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Volume 22

October, 1963

Number 10

# TIPS FOR BOWHUNTING IOWA DEER



The Iowa bowhunter has enjoyed high success during past bowhunting seasons for Iowa deer.

George Tovey Photo.

## YOUR FIRST BOWHUNT?

Tom Ballard

Game hunting in Iowa with gun or bow was unheard of a few years ago. Today the Iowan equipped with bow and arrow and some knowledge of white tail deer habits has a good chance of bagging his limit this fall.

You might think this would only require a hunter, a weapon, and a quiver, but many items and ideas can add much to your hunting success and enjoyment.

The modern hunting bow of fiber glass and/or wood is designed as a powerful weapon and should never be considered a toy or as something that is not dangerous. Although a longer bow is more stable to shoot, a bow of shorter length is easier to get through the brush quietly. The new bowhunter has to strike a happy medium between his accuracy with the bow and ability to silently stalk with it.

If you are wondering why the deer don't leave the county at the sound of the loud TWANG of the bowstring, the answer is simple.

Hunters put rubber buttons on the string near the tips that serve a dual purpose. The buttons stop the string noise and will not allow weeds to catch between string and bowtip.

### Arrows

Hunting arrows are usually matched in spine or stiffness to the individual bow pull. The minimum bow weight or pull that can be used for deer hunting in Iowa is 40 pounds. Arrows that are not spined for the hunter's bow will either break or follow a very erratic flight path. Judge the broadhead arrow points on quality of strength, sharpness, and weight.

### Quivers

Each type of quiver has its own advantage or disadvantage. The back or common type of quiver can carry many arrows and usually has a small pouch to carry extra points, glue, pocket knife, small pliers to extract points from trees, extra bowstring, and an apple for that nine o'clock break after an early morning stand and stalk. This type of quiver is somewhat noisier and more difficult to handle than the hip quiver.

The hip quiver is usually attached to the hunter's belt or pant.

(Continued on page 80)

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COMMISSION MINUTES Des Moines, September 3 COUNTY CONSERVATION ACTIVITIES

Franklin County received approval for the acquisition of thirty acres of land on the West Branch of the Cedar River at a total cost of \$1,500 to be used as a river access and game area.

Marshall County received approval for the acquisition of 9.11 acres of land as a gift for the development of a county park and a highway safety rest area adjacent to U. S. Highway 30.

Pottawattamie County received approval for the acquisition of 105 acres of land at a total cost of \$19,000 for the development of a multiple-use recreational area located on the West Nishnabotna River.

Delaware County received approval for a development plan for the Turtle Creek County Park located on the south shore of Lake O'delhi. Most of the 109 acres will be retained in its natural state as a forest preserve and game habitat area with the development being done near the lake.

FISH AND GAME

The Commission approved an administrative order designating certain areas of Lake Ahquabi, Lake Darling, Lake Wapello and Green Valley Lake as inviolate refuges during the waterfowl hunting season.

The Commission met with a delegation of hunters from the Burlington area to discuss the current hunting seasons.

A flowage easement on the Miami Lake Area in Monroe County was approved for 99 years at a cost of \$400 for 20 acres.

Approval was given for an option for five acres of land at a total cost of \$90 on the Raccoon River in Dallas County for a fishing access area.

LANDS AND WATERS

An Attorney General's opinion was read stating that the Commission does not have authority to sign a management agreement with the City of Bellevue for the operation of a sewage disposal plant on state land, and unless this

land had no conservation value it could not be conveyed.

A delegation from the State Highway Commission met with the Commission to ask for jurisdiction over 32.8 acres of land in Viking Lake State Park for use in building U. S. Highway 34. Request was granted.

The Jasper County Engineer received approval for the use of one and one-half million gallons of water from Rock Creek Lake for use in highway construction in that county on the condition that the removal would constitute less than a one inch drop in the lake level.

Approval was given for the Iowa Electric Light and Power Company to purchase a power line within Lake MacBride State Park at a cost of \$1,200.

An option for seven acres at a cost of \$15 per acre in the Stephens Forest Area in Lucas County was approved.

An option was approved for 63 acres at a total cost of \$1,000 in the Stephens Forest Area.

An option was approved for thirty acres at a total cost of \$1,577 in the Yellow River Forest Area in Allamakee County.

An option was refused for six acres of land at a cost of \$500 per acre adjacent to Pikes Peak State Park near McGregor.

A temporary permit was approved for skiing to continue in Pilot Knob State Park.

Condemnation proceedings were authorized on six parcels of land on the Cass County artificial lake site.

The Commission recommended to the Executive Council that two small parcels of land be deeded to the Cities of McGregor and Bellevue, as they are no longer desirable for conservation purposes.

GENERAL

The Commission approved a statement of policy concerning flood control work on the Little Sioux River and tributaries and authorized Dr. Kinney and Earl Rose to represent the Commission at a hearing concerning this matter September 9, at Ida Grove.

Travel was approved for the Prairie Grouse Technical Council at Nevada, Missouri, and the Lewis and Clark Planning Meeting at Portland, Oregon.

A joint meeting was held with the Natural Resources Council and the Board of Control for a discussion of mutual problems.

Once a porcupine picks on a wintering spot, it rarely wanders far away. Sometimes it will stay in one tree for weeks at a time during zero weather.

If you can imitate the sound of a rabbit in distress, chances are you can call a fox or a bobcat. The oldtime Indian did this by sucking on the back of his hand to make a long squeak.

WETLANDS

Roberts Mann

This bulletin is addressed to the young people who will determine and must share the future of our country. As citizens you will have responsibilities. Among them will be the conservation of its natural resources.

You have learned a lot about why and how we are endeavoring to conserve and use wisely the forests, soils, waters, minerals and wildlife. You may not know much about still another resource, nor that it is being destroyed—largely by drainage for agricultural purposes but also by flood control projects, industrial and residential developments, dumps and pollution. That resource is what remains of our precious natural WETLANDS.

They are important and must be preserved. They not only provide the habitat for waterfowl, for fur bearers such as muskrats, mink and beaver, and for many upland game birds and mammals, but also for hundreds of non-game mammals, birds, amphibians and reptiles. They are increasingly important for the recreation, education and enjoyment of PEOPLE.

