Florida Wildlife Scrapbook

**Fishes**

**NAMED AFTER**

**LOOK-A-LIKE ANIMALS**

*COWFISH*

Can you see the resemblance?

*CATFISH*

So named because of the whiskers

*BULLHEAD*

Bull-like eyes and expression?

*HOGFISH*

Shout and profile make it go!

*HOGSUCKER*

With a nose like this, what else but...

**In This Issue**

Suwanee Turtle

Gene Smith 4

The Florida Trail

Art Hutt 10

The Black Duck

Leonard Lee Rue III 14

Things To Take Along

Charles Waterman 16

Revisit To Pelican Island

Mary Ellen Smith 22

Departments

Bluespotted Sunfish 6

Fishing 7

Hunting 25

Conservation Scene 28

Fish Management Notes 30

**The Cover**

One of the smallest of the "bream" family, the Bluespotted Sunfish is also one of the most colorful. The female appears above, on the cover, the male in the center, and a male in spawning color below. See page 6.

From A Painting By Wallace Hughes

**Florida Wildlife**

AUGUST 1969

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Tallahassee, Florida 32304

AUGUST, 1969

ROSE * TALLAHASSEE

3
Suwannee Turtle

Even you've boated along a Florida stream and seen dark-backed turtles sliding quickly from their sunning logs well ahead of your bow, sometimes in "herds" of half a dozen or more, you've at least glimpsed the cooter, or slider, or "streaked head," one of the state's commonest reptiles.

We offer on these pages a closer look at one species of cooter, the Suwannee Turtle, Pseudemys floridana suwanniensis Carr. (There are at least five others in Florida, according to Guide to the Reptiles, Amphibians and Fresh-water Fishes of Florida by Archie Carr and Coleman Goin, University of Florida Press, Gainesville, 1955.)

The Suwannee Turtle is not restricted to the river of the same name. Its range extends from the area of the Apalachicola River delta eastward and south to Pinellas County. It is found in rivers, springs and brackish bays and flats of the Gulf coastal drainages. Elsewhere in Florida it intergrades with, and is replaced by, other cooters.

The young are said to be carnivorous but adult cooters are vegetarians—and are themselves quite good to eat. Many are taken on trot lines and bush hooks. Shooting turtles is now illegal in Florida.

The adult specimen, at top, was larger than average, weighing 16 pounds. The carapace, or top shell, measured 15¼ inches long. The sturdy claws and webbed feet, center, are typical of aquatic turtles. The baby Suwannee, right, was one of 12 to 20 to survive the egg predations of raccoons, skunks, and other animals. The young of all turtles are self-supporting from the beginning of life.

Photo Story
By GENE SMITH

AUGUST 1969
Bluespotted Sunfish

Any one with the inclination and the price of a big cap can probably collect himself a pair of interesting and strikingly handsome little sunfishes for his fresh water aquarium. The Bluespotted Sunfish, *Enneacanthus gloriosus* (Holbrook), is found throughout most of Florida. Notably shy, these flashy "dwarf bream" are partial to sheltered, grassy cover in sluggish but clean water. Never more than about three inches in length—and seldom half that—the Bluespotted, as we'll call him for short, is one of the smallest members of the sunfish family.

The male Bluespotted in breeding color is as gaily tinted as many of the beautiful tropical fishes found in salt water. Iridescent blue and emerald spots are arranged irregularly over his cheeks, sides, and on his ventral fins. It is almost as if he has been sprinkled with tiny sequins, and his velvety blue-black body color makes the jewel-like spots glitter all the more.

As is so often the case in nature, the female is more protectively colored. She is a duller hue—brown to olive—with less distinct spots.

Other identifying marks of this species are its small black spot on the ear flap, or opercle, a tiny oval just at the front of the black spot, a sometimes indistinct "teardrop" eye stripe, and a rounded, rather than forked, caudal (tail) fin. All authorities note that the black opercular spot is "smaller than half the size" in their descriptions of the Bluespotted Sunfish. Too, it is agreed that he normally has nine spiny rays and 10 soft rays in the dorsal (back) fin and three spines and nine soft rays in the anal fin. The fins of the female are usually slightly smaller than the male's.

The genus *Enneacanthus* has three members, all of which are found in Florida. They are the tiniest of the family Centrarchidae, which includes the largemouth bass and all the familiar panfishes that attain eatable size—bluegill, shellcracker, stumpknocker, warmouth, speckled perch, redbreast, and stumpknocker cousins, are shepherded about the sunfish family feels safe from bigger fish. "peewee"

The little-known Bluespotted Sunfish lives near your home. Look for him in still waters under thick vegetation, where they are generally quite safe from marring bass and pickerel.

Fishery biologist Vernon Oglivie of West Palm Beach expresses belief that the Bluespotted is "fairly important" as a mosquito control agent in southern Florida waters, noting its love of thick vegetation and its unavailingness as a forage (food) fish for predator species.

Regrettably the species as an aquarium fish, he says he has kept many over the years but that they are indeed very shy and do best in heavily planted aquaria.

The book *Freshwater Fishes of the World* by Gunther Sterba (1967), offers these guidelines for keeping sunfishes in aquaria:

"Sunfishes should be kept in large aquaria standing in a light position, and provided with a fine sandy bottom-soil and numerous possible hiding places among thick clumps of plants or between root tangles or pieces of wood..." Constant tempera-

tures are also recommended. Live food of all kinds are good for sunfishes, if obtainable, but they will also be utilized. Oglivie has fed Bluespots mosquito larvae, newly hatched mosquito fish, or potguts, and mollies, and also frozen brine shrimp and daphnia, available from pet shops and aquarium supply houses.

Bluespots are found throughout peninsular Florida and have been recorded from the Apalachicola, Choctawhatchee, St. Johns, and Yellow river water- ehrs in northwest Florida. Though not reported from the Escambia or Perdido river watersheds by Florida collectors, it is probably there found, too.

A new book, *The Fresh Water Fishes of Alabama*, by William F. Smith-Vanz, published by the Alabama Agricultural Experiment Station at Auburn, lists it from the coastal drainages of that state, listing specimens from as far west as the Mobile River system.

The national range of the Bluespotted Sunfish is from New York southward in Atlantic drainages and westward on the Gulf as stated.

