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CONTENTS

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THE TEACHER

By Roger Sparks

He was middle-aged when we first hunted together. How he tolerated my foolish youth! I remember him chuckling while I ravaged the best cover, wild-eyed and with gale-force spirit.

In those days, hunting meant packing his guns and his shells into his car and heading for his favorite spot. He knew of many good places and a great anticipation accompanied us on those early morning rides. The smell of pipe smoke and the oily odor of his old car (when mixed with the irrepressible enthusiasm of a teenager) is the most wonderful fragrance I can recall.

Once we arrived, I would remain in the car during a painful period while he asked for permission to hunt from the landowner. Like a Labrador pup, I would sit there, never understanding his patience and apparent enjoyment in talking to a friend, when there were pheasants in plain view, strutting along the creek cover.

Finally, it would be that magic time to begin hunting and, after a brief confirmation of the safety skills he had taught me, the day would come alive. I didn't realize it at the time, but hunting without a dog made it necessary for someone to sacrifice his own opportunities by working the birds out of the dense cover to a companion on the edge. With me in the choice position, few roosters found their way to the oven, but he always insisted the "huntin' was good" just the same.

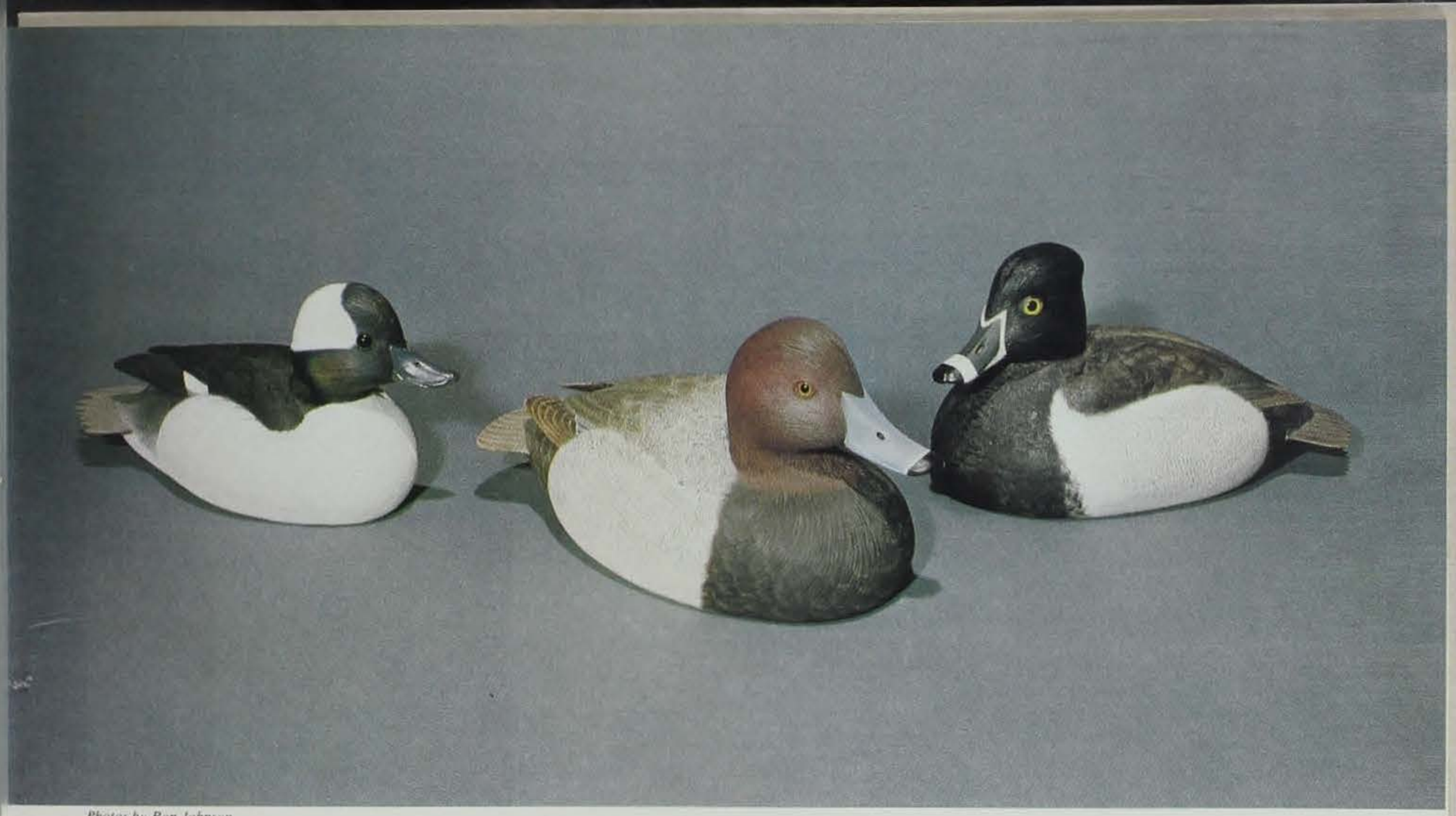
Regardless of how hard and long he struggled through the heavy brush, we rested only when I became tired. Often, we would stay out all day and wind up at my doorstep with darkness close behind and a scowling mother already there. Then he would quietly explain that it had been his doings, though I knew my enthusiasm alone had caused the delay. I couldn't begin to skin a bird, yet without fail, I would proudly carry everything in, ready for the pot.

Appreciation of the quarry comes slowly to young minds, but as a result of his influence, I began to realize that a rooster that flushed too far, a squirrel that found a hole, or a flock of geese that passed high and uninterested were to be cherished for their natural cunning and never scorned. From him I learned that killing is only a part of a larger experience and done only then within strict ethical boundaries.

With guidance, I began to understand wild birds, to read and to watch and to listen. Unfortunately, my skills matured before I did and too quickly, it seems, I reached the impudent age. I recall impatiently asking him to keep up as I rapidly marched through a weedy cornfield, firmly convinced that the more ground we covered, the more pheasants we'd find. I remember those foolish days when I proclaimed that the wise waterfowler should, without exception, take mallards on that first low pass. The bucks will all be in the big timber, I once explained, in a vain (and foolish) effort to steer him away from a brushy draw. They never mattered — my brash statements, my inconsiderate acts. He remained cordially quiet and responded to my adolescent insults with that understanding chuckle.

Things are different now. We use my car more, though he always offers his. And we'll wait for the bright sun to warm a December day, just so the pheasants will be out in the corn "feeding unaware". No need for doorstep explanations these days — our boots get to feeling too tight and we're forced to return long before our wives expect us. During the waterfowl season, we "avoid hunting pressure" and opt for the less productive areas where the blinds just happen to be comfortable, warm and easy to reach. These days, we're apt to watch a single greenhead glide into the decoys and flush unscathed while each tries to convince the other to take him. Lately, I object to accepting the cleaned game almost as strenuously as he.

I suspect I've become more gracious toward this smiling old friend partly out of indebtedness. I'll always owe him more trips, more shots, more game and more pure enjoyment than I could possibly repay. But I also hope that, perhaps, a particle or two of his sincere generosity and genuine sportsmanship have rubbed off. I'll be reminded of those qualities when I go alone to hunt the birds. And I'll forever hear a chuckle in their wings.



