

In search of Torrent Ducks along a stream in the Andean Lakes Region near Bariloche, Argentina. The Wellers are in a Citroen II CV.

WATERFOWL, SO. AM. STYLE

Milton W. Weller
 Assoc. Prof. of Wildlife Biology, I. S. U.

Anyone who is intrigued with waterfowl has read or heard of the many unusual varieties of ducks found in South America. I am no exception, and a life-long ambition was fulfilled when I spent nearly a year in Argentina in search of waterfowl. During the academic year of 1964-65, I took leave of my post at Iowa State University and, under the auspices of the National Science Foundation (Grant GB-1067), traveled to Argentina to study the little-known Black-headed Duck (*Heteronetta atricapilla*). This duck doesn't nest or rear its own young but lays parasitically in the nests of other marsh birds such as coots, ibises and ducks. In studying this unusual bird, I traveled widely and came into contact with 28 of the 38 species of Argentine ducks, and numerous other interesting marsh birds as well.

Chile—Torrent Ducks and Condors

Enroute south in August of 1964, my family and I stopped in Chile to appraise the possibilities of studying the Black-headed Duck there. Neither the political nor the ecological situation looked good and we decided not to stay in Chile—a fortunate move as no black-heads were even seen there during the year! However, we did have an opportunity to see some of the country and its birds.

Chile is a spectacular land because of its narrowness and its topography. From a beautiful deep-blue sea, the terrain rises slowly at first, then abruptly, ultimately reaching the highest point in the western hemisphere (nearly 23,000 feet) at Mount Aconcagua on the Argentina-Chilean border. Chile has a Mediterranean-type climate and is highly productive under intense management.

With the help of Mr. A. W. Johnson (author of "The Birds of Chile"), his family and colleagues, we were able to visit several of the major lakes where ducks were common. One trip took us to a little coastal lake near San Antonio, where we saw a typical arid land lake scene: a rim of dense, deep-green tules (*Scirpus californicus*) and quiet water dotted with the big and spectacular Black-necked Swans (*Cygnus melanocoryphus*). Despite the fact that it was still late winter, these birds were in pairs and they called constantly. In fact, there was even a brood of young swans already moving about. Numerous other ducks, coots and smaller marsh birds were seen.

Our most fascinating trip in Chile was a jaunt into a deep canyon in the Andes. This canyon (Los Quenes) was the product of a broad and rapid torrent which seemed to come out of the very foundations of immense, snow-capped peaks. A narrow gravel road led along the shore of the stream and allowed us to search much of the water for the object of our trip—Torrent Ducks (*Merganetta armata*). Luck was with us and we soon spotted a pair, then another, and another. They

(Continued on page 21)

Iowa Conservationist

Vol. 25 March, 1966 No. 3
Published monthly by the Iowa Conservation Commission, East 7th Street and Court Avenue, Des Moines, Iowa 50308. Address all mail (subscriptions, change of address, Form 3579, manuscripts, mail items) to above address.

Subscription price: two years at \$1.00
Second class postage paid at Des Moines, Iowa
(No Rights Reserved)

HAROLD E. HUGHES, Governor
E. B. SPEAKER, Director
JAMES R. SHERMAN, Editor
JACK HIGGINS, Managing Editor
JACK KIRSTEIN, Photographer
MICHAEL WOOLDRIDGE, Circulation
MEMBERS OF THE COMMISSION
ED WEINHEIMER, Chairman, Greenfield
LAURENCE N. NELSON, Vice Chairman, Bellevue

EARL E. JARVIS, Wilton Junction
ROBERT E. BEEBE, Sioux City
N. K. KINNEY, Ida Grove
MIKE F. ZACK, Mason City
KEITH A. McNURLEN, Ames

CIRCULATION THIS ISSUE 54,885

COMMISSION MINUTES

State Conservation Commission
Meeting Held in Des Moines,
February 1 and 2, 1966

Approval was given for permit for lagoon construction on West Okoboji Lake to Building Industries Inc. The Commission disapproved a request for a construction permit by Nodland to build a lake lagoon on West Okoboji Lake. Action concerning a permit for lagoon construction on Black Hawk Lake by Fred Wirtjer was deferred until bonding requirements could be agreed upon.

LANDS AND WATERS

Approval was given to the cancellation of Lands and Waters Conservation Officer Eligibility List.

The Commission authorized the Chief of Lands and Waters to enter negotiations with the Army Engineers concerning acquisition of land adjacent to the Red Rock Reservoir.

Approval was given to an agreement with the United States Army to use state land at Tyson Bend on the Missouri River for training facilities.

A new price of 24¢ per bundle on the sale of wood in the State Parks was approved.

Approval was given for permit to William Chase, Concessionaire at Lake Macbride State Park to use snowmobiles on the ice of that lake.

Approval was given for contracts to repair the Storm Lake dredge at a total cost of \$67,127.19.

Approval was given to the Constitution and By-Laws proposed by the Upper Mississippi River Conservation Committee at its meeting held in January at St. Louis.

Approval was given to a basic contract to be used in permitting lagoon construction work.

Approval was given to a construction contract for the building of roads, parking areas and beach at Prairie Rose Lake by the Paul Hoyt Construction Co. of Missouri Valley at a total cost of \$59,557.95. Bids for a bridge and culvert at Prairie Rose Lake were rejected and the Commission called for re-letting of this project.

The Commission approved the calling for bids on the clearing, grubbing and site clean-up and excavation of the lake bed at Spring Lake in Greene County.

FISH AND GAME

A temporary departmental rule establishing the 1966-67 fishing seasons and regulations was approved.

A temporary departmental rule for 1966-67 paddlefish regulations was approved concerning the taking of paddlefish from Missouri River for commercial purposes.

A permanent departmental rule covering scuba and skin spearing of rough fish was adopted which would provide for a 20 foot overall length of spear, lanyard and gun to be used in the spearing of rough fish. Divers must fly a flag with minimum dimensions of 12" by 15" with a 3" diagonal stripe. The diver is not to be more than 100 feet away from this flag.

Approval was given to the Northern Natural Gas Co. to construct a pipeline across Otter Creek Marsh in Tama County.

Approval was given to exercise an option for 10 acres at a cost of \$100.00 per acre in the Fallow Marsh area in Palo Alto County.

A plan for game food planting on Missouri River Lands was submitted and discussed. Commission emphasized that stronger efforts be made to enlarge the proposed areas.

No action was taken concerning the acquisition of Darby property adjacent to Lake O'Dessa in Louisa County.

Approval was given to condemnation proceedings on 102 acres known as the Maxwell Tract in the Hendrickson Marsh Area in Story County.

COUNTY CONSERVATION BOARD PROJECTS

Delaware County received approval to acquire 10 acres of additional land at the 166.5 acre county park called Fountain Spring Creek Park located on a trout stream about 3 miles northeast of Greeley.

Johnson County received approval for the acquisition of 4.72 acres of land under a sponsoring agreement with the State Highway Commission for the purpose of providing a highway safety rest area about 6 miles east of Iowa City.

Linn County received approval for the acquisition of 25 acres of additional land at no cost by the issuance of a tax certificate from the County Board of Supervisors to the 63.5 acres Chain Lakes County Park located on the Cedar River approximately 1½ miles southeast of the town of Palo.

