Florida Wildlife Fishing Citation

"for that BIG ONE that DIDN'T get away"

Florida Wildlife Fishing Citations are available without charge to any and all subscribers to Florida Wildlife Magazine, and their immediate families, who catch any of the following freshwater game fish of the prescribed size requirements:

<table>
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<th>SPECIES</th>
<th>WEIGHT REQUIREMENTS</th>
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<tr>
<td>Largemouth Bass</td>
<td>8 pounds or larger</td>
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<tr>
<td>Shellcracker</td>
<td>2 pounds or larger</td>
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<tr>
<td>Chain Pickerel</td>
<td>4 pounds or larger</td>
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<td>Black Crappie</td>
<td>2 pounds or larger</td>
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<td>Bluegill (Bream)</td>
<td>1 1/2 pounds or larger</td>
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<td>Red Breast</td>
<td>1 pound or larger</td>
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**APPLICATION FOR FLORIDA WILDLIFE FISHING CITATION**

The Editor, FLORIDA WILDLIFE

Date: Game & Fresh Water Fish Commission, Tallahassee, Fla.

Please send me the Florida Wildlife Fishing Citation with the inserted data listed below:

<table>
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<th>Name</th>
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(Signature of Applicant)

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(JULY, 1958)

**Regional Offices**

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Southern Region

DOYLE E. TIMMONS, Regional Manager
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P. O. Box 1222
Lake Worth, Florida

Evadale Region

LOUIS J. GARDEN, Regional Manager
P. O. Box 97, MacArthur 3-443
Gladesboro, Florida
Dear Sirs:

I have eaten alligator tail steaks and found them to be delicious. I would like to know if any other parts of the alligator are edible?

If so, I would appreciate recipes for preparing the meat.

You may print this in order to reach some gourmet of 'gator meat. I get the magazine, enjoy it immensely, only it will not cure my homesickness. One more request—Where could I get a picture of an airboat? Some of these people here think I am pulling their legs when I tell them about airboats, six boat races, etc.

Morrin L. Finch, CWO Wright-Patterson AFB, Ohio

The tail of the alligator is the part usually selected to eat for the simple reason that there is more meat on that portion. Actually the whole 'gator is edible.

From time to time FW has carried illustrations featuring air boats. Under quoted cover is a copy of the August 1957 issue, on page 21, showing a trio of Commission airboats in operation in the Everglades.

Transplanted

Dear Sirs:

Enclosed is my check for a one year subscription to Florida Wildlife. If I knew where I'd be for the next three years, I would take the 3-year subscription, but in the Keys we move too much to keep the change-of-address cards current.

We thoroughly enjoy each monthly edition and are new looking forward to the day we 'settle' in Florida, as we are just a couple of transplanted Floridians.

Capt. J.L. Chattenow, USSR
San Diego, Calif.

June Cover

Gentlemen:

Your June cover certainly did strike a familiar note with me. Last summer my fishing partner Virgil Barber, and I were fishing along the Wakulla River south of Tallahassee. We fished our surface lure that kicks up a considerable commotion. All of a sudden my line took off and I figured I had a fish on. Finally I could make out that the fish was going toward the clouds instead of going down the river. I put on the pressure and all of a sudden the line went slack. We heard a faint splash on the surface of the river so paddled toward it. My plug was floating there, trailing about three or four feet of line.

A few minutes later, fishing closer to the boat, an owl emerged down and took the plug off the surface but dropped the line again right away. It wasn't more than ten minutes later when this same owl, or perhaps it was another one, hit the plug again but this time got tangled up in the line and I beated him. It looked just like the owl in the cover picture so I guess it must have been a Barred Owl, although we didn't know it at the time.

Geo. W. Strong
Stantonburg, S. Carolina

The Incident upon which FW artist Wallace Hughes based his cover painting also took place on the Wakulla River — and also it was last summer! The only in that incident was perhaps in the habit of feeding on frogs or surface cruising fish at that particular season of the year.

Thief Thwarted

Gentlemen:

Enclosed are three subscriptions from neighbors who tried to 'steal' my April issue. To make sure this fine issue would not 'disappear' I collected the enclosed money and request that they mail their subscriptions with that April special.

Wm. S. Cook
Jacksonville, Florida

Fishing Going

Gentlemen:

I enjoy your magazine very much and look forward to receiving it monthly.

I don't know if there is anything your department can do about it or not, but I wish something could be done to stop the mass tilling of our Florida County parks by real estate promoters. Our fishing is disappearing rapidly. The county does little about it.

The state is the main reason for the loss of the state to step in before our natural beauty and fishing are gone.

Bob All
Largo, Florida

Smoked Carp

Sirs:

Have been looking at and reading the inside of back cover of your April issue—about fish of doubtful shape. Several years ago I lived on Lake Pepin between Minnesota and Wisconsin. This lake in the Mississippi belonged in every which were netted and sold in New York City. The local people seldom ate them fresh but used to salt and smoke them and they were delicious.

They didn't even bother to scale them but cooked them, rubbed in plenty of salt and smoked them with green hickory sticks about an inch in diameter—often long from a hickory tree at the top of a barrel and covered with an oval blanket or anything to confine the smoke. Enough fire was used so that the fish was cooked as well as smoked. Cisco were also prepared in this way. The heads didn't bother. Pull the skin off and then pull the flesh off the bones, leaving the skeleton and tail. Carp was the better before they were loaded and need not be thrown away if you like smoked fish.

R.S. Gottrell
Chattahoochee, Florida

Everglades Waterfall

I'm a geological impossibility— but it's there. No Niagara, perhaps, but a waterfall nonetheless—and in South Florida swampy Everglades.

It is, probably, South Florida's only natural waterfall, even if man did have a sneaky hand in its formation.

Labeled King's Falls, it lies less than a mile of Highway 27, just south of Andytown. It isn't too far from Miami's city limits.

The falls were created when the Central and Southern Florida Flood Control District built a series of dikes in that portion of the Everglades. Water levels in the swamps were lowered.

This meant that water covering a vast slough were now several feet above the surrounding canals. Seeking their own level, the waters flow south and west, then pour in a miniature cataract into the South New River Canal.

"King's Falls" have only been in existence for a few months. As long as water levels remain high there is every reason to believe the falls will continue. The slough is too low for the falls alone to drain it.

So they pour on, with visitors—and fishermen—the only people who know of their existence. The falls are located just a few minutes run by boat from Vern King's fishing camp on route 27.

Fishermen like to stop, especially late in the afternoon, and drop a plug or lure in the frothy backwash beneath the falls. Snook and tarpon are often the reward.

American Waterfowl Behind the Iron Curtain

Without so much as a "by your leave," American migratory waterfowl have been "ducking" behind the Iron Curtain—and some of them have stayed there. Department of the Interior bird banding records indicate.

Since November 1954, the Bureau of Sport Fisheries and Wildlife, United States Fish and Wildlife Service, has received five communications from the USSR Academy of Sciences (Bird Ringing Bureau) reporting on 76 American-banded birds killed in USSR territory. A recent communication contained the band report of 35 such birds.

These reports indicate that some species of ducks and geese banded in Alaska, Canada and some of the western States, particularly in California, migrate westward to Russian lands. The bulk of the bands recovered in the USSR have been taken from pintails and snow goose, although a black brand banded in California on March 12, 1953 was killed July 25, 1956, on Novaya Sibir Island in the Arctic Ocean about 1,600 miles west of Kamchatka Peninsula.

There have not been enough returns, Bureau officials say, to point to any pattern of western or northern migration. The USSR is also banding migratory waterfowl. No Russian-banded birds have been reported in the United States, although some have been reported in Canada and Greenland. Officials say this might indicate that Russian banding operations are not carried out in the area where American-banded birds have been taken.
Shorthly after World War Twice, talk of a fabulous bass lake out in the St. Johns March country west of Vero Beach began to be heard around south and central Florida. Everything about this lake was shrouded in mystery. Its name was around south and central Florida. Of Vero Beach began to be heard properly called Blue Cypress. All stoutly maintained the lake was fished Blue Cypress long before the agreed it was a unique and beauty of the lake fired the imagination, he could hardly have imaged how difficult it was getting into it, always had its share of fishermen.

A few years back, Indian River County decided to do something for the angling clan. Starting at Route 60, they ran 4 miles of graded road back to the lake. The Blue Cypress turn is about 5 miles east of Vee-haw Junction and about 25 miles west of Vero Beach.

This is a dirt road, but I have always found it in good condition. Indian River County has provided a parking area, camp grounds, and boat ramp at the lake side. Fisher's Fishing Camp, adjoins the public recreation grounds. Fisher offers boats and motors for rent, bait for sale, and limited accommodations for sleeping and eating. Getting to Blue Cypress is now a breeze. Those wanting overnight accommodations can, also, get modern cabins and good food at Veehaw Junction, where Route 60 and Route 441 cross. This is just 10 miles from the boat ramp on the big lake.

Blue Cypress is a large lake — I would guess about 7 miles long and possibly 3 miles wide. It is a deep lake, with cypress trees standing out into the water on the west and north shores, while the east and south rims run to a height of brush, and beds of bonnets. On the east side of the lake, directly across from Fisher's Camp, is the mouth of the canal. The flow of water is east and north out of the lake.

This is the real headwaters of the St. Johns River, although Lake Helen Blazes (directly north) is generally considered to have this distinction. It would be possible, with a light outfit, to go by water from Blue Cypress to Helen Blazes and then into the St. Johns River channel and on to Jacksonville. The water is clean, cool, and clear. It is so far back and so relatively new that not many people are around. It's a place for water skiers and speedboat enthusiasts. This is a fishing area pure and simple.

Bass, pan fish, and scenery are the big attractions on the Blue Cypress menu. I, personally, would reverse that order in line of preference. The big bass are here, but big bass can be caught all over the State of Florida, but nowhere have I ever seen more spectacular water in which to fish for them. The cypress trees stand out in water 5 or 6 feet deep and 300 feet from the shore line. If a sport fisherman had, in the far distant past, planted each tree with an eye toward the ideal fishing arrangement, he could hardly have improved upon the natural growth. Decked in soft, cypress green and trailing graceful Spanish moss to the water's surface, these trees provide a picture setting I've never seen surpassed.

This is a water on a fishing trip. I had a difficult time getting a shot of Ernie Lyons with a rod in his hands.

Typical of Blue Cypress Lake are these cypress trees, moundy, standing in the dark, bass-filled waters.

