

IOWA CONSERVATIONIST

IOWA STATE TRAVELING LIBRARY
SEP 27 1957

ST. TRAVELING LIBRARY
ST. HISTORICAL BLDG
DES MOINES IA
VI 61 SENIOR SEP

Volume 16

September, 1957

Number 9

HARLAN RESIGNS COMMISSION POST

James R. (Jim) Harlan has resigned his position as Assistant Director of the Conservation Commission to accept a position as conservation consultant to the U. S. Public Health Service Water Supply and Pollution Control Program in Washington, D. C. His resignation was effective September 18.

Harlan has served as Assistant Director of the Commission since 1948. He also held the position of Superintendent of Public Relations from 1941 until his appointment as Assistant Director, and served as Conservation Officer at Storm Lake from 1937 to 1941.

In terms of service to Iowa, Harlan's employment dates back to 1929 when he was appointed Museum Apprentice with what is now known as the State Department of History and Archives. During his service to this department, he also held the positions of Museum Assistant and Acting Director.

Harlan is co-author of the book "Iowa Fish and Fishing" and was instrumental in beginning the television program "Outdoor Talk" in 1954. Harlan has served as moderator of the program throughout its entire production. He also served as the first editor of the IOWA CONSERVATIONIST and was one of the central figures in originating and developing the commission's State Fair and traveling wildlife exhibits.



James R. (Jim) Harlan

Set Viking Lake Dedication



A view of Viking Lake State Park which will be officially dedicated at 2 p.m., October 13. The 950-acre area includes a 150-acre lake. The picnic area, as well as bathing beach and parking facilities were completed for use this summer.

DEDICATION PROGRAM

2:00-2:30 p.m.	Band Music Red Oak, Villisca and Stanton High School Bands
Master of Ceremonies.....	Lynn D. Hull, Villisca
Invocation.....	Rev. Fred Jansson, Stanton
History of Viking Lake State Park.....	Gus Kuester, Griswold
Presentation to State.....	George V. Jeck, Chairman State Conservation Commission
Acceptance and Dedication.....	Herschel C. Loveless Governor of Iowa
Flag Raising Ceremony.....	Boy Scouts Stanton, Villisca and Red Oak
Benediction.....	Rev. Lyman Smith, Emerson

ANGLER TO JUDGE: "JUST PRACTICING"

A district court judge reported this novel alibi by an angry angler who had just been cited by a wildlife protection officer:

"Judge, I didn't deserve this," the Sacramento Bee quoted him as telling the judge. "It says here I was fishing without a license. I've never been fishing before and I wasn't then.

"Sure, I had a line with a baited hook in the water, but I was just practicing. If I decided that I liked fishing, I was gonna get me a license. And that doggone game warden went and gave me a ticket. It's not fair.—Outdoor California.

In This Issue

Duck Marsh Experiment.....	page 162
"Charlie" King Rites Held.....	162
1957 Pheasant Regulations.....	163
Nature's Clean-up Corps.....	164
Iowa Duck Season.....	165
Squirrel Hunting	165
Trapping Season	166
Mud: Fishing's Foe	167
Duck Hunting Hours.....	168

GOVERNOR LOVELESS TO SPEAK AT EVENT

Viking Lake State Park will be dedicated with an official dedicatory program at 2 p.m. Sunday, October 13, at the site of Iowa's newest recreational area, four miles east and a mile south of Stanton in Montgomery county.

The 950-acre project was constructed at a cost of about \$415,000 and has been about three years in building. Roads, parking areas, bathing beach on the 150-acre Viking Lake, and picnic area with 75 tables and 25 fireplaces were completed and put into use this summer. A service building and small, five-room residence are under construction at the present time.

Work on Viking Lake started February 20, 1956, and was completed October 14, 1956. The spillway was completed May 6, 1957 and impoundment of water began immediately.

A total of 297,000 cubic yards of earth was moved in its construction. The lake has a maximum depth of 46 feet and a shore line of four and one-half miles. The lake's dam is 400 feet wide, 55 feet high and 1,250 feet long.

Iowa Governor Herschel C. Loveless will make the dedicatory address and will accept the new state park on behalf of the citizens of Iowa. George V. Jeck, chairman of the State Conservation Commission, will present the new park to Iowa. Lynn D. Hull of Villisca, will serve as master of ceremonies at the dedication.

O. N. Hultman is serving as chairman of the dedication committee. Dr. P. O. Swanson is serving as vice-chairman. Both are from Stanton.

A total of 15 Iowa communities are represented on the dedication committee, including Shenandoah, Villisca, Red Oak, Stanton, Clarinda, Elliott, Emerson, Henderson, Carson, Glenwood, Griswold, Atlantic, Corning, Grant and Bedford.

Iowa Conservationist

Published Monthly by the
IOWA CONSERVATION COMMISSION
East 7th and Court—Des Moines, Iowa
(No Rights Reserved)

HERSCHEL C. LOVELESS, Governor
BRUCE STILES, Director
KEITH SUTHERLAND, Editor
EVELYN BOUCHER, Associate Editor

MEMBERS OF THE COMMISSION

GEORGE V. JECK, Chairman...Spirit Lake
MRS. JOHN CRABB, Vice Chairman...
.....Jamaica
CLYDE M. FRUDDEN.....Greene
GEORGE M. FOSTER.....Ottumwa
G. H. MEYER.....Elkader
J. D. REYNOLDS.....Creston
A. N. HUMISTON.....Cedar Rapids

CIRCULATION THIS ISSUE.....49,500
Subscription rate.....40c per year
Three Years \$1.00

Entered as second class matter at the post office in Des Moines, Iowa, September 22, 1947, under the Act of March 24, 1912. Subscriptions received at Iowa Conservation Commission, East Seventh Street and Court Avenue, Des Moines 9, Iowa. Send cash, check or money order.

FINAL RITES HELD FOR "CHARLIE" KING

Funeral services were held in Des Moines August 29 for C. L. "Charlie" King, Area Fisheries Manager for southern Iowa and long-time Commission employee.

"Charlie" had been in poor health since suffering a stroke in May. He was 66.

Survivors include his wife, Margaret; a daughter, Mrs. Madeleine Hohenhorst of Palatine, Ill., and a brother, Norris, of Allegan, Mich.

"Charlie's" service to the Commission totaled 24 years. He first joined the employ of the Commission January 1, 1933 as a supervisor of seining. He also had served as a District Fisheries Culturist from January 1, 1946 until his appointment as Area Fisheries Manager on April 1, 1948.



C. L. (Charlie) King

Born in Keokuk, "Charlie" often was referred to as "Mr. Basketball" because of his skill at the sport as a Keokuk high athlete. He continued competition in basketball at Iowa State College, participating in every scheduled game and earning a major varsity letter in 1912. He also participated in football, baseball and track—in addition to basketball—during the 1910-11 seasons at Iowa State.



Browns Slough will serve as the control area during the 1957 waterfowl shooting experiment. Eighteen three-man blinds will be placed on the area with an accurate check made of hunter success on this as well as the Colyn area. Results will help Conservation Commission personnel in their search for the best method of managing the smaller slough areas of the state.

A DUCK MARSH EXPERIMENT

William H. Aspelmeier
Unit Game Manager

"The ducks won't come in—too many people sloshing around!"
"We had a good spot, then someone moved in almost in our lap and shot at the ducks we decoyed!"
"Hunters were so close together they sprayed each other with shot!"
These are some of the comments

heard during and after every waterfowl season. Other statements, using a different language, are heard more and more often. Each year Iowa's waterfowl marshes become more crowded.

Almost all duck hunters have ideas on how to improve the crowded conditions and the manners of some hunters. In many

such discussions the pros and cons of controlled hunting are brought out.

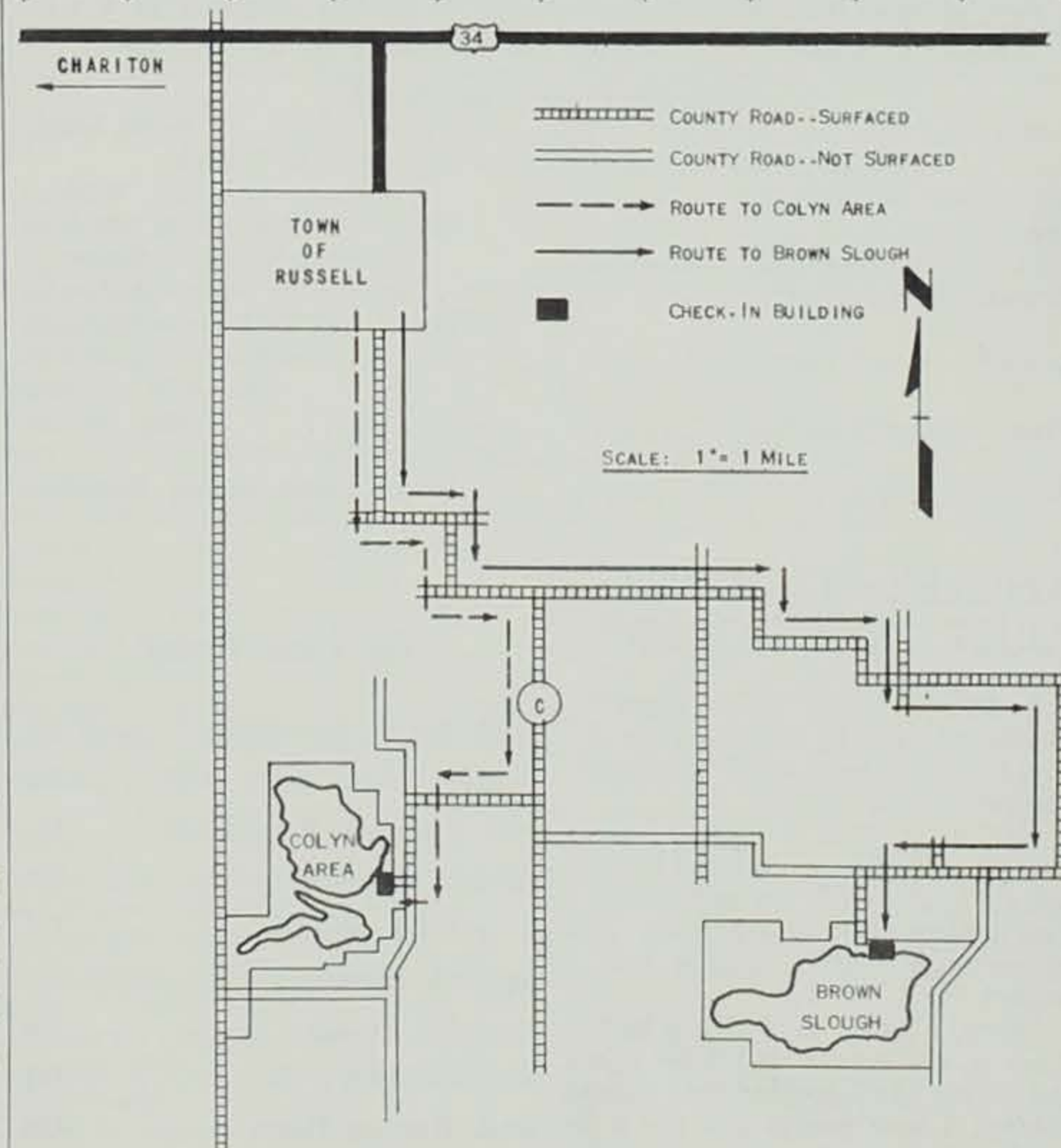
One system of controlled hunting on state-owned marshes is the provision of blinds by the State Conservation Department. The hunter is assigned blinds and all hunting is done only from these blinds with no one wandering about. This method of waterfowl hunting is in operation under various conditions over much of the United States. The Iowa Conservation Commission used this system on Forne Lake in Fremont county for several years but no check was available to compare the results with hunting on areas without regulation.

As might be expected controlled hunting is praised by some and condemned by others, depending upon point of view and hunting success. The basic policy of the Conservation Commission has been to hold down on restrictions and let waterfowl hunting be as natural as possible. Increasing numbers of waterfowl hunters on Iowa marshes is leading to more crowded conditions that may require restrictive regulations.

During the 1957 waterfowl season the Conservation Commission will put an experiment into operation designed to gather information on which to base future management and hunting on waterfowl areas.

Select Areas

Two areas have been selected for this experiment. Browns Slough, a 200 acre area in Lucas county, will be set up with blinds provided. The Colyn Area 210 acres, and three miles west of Browns Slough will be the check



Map of the Colyn-Browns Slough area shows best routes to follow to checking stations on both areas. Copies of the map are available by writing to William Aspelmeier, Russell, Iowa.



The Colyn Area is situated about three miles from Browns Slough, is of comparable size, and in the same Chariton River valley. At extreme left is a refuge area. Between the refuge and Colyn Area, the Chariton River may be seen. Public shooting, on the same basis as former years, will be offered at Colyn during the Iowa waterfowl season, October 5 through December 13.

area on which hunting will not be controlled. Both areas are about the same size, have similar physical characteristics, are in the Chariton river floodplain, and are surrounded by agricultural lands that are alike.

On Browns Slough 18 three-man blinds will be provided. These blinds are spaced to insure safety of the hunters and to cover as much of the 200 acres as possible. Each morning at one hour before sunrise one man from each hunting party will draw for a blind and receive a hunting permit. This party, of not more than three persons, must then hunt from their blind except in the pursuit of crip-

ples. At the end of the hunt the harvest of waterfowl will be counted and the man hours hunted will be recorded.

The drawing for blinds each day will be on a first come, first serve basis until the 18 blinds are assigned. No more waterfowl hunters will be allowed than those who occupy the blinds. Each hunter will be required to pay one dollar per person per day for the use of the blinds.

On the Colyn Area all hunters must check in and obtain a hunting permit to use the area. Numbers of hunters using the area will not be restricted and each hunter may hunt where he wishes. Hunting on

the Colyn Area will be the same as on any uncontrolled marsh in the state except that the hunters must check in and out. Harvest of waterfowl and man hours hunted will also be recorded here.

Upland Game

Upland game hunters will be allowed to use the upland habitat on both areas but must check in and out.

Waterfowl hunters on both areas should bring their own boats and decoys. The use of dogs is encouraged. No motors are allowed on either area.

This experimental operation will provide some valuable data for comparison of the two methods of hunting. The two areas are alike, they are close together and are in the same river flyway. Under these conditions some pressing questions should be answered. Which method provides the most hunting on a per acre basis? Which system provides for a more even harvest of waterfowl? Which type hunting makes waterfowl shooting the most enjoyable to the most people? What are the extra costs of providing blinds and services and are hunters willing to pay for the use of these facilities?

FISHING IS A MUST

According to former President Herbert Hoover, fishing is a must for all Presidents because the American people have respect for privacy on only two occasions—when a man is praying or when he's fishing. And the President can't pray all the time.—*Colorado Outdoors*.

The popular notion that geese are "silly" is misleading for careful observation indicates they are above average in intelligence and are resourceful in the face of danger.



William Aspelmeier, Unit Game Manager of the Colyn Area, puts the finishing touches on one of the 18 duck blinds to be placed on Browns Slough.

1957 Pheasant Season

Regulations for the 1957 seasons on pheasants, quail and Hungarian partridge have been announced by the Conservation Commission with little change from the 1956-57 season.

Open season on pheasants in the long zone counties will be from November 9 through December 2, 1957; in the short zone counties, from November 9 through November 21, 1957. Shooting hours will be from 12 o'clock noon to 4:30 p.m. daily in each zone. Bag and possession limits in each zone also is the same with three cock birds.

Long zone counties include Lyon, Osceola, Dickinson, Emmet, Kosuth, Winnebago, Worth, Mitchell, Howard, Winneshiek, Allamakee, Clayton, Fayette, Chickasaw, Floyd, Cerro Gordo, Hancock, Palo Alto, Clay, O'Brien, Sioux, Plymouth, Cherokee, Buena Vista, Pocahontas, Humboldt, Wright, Franklin, Butler, Bremer, Woodbury, Ida, Sac, Calhoun, Webster, Hamilton, Hardin, Grundy, Black Hawk, Buchanan, Delaware, Dubuque, Jackson, Clinton, Scott, Jones, Linn, Benton, Tama, Marshall, Story, Boone, Greene, Carroll, Crawford, Monona, Shelby, Audubon, Guthrie, Jasper, Poweshiek, Iowa, Johnson, Cedar, Muscatine, Cass, Adair, Adams, Union and Taylor.

Short zone counties include Harrison, Pottawattamie, Madison, Clarke, Lucas, Ringgold, Decatur, Wayne, Louisa, Washington, Keokuk, Mahaska, Dallas, Mills, Montgomery, Fremont, Page, Monroe, Appanoose, Polk, Warren, and Marion.

Open season for quail will be from November 2 through December 16, 1957, in the long zone; from November 2 through November 16, 1957 in the short zone. Hunting will be from 8:30 a.m. to 4:30 p.m. daily in each zone with a bag and possession limit of six birds in each zone.

Long zone counties include Buchanan, Delaware, Dubuque, Tama, Benton, Linn, Jones, Jackson, Monona, Harrison, Guthrie, Dallas, Polk, Jasper, Poweshiek, Iowa, Johnson, Cedar, Clinton, Scott, Muscatine, Louisa, Washington, Keokuk, Mahaska, Marion, Warren, Madison, Adair, Cass, Pottawattamie, Mills, Montgomery, Adams, Union, Clarke, Lucas, Monroe, Wapello, Jefferson, Henry, Des Moines, Lee, Van Buren, Davis, Appanoose, Wayne, Decatur, Ringgold, Taylor, Page and Fremont.

Short zone counties include Howard, Winneshiek, Allamakee, Chickasaw, Fayette, Clayton, Bremer, Black Hawk, Story and Marshall.

The 1957 season on Hungarian partridge will be from November 9 through November 18, 1957, in 11 counties of the state. Shooting hours will be from 12 o'clock noon to 4:30 p.m. daily, with bag and

(Continued on page 166)



The turkey vulture wouldn't win many beauty prizes, but he's one of the most important members of nature's clean-up detail. Work of such carrion-eaters as owls, buzzards, crows, foxes and opossum is so complete it is often unnoticed by humans.

NO WASTE THANKS TO CLEAN-UP CORPS

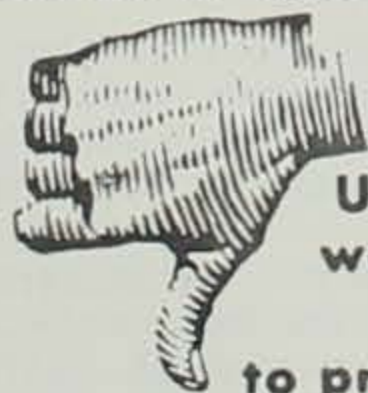
NEW BOOKLET ON SHOOTING IS FREE

The why, where, when, and how of rifle shooting for boys and girls is contained in an attractive and readable booklet, "Shooting Fun for Everyone," recently released by the Sportsmen's Service Bureau.

Designed for young readers, the booklet presents helpful word and line sketches on the history of marksmanship in America and tells youngsters how shooting clubs can be organized and where information and assistance can be obtained. Subsequent pages dwell on fundamental firing positions, rifle tournaments and games, hunting trips, and rifle selection. Bolstering the text are all sorts of shooting safety reminders and firearms information.

Free copies of the booklet can be requested from the Sportsmen's Service Bureau, 250 East 43rd Street, New York 17, New York. Distribution is limited to the United States.

THUMBS DOWN
means
DON'T CLOWN!



Use this warning signal to promote

SAFE BOATING

The most remarkable sanitary department in the world is Nature's clean-up corps of birds, animals, reptiles and insects. The casual weekend outdoorsman never pauses to think that the fields and woods and streams would lose much of their attractiveness without this twenty-four hour service provided by the wildfolk that use the unchartered trails in the sky, on the ground and under the water.

In early morning twilight the toll along the highways will reveal countless rabbits, opossums and other nocturnal travelers. These fresh carcasses generally are picked by crows or buzzards, and this is the extent to which the average person is acquainted with Nature's Clean-up Corps. But there are many other creatures, not to mention mold and bacteria, working to keep the outer places clean.

In the air are such natural scavengers as buzzards, gulls, crows, red-tailed hawks, barred owls, screech owls, carrion flies, and the like. On the land are found such as the opossum, foxes, skunks, dung beetles, ants and other insects. In the water are crayfish, turtles, catfish, eels, etc. We have seen the astonishing spectacle of two dozen eels emerging hastily from the swollen carcass of a dead horse, when it was struck with an oar.

Demised wildlife on the highways soon disappears. It's nature's sanitary corps at work.

Since deer shed their antlers annually the natural inquiry is what becomes of numerous racks thus dropped in the woods—it is rare that they are seen. The answer seems to be that they are eaten by the smaller wood folks; mice, squirrels and other rodents have a special liking for these antlers due,

some say, to the calcium or salt content.

Highway Toll

It is rare that one sees a dead creature in the outdoors, although many living things fall daily in the struggle for survival and from disease and bitter weather conditions. Only on highways and in times of unusual disasters are we reminded that death visits the wild animals, birds and fishes as well as the human race, and in these cases it is usually man's constant presence that deters the swift work of nature's sanitary engineers.

In nature, nothing is ever wasted. The greatest trouble among all living things is to get enough food, even among humans. Directly or indirectly every living thing is potential food for another living thing and whether it is killed for that purpose or dies from some other cause it is converted into nourishment as flesh to be eaten, or nutrients to be absorbed and made into plant tissue. The wild creatures which eat animals after they are killed or have died in any way except through predation, are called scavengers, and their work, while not exactly pretty, is indispensable.

Some of the animals of this profession are well known. Others are seldom observed at their work. The buzzard's whole existence depends on finding enough dead animals for food; his special equipment—telescopic eyes and ability to soar timelessly above earth—is geared to that end and he is perhaps the best scavenger of them all.

The butterfly is so colorful, fragile and dainty, that few would ever suspect him of being a roistering drunkard, an inveterate inebriate, to say nothing of a carrion eater. Yet, some species do feed on juices exuded from dead flesh, and go on terrific sprees as a result of imbibing the fermented sap from various plants. The amount of carrion disposed of by butterflies is, however, too small to be of much notice.

Next to the buzzard, the opossum is probably the champion scavenger of them all, in fact, he is almost as non-selective in his diet as hogs or domestic chickens. Most hunters know that the carcass of a farm animal is a favorite dining place for opossums; trappers frequently bait their sets with "ripe" flesh, the more odorous the better. Snakes, frogs, birds—even his own kind—all dead things are grist to the opossum's hungry mill, and the great number of this group and their ground-searching habits probably lead them to most of the carcasses in the woods sooner or later.

Clean Streams

In the streams, scavengers are numerous. All the large catfish will take dead flesh, while channel cats are enticed in proportion to the ripeness of the material, savoring the more spicy bits as an episcure does cheese—of which the

channel cat is also a connoisseur. Turtles will consume meat not too far gone, while crayfish do about the cleanest job of bone stripping imaginable.

Crows, jays and sometimes red-tailed hawks work on fresh carcasses as do many other birds at some time or other in their lives. Foxes, wolves, and roving dogs will take carrion when fresh meat is not readily available, and will frequently perfume themselves with very lush specimens, rolling in the material, with every evidence of extreme delight. Practically all the carnivorous animals work on bones as well as flesh.

In times of emergency—cold weather, deep snow, shortage of natural food—almost all rules are off. In tough situations rabbits have been seen feeding on the carcasses of other animals, along with quail, cardinals and other birds.

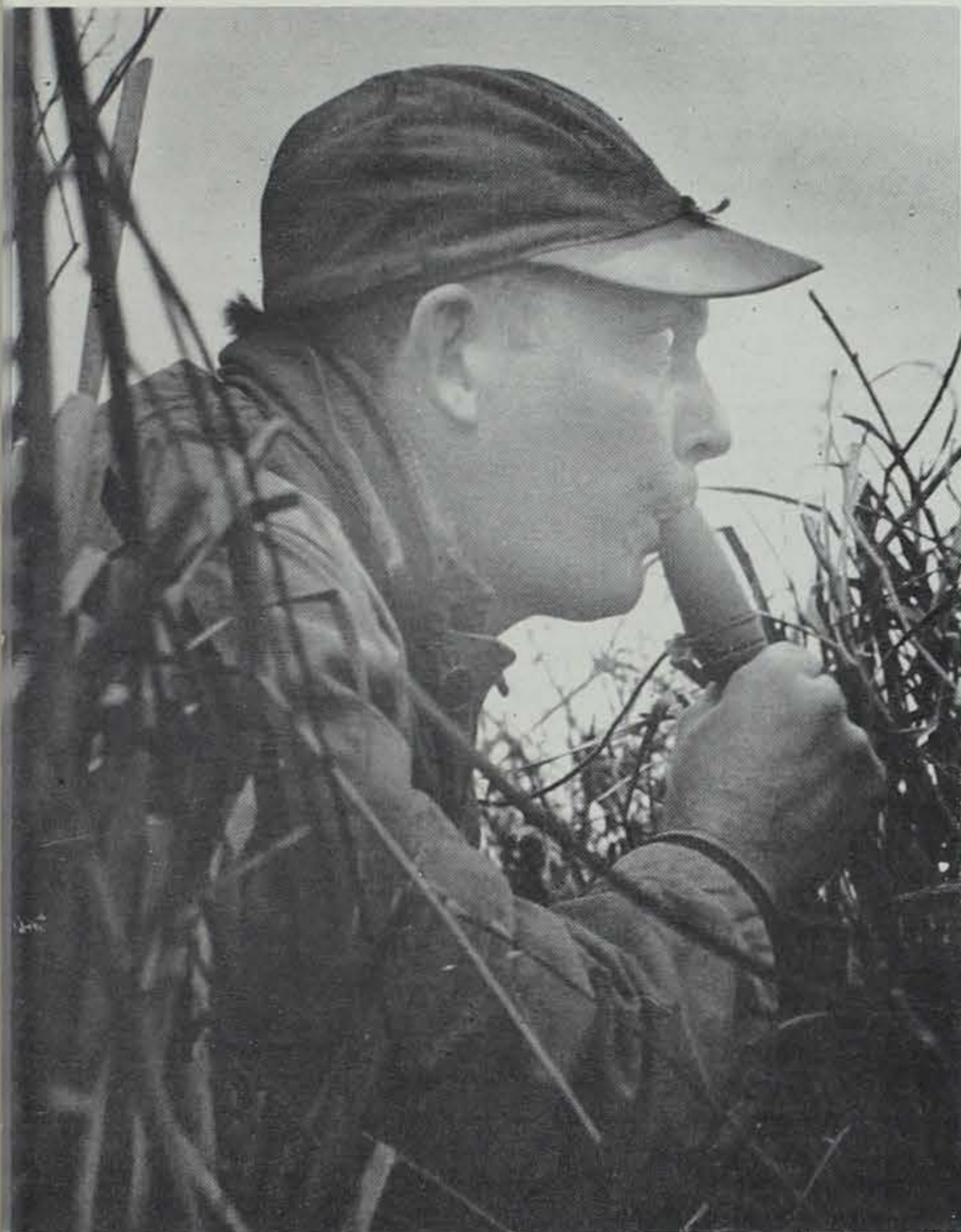
In the world of insects, there are many that feed on carrion. Flies and others lay their eggs on dead meat, and the larvae feed on it. Carrion beetles and Dermestids strip the flesh from bones almost as efficiently as do crayfish, and a swarm of ants can reduce a carcass to a skeleton in short order. In the days of horses, tumblebugs were the most famous scavenger of them all. Even the microscopic putrefying molds and bacteria play their part in reducing solid flesh to gas and liquids, after which they find their way into the soil and plants and start the cycle all over again.

Usually Unnoticed

This work is carried on so secretly that it is usually unnoticed by the casual person out of doors. It is done so well that the knowledge that all animals eventually die is more easily arrived at by reasoning than by observation. However, in spite of the fact that relatively few animals die natural deaths, the number killed by factors other than predation is considerable.

Probably the greatest contribution to the scavenger material made by man. Crippling losses (which usually mean a dead animal later) in hunting may run as high as 50 per cent of the entire number shot. Frequently even animals cleanly killed in heavy cover are not recovered. Kill of rabbits by traffic is enormous and the number of snakes, turtles, rough fish and other species killed by man is also high. Poisonous substances introduced into water habitats and drainage explosions and other by-products of man's activity kill large numbers of aquatic animals, as do rough methods of handling unwanted fish in removing them from the hook. Against the total of these deaths of wild creature from causes other than predation, bulk comparatively small. Finally, in the case of fur-bearers and game brought to bag, parts or entire

(Continued on page 166)



Jim Sherman Photo

ew things can equal the heart-throbbing excitement of ducks rocking on cupped wings in response to the hunter's decoys and gentle "chuckle." Good water levels and a good hatch in Canada indicate that the 1957 Iowa waterfowl season may be one of the best in many years.

Waterfowl Season 1957

A 70-day waterfowl season beginning October 5 and continuing through December 13 has been announced by the Conservation Commission.

Except for season dates and bag and possession limits of American and Red-breasted Mergansers, the 1957 regulations are essentially the same as last year.

During the 1957 waterfowl season, hunting will be permitted each day (including opening day) from one-half hour before sunrise to sunset. Daily bag limit of ducks is four. Possession limit of ducks, after the first day is eight. One Hooded Merganser may be possessed. As in 1956, a closed season will exist on Ross' Geese, Grebes, Rails (except Coot), Gallinules, Mourning Dove, Woodcock, Wood Duck, and Swan.

Bag and possession limit of geese is five. Not more than two of the limit may be Canada, Hutchins', Cackling, or White-fronted Geese. Two of any of the above may be included in the limit. The entire bag may be made up of either Blue or Snow Geese or any combination of them.

Bag and possession limit of Coot or Mudhen is ten.

Open season on Wilson's Snipe or Jacksnipe will be from October 5 through November 3, 1957. Bag and possession limit is eight.

Daily shooting hours are the same as for ducks and geese.

Iowa hunters may take five American and Red-breasted Mergansers daily and have ten in possession, singly or in aggregate of both kinds. This regulation is in addition to the bag and possession limits of other ducks.

In addition to state regulations, hunters are required to have in possession a valid 1957 duck stamp. The stamps are available at post-offices for \$2.

HABITAT IMPROVEMENT BOOKLET AVAILABLE

"Habitat Improvement—Key to Game Abundance" by Werner O. Nagel, of the Missouri Conservation Commission, presents a readable and highly informative discussion of the four principal factors—food, cover, water, and living space—that determine the relative abundance and distribution of game animals. Delving into the shortcomings of predator control, game laws, and artificial propagation, Nagel summarizes, "Habitat improvement is neither so easy, attractive, nor spectacular, but it has one important advantage the others do not—it works."

The booklet is available from the National Wildlife Federation, 232 Carroll Street, N.W., Washington 12, D. C., at 10 cents a copy.

CAUTION, CURIOSITY —AND SQUIRRELS

Keith C. Sutherland, Editor

In September when Jack Frost dips from his artist's palette to transform woodlands into a symphony of color and the clear morning chill snips at the noses of quick-stepping Iowans—the "crackling" of rifle fire resounds along the timbered ridges, indicating that squirrels are once again the nimrod's fare.

There's something about squirrel hunting that just naturally fits into the fall picture of things. Particularly early squirrel hunting.

It comes at a time when the angler receives something of a bonus, what with fall fishing in full sway and usually highly productive. Yet the angler, if he's so inclined, can lay aside the old rod and revel in the luxury of two outdoor sports.

For the non-fisherman, the squirrel season ushers in fall hunting that he has yearned for since the end of last year's shooting. For him, it signals the opportunity to sharpen up the old shooting eye for pheasant, quail and waterfowl seasons still to come.

The squirrel season also rolls around at a time when there exists a multitude of little tasks around the household. You know, the "little woman" outlines the day's program something like this: wash

and put up the storms, rake the yard, clean the attic, get the long-neglected coat of wax on the fivver before winter, and *ad infinitum*.

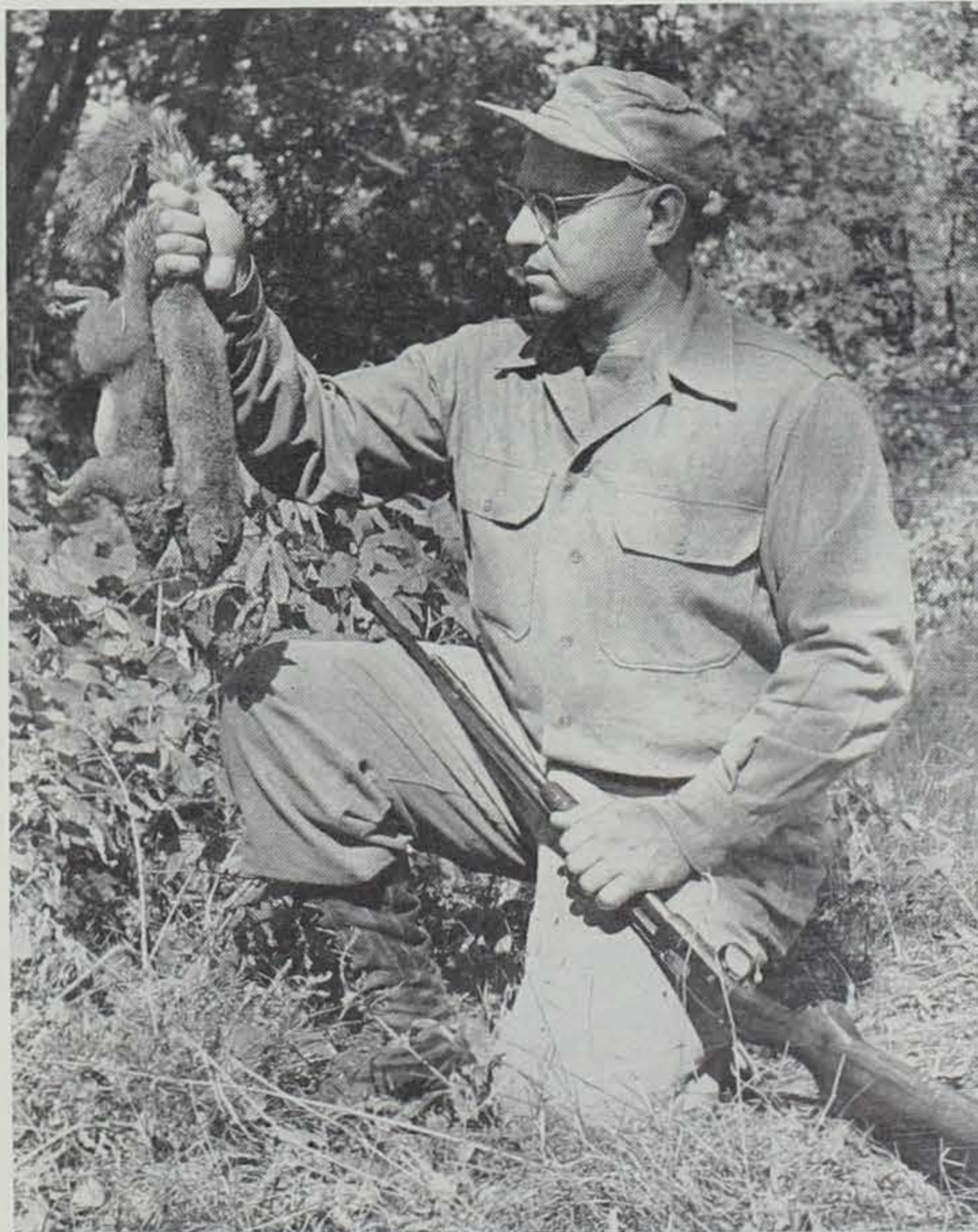
Now this may be all well and good for the industrious husband, but these are few this time of year. For most, one thought of the "bushy-tail" and one "peep" about what's on the day's docket only makes the lazy slower and the slow come to a screeching halt.

While we have no desire to be target for the wrath of the "little woman" about neglected housework, we do think that when this overpowering attitude sweeps over the "man of the house" he may just as well be enjoying the lazy sport of squirrel hunting in the outdoors. And don't be surprised if he picks up a healthier attitude about the household chores somewhere in that favorite timber! He may not set any records getting the work done when he gets home, but he may at least voice an honest intention to do better, particularly after a meal of fresh, pan-fried squirrel and squirrel gravy is tucked away in his innards. And that's probably more progress than he'd made if he'd stayed home, anyway!

So we let the work go for another day, don neutral clothes, and hie ourselves out to relax and make lazy under a brilliant blue sky and warming September sun.

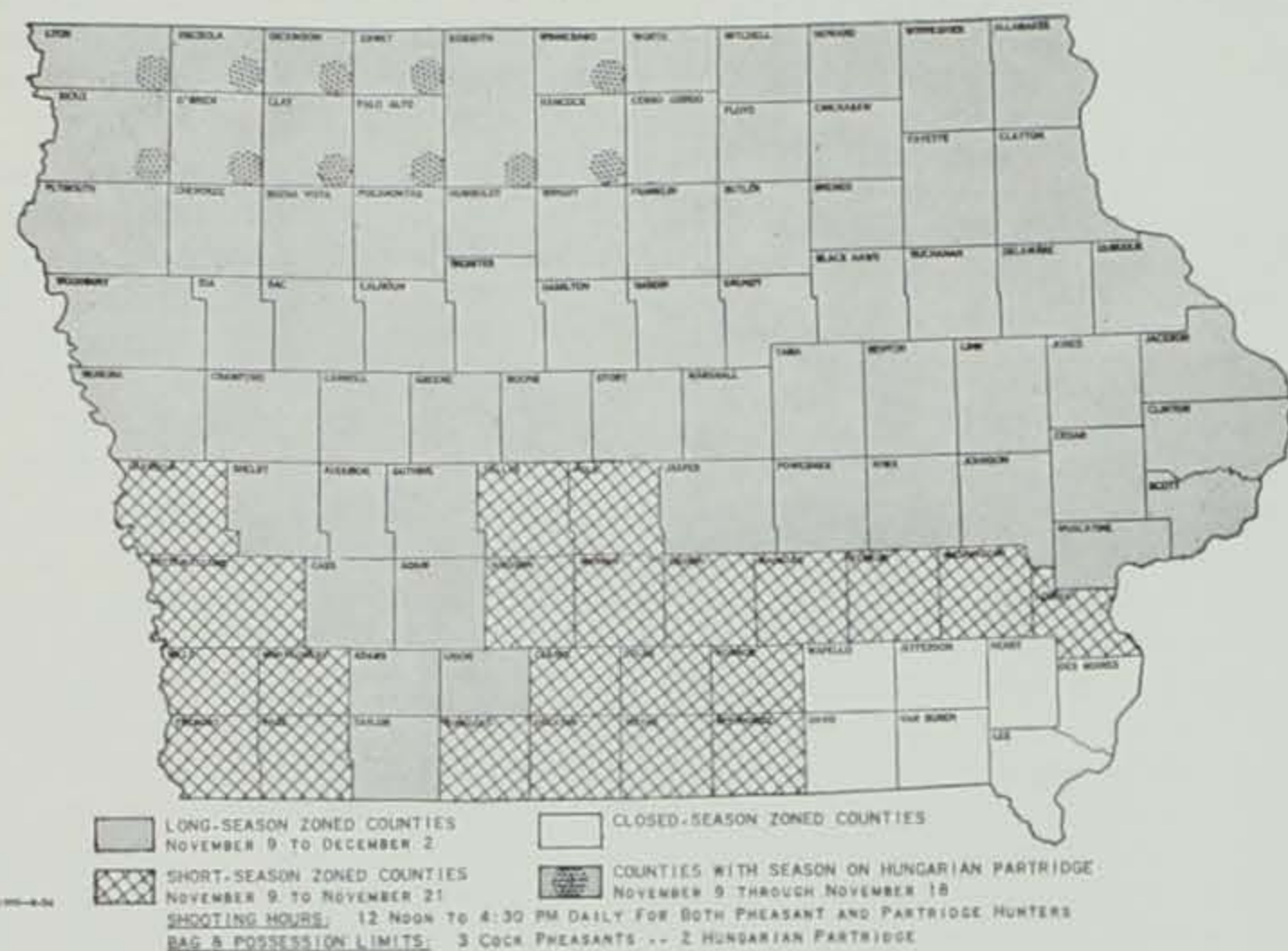
There's one point that needs a

(Continued on page 167)



Iowa "bushy-tails" are prime eating. To insure best eating qualities, field dress them immediately. Many hunters carry a cellophane bag to put them in and to keep them clean for the trip home.

1957 PHEASANT SEASON



SURVEY SHOWS STUDENT DESIRE FOR FIREARMS

In a recent survey by the Institute of Student Opinion of 4,262 students in 24 schools across the country they discovered that 38.8% of Junior High boys hope to get a .22 rifle within the year. 23.1% expect a watch, 5.6% a bicycle, 28% a fountain pen, 7.7% a typewriter, and 11% a camera. High school seniors interviewed revealed a total of 25.8% expected to get guns during the year.

This points up the popularity of hunting and shooting as sports, and also indicates there is a drastic need to teach boys and girls safe gun handling. It has been proven time and time again that it pays to give youngsters gun safety lessons. If we give them guns, and we have little choice in the matter, it is our duty to teach them gun safety or enroll them in a firearm safety class.—*Ohio Conservation Bulletin.*

When rising from water or land, the shoveller ducks springs vertically with a strong upward bound and darts away with a swift, erratic flight, punctuated with sudden downward plunges.

Pheasants . . .

(Continued from page 163)

possession limit of two birds. Open counties include Lyon, Sioux, Osceola, O'Brien, Dickinson, Clay, Emmet, Palo Alto, Kossuth, Winnebago and Hancock.

Also announced at the same time as the above seasons were regulations on raccoon, squirrel and rabbit hunting.

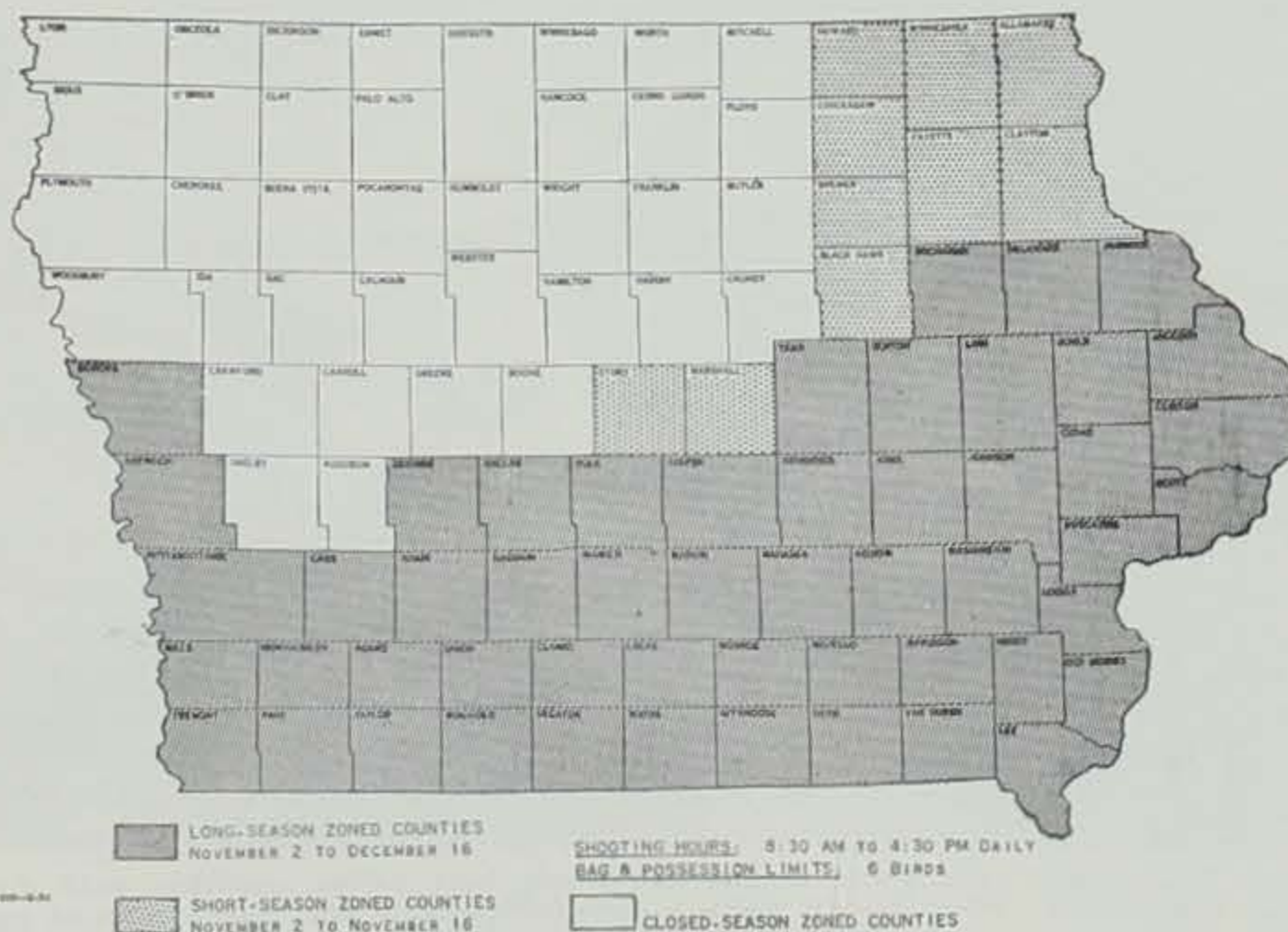
RACCOON—Open entire state for hunting only from 12 o'clock noon, October 26, to midnight February 10, 1958. No daily bag or possession limit. See trapping regulations for raccoon trapping season.

SQUIRREL—Open season for gray and fox squirrel from September 14 through November 15, 1957. Bag limit is six per day; possession limit after the first day is 12. Entire state open.

RABBIT—Open season for cottontail and jackrabbit from September 14 through January 31, 1958. Shooting hours from 6 a.m. to 6 p.m. daily. Bag limit, 10 per day. No possession limit. Entire state open.

Trout requires water that does not become warmer than 70 to 75 degrees Fahrenheit.

1957 QUAIL SEASON



TRAPPING IN 1957-58

Regulations for the 1957-58 trapping season have been announced by the Conservation Commission. Included are laws governing trapping of mink, muskrat, beaver, badger, skunk, opossum, civet cat, raccoon, weasel, fox, ground hog, coyote and otter.

MINK-MUSKRAT—Open on the Mississippi river east of the Chicago, Milwaukee and St. Paul railroad tracks from the Minnesota state line to the south city limits of the city of Davenport from 12 o'clock noon, December 1, 1957, to midnight, December 31, 1957. Remainder of the state open from 12 o'clock noon, December 1, 1957, to midnight, December 15, 1957.

BEAVER—Open entire state from 12 o'clock noon, December 1, 1957, to midnight, March 1, 1958.

BADGER, SKUNK, OPOSSUM, CIVET CAT—12 o'clock noon, November 10, 1957, to midnight, January 10, 1958.

RACCOON—Open season from 12 o'clock noon, November 10, 1957, until midnight, February 10, 1958. Water sets permitted only during the open season for mink and muskrat. See hunting regulations for hunting season on raccoon.

WEASEL, RED FOX, GRAY FOX, GROUND HOG, WOLF-COYOTE—Continuous open season, entire state.

OTTER—Continuous closed season, entire state.

Nimrod "All Shook Up" By A Busy Beaver

A fish story with a new twist came to the editor's desk recently from Missouri.

Fishing from a boat and minding his own business, a river fisherman was suddenly struck by a falling tree. The boat sank but the fisherman was rescued, not seriously injured, just "all shook up."

Investigation of the fallen tree revealed that it had been cut almost to the falling point by our old friends the busy beavers.

Clean-up Corps . . .

(Continued from page 164)

carcasses are often thrown away, to become carrion.

Yet, whatever the size of the burden, whatever the cause of death, wild scavengers are apparently not fussy. Food is food, no matter what its source or what its name or how it came to die. By the automatic unreasoning functioning of these necessary cogs in nature's machine, all creatures are benefited.

As for man, he can thank scavengers for putting to good use the victims of some of his mistakes, and for maintaining the outdoors in a wholesome condition for his continued enjoyment.—*W. O. Nagel, Missouri Conservation Commission.*

CALLING SHOTS BY THE "CLOCK" SYSTEM

The clock system is used for accurately describing the location of a shot on a target. Imagine that the target is the face of a clock with 12 o'clock directly above the bull's-eye, 6 o'clock directly below the bull's-eye, 3 o'clock to the right of the bull's-eye, and so on. Then if your coach who is spotting for you calls out that you have an eight at 9 o'clock, you will know that your shot struck the target in the 8-ring directly to the left of the bull's-eye.

For outdoor shooting the same system is used for indicating the direction of the wind. Imagine the range as the face of a clock, with you at the center, the target at 12 o'clock, 3 o'clock to the right of you, and 9 o'clock to your left. If the wind is blowing from the target toward you, it is a 12 o'clock wind; if it is blowing across the range from your left, it is a 9 o'clock wind. Then if you tell a friend that it was a cloudy day with a gusty wind veering from 9 to 12 o'clock, he will have a clear idea of the conditions under which you were shooting.—*Wildlife Crusader.*

FISHING, BOATING TOP U. S. SPORTS

According to figures credited to Bill Furlong of the *Chicago Daily News*, by the *Minneapolis Star* for July 15, "the distant wind of oblivion" is slowly overtaking baseball as the touted national sport. Many folks, of course, are still interested in the game of baseball. But they now spend most of their time and money on other sports.

For example, sport fishing attracts about 25,000,000 people of all ages. They spend \$2 billion annually—more than 25 times as much money as on baseball.

Boating fans spend about 20 times as much money as baseball fans. There are more people who own pleasure boats in the U. S. than people who attend major league baseball games.

Golfers spend about six times as much money on their sport as baseball fans spend on theirs. Bowlers spend four times as much.

There can be little doubt that fishing and boating—closely allied activities—are the major focal points of outdoor recreational interest in the U. S. today.—*Sport Fishing Institute Bulletin.*

GOVERNOR FOSS VISITS CONSERVATION EXHIBIT

South Dakota Governor Joe Foss visited the Iowa Conservation Commission's traveling exhibit during a July showing at Exira in Audubon county.

Foss left the exhibit with a high regard for it. In fact, he observed to exhibit personnel, it might be good example for his state to copy



Jim Sherman Photo.

Make no mistake about it, studying trees and waiting is one of the most effective ways of hunting squirrels. If our hunter remains quiet and keeps movement to a minimum, things should "pop" within a half-hour. If squirrels are not seen in that time, he would do well to seek another spot.

Squirrels . . .

(Continued from page 165)

Squirrel hunting—successful—requires a deep understanding at the outset. Squirrel hunting—is indeed lazy business! Laziness, particularly when applied to squirrel hunting, connotes a couple of things—slow movement with frequent stops and fairly long periods of sitting and waiting.

Emphasis on the sitting and waiting should probably be made since (1) it gets us into our story a little handier, and (2) it is probably the most popular and certainly one of the most productive methods of hunting squirrels.

Find a good spot, like a woodlot's boundary between timber and a cornfield, plant yourself down under a tree, lean back and wait. Within a half-hour, you should see squirrels moving through the "run"—that is, if you're ever going to see them! If you don't have luck the first half-hour, you would probably do well to seek another place. Under ordinary circumstances though, you should see plenty of squirrel traffic across the "run" or "lane" as they scamper to and from the timber and their dinner table.

Waiting, of course, requires patience, and this attribute the squirrel hunter must have. It may be some consolation for the hunter to know that for every minute spent in waiting there is that much more chance of success. Because of time lost that otherwise might be productive in another area, however, a wait longer than half an hour won't put many squirrels in the bag by quitting time.

Creek Areas

Other areas in or near timber that are productive are those situated near creeks. This is particularly true during hot days which bring squirrels out in search of water. Place yourself where you can get a good view of a stretch of creek or be alert for squirrels when you walk such stretches and

you can have some sporty shooting.

If you happen to be the type of hunter who prefers to "walk hunt," it's doubly important that your clothing blends well and that you let caution be your guide. Don't make the mistake of moving too fast, but carefully stalk your quarry as slowly and silently as you can. Perhaps the most common fault of all hunters is a tendency to work too fast for their game. A fast gait may get you from one end of the woodlot to the other in a hurry, but you'll leave plenty of squirrels behind to watch your departure—squirrels that got the "tip-off" of your approach by sudden movements long ago and had plenty of time to get out of sight.

When you walk, do it with a heel-and-toe action and avoid stepping on dry sticks that might give away your approach. Most squirrel hunters like light, comfortable shoes (sneakers are considered good) that help them walk as stealthily as possible. Be alert to any movement on the ground or in the trees. As you walk, stop often and study each tree carefully from the ground as far up as you can see. Study each crotch and follow each limb out to its end. Look for out-of-the-ordinary shaped knots or bulges on trees, both trunks and limbs. With practice, the hunter often can detect squirrels silhouetted against the sky if he trains his eyes to watch for irregularly shaped and furry bulges on tops and sides of limbs. Skilled eyes can also penetrate fairly dense foliage for any tell-tale color that is confirmed with a little study as a hiding "bushy-tail." And watch for that "bushy" tail that is so often a dead giveaway. Squirrels do an equitable job of it, but they frequently have trouble getting their tails completely out of sight.

Continue to be cautious even after you have identified your quarry. Move in carefully until you get that good, clean shot. And

before you shoot—remember the range of your rifle. If you're not absolutely sure that it will travel without harming humans or livestock—take another angle or pass up the shot! There is always another—a safer—shot for the careful, considerate hunter!

Futile Efforts

The squirrel hunter doesn't spend much time at his sport before he discovers that certain things that he does or is tempted to do might just as well be discarded as futile. Other methods are worth storing up for future outings.

Among the things under the heading of futility are "nest shooting" and "hole waiting." Taking pot shots at every nest in the timber won't put many squirrels in the bag for most will be vacant at the time they are shot into. The few the hunter might find occupied will more often than not result in wasted game. The wounded squirrel will never make it out of his nest!

"Hole waiting" is equally unproductive, for once in the comfort of his tree home, the advantage is all to the everlasting credit of the squirrel. He's not likely to give up the old fireside at this point. In fact, he's liable instead to curl up for a nice long "snooze" while the hunter waits and fumes.

As with a great many things, there are "tricks of the trade" in squirrel hunting that are worth knowing and remembering.

By nature, the squirrel is a curious animal and by appealing to this characteristic, the hunter sometimes can turn failure into success. Use of a fox call will sometimes lure a squirrel out of a hole for a looksee, unless he is unusually wary. Likewise, a squirrel that has been "downed" by a shot will sometimes put others on the run or bring them out to see what the commotion is about. It's

smart squirrel hunting, then, for the hunter to wait and watch the tree for awhile before he picks up his game. A little wait may result in a "double."

The hunter technique of "freezing" and remaining motionless often will prompt a squirrel to calm his anxiety and stop long enough for the hunter to take a shot. When a squirrel is on the opposite side of a limb from his adversary, slow and cautious movement under or to the other side of the tree sometimes will go undetected to the squirrel and give the hunter opportunity to score a shot he would never have gotten if he had "rushed" things.

What about time of day and weather as factors in squirrel hunting? They are important. Morning and evening hours seem to be the most active ones for squirrels, peaking from 8 to 10 a.m. Weatherwise, a good formula to follow is that squirrel activity decreases with increases in wind. On overcast or stormy days, squirrel activity diminishes from fair to zero, depending upon severity of the weather.

Whether the squirrel hunter hunts in morning or evening, as a diversion from fall fishing or to get the old "eagle eye" in shape for the duck season, squirrel hunting calls for the "take it easy" kind of living that is all too lacking in this day and age. And whether the hunter sits and loafs or walks a bit for his squirrels is of little consequence for he'll return home minus the worn-out feeling.

And that's just as well for the household chores will probably still be waiting.

One of the tiniest hoofed animals is the mouse deer or chevrotain of tropical Asia and Africa. About a foot high, the male is hornless but has short tusks.

FOE OF GOOD FISHING: YOUR NAME IS MUD!

So far as we can determine, the greatest common enemy of good fishing water is MUD—valuable top soil that has been washed into our streams by erosion due to faulty land management practices. Whether suspended in the water, making it turbid, or deposited on the bottom of a lake or stream as silt, it destroys fish and fishing opportunities. Soil belongs on the land where it is valuable, not in the water where it becomes harmful.

Research has established that fish grow more rapidly in clear waters. Bass in clear ponds, for example, increased their weight six times while the bass in muddy ponds were doubling their weight. It has further been proved that fish reproduce more successfully in clear water and that food (plankton) is thirteen times more plentiful in clear water. These microscopic organisms need light to be able to grow—and light can't penetrate muddy waters.

Muddy waters make poor fishing and they are also a symptom that our land is being robbed of its richness. Already, according to the U. S. Department of Agriculture, we have lost by erosion the use of 25,000,000 acres of once highly valuable cropland and 75,000,000 acres of land which was once good for marginal farming. Every year an additional 500,000 acres are washed away. Erosion costs our land owners \$557,000,000 every year.

To successfully combat any enemy you must first know who he is—put this dirty blackguard high on your list of undesirables—MUD.

Then, do whatever you can to get rid of him—an active interest in the conservation program of your local rod and gun club is a good place to start. Make a speech, plant a tree, write your Congressman.—R. F. "Dick" Jennings, Pennsylvania Angler.

DUCK HUNTING HOURS

CENTRAL STANDARD TIME

STATE OF IOWA—30 MINUTES BEFORE SUNRISE SCHEDULE AND SUNSET SCHEDULE

1957 IOWA CONSERVATION COMMISSION

(Note: This table has been compiled from official schedules furnished by the Weather Bureau Stations listed. A schedule from Omaha, Nebraska, Station is used because there is no station in southwestern Iowa. The difference in time between stations should be taken into consideration in figuring the exact time at your particular location.)

	DAVENPORT		BURLINGTON		DUBUQUE		KEOKUK		WATERLOO		DES MOINES		OMAHA, NEBR.		SIOUX CITY	
	30 Min. Before Sunrise	Sunset	30 Min. Before Sunrise	Sunset	30 Min. Before Sunrise	Sunset	30 Min. Before Sunrise	Sunset	30 Min. Before Sunrise	Sunset	30 Min. Before Sunrise	Sunset	30 Min. Before Sunrise	Sunset	30 Min. Before Sunrise	Sunset
Oct. 5	5:32	5:38	5:34	5:40	5:34	5:38	5:36	5:42	5:40	5:44	5:45	5:50	5:54	6:00	5:57	6:01
6	5:33	5:37	5:34	5:39	5:34	5:38	5:37	5:41	5:41	5:43	5:46	5:49	5:54	5:59	5:57	6:01
7	5:34	5:36	5:35	5:38	5:36	5:36	5:38	5:39	5:42	5:41	5:46	5:48	5:56	5:58	5:58	5:59
8	5:36	5:35	5:37	5:36	5:37	5:34	5:38	5:39	5:43	5:40	5:48	5:46	5:57	5:56	5:59	5:57
9	5:37	5:33	5:38	5:34	5:38	5:33	5:39	5:37	5:44	5:38	5:48	5:44	5:58	5:54	6:00	5:56
10	5:38	5:31	5:39	5:33	5:39	5:31	5:40	5:36	5:45	5:36	5:50	5:43	5:59	5:53	6:01	5:54
11	5:39	5:29	5:40	5:31	5:40	5:30	5:41	5:34	5:46	5:35	5:51	5:41	6:00	5:51	6:03	5:52
12	5:40	5:28	5:41	5:30	5:41	5:28	5:43	5:32	5:48	5:33	5:52	5:40	6:01	5:50	6:04	5:51
13	5:41	5:26	5:42	5:28	5:42	5:26	5:44	5:31	5:49	5:31	5:53	5:38	6:02	5:48	6:05	5:49
14	5:42	5:24	5:43	5:27	5:44	5:25	5:45	5:29	5:50	5:30	5:54	5:37	6:03	5:47	6:06	5:48
15	5:43	5:23	5:44	5:25	5:45	5:23	5:46	5:28	5:51	5:28	5:55	5:35	6:04	5:45	6:07	5:46
16	5:44	5:22	5:45	5:24	5:46	5:21	5:47	5:26	5:52	5:26	5:57	5:33	6:06	5:43	6:08	5:44
17	5:45	5:20	5:46	5:22	5:47	5:20	5:48	5:25	5:53	5:25	5:57	5:32	6:06	5:42	6:09	5:43
18	5:47	5:19	5:47	5:21	5:48	5:18	5:49	5:23	5:55	5:23	5:59	5:30	6:08	5:40	6:11	5:41
19	5:49	5:18	5:49	5:19	5:49	5:17	5:50	5:22	5:56	5:22	6:00	5:29	6:09	5:39	6:12	5:40
20	5:50	5:16	5:50	5:18	5:50	5:15	5:51	5:21	5:57	5:20	6:02	5:27	6:11	5:37	6:13	5:38
21	5:51	5:15	5:51	5:16	5:52	5:14	5:52	5:19	5:58	5:18	6:02	5:26	6:11	5:36	6:15	5:36
22	5:52	5:14	5:52	5:15	5:53	5:12	5:53	5:18	5:59	5:17	6:04	5:24	6:13	5:34	6:15	5:35
23	5:53	5:12	5:53	5:13	5:54	5:11	5:54	5:17	6:00	5:16	6:04	5:23	6:13	5:33	6:17	5:33
24	5:54	5:11	5:54	5:12	5:55	5:09	5:55	5:15	6:02	5:14	6:06	5:21	6:15	5:31	6:18	5:32
25	5:55	5:10	5:55	5:10	5:56	5:08	5:57	5:14	6:03	5:13	6:06	5:20	6:15	5:30	6:20	5:30
26	5:56	5:08	5:56	5:09	5:58	5:06	5:58	5:13	6:04	5:12	6:07	5:19	6:16	5:29	6:21	5:29
27	5:58	5:06	5:58	5:08	5:59	5:05	5:59	5:11	6:05	5:10	6:10	5:17	6:19	5:27	6:22	5:27
28	5:59	5:05	5:59	5:06	6:00	5:04	6:00	5:10	6:06	5:09	6:10	5:16	6:19	5:26	6:23	5:26
29	6:00	5:03	6:00	5:05	6:01	5:02	6:01	5:09	6:08	5:07	6:12	5:14	6:21	5:24	6:24	5:25
30	6:01	5:02	6:01	5:04	6:02	5:01	6:02	5:07	6:09	5:06	6:13	5:13	6:22	5:23	6:26	5:23
31	6:02	5:01	6:02	5:02	6:04	5:00	6:03	5:06	6:10	5:05	6:13	5:12	6:22	5:22	6:27	5:22
Nov. 1	6:03	4:59	6:04	5:01	6:05	4:58	6:04	5:05	6:11	5:03	6:16	5:10	6:25	5:20	6:27	5:21
2	6:05	4:58	6:05	5:00	6:06	4:57	6:05	5:04	6:13	5:02	6:17	5:09	6:26	5:19	6:30	5:19
3	6:06	4:57	6:06	4:59	6:08	4:56	6:07	5:03	6:14	5:01	6:18	5:08	6:27	5:18	6:31	5:18
4	6:07	4:56	6:07	4:58	6:09	4:55	6:08	5:01	6:15	5:00	6:19	5:07	6:28	5:17	6:32	5:17
5	6:08	4:55	6:08	4:57	6:10	4:53	6:09	5:00	6:16	4:59	6:20	5:06	6:29	5:16	6:33	5:16
6	6:10	4:54	6:10	4:56	6:11	4:52	6:10	4:59	6:18	4:57	6:22	5:05	6:31	5:15	6:35	5:14
7	6:11	4:52	6:11	4:54	6:12	4:51	6:11	4:59	6:19	4:56	6:23	5:03	6:32	5:13	6:36	5:13
8	6:12	4:51	6:12	4:53	6:14	4:50	6:12	4:57	6:20	4:55	6:24	5:02	6:33	5:12	6:37	5:12
9	6:13	4:50	6:13	4:52	6:15	4:49	6:14	4:56	6:21	4:54	6:25	5:01	6:34	5:11	6:38	5:11
10	6:14	4:49	6:14	4:51	6:16	4:48	6:15	4:55	6:23	4:53	6:26	5:00	6:35	5:10	6:39	5:10
11	6:15	4:48	6:15	4:51	6:18	4:47	6:16	4:54	6:24	4:52	6:27	4:59	6:36	5:09	6:41	5:09
12	6:17	4:47	6:16	4:50	6:19	4:46	6:17	4:54	6:25	4:51	6:29	4:58	6:38	5:08	6:42	5:08
13	6:18	4:46	6:18	4:49	6:20	4:45	6:18	4:53	6:27	4:50	6:30	4:57	6:39	5:07	6:43	5:07
14	6:19	4:45	6:19	4:48	6:21	4:44	6:19	4:52	6:28	4:49	6:31	4:57	6:40	5:07	6:44	5:06
15	6:20	4:44	6:20	4:47	6:22	4:43	6:20	4:51	6:29	4:48	6:32	4:56	6:41	5:06	6:46	5:05
16	6:21	4:43	6:21	4:46	6:23	4:42	6:22	4:50	6:30	4:47	6:33	4:55	6:42	5:05	6:47	5:04
17	6:23	4:43	6:22	4:45	6:24	4:42	6:23	4:49	6:32	4:46	6:35	4:54	6:44	5:04	6:49	5:03
18	6:24	4:42	6:23	4:45	6:26	4:41	6:24	4:49	6:33	4:45	6:36	4:53	6:45	5:03	6:50	5:02
19	6:25	4:41	6:25	4:44	6:27	4:40	6:25	4:48	6:34	4:44	6:37	4:53	6:46	5:03	6:52	5:01
20	6:26	4:41	6:26	4:43	6:28	4:39	6:26	4:47	6:35	4:44	6:38	4:52	6:47	5:02	6:52	5:01
21	6:27	4:40	6:27	4:43	6:29	4:39	6:27	4:47	6:37	4:43	6:39	4:51	6:48	5:01	6:54	5:00
22	6:28	4:39	6:28	4:42	6:31	4:38	6:28	4:46	6:38	4:42	6:40	4:51	6:49	5:01	6:55	4:59
23	6:30	4:39	6:29	4:42	6:32	4:37	6:29	4:46	6:39	4:42	6:42	4:50	6:51	5:00	6:55	4:58
24	6:31	4:38	6:30	4:41	6:33	4:37	6:31	4:45	6:40	4:41	6:43	4:50	6:52	5:00	6:57	4:58
25	6:32	4:37	6:31	4:41	6:34	4:36	6:32	4:45	6:40	4:40	6:44	4:49	6:53	4:59	6:59	4:57
26	6:33	4:37	6:32	4:40	6:35	4:36	6:33	4:44	6:43	4:40	6:45	4:49	6:54	4:59	7:00	4:57
27	6:34	4:36	6:33	4:40	6:36	4:35	6:34	4:44	6:44	4:39	6:46	4:48	6:55	4:58	7:01	4:56
28	6:35	4:36	6:34	4:39	6:37	4:35	6:35	4:43	6:45	4:39	6:47	4:48	6:56	4:58	7:02	4:56
29	6:36	4:35	6:35	4:39	6:38	4:35	6:36	4:43	6:46	4:38	6:48	4:47	6:57	4:57	7:03	4:56
30	6:37	4:35	6:36	4:39	6:40	4:34	6:37	4:43	6:47	4:38	6:49	4:47	6:58	4:57	7:04	4:55
Dec. 1	6:38	4:35	6:37	4:38	6:41	4:34	6:38	4:42	6:48	4:38	6:50	4:47	6:59	4:57	7:05	4:54
2	6:39	4:34	6:38	4:38	6:42	4:34	6:39	4:42	6:49	4:37	6:51	4:46	7:00	4:56	7:06	4:54
3	6:40	4:34	6:39	4:38	6:43	4:33	6:40	4:42	6:50	4:37	6:52	4:46	7:01	4:56	7:07	4:54
4	6:41	4:34	6:40	4:38	6:44	4:33	6:41	4:42	6:51	4:37	6:53	4:46	7:02	4:56	7:08	4:54
5	6:42	4:34	6:41	4:38	6:45	4:33	6:42	4:42	6:52	4:37	6:54	4:46	7:03	4:56	7:09	4:54
6	6:43	4:34	6:42	4:38	6:46	4:33	6:43	4:42	6:53	4:37	6:55	4:46	7:04	4:56	7:10	4:54
7	6:44	4:34	6:43	4:38	6:47	4:33	6:44	4:42	6:54	4:37	6:56	4:46	7:05	4:56	7:11	4:54
8	6:45	4:34	6:44	4:38	6:48	4:33	6:45	4:42	6:55	4:37	6:57	4:46	7:06	4:56	7:12	4:54
9	6:46	4:34	6:45	4:38	6:48	4:33	6:45	4:42	6:56	4:37	6:58	4:46	7:07	4:56	7:13	4:54
10	6:47	4:34	6:46	4:38	6:49	4:33	6:46	4:42	6:57	4:37	6:59	4:46	7:08	4:56	7:14	4:54
11	6:48	4:34	6:47	4:38	6:50	4:33	6:47	4:42	6:58	4:37	7:00	4:46	7:09	4:56	7:15	4:54
12	6:49	4:34	6:47	4:38	6:51	4:33	6:48	4:42	6:59	4:37	7:00	4:46	7:09	4:56	7:16	4:54
13	6:49	4:34	6:48	4:38	6:52	4:33	6:49	4:42	6:59	4:37	7:01	4:46	7:10	4:56	7:16	4:54

The "bald" eagle has a fully feathered head. Its head feathers are white. "Bald" in the days when the eagle was being named, retained its old meaning of "white." It was in that sense that it was used.

Some animals can glide through the air for a ways, but bats are the only animals that can fly.

The pendant nests of the Baltimore orioles are marvels of weaving. They are strong enough to support many times the weight of the brood.

A porcupine doesn't roll itself into a ball when danger threatens but simply arches its back and hides its nose between the two forepaws.

A bee can sting only once because it loses its stinger. However, you may get repeat performance from wasps, hornets, and yellowjackets.

When full grown, the ring-necked pheasant is about the size of a white leghorn hen. Cocks weigh two and a half to three pounds and hens about two pounds.

The fur seal goes ashore only once a year, on the Pribilof Islands in the Bering Sea. The rest of the time he never sees land or any fresh water except rain.

The savage soldier ant is so tenacious it will allow itself to be pulled apart rather than to relax the grip of its jaws. Even elephants are afraid of them.