

This *Florida Wildlife Magazine Digital Preservation Project* is developed with financial assistance provided by the :
William H. Flowers, Jr. Foundation
and the **Fish & Wildlife Foundation of Florida, Inc.** through the Conserve Wildlife Tag grant program.



1970
Vol. 24 N.1
June

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Florida Fish and Wildlife
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Florida

Three Parks In One
Controlled Burning

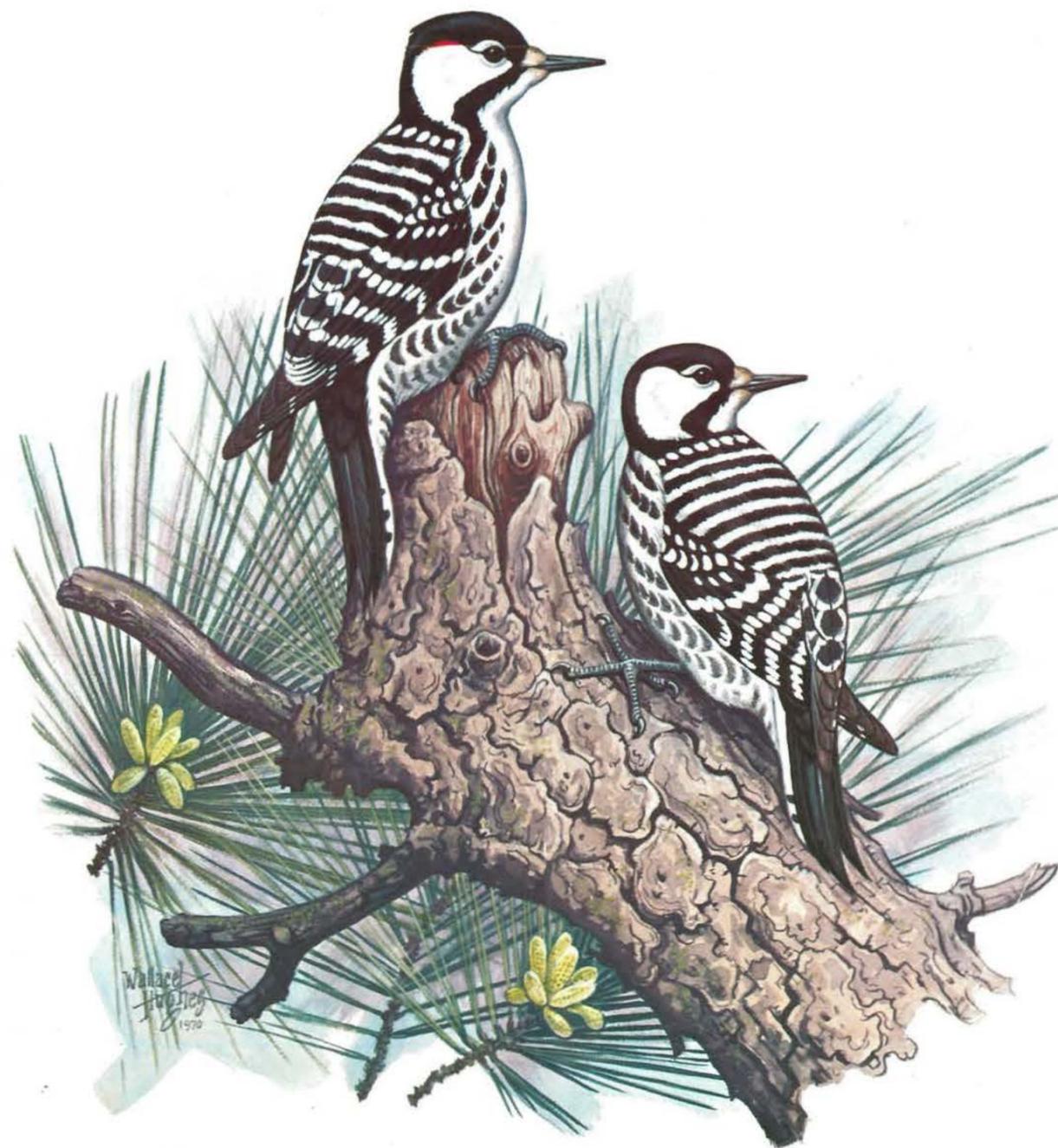
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WILDLIFE