Outdoor Writers
I, naturally, have a good many friends who are, like myself, writers on the outdoor scene. I love them all (well — almost all), but I've learned to my regret that another writer makes a poor fishing companion. This was clearly demonstrated recently when Ernest Lyons, Editor of the Stuwart News, and I went fishing. We were in a small canal, using fly rods and Leggy Boos. I, of course, had my camera equipment along, expecting to take a few pictures. Unfortunately, I got few pictures, but I did learn that Lyons can draw a Rollet faster than Wyatt Earp can pull a Buntline Special clear of leather. Time and time again, I would con Ernie into a nice fish and, hoping to get an action shot, drop my own rod to get a picture. In every instance, my viewer would see — not this famous angler in action — but Lyons, with head bent, taking a picture of me.

I'll bet no two angler-writer-photographers ever took so many pictures of each other taking pictures of each other in one day. This sort of thing kept on until I worked a stratagem that paid off.

Unknown to Ernie, I had two cameras in my camera case. Pretending to change film rolls in the camera I had been using, I made a great show, with my camera (back open) lying on my knees. Ernie, seeing me thus immobilized, put aside his own camera long enough to catch a big bluegill. Grabbing my second camera, I got his picture just as he was unsuspectingly turning the bug from the fish's mouth. I will never forget the surprised and shocked look on his face when he glanced up to see me with my second camera focused dead on him. I can't understand this attitude on the part of so many writers. They seem to be completely engrossed with the idea of getting those pictures. This is completely foreign to my own nature. I haven't learned if Ernest Lyons got any good fishing pictures of me, but then I really doubt it. I was, naturally, trying to get a few shots of my own and, after all, I did have two cameras.
**FLORIDA CLUB NEWS**

**Federation Notes**

By CHARLES WATERMAN

The fight against a proposed Sanford-Titusville canal continues with Dr. H. R. Wilber, president of the Florida Wildlife Federation, appearing recently before the Board of Engineers in Washington, D.C. Wilber, representing a long list of Florida groups in addition to the Federation, reviewed past objections and supported the recommendation of the district engineers' office which stated the canal is not feasible.

"Only those who anticipate a monetary benefit from a canal or drainage come to you with the optimism of a spring seed catalog," stated Wilber. He went on to say that a minority group is trying to convince the engineers that "the future of Florida lies in the alteration of that part of Florida for which the rest of the nation chooses to visit the state."

Wilber explained that few Florida residents want to see the state industrialized. He pointed to the fact that the vital Cocoa area suffers from lack of adequate water supply and must go inland for it, drawing from the St. Johns basin.

In objecting to the proposed waterway, Wilber represented the Federation; the cries of Cocoa, Cocoa Beach and Rockledge, the Indian River Audubon Society; Floridas Outdoor Writers Association; Seminole County Agricultural Chase and Company of Sanford; the Game and Fresh Water Fish Commission; Southeastern Fishers Association; and the St. Johns River Guides Association. Various specific members of the Federation had requested that their objections be voiced individually.

Wilber complimented the district engineers' office of Jacksonville for its cooperation with conservation groups. The district office had reported the canal as not being feasible.

Cost estimates of the proposed canal have been revised upward and have now been set at more than 19 million dollars. Cost of the highway bridges required to cross the waterway would be upward of 12 million dollars, he said.

In reporting on his Washington visit, Wilber added that the locks necessary to a Sanford-Titusville canal could not be opened indiscriminately and small boat traffic would be greatly hampered by them.

"Contrary to some people's belief, you couldn't just run your outboard from Sanford to Titusville and come back when you choose," he explained. "Past experience shows that big locks can't be opened for every rowboat."

Some of the interests involved in the canal proposal evidently feel that the project would result in widespread drainage of the St. Johns basin, Wilber said. Such a procedure would ruin an immense wildlife habitat. However, even a canal located and built solely for navigational purposes would cause considerable fish and game damage.

In the opinion of St. Johns River sports fishermen and guides, through traffic by large boats would ruin the angling in the main stream. It has already been greatly damaged by boat traffic.

Anclote Key

Conservationists who have fought against the development of Anclote Key have been gratified to learn that a new bill in congress, proposed by William C. Cramer of Florida, would establish the Anclote refuge as a national park.

The island, located off the west coast north of Tampa, has long been a target of real estate promoters. The new bill probably is prompted by the belief that, if made a national park, the area could be more fully developed for public recreational use.

Hunting Regulations

Florida sportsmen are getting busy with recommendations for hunting regulations. A meeting of interested sportmen of the fifth district was held in May at the Chamber of Commerce quarters in Deland.

**Duck Stamps & Wetlands**

One hundred percent of the duck stamp funds for the acquisition of waterfowl areas was proposed through a bill introduced to the U.S. Senate by Frank W. Boykin of Alabama, chairman of the House sub-committee on fisheries and wildlife. The bill was reported at that time that there had been no objection, written or oral, to identical House bills which were scheduled for a hearing early in May.

Included in the proposals is the increase of the duck stamp fee to $3. Such a plan for 100 percent use would enable drainage districts to get federal and state funds to mostly for acquiring and saving valuable waterfowl habitat. In the 23 years since the Migratory Bird Hunting Stamp Act became a law in 1934, the annual average spent for wetlands acquisition has been a little more than $300,000.

The bill first proposed earmarking 62 percent of the old $2 fee for land acquisition but was revised by the committee after the U.S. Fish and Wildlife Service recommended an increase in the stamp cost.

Before Florida can participate in the newly proposed program, it would be necessary for the state to pass an enabling act as present with federal funds.

**WILDLIFE LEAGUE BAND AND RELEASE QUAIL**

One of the motor projects of the Wild Life Conservation League of Palm Beach County is the release of quail in the Okeechobee Wildlife Management Area and hunts recently released on the popular south Florida hunting ground area, i.e., League members Walt Brandau, Alex Cooper, and Lew Meiler.

Dease Mather Junior Wildlife Club of Ocala—This club is getting back on its feet. Mr. Bill Hankins of the City Recreation Department and Mr. Al Harrison also of the City Recreation Department are advisors for the club. Mr. James Delbury is acting as camping advisor; one of their main projects has been the recruitment of new members. They now have 157 members.

Hinieh Junior Everglades Conservation Squadron—Several members of this club are planning to attend camp as a unit on June 2-8. Members of this club recently enjoyed a camping at Rattlemake State Park.

Pahokee Junior Wildlife Club—We understand from Junior Dees, Secretary, that plans are being made to take a camping trip. This will be done just as soon as they obtain a tag for their truck.

Palatka Junior Wildlife Club—This club sponsored a program on wildlife for the Kiwanis Club in Palatka, Mr. Jim Reel with the Game and Fresh Water Fish Commission was guest speaker.

St. Johns Junior Conservation Club—Several members of this club along with their advisor, Mrs. James Ross, recently enjoyed a week-end outing at the Youth Conservation Camp. This club is sponsored by the Mill Creek Home Demonstration Club.

Eustis Junior Conservation Club—This club has been studying a book on the Florida turkey. They have also been busy making plans for the Annual Delegates Convention.

Tag Day Totals

Total receipts for the Junior Conservation Club League from Tag (Continued on Page 47)

**JUNIOR CONSERVATION CLUB**

By DENVER STE. CLAIRE

The 1958 Encampment at the Youth Conservation Camp is looking well underway. We believe that this will be our most successful camp. And we hope that all of you are planning to attend and participate in the activities.

Mr. Ralph Tompkins, of Dade City, who teaches Biology at the Paceo High School during the fall and Hunt Club during the spring, will be director of the camp this summer. Mr. Tompkins is a very capable man and we know that he will do a good job.

Mr. Chuck Binder, Herpetologist, presidently with Ross Allen's Reptile Institute at Silver Springs, is serving as Assistant Director.

Several boys between the ages of 16 and 18 have been hired as Cabin Counselors. They will assist the staff of senior counselors.

This year, we have an all-women kitchen staff. All three of these women are from the School Lunch System. We are prepared for any eventuality. We have 12 Senior Counselors, in addition to 12 Cabin Counsellors and the Director and his Assistant. Our Counselor-Camper ratio, as required by the American Camping Association, is one to eight.

Also for the first time this year, we have a full-time registered Nurse, Mrs. Julia E. Edwards.

We have an excellent staff set up this year and feel certain that you will enjoy associating with them.

**Around The State**

Allapattah Optimist Jr. Conservation Club of Miami—We understand from Lloyd Johnson, Secretary, that 98% of their members are planning to attend the Youth Conservation Camp this summer. They also have two new members, Bryant O'Neil and Fred Bell.
tend to visualize and worry more about things that they think may be wrong or defective than what actually exist. To satisfy such customers, many retailers have been forced to make adjustments or refunds that have not been truly justified.

Some shooters feel that modern guns are not as well made as those of the 1920's, or earlier - that steel used is not as good quality, that gun parts are not as smoothly finished and carefully assembled, barrels poorly polished and exterior finishing frequently below the standard of former production.

Among firearms of the cheaply-manufactured class, such beliefs may find occasional substantiation in instances where stock, barrel length, sights and exterior appearance make for better, longer standing popularity. The Winchester Model 32 target rifle is a notable example.

Today, the Stevens Arms Company has been highly successful in using old production methods in its manufacture of component parts, and mechanical functioning — even in the lamination of its accurate, uniform barrels. Laminations — more closely matches the fine barrel accuracy for which Stevens rifles have always been famous.

General use of select quality, low-carbon steel for barrels of rim-fire rifles, chrome molybdenum and certain of the Tinkin steels for center-fire rifles makes for better, longer lasting guns and improved performance in today's guns.

32 caliber production, such manufacturers, like Winchester, Remington, Ilchau, Marlin, Stevens, Colt, High Standard, Browning and Smith & Wesson, strive to give close attention to quality and workmanship. For example, in producing the highly popular Winchester Model 94 lever-action big game rifle, the manufacturer's New Haven plant devotes a total of 1,340 operations for the inspection and machining of stock and 270 service operations — to the creation of each ready-to-use rifle!
The Biting Truth About MOSQUITOES

BY SALLYDALE WIMBROW

M y Encyclopedia tells me that there are over 750,000 different kinds of insects, thousands more are classified yearly and more than a thousand different kinds of insects may be found in one man’s backyard. It doesn’t mention, however, that in the summertime, at least, the first of these insects to make their presence vehemently known will be the dive bombing, ancient-origined blight of mankind, the Culicidae family of the Order Diptera, otherwise known as mosquitoes.

Mosquitoes have thrived on coast and inland from Tropic to Arctic, persisting since centuries B.C. to invade the outdoor picnics of the Hominidae family of the Class Mammalia, otherwise known as people. No one can testify to this fact better than a long time resident of the Sunshine State. At the drop of a fly swatter most old timers colorfully relate the times they’ve been mosquito martyrs, sleeping in air tight cabins filled with smoke until it reached a point where mosquito welts were preferable to death by strangulation. Today the situation is considerably better than it was ten years ago; however, thin-skinned tourists find this difficult to believe.

