HUNTERS NOTICE
QUOTA HUNT SYSTEM 1976-77

Your Management Area Stamp Is Different This Year

There are two parts of the stamp now

The small top tab is for use on the quota hunt application.

The bottom large portion is to be glued onto your license as in previous years.

Florida Wildlife
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JUNE 1976

This month's cover subject is a bird that's familiar in town and country. The Brown Thrasher is a slender, 10-inch-long, brush-dwelling relative of the mockingbird. The sexes look alike. See page 36.

From A Painting By Wallace Hughes

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TWELVE NEW CANOE TRAILS were approved last year by the Governor and Cabinet for inclusion in the Florida Canoe Trail System, Harmon Shields, executive director of the Department of Natural Resources, announced.

Shields said addition of the new waterways brought the state's total to 32 canoe trails, expanding mileage for canoeists from 744 to 921 miles.

New canoe trails are Aucilla River in Taylor, Madison and Jefferson counties; Blackwater River-Royal Palm Hammock Creek in Collier County; Coldwater Creek in Santa Rosa County; Hickey's Creek in Lee County; Little Manatee River in Hillsborough County; Perdido River in Escambia County; Pittlachascotee River in Pasco County; Santa Fe River in Alachua, Columbia, Gilchrist and Suwannee counties; Sopchoppy River in Wakulla County; Sweetwater-Juniper Creeks in Santa Rosa County; Upper Manatee River in Manatee County; and Wakulla River in Wakulla County.

In addition, segments of three existing canoe trails have been lengthened. Trails extended are Blackwater River, Ocklawaha River, reduced about 5 miles; Econfina River, Orange County, reduced 9 miles; Loanhatchee River in Palm Beach County, reduced 4 miles; Peace River, Polk County, reduced 16 miles; and Withlacoochee River, Citrus and Marion counties, reduced 17 miles.

Black Creek in Clay County was taken out of the state system because of unclear ownership, with Santa Fe River taking its place.

Three additional trails are currently being considered for addition to the system. They include the Upper Ochlocomee River above Lake Talquin and straddling the Georgia-Florida line; the Tomoka River from SR 40 to Tomoka State Park in Volusia County; and Pellicer Creek from U.S. 91 to Faver Dykes State Park in the Flagler-St. Johns County area.

A new canoe guide book is being prepared by the Department of Natural Resources to be available later this year. It will be a more comprehensive guide of the state's canoe trails, with more detailed maps.

Here is additional information on the trails already added, extended, and reduced:

**Additions**

- **Aucilla River—Taylor, Madison, and Jefferson Counties**: From U.S. 27 in Lamont to the beginning of the Aucilla River sinks, this 18-mile trail offers the beauty of north Florida wilderness blended with unusual geologic formations. Several "white water areas" provide experienced canoeists with a challenging run.

**Blackwater River/Royal Palm Hammock Creek—Collier County**: This 13-mile-loop trail begins and ends in Collier-Seminole State Park and winds among the Ten Thousands Islands. The route offers the visitor a scenic trip through an extensive mangrove forest. Variety is provided by narrow creeks, wide rivers, and scenic vistas from the bays. Wildlife abounds, and a lucky canoeist may even glimpse a manatee.

**Coldwater Creek—Santa Rosa County**: Located partially within the Blackwater River State Forest, this pristine river offers 15 miles of pleasurable canoeing. From S.R. 4 to its confluence with the Blackwater River, this trail provides numerous camping opportunities with sandbars at nearly every bend. Several access points along the river provide canoeists choices of shorter trips.

**Hickey's Creek—Lee County**: Although only 4 miles long, the segment of Hickey's Creek that empties into the Calloosahatchee River about one-half mile upstream from the Franklin lock is already one of Florida's canoe trails.
of the best-known canoeing sites in southwest Florida. The half-day trip traverses scenic hammock and pine flatwoods vegetation, offering canoeists a short but enjoyable trip.

Little Manatee River—Hillsborough County: Only 9 miles in length, this segment of the river from U.S. 301 to the Little Manatee River State Park offers an easy half-day trip through some of the finest scenic flatlands of southwest central Florida. In addition, the trail is within an hour's drive of Tampa.

Portico River—Escambia County: This switchbacking 34-mile trail from Three Run to Musemee at Sims Park) in New Port Richey. Convenient to a 5-mile day trip through unspoiled forests. This trail is 9 miles in length, this segment of the river from three runs to the beginning of the trail. This adds 8 miles of interesting, uncrowded paddling to the canoe trail; allows camping at the beginning; and reduces congestion and the need for a fairly long-distance canoe haul at the main use area in Wekiva Springs State Park.

Reductions

Blackwater River—Okaloosa County: The upper section of the Blackwater River has serious navigational problems. The first 4.5 miles (from S.R. 180 to S.R. 2) of the 40-mile trail are filled with log jams that make it virtually impassable. In light of this, deletion of that particular segment was recommended, so as not to mislead unsuspecting canoeists regarding the navigational difficulties.

Econfina River—Santa Fe River: The Econfina River is a long river with serious navigational problems. The first 9 miles (from S.R. 50 to S.R. 419) of this 28-mile trail are filled with water hyacinths and log jams, making it impassable. Accordingly, deletion of that particular segment was recommended.
Burrowing owls appear to spend a great deal of their time standing sentry duty on the mounds near their burrow entrances. When approached—or rudely flushed, as was the owl I intended to photograph—they normally fly off only a short distance, turn to face the intruder, and then, if pressed, bow solemnly several times. This comic habit of bobbing up and down when approached has also earned them the derisive sobriquet “cowboy owl.” The movement is accomplished by quickly and repeatedly bending the legs, reversing legs. Sometimes the wing opposite the leg is extended for a short distance before turning to peer reproachfully at the hunter.

The normally silent owls will also utter a variety of calls when under stress. A chickenlike “twit-twit” or a “coo-hoo!” similar to that of a mourning dove may be given when the owls are mildly disturbed. These calls are often accompanied by a ruffling of feathers, quick bobbing, and spirited beak-snapping. When highly agitated, the owls rasp a tremulous “cack-cack-cack” alarm call, which is usually given in flight.

Burrows may be located either on high sand ridges or on moist flats—often within a few yards of a lake shore but always above the high water line. The burrows are dug by the owls themselves. To accomplish this, the bird stands on one leg and throws sand behind it with quick strokes of the other. Then, taking a step forward, the process is repeated, reversing legs. Sometimes the wing opposite the leg that kicks sand is extended and touches the ground for support. But in any event, the owl’s sharp talons are well-suited for digging in sandy soil, and the work progresses rapidly. Flying sand quickly accumulates in a tell-tale mound near the burrow entrance.

The average burrow measures 5 inches wide by 3½ inches high. The tunnel itself extends downward at a slight angle for 4 to 8 feet and then rises slightly to terminate in a small circular nest cavity. This cavity may be anywhere from 6 inches to 3 feet beneath the surface of the ground, and will be generously lined with small chips of dried cow dung, grass roots, and bunches of hair shortly before the female lays her eggs.

Courtship activities begin early in the spring, and the end of March, amid ardent calling and much self-grooming, the owls establish semipermanent pair bonds. Then, once the nest cavities are lined, the female lays a clutch of six to 11 eggs and settles down to a 3-week incubation period. During this time she mate faithfully supplies her with food.

As is the case with most ground-nesting birds, the burrowing owls lay relatively large clutches of eggs. This probably reflects a rather high mortality rate, which may be due, in large part, to the vulnerability of both eggs and young to predators such as skunks, opossums, and snakes. The underground burrows, however, make observations of this kind very difficult.