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Fishing Future

There are varieties of water pollution types that may not be a "threat" to the public but, nevertheless, can ruin fishing conditions by degrees.

By Charles Waterman

The *Flowering Floreo* is a Florida product and employs dressing of crinkly nylon. It's long been proved as a fish catcher and the quality is un-questioned. It's usually called a jig of course and anything that has a weight on the head, a single hook and some kind of pliable trailing material, gets that name in this neck of the woods. The word *jig*, as Williams once suggested, is a very vague one and covers everything from what's more properly a "weighted streamer" to a bait hook with lead head. But it's hard to describe the individual lure and we tend to use the word too freely.

I have used electric outboard motors from time to time and am convinced they present one of the best methods of approaching spooky fish. My only complaints are that they aren't handle a big boat in the wind, and that the charge often doesn't last long enough at full speed operation.

A while back I made a fishing trip with Pete McLain and Jim Snyder of New Jersey who used an electric on their short Boston Whaler. Their traveling motor was a 33-horse Johnson. The Whaler lies low in the water so that wind (Continued on next page)
doesn’t bother it much and they seemed to have

so, enough for an ordinary day’s fishing.

electric operated at the front of a boat with low

don’t try it with a boat having high freeboard.

happened so often that I actually believe it is a

ridiculous. For three years I have been fishing a

South

take a bug with only a gentle swirl, and this has

what there is in their feeding habits that could

average.

them they tear things up and ,

was a bluegill strike on virtually every cast, fish

ditch full of competition.

that ran hand-sized or larger, and why a bass

Theirs was a hand model but the foot-controlled

It was the fish in the 1½-to-3-pound class that took

so gently.

Incidentally, it was the best bluegill fishing I

over had.

I have a couple of big Unco tackle boxes that

please me. They’re the 506 model and made of a

highly flexible AIBS plastic that gives easily and,

frankly, doesn’t look as tough as it is. However,

you can sit all day on one without hurting it and

the size, 18 x 10 x 9½", is enough for a, the pretty

good batch of gear. There’s a big, lower compart-

ment and three trays.

I always buy tackle boxes with the large size

trays as used for salt water or muskie fishing. Small

trays have always been a nuisance for me and the

dreadful tongues I sometimes get by throwing

several lures into the same compartment are offset

by the fact I never have one of those box-shaking

spasms when one, big plug won’t go anywhere

without jamming the lid. Neat types may disagree.

I prefer this big-lidded type to the box-like one

because they pack easier and are more comfortable

to sit on, unimportant features for those who don’t

have to travel around so much. I never seem to

find enough room to open my box-like boxes.

Okay, so now I’ve made somebody mad.

Unco, for example, makes both plastic and alu-

minum tackle boxes. I’d rather have aluminum,

other things being equal, but I have the plastics

because they made them in a shape and size to suit

me. My only preference for aluminum is resistance
to chemicals. I lost the bottom of one plastic box

when a bottle of insect repellent was spilled.

Foam rubber under pressure is the big thing in

packing these days. Some of the most satisfactory

gun cases are made that way, the pressure being

great enough that, after you close the lid, the

guns simply don’t go anywhere. Not much fishing

tackle requires that kind of storage, although some

use it for fine rods.

I have to carry cameras in salt water areas where

sand, salt, rain and large feet are constant hazards.

two you’d see the wake of at least one bluegill and

maybe several heading for it. The bass would

probably make a bigger bulge if he showed up, but

he’d leave over to the bug and, after looking it over

carefully, he would take it with a gentle bulge and

swirl. The only loud strikes we had were from

very tiny bass, possibly nine inches long. That’s easy
to explain because the little fellows would be

prepared to whip that big bug as well as eat it.

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I have to carry cameras in salt water areas where

sand, salt, rain and large feet are constant hazards.

Two handy cases. In foreground is Unco tackle box

built for large lures and equipped for fly tackle. In background is Halliburton camera case.

Florida’s one big problem with slow-moving

rivers and lakes is pollution; not necessarily the

kind of pollution that turns all the fish belly-up but

several sorts of insidious conditions that ruin fishing

by degrees.

Of late there is considerable worry about thermal

pollution, simply the reduction of oxygen supply

through excessive heat, and caused by overheating

water for cooling purposes in various types of

industrial plants. Without defeating these effects,
it’s safe to say that such dangers can be shown by

temperature readings.

There are other kinds that are little understood

by the public but, nevertheless, knock the stuffing

out of the fresh water fishing. Most people feel that

fish simply die if water is polluted and thrive if it

isn’t. If you can drink water safely, they are

sure it’s pure and the thought of gradual deteriora-

tion of fishing through insidious encroachment by

treated sewage or industrial wastes has never

occurred to them.

There’s wide range in treatment and the amount of

effluent discharged into a big, swift river with

little or no damage could mean death to a small

lake or a slow-moving stream reduced by dry

weather.

Treated sewage that’s carried out to sea promptly

may not harm the fishing. If there’s a drought

and resultant settling in still water we have a dif-

ferent story.

Content of treated sewage may foster the growth

of algae which uses a lot of oxygen in life and, even

more in decomposition, that will reduce the

fish population.

Is it possible to further treat sewage so that this

won’t happen? Yes, within limits. The sanitation

engineers tell me that with an added investment

of 25% in construction and an operating ex-

pense of 25% to 50% sewage could receive ad-

ditional treatment that would probably prevent
damage to fish populations. But this additional

treatment would be beyond that required by law

and would be a political horror. The public always

squalls about rises in sewer or garbage disposal

prices.

What about sanitation standards set by the state or

other units of government?

So far, they have been aimed primarily at the

prevention of disease and have been little concerned

with fish populations. The effects of treated sewage

vary greatly with individual conditions.

For example, suppose the state sets a standard

of purity for effluent from all sewage treatment

plants. It will have little bearing on reality unless

the amount of sewage treated and the stream into

which it is dumped are carefully measured.

Can sewage be completely purified? Well, nearly

so, but it will cost a lot of money. In the future,

the engineers tell me, it will have to be done. In

the meantime, even though the local residents won’t

discuss it, there will be steady decrease in the

fishing in a number of Florida rivers.