Another incredible aspect of the mosquito problem is its complexity. Through the concentrated study of mosquitoes, facts are slowly brought to light that, instead of diminishing the problem, prove the gigantism of it. Most of us realize now that it’s not going to take a lot more than a little oil on the water to bring this Culex family under control once and for all. There are 67 different kinds of mosquitoes in Florida (135 throughout the entire country) and 27 different kinds of sand flies.

Researchers have made headway in combatting these pests, but no positive hope for successful mosquito control was ever held out prior to recognition of the fact that it would take the undivided attention of a complete laboratory staff to unravel and catalogue the mysterious mosquito and sand fly habits. In 1935 such a laboratory was constructed and staffed near Vero Beach, Florida. This Florida State Board of Health Entomological Research Center became the first research center in the world devoted entirely to the study of mosquitoes and sand flies.

Work there is divided into four groups; Ecology, Ethology, Physiology and Control Methods. In Ecology the insect is studied in relation to its environment, in Ethology behavior of the insect is studied, and in Physiology the functioning of organs and senses of the insect is scrutinized. All of this comes under the heading of biological research. Results of these biological studies have served as a sound basis for research on control methods – draining and filling breeding areas, spraying and fogging, etc.

In 1957, the Florida Legislature authorized the State Board of Health to construct a separate facility for control research. Insecticide experiments cannot be conducted side by side with biological experiments without spoiling the latter. Also, the present building at E.R.C. was not designed, equipped or staffed for research on control methods.

When Mayor of Vero Beach brought the announcement that an appropriation for $40,000 had been approved by the Florida Legislature for construction of a new specialized control research building, the announcement seemed to herald an official season for rumors and misinformation! For one thing, people said, if the new laboratory were to be built, the announcement would get all the attention. For another, the Florida River County mosquitoes would get all the attention. For another, old-fashioned “voodoo” type means of keeping mosquitoes out of private homes (i.e. sacs of ammonia placed about the house) were advised by people who supposedly knew their subject, as being a lot more practical and a lot less expensive.

Just glancing about I found four confounding bits of mosquito advice—”and in more pointed search here and there, I found as many as a dozen facts misconstrued. First and foremost, it is practically impossible to say (and accurately apply such a statement to the entire clan) that a mosquito does anything except live, reproduce and die! Mosquito behavior in each separate species makes the whole truth difficult to explain. The scientists at the Entomological Research Center greeted my naive questions with patience and understanding when I went there to clear my muddled brain.

I learned that the physical location of the new lab has no bearing on research to be conducted there. Mosquitoes are collected throughout the state so that every type of mosquito which poses a problem in any location may be brought to the lab and studied individually to decide the best method for its control. Then as researchers in the Entomological Research Center report mosquito behavior and habits, Dr. Rogers, Head of the Division of Control Research, which the rounds with small cages of about 50 mosquitoes each, attaching them to tops and bottoms of stakes at specified distances from where the insecticide fog would be released. After each test mosquitoes were transferred into clean, residue-free cages for their return trip to the lab. In the morning, the percentage of mortality was recorded, results compared, and a bit more than learned about the reaction of different adult mosquitoes to different insecticide mixtures.

Data recorded on each mosquito container told the entomologist the type of mosquito inside, where it originated, distance from spray during test, distance from ground, type of spray subjected to and under what heat and wind conditions, are more favorable for this type of test at night. Wind speed, humidity and temperatures in the area were first checked and recorded, and then we made the rounds with small cages of about 50 mosquitoes each, attaching them to tops and bottoms of stakes at specified distances from where the insecticide fog was released. After each test mosquitoes were transferred into clean, residue-free cages for their return trip to the lab.

Dr. Erik T. Nielsen, Chief of the Center’s Ethology Section, counts some of his charges. In this case a non-biting insect frequently mistaken for the biting mosquito.

For insects so ancient that Chinese Proverbs consider them, there remains an amazing amount of misinformation on the most irritating pest known to man.

(Continued on Next Page)
(Continued from Preceding Page)

control, coating water surfaces with oil. However, most kinds of mosquito larvae attach breathing tube to water surfaces and depend upon atmospheric oxygen for life.

There are four larval "stages within a stage" called instars; larva molts after each instar and after the fourth molt evolves into the pupa stage. Usually 24 to 48 hours later, the mosquito emerges from the pupa. It then waits until its wings harden (usually six to eight hours) before flying away. Unless disturbed, mosquitoes fly only at night and the reasons for their flight habits are not yet well understood. Male and female flight behavior differs also. The males swarm back and forth in groups; females tend to fly about scatter-brained. It only takes a fraction of a second for mosquitoes to mate in mid-air, as some kinds do.

Many things about mosquito control remain to be learned such as how mosquitoes' feeding habits might be effectively used against them, perhaps through use of poison baits. Since salt marsh mosquitoes only lay their eggs on moist soil, and never directly on water, one method of control with which the E.R.C. is conducting experiments is to dike the fly back and keep them flooded. This prevents eggs being deposited on the marshes and, in addition to mosquito control, it is hoped that the impounded marshes will prove valuable to wildlife. In fact, the research staff at the E.R.C. is dedicated to developing effective mosquito control methods which will not be detrimental to our fishes and wildlife.

While control methods aren't easy to perfect and certainly aren't perfected, they are much improved over what they once used to be—nets and smudge pots and oil of perm. And with the construction of the new control laboratory, research marches on. From reading advice to the continents of Australia and Africa—not only collect honey, but have colony members who offer their notably large capacity abdomens in honey-storage vats. Other (worker) ants collect and bring the nectar to these, to be made available at some future date as needed. The living food-reservoirs, once filled to capacity, hang upside down from the roof of the nest month after month of their lifetime. Meanwhile, workers foraging largely at night keep the colony's store food supply consistent with its needs.

Driver or Army ants, especially common in Africa and South America, are perhaps the most feared and formidable among the many existing species. Nomadic and aggressive by nature, they construct only temporary nests or "camps," from which they make raids on insect and animal neighbors. Observers say that the Driver ant species not only marches in battle formation, but has "officers" or leaders to control group movement, sends out "scouts" and "patrols" from the main column and obviously conducts raids according to an agreed-upon plan! Large, sharp jaws enable the Driver or Army ant to successfully subdue antagonists many times its size. Any insect or small animal that cannot flee to safety is hopelessly doomed when it meets a raiding column of Driver ants, entomologists say.

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by numerous, pale yellow ants that commonly invade homes to feed on sugar, cake, and other sweets. When sweets aren’t available, the species will readily accept such staples as bread, butter, bread, meat, or any other palatable dish left unprotected by a housekeeper. Evidently, the Pharaoh ant has a remarkable sense of smell for even the tiniest and most innocuous food crumbs. Compared to other species, the Pharaoh is very slow-moving in its travels from food source to nest.

Entomologist John Crompton states that, as its name implies, the species originally came from Egypt, via Britain, about 200 years ago and now heads the list as the worst of ant pests in houses. Frequently, colonies that have found a home to be a dependable source of food will locate in the walls and foundations instead of nesting in the soil, Compton adds.

Considered a serious threat to Southern farm crops, poultry, livestock and wildlife is the imported South American “fire ant” that is supposed to have entered this country as stowaway on a cargo ship discharging at Mobile, Alabama, in 1918.

Today it is found in eighteen southern states — Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, South Carolina and Texas.

In Florida, the pest, which can inflict a very painful sting on humans as well as farm stock, is already a problem in at least twenty counties.

According to entomologists, the species spreads its area of habitat by flying, crawling, drifting downstream on logs, traveling aboard trains, trucks, ships and even aircrafts and by hiding in nursery stock in shipment. State and Federal agencies are currently combining research and control efforts to combat an invading ant species that is described as “a serious pest to agricultural crops and livestock and a general nuisance to man.”

When queried as to the number of varieties of ants to be found in Florida, Dr. James E. Brogdon, Extension Entomologist, College of Agriculture, University of Florida, Gainesville, replied that there are about 150 different types in the state. With his letter, he enclosed a list of scientific names of 127 separate species, with the notation that “a number of species have been synonymized in recent years, which has reduced the list to its present size.”

Just as various types of persons and occupations are represented among humans, so, too, are such types found in the ant world. Among them also exist mushroom growers, dairymen and strawberry growers, soldiers, bedbugs, thieves, slaves and alcoholics.

For example, dairy workers among ant populations herd and milk aphids, certain caterpillars and other honeydew-giving insects. Harvester ants not only gather and store small seeds, but periodically bring forth grain to be dried in the sun when dampness or ground drenching rains threaten to spoil food stores within the colony’s graneries. They also sow and grow their own “ant-rice” in cleared areas surrounding the nest.

Red ant slavers rage war on black ants and rob nurseries of egg cocoons, from which young black ants hatch within a few days to become useful slaves. The inclined alcoholic among ant colonies become so fond of certain liquids that they live on little else. Also, like people in different occupations, ants observe different work-shifts. Some species work around the clock, while others are industrious only in sunlight, in the cool of the day, or even during warm weather.

The layman often mistakes termites for ants, erroneously calling them “white ants” simply because in a general way termites look and act like any ant of a different family. However, termites are swell-nosed social insects, their methods of nutrition and perpetuation are different.

Actually, ants and termites belong to entirely different families and also possess marked physical differences: Ants claim wasps as early ancestors; termites are descendants of wasp-like ancestors. The bodies of true ants are constricted or “pinched in” at the waistline; those of termites lack such mid-way constriction and resemble true insects. In winged form, ants have two pairs of wings of unequal size; in the case of winged form termites there is no noticeable difference in size between the front and rear pairs of wings.

The Agricultural Extension Service of Florida, says that thirteen species of termites, divided into subterranean and drywood major groups, are known to exist in Florida. With depletion of forests to meet the needs of an expanding urban civilization, termites have turned to wood-constructed buildings of man for food and shelter. Resulting damage, nationwide, runs into millions of dollars annually.

Also disliked by homeowners are the big black Carpenter ants, common in Florida. They do not eat wood but use it as their name suggests, but merely remove it in tiny shreds, working across the grain of the wood in order to construct the entrance to their nests. This slow, but sure, riddling and hollowing out of wall studs and other building woodwork often results in costly repair work by homeowners. Generally, however, Carpenter ants do not attack sound wood, preferring soft, dead wood — particularly that which has weathered and begun to decay.

Their actual food is largely honeydew obtained from aphids, scales and plant juices. But ants aren’t entirely annoying and destructive. Beneficially, they frequently help to aerate the soil and improve its fertility. This is especially true of leaf-eating ants, whose food habits create rich compost.

Also, early medical literature makes mention of instances where the powerful biting and tenacious jaws of large black ants, Carpenter ants and related species have been used to satiate human flesh wounds. One text describes the procedure as follows: “To effect a suture, place such an ant so that its wide open jaws snap shut on contact with the skin, the edges of the skin will be held snugly together. Immediately pinch off the body of each ant properly placed; the saw-toothed jaws will remain firmly attached until the wound heals. In this manner, by using a number of ants, a sizable cut may be sutured.”

