Florida Wildlife Scrapbook

Florida Game Birds

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The Cover
One of the more common birds of both woodland and garden, the Towhee is a delightful friendly bird. The female, at top, is brownish—the male has a black back. See page 12.

From A Painting By Wallace Hughes

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ROSE TALLAHASSEE

JANUARY 1970

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BIRDS CLASSIFIED BY LAW AS GAME BIRDS PROVIDE SPORAY AND FOOD FOR HUNTING DURING LEGAL OPEN SEASONS. GAME BIRDS ALSO CONTRIBUTE TO THE ECONOMY OF FLORIDA THROUGH SALES OF HUNTING EQUIPMENT, CLOTHING, FOOD, COSTS OF RAISING AND CARE OF HUNTING DOGS, TRANSPORTATION COSTS TO AND FROM HUNTING SITES, AND MANY OTHER ITEMS. GAME MANAGEMENT PRACTICES, RESEARCH AND GAME LAWS ARE METHODS USED TO INSURE CONTINUED ABUNDANCE OF THESE NOBLE AND VALUABLE BIRDS.
centuries ago a small band of Myaka Indians discovered what is known as the Myakka River—and taking good advantage of the streams and lakes abounding with fish, plentiful game and birds, plus moist and fertile soil, the tribe soon grew rich and powerful ...

—Division of Recreation & Parks

Exploring Myakka State Park

Perched high in a tree bordering a fire lane in Myakka River State Park, the red-shouldered hawk gave us more or less the cold shoulder as we watched him through our binoculars. Eyes downcast, his head moving back and forth, he was too intent on trying to spot a passing mouse—or maybe a smaller bird, even a frog—to pay us much heed. Once, as Tom began moving up with his 300mm lens, he glanced in our direction. We froze. Then, apparently satisfied that we, on the one hand, were too big to eat and, on the other, had no designs on him, the hawk went back to his hunting.

It had been a different story some months earlier, back in the spring. Then, near the same spot, a hawk—perhaps the same one—had “dive-bombed” us, his frantic screechings giving evidence that we weren’t welcome. We spotted the nest high in the tree whose shade we had picked for a coffee break.

Another time, we sat and watched a clearing until the deer came. It’s one thing to “see” a deer the 17 miles from our home in Sarasota eastward to Myakka Park. Once inside the park, we leave our car and—armed with cameras and binoculars—head out on foot along one of the fire lanes or service roads. We don’t see many people—even on those weekends when the park is teeming with campers and picnickers, and the bass are biting. The park draws a quarter million visitors each year, but only a scant handful see it the way we see it. Few visitors, (Continued on next page)
(Continued from preceding page)

other fishermen, venture far from the boat basin, the picnic areas, the campground and the park roads.

In fact, we were brought up short by a letter to the editor in the Sarasota Herald Tribune one day last summer deploving the crowds at Myakka Park the previous Sunday. What stopped us was that we had been at Myakka Park that day and, once we left our car, we didn’t see a soul.

The sad thing is that there’s so much that can’t be seen from a picnic bench—and plenty of room in which to see it. The park covers 28,875 acres—the largest land area of any Florida state park—and only 1,509 of these acres fall into what might be called the “developed” category. Another 800-to-1,000 acres are set aside by Capt. L. G. Burnett, the park’s dedicated superintendent, for a reforestation project. (He planted 135,000 pines and 8,000 West Indies juniper, or red cedar.)

The rest of the park is wild. Some of the acreage is set aside for ecological studies—but most of it is readily accessible to anyone willing to do a little exploring on foot. The fire lanes and maintenance roads are closed to cars—but not to hikers. Branching off from them are short “paths”—basically animal trails—which can be followed briefly for a closer look at woods, hammock or marsh. These “paths” are not recommended for hiking and not to be followed far; we find them useful for keeping our bearings when we step off the fire lane or service road.

Every walk brings its special discoveries, its deeper insights into the world of nature. It may be a hawk at his hunting or a deer at breakfast. Or it may be a “discovery” that would be old hat to a long-time Floridian, but delights us as comparative newcomers—for instance, an air plant high overhead or a wild flower we have never seen before. We have seen wild turkeys scurrying through the woods, and egrets and ibises taking their ease in remote marshes.

Once we heard crows raising a commotion and, knowing that crows will give owls a hard time, we went into the woods to investigate. (We checked their ease in remote marshes.

Another day, we decided to take a chance when a softshell turtle ambled our way. They bite—but, if he wasn’t, we investigated closely. He didn’t seem to mind as we snapped his picture.

Another day, we decided to take a chance when the barred owl is more common there. But this time the object of their attention was another raccoon. (He planted the previous Sunday. What stopped us was that we had been at Myakka Park that day and, once we left our car, we didn’t see a soul.

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Another day, we decided to take a chance when a softshell turtle ambled our way. They bite—but, if he wasn’t, we investigated closely. He didn’t seem to mind as we snapped his picture.
We have a friend back in Chicago who characterizes Florida as the home of "outlandish birds." We'd pick a different adjective—but we agree it's the egrets, herons, white ibises and wood storks that give Myakka much of its distinctively subtropical flavor, and they are the reason the park has come to typify so much of Florida for us.

The vegetation, too, has the "tropical jungle" look that makes a walk through the woods a more exciting experience than usual.

Sabal palms predominate, along with palmetto palms in two sizes. Captain Burnett theorizes that the tree-sized "hammock palmetto" and the smaller "hog palmetto" are two different varieties. Slash pines and oaks "drip" with Spanish moss. Live oak, laurel oak and willow oak all are frequently found, while in high areas there's scrub oak. Lesser growth includes Carolina ash, water locust, myrtle, pond maple, both American and Florida holly, and numerous bay and magnolia trees.

The fire lanes and service roads we have found run between woods and hammock, giving us a chance to study both kinds of areas.

In late winter and early spring when we first began our explorations, the lanes were lined with staggerbush and St. John's wort, while back in the marsh areas, the wild iris was purple. Later, in May, the coreopsis took over, and the open areas of the park seemed like one vast field of yellow. By midsummer it was the different yellow of serena, or partridge pea. But that's only the surface. We have found, literally, hundreds of wild flowers not immediately evident to the casual passerby—and usually different from one week to the next.

With all our explorations through Myakka Park, we don't intend to fault the fishing. It's great. Perhaps we have spent more time watching herons catch fish than in catching them ourselves, but we have unlimbered our spinning rods on occasion, and can testify that bass fishing alone is worth a pretty tall stories. The other day a fellow was sitting in my place and telling how somebody could throw 190 feet of line over his head, they can cast somewhat further.