Some years ago, though, the late Lewis Wayne Walker, an authority on owls, did dig into an active nest and carefully replaced the earth above the nesting cavity with a pane of glass. This ingenious technique permitted unique observations of the newly-hatched young in the nest itself.

Walker discovered that although the fuzzy white owlets were completely dependent upon their parents at first, they grew rapidly. Within a few weeks the young owls spent much of their time racing about the nest chamber and the tunnel. Later, Walker watched as the owlets used an unhatched egg in the chamber as a target, tirelessly pouncing upon it with outstretched talons. Still later, the youngsters began to pounce upon imaginary grasshoppers and perform motions with their beaks that suggested the decapitation of their imaginary prey.

About this time, Walker also observed the parents delivering live insects to their brood—beetles crippled with crushed abdomens and grasshoppers with their jumping legs removed. These slow-moving targets provided the young owls with their first hunting experiences, and allowed them to perfect their previously clumsy mock attacks.

Walker soon made another discovery: Whenever the young owls became aware of his presence, their throats would vibrate rapidly, producing a rattling hiss that sounded remarkably like an agitated rattlesnake! Many investigators have since come to believe that this remarkable sound mimicry may actually have some survival value—particularly if a predator could be frightened out of the dark burrow.

By DAVE NORRIS

Entrance to a burrowing owl nest with its telltale mound of light-colored sand is seen at far left. Nest, overgrown with grass, is hard to see. A bird of the open country, Florida’s population is concentrated mainly in the Kissimmee-Okeechobee area. They’re usually gathered in small colonies. Burrowing owl, left, stands near a sand mound scratched out during digging of its burrow.
row thinking that it had stumbled upon an angry rattlesnake instead of a full of owlburgers.

Furthermore, it is quite possible that this peculiar cry may also have contributed to the completely false notion that burrowing owls and rattlesnakes share the same burrow.

By early July the young owls are 6 weeks old and nearly as big as their parents. Cautionally, they emerge from their burrows for the first time, but being incapable of flight, they remain close to the entrance. Should either parent suddenly utter the “cack-cack-cack” alarm, the young owls quickly disappear into the dark burrows. And if serious danger threatens, the female quickly follows her brood while the male flies to an elevated vantage position where he can keep track of the intruder.

Burrowing owls have never been known to attack humans. But they can—and will—put a four-legged intruder into high gear with their sharp talons.

Within a week or so after venturing out of the burrow, the young owls gain considerably more confidence and spend much of their time running about and flapping their wings. Still, they rarely stray more than a few yards from the entrance mound. Always hungry, however, they eagerly rush their parents when they fly in with food.

By the middle of August the young owls have mastered the low, undulating flight characteristic of their kind, and can even hover motionlessly a few feet above the ground, searching for prey in a manner similar to that sometimes employed by sparrow hawks. Now the young owls range up to 50 yards away from the burrow, and forage on their own with varying degrees of success. But by the end of September all of the youngsters will have become competent hunters easily capable of providing for themselves.

The burrowing owl’s small size and apparently sedate demeanor as it stands near its burrow are deceptive. For these owls are not gentle creatures by any means. They forage both day and night but are probably most active at dawn and then again at dusk. Now the young owls range up to a few saltwater dwellers, but many of the trout fisher scooped. How could a club-handed spinner fisherman compete with a master fly caster using delicate gear including fine leaders and tiny flies? Well, the spinfishermen didn’t do too well because most of the more serious anglers among them would go to fly rods for their fishing, but when a real die-hard applied himself to the problem, he could make his spinning outfit do a pretty classy job.

Opportunistic feeders, the burrowing owls take a wide variety of prey, including mice, rats, young rabbits, an occasional small bird, lizards, toads, grasshoppers, scorpions, centipedes, spiders, caterpillars, moths, and crickets. If water is near, the owls also seem to relish both crayfish and minnows, although it is not definitely known to what extent they actually enter the water to secure such preys.

Burrowing owls also utilize carrion upon occasion, and there is some indication that they may also resort to cannibalism, although the latter has yet to be conclusively proven.

Unfortunately, as is the case with an increasing number of wild creatures, burrowing owl populations are thought to be on the decline. Primary pressure probably results from loss of habitat due to the construction of retirement villages and, to a lesser extent, airport runway expansions and the like. Also, these owls are unpopular with some cattlemen, who fear their stock may step into the often-hard-to-spot burrows and break a leg. Consequently, local populations may be destroyed fairly easily—if illegally—by shooting individual owls or gassing their burrows.

Hopefully, however, the little owls will persist. For the benefit derived by their consumption of rodents and insects probably more than outweigh any potential danger their burrows present to live-stock.

Besides, the burrowing owls are unique and interesting in their own right—and that alone ought to be enough reason to spare them.

Fisherian's Choice

THE MOST VERSATILE FISHING outfit in the world "flies only" and an open-faced reel. If you're going to chase fish around the globe in fresh and salt water and take only one rig with you, that's about the size of it, and most fisherman already have such an outfit.

In most cases I'd rather have something else but I can sure make do with this one. A 7-foot glass rod is about right, capable of casting an eighth-ounce lure with 6-pound line and going clear up to better than half an ounce with 10-pound. In some cases, when long casts aren't necessary and the fish are big or hard to handle, you might even use heavier line. A 6-pound spool and a 10-pound spool, though, will cover a lot of fishing.

Some years ago when new spinfishermen were announcing that theirs was the end-all, be-all method, there was considerable use of the plastic bubble along with all sizes of flies, an effort at eliminating the fly rod completely. It wasn't really very convincing for dried-in-the-feathers fish fly fishermen. Worked all right on some kinds of panfish, bass, and a few saltwater dwellers, but many of the trout fishermen scoffed. How could a club-handed spinfisherman compete with a master fly caster using delicate gear including fine leaders and tiny flies?

Well, the spinishermen didn't do too well because most of the more serious anglers among them would go to fly rods for their fishing, but when a real die-hard applied himself to the problem, he could make his spinning outfit do a pretty classy job.

Last summer, in a high river of the West, I met a spinisherman who, after much experimentation, decided to limit himself to plastic bubble fishing and announced that theirs was the end-all, be-all method, there was considerable use of the plastic bubble along with all sizes of flies, an effort at eliminating the fly rod completely. It wasn't really very convincing for dried-in-the-feathers fly fishermen. Worked all right on some kinds of panfish, bass, and a few saltwater dwellers, but many of the trout fishermen scoffed. How could a club-handed spinisherman compete with a master fly caster using delicate gear including fine leaders and tiny flies?

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once considered the "high seas" and technically is in the same category as a city ordinance which sets regulations for areas outside the city limits. What fish belong to whom is a problem that gets more complex by the day. We came out pretty well on the Atlantic salmon mess. "Our" salmon (the ones that spawn in our rivers) were being caught by Europeans in staging areas a long way from home. Now, we're getting cooperation in that. It was a matter of compromise or no salmon for anybody. The cod war between England and Iceland is not a matter of good guys and bad guys. It's a matter of who spawn in our rivers) were being caught by Europeans in staging areas a long way from home. Now, we're getting cooperation in that. It was a matter of compromise or no salmon for anybody. The cod war between England and Iceland is not a matter of good guys and bad guys. It's a matter of who spawn in our rivers) were being caught by Europeans in staging areas a long way from home. Now, we're getting cooperation in that. It was a matter of compromise or no salmon for everybody. But deepsea fishing friction is nothing new. Centuries ago, warships guarded codfish ships on the Newfoundland banks.

Anyway, the law enforcement problems multiply as the jurisdiction area increases. National Marine Fisheries Service, in charge of enforcement, along with the Coast Guard, has less than 70 agents with 7,000 foreign and 5,000 domestic fishing ships in U.S. waters.

