

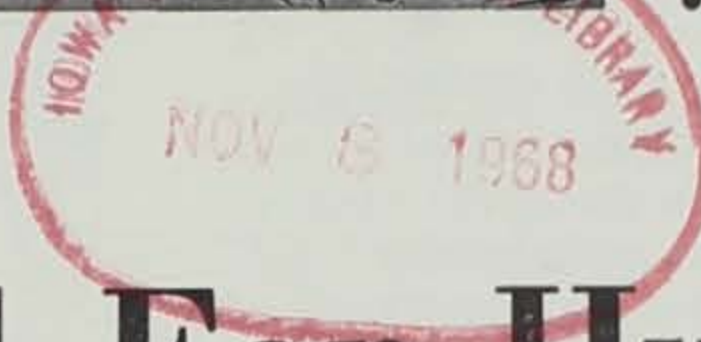


October, 1968

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Hunting '68 —

Good Season Ahead For Hunters

Pheasant, Quail Outlook Excellent

The season is Fall; the color—golden; the sport—hunting; the outlook—excellent. This time of year lends itself to all types of outdoor sport, but perhaps the most popular, and certainly the most rewarding, is hunting.

In the fall, something within a man, rarely understood by others, draws him to the woods and fields with gun in hand to enjoy his sport. Fall '68 promises many rewards for those who wish to take advantage of that which nature has to offer. Iowa sportsmen can look forward to some outstanding hunting opportunities this fall and winter. Generally speaking, the production of most types of game in the state improved over last year.

Conservation Commission personnel have conducted extensive surveys to obtain facts on the wildlife populations in Iowa. The results of the surveys are carefully studied and reviewed by the Commission staff who in turn makes season and limit recommendations to the Commission. In setting hunting seasons, the Commission provides sportsmen with the opportunity to harvest as much of the game surpluses as possible.

Let's take a look at the state-wide hunting picture.

PHEASANTS

Pheasant hunting prospects are excellent. The pheasants came through the winter in very good shape and Iowa had a near perfect spring breeding population. The higher breeding population was attributed to the good nesting conditions.

Generally the best pheasant populations will be found in the west-central and parts of the southwest portions of the state. Other good population areas are in the east-central part. The populations are down in the northern areas where sufficient cover hasn't been available.

Surveys show that sportsmen harvested 212,000 roosters during the 1967 season. Approximately 235,000 residents and 10,000 non-residents hunted the gaudy ring-necks in Iowa last year. Iowa is rapidly gaining a reputation as a top pheasant hunting state with its annual harvest one of the best in the nation.



It must be emphasized that the hunting has not been detrimental to the state-wide pheasant population. While sportsmen take an average of 65 to 70 per cent of the roosters, and sometimes higher in local areas of high pheasant population, it does not harm the brood stock. It's a fact that up to 90 per cent of the cocks may be harvested without endangering the stock.

QUAIL

Once again, Iowa hunters can look forward to another good quail hunting season. Visual counts showed a marked increase over last year's numbers.

Iowa's best quail hunting is found in the southern areas of the state. Sportsmen have been successful hunting the low grade soil areas and valleys of southern Iowa where patches of brush and weeds adjoin grain fields. As with pheasants, the quail populations have not been harmed by a reasonable harvest.

DUCKS

The outlook for the duck hunter is not as bright. Working within a federal framework, the Commission selected a 30-

day season starting October 26. The purpose of this season was to provide the maximum opportunities for the most people.

The season, with a restricted bag limit, is actually a true reflection of the duck populations. Basically, duck production is down considerably because of dry conditions in the marshes or "duck factories" of the Canadian prairie provinces. As a result the framework set up by the federal government was very restrictive. Hunting success in Iowa will depend to a great extent on local conditions and moisture received.

GEESE

Good population counts of geese have resulted in seasons and regulations this year. However, the amount of feed available and water areas are important factors. Many geese in widely scattered groups are usually found at the beginning of a season with numbers generally tapering off. Toward the end of the season, geese will usually be concentrated mainly at refuges and other gathering points.

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CIRCULATION 62,180

COMMISSION MINUTES

**State Conservation Commission
Meeting Held in Clear Lake, Iowa
August 2 and 3, 1968**

The following projects were approved for submission to the Bureau of Outdoor Recreation for federal cost sharing under the Lands and Waters Conservation Fund Program:

Guthrie County Conservation Board—Lenon Mills Park—Development. Total estimated cost—\$5,575.

Kossuth County Conservation Board—Kossuth County Park—Development—\$18,900.

Hancock County Conservation Board—Eldred Sherwood Park—Development—\$24,950.

Town of Wellman—Town Park—Development—\$77,000.

Mason City—Georgia L. Hanford-McNider Park—Development—\$10,000.

Hamilton County Conservation Board—Briggs Woods Park Golf Course—Development—\$71,000.

Approved as state preserves Sheeder Prairie, Guthrie Co.; Kalsow Prairie, Pocahontas Co.; Turkey River Mound Preserve, Clayton Co.; Fort Atkinson State Monument Preserve, Winneshiek Co.; Fish Farm Mounds Preserve, Allamakee Co.; Wittrock Indian Village Preserve, O'Brien Co.; Pilot Knob State Park, Hancock Co.; and White Pine Hollow, Dubuque Co.

Exercised 6 land purchase options on the Volga River project in Fayette Co., totaling about 437.5 acres.

Exercised 7 land purchase options on the Brushy Creek project in Webster Co., totaling approximately 1,159 acres.

The following land acquisition projects were approved.

Black Hawk County Conservation Board—Hickory Hills Park Addition—5 acres.