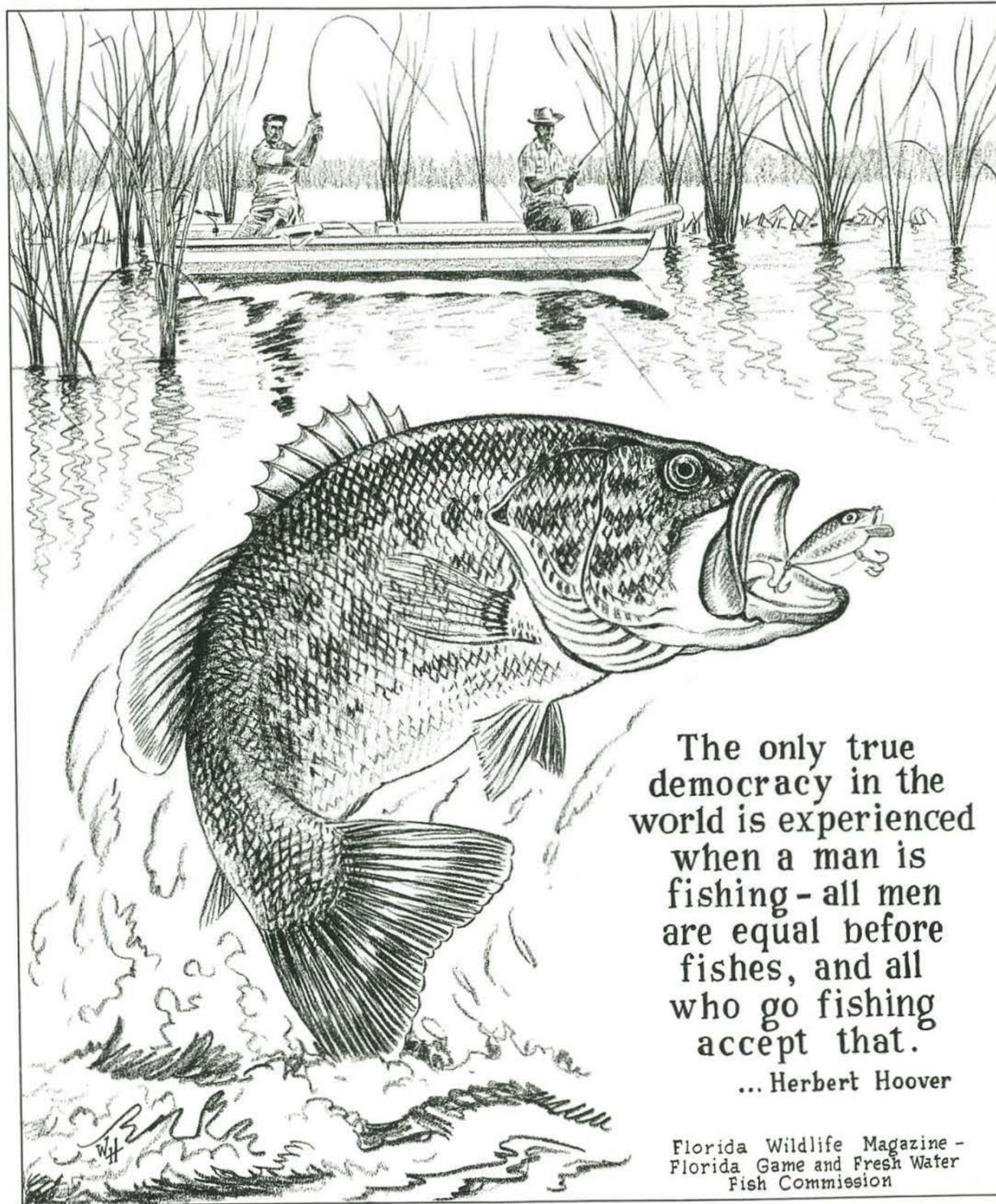
JUNE 1970

The Florida Magazine for all Sportsmen

25 CENTS



Florida Wildlife Scrapbook



The only true democracy in the world is experienced when a man is fishing - all men are equal before fishes, and all who go fishing accept that.
... Herbert Hoover

Florida Wildlife Magazine -
Florida Game and Fresh Water
Fish Commission

Florida WILDLIFE

VOL. 24, NO. 1

JUNE 1970

official publication of the
Game & Fresh Water Fish Commission
State of Florida

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The Cover

Named for the small red ear patch (cockade) of the adult male, the Red-cockaded Woodpecker's best field mark is its pure white cheek—found in both sexes, and no other woodpeckers. It is now listed among rare and endangered wildlife species. See page 4.