All kinds of leaders are a nuisance to store once they're made up. A "Leader Keeper" rig from Phil Bart Inventions, 4844 N.E. 10th Terrace, Ft. Lauderdale, is a solution to some of the problems. It's a plastic cylinder with grooves and holes to keep the leaders in order and collapses like an accordion to go into a plastic box which can be mounted on a boat, stashed in a tackle box or even tied to your belt. It would work with wire or heavy monofilament, and bait hooks or small lures can remain attached. I plan to use it for fly leaders with extra heavy tippets for saltwater fishing. In the past I've stored each one in an envelope. The knots involved are too complicated to strum up when you're actually out fishing.

Another kind of leader storage involves the various sizes of monofilament used in making up tapered fly rod leaders. It's bad enough when you use only a couple of sizes of tippet as in bass or panfishing, but when you get into freshwater trout with 8 or 10 little spoons you can do a lot of fumbling. Some vest manufacturers have a row of little pockets, each accepting one small spool of material. I've generally put the spoons together in order of their size and then strung them on a card or bead chain. Then I break or lose the little plastic clamps that hold the mono on the spool and get a pocket full of tangle. But it's better than just chucking them in there loose.

The athletes have very nearly done us out of our wading shoes. Many years back, a basketball or tennis player in short canvas sneakers would have attracted comment. But now, even high football shoes are out of date. The reason, of course, is skillful use of tape on athlete's ankles.

Working lure straight up and down, Manuel Spencer of Palatka demonstrates how he won the bass tournay.}

High canvas shoes are best for waders in sand and mud because they keep the odds and ends that tend to enter and hurt your feet. There are still a few high shoes available in catalogs and some stores, but you might have to look for them, so don't put it off if you need a new pair.

At one time or another there have been laudatory announcements about all kinds of bass lure motion. First there was the admonition to fish slower and still slower—and the rule never to move a surface lure while you could still see the rings from its splash as it struck the water. Then came the revelation that there were times when high-speed trolling caught more bass. There were the high-speed gears to attach to your plugging reel to get more miles per hour out of "crank baits"—and there were the ultra-fast factory jobs in both plugging and spinning.

Of late there have been a couple of tournament approaches to bass fishing, one called "flipping," which involves underhanded strip casting of a jig and something similar to it while using a fairly long rod. Strip casting is simply holding some extra line in one hand and letting it go when you're ready to fire. It was very popular with fly rods and bait long before spinning. It was simple a matter of lowering a lure straight down through a hole in the vegetation and working it up and down on a long spinning rod. Some fishermen were taking garden rakes to clear holes to operate through. But what shook me up were the words of one practitioner who said that after manipulating the lure you let it hang motionless. He'd never ever had a strike when it was moving, he said.

The Tilapia, Reported More than a Year ago in the St. Johns River, has made itself at home and there seems to be nothing anybody can do about it. Introduced almost two decades ago in a few bodies of water, especially phosphate pits, the fish has become bad news. It didn't bite well for sports fishermen and it tended to crowd out native panfish. Even commercial fishing didn't curb its progress.

The St. Johns tilapia story isn't new but the tilapia's increase is an unhappy angle. Where only a few fish were found bedding in 1976, the 1976 crop of spawning had multiplied, and where native sunfish were nesting near the exotic last year, the tilapia spawning areas have been more exclusive in 1976. Tilapia chase native sunfish away.

There's no known method of eliminating the tilapia (it's the "blue" variety where viewed in the St. Johns). Much of the big river is in a degraded condition, largely because of pollution and drainage. The fish prospers in degraded water, and native gamefish are under stress when the water is overenriched. Perhaps the saddest part of the whole formula is that if the river should be cleaned up to the point where native fish would prosper, the tilapia will retain its foothold. Just because it takes over in a poor grade of water is no sign that it can't continue to prosper if things get cleaner. We're stuck with the tilapia.

So why make a fuss about something we can't change? Well, if it's good for nothing else, the tilapia is an example of what can happen through any little slip. Most observers assume the fish was carried from its original Florida range by do-gooder fishermen who thought it would be nice to have the new fish in other waters. Of course, it's possible it was transported accidentally in a minnow bucket or livewell, but that makes no important difference. The important thing is that such mistakes are very hard to undo. Our track record on fish introductions is very poor. As far as I can determine, the only worth-while addition from a foreign country has been the brown trout in the northern United States.

With that one desirable fish introduction I can think of three good birds brought from abroad: the pheasant, the Hungarian partridge, and the chukar. Everything else has proven environmental poison as far as I can learn.

There's no objection to experimenting with foreign fish and game but strict controls are essential, no matter how difficult they are to maintain.
Peter Hunter didn't look like he was 75 years old as he paddled his skiff. He carefully anchored the dabbling duck decoys on two sides of our blind near the middle of a farm lake.

The day was sunny bright with just enough hint of winter that a light camouflage jacket was comfortable. It was early in the afternoon, at least two or three hours before we expected any visits from waterfowl.

There was a reason for going early. I needed some hunting pictures and to interview Peter Hunter. If you have to work the last day of the duck season, you might as well do it in a duck blind. Peter was in favor of it. He said he could talk better watching the decoys than just sitting in his living room.

Peter was born in Leon County and has never lived anywhere else. He's retired now but spent 53 years working at Horseshoe Plantation, between Tallahassee and Thomasville, Georgia. The gently rolling acreage is farmed and managed for timber and pulpwood, but it's also managed for bobwhite quail and other game. Peter started working at age 14 for the owners, Mr. and Mrs. George F. Baker I, of New York City, and he stayed through the generations to IV.

The Baker family and their guests spend about three months each year hunting quail in the traditional style of plantations. Although Peter was never a huntsman for the parties, in one sense he was in the business end of hunting. I also knew that he hunted and fished for recreation.

When we were sitting comfortably in the blind, I asked my first question. Perhaps I caught him a bit off guard by wondering why he liked to hunt. He looked at me strangely, as though I had asked why he breathed. Then he cocked his head and his whole face spread into a big smile and he said, "I was brought up hunting. When I was a boy, sometimes we needed game and fish to eat. I've spent all of my life around hunters and fishermen."

He paused a moment and said, "I've always hunted and fished but never thought much about it. I just naturally like to be around people who hunt and fish. Why do you like to hunt?"

"I'm not sure," I said. "I don't know if it's the fun of the chase or that I like to be with others who hunt and fish. Maybe it's some of both."

"It's restful," Peter replied. "When personal problems pile up, I can go hunting, fishing or hunting. Pretty soon I forget all about my troubles. I like to go with other sportsmen but I don't mind going by myself."

Peter's uncle started him hunting early. Peter tagged along until he was allowed to have his first shotgun, at age 12. He's been a wing shooter ever since, although he's bagged a lot of squirrels using a .22-rifle with open iron sights.

He started to work as a fireboy at Horseshoe when he was 14. The big house had more than a dozen rooms, but there was no central heating. It was Peter's job to light the fireplaces in each room early and keep them going. He was soon promoted to second man and not long afterwards to footman, watching tables as the number two man under the butler.

Peter worked hard and finally was made butler. He worked in this capacity until he retired 8 years ago. Until I talked with Peter, I did not realize the many responsibilities of a butler. He's actually the major-domo of the entire household. Peter had 16 people working under him to look after the needs of the Bakers and the weekly departures and arrivals of guests at Horseshoe. He did all of the purchasing of food and beverages, supervised the entire manor, and had charge of the gun and ammunition room.