Linn County received approval to acquire 10.7 acres of land at a total cost of \$22,750.00 as an addition to the 536 acre multiple use Pinicon Ridge County Park ½ mile west of Central City.

Winneshiek County received approval to acquire 9.66 acres of

Conservation Forum

Gentlemen:

I am an outdoorsman and I hope a sportsman. I am concerned about the scarcity of wild song birds. I would like to see laws passed controlling indiscriminate spraying of roadsides, elm trees, etc.

I saw many dead fish floating in the Maquoketa River all summer. I believe this must be caused by farm fallout of some kind, as I was above the city of Maquoketa and on the South Fork.

I also would like to see the fox declared a game animal, as well as some laws which would prohibit hunting or spotting by air planes.

A. E. P.
Charlotte, Iowa

More and more people are becoming concerned with herbicide and pesticide fallout. Until enough people believe that a problem exists and that controls are needed, it is doubtful if any such laws will be passed.

The same answer applies to your feeling toward the fox being declared a game animal. As the Assistant Superintendent of Game recently pointed out in the "Conservation Forum," the fact that a number of Counties pay bounties on fox would indicate that very few people have given your suggestion much thought.—Editor

Dear Friends in Conservation:

Planned for some time to tell you about our missing so many baby ducklings all summer long.

One Sunday when a couple of boys from my Sunday School Class came home with us, they couldn't wait to get to the pond.

They were watching the old duck and ducklings swim about when they saw a frog gobble one. They came screaming to the house, so I went down and saw the frog with one foot still sticking out of his mouth. One of the boys threw a rock, hit the frog and caused him to disgorge the duck—quite dead.

Now we are led to believe this is the way we've lost many, many ducklings throughout the past three years. The grandchildren and grandpa have always enjoyed eating frog legs, so we may be even in the long run.

Mrs. V. S.
Eddyville, Iowa

(Continued on page 24)

land at a total cost of \$1,500.00 for the purpose of developing a small county outdoor recreational area one mile southwest of Ossian.

Delaware County received approval for a development plan for Bailey's Ford Recreation and Access Area for picnicking, camping and river access.

Johnson County received approval for development plan for the Highway 6 safety rest area.

Jones County received approval for a development plan for 217 acre Central Park which includes an artificial lake intended primarily as a multiple use outdoor recreation area and for wildlife planting.

O'Brien County received approval for a development plan for 0.86 acre tract of land called Covey Church Park for children's playground, a parking area, picnic area and horseshoe courts.

Linn County also received preliminary approval for a project called the Sqaw Creek Multiple Use Outdoor Recreation Area which will ultimately consist of 770 acres of land to be acquired by the County Conservation Board.

GENERAL

Travel was approved to the Great Lakes Park Training Institute at Pokagon State Park, Angola, Indiana; the Midwest Governor's Conference at Lexington, Kentucky; the North American Wildlife Conference and Mississ-

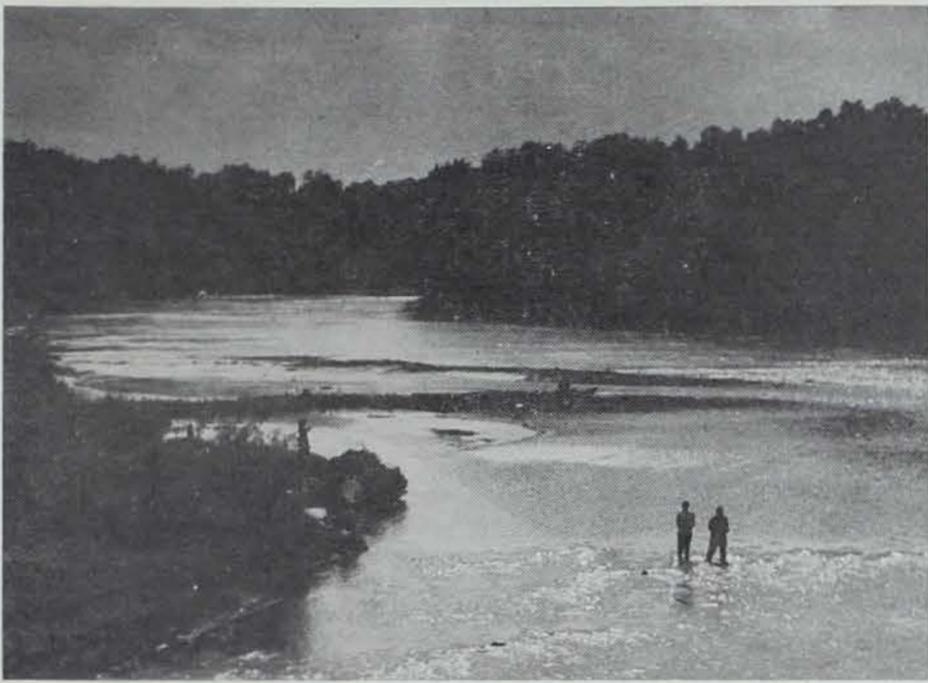
ippi Flyway Council at Pittsburgh, Pa.; the National Wildlife Federation Meeting at Pittsburgh, Pa.; the Mississippi Flyway Council Technical Session at Mobile, Alabama.

The Commission agreed to share with Pottawattamie County the estimated \$50,000.00 cost of building part of a road around Lake Manawa.

A report was given concerning a special meeting held at Guttenberg, Iowa to discuss the development of Bussey Lake at which meeting it was decided that the Commission should build a parking lot and boat ramp at Bussey Lake if the City and County agreed to provide camping facilities.

Informational items included a report on a neighborhood youth corps project, Missouri River access areas, up-dating of soil and water conservation needs study, Federal Aid Grant for Commercial Fisheries, appointment of a Conservation Officer to Crawford and Monona Counties, status of Iowa Public Service Land Transfer to the State and Humboldt County and the bonding of Commission employees.

The Indian Bluffs area proposal as reported in the February CONSERVATIONIST was incorrectly located on Wapsipinicon River. Indian Bluffs project has been proposed on the Maquoketa River east of Monticello.



Jim Sherman Photo.

Iowa's prairie rivers can offer beauty and recreation. It takes constant vigilance on the part of the users, however.

WHEN WILL IT STOP

Lacey Gee

Reprinted from the *Bulletin-Journal, Independence, Iowa*

I hope that 100,000,000 people saw the "20th Century" TV program, narrated by Walter Cronkite last Sunday afternoon. Those who did will certainly have a different attitude about the clean water bill that is being pushed by our government. Actually, when that program was over I was almost sick from looking at such pollution that exists in the Hudson river.

New York is crying about a water shortage when actually they have a half billion gallons flowing by their front door every minute of the day and yet that river is so polluted that the water cannot be cleaned and sterilized enough to make it usable. Everything from raw sewage to chemical wastes are dumped into the Hudson without any treatment what-so-ever.

Few of us out here realize the extent of pollution throughout the more populated areas of our country. Many have the idea that it can't happen to our section. But they are sadly mistaken as this sort of thing has already happened to many of our streams. Why do you suppose that during the summer the old Wapsie river gets dirty looking? It's primarily because of the silt, algae and bacteria present that is caused by too much pollution.

You can believe it or not, but 50 years ago the Wapsie was a clear stream, just as clear as any lake water you ever saw. Now that our population has increased and the addition of homes along the rivers, hard usage by boaters, extensive farming along the watershed, plus various individuals dumping sewage and refuse in the river, all of these things have contributed to spoiling one of the basic assets of our community.

Too many people think of a river as a dumping ground for all their refuse. Many of us are guilty and I am including myself in this class. It's real easy to rake your lawn and just dump the refuse over the river bank or maybe someone wants to get rid of a little garbage, so over the river bank it goes. Fifty years ago it wouldn't have made much difference as there were so few people involved.

In those times you might have a dozen homes scattered from here to Littleton, but how many do you have during the summer months in that area in 1966. Multiply this by a hundred and you might come close. This doesn't take into consideration the other hundreds that are on the river during a week's time trying to catch a fish now and then. They too add to the pollution by throwing all of their lunch wrappings into the river plus beer cans and bottles. When is it all going to stop?

Many of us need to take a long hard look at one of our basic assets. Few cities are fortunate enough to have a beautiful river running right through its center. I had a good friend from Massachusetts visit me this fall and of course, I had to take him up river for a little fishing.

One of his first remarks to me was how lucky we are to have such a beautiful little river running right by our back door. However, after we had left my dock and were part way up to the Illinois Central bridge, I could see that he was anything but pleased with what he saw. After quite a silence, he stated that if the river in his town were littered as badly as ours that a good many people would be paying fines or sitting in jail. His one remark that hit me right between the eyes was, "We have laws with plenty of teeth to take care of situations like this. And believe me, we enforce them!"

One always hears the hue and cry that the conservationists are a stumbling block to progress. I consider myself a conservationist, but I believe we can have progress as well as conservation. The real stumbling block is man himself. Everything he touches he spoils by simply not practicing conservation. You can have all the factories and cities along a river you want and still have clean water that will support all kinds of fish and wild life. Proper treatment of wastes is the only thing needed plus a population that has some aesthetic regard for nature.

We in Independence could make our river a show place of the state if everyone would cooperate. I wonder how many people would throw the junk and trash out in the middle of the street like they do on the river banks. Actually, it is almost one and the same thing. Instead of a car going by all this stuff you have boats running up and down the river. Once an area is cleaned up it is much more apt to stay this way. People have a respect for beauty and, generally speaking, will respect it. If the junk continues to stay where it is, you have the attitude that, well, my little bit won't make it any worse.

So let's all of us sort of do a little soul seaching and when spring clean-up time comes resolve to make our river front something to be proud of, not only the banks but the water as well. I'll do my part and I sincerely hope you will do yours.

NATIONAL WILDLIFE WEEK

March 20-26

New emphasis is being placed on the preservation of natural beauty, a movement every conscientious citizen should applaud and support. This trend received national attention during the White House Conference on Natural Beauty last Spring, and was the subject of debate prior to the passage of Congressional legislation last fall which will eventually beautify the country's highways. Now, the preservation of natural beauty is the theme of this year's National Wildlife Week.

This observance provokes additional thoughts about our natural resources.

To begin with, conservation preserves natural beauty. When distasteful sights and smells are removed from streams or lakes through pollution control, natural beauty is preserved. When we plant trees or shrubs or grasses to heal scars in the soil resulting from mining or highway construction or overgrazing or fires, natural beauty is preserved. When we save endangered species of wildlife, or establish seashores and parks and wildernesses, or set aside wild rivers, natural beauty is preserved. Conservation, then, besides its multitude of other values and benefits, gives us this added bonus of making our environment a better and most meaningful place in which to live.

Of course we can—and should—go beyond conservation practices to take positive steps for preserving and enhancing natural beauty. We can pick better places than streams and lakes and road-fills to dump our debris and junk. We can remove signs along highways. We can plant trees and shrubs and flowers, many of which also are of value to wildlife, in suitable locations. We can direct urban and rural planning so as to preserve the most pleasing natural views.

The list of "can-do's" for both conservation and for the preservation of natural beauty is almost endless—if we have the desire and determination to have beautiful things around us. This attitude toward preservation of beauty is worth adopting, worth working for; our lives will be richer if we do!

SORRY ABOUT THAT

What the glaciers did thousands of years ago was inadvertently undone in the February issue of the IOWA CONSERVATIONIST—Clear Lake was "moved" some 90 miles west and ten miles north of its historic location. And though the CONSERVATIONIST Staff is certain that Dickinson County would like to add this fine lake to its admirable collection of lakes, we feel it only fitting to deny them the privilege by admitting error. With cobwebs cleared, we acknowledge that the 7 pound, 22 ounce Largemouth Bass caught by Frank Martin, Marshalltown, was taken from Clear Lake, CERRO GORDO County.

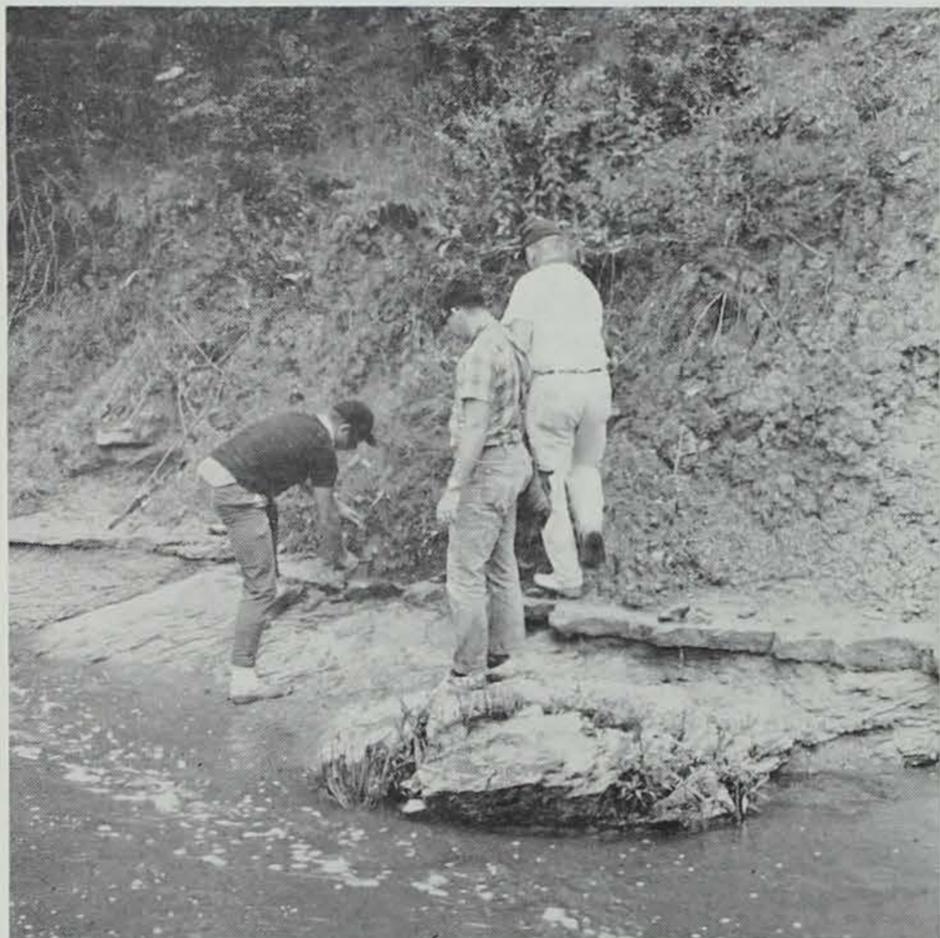
Sportsmen spend more money on hunting and fishing than the rest of the nation spends on radio and television receivers, records, and musical instruments combined.

Hunting fatalities in New Jersey have been cut in half since the firearms safety training course became mandatory in 1954.

Hunters and shooters paid more than \$20 million in excise taxes on sporting arms and ammunition in 1964. Most of this money was used for game conservation, land acquisition, and wildlife research.

Hunters outnumber golfers nearly 3 to 1.

Caution: Teachers At Work



In search of clues to the history of their home planet, these students are hammering out specimens of exposed bed rock near a fast flowing stream.



Deep inside a cultivated pine forest, the students discover that a soil profile is revealed in a hole dug by a forester.

Story and Photos by Jack Higgins

There are no human values in existence that haven't been refined, polished and passed on by preceding generations. This exchange of values between generations was once the prime concern of parents. Expanding technology has created such changes in family life, however, that this function of parenthood is increasingly coming under the influence of professional teachers.

The same technology that has ruptured family living is threatening to destroy, or seriously disrupt, man's environment. Somehow, the challenge of implanting the values of nature in the minds and hearts of a young and numerically expanding generation must be met. That is why the announcement of the 17th annual session of the Iowa Teachers Conservation is more important than ever before.

As in the past, the three, three week sessions will be held at Springbrook State Park near Guthrie Center. College credit (three credits per session for a maximum total of six) is earned through State College of Iowa.

The Conservation Camp program gives teachers and college students who have a sophomore or better standing, an opportunity to earn credits in natural science while living, working and playing in State Park surroundings. The major fields of study include forest resources, ecology, fish and wildlife management, rocks and minerals, soil and land management, and water conservation.

Session dates for 1966 are June 5 to June 25, June 26 to July 16 and July 17 to August 6. Students may pre-register for either one or two of the sessions. Since the first session (rocks, minerals, land management and water conservation) is repeated during the final three weeks, students may work out various combinations of time they care to devote to summer study.

During any one course, students will travel about 1,000 miles to see and learn at first hand about the various conservation practices being used in Iowa. A bus supplies transportation to and from the various sites.

A single three week course costs an undergraduate \$123.50; graduate students pay \$126.50. This fee covers tuition, room and board. Scholarships are available in most counties. The amount may vary, as the scholarship is dependent upon the resources of the organization that agrees to sponsor it.

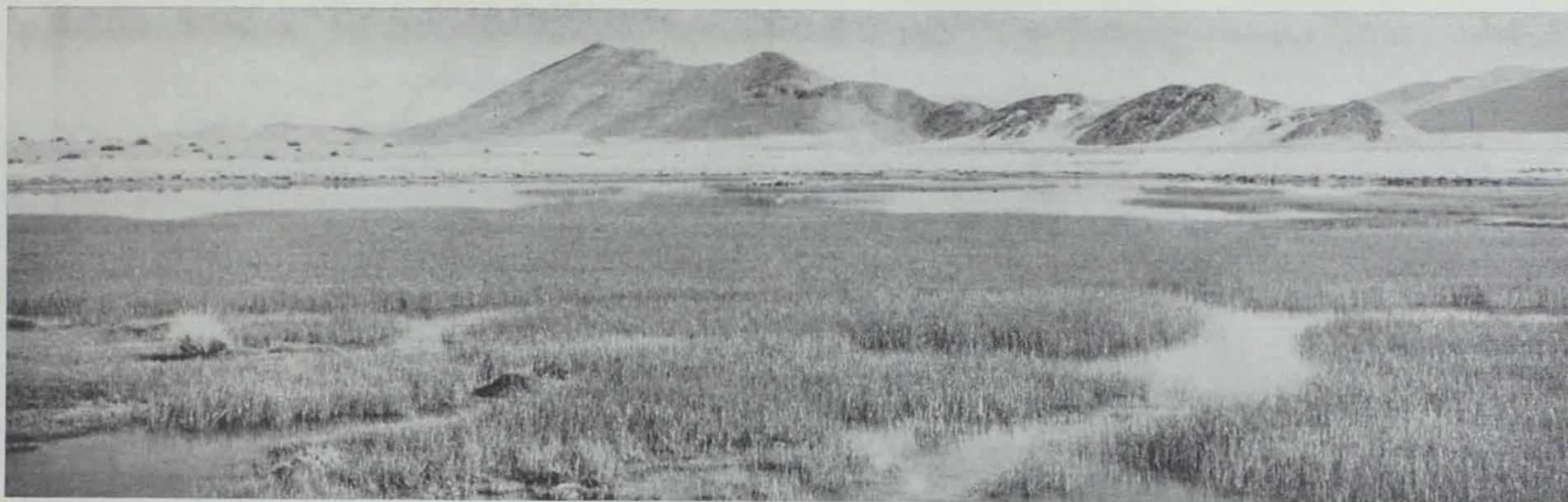
To be eligible for a scholarship, the student must first be accepted for participation in the program. Admission is granted by the State



A field trip to western Iowa offers a chance to study another kind of soil—the loess, or wind blown soils found in only one or two other spots in the world.

College of Iowa, Cedar Falls. Direct all admission inquiries to Mr. Bernard Clausen, Director ITCC, State College of Iowa, Cedar Falls.

Co-sponsors for the camp since it was first organized have been the State Conservation Commission, State College of Iowa, and the Department of Public Instruction. State wide support in the form of scholarship aid comes from Soil Conservation Districts, sportsmen clubs, women's groups and various promotional and professional organizations.



A coastal marsh near Santiago, Chile, is a known breeding area for black-headed ducks, coots, ibises and other marsh or water birds.

Waterfowl, So. Am. Style

(Continued from page 17)

were scattered as if on territory. These little ducks are teal-size but have a long-woodpecker-like tail. They perch on large boulders in mid-stream and dive in and out of the water with the grace and skill of a seal. They swim upstream easily in current impossible for a man to stand in and take flight directly from this white torrent as if rising from a firm surface.

Aside from these colorful little ducks, the scrubby growth at the base of the mountains was filled with diverse song birds which were new to us. But of all the land birds we saw, none was as awe-inspiring as the huge Andean Condors (*Vultur gryphus*) which seemed to circle the very peaks and to soar without a flap of their wings. Few places in the world can challenge the beauty of the Andes and the variety of the birds.

Argentina—Pampas and Marshes

We left Chile with the feeling that it would have been a beautiful and fascinating place to study but it wasn't long before we were equally excited by the newness and uniqueness of the Argentine.

Of all the Latin American countries, Argentina probably has the greatest wealth because of its soil, topography and its cosmopolitan blending of races. It has a rising middle class, larger income per capita, and less extreme poverty than most South American countries. As in Chile, we found the people friendly, interested, and interesting. Stories of their hospitality are not exaggerated although the day of the millionaire rancher is gone. There is still much of the Texas-like feeling of size but ranches are smaller and wealth is more widely distributed.

Despite our poor Spanish (fortunately, we found numerous helpful Anglo-Argentines), we slowly adapted to pesos instead of dollars and to the high costs of automobiles and other manufactured items, and to the low cost and high caliber of their food. We acquired a car—at great expense—and went in search of marshes and ducks.

Driving in the city of Buenos Aires—a modern, busy metropolitan area of about seven million people, is one of the most hectic experiences imaginable. But after escaping the barrage of buses and taxis unharmed, we drove southeastward into the grazing country. Here, we began to appreciate the unbelievable flatness and richness of eastern Buenos Aires Province. Here, also, we could see why there were marshes in abundance for the land is only a few feet above sea level. Marsh basins are shallow and streams are broad, slow and shallow. Both have high production of marsh food plants and collect sufficient water that marsh birds can nest in most years. Late in the summer, however, at least 90 percent of these areas dry up.

With the help of Mr. and Mrs. Donald MacIver, residents of Estancia "La Esperanza" near Lavalle, we found excellent study areas and established residence in the little coastal resort town of San Clemente del Tuyu.

The marshes of easternmost Buenos Aires Province (Cape San Antonio) are impressively extensive but they are far from being pristine. In fact, they are grazed to the edge and, during the dry parts of the year, cattle and sheep move freely in them. Nutria trappers take pelts during most of the winter and trails made by both man and horses are common. Some of these marshes are connected to huge drainage canals made to drain off surplus water of the winter and spring. Undoubtedly, these have reduced both the extent and permanence of marsh areas; however, there seems to be no immediate danger of great loss of habitat because of the "lay" of the land.

These marshes are dominated by tules, occasionally by cut-grass (*Zizaniopsis bonariensis*) but cattail is uncommon. The areas most

avored by ducks, coots, ibises, storks and other water-birds were those having an open and fairly permanent lake adjacent to tall, emergent vegetation. Such areas were uncommon during the year of my stay, as conditions were somewhat drier than normal.

It would be impossible to describe the many fascinating birds—all new to us, but several were so striking that they deserve comment. In the grazing lands surrounding the marshes, several upland and several marsh birds were in evidence throughout the spring and summer. Rheas (the so-called South American Ostrich) have been eliminated over most of the pampas because they graze and are considered competitors with sheep and cattle. A few ranchers protect them and a few Rheas still nested at the edges of these extensive marshes. One of their eggs makes an omlet for five—easily! Another upland bird has adapted far better to changes brought about by man—the Lapwing (*Belonopterus cayennensis*). This is representative of a group found every place in the world except North America. It is noisy and protective, especially at the nest, but they can be quite a nuisance to a waterfowl hunter in hiding during the fall or winter.

A more aquatic bird which, however, grazes like a goose much of the time, is the Created Screamer (*Chauna torquata*). It is a peculiar bird, goose-like in some ways and flamingo-like in others. It now is classified near the ducks and geese. It nests over water, lays goose-like eggs and its young are yellow-colored like goslings. But at other times, adults mix with cattle, perch in trees and soar like vultures!

Around and in the marshes during the breeding season, ducks were constantly to be seen. Some silhouettes and calls were familiar, but few species are the same as our North American birds. Only the Cinnamon Teal and the Fulvous Whistling or Tree Duck are the same species that occur in North America. None migrate back and forth between the U. S. and South America although the Blue-winged Teal recently has been taken in Argentina.

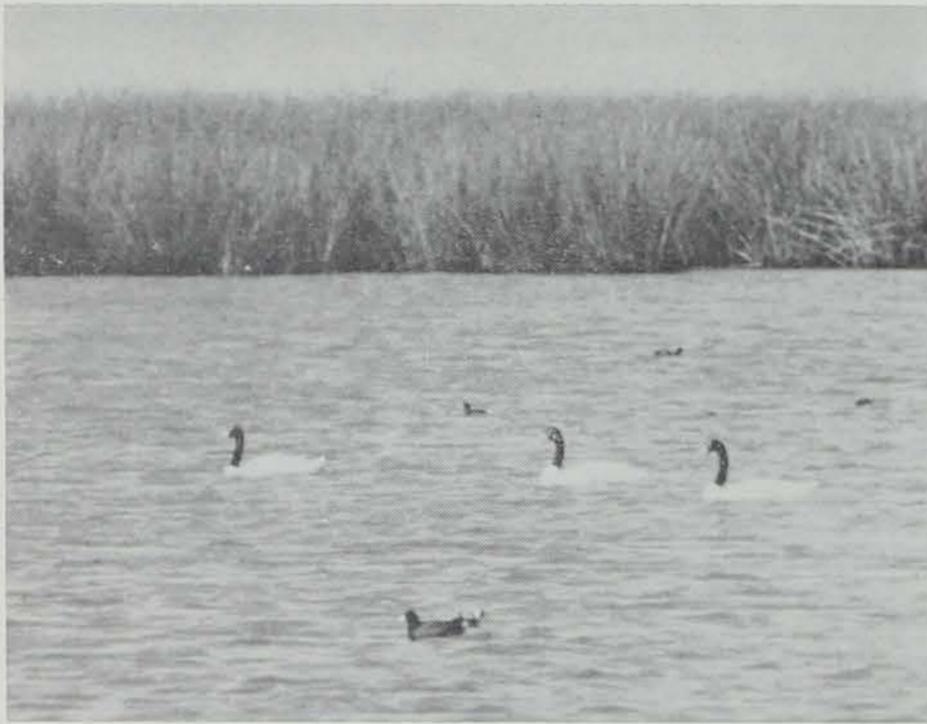
The most unique forms were the Black-necked Swans, which already had broods when we arrived, and the nearly pure white Coscoroba Swan (*Coscoroba Coscoroba*), bird which seems to form a link between swans and geese. Its piercing un-swan-like call of "coscoroba" was common in spring.

The most numerous duck in nesting, in field-feeding (corn and other small grains) and the most important sporting bird, is the Brown Pintail (*Anas georgica*). In shape, calls, nesting and flight behavior, and feeding behavior, it resembles the North American Pintail. But in color it differs: both sexes are all brown with brilliant yellow-sided black bills.

The second most numerous bird is the Rosybill—a duck related to our Redhead but much larger in size and much more at home on land. It is a beautiful bird, the drake's black head contrasting with the unbelievable rose-colored bill. In color, behavior, voice and nesting habits, the female reminds one of the redhead. It nests over water and even dump-nests like redheads do. It is one of few species of South American ducks in which the sexes differ in color dramatically.

Numerically, the charming little Yellow-billed Teal (*Anas flavirostris*) probably ranks next. Its size and general proportions resemble our Green-winged Teal but, in its nesting habits, it differs markedly. In eastern Buenos Aires Province, large groves of Eucalyptus trees have been planted around most buildings. High in these trees nest the noisy little Monk Parakeets (*Myositta monacha*) in large, round, hollow balls of twigs. The Yellow-billed Teal takes over old parakeet nests early in spring prior to parakeet nesting. They add a little down, lay eggs and incubate. Like most tree-nesting ducks, the young presumably jump out of the nest and bounce on the ground unharmed. Because parakeet graze and damage corn and other crops, there is a cam-

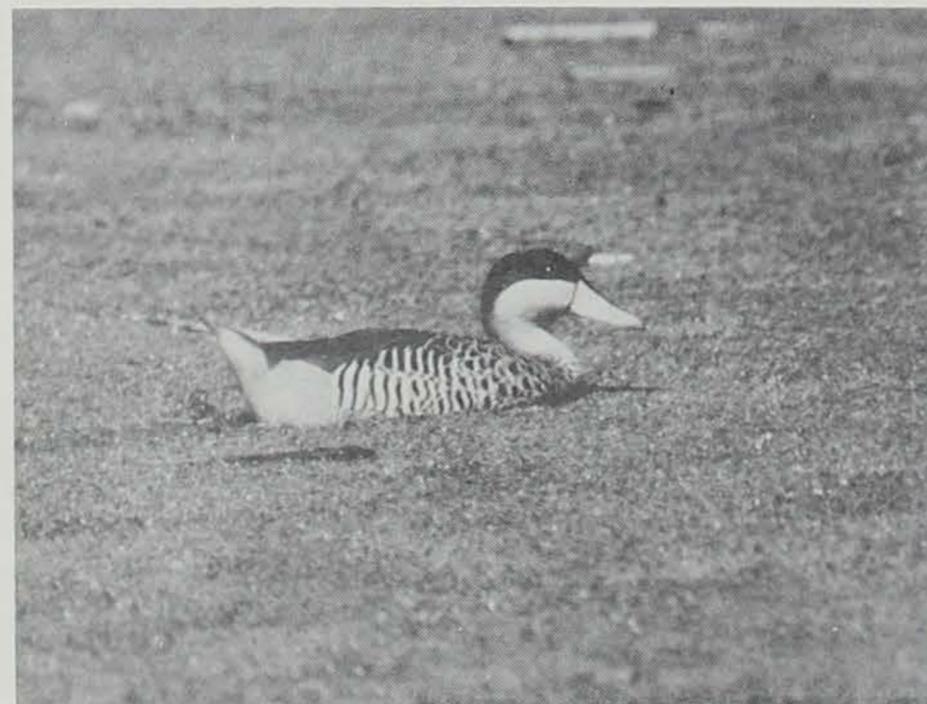
(Continued on page 22)



Black-necked swans and coots cavort in front of a background of tules. Both species nest over water in the thick tule beds.



The yellow-billed or tree teal is a dabbling duck which usually nests in the stick nests of parakeets, high up in eucalyptus trees.



The versicolor or silver teal is a dabbling duck which nests in upland grasses.

Waterfowl, So. Am. Style

(Continued from page 21)

paign to destroy their nests; the effects on the nesting of teal could be serious.

A less familiar type of dabbling ducks is the Silver or Versicolor Teal (*Anas versicolor*). With a black cap, a white face, a beautiful gray-barred back and flank, and a blue and yellow bill, this is one of the most subtly colored, yet beautiful, Argentine ducks. Like many Argentine dabbling ducks, the male often remains with the female and brood.

Among the other waterfowl of the area, many similarities are apparent between Argentine and North American ducks. The Argentine Red Shoveller (*Anas platalea*) is, in all ways except color, a "ringer" for our bird. In color, the male is more subtle and lacks the color-contrast of our bird. The lovely Chiloe Widgeon (*Anas sibilatrix*) is as graceful and beautiful as ours but its color differs slightly. The Argentine Ruddy (*Oxyura vittata*) resembles ours in nesting, general habits and appearance but lacks the white facial patch.

Chaco, Puna and Points South

But the really unusual waterfowl only rarely visit eastern Buenos Aires marshlands. I was fortunate to be able to visit other habitats in Argentina and to see some of these species. In the northern subtropical, wet, timbered area—the Chaco, were the tree-loving ducks. So little is known about some of these species that even nest-sites are uncertain. Perhaps the most delicate and beautiful is the Ringed Teal (*Anas leucophrys*). It has a pale, blue bill, light tan cheeks, black crown, an unbelievable pink breast, a beautiful rufous back and jet-black wings which bear a perfectly round white spot. It frequently is seen with the larger Brazilian Teal (*Anas brasiliensis*), a bird of more somber color but which also has black wing feathers with a metallic lustre. Both utilize areas in common with the Muscovy (*Cairina moschata*), a hole-nesting species from which our domestic bird was derived. It now appears that all of these are "perching ducks"—relatives of our native Wood Duck. Like "woodies" they sail in and out of the trees with ease.

During the Argentine winter—when snow is rare in the mid-latitudes of the country, some unique forms arrive from cold, southern Patagonia; these are the little-known Sheldgeese. Although they look and act like geese, they are distant relatives of the ducks; no true geese are found in South America. Three species are migratory and graze on grass and young grain, thereby arousing the animosity of cattle and sheep ranchers and farmers. They are dealt with in an unusual way. Farmers Cooperatives hire pilots who chase and even "drive" the great flocks of Sheldgeese to less valuable land. From what I saw, more study of these birds is necessary because they may be doing as much good as harm by means of weeding and fertilizing some of the crops. Because they are not prized for food, there seems to be almost no hunting. Numerous suggestions have been made for controlling them on their nesting grounds in southern Patagonia and Tierra del Fuego but the Farmers Coops seem to be solving the job nicely and probably at much less expense.

Although my search for Black-headed Ducks never took me to the extreme south, I did get into the Andean lake-region in northern Patagonia to the beautiful, Swiss-like town of Bariloche. One species of Sheldgoose nests in that area, but still more unique is the giant Steamer Duck (*Tachyeres patachonicus*). It is goose-sized, built like a tank, with a massive head and bill which has induced the common name of "loggerhead". It is a skilled diver and is remarkably tame in the presence of man and even sizable motor launches. Farther south, there is a flightless marine form of the duck, a big powerful swimmer which probably gave rise to the name of "steamer".

Of all my experiences with waterfowl in Argentina, none was more impressive than my trip up into the high mountain plateau of northern Argentina known as the puna zone. There, at 11,000 to 13,000 feet altitude, is an elongate plateau which runs north in Bolivia (the site of Lake Titicaca) and still farther north into Peru. A whole group of birds and plants have adapted to this zone and its lakes bear unique species found nowhere else in the world. With still higher mountains as a back-drop, these shallow lakes form the home of colorful flamingos, giant coots and the unique white and black Andean Sheldgoose (*Chloephaga melanoptera*). Here also we found the Andean relative of the Versicolor Teal, the Puna Teal (*Anas puna*) and the large and little known late-duck, the Crested Duck (*Lophonetta specularoides*). Shovelers, Brown Pintails and a ground-nesting race of the Yellow-billed Teal also occur here. This is the only area where our North American Coots gets into Argentina!

Hunting—Now and Later

Compared with the U. S., waterfowl hunting is not very popular in Argentina except among Anglo-Argentines. This is a relatively small

(Continued on page 23)

PREDATOR PROOF NESTS

Bob Barratt

Superintendent of Game

Duck nesting studies in uplands around Iowa marshes show that up to 75 percent of all waterfowl nests are lost to such predator species as skunk and raccoons. In the marsh itself, mallards and redheads, as well as other species, often nest on rat houses, old stumps, tree crotches and similar structures. Even here, however, the percentage of loss to climbing and swimming predators runs high. The answer to this problem is quite simple: provide artificial nesting spots that are predator proof. Just such a project was initiated by the Game Section in 1964. Evaluations made since then seem to justify the project.

In the early spring of 1964, 222 structures of the type pictured in the accompanying diagram were erected on eleven different state-owned areas. Careful observation on these nests during the nesting season showed use of thirty-six mallards and two redheads. Thirty-one mallard nests and both redhead nests were successfully hatched. Seventeen percent of the nests erected were used; and of those used, 87 percent were successful in bringing off broods.

Lack of manpower restricted observations to only 167 nests in 1965. These nests were used by fifty mallards and four redheads. Forty-seven mallard and two redhead nests hatched. The use in 1965 was 32 percent of the nests under observation. Of these, 91 percent were successfully hatched.

Nests set out in 1964 were covered with one inch mesh chicken wire and then filled with a variety of nesting materials. Chicken wire proved to be a killer of some of the young ducklings, as they were enmeshed in wire when they attempted to leave the nests. So, the following winter chicken wire was replaced with one quarter inch square mesh hardware cloth.

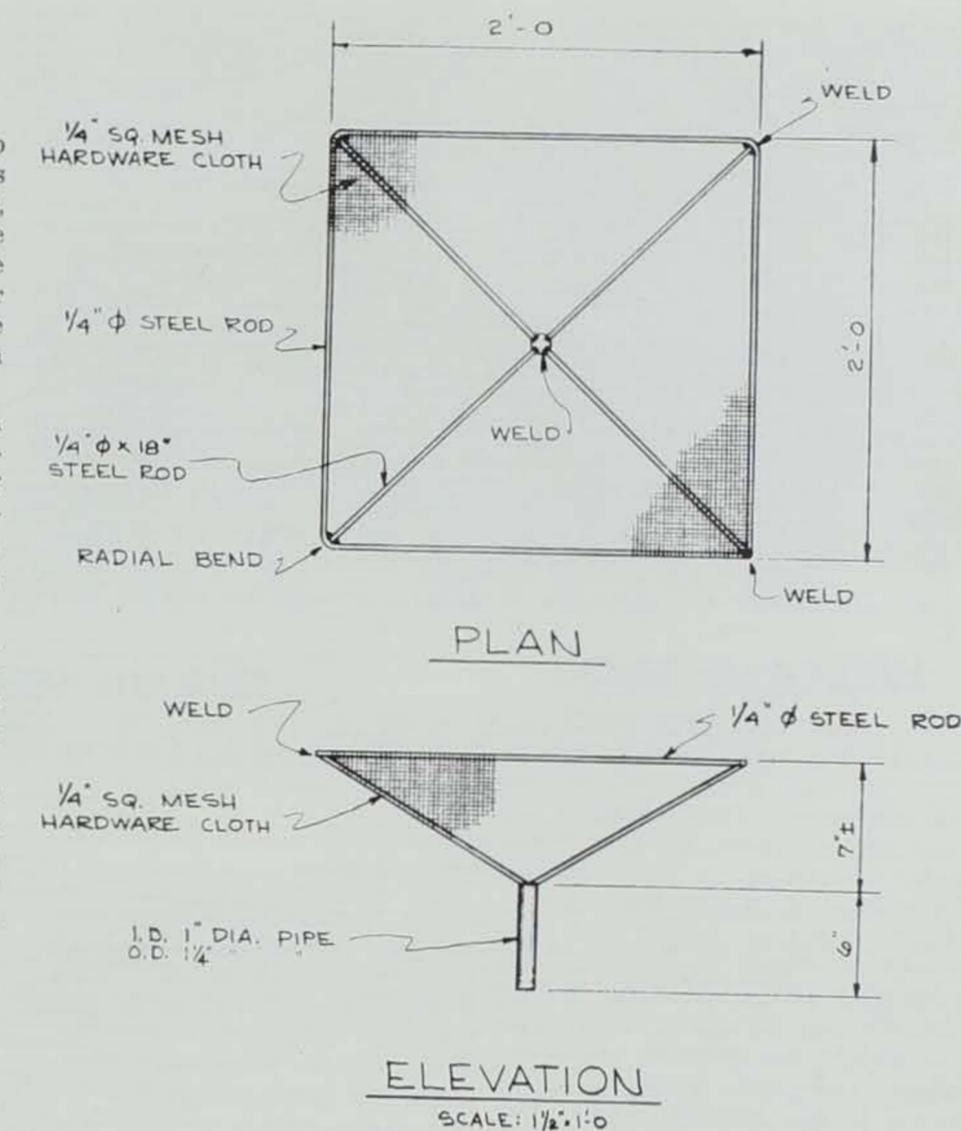
The nests were erected by driving a one and five eighths inch outside diameter pipe into the bottom of the marsh. A hole had been drilled near the top and then tapped. This allowed the nest to be held rigid on the pipe by a single set screw. It also aids in removing the nests during the winter months when they would be subjected to destruction by ice and snow.

Nests were erected in varied locations, including some on dry land. Others were located in dense vegetation. Still others were placed over open water. Pipe heights were also varied in hopes of establishing a preference by the birds, as well as supplying as test of the predator proof features of the nests.

Observations in 1964 showed those nests located in or close to dense vegetation appeared to have the highest use. In 1965, the nests over open water had a slightly higher occupancy rate. In both years, however, it seemed obvious that mallards preferred to nest as far from shore as possible.

Height preference turned out to be between 18 and 20 inches from the water surface. Nests erected at higher levels tended to become perching sites for other bird species. At lower heights nests could be entered and destroyed by predators.

It was found during the two years study that certain types of nesting material were more likely to be used than others. Material from old "rat" houses, dead blue grass, and material of similar nature, tended to mat, and remain wet, and generally be less attractive to nesting birds. If this finer material did dry out, it tended to blow



DUCK'S NEST

4-15-65

J.R.L.

out of the nests. The most satisfactory nesting material is long coarse grass such as brome, or Reed's Canary grass. It was also found that nesting material must be fastened down to prevent its loss during high winds. The material is ordinarily tied into the nests with heavy cord or soft light wire.

Time has not permitted an intensive study of the effect the structures have had in increasing the breeding waterfowl populations on the various areas. Casual observations, however, indicated that there were still good nesting populations of mallards in the uplands surrounding the marshes. Even though breeding populations may have remained stable or slightly higher, nesting success greatly increased, resulting in increased waterfowl populations on the marshes in question. Observation over the two year period indicate that these nest structures have a practical place in waterfowl management in Iowa.

Waterfowl, So. Am. Style

(Continued from page 23)

group. No statistics are available on the social structure of Argentine hunters (they would be very useful for planning for the future) but the English descendents are top-notch hunters interested in quality shooting and in conservation. Most intense interest and hunter activity centers around tinamous, quail-like ground birds of many species found all over Argentina.

Despite our popular concepts of game regulations in other lands, many provinces do have regulations concerning the time of harvest, daily bag and zonation of harvest. During 1965, the shooting season in the Province of Buenos Aires was from May 1 to July 31 with a daily bag of 20 ducks, 25 Spotted Tinamous (*Nothura maculosa*) and 15 larger tinamous called Martinetas (*Eudomia elegans*). No market-hunting is allowed. However, waterfowl are considered pests in rice-growing areas and are shot throughout much of the year.