From A Painting By Wallace Hughes

FLORIDA WILDLIFE is published monthly by the Florida Game and Fresh Water Fish Commission, Tallahassee, Fla. Single copy price, 25¢. Subscription rates: 1-year, \$2.50; 2-year, \$4.75; 3-year, \$6.25. Change of address should be reported promptly. The Commission assumes no responsibility for unsolicited manuscripts and illustrative materials. Permission is granted to reprint text materials, EXCEPT for advertising and commercial purposes, provided full credit is given FLORIDA WILDLIFE, and contributors. Clearance must be made with photographers and artists to reproduce illustrations. Entered as Second Class Matter Nov. 8, 1947, at the U.S. Post Office, Tallahassee, Fla., under the Act of August 24, 1912.

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Florida Game and Fresh Water Fish Commission
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JUNE, 1970

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Red-cockaded Woodpecker



THEY "go trooping in small companies through the tree tops, diligently inspecting every twig, limb, and cone—for like a group of biology students on a field excursion, nothing escapes their scrutiny."

In those lines from his illustrated *ENCYCLOPEDIA OF AMERICAN BIRDS*, Leon Augustus Hausman succinctly relates the typical manner in which the wary little Red-cockaded Woodpecker (*Dendrocopos borealis*) spends most of its time—feeding high in the big pines.

Now listed by the U.S. Fish and Wildlife Service among the rare and endangered species of North American wildlife, the 7-to-8-inch-long, black and white woodpecker, formerly distributed over most of the Southeast, is in very real danger of fading right out of the bird picture—for good. (This includes the distinct geographical race called the Southern Red-cockaded, *D. b. hylonomus*, of central and southern Florida.)

Writing in a U.S. National Museum bulletin published in 1939, noted ornithologist Arthur Cleveland Bent told why it is nearly extinct:

"This species is so highly specialized . . . in its habits and its choice of environment that the destruction of the pine forests would probably put its existence in serious jeopardy."

We have now come to that point. Bent was referring to virgin timber; tracts of "granddaddy" pines—not second and third growth or planted pines. The young growth doesn't alleviate this woodpecker's peculiar problem, and these are the only abundant pine forests left.

The Red-cockaded Woodpecker shuns man and his

doings—unlike its cousin, the Red-headed Woodpecker, which has been called "the most domestic" of all this family of birds. Neither is the Red-cockaded found in mountainous areas; nor in deep cypress swamps; nor in broad, prairie marsh country. It needs, instead, large, old pine trees in open stands for its home.

But that's not all.

The bird is so specific it further requires for nesting trees only those trees with rotting heart wood! Rarely has the Red-cockaded been known to accept any other nesting situation, according to ornithological literature.

Through some unerring instinct this bird can detect from the outside those trees having soft, rotting interiors—called by some lumbermen "black heart," or "red heart disease."

When it has selected such a tree, the Red-cockaded drills through solid, living wood into the diseased heart wood, down into which it excavates its nesting cavity.

Many nesting holes are then added—four or more; perhaps as many as eight in the same tree. The gregarious Red-cockaded clan will use the same nesting holes year after year *as long as the gum runs freely* from the living wood. But when the tree dies and the pine gum ceases to flow, the birds abandon that tree and seek another home.

(Many observers have recorded that both parents and their clutch of three or four eggs become sticky with gum during incubation. Why the birds prefer such an environment over a clean, dry "house" is, understandably, a mystery to humankind.)

(Continued on next page)

Photos By Wallace Hughes

Note prominence of the pure white cheek, best field mark of rare and endangered Red-cockaded Woodpecker, left. This photograph was made recently at Tall Timbers Research Station, north Leon County. The national forests and wildlife management areas also host local nesting populations—in "sappy" pine trees like that shown at right. Large pine in center is nesting tree.



By GENE SMITH



This Red-cockaded, feeding its young, has been marked with plastic tag, visible on the bird's back. A certain sign of active nesting is the freely flowing pine gum, apparently required by this woodpecker as reassurance its tree home is alive and will stand. They choose only diseased pines of advance age—test borings and flowing gum are part of their specialized nesting needs.

(Continued from preceding page)

When the Red-cockaded Woodpeckers move out of a tree, other species that use nest holes move in—Red-bellied and Red-headed Woodpeckers, nuthatches, bluebirds, and even flying squirrels.

Diseased trees are getting harder and harder for the Red-cockaded Woodpecker to find.

Of the situation in southeast Virginia, Henry H. Collins, Jr., in his *FIELD GUIDE TO NORTH AMERICAN WILDLIFE*, says the loblolly pine is the required nesting tree but that the species does not usually get red heart disease until it is 70 years old.

"With an increase in managed forests, fewer and fewer loblollies are allowed to reach this age," he concludes, "and the Red-cockaded may be in for a significant decline in population."

Practically every authority agrees with that general assessment of the situation—and with the obvious fact that little can be done to help the Red-cockaded other than to encourage or arrange the preservation of the few remaining wilderness tracts containing large pine timber, most of which are on private property.