The term "wetlands" is used to designate low areas covered with shallow and sometimes temporary or intermittent waters, but not streams, deep lakes and reservoirs. It includes marshes, sloughs, swamps, bogs, wet soggy meadows, and also bottomlands subject to overflow by rivers and creeks. It includes shallow lakes, ponds and potholes characterized by growths of aquatic plants such as cattails, bulrushes, reeds, arrowhead, smartweeds, and a host of marsh grasses and sedges—even though many ponds and potholes may become dry in summer.

Those wetlands are community

centers for a myriad forms of wildlife—from microscopic animals in the water to the deer that come to browse and drink. Muskrats build houses there; prowling mink, raccoons, opossums and foxes leave tracks on the shores; rabbits, pheasants, quail and turkeys find food and hiding places around them. Hungry herons, egrets and bitterns stand like statues in the shallows; redwing blackbirds nest among the cattails; martins, swallows, dragonflies and bats pursue insects on the wing; ducks, trailed by ducklings in single file, glide in and out of the vegetation in summer.

Science teachers and naturalists bring groups to wetlands to study and collect aquatic plants, insects, crayfish, the eggs and tadpoles of frogs, toads and salamanders, as well as jars of water teeming with tiny organisms. Bird watchers find more kinds around wetlands than anywhere else. Youngsters come there for fun, frogs and turtles. Some of us go to hear the chorus of frog and toad songs in spring, to watch the ducks, coots and sandpipers, or wade bare-footed along a muddy shore. This nation surely has enough farm and pasture land already to eat and wear; enough surplus crops in storage. Let's preserve the wetlands. As our population grows and its leisure time increases, wetlands become more important to the culture and happiness of Americans. Man does not live by bread alone.

What happens to the wetlands will depend upon your understanding, your convictions and your votes, so remember the Chinese proverb: It is better to light a candle than to curse the darkness.

OUTDOOR EDUCATION NEWS

Tom Ballard

LAND FOR LEARNING

All of the interest of this generation is not in outer space. Chickasaw County Conservation Board is vitally interested in the space under our feet and the conservation attitudes of our most important resource—boys and girls.

Chickasaw County is probably the first county in Iowa to embark upon a school-county outdoor laboratory and school forest project.

The Twin Ponds project is on a biologically diverse 157-acre tract six miles southwest of New Hampton. The area as it was purchased in 1961 was partially marginal land subject to the spring flooding of the west branch of the Wapsipinicon River. One pond was fed by fresh water and the other seasonably filled by flooding. In addition, a higher prairie area, and a timbered hillside littered with junk, car bodies, and rubbish rounded out the land acquired.

On August 23, a teachers workshop was held at Twin Ponds. The littered area had been cleared, a new well was in use, restroom facilities available, and a brand new shelter, all made of native Iowa materials, provided ample proof of the transformation of this area.

The County Conservation Board, Chickasaw County Schools, U. S. Soil Conservation Service, Extension Service, and other state agencies will cooperate to develop this area into a living library for students, teachers, and laymen of the Chickasaw area. During the afternoon of the workshop, over forty teachers and many others from this area saw the diversity of flora and fauna in the Wapsi River pond, a prairie, and the woods. One teacher found a piece of petrified wood along the access road. Others were surprised to learn of different types of plant galls, milkweed and the monarch butterfly.

(Continued on page 78)

## GET READY FOR HUNTING!

### Some Last Minute Tips

Jack Kirstein

If you are looking forward to your own brand of hunting excitement this fall, then it is certainly time to take another look at those favorite firearms and be sure that they are as ready as you are.

Rust and neglect have a way of dulling the tough steel of a firearm's parts and reprimanding the careless gun owner with rust.

Now, before it is too late, take the time to clean that trusty shot-gunner and make any repairs you have forgotten to do in the heat of summer camping and fishing.

Oil and water are the greatest enemies of cleaners invented. Here a little caution is necessary. You must be sure to completely dry all parts, immediately after a sudsy cleaning. Followed by a light oiling, this bath may mean the difference between a shot you get off successfully and a jammed gun in the field.

Among many others, the use of that old "number 9" cleaner is the necessary light oiling may be that is needed to put the stamp on their equipment.

Rust has set in and you find yourself in trouble, don't panic.

The use of a fine soft steel wool usually loosens those rust spots, and if followed by a good solvent and the inevitable oil, you may be back on the track again.

Heavy pitting has left its mark, and the rust has removed some of the blueing, a gunsmith may be your best friend at the moment.

Could your favorite gun doctor be too busy to take your gun, and if it back in time for your next trip, you can give a stop-blueing yourself that might surprise you and turn out as good as you would expect from the expert.

Field-blueing is the operation that can be applied by the novice to his own guns.

#### Blueing a Gun

The first step in this operation is to de-grease the gun so that the blueing agent will be free to work on the metal parts.

De-greasing is best accomplished with an alcohol washing of the areas to be blueed. Gasoline is also used, but must be used with caution and preferably out-of-doors, to escape the dangers of fire and possible poisoning of the strong fumes.

Be sure to follow the directions on the blueing kit that you purchase. Take no short cuts, and if you say do something, do it.

Usually the next step is the actual blueing itself. This is actually a cold acid-base bath that is applied with a small swab of cotton. Several light and even applications may be needed to bring the gun up to the color you want.

The blueing agents, are purpose-made to require several applica-



Jack Kirstein Photo

If you are a "last-minute" man, time is running out to get your gear in shape for the '63 hunting season. Some attention to equipment now may save you disappointment in the field.

tions rather than one-shot blueing. The cold aspect of the operation also retards the speed and depth of the blueing.

What this means to you is that you won't ruin the appearance of your gun with the first application.

After the blueing is applied, there is a period of time usually stated on the bottle of blueing, that is needed to allow the blueing agent to work. Don't shorten this time, as it is carefully computed by the manufacturer and less time only adds to the number of steps you will have to take.

When the time is up, wash the metal in water to set the blueing, and then a light coat of oil in a small area will permit you to see how deep a blue you have achieved.

If it is not deep enough, start all over with the de-greasing step and go through it again. By the second application, you will know how many times it will take to bring the gun up to your expectations.

This may or may not be a professional looking job when you are finished, but it will certainly protect the gun until the time when you can get it to a 'smith to have it redone.

Don't forget that shooting a few traps or a little skeet are the best remedy for "can't hit a thing-itis" and you'll be more than ready for that big day when it comes.

Many authorities consider that the most dangerous of all the animals found in North America is a "mean" domestic bull.

A muskrat is not a rat but an amphibious rodent of the vole group and more nearly related to the beaver than to the rat.

Deer fawns are devoid of any telltale scent, the better to avoid the consequences of marauding predators.