Photos by Ron Johnson

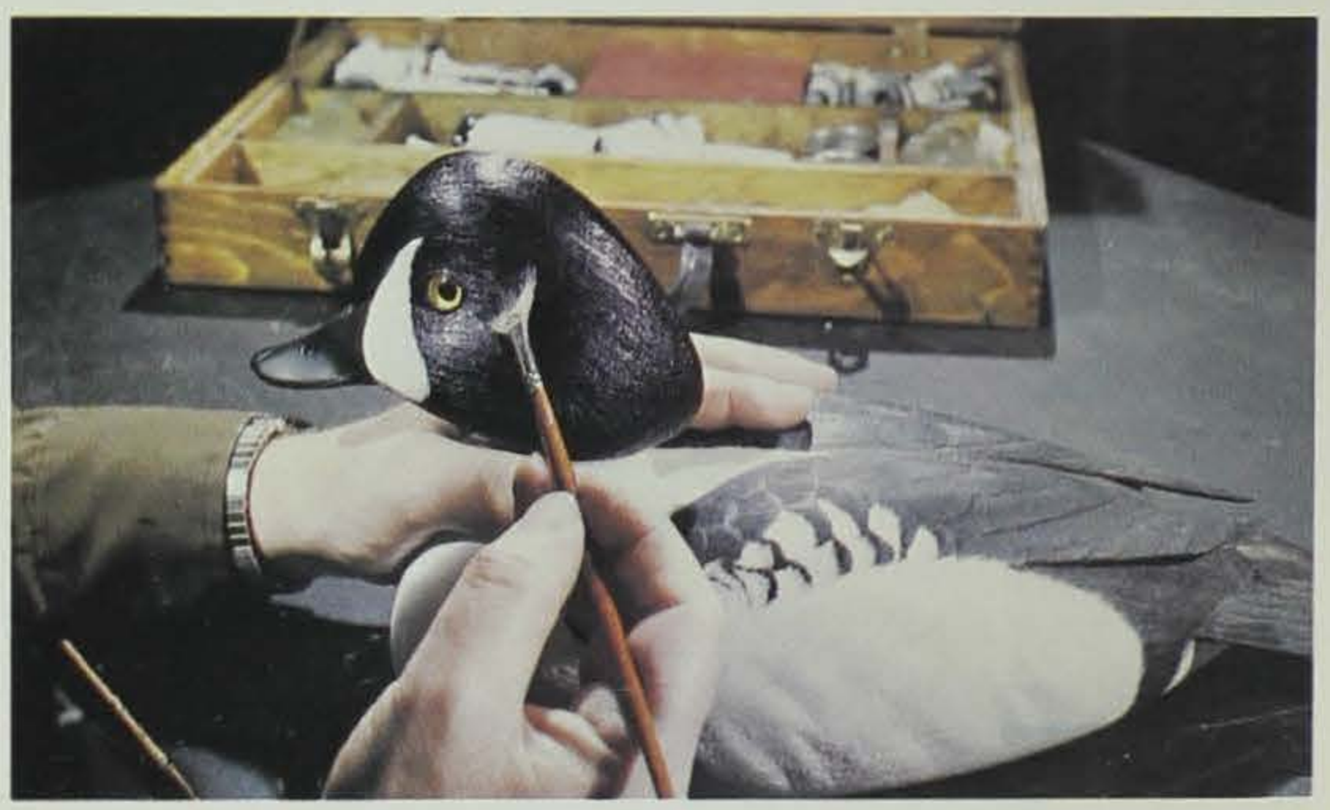
Pool Ducks

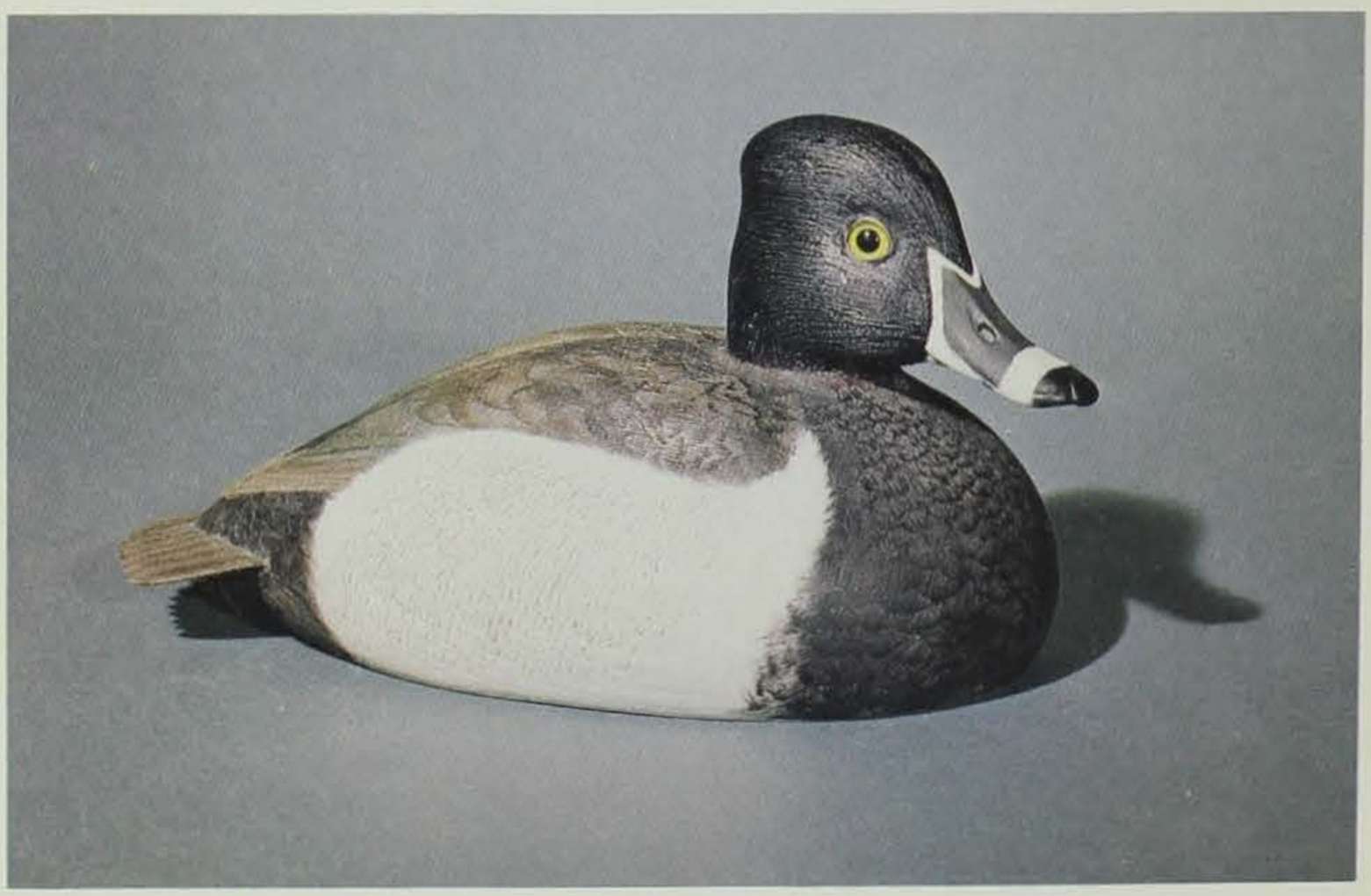
Hand-crafted decoys by Larry Pool

Carving decoys — what once was a dying art has, in recent years, picked up as a popular hobby and has become a fashionable medium for many art collectors. Larry Pool is one such artist working to revive the craft. Larry uses part of his artistic talent illustrating and designing layouts for the Conservation Commission's magazine and many other publications. But during his free time he devotes his talents to decoy carving. Inspired by the late Jack Musgrove, Larry has become an award-winning craftsman. Each standard-size decoy takes over 100 hours to finish, including painting. "But it's like eating peanuts," Larry says, "once you get started, it's hard to stop." Several of his decoys have taken first place awards in the International Decoy Contest, held in Davenport.

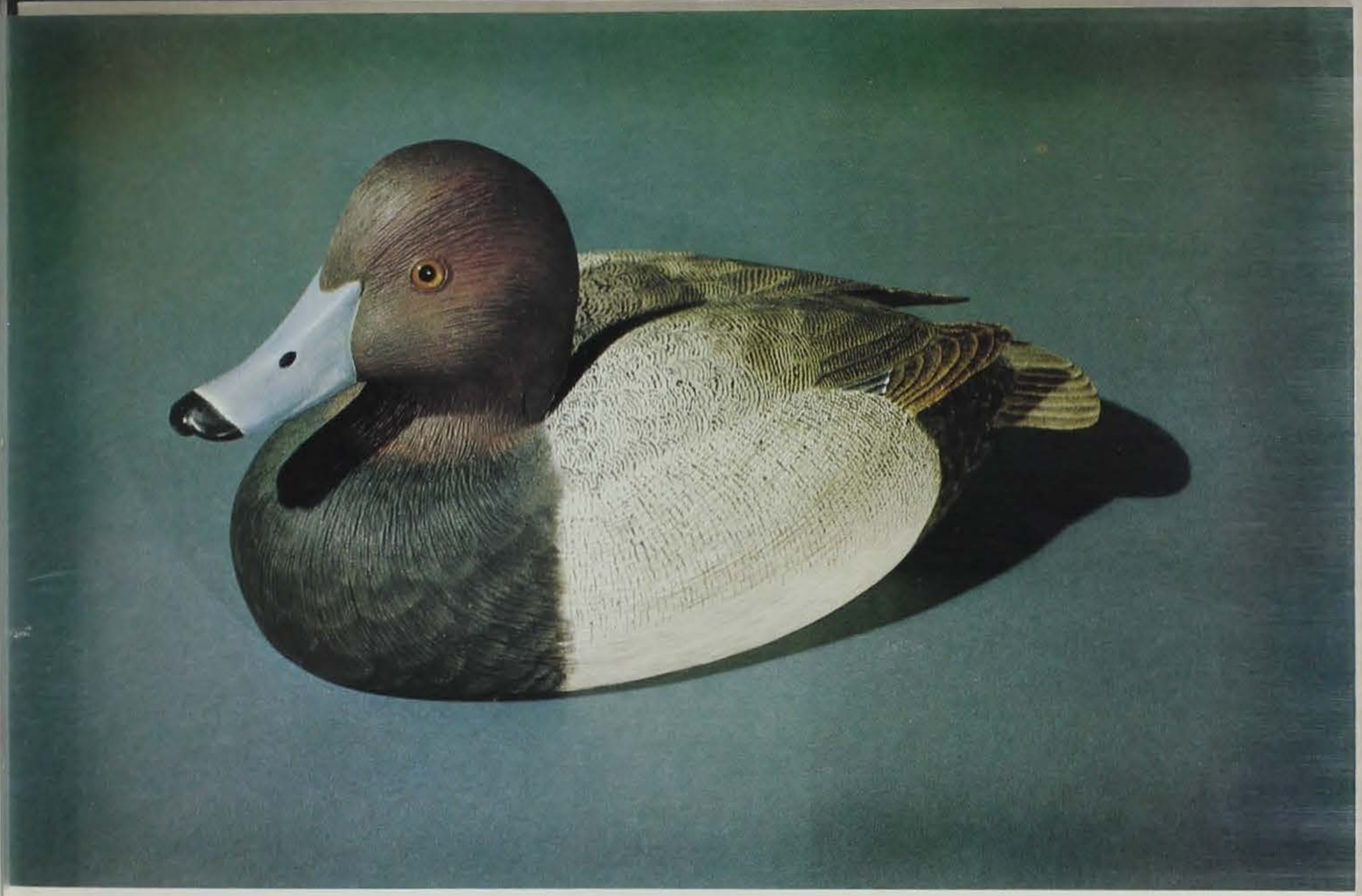
The decoys are carved from basswood, hand painted with durable oil paints, keeled and self-righting. Therefore, they are potential "working" decoys for anyone who has the courage to place one of these works of art on the water. "I must admit the idea of using them as hunting decoys, brings some strong objections from my wife," Larry says.

Larry carves and sells miniatures as well as full-sized decoys.





Top: Bufflehead drake decoy
Middle: Each decoy is hand-painted with durable oil paints.
Bottom: Ringneck drake decoy.

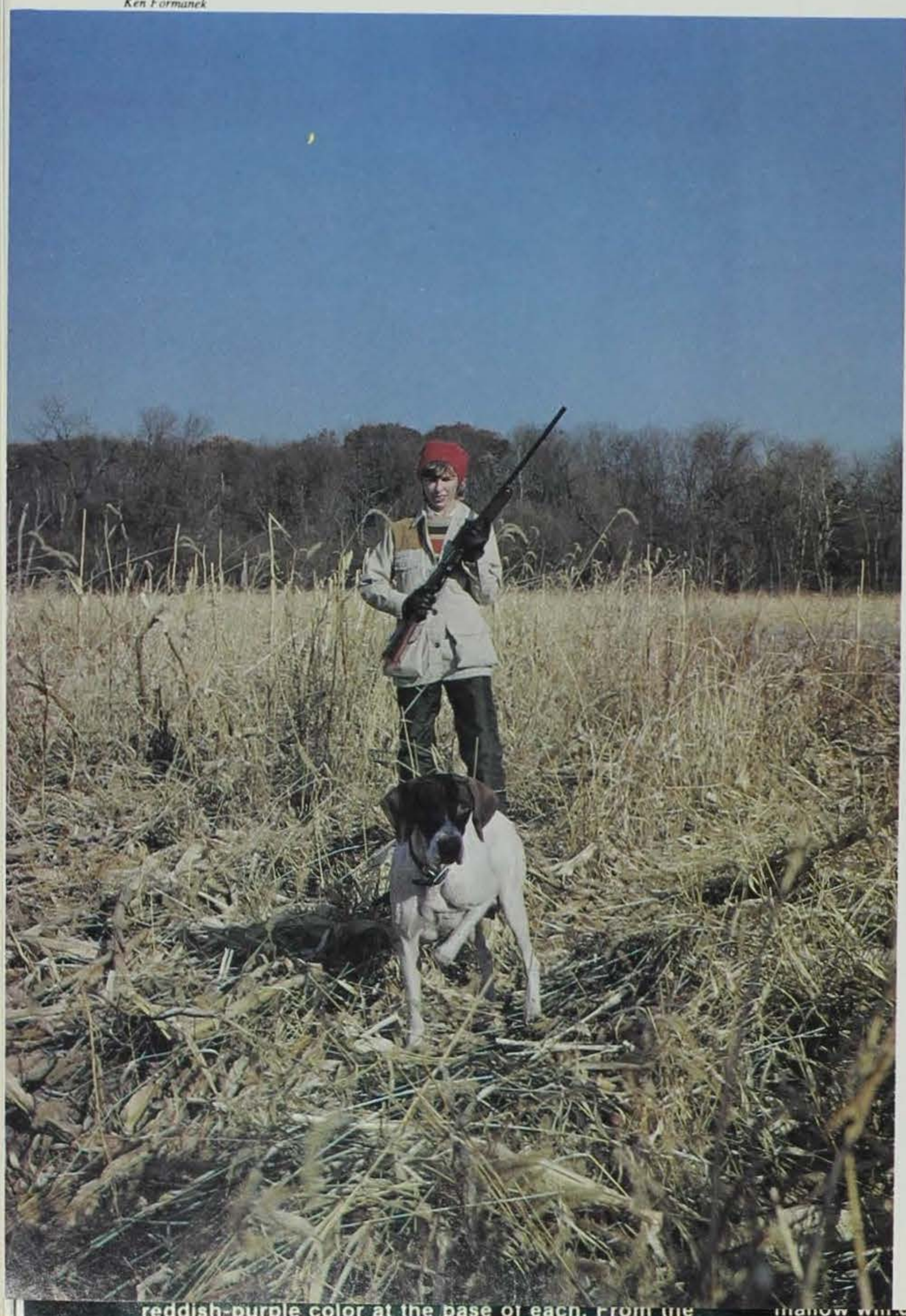


Top: A redhead
Bottom: Detailed feather by feather painting.

Lifestyle of a Pheasant

by Jim Wooley
and Bill Rybarczyk

Ken Formanek



reddish-purple color at the base of each. From the

Originally an Asian species, the ring-necked pheasant was successfully introduced into North American in 1881 and into Iowa about 1900. The ringneck has since become the most important game-bird in Iowa, and Iowa has become one of the top pheasant harvest states in the nation. Pheasants are found on rich farmlands throughout the state, but they are most numerous on land that has a good mixture of corn, oats, hay, and grassland.