Though named for the small red ear patch, or cockade, of the adult male, this woodpecker's best field mark is its pure white cheek, found in both sexes and in no other woodpeckers. The black and white "ladder" on its back helps mark it, too.

It is an extremely active and somewhat quarrelsome-sounding woodpecker. It is, as Hausman described, normally found in company with others of

its kind—especially in the fall—and with other birds of the pine forest, with which it is quite compatible.

Since most of its feeding is done at the tops of the trees, even a slight breeze in the branches may make this bird hard to see. If you're in what appears to be good Red-cockaded habitat, study the moving branches carefully. Sometimes these birds will descend a hanging limb headfirst, nuthatch style. On a trunk it may hitch down backward in a straight line, but it commonly ascends a tree in fairly rapid spirals.

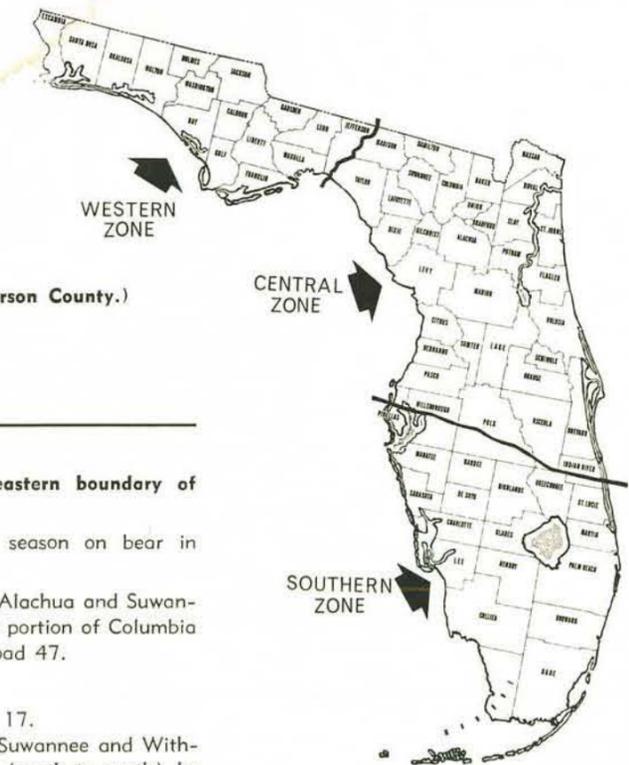
It is described as being more wary than shy since, if approached, this woodpecker may not fly but will effectively keep a limb or tree trunk between itself and the observer, sapsucker fashion, doing a periodic peekaboo at the situation without exposing itself to view.

The Red-cockaded almost constantly sounds its nasal-toned call notes as it goes about its never-ending quest for food—ants, and the larvae of wood-boring insects mostly, but also including caterpillars, spiders, grasshoppers, crickets, and some small wild fruits, berries, and seeds.

They don't visit orchards, fig trees, or cultivated fields as a rule, but Bent did include a report that Red-cockaded Woodpeckers were seen commonly and eagerly feeding in a South Carolina cornfield—extracting corn ear worms directly from the ears.

That was in 1926 and again in 1930. Must have been two bad years for corn worms in South Carolina, but good years indeed for alert Red-cockaded Woodpeckers. ●

Hunting Seasons Resident Game 1970-1971



Western Zone

(That portion of the state west of the eastern boundary of Jefferson County.)

DEER & BEAR: November 21 through January 24.

TURKEY: November 21 through January 24.

QUAIL & SQUIRREL: November 21 through March 7.

Central Zone

(That portion of the state north of State Road 60 to the eastern boundary of Jefferson County.)

DEER & BEAR: November 14 through January 17. No open season on bear in Levy County.

TURKEY: November 14 through January 17. No open season in Alachua and Suwannee counties; in the Osceola National Forest; or in that portion of Columbia County south of State Road 240 and west of State Road 47.

QUAIL & SQUIRREL: November 14 through February 28.

WILD HOG: Alachua County—November 14 through January 17.

Levy County—In the western portion between the Suwannee and Withlacoochee rivers, generally bounded (north to south) by U.S. 27A, SR 337, lower SR 121, and U.S. 19-98—November 14 through January 17.

Southern Zone

(That portion of the state lying south of State Road 60.)

DEER & BEAR: DeSoto, Hardee, Manatee, and Sarasota counties: October 31 through November 15, and December 19 through January 3.
Other counties: October 31 through January 3.

TURKEY: Hardee, Manatee and Sarasota counties: October 31 through November 15, and December 19 through January 3.

Other counties: October 31 through January 3.