He was up each morning before his staff, and never went to bed until the last guest had retired. During the hunting season, the big house is like a huge hunting lodge. After breakfast, the hunters are met by the huntsman and his outriders, dog handlers, and drivers. Hunters who do not wish to ride horses can perch comfortably on a hunting wagon pulled by a pair of matched mules. The wagon also carries several braces of pointing dogs, and one or two retrieving dogs, such as springers or Labradors, ride up front with the driver. The hunting parties split up to hunt quail in various areas of field borders, open pine woods, and feed strips.

The intensive habitat which all plantations develop and maintain is mostly for quail. They also (continued on next page)
Peter sent a helper around to drive them out and positioned himself and the boy who thought the turkeys would fly. He figured just right and most of the flock flew straight towards him. Peter raised his double-barreled shotgun and dropped two turkeys. Now the duck hunter has more time for wing shooting, his favorite sport. He doesn’t care what sort of game it is as long as it flies. He’s always shot a double and has no desire to own or use a pump or semiautomatic shotgun.

Duck hunting always appealed to him, and years ago, when Canada geese were more numerous in northern Florida, and there were open seasons, he used to get a few of them.

Peter says snipe are the toughest of all game birds to consistently bring down. They don’t hold for pointing dogs and usually flush 30 or 40 yards ahead of a hunter as he walks the edge of a marsh. The snipe do more zigzagging than even a mourning dove.

Peter swings his double on a duck winging in over the lake. Years of wing shooting have made him an expert. He says that the toughest target of all is the snipe. He has always shot a double barrel and has no desire to switch to a pump or an autoloader.

Peter says they come off of the ground in a zigzag and there’s seldom time for more than one snap shot. I asked him if he liked to eat snipe. He replied, “Yes, I like them best roasted.” Then he smiled, “You get two bites off of one, if you started with a mouthful of bread.”

Most people who have worked professionally around game get tired of eating it. A friend of mine up North who runs a pheasant hunting preserve will only eat ringneck if it’s ground up and used to pad out hamburger.

There’s an old saying in the South that no one can eat a quail every day for 30 straight days. I tried it once but gave up on the ninth day. Peter says he never heard of the saying but when he was at the plantation there must have been a lot of months when quail was served 20 out of 30 days.

Peter has never lost his taste for game. He enjoys it all, but his favorite is roast dove. He likes it cooked the old-fashioned way: well done and about ready to fall off of the bone. He also prefers it cooked simply, and leaves the wine basting to others.

On earlier trips to visit Peter, I found that he knew how to swing a shotgun. Dove shooting doesn’t require much walking once you’ve found a field where they are feeding. Peter doesn’t need a big field, just a small plot they’re swinging into late in the afternoon. He gets a comfortable spot and waits patiently for a single or a small flock to fly into range.

He’s not a ballistics expert and hasn’t read up on all of the theories of shotgun shooting. There’s been no need for it. In more than 60 years of wing shooting, he’s learned by trial and error.

I’d seen him in action in the duck blinds before I took my notebook along for the interview. Peter smiles, “All I know about shooting is to put it on them. I try to stay relaxed and don’t move until the birds get in range. Then I raise up, concentrate on one bird, swing the muzzle past the bird, pull the trigger and keep on swinging. I try to keep my stock snugged up tight to my cheek. If you raise your head off the stock before you pull the trigger, you’ll miss.”

Peter says, “It’s the same with quail. They’re flying away from you. You swing the muzzle to catch up with the bird and as it passes you pull the trigger and follow through with your swing. You usually know when you pull the trigger whether you’re doing everything right and are going to kill that quail.”

As our afternoon in the blind drifted towards sunset, Peter kept peering over the blind, sometimes standing up to get his circulation back and turning in a circle trying to see a duck. A few singles flew over high, but they acted like they were on their way to Key West. Peter kept saying, “You just wait. They’ll be in.”

I tucked my notebook away, but I was beginning to think they weren’t coming in, and this the last day of the season. Peter is an optimist. Maybe you have to be one to hunt waterfowl. At least, it’s better that way.

As the sun started below the horizon, Peter turned slowly in the blind and peered into the sky as though trying to wish a big flock of bullnecks in. “They’ll be here,” he said. “We still have time.”

Flock after flock skirted our blind and Peter asked what time it was. I told him and he said, “The season’s over. Let’s go pick up the decoys.” As we unloaded our shotguns, Peter started chuckling and then broke into a loud laugh.

“Those ducks sure did it to us today. But we’ll get them next year.” He paused and said, “I sure had a good time. Did you enjoy yourself?”

“Yes,” I smiled. “It’s the best day I ever had in a duck blind.”

We picked up the decoys and paddled toward shore in the growing darkness. Peter was still chuckling, and I didn’t ask any more silly questions about why he liked to hunt.
FLORIDA WILDLIFE MANAGEMENT AREA

Opening Dates 1976-77 Hunting Season

The following is a listing of wildlife management area opening dates for the 1976-77 season. It is not the intention of the Commission to make further changes in hunting dates or other regulations. Emergencies affecting wildlife populations, or requests from landowners involved, may necessitate later refinements, however. As in the past, brochures covering regulations and other details regarding individual management areas will be made available as far in advance of the season opening as possible. These detailed regulations should be consulted before you hunt. In the meantime, this list is presented to help you plan for the coming season:

<table>
<thead>
<tr>
<th>AREA</th>
<th>GENERAL HUNTING</th>
<th>QUOTA 1st 9 days</th>
<th>PRIMITIVE WEAPONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apalachicola</td>
<td>Nov. 13-Mar. 6</td>
<td>8,000</td>
<td>A—archery</td>
</tr>
<tr>
<td></td>
<td>(Sat. &amp; Sun. only)</td>
<td></td>
<td>P—muzzleloader &amp; archery</td>
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<tr>
<td></td>
<td>Nov. 13-Jan. 9</td>
<td>3,500</td>
<td>M—muzzleloading gun</td>
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<td></td>
<td>Nov. 13-Feb. 27 (part)</td>
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<tr>
<td>Avon Park</td>
<td>Nov. 13-Jan. 9</td>
<td>2,000</td>
<td>A—archery</td>
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<tr>
<td></td>
<td>Nov. 13-Mar. 6</td>
<td>1,200</td>
<td>P—archery</td>
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<tr>
<td></td>
<td>Nov. 13-Feb. 27</td>
<td>2,000</td>
<td>A—archery</td>
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<td>(Sat. &amp; Sun. only)</td>
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<td>P—archery</td>
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<tr>
<td></td>
<td>Nov. 13-Mar. 6</td>
<td>2,000</td>
<td>A—archery</td>
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<td></td>
<td>Nov. 13-Jan. 9</td>
<td>1,000</td>
<td>P—archery</td>
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<td></td>
<td>Nov. 13-Feb. 27</td>
<td>200</td>
<td>A—archery</td>
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<td>(Sat. &amp; Sun. only)</td>
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<td>P—archery</td>
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<td></td>
<td>Nov. 13-Dec. 5</td>
<td>1,000</td>
<td>A—archery</td>
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<td>Dec. 20-Jan. 9</td>
<td>1,000</td>
<td>P—archery</td>
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<td></td>
<td>Brown’s Farm</td>
<td>500</td>
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<td></td>
<td>Budd</td>
<td>120</td>
<td>A—archery</td>
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<td>Bull Creek</td>
<td>200</td>
<td>A—archery</td>
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<td>Camp Blanding</td>
<td>1,000</td>
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<td>Citrus</td>
<td>Dec. 18-19</td>
<td>A—archery</td>
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<td></td>
<td>Corbett</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>Croom</td>
<td>Nov. 13-Feb. 27</td>
<td>A—archery</td>
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<td>Cypress Creek</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>Eglin</td>
<td>Not set at press time</td>
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<td></td>
<td>Everglades</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>Faumont</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>Fishcating Creek</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>Ft. McCoy</td>
<td>Nov. 13-Jan. 30</td>
<td>A—archery</td>
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<td>G. U. Parker</td>
<td>Nov. 13-Jan. 23</td>
<td>A—archery</td>
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<td>Green Swamp</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td></td>
<td>Guana River</td>
<td>Nov. 13-Jan. 30</td>
<td>A—archery</td>
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<td>Gulf Hammock</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td></td>
<td>Hillsborough</td>
<td>CLOSED</td>
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<td></td>
<td>Hudson</td>
<td>Nov. 13-Dec. 5</td>
<td>A—archery</td>
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<td>La Floresa Perdida</td>
<td>Nov. 13-Mar. 6</td>
<td>A—archery</td>
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<td></td>
<td>Lake Butler</td>
<td>Nov. 13-Dec. 5</td>
<td>A—archery</td>
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<td>Lochloosa</td>
<td>Nov. 13-Feb. 27</td>
<td>A—archery</td>
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<td></td>
<td>Nassau</td>
<td>Nov. 13-Feb. 27</td>
<td>A—archery</td>
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<td>Ocala</td>
<td>Nov. 13-Feb. 27</td>
<td>A—archery</td>
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<td>Osceola</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>Point Washington</td>
<td>Nov. 13-Mar. 6</td>
<td>A—archery</td>
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<td>Relay</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>Richleam</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>Ronenberger-Holey Land</td>
<td>Nov. 13-Jan. 9</td>
<td>(vehicle quota)</td>
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<td>Steinhatchee</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<td>St. Regis</td>
<td>Nov. 13-Mar. 6</td>
<td>A—archery</td>
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<td>St. Vincent Is.</td>
<td>Not set at press time</td>
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<tr>
<td></td>
<td>Three Lakes</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<tr>
<td></td>
<td>Tide Swamp</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<tr>
<td></td>
<td>Tomoka</td>
<td>Nov. 13-Jan. 9</td>
<td>A—archery</td>
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<tr>
<td></td>
<td>Webb</td>
<td>Nov. 13-Feb. 27</td>
<td>A—archery</td>
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</tbody>
</table>