When pursued, jack rabbits have been clocked at 40 miles per hour. They cover 15 to 20 feet in a leap.

### Dipper Ducks and Diving Ducks

Almost all of the wild ducks native in North America fall naturally into two groups; the Surface-Feeding Ducks and the Diving Ducks. In addition there are three species of Mergansers or fish ducks, the unique little Ruddy Duck and, in Mexico, two long-necked kinds misnamed Tree Ducks.

The surface-feeding species seldom dive, even to escape danger. When alarmed they spring from the water with a strong upward bound and are gone. They prefer ponds, sloughs and rivers where, in shallow water, they can scoop up food with their broad strainer-like bills that have fine comb-like fringes along the edges, or up-end themselves and, with their tails in the air, dabble for it on the bottom. Consequently they are commonly called "dipper ducks," "dabblers," or "puddle ducks."

This group includes many of the most brilliantly colored ducks and they are characterized by a distinctively colored and usually iridescent patch of feathers, called the speculum, in the middle of each wing. On diving ducks the speculum, if any, is usually white or gray. With few exceptions the surface-feeding ducks are more palatable and sought by hunters because more than half of their feed is vegetable matter.

The principal species are the common mallard, black duck, baldpate or American widgeon, gadwall, blue-winged teal, green-winged teal, cinnamon teal, the shoveller or spoonbill, and the wood duck—most beautiful of our wildfowl.

There are 43 kinds of diving ducks and most of them occur regularly in North America. Some are primarily sea ducks and several nest in Arctic regions. Unlike the surface-feeding ducks they get their food by diving for it—sometimes at considerable depths. Con-

sequently, inland, they frequent large deep bodies of water rather than sloughs, ponds and marshes. A few are chiefly vegetarians but, generally, their food includes much less vegetable matter and in many cases consists mainly of shellfish such as clams and mussels, crabs and other crustaceans, sea urchins, fish eggs and fish—food which causes their flesh to be less palatable than that of surface-feeding species. They taste fishy.

A diving duck has shorter legs, located farther back on the body, and larger feet distinguished by a big hind toe with a pronounced flap or lobe. These adaptations cause them to be more awkward on land but increase their ability to dive and swim rapidly. Instead of springing upward from the water, most of them patter along the surface for some distance, like an airplane on its take-off run, before becoming airborne.

In Bulletin No. 252 we discussed three species of diving ducks that commonly migrate from far north and winter along the shores of Lake Michigan: the American golden-eye, the white-winged scoter, and the noisy long-tailed oldsquaw which has been caught in fishermen's nets at amazing depths of 150 or 200 feet. The king eider and American eider—sea ducks famous for their down used in the manufacture of sleeping bags and arctic clothing—are less common.

The ring-necked duck, the scaup, and the lesser scaup or little blue-bill, are diving ducks esteemed as game birds but the redhead and the canvasback, being essentially vegetarians, are most highly regarded by epicures. The redhead was once the commonest of all diving ducks but unfortunately, due to excessive hunting and drainage of the nesting areas, they and the canvasback have become scarce. *Roberts Mann, Cook County Forest Preserve,*

# 1963 Hunting and Trapping Seasons

## OPEN COUNTIES AND LIMITS

The Conservation Commission is authorized by law to change, by administrative order, seasons, bag limits, and possession limits.

## OPEN HUNTING SEASONS

**Pheasant**—Open season: November 9, 1963-January 1, 1964, both dates inclusive. Shooting hours 8:30 a.m. to 5:00 p.m. Bag limit three (3) cock birds, possession limit nine (9) cock birds. All counties open EXCEPT: Davis, Des Moines, Henry, Jefferson, Lee, Van Buren, Wapello.

**Quail**—Open season: November 2, 1963-January 1, 1964, both dates inclusive. Shooting hours 8:30 a.m. to 5:00 p.m. Bag limit six (6) birds, possession limit twelve (12) birds. Open counties: Adair, Adams, Allamakee, Appanoose, Audubon, Black Hawk, Benton, Boone, Bremer, Buchanan, Carroll, Cass, Cedar, Chickasaw, Clarke, Clayton, Clinton, Crawford, Dallas, Davis, Decatur, Delaware, Des Moines, Dubuque, Fayette, Fremont, Greene, Guthrie, Harrison, Henry, Howard, Iowa, Jackson, Jasper, Jefferson, Johnson, Jones, Keokuk, Lee, Linn, Louisa, Lucas, Madison, Mahaska, Marion, Marshall, Mills, Manona, Monroe, Montgomery, Muscatine, Page, Polk, Pottawattamie, Poweshiek, Ringgold, Scott, Shelby, Story, Tama, Taylor, Union, Van Buren, Wapello, Warren, Washington, Wayne, Winneshiek, Woodbury.

**Hungarian Partridge**—Open season: November 9, 1963-January 1, 1964, both dates inclusive. Shooting hours 8:30 a.m. to 5:00 p.m. Bag limit two (2) birds, possession limit four (4) birds. Open counties: Buena Vista, Cherokee, Clay, Dickinson, Emmet, Hancock, Ida, Kossuth, Lyon, O'Brien, Osceola, Palo Alto, Plymouth, Sac, Sioux, Winnebago.

**Squirrel**—Open season for gray and fox squirrels: September 1 to December 13, 1963, both dates inclusive. Bag limit six (6) per day, possession limit twelve (12).

**Rabbit**—Open season for cottontail and jack: September 14, 1963 to February 23, 1964, both dates inclusive. Shooting hours 6:00 a.m. to 6:00 p.m. Bag limit ten (10) per day, no possession limit.

**Raccoon**—Open season (hunting only): 12:00 noon, October 12, 1963 to midnight February 28, 1964. No daily bag limit or possession limit.

**Weasel, Red Fox, Gray Fox, Ground Hog, Wolf-Coyote**—Continuous open season, entire state.

## DEER HUNTING

**Deer**—Open season for bow and arrow only from October 12-December 1, 1963, both dates inclusive. Entire state open.

Open season for shotgun only—**Zone I**, December 14-15, 1963 (Zone I includes the following counties: Buena Vista, Calhoun, Carroll, Cereno, Clay, Dickinson, Emmet, Franklin, Greene, Grundy, Hamilton, Hancock, Hardin, Humboldt, Ida, Kossuth, O'Brien, Osceola, Palo Alto, Pocahontas, Sac, Story, Winnebago, Worth and Wright). **Zone II**, remainder of state. December 14-16, 1963, both dates inclusive.