All of this is fine, except that it doesn't mean much where most fishing is concerned, and 50 or 60 feet is still a pretty nice distance for catching most fish. But the long line is still the gauge of a fly fisherman in many circles, and has led to a lot of pretty tall stories. That other day when I was sitting in my place and telling how somebody could throw 190 feet with an ordinary fly rod. While I listened with what I hoped was polite attention, I was idly leafing through Flies, a publication of the American Casting Association, and noted that one of the world's best distance casters had won a fly fishing distance event with an average cast of something like 140 feet. This kind of casting is the "trout fly distances," which employs tackle similar to that used in fishing with the exception that the monofilament shooting line is smaller, and the rod has more backbone than most fishermen would care to use. We have a friend back in Chicago who characterizes Florida as the home of "outlandish birds." We'd pick a different adjective—but we agree it's the egrets, herons, white ibises and wood storks that give Myakka much of its distinctively subtropical flavor, and they are the reason the park has come to typify so much of Florida for us.

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You immediately wonder why this guy with the 190-foot cast doesn't enter a tournament now and then, win himself a trophy or two, become famous and draw big money as an exhibition caster. Of course, the answer is that he probably doesn't really throw 190 feet. Another possibility is that he is counting the amount of line he has thrown off his reel rather than the actual distance of his cast. Fooling with a new outfit awhile back, I found that I actually throw 140 feet of stuff off the reel. Length of the cast? Less than 120 feet.

What happened was that, in order to get distance, I had thrown my line high into the air. The cast had "died" up there and had fallen almost straight down. More than twenty feet of the line I had thrown out was festooned in between my feet and where the business end landed. Did I throw 140 feet? I would have if the cast had "turned over" properly.

Anyhow, the distance casting business is badly overworked. Last summer I was thrown in with a bunch of excellent trout fishermen up north. They had become so obsessed with throwing a line for a mile that they'd almost forgotten their primary objective—that of catching trout.
in water no more than a foot deep along the edges of deep rivers. As in deeper water, they tend to come in bunches. A light spinning outfit is ideal, with something like 4-pound-test monofilament line. Such gear allows the spinner or jig to produce free-wheeling action.

If you're casting light jigs, the best results will come from slow manipulation, bouncing them along with gentle lifts and drops of the rod tip, the reel handle turning slowly. The lure is often taken on the drop back and the "strike" will come very gently; sometimes the lure just fails to reach the bottom as you drop it back.

If the hook is reasonably sharp, you can set it with only a prompt lift. A jerky hook setting may break your light gear or pull out the barb. The crappie isn't called "papermouth" for nothing and the fish should be played pretty softly.

However, one of the most successful speck fishermen I know works his little spinner and marabou fly pretty rapidly and steadily. He keeps saying he works it slowly but it must move right along to stay off the bottom. He keeps his rod tip down near the surface. How fast does he reel? Well, to give a rough idea, he turns his spinning reel handle all around once a second. Of course, there are a lot of different take-up speeds but that description gets pretty close to the matter. He often allows his spinner to sink before beginning to reel. In only a couple of feet of water, he has to begin reeling promptly. He uses very sharp and very small treble hooks.

If the fish doesn't get hooked the first time it strikes, he simply keeps on with his retrieve, seldom setting the hook hard enough to lift it out of the water if the fish lets go. The same fish may strike two or three times before getting hooked.

He is a strong believer in short casts, and keeps very close to brushpiles and other cover, picking up quite a few bass along with his speckled perch. If he catches one fish, he tries to keep the boat away from the spot and makes slightly longer casts to avoid spooking what he hopes is a school. He moves on promptly if the fish stop striking in any given spot. It is by constant patrolling that he locates his fish.

As spawning time approaches, the specks concentrate, of course. More crappie are caught on minnows than on artificials and in some areas that seems the only satisfactory method. In other waters, the careful user of artificials can catch many more bass than the minnow fisherman, usually because he keeps moving. Maybe the most deadly speck fisherman of all is one who uses minnows and keeps moving too.

Although I make no pretense at being a crappie expert, I have adopted my friend's methods with considerable success—not catching as many fish as he does, but doing pretty well. In fact, I got pretty cocky about it and when I visited the mouth of the Kissimmee River at Lake Okeechobee, and saw hundreds of fishermen catching thousands of specks on minnows, I figured it could be done just as well on artificials. With that, I couldn't catch a single speck; but the water was muddy at that time. It might be different if it had been clear. I know lots of Okeechobee specks are caught on artificials, but there must be hundreds caught on bait for every one that takes a fake.

A landing net is pretty nice to have along if you really want to stack up the specks, and are using light spinning tackle with small hooks. One of the critical points in crappie fishing comes when a good-sized one is hoisted to the top of the water and starts flopping there; good time for the hook to pull out. Many real whoppers have been lost there.

No crappie is going to pull you overboard but it takes a little finess to pull a big one on light tackle. Generally, it's a matter of knowing how much pressure you can put on to keep the shiny rascal out of the brush and still avoid wrecking your gear. They won't really jump, although one will occasionally follow a lure to the surface and do a sort of skittering act that comes pretty close to a true takeoff.

If you really want a big one, let him do his fighting below the surface and he'll soon come up on his side with light pressure. Holding him on the surface where he can flop while still fresh is bad business for you're dealing with a fragile mouth. A tired crappie generally quits all at once. A fly rod with a sinking line and a tiny spoon or weighted fly is a sporting method, but seldom as good as spinning tackle. A long cane pole with a weighted fly is a sporting method, but seldom as good as spinning tackle. A long cane pole with a weighted fly is a sporting method, but seldom as good as spinning tackle. A long cane pole with a weighted fly is a sporting method, but seldom as good as spinning tackle. A long cane pole with a weighted fly is a sporting method, but seldom as good as spinning tackle.
You probably know the Towhee, though, perhaps, not by that name. It is one of those common birds of both woodland and garden, one that has not been intimidated by the encroachment of civilization into its ancestral habitat.

In fact, it might be that this bird has prospered because of man’s manipulation of the landscape—and it shows its appreciation by coming boldly to our doorsteps. It is a downright friendly bird! In city shrubbery and brushy wilds the Towhee successfully lives and raises its young.

