott, the first state game warden, published an official compilation of all fish and game laws up to that time which conclusively shows that early action was taken by the legislative bodies for the protection of fish and game. Among these I note the prohibiting of hunting with dogs and depositing sawdust in the streams.

In 1867 when I crossed the plains from Minnesota to Helena, Montana, via the northern route, game was abundant, particularly buffalo. I will have to plead guilty to indiscriminate slaughter of this noble animal in northern Fergus county in 1881-2-3. Everyone was doing the same and in 1886 the buffalo were gone. The destruction of these animals forms an interesting chapter in our history that has often been written.

In the early 70's I was at the Gates of the Mountains ranch on the Missouri River 18 miles north of Helena. At that time there were thousands of black-tail deer and mountain sheep in the mountains proper and hundreds of antelope in the Helena Valley and other open country, while the festive white-tail deer were in the brush along the mountain streams. We paid little attention to fish only as a pastime and they were abundant in all the streams. Trout were in the mountain streams and grayling and whitefish could be caught in the rivers and larger streams. The best law ever passed was that preventing the use of giant powder which was always available with the miners at that time and used when the fish did not bite. The use of the explosive was destructive to all manner of fish.

I have had occasion to kill several mountain lions, which after all was an easy matter with a dog that would tree the animal, and there were always trees. Shooting them out of the tree was a simple affair and a good noisy dog was a splendid accoutrement in a bear chase. I was never without a good saddle horse on occasions of this kind. These hunts were always exciting and furnished many a good tale for the evening camp fire.

I remember one bear hunt that turned out a joke when we attached a properly loaded musket on the river bank to stakes with a stout cord tied to the trigger and a grouse to the other end of the string. It was arranged so that

Mr. Bear coming along the river bank would scent the grouse and naturally pull the string and bang the gun and then a dead bear. Well, we listened attentively that night until late and about midnight we were rewarded by a tremendous report that reverberated in the canyon and mountains. When dawn came we carefully surveyed the results. It worked well and everything had carried out as planned, but 'lo and behold,' a skunk had assumed the role of the chief actor in the drama and he was literally torn to pieces by an ounce ball. We never tried it again.

Lewis and Clark mention the fact that while they saw thousands of fish on the Jefferson River they would not bite and in my experience I often found large schools of trout in the mountain streams that could not be induced by any manner of baiting with grasshoppers or meat in the fall and winter. Then was when giant powder was used when the law did not prevent.

A buffalo was a dangerous animal when wounded, which I had occasion to learn when a monster bull came to a stop, bleeding from his wounds, and showed defiance by pawing the ground with blood dripping from his nostrils and a fierce glare in his eyes. When he charged like a tornado your horse would have to answer the pull of reins instantly and turn in the dust of a raging bull. At one time I just got away and that was all. One experience is enough of that kind. As long as a cartridge was left in the belt one took no chances but planted another shot or two where they would have the best effect.

These are all memories of a past never to return, but in silent contemplation I can recall some narrow escapes from wounded buffalo or bear.

I was hunting for deer in one of the abrupt gulches that terminate in the Gates of the Mountains. I just got a glimpse of a mountain lion and my dog promptly took after him and "treed" him. I followed the sound of the barking and soon saw the lion in the tree lying low on a branch. It was an easy matter to crack him by a shot in the neck. Up to that moment I did not know that there were two lions in the tree, having seen but the one. The wounded lion, after a convulsive kicking, fell down with the dog promptly on him. The next instant I just caught sight of the other ready to spring and down he came, landing within a few feet of where I stood. As he struck the ground I fired and shot him through the shoulder. Then I threw another cartridge in my Winchester and shot him in the ear, killing him. These were the two luckiest shots of my lifetime and the whole action was spontaneous and over in a minute. When the first lion fell no doubt his mate thought he jumped and followed, intending to strike me and nearly did so. The tree was on a steep hillside, the ground frozen, with a little snow, making it difficult to keep footing. My dog, of course, had easy sailing, but to see him tugging at two dead lions one would have thought that he was the hero of the hour.

Presidents Washington, Cleveland, Arthur, Harding, Roosevelt, Coolidge and Hoover have all been keen anglers.

Chinks and Huns

MONTANA'S five-day open season on Hungarian partridges and male Chinese pheasants has served as a clarifying, leavening influence. During the five days, November 24-28, inclusive, when these wily foxes of the field and glen were sought by thousands of sportsmen, members of the State Fish and Game Commission were carefully watching the experiment. If reports coming in from all parts of the state may serve as a criterion, there are birds aplenty for next season's shooting. Farmers who have complained regarding the alleged ornery habits of the pompous Mongolian cock have learned that he is something more than a nuisance. Sportsmen have been taught that the birds that strut across the highways during the closed season will have no truck with them when shootin' time comes. The same situation prevails with the Hungarian. Ammunition manufacturers made a fortune on wasted loads fired in Montana this season.

There's something enchanting about matching wits with these gamey creatures. William Moore has expressed the thoughts of Montana sportsmen in his splendid article in *Western Out of Doors*, when he writes:

Give me a day in November, a cool, damp morning, a good dog, a gun and

turn me loose in a stubble field with plenty of cover. I ask for no more. Financial worries disappear, like mist before the sun, and the wolf that has been howling at my front door changes into a lamb. For am I not king for a day enjoying the sport of kings—seeking the elusive China pheasant? The dog gets busy right away, a tingle runs through my system as I follow the trail. Here, there, now back, no, not that way, this way; we are getting closer; a point, a stiffening of every muscle, a few steps forward—the bird is on the move—another stop; get ready now, there he goes, a beautiful rooster, a fast shot, a clean hit, the dog has him, a prize worth having. On again we go, the dog and I, understanding each other by our own secret signs. Along that ditch bank in that tall grass is a likely place. The dog soon gets a scent. Now he is slowing down, a perfect point, looks like a marble statue. He sure has one now. I have my doubts about this one, pretty sure it's a hen. The female of the Chinese family is very much like our own gentler sex, shy and retiring. I walk in front of the dog and flush the object of his endeavors and find my conclusions are correct. Never shoot a hen, our future hunting depends on them.

Working on through some weeds, we kick out a cackler—generally an old boy who has been dusted with No. 6s before, telling you to go chase yourself. The first shot only brings another cackle, the second shot gets the same. On he goes—miles a minute. No need to get sore; if you kill them too fast your fun will be over too soon. Look at that bunch running across that open place! Must be a dozen. Doggone that old bird, almost scared me to death, flew right up in my face; bet I missed him a mile; shot too quick. Now he straightens out, a steady aim, a deliberate shot, and he skids on his chest. The next one is in fair range but somehow I don't hit him square. A slow fluttering down and then a real chase begins; speed, those birds certainly have it. The dog disappears in the brush to return shortly with another choice bit of food.

Nine o'clock, two birds, one more to go. Several get up, mostly hens, then the field gives out. Across the fence a brushy pasture looks like a good place for old Mr. China to stay. Half way through the fence a barbed wire catches my coat. I try frantically to get loose, as I hear the birds getting up ahead. Once free, I take a long shot and the day is over.

Back to the city which was made for the toilers, I return to face again the cares of the day. The lamb changes back to the wolf, my title of king vanishes—I am only a slave again. But still I have the pleasant memories of a wonderful day, that no money can buy, and a desire to go again. And perhaps I will.

Fish upstream, as the fish lie with their noses to the current. In this way your flies float down more naturally to them, and they are more easily hooked.

He's 72, Yet Young



ONE of Montana's thoroughbred sportsmen at 72—that's Dr. Hurlburt of Polson—and he's known by hundreds of duckists who tote on their duck shooting on Nine Pipe Reservoir. Because of the extreme dry season the reservoir water has been low and the annual shooting has been disappointing. However, Dr. Hurlburt is a dead shot and gets his mallards. He is shown here with a pretty brace. The picture is submitted by Deputy Warden Jack Goldsby of Polson.

Montana Elk Kill Low In 1929

MONTANA sportsmen are keenly interested regarding the welfare of the elk on forest reserves and open areas and during December two important conferences were held looking toward definite results. At a meeting at Livingston representatives of the Yellowstone Park Patrol, the Forest Reserve Service and the State Fish and Game Commission, it was decided to strengthen the park patrol during the open season on elk which closed there December 20. As a result of this patrol, the establishing of a checking station and weather conditions, the kill this year was less than 200 out of a total of 13,000 estimated in the northern herd.

For two successive seasons fortune has favored the northern herd of elk in Yellowstone Park, according to Robert H. Hill, State Fish and Game Warden. During the first few days of the open season the elk began coming out and at one time a herd of 160 was sighted in the Decker Flat. The snow, which covered park vegetation and caused the elk to seek browsing grounds elsewhere, melted rapidly, however, and the ground was dry and clear when Warden Hill left the camp shortly before the close of the season. Snow fell later.

Official estimates place the kill on December 18 at 190 out of the total herd of 13,000, or much less than the natural increase. Grazing conditions in the park are not sufficient to care for a great herd, in addition to the southern herd which drifts into the Jackson Hole country in Wyoming. Last season the ground was bare and the weather warm and but few elk were killed. Two years ago the kill was estimated at 1,000.

According to the count received from Deputy Warden Frank Snider, stationed at Chinook, the total kill on the Lewis and Clark Forest in the Sun River country, where the season was open until December 1, was 274 out of an estimated total of 4,000 in the Sun River herd.

This year a checking station was established near the Yellowstone boundary at Carabella and operated jointly by the State Fish and Game Commission, the park authorities and the forestry officials. These three departments also cooperated in patrol work.

"We can not say enough in praise of the splendid manner in which park and forestry officials worked with us," said Warden Hill. "Four men were arrested for shooting before the prescribed 8 a. m. hour. They pleaded guilty at Livingston and were given the maximum fine.

"When I left the park there was no snow at Gardiner and Mammoth, the Decker Flat was bare and Buffalo Mountain and Buffalo Flat were snowless. It is unlikely that there will be serious loss from starvation or winter elements unless a severe storm arises. The normal increase in the southern herd in the park is about 1,000. This

rate is low because of unnatural surroundings, visitors, activity of predatory animals and other causes. The elk killed have been plump, fat and in good condition."

Further activities in behalf of Montana elk were taken at a conference at Great Falls December 17. Decision that more information on requirements of wild life in national forests of Montana is necessary before definite changes in administrative policies should be undertaken was reached at the meeting attended by representatives of the Forestry Service, Izaak Walton League and the State Fish and Game Commission. Glen A. Smith, assistant district forester, with headquarters at Missoula, presided.

Primary purpose of the session was to consider problems arising out of the care of the Sun River herd of elk in the Lewis and Clark national forest. It was the contention that winter range for the 3,000-odd animals there is inadequate and that some stock should be eliminated from the forest to provide more range for elk. Mr. Smith submitted figures to show that no large number of elk had died in recent years because of starvation. He said several of the older animals died of natural causes each year, but that no evidence of excessive mortality rates had been filed with him.

A discussion as to what elk eat revealed that more than 50 varieties of

weeds, grass, shrubs and trees would serve as elk food under varying conditions. Mr. Smith said conclusive proof of just what was needed for an ideal elk range had never been established. He suggested the Forest Service and other agencies interested conduct an investigation of the Sun River conditions to enable proper conclusions to corrective measures, if any. This suggestion was approved.

Similar action was taken relative to the Highwood district of the Jefferson Forest, about 35 miles south of Great Falls, where 70 or more elk were killed recently in a five-day open season. A count of the Highwood elk will be made in the spring by the Forest Service.

Mallards Hatched on Barn Roof

MALLARD ducks ordinarily make their nests on or near the ground, but the Biological Survey of the United States Department of Agriculture has a report of a mallard nesting in a box on the roof of a barn in Nebraska. When the young were ready to venture beyond the nest, the mother duck quacked softly to coax them out of the nest. Then she flew to the ground and the youngsters came tumbling and dropping after her. A ranchman who observed the incident reported that the fall did not seem to injure the young ducks.

Incidentally this mallard duck was banded when she first nested in this box and has returned for two successive seasons. The young of the first two broods were also banded, and reports of captures have come from widely separated areas of the west and south, indicating that the young birds do not remain with their brothers and sisters long after leaving the mother bird.

Milk-Fed Fish

THE "big one that got away" may have been a milk-fed fish and thus stronger than the others. At least such may be the case in the future. The Grove City (Pa.) creamery recently sold several lots of concentrated sour skim milk to fish hatcheries to be used in feeding game fish previous to sending them out for stocking streams, according to the United States Department of Agriculture, which maintains cooperative relations with this creamery for experimental work. The milk-fed trout or bass may soon join the select list of other milk-fed products like poultry, hog, or veal, the department says.

Limit of Bass In Flathead River



HERE'S a sample of the size of bass, caught in less than an hour, in the Flathead River near where it flows into Flathead Lake. The fishermen are Charles Hash, supervisor of the Flathead Forest, at the left, and M. L. Matzick, foreman of the Somers hatchery, operated by the State Fish and Game Commission. The 10 bass in the picture made up the legal limit for both anglers.

Game Animals Increase on National Forests

INCREASES in the number of all big game animals except mountain goat, moose and caribou, are recorded in the latest annual game census of the National Forests, just announced by the Forest Service, United States Department of Agriculture.