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Two handy cases. In foreground is Unco tackle box

built for large lures and equipped for fly tackle. In background is Halliburton camera case.
"Instead of driving 1,600 miles to go hiking, we thought we'd establish a trail system right here in Florida," says Jim Kern, President of the Florida Trails Association, Inc. Kern, a Miami realtor and outdoor photographer, and his group figure there's no better way to see the Florida wildlife and plantlife than moseying along on foot through the varied and scenic terrain our state offers, meeting nature on her own level, so to speak. To say nothing of the benefits of the exercise and relaxation, away from telephones, TV, and hot-dog stands.

If their plans and efforts continue at the present pace, you'll soon be able to take your first step at the Tamiami Trail and your last at Panama City. In between there will be 700 miles of walking, commencing with the pine hammocks and cypress stands of the Everglades, through the cattle and lake country of Central Florida, along the historic Suwannee River, and finally into the "hill country" of northwest Florida.

Before anybody moths at the idea of such a lengthy walk, be happily advised that the trail will be laid out in 26 segments averaging over 25 miles each. Within these segments, assuming 6.8 miles is a normal day's hike, the trails are planned so there is accessibility by car in case you want to drive one of two cars ahead to a stopping point if over-nighting is not your strong suit.

The Florida Trail is modeled after the world-famous Appalachian Trail which follows the mountain ridges 2,000 miles from Springer Mountain, Georgia, to Mt. Katahdin, Maine. Idea'd in 1921, the Appalachian trail became so popular that it is now under federal control and protection.

Laying out a trail is like putting an enormous jig-saw puzzle together. First the Florida group roughed out the general route with the help of state and county maps and aerial surveys, utilizing as many public lands as possible where permission to establish a trail presents no real problems. Civilization was avoided as much as was practical. Once they selected this route, they divided it into 26 sections with a section leader for each. The section leader then takes over and is responsible for his stretch.

Again, aerial, state, and county maps are studied, keeping in mind the alignment with the master route. Property owners are consulted for permission to cross their lands, with most owners proving cooperative, thanks to their generosity and to their knowledge of the successful Appalachian Trail.

Discussions are held with state and federal land agencies—the FT goes through several state parks and all three national forests. Once the route is finalized, the corrected version is adopted into the master map.

Then the physical labor begins.

One of the recently opened FT's is Section 12 which starts at Clearwater Campgrounds and ends at Juniper Springs, a distance of 25 miles all in

Photos by Art Hutt

A Florida Trail sign, above, is used to mark the beginning of a safe, well-marked hiking trail. This 125-mile section goes from the Clearwater Lake Recreational Area to Juniper Springs through the Ocala National Forest. Backpacks are worn by most serious hikers—carry food, tent and packed spots. Jim Brauman, Tampa Boy Scout, left, withue for Kathy Mulholland whose father developed Section 12 of the trail.

Remote for detachment, narrow for chosen company, winding for leisure, lonely for contemplation, the trail leads not merely north and south but upward to the body, mind and soul of man.

—Harold Allen

the Ocala National Forest. Fred Mulholland of Tampa is Section Leader. Assisting was Scoutmaster Bob Branam's Troop 13, also of Tampa; the youngsters earning various badges for their efforts.

With clippers and machetes, a trail four-feet wide was cleared (wider where growth is extra-rapid). Trees were "blazed" with red or orange paint, hopefully within a hundred yards of each other. Rugged wooden signs marking the start of the trail were erected. A mileage wheel was pushed along to measure distances to various points of reference.

Next, the section leader drew up an explicit map and wrote a description of the trail, this information being available to members of the association.

Fred Mulholland's is a six-pager, including south to north, and north to south details, the two-mile jaunt into Alexander Springs from the main trail, and a detailed map.

A segment of Mulholland's description goes like this: "Pass pool on right and 100 yards further pass huge pine tree at 11.3 miles. Cross Forest Route 73A at 11.7 m. Turn right, leaving dense woods at 12.2 m. Turn right onto road on the south shore of Buck Lake at 13.6 m. Road may be wet for 100 yards in this area (the brush along the road will usually provide dry walking). Road comes in on right at 13.9 m. Reach Buck Lake Recreational Area at 13.4 m. Water pump is located here."

Could you get lost with instructions like this? Not very easily.

The Section 14 Leader, Al Stone, originally did maps for 130 miles of the Appalachian Trail through Pennsylvania and still spends his summers
To afford an accurate description for write-up and distances to reference points on a trail, a mileage wheel, left, is used. Tampa Bay Scout Troop 318 helped establish trail through Ocala National Forest. Bob Orwig, right, Section 11 leader from Sanford, revitalizes the blaze on a pine tree. Where possible, the blazes are put within sight of each other to ensure safe hike. A modernized "chicken," lower right, the first built by this association, is located at Gold Head Branch State Park. Jim Kern, at right, is president—and founder—of the Florida Trails Association. His companion is Tom Montoya who is both a board member, and a section leader.

(Continued from preceding page)

There maintaining 34% miles of this trail. Stone winters in Leesburg. His section covers the area between Rodman Dam and Gold Head Branch State Park.

While most emphasis is placed on wintertime hiking, trails in Florida can be used the year around. In fact, they may be the only trails open during the winter season, others being too cold or impassable due to snow.

There seems to be little danger associated with hiking in Florida. Snakes have presented no problem, but during the warmer months the smaller stuff—chiggers, ticks, gnats, mosquitoes—can be an annoyance. Applications of sprays and dusts are recommended for these times of the year.

Too much sun is a possibility, too, so hikers should use both hats and sunburn lotions or creams.

Dehydration is possibly the worst danger, and hikers should always carry a canteen full of water. Long pants to protect against weeds. Wear heavy shoes to protect and support ankles. Wear heavy long pants to protect against weeds.

You don't have to be a member of the Florida Trails Association, Inc., to use their trails in the National Forests but the membership cost is so minimal it wouldn't hurt anybody to contribute to it. Dues are $2.00 for individuals, $3.00 for the family. For this, over 1,000 members receive four bulletins a year listing activities, including several canoe trips. There is an annual meeting, and a camping weekend, with members giving talks and showing slides of trips. Members may also write for the detailed maps and hiking instructions for sections that are opened.

The rest of the membership money for this non-profit group goes for paints, maps, stationary and signs. All officers contribute their time—there are no salaries.

In joining the association, members must sign a pledge indicating responsibilities in areas of wildlife protection, respect for landowners' property, and anti-littering, to name a few.

Through public lands, anyone may use the trails. But through private lands, you must be a member.

Fires may be built at indicated sites on private property and most anywhere allowable on state or federal property unless the area is under a no-fire rule.

The association has its problems, too. Fred Mulholland complains that everything is too accessible by car in Florida. Vandals is bad, with signs put up one day ripped down the next. Jeep drivers abuse the trails but section leaders are getting wise; they merely route the trail between narrowly spaced trees or through a swamp every so often. And speaking of swamps, the leaders all join in saying "you can't be assured your feet will be dry on a Florida trail." But that goes for nearly every trail, for that matter.

The PT, to promote wilderness get-to-gethers, have several canoe trips laid out in much the same fashion with maps, details of the waterways, and mileages. One of the most popular is the trip along the Suwannee River (Section 18).

At this writing, Section 12 (Clearwater Campgrounds to Juniper Springs), and Section 17 and 18 (Okeechobee National Forest to Suwannee River State Park) are open for use. By next winter, Sections 1, 2, 3 and 4 (Tamiami Trail to Alligator Alley) and Section 13 (Juniper Springs to Rodman Dam) will be open.

One U.S. government pamphlet reports that there will be 152 million hikers using established trails by the year 2000—an increase of 348% in the period 1969 to 2000.

The Florida Trails Association has had the foresight to get the ball rolling early. For current information about the status of the trails you'd like to hike (and for membership!), write James A. Kern, 31 S.W. 18th Terrace, Miami, Florida 33129.

For the privilege of an education in a natural world, this conservation-minded group leaves nothing behind but its tracks.

For the privilege of an education in a natural world, this conservation-minded group leaves nothing behind but its tracks.
The Black Duck

By Gene Smith

Any duck hunter worthy of the title already knows the Black Duck, which winters mainly from Jersey through the Carolinas, with but a few filtering into north Florida. But in case you're just breaking in at this home-wrecking, illogical, entirely captivating sport, here's a thumbnail sketch of one of the top ranked North American game ducks, so rated for its size, accessibility, sporting and eating qualities, and numbers.

It is, indeed, one of the "big ducks," like the Mallard, Pintail and Canvasback. It is a dabbling duck, that is, it tips up to feed—which means that it is most often found in shallow waters: small ponds, lakes, sloughs and quiet backwaters, often in company with its close relative, the Mallard. The Black is familiar, too, in tidal marshes—more so than other dabblers.

The big Black Duck is a strong flier and deceptively swift. It is also well known for its extreme shyness, a characteristic which requires the successful hunter to be ultra-careful about motion and glare, litter and glitter in and around his blind. The slightest unnaturalness will cause Black Ducks to bypass your pond.

As you can see, the Black Duck isn't really black, but a dusky brown, the body being darker than the head and neck. To the neophyte it is easily confused with the female Mallard and with both sexes of the Florida Duck, our non-migrating species found only in central and south Florida.

The speculum, the colored wing patch, is purple-blue and the undersides of the Black Duck's wings are silvery white. This is a good field mark for the hunter to look for. The flashing white is easily visible when this duck bounds up off the water in vertical flight and when he pitches in for a landing. No Mallard or Florida Duck can make that statement.

Drake “Fanning” Its Wings

Drake Landing

Black Duck Drake

The Black Duck Trio

Photos By Leonard Lee Rue III
A fisherman takes a lot of things with him, many of them completely unnecessary. What goes along on the trip is half the fun, much of the trouble and a large share of the conversation. This is not just a recent situation. In reading a book by Van Campen Heilner, published in the New York area, a neighbor of mine is collecting the things he would wish I could take along on each trip. The fact I don't move around very much. In hot weather when you don't mind getting a little wet the poncho is satisfactory.

A year ago we went on an extended fishing trip in Canada and found that the tackle pile for trout and salmon, neither of which is a popping bug lover, and if we got into pike, I said, we'd use big streamers and spoons.

When running a boat without a windshield (the only kind I own) I generally put on a grinder's mask if it rains. If the mask isn't along, I tie a bandanna over my mouth and wear glasses to keep water out of my eyes. Twice I have had my lips bruised by rain when running an outboard boat; hence the bandit getup. The only complaint with the grinder's mask is that I can't wear a rain hat over it.

Rain may be more unpleasant at the time but Florida's sun is more dangerous. The visor cap

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snake bite treatment that I have no advice to offer.
I carry the old cut-and-suction type but I have never had to use it, don't know how efficient it is, and wish the M.D.'s would agree as to what we should do.
I have seen shear pins improvised from fishhooks, nails, screws and cotton pins but it's a lot of trouble. If your motor uses them, be sure they're along. I keep a spare pin taped to the steering handle of a small motor, just in case. I also have a shear pin or two in each tackle box and extra ones in the tool kit.
I always use brass or bronze propellers on the larger outboard motors. My procedure is to buy the brass wheel and keep the original equipment as a spare; it's usually aluminum. Then if I haven't needed the spare I can provide a practically new wheel when I trade in the engine. I use aluminum props on the small motors. Of late there have been some inexpensive props offered for sale new. They're not intended for long use but are simply get-home insurance, lacking the hub refinements of first line propellers.
You need a spare pull cord as well as extra spark plugs, all of which is pretty routine for anyone who gets far from shore with an outboard. An ice pick with the sharp point trimmed off is a help in installing new shear pins. A spare propeller hub is good to have, especially if the original is plastic. I broke a plastic hub last winter, found the one I'd been carrying faithfully for years wouldn't fit that particular motor, and was uncomfortable until I found the busted hub could be stuck together temporarily. Tool boxes should be emptied out and shaken down now and then. You're apt to find anything from car keys to old Humphrey buttons. Out-of-date parts for long gone outboard motors are a sure store.
Unfortunately the tool box doesn't do as much for me as it used to. While there is much less trouble all the time with fishing motors, when something does go wrong nowadays there's nothing much I can do to fix it. More mechanically inclined victims would need more tools than I'd know what to do with. Steel tool boxes (not galvanized) rust on me as it used to. I generally carry a spare gasoline hose, recalling with some bitterness the dark night in a narrow creek when I suddenly became blind only to find the gasoline hose had been broken by a limb and was spraying a mixture of oil and gas into my face. I managed to fix that one with some tape and a knife, and no such thing has happened since. However, every now and then, a hose will leak badly when the O rings give out and it's handy to substitute another. It's handy to use two gasoline tanks, even when trips are relatively short.
It makes measuring gasoline and oil much simpler as you can run one completely emptied and I always carry a spare gasoline hose. Before I was MOB at one time and was spraying a mixture of oil and gas into the motor rigid; there are canvas cases for some motors and they're noisy at best. I also use the mats in the car when hauling gas tanks. Some fishermen have built wooden trays for the regular 6-gallon gas tanks, buying a model sold by Rubbermaid. It's simply a mat for the tank with a little flange around it to keep leaked gas from running all over the boat. Many a boat has been holed from the inside by bouncing gasoline tanks in rough seas and they're noisy at best. I also use the mats in the car when hauling gas tanks.
If you carry an outboard in your car there are several ways of protecting it and what it rests on. Some fishermen have built wooden carriers to hold the outboard motors are a sure store. Unfortunately the tool box doesn't do as much for me as it used to. While there is much less trouble all the time with fishing motors, when something does go wrong nowadays there's nothing much I can do to fix it. More mechanically inclined victims would need more tools than I'd know what to do with. Steel tool boxes (not galvanized) rust on me as it used to. I generally carry a spare gasoline hose, recalling with some bitterness the dark night in a narrow creek when I suddenly became blind only to find the gasoline hose had been broken by a limb and was spraying a mixture of oil and gas into my face. I managed to fix that one with some tape and a knife, and no such thing has happened since. However, every now and then, a hose will leak badly when the O rings give out and it's handy to substitute another. It's handy to use two gasoline tanks, even when trips are relatively short.

It makes measuring gasoline and oil much simpler as you can run one completely emptied and I always carry a spare gasoline hose. Before I was MOB at one time and was spraying a mixture of oil and gas into the motor rigid; there are canvas cases for some motors. A canvas tarp is good. We always travel with two or three canvas tarps, and generally one or two plastic ones. The plastic ones are better for keeping things dry in a boat but aren't much protection for wrapping around equipment in transit. Canvas is hard to clean once it's really soaked up oil, salt water and fish slime but is good padding.

(Continued on next page)
I have known mediocre swimmers who balked at the control necessary in “drown-proofing.” So—I'm long on the life saving equipment.

I take a small fire extinguisher, even when it's not legally required. I often carry an inflatable inner-tube-type floating “bubble”—a sort of instant boat for fishing spots where I can’t quite wade and don't want to take a boat.

I have run into a problem with ice boxes to be used on board fishing skiffs. You really need two. Most of us have opened soft drink bottles with a sickening odor of fish about them—it's hard to get out, even by modern bottle washing and disinfection. The practice of chucking fish in on top of everything in the icebox used for hauling lunches is no good and fish box should be separate. A live box is satisfactory for most fresh water fish. Most salt water fishermen plan to keep their catch used on board fishing skiffs. You really need two. A tackle box is never too big. I keep three—for Florida fresh water plug and spinning; salt water plug and spinning; fly tackle and flies.

Each box carries one spare reel and line. It may not exactly suit the kind of fishing being done but it will be a usable substitute. It's very wise to keep the spare reel the same as the one being used as the problem of repair is simplified. You'll be in bad luck indeed to be unable to make one good reel out of two but most of us aren't this logical. Each box needs a thermometer, knife and pliers.

There is another system of tackle storage that I abandoned some years back. I used to keep a big stock box and endeavored to fill a smaller box for each trip, but it was simply too much trouble. Now I keep each of the three tackle boxes pretty well ready to go, and if I use one very small box for a given trip I make it up from the main boxes and then return the gear used to the original containers after the trip.

The “stock box” is simply a chest of drawers. A big but lightweight wooden chest that “carries everything” is satisfactory for loading from car to boat with one grunt and can be packed well ahead of time; it's a super tackle box and wardrobe trunk. It's nice to have a short-handled but heavy gaff hook along on almost any boat expedition. Even in fresh water you might want to use it on a chance gar, mudfish or even a turtle. If it's heavy enough it can make a handy club, and in salt water it will serve with all sorts of surprises. You need something to protect the point.

Photography is pretty well fubbed by most fishermen who forget the camera until they're back at the dock, and then shoot their catch in a sporting goods store with a beer cooler in the background or in front of a fishing camp sign. Neither photo is very artistic but if that's what they want, more power to them. More interesting photography could be done on the scene where the fishing was done and when it was being done.

To do it that way the camera must be taken along. My own favorite for such situations is a small underwater camera which thrives on wet mistreatment, but most fishermen aren't that eager about the pictures. If you don't want to spend a lot of money on a camera for a camera, a very small, insulated icebox is hard to beat. Heat and water are enemies of photo equipment and the icebox protects from both.

Now, if the boat is big enough you're all set. •

FLORIDA WILDLIFE

AUGUST, 1969
SNUBBED INTO THE SALTY Indian River a mile and half north of the new Wabasso bridge, set in shallows jiggling with fish, there is a tiny island that belongs to the American people and the brown pelican (Pelecanus occidentalis).

This is Pelican Island, our nation's first wildlife refuge, so designated in 1903 by President Theodore Roosevelt. It is also a National Historic Landmark.

In summer, this triangular three-acre island is the home of 10,000 brown pelicans and hundreds of wood ibis, white ibis, egrets, cormorants, anhingas, frigate birds and herons. In winter, it harbors 25,000 birds, including 250 magnificent white pelicans from the Pacific coast.

Late in May 1969, after an absence of four years, I revisited Pelican Island. (See FLORIDA WILDLIFE August 1968, "War of the Pelicans"). My guide was Lawrence Wineland, biological technician, stationed at the refuge and the lively bird community.

A tanned and sturdy outdoorsman, Wineland works for the U. S. Bureau of Sports Fisheries and Wildlife, Department of the Interior. But he cooperates with state conservation agencies also concerned with wild birds. He has been stationed at Pelican Island for four years and, without doubt, is the pelican's best friend.

As we drifted near the island in Wineland's small aluminum boat, he spoke with admiration of the big birds perched in mangroves along the shoreline. "The pelican is a good parent," he said. "Unlike the wood ibis. Both the male and female pelican care for the young until they are able to take care of themselves. They never desert their nests. And I have even seen pelicans apparently trying to help crippled members of their community."

As we moved into the sea lettuce which thickens the grey-blue water around the island, Wineland explained that the refuge and a few adjacent islands are owned by the federal government. However, the bottom lands surrounding these islands which form the feeding grounds for the birds, while the property of the State of Florida, are leased to the federal government. He also pointed out that a new state park in the forming stage near the Sebastian Inlet would firm up protection for the birds.

In the dazzle of morning light, the bird island appeared much more barren than it had seemed four years ago. Then there had been an interlacing of mangrove limbs all along the shore. Now the trees looked worn and gaunt, somewhat bare of leaves, and through their branches I could see patches of white sand. Sprouts of bright green grass grew, here and there, along the shore.

A fishy odor, pungent but not unpleasant, rose in waves on the hot morning air. And from the island came a cacophony of wails, cheeps, screams, growls, grunts and even barking sounds. It was obvious that Pelican Island is a nursery operating at full capacity.

"The baby pelican is noisy," Wineland admitted. "But the adult is almost voiceless."

But not all the sound came from the fledglings in the big pelican nests which are woven strongly of twigs and set from five to six feet above the ground. Many trees also held the nests of anhingas, cormorants, and common egrets as well as pelicans, and in the tops of the tallest trees were huge nests built by great blue herons.

The entire drama of bird life from birth to death is played out naturally on this spit of sand studded with gaunt mangroves. The bones of birds that have died of old age or of accidents—the island harbors no predators such as snakes or raccoons—lie bleaching on the white sand. Here and there, you see a small skeleton draped over a twig near a nest, spelling out a tragedy. But the drama of Pelican Island is one of life, not death. The island fairly seethes with life. Pelicans float near the shore, they perch in the trees, they float in the air above the island. Wood ibis, so awkward on land, rise to fly with infinite grace. Egrets and herons move gracefully along the limbs. Occasionally an adult pelican makes a clacking sound with his beak, but the birds appear mostly to live harmoniously with others not of the same feather or color. And all wore their mating plumage and colors. In late May, while many sat on nests, others carried twigs in their beaks for building nests.

The nests, on every tree, held either eggs or baby birds. The pelican nests held three eggs; the American egrets' two pale blue eggs. Small birds, huddling together, lifted open mouths and cried for food. Half-grown pelicans lumbered about on the sand, or floundered in nests too small for comfort.

The young pelican, seen through my 300 mm. lens, was both engaging and ridiculous. He is grey-skinned and almost nude. What later will become graceful wings (the pelican has a wing span of 6½ feet) are now no more than flippers. His mouth is enormous, his throat crepey; his eyes, (Continued on next page)
dark and sorrowful. His feet are outsize and he has not learned to use them. But, like the adult birds on this island, he has no fear of that strange animal, man.

The young feed from the beaks of the adult pelicans, first on a pre-digested food, and later on whole small fish stored in that capacious beak. The pelican reaches maturity, or mating ability, at two years, Wineland said, and the bird may live as long as 15 years although the average life span, he believes, is about five years.

Wise in the ways of wild birds, Wineland believes firmly in letting Nature run her own business without thrusting help upon her. "If I brought a sack of fish out here for those pelicans, they'd be on relief before I hopped in the boat and got away. And next time I came they'd be lined up waiting for a government hand-out."

At noon, the adult pelicans, wood ibis, white ibis, and the frigate birds took to the air in a magnificent display of flight. They floated, wheeled, turned, formed into patterns, circled and just loafed.

The birds that live or winter on Pelican Island include the brown pelican, the white pelican, American egret, snowy egret, Louisiana heron, great blue heron, little blue heron, white ibis, wood ibis, frigate bird, cormorant, anhinga, green heron, black-crowned night heron, cattle egret, crow, vulture, guile, coots, spoonbills, and loon. In late May, we saw almost all of these, with the exception of the white pelicans.

Although Pelican Island is the nation's first wildlife refuge, Lawrence Wineland is but its second warden. He stepped into the long-empty shoes of A native of Germany, Kroegel loved the pelicans because they reminded him of the storks in his native land. In the 1890's, Kroegel fought to save the birds from yachtsmen who were slaughtering them for sport as they passed the island in their boats bound for Palm Beach. In 1903, he became the nation's first game warden when the island was named the first wildlife refuge. He made a salary of $12 a month.

"The government also sent him an American flag to fly over Pelican Island," his daughter, Mrs. Freda Thompson, told me. "He figured the flag would do the pelicans no good on the island, so he placed it where the yacht captains would see it, and most of them blew a blast on their whistles when they sighted the flag. This gave my father time to get over to the island and protect the birds."

Like Kroegel, Wineland admires the big homeless birds. And while no one today attempts to shoot the birds, he protects them from intruders. But he often takes birdwatchers out to view them from his boat.

But let a birdwatcher hint that the pelican is less than beautiful, or plain homely, and Wineland, like the adult birds on this island, has no fear of that strange animal, man.
barely introduces lateral spreading of slow-fire stage shot groups on a standard NRA target at 50 yards. In a letter on the subject, he wrote to me many years ago: "Mac, I suggest that the triangulation method of sight testing be used to determine what width of front sight and width of rear sight notch is best for the individual.

"Rig the handgun to a post or shooting bench so that it is relatively immobile and generally points downward to hit the mark. The arrangement should be such that the shooter can sit comfortably behind the handgun at a relaxed head level, and see the sights about the same distance from aiming eye as would occur if he were firing a hand-held gun.

"Fasten a piece of white cardboard, about 20 inches square, to a target frame and erect the frame 50 yards from handgun, so that it appears aligned through the sights of the clamped, immobile weapon.

"Provide an assistant with a black bullseye cut from a standard 50 yard target, and pasted to a piece of stiff cardboard. (This cut-out black aiming marker he will intermittently hold against the white cardboard background and move around in accordance with shouted instructions or hand signals.) In the exact center of the bullseye cut-out there should be a tiny hole through which a long Shank pin can be repeatedly pushed with unvarying precision.

"Have the assistant hold the bullseye cut-out motionless against the white cardboard background, while the shooter looks across the empty handgun's sights, and calls or motions to the assistant to move the bullseye up or down or sidewise until the aiming bullseye and sight picture appear exactly as it should be for a perfectly sighted shot. At this stage, the shooter should call "Hold!" and the assistant should push a pin through the aiming bullseye's center into the paper backing, before the aiming bullseye is removed and the procedure repeated.

"Three such consecutive tests will give a triangle of pin holes on the white paper backing. The size of each created triangle shows the true accuracy which the shooter can potentially receive from his handgun aiming with a particular combination of sights, if he does everything right.

"Identical triangulation tests with various styles of handgun sights will readily show the difference in likely shooting results, as influenced by used sight combination and individual vision.

Roper's idea has long been used in the Army for rifle sighting instruction, but few handgunners ever think of utilizing its practical working principles. They should. Roper was once a national champion! He seldom that individual eyesight is such that both sight picture and paper target bullseye are seen equally black and sharp, like in book illustrations. One or the other will invariably be off color. Of the two, it is more important that the handgun's sights be seen consistently hold black and sharply silhouetted, if maximum sighting accuracy is to be achieved.

"When there may be little, if any, visible contrast between sight blackness and target. This can be true under certain light conditions, and particularly true where the shooter executes a center of target hold with blackened sights aligned against a dead black aiming bullseye instead of the conventional six o'clock from sight position hold. Where sight and target color tones are pretty much the same, the front sight's sharp outline will likely be lost.

Many target shooting handgunners express preference for a high line of sight when considering new sights.

A high line of sight is all right so long as it is kept within practical limits. But an excessively high line of sight tends to increase the distance from wrist pivot point to sight line, and a high line of sight causes even the slightest wrist movement to be more strongly exerted at the sights. Keep that in mind.

Formal competitive target shooting undeniably has strong attraction, as evidenced by crowded firing lines on club ranges the country over, but the most enthusiastic seem to be those who hunt with a handgun. Especially challenging is the achievement of successful taking large game solely with a handgun. Many practitioners among them—now permit use of large caliber handguns for big game hunting.

The late Alfred Goerg was a pioneer of the current school of hunting with a handgun—and most successfully, too. He frequently hunted with a .357 Magnum Smith & Wesson revolver, that featured a 6-inch barrel and Sanderson custom made grips. Goerg preferred high velocity hollow-point bullets, which he hollow-pointed with a hand-pointing tool of his own design.

In the field Goerg steadied his aim with a two-hand hold and wisely took advantage offered by whatever rock or tree support that might be handy. Although he did his early hunting with metallic sights, he lost little time changing to a low-power scope. Among his favorite combinations was a .44 Magnum Smith & Wesson revolver with mounted scope.

The .44 Magnum caliber, incidentally, far classes the .357 Magnum in delivered energy and killing power—if you shoot that caliber enough to become thoroughly familiar with its recoil and performance, as did Goerg.

For hunting, a scope sight on a handgun of adequate killing power for the game hunted is most practical. In fact, it is just about the best hunting sight aid that the serious handgun hunter can get.

For one thing, sighting is in a single optical plane and the aiming reticule to superimpose on your target. There is no front sight to first correctly align with rear sight, and the condition of each eye's vision is not necessarily a critical factor, as the optics of the scope can be focused to compensate for reasonable errors in individual vision. Field of view is unobscured and there is a useful degree of magnification. Just any scope sight cannot be mounted on a handgun, however. To be practical, a scope for use on a handgun must have long eye relief (for extended arm use) combined with low power. Bushnell makes two excellent models of handgun scopes—a 1.3X broad filed all purpose game and target scope, and a more powerful 2.5X variable and long range model. Both are known to the trade as "Bushnell Phantom."

A useful range of eye relief, from 6 to 17-inches, permits taking aim from sitting, hands-braced-on-knees position; or from full arm length. Windage and elevation adjustments are easy and positive; the crosshair aiming reticule remains centered in the field of view, without being affected by these changes.

A "Phantom" scope can be used under field lighting conditions that would make accurate sighting with metallic sights either hopeless or pure guesswork. Scope holding mounts for most of the handgun models suitable for hunting can be had.

Mounting of the scope on handgun is achieved by seating two separate 6-48 thread studs in the revolver's frame rib. The two studs accept scope holding base. Just follow furnished instructions.

When carefully installed, the mounted scope will be parallel to bore and remain permanently anchored. (To make sure that holding screws stay tight, clean them with alcohol and coat their threads with Loo-Tite or epoxy cement, once everything is correctly positioned.)

I know several Florida deer hunters who are going to try to bag their buck this coming season with a large caliber handgun fitted with a "Phantom" scope sight of 1.3X. I may, too.

For those of judged handgun shooting enthusiasm, and for those who, like me, are no longer able to see metallic handgun sights clearly with presbyopic eyes, a scope equipped handgun for hunting promises to be the right prescription.
Historical Park Artillery

The four silhouette of artillery once again looms over the ramparts of Fort Clinch.

State Parks Director Bill Miller announced that 10 cannons have been installed at Fort Clinch State Park near Fernandina Beach as part of the continuing restoration of this unusually beautiful harbor fort.

The cannons are facsimiles of the 1860 Rodman model 8-inch, for which the circular brick platforms on the fort's ramparts were specifically designed.

The Rodman model of 1861 was named for its designer, biophysicist Herschel E. Shepard, Jr., who has received a number of awards for his historical restoration work with the Florida Board of Parks and Historic Memorials.

Shepard found that a hodgepodge of artillery had been placed on the circular mounts during the Civil War and subsequently during the Spanish American War. Shortly after 1900, much of these weapons for some unknown reason were broken up with sledgehammers and the pieces thrown into Cumberland Sound opposite the fort. Prior to or during World War II, the remains were salvaged from the Sound and sold as scrap iron.

However, documents from the National Archives in Washington D.C. spelled out the plans to mount Rodman cannons. Detailed drawings of the carriages were given.

As original Rodman weapons were unavailable and cast-iron reproductions were uneconomical, Shepard had the facsimiles cast of architectural concrete to weigh about 15,000 lbs. or more each.

The restoration program has been underway since 1965, and includes extensive work on the historic old fort.

A museum now has been added to interpret the area's background.

Man Against Forest Fires

Here we see modern technology group team up to bring raging forest wildfires under control is told in an exciting documentary movie MAN AGAINST FIRE released by the U.S. Forest Service, according to the National Wildlife Federation.

The complex job of coordinating air and ground attack forces against present forest fires must be a sight like a military campaign—dramatically shown in the full-color, 39½-minute film which is available on a purchase or free loan basis from Forest Service Regional offices and cooperating Smokey Bear film libraries.

The movie indicates how three different types of wildfires are controlled: one by lighting a fire in a remote mountain area in the West, one deliberately set by an arsonist in the South, and a large "campaign" fire which chided initial control efforts. The film emphasizes the importance of research and development of new fire control measures and devices.

The film is built around the theme that forest fire control is above all cooperative effort, especially when landowners are intermingled and threatened by fast-spread wildfires.

The restoration program has been underway since 1965, and includes extensive work on the historic old fort. A museum now has been added to interpret the area's background.

Artificial Seagrass

Some "artificial sea grass" was laid down along the Gulf bottom by Florida State University oceanographers to provide a habitat for such valuable shellfish as scallops and shrimp.

"If successful," said Dr. R. W. Menzel, a biologist with the Oceanography Department, "the experimental plantings could show the way toward replacing the natural habitats destroyed through dredging and filling along the Florida coast where natural grass cannot be started again.

"But we don't know whether it will work," said Menzel. "Bar

nacles may attach themselves to the blades of grass and weight them down so that the grass doesn't wave like ordinary sea grass."

The ribbon-like strands of artificial grass, each 18 inches long, have been attached to pieces of wire fencing which was laid down in three locations, each an area of 30 square yards.

One of the locations was in a dredged area along the channel leading out from the marine lab; another in bare areas near where natural grass is growing, and a third location on a bottom where artificial grass will be compared with that of natural grass bottom.

Assembling in the research are four graduate students and two high school students. One of the high school students, Charles Herzog of Richmond, Va., is working with Menzel on a special National Science Foundation summer program and senior project.

CONSERVATION SCENE

Nature Notes

Considerable attention has been focused lately on the increase in gun sales, apparently in an effort to establish the conditions between gun ownership by private citizens and the nation's rising crime rate, according to John Marham of Savage Arms.

As nearly as can be determined, the idea is to show that law-abiding Americans are arming themselves in fear of criminal assault. This theory is supposed to emphasize the need for tighter gun controls, to prevent ownership of guns by making them more difficult to obtain.

There's nothing new about gun sales have increased during the last 5-10 years, but so has just about everything else. The reasons should be obvious.

Let's start with the nation's population. There's a lot more people. More people mean more hunters, more shooters, more fishermen, more outdoor participation.

"Add prosperity, more money to spend and more leisure time is which to spend it. From 1960-1966, according to the figures compiled by the sporting goods industry, similar increases can be found in the sales of other outdoor recreation equipment—archery + 30%; firearms including supplies + 54%; fishing supplies + 34%; golf equipment + 48%; photographic equipment + 24%; hockey equipment + 105%; sleeping bags + 37%. In newly developing outdoor sports, winter sports equipment is up 139%.

In short, it looks like just about everything concerning outdoor recreation has increased in the last 5-10 years.

Handgun Tax For Wildlife

The Outdoor Writers Association of America has passed a resolution in support of bills in Congress which would divert the 10 cent tax on handguns from general revenue to wildlife restoration and shooting safety.

At its annual convention, held in Duluth, Minn., OWA voted to support the objectives of S.670, by Sen. Lee Metcalf, and identical H.R. 3987, by Congressman John Dingell and Joseph Karth. If the bills pass, the Department of Treasury would use the hand­gun collections of about $5.5 million a year to the Department of Interior for prorating to the states.

The American Association of Conservation, which recently met at Bar Harbor, Maine, passed a similar resolution, which would allocate about 11 per cent tax on rifles, shotguns and factory ammunition has been prorated to the states for wildlife restoration. Hunters and shooters have paid about $400 million into the fund.

Russia Hunts Game Biologists

Moscow, Russia, will be the site of the ninth annual meeting of the International Union of Game Biologists during the week of September 19-25. The meeting is sponsored by the Moscow Wildlife Management Institute.

The meeting serves as a means of worldwide understanding of game management principles and problems. About 500 wildlife scientists are expected to attend.

In addition to plenary sessions at which prominent authorities will speak on broad subjects of concern to wildlife biologists, there will also be special sessions dealing with in-depth discussions of improvements in natural habitat, wildlife reproduction, methods of censusing game mammals and birds, the predator-prov probblem, and the masses of wildlife. The official languages of the meeting will be Russian, English, and French.

Participants are being offered a selection of six-tours—two-day tours to see Moscow and visit numerous racecourses and institutions training game management specialists, immediately prior to the meeting, and four longer tours to visit various sections of Russia following the meeting.
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ELIGIBILITY REQUIREMENTS

SPECIES

LARGEMOUTH BASS

CHAIN PICKEREL

BEGGAR BREAM

SHELLCRACKER

BLACK CRAPPIE

RED BREAST

1 pound or larger

4 pounds or larger

11/2 pounds or larger

2 pounds or larger

2 pounds or larger

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GAME & FRESH-WATER FISHERY COMMISSION, TALLAHASSEE, FL

IN

Length

Weight

Spots

City

Date Cought

Catch Witnessed By

Address

Zip No.

Applicant's Signature

County

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All fish must be taken from the fresh waters of Florida. If caught by the use of a boat, all angler(s) must present the boat registration number to the Game & Fresh-Water Fish Commission, Tallahassee, Florida. All fish must be caught by hand, hook, line or live bait, in the presence of at least one other person. The weight of the fish must be recorded and recorded on the application blank. The weight must be recorded and recorded by the person who caught the fish. The person who caught the fish must be the person who signed the application blank.

Applicant's Signature

CUT OUT AND SAVE THE APPLICATION BLANK
17-Year Locust or Cicada
(emerged from nymph stage)

Photo by Wallace Hughes

FLORIDA WILDLIFE Magazine
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