The distinctive voice of the Towhee commands attention, and the bird is often heard before it is seen. Its name is a word description of its frequently-uttered call note, “to-HEE . . . to-HEE.” Some folks, though, think the note sounds more like “jo-REE,” a common name for the species in the southern states, but pronounced JO-ree.

The Towhee, or Freeze, as you prefer, spends most of its time on the ground, beneath and around thick shrubbery and vine tangles, scratching vigorously among the leaves and debris in search of food: insects, wild fruits and berries, and seeds of weeds and grasses. It is a most industrious bird, never ceasing to be active at food-gathering. It is one of the first of the early birds to be about in the moments just before dawn and the last to be seeking a roosting place in the gathering darkness at the end of the long, busy day.

In the spring, the male flits to the top of a bush or low tree to sing his nuptial song and proclaim his nesting territory. His love song sounds like, “cheet-choo-ee-ee,” with the last note lower than the first two.

Towhee nests are placed in low bushes ordinarily, but occasionally a pair will nest on the ground under a palmetto frond or other dense cover.

The normal clutch of eggs is three, and they are colored white with fine speckling of reddish brown. Three broods are commonly brought off per season; one in April, one in June, and one in August.

Male Towhees are quite handsome birds with black upperparts, reddish sides, white bellies, and either pale yellow or red eyes. The female is marked the same, but has brown upperparts instead of black. The young bird of the year bears no resemblance to its parents—except in behavior. It is brownish black with a suggestion of streaks on the breast. The most notable difference, though, is that the young birds have black eyes.

Towhees come in three varieties. The Red-eyed Towhee ranges from Canada to north Georgia and central Kansas; the Alabama Towhee, whose irises are normally red or orange, is found in Louisiana, Mississippi, Alabama, central Georgia, and northwest Florida; and the White-eyed Towhee is the one that resides year-round along the Atlantic coast from North Carolina through peninsular Florida.

Towhees with red eyes are common in winter over much of northern Florida. In the spring, however, they drift back into the interior, leaving most of the state to their white-eyed kin.
bird carving

By GENE SMITH

To most, the phrase "carving a duck" conjures up the savory image of a pending feast of waterfowl, fresh from the oven. But there's more than one way to carve a duck, and if you've pecked at the accompanying illustrations you already know this is not a "how-to-dismember-a-roast-duck" article.

Not long ago, we visited a south Georgia bird carver to learn, firsthand, something of the fine, and very competitive, art of creating the lifelike forms of ducks, shore birds, song birds, and others, from wood.

The art of duck carving extends beyond the making of a duck hunting block. Birdcarver Jim White is shown here with some of his work: above, quail; left, yellowlegs; below, buffleheads. Two shore birds, lower right: sandpiper on a shell, and stilts. For right is familiar wood duck drake.

James W. White of Cairo, carves for a hobby. He has been at it for less than a year, working nights and weekends when he feels like it. He is very knowledgeable of the ins and outs of bird carvers all over the country and can rattle off names of great ones, both amateur and professional.

He is a member of the National Woodcarvers Association, and scattered around his premises are many copies of such publications as the quarterly magazine, "North American Decoys—Wildfowl Carvers and Collectors News," and programs from The International Decoy Contest, held annually at Davenport, Iowa, The U.S. National Decoy Show, Babylon, New York, and the Atlantic Flyway Wildfowl Carving and Arts Exhibit, which held its... (Continued on next page)
shows, buying and selling between themselves and second annual show at Salisbury, Maryland, in October—and attracted some 70 carvers and artists. Many were “pros,” who follow all the big shows, buying and selling between themselves and collectors as they go. Others, like Jim, who plans to enter the U.S. National Show in March, 1970, are amateurs, who only have to compete for honors among themselves. Junior carvers also have their own division.

But don’t let the term “amateur” mislead you. From the work we’ve seen, Jim’s and other carvers’ as well, many of them could turn professional if they so desired. They certainly sell their work without too much effort.

Jim says while he carves mostly for fun, there is always an order pending. There are callers who see his work, or hear about it, and want to buy a bird or two—sometimes ordering a favorite species; sometimes picking out something from already completed birds. Although he is a newcomer to the ranks of bird carvers, Jim has been “exposed” to the art for a long time. His brother, Bob White of Bristol, Pennsylvania, is a well-known carver. He has been at it for 10 years or so and has won several competitions.

But there is little advantage to Jim in his brother’s artistry, since they only get together to compare notes—and work—a couple of times a year.

Jim’s output was a little amazing to us—in view of his other hobbies, hunting and golfing, and his part-time working arrangement at bird carving. His list of species completed reads like a bird-watchers life list, and he has carved many individuals of some species: wood duck, ring-necked duck, hooded merganser, red-breasted merganser, ruddy duck, bufflehead, blue-winged teal, sanderling, lesser yellowlegs, the spotted, white-rumped, stilt, Baird’s and least sandpipers, woodcock, bobwhite, and cardinal. Also, he has done a number of decorative, one-legged shore bird “confidence decoys,” a type still used for hunting shore birds in some areas, but now more popular in sets of three birds for ornamental use.

Jim’s work won a first premium “blue ribbon” at the Grady County Fair in October—the first of his work he has exhibited anywhere. His favorites are wood duck and quail, and he puts real quail toenails on the finished bobwhites—saved in the freezer from hunting season kills.

Suppose you want a wooden bird for your den or living room. How much can you expect to pay for it? Anywhere from $15 to $550, depending on who carves it, how much goes into it, and who’s buying.

Jim White sells hollow duck decoys (made of three pieces of wood, two for the body; one for the head) for $15. Solid body decoys are $25 and up, depending on the time invested and the detail included. He uses redwood for the bodies and white pine for the heads.

Shore birds, which require more time and skill, range from $25 to $50 each.

From rough wood stock, above left, White carves his basic shapes. From there, it is all hand work—delicate carving, sanding and shaping. Then comes finishing—in wood grain—like the confidence decoys, left, or in true-to-life color patterns. Below left are Jim’s favorites subjects. His very first carving was a quail.
I do not say that fishermen interested only in big bass are always the best bass fishermen, but I do say they are a special breed. There aren't very many of them but everybody gets a big bass hankering from time to time, and should be willing to learn from the specialists.

Many years ago, the late Norton Webster prepared to crank his outboard motor at Blue Springs Park on the St. Johns River. "I'll be back in half an hour," he said "I'm just going to try one big fish."