For further information, contact the Florida Fish and Wildlife Conservation Commission.
I stand fully in the center of the recent logging ecstasy. One is denuded of its bark, its upper limbs are frayed with reddish needles. Yovu's small part—hundreds of thousands of acres of beautiful planted pines—have taken sick and some are dying, with many thousands more acres being watched for symptoms of the apparent cause—pine pitch canker.

John Yovu, a blond, English-born young forester from the staff of Union Camp Corporation's Woodlands Division, watches the truck, his expression hidden by his yellow hard hat. Yovu's small part-terrier dog, Pumpkin, capers around the scene in ecstasy.

Ecstasy. It's the last emotion you would expect to find in the forests of Volusia County, where literally thousands of acres of beautiful planted pines have taken sick and some are dying, with many thousands more acres being watched for symptoms of the apparent cause—pine pitch canker.

Before 1969, pitch canker was just an obscure term in Volusia County Forester Bob Eikum’s tree pathology book. The fungus responsible for this disease is a species of fusarium and it is well known to plant pathologists. In all, there are 14 different kinds of fusarium, all with a different host. A species of fusarium caused a great many mimosa trees to die some years back. Certain others have been indicted for tomato wilt and fusarium caused a great many mimosa trees to die some years back. Certain others have been indicted for tomato wilt and what can be done to control it. Foresters also want to know how widespread it is in Florida and the Southeastern States.

Steps to secure funds and develop research on pitch canker have been led by the Division of Forestry of the Florida Department of Agriculture and Consumer Services, the University of Florida, the Florida Forestry Association, and the U.S. Forest Service. A federally-funded research center was established in February at the University of Georgia, in Athens. In Florida, one of the first steps was a visit by county foresters to every county of the state to take plot samples and determine the extent of infestation and economic impact.

Meanwhile, some forest landowners are tackling the problem in the only way they feel makes sense, the salvaging of dead and dying stands. No reliable control methods are known.

William Leffler, a Sanford attorney, says that the family tree farm venture, 3,000 acres of planted pines, have been “wiped out” by pitch canker. Leffler says he personally planted half the trees, which now will either be cut—“but mills can take just so much wood”—or turned over for responsible research.

Although trees of every age are susceptible, salvage is mostly in the 16- to 24-year-old class.

“This is about 10 years earlier than the normal harvest age, and it robs the trees of their maximum growth phase,” one landowner, driving through areas with different size clearcuts, pointed out.

A special problem with salvage is time. As the weather gets warmer, the infested trees will decay rapidly, and will also be subject to bark beetle attacks.

Another problem is the danger of fire outbreaks. In their pitch-soaked condition, many of the trees are like fatwood torches.

Volusia and Flagler counties appear to have the most intensive spread, but according to Dr. R. A. {continued on next page}
Schmidt of the University of Florida School of Forest Resources and Conservation, pitch canker is present in other areas. It has been reported near Perry, at Carrabelle, and is present in and around Gainesville. Pitch canker is a disease that can be distinguished from other pine diseases mainly by a conspicuous flow of pitch from the upper tree trunk. No other wound or disease causes such heavy pitch flow. Underneath the bark, or if a lengthwise section is cut, the wood will appear to be heavily pitch-soaked. A twig or limb may show the same deformity.

Pitch canker cannot be confused with fusiform rust, which causes large swellings on the bark, or if a lengthwise section is cut, the wood will appear to be heavily pitch-soaked. Another symptom is dieback at the top of the pine. There may also be dead lateral twigs of varying lengths.

Diseased trees have been found on all kinds of planting sites—from good agricultural land to wet, poorly-drained fields and sandy soil. It attacks planted pines more readily than naturally growing ones, and landscape pines on well-groomed lawns are also subject. A. S. Jensen, assistant professor and extension forester, University of Florida, says that diseased trees in home yards "appear to occur with higher frequency over septic tanks or where excessive fertilizers are applied, and frequently near poultry houses."

Pitch canker is most damaging to north Florida slash pine, the state's number one timber tree. Sand pine, the main species on the Ocala National Forest, appears to be immune.

The most important question, perhaps, from a research standpoint, is why, after years of being relatively harmless, pitch canker has become a deadly menace to pines. At least one company is waiting for the answer. Hudson Pulp & Paper Corp., the kraft paper, towelling, and tissue products company with company lands in Volusia County, has not begun or planned any salvage cutting.

Hudson has 38,000 pine-type acres that are infested, says Selmer Uhr, Manager of Hudson's Woodlands Technical Department. Uhr and Silvicultural Research Supervisor Earl Underhill say their greatest economic losses are not in dying trees, but in the reduction of annual growth.

In 1974, these growth losses, coupled with those of Union Camp, were estimated to be a quarter-million dollars per year on 63,000 acres of paper company lands in Volusia County. Hudson is counting on the disease's typical pattern of self-arrest to protect its investment of time, money, and management.

"From past experience, we know that pitch canker occurs sporadically in time and place. There were the outbreaks in 1969, but trees recovered," said Underhill, who has co-authored a research paper on the subject with Dr. Schmidt.

Since 1970, Underhill has been one of the researchers studying the disease. He is interested, as is the Division of Forestry, in identifying the vector, or carrier, of the fungus.

One suspect that has been all but eliminated as a possible carrier is the subtropical pine tip moth. Several years ago, University of Florida Department of Entomology and Nematology doctoral student Jim McGraw, under the direction of Dr. Robert Wilkinson and Dr. Schmidt, studied the matter and came to the conclusion that this tiny cream and copper-colored moth was not responsible. His study did not eliminate the possibility that an insect of some kind, not yet suspected, could be the transmitter of the blight.

