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Endangered Floridian

WOOD STORK

This large wading bird, 3½ feet tall with a five-foot wingspan, has been waging a seesaw battle for survival since 1957. Encroaching civilization and prolonged drought are its chief foes. Lumbering practices and swamp and marsh drainage also add to its problems.

Possessed with an insatiable appetite for fish, frogs, snakes and aquatic insects, the wood stork often must travel long distances to find food for its young, or just to satisfy its own hunger. Apparently feeding areas with large concentrations of fish are needed to satisfy this bird’s unique feeding habits. When a land development takes over a favorite feeding grounds or a prolonged drought sets in, food supplies may be diminished to a critical stage. If this happens during the breeding season, it usually means the stork will not nest.

Once numbering about 75,000 breeding birds in Florida in the early 1930s, the stork population dipped to 12,000 in 1975 and is still declining. Factors influencing nesting success are largely responsible. Conservation and management of feeding areas and nesting sites are vital to the future welfare of the wood stork.

IN THIS ISSUE

-2- whip-poor-will’s call in Florida, it’s probably a chuck-will.
-4- But dunking for panfish is slow, try trolling.
-10- GIVE A SUBSCRIPTION TO.....
-13- Assurance for the outdoor family’s youngsters.
-16- exotic is the quarry when this fishing tool comes out.
-19- If any outing is a noon-time stop at a crossroads store.
-20- It’s not paradise, but it comes close.
-22- Its varied flora is not the least of the state’s attractions.
-28- Backyard Bird List
-34- Larry Cunningham
-40- Results of OFUMP efforts are showing promise.
-42- The pocket gopher’s workings are better known than the animal itself.
-17- Hunter Education -33 Fishing -37 Conservation Scene
-46 - COVER

THE COVER

One of the most active of the tribe, the Louisiana or Tricolor heron is encountered throughout the state. Wading rapidly or still hunting the shallows, it takes a variety of animal food. Photo by Lynn Stone
Voiced with an insatiable appetite for fish, frogs, snakes and aquatic insects, the wood stork often must travel long distances to find food for its young, or just to satisfy its own hunger. Apparently feeding areas with large concentrations of fish are needed to satisfy this bird's unique feeding habits. When a land development takes over a favorite feeding grounds or a prolonged drought sets in, food supplies may be diminished to a critical stage. If this happens during the breeding season, it usually means the stork will not nest.

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T he time of singing of birds is come, and the voice of the turtle is heard in the land—the springtime and romance season, that is, betokened by the sweetly-soft cooing of the turtle dove. However also in the springtime, and in early summer as well, the voice of a certain other bird is heard in our land, to a much greater degree and with more decibel power (after the sun goes down). It is held to be every bit as romantic as the voice of the turtle. It is the voice of the chuck-will's widow:

"When whip-poor-wills (or chuck-wills you can substitute) call . . . and evening is nigh . . ." are some of the lyrics of a still popular old love song, My Blue Heaven. Implicit in those opening phrases of the chorus is the stark truth that these nocturnal town-criers in general do not feel any obligation to wait for "good dark" before beginning to call and often get the notion when evening is only "nigh." They also get the notion much later on—damn nab it!—at just about the time some nearby hassled and restless wretch is about to drift off into slumberland.

It will be noted that this bird's call is referred to herein as just that—a call, not a song. Some authorities tend to be very explicit about that, comparing it to the honest caw of a crow or the dreyary hoot of an owl. Some persons hold it to be as monotonous as the assembly-line leap of sheep over the fence in that insomnia deal. They say that counting the calls in an ongoing string could be a neat substitute device for counteracting wakefulness. Although there might seem to be a dull uniformity about the calls, difference in tone, technique and phrasing may be found and some birds are definitely better singers than others.

It is easy to be a close listener, since chuck-wills, under the protection of darkness, are brave and intrepid as far as human beings are concerned. They come into suburban back yards and change around town parks and athletic fields. That may help to explain why this bird call is probably familiar to more people in this country than any other cry of wild bird or beast. In this respect, it is a well-known bird.

Paradoxically, because the chuck-will leads an inactive, sedentary life in the daytime and enjoys the protection of Mother Nature's camouflage on its plumage, it probably is seen less frequently than any other American bird. Many of us would not know it if we fell over it. This latter possibility is very much a probability any time we are out in the woods during the day in the spring-summer season. With its small, weak feet, the chuck-will is definitely not a perching bird and spends most of the daylight hours on the ground, resting or roosting. Its coloring blends into the colors of fallen leaves and twigs, making it practically invisible. It is an almost perfect example of nature's provident use of protective coloration and chuck-wills are apparently fully aware of this benefaction. They will remain perfectly still and silent while danger, accidental or predatory, draws nearer and nearer, as they count on being overlooked and passed by.

Many people have come upon them in this state, flushing them only after accidentally kicking them. Others have found the female sitting on her eggs in a little hollow in the ground and have walked up and touched her before she decided to fly away.

Chuck-wills don't build nests. During the mating season, the female finds a hollow in the ground, perhaps with a few leaves in it and in the shade of a bush or tree, and there she deposits her eggs, two in number, white with brown, lavender and blue splashes and speckles.

Chuck-wills average 11-12 inches in length and their hawk-like wings have an average spread of 25 inches. They actually do look like small hawks. Their coloration is a variegation of dull shades of dark brown, golden brown and black. They have big mouths—in physical proportions. The mouth is wide and cavernous as befits a bird which takes its insect food on the wing.

They also have big mouths in the slang connotation, and there can be little doubt about the strength of the voice, especially as strength refers to endurance. Listeners who have counted their calls will testify to that.

There is one recorded story of a naturalist who, after hearing what he thought were fanciful, fictional tales of chuck-wills uttering 700 or more successive calls without a break, decided to check personally this propensity of theirs. One night he clocked one that ran up a total of 834 calls without a break.

To be heard and not seen is the chuck-will's widow's way of life.

By Roger Clancy

When the big mouth is opened for feeding, it is reminiscent of the gaping maw of a feeding porpoise or whale, and chuck-wills actually feed somewhat like these sea creatures. Around the mouth are strong, lillanous bristles—not unlike a cat's whiskers—and they often dive through swarms of flying insects with their mouths open, seizing the insects out of the air with the help of these bristles. As many as 500 mosquitoes have been found in the stomach of a single bird.

Chuck-wills are migratory. They winter from the northern Gulf coast (rarely) and central Florida southward to eastern Mexico, Central America, the Greater Antilles, and Colombia. The breeding range occupies the southeastern quarter of the country from eastern Nebraska southward and eastward.

Naturalists, bird watchers and encyclopedists don't explain the why of the call—whether it is a mating call or not. It has been stated that many bird calls are nothing more than declarations of ownership, home-staking claims or squatter's rights to certain trees, bushes or areas. This may or may not be the motivation in this case, One thing does seem quite certain. Like the bobwhite and a few others, the chuck-will must be a very conceited bird to keep repeating its own name over and over like that.

D "...
Stringer empty? Try TROLLING FOR BREAM

By Larry Martin

Have you ever gone out after a mess of panfish and tried every natural bait available, without any luck? And maybe you tried casting the better types of artificial baits, still to no avail? Before you give up next time, go a step farther and crank up the little motor, toss out a couple of your favorite artificial panfish baits, and sit back and relax. Chances are you won't have to wait long.

I can't really explain what makes the difference. Perhaps the turbulence created by the motor stirs up food organisms, but for some reason the slow idle of the motor and the steady twist of the spinner produce results when all else fails. Trolling offers a significant advantage over other conventional methods of fishing by lending itself to fishing several lines at a time with ease. The steady movement of the boat helps keep the lines taut and in their respective places, doubling or tripling the chances of each angler catching fish. The mobility also gives the angler a chance to cover more of the lake or river which may be an advantage in locating the fish.

My father, Paul Martin, wasn't convinced when I described the idea of bream trolling, the night before we planned a visit to Harris Lake in Columbus County. He just couldn't believe that fish hit a trolled bait faster than the same bait cast and retrieved.

The sun was starting to peek over the horizon as we launched the 14-foot jon boat and set out to settle our differences. The little 3 h.p. motor was reduced to a slow idle as the boat approached an opening in the bottom-filled lake. Four ultra-light rods were rigged with Beetle-Spins which were cast out behind the slow-moving boat. Only a couple of minutes had elapsed when one of the rods hesitated. The fish surfaced with a splash, then darted towards the center of the lake, peeling off line against the light drag, and eventually was led alongside the boat. The early morning sun brought out the beautiful lavender and rose hues of the hand-sized bluegill. Before the lure could be cast out and the rod fastened in place, another fish was hooked on one of the other rigs.

With the boat set to make a continuous circle, action was steady, to say the least, for 30 minutes, as 17 fish were added to the stringer. The senior angler could stand it no longer, and suggested we stop the motor and cast awhile to see what would happen.

After 20 minutes of casting and cranking in the baits and landing only two fish, Paul made the statement that haunts him to this very day, "Hey, Bub, I think we better crank up the motor." Yep, another angler had been won over to the technique of trolling for bream.

I started the motor, let out the four lines and the action resumed. The trip ended with 35 bream, 7 speckled perch, 2 bass, and a catfish, all caught in three hours.

As in every type of fishing, some bodies of water are better than others. Lakes heavily choked with submerged aquatic vegetation are difficult to fish, however.
Blend and Freeze

It's difficult to overdo the camouflage bit when it comes to a spring gobbler.

One of Charley's Laws on turkey hunting is when there are two alternative courses of action the odds are the hunter will choose the wrong one.

There are two basic ways to position yourself with the hope of killing a gobbler in the spring. One school believes in hiding behind cover or actually building a small blind, such as sticking a circle of palm fronds into the ground as a visual barrier. The hunter shoots through or over the cover.

Ben Rodgers Lee believes the turkey hunter should sit in the open, his back propped comfortably against a tree, but highly camouflaged, including gloves and a face mask. Since Lee is a world champion turkey caller and makes his living selling turkey calls and accessories from Coffeeville, Alabama, he is a hard man to argue with.

In fact, I would no more argue with Ben about turkey hunting theories than I would have argued with Einstein about relativity. Ben has bagged far too many turkeys. No one knows just how well a turkey sees. It is enough for the hunter to accept the fact that a turkey picks up movement extremely well, probably much quicker than a human. Just about everything in the woods, including man, wants to eat turkeys. If it were not for their sharp eyes and hearing, they'd probably be as rare as dinosaurs.

As any experienced turkey hunter knows, the bird does not readily detect or distinguish immobile objects. I once had three two-year-old toms circle me twice at a distance of 10 yards. I was totally camouflaged. The turkeys were suspicious of the new blob in their habitat, and had been enticed to the spot by sexy hen yelps, but they did not spook. Because I was trying to bag a king gobbler working in from some distance, I finally moved just enough to cause the young toms to walk off. If I had really scared them, causing them to cry their
get a clear shot. As it turned out, I should have shot one of the young turkeys because I never pulled the king gobbler into shot gun range. He strutted for several minutes at 75 yards but I could not pull him into fatal range. I became a victim of Charley’s Law again by picking the wrong alternative.

Although turkeys do not easily distinguish perfectly still objects, such as motionless hunters behind cover, there is a catch. A hunter cannot remain still for long. His eyes must blink. In his anxiety, he may trem­ ble. He may shift his weight because a leg has gone to sleep. Bugs bite him, his nose itches and he gets an overwhelming urge to sneeze.

Camouflage makes it more difficult for a turkey to detect movement. The hunter will certainly move; in fact, he must move to mount his gun to shoot. For an un-camouflaged hunter, the parts of his anatomy the turkey is most likely to spot are his hands and face. Ben Lee gets around this by wearing camouflage gloves and a face mask which he designed. He sometimes uses camouflage makeup to darken his eyelids and the skin around his eyes.

He sits in the open. When he is ready to shoot, he is not blocked by brush, weeds and saplings. The odds are that he will get a clear shot when the gobbler works into range.

Many beginning hunters, saturated with stories of how well a turkey spots them, believe that they themselves have to do so much to cover that when the turkey comes in range, they can’t get a clear shot. Or they have to move so much to get a shot that the turkey spots them and flies.

To mask movement he knows he must make, Ben has camouflaged his Browning semi-automatic shotgun with green and brown camouflage tape. The metal and wood are covered. When the shotgun is moved, a gobbler is less likely to catch the movement because of the broken camouflage lines.

Ben has a musical and imitative ear and can talk to turkeys with a repertoire of a dozen calls with his voice only. However, to get more volume and to improve the calls he makes, he uses a variety of them. He does not take a mask on until he has heard a gobbler or seen one that has not seen him. He keeps moving through the woods until he knows there is a gobbler around.

When he selects a tree in the open to sit against, he scoops out a comfortable seat. It may be a long wait, if he is not comfortable, he’s liable to move at the wrong moment.

His first call may be from a gobbling box, depending on how his quarry sounds. One of his favorite calls is the Super Hen he designed, a strip of aluminum in a wooden “half-cup” which is stroked by a cedar pencil with a corn cob top. It’s loop-proof against “un-turkey” sounds.

At this stage, Ben has his gloves on but the face mask, as a matter of comfort, rests on top of his head. Also, he can hear better when the mask is not over his ears. When Ben knows the turkey is approaching his hands and face with makeup grease. In spring gobbler hunting, you need all of the odds you can get.

Each fall some Florida hunters making western hunting trips have trouble getting hunting licenses because they have not taken a certified hunter safety course, passed it and gotten a card. I got caught short when I made a trip to Merritt Island National Wildlife Refuge this past waterfowl season. I could not hunt certain areas because I did not have a card.

I’m signing up for a course this spring. I don’t want to run into the problem again and more and more states are requiring courses for hunters of all ages, not just youngsters.

At first, the idea of me having to take a hunter safety course after a lifetime of hunting struck me as ridiculous. With further thought, however, I realized I’m just the kind of old codger who needs the review and instruction. It’s even easy to fall into unsafe habits and sometimes your best friends won’t tell you.

In fact, some of the middle-aged gun toters I hunt with from time to time need the coarse as much or more than youngsters. The kids, anxious to get a card, will listen. They know they won’t get a hunting license if they don’t pass the course. Also, if they’re not safe, the old man may take their guns and hunting privileges away.

It’s always an uneasy situation when someone you are hunting with has an unsafe habit. You don’t know whether to gently tell him or quit associating with him. It’s about like telling someone they have body odor or halitosis. You don’t want to hurt their feelings. Also, you might not care to risk a fist fight. It’s like the commer­ cials say, “Even his best friend won’t tell him.”

The Florida Game and Fresh Water Fish Commission has an ongoing program of hunter safety courses. They are free and provide excellent literature and instruction are provided. You can get information on the 12-hour courses in your area by contacting the Commission’s headquarters in Tallahassee or any of the five regional offices.

In Europe, many hunters put slings on their shotguns for easier carrying on long hikes. Shoulder slings are seldom used in America except on special deer-hunting guns designed for rifled slugs or buckshot.

No police rice guns, such as the High Standard Model 108, come with slings. Ithaca, Marlin and Mossberg manufacture sporting models which have swivels mounted for slings. The Ithaca 70 features a deluxe and supreme grades is equipped with slings and swivels. On a long hike across a boggy marsh to a duck blind, a sling is a welcome aid to carrying this monster gun.

A sling is handy for any type of hunting when there is a lot of walking where you’re expecting no sudden shots. In any kind of hunting, when you end up a long way from your car at dark, you can appreciate a sling as a carrying aid.

Michigan W. O. has a brochure on slings and swivels for shotguns and rifles. It’s free by writing Uncle Mike, P.O. Box 13010, Portland, Oregon 97213.

Sitting in the open gives the hunter a good view in all directions, except behind, while waiting for the approach of a gobbler.
Teaching Youngsters To Swim

Nicky Skolsky is what they call a tongue-sticker-out. When his head is stuck under water, instead of closing his mouth tight and opening his eyes, he pokes out his tongue and shuts his eyes. That kind of behavior is just not acceptable, so lately Nicky's instructor has been pushing Nicky's tongue back in his mouth and giving him a big hug when he's brought back to the surface.

It's time to take data. After the child has been ready?')... ready?" Harvey asks Nicky in a friendly tone. Nicky responds with a yelp, not so much to the question, but to being lowered into the water. He hasn't cried long and soon he resigns himself, to the water being splashed over his chest and shoulders. He doesn't cry long and soon he resigns himself, to the water being splashed over his chest and shoulders.

But such pleasantries don't last long and soon Nicky's arms back and forth in an attempt to show Harvey next begins to hop across the pool with Harvey pats the boy's back. Nicky lets out a resounding "Whoa oo... look at those arms go! All right Nicky!"

Everyone laughs and Margaret explains: "When Harvey knows he's making progress, he gets excited."

An important part of Harvey's program is teaching the child how to get to the side of the pool and hang on. He does this by putting the child's hands on the side and pressing down on the fingertips. Strong little Nicky doesn't have any trouble getting the concept to getting out and he hangs on for dear life.

"Some babies hold onto the side, Nicky takes chunks out of the concrete," Harvey jokes as Nicky clutches the side with his hands and teeth. Nicky's lesson is over for today and all told, it lasted only ten minutes. Nicky looks very tired and he lays his head on Harvey's shoulder while Harvey pats the boy's back. Nicky lets out a resounding burp and his mother scoops him up in a big, furry towel. "Yeah, he'll sleep tonight," Harvey says.

Harvey, 30, teaches children in ten minute segments five days a week. He's also a graduate student at the University of Florida, working on his Ph.D. in Education. He has two degrees in psychology and a master's in Japanese. Harvey has written a book for the layman audience about his program, called "Precision Strokes for Little Folks." It explains his techniques and includes the reasons behind every action he uses with the children.

By Donna Blanton
Parents of all the children learn how to perform cardio-pulmonary resuscitation. “We’ve had two mothers who’ve performed the CPR techniques on other children and in both cases they were successful in saving the child’s life.”

“Nobody is water safe,” he emphasizes. “Water is basically a hostile environment. To teach babies to enjoy the water at this time is as logical as teaching them to be unconcerned sitting in the middle of a road. They can get themselves into much deeper trouble in the water than they can survive.”

The purpose of the program is to give infants and young children the best chance possible for survival if they encounter an unfamiliar water situation.

Basically, the children are taught how to close their mouths and open their eyes, to move their arms and legs, to roll over on their backs and float, to flip over on their stomachs, to swim to security (either the side of the pool or an object floating in the water) and to swim to another person.

The length of the course is dependent on the child’s rate of progress and the parents’ pocketbook. Each lesson costs the same as one adult admission to a first rate movie. A week’s worth of lessons is about $15. “Movie prices are a good demographic indicator of the economy in a particular area,” Harvey says.

Many children come back to Harvey year after year. On the first day of instruction after a winter of not swimming, Harvey pushed a three-year-old into the water in the deep end of the pool. She had had lessons with him the year before and she immediately found the side of the pool.

“She fell in and she can get back out. It doesn’t make any difference how she falls in, she can even do it with her clothes on,” he says. “See? Cheapest life insurance in town.”

Some children are easier to teach than others. This four-year-old had played in the water but he didn’t know how to swim. Like many children, he had worn a bubble strapped to his back while in the water.

Harvey says he thinks bubbles and almost all other artificial flotation devices should be outlawed. “They give a child a false sense of security.”

Jonathan is an excellent kicker but his head is out of the water. He makes several remarks about the evils of the bubble and goes on to the next area.

Harvey wears a bubble strapped to his back while in the water. He cut off the rusty twin weights around the open mouth of the net as soon as he moved the draped net to the right, his upper body to the left, then with a quick motion to the right, let the draped net whip off his arm to arc out and settle in a circle over the bubbly target.

Many doctors’ children have taken lessons from Harvey, the American Academy of Pediatrics hasn’t recognized the program. The organization claims young children are unable to retain what they have learned.

“A flipper, but I want to go talk to my mother,” Jonathan wails. He begins to cry loudly.

Jonathan waits and then says: “Well, it’s only going to be a little bit but I don’t want you to let go of me.”

After some more encouragement, Harvey decides it’s time for Jonathan to begin. He lets go of him and Jonathan begins to scream.

“Look at the flipper and I’ll pick you up. Look at the flipper. Look at the flipper!” Harvey shouts.

The lesson goes on this way for nearly ten minutes. Harvey asks Margaret to find out how long Jonathan wore a bubble. His mother says it was about six months.

“If he wears a bubble it’s really hard to train him,” Harvey says. “It’s used to that bubble just like a lifejacket, as security, and it’s hard to break him of its effects.”

Harvey looks as tired as Jonathan as they come out of the water. He makes several remarks about the evils of the bubble and goes on to the next child’s lesson.

Harvey says he’s always trying to improve his methods of instruction through research. He’s working on a longitudinal study, a follow up program, for the children he’s taught. The parents communicate with the company each year by reporting on the aquatic ability of their children.

Although many doctors’ children have taken lessons from Harvey, the American Academy of Pediatrics hasn’t recognized the program. The organization claims young children are unable to retain what they have learned.

Some doctors warn that infants are more susceptible to ear infections than older children. Harvey refutes these claims and says most ear infections occur when parents put foreign substances, such as alcohol, into the child’s ear.

Harvey says he wants to become the only agency in the state that certifies infant swimmers. As Margaret remarks after watching one baby do well in the water: “I just feel like every time a baby learns to swim, it’s the right thing.”

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A UNIQUE FISHING TOOL

THE CASTNET

By Jim Farrior

The electric motor was barely audible as we moved along the steep bank of one of south Polk County’s many phosphate pits. Pete was poised on the bow of the 14-foot Jon boat ready to throw the net as soon as conditions looked right.

Ahead some 50 feet he could see bubbles rising through the pea green water. He cut off the thirsty twin prop and began a quiet coast. At 15 feet he tensed momentarily, swiveled his upper body to the left, then with a quick motion to the right, let the draped net whip off his arm to arc out and settle in a circle over the bubbly target.

The lead weights around the open mouth of the net made a staccato of “plops” as they hit the surface, like a school of surface-feeding mullet spooked by a diving pelican.

The lead carried the net down rapidly and Pete started the retrieve. He could feel fish bumping against the webbing in their panic to escape the entangling meshes. Hand over hand he retrieved the line, got a grip on the net and boosted it aboard with its struggling load. The fish thrumming the bottom of the boat looked like so many dark-spotted, heavy-bodied, big-finned perch. As a matter of fact, Nile perch is one of the names commonly, though inaccurately, applied to the species, Tilapia aurea, the blue tilapia.

Florida’s population of this now widely distributed African exotic can be traced back to a limited experi-
mental introduction of the fish in 1961. Details of the
matter were treated in the December 1962 and March
1970 issues of FLORIDA WILDLIFE.
At any rate, the wildly successful introduction into
certain Florida waters has opened up a whole new type
of fishery. Not readily taken on hook and line, the
tilapia lends itself well to harvest by cast netting, a
technique successfully used by tidal water mullet
fishermen but previously used only to a limited extent
in fresh water, mainly to catch bait.

Some of the skills required of the castnetter parallel
those needed to pursue other types of net fishing. The
fisherman must know where the fish are most abundant,
how they move with temperature and wind changes, and
how to fish different water conditions. Basic to his
success, of course, is knowing how to throw a bundle of
monofilament and lead, weighing as much as 15 pounds,
so it spreads out and hits the water in a perfect circle
22 feet in diameter in order to catch as many fish as possible in the fewest number of casts.
Throwing 30 times an hour, a fisherman can't afford
to make many bad casts.

"Orlando" Pete Kinnerman is a castnetter, a 30-
year-old tilapia fisherman from Lakeland who has been
commercially castnetting fulltime since it was legalized
in 1973. Pete knows his business and to him that is just
what it is. His knowledge is reflected in the business.
While most fishermen get 15 cents per pound, de-
pending on the season, Pete, by avoiding the middle
man and selling direct to the markets, receives more
than double that for the fish he catches. Other fish-
men average approximately 200 pounds of tilapia per
day. Pete is disappointed if his daily catch is under
800 pounds. He attributes his success to a willingness
to work 70 hours a week when necessary and to buy good
equipment.

"You can't have a net that may fall apart at any time
or a boat that is too small or a motor that won't get you
back," Pete said. "The most important thing when you
fish from a boat is a good electric motor. An of rately
one that vibrates scares the fish and really cuts down on
your success. You have to invest something to get any-
thing back."

According to Pete, there are a number of other fac-
tors that affect the fish. It takes a skilled fisherman to
know how, when, and where to fish under continually
changing weather conditions.

In shallow clear water tilapia can actually see the net
coming. It takes an overcast day or poor water visibility
to fish these shallow areas. It is also helpful if a fair
wind is blowing. The turbulence created on the surface
by the wind will mask the sound of the net striking the
water, a giveaway to the fish below the spread.

When the water temperature begins to drop, tilapia
seek deeper holes for warmer water. Knowing where
drawstrings and the first five feet of an eight-foot net are
coiled in the caster's left hand. A section of the weight
rope from the side nearest the body is then placed in
the mouth (over the shoulder). With the right hand, half
of the remaining weight rope is flipped onto the right
forearm. The caster lets this slide back into the hand.
The net is held loosely in the palm and the weights held
firmly between the thumb and index finger. Next comes
the difficult part—throwing.

The caster turns his right shoulder so it faces the
direction of the cast. When the throw is made, the half
of the body produces the spin needed to open the net. Be prepared for disappointment. The be-
ginner will suffer many bananas, half moons, and
figure-eights before he sees the perfect circle. As with
all skills, it takes lots and lots of practice to become
effective with a cast net.

The function of a cast net is to sink to the bottom,
trapping all fish underneath. Drawstrings connect the
weights and the rope to the caster. As the net is retrieved
along the bottom, the drawstrings pull the weight to the
top of the net. This action opens the net for holding the
fish until they are brought to the boat. A 10/4 foot net will
spread to form a circle 21 feet in diameter, and will
produce a bag capable of holding several hundred
pounds of fish.

The cast net, a common sight along Florida's coastal
waters, has found its way to the lakes and ponds of the
state. What started out as an experiment has brought
about the rise of a new commercial industry and what
was once used to catch mullet for the home-style
smoker has become a way of life for hundreds of com-
mercial tilapia fishermen.

Some other fishermen are making a living from this
type of netting. For example, Pete Kinnerman, who
has been castnetting fulltime for 15 years, said. "Our
fishermen have no idea who's catching tilapia. They've
been doing it for years."

Castnetters catch tilapia and baits them for the home-
style smoker. Some tilapia fishermen are using a 100
pound net to catch tilapia and use them for bait. The
bait is then sold to fishermen who use it for bait.

Some tilapia fishermen are using a 50 pound net to
catch tilapia and use them for bait. The bait is then sold
to fishermen who use it for bait.

"We can't afford to get hung up on or make bad casts,"
said Pete as he prepared for another throw. "Our nets
can't produce like other commercial devices, such as
haul seines. They can bring in 6,000 pounds of fish or
more in one trip. It's been a hard week if a castnetter
brings in three or four thousand pounds. You might get
lucky and cover a congregation of tilapia and catch 200
pounds in one throw but most castnetters end up with
that amount come quitting time." The throw came up
empty.

What about the cast nets themselves? There are as
many shapes and sizes of this unique fishing tool as
there are people who use them. They range in size from
four to 12 feet. The most common size for commercial
tilapia fishermen is 8% to 11% feet. Some are made
from nylon, but most are made from monofilament.

Mesh size will vary depending on the size fish sought.
Smaller mesh is used for bait fish. Large mesh, in the
two-to-three-inch category, is popular with most com-
ercial fishermen. Weight is another variable. More
weight, for a faster sinking net, is essential for fishing
deep water. A slow sinker would allow the fish time to
swim from under the sinking mass.

Throwing techniques are as different as the nets
themselves. Each fisherman will use the method most
comfortable to him. Some place the weight rope over
their shoulder while others put it in their mouths.

This technique used by bridge and pier fishermen, where
height is required, is to dangle the net over the side and
begin a right to left spinning motion. When the net is
twisted its full length, spin the opposite way. As it evens
up, the momentum opens the weights. A lift up and
drop produces a perfect circle.

The most common method, and one used by many
commercial fishermen, involves placing the weight
rope in the mouth. The rope from the caster to the
drawstrings and the first five feet of an eight-foot net are
coiled in the caster's left hand. A section of the weight
rope from the side nearest the body is then placed in
the mouth (over the shoulder). With the right hand, half
of the remaining weight rope is flipped onto the right
forearm. The caster lets this slide back into the hand.
The net is held loosely in the palm and the weights held
firmly between the thumb and index finger. Next comes
the difficult part—throwing.

The caster turns his right shoulder so it faces the
direction of the cast. When the throw is made, the half
of the body produces the spin needed to open the net. Be prepared for disappointment. The be-
ginner will suffer many bananas, half moons, and
figure-eights before he sees the perfect circle. As with
all skills, it takes lots and lots of practice to become
effective with a cast net.

The function of a cast net is to sink to the bottom,
trapping all fish underneath. Drawstrings connect the
weights and the rope to the caster. As the net is retrieved
along the bottom, the drawstrings pull the weight to the
top of the net. This action opens the net for holding the
fish until they are brought to the boat. A 10/4 foot net will
spread to form a circle 21 feet in diameter, and will
produce a bag capable of holding several hundred
pounds of fish.

The cast net, a common sight along Florida's coastal
waters, has found its way to the lakes and ponds of the
state. What started out as an experiment has brought
about the rise of a new commercial industry and what
was once used to catch mullet for the home-style
smoker has become a way of life for hundreds of com-
mercial tilapia fishermen.

Steaming from an experimental introduction some
18 years ago, the algae-eating tilapia now dominates
the fish population in numbers of mid-Florida lakes.
Not readily taken on
the usual hook and line gear, it has
become an important commercial species on specified
Florida waters.
While it is circling overhead, its brick-red tail spread like a fan, it's easy to identify the

Red-tailed Hawk

Buteos are soaring hawks with broad, rounded wings and wide, fan-shaped tails. The red-tailed hawk, with a wing-spread of four feet, is the largest buteo found in Florida. The adult bird is probably one of the easiest hawks to identify. Its plain, reddish-colored tail and large size separate it from other buteos. The immature red-tail has a brown tail barred with black, making it more difficult to distinguish.

A year-round resident, it is found in areas made up of a mixture of open fields and woodlands. It nests in wooded areas, choosing a place in a large tree about 35 to 90 feet up. A bulky stick and twig nest lined with grasses, tree bark and sprays of green foliage is built by both the male and female. Nesting begins about mid-February with either two or three eggs laid. Incubation lasts about 30 days and the young remain in the nest for about seven weeks.

The red-tail does most of its hunting in open country, often choosing to perch in a dead tree to scan the landscape below with super keen eyes for its prey. Detecting a movement, it quickly drops to capture its main food—either a rat, a mouse, or a rabbit. Birds, reptiles and large insects are also part of its fare.

In years past, red-tails and other hawks were considered undesirable because farmers and hunters believed they ate mostly poultry and game birds. Labeled “chicken hawks” they were shot at every opportunity. Scientific studies of their food habits have clearly proven the contrary. Hawks, and their nocturnal counterparts, owls, are extremely beneficial in helping control rodents that are seriously destructive to farm crops. Red-tails and other birds of prey are now protected by law, as they always should have been, and are without question recognized as important, invaluable parts of nature’s biological balance.

By Rick Schroeder
A smorgasbord of choice victuals awaits the sportsman in those high class country stores where bottle caps pave the driveway. You can have all the things your mother wouldn’t let you eat. How about a sardine and cracker for starters?

Rare is the hunter or fisherman who can accurately be called a gourmet or epicure. Quite frankly, most of us think that “Chateaubriand for two” is a love nest in a shabby French hotel, or that an “aspic” is something you wear around your neck.

And yet, the outdoorsman has a very special — some would say unusual — appreciation for food. This appreciation, or perversion, inevitably manifests itself away from home. For example, at home I cannot eat a tomato unless I first pick out all the seeds, and the only green vegetable I like is key lime pie. But let me spot a raw, dirt-stained turnip in a field while I’m bird hunting, and I’ll wipe it on my pants and devour it with the gusto of a starving hound.

If I’m hunting, I’d rather take a lunch break at a country store than have it catered by the finest restaurant on the continent. If I’m on a wilderness trout stream, happiness is a couple of mashed liverwurst and onion sandwiches. I might turn up my nose at a water-spotted wine glass at home, but I’ll drink contentedly from a woodland spring clogged with dead leaves and live salamanders.

Why is that? Who knows really. It seems that food and drink just taste better out there; and no doubt you and I have fond memories of such things as oysters roasted on a November beach, or peach cobbler cooked in a Dutch oven buried in embers of a dying campfire. Or maybe it’s version tenderloins simmered in butter and sour cream in a downeast deer camp or mountainous breakfasts served at 4:30 in the morning by the wife of a waterfowl guide.

Most of my fondest outdoor memories have nothing to do with fish caught or game killed. Though it’s been years, I still remember the “Great Fairfield Oyster Orgy” that followed a day of goose hunting at Mattamuskeet when my dad made the ill-advised offer to buy me all the oysters I could eat. I had ’em raw, steamed, stewed and fried, and even managed to get a couple of oyster fritters just barely past my vocal cords before staggering back to the car.

Then there was the time I made chili for my companions Joel Arington and Tom Earnhardt on a trout fishing expedition. While they watched with interest — or maybe it was alarm — I tossed a double handful of chili powder and red pepper into the iron pot with the beef, tomatoes, onions and beans. We left it simmering over a low fire while we scattered out to fish the stream. The whole valley reeked of chili, and when we returned I raised the lid for a quick sniff and promptly lost most of the hair in my nose. Tom credits my chili with curing a congenital sinus condition.

One cold October day, with a stinging rain riding a stiff northeast wind, I stood alone on the end of an ocean pier plugging for bluefish. Awhile two fishermen joined me and I could see right away that they were better prepared for this kind of fishing by a long shot — not to mention several short ones. After taking a couple of nips, they set about lighting the only thing that was not already well lit, a small charcoal grill they’d brought.

While one tended the grill, the other began fishing. He launched a wobbly cast into the teeth of the gale. No sooner would his plug hit the water than a two-pound bluefish would grab it. The cook would split the fish, sling out the innards and place it skin up on the grill.

My friends graciously offered me grill space for my blues, and a snort for my health. During the next hour, we caught and ate perhaps a dozen crisp, delicious blues; and my health...
Pour peanuts in a soda, dip vienna sausages in mustard or spread a little potted meat on a cheese nub. Anything goes, but just don’t read the label.

An appreciation for oysters, chili or grilled bluefish is not hard to understand. What is less easy to explain is the sportsman’s fascination with the kind of food one finds in country stores. A man of impeccable breeding, exquisite manners and unquestionable taste will deny his heritage after following a brace of bird dogs all morning and gorge himself on the most incredible array of swill. There is something about a can of sardines or pickled pig’s feet that is absolutely irresistible to a hunter or fisherman.

If you have never dined in a four-star country store, you are culturally deprived. There is, of course, no Michelin Guide to assist you in the selection of a superior country store, but I can tell you what to look for.

It has been my experience that the food is better in these country stores where the driveway is paved with old bottle caps, relieved by a single, rusty gas pump. In the dusty windows of the weathered building, you should find at least one very old movie card advertising a double feature starring the likes of Tom Mix, the Durango Kid or Lash LaRue. Once inside, it is proper to nod to the maitre d’ who will be leaning against the counter in his overalls, picking his teeth with a toothpick. Others diners may already be seated on upended drink crates around a pot-bellied stove chewing tobacco, pouring peanuts in their soft drinks and spitting on the hot stove to hear it sizzle.

In order to appreciate the atmosphere, one must not hurry. Pause and breathe deeply, sorting out the various scents of fertilizer, seed, leather, dust and tired feet. Look around. On the wall, you will find everything from harnesses to hankies, Barlow knives to radiator belts. You may even find something you’ve always wanted, like a little perfumed chenille skunk to hang on your rear view mirror to mask the mask of working mutts. My favorite store has a sign on the wall that says: “We will crank your car and hold your baby, but we sell for cash and don’t mean maybe.” Carefully sniff the jars of pickled eggs and pig’s feet. I cannot recommend too highly any pickled sausages you might find. Sometimes, if you are truly in Mecca, you will find a leg filled with salt herring.

On the counter of every country store worthy of the name, you will find a wheel of greasy rat cheese. Buy a slab. Even if you don’t like cheese, its ingestion may help offset any unpleasant occasions occasioned by the rich mixture you will soon savor.

On the shelves will be cans of vienna sausages, salmon and tuna, sardines, hash and potted meat. Avoid reading the label on the potted meat unless you are uncommonly interested in the final disposition of such items as pork snouts, beef hearts and stomachs, assorted lips and a variety of less distinguished cuts.

Elsewhere, you will find nabs, wrapped sandwiches, 12-gauge peppermint sticks, candy bars, cookies in jars and a vast assortment of cupcakes, raisin cookies, cinnamon buns and pies.

I have one hunting companion whose favorite country store lunch is a large can of whole, peeled tomatoes and a watery chocolate drink. I personally consider that an ostentatious show of redneck, but if your taste runs to such extremes, you are certainly free to indulge.

My own taste runs heavily to dill pickles, rat cheese, potted meat scooped out of the can with peanut butter crackers, cold pork ‘n beans, magnum orange soft drinks and coconut candy bars.

Once, while several of us were dining at a country store, my son Scott noted that his can of pork ‘n beans contained only a single, small chunk of fatty pork. “That is to be expected,” explained our companion, Joe Phillips. “There is never more than one chunk of pork in a can; otherwise, they would call it ‘pork’n beans’.”

As I have said, I cannot explain the almost universal appeal among sportsmen for meals of this nature; but if I had to guess, I would say that it reflects some primal lust for independence. As a kid, I was constantly being reprimanded for savoring my weekly allowance on similar items in the neighborhood grocery instead of forthrightly facing the daily onslaught of boiled collards, cabbage, rutabagas and snap beans thought necessary for proper growth.

Perhaps it is the shuddering recollection of those collards that drives me across the bottle caps and through the threshold to the herring leg and the potted meat. I only know that once there, I am in the midst of gastronomic glory; and sometimes, as I sit contentedly on a drink crate watching a cut-throat game of checkers, I feel moved to offer a judgement. “It was,” I might say, “a good pig’s foot, but not a great pig’s foot.”

Jim Dean is associate editor of WILDLIFE IN NORTH CAROLINA. He researched this article at countless country stores and at least one emergency ward.
My dad’s pride in being a Connecticut Yankee is somewhat ambivalent. As he grew older, he developed the paranoia that comes from being terrorized by Northeastern winters. He became a snowbird, migrating to Florida in an annual ritual of escape.

Dad would no sooner cross the Florida line than he would look around, gulp the warm air and say, "It may not be paradise, son, but it’s the closest thing we’ve got to it on earth.”

Dad was mighty impressed with the entire state of Florida in those days. Now, having achieved the ultimate escape, he’s a Florida resident and has had time to reevaluate earlier impressions. Dad no longer finds paradise with every clump of palms, but about some Florida real estate he has made no compromises—the original observation stands.

One such place is Myakka River State Park, 17 miles east of Sarasota. More than 10 years ago my father introduced me to the park, a shallow 29,000-acre valley of jungle, stream, marsh, prairie and lake. It was on a day in August when thunderheads reared threateningly in the east. The rainy season had beset the park for a month leaving the forest floor under a foot of black water that licked the roadside in many places. But no matter, the sun was low and from the woods we heard the mellow call of a barred owl and the rain chorus of tree frogs.

We saw alligators almost within arm’s reach and...
A naturalist’s dream, Myakka offers a wide variety of flora and fauna for the looking. Left to right above are a common egret, roseate spoonbill, butterfly orchids, and a flock of white ibises.

watched whitetail deer slogging through the wet prairie. A beggar raccoon crossed our path and a brace of Florida ducks winged past a slough where a great blue heron stood frozen and a snowy egret snipped at minnows. Spectacular flocks of white ibises, some in scribbled V-flights, passed overhead and we watched others picking their way across the prairie.

The trip was an eye-popper and long before the squall drove us off, I was hooked.

Many people are the same about Myakka River State Park. One of the nation’s premier state parks, it’s a mecca for outdoor activities, camping, studying nature, fishing, bicycling, hiking and canoeing.

The park is split by State Road 72. North of the highway is the “developed” area, complete with a blacktop road, concession stand, campsites and picnic tables. The road snakes under archways of moss-draped oaks and past sabal palms. It borders pop ash swamps and pickerelweed marshes, crosses wet prairie and parallels the southeast shore of Upper Myakka Lake, a 650-acre bulge in the Myakka River.

The lake is popular with alligators and fishermen alike. Presumably fishermen do better with bass, speckled perch and catfish than the ‘gators which feed primarily on rough fish and turtles. Many fishermen use boats but others walk the lake shore and river banks. Unfortunately the fishing is sometimes difficult because of the proliferation of hydriilla which the state is constantly battling.

Back along the park road, features include a natural garden of savannah iris each February and March and sprays of epiphytic butterfly orchids each May and June. When moisture conditions are right, the Myakka prairies are yellow-carpeted with summer blooms. Off the road are nature trails, two campgrounds, a boat launch, elevated boardwalk and small museum.

The south section is almost virgin wilderness, a forest of oaks, palms and pop ash disturbed only by muddied fire lanes and the foraging of feral hogs and cattle. For 40 years, dating from the park’s founding in 1935, the south unit and the 300-acre Lower Myakka Lake (another bulge in the Myakka River) were off-limits to the public. In 1975, the park began issuing a limited number of day-use permits to fishermen and other adventure-
some souls who were willing to walk or float in. No vehicles, motorized boats or fires are permitted so there is minimal danger of destroying the wilderness values of the lake or the surrounding forest.

The average tourist is quite satisfied with nothing more than a glimpse of an alligator. Yet there is much more to experience than just a peek at the tip of a food chain. The wild vastness of the place and the ecological integrity of its watershed are components of a flourishing ecosystem in which many complex, inter-related food chains prosper. The person who spends a few leisure hours at Myakka can be privy to many of the chains’ links.

The animal links in those food chains are the park’s essence. It is not the stability of the ecosystem that brings visitors here, but the product of that stability—the wealth of animal life. Even the much-traveled park road is a good vantage point from which to see whitetail deer, particularly at dawn and dusk when raccoons, armadillos and rabbits are likely to be about. Regular visitors occasionally see otters, bobcats and snakes. A few fortunate individuals have seen Florida panthers at Myakka.

Most conspicuous are the water birds—egrets and herons, ibis and spoonbills, coots, grebes, galli-
LA FLORIDA
- land of flowers

Florida has a wealth of wild flowers. Wander down any country road, explore any state park, or simply look—really look—at roadsides, cow pastures, marshes and even vacant lots. You will find a rainbow of flowers: pink, blue, yellow, white, orange and red.

For many Floridians, wild flowers have a special charm no cultivated blossoms can possess. Perhaps because such flowers, planted by the wind, watered by the rain, nurtured by the sun, are the natural decor of the landscape, and also because, unfortunately, they are disappearing fast.

Even the names of Florida's flowers intrigue the wild flower buff: spatterdock, bladderwort, pickerelweed, moonflower, star rush, butterfly weed, hatpin, button bush, Spanish bayonet, to name a few.

We can credit Juan Ponce de Leon with giving Florida its lovely name. In the spring of 1513 when he landed near the site of present-day St. Augustine, he probably walked across wild seaside morning glories that laced the sand dunes, stepped on a thicket of brilliant yellow oxeye daisies and patches of purple verbena, and wandered through a field of golden sea oats. He may have even stuck himself on the needle-pointed leaves of the yucca and picked up stickers from the Spanish needles. But whether he named the state for Easter or the flowers, he named it correctly, La Florida. Wild flowers bloom somewhere in Florida every month. Florida's flowers can be divided, roughly, into color groups. In fall, you can color peninsular Florida yellow. By late September the primrose willows, goldenrods and many...
LA FLORIDA - land of flowers

State Park; pink and white marsh pinks and wild asters in the marshy regions of central Florida; pink and sticky tar flowers in May and June along the coastal plains; orange-flowered butterfly orchids along the road by the railroad tracks in Canaveral National Seashore; wild purple thistles along the Shark Valley Loop Road, 30 miles west of Miami on the Tamiami Trail; white roses in the Everglades National Park. Almost anywhere away from salt water is the goldenrod and in the early summer, almost anywhere near salt water is the yucca or Spanish bayonet.

The list of places can be almost endless. The searcher will find other flowers, too: violets, pink mallows and bachelor buttons. In the Everglades there are terrestrial as well as epiphytic orchids (but don’t take any home with you). In the green depths of Nixon Hammock in Melbourne Village there are parsons-in-the-pulpit amid a wealth of ferns and in almost any hammock or wooded area, you can find blooming air plants.

It is not easy to transplant wild flowers and most will wilt when cut. A few such as hatpin can be dried. (Hatpin flowers were used by pioneer women to decorate their braided palmetto hats.) But in general, it is best to enjoy Florida’s wild flowers where they grow.

MILKWEED VINE

Photo by Mary Ellis Smith

GOLDENROD

Photo by Wallace Hughes

SHRIMP MALLOW

FLORIDA WILDLIFE

one of the most important messages conveyed in our Hunter Education program is found in the section covering the landowner-sportsman relationship. In this section, the volunteer instructors deal with the subject of ethics and how they affect both the hunter and non-hunter.

We tell students that ethics can be defined in several ways. One way is simply knowing the difference between right and wrong. Another goes a little further—adhering to accepted professional standards of conduct.

We also point out that while almost everyone knows the difference between right and wrong, that’s just not enough in today’s world. That’s why the second definition is more complete—conforming to a standard; in this case the highest level of sportsmanship.

Instructors point out how words like courtesy, respect and safety are all important to a true sportsman. Students learn that we are responsible to our fellow hunters who share our feelings for sport hunting, to the wildlife that sustains our sport, and to the public, especially the nonhunting segment.

It’s important to remember that almost all hunting in Florida is done on privately owned land. Much of the land under our wildlife management area program is privately owned; landowners allowing use of their property through agreements with the state. With 5,000,000 acres available to the public through these cooperative agreements, it becomes very important that all users understand the conditions that have been agreed upon in order to use these areas. In addition, we must do our part by utilizing these areas in a manner that reflects our appreciation.

Hopefully, students will realize that it’s not really enough anymore just to obey the rules. The unwritten laws of sportsmanship become very important in these times when public opinion can be swayed as easily as it is.

Setting an example is probably the single most important factor in qualifying for the rating of sportsman. There are no written rules or regulations to enforce this ideal.

Students hear the words, respect and courtesy, many times throughout the class and with good reason, for they comprise the cornerstone of sportsmanship.

The hunter owes the landowner the courtesy of treating the area he utilizes as if he were personally responsible for everything that takes place.

We advise students to take some time, sit down and consider what they believe and why regarding ethics, conservation and hunting. The Hunter Education course offers the beginning sportsman guidelines that can be used to model a sportsman’s code that will last a lifetime. This may be the beginning of a personal code of ethics for many.

Here are some general rules covered during the class: Carry written permission when on private property. Respect the property of the landowner. Whether it’s livestock, buildings, fences, plowed fields or crops, treat all with care. Remove all litter. Leave your area cleaner than you found it. Combat vandalism. Remember, your responsibility goes beyond your own actions. Report violators and become involved in helping end activities that hurt us all.

Lt. Jim Truitt is the Everglades Region Hunter Safety Supervisor, based in West Palm Beach.
There are no streetlights in the country. If you are a back­
light—a comfort for those living in the boondocks.

As I was reading late one night, our safety light seemed to dim. It didn't actually go out but it seemed something was blocking it. I rose and went out quietly to investigate. There, sitting on a branch of a dead pine tree between the house and the light was a great horned owl.

I grabbed the binoculars, called my wife and for the next 30 minutes we studied the bird, until it finally lifted into the air and slipped silently into the darkness. That owl made such an impression on me that the next day I wrote in an old brown notebook: Great Horned Owl — 12/30/75. That was the beginning of my backyard bird list.

It wasn't difficult to make the next few entries. After all, chipping sparrows, ground doves, and blue jays are around the feeder daily. Also, there is that batty mockingbird who divebombs his image in the window of the VW, leaving himself in a state of frustration and the car artfully streaked with purple droppings.

As the list began to get a certain size, rules had to be agreed upon. An example: the bird had to be spotted in the yard. That rule presented certain moral distinctions for me. For example, does one include the coyote that runs along the fenceline just outside the property? Absolutely not. In a world gone mad with moral relativism there must be certain basic standards.

On the other hand, the piloted woodpecker did make the list because, even though the tree is outside the wire, he sat on a branch that overhung the fence.

A second rule: no bird is listed unless positively identified. One day I was on the back porch and a hawk dropped out of the sky intent on a snack of one of my young pullets. Unfortunately (for the hawk) he hit the overhead chickenwire he fell stunned to the ground. I was dashing for the bemyard when the bird rallied and flew off with a certain wobbly attempt at self-dignity. Now, I could have written "hawk" in the brown notebook or even "red-tailed hawk" which is what I think it was. My friends would never know. But I would and the question of standards came up again.

A third rule: note the reappearance of migratory birds. I'm not compulsive about that but it is nice to know that for the last two years a ruby-throated hummingbird has come to the pink althea outside the kitchen window as it bloomed while this year one came a bit earlier to hover in the spray of the garden sprinkler for a prolonged shower. Careful notation helps you decide when the martin house goes up to avoid sparrow nestlings that would crowd out those wonderful mosquito-eaters. Somehow I goofed this year because we have no martins. But there is a great crested flycatcher hatching out a brood in our martin house. I watch it every evening and look for the summer tanager that has a nest over the property line.

Any keeper of backyard lists waits for the day when a new bird can be entered in the old brown notebook. I noted a doubleheader when slate-colored juncos and eastern bluebirds hit the property on the same day last year. A banner occasion was the arrival of a blue grosbeak that hung around a patch of young dogwoods for an entire week until the unruly bluejays drove it away. I remember with mixed feelings the morning a flock of cattle egrets marched in solemn procession through the high grass where the septic tank drainfield is. The sight of those birds so agitated my dog that he tore out of the house to investigate. Unfortunately, he did not use the door. The stately "tickbirds" were gone in a flash. So was a section of the back porch screening.

Keeping a backyard list is not as dull as it might seem. You can get involved. One day my dog (the same one of cattle egret fame) sniffed up a crippled male...
Most of my memories are better than that. As I look over the old brown notebook my mind goes back to happy moments. I saw the black and white warbler (1/22/77) walking down the side of the oak tree outside my study the same cold morning that my wife called me to see the purple finch in the back yard. The flock of cedar waxwings that got here in April 1977 arrived a month earlier in 1978. The loggerhead shrike seems to favor the young pecan in the front yard. For the last few years it has appeared like a sentinel on top of that tree during January. Robins are common enough but when you see 40 or 50 in the front yard scratching during the cold months, it is an impressive sight.

I've only got some 30 birds on my backyard list but it means a lot to me. All you need is a notebook, a birdbook, some binoculars, and a set of standards. The last item is important. Standards pay off. Three weeks ago I spied a cowey of quail in the yard; not just inside the fence line. In the yard! Noting that in the book gave me more pleasure than anything else that had happened that week. I waited until after supper; got out the notebook and wrote: "Bobwhite quail—4/5/78, near the roses and the bird bath. A day well spent."

By CHARLES WATERMAN

Mirroh Gregory died the other day. His passing won't generate much national news coverage but you should know about the phase of fishing he helped to advance—even create. He was one of a nucleus of fishermen, mostly from California, who broadened the scope of fly fishing.

Gregory, retired railroad engineer, never pushed himself into the limelight but was a quiet adviser and constant student in fly casting, especially the long-distance throwing that got its real start in the Golden Gate Casting Club of San Francisco.

Some of the other well-knowns of long-range fly casting in the past have been Marvin Hedge, Jon Tarantino and the late Bob Budd. Budd, who fished each winter in Florida, was something of an outsider in that group because he had no interest in steelhead fishing, even while he was winning national and international tournaments. Steelhead fishing, which requires a lot of distance tossing, was the basis for heavy-duty fly fishing and whether steelhead or the tournaments really made it go it is like worrying whether the chicken or the egg came first.

Gregory, with whom I had corresponded for a number of years but had met only once or twice, was a very nice guy, as are most of those fly pushers.

The basis of real-long-distance fly fishing is a head that furnishes the casting weight and is attached to some light running material that sizzles through the guides when the heavy part is released. That was the true basis of all the distance casting. It's generally used with sinking heads although it will work with a floating section. The part you throw (and false cast) is somewhere around 30 feet.

For some time there were fishermen who swore it wasn't fly casting at all and refused to use it. Their argument was that backcasting or spinning tackle would do the same thing easier—and to some extent they are right. However, there are fishermen who say that if they can't catch it on a fly, they aren't interested, and they will go to great lengths to do just that.

The extreme in heavy fly casting is the use of lead-core line with a flyrod. That will get right to the bottom and may take an ear along if you aren't careful. It has been used mainly on steelhead and Pacific salmon, both of which tend to get way down in fast water, but has some seldom-tried applications in Florida salt water and occasionally for black bass. I saw it used with some results in a phosphate pit some years back. There is a high priest of that kind of fishing named Bill Schadt, who proclaims the Pacific Coast and has been the subject of a great deal of complimentary writing. Schadt, whom I have never met, seems to be a delightful character who seeks fish rather than publicity. I do know Russell Chatham, a wandering fishermen, painter and author, who looks like a rather handsome pirate, complete with Chinese bandit mustache, long hair and a footballish physique. Chatham, who speaks in awed tones of the prowess of Bill Schadt, fishes with him and, I am told, goes right along with the master, being in the same class all the way. There may be others of the same caliber unknown outside their own neighborhoods.

Throwing a big heavy line and streamer much more...
than 100 feet may not appeal to Florida bream anglers but anybody who says it is unsporting will get an argument from me), I take a quote from Chatham. It seems he was fishing a Pacific Coast stream with leadcore fly line and had caught more steelhead than any of the more conventional anglers when somebody informed him that leadcore line was not sport ing since it took advantage of the fish. Chatham said he didn't see it that way since he put back all of the fish anyhow.

My own feelings are that it is pretty hard to take advantage of a big fish with a fly rod unless you attach dynamite to it.

A tackle shop proprietor was telling me the other day about the problems he has with ultra-fine reels. It happens that he is a successful dirt bike racer and he used bikes as an illustration.

For most riders, he explained, the less-expensive motorcycles are actually better when used in rough-and-tumble situations. Tolerances are generous and there is no necessity for constant adjustment for minor wear. The super-fitted bikes, no doubt, are more efficient, but there's no time when a good 26-inch bike is not a good choice for a cross-country trip.

In some of the best of spinning reels a grain of sand can bring things to a grinding halt and the same is true of some of the best reels. It hasn't been long since I wrote here that the very expensive English fly reels are easily put out of commission by dirt and grit and must be reground after every few trips.

I'll mention Russell Chatham again concerning an article he wrote called Silent Seasons, F. P. Dutton, New York. Russell rounded up a motley crew of writers who go fishing. He got me in there as a lure because he is a noted commentator whereas the others aren't all real writers who do novels, poetry and things.

I think you would like it as a relief from straight fishing stuff as it includes everything from sex to social commentary. The real writers are Thomas McGuane, William Hjortsberg, Jack Curtis, Harmon Henkin, Jim Harrison and Chatham himself. I realize that among such company I am sort of literary hat boy, being the only "straight" fishing writer.

Anthologies are quite the thing these days and I get a little hidebound in our ideas about spring fishing stuff as it includes everything from sex to social commentary. Tolerances are generous and there's no time when a good 26-inch bike is not a good choice for a cross-country trip.

Get a little hidebound in our ideas about spring Crappie fishing. In the first place there are some people who consider a minnow is a minnow target and how they tackle a minnow. If you don't use a cane pole, you're just fooling.

Part of this is the common belief that all crappie are deep all of the time but it isn't so at all. I have caught a lot of them in shallow water, using shallow running artificial in places where minnows are impractical. Artificial are more fun than live bait in almost any situation.

There are some places where the artificials don't have a very good record, such as the Okoboji area, something I never quite understood. I've repeatedly announced I was going down there and find out how to do a number on those specks with artificial but I never seem to get around to it. It is barely possible that the years have dampened my crusading urges.

There is one backwater off the St. Johns River that we have fished for specks off and on for many years. Generally we work close to the shoreline with small weighted flies and very small spinners. Most of the water is partly clogged by roots and downed trees and is 2 or 3 feet deep. At the same time there is a parade of trolls out in slightly deeper water. They use minnows and bobbers in most cases, artificials rarely.

They are more consistent, I think, than we are with the artificials but on days when those fish move close to the shore we catch many more than they do. I have almost concluded that when the fish are in the deep water they aren't along the shore but there are days when it's good in both places. I suppose they just scatter and then regroup.

One of the most deadly methods is to have a minnow soaker in one end of the boat and a spinisherman in the other. The jig, which is used to be the Number One artificial used for crappie, is now rivaled by the very small spinners and spinner-fly combinations. In some of the places we catch the shoreline crappies there simply isn't enough depth to use a jig. In recent years we have found the Mylar fly with a spinner is consistently very good.

Anyway, don't go by just one trip. Shallow shoreline crappies come and go.

Playing big fish, whether crappie or swordfish, is much simpler than getting them hooked in the first place, but there is a whole batch of hazards, most of them mental.

There are some rules such as keeping a bend in the rod (most of the time) and remembering that the dog should be light enough that when the line is low on the spool the pull still won't be strong enough to break it. The first and almost irrefutable instruction to an inexperienced angler hooked to a big fish is, "Take it easy!"

This can have a variety of meanings but is usually interpreted as meaning not to get in a hurry. The authenticity of such instruction is questioned when you interpret it as meaning not to get in a hurry. The authentic way is to "bow to him" and give him enough slack. The taut line is low on the reel but you can still start playing the fish with the boat if he won't stop.

When a fish settles down and the long part of the fight is under way you may have time to collect yourself, note if your reel drag is correct and demonstrate a flick of human intelligence. But there is a hazardous mental state that is almost certain to appear. Suddenly, after you've had him about so long, there comes a sometimes uncontrollable desire to either get him on the boat or bash him off. What you thought was an efficient calm you suddenly become a bit panicky, maybe a result of simply being tired. I've had that feeling several times, even when I thought I wasn't excited before it came on. With a fish fight that lasts an hour or more there's something I'll call nervous fatigue, whether your back and wrists are tired or not. It is a bad time for fooling with your drag.

Guides get jumpy when it's time to gaff or net something big. They want to tell the fisherman to put more pressure but they still don't like to tell him to adjust the drag. The routine drill is to over-tighten. I've done it a dozen times myself, sometimes through ignorance and sometimes through nervousness. It's an easy mistake to make a time when with some kind of tackle a carefully applied thumb or finger is better than a mechanical aid. That's good with casting tackle, fly reels and most spinning gear. This is something few fishermen practice until the chips are down. You can supplement almost any spinning reel with some finger pressure but unless you check the method beforehand it's not worth your while to stick your finger in where it doesn't belong.

I never tried to tell you how to play a fish, I just mentioned some common blisters that might make your ears burn a little.
Lake Okeechobee

It has been more than two years since the big commercial fishing boats began plying the blue expanses of Lake Okeechobee again and pulling gamefish from its depths. The resumption of commercial fishing, after close to 30 years was greeted first with skepticism but, as the figures roll in, it appears that the Game and Fresh Water Fish Commission’s OFUMP is working.

In case you don’t know, OFUMP is government shorthand for Okeechobee Fisheries Utilization and Management Program. Commercial fishing regulations for the 440,000-acre lake were liberalized in 1976 to allow the harvest of certain freshwater species except largemouth bass, chain crappie, and white bass. The only rough seas the fishermen have encountered is with their shad catch.

These bony fish are one of the Commission’s biggest concerns. They are one of the “under-utilized” commercial species like the gar. Of the three million pounds of gar and shad harvested, 40 percent of the pounds of fish have ended up in the nets and going to cracker-ice filled markets throughout Florida and the nation.

“We estimate the 15 million pounds of fish harvested so far represent some four to five percent of the phosphorus trapped annually and six to 10 percent of the nitrogen,” Hammond said. The fish population is being closely monitored by biologists of the Okeechobee Fisheries Office and the program is flexible enough to allow revision to solve any problems which might develop.

“As long as the fish population shows stimulated growth and reproduction, both sport and commercial fishermen are benefiting. It is the Commission’s intention to manage the lake for its optimum sustained yield, and to provide for a better use of this unique fisheries resource,” Hammond said.

Florian WILDLIFE March-April 1979

by Mike Godwin
An interesting friendship with a pocket gopher known as HERMAN

The most extraordinary animal I have ever known was a pocket gopher. Because these critters, sometimes called sandamores in the South, can damage crops and cause soil erosion, you may never have heard a single word for one. But through close association with Herman I came to admire this generally hated and relatively unknown creature of the underground. He was a rugged individualist but, surprisingly, I have never known a wild animal to respond more quickly and unreservedly to human attention.

I discovered him one morning wobbling clumsily across my wet lawn. My dog had probably caught him and then left him for dead. Using a stick, I guided him into a minnow bucket and carried him to a small outhouse with a concrete floor, where I left him on a bed of dry grass. After awhile I returned and found him looking much more comfortable, but bewildered. He stared at me as if trying hard not to blink his small eyes, unaccustomed as he was to the light. I offered him some nut kernels and grain. He refused them.

I left him.

Later when I returned, his head looked a fourth larger and very lopsided. The pocket on the left side of his head had been injured and was unused, but the one on the right was stuffed with food. He never seemed wild or scared of me. Just despaired at first, a hands-off relationship. The second day he took food from my hand. But he did not eat in my presence. He packed everything he could into his good pouch until it bulged out like a furry half-ball.

People who have been victimized by a gopher will tell you that he's a glutton of the worst type. I didn't find Herman so. He was a hearty eater, something of a connoisseur, if he had the opportunity. I piled food before him when I knew him was hungry. He showed marvellous self-control. And his manners were impeccable. He made no rush for the food. And he didn't gobbled it up. Perhaps no animal ever ate with more foresight. He seemed to thank me for all I might have to spare, but he thought of the time when he might be hungry. First he packed his pouch (he never used his injured one). If there was any food left over, he ate some of it.

After seeing he would live, I placed a layer of soft sandy soil about three feet deep on part of the floor of the dark outhouse and set him on it. It seemed his every muscle quivered with satisfaction. Then he started digging and literally vanished. That was the last of him I saw for several days. I placed food on the surface and left him to enjoy his old habits.

Books that deal with pocket gophers describe them as grotesquely unshapely, with glaring, protruding teeth, ugly, stump tails, etc. I regard these descriptions as prejudiced. I think Herman was handsome.

To stroke his glossy fur was to touch fineness itself. He was a slate gray, the ethereal gray of the first mixture of light with darkness at dawn—a reminder he belonged to border worlds of darkness and light. He was about nine inches long, with thick neck and powerful shoulders. Seeing those wonderfully strong, marvelously-built shoulders and claws in action convinced me he could, as the books claim, excavate a tunnel 300 feet long in a single night and still find time to eat and rest. He kept his teeth, or most of them, discreetly covered with his lips. And his eyes, made for darkness, were not sparklers, but were in symmetry with his small, closely set ears. He was small, but not dainty. Any creature that can dig 400 times his length in a single night is a rugged athlete. Herman did not walk gracefully on the ground—he was geared instead to cut through it. But he could rest on his feet with elegant charm. And I never saw him boisterous. He seemed too serious to be playful.

Herman's wide head sturdily set on a stocky neck made him appear as business-like and determined as one pound of living substance could. You knew you were looking at a fellow accustomed to living dangerously every minute. We are told that when a gopher is constructing his tunnels or making a living, he neither solicits nor tolerates any advice from relatives or neighbors. He's much too busy and serious-minded for parties. A gopher that accidentally cuts into another's run had better dig out in a hurry or prepare to defend his life. They are so unsocial many females never get to raise a family and when they do, the children leave home by the time they are six weeks old.

The books say a pocket gopher is vicious, an attacker that can bite through thick leather boots. But Herman never seemed aggressive or afraid in my presence. In fact, I was surprised to find that Herman liked people. Soon I took to picking him up and fondling him. I don't know whether he appreciated the attention or merely tolerated it. In time I believe he came to enjoy being stroked. Only on one occasion, when I apparently overtaxed him did he show obvious displeasure. He nibbled my finger. It was a sharp prick. But if one realizes that a gopher could probably cut a finger off in a few seconds, then it was obvious this was just a mild rebuff.

I discovered that you can frustrate a gopher, even to the point of causing him to give up his favorite pastime—digging. My curiosity led me to explore Herman's dirt pile—too often, doubtless—to see what was going on. This required him to do much of his digging all over again. Either he decided it was a hopeless task, or perhaps he discovered he was going around in circles and getting nowhere. Anyway, in time, he quit excavating and I found him one morning sitting disconsolately on the concrete floor.

I took out the old dirt and brought in fresh, thinking perhaps the other had become too messy for him.

After a while he went back to the dirt, but halfheartedly, I respected his hankering for privacy, and did not meddle with his excavations again. But he did little further digging.

Satisfactory sanitary arrangements may have been beyond his means in his confined area, and this perhaps discouraged him. Gophers dig special tunnels, usually lower than the others, which they use for toilets; and they keep the door tightly closed with packed dirt. Herman was always care-

FLORIDA WILDLIFE

MARCH-APRIL 1979

By Ross Phares

Drawing by Peggy Perkerson

Specializing in natural history, Ross Phares has been a contributor to FLORIDA WILDLIFE for more than 25 years. This freelance writer calls Shreveport, La. home.
ful with his person, always clean and I never found him guilty of B. O.

In time Herman took to eating from my hand without first filling his pocket. I don’t know whether he had come to trust me to have food for him when he needed it, or whether he was discouraged over inadequate larger space in his cramped burrow. It appeared to me that both his powerful physique and strong individualistic spirit were deteriorating. He was fat, lazy and without the pride he possessed when I first knew him.

I decided to return him to his natural haunts. But first I wanted to see this splendid athlete do his stuff once more. I had never ceased to marvel at the magnificent rhythm and incredible engineering of his digging—scratching in head first, throwing dirt back under his body with the efficiency and speed of a conveyor belt, then flipping a somersault with a vigorous boost from his strong, stubby tail, and joining his forepaws before his nose, bulldozing the dirt to the surface. So again I furnished him a fresh supply of dirt and placed him in it.

I was disappointed. He did a little perfunctory digging without any show of spirit and then came to me for food.

I took him to the woods and placed him gently on the ground. He did no digging. After a while he looked up questioningly at me, as if he now depended upon me for direction and provision.

Sadly I picked him up, carried him to a small, slanting hole I found in the ground and left him to the dangers, hardships and challenges that had made him the hardy, stout character he once was.

In seeing him through the convalescence of his injury, I think I cared for him too long. He was an interesting, amusing patient and guest; but I am convinced Herman was much too self-reliant and independent to thrive in a regulated society.

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**LETTER TO A TEENAGE HUNTER**

This time of year is always a little sad for me because, for the most part, February marks the end of the hunting season. Both of us will have a few more outings, but time and distance will keep us from hunting together again until next fall.

This past season has shown what kind of hunter you are to be. It wasn’t so many years ago that you could hardly lift the little .22 I started my hunting days with. Now it’s you making plans and scouting the field for opening day. It’s you visiting with landowners and asking permission to hunt; it’s you spending the time in front of the loading press and cranking out shells for everything from skitt to turkeys. And when you held that big autoloader so easily and instinctively check the action and bore, in my eyes, you’re far older than your 16 years.

You got your driver’s license last spring and the use of Dad’s truck let you truly hunt on your own for the first time. But you still prefer to walk the fields rather than use the truck to drive around them; you never abuse the technology available to you.

On our annual “Christmas hunt” for third season doves this year, it took you less than an hour to limit out. You patiently waited for the less skilled (me) to finish—though there were scores of birds flying all around you, and “no one would ever know.” On the way back to the truck, that covey of quail flushed, right where you said it would. They made it to the swamp before we could shoot. Even though they were still in range for you, you didn’t shoot. Why? “We’d never find them in that thick stuff without a dog.”

There are other things that show the kind of man you’re becoming. The way you take care of other people’s property as if it were your own. The way you always offer part of the day’s bag to the landowner, though he’s declined a hundred times before. The way you took care of that injured hawk you found and released when it was healthy again. And the way, at the end of a day afield, you stop momentarily at the door of the truck and look out at the horizon. These habits show that you care about hunting, the outdoors and the responsibilities of being a hunter.

I wish everyone who hunts would share your attitude and standards. If everyone would try, the future of hunting would be virtually assured. I’m proud that you’re my brother. I’m even prouder that you’re a sportsman.

The National Shooting Sports Foundation

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**SOME ROBERT BUTLER PRINTS STILL AVAILABLE**

Prints of the painting which appeared on the cover of the September-October 1978 issue of FLORIDA WILDLIFE are being offered as a premium for new subscriptions totaling three years. Numbered and signed by artist Robert Butler, 500 of the full-color prints were produced. A limited number are still available. They will be sent out on a first-come, first-served basis.

**A FLORIDA WILDLIFE SUBSCRIPTION MAKES A GREAT GIFT FOR OUTDOORS-MINDED PEOPLE**

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CONSERVATION SCENE

Law Enforcement Protects The Gopher Tortoise

It is habitat destruction rather than illegal commercialization that has caused a decline in the gopher tortoise population in Florida.

That's the opinion of the Game and Fresh Water Fish Commission's chief law enforcement officer. His remarks seem to respond to a recent surge of articles on the gopher population.

"These articles lead one to believe that there is illegal, widespread commercialization of the gopher tortoise at the present time. That simply is not the case," said Lt. Col. Brantley Goodson, director of the Division of Law Enforcement.

"The Game and Fresh Water Fish Commission has been aggressively enforcing laws protecting the gopher tortoise for the last five years. Although we occasionally run into persons possessing more than the bag limit of gophers, the major threat to the gopher tortoise, we feel at this time, is habitat destruction."

Goodson said all major markets for gopher meat have been virtually stamped out and saturation patrols are routinely performed on former market centers.

"Additionally, last year the Commission outlawed the practice of gassing gopher holes to give additional protection to the gopher, indigo snake and other critters that call a gopher tunnel home."

Goodson said the articles had charged that pickup trucks loaded with as many as 300 gophers had been seen bound for the Florida Panhandle where the animal had allegedly been hunted out.

"If anybody should see pickup trucks loaded with hundreds of gophers, we wish they would contact the toll-free numbers of the Commission and report such violations."

"We will be more than eager to relieve the individuals of the gophers and escort them to the nearest county jail."

Ichetucknee Study

A University of Florida research team is trying to determine how many visitors this cool, winding river can accommodate without its attractiveness being destroyed by their loving attentions.

"Much of the damage is unintentional," said botany graduate student Charley DuToit. "When there are too many people, they step on the bottom and uproot plants just trying to keep out of each other's way."

DuToit said enough damaged water plants to fill four or five trash cans float down the river on a busy day. On days when the park has very few visitors, drifting plant debris can be put in one lunch bag, he said. Before restrictions were imposed last year, the park sometimes saw 5,000 to 6,000 visitors a day, most of whom floated three miles down the river on inner tubes.

State park officials decided something would have to be done when the crowds began damaging plants in and along the stream, so they set a daily limit of 3,000 park visitors. That meant the park gates were closed by 1 p.m. on busy weekend days last summer.

In the winter months, the tubers are replaced by groups of scuba divers.

DuToit is involved in a study to define the types and levels of use the park can sustain without causing irreversible damage.

Wildlife Education

The Edward Ball Wildlife Foundation is sponsoring a pilot project to introduce fifth and sixth grade students to wildlife conservation.

Classroom presentations, including a slide program and "hands-on" exhibits, are made by Wilderness Graphics of Tallahassee. These free programs are available for schools in Leon, Wakulla, Gadsden, Taylor and Jefferson counties.

For a brochure describing the program and a request form write: Wildlife Education Programs, Edward Ball Wildlife Foundation, P.O. Box 1635, Tallahassee, Fla. 32302.

Poaching Ring Bust

The gamey flavor of freshly killed wild animals was so irresistible to many Detroit residents that they created an outlet for one of the nation's largest commercial poaching rings.

The ring, which was broken up recently by federal and state wildlife law enforcement officers, was responsible for the killing of more than 100,000 ducks, geese, deer, squirrels, rabbits, fox, fish and other animals over the last few years.

An intensive 15-month undercover investigation resulted in the arrest of 53 people in the Detroit area for illegally killing, selling, buying and marketing dozens of species of fish and game.

Officials of the U. S. Fish and Wildlife Service called the operation the "largest and most highly organized market hunting ring uncovered in recent years."

The illegal commercialization involved nearly 300 deer, 1,700 squirrels, 4,400 ducks (including 500 redhead ducks), more than 11,000 rabbits, and thousands of pounds of walleye fish.

The poachers also killed and sold badgers, raccoons, red fox, part-ridden pheasants and geese.

Undercover agents posed as route men who would pick up the slaughtered game from poachers in southern Michigan and deliver it to another member of the ring for further processing.

Customer suppliers would deliver the meat then to various retail stores in Detroit.

1979 NATIONAL WILDLIFE FEDERATION STAMPS ISSUED

If you see an over-sized stamp on a letter this spring, bearing the four-color likeness of a polar bear, a desert bighorn or a loggerhead turtle, it won't mean the Postal Service has raised rates again.

What it does mean is the National Wildlife Federation has issued its conservation stamps for the 41st consecutive year.

There are 36 different mammals, reptiles, insects, birds and fish depicted on the sheet. Contributions received for the stamps provide some of the money with which the NWF conducts its conservation work.

The stamps are miniature replicas of paintings by nationally-known wildlife artists. Collectors buy them for albums and others paste them as ornaments on letters, books, packages and other objects.

In 1938, President Franklin D. Roosevelt bought the first sheet of conservation stamps which kicked off a fund-raising drive to raise $16,000 for the then-nearly-bankrupt NWF. Last year, contributions reached almost $2 million.

Information on obtaining the 1979 stamps and NWF stamp albums, which contain descriptions and biological data on each animal pictured, can be obtained by writing the National Wildlife Federation, 1412 16th St. NW, Washington, DC 20036.
meat markets around Detroit. The prices paid by customers for wild game was often much higher than for the same domestically produced species which could be bought legally.

Some of the methods used by the poachers to obtain fish and game illegally included deer shining (locating the animal with a powerful light and then shooting it), luring flocks of ducks to baited feeding areas for slaughter and cutting down trees with a chain saw to drive raccoons from their dens for easier capture.

Existence of the ring was first suspected in 1975.

Fire Ant Mite

An invisible mite, Pyemotes tritici, is a parasite of imported fire ants and appears to be a likely candidate as a biological control of the ants. P. tritici has been known to be an "extremely effective" parasite of insects that infest stored feed and food, according to the U.S. Department of Agriculture.

New research shows that "when introduced to fire ant nests, the mite can effectively parasitize the ants, including the queen, and destroy the colony." The mite's success against fire ants was discovered in a limited field test in Florida.

SHORT TAKES

Research shows that a healthy deer herd with suitable habitat can be reduced by as much as 40 percent each year with no ill effect on future population.

Hunters rarely take more than 15 percent of the deer population in most states.

The American sportsman currently provides approximately 77 percent of the money used for wildlife conservation. Each year, hunters spend over $235 million for hunting licenses, federal duck stamps and the special excise tax on their guns and ammunition.

More than 127 million Migratory Bird Hunting and Conservation Stamps ("duck stamps") were sold between 1934 and 1976, raising some $176 million for waterfowl conservation.

The 11 percent excise tax which sportsmen pay on sporting arms and ammunition will contribute over $966 million to wildlife conservation in the 10-year period from 1976-1985. Over $98 million of these revenues will be used for hunter education programs in the same period. (U.S. Fish and Wildlife Service).

At the close of fiscal year 1975, the 50 states were operating nearly 3,000 wildlife management areas covering almost 33.5 million acres (U.S. Fish and Wildlife Service).

The mourning dove is the most ubiquitous American game bird, breeding in all 48 contiguous states. Some 50 million doves from a population of 300 million were taken in the 32 states having open seasons during the 1978-79 hunting year.

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**SINKHOLES**

On most any topographic map of Florida, a feature likely to catch the eye is the number of "sinks" scattered about the countryside. The diameter of these depressions in the earth may be measured in terms of a few yards or many acres. They are not all of ancient origin. Every now and then, a spot of earth suddenly drops away, leaving a hole in the ground, usually relatively shallow.

When one of these sinkholes appears, the local news media is inclined to play it up, particularly if the event takes place in a populated area. It is news for there is something awesome about the workings of nature, even such a mini-cataclysmic event as the formation of a sinkhole.

But there is no great mystery about such an occurrence. The limestone deposit that underlies most of the state is slightly soluble. The passage of water from the surface gradually dissolves away the limestone, creating underground fissures and caverns which continue to enlarge until they ultimately collapse under the weight of the overlying strata. Collapse of a cavern causes a surface depression—a sinkhole.

When the sinkhole drain becomes plugged by debris, a pond is formed. If the plug becomes unsettled, the water drains out only to refill later as silt and washed-in debris once again seals the drain.

**SINKHOLE POND**

Photo by U.S. Forest Service
One of Florida's premier state parks, Myakka River State Park is located off State Road 72, 17 miles east of Sarasota. Myakka has it all—campsites, cabins, museum, nature trail, guided tours, picnic areas, fishing, boating and bicycling. Complete information on Myakka and other Florida state parks may be obtained by writing: Department of Natural Resources, Crown Building, Room 321, Tallahassee, Fla. 32304.