Webster, who generally fished alone, made a practice of locating individual whirlpools and studying their habits. He'd keep trying for a known buster for weeks, possibly spending only a few minutes at a whirlpool but staying with it until his quarry either grabbed something or moved away. Webster, generally credited with originating the practice of locating individual whoppers and fishing them, told me that he always tried to find pockets in the weeds that the other fishermen hadn't disturbed. His theory was that the lake is so shallow the big fish didn't approve of all that boat traffic in the more accessible weed beds.

"Besides," he said, "a fish that stayed out where everyone was throwing at him would get caught before he got big anyway."

Could be. At least he's partly right.

But I wouldn't pick Okeechobee for a record. If you study the books, it appears that northern Florida and north-central Florida are more likely to produce bass weighing over 10 pounds. And some of the biggest fish come from lakes or streams that have gone downhill from days when they provided large numbers of fish. Biologists have known for a long time that some of the "poor" fishing lakes contain a few enormous fish.

Now a student of big bass may catch them at any time of the year. The fellow with only average knowledge of their whereabouts will do better in late winter and early spring. It's a simple matter of the big ones being hungry (in preparation for spawning), and being scattered over a wider area looking for groceries; or, being in the actual spawning routine and hence located in shallow waters where they may be easily reached or even sighted. So, unless you know of a big bass address, you'll have a better chance before things warm up.

(Continued on next page)
Time of day for big fish? Well, in warm, clear weather it's undoubtedly at dawn and dusk, a simple matter of fish getting out and moving when the sun's heat lets up a little. When days are cloudy, fish may move at any time. When the weather is cool or cold, I don't see much advantage in very early or very late fishing.

I have caught more of the larger bass around 4 p.m. than at any other time of day during late winter, other factors being equal. This has happened so often that it becomes a pretty clear pattern. I am not discrediting tide tables or any of the other things that make fish strike, or refuse to strike. I simply say, that other things being equal, I've hooked more big fish a little past the middle of the afternoon than at any other time.

Now these theories and facts of fish movement are more important with big fish than with small fish, simply because a big fish is lazier, moves slower and conserves his energy. Therefore, it is common sense to watch the factors that may be of minor importance with smaller fish.

I now present a thought that is almost directly opposed to my pat theories and it's this: A truly big fish may be a nonconformist or he wouldn't get so big in the first place. He would have to be some sort of offbeat fish, some folks say, to weigh 15 pounds since most bass pass to their rewards when much smaller in stature. Well, anything, I still catch the bigger ones in early evening.

A fellow who fishes a single area for long periods has an enormous advantage because he knows from experience the areas where a big fish may be found year after year. Catch one and another will take his place—maybe not exactly the same size, but a pretty healthy specimen. I know of a couple of type spots (no more than ten feet across) that produce some pretty good fish every year. Generally, a careful study of the area will show why.

Let's take one of those spots.

The water is about three feet deep and there is a good crop of eelgrass on most years, but it does not get thick enough to hamper a fish too much. The spot is something of an underwater ridge; on one side of it is briskly moving water where bait is likely to pass. On the other side is deep water where an overweight bass could stalk during a cold snap or a hot spell. On the edge of the fast water is an old piling that has caught up some debris and generally holds a raft of hyacinth. Not too far away is a sandbank where bass are known to spawn.

All of this is located so close together that a big fish could get from one type of water to another with a dozen switches of his tail. I would like to say that I figured all of this out and then caught a big bass there, but I never noticed what kind of a place it was until I've caught quite a number of fish—a little like solving a mystery by reading the last page first.

There are things to remember about a big bass. First, he spends most of his life near the bottom; secondly, he isn't nearly as spry as his younger relatives; thirdly, he isn't a hound dog at all, she's a female or she wouldn't be big. Remember too, that she wants to be near some kind of cover or deep water or both. In hot weather, she is looking for a cool spot (such as a spring). In cold weather, she is looking for a warm spot (that might be the spring again).

The big bass (let's call it a him instead of a her, even if we know better) cannot compete with smaller fish for fast-moving food. Where river bass school on baitfish, it's usually the small fish that you catch "on the jumps."
that they couldn’t tell you their score. Generally, these letterers were specialists in large bass, and haven’t gone for quantity at all.

I call anything over six pounds a big bass. Anything over ten pounds deserves a trip to the taxidermist. Anything over 12 pounds should have its picture in the paper. Anything over 14 pounds should be weighed very, very carefully indeed.

When you get south of the north shore of Okeechobee, anything over eight pounds is a real trophy.

I’ve been asked repeatedly if I think the world’s record on bass will ever be broken and I’ve always said that it’s quite possible but that a 23-pound bass would be like a 500-pound man—unusual to say the least. Nevertheless, there have been some 500-pound men.

This big bass would have to grow near the extreme length that bass reach; it would then have to be exceptionally broad and exceptionally deep; it would have to be in prime condition to hold its weight. And it would probably have a full stomach of solid food when caught. This is not impossible but it puts together quite a chain of circumstances, and it would require some luck in addition to ability to catch such a fish. Before Castro took over Cuba, it was believed some record-breakers might be swimming around there. Undoubtedly, the Cuban fishing would be the same today as yesterday. Nobody ever brought in a record. At present, the Cubans are interested in other things besides bass records.

If you are not a big bass specialist, you will treasure anything over eight pounds. I know I do. I have caught very few 10-pounders. The biggest bass I ever caught was less than twelve.

When it comes to live bait, there are big-fish seekers who use shiners so big it’s a sporting proposition to simply land the rig when you haven’t had a strike. The big shiner will catch nothing but big bass, simply because the small ones can’t handle it—so the record seeker isn’t bothered by little fish. Usually, the larger shiners are used in winter time—smaller bait as the weather gets warmer. Some of the best fishermen never use the largest shiners, perfectly willing to catch a few two and 3-pounders along with their busters. The smaller shiner is much easier to trap and less expensive. The most successful big-fish anglers like to have their shiners rigged so that the bait swims pretty freely and so they need something big enough to hoop and hold, and probably a bobber of some kind. This business of live bait size takes a lot of study, and local inquiry certainly is important if you’re in strange territory. You can get facts, even though there probably won’t be much explanation.

If you want to hire a guide or learn a spawning area, probably the best place to catch an enormous bass is on a spawning bed. A sharp operator will survey the area, sight a big male bass on a bed, and then mark the spot if she swims away because she’s knowing back if the entire premises aren’t wrecked. Then he comes back and throws his lure or bait up to the nest. That rocks up the big fish and the biologist tells me it does no harm to the bass population because there will be plenty of eggs anyway. I submit that removing a great many very large fish from the beds may not hurt the overall population, but will undoubtedly deplete the local population of whoppers for the time being at least.

So how big is a big bass?

Well, most of the literature in which you read about what you can expect from a given piece of water is out of date. The sizes of Florida bass are undisputed; their quantity is something else again. A 10-pound bass is very, very large. I know several lifetime residents of Florida who have fished all of their lives with artificial lures and flies and have never caught a 10-pound bass. On the other hand, I know of some live bait fishermen who have caught so many 10-pounders
Apalachicola Oysters

several hundred years ago word was recorded about the tasty oysters found in "inside" waters

A FLORIDA OYSTERMAN stood on the deck of his boat and slid a pair of oyster tongs into the waters of Apalachicola Bay. He dug the tongs into the largest oysters to be found in the Southeast. He must money and labor.

When Florida oystermen began, they found it a history, and needs. Too, they needed to know the most productive areas in which to invest their money and labor.

An oyster can change sex. One year it's male; maybe the next, it's a female. They breed by spawning, but fertilization takes place solely by chance. Females discharge their eggs into the water at about the same time the males release sperm. The reproductive process is triggered largely by the temperature of the water, commencing in the spring at around 60 degrees F. and increasing as temperatures rise. (The main oyster spawning season is from about the first of April to the first of November, although some spawning occurs throughout the year in Florida.) Since one female can produce as many as a hundred million eggs in a single spawning, obviously millions of eggs go unfertilized each year.

After fertilization, the microscopic larvae, known collectively and singly as spat, travel in the water by swimming and by current flow. After a few days, shell growth begins and the spat becomes heavy enough to sink, after which it soon attaches itself to any firm surface or object it can find. There it remains the rest of its life unless removed by force.

If spatfall occurs over soft mud, the result is suffocation of the young oyster. The best set, or strike, is achieved when the spat land on old oyster shells, clam shells, rocks, or other firm materials, natural or manmade. Any such material that collects spat is known as cultch.

If the spat set in clusters, the oysters become overcrowded, competition for food—plankton—is increased, and their growth is hindered. The result will be small, relatively worthless oysters. Similarly, if spatfall occurs in areas which are regularly exposed to the air and sun at low tide, more small, inferior oysters, called coon oysters, are produced. They rarely, if ever, reach the minimum legal size of three inches.

When the young oysters set separately and in small numbers, well distributed, and if many other conditions are favorable, they grow fast and become large, well-formed, commercially valuable oysters—without help. But the only way coon oysters can reach marketable size is for them to be pried apart and replanted in suitable locations, a process known as culling.

Actually, oyster cultivation in its simplest form is hardly more than "oyster enhancement," which begins with the planting of cultch in the bay, upon which the spat may attach itself and grow—naturally.

George Kirvin stated that he finds certain seasons better for planting cultch than others—based on oyster spawning. Although spatfall begins while water temperatures are in the 60s, the greater part occurs when the water has warmed to 80 to 90.5 degrees F. It is popularly felt that this is the best time for planting cultch because there will be more oysters produced—though most will be in clusters. Others feel it is better to plant just ahead of the time of maximum spatfall, so more single oysters will occur and growth will be faster. However, since small oysters will grow to full size if broken apart and replanted, men such as Kirvin agree with planting when spatfall is heaviest. Instead of sacrificing quantity for quality, they achieve both

(Continued on next page)
by separating the clusters and replanting the seed oysters. There was one season when Kirvin and many others, after planting culch and separating clusters, lost the entire oyster crop—because of a combination of natural conditions. Their education on the subject oyster culture was thus furthered!

They found oysters to be very sensitive creatures which, despite their rock-hard shells, are susceptible to the vagaries of the weather and to predators other enemies of oysters but these are the most damaging, and both require water of high salinity, or saltiness, to thrive. Consequently, they normally present a real problem only during periods of drought, on the land, when fresh water coming the bay is reduced, or when tides are excessively high.

The cock is able to bawl right through the shell of an oyster to get at the contents, but more commonly it uses its mouthparts to slowly chip away a portion of the bill of the oyster (the end opposite the hinge where the shell halves meet). After entry is gained, the cock inserts its long, flexible tongue and thus feeds on the oyster meat.

Leeches actually enter the oyster's shell and bed down right next to the meat inside. They cause a gradual loss of vigor and health in their host and are thought to make infested oysters more susceptible to other pests, including disease organisms. Of course, leeches themselves may eventually kill the oysters attacked.

Although various living pests present threats to oyster bars from time to time, Kirvin stated that the physical conditions which encourage invasion of these enemies—over which no one has control—are even greater enemies to the industry! The oyster can adjust to gradual changes, but a sudden change to too much salt water or too much fresh water, especially for long periods of time, can kill it or unfavorably change the flavor of the meat.

Fattening at the proper salinity occurs when the water is cold, but just as a sudden fluctuation in salinity or freshness of the water can kill or damage the product, a sudden cold can bring harm as well. Sedimentation can also kill oysters, of course. Mud or bottom silt deposited on or around an oyster bar can cause suffocation—or perhaps "strangulation," since an oyster pumps from 50 to 180 gallons of water per day through its gills, which gather food material and oxygen. With both gills and mouth full of mud, it is easy to envision the fate of the seashore oyster—a creature cemented in place, unable to move to a better location!

Another menace of growing proportions is water pollution. Poisons from industrial plants, chemical sprays, and waste products washing into the bay—these and other sources of pollution are causing the oxygen to be depleted, contaminating oysters and other shellfish, possibly hindering reproduction, and, in certain cases, bringing death not only to the commercially valuable animals but to other forms of life as well, both lower and higher—from plankton to pelicans.

So, to summarize, oysters need to be grown in the correct mixture of fresh and salt water and at reasonably stable water temperatures. But before that, there must be enough suitable culch available at the time and the place of heaviest spatfall if there is to be a good set. And the heavier clusters of seed oysters should be separated and replanted if the oysterman wants top production in terms of both quality and quantity, the two big factors that influence market price and, therefore, profit.

These are elementary steps in oyster cultivation; hardly more than organized efforts at giving nature a hand with the oyster growing process. But there's no denying the importance of having scientific knowledge of these bivalves and the application of good conservation principles in the oyster industry, which, in Franklin County, has quite a history.

The first written account of oysters in Florida was penned in 1527, when explorer Nunez Cabeza de Vaca wrote about Tampa Bay and the mouth of the Apalachicola River, where oysters were abundant (the natives, of course, had been eating them long before the first recorded history). It was not until the early 1920s, however, that the oyster industry flourished in the northern Gulf Coast area.

By the late '20s and early '30s, Franklin County was noted for its fine oysters. At that time the "Apalachicola oyster" was known more widely, perhaps, than the "Blue Points" and "Virginia Cape" oysters of the Atlantic coast.

Just as the Franklin County oyster industry was achieving national recognition, the first hazard almost destroyed the entire crop. An oyster company moved into the region and started harvesting oysters by dredging—without much thought for damage to the resource. Conservation practices were, at that time, hardly more than words. The temptation was to think that the supply of oyster bars, like the timber supply of earlier days, was inexhaustible.

The new company did not replant oyster shells for cultch. It dredged in areas not suited for oyster dredging. It did not leave immature oysters for later harvesting. Because of these things, oyster production was severely cut. It was seven years before production levels were back to normal again. Dredging was outlawed in Franklin County waters.

In 1949, the Florida Board of Conservation adopted the Division of Oyster Culture for the purpose of regulating and promoting the development of the oyster industry in the state. A decade of growth and development of the industry followed.

Prior to 1961 a small number of companies and individuals owned private leases to oyster bars in Apalachicola Bay. Until this time it had been the law and custom for lessees to harvest oysters the year around. That year, however, the State passed a law allowing the harvesting of just two gallons of oysters per day per person, during the off season, not only from private leases but from the public bars as well.

The oyster catch was still large. The continued overharvesting, plus three years of poor production because of unusually high salinity and related problems, these combined factors again brought the industry to a low ebb.

In 1963, a law was passed in the Florida Legislature prohibiting the gathering of oysters during the summer months—June 1 to September 1—the same closed season in effect today. But passing laws has not been the only action of the Board of Conservation.

Back in 1949, when the Division of Oyster Culture was adopted, the Board began placing oyster shells back into the bay for cultch. Another law entitled the State to reclaim all oyster shells taken from the bay for this purpose. After the low ebb caused by the 1961-63 depletion of the oyster bars, the Board (Continued on next page)
However, it only takes oysters in the Apalachicola Bay, valued at over a million dollars annually in Apalachicola Bay. Since 1963, the Board has replanted over a million bushels of shells annually in Apalachicola Bay. It takes from three to five years for an oyster to grow select oysters. Kirvin says, "I've got over $28,000.00 worth of oysters on my bar right now, but not all of them are selects. I'm harvesting only selects off that bar.

For oystermen who do not own leases, the bay has hundreds of public bars. Last year, four and a half million pounds of oyster meat, worth gross sales of over three million dollars, were harvested from Franklin County waters. People all over the United States have tasted the famous Apalachicola oyster.

As they did in biblical times, men still harvest the oysters with tongs, working from small skiffs. The tongs sell their oysters to one of the 23 seafood houses in Franklin County, where most are sold by the bag for the "half-shell trade." The houses process the remainder, by shucking, washing and packing under careful inspection, for national distribution. Through a cooperative effort by the Department of Natural Resources, Division of Marine Resources, and concerned individuals, the Apalachicola oyster industry continues to thrive. Franklin County is indeed "Florida's Shellfish Capitol."

The oyster George Kirvin took from his tongs was seven inches long. He reached over and picked up his oyster knife, deftly inserted its blade, and, with a twist of the wrist, flicked the barrel-is a common condition. Besides being unsightly, any rust that gets down to the rifling at the muzzle may easily prove detrimental to the weapon's accuracy.

If rust sets in at the critical muzzle point of the rifling, gunsmithing is the only salvation. Today, but fortunately it is not the sort of gunsmithing job that restricts itself to a professional. With a few basic tools you can do the job yourself.

First, examine the condition of muzzle and rifling with a magnifying glass, under good light, to learn if the rust or pitting has reached the rifling, and, if so, how far into the barrel. Hopefully, it will only extend over the face of the muzzle and not into the bore. If the latter is the case, however, use a fine-toothed flat file mill and cut back the rifle's muzzle until fresh, clean rifling is exposed.

Then, very carefully finish filing the muzzle until it is flat and square across the face, frequently checking evenness with a try square.

Next, use a sharp countersink reamer to counter-sink the edge of the bore about 1/32nd of an inch. At this stage the muzzle must be crowned, so that the rifling edges will be truly square and smooth. This is accomplished by chucking a brass ball (on a shank) in a carpenter's brace or breast drill. (Shanked brass balls can be bought at most firms supplying tools and materials to machine shops, but a new round-head steel rivet—about 3/8th inch in head diameter—can be chucked in a rotating arbor and used satisfactorily.) Fine valve grinding compound and oil mixture helps speed the job.

It is important that the drill be slowly revolved in a circle—like a wobbly top that is running out of momentum—all the while manually causing the drill to be turned over slightly. This is exactly what one is doing if the crown of the muzzle is being rounded. There may be some further beveling done at this point. If the gun is a double rifle, do the other barrel next, if possible. It is often easier to do them this way and have them turned over simultaneously.

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It is important that the drill be slowly revolved in a circle—like a wobbly top that is running out of momentum—all the while manually causing the chucked rivet or brass ball to rotate in its own arbor and orbit. (If there is doubt in your mind about crownning the muzzle of a good rifle, first practice on an old, discarded one, if available. Then be your- self to the library and study the illustrations on page 369 of Modern Gunsmithing, by the late Clyde Baker, or pages 223 and 224 of Gunsmithing, by Roy F. Dunlap.)

After obtaining a good indentation in the muzzle, change to slightly larger rivet or ball and continue the procedure until the inner half of the barrel wall appears well rounded to the eye.

(Continued on next page)
Sales are made from the Commission offices listed on the front page. Additional information may be obtained from the County FFA offices, where farm machine bureaus are located, or from the Commission offices listed on page 5.

FLORIDA WILDLIFE

JANUARY, 1970

National Highway Litter Survey

Each Month American motorists drop an average of 1304 pieces of litter on every mile of the nation’s vast network of primary highways—nearly 16,000 pieces per mile per year. These startling figures were uncovered by the first national survey of road side litter, a project sponsored by Keep America Beautiful, Inc., the national litter-prevention organization.

Allen H. Seed, Jr., executive vice president of KAB, called the survey “the most comprehensive of its kind ever undertaken in America.” It was conducted by the Highway Research Board of the National Academy of Sciences in cooperation with the highway departments of 29 participating states.