QUAIL & SQUIRREL: October 31 through February 21.

WILD HOG: Palm Beach County: October 31 through January 3.

SPECIAL REGULATIONS: No open season on deer in Conservation Area 3; in the Florida Keys of Monroe County; in that portion of Palm Beach County lying west of U.S. Highway 27 and south of Bolles Canal; or in that portion of Hendry County east of L1 and L2 levees.

The use of dogs in DeSoto, Hardee, Manatee, and Sarasota counties shall be limited to bird dogs, retrievers, and slow trail hounds. The use of running hounds or any other dog that can reasonably be considered a dog usable for running deer is specifically prohibited.

Archery Season (statewide): September 12 through October 2.

Legal Game—Deer of either sex (except fawn), bear, turkey, squirrel, quail, and wild hogs.

No open archery season in Dade and Broward counties; in that portion of Palm Beach County south of State Road 80; in that portion of Monroe County south of the Loop Road; or in that portion of Hendry County east of L1 and L2 levees.

The possession of firearms while hunting with bow and arrow during the archery season is prohibited; crossbows prohibited; the use of any unleashed hunting dog by any person hunting with bow and arrow during the archery season is prohibited.

Persons holding a valid archery permit in addition to a regular hunting license may hunt on designated wildlife management areas and on open lands during the established archery season.

Attention Bird Hunters

Woodcock Survey

If you're a woodcock hunter, a potential woodcock hunter, a quail hunter who occasionally kills a woodcock, or just a plain old hunter who knows what the bird looks like and might have occasion to kill one—your help is needed.

The U.S. Fish & Wildlife Service needs names and addresses of sportsmen willing to assist in a survey of the woodcock population in Florida and other states.

All those willing to co-operate in the study are asked to notify the Florida Game and Fresh Water Fish Commission by a postcard or letter sent to the Tallahassee office, attention the Game Management Division. That ZIP is 32304.

The sooner you write the better. Preparations are now being made for a woodcock wing collection during the 1970-71 hunting season. All co-operators will receive mailing envelopes and instructions for sending in bird wings.

Expanded knowledge of the state's (and nation's) migratory woodcock population is necessary in order to help formulate good management practices and appropriate annual hunting regulations.

Will you help?



Meet Your Commissioner

Robert E. Langford
Commissioner
Winter Park

ROBERT E. LANGFORD, 58, of Winter Park, well-known hotel man and citrus grower, has been appointed to the Florida Game and Fresh Water Fish Commission by Governor Claude R. Kirk, Jr., who made the announcement in late April.

Langford replaces W. B. Copeland of Jacksonville, who resigned from the five-man commission.

The new commissioner is owner of the Langford Hotel-Motel and heads the Langford Citrus Corporation, both in Winter Park. He represents the third generation of Langfords in the hotel business and is the only one of the line "born north of the Mason-Dixon Line," he says with a smile.

His grandparents were originally from Tuscaloosa, Alabama, but moved to Nashville, Tennessee, where the family hotel business grew out of their operation of a boarding house "that featured good, Southern, family-style cooking," Langford recalls. His parents were born in Nashville.

Langford is a native Chicagoan, where he and his father owned and operated the 400-room Del Prado Hotel on Lake Michigan—which was sold in 1950 when the Langfords moved to Florida permanently. He had commuted between Illinois and Florida for 25 years before establishing residence at Winter Park and building an apartment house complex, which gave way to the construction of the 150-room Langford Hotel in 1956.

Langford is a 1934 graduate of the University of Chicago, School of Business. In college, and afterward, he was active in athletics. He pitched on the university baseball team and played semi-professional baseball in Chicago. He also played tennis and squash rackets, in which he still participates. He was for many years a national and international competitor in the sport of ice boat racing, in which he won numerous titles.

Hunting and fishing have been lifelong hobbies. He particularly loves fly fishing—has pursued the sport for 30 years, having fly fished for trout all over the world.

He is an enthusiastic bird hunter, for which he

keeps his own dogs, but also enjoys deer and turkey hunting and the increasingly popular sport of hunting wild hogs.

Mrs. Langford is the former Beatrice Hall of Chicago. They have four children; three daughters, all married, and a son. Daughter Carol and her husband are medical doctors. She is in her residency at Massachusetts General Hospital, Boston. Bonnie and Geraldine are both high school teachers—in Chicago and Atlanta, respectively. Son Bob (Robert L.) is a student at Santa Fe Junior College, Gainesville.

Commissioner Langford is extremely active in civic, professional and social life. He is a director of the 1st National Bank of Winter Park; a trustee of the Winter Park Memorial Hospital; chairman of the parks committee of the Orlando Chamber of Commerce; a director of the Winter Park Chamber of Commerce; and a member of the Central Florida Development Association.