Daily bag limit one (1) deer, possession limit one (1) deer, season limit one (1) deer.

Shooting hours each open day for bow and arrow, one-half hour before sunrise to one-half hour after sunset. Shooting hours for shotgun season, 8:00 a.m. to 4:00 p.m.

Deer season open only to Iowa residents holding special deer licenses. Deer of any age or sex may be taken.

**Weapons**—10, 12, 16 and 20 gauge shotguns (with rifled slugs only) and bows of 40-pound pull or more with broad head arrows only will be permitted in taking deer. Crossbows or any mechanically operated bows are prohibited.

**Dogs, etc.**—The use of dogs, domestic animals, automobiles, aircraft or any mechanical conveyance, electrical devices, salt or bait is prohibited.

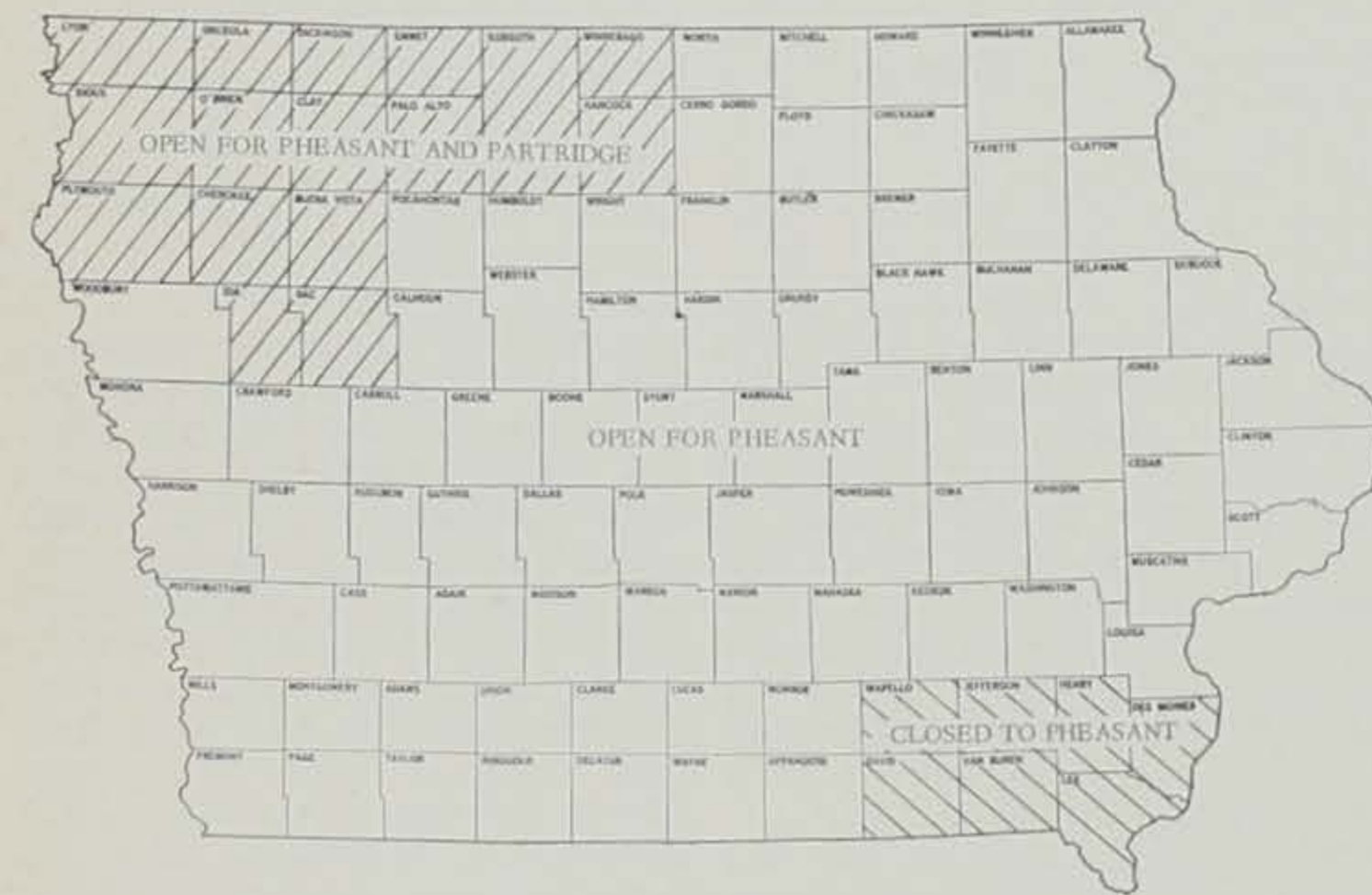
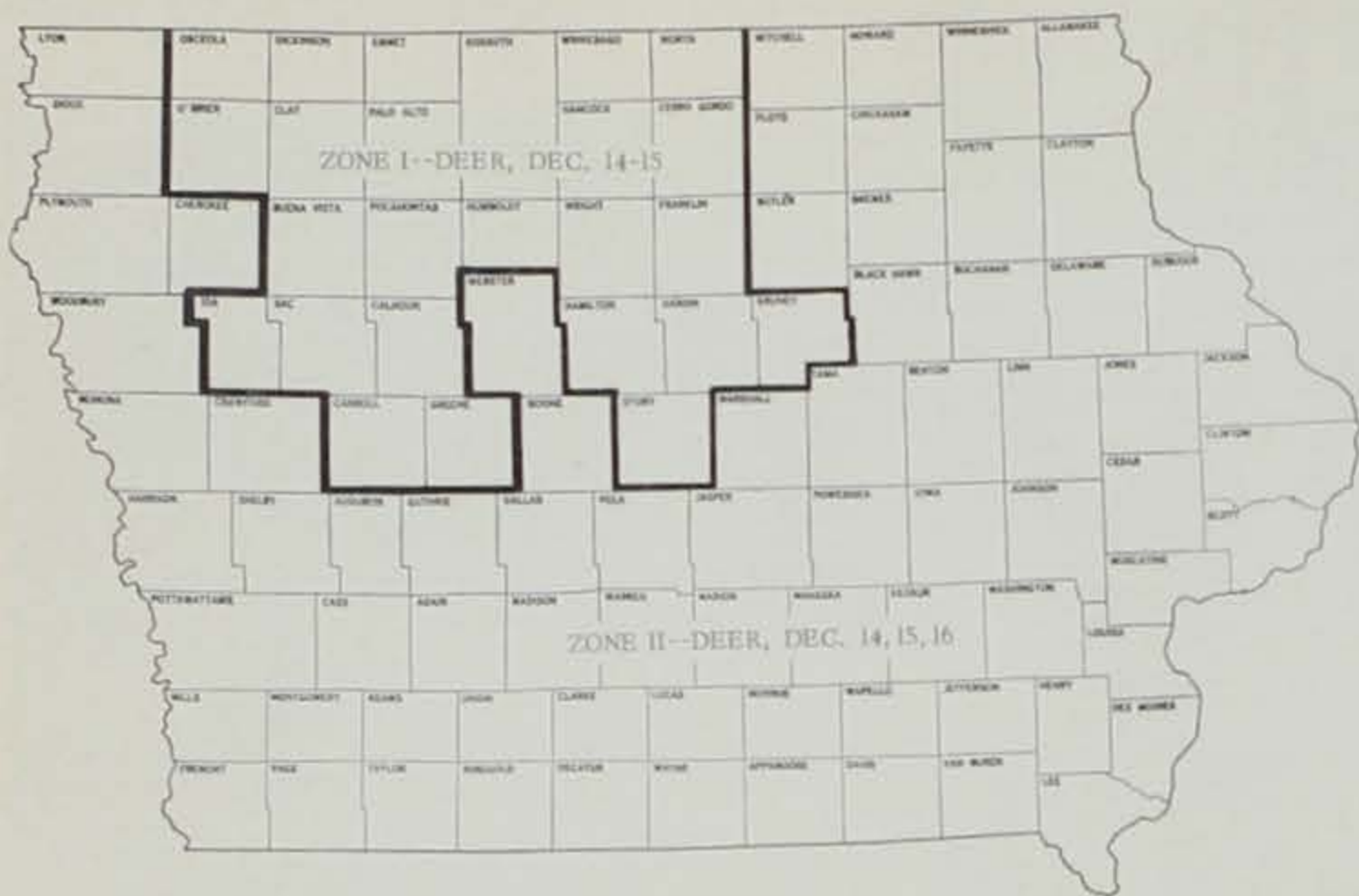
**Locking Seal**—A metal locking seal bearing license number of licensee and year of issuance must be affixed to the carcass of each deer between tendon and bone of hind leg before carcass can be transported.