The little that is really known about pitch canker was the work of U.S. Forest Service researcher George Hopting, who did the original research in 1945. He found it present in Florida.

However, Florida is not the only state with the problem. Pine forests and seed orchards in other southeastern states have been affected. The disease also occurs on other species of pine farther north.

While strategy is under way in every corner of forestry to solve the riddle of the dying pines, long-time landowners sit back and shake their heads sadly. A quarter-century ago, they planted these trees that are turning red or being cut prematurely.

Like fellow tree farmer William Lefler, they feel they are practically losing part of the family. •

The start of something big was when Herbie and Herman first met each other's acquaintance, above.

One day coming back from a fishing trip, my dad brought a boyfriend for Herbie. I named him, and it was a male, Herman. At first, Herbie and Herman didn't get along too well, but after a while, they became friends—pretty good friends, I must say, for now we are expecting the arrival of some new turtles. Herman has laid some eggs!

My friends James Kelley and Bill Long took pictures of Herbie and Herman. We decided to write a story and send the pictures to Mr. McCrane. They developed the pictures also.

My friends Herbie and Herman are very friendly, and they play with me and know my voice from other people's voices. I plan to keep them as my pets for a long time.

I'm 12 years old and I love animals. My other pet is a beagle and her name is Susie. She is very amazing at my two turtles. Also, my sister and I have two female gerbils, whose names are Speedy and Sunshine. I plan to further my education in animal study and maybe make it my career when I finish school. I'm in the 7th grade at Eastland Christian School in Orlando. •
MORRIE NAGGIAR

MOST PEOPLE RECOGNIZE that there are values to sport fishing that reach far beyond simply providing fish for the table. The aesthetics of the hook-and-line sport involve savoring the sunshine and fresh air, observing birds and other wildlife, and soaking up the relaxing atmosphere that surrounds the sport fisherman's natural habitat. But even to the most casual fisherman, the thought of catching a really "big one" is exciting. For some—the new breed of competitive "hawg-hunter" bass angler, for example—seeking out the heftier tackle testers is the name of the game.

Among the questions most commonly addressed to the Commission are those concerned with record-sized fish. For a good many years, Florida Wildlife has been issuing fishing citations to subscribers and their family members for certain species of fish that meet a specified minimum weight requirement. (See the inside back cover.) But there has been no effort to officially establish a state record for any of the numerous species that are taken from our fresh waters by hook-and-line fishermen.

In the face of considerable interest in the matter, the Commission is setting up a system to record and recognize exceptionally large specimens of 21 species of fish commonly taken in the inland waters of the state. The list includes such widely recognized favorites as the largemouth bass, bluegill, and shell-cracker, as well as other less frequently sought, but catchable fishes such as the alligator gar and the bowfin, or mudfish.

You will note on the accompanying table that, as of this month, there are a number of currently recognized state records. These are catches that have been verified beyond a reasonable doubt. An application covering a fish which exceeds the established record will, when properly verified, be certified as the new state record.

For other species the list is open; that is, there is no recognized record. For fish in the latter cate-

gory, applications will be accepted for fish meeting or exceeding the minimum weight listed. Such applications will be held until September 1, 1976, at which time a certificate will be issued proclaiming the heaviest specimen in its category as the state record for that species. This project is separate from Florida Wildlife's Fishing Citation program, which will continue to recognize the taking of trophy fish of a number of species.

Here are the criteria for establishing Florida's freshwater fish records:

Any fish to be considered for record must have been taken in Florida waters.

Application for recognition of a fish as a state record must carry the certification of a Game and Fresh Water Fish Commission fisheries biologist, regional manager, or other qualified Commission employee stating that he personally identified, measured, and weighed the fish. Weighing must be done on a scale certified by the Florida Department of Agriculture and Consumer Services.

Only an unfrozen carcass will be acceptable for certification. If circumstances make it necessary to freeze the specimen before it is presented to the certifying authority, it must be thawed for weighing,

Every hit on lure or bait represents a possible record—you can't say for sure until you get the fish in hand.

There are numerous categories wide open in the state record for this species stands at 3 lbs. 12 oz.

The Commission reserves the right to photograph the fish and to retain such photos for its exclusive use, unless otherwise arranged through the editor, Florida Wildlife magazine. This in no way implies any restriction on the right of the fisherman to photograph or have the fish photographed for whatever purpose he sees fit.

Application forms are provided to the fishery biologist at each regional office and at other Commission field offices and installations as deemed appropriate to best serve the requirements of the record fish recognition program.

The Publications Section, Florida Game and Fresh Water Fish Commission, Tallahassee 32304, will receive and record applications and, with the concurrence of the Fish Management Division, issue state record fish certificates.

(continued on next page)
Species included in state record fish program:

- **Spotted gar** *Lepisosteus oculatus*
  - open minimum weight 10 lbs.
- **Largemouth gar** *Lepisosteus osseus*
  - open minimum weight 20 lbs.
- **Florida gar** *Lepisosteus platyrhincus*
  - open minimum weight 20 lbs.
- **Alligator gar** *Lepisosteus spatula*
  - open minimum weight 70 lbs.
- **Bowfin (mudfish)** *Amia calva*
  - 17 lbs. 5 oz.
  - 34" total length
- **Alabama shad** *Alosa sapidissima*
  - open minimum weight 2 lbs.
- **Redfin pickerel** *Esox americanus*
  - open minimum weight 4 lbs.
- **Warmouth** *Lepomis gulosus*
  - open 1 lb. 7 oz.
  - J. D. West
  - East River, Bay Co.
  - June 8, 1974
- **Redbreast** *Lepomis auritus*
  - open 1 lb. 8 oz.
  - 10% total length
  - Clyde Goff
  - Lake Iamonia, Leon Co.
  - April 8, 1972
- **Bluegill** *Lepomis macrochirus*
  - open 1½ lb. minimum
- **Redear (shellcracker)** *Lepomis microlophus*
  - open 2½ lb. minimum
- **Spotted sunfish (stumpknocker)** *Lepomis punctatus*
  - open 1 lb. minimum
  - 19 lbs. 0 oz.
  - W. A. Witt
  - Lake Tarpon, Pinellas Co.
  - June 20, 1961
- **Largemouth bass** *Micropterus salmoides*
  - 8 lbs., 30" total length
  - Jimmy James
  - Lake Talquin, Gadsden Co.
  - July 5, 1971
- **Chain pickerel** *Esox niger*
  - open minimum weight 12 oz.
- **Carp** *Cyprinus carpio*
  - open minimum weight 20 lbs.
- **White catfish** *Ictalurus catostomus*
  - open minimum weight 5 lbs.
- **Channel catfish** *Ictalurus punctatus*
  - open minimum weight 20 lbs.
- **White bass** *Morone chrysops*
  - open minimum weight 2½ lbs.
- **Striped bass** *Morone saxatilis*
  - open minimum weight 17 lbs.
- **Sunshine bass** *M. chrysops X M. saxatilis*
  - open minimum weight 4 lbs.
- **Warmouth** *Lepomis gulosus*
  - 1 lb. 7 oz.
  - J. D. West
  - East River, Bay Co.
  - June 8, 1974

For shooting ducks over close-set decoys, and Florida upland game hunting, pump gun with 26-inch-length barrel, bored Improved Cylinder, used with size 7/8 shot, is deadly combo.

**Tips For Shotgunners**

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stock-encircling thumb when the shotgun is shoul-
dered for firing.

Also, a stock that is too short will give you a tendency to pull your line of aim to the right on firing.