He is also a member of the Weed Control Board of the City of Winter Park, a post he has held for three years, and is very knowledgeable in the area of aquatic weed problems.

Langford is a member of the American Society of Travel Agents, the Florida Hotel and Motel Association, and the Florida Restaurant Association.

He is a member of the Country Club of Orlando, the Winter Park Racquet Club, and the University Club of Chicago. He was for years very active in wildlife conservation work in Illinois. The Commissioner is a member of several Florida hunt clubs.

His love of wildlife of all kinds led to the inclusion of a unique game park at the Langford Hotel, which is enjoyed by guests and local residents, including local school children. The park's inhabitants include a whitetail deer family and various tropical birds, among them flamingos, scarlet ibises, macaw parrots, canaries, cockatoos, and peacocks.

Speaking out on current conservation issues and problems facing the state and the nation, Commissioner Langford says, "I am convinced that in the area of water pollution the ultimate answer must be in prevention, not clean up and control. We can prevent pollution with far more effectiveness and with far less expense than we can ever hope to control it."

He also shares the currently felt sense of urgency about the condition of the environment, including the aquatic weed situation in Florida, which he terms "bad and getting worse."

He opposes gun registration and other unnecessarily restrictive firearms legislation as "useless for their stated purposes"; thinks today's kids need more opportunity to get out in the woods and off the streets; and stresses strongly that "there's no time like now to acquire more lands for public hunt areas for the future."

The Langfords live at 1402 Green Cove Road, Winter Park. ●

New Ideas

FISHING



By CHARLES WATERMAN

new braided line, with a tendency to break like dacron when knots are tied, handles well if an oldtime clinch knot is used—with the line doubled

BAIL OR NO BAIL? It is quite a question for veteran spinfishermen, but it's no contest for less experienced casters. They choose the bail.

Reel makers generally put bails on their open-faced models, figuring anybody who doesn't like it can hacksaw it off and use his finger. The bail (the gadget that picks up the line after each cast) gives more trouble than any other part of a spinning reel. It also makes spinning very simple to learn.

I don't expect much argument on my statement about bails giving trouble. They can't be built of very heavy materials and still do the job—and they are completely exposed to the hazards of tossed paddles and pushpoles, human feet, and the remorseless pounding of rough water when lying in a boat. Some of the bails appear to be products of a toy factory, even on otherwise well-built reels.

One writer of considerable experience stated that no one who used a manual pickup reel for two hours would ever go back to a bail. That just isn't so for I know fishermen who have quit the manual pickup after days of use. Finger manipulation was simply too tricky for them. I don't care much one way or the other. I don't fish any better with the manual but I have never been entranced by the snap, clank, clatter of a bail, and it's one more thing to go wrong.

Unless you practice quite a bit you'll be less accurate without a bail. Here's why:



When you cast using a bail, you hook the line with your finger, make the throw, and then put your finger against the rim of the spool to "feather" the cast or adjust its distance. Thus you can throw with a little extra power and then slow the lure with your finger. When the cast is stopped you start your retrieve and the bail picks up the line, no matter where it happens to be in relation to the edge of the spool. If you "feather" a cast without a bail your finger is too far back to pick up the line easily.

Two ways of getting around this. First, you can feather the line with your forefinger well out ahead of the spool as many good casters do, and simply let it fan your finger rather than pressing against the spool edge to slow it. Secondly, you can use your other hand to hook the line over your finger and get it back on the pickup roller.

I have never been very accurate when I feather the line out ahead of the spool, so I often slap the line over my finger with the hand I'm going to reel with. That's my left since I'm right-handed. It works, although I give a distinct impression of not knowing what I am doing.

Despite little inconveniences like this, I guess the manual reel is best—if you'll take the time to learn the technique. Some healthy fishermen with fairly normal reflexes find the manual pickup too much sleight-of-hand.

WHEN CORTLAND BROUGHT out their Micron braided line some time back I went for it with both hands. It was small in diameter for its strength, worked fine on a casting reel, and gave me no backlash trouble. At the time, I wondered if it would work for spinning. Now Cortland comes forth with the announcement that it is good stuff for spinning reels if you use 12-pound test and up.

I am not going to get into the argument about braided line for spinning. Years ago there was quite a furor about that and the monofilament finally won

(Continued on next page)

Two-handed spinning? Partly! This is a method for getting back the line if it escapes finger on manual spinning reel.

(Continued from preceding page)

out. It's very rare to see a braided line on a spinning reel these days. However, I can certainly find argument for it on the heavier tackle as some monofilament in the larger sizes takes on the characteristics of bailing wire and sounds like an untuned guitar when it peels off the spool and reluctantly heads through the guides.