**License Number and Insignia**—All hunters other than those exempted by law must possess a 1963 deer license and wear red license number and insignia provided when hunting deer.

**License Not Required**—Owners or tenants of land and their child may hunt, kill and possess one deer without a deer license—provided license is not removed from said land, whole or in part unless tagged with seal affixed to animal.

**Hunting Success Report**—A hunt report postal card provided with each license must be mailed to State Conservation Commission, Des Moines, Iowa, within three days after the close of the season, stating whether a deer is killed or not. Licensees failing to return this card may be refused licenses for subsequent seasons.

**License Applications**—All applications for deer hunting licenses for the 1963 deer hunting season must be made on forms provided by State Conservation Commission and returned to the State Conservation Commission office in Des Moines, Iowa, accompanied by check or money order in the amount of ten dollars (\$10.00). Applications



## Things You May Not Know

Although they are not known to eat meat, porcupines are very fond of bones. Presumably they eat these for the minerals.

The maximum time between drinks for the average camel is eight or 10 days. If it were not required to work during this period, it could probably last longer.

The coyote can run much faster than an ordinary dog and is more than a match for a dog of its own size and weight.

Frogs are able to sing under water because they normally sing with their mouths and nostrils closed.

The noise made by the ostrich is a roar, and at a distance it sounds similar to that of a lion.

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Jim Sherman Photo

mail have bounced back from two hard winters to offer excellent hunting possibilities this fall. Population increases are over 100 per cent better than last year.

**SEASONS—**

(Continued from page 76)

gun deer hunting licenses will be accepted from August 30, 8:00 until 4:30 p.m. September 13, 1963. There is no deadline for bow and arrow deer hunting applications. No more than 12,004 shotgun hunting licenses will be issued.

There is no limit on the number of bow and arrow deer licenses that will be issued.

**WATERFOWL**

**Ducks, Coot or Mudhen**—Open season-SPLIT SEASON: October 5 to October 13, 1963; October 26 to November 17, 1963, all dates inclusive. Entire state open. Shooting is allowed each day from sunrise to sunset except both opening days when the shooting hours will be from 12:00 noon to sunset. All times Central Standard Time.

Bag limit on ducks collectively is four daily and eight (8) in possession and on coots is eight (8) daily and sixteen (16) in possession.

Daily bag limit may not include more of the following species: (a) one hooded merganser; (b) two wood ducks; (c) two mallard or black ducks, singly or in the aggregate of both kinds. The possession limit may not include more of the following species than: (a) two hooded mergansers; (b) two wood ducks; (c) four mallard or black ducks, singly or in the aggregate of both kinds.

Five (5) American and Red-Breasted Mergansers may be taken daily and ten (10) in possession singly or in aggregate of both kinds. This is in addition to the bag limit and possession limits of other ducks.

Season is closed on Canvasback and Red Head ducks.

**Geese**—Open season: October 5-December 13, 1963, both dates inclusive. Shooting allowed from sunrise to sunset except opening day, 12:00 noon to sunset. All times Central Standard. Bag limit and possession limit five (5). Not more than two (2) of the limit may be taken of any one species, or White-fronted Geese. Only two (2) of any one species may be included in the limit. The entire bag may be made up of either Blue or Snow Geese or any combination of them.

**Sharp-shinned Snipe or Jack Snipe**—Bag and possession limit eight (8). Open season: October 5-October 13, 1963, both dates inclusive. Shooting allowed from sunrise to sunset except opening day when the shooting hours will be from 12:00 noon to sunset.

**Partridge, Geese, Grebes, Rails (Except Coot) and Gallinules, Mourning Dove, Woodcock, Swan**—No open season.

**HUNTING LICENSES**

**Residents**—Required of all residents regardless of sex except those under sixteen years of age if accompanied by a parent or guardian or any other competent adult who possesses a valid hunting license . . . . . \$2.50  
Combination hunting and fishing . . . . . \$4.50

**Non-Residents or Alien\***—Required of all non-residents and aliens for hunting . . . . .

"Upon submitting suitable evidence of legal residence in any other state, non-residents of Iowa shall be charged the same fee for a hunting license as that charged to residents of Iowa by the state in which applicant resides, provided, however, that in no case shall said fee be less than \$5.00 and provided further that if the state of applicant's residence does not provide for non-resident hunting license, the fee shall be the minimum provided for herein.