The practice once received wide favor among surgeons in Spain, France and Italy, and more recently in Algeria, Asia Minor and Dalmatia. In Oulaya, soldiers ants of the Atta species, possessing prominent, scis­sor-shaped, bulldog-grip jaws, are frequently used for the same purpose.

In their bites and stings, ants excrute formic acid, a chemical long considered to have medicinal value. Spirit of ants, made by crushing two parts, by volume, of little red ants in three parts of alcohol, and then filtering the mixture, was once a popular remedy for rheumatism. Ants have added colorful phrases to our language, thought-provoking proverbs to our literature and philosophy and, like bees, even received mention in the Bible. Probably the most popular expression of our English language — “ants in your pants,” relative to impatience — was penned by Robert G. Dean and later popularized (in 1939) by Hugh S. Johnson. A Japanese proverb says, “to the ant, a little rain is a flood,” and in the Book of Proverbs, of the Old Testament, King Solomon urged man to “go to the ant, consider her ways and be wise.” These are only three examples of the many accepted language expressions and references that originated from man’s observa­tion of the interesting ant.

Ants quickly adapt themselves to other existing environments and are one of the easiest of the social insects to maintain in captivity for observation. So fascinating are ant colonies to watch that many persons have become “ant watchers” and, for con-
When I recently did something unusually foolish and one of my good friends jeeringly called me "bird brain," I took it as a compliment.

You would feel the same way if you had the opportunity to look at the record. Actually there is a great deal to be learned from the feathered fraternity.

It was from observing the flight of birds that the designers of airplanes got much of their theory on streamlining. Even the actual flying of them is based on watching birds in the air.

Ponce de Leon was the first "tourist" to discover Florida. Birds always knew this as an ideal place both for vacations and year around living.

Ages before the idea of air travel was conceived birds had their airways, or more correctly, flyways, mapped. Some of these follow the mountain chains, some the coast lines and perhaps most of all follow the river valleys. Through endless generations they never change their chosen routes—unless driven off course by storms—and they do not need a road map, or beacon or radio beacon to find it. Evidently they do not need a timetable.

Take for an example the famous swallows of San Juan Capistrano. For some 180 years these birds have arrived at the old Spanish Mission near Los Angeles, "come Hell or high water" on March 19th, San Juan, or St. John's Day. They fly in from the sea in such huge swarms that they darken the sky.

On the previous day several hundred scouts came in ahead to check the situation.

As the main body of birds arrives several thousands will descend on their old nesting site at the Mission, while the rest of them go on to their own destination.

On clear bright days it is said they make their appearance early in the morning, but even in bad weather they manage to get there on the appointed date.

Because a great many birds migrate at night, particularly those not strong enough to make the entire trip without stopping to eat, they sometimes meet with accidents. They might encounter obstacles such as tall buildings or radio towers erected since their last flight, and when this happens large numbers of them are killed.

This could also occur when fog or stormy weather confuses them and drives them from their course. But that is so much more than might happen to a person who should start on a foggy night to travel a familiar road and come suddenly upon a barrier that had been placed there since his last trip.

Birds know where to stop for foods best fitted to their needs, and for water supplies and safe rest areas. When they find these things in abundance they may stay for several days. They are using their "bird brains."

Last spring dozens of these visiting firemen discovered that my place was not too bad as a rest stop on their trek back north. Unfortunately some of the natives were not too cordial. The mockingbird, in particular, was downright rude about the whole thing. He had chosen the top-most branch of an oak tree at the back of my place for his broadcasting tower, where he sat most of the day serenading his mate, nesting below in the bushes. At the same time he was giving notice to the bird world that this territory belonged to him.

One morning long after I thought all the Cedar Waxwings had left, I heard their distinctive piping "zee, zee," and I went outside to look for them. I was just in time to see a large flock landing in another oak tree. Before I could get a good look the mocker broke off his song just long enough to sail from his perch a hundred feet away, and whatever people or visitors took off immediately. There seemed to be no force used: he flew in, they flew out, and the Mocked went back to his singing.

Almost at once another flock landed and Mister Mockingbird went through the same performance. This kept up all morning.

(Mockers think they own this place anyhow. When friends made me a gift of a name plate for my home, reading "Mockingbird Hill," they immediately took it over as a favorite singing stand).

Later, around the tenth of May, when still more Waxwings arrived, I learned why that particular oak tree had such an attraction for them: The very large clumps of mistletoe in it were still full of dead-rripe berries.

This time the Mocked did not molest the visitors and they spent the morning alternately gorging themselves and nesting in the branches of the tall pines nearby. They perched so motionless and erect that to the naked eye they looked like small pine cones.

A little smaller than a robin, the waxwing is colored somewhat like a female cardinal, though somewhat paler. There is a bronze cast to the back and shoulders, especially in bright sunlight. With its longish, pointed crest, black bill and a black mask slanting upward behind the eyes the bird has an exotic oriental look. His name derives from the tiny patch of what looks like red sealing wax just above the tip of the wing. A half-inch band of yellow at the end of the tail is a good identifying mark.

To me the waxwings are among our most beautiful visitors and I am always delighted when they come. I would not dare take the mistletoe out of that oak tree for fear they might not stop here again.

I do not remember another winter that brought so many Myrtle Warblers. They are such plain little birds in their winter dress, with nothing except the yellow rump to identify them. But by February many of them were acquiring their black and bright yellow trimmings.

Before they left for their homes, which might be as far off as Alaska, they were very handsome indeed.

One morning there was a hatch of termites in a dead tree and I had just started out to spray with insecticide when I saw that the Mocked had discovered it. Within minutes there were dozens of birds there. They picked the insects off the ground and snapped them in mid-air. In less than fifteen minutes they had cleaned up the hatch and there was not so much as a termite wing to be seen.

Since Florida is on the main flyway to Central and South America and the West Indies, we have the same regular visitors spring and fall, but now and then strangers show up.

A near neighbor phoned me one day in April to ask if I could identify an alien which had just landed on her feeder. She described it as "about the size of a wren, black above with white along the lower edges of the wings, and the most beautiful poppy-red breast and underparts."

I was stumped.

Later she called me back to say she had found it in the Audubon Guide. It was a painted redstart.

He was completely off his travel lane, for according to the Guide he belongs out in the higher mountains of Central New Mexico, southern Arizona and in the higher districts of Old Mexico.

I was so anxious to see him, (she said he was a male,) that I went straight to the garden sprinkler, my secret weapon for luring strangers, hoping he would come my way. He never did visit me. Almost immediately however several Indigo buntings appeared, bathing and then perching their feathers in the bushes just outside the windows. They are beautiful tiny (about five inches) all-blue birds.

The next day there were some Painted buntings, to me the prettiest of all. They are well-named. The male, with the bright red body, purple head and splash of vivid light green on his back, looks as though (Continued on Page 44)
Your eyeballs probably won't vacate your head but one look at her soft, white body and shapely legs, not to mention her two excitingly blonde antennae, will help you understand why the Luna Moth is considered the most beautiful moth in North America.

The Cecropia's legs are more conspicuously curved than those of other moths, and when you take into consideration her big brown eyes and equally brown antennae you might well view the thing as a toss-up between the Luna and the Cecropia.

On the other hand, little things can be overpowering too. The Io moth is like that — small but cute. Unfortunately she has the habit of raising her forelegs upward at frequent intervals, thus revealing the colorful eyespots, all of which means she is trying too hard.

Should you feel impelled to knock off a few points for the Io, don't be hasty. Better wait until you've seen the Polyphemus trot her stuff. This moth is one of the largest in North America. Individuals show a great variation in design and color.

Not only does the Regal Moth keep her antennae out of sight, there is no chance to catch a glimpse of her under-wings, shall we say, unless you are at hand when she takes off on her nightly Flight. Perhaps these "good-manner" habits susped her name — Regal.

The Imperial Moth is a natural to occupy last place. She is too more considerate than the Regal when posing either for inspection or for the camera. And, in addition, she is also the most unwilling, the least cheerful, and by far the sleepiest moth this side of the tropics.

"You see a stunning girl every fifty feet. Rather than kill myself trying to pick the right one, I'm going home! So said the European beauty scout visiting the U. S. The Promethea Moth is like that — her beauty is lost among her equally beautiful relatives.

Collecting and studying moths can be either an exciting profession or a hobby. However, when it comes to selecting the most beautiful moth, everything goes wrong! Indeed, the process is hilarious — partly because there are no established techniques which can be followed, but mainly because naturalists refuse to agree!

Unlike the rugged judges who annually crown Miss America and Miss Universe, students of moths insist on being strictly naturalists. And if this trend continues, there may never be such a thing as America's most beautiful moth.

Atlantic City should be so exciting.
DURING PREHISTORIC TIMES, it is believed that a gigantic meteor, or perhaps a series of them, exploded above the southern Atlantic coastline. At any rate, that coast, for a distance of 75 miles inland, is pitted with ponds, lakes, bays, and bogs, as if that country had undergone such an aerial bombardment.

There are several reasons for believing that these deep indentations are meteoric in origin. Many tests have been taken, some by Government geologists, and these tests have showed the presence of iron, and of other metals often found associated with iron in these mysterious visitors from the sky.

In the second place, it is reasonable to suppose that these meteorites, small and large, struck the earth at an angle; and if we may judge by the evidence, the angle was from east to west. This fact can be judged from the fact that where the nature of the soil permits permanent elevations and depressions, the eastern rims of the craters are invariably lower than the western ones; in fact, where the opportunities for such conformations are favorable, it is often startling to observe with what symmetry, and to what a height, the conformations are favorable, it is often startling to observe with what symmetry, and to what a height, the

A MONSTER

BY ARCHIBALD RUTLEDGE

fall to take cognizance of the fact that a mound of earth may outlaw iron, marble, granite, and bronze. In the ancient plantation country in which I live, I often come, in the level wilderness upon a bank of sand and leaf-mold, straight and rather tall; moreover, unless it was intended for a boundary, it is very difficult to imagine any other use for such a bank could be put. All over my coastal country, there are in the wild pinedelands so-called fox-kilns. I doubt if there are many natives who now distinctly understand the practical commercial use of these large circular heaps of earth; nor, why, indeed, they have not disappeared long ago.

There is a third reason for believing that the lakes and ponds of our coastal country were formed by a prodigious fall of meteorites in the ages that have gone. For a distance of approximately a hundred miles from the coast, there are repeated evidences that all this land was once submerged by the Jurassic Sea. Beneath the moany sea-lands that now cover the fields and the soil of the woods, phosphate rock carry marine deposits, of amazing variety, now turned to stone. Tens of billions of fish and shellfish sleep like Galatea, in passless cold rock.