Mr. Seed said the purpose of the survey was to establish, “as a first step toward more intelligent and effective highway litter control,” the composition and volume of highway litter, which the study reveals accumulates at an average monthly rate of about one cubic yard per mile.

Paper items accounted for 30 percent of total roadside litter. The rest was tabulated at 16 percent cans, 6 percent plastic items, 6 percent bottles and jars and 13 percent miscellaneous.

When Will the Miracle Happen?

The FBI has issued its quarterly report on crime for the year 1969. It doesn’t read at all like it was supposed to, says John Marsman of Savage Arms Corp.

Law-abiding citizens, including gun-owning sportsmen, have waited anxiously for the report and the good news they expected it would contain—a drop in the nation’s crime rate.

They had justifiable reasons for such expectations. Guns, they had been told, were responsible for the crime problem. Restrict their use, purchase and ownership by tougher laws, or take them out of circulation completely, and the crime rate would drop.

Despite the protests and active opposition of legitimate gun owners, who recognize the fallacy of such reasoning, tougher laws have been passed in recent years. They range from the Gun Control Act of 1968 on the national level to registration and licensing laws on state levels.

It’s become increasingly difficult, in some cases almost impossible, to purchase guns and ammunition for legitimate purposes. Such laws are supposed to deter the use of guns and firearm-related crimes. They do, but they also require a firearm for unlawful use. Thus far, it hasn’t worked out that way.

The large miscellaneous grouping was divided between tires, lumber, and a variety of unclassified items, ranging from hair conditioners, underwear and false teeth to ice chests and washing machines. Mr. Seed added.

The report found that total litter volume “was positively correlated with average daily traffic.” In other words, generally the more cars the more litter.

Mr. Seed noted that the study’s success was largely the result of outstanding cooperation by participating state highway departments, which, he said, “generously provided personnel for collecting and recording the litter from sample areas.”

Pre-selected sample sections, ranging from primary roads to eight-lane divided highways, were designated in each of the states and picked clean of litter. For 20 days the sections were left alone to accumulate their “normal” amount of litter. Then a second sweep collected and identified everything.

The report said that “control of cans and bottles will not solve the litter problem, and additional punitive measures are not likely to prove effective.” It is said the most practical approach appears to be educational and publicity efforts led by Keep America Beautiful and the state highway departments.

The FBI report says the crime rate climbed 10 percent during the 1969 reporting year, as compared with the corresponding 1968 period. Crimes of violence increased twice as rapidly as crimes against property.

Murder rates went up, rape 12 percent, aggravated assault 8 percent, and robbery 22 percent. Nowhere is there mention of a decrease in crime.

The question naturally arises as to why?

If tougher gun laws are supposed to reduce crime, as the anti-gun advocates say, why the paradox? Can it be the theory is false?

It’s time for the citizen who has no interest in guns, and who appears to be losing out in this battle against litter to turn his attention to the criminals. He should challenge those lawmakers who either have been misled by anti-gun propaganda, or are promoting the anti-gun movement behind the smoke screen of a crime crusade.

The public should begin asking questions about this promised miracle that has not materialized. How many more gun laws will be passed needlessly before it becomes obvious to even the most naive do-gooder that crime will not be reduced by passing gun laws? Until the anti-gun set stop jousting with their tools, and address themselves to the criminal instead of his tools, the crime rate will keep climbing.

Complete hunting season information for 1969-70 appeared in previous issues of FLORIDA WILDLIFE. Summaries of all rules and regulations may be obtained from County FFA offices, where farm machine bureaus are located, or from the Commission offices listed on page 5.

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Ironically, in spite of the obvious, overwhelming public desire for solving the country’s environmental problems, the Federation’s recently completed Index of Environmental Quality found the U.S. is still losing the battle against pollution and natural resource depletion.

DDT Found in Polar Bears

According to the Detroit Free Press, preliminary testing has revealed high concentrations of DDT residues in Canada’s high Arctic polar bear population, reports the National Wildlife Federation.

Charles J. Jonkel, of the Canadian Wildlife Service, said the pesticide concentrations were found in fat samples taken from polar bears killed in a remote Arctic region.

“Surprising discovery of high pesticide levels in fat tissue of polar bears deserves special attention,” Dr. Jonkel said. “We plan to determine these levels for – different areas of the Arctic by sampling every year. As polar bears are at the top of the food pyramid, pesticide residues may eventually reach even higher levels in these species.

Polar bears are of economic importance to our Eskimo and Indian hunters; we seem to have most of the world’s polar bears – and the range of the species likely includes a major portion of the Canadian Arctic.”

Marine Resources Publication

“THE OCEANS of the world hold the key to the most persistent long-range problem of the entire human race, namely, how to provide adequate food for the always increasing population,” writes Frank E. Firth in the Preface to the Encyclopedia of Marine Resources, published by Van Nostrand Reinhold Company.

Firth, editor of the Encyclopedia, notes that the ocean is the greatest potential source not only of essential nutrients, but also of an almost unlimited supply of potential fresh water, and he suggests the development of such products as fish protein concentrate and intensive cultivation of high-protein seaweeds, through sea farming methods, as a means of exploiting nutrient possibilities. He also states that through expansion of desalination technology, fresh water can be obtained to irrigate the deserts, thereby converting many of the earth’s waste places to fertile, food-producing regions.

Designated to meet the growing need for information on the sources of the ocean, the Encyclopedia provides all the accumulated knowledge of the sea’s major natural resources and its applications to the future of mankind in a single comprehensive volume. Over 125 contributors from all over the world, ranging from zooplankton, relate the importance of the biodynamics of life in the sea to the future welfare of man.

Distinguished authorities from the United States and abroad have contributed treatises on marine botany, oceanography, conchology, ichthyology, technology, nutrition, pollution, pelagic birds, diving, whaling and sealing, sponge and fishery by-products, and other products from the sea.

Other special topics treated in the Encyclopedia are: Satellite Sensing of Marine Phenomena—a demonstration of applications of outer-space studies to marine developments; Heat and Power from the Sea—a discussion of the economic benefits possible with the harnessing of the sea; Minerals in the Ocean—an examination of the tremendous wealth in the ocean floor and man’s potential use of it; Sea Farming—how the application of cultural methods to this area can turn it into a major industry; Sharks—how the knowledge of behavior and attack patterns will save man in the sea.