\*"Alien" shall not be construed to mean any person who has applied for naturalization papers.

**Federal Duck Stamp**—All persons who have attained the age of 16 years hunting migratory waterfowl are required to have with them an unexpired Federal Migratory Bird Hunting Stamp, validated by their signature on the stamp. These stamps, commonly called duck stamps, may be purchased at post offices for . . . . . \$3.00

**Deer License (Residents Only)**—Required in addition to small game hunting license of all residents regardless of age or sex for hunting deer.  
Bow and Arrow deer hunting license . . . . . \$10.00  
Shotgun deer hunting license . . . . . \$10.00

**TRAPPING**

**OPEN TRAPPING SEASONS**

Special regulations shall be enforced on all State Game Management Areas and Federal Wildlife Refuges. The trapping on all State Game Management Areas and Federal Refuges will be by "Permit Only" including a harvest quota on fur species to be determined by the Commission and the Bureau of Sport Fisheries and Wildlife. Permits for the State Game Management Areas are available from the State Conservation Commission, Des Moines, Iowa. The permits for Federal Wildlife Refuges are available from the various Refuge Offices.

On State Game Management Areas and the closed-to-hunting areas of the Federal Refuges, the seasons will open at noon the day following the close of the duck season, or noon November 9, 1963, whichever is the latter, and extend to midnight, December 8, 1963 for mink, and to midnight, February 28, 1964, for muskrat, beaver, badger, skunk, civet cat, opossum and raccoon.

**Mink**—Entire state open from noon November 9, 1963, to midnight December 8, 1963.

**Muskrat-Beaver**—Open entire state from noon November 9, 1963 until midnight February 28, 1964.

**Badger, Skunk, Opossum, Civet Cat**—Open entire state from noon November 9, 1963 until midnight February 28, 1964.

**Raccoon**—Open entire state from noon November 9, 1963 until midnight February 28, 1964.

**TRAPPING LICENSES**

Trapping license for legal resident of the State under sixteen (16) years of age . . . . . \$1.00  
Trapping license for legal resident of the State sixteen (16) years of age and older . . . . . \$3.00

**Non-Resident or Alien**—"Alien" shall not be construed to mean any person who has applied for naturalization papers.

"Upon submitting suitable evidence of legal residence in any other state, non-residents of Iowa shall be charged the same fee for a trapping license as that charged to residents of Iowa by the state in which the applicant resides, provided, however, that no such license shall be issued to non-residents from states that will not extend to residents of Iowa a similar privilege and provided in addition that in no case shall said fee be less than \$10.00."

Every person shall, while fishing, hunting or trapping show his license, certificate or permit, to any conservation officer, constable, sheriff, deputy sheriff, police officer, peace officer, or the owner or person in lawful control of the land or water upon which licensee may be hunting, fishing or trapping when requested by said person to do so. Any failure to so carry or refusal to show or so exhibit his license, certificate or permit, shall be a violation of this act.

Ever notice the lateral line extending from the gill openings to the tail? It's really a tube permitting mucus to secrete along the body. Beneath it is a trunk nerve branching off to all parts of the body. Some scientists believe the lateral line serves as a warning to the fish of sudden harmful temperature changes.

# BY THE LENGTH OF A FEATHER

M. E. Stempel

Quail Biologist

The quail covey rocketed out of the cover in a blur of wings. Seconds after the covey rise, a single small "squealer" quail struggled into the air and sailed a short distance: he alighted in the foxtail weeds at the edge of the corn. In the afternoon sun you could see that his tail and wing feathers were uneven and ragged. His flight was limited because of the poorly developed feathers.

In that covey each quail flew his best. Those with the longest primary flight feathers and the longest tails flew the farthest. Thus, the covey on alighting was strung out for 60 yards with the weaker squealer only 30 yards from you, while the most mature had flown over the rise and into the safety of the distant willow jungle.

Four months later you flush a covey from the same area. Up they spring with a startling "brrr"—necks bent, tails fanned out—you see the eye of one cock blink in that instant before they level off to flash away: Then on set wings they bank sharply to the right to disappear behind the thicket of elm saplings on the creek bank. There was no squealer. Three weeks ago his ragged feathers were scattered by a cat, not far from where you stood. The half-wild cat marked down the weaker quail as it alighted, and the sharp eyes found the small bird. Quick claws brought him down before the weak wings could beat through the overhead tangle of brown foxtail weed cover.

### Feathers and Flight

It was once thought that to increase the quail population it was only necessary to prevent shooting for a few years. It was reasoned that a covey of 10 quail would survive the winter and this



George Tovey Photo

The rounded tips of the feathers show this to be a young quail. Feathers play an important part in the development and survival of quail.

would mean 5 pairs of quail to bring off young the following summer. From 1916 to 1933, quail hunting in Iowa was prohibited by law.

Although legally protected, the bobwhites failed to increase. Apparently there were differences in the birds, and all could not survive. One theory was that quail would survive only in proportion to the good habitat. However, there was an unanswered question as to which quail out of a covey would live through winter. Some clues to survival were found in our records of growth and habits of quail.

Quail have ten primary flight feathers. These are moulted one at a time beginning with the innermost feather. Young will shed and regrow the first eight of these, but they retain the outer two. Adults (over one year old) shed and regrow all ten. Ability to fly depends

on stage of primary feather growth.

Moult in adults is under way at the same time it occurs in young. Thus, when young approach maturity, both young and old have some missing feathers and flight ability is similar. A short summary of the development in young is below:

- June 15, hatch date.
- July 15, 30 days old, flies a few yards.
- August 15, 60 days old, flies over 50 yards.
- September 15, 90 days old, flies strongly.
- October 15, 120 days old, flies 100 yards or more.
- November 15, flight power at a peak.

The above shows why a covey often follows the well known "scatter" pattern when alighting. The

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As Part of Your Fall Color Tour Visit . . .

## TURKEY RIVER MOUNDS

The Turkey River Mounds, on the high bluff at the junction of the Turkey and Mississippi River six miles south of Guttenberg, is a group which appears to have had a distinct ceremonial purpose. Mounds in this area seem to serve both ceremonial and burial purposes.