Reproductive activity among pheasants is triggered by increasing day length. Cock pheasants begin crowing, fighting and establishing breeding territories in early spring. Each cock trys to attract as many hens as he can, but the number of hens in a harem is ultimately determined by the sex ratio of birds in the population; three hens per cock is about average. The cock performs a brief strutting display before each hen prior to mating (pen studies indicate hens can continue to lay fertile eggs for 3 weeks after a single mating, and one cock is capable of mating with 50 hens with close to normal fertility). The first eggs of the season may be "dropped" anywhere, but warming temperatures trigger serious nesting. Hens conceal their nests in vegetative cover at least 8 to 10 inches tall. Dense, leafy-stemmed, tall, erect vegetation offering an overhead canopy is preferred. The nest bowl consists of a shallow, scratched-out depression in the ground which is lined with grass or leaves. There are 12 to 15 eggs in an average clutch. The hen incubates the eggs for approximately 23 days. The peak of the pheasant hatch in Iowa occurs about the middle of June. Pheasant chicks are able to leave the nest and follow the hen within a few hours after hatching.

Newly-hatched chicks are covered with a soft buff-colored down with dark markings on the head and back. Juveniles of both sexes up to 10 weeks

Ken Formanek

old resemble the females in coloration. By 16 weeks of age, juveniles are almost indistinguishable from adults. Adult males weigh approximately 3 lbs; females about 2 lbs. Cock pheasants have spurs on their legs that increase in length as they grow older. The spurs on juvenile males are generally less than ⅜ of an inch in length; spurs on old males may be almost an inch long.

Protein from insects, spiders, slugs and other invertebrates is essential in the diet of young rapidly-growing chicks; seeds and other plant materals become more important in the diet of older birds. Corn and soybeans are very important fall, winter, and spring food items. Weed seeds, berries and green vegetation are also consumed, but pheasants are seldom found in areas where they do not have easy access to domestic grains.

Lack of suitable, undisturbed nesting cover is believed to be the primary limiting factor for pheasants in Iowa. Lack of adequate winter cover is also a problem in some areas of the state. Comparision of 1939 and 1972 aerial photographs from 27 counties in north-central Iowa (Iowa's traditional pheasant range) revealed a 76% decline in good quality pheasant nesting cover and a 33% decline in winter cover. Changes in land use and intensive row crop farming are responsible for their declines.

Waste grain is a widely available and readily accepted food source, and lack of food rarely becomes a limiting factor to Iowa ringnecks. However, fall plowing and deep snow can certainly reduce available food supplies. Fall plowing has been reported to reduce the amount of available waste grain in a picked cornfield from more than 200 lbs/acre to about 15 lbs/acre (more than a 90% reduction).

Predation, hunting, severe weather, accidents and other factors obviously contribute to pheasant mortality, but given suitable habitat, pheasant production can equal or exceed annual losses.

Hayfields, oat fields, pastures, idle areas, wetlands, and road ditches provide good pheasant nesting cover. Mowing of hayfields and road ditches in early June results in severe nest losses and hen mortality. Delaying hay mowing until after the pheasant nesting season is over is impractical for the farmer. However, use of switchgrass for warm-season hay and pasture greatly reduces nest disturbance in June. Preservation of wetlands and delay of weed control activities in the idle areas and road ditches are also important to nesting pheasants.

Researchers have found that herbaceous ground cover (grasses and forbs) without an overhead woody canopy seems to be most preferred by pheasants as roosting cover, while a woody canopy with a minimum of ground cover is usually selected for loafing during the day. Dense ground cover may help roosting birds retain body heat at night while open, brushy areas provide safety from predators while allowing the birds an opportunity to sun themselves on clear winter days.

During blizzard conditions, tall dense vegetative cover that effectively stops snow drift and greatly reduces windchill is essential to pheasant survival. Large, multi-row farmstead windbreaks with dense, low-hanging branches; tall, dense cattail or bullrush marshes; and standing cornfields interspersed with dense grassy, weedy, or brushy waterways can provide safe refuges for pheas-

ants during blizzards. Unfortunately, farmers often remove these cover types to make way for larger crop fields. Research in other states indicates 4 good wintering areas (each 20 acres or larger in size) per township are sufficient to support a good pheasant population. Smaller wintering areas tend to drift full of snow and become death traps for pheasants during severe blizzards.

Pheasant stocking, predator control, winter feeding, and reduced hunting pressure do not automatically result in greater pheasant populations. Severe weather can result in dramatic, short-term fluctuations in pheasant populations, but long-term trends in pheasant numbers reflect the quality and quantity of the habitat.

Hunting:

Pheasant hunting in Iowa usually runs from early November through early January. Harvest is limited to cocks only. The majority of the hunting activity for Iowa's 260,000 resident and 35,000 nonresident pheasant hunters occurs on Iowa's 34 million acres of private cropland during the first week or two of the season. It is absolutely essential for everyone to respect private property and obtain permission from the landowner prior to hunting.

For those who are unable to locate a hunting spot on private lands, the Iowa Conservation Commission maintains 2,260 public hunting areas which total 300,000 acres. Public hunting areas often provide very good hunting late in the season after cold weather has concentrated the surviving cocks in heavy cover.

Equipment needed for successful pheasant hunting is minimal when compared to other shooting sports; warm clothing, good walking boots, and a shotgun are about all that is necessary. There is a lot of personal preference involved with selecting a pheasant gun. Many pheasant hunters use 12 gauge, full-choke shotguns and number 4 or 5 shot when going after ringnecks. Such hardware may be essential for long shots late in the season, but other hunters say that an open-bore 20 gauge with 7½ loads is plenty potent for early season roosters.

A wide variety of techniques can be used when hunting pheasants. A lone hunter can usually hunt field edges, fencerows, and small weed patches by himself. Many hunters enjoy the solitude and easy pace of this type of pheasant hunting. Larger blocks of cover such as standing cornfields, cattail marshes, shelterbelts, and large waterways may be difficult for one hunter to cover. Several hunters working together not only find more birds, but share the outdoor experience. Larger hunting parties have found that they can bag more birds if they post "blockers" at the far end of the field, particularly if the birds seem prone to running or flushing wild.

For many hunters, it just isn't a pheasant hunt without a good bird dog. Indeed, a well-trained dog is really helpful in locating and retrieving crafty ringnecks. The matter of selecting a good bird dog is again a matter of personal preference. Labrador retrievers, English setters, Brittany spaniels, and German short-hair pointers seem to be some of the most popular breeds among Iowa pheasant hunters.

Ken Formanek

Once the bird has been bagged, it is essential to take good care of the meat particularly if the weather is warm. Perhaps the best way is to dress and cool the meat immediately after the hunt. Or at least remove the internal organs so that the carcass can cool properly. Almost any recipe used for chicken will also work on pheasants.

During some years, Iowa hunters harvest as much as 80% of all the available cocks. In biological terms this is not an excessive harvest. Due to their polygamous breeding habits, only a small percentage of the males are actually needed for reproduction during the following spring. Iowa's comparatively long cocks-only pheasant season is in reality quite conservative since the hen segment of the population is always protected from legal hunting losses. Shortening or closing a cocks-only pheasant season during population lows does not result in greater pheasant production in the future since lack of breeding males has never been a limiting factor for Iowa pheasants.

Pheasant hunters outnumber all other Iowa hunters. Revenue from pheasant hunter's licenses, wildlife habitat stamps, non-resident pheasant stamps, and excise taxes on sporting arms and ammunition provides money needed for many Iowa Conservation Commission programs including land acquisition, habitat development, wildlife management and wildlife research. These activities ultimately result in better habitat conditions for a wide variety of game and nongame wildlife species.

Iowa pheasant hunting is also important to the state economy as a whole. Owners of restaurants, service stations, discount centers, motels, and grocery, hardware, dry goods, and sporting goods stores all benefit from money spent by the Iowa pheasant hunter. According to a recent survey, Iowa residents and non-residents spend approximately 30 million dollars annually, exclusive of license fees, to hunt pheasants in Iowa.

Additional Information:

Additional information on Iowa pheasants, pheasant hunting, and pheasant recipes can be found in a 147 page, hard-bound book published by the Iowa Conservation Commission. This publication entitle *The Ring-necked Pheasant in Iowa* is available for $5.00 from:

The Iowa Conservation Commission
Information and Education Section
Wallace State Office Building
Des Moines, Iowa 50319

CONSERVATION UPDATE

1981/1982 DEER SEASON DATA

It will be hard to top last fall's record high harvest, but population trends indicate there are again plenty of deer available this season and, with good weather, it may happen. The 1982 shotgun season will be split with hunters allowed to choose only one season and zone combination. Split shotgun seasons have been very effective in reducing hunting pressure and maintaining quality and safety in the sport. The second season will have twice as many any-sex licenses as the first in all zones. This uneven distribution of any-sex licenses and a longer second season has helped equalize application rates and harvest. The first shotgun season will be four days long (December 4-7) with a seven-day second season (December 11-17). The 56-day bow and arrow season is already in progress and will continue through December 3.

Statewide, any-sex license quotas were increased by about 13 percent from 1981. License quotas are developed by first calculating the number of does that can be safely harvested in each of 10 hunting zones as determined from past harvest rates and changes in deer population trends. This allowable doe harvest is then expanded to a final quota by predicting the number of unsuccessful hunters, hunters that harvest bucks (average determined from previous hunting seasons), and those who will not hunt. The bucks-only restriction provides protection for buck fawns during their first year of life. This allows a large number of them to enter the next fall as antlered 1½-year olds, increasing the number of legal animals available for the bucks-only hunter.

The information recorded on post-season hunter report cards was used to evaluate results of the 1981 deer hunting seasons. Estimates were obtained of the number of deer harvested, success rates, effort, sex ratio, and crippling rate. Also, age composition was calculated from a sample of teeth returned by successful hunters. (To do this, a small slice of each tooth is stained and placed under a microscope to count growth rings which relate to age. This information is used to predict average life expectancy and to monitor annual trends in age ratios.)

A new record high harvest was reported in 1981 with an estimated 26,000 deer taken by 83,597 shotgun and 17,258 bow hunters. The previous record was set in 1980 when 22,600 deer were harvested. Shotgun hunters accounted for 21,600 deer while archers harvested an additional 4,400. This excellent harvest was accomplished because of high hunter numbers, an excellent and increasing deer population, higher any-sex license quotas and mild weather during the December shotgun season.

Hunting areas with the highest shotgun harvest were zones 6 and 9 with 3,100 taken, followed closely by zone 4 with 3,000 and zone 5 with 2,600. Bucks-only shotgun hunters reported a 23 percent success rate while any-sex shotgun hunters averaged 53 percent and archers 26 percent. The highest shotgun success rates were reported in northern Iowa (zones 1, 2, and 10) because of the higher vulnerability of deer in limited timber habitat. More than ½ million days were spent in the field during the 1981 season.

One important change initiated in 1981 was allowing buck-only hunters to hunt statewide without zone restrictions. Since the major emphasis is on controlling the regional harvest of does and fawns, it was not necessary to restrict the buck-only hunters. This regulation also helped alleviate problems with landowner-tenants that own or operate farms in more than one hunting zone. With a buck-only license, they are able to hunt on their own property anywhere in the state. Any-sex hunters are still required to hunt within the zone designated on their license.

The bucks-only certificate program was continued this year. Certificates are issued to bucks-only hunters giving them preference in the any-sex license drawing the following year. The certificate does not guarantee a hunter an any-sex license but does increase his or her chances. Other regulations such as bag limit, shooting hours, and zone boundaries are the same this year.

Firearms Safety Depends on You

Make No Mistake About It!

The last thing that most of us need is any reminder that the years seem to slip by faster than they used to. What many of us now do need, however, are little lists to remind us of all the things we're supposed to remember to buy, bring along or to do. There is one area, though, where everyone who hunts, whether first-timer or veteran of many seasons, can benefit from a checklist; and that's firearms safety — both in the home and in the field. And now is the time to do it.