It has seemed to me wise to give this background in considerable detail, both because I believe it to be interesting, and also because it affords the reader a certain exactness of environment without which he cannot fully understand the nature and the behavior of the monster I am undertaking to describe.

On my plantation, within a mile of the great coastal

MAKES HER NEST

Santee River, there are at least fifteen of these lakes, supposedly of meteoric origin. They vary greatly in size, in shape, and in depth. There are a good many other deep depressions in my fields and woods; but these only date back to the lives of a good many men still living; for these sink-holes were made by the great earthquake of 1898. I remember that great con­vulsion; the salt tide rose in the room where my baby sister and I were sleeping on a bed. My Mother (like any other mother), first seized the baby in her arms. What to do with me was a question. But mothers are resourceful in times of crises. She turned a wooden table upside down on the water, now a foot deep over the floor. I heard people yelling, "earthquake!" and "tidal wave." I thought that everything had been ar­ranged for my especial entertainment. At any rate, I had a grand time paddling around in my improvised boat. Long after the peril had passed, my Mother used to be amusingly provoked when I used to beg her if we couldn't have another earthquake! She, of course, was to maneuver the whole affair for my pleasure.

I mentioned the varying sizes, shapes, and depths of the lakes or ponds in and near my woods. Some were so comparatively shallow that even a moderate sum­mer drought would dry them out completely; and in these there was little aquatic life. When certain of these lakes would go dry, I would find two or three abysmal holes, leading, apparently into underground streams and rivers. With both a very long pole, and with a weight with a very long line on it, I tried more than once to sound the depth of these minatory chasms, disappearing, as it were, into earth's netherland. By no device was I ever able to reach bottom.

But a good many of the lakes are very deep, and they never go dry. Their bottoms, however, are exceed­ingly treacherous, not so much because they are composed of quicksand or mud, but because of their fathomless centuries of dead leaves. Most of the lakes are heavily ringed by trees; and it is natural that the lakes themselves should receive practically all the leaves of the surrounding trees.

In proportion to the size and the depths of one of these lakes is the wildlife both in size, variety, and numbers) that makes its home there. In my larger lakes are bass, bream, turtles, bullfrogs, cottonmouth moc­cascins, and alligators—to mention but a few of the denizens of such a haunt. Of all these, the alligator is the most interesting; grim, powerful, merciless, long life one career of murder, he is, on earth, one of the few survivors of the Age of Monsters.

I have taken a long time to get to it, but the pre­liminaries seemed necessary. I mean this monster and her nest.

In the largest of my lakes, inured in the densest kind of thickets, a huge female alligator had taken up her abode. As the river was only a half mile away, she, no doubt, had crawled that distance overland. On a good many occasions I have found alligators in fields, woods, and roads, far from water. No doubt they were making an overland migration.

This female saurian that I located in the profound lake was a huge creature. When Kipling wrote the lines that so shocked Victorians, he was only partly right. He wrote, "For the female of the species is more deadly than the male, and more dangerous. Any honest and discriminating student of na­ture knows that the female of the species is not alone more deadly than the male, but more dangerous, savage, vindictive, and larger. It is right that it should be so. Upon her rests the responsibility of the survival of her species. Here is the guardianship of the safety of the race. Her hands hold on immense mortality. This alligator's mate, the old bull, I never saw. He probably was leaking in the river.

It was a day in April, while I was roaming the thickley wilds surrounding my plantation, when my attention was called to a most unusual sound. Had it been in the autumn, when the mating season was at its height, I would have been sure that two rival bucks were fighting; but the time element was wrong, and there was no clashing of antlers. Indeed, there were no antlers to clash. I sat perfectly still, and listened; and a great rustling of dry leaves. This noise occurred on a thickley hillock, about a hundred yards to the west­ward of the largest of all the lakes in my woods. What could be fighting? Were wild razorbacks having a ramble? Had a wild boar run foul of an alli­gator? For several years there have been rumors of the reappearance of the panther (after an absence of a century, or a hundred years) in my country. Could one of these pumas have taken on an old buck? I was surely going to find out. Few things fascinate me so much as a (Continued on Page 46)
The clearing of land to plant pine can prove unwise if wildlife management is not first considered.

BY JOHN H. DANAHY
Florida Forestry Service

When youngsters get into a hot argument, they more than likely are going to stick to their guns even if the "conversation" winds up with a "shiner" and a few tears being wiped away on a dirty shirt sleeve. And if you had been close enough to hear what was going on before the roof fell in, you might recognize a few spoken ideas which originated with mom or dad.

Take for instance the scrap I witnessed in front of the movie theatre where swarms of these cherubs were waiting for the matinee. Teddy said his dad was going to clear a large tract of land, and as Teddy put it, "We're going to plant it with baby pine trees." As this was the same land Billy and his dad hunted on, Bill saw that hunting might be out this Fall. So jumping to the defense he demanded, "How are dad and I going to hunt?"

Well, to make it short, Teddy said that they didn't care 'cause pines were worth more than a few quail or deer. Tempers began to fly, words became fewer and I decided to retreat to a neutral corner to referee a few healthy rounds.

The fight didn't last long, and neither was really hurt, but both the boys and their fathers could stand a lesson or two in forest and wildlife management. It may be true that a stand of timber is worth more in actual cash than is the game, but not worth so much more that the natural cover and feed for game should be destroyed.

The wood industry is a huge business in Florida and there is a great deal of acreage that needs improvement and planting with nursery grown pine seedlings. But the advisability of clearing to plant pines may be unwise if adequate planning is not given to wildlife management in the area. It is more prudent to seek to maintain a balance in Nature as much as possible and yet reap the valuable forest harvest to supply the wood industry of Florida which is second only to tourism in Florida. The production of tree seedlings in Florida is a serious business, and the interest in tree planting is creating a greater demand each year. Too often trees are lost from seedling species, so the nurseries plant small amounts of red cedar, cypress and certain hardwoods.

The production of tree seedlings in Florida is a serious business, and the interest in tree planting is creating a greater demand each year. Too often trees in general are too often "managed". Yet it is a bit impossible to overlook $450 million dollars, and it is this amount that Florida's wood industry is creating a greater demand each year. Too often trees are lost from seedling species, so the nurseries plant small amounts of red cedar, cypress and certain hardwoods.

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To remove the bits of the pine cone, seed wings and other foreign matter that would interfere with the proper planting, the seeds are now run through a de-winger. This device was actually developed as a pop-corn polisher.
The pine seed is now ready for planting, but since the processing usually ends around the first of the year, they must be stored for use in the spring. A cold storage plant at the Olustee Nursery is used which has a capacity of 110,000 pounds of seed. Containers for the seed are air-tight and hold 150 pounds of seed. Temperature inside the cold storage is held at a dry 20 degrees. Before the air-tight lid seals the barrel, a seed sample is taken. The barrels are then labeled and left in this low temperature. Under these conditions, the seed may be left for years with only up to one percent loss in germination per year.

Samples from corresponding barrels in the plant are then sent to the U.S. Forest Service Seed Testing Laboratory in Macon, Georgia. Results from these tests are carefully recorded on each barrel in cold storage. In the Macon laboratories a series of tests are run to determine the moisture and temperature properties of the sample, as well as the number of seed per pound. The samples give an accurate measure of the moisture content, purity of the seed, percentage of full seed, and the percentage of germination within the barrel being tested. According to Jordan, the nurseries obtain five to seven thousand sand seedlings from each pound of seed.

At this point we’ll jump about through time to the end of March when the planting takes place. Within the space of a month, all nurseries have the planting completed. However, preparation and the method of planting is a little different than what some might think.

The first step in planting is the same as in most crops; the land is prepared to receive the seed. The soil is first disked and fertilized. This is then followed by a three-inch one planting process—bed shaping, seeding, and mulching—completed by three separate pieces of machinery. Beginning with the bed shaper, seed beds are mechanically formed which are 34 inches across the top with an alley of 18 inches. Longest rows in a state nursery are 1,200 feet. The smooth top is then ready for the seeding machine following behind. Seeding with this machine is accomplished by rolling the seed into the ground. Planting pine seed in this manner prevents their being covered with soil.

The seeding machine is equipped with two sets of flat wheels. The first set makes an indentation in the smooth bed. Directly behind this wheel, the seed is dropped in a constant flow. Raking in the indentation behind this set is level beds by means of a back set rolls over the seed and presses them below the bed surface. The third step, mulching, is necessary for reasons that the sun would quickly dry out the soil and also burn the seed. Therefore, a mulch of pine straw is used as the final step in this operation. After being spread, the pine needles are put through a straw chopper. This permits the pine straw to feed evenly through the straw spreader as it passes over the seeded bed. Pine straw mulch helps to keep moisture on the top of the soil where it is needed, and to protect the uncovered seed.

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Pyrotection of wildlife begins, in many instances, with the egg. Conserve the egg and we may save the species; or destroy it, or leave it to the mercy of new or increased enemies, and the species may disappear from the earth.

An ingenious nature, to give her creatures a starting chance in life, in the face of their enemies, has provided wondrous schemes for them. Most of us know something of the breeding habits of familiar animals. But the habits of the extraordinary ones show more strikingly nature’s seemingly limitless and miraculous devices for perpetuating the species. By knowing laying and hatching practices of the wild creatures animal lovers can gain a helpful insight to their character and needs. It’s fascinating and delightfully rewarding study.

One of the simplest and most determined schemes for egg survival is in pure numbers. Generally speaking, egg production corresponds to the natural dangers of destruction to them. Nature provides means for preventing them. Conserve the egg and we may save the species; or destroy it, or leave it to the mercy of new or increased enemies, and the species may disappear from the earth.

A certain type berry must hatch in the body of an animal.—usually a horse

The egg shell can also be an invitation to death. To allow discarded shells to remain near a nest would be like hanging out a beckoning neon sign before a disadvantageous victim and benefactor of other eggs. A tiny water "bug" searches out the egg of the damsel fly to lay her eggs in. The tiny invaders hatches into a wonder world of food and comfort. Damnel egg is the staff of life for this robber. So as a larva it feeds to its heart’s content, undergoes complete metamorphosis, and thus grows to maturity in the furnished home its parent took over.

No process could be so far from standardized as incubation. Nature provides for the seemingly lazy and careless, as well as the industrious and ingenious. Some birds do not set. They lay their eggs in heaped up piles of vegetation and dirt, and never go near them. Heat generated by decaying vegetable matter hatch-es the eggs. Crocodile birds lay their eggs in sand, and leave incubation to the sun’s rays. Of course a bird to shirk this tedious and basic household chore must locate in the right climate.

One way or another the layers find ways. Though some of their methods are not understandable, and at least, seem the hard way. I have watched fascinated at the strange. (Continued on Page 49)

The eggs of the Elkibe Flower are stretched and motiled.
FISHING FLORIDA'S FRESH WATERS

You might say that the Northeast Region was a bit short changed when fishing waters were being passed out. At least by Florida standards it appears that this section may have ended up on the short end of the stick. By any other measure, however, the Northeast Region has been happily endowed with what it takes to keep the angler smiling.

Two of the country's most widely known streams are located within the boundaries of the sixteen county area. One of these, the Suwannee, gained renown through Stephen Foster's inspired manipulation of the words and symbols he moulded into one of America's great folksongs. The other, the Steinhatchee, is endowed with what it takes to keep the angler smiling.

An area immortalized by Stephen Foster, Northeast Florida has been endowed with what it takes to keep the fresh water angler happy.

The Auxilla River which rises north of the Florida-Georgia line flows southward to enter Apalachicola Bay on the Gulf between Perry and Newport. It forms the western boundary of both Taylor and Madison Counties.

A commercial fish camp at Nutall Rise, off U. S. 98, offers cabins, boats and other facilities. Near the mouth of the river there is a landing where boats and bait are available. The lower portion of the river, from the Rise downstream, is a popular fishing spot. Actually, most of the river offers good fishing but it is difficult for anyone not knowing the possible boat launching locations to reach the better waters.

Panfish of several varieties are the backbone of Auxilla River fishing although bass are also abundant. The river offers year around fishing with a definite upswing in activities after the first warm days of spring. Below Nutall Rise, in the deeper holes, channel bass are taken during the winter months.

In this same general area is located the Econfina River. Near the mouth of this stream is the only commercial camp where boats and bait are available. A hard surfaced road leading south off U. S. 98, 12 to 15 miles west of Perry, makes it a simple matter to reach this landing.

The Econfina is a typical west Florida river, heavily timbered shores, and stained, slow moving water with occasional deep holes. The average width of the stream is about fifty feet. There is an abundance of bass and panfish. During the winter months some very large channel bass are taken in the deeper holes well upstream. These fish, of course, move back into the salt water at the first hint of approaching spring.

Also located in this area is the Steinhatchee River, another excellent bass and panfish stream. From its mouth along the line between Taylor and Dixie Counties to its upper reaches, it boasts some highly productive waters.

The Suwannee River is the best known stream in this area. From its source not too far above the Georgia-Florida line to its mouth on the Gulf between Dixie and Levy Counties it offers excellent angling.

In addition to the fresh water species common to other waters in this part of the state, the river boasts a unique species, the Suwannee Bass. Scientifically it is known as Micropterus notius. It is a relatively small member of the largemouth clan seldom exceeding twelve inches in total length. Its body build is rather slender for a member of its scientific group. Its unique nature and restricted range is the main attraction the Suwannee Bass holds for sportsmen.

There is excellent fishing in the Suwannee itself although many anglers choose to work the creeks and slough-like tributaries that are found in abundance, especially along the lower portion of the river.

(Continued on Next Page)
The Ichetucknee River is another of the top ranking areas. The two tributaries of the Suwannee and produce red-eye (local name for the Suwannee Bass) as well as an abundance of largemouth bass. The best bass fishing in this area is offered by the Santa Fe River. Redbreasts and stumpknockers are taken on light spinning lures, worms, and flies, but the best around all bait is pine sawyers for panfish.

Ocean Pond in the Okeechobee National Forest is a very fishy lake according to W/O Johnnie Croft. Crappies are caught the year around here, but the fishing is best in the Spring and Fall using live minnows. Drift fishing is popular but so also is fishing around the brush piles which W/O Croft and other Wildlife Officers built and maintain. Lake Palestine and Butler in Union County are similar to Ocean Pond in the quality of the fish they offer. Public boat launching ramps are the only facilities offered for the convenience of the sportman in these waters. No rental boats are available.

Area Supervisor Leon Barrie and Wildlife Officer Howard Stalls say that the grass beds along the St. Johns River furnish the best black bass fishing in the State of Florida. If it is not the best it is certainly one of the top ranking areas. The four counties comprising Enforcement Area 7—Nassau, Duval, Clay, and Bradford—provide some excellent fishing. The St. Johns River is world famous for its black bass angling and the creeks in the area are heavy producers of bluegills, shellcrackers, redbreasts, crappies, and other panfishes. There are numerous fish camps on both sides of the river where full facilities are available. In addition, there are many public ramps where private boats may be launched.

The striped bass, essentially a salt water species, is taken in the early spring from the St. Mary's River and Black Creek in Clay County. Black bass fishing in these waters is popular with live shiners used as bait. Worms are the most popular bait for bream and other panfish, although the meat of the blue crab is often very productive. Fly fishermen also get in some good licks in this vicinity.

Newman's, Lochloosa, and Orange Lakes are three of the most popular bodies of fishing water in Enforcement Area Number 8, comprised of Alachua, Gilchrist, Dixie, and Levy Counties. All three of these bodies of water provide good crappie, bass, and bream fishing. Newman's Lake deserves special mention. In October of 1956, the Commission conducted a partial poisoning of this lake and killed about one million pounds of gizzard shad. Within a month, the crappie and catfish angling started to improve and it has continued on the upward since.

Orange Lake has been in poor condition because of extremely low water levels during the past three or four years, but rains during the past winter and spring have restored the lake to its normal level. The fishing is rapidly returning to its former excellent condition. Full accommodations for the angler are offered at three lakes mentioned.

Wildlife Officer M. C. Sikes reports that the crappie fishing is good the year around in Lake Lockloosa but it is especially good during the winter. Small live minnows are the most productive bait for the highly popular "speckled perch."

On the coastal side of this area, the Wacassa and Withlacoochee Rivers provide a lot of good fishing. Jigger fishing for black bass is very popular, and redbreasts, bluegills, stumpknockers, and other panfishes come in for their share of attention too.

The backwater above the dam on the Withlacoochee offers some very excellent shellcracker fishing. Here two-pounders are frequently taken and even larger specimens have been reported. They are taken on worms or sawyers. Wildlife Officer Buster Hudson also reports that bluegill fishing below the dam in the river is highly productive. He reports that channel cats of large size and in goodly numbers are taken here. All in all, any fisherman with the right bait on the right day with just a spot of luck can catch fish in any of the waters mentioned. There are many others in the Region but this will give the visitor or newcomer a good starting point.
Recreation with a purpose is the idea when Jackson County sportsmen team up for OPERATION CARP

BY JIM FLOYD

The evening sun threw long gray shadows across the men assembled on the river bank. Smoke from numerous cook fires drifted across the treetops on soft spring breezes. A stranger chancing upon the scene might wonder, as he watched men busily adjusting headlights and sharpening an assortment of gigs and fish arrows, just what sort of wholesale violation of the game and fish laws was in the making.

His amazement would jump a notch or two when a closer look revealed a sprinkling of the familiar khaki uniforms of the Florida Wildlife Officer. One would hardly expect to find a Wildlife Officer in the midst of such goings on. The unknowing observer would truly be shocked to note the friendly atmosphere that existed between the enforcement officers and the apparent violators.

The Wildlife Code of the State of Florida prohibits the taking of fresh water fish by methods other than by hook and line or rod and reel, unless specifically authorized by the Director of the Game and Fresh Water Fish Commission.

If the stranger had not guessed by now, he probably would have asked, and been advised, that these fishermen were not game law violators but sportsmen enjoying an evening of supervised rough fish gigging. Upon accepting the invitation of Wildlife Officer Fred Jackson or his side kick, Brantley Goodson, to join them in a cup of coffee, he would soon learn the purpose of "Operation Carp" in Jackson County.

Each spring hordes of carp, along with an abundance of suckers, move up Northwest Florida's Chipola River and into the cool clear waters of Spring Creek where they deposit their eggs. This stream, like many in the Panhandle country, is crystal clear and relatively shallow. The movements of fish are here as easily followed as those of goldfish in a fountain pool. The concentrations during the spawning season allow the gigger to get in some good telling licks on the undesirable fish.

Sportsmen from Jackson County and environs therefore appealed to the Commission for permission to spear carp and suckers. The outdoorsmen pledged their full cooperation if allowed to conduct their gigging operation. As a result of this appeal, the Commission granted permission for a trial spearing session.

As explained by Wildlife Officers Goodson and Jackson, the Game and Fresh Water Fish Commission does not make rules to restrict unnecessarily the pleasure and recreation of sportsmen. On the contrary such rules are designed to assure a supply of game fish not only for present day outdoorsmen but also for future generations.

Goodson and Jackson highly praised the sportsmen's cooperation during "Operation Carp." The Wildlife Officers promised that when spring 1959 arrives, the fish stickers will again gather round to enjoy the thrills of a night ride for the big ones.
"Fishin', again, George?", Ben greeted the old guide. "Yep. The old man walked toward the rear of his vehicle and, grasping one end of a tattered tarp, drew it back to reveal a galvanized tub filled with crushed ice . . . and bass!

Ben gave a low appreciative whistle as the old timer gilled a largemouth and hoisted it aloft for inspection. "Eight pounds if he's and ounce," Ben commented. "Ten and a quarter," George corrected. He dug a small scale out of a tangle of gear in the pickup's tool box and hoisted the fish through the gills. Ben squinted at the pointer, "Ten pound four. You're right."

There's some say these big bass aren't fit to eat. Sour grapes, I says. They're just as good as the little ones and when you got eight decent sized fish you got some meat, 'tid of a one meal mess.

Ben nodded. "Never been troubled too much with catchin' big ones myself. Two, three pounders plenty but bigger'n that they come few for me."

As an afterthought he added slyly, "Course I don't have a secret hotspot lined up either."


"I didn't hear any dynamite explosion over that way this mornin'," Ben needled.

"No, and you won't either. I got those fish legal, on a hook and line and I know it."

"Yeah?" Ben glanced at the old timer and raised his eyebrows in an expression of make believe doubt.

"Yeah," George shot back. "What's more, you meet me at my place at 3:15 in the mornin' and I'll show you somethin'. You'll have your eight fish by daylight or you'll have five bucks of my money!"

"Gets light by five anyway, George. That's a pretty strong statement you made."

"Don't make any difference, I meant what I said."

Ben nodded. "I'll be there." He grinned to himself. For years he'd wondered how Old Man Harper kept himself supplied with eating fish, even at times when nobody else could catch enough to mess up a small skillet. Finding out was going to be easier than he thought.

Miz Hackett's old Dominicker rooster was already tuning up for an early reveille when Ben wheeled his car into the driveway at George Harper's place. The old timer was waiting.

"Right here."

"You're fishing gear?," Ben inquired.

"Right here. George held up a small paper bag that looked as though it held next to nothing. "You kiddin'?" Ben knew the venerable old outdoorsman had enough fishing gear to stock a fair sized sporting goods store. Much of it represented gifts from appreciative sportsmen he had guided in times past.

"No, I'm foolin' a bit. I don't mess around with the fancy stuff when I'm after meat, and son, that's what we're talkin' this morning."

Ben started to protest, then shrugged. After all, he had come along to learn the secret of George's uncanny success in catching trophy bass. For once he would keep quiet and watch the proceedings.

Fifteen minutes later, on the dark waters of timber-shrouded Cypress Pond Ben was introduced to the time honored standby of the real meat fisherman. "It's no secret," George told the younger man. "My grand daddy flap doodled Cypress Pond when he was a boy and I reckon his paw did the same before him. Nope, it's nothin' new and it's sure no secret, at least not around this neck of the woods. Folks maybe just have forgot about it, what with the pretty new-fangled stuff and all."

At George's direction, Ben had taken the stern seat from which he paddled the bateau slowly toward a bed of arrowheads and other aquatic vegetation growing along the eastern side of the pond.

Ben stared in horrified fascination as the old timer reached into the paper sack and extracted a great ugly monstrosity of a fishing lure. All oval of black shoe leather it was, studded with a trio of large wicked looking silver hooks attached firmly to the leather with copper rivets. George tied the atrocity to the end of the Flap Doodling'
BE YOUR OWN WEATHERMAN

When it is evening, if you say it will be fair weather, for the sky is red; and in the morning it will be foul weather today for the sky is red and lowering.

— Matthew, XVI, 2,3.

The biblical quotation above records one of the earliest instances of man applying a rule of thumb for sudden, local showers are not predictable by long range means although the meteorological pattern remains the same. It is not a matter requiring deep study or the burning of much midnight oil.

In more tropical lands, such as Florida, the heavens may also broadcast a warning to the weatherwise of coming storm and rain. But the signs can change hourly; they must be watched.

Weather is an important factor in our lives. Weekend picnics, fishing trips, boating excursions, all depend for their success on what the weather has to say.

And the weather frequently foils us up on short notice. It is safe to say it also fouls up the weathermen for sudden, local showers are not predictable by long range means although the meteorological pattern responsible for their development probably appeared in the forecast a day or two before.

For that reason every Floridian should know something of short-range weather forecasting. Fortunately it is not a matter requiring deep study or the burning of much midnight oil.

Clouds are the key to the weather picture in Florida, even more so than on the continental mainland. Study the shifting, changing pattern of the clouds overhead, and you can forecast your own local weather on a short-range basis.

With certain reservations and exceptions, weather forecasting tools useful in the continental U. S. are often nearly inapplicable in Florida. Winds and even barometric readings can be misleading, although this is less true in the northern part of the state. For the best clue to the weather in the immediate future, learn to watch the changing pattern of clouds overhead.

Check throughout the day. One observation is not enough. Learn to check the changes in the pattern. Nearby foul weather just over the horizon can make it appear, in your sky, that it is coming your way: the picture may change in a few hours as the storm passes north or south of you — your local sky will once again show a fair weather pattern.

FAIR WEATHER FORECAST:
Mackerel sky, formed of feathery cirrus, alto cumulus and alto stratus clouds at high altitudes, is best indication in Florida of oncoming bad weather. Cirrus clouds are formed as moisture overflows upward from an advancing cold front and is condensed into ice crystals by cold air of high levels. If they stand still and slowly dissolve, weather will be fair for the front may pass north or south of you or has broken up. But if these clouds thicken, move rapidly, converge in bands on the horizon or gather low level clouds — foul weather is in the offing. It will come from six to 36 hours later. When this pattern develops on the eastern horizon in summer or fall, soccer ball-shaped cirrus accompanying it will pass clear of your area, windward. Before long you'll see bands of rain about you on the horizon as showers fall.

UNEQUITABLE SKY: Combinations of dark gray clouds are suspicious. High level cirrus, alto cumulus and alto stratus accompanied by low level cumulus mean possible change. Check this sky frequently to see which pattern develops and dominates. If the high level clouds give way to cottonball cumulus, foul weather is in the offing. The reverse can mean rain and stormy weather a day ahead.

RAD WEATHER NEAR:

Unstable sky:

Tropical regions, such as Florida, have a well-developed technique for spotting developing cumulus clouds. The technique for developing cumulus clouds is especially useful in Florida for the cumulus clouds often closely resemble, at first glance, the anvil head of a thunderhead away from you. They may also be violent; if they form a few hours after sunrise, increase toward sunset, show increasing easterly winds, and head your way, you may be in for high winds, drenching rain, lightning and even hail. In Florida the thunderhead can pass clear of your area, plastering one town while its neighbor gets off scot free. Watch for this sky early in the morning, if the sky shows to windward you may be hit; scurry for shelter if in the open.

A peculiar shape forms atop thunderheads as winds blow the top of the towering cloud away. It can resemble an anvil, winds blowing from the side and will move the thunderhead away from you.

Definitely not true; the anvil is always formed by high-level winds that may have absolutely no relation to winds at ground level, which move the storm. Don't trust the anvil as a signpost pointing the storm's traveling direction.

SQUALLS:

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SQUALLS: On land or sea, watch for squall lines — turbulent, low, boiling, dark clouds coming toward you and stretching across the horizon. Should they come from west or northwest they may be violent; far more so than early morning or late evening hours. Westerly squalls are most common on winter and spring evenings after daytime heat.

(Continued on Next Page)
ing of the land mass by the sun has provided energy. They are apt to be destructive. Boatsmen, scurry for home!

Don't, however, confuse the ugly looking squall line with a weak frontal system, which is just a greyish mass moving in from the west or northwest. It looks weak, and is.

Wind in Florida, particularly south Florida, is a poor forecasting tool. In many parts of the U. S.—and this includes portions of north Florida away from the coastal sections—east and southeast winds are almost invariably followed by rain. Along the east coast of Florida east and southeast winds are often but seabeateers born of cool Atlantic air moving in to take the place of heated air rising from the land.

Winds usually rotate around the compass in a clockwise direction. Watch their movement, for just as it is change in the clouds that signal a change in the weather, the shifting winds carry a meaning.

If they blow from the northwest, they should slowly change to north, then northeast and east—moving clockwise. This is because high pressure areas a thousand miles north of Florida pass from west to east, followed by puffy cumulus clouds a sign of fair and mild weather.

But when they thicken, deepen and pile up—watch out for an easterly wave. An easterly wave need not give birth to a hurricane to give you plenty of trouble afoot. It's nasty weather by itself.

Watch your true wind direction from the higher clouds. You will often note a situation where an easterly seabeater blows at low level while westerly winds come from a completely opposite direction higher up—shown by middle or high altitude clouds.

In the winter, most of your weather comes from the west—conforming somewhat to the continental pattern of the United States. Look to the west from late fall through winter and early spring, for there is where the clouds form and paint a weather picture for you to read and interpret.

From late spring through the summer to the end of the hurricane season in fall, keep a weather eye peeled eastward. Watch for increasing easterly winds backing into the north and vertical cloud developments soaring high into the sky. Near the coast you will often see fair weather cumulus drift ashore from the sea, then begin puffing up—fed by the rising currents of warm air heated by the sun-drenched land. They can become rain clouds, and in the afternoon even build up into thunderstorms.

Watch the sky during the day, hour by hour, a glance at a time. This vertical development is the clue to rain, the clue to local showers.

As long as thin, puffy, cottonball clouds drift in the fair, blue Florida sky—the weather will be fine.

When they thicken, deepen and pile up—watch out for wet weather ahead.

Reading your own weather can be rewarding, absorbing and practical. It's more than a mere hobby.

And you'll get a kick out of your success in forecasting local weather, watching storms grow and then die just as you predict. The relatively short legs, stocky body, and its size (length about 10½ inches, wingspread about 20½ inches), are clues to identifying the species during the winter months. In the spring plumage, the short bill combined with brick-red breast plumage make a sure-fire identification mark.

Pectoral Sandpiper, Calidris melanotos. Grass snipe, one of the Pectoral Sandpiper's common names, is most appropriate for it describes well the nature of the bird. Unlike most of the sandpipers, this species is most often encountered about short grass marshes and boggy pastures. When flushed, the birds fly off in an erratic manner uttering a low, scraping note reminiscent of the Wilson Snipe. They usually move about in small flocks but when on the feeding grounds normally scatter out, each going his own way. Now and again they may be seen on the open mud flats, frequently in the presence of other shorebirds. The Pectoral Sandpiper's habit of stopping at intervals and standing with head extended in alert and watchful attitude is quite characteristic of the species.

Insects form the bulk of the food taken, although other animal matter such as worms and crustaceans are important locally and seasonally.

The nesting grounds of the Pectoral Sandpiper are located in the Arctic coastal regions of Asia and North America. They winter far to the south, in South America to Argentina and Chile. The main north-south migration routes are along the Atlantic coast and the Mississippi Valley. During the northward movement in the spring it is not too common in Florida. During the fall migration the Pectoral Sandpiper heads south to the tropical coasts of South America.
(Continued from Preceding Page) species may be encountered along both the Atlantic and Gulf coasts as well as in suitable interior areas. Points to look for in field identification of the pectoral sandpiper include the relatively long neck, the dark brownish back with fine light stripes, the dark crown, and the greenish yellow legs. The well extended neck and high held head are also characteristic.

Least Sandpiper, Erolia minutilla. Measuring only about 6 inches in total length and having a wing-spread of 11½ inches on the average, the Least Sandpiper is appropriately named. This smallest of the sandpipers is quite easily recognized because of its small size, white underparts, and low, direct flight. Soaring, it is at home about lake shores and rain pools, open lake shores and in Florida, the entire year, it has not been reported as a breeder in the state. The main nesting grounds of the least sandpiper are in Alaska, Siberia, and western Europe and Asia. In feeding, they run nimbly in the sand, probing for food. As is the case with the other shorebirds, insects and various crustaceans make up a large portion of their diet. Among the many fish dishes that "do things" to game and fish included in one cookbook.

In addition to the down-to-earth dishes there are many gourmet delights interspersed within each section; for example corned venison à la Maine, creole venison jambalaya, brandied snipe, smothered doves, raised with the latter usually prepared as breaded and sautéed, with those of the semipalmated sandpiper.


This book represents for the most complete and thoroughly useful collection of material on the game included. There are venison and deer cakes, roast trout, roast duck, roasted venison, the latter usually prepared as breaded and sautéed, with those of the semipalmated sandpiper.

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The Gun Editor was none too pleased, showing beneath their deep blue color. Both guns had such blemishes on the surface. He discovered that a Wren had built her nest there. He had to use the sale of the gun, and gave the much larger bird a return from the nest some time, yet each firearm has weathered hard usage without replacement of a single component part. There is no reason why a quality gun select­ed from the 1938 line should not give parallel performance, given reason­able care.

Keep in mind that it is gun fit, performance and dependability that count. If the gun of your selection measures up in respect to those three requisites, then consider yourself blessed. You will have found the perfect gun — for you.

A gun’s performance is determined by instinct. Their attitude is under­stood and this Gun Editor was none too sure of. Be­came more observant or that this man had a knack for getting along with people anyhow and will frequently build in most surprising places. Nothing is safe from them: a small bucket or basket hanging in your garage, or even an old shoe left on a shelf will serve as a house. She watched her eggs, fed and suc­ceeded in raising a few tiny Wrens cozily housed where their flowers were supposed to be planted. Needless to say, the planting was put off until they left the nest.

So, don’t underestimate them — their intelligence and ingenuity. And if anyone should call you a “bird-brain” don’t be insulted. Take a now.

FLORIDA WILDLIFE

JULY, 1958
A MONSTER MAKES HER NEST

(Continued from Page 23)

A great stroke of luck favored my approach; for the tumult continued,—"if anything, wilder than when I had first heard it."

When I was about twenty feet above the ground, and well hidden by the dense yellow leaves, hissing audibly by holding fast to two history limbs, I began to try to see what I could see.

First I observed a great waving of many pigmy alligators, with their powerful jaws and forked tails. The moment they were free, infa%ailly they would make a bee-line for the nearest water. It is possible that they speedily detect their native element by their power of smell, which I have never tested, but I am convinced that this particular power is memorable.

This little article began with a suggestion of mystery. I said that the strange lakes and bays along the Southern coast probably were me%etoric in origin. Anything of that nature draws us close to the wonder of creation. As I began with something akin to mystery, so I close, hazarding no attempt to solve this strange, perhaps occult, phenomenon.

Because I have "timed" a mother alligator so many times, I am certain that she knows the day, perhaps the hour, when her eggs will hatch. She will have left them for a month; being a natural roamer, she probably has traveled many miles from her nest; being a ravenous carnivorous predator, she probably has had many an exciting and diverting experience since she laid those eggs in that mound that she herself had constructed. But she remembers the Day; and she knows that her tiny, helpless young, fighting their way through thorny dense thickets, will need some faithful shepherding. Who but a mother, great of heart, would infallibly be there? What always tenderly remembers the Day? I think that love is like that.

A NEST

(Continued from Page 9)

Day amounted to $428.27. Eleven clubs participated in Tag Day this year: Hollywood Junior Sportsmen's Club, $40.71; Alligator Optimist Club, $23.75; St. Petersburg Jr. Rod and Gun Club, $29.16; Hialeah Jr. Everglades Conservation Squadron, $20.00; Deane Mather Jr. Wild Life Club, $13.25; Panama City, Boys and Girls Clubs, $45.10. Total income, $428.27.

JULY, 1958

FLORIDA WILDLIFE

By GEORGE TROWLEY

BORDER IT, HENDEl! "You're上市公司" when he's asleep?"

"Dewees it, Hendel! You're sleepin' when he's asleep?"

In every quire knows why, or even if its true, but the story persists that there are no fleas on the dogs in Reno. There are various waggish tales about residence require%ements, trial agreements, etc., but those are probably best overlooked with a sigh.

Animal experts think that such a phenomenon, if it is possible, must be due to a combination of altitude, crisp dry air and the nature of the soil in that particular part of Nevada.

All of which doesn't help the millions of dog owners in the rest of the country, those who have no motive to visit or take up residence in Reno. For them, however, there are tried and practical methods of rid%ing their pets of fleas.

The simplest way to powder the fewest fleas, or to determine whether the powder includes the new insecticide, is to dust the dog with a powder containing five to ten per cent DDT. The label will tell whether the powder down to the skin. Then turn hair, dust the powder into a dampened cloth or chamois will take off any remaining powder.

If the weather permits, do the treatment starting behind the ears, dust the powder into the newspapers, and then, starting behind the ears, dust the powder into the hair down to the skin. Then turn his coat so that it sifts through the hind the ears, dust the powder into his coat so that it sifts through the hair down to the skin. Then turn his coat so that it sifts through the hind the ears, dust the powder into his coat so that it sifts through the hair down to the skin. Then turn his coat so that it sifts through the hind the ears, dust the powder into his coat so that it sifts through the hair down to the skin. Then turn his coat so that it sifts through the hair down to the skin. Then turn his coat so that it sifts through the hair down to the skin. Then turn his coat so that it sifts through the hair down to the skin. Then turn his coat so that it sifts through the hair down to the skin. Then turn his coat so that it sifts through the

HISTORYANS OF FLORIDA WILDLIFE

By CHRISTOPHER WILDER

By CHRISTOPHER WILDER

The simplest way to powder the dog is to stand him on spread-out newspapers, or to dust his coat starting behind the ears, dust the powder into his coat so that it sifts through the hair down to the skin. Then turn his coat so that it sifts through the

FLORIDA WILDLIFE

(r) 1958 by FLORIDA WILDLIFE

The old saurian I was watching was a strange place for an alligator to get into, for the old saurian always knew how to get into the strange structure built, a great deal of green vegetation. The swift roamer, she probably has traveled many miles from her nest; being a natural roamer, she probably has had many an exciting and diverting experience since she laid those eggs in that mound that she herself had constructed. But she remembers the Day; and she knows that her tiny, helpless young, fighting their way through thorny dense thickets, will need some faithful shepherding. Who but a mother, great of heart, would infallibly be there? What always tenderly remembers the Day? I think that love is like that.

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FLORIDA WILDLIFE FIELD TESTS AND TRAILS

FWFT&T recommends that shooters who are also campers use their National Mat or cotton and cloth or extra padding under sleeping bag or air mattress. So used, the mat will definitely add comfort and warmth to a grounded-camp bed.

Write for National Sports Company's catalog, or see the mat at sporting goods stores regularly handling shooters' supplies.

DURING the historic days when the early American hunter was gradually being pushed westward, shooting matches were quite common, and enjoyed to such an extent that many plainsmen would travel several hundred miles to compete.

Invariably, shooting was from offhand position at improved targets or at the bobbing head of a turkey tied behind a protective breastwork of logs.

Interest in both target archery and bowhunting has been experimentally with various models, FWFT&T recommends the Opto-View line of slide viewers, Webb's Optics Manufacturing Corporation, Philadelphia, 34 Penna., price $19.95, direct or in any Florida camera stores.

Other Opto-View slide viewers are available in a wide choice of sizes and prices, but FWFT&T feels that the $19.95 model best meets the needs of the sportsman who does not wish to bother with setting up a viewing screen, yet who frequently wishes to see his colored slides in large size.

In the $19.95 model, Opto-View, two

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In the $19.95 model, Opto-View, two
We cannot truly know the animals without knowing the eggs that bring them forth. To understand eggs gives us one of the clearest insights into the survival expectancy of the species.

INTERESTING ANTS

(Continued from Page II)

venience, maintain home study ant colonies in clear, unbreakable, escape-proof plastic cases. Ant colonies have proven especially interesting to invalid patients in hospitals, sanitariums and rest homes.

To meet the growing public interest in ant studies and the demand for established colonies in aquarium-like containers, the E. Joseph Comman Company, of Hollywood, California, has to buy a million ants a week to fill orders for its ant farms.

The firm pays one cent per ant for live red harvester ants in healthy condition, wants to purchase and maintain five million . . . ($50,000 worth!) . . . as current stock. However, the firm’s needs will have to come from suppliers within the State of California. Department of Agriculture regulations currently in effect prohibit shipment of ants into California from other states.

Most ants are usually some shade of brown, yellow or red, or entirely black. Examine specimens of different species under either a powerful magnifying glass or a low-power microscope, to see some of their beautiful, fascinating color patterns and their different jaw shapes. But first learn basic facts about an ant’s anatomy; your later observations will surely prove more interesting and impressive.

The harvester ant, as seen by us, is actually its skeleton; the real body is inside horny, external plates. From this framework, three pairs of legs extend. Each leg has three joints, the last of which is used for cleaning and body polishing.

Ants have large jaws of a variety of shapes, hinged so that they work like a pair of scissors for easy and fast cutting, while the powerful jaws of certain soldier ants often have pointed, dagger-like shapes for more effective fighting.

As an ant’s pair of eyes are actually many smaller eyes grouped together to create two large compound eyes. Even so, few ants can see well, entomologists say — rosy only a few inches, with some species being entirely blind. But the ant has remarkably developed senses of smell and touch and is not handicapped in the least by lack of keen vision.

Nests may hold from a few dozen to half a million individuals, and a colony represents a true republic wherein every individual contributes to the welfare of the community.

As every reader knows from sad experience, ants seemingly keep accurate social calendars of scheduled picnic dates and invariably manage to put in an appearance as uninvited dinner guests. However, amid their being annoying and the source of painful bites and stings, the unwelcome guests are not germ carriers like flies.

But the ant that bites man is seldom biten in return! Dr. Lucy W. Clawson, lecturer at the College of Pharmacy, Columbia University, says that Maine lumbermen have been known to eat generously of large black ants found in pine trees, as a means of preventing scurvy.

Indian tribes of our southwestern states and of Mexico crush honey-pot ants and eat their stored nectar, and Australian aborigines obtain a sweet-tasting drink by biting off the honey-distended abdomen of honey-pot ants, eating them much as we do grapes.

Should any of the foregoing cases stimulate your own appetite or curiosity, many of the larger Florida delicatessens stock ready-to-eat ants. One offered this author a choice of a can of fried ants or a bottle of selected, chocolate-covered individuals! Tried experimentally, one of the latter provided a sweet, spicy taste even though admittedly initial appetite appeal was somewhat lacking!

Florida homemakers plagued with annoying numbers of ants about the home can get relief by applying wettable chlordane as a spray or drench.

For outside use, the U. S. Department of Agriculture recommends mixing one tablespoonful of 50% wettable chlordane powder in three gallons of water. The solution is then sprayed on plants, foliage and fruit, except that which will be eaten by humans without washing or peeling. Pour the mixture into all located nests and over immediate surrounding areas, and wash down with extra applications of water.

Inside the house, apply a 2% oil-base, chlordane mixture around entry points of plumbing and heating pipes, edges of moldings, in cracks of floors and in other places which ants may use for entry. A small paint brush will make the job of applying the chlordane mixture easy and neat. Oil-base mixtures should not be used near an open flame, on asphalt tile, or on trees and shrubs, the government entomologists admonish.

Whether you elect to study their intelligent ways; gingerly try them fried or chocolate-covered, or merely to your bit in the general effort to control them about home and garden, you’re sure to be impressed by those interesting ants.
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