A shotgun does not have a metallic rear sight; the shooter’s aiming eye, looking directly across center of gun breech and approximately 1/4 to 3/6 inch above it, constitutes the rear sight. It is correct comb height that gives consistent, steadying influence to applied sighting plane as aim is taken. When the comb of gunstock and comb of face, the shooter beneficially tends to see his gun barrel or rib slightly fore-shortened and naturally use the natural tip as a quasi-pointing aim—the secret of hitting with a shotgun.

If comb is too low, support of face and aiming eye will be lacking. Also, you will tend to shoot low. A comb that is too high will not feel comfortable, since the face must be hard pressed against it to achieve sighting plane, and it will also put your line of aim too high above center of gun breech, causing you to shoot high. Even 1/6-inch change in comb height can appreciably affect plane of aim. Comb height is the one gunstock dimension that requires most repeated checking for correctness.

Comb height can be considered correct if the gunstock and comb fit firmly without support contact with the face. There should never be such drop at comb that you have tendency to drop your head back. As a consequence, seek best face fit, rather than correctly bringing stock comb up to face in one sure head-positioning, head-supporting motion as you concentrate on the target. Do not bend stock surface and dangerously travel long distances, shot pellets cannot glance farther from water surface than the distance they travel before making water contact.

The more the drop at heel of stock, the greater must be butt-plate pitch to maintain the same angle of butt of gun against shoulder. That’s why most experts use guns without excessive drop at heel, and take care to match drop at heel to correct butt plate pitch angle.

A shotgunner should always use the straightest stock practical for him, and especially so if he is a trapshooter.

Most shotgun manufacturers incorporate slight cast-off in models made for normally right-handed shooters utilizing a right master aiming eye and firing from the right shoulder. The slight bend of gunstock to the right of a gun’s longitudinal center line of aim helps the right-handed shooter with right master eye get better face fit on stock, in relation to the gun’s center line of sight.

Cast-on is slight stock bend in opposite direction, needed by left-handed shotguns.

A growing manufacturer trend is to not give standard production models either cast-off or cast-on, because of not knowing whether or not the ultimate user will be right- or left-handed. Common use of long through-stock bolts provide for introduction of desired cast-off or cast-on by slight stock bolt bending by a gunsmith or custom stock maker.

Shotgunners sensitive to firing recoil, and thereby inclined to flinch at the instant of firing, should utilize the cushioning effect of a Pachmayr “White Line” recoil pad, or change to a Remington autoloader, model like the recoil-absorbing Remington Model 1100 autoloader.

The field fault of shooting too far under targets is easily corrected. If you are sure you missed your last target by shooting below it, then consciously hold higher on your next target, and so on until consistent hitting is re-established.

A shotgunner who does not know just where his upland game-fired shot charges go in relation to point of aim should take some clay pigeons thrown in a fired shot to see if they hit some clay pigeons thrown over a body of water that has safe background. The person doing the target throwing should be at least 15 feet in knowledge position on one side and slightly behind the standing shooter.

Unlike rifle bullets, that can ricochet from water surface and dangerously travel long distances, shot pellets cannot glance farther from water surface than the distance they travel before making water surface contact.

The instant the gun muzzle is seen in alignment with the stake from one side or the other and fires the instant the gun muzzle is seen in alignment with the stake, but with continued, unslowed slow motion swing.

At stake distance of 40 yards from gun, the shot charge should—with unslowed follow through—strike the water an average of 5 feet, 4 inches to the side of the stake. Should the gun swing be slowed or stopped when gun muzzle and target stake are seen in alignment, then the shot charge will undesirably strike only a little to the side of the stake. Such result is equivalent to shooting behind a flying game target.

For accurate checking of consistent follow through gun swing, too can be set up 40 yards from gun, with measured 5 feet, 4 inches horizontal space separation. However, from firing point 40 yards back, the measured separation of stakes may appear to the eye as being only about 3 feet! Such is the deception of distance.

If a shotgunner who does not know just where his upland game-fired shot charges go in relation to point of aim should take some clay pigeons thrown over a body of water that has safe background. The person doing the target throwing should be at least 15 feet in knowledge position on one side and slightly behind the standing shooter.

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Build-It-Yourself **FISH COOKER**

Like most do-it-yourselfers, I usually take on a project not because the homemade product necessarily works better than the store bought variety, but simply because I enjoy making things. Not infrequently, the cost of an item is a deciding factor, too. It is not too far out to think that many times you can save a buck or two by doing it yourself. A good case in point is one of my recent projects, a fish cooker. I learned, by doing, that with a minimum of expense, mechanical ability, and equipment, you can assemble a handy, gas-heated fish cooker in a few hours.

With a little creative scrounging in the right places, you should be able to line up most of the materials either for free or at least at modest cost.

The materials you will need are:

One 25- or 50-pound capacity Freon refrigerant cylinder (usually available free from most heating and air conditioning contractors)

3/8" X 6" nipple (pipe)

3/8" gas valve

3/8" brass street ell with orifice, from discarded water heater burner.

4 feet air hose (sometimes available used, but serviceable, from service stations, or new from auto parts dealers. You can also use flexible fuel hose handled by auto parts departments.)

Gas tank and regulator

3 - 5/16" X 1½" bolts and nuts

4 - ¼" X 1 ½" cross arm bolts (can be shortened if desired).

Tools required include a hacksaw, or a sabre saw with metal cutting blade; electric drill; ½", ¾", and ½" bits; a crescent wrench; and a small pipe wrench.

To begin construction, open the valve on the tank and shake well to insure that all the refrigerant is gone. Using your hacksaw, start a cut on the bottom edge of the weld around the middle of the cylinder. A sabre saw will come in handy for the considerable sawing that will be involved in cutting the cylinder in two at the weld.

Next, drill several ½" holes in the valve half of the cylinder. This will be the fire pot of your cooker and the holes are to assure a free flow of air to keep the flame burning properly. Refer to the photo for suggested placement of these holes.

After examining the materials and instructions, I'm sure you will see several areas where you want to make modifications—but then, that's all part of the do-it-yourselfer's game.

Basic construction of a gas-fired cooker is shown in the drawing. Use your ingenuity in rounding up parts to keep the cost down. Burner tube is a 3/4-inch long piece of conduit or auto tailpipe with 2 1-inch x 3/4-inch notches cut in one end of it to facilitate the flow of air.

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*Photo By Laurence Rossignol*
ON THE COVER

The Brown Thrasher
By Morrie Naggiar

With its thrushlike plumage pattern—white underparts heavily streaked with brown—and an inclination to feed on the ground or close to it, in brushy cover, it would seem logical to assume that the brown thrasher is closely related to the thrushes. Even one of its often-used common names, brown thrush, recognizes the similarity.

As a matter of fact, however, this inhabitant of overgrown pastures and thickets belongs to the scientific family Mimidae. It shares the family group with the mockingbird, catbird, and a number of other thrashers. But these other thrashers will cause the Florida bird watcher little confusion, for the brown thrasher is only occurring east of the Rockies and not infrequently encountered individually or, perhaps, with another bird or two, but seldom, if ever, in any sort of a flock.

The food of the brown thrasher consists of vegetable material as well as animal matter. Acorns, various wild fruits such as pokeweeds, buckbrushes, and buckberries, Virginia creeper, and hollyberries are taken in quantity. Cultivated fruit and vegetables are the boll weevil, various beetles, caterpillars, and hackberry, Virginia creeper, and hollyberries are taken in quantity. Cultivated fruit and vegetables are the boll weevil, various beetles, caterpillars, and hackberry, Virginia creeper, and hollyberries. This bird is an accomplished songster. In the first half of the state, and not infrequently encountered in the southern part, the brown thrasher appears to be somewhat more abundant during the winter months. Perhaps it is a matter of being more visible in its brushy haunts after the leaf drop of late fall, but more likely there is a southward movement of significance between early- and mid-October.