Des Moines County Conservation Board—Franklin Township Lake Park Addition—33.98 acres.

Our Readers Write . . .

Dear Sir:

Being stationed at San Antonio, Texas and far removed from the fields, streams, and lakes of my native Iowa, I enjoy the more each article in the CONSERVATIONIST.

Please continue the great service of printing the conservation articles and the excellent fishing tips. Many of the methods for fishing as described by Mr. Ackerman work very well on the lakes of Texas.

Many Texans are now aware of the existence of your magazine. Each month when I have read the latest installment it is passed out on loan among the men I work with. Even the Texans must concede they don't have everything.

Thank you,
Gordon B. Hammer
San Antonio, Texas

Dear Sir:

As a reader of your paper, I'd like to call attention to a fine calendar on wildlife which I know other readers would surely enjoy.

The "Wildlife of America" calendar is available beginning October 15 from this address:

Wildlife of Iowa
Box 556 M C
Minneapolis, Minn. 55440

at one dollar each.

Each month has a color painting by the celebrated artist, Roger Preuss, of a fish, bird or animal. Seldom have I seen in nature art such beautiful, meticulous and realistic backdrops.

I enjoy your magazine very much; it teaches while it gives pleasure for so little cost. And the photography is dramatic.

Sincerely,
Lila M. Groenwoldt
Davenport, Iowa

Dear Sir:

I look forward to the news of hunting in Iowa through the CONSERVATIONIST. I hunted quail in Iowa last season and hope to come up for both pheasants and quail this year. How about a paragraph each month giving a calendar of open seasons.

Sincerely,
Karl S. Harmon, DVM
Eldon, Missouri

Union County Conservation Board—Mt. Pisgah Park—8.25 acres.

The following development plans were approved.

Cedar County Conservation Board—Bennett Park.

Clay County Conservation Board—Scharnberg Park.

Dubuque County Conservation Board—Bankston Park.

Guthrie County Conservation Board—Lenon Mills Access.

Kossuth County Conservation Board—Artificial Lake Park.

Palo Alto County Conservation Board—Sportsman Park.

Approved as to form and content, a proposal for an inland harbor development on property owned by Tory Nodland on the west shore of West Okoboji Lake.

Exercised three land acquisition options, Pikes Peak State Park (McGregor Areas) totaling approximately 163 acres.

The following Fish and Game options were approved:

Lake Dallas, Dallas Co.—Option to purchase 98 acres.

Meadow Lake, Adair Co.—Option to purchase 80 acres.

East Okoboji Lake—An option to purchase 4/7 of an acre lot.

Coon Hunting — Untapped Excitement

Folks living on a farm or in a small town, especially if not too far from a creek or river, seem to have more fun than city people. They spend more time out-of-doors. One of their most prized enjoyments is "coon hunting".

At dusk, raccoons come down from their den trees to feed and play. They are inquisitive animals and frequently travel quite a distance. So, on a warm damp night after a spell of freezing weather, a little group of neighbors may gather, with their hounds, to go coon hunting. On such nights raccoons are more active, their scent is more easily followed by the hounds, and the dogs can be heard from longer distances.

Now, a good coon hound is a big gangling lop-eared shy beast. A wag of his bony tail can hurt like a kick on the shin. He costs as much as a horse and is always hungry, but his nose and his voice are worth it.

He runs with his big muzzle close to the ground and, as a newsreel tells its story to your eyes, the news of the night is unerringly telegraphed to his keen

(Continued on page 80)

EDITORIAL

Fall in Iowa is a time of golden corn harvest, pumpkins, colorful foliage and frost seared vegetation. And it's also the time when thousands of Iowa hunters take to the field.

The vast majority of these hunters are courteous sportsmen and conduct themselves like gentlemen. They respect the landowner as their host, and the farmers in turn extend a warm welcome.

Unfortunately, there are a few hunters who don't respect private property and are just obnoxious about it. They feel that a hunting license is a pass allowing them to do almost anything. They don't ask permission to hunt, they tear down fences and otherwise bring discredit to the majority of sportsmen.

This type of individual is about as welcome to the farmer as a tornado, drought or hail storm. We are fortunate that only a small percentage of hunters fit into this category.

It's through the courtesy of most hunters and the understanding of landowners that we have the hunting we do in Iowa. Many farmers actually look forward to the hunting seasons and the visiting sportsmen. It's a time that brings together old friends. A time to exchange ideas and experiences. This is one of the pleasures of hunting.

It's important that we all keep in mind a few ground rules for the hunting season. Common courtesy and respect for private property are keys to good hunter-landowner relations.

Hunters should always ask before entering private property to hunt. It's a good idea to actually contact the farmer before the season opens, if possible. Many who post their land will give permission to hunt when asked.

It's vital that the visiting sportsmen hunt only in the areas designated by the farmer. After all, it's his land and you are a guest.

Always respect fences and close gates. If it's necessary to climb them, go over by a post.

A hunter should never shoot near houses, barns or livestock. He must know the rules of good gun handling.

Leave the landowner's fruit and other crops alone. If you want some, offer to pay for it.

Go around fields where people are working. Don't trample crops and be very careful with fire.

Hunting is an important part of our heritage and a wonderful sport. To maintain it, we must do all we can to promote understanding and good relations between sportsmen and landowners. de



Though the temperature is a bit cooler, many families will still be taking advantage of the many "outdoor" delights this frosty, fall weather has to offer.

To accompany your family on one of your outings we heartily recommend a tasty morsel of chocolate pastry called:

TURTLES

4 tblsp. cocoa
 2/3 cup butter
 4 eggs, well-beaten
 1 1/2 cups flour
 2 tsp. vanilla
 salt to taste

Melt the butter together with the cocoa. Mix the eggs, flour, and vanilla. Add this to the chocolate mixture. (Chopped nuts may be added if you wish.) Drop by teaspoons on a hot waffle iron using the same method you would for waffles. Bake for one minute.

ICING FOR TURTLES

1/2 cup brown sugar
 1 1/2 tblsp. cocoa
 1/4 cup water
 2 cups sifted powdered sugar

Boil brown sugar, chocolate, and water for 3 minutes. Add powdered sugar. Beat well. Add a little water if icing is too stiff to spread.

PREPARATION OF FOWL

It is terribly hard to encourage your husband, the hunter, and sincerely admire the game that he brings home when you know it is yours to prepare; however, here are a few suggestions that may help you in your preparation of these birds and to serve a superb meal to even the most finicky gourmet.

When serving wild duck, complement this bird with green peas, turnips and wild rice; to add a bit of tartness, you may wish to serve some sort of jelly, such as current or gooseberry.

Fried hominy and potato chips go well with quail. And all a partridge requires is a helping of sauerkraut to set off this magnificent bird.

When preparing a pheasant dinner, you may want to cook wild or brown rice in chicken broth, and be sure that your stock of tart jellies is plentiful. Braised celery will also add a bit of extra flavor.

Determining the age of the bird is a simple matter and is the secret to perfect preparation. If the spur at the back of the foot moves easily and the end is rounded, you are dealing with a younger pheasant, which roasts quite easily. The older birds have better flavor when cooked in the pressure cooker or prepared much the same as a pot roast.



"That's Smokey all right, but he's wearing his off-duty outfit."



HUNTING OUTLOOK

RABBITS

Rabbit populations are again well above average. The highest cottontail populations will be found in the southern one-third of the state. However, other areas will also have good numbers. Basically the spring and summer counts show a rabbit population similar to that of 1967. But there was an increase of young per adult compared to that of 1967.

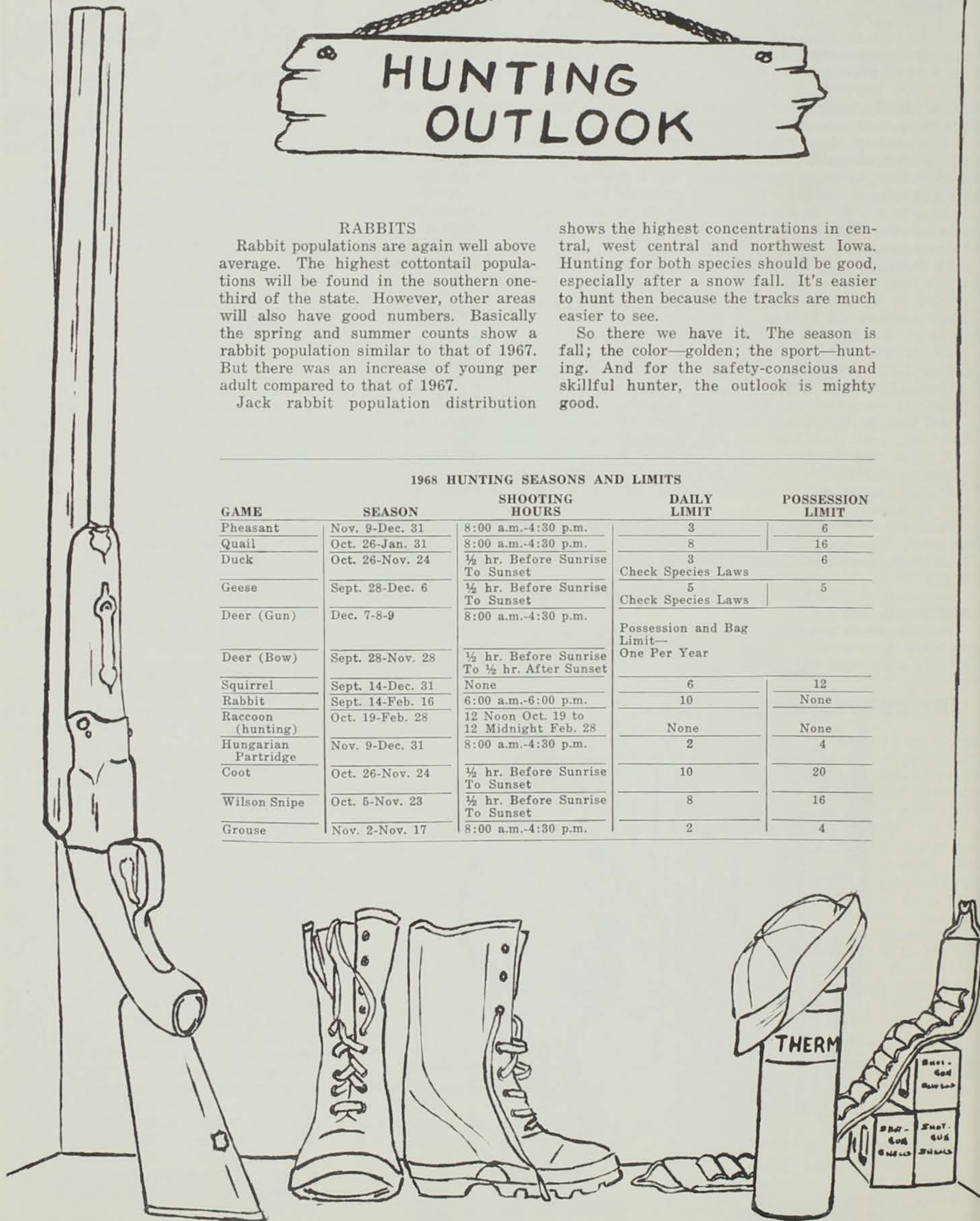
Jack rabbit population distribution

shows the highest concentrations in central, west central and northwest Iowa. Hunting for both species should be good, especially after a snow fall. It's easier to hunt then because the tracks are much easier to see.

So there we have it. The season is fall; the color—golden; the sport—hunting. And for the safety-conscious and skillful hunter, the outlook is mighty good.

1968 HUNTING SEASONS AND LIMITS

GAME	SEASON	SHOOTING HOURS	DAILY LIMIT	POSSESSION LIMIT
Pheasant	Nov. 9-Dec. 31	8:00 a.m.-4:30 p.m.	3	6
Quail	Oct. 26-Jan. 31	8:00 a.m.-4:30 p.m.	8	16
Duck	Oct. 26-Nov. 24	½ hr. Before Sunrise To Sunset	3	6
Geese	Sept. 28-Dec. 6	½ hr. Before Sunrise To Sunset	5	5
Deer (Gun)	Dec. 7-8-9	8:00 a.m.-4:30 p.m.	Check Species Laws	
Deer (Bow)	Sept. 28-Nov. 28	½ hr. Before Sunrise To ½ hr. After Sunset	Possession and Bag Limit—One Per Year	
Squirrel	Sept. 14-Dec. 31	None	6	12
Rabbit	Sept. 14-Feb. 16	6:00 a.m.-6:00 p.m.	10	None
Raccoon (hunting)	Oct. 19-Feb. 28	12 Noon Oct. 19 to 12 Midnight Feb. 28	None	None
Hungarian Partridge	Nov. 9-Dec. 31	8:00 a.m.-4:30 p.m.	2	4
Coot	Oct. 26-Nov. 24	½ hr. Before Sunrise To Sunset	10	20
Wilson Snipe	Oct. 5-Nov. 23	½ hr. Before Sunrise To Sunset	8	16
Grouse	Nov. 2-Nov. 17	8:00 a.m.-4:30 p.m.	2	4



Iowa's Undersold Wildlife Resources

By Richard Bishop

The present day view of many Iowa sportsmen of the recreational potential of Iowa's wildlife resources is a pessimistic one. The expanding human population places larger demands on the resources at hand. The economics of farming have changed the rural society and are demanding that most tillable land be used for cash money crops.

The land left for wildlife use is decreasing at an alarming rate and some wildlife populations are severely showing the stress, for example, pheasants in north central and northwest Iowa. If something is not done to restore habitat, large pheasant populations will be only a memory in these areas.

This is but one example which helps paint a dismal scene for the Iowa hunter and wildlife enthusiast. Rabbits and squirrels are not present in nearly the numbers they once occurred because of habitat destruction. Ducks have decreased at a very alarming rate to the point that bag limits have been reduced to one or two mallards per day. Several years ago we had a bag limit of 10 ducks which many times could be easily obtained.

The trend in the agricultural areas toward removing wildlife habitat will probably continue at an accelerated rate in the future. Wildlife populations for the most part will be reduced because of this destruction of habitat. This alarming panorama that one sees when he looks ahead will in time be a reality unless in the near future a large amount of money is channeled into the conservation of wildlife habitat.

All hunters and wildlife lovers should be aware of this situation but should not allow a depressive attitude to deprive one of the vast wealth of untapped resources that presently await the avid hunter.

The average person does not realize that Iowa has a vast wealth of wildlife resources to offer the interested hunter and naturalist. About 300,000 hunters go afield each year to take advantage of the recreational opportunities of surplus wildlife populations. These hunters spend a multitude of man hours hunting rabbits, squirrels, foxes, deer, pheasants, quail, ducks, and geese. These species afford the majority of the hunting recreation to Iowa hunters, however, there are several other species where hunters either do not take advantage of the available resources or are not allowed to harvest this surplus. Hungarian partridge, rails, snipe, ruffed grouse, and doves are examples of quality untapped resources

that are or could be available to the avid sportsman.

Minor species such as partridge, snipe, raccoons, and coyotes are harvested in limited numbers by a few individuals who have sought out this quality hunting. Coons and coyotes are hunted by a few ardent hunters who really enjoy this sport but do not advertise it. Many hours of self fulfilling recreation can be obtained from these minor species for the individual who is an individual.

The recreational opportunities of the major game species of Iowa are greatly underrated. These wildlife populations, with the exception of deer and ducks, are presently untouched by present hunting pressures. Deer populations function on different principles than do small game populations. Most hunters consider bagging a deer as a type of status symbol and will put forth considerably more effort to bag one. The reproductive potential of a big game species does not compare with small game, and under the conditions that exist in Iowa deer can be over harvested. However, under careful management the Iowa deer herd supplies about 38,000 deer hunters with the thrill of big game hunting. The success rate of Iowa hunters ranks with the best of other states in the whitetail's range.

Ducks are a different story altogether. They are dependent on wetland habitat for their survival. In the past several years the draining of wetlands has severely reduced the breeding areas for waterfowl. Along with decreased breeding areas the increased number of hunters with available time and money have overshot certain duck populations in the Mississippi Flyway. Even with rigid restrictions on the take of waterfowl there are many hours spent on Iowa marshes during the waterfowl season.

Rabbits provide excellent hunting in many areas of the state for all types of hunters. Approximately 2,180,525 rabbits were bagged in 1966 but this is only a small per cent of the number available. Some areas of southern Iowa are loaded with rabbits which are never exploited by the hunter. Rabbits thrive in populated areas as well as brushy agricultural areas.

The reduction of timber in the state has reduced the number of squirrel hunters along with the squirrels. The enthusiasm of squirrel hunting is dying out. The old time hunter can remember when there were timbers here and there and squirrels a plenty. He considers squirrel hunting as almost non-existent in certain areas. Very few young hunters are taking up this sport and consequently we are greatly under-harvesting this potential.

In contrast to the old dying sport of squirrel hunting there is a new thriving sport of fox hunting. Fox hunters are present in almost every town in Iowa. Fox hunters hunt in many different ways with different equipment but no matter how you hunt the fox it is a thrilling sport. Foxes are very plentiful and they occur in all types of habitat. They can be found in walking distance of every town in Iowa and hunters hunting fox have little trouble getting permission from the landowner.

When we speak of bountiful wildlife resources in Iowa, only a few people in central and southern Iowa realize the hunting opportunities offered by the bobwhite quail. Most people in Iowa do not even think of the quail as being a major hunting species. They are found primarily in the southern one-third of Iowa due to the lack of proper habitat in the rest of the state. Quail populations have increased during the past several years in southern Iowa under increasingly liberal hunting regulations. At present there are quail in almost every spot where good habitat exists. The present hunting possibilities are tremendous. Quail are very abundant but hunters are not. Certain areas receive excessive hunting pressures, but the majority of southern Iowa quail habitat is only scratched by the quail hunter.

The ringnecked pheasant is Iowa's number one game species. More emphasis is put on pheasant hunting than any other species. Iowa was the number one state last year in pheasant kill in the United States. Even with this record many hunters complain of the low pheasant populations in northern Iowa and ask for season restrictions. Several years ago northern Iowa was the prime pheasant range. Recently modern farming practices have reduced the available nesting and wintering cover drastically. This was shown quite forcefully when a severe blizzard in 1965 caused high mortality on pheasants due to the lack of cover. They have come back somewhat but nesting cover is so critical that we are not getting the reproduction that is needed. It is doubtful that the pheasants in that area will ever approach the numbers once experienced.

However the pheasant picture of the whole state is fairly good. There are good pheasant populations in east central, southwest, and western Iowa. We have far more area to hunt pheasants than we did years ago. Hunting pressure has spread out over other areas and the result is higher quality hunting for most of the hunters. Northern Iowa does not have the high numbers of birds they had several years ago but neither do they have the hunters. Local hunters have very good success even though the birds are not real plentiful. Probably hunting conditions on a whole are just as good today as they were in the fifties. Hunters are not required to drive so far from home to hunt pheasants and competition is not so great. Possibly, hunters have to hunt a little harder to shoot their limits today but the birds are there if you just look hard enough to find them.

The rich rewards I have been telling you about are not marked by sign posts or black lettered headlines. They are present all across the state in one form or another. For those who have the energy and desire to search for them, a bonanza in personal satisfaction can be found. The opportunities that await us are far in excess of what will be utilized. The wildlife resources that present themselves in Iowa are much greater than the public realizes. Under proper management these will be present for years to come.

The recreational opportunities that nature's warehouse provides for the naturalist, the bird watcher, the hunter, the fisherman, the photographer and many other nature lovers are for the most part not appreciated. Many things are overlooked in our rapid pace of the present. Everyone is going too fast or are too busy to take a closer look at what is at their own doorstep. Just an old river bottom, a prairie marsh, a small timber patch on the back 40, a set of rolling wooded hills, or just a crop field can afford you with a peace of mind and memories that you will never forget. All you have to do is take the time for a closer look.

Eugene D. Klonglan
Asst. Supt. of Biology

Iowa's game bird hunters will have a chance this fall to try their luck at bagging a ruffed grouse—a target regarded in many states as the king of upland game birds. A 16-day season from November 2 through 17 has been set by the State Conservation Commission for a limited area in northeast Iowa—the only part of the state this interesting bird currently calls home.

The last grouse hunting season in Iowa was in 1923—45 years ago. Seasons in those days were a month and a half long, with a 25 bird bag limit. Limits this year will be 2 daily and 4 in possession (hours 8 a.m.-4:30 p.m.).

At one time ruffed grouse were found in forested areas over most of the state, but by 1930 the only population of any significance that remained was in the rough, wooded hills and river bluffs of the northeastern corner of Iowa. Most of these birds are found in Allamakee, Winneshiek and Clayton counties, with lesser numbers in bordering counties, hence the choice of Highways 63 and 3 as the boundaries for the open zone.

Intensive land use that replaced forests with agricultural fields or heavily grazed them with livestock caused the disappearance of this prized grouse from most of the Iowa scene by the early 1900's.

During the years that followed this original construction of the grouse range, a relatively stable population seemed to be maintaining itself in this northeast section of the state. Knowledge of the population mechanics of the ruffed grouse gained from the major grouse states raised the distinct likelihood that a harvestable surplus of this relatively forgotten species might be available in Iowa each year.

To evaluate the possibility of such, a series of investigations aimed at determining population levels and distribution and measuring some of the factors influencing both were initiated.

The primary technique for determining grouse population levels and important areas of distribution has been the spring roadside drumming count. This census method takes advantage of the male grouse's habit of "drumming" by beating his wings in the air—at first slowly, then gaining speed up to the finishing crescendo—producing a sound similar to a muffled drum roll. This can be heard for some distance on still mornings, and thus can be used as a basis for population density surveys. This procedure is also the most common one used by the major ruffed grouse states, and can then be used as a standard for comparisons.

Drumming counts have been made each spring for the past 8 years in northeast Iowa on about a dozen primary routes (a route consists of 15 listening stops about a mile apart, with 4 minutes being spent listening at each stop, beginning at sunrise). The average number of "grouse drums" heard during this period is 1.6 drums per stop. This compares quite



Sixteen Day Grouse Season; New Hunting Test for Iowans

favorably with similar counts made in recent years in the major grouse hunting states.

For example, drumming counts over a 17-year span in northern Minnesota averaged 1.7 drums per stop, while over a 9-year period counts further south in areas more closely resembling northeast Iowa averaged 1.4. Yearly averages ranged from 0.6 to 2.9 in Minnesota, while in Iowa our annual range has been only from 1.5 to 1.7. Thus while grouse populations are considered cyclic in the northern part of their range, such may not be the case in Iowa.

Data available from other grouse states indicates that counts from 1 to 1.5 drums per stop mean worthwhile hunting can be expected, with anything above that even better. With Iowa's best grouse range giving counts of 1.6, this should mean that passable hunting results should be forthcoming in most of our grouse-inhabited territory. Such is the case in Wisconsin immediately across from Iowa's grouse country, and we should expect comparable hunting on our side of the Mississippi.

The uppermost question in the mind of any potential Iowa ruffed grouse hunter, then, would be concerned with what kind of results he could expect once he took to the woods in pursuit of this noble game bird. Hunter survey results are available from many states, but of course not from Iowa. To gain some idea of what might be expected here, a "simulated grouse hunt" was conducted by Biology Section personnel in early November 1967. Only the final shot was missing from an otherwise typical hunt. During the 4 days involved the men flushed an average of 1.1 grouse per hour. They felt they could have gotten good shots at over half of the birds flushed.

This compares very well with similar

hunting data from other states. For example, Minnesota hunters contacted on opening weekend during two recent seasons reported seeing grouse at the rate of 0.6 birds per hour, and bagging just under half of those flushed. Their average daily take per hunter was 1 bird, with an average of 3.8 hours of hunting being needed to put one grouse in the bag. Other states have reported hunting success rates both better and poorer than this, but usually not by a very great margin either way.

Since the range of ruffed grouse in Iowa is quite limited, as compared to that of pheasants or quail for example, the question does arise as to the possibility of over-shooting them. However, the rugged terrain and resulting more difficult hunting conditions in northeast Iowa give the birds in this type of country a big advantage. One Wisconsin survey showed that it was necessary to flush 60 per cent more birds to bag one in the southwest part of the state (which is quite similar to northeast Iowa) than it did in the flatter grouse country farther north. All too frequently the hunter will find himself off balance or in an awkward position when a bird flushes, and thus be more prone to miss or fail to get a shot off at all.

Furthermore, it has been found in many studies that hunting effort tends to vary directly with success, and as birds become harder to get, hunters soon quit trying. States having open seasons on grouse have found it unnecessary to close seasons or reduce limits as the population goes up and down in response to natural environmental changes.

As is true with other small game, hunting activity begins to decline before the point of endangering the breeding stock level needed to replenish the population

(Continued on page 80)

Where Do All the Pheasants Go?

*A study of the factors effecting pheasant distribution**

By A. L. Egbert

Iowa Cooperative Wildlife Research Unit
Iowa State University, Ames, Iowa

Ever since the ring-necked pheasant reached huntable numbers in the United States, wildlife biologists have puzzled over why ringnecks are abundant in some areas, but conspicuously absent or rare in other seemingly similar areas.

Practically everyone has his ideas on this subject. Some scientists have proposed that basic chemical elements, such as calcium and phosphorus, are deficient in soils where pheasants have been unsuccessful. Others have suggested that high temperature during the nesting season kill the chicks while they are still in the egg.

Although the temperature hypothesis may have validity in some regions, there is no evidence that chick losses due to high temperatures are important as far as Iowa is concerned. As a matter of fact, all information gathered to date has indicated there is little or no dying of embryos in the egg. The booming pheasant populations in southwest Iowa and the lack of ringnecks just a few miles to the east of that area pretty well rule out temperature as a controlling factor on pheasants in the state.

To casually cast off the possibility of the soil fertility angle is not quite as easy. It is well known that pheasants, along with other wild animals as well as domestic livestock, are more successful in fertile soils. The question is why do some fertile soils produce an abundance of ringnecks when other soils, which to the human eye appear just as fertile, produce few or no pheasants? No one has yet provided a completely adequate answer.

Whatever the mechanism that ultimately determines whether a particular area will have a high or low pheasant population, the annual cut-back in numbers is likely to occur during one or both of two critical periods—the reproductive season and the harsh winter months.

Poor reproductive success can be caused by any one or a number of factors; a lower than average number of hens bringing off a brood of young, alone, or together with poor chick survival would, if consistently prevalent in a given area, limit pheasant numbers permanently. But, where reproductive success is adequate, winter may become the

period when population levels are cut down, in some cases drastically.

Wildlife Research Unit personnel at Iowa State University have been trying to find answers to some of these puzzling problems during the past seven years.

Three study areas, each approximately 2,500 acres in size, were selected near Ames in 1960. The purpose was to choose three discrete units as nearly alike as possible agriculturally and topographically but with the number of pheasants differing on each area.

The study areas lie at intervals along a north to south road. The outside borders of the northernmost and southernmost areas are only 25 miles apart. With this proximity of the areas, it was hoped that year 'round weather conditions would be uniform throughout. Crops grown on the areas were practically identical, with corn, soybeans and oats prevalent.

For a period of seven years, Research Unit graduate students working on the three areas have gathered information on the number of eggs in each nest, egg fertility, the number of eggs containing dead embryos, nest and hen success and the fate of young pheasants after they left the nest.

If the factor, or factors, that regulates the different pheasant numbers on the study area was in operation during the

nesting and brood rearing season, then a comparison of reproductive success among the three areas should have, theoretically, indicated where the bottleneck lay.

Reproductive Success Seemed Comparable

Results from the investigation showed little difference in the number of eggs per nest, egg fertility and death of chicks in the egg on the three study areas. Over the past seven years, at least 94 per cent of the eggs examined were fertile on the southernmost area, the study unit that has the fewest number of pheasants.

For the same period on the northernmost area (which harbors the greatest number of pheasants), 95 per cent of the eggs examined were fertile. No more than two per cent of the eggs examined on any of the study areas contained dead chicks.

The average number of eggs southern area hens laid per nest during 1965-66 was 12, compared to an average of fewer than 10 eggs per nest laid by hens on the northern area. Based on seven years of data, it therefore seems reasonable to conclude that none of these factors had any significant influence in suppressing pheasant populations on the southern area.

Data on nest and hen success presented some interesting paradoxes. Not only did nest and hen success on the southern area equal success on the northern area, but there was strong evidence that success on the southern area was actually greatest.

The proportion of nests that brought off chicks during 1960 to 1966 has ranged from 23 to 63 per cent on the southern area and from 17 to 27 per cent on the northern area.

The percentage of nests that succeed can be misleading, however, because pheasant hens will, if their first nest is destroyed, try and try again to re-nest. Thus, when trying to assess the fortunes of a breeding season, actual hen success, based on the percentage of hens that hatch a brood, seems more important than the percentage of nests that succeed.

Again, however, the trend on the areas was the same as with nest success. At least 80 per cent of all the hens seen on the southern area during August of 1965 and 1966 were accompanied by broods. In contrast, less than 60 per cent of the hens on the northern area during this period were seen with chicks. The av-

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James R. Hamilton (left) Chairman of the State Conservation Commission, presented awards of merit for outstanding contributions in conservation to Ries Tuttle, Des Moines newspaperman (center), and Bernard Clausen, Cedar Falls educator, at the September meeting of the Commission. The awards of merit were from the American Association of Conservation Information.

*This paper has been prepared in conjunction with a pheasant distribution study, project 452 jointly financed by the Iowa State Conservation Commission, Iowa State University of Science and Technology, the Bureau of Sport Fisheries and Wildlife, and the Wildlife Management Institute.

Pheasants

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erage for the seven years of study was 56 per cent hen success on the northern area and 61 per cent hen success on the southern area.

The only conclusion seems to be that nest and hen success on the study areas were at least equal, with a good possibility that, hen for hen, success was greatest on the southern area.

Survival of chicks also appeared similar on the study areas, and there was no suggestion that a loss of chicks was responsible for the low southern area pheasant numbers. Counts of chicks along roads in the study areas each August indicated that the production of chicks on the southern area actually exceeded chick production on the northern area on a per hen basis. This seems to substantiate the implication that nest and hen success on the southern area proportionately exceeded that on the northern area.

If production per hen on the southern area did exceed that on the northern area, one of two things must have been happening—either the population on the southern area should have increased or the loss of pheasants during winter pulled the numbers back down to the same level, year after year.

Winter Carry-Over Differed

Pheasant numbers on the study area have remained essentially the same since the study began seven years ago. Thus, it seems likely that a poor winter carry over in numbers is to blame for the smaller southernmost area pheasant population.

If poor winter survival is responsible for the low pheasant density on the southernmost area, the reason probably can most logically be attributed to a lack of winter cover. In 1965, more than 50 per cent of the land on the southern area was fall plowed; the figure in 1966 was 46 per cent.

In contrast, 40 per cent of the land on the northernmost area was fall plowed in 1965 and 33 per cent in 1966. The amount of fall plowing, however, may not wholly explain differences in winter survival. Final conclusions must await more patient fact-finding.

It seems safe to conclude that reproductive success is as good on the southernmost as it is on the northernmost area and that differ-

Grouse

(Continued from page 78)

is reached. Evidence obtained from studies here in Iowa shows that around two-thirds of the grouse population is lost each year, even when hunting is not permitted.

A hunting season held not long after the production season is finished (and thus peak population reached) gives the sportsmen of the state a chance to utilize some of those birds doomed to be lost anyway, and to gain considerable outdoor recreation in the process.

Iowa hunters should keep in mind that the ruffed grouse in this state is in relatively limited supply in comparison with pheasants and quail, and will never be in great abundance. Iowa simply does not have enough suitable forest area remaining for ruffed grouse to achieve such status. This means grouse will likely be classed more in the nature of trophy bird.

Such seems an appropriate designation for one of the finest upland game birds to be found anywhere. This "timber pheasant" or "woods partridge", as it is called by some, will provide a supreme test for the bird hunter and his dog. More than one tree will be pruned by shotgun blasts this fall as Iowa's inexperienced grouse hunters react to the burst of wings and whirring flight of a ruffed grouse bent on escape.

Coon Hunting — (Continued from page 74)

brain by a marvelous sense of smell. Once on the trail of a coon, a good hound will never leave it. And, his voice has all the full-throated magic of an operatic bass, baritone or tenor, depending on the dog.

The best places to hunt raccoon are wooded river bottoms and belts of timber along the creeks. When the hunters reach a chosen spot, a lantern is lit and the dogs let loose. Away they go, fanning out in several directions.

The hunters wait, silently, open-mouthed, straining their ears to catch the first sound. A big owl hoots far away.

Suddenly, out of the inky darkness and surprisingly near, comes a deep trumpet-like call that booms thru the timber. A fat farmer chuckles, "Bugler's on a back trail." Off to the right, a sobbing "chop"

ences in reproduction do not explain the lower pheasant numbers on the southernmost area.