Waterfowl hunting resembles that anywhere in the world but there are fewer accessories such as blinds, decoys and calls. Hunters carefully plan out their strategy in advance of the shoot, seek good cover in the flight lanes or roost areas, and hope things haven't changed by morning. They have no regulations restricting pre-sunrise or post-

sunset shooting. A typical bag would be mostly Brown Pintails, occasionally dominated by Rosy-bills, Yellow-billed Teal, Versicolor Teal and a smattering of others. Even in winter, ice is rare in central Argentina so considerable warm-weather shooting occurs. Nevertheless, fierce winds and high humidity make many a day feel like its zero.

The future of waterfowl and waterfowl shooting is difficult to assess because of the uncertainty of economic trends in Argentina. It appears that interest in outdoor activities such as camping, picnicing and hunting is growing rapidly. At the present, little management is necessary but conservation concepts are not widespread and education needs to start now. Ideologies concerning regulations differ from ours and spur of the moment restrictions are not likely to be accepted gracefully by the public. None of this can occur without a body of interested workers to appraise the problems and take the necessary precautions to preserve endangered species and to perpetuate the harvest of more abundant species. Where licenses are sold, they are not purchased by all and there is little enforcement in most provinces. As a result, governmental controls are minimal and planning is not as advanced as it should be. With present trends in Argentina, I suspect the "boom" of hunters will come soon; the future of waterfowl and other game species in Argentina will depend on an organization which can plan ahead and educate the users as well as regulate the game species.

Conservation Form

(Continued from page 18)

Dear Sir:

... I have been told that one has to have a hunting license to catch rabbits in box traps. I live in town. There are rabbits about, and I'd like to catch a few.

R. T.
McCallsburg, Iowa

Our Law Section says:

Section 109.92 of the Iowa Code states that you may trap squirrels and rabbits with box traps. This is the only exception in the law, as you cannot trap any other game bird, animal or fur bearing animal by this method.

The law also states that a valid hunting license is needed except as provided in section 110.17 (landowners exempted). Don't forget to attach a metal tag bearing your name and address on your box.

A grizzly bear in Yellowstone mobile, was found to travel at a Park, running ahead of an auto- speed of 30 miles an hour.



Jim Sherman Photo.

In southwestern Iowa, it is the arrival of thousands of geese that indicates Spring's arrival.

WELCOME BACK!

Blue Geese leave their wintering-grounds the latter part of February. They arrive in Iowa during the last days of that month or the first part of March, the first flocks usually landing in the bottom lands above Hamburg, Iowa, on the Missouri River. About the fifteenth of March, the peak of the migration reaches Kellogg Slough and Green's Slough in Mills and Pottawattamie counties. At these points the birds concentrate in large flocks, moving along the river at the rate of about 20 miles a day and stopping at other concentration points or in small groups on suitable flooded lands. The main flocks go to the Onawa-Turin bottoms in Monona county, staying a short time before moving to the bottom lands near Hornick, Iowa. Scattered flocks of from 500 to 10,000 geese can often be found between these concentration points. The blue geese leave the Missouri River at Sioux City, the main concentration following the Big Sioux River into Minnesota and South Dakota. They reach their nesting-grounds in Baffin Island in mid-June. During migration, blue geese are almost always associated with snow geese, the snows varying in number from about 1 in 20 or less, to as high as 1 in 5. The later flocks often have more snows than the early flocks.

BIRD DAY

Governor Hughes' recent proclamation designating March 21 as "Bird Day" in Iowa is thought to be the first time that such action has taken place since the 40th General Assembly enacted the law in 1923.

Iowa law (sec. 279.39) requires all public schools to observe the date by devoting a part of the school day to a special study of birds, their habits, usefulness, and the best means of protecting them.

More than 45,000 hunter-safety instructors now donate their time and energy to teaching the safe handling of firearms.

IOWA'S 1966 FISHING SEASONS AND LIMITS

March 1, 1966 to February 28, 1967

Kind of Fish:	INLAND WATERS OF THE STATE				BOUNDARY WATERS
	Open Season	Daily Catch Limit	Possession Limit	Minimum Length or Weight	Mississippi River, Big Sioux River, Missouri River and Inland Waters of Lee County
Carp, Buffalo, Quillback, Gar, Dogfish, Gizzard Shad, Sheepshead, Sucker, Redhorse, Chub, Sunfish, Bluegill, Crappie, Silver Bass, Bullhead, Rock Bass, Yellow Bass, Warmouth, Minnows and Sand Sturgeon	Continuous	None	None	None	Same as inland waters.
Rock Sturgeon	Closed				Closed.
Paddlefish	Continuous	2	4	5 lb.	Same as inland waters except no catch or possession limit on Mississippi River.
Perch	Continuous	25	50	None	Same as inland waters except no catch or possession limit.
Trout	Continuous	6	12	None	Same as inland waters.
Catfish	Continuous	8	16	None	Continuous open season, no catch or possession limit.
Largemouth Bass	Continuous	5	10	None	Largemouth and Smallmouth Black Bass. Continuous open season. Aggregate daily catch limit 10; aggregate possession limit 20.
Smallmouth Bass	Continuous	5	10	None	Continuous open season. Aggregate daily catch limit 10; aggregate possession limit 20.
Walleye and Sauger	April 30 Feb. 15*	5	10	None	Continuous open season. Aggregate daily catch limit 10; aggregate possession limit 20.
Northern Pike (Pickerel)	April 30 Feb. 15*	3	6	None	Continuous open season. Daily catch limit 5; possession limit 10.
Muskellunge	Closed				Closed.
Frogs (except Bullfrogs)	Continuous	4 doz.	8 doz.	None	Same as inland waters.
Bullfrogs (Rana Catesbeiana)	Continuous	1 doz.	1 doz.	None	Same as inland waters.

*In all streams, Missouri and Mississippi River oxbow lakes and artificial lakes, a continuous open season for Walleyes, Sauger and Northern Pike (Pickerel) shall apply.

Where waters are located within the confines of state, county, city parks, or State Fish & Game Management Areas, fishing will be permitted only when such areas are open to the public.

EXCEPTIONS: On all state-owned natural lakes, all angling through ice is prohibited between the hours of 8:00 p.m. and 6:00 a.m.

In Little Spirit Lake, Dickinson County; Iowa and Tuttle (Okamanpedan) Lakes, Emmet County; Burt (Swag) Lake, Kosuth County; and Iowa Lake, Osceola County, the following shall apply: 1. WALLEYE—daily catch limit 6, possession limit 6; 2. NORTHERN PIKE—daily catch limit 3, possession limit 3; 3. CATFISH—daily catch limit 16, possession limit 16. Open season on above fish shall be May 14 through February 15. 4. LARGEMOUTH and SMALLMOUTH BASS—daily catch limit 5, possession limit 5. Open season May 28 through November 30. 5. SUNFISH—daily catch limit 15, possession limit 30; continuous. 6. CRAPPIES—daily catch limit 15, possession limit 30; continuous. 7. WHITE BASS—daily catch limit 15, possession limit 30; continuous. 8. Spears, and bow and arrow may be used to take carp, buffalo, dogfish, gar and quillback from sunrise to sunset during the period May 1 to October 31, inclusive.

The possession limit shall not exceed 30 fish of all kinds in the aggregate except that the aggregate possession limit shall not apply to fish named on which there is no daily catch limit.