This bird seems as much at home in yard and garden as it is in the woodlands, as long as there is present the shrubby cover from which it seldom strays. Characteristically the thrasher doesn’t make long flights, but rather flits from one chump of brushy cover to another. Usually it is encountered individually or, perhaps, with another bird or two, but seldom, if ever, in any sort of a flock.

The usual nest of the brown thrasher is a bulky mass of leaves, and the like—commonly lined with fine rootlets. The three to five eggs are heavily mottled with reddish brown on a white or light greenish background color. Both parent birds share in incubation duties, both young. They fly at an intruder with considerable spirit.

More Canoe Trails

Three more river segments were approved recently to be included in Florida's canoe trails system. The new canoe trails are the Upper Ochlockonee River, Pellicer Creek, and Tomoka River. With addition of these new segments, Florida now has 35 canoe trails.

According to Collier Clark, recreation specialist with the Division of Recreation and Parks, the Upper Ochlockonee Canoe Trail is a cooperative effort between the Florida Department of Natural Resources, the State of Georgia, and the Southwest Georgia Planning and Development Council. He said the trail is 30 miles long in Florida. It runs from U. S. 19 near Thomasville, Ga. to U. S. 90 west of Tallahassee. Lake Talquin interrupts the canoe trail, and then there is another canoe trail designated along the lower Ochlockonee River. (See map, page 3 of this issue.—Ed.)

Clark described the trail as offering canoeists an array of northern Florida and south Georgia wilderness beauty. He said several access points along the river give canoeists a choice of 1-2 or 3 day excursions. Of the Pellicer Creek trail, Clark said, "Although it is only 4 miles in length, this segment, located near Faver Dyal's State Park on Florida's East Coast, offers canoeists an easy half-day trip through scenic saltwater marsh areas. It ends at the park's boat ramp.

Speaking of the Tomoka River Trail, he said, 'This 15-mile trail begins at State Road 40 west of Ormond Beach, loops for about 4 miles through a dense hardwood swamp, returns to the starting point, and then continues downstream to Tomoka State Park.' He said canoeists pass through a diversity of habitat along the trail, ranging from hardwood wilderness to spacious coastal marshes.

Correction...

In the Article "Moon Modus," which appeared in the February issue of Florida Wildlife, it was stated that Sports Afield carries voluminous tables in each issue. That was an error; it is Field & Stream that publishes the tables. We hope our slip did not inconvenience any of our readers.—Ed.

Protection for Suwannee Pelican

Occidental Petroleum Company is moving ahead with its strip mining of 245 square miles of phosphate lands in Hamilton and Columbia counties. The corridor of the Suwannee River bisects the property, and while the company has agreed to exclude the river's 100-yard flood plain from mining, there will likely be a significant loss of wetland habitat adjacent to the corridor if stringent controls are not applied.

The Game & Fish Commission has delineated 40 creeks with adjacent channel swamps that should be protected from mining. The habitat involved is important for deer, turkey, and hogs, as well as being an important aquifer recharge area.

Most of the property drains into the Suwannee River, and significant damage to the water quality of the system could occur should unusually high flood waters hit the area again as they have four times since 1946.

Brown Pelican Restoration

The Eastern Brown Pelican Recovery Team held a meeting in Gainesville recently to plan for the restoration of the brown pelican population in North America. The big birds have fared poorly in recent years, being drastically reduced or eliminated in parts of their former range. The team includes representatives of the U. S. Fish and Wildlife Service, Patuxent Wildlife Research Center in Maryland, the University of South Florida, and the states of Louisiana and Florida.

No Lead Shot

Steel shot ammunition will be required for waterfowl hunting on state-managed areas in the Atlantic Flyway starting this winter, Secretary of the Interior Thomas S. Kleppe has announced. Florida will likely be allowed to be identified jointly by the U. S. Fish and Wildlife Service and the Florida Game and Fresh Water Fish Commission. Primary attention will be focused on known problem areas. At press time it appeared that the regulations on federal-managed waterfowl hunting areas in the state will permit the use of steel shot only, during the coming season. Whether some of the more heavily hunted state-managed areas will be included in the steel shot regulation has not yet been decided.

The purpose of the steel shot requirement is to stop the accumulation of spent lead pellets in areas

(continued on next page)
Keep Boats Lighted

MIGHT FISHING is a highly productive method of filling the family freezer, but boaters without lights might also collect a citation as well as a fish. How? Should a wildlife officer come on the scene, warns Lt. Col. Brantley Goodson, chief of Law Enforcement for the Commission, "the operator of another boat under power might not hear you shout, and he might not even know you are on the water until he slices your boat in half and dumps you in the water."

A rise in the number of incidents involving unlighted fishing boats in heavily fished areas prompted Col. Goodson to issue the warning.

1975 for the sixth consecutive year, according to the National Wildlife Federation. The environment suffered setbacks in five of the seven "vital resource areas" surveyed in the conservation organization's seventh annual Environmental Quality (EQ) Index report, published in the February/March issue of National Wildlife magazine. It moved ahead in only one area-air quality-and held its own in another-timber resources - while falling behind in water quality, soil, wildlife, minerals, and living space, the survey found.

These trends produced a National EQ Index of 350 on a scale where 700 would represent the best possible environment. This is a drop of six points from the 1974 mark and is 45 points below the National EQ Index for 1969, the first year of the NWF survey. All seven indicators have declined since that first survey. "It would be nice to report in this year of the American Bicentennial that the quality of life in the United States is quickly on the mend... (but) unfortunately, such is not the case," National Wildlife said. As one of the few encouraging signs in a generally somber picture, the magazine cited the fact that the facts still show undiminished public support for environmental goals.

Buy A Stamp

"The individual American citizen can make a substantial contribution to the conservation of wildfowl in the United States by purchasing a Migratory Bird Hunting Stamp at the local Post Office for $5," Lynn A. Greewall, Director of Interior's U.S. Fish and Wildlife Service, said today.

The proceeds from the sale of these stamps-known popularly as "Duck Stamps"-go directly into the purchase of wetland habitat for ducks and geese. The stamp is issued annually and is required of all waterfowl hunters 16 years of age and older, but the Interior Department is now encouraging nonhunters who also enjoy the wildlife resource through photography and birdwatching to contribute to the U.S. conservation effort this way.

Since 1934 when Duck Stamps first went on sale, over $160 million in revenue has been collected and used for the setting aside of close to 2 million acres of waterfowl habitat. Each year over 2 million hunters, by purchasing the stamps, provide close to $111 million in revenue. It is hoped that upwards of a half million to a million non-hunting Americans will voluntarily purchase one of the stamps.

For that Big ONE that didn't get away!

APPLICATION FOR FLORIDA WILDLIFE FISHING CITATION

The Editor, FLORIDA WILDLIFE
Game & Fresh Water Fish Commission, Tallahassee, Fla. 32304

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City State Zip _________________________________
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Bait or Lure Used ____________________________
Where Caught ____________________________ County __________
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Registered, Weighted By ____________________________ At __________________________
Signature of Applicant ____________________________

CUT OUT AND SAVE THIS APPLICATION BLANK
In order to give FLORIDA WILDLIFE the base needed to increase its scope and improve its quality, including the regular use of inside color at some future time, the Commission has been forced to raise subscription rates for the first time since 1972. Effective July 1, 1976, a 1-year subscription will cost $5.00 and a 3-year subscription, $14.00. Present subscribers may renew or extend their own subscriptions or order gift subscriptions at the current rates (shown below) through June 30, 1976.

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