The middle area, which had a pheasant population intermediate to that on the northern and southern areas, was comparable to these areas in reproductive success. Results of this investigation, however, apply only to the specific areas investigated.

Nature often is so complicated in its workings that it is dangerous to generalize from area to area. Even in this study, there may yet be some overriding factor (such as soil fertility) that could still depress pheasant numbers even if winter cover on the southern area were to be improved.

Attempts are underway to secure cooperation from some landowners and the Soil Conservation Service in establishing some new winter cover plantings on the area. When these plantings reach suitable size, then renewed research on the study areas can concentrate on investigating winter survival to establish without question that lack of winter cover is the immediate reason for the much poorer southern area pheasant populations.

starts up and settles into a steady "bay". ("Chop", in coon hunter language, is a short resonant bark. A "bay" is a continuous flow of sound.)

Finally, in the distance, a sharp commanding bark is heard. The other dogs hush. Again that sharp bark. Someone yells, "Treed!" and everyone dashes off thru the underbrush, the lantern bobbing in the mist.

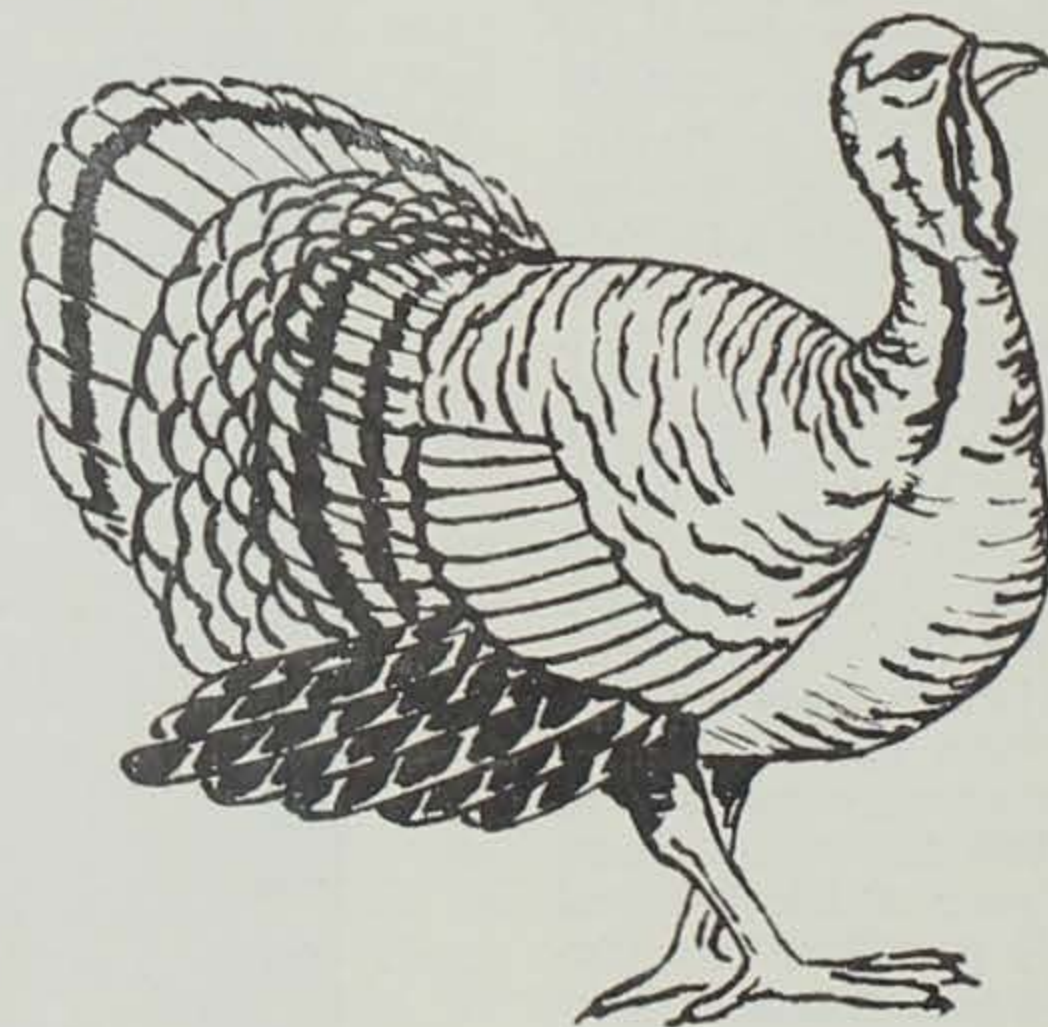
When they arrive, panting, the entire pack of hounds is raising a deafening clamor around a big leaning elm. A huge "redbone" hound leaps upward, clawing and tearing at the bark of the tree.

Far up the elm, two shining greenish eyes reflect the light of the high-held lantern. A brawny young man, arms overhead, struggles thru the pack, striking right and left with his leather gauntlets, bawling, "Down! Down!" The coon is treed.

Sometimes, if a raccoon is surprised far from his den, such a chase will continue for hours. An old raccoon is wily. He may climb a tree and travel overhead across a patch of timber, by way of the branches, leaving the hounds howling at the foot of the first tree. Or he may gain a long lead by circling, back-tracking, and confusing his trail by wading in the shallow water of a small stream. He is fairly fast but, if caught on the ground he is a fierce fighter. He is a fine swimmer, utterly at home in water, and has four hands like a monkey. Many a good hound has been drowned by a big raccoon.

Why keep a big lazy-looking hound? Brother, just ask the man who owns one.

It's almost November, so let's talk . . .



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