1. DON'T RELY ON YOUR GUN'S SAFETY, TREAT EVERY GUN AS IF IT WERE LOADED AND READY TO FIRE. The safety of any gun is a mechanical device that serves as a part of a complete system of safe gun handling. The safety is not intended to serve — nor can it possibly serve — as a substitute for common sense or safe gun handling. To rely entirely upon a mechanical device is unsafe. Use your safety safely.

2. NEVER CROSS A FENCE, CLIMB A TREE OR JUMP A DITCH WITH A LOADED GUN. Any time there is an added risk that you might lose your balance and drop or lose control of your gun, you should unload. Before climbing a fence or crossing a stream are perfect examples. If you need to climb a slippery hill or certainly if you are going to climb a tree to hunt from a tree stand, you should unload it first.

3. NEVER LOAD OR CARRY A LOADED GUN UNTIL YOU ARE READY TO USE IT. One of the cardinal rules of shooting safety is to load your gun only when ready to use it — and to unload as soon as you are through. A loaded gun has no place in — or near — a car or truck or building. Keep your finger off the trigger while loading or unloading. Your gun can't think. You can. Don't load until ready to shoot — and unload as soon as you're done.

4. WATCH YOUR MUZZLE SO THE OTHER FELLOW DOESN'T HAVE TO. If everyone handled his gun so carefully that the muzzle never pointed at something the gunner didn't intend to shoot, we'd have no firearms accidents. Learn to keep your muzzle always pointed in a safe direction. That may be in the air on some occasions, at the ground on others, but never at anyone or at anything not intended as a target. A knowledgeable shooter always opens the action on a gun before handing it to someone else and always checks to make sure the gun is unloaded if it is handed to him.

5. KEEP GUNS AND AMMUNITION SEPARATELY AND IN LOCKED STORAGE. There's really only one basic way to safely store guns and ammunition. They should both be locked, separate from one another, with the keys under the control of a responsible adult.

6. DON'T SHOOT UNLESS ABSOLUTELY SURE OF YOUR TARGET AND WHAT IS BEYOND IT. Once you've pulled the trigger on your rifle, shotgun or handgun, you have given up all control over where the bullet will go or what it will strike. Every shooter owes it to himself and to everyone to be absolutely sure of his target. Make certain there are no hunters, buildings or other objects behind or near your target. And make absolutely sure of the target itself, particularly during the low-light periods of dawn and dusk.

7. KNOW THE RANGE OF YOUR GUN. REMEMBER, EVEN A 22 RIMFIRE CAN TRAVEL OVER 2½ MILES. Shooters should keep in mind how far a bullet will travel if it misses its intended target or ricochets in another direction. A 22 short can travel 1½ miles, and a high-velocity cartridge such as a 30-06 can send its bullet nearly 5 miles. Shotgun pellets can travel 900 yards, and shotgun slugs have a range of up to 1 mile.

8. ALWAYS BE SURE THE BARREL IS CLEAR OF OBSTRUCTIONS. ONLY CARRY AMMUNITION OF THE PROPER SIZE FOR THE GUN YOU ARE USING. Obstructions can block a gun barrel and cause serious injury to the shooter if not detected. These obstructions may have become lodged in your gun barrel by careless gun handling, or they may have been left there accidentally by someone else. Proper safety procedures require that all gun barrels be checked for obstructions before firing. Carry only the proper ammunition for the gun you are shooting. A 20 gauge shotshell, for example, will pass through the chamber of a 12 gauge and lodge in the barrel. Never allow different types of ammunition to get mixed up in the pockets of your hunting or shooting coat.

Classroom Corner

by Bob Rye

Winter is a time when many people are exhilerated. They feel the cool winter breezes. They see the fresh white covering of snow. They take time to track animals; animals which are easier to see because of the white background and the lack of leaves.

Winter is a perfect time for a winter nature walk. These walks should be made in a variety of habitats. As you walk, stop, listen, and compare the sounds with the sounds in the home you inhabit.

Everyday you and I cross certain paths of familiarity to a place we call home. In this place we try to have all the basic requirements for living — food, water, and adequate shelter.

Humans are animals, and like other animals, the area in which we live must be suitable for habitation. We humans are fortunate in that, if the area is not suitable, we are capable of changing it or equipping ourselves in such a manner that we can still exist there. Not all animals are so fortunate. If an area does not provide the basics or becomes unsuitable for them to live there, they must move on or die.

Now while winter is here go out and take your winter nature hike. Observe closely what is in each habitat.

Which animals had to move? What part of the basic requirements for survival was missing? How many animals could live in more than one of the areas you checked? What made them able to adapt to different areas?

APPLICATION FOR OBTAINING TREES AND SHRUBS
FOR ESTABLISHING OR IMPROVING EXISTING FORESTS,
EROSION CONTROL OR WILDLIFE COVER
1983

Dear Cooperator:

The Conservation Commission's State Forest Nursery grows tree and shrub seedlings for conservation uses on Iowa lands. Attached is the Nursery's 1983 application form. The following instructions should make it easy to complete:

1. **Delivery Information.** Check either "Pick up" or "Ship". If "Ship", give an address; a P.O. Box number is not enough. (All orders to be shipped will be sent by United Parcel Service.)

2. **Nursery Stock Requested.** Fill in the amounts you wish to order. You must order in units of 100, and the total order must be 500 or more plants (except the Wildlife Packet which may be ordered individually). If ordering plants to complete the previous year's planting, you may order less than 500 total but still in units of 100.

3. **Legal Description of Planting Location.** Fill in information (as found on your tax assessment).

4. **General Information.** Answer each question.

5. **Landowner Agreement and Signature.** Print your name, home address, and phone number. Read and sign the Agreement. (If it's not signed, we'll have to return it to you.) Check "Tax-Exempt" if applicable.

Check form for completeness — incomplete applications will be returned. (You can copy your order on the reverse side of this sheet for your records.) Detach the application, fold, and staple it twice. Attach postage and mail. DON'T SEND MONEY AT THIS TIME — IT ONLY CAUSES HANDLING DELAYS.

You can find out what species are currently available by calling 515/294-9642 for a recorded message which will give you our present inventory. We hope this service will be helpful to you and that you will take advantage of it.

If we have the plants requested when we receive your application, we'll deduct them from the inventory and send you a bill for the correct amount . This bill is our acknowledgement of your order. PAYMENT MUST BE RECEIVED BY THE NURSERY WITHIN 15 DAYS, otherwise we'll cancel your order, putting your plants back in the inventory and making them available for other orders.

For everyone's convenience, we are changing our billing procedure so the price for seedlings is the only charge. There will be no separate amounts for shipping. This will better reflect our handling costs — for both pickup and ship orders.

Because the shipping season is a very hectic time for us, we will *not* be able to make any changes to your order (changing shipping address, changing from pickup to ship, etc.) after April 1st.

We begin preparing orders as early in the spring as possible. Unfavorable weather (rain, snow, etc.) can cause delays. The Nursery gets each order ready as quickly as possible, but we can't guarantee availability by any specific date.

For pickup orders, do not come to the Nursery for your order until you receive a postcard saying it's ready. Then bring the postcard with you when you come. You can get information about our shipping schedule in the spring by calling 515/294-9642 for a recorded message.

The Nursery reserves the right to make comparable substitutions if sufficient stock is not available.

Early orders have preference; the sooner you send your application, the better our chances of being able to serve you. If you have any questions, you can contact the Nursery Forester, 2404 South Duff Avenue, Ames, Iowa 50010 (515/294-4622), Monday through Friday from 8:00 A.M. to 4:30 P.M.

Sincerely,

H. G. HERTEL
State Forester

SUGGESTED SPACING

Species	Reforestation	Wildlife	Erosion Control
Pines and Larch	8' x 6' (908 plants/acre) — for timber 5' x 5' (1,742 plants/acre)— for Xmas Trees	same (High density makes good cover)	same
Walnut, Ashes, & Maple	8' x 8' (681/acre) to 12' x 12' (302/acre)	8' x 8' (681/acre) to 16' x 16' (170/acre)	8' x 8' to 12' x 12'
Russian Olive		6' x 6' (1,210/acre) to 12' x 12'	same
Autumn Olive & other shrubs		3' to 5' between plants within rows; 5' to 10' between rows; range from 2,900 plants/acre (3' x 5') to 871/ (5' x 10'). Or plant in clumps 4 x 4 or 6 x 6.	

GENERAL INFORMATION

Species	Mature Size Range	Moisture			Light		Remarks	#Ordered (For Your Records)
		Dry	Well Drained	Moist	Full Sun	Some Shade		
White Pine	50-80'		X	X	X	X	Intolerant of air pollutants. Good timber tree. Adaptable to most sites. Native to NE Iowa.	
Scotch Pine	30-60'	X	X		X		Hardy. Adaptable.	
Red Pine	50-80'		X		X		Requires cool sites. Good timber tree.	
Ponderosa Pine	60-100'	X	X		X		Recommended for Western Iowa only.	
Jack Pine	35-50'	X	X		X		Hardy and adaptable. Good cover for coal spoil banks.	
Austrian Pine	50-60'	X	X		X		Requires good air circulation.	
European Larch	70-75'		X	X	X		Needles drop annually. Firewood.	
Black Walnut	50-70'		X		X		Valuable wood products tree. Good firewood. Requires deep, rich, well-drained soil. Native.	
Green Ash	50-60'		X	X	X		Valuable wood products tree. Very good firewood. Native.	
Shagbark Hickory	60-80'		X		X		Wood products. Excellent firewood. Native to all but NW corner of state.	
Red Oak	60-80'		X	X	X		Valuable wood products tree. Excellent firewood. Native to all but NW corner of state.	
Bur Oak	70-80'	X	X	X	X		Adaptable to various soils. Excellent firewood. Staves and railroad ties. Native.	
White Oak	50-80'		X	X	X		Valuable wood products tree. Excellent firewood. Native to all but NW corner of state.	
Mixed Oak							Contains red oak, white oak and bur oak.	
Osage Orange	20-40'	X	X		X		More adaptable to southern Iowa. Withstands poor soil extremely well. Thorny, useful for wildlife habitat.	
Wild Plum	12-15'	X	X	X	X	X	Hardy. Forms thicket. Good wildlife habitat. Native.	
Russian Olive	12-15'	X	X		X	X	Very hardy plant. Good food for wildlife. Drought resistant.	
Autumn Olive (Cardinal strain)	12-18'		X		X	X	Good wildlife food and habitat. Plant on protected site.	
Tatarian Honeysuckle	10-12'	X	X		X	X	Very hardy. Dense growth. Good wildlife habitat and food for birds. Fruit available July-August.	
Amur Honeysuckle	12-15'	X	X		X	X	Occasional winter killing of branches in northern Iowa. Fruit available in September-November. Good wildlife habitat and food for birds.	
Ninebark	5-9'		X	X	X	X	Very hardy. Good wildlife habitat. Native to most of state.	
Redosier Dogwood	7-9'		X	X	X	X	Produces cluster of stems from ground. Good wildlife food and habitat. Native to NE Iowa.	
Gray Dogwood	10-15'	X	X	X	X	X	Hardy. Forms large colony of plants from original. Good cover. Native.	
Common Lilac	8-15'		X		X		Hardy. Shrub border or in groupings. Good wildlife habitat.	
Wildlife packet								

1983 APPLICATION FORM

IOWA CONSERVATION COMMISSION

Use /

3. LEGAL DESCRIPTION OF PLANTING LOCATION

These trees are to be planted in _____ Quarter, Section _____, Township _____ N, Range _____, in _____ County, Iowa.

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B. MAIN PURPOSE OF PLANTING: 1. ☐ general forestry, 2. ☐ wildlife habitat, 3. ☐ erosion control, 4. ☐ other.

C. METHOD OF PLANTING: 1. ☐ machine, 2. ☐ hand.

D. THE PLANTING LOCATION IS: 1. ☐ farm, 2. ☐ city, 3. ☐ acreage, 4. ☐ government land 5. ☐ other.

E. HAVE YOU PURCHASED PLANTS FROM THE NURSERY BEFORE? 1. ☐ No, 2. ☐ Yes.
If yes, is this order for 3. ☐ Replacement or 4. ☐ Expansion of previous planting?

5. LANDOWNER AGREEMENT AND SIGNATURE

I agree to plant and use the nursery stock requested upon the described property for establishing or improving existing forests, erosion control, game or water conservation, with these restrictions: I agree NOT to resell or give these plants away with roots attached to any person, firm, corporation or agency nor to plant any of them for new windbreak, shade, or ornamental purposes. I agree to protect all plantings from fire and domestic livestock grazing. I agree to forfeit for destruction any trees planted or used in violation of the above restrictions.

☐ **If you are a tax-exempt *government* agency, please check here.**

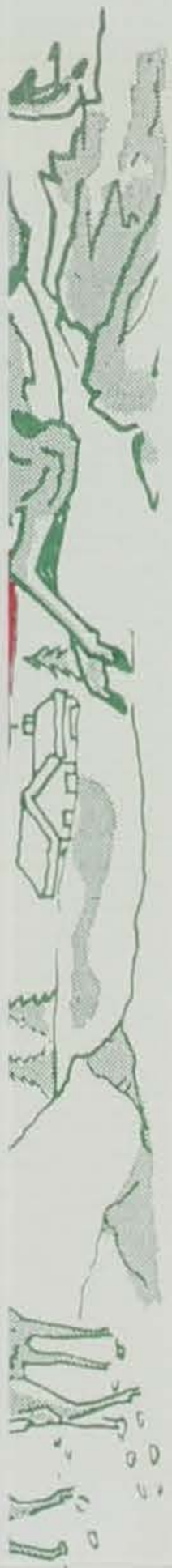
(LANDOWNER NAME — **PLEASE PRINT**)

(MAIL ADDRESS)

(CITY) (STATE) (ZIP)

(PHONE NUMBER)

(LANDOWNER OR AGENT SIGNATURE)



PLEASE PRINT

Gift for _____
Street/R.F.D _____
City/State _____ Zip _____

☐ 1 YEAR $3.00
☐ 2 YEARS $5.00 ☐ 4 YEARS $8.00

Gift for _____
Street/R.F.D _____
City/State _____ Zip _____

☐ 1 YEAR $3.00
☐ 2 YEARS $5.00 ☐ 4 YEARS $8.00

Gift From _____
Street/R.F.D _____
City/State _____ Zip _____

ALL GIFT ORDERS MUST BE PREPAID. Mail this form with your remittance in the envelope.
Please make checks payable to IOWA CONSERVATION COMMISSION
Please allow 8 weeks for delivery of first issue.
☐ Upon request, gift cards will be sent.

Russian Olive	8-18"	5.80		
Autumn Olive	8-18"	5.80		
Tatarian Honeysuckle	6-12"	3.80		
Amur Honeysuckle	8-18"	5.80		
Ninebark	6-12"	5.80		
Redosier Dogwood	6-12"	5.80		
Gray Dogwood	6-12"	5.80		
Common Lilac	6-12"	5.80		
Wildlife Packet (containing 200 plants beneficial to wildlife, chosen by the Nursery)		14.00/ Packet		

APPLICATION MUST BE SIGNED.
Detach this sheet, fold and staple twice. Attach postage to preaddressed side and mail.

SUGGESTED S

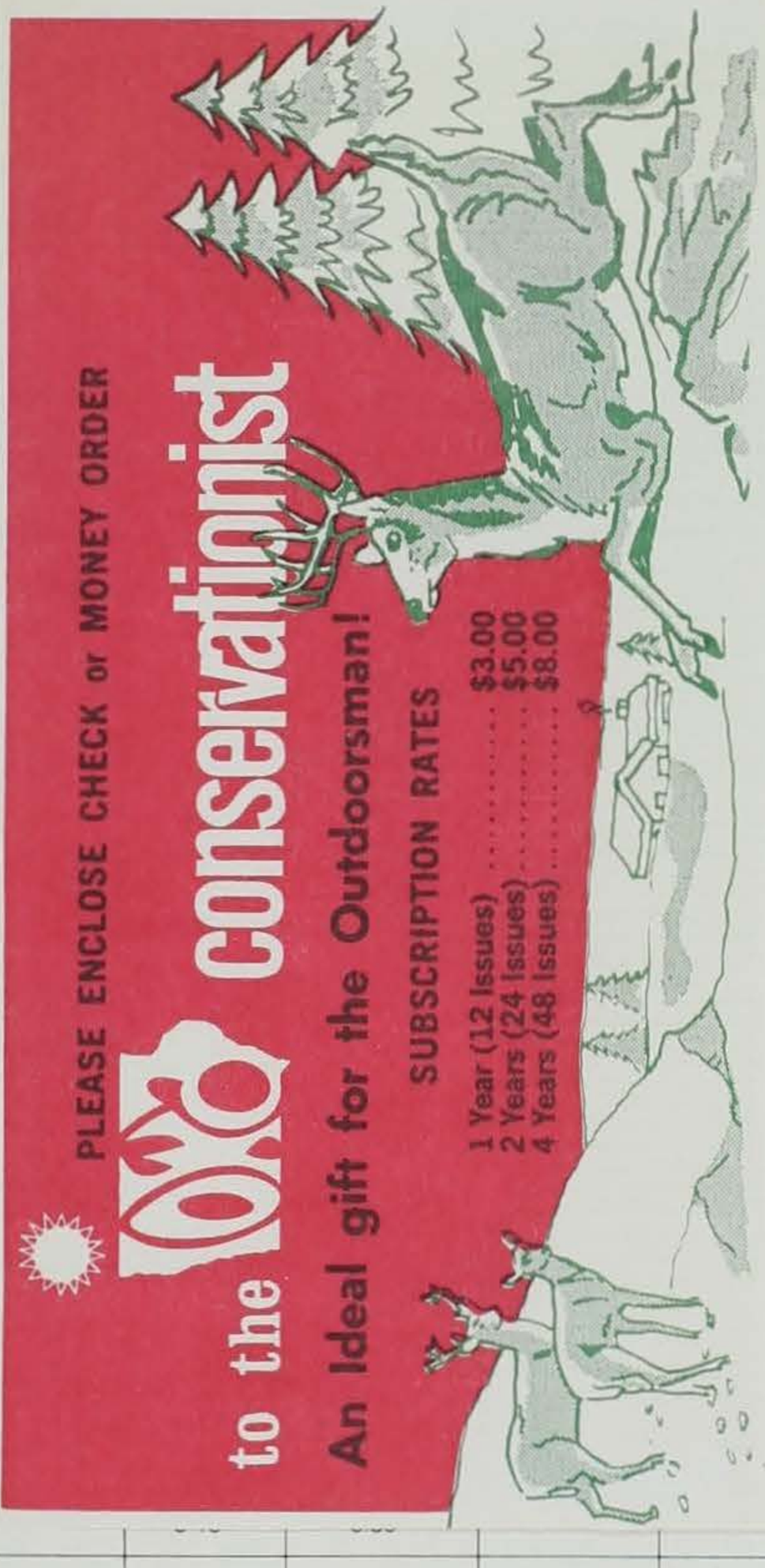
Species	Reforestation	
Pines and Larch	8' x 6' (908 plants/acre) — for timber 5' x 5' (1,742 plants/acre)— for Xmas Trees	
Walnut, Ashes, & Maple	8' x 8' (681/acre) to 12' x 12' (302/acre)	
Russian Olive		
Autumn Olive & other shrubs		

GENERAL INFO

Species	Mature Size Range	Moisture			Light			
		Dry	Well Drained	Moist	Full Sun	Some Shade		
White Pine	50-80'		X	X	X	X		
Scotch Pine	30-60'	X	X		X			
Red Pine	50-80'		X		X			
Ponderosa Pine	60-100'	X	X		X			
Jack Pine	35-50'	X	X		X			
Austrian Pine	50-60'	X	X		X			
European Larch	70-75'		X	X	X			
Black Walnut	50-70'		X		X			
Green Ash	50-60'		X	X	X			
Shagbark Hickory	60-80'		X		X			
Red Oak	60-80'		X	X	X			
Bur Oak	70-80'	X	X	X	X			
White Oak	50-80'		X	X	X			
Mixed Oak								
Osage Orange	20-40'	X	X		X			
Wild Plum	12-15'	X	X	X	X	X	Hardy. Forms thicket. Good wildlife habitat. Native.	
Russian Olive	12-15'	X	X		X	X	Very hardy plant. Good food for wildlife. Drought resistant.	
Autumn Olive (Cardinal strain)	12-18'		X		X	X	Good wildlife food and habitat. Plant on protected site.	
Tatarian Honeysuckle	10-12'	X	X		X	X	Very hardy. Dense growth. Good wildlife habitat and food for birds. Fruit available July-August.	
Amur Honeysuckle	12-15'	X	X		X	X	Occasional winter killing of branches in northern Iowa. Fruit available in September-November. Good wildlife habitat and food for birds.	
Ninebark	5-9'		X	X	X	X	Very hardy. Good wildlife habitat. Native to most of state.	
Redosier Dogwood	7-9'		X	X	X	X	Produces cluster of stems from ground. Good wildlife food and habitat. Native to NE Iowa.	
Gray Dogwood	10-15'	X	X	X	X	X	Hardy. Forms large colony of plants from original. Good cover. Native.	
Common Lilac	8-15'		X		X		Hardy. Shrub border or in groupings. Good wildlife habitat.	
Wildlife packet								

IMPORTANT Tear off Flap on perforation before sealing

REMEMBER TO ENCLOSE PROPER REMITTANCE WITH ORDER



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Use

1983 APPLICATION FORM

IOWA CONSERVATION COMMISSION

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(MAIL ADDRESS)

(CITY) (STATE) (ZIP)

(PHONE NUMBER)

(LANDOWNER OR AGENT SIGNATURE)

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S

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Russian Olive	
Autumn Olive & other shrubs	

GE

Species	Mature Size Range	Moisture		
		Dry	Well Drained	Mois
White Pine	50-80'		X	X
Scotch Pine	30-60'	X	X	
Red Pine	50-80'		X	
Ponderosa Pine	60-100'	X	X	
Jack Pine	35-50'	X	X	
Austrian Pine	50-60'	X	X	
European Larch	70-75'		X	X
Black Walnut	50-70'		X	
Green Ash	50-60'		X	X
Shagbark Hickory	60-80'		X	
Red Oak	60-80'		X	X
Bur Oak	70-80'	X	X	X
White Oak	50-80'		X	X
Mixed Oak				
Osage Orange	20-40'	X	X	
Wild Plum	12-15'	X	X	X
Russian Olive	12-15'	X	X	
Autumn Olive (Cardinal strain)	12-18'		X	
Tatarian Honeysuckle	10-12'	X	X	
Amur Honeysuckle	12-15'	X	X	
Ninebark	5-9'		X	X
Redosier Dogwood	7-9'		X	X
Gray Dogwood	10-15'	X	X	X
Common Lilac	8-15'		X	
Wildlife packet				

Wild Plum	12-15'	X	X	X	X	X	Hardy. Forms thicket. Good wildlife habitat. Native.	
Russian Olive	12-15'	X	X		X	X	Very hardy plant. Good food for wildlife. Drought resistant.	
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BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 781 DES MOINES, IOWA

POSTAGE WILL BE PAID BY

Conservationist

WALLACE STATE OFFICE BUILDING
DES MOINES, IOWA 50319

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

1983 APPLICATION FORM

1. DELIVERY INFORMATION
(Please print)

☐ I will pick up my order at the nursery when notified.
☐ I want my order shipped by UPS to the address below:

(NAME)

(ADDRESS)

(CITY) (ZIP) (PHONE)

2. NURSERY STOCK REQUESTED
(Do not order less than 500, in units of 100)

Species	Height	Cost plus tax/hundred	Number Wanted	Office Use Only
White Pine	5-12"	6.30		
Scotch Pine	5-12"	6.30		
Red Pine	6-14"	6.30		
Ponderosa Pine	5-12"	6.30		
Jack Pine	6-14"	6.30		
Austrian Pine	5-12"	6.30		
European Larch	6-14"	6.30		
Black Walnut	10-18"	6.30		
Green Ash	8-18"	5.80		
Shagbark Hickory	4-12"	5.80		
Red Oak	6-18"	5.80		
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FORESTRY SECTION
IOWA CONSERVATION COMMISSION

The Forestry Section of the Conservation Commission assists the people of Iowa to enhance the woodland resources by following this broad objective: To foster environmental protection and strive to insure, for present and future generations, the greatest economic and social benefits from trees, forest land, and related resources. The Forestry Section works toward these objectives through forest management, tree planting, forest protection, timber processing improvement and demonstration of woodland values. These services are available to all landowners, public and private.

For planting information and other assistance concerning the management, harvesting, marketing and utilization of your woodlands, contact the District Forester serving the county in which your land is located (see map on back of application). This is a free service, and we urge you to contact them before you plan any special or extensive plantings.

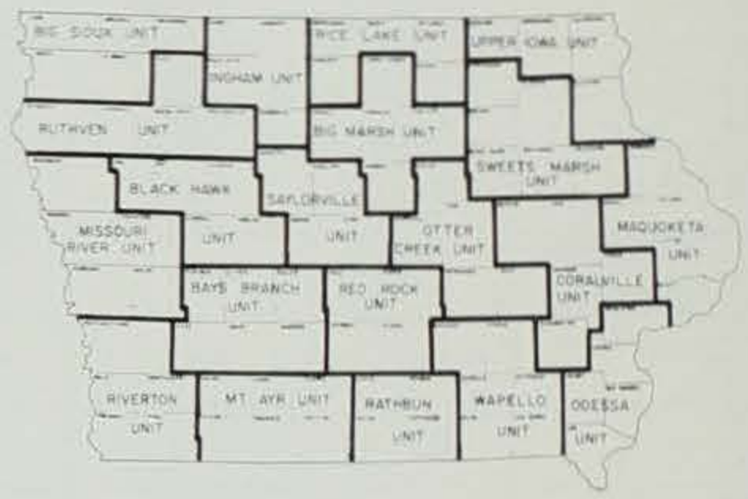
Similar management advice for wildlife is available from Wildlife Management Biologists (also listed on the back of the application). Planting assistance may also be available from your County Conservation Board. A list of pamphlets about various aspects of forestry is available from Forestry Extension, Iowa State University, Ames, Iowa 50011. Write them for a copy.

DISTRICT FORESTER ADDRESSES

1.	ELKADER	Box 662, 52043,	(319) 245-1891
2.	CHARLES CITY	Box 4, 50616,	(515) 228-6611
3.	MARSHALLTOWN	Box 681, 50158,	(515) 752-3352
4.	ANAMOSA	Box 46, 52205,	(319) 462-2768
5.	WAPELLO	Box 62, 52653,	(319) 523-8319
6.	FAIRFIELD	Box 568, 52556,	(515) 472-2370
7.	CHARITON	Stephens State Forest, RR 3, 50049	(515) 774-4918
8.	ADEL	Box 175, 50003,	(515) 993-4133
9.	RED OAK	Box 152, 51566,	(712) 623-4252
10.	LE MARS	Box 65, 51031,	(712) 546-5161
11.	CRESTON	Box 2, 50801,	(515) 782-6761
12.	HUMBOLDT	102-8th St., S., 50548,	(515) 332-2761
	State Forest Nursery		(515) 294-4622

WILDLIFE MANAGEMENT BIOLOGIST ADDRESSES

1. Bays Branch Wildlife Unit — (515) 993-3911
   801 Court, Courthouse, Adel, 50003
2. Big Marsh Wildlife Unit — (515) 456-3730
   ASCS Office Bldg., Box 296, Hampton, 50441
3. Big Sioux Wildlife Unit — (712) 472-3751
   SCS Office Bldg., Rock Rapids, 51246
4. Black Hawk Wildlife Unit — (712) 664-2624
   RR #1, Lake View, 51450
5. Coralville Wildlife Unit — (319) 354-1074
   ASCS Office Bldg., 517 Southgate Ave., Iowa City, 52240
6. Ingham Wildlife Unit — (712) 362-7222
   SCS Office Bldg., 2109 Murray Rd., Estherville, 51334
7. Maquoketa Wildlife Unit — (319) 652-2456
   Pershing Rd. E., Maquoketa, 52060
8. Missouri River Wildlife Unit — (712) 423-2426
   SCS Office, Lindley Bldg., Onawa, 51040
9. Mt. Ayr Wildlife Unit — (515) 464-2220
   SCS Office Bldg., RR 3, Mt. Ayr, 50854
10. Odessa Wildlife Unit — (319) 523-8319
    ASCS Office Bldg., 117 S. 2nd St., Wapello, 52653
11. Otter Creek Wildlife Unit — (515) 484-3752
    USDA Office Bldg., 203 W. High St., Toledo, 52342
12. Rathbun Wildlife Unit — (515) 774-4918
    Highway 34 By-Pass, Chariton, 50049
13. Red Rock Wildlife Unit — (515) 961-2587
    Box 423, Indianola, 50125
14. Rice Lake Wildlife Unit — (515) 324-1819
    SCS Office Bldg., 706 1st Ave. N., Northwood, 50459
15. Riverton Wildlife Unit — (712) 624-9063
    SCS Office Bldg., Malvern, 51551



16. Ruthven Wildlife Unit — (712) 225-4595
    SCS Office Bldg., Cherokee, 51012
17. Saylorville Wildlife Unit — (515) 432-4320
    ASCS Office Bldg., 718 8th St., Boone, 50036
18. Sweet Marsh Wildlife Unit — (319) 882-4252
    816 Washington Ave., Fayette, 52142
19. Upper Iowa Wildlife Unit — (319) 382-4895
    ASCS Office Bldg., 911 S. Mill St., Decorah, 52101
20. Wapello Wildlife Unit — (515) 682-3552
    ASCS Office Bldg., 1309 E. Mary, Ottumwa, 52501

Fold Here

Place order form in separate envelope & mail to

Nursery Forester
State Forest Nursery
2404 South Duff Avenue
Ames, Iowa 50010-8093

Jerry Leonard

WARDEN'S DIARY

— DUCK HUNTERS —

By Jerry Hoilien

Duck hunters are a different breed of cat. The Doc Deerings, Bog Joneses, Fred Stevensons, and Strangel Brothers of the old Missouri River Days were legends of their time. It was a different era of the wild Missouri, with endless flights of snow and blue geese winging down the river, and noisily coming back up in the spring. I wouldn't say there was any spring shooting in those days, but hardware stores sold a lot of shells then. As Fred would say, *"Keeps 'em wild, and, besides, the cripples stay around to nest here"*. Maybe there was some truth in that.

Today's duck hunter has more restrictions and regulations than any other, and yet, has a loyal following that will still be out there in the misty dawn, thrilling to the sounds of whistling wings, even if the limit gets to only one. Some think it's a dying art, but I don't agree. It's still crowded out there on opening day, but during the week and with cooler weather, there is lots of room.

Ol' Doc Deering used to claim it took a clear mile on all sides of you to really work geese. As "ornery" as Doc was on the river, he got the room, too. They told of the time he shot the low flying airplane — put a lot of holes in the fabric, but fortunately missed the pilot. *"Why"?* yelled the sheriff across the slough. *"Too low — if my shotgun can reach him — he's too low"*, replied Doc! The fella patched his own plane. Doc knew ducks as *"mallards, gray ducks, and those fast little rascals"*.

With the advent of the point system, things changed. When I first heard about it, I wondered what we were getting into, but here was the first time we could reward a hunter for knowing his ducks. If he could identify ducks on the wing and pick out the lower point duck, he could shoot more ducks. If he couldn't identify on the wing, he could do it in hand as he retrieved each duck and know right where he stood. Then if he got a high point bird on the last shot he was not in violation, as he had exceeded 100 points on the last bird. Of course, there are some who like to reorder, but that's where a good warden back in the weeds with a pair of binoculars earns his pay. I've walked into ponds where there were several hunters around the edge and when wood ducks (high point birds) come squealing in, the first hunter to identify them hollered "wood ducks" and they sailed right over the head of each one without a shot fired. The *point system works*.

The officer's section really deserves a lot of credit in helping to educate today's duck hunter. Duck identification meetings were set up all over in those days. Duck-wing boards were made up, showing how to identify ducks by their wings and the points that were assigned each species. One officer, Dick Johnson of Missouri Valley, even set up a display in the local bank (the banker was a duck hunter) and found a tremendous amount of interest.

As the years pass, I see the average duck hunter become more and more knowledgeable of duck species. Duck identification is now taught in all the hunter safety classes. Incidentally, the new law going into effect in 1983 requires a person born after 1967 to take a hunter safety course prior to being issued a hunting license. This has been a requirement in many of our neighboring western states for years, *and* your *Iowa* Hunter Safety Certificate is good in all other states and Canada. So see to it your youngsters get theirs.

I took my daughter duck hunting during the early teal season (the year before the point system). The weather was perfect and there were lots of birds, but I spent a frustrating morning with my hand on her head. I would identify the bird as it came in, release her like a jack-in-the-box, so she could try to shoot at a going away bird. Very frustrating for both of us, after all, what is a warden to do with his 14-year old daughter who shoots an illegal wood duck?

With the advent of the point system if she got a wood duck instead of a teal she got her limit in a hurry (90 points), but father could breath a lot easier.

Oh yes, when you're cutting up your chicken for the charcoal grill, save the fat you cut off (it smokes if you don't), and put that on top of your stuffed wild duck or goose when baking. It adds the needed moisture and flavor.

Early Conservationists

By Cecilia A. Smith Burnett

Iowa may not be blessed with the dramatic mountain and desert scenery associated with pioneers and leaders in the conservation field like John Muir and John Wesley Powell. But our state has born, raised and educated more than its share of American conservationists contributing to all areas of natural resource management.

W. J. (William John) McGee was born April 17, 1853 near Farley, Iowa. Mostly self-educated in anthropology, geology and hydrology, he received an honorary doctorate degree from Cornell College in 1901. McGee served the federal government throughout his career, working for the U.S. Geological Survey, the Bureau of American Ethnology, and the U.S.D.A. Bureau of Waters. As secretary of the Section of Waters for the National Conservation Commission, McGee helped compile the first inventory of the nation's natural resources in 1908. He was one of the principal founders of the conservation movement at the turn of the century, along with contemporaries and such notables as President Theodore Roosevelt and forester Gifford Pinchot. McGee died September 4, 1912.

George Oliver Shields, born at Batavia, Ohio on August 26, 1846, attended common school in Delaware County, Iowa. He served as editor and publisher of a number of magazines, using the publications to advance conservation causes, especially wildlife protective laws. Shields later devoted his full time to lecturing and writing on conservation, using the pseudonym Coquina. He died November 10, 1925.

Though born on December 1, 1854 near Plainfield, Indiana, William Temple Hornaday received his education at Oskaloosa College and Iowa State Agricultural College, now ISU. He was instrumental in starting the National Zoological Park in Washington and the New York Zoological Park. World-renowned as a zookeeper, he became equally famous as a champion of wildlife protection, often with caustic tongue and pen. His efforts were credited with helping to save the American bison, the pronghorn antelope and the Alaskan fur seal from threatened extinction. Hornaday died March 6, 1937.

Davenport native Ernest C. Oberholtzer, born in 1884, left the state to explore the Canadian wilderness by canoe. His knowledge of the scientific and recreational aspects of the area led to his involvement in the political battles which ultimately led to the preservation of the Boundary Waters Canoe Area. He was awarded the Department of the Interior's Conservation Award in 1967.

Thomas George Scott, born May 22, 1912, came from Youngstown, Ohio to receive his education at Iowa State University. He was assistant state entomologist, extension wildlife conservation specialist, ISU instructor, leader of the Iowa Cooperative Wildlife Research Unit and biologist with the U.S. Fish and Wildlife Service. With special research interests of predation and wildlife ecology, Scott is author of more than 80 titles in ornithology, mammalogy, wildlife management, food habits, conservation and pesticides.

Iowa became the home of Harold Wayne Pritchard born March 13, 1916 near Saskatchewan, Canada. Educated at ISU, he taught vocational agriculture at schools in Greene, Early and Sac City. His service with the Iowa State Soil Conservation Committee and the Soil Conservation Society of America, has earned Pritchard a number of awards and honors. He was also elected a member of the Pan-American Soil Conservation Commission in 1966, the only member of the commission from North America.

DeWitt Nelson, born January 13, 1901 in Madrid, Iowa, and educated at Iowa State College (now ISU), devoted his career to the field of forestry. He joined the U.S. Forest Service in California and served as ranger and supervisor of a number of forests before becoming state forester of California and later director of California's Department of Natural Resources. He later returned to Iowa as professor of forestry at Iowa State University. He is now retired.

Born May 25, 1915 in Gary, Indiana, Kenneth Dixon Carlander came to Iowa in 1946 as professor of zoology and leader of the cooperative fishery research unit at ISU. In the years since, he has achieved distinction at ISU by guiding over 100 graduates in fishery science, many of whom hold important positions in government, industry and education. As author and co-author of a number of articles in the fields of ornithology, herpetology and fisheries and as editorial assistant to several scientific periodicals dealing with research in fishery biology, Carlander is recognized as one of our leading conservation educators.

These are but a few of Iowa's conservationists, leading the way for others and contributing their expertise and skills to conservation causes and issues. In the months to come the *Iowa Conservationist* will feature articles on the lives and accomplishments of other Iowans — Jay Norwood (Ding) Darling, Paul Lester Errington, Aldo Leopold — who have been leaders in the conservation field. It will be an enjoyable and encouraging history lesson.

Cecilia A. Smith Burnett is a student at Iowa State University majoring in Fish and Wildlife and journalism.

Ken Formanek

The Bluegill

A FISH FOR ALL SEASONS

By Don Kline

We have a fish species in Iowa's waters which does not evoke visions of trophy and is not the basis of often told fish stories. But, they are always there when we need them. Bluegill offer Iowa's anglers the chance to catch scrappy, delicious fish during any season of the year.

The spring of the year busts upon us with a rush of fishing opportunities. Bass, fooled by the flash of a spinner bait, burst out of the water and attempt to shake the lure and intimidate the angler. The image of a hefty trophy bass fills the mind, and many an office wall holds the treasure of a memorable spring fishing trip.

But the *bluegill* is there too! Those saucer shaped nesting areas in shallow water provide ample opportunity to participate in some of the finest angling anywhere. Small dark flies laid over a nest can evoke the wrath of large male bluegills guarding the nest. Although feeding is not on their mind, they refuse to allow anything within their territory. They may even brush your lure aside several times before attempting to remove it with their mouth. You will soon learn what the expression, "a blink of the eye" means. The bluegill can pop that lure into its mouth and spit it out of the nest area while you blink.

The hot sultry days of summer bring an end to the aggressive spring fishing. A catfish sucks in the stink-baited sponge and the battle begins to keep him out of the brush pile or rocky crevices. The mind's eye sees a hefty channel cat or flathead bending the stiff pole.

But the bluegill is there too. Hand sized bluegill have taken up residence around fallen trees, stumps or man made fish structures. Shore or boat fishing will do. Just be careful to approach the spot like a cat stalking a mouse. A long cane pole or ultra lite can lightly lay the small hook, split shot and dime sized bobber next to the hide. Within seconds, sometimes before the bait even has a chance to sink, the bobber will bounce a couple of times and disappear. You will be able to keep up with only one pole, and the worm supply will vanish like money in today's economy.

The cool breezes and autumn colors signal a renewal of aggressive fishing that has been missing for several months. Anglers are busy making their last fishing trip to their favorite lake. Large fish seem to be the order of the day. Bass or catfish eager to get their last meal before cold weather abandon caution and find themselves hooked to a stout rod and reel.

But the bluegill is *there* too! Now is the time to fill the freezer with several pounds of some of the best tasting fish flesh found anywhere. The term "panfish" must have been coined after some angler of antiquity finished a satisfying skillet of pan fried bluegill. The small hook and pinch of worm is still effective, but no not overlook the popper or sponge and rubber spiders. The light touch is still important and perhaps needs to be emphasized even more during this time of year. Remember, the average bluegill would have difficulty swallowing a pea and they can detect the slightest resistance of line, weight or bobber. The larger they are the longer they have survived and avoided those anglers who came before you.

Chisels and augers become the tools of the trade as ice forms between you and the fish. Winter means a period of reduced activity for fish, because their body temperature becomes very close to the same as the water. Body fat stored during fall provides the bulk of necessary energy to carry fish through this trying time.

Dress warmly and cut a few holes in the ice. Schools of silver sided crappie will oblige the hardy angler who has the knack of jigging artificials or minnows.

But — the bluegill is there too! Look for fallen trees near shore or get a contour map and check out the deeper water drop-offs. Lower a small chunk of worm on a small hook, or dress up a small ice jig with a mousy or grub. A school of scrappy bluegill can make you forget about time as they compete with each other for that tempting morsel.

The bluegill, a fish to which we hardly give a second thought because they seem to be always there when we need them, deserves our admiration and respect. They are truly a fish for all seasons!

Don Kline is a fisheries management biologist stationed at the southeast district office, Lake Darling State Park, Brighton. He has worked for the Commission for over 15 years and is a graduate of Iowa State University.

Fred Lattner

Backyard Wildlife Habitat

By Cecelia Burnett

When you think of wildlife, what do you see? A pack of timber wolves holding an aged and sickly moose at bay? A bald eagle swooping down on a stream swarming with migrating chinook salmon?

And what about habitat? Do you see majestic snow-capped mountain peaks piercing the clouds? A dark, cool, seemingly-endless expanse of oak and hickory, interspersed with patches of woodland flowers and ferns?

Why not think smaller and closer to home? Why not think about urban wildlife? It's more than a neatly manicured lawn, shrubbery and garden, more than house sparrows and starlings.

Urban wildlife includes all non-domestic mammals, birds, amphibians, reptiles and insects living in an urban setting. It also includes the trees, shrubs, bushes, grasses and flowers which provide the basics of life.

City parks, cemeteries, transportation and utility rights-of-way, stream and river banks, private home backyards, lawns and gardens — they all serve as travel corridors and pathways for wildlife to move from place to place. They also act as islands and refuges from the hazards of the urban desert.

People can appreciate these shelters of greenness and coolness as well. Even in an agricultural state like Iowa, most of us live in cities and towns. The vegetation attracts the wildlife and is aesthetically pleasing, but there are many more added benefits of plants.

In the act of photosynthesis, the oxygen we breathe is released by plants. They provide shade and act as noise buffers. They cool the air and break the flow of wind and snow. Soil erosion rates are reduced and ugly sights are screened from view. Vegetation offers privacy, recreation and potential for food and firewood. Besides increasing property values, vegetation also simply enhances the quality of our lives.

The attracted wildlife animals have their benefits as well. They provide natural pest control; images of chimney swifts swooping down on mosquitoes and toads snapping up flies come to mind. Animals can act to aerate and improve the soil (earthworms) and to serve as carrion and waste removers (raccoons and skunks).

Interactions with nearby wildlife are aesthetically enjoyable, again adding to

the quality of life. Animals can provide an education in ecology, the study of the interactions of wildlife and habitat which includes people and their environment.

And perhaps most important to people aware of the interference and influence of mankind on the environment, wildlife animals are indicators of environmental quality. When once-prevalent bluebirds rarely return to the wooded park, perhaps the habitat has become too polluted or sparse for the birds to reproduce and survive as a species.

To prevent such loss or degradation of wildlife habitat, many levels of government are incorporating the blending of wildlife biology and landscape planning into their programs. The Ames Parks and Recreation Department has decided to turn economic constraints into ecological benefits. Due to decreased funding the department is planning to cut back on mowing in certain park areas, allowing them to revert back to their natural conditions.

Parks and Recreation Director Joe Stevens, in a news release, said, "The forest and therefore some of our parks include an inconspicuous array of little things of beauty and amazement, such as spider webs, wiggly worms, dew drops in the early morning sun, mushrooms and snow dripping of the trees in winter.

"Decreasing our mowing and increasing their living space is a nice gesture on our part since they are sharing an area which was once their exclusive territory."

The Iowa Conservation Commission has started a program to improve wildlife habitat in parks and recreation areas. Director Larry Wilson said he wants to "showcase" wildlife animals by leaving certain areas unmowed; planting native prairie grasses, hedges and shrubs; building small ponds or marshes; and erecting nest boxes for birds and mammals.

The ICC wants to make the areas "more attractive to wildlife and therefore for more benefit to people." The projects should serve as "examples to the public of things they can do that would improve wildlife habitat."

It is tempting to rely on the government to provide us with these pockets of urban wildlife and habitat. But we should take on the example of the ICC and plan our own backyards to benefit wildlife. Individually it may not seem important, but collectively it can be invaluable to wildlife.

In a backyard measuring about one-eighth of an acre in the center of Ames, we've supplied the basics of food, water and cover for a number of wildlife species. Redbud, mulberry, lilac and cherry trees, in addition to a border of dense hedges and one very large locust tree, provided shelter and cover this winter for nuthatches, redpolls, pine siskins, brown creepers, three species of woodpeckers, and many, many goldfinches. A birdbath, a suet feeder, and two bird feeders offering a variety of thistle, sunflower and mixed seeds attracted a total of 22 bird species, as well as chipmunks, fox squirrels and cottontail rabbits. Future plantings of snowberry and coralberry, potentilla and dwarf ninebark will provide the diversity of height and density, food and cover necessary to attract a variety of wildlife.

We've seen harbingers of spring such as the hermit thrush, house wren and yellow-rumped warblers, and we look forward to the sights and sounds of spiders and crickets, millipedes and bees, butterflies and moths. We'd welcome raccoons, skunks and mice, while rock piles and an old log will be tucked under the dense hedges to attract and shelter lizards, salamanders, toads and snakes.

A diversity of vegetative species, offering a variety of food, cover and habitats, attracts various wildlife animals, all in the center of the city.

Think smaller and closer to home. Think about urban wildlife.

Ken Formanek

For more information consult the following:

Invite Wildlife to Your Backyard. National Wildlife Federation, 1412 16th St. N.W., Washington, D.C. 20036

Attracting Backyard Wildlife. Iowa Conservation Commission, Wallace State Office Building, Des Moines, Iowa 50319

Invite Birds to Your Home: Conservation Plantings for the Midwest. U.S.D.A. Soil Conservation Service, 210 Walnut Street, 693 Federal Building, Des Moines, Iowa 50309

Planning for Wildlife in Cities and Suburbs. Office of Biological Services, Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240

A Guide to Amphibian and Reptile Conservation. Natural History Section, Missouri Department of Conservation, P.O. Box 180, Jefferson City, Missouri 65102

RECORD RACKS '82

Over 80 entries were recorded for 1982's trophy deer rack program, making it another great year, with Iowa hunters entering racks of outstanding quality.

The largest racks measured in 1982 in their respective categories were taken by the following hunters:

Shotgun typical — Jerry E. Grenko of Numa
Shotgun nontypical — George Foster of Creston
Bow and arrow typical — Richard Swim of Des Moines
Bow and arrow nontypical — Tim Digman of Dubuque

A trophy rack entered by George Foster of Creston qualified for the all-time top ten shotgun nontypical category. The deer scored 220, placing it eighth in this category.

In the bow and arrow typical category, Richard Swim of Des Moines moved into third place with his entry scoring 190⅝, and Dan Block of Thompson placed ninth in the all-time top ten with a score of 170⅝.

Tim Digman of Dubuque placed eighth among the all-time top ten entries in the bow and arrow nontypical category. His rack scored 190⅝.

In order to enter your trophy, it must be legally taken with bow and arrow or shotgun-muzzleloader within Iowa boundaries. If the rack meets minimum scoring standards, you qualify for a certificate and a colorful shoulder patch in recognition of your feat. Unentered deer taken in past seasons as well as the present are eligible for entry. To have the rack officially measured, simply contact the Iowa Conservation Commission, Information and Education Section, Wallace State Office Building, Des Moines, Iowa 50319. After we receive notification, we will forward a name of an official scorer who may be contacted. Because of shrinkage in varying degrees when antlers dry out, they cannot be officially measured for at least 60 days from time taken.

Shotgun Typical

(Minimum Qualifying Score — 150 Points)

Name	Address	Year	County Taken	Total Score
Jerry E. Grenko	Numa	1981	Appanoose	172⅜
Jim Hoffman	Lamoni	1981	Ringgold	172⅛
Gary Johnson	West Des Moines	1981	Warren	171⅜
Mike Williams	Albia	1981	Keokuk	171
Robert Evans	Eldora	1981	Hardin	170⅝
Kenneth Hollister	Burlington	1981	Des Moines	170⅜
Kory Sanderson	Osceola	1981	Clarke	170
Lewis E. Dallmeyer	Columbus Junction	1981	Henry	169⅜
Bryson Cox	Moravia	1981	Appanoose	169
Mike Orness	Marion	1981	Van Buren	168
Jerry Hill	Prairie City	1981	Polk	166⅝
Timothy Shaffer	Cedar Rapids	1981	Winnebago	166
Jim Phillips	Anita	1980	Cass	164⅜
Greg Miller	Eldora	1981	Hardin	164⅜
Roy Turner	Bloomfield	1981	Wapello	164⅜
Harold Scott Moore	Creston	1981	Adair	163⅝
Doug Fuller	Ames	1981	Adams	162⅜
Bob Caven	Maquoketa	1981	Jackson	162⅛
Richard D. Jasper	Dyersville	1981	Des Moines	159⅜
Mark Savage	Williamson	1981	Lucas	158⅛
Jerry Haufbauer	Delhi	1962	Delaware	157⅞
Dennis Boddiker	Prairie City	1981	Marion	157⅝
Randy Peterman	Gravity	1981	Taylor	157⅝
James Onthank	Grinnell	1978	Wapello	157⅜
Mike K. Griffin	Belmond	1981	Des Moines	157
Larry Barber	Anita	1981	Cass	156⅞
Dave Steffa	Chariton	1981	Des Moines	156⅝
Jerry W. Brown	Castalia	1980	Winneshiek	156⅜
Steven Schlief	Dayton	1981	Webster	156
Bud Behne	Calamus	1981	Jackson	155⅞
Robert Hoeppner	Reinbeck	1981	Ringgold	155⅞

Name	Address	Year	County Taken	Total Score
Waltin Olson	Calamus	1981	Jackson	154⅝
David Nadler	Des Moines	1981	Lucas	154⅛
Mike Miller	Moorhead	1980	Monona	154
Russ Caguelin	Woolstock	1981	Webster	153⅛
Larry Stapp	Washington	1970	Louisa	153⅛
Glen Adams	Agency	1981	Davis	152⅝
Larry Jackson	Hancock	1981	Mills	152⅛
Gary Lienhard	Cresco	1980	Winneshiek	151⅞
Gary W. Bakken	Decorah	1981	Winneshiek	151⅝
Mark Devore	Prescott	1981	Adams	151⅜
Ernest Carr	Onslow	1981	Jones	151⅛
Brad Coulson	Ankeny	1981	Guthrie	150⅞
Doug Stogdill	Manson	1981	Decatur	150⅞
Kenneth Olsen	Audubon	1981	Audubon	150⅝
Vern Kluesner	Dubuque	1981	Jackson	150⅜
Bill Wolhers	Logan	1981	Harrison	150⅜
Steve Keith	Des Moines	1981	Wapello	150⅛
Dick Wagaman	Moscow	1981	Cedar	150⅛
Lowell Rucker	Clarinda	1981	Taylor	150

Shotgun Nontypical
(Minimum Qualifying Score — 170 Points)

Name	Address	Year	County Taken	Total Score
George Foster	Creston	1968	Union	220
James D. Miller	Maquoketa	1981	Jackson	212⅛
Galyn Mitchell	Villisca	1981	Taylor	201⅞
Wayne Bohlken	Anamosa	1981	Jones	196⅛
Bob McWilliams	Deep River	1981	Van Buren	190⅝
John Bohlen	Janesville	1981	Butler	190⅝
Mark Miller	Maquoketa	1981	Jackson	186⅝
Jerry Hill	Prairie City	1972	Clarke	184⅜
Lee Haug	New Market	1981	Taylor	183⅜
Mark W. Carter	Stockport	1976	Van Buren	175⅜
Roger E. Bertrand	Council Bluffs	1981	Shelby	171⅛

Bow and Arrow Typical
(Minimum Qualifying Score — 135 Points)

Name	Address	Year	County Taken	Total Score
Richard Swim	Des Moines	1981	Warren	190⅝
Dan Block	Thompson	1981	Mitchell	170⅝
Dennis De Moss	Knoxville	1981	Monroe	167⅜
Bob Nicolay	Oelwein	1981	Fayette	163⅜
Gary Burmeister	Tipton	1981	Scott	159⅛
Steve Rochleau	Fort Dodge	1981	Kossuth	158⅛
Steven Tilley	Eddyville	1981	Marion	153⅜
Larry Sipple	Storm Lake	1981	Clay	152⅞

Name	Address	Year	County Taken	Total Score
John Shafer	Underwood	1980	Pottawattamie	150⅝
Leonard Grimes	Pella	1981	Marion	148⅝
Merl Comer	Tingley	1981	Ringgold	146⅜
Kenneth A. Olson	Harlan	1981	Shelby	141⅞
Tom L. Kruger	Allendorf	1980	Osceola	141⅝
Jack C. Hahn	Middle Amana	1981	Iowa	139⅝
Steve Schuck	Sibley	1981	Cherokee	139⅜
Joe Morris	Des Moines	1981	Polk	137⅝
Larry Guy	Brighton	1981	Washington	136⅞
David Becker	Oelwein	1981	Delaware	136
Merl Stevens	Marshalltown	1981	Appanoose	136
Glenn E. Wagner	Donnellson	1981	Lee	135⅝

Bow and Arrow Nontypical
(Minimum Qualifying Score — 155 Points)

Name	Address	Year	County Taken	Total Score
Tim Digman	Dubuque	1981	Lee	190⅝

ALL-TIME TOP TEN RACKS

Shotgun Typical

Name	Address	Year	County Taken	Total Score
Wayne A. Bills	Des Moines	1974	Hamilton	199⅝
George L. Ross	Ottumwa	1969	Wapello	195⅛
Dennis Vaudt	Storm Lake	1974	Cherokee	187⅝
Randall Forney	Glenwood	1971	Fremont	186⅜
Jack W. Chidester, Jr.	Albia	1976	Monroe	186⅛
Franklin Taylor	Blencoe	1976	Monona	185⅝
Marvin Tippery	Council Bluffs	1971	Harrison	185⅛
Cecil Sitzman	LeMars	1957	Plymouth	184⅜
Wayne Swartz	Bedford	1967	Taylor	183⅞
Austin Watters	Ottumwa	1974	Van Buren	183⅝

Bow and Arrow Typical

Name	Address	Year	County Taken	Total Score
Lloyd Goad	Knoxville	1962	Monroe	197⅝
Robert Miller	Wyoming	1977	Jones	194⅜
Richard Swim	Des Moines	1981	Warren	190⅝
Gary Wilson	Cherokee	1974	Cherokee	175⅛
Gordon Hayes	Knoxville	1973	Marion	175⅛
Don McCullough	Conesville	1980	Muscatine	174⅞
Jack Douglas	Creston	1974	Union	173⅜
Ardie Lockridge	Amana	1965	Iowa	172⅜
Dan Block	Thompson	1981	Mitchell	170⅝
Bob Fudge	Burlington	1966	Des Moines	170⅝

Shotgun Nontypical

Name	Address	Year	County Taken	Total Score
Larry Raveling	Emmetsburg	1973	Clay	282⅝
Carroll Johnson	Moorhead	1968	Monona	256⅜
David Mandersheid	Welton	1977	Jackson	253⅛
Duane Fick	Des Moines	1972	Madison	228⅜
LeRoy Everhart	Sumner	1969	Van Buren	224⅛
Donald Crossley	Hardy	1971	Humboldt	221⅛
Mike Pies	Ackley	1977	Hardin	221⅛
George Foster	Creston	1968	Union	220
John Meyers	Council Bluffs	1969	Pottawattamie	218⅛
Tom McCormick	Harpers Ferry	1977	Allamakee	215⅛

Bow and Arrow Nontypical

Name	Address	Year	County Taken	Total Score
Jerry Monson	Clear Lake	1977	Cerro Gordo	220⅞
Blaine Salzkorn	Sutherland	1970	Clay	218⅛
Phillip M. Collier	Burlington	1978	Des Moines	203⅝
Bill Erwin	Sioux City	1966	Woodbury	202⅛
Dorrance Arnold	Oelwein	1977	Clayton	200⅝
Dennis Ballard	Iowa City	1971	Johnson	197⅛
Marsha Fairbanks	Martelle	1974	Jones	197⅛
Tim Digman	Dubuque	1981	Lee	190⅝
Lyle Miller	Vinton	1977	Benton	188⅛
Richard Rekemeyer	Maquoketa	1974	Jackson	186⅛

Wildflower of the Month

Randall Maas

Indian Pipe
(Monotropa uniflora)

by Dean M. Roosa
& Mary Jean Hustan

Occasionally early autumn woodland wanderers will see a clump of white stalks with bowed heads growing from the forest floor. They stop to admire but leave wondering what they have seen — fungus? Flower?

Indeed they may wonder because this month's wildflower, commonly called Indian pipe, has lost the capability of photosynthesis — it does not contain chlorophyll, the green material of plants. The fibrous roots obtain nutrients from decaying matter — probably with the help of specialized fungi. The leaves are represented by scales which alternate along the stem. As the plant matures, it darkens in color, and the large ovary changes from its drooping position to an upright one.

This plant, also called ghost plant or ice plant due to its clammy feel and tendency to bruise and decay easily, is found in moist woodlands throughout Iowa. It is more common, however, in the eastern half of the state. Some autumns, a woodland may contain over a hundred clumps — the next year it may contain none. This is probably due to the amount of moisture and decaying plant materials in the woodland. Early Americans used juice from the stem of the Indian pipe for treatment of sore eyes and as a sedative.

The scientific name, Monotropa uniflora, means "one turn" and "one flower."

Because most people love to look at wildflowers only in the spring, they miss out on seeing this fascinating Iowa plant. Some fall, promise yourself you'll take time to meet this most unusual flower, the Indian pipe.

You can help Iowa's wild creatures

Contribute to their cause:

- It's important!
- It's easy!
- It's tax deductible!

The Chickadee Checkoff

THE ART OF JOHN BALD

In the unique realm of wildlife art, John Bald is on his way up. The Davenport artist has established himself as a popular painter of midwest wildlife and sells paintings nationwide.

Since winning the 1977 Iowa trout stamp design, he has won several national honors including last year's best overall category at the national wildlife art show in Kansas City.

With strong interests in local conservation, hunting and birdwatching, Bald's goal is simply to paint Iowa wildlife and Iowa habitat as well as he can.