There are more than 30 large mounds and almost the same number of smaller mounds. One huge animal of reptilian shape is in the group. Obeying tradition, he points his nose downstream and lies on his right side.

Densely wooded, the Turkey River mounds remain today one of the midwest's most primitive tracts. The mounds appear to have played important parts in the traditions of the mound builders. Situated on high bluffs, there is a good reason to assume they have symbolized a kind of mecca in the mound builders' religion.

The peculiar layout of the local mounds, interspersed with oval shapes or animal forms, suggest that complex rites were performed by these primitive people on the bluffs. Thousands of hours obviously went into mounds construction and probably rose with the growth of a religion over the periods spanned by many generations. The mounds were built by hand and piled up by the most primitive methods.

Soil tests have shown that sections of the soil were carried in from a great distance while other parts were scraped from nearby. At a cost, in years of human lives, to build the primitive mounds probably exceeded almost any other project in Iowa, in primitive modern times.

### EDUCATION

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fly, the flower parts of ironweed and numerous other living tea-tree aids that are normally overlooked or stepped upon.

Is there any doubt of the need for education in conservation of natural resources? For a multitude of reasons more teachers, students, even in Iowa, are getting close to the outdoors than their ancestors knew well. Urbanization, increased leisure time, and population increases, and other sources of concern point to the need for more areas like one in Chickasaw County.

If we and our grandchildren are going to have resources to serve we must educate our boys and girls now. The Chickasaw County Conservation Board has taken a step toward meeting the needs of the future today, about you?



"Say, offhand do you know if Iowa has an open season on rhinoceros?"

THER—

(Continued from page 78)

ing birds fly farthest. When several coveys combine into one, weaker or younger birds fly the shortest distance. Runty quail make short flights, and adults with brooded late will make short flights since they must molt before nesting.

#### How This Is Used

From 1952 to 1959, quail wings were collected from 30 southern counties. There were 13,206 wings. Of these, 2,641 were wings of adults.

Their best quail hunting in recent years was in 1954 and 1958. In 1954 there was ten per cent of the bag with twenty per cent in 1958. The seasons of 1953 and 1955 were poor production years characterized by drought and other violent weather changes. Other years in the 1952 to 1959 period were average in production and adults made up fifteen per cent of the bag.

The most notable difference in production within similar good years was the sizeable change in the percentage of adults. Early hatchlings in 1954 may have led to early deaths of the breeders because of a train of early nesting. It was as probable that it meant that early (May and June 1954) nesting quail had regrown flight feathers and thus more of them were strong flyers and could escape hunters. A later (August) production season meant more adults bore immature feathers, they made only short flights in the hunting season they were easily located and by hunters.

All populations suffer an annual loss of eighty to ninety per cent. Hunters shoot only about ten per cent of this amount.

It is noted that there was considerable variation in ability of coveys to make strong flights. Making the poorest flights were most apt to be shot. Since coveys are capable of only short flights, these often are hunted first. Also, since they are often physically weak they are subject to destruction by disease, accident and freezing.

Since inferior birds are lost first, they are included in the annual turnover to ninety per cent turnover of the population. The hunter loses many of his kill from this turnover of the birds. In other words, the hunter may take fifteen per cent, and the other sixty-five per cent is claimed by other agents. This was proven in areas where shooting was allowed after a year of protection.

Remember how that covey was scattered with the best flyers (young or adult) being nearest the hunter: These inferior birds are most easily taken by the gunner, or the covey is taken by disease.

## Then Came Fish . . .

Carol Buckmann

"Nothing in the sea is unknown to us." These were the words of Pliny, a historian and natural philosopher in the great days of Rome, who at the time knew of 75 species of fish. Since then, over 20,000 species have been identified and new ones discovered each year.

Fish marked a revolutionary event on the evolutionary calendar as they are the first known vertebrates. By no means are they new-comers to present waters; the ancestors of today's fish date back 500 million years to the Devonian period—the Age of Fishes.

Of the four distinct classes, the true fishes with bony skeletons and vestigial air bladders, sharks and rays with soft cartilage skulls and skeletons, primitive jawless lampreys, and primitive lancelets, the true or bony fishes are by far the most numerous. If a person were so inclined, he could identify 1,400 different varieties from the inland fresh waters to the oceans.

Some, like muskellunge, trout, bass and pike or ocean giants such as the giant grouper, marlin, swordfish and sailfish, give the fisherman a fight to the finish while others like the flounder, fluke and halibut, move lazily about and are pulled up as unresisting dead weights.

The Devonian period was plagued by great droughts, forcing fish to develop a means of breathing oxygen from the free air. As a result, the vestigial air bladder characterizes true fishes. It lies between the stomach and backbone and seemingly serves no purpose. In sharks it is absent but the African lung fish use it to breathe above the water's surface.

Before the bony fishes appeared the only sea animals with hard anatomical coverings were shellfish such as clams and starfish. The first vertebrates had hard internal parts and also a protective external armor represented today only by scales. Some, such as the porcupine fish, have offensive armaments developing from their scales.

Most bony fish have scales in adulthood, but at birth scales are lacking and scale nuclei barely covers the body. As scales begin to grow, the free ends overlap the fixed ends of other scales and add an annual ring.

In the summer, when food is plentiful and the water warm, fish grow rapidly, the scales grow at an increased rate to keep up and the rings are spaced farther apart. But in the winter, growth slows and rings grow closely together forming a band. Scales are the source of valuable information. Counting them determines a fish's age, and careful examination by experts reveals whether it has



The dogfish or bowfin is one of many Iowa primitive fish. Not usually the target of fishermen, many are caught along the Mississippi. They are gamy fighters, but not favored as food.

Jim Sherman Photo

spawned and even its length at the end of each year of life.

The skin beneath the scales varies in thickness with the species. All skin is alive at the surface and needs protection of some sort as well as liquid to survive. In fish, the skin isn't in direct contact with the water as a slime covers the body, protecting it against irritants. Slime also acts as a lubricant to aid in the fish's movements through the water.

Coloration is in the skin rather than scales. By blending with the background and developing many intricate patterns, skin aids in hiding fish from enemies. Star-shaped sacs, known as chromatophores, imbedded in the skin contain pigments in the center, making this blending possible.

These colors can be strengthened or weakened as the pigments along the arms of the star are extruded or withdrawn to the center.

Although they lack eyelids, fish do sleep and can distinguish between certain colors. To maintain their equilibrium, fish make use of a fluid in their inner ears. They also hear by means of the inner ears and can smell and taste. Catfish wait until a barbel or taste bud touches a morsel even though they can smell food from a great distance.

## Trap or Skeet— There Is a Difference

Skeet shooting is an American invention, circa 1910. The word "skeet" itself is an archaic Scandinavian word for "shoot." The average skeet squad is composed of five people, each of whom shoots a round of 25 shots. The similarity to trap shooting ends there.

The skeet field is laid out in a semicircle (or "half-clock") with eight stations for shooting. Seven stations are positioned at equal distances on the perimeter of the "clock" with the eighth in the middle on a line between position one and seven. (Station one would be the numeral "12" on a clock; position seven would be the numeral "6".) High targets are thrown from station one at one end of the semicircle; low targets from station seven at the other end. The trap houses at station one and seven are called the "high house" and "low house." Targets are always thrown in the same pattern of flight, but the angle of the shot varies because the shooter changes positions as the skeet squad moves from station to station. Two targets are shot from each of the eight stations—one from each house.

Doubles, in which targets are thrown simultaneously from both houses, are then shot from stations

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**TRAP-SKEET—**

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 one, two, six, and seven. The 25th shot is called "optional," for it is a repeat of the first miss. If the shooter breaks all of his first 24, he can call for a target from any station or house as his optional shot.

The National Skeet Shooting Association is the regulating body of skeet and issues all rules governing the sport's formalized, registered tournaments. Skeet is shot over competitive fields of precise, constant specifications. Skeet is followed throughout the world with its greatest popularity in the United States.

Trap is an organized sport with regulating national associations, formalized tournaments, and governing rules. It is shot over competitive fields of precise, constant specifications. Although both sports are followed throughout the world, their greatest popularity is in the United States.

Trapshooting dates back to 18th century England. Trapshooters (usually five in number for a "squad") fire from five adjacent positions in a crescent-shaped formation 16 or more yards behind the "trap." Shooting is done in rotation with the person in number one position firing first and so on. Each person fires at an individual target. After each person fires five shots from a particular spot on the crescent, all move one position to the right until each has fired from all positions—for a total of 25 shots.

The "trap" is concealed in a low concrete building ahead of the shooters. Clay targets are thrown out of the building at various angles unknown to the shooter. The clay targets usually sail from 48 to 52 yards and in any direction within a 45-degree angle. A perfect score (25 consecutive hits) is called a "straight."

Doubles, where two targets are thrown simultaneously, are shot from the 16-yard line. A round accounts for 25 pairs, or 50 targets.

**Did You Know?**

The Australian sea horse is almost invisible when in the midst of seaweed due to the leaflike growths on its body.

The ant has two stomachs. One he uses for himself. In the other, he stores food which is to be shared with other ants in the nest.

Fresh water clams spend the first part of their lives as parasites of fishes.

Regardless of his name, the main diet of the sparrow hawk is made up of grasshoppers.

Birds in general have a poor sense of smell.

**BOW HUNTING—**

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 leg to hang easily accessible to his drawing hand and may have a pouch for "goodies" sewed on it. This quiver is smaller and may clatter against brush, but is usually quite adequate for Iowa deer hunting.

The bow quiver is one attached to either the handle or wings of the bow. Different types hold from three to five arrows. Bow quivers are fast, fairly lightweight, but will rattle the arrows at each shot if not properly adjusted and mounted. Choose the quiver best fitted to your needs.

The modern bowhunter wears camouflage cap, headnet or face stick, jacket, and sneakers or boots, depending on the weather and terrain. Even the shiny, reflecting surfaces of the bow are covered by camouflage stick or cloth material.

The bowbender's aroma is disguised by using "buck" lure or scent that contains skunk essence, apple juice, and other outdoor smells. This lure hides the hunter's normal scent and may attract curious deer to within range.

**Calls**

Calls are made for ducks, crows, fox, raccoon, and deer. Most deer calls are supposed to imitate the bleating of a fawn. Calls are available that are used to entice deer within shooting range but the beginner can put together his own call with a large rubber band and a split wooden clothespin. The rubber band is stretched just tight enough to produce a low, bawling sound. This homemade call is carried on a string around the bowhunter's neck. As a deer is spooked in front of the hunter a bawl on this call will usually stop the deer in his tracks, allowing time for another shot.

**How and Where**

The how and where of deer hunting is determined by the locale and movement of the local deer



Standard equipment for archery deer hunters includes (top) a tree stand, and, from left, extra bowstring, sharp knife, buck lure, face stick, finger tab, hone for broadheads, and arm guard.

herd. Deer are creatures of habit that come out to feed in fields or open areas during the late afternoon, browse all night, and return to bed down in the thickets during the daylight hours. Deer using the same trails to and from food and water are likely prey for the bowman sitting motionless near by or perched in a tree ready to shoot. Still hunting, a silent stalk, or a drive of several licensed hunters moving through the timber are all productive techniques to use. Don't neglect to check old apple orchards, poison ivy beds, and small potholes of water in the timber.

Preseason scouting, locating of deer herds, and year round practice on a good field course will pay off this month. Be prepared to hunt Iowa big game and have a successful, enjoyable deer season.

Trout seldom spawn successfully in still waters of a pond. However, the largemouth bass does so with great success.

**BOWBENDERS BEWARE**

If you are planning on hunting with bow and arrow this season there are certain safety precautions that you cannot afford to overlook. Archery and bowhunting are both fine sports, rewarding to enthusiasts with many hours of recreation, but one mishap can ruin it for you.

There are many safety rules that apply to bow-hunting and archery alike.

Never use imperfect equipment. An arrow shaft, nock, or feather that is damaged will decrease accuracy and is obviously dangerous to the shooter and his companion. Bow or bowstring damage is dangerous and often frustrating. The equipment never breaks except at the most inopportune time.

If you cannot see all the way to the target, do not release the arrow. You can't think an arrow "around" a shrub, cow, or friend once it is on its way.

Never nock an arrow or draw a bow if someone is in front of you. Loaded bows sometimes go off accidentally, too.

Sharpened broadheads and fine points will inflict painful wounds if they slip from the bowstring and are fallen on during one of the exciting moments. Respect all arrows.

You don't cross fences or load guns so why be careless with the bow and arrow?

Archery and bowhunting are enjoyable sports for the whole family. Safe, sensible bow-bending is the most fun.

The pika is one of the few mammals rugged enough to spend its entire life in the chill, high, barren mountains of the west.

The pigmy sperm whale grows to a length of from nine to 13 feet