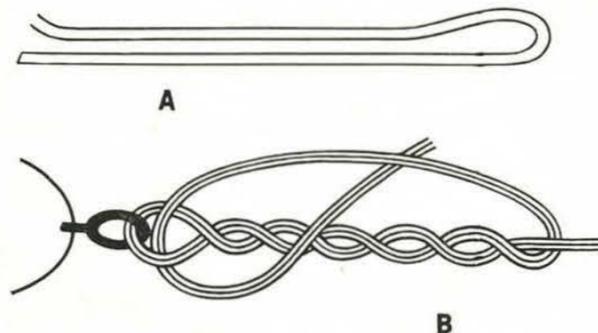
I am not going to give you any sales pitch about Micron as used in spinning reels. I have tried it, using 12-pound test, and found it quite satisfactory. Braided line, of course, is usually limp and less likely to tangle than monofilament but there's all kinds of monofilament and I don't want into *that* argument again. I once recommended a particular mono for use as running line back of a shooting head on a fly rod (non-fly fishermen please skip this as it's kinda' technical), and a good friend in the tackle business ordered a vast quantity of the stuff. The customers didn't like it and my friend still gets purple when the subject is brought up. I think he's wrapping packages with it.

The problem with Micron is knot strength, something I learned after using it for some time. It has a minor weakness there—a thing that users of dacron line have been scuffling with for years. Dacron, you know is used by many deep-sea anglers because it doesn't have much stretch, an advantage in deep water fishing where very tightly-spoiled stuff might bust a reel. Also, setting a hook with a few yards of stretch in your string is rather hard unless you choose to run back into the cruiser cabin with your rod.

Micron (they don't tell us what it's made of) has some of the properties of dacron. One of these is that tendency to break in the knots. Users of dacron have special ties and deep-sea anglers tend toward loops, made with a special needle. I've used these loops in attaching dacron backing to fly lines.

But in light tackle use of the Micron line you

The recommended "double line" clinch knot: A. Double back the last six or eight inches of line. B. Thread the doubled line through eye of lure, make six turns of the line around itself. Go back through original loop at eye of lure and then through large loop. Pull up slowly and tighten; trim off loose ends.



The carpeted forward deck of light aluminum boat has storage space underneath. Carpet is protection against falling gear.

simply want a method of tying it to your lure or snap. The Cortland people recommend an improved clinch knot *with the line doubled* for the length it takes to actually make the tie. That works fine and no knot breakage. A fishing friend of mine had been using that knot before Cortland put out their recommendation. I am not going to give his name as he has already crowed enough about it.

SOME MONTHS BACK the Belle Glade Chamber of Commerce took me to task for cutting off the "big bass belt" somewhere north of Lake Okeechobee. History shows that the real record fish are more likely to be caught farther north. Reasons are vague and biologists haven't quite satisfied me with their explanations, but 10-pound bass have been pretty rare down south until just recently.

But this year things are changing a little. The south Florida areas, always some of the best bass fishing in the world, are now beginning to show more big fish. The impoundments of the FCD are coming up with a lot of those busters. I can't think of anything I'd rather be wrong about as I sure like to fish down there.

A FISHING FRIEND of mine has just finished putting a deck over the forward part of his little aluminum fishing skiff. In general design it's similar to what I've been using for a long time, simply set in on top of the front seats and giving a big area for casting and stumbling.

However, he has added a couple of nice touches. One is a door that opens on hinges and gives easy access to the space between the front seats. It makes good storage. Nothing revolutionary but not expensive and quite efficient.

He has also carpeted the whole works with that indoor-outdoor carpeting material that's thick

enough to deaden sound and protects lines and other gadgets that might be stepped on. He fly fishes most of the time and he can lay his fly line all over that platform, walk on it occasionally, and still keep it reasonably healthy. It will take time to learn just how his carpet will smell after he has flopped a couple of years of fish on it, but it's completely washable.

THIS IS BLUEGILL (bream) time. In warm weather they bite or strike best in the evening and they often don't start until quite late. Not everyone agrees with me but I have found that bluegills become active at a later hour than bass. Sometimes you don't hear them plopping until true dusk.

That doesn't mean the fish can't be caught in deep water, but some of the best of the bream catching is in the shallows. The fastest action seldom means the biggest fish. Hungriest bluegills are the crowded ones. Crowded bluegills are stunted.

I HESITATE to announce that I have a new tackle box. Some years back I wrote in these pages that if I had bought a perfect lifetime tackle box for a couple of hundred bucks when I was a kid I'd be 'way ahead of the game now. I'd rather not know how many I've had.