Frank E. Firth, who has been assisting in the development and financing of a marine resources program at the University of Rhode Island, has had a long and varied career as a fisheries biologist and technologist. As Fisheries Officer with the rank of Attaché, in the U.S. Foreign Service Scientific, Technical and Economic Mission to Indonesia, he was responsible for programming and directing the development of the marine fisheries of Indonesia, which was acknowledged as the most successful fishery development in Southeast Asia.

Highways and Conservation

STATE highway agencies and conservationists are not often thought of these days as allies. They usually wind up as adversaries, one interested only in the construction of modern highways, the other working to prevent indiscriminate highway routings of natural resources and scenic beauty are protected, according to John Manross of Savage Arms Co.

Win, lose or draw, a highway agency that takes an effort to promote the cause of conservation is seldom heard of. More than likely, if the conservationists gets anything close to what they are asking for in highway plans, it’s the result of a tough fight.

The State of Connecticut appears to be an exception. Through its efforts, natural areas and wetlands are being set aside and preserved for use by wildlife and other wildlife, and public access points are being established on land already owned by the state and the Federal Government. It all started in 1963, when the Memorandum of Understanding was signed between the Highway Dept. and the State Board of Fisheries and Game. The agreement called for the transfer of a variety of properties under highway jurisdiction, if unused by that agency, to the Board for sporting and wildlife uses.

Since then, 23 access points to inland waters and 13 to marine waters, plus several parcels of wetland preserves, have been presented to the Board as gifts.

The latest such gift was for conservation purposes, a 34-acre inland marsh located in Milford. It doesn’t look like much, laced with drainage culverts and isolated from a natural environment. Yet it is and will continue to be a haven for a variety of wild creatures.

Retained as a wetland for marsh vegetation by the Board of Fish and Game, the area also will serve to recharge ground water tables. Its future as a much needed natural area is assured because its control has been placed in the right hands.

The Highway Department also has given parcels of land to other state and municipal agencies for public use, land which otherwise would remain idle and perhaps some day be developed for commercial purposes.

In commenting on the unique program, State Highway Commissioner Howard S. Ives said, “There are many other land gifts to public agencies, and we’re proud of having effected these transfers to the public trust. In a time of burgeoning population growth, it is especially vital to preserve open spaces to assure the protection of wildlife. These are natural resources that are a traditional part of our Connecticut heritage.”

Residents of other states are entitled to the same heritage. There’s no reason why the MUTTD’s State plan won’t work elsewhere, unless there’s a shortage of highway officials such as Commissioner Ives to get it off the ground.

Citizen interest in clean water is so great that the federal water pollution control program stands a good chance of being one of the few national activities to buck the Administration’s tight fiscal policy for the current year, according to the Wildlife Management Institute. As reported by the Institute’s Director of Propositions, and possibly as approved (Continued on next page)
the members of the House, enough funds than have been budgeted. 34

Mostly it was a matter of alerting Members of Congress to the conservation bill on the floor to provide the National Wildlife Institute reports. After two years of intensive study by the Illinois Institute of Technology—conservation Institute (ITI-R), and cooperative testing and consultation by the Bureau of Sport Fisheries and Wildlife, the project has found a super-soft iron which, when formed into shots, exhibits almost identical ballistic qualities of lead. But unlike lead, the iron shot will not poison the ducks and geese that may swallow it while feeding in the bottoms of harvested marshes. Under a project developed through the industry's trade association, the Sporting Arms and Ammunition Manufacturers' Institute (SAAMI), ITI-R explored four general areas: (1) biochemical additives for lead that might render the metal harmless in waterfowl systems; (2) lead/iron/plastic composites: (3) plated or coated shot; and (4) iron shot. Criteria guiding the research were that the material developed must be nontoxic to birds; that it must meet rigid ballistic standards; that it must be relatively inexpensive, and that it must be capable of being formed into pellets as a mass production process. Tests showed that alloying lead with other metals or coating it with plastic failed to reduce toxicity. Biochemicals also failed because of the retention of toxic qualities and the inability to produce wire from which shot pellets could be made. Composites of lead/iron/plastics also failed, and the research turned to iron shot alone. ITI-R overcame earlier deficiencies of iron shot, such as uncontrollable variation in pellet sizes and the metal's initially unacceptable ballistic performance, due to its relatively low density. Further, the iron shot first tested corroded gun barrels and deformed chokes, a problem that could not be overcome by coating or plating the shot or loading it in special wrappers. The super-soft iron found in wire form by ITI-R can be processed in such a way as to avoid adverse effects on gun barrels and chokes. Test results have convinced experts that shotshells with 1 oz. of No. 4 soft iron shot have almost identical effectiveness on live birds as comparable lead loads at "in range" shots not exceeding 50 yards. In terms of shot-crippled birds, the tests indicated no appreciable difference between experimental iron shot and comparable lead loads.

The problem at this point, according to SAAMI, "is to find a practical mass production method for making spherical iron shot from super-soft iron. SAAMI has engaged ITI-R to develop an economical process for the fabrication of suitable iron shot. Ammunition producers also are independently searching for production methods and potential suppliers.

When these last hurdles are cleared, waterfowl hunters likely will be called upon to accept and use iron shot as a step toward reducing and ultimately eliminating lead poisoning as a serious source of waterfowl losses. The shift to iron shot will mean that the lead now lying in gunning marshes will not be replenished by each year's shooting. It will slowly settle into the mud or be silted over to the point that it will be out of the reach of feeding ducks and geese.

Further details on the project may be obtained from SAAMI at 429 Lexington Avenue, New York, New York 10017.

For that BIG ONE that didn't get away

FLORIDA WILDLIFE'S FISHING CITATION

is available without charge, to any and all subscribers to Florida Wildlife Magazine, and their immediate families, who catch any of the fresh-water game fish of the prescribed species and size requirements. Citation, showing recorded date of the catch, will be mailed to applicant on request. Authorization and payment of the following application form that has been properly filled out and signed.

Only fishing citation applications received within 90 days from date of catch will be honored.

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The Editor, Florida Wildlife

Date

Game & Fresh Water Fish Commission, Tallahassee, Fla.

Please send me the Florida Wildlife Fishing Citation with the enclosed check for

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Name (please print).

Address

City... ...State... ... Zip No.

Type of Tackle

Bait or Live Used

Where Caught... ...in. County

Date Caught

Catch Witnessed By.

Registered, Weighed By...

Signature of Applicant.

CUT OUT AND SAVE THIS APPLICATION BLANK
Hermit Thrush

Photo By Wallace Hughes