The annual game census represents careful estimates of the number of game animals on the national forests, which are the most extensive game areas now remaining, particularly in the western states. Although it is impossible to "count noses" of game animals, the estimates are based on year-long observations and studies by district rangers and other forest officers thoroughly familiar with the ground, and are considered the most accurate record available. The latest estimates are made as of December 31, 1923.

Compared with the preceding year, deer on the national forests showed a gain of 47,400 in the last census, totaling 748,000 in number. California led in number of deer, with 245,400 recorded.

The elk population increased from 74,200 to 78,200, with Wyoming leading in number.

Black or brown bear totaled 52,200 according to the census showing, while grizzly bear (including the Alaskan brown bear) numbered 3,400.

The estimated number of mountain goats was 19,300, while mountain sheep numbered 13,800.

Antelope increased from 7,700 to 8,500. Moose, however, fell off in number, only 6,970 being recorded, as compared with 7,950 a year earlier. The number of beaver was placed at 117,600.

Accurate information regarding the number of game animals is essential in the development of game management plans for the national forests, according to the Forest Service. Other major problems in game administration include increasing the supply of game where it has become depleted, determining the game-carrying capacity of each national forest, and determining methods of holding the number of game animals in balance with carrying capacities.

On areas where valuable species have been exterminated, "planting" is one method of increasing game population. Attempts to use western deer for restocking eastern forests have not been very successful. Plans are being developed, however, for trapping animals on the Pisgah National Forest in North

Carolina, which is becoming overstocked, for planting elsewhere.

Last year mountain sheep donated by the dominion government of Canada were placed on the Medicine Bow National Forest in Colorado and the Wichita National Forest in Oklahoma. Several lambs have already been born, and prospects seem good for the establishment of these "plants."

On a few national forests, notably the Kaibah in Arizona, the deer have increased to the point of overpopulation, with resulting starvation due to scarcity of feed. Plans have been made for cooperation with the state officials of Arizona to remove the excess number of deer.

The national forests contain more than 100 state game refuges and 16 federal refuges, covering all told more than 20,000,000 acres. Elsewhere the forests are open to hunting within the limitations prescribed by state game laws.

Rice and Ducks

MALLARDS, pintails, black ducks, teal, widgeon and geese flock to wild rice marshes. Fall is the time to plant this lure. The grains lie dormant during the winter and then produce a growth of food for the coming season. A field of wild rice, once established, makes a permanent feeding ground, as this plant seeds itself each season. Best places for planting wild rice are usually sloughs, marshy lakes or ponds, of which this northwestern region is well supplied. It does the best in fresh waters from six inches to three feet deep where there is a mud bottom.

Attract Wild Ducks



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Safety First

DON'T be a game hog, but be a sportsman and give Montana game a chance.

Don't forget your license and obey the game laws.

Don't hunt on any land without permission. If granted, act like a gentleman always.

Carelessness with firearms is criminal—play safe and avoid accidents.

Don't point a gun at any person in fun. In most cases it was the gun thought unloaded that went off and killed someone.

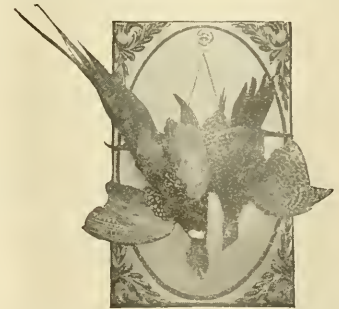
Don't put your gun over or through a fence with triggers up. Have them down and always barrels first.

Don't rest your gun against a fence or tree nor put the barrel on the ground. A gun filled with dirt or mud is dangerous.

Don't use a cheap gun; it is liable to explode.

Don't borrow or loan a gun or dog. If you do, you may regret it some day.

Chinks; Most Beautiful Game Birds in Montana



You too will say the same thing if you have a bird or two mounted in our shop. Plan to have a specimen mounted this fall since the season may not be opened again for several years to come. Its gorgeous coloring makes this bird the ideal decoration in either flying, standing or dead game position.

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The Builder

AN OLD man going a lonely way,
Came at the evening, cold and gray,
To a chasm, vast and deep and wide.

The old man crossed in the twilight dim;

The sullen stream held no fears for him;

But when he was safe on the other side,
He builded a bridge to span the tide.

"Old man," said a fellow pilgrim near,
"You are wasting your time while building here.

You never again will pass this way;
Your journey is done at the close of day.

You have safely crossed to the other side;

Why build you a bridge at eventide?"

The builder lifted his old gray head;
"Good friend, in the way I've come," he said,

"There followeth after me today
A youth, whose feet must pass this way.
This stream, which has been as naught to me,

To the fair-haired youth might a pit-fall be.

He, too, must cross in the twilight dim;
And so I am building the bridge for him."

"I'll have you know that there's blue blood in my veins."

"Gee, lady, w'y don't you get a job with a side show?"—Wisconsin Octopus.

Good bass fishing is often found in casting from a boat towards shore in water not more than two or three feet deep.

Big fleas have little fleas and parasites to bite 'em;

Little fleas have lesser fleas and so on, ad finitum.

"How long have you been married?"

"Long enough to learn that there are some things you can't say with flowers."
—Denison Flamingo.

Young wife at telephone: "Butcher, send me a pound of steak and a half pint of gravy."

A kinky line can be unraveled by towing it behind a boat or trailing it in fast-running water.

"What have you a knot in your handkerchief for?"

"My wife put it there to remind me to post a letter."

"And have you done so?"

"She forgot to give it to me."—Lustige Kolner Zeitung, Cologne.

WANT MORE DUCKS



More food means more game. Complete line of planting materials suitable for Montana. Planting helps free. Write

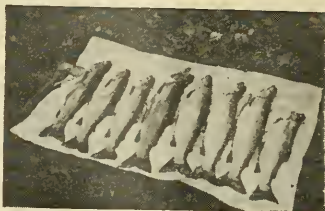


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Trout In Flathead



FLATHEAD LAKE, Montana's largest body of water, is productive of splendid trout fishing. The beauties shown above were caught in Wood's Bay on Flathead Lake by David Ross. To conserve the landlocked fish and preserve the heritage, the State Commission has closed fishing in all streams throughout the state except those considered navigable, effective last November 1.

Dawn

WHEN the first red rays of morning
Shoot across the eastern skies,
And bright yellow is adorning
Heaven to my wondering eyes—

When all nature is awaking
Round me, from her morning sleep,
When through grasses, raindrop reeking,
Quietly with gun I creep—

When I hear the whirr and singing
Of those fleet wings speed by,
When like shadows ducks are winging
Downward in their morning flight—

When I hear their bodies splashing
With a swish into the lake
And the rippling waves are flashing
Silver-crested in their wake—

When the early morning breezes
Fan my feverish burning face
And the lake shore's brushy fringes
Light-pierced look like that much lace—

When with speed that is astounding
Birds are flashing past my blind,
When my heart stops almost pounding
As I wing the bird behind:

Then my worries burst like bubbles—
Grief dies, like the leaves in fall.
Then I know, with all her troubles,
Life's worth living after all.

Hercules Alaskan Silver Black Foxes

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Half-Wild Cats

SOUTHWESTERN states, cooperating with the United States Biological Survey, spend hundreds of thousands of dollars annually in warring on wildcats and other predatory animals. Far more destructive of bird life than wildcats are half-wild cats—the barnyard variety of house cat that strays afieid and becomes a ceaseless hunter. Ornithologists estimate the annual kill of these beasts as more than 50,000,000 birds. Game birds are their especial prey, because nests are built on the ground and are easily found and ravaged by these prowlers. A hunter never should spare these marauders when encountered.

CAUGHT PEEPING

Mother: "I do hope you don't open your eyes during prayer."

Offspring: "Of course I don't, but Willie Smith does, I saw him."—Passing Show.

"A worry is but poison—an acid to the wit;
A fishin' pole's the antidote that neutralizes it."

Mary: "What did you look like before you dyed your hair, Bill?"

Hickey: "I looked terrible."

Mary: "Haven't changed a bit, have you?"

Fly fishing is, indeed, the poetry of angling.—Jas. A. Henshall.



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MONTANA'S Fish and Game Department has been striving diligently and conscientiously day in and day out to maintain the prestige and fame of the Treasure State as a paradise for sportsmen of the nation. Thousands of guests are annually turning their automobiles toward Montana to share the hunting and fishing made possible by constant conservation and restocking. To them, Montana's hospitable arms are extended—yet they must realize that these pleasures are made possible for resident and visitor alike through activities of sportsmen themselves. The department is self sustaining.

Your friends in east and west, north and south, are interested. They yearn to know more about the wild life, the forests, fields and rivulets, our national parks and scenic attractions. They can learn of these attributes and keep in touch with doings of the State Commission through reading the official publication, MONTANA WILD LIFE. Send it to them as a Christmas remembrance. Every license holder in the state should be a subscriber. The price is a dollar a year. Your Commission needs your cooperation. Consult and cooperate with the deputy in your district.

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