Of late the problem has been complicated by the overwhelming popularity of spinning. It is a bitter truth that although you can put several spinning lures in a compartment made for full-sized plugs, you can't stick a 5/8-ounce casting plug in a slot built for quarter-ounce spinning doodads. No way.

For a while there were quite a few plugcasters' boxes on the market and you could take your choice of compartment sizes. Then it pretty well evolved into spinning except for the boxes made for salt water fishermen—usually intended for just a few really big plugs—like almost a foot long. That was better than nothing.

Now there's a new box by Plano, called the Plano 8300. It's a big one, 18 1/4" x 10 3/8" x 10 3/8", about the size of another Plano I have been using for a lot of fishing, but this one, by golly, has big trays for honest-to-gosh plugcasting type plugs to be used by plugcasting types like me. Costs something like \$22.95 and I wish I could have had it a long time ago. Like I say, you can put spinning lures in big compartments but you can't put big lures in little

The author hides behind his new pet, a Plano 8300 tackle box, that has trays big enough for any plug he can throw. A similar box, but with smaller trays for spinning lures, is about to have all its cargo shifted to the new giant.

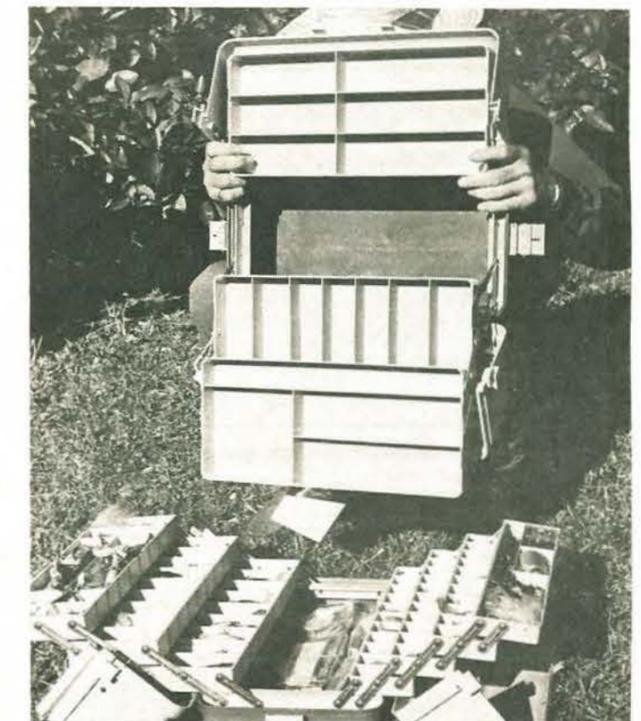
holes. Plano advertises that the little ribs in the bottoms of the trays dissipate moisture to protect lures against rust. They also say that the trays are impervious to damage by plastic lures. It's big.

NOT THAT IT MAKES much difference, but fishermen are likely to judge other fishermen, not only by their tackle, but by their personal appearance. There's an old one about fresh water trout fishing that goes, "Show me a man with flies stuck in his hat and I'll show you a worm fisherman."

Of course, in trout fishing worm angling isn't exactly considered aristocratic, even though it can take a lot of skill, and may be about the only way of taking fish in some waters at some times. The idea was that the worm fisherman wore flies to raise his social status among other anglers.

I was burned the other day to find that the lures-in-the-hat business has been taken as a smart-aleck gesture by some observers. Sometimes the hat business is a good idea. Many fishermen who wade wet or, at least to the very tops of their waders, need to put their lures at the highest point possible to keep them dry—especially important in salt water. I used to wear small brass safety pins in a hatband to hold bugs and plugs. For light stuff, those sheepskin hatbands are handy. However, once you get salt water in that wool, it would take a thorough cleaning to keep it from rusting any hooks you stuck in it. No freshwater problem.

I have seen some sporty anglers who wore colorful jigs in their hats as decorations, but it's the most practical place under some conditions. ●





Photos By Bob Brantly

Controlled Burning

carefully planned operations important to wildlife and timber management

THE PRACTICE of burning the woods is as old as man himself. Primitive man, including the Indians, used fire to drive game during their hunts. Many of our forefathers burned the woods "just to see them burn." Most of this was, of course, wildfire—not controlled burning as we know and use it today.

A controlled burn is a fire set for an express purpose and in a prescribed manner. A fire that is out of control is a wildfire.

Wildfires may originate in one of several ways. They may be set by man—either intentionally or accidentally—by lightning, or by spontaneous combustion. Too, wildfires are set by volcanos in some parts of the world.

However started, wildfires are most often destructive to timber and wildlife—and nobody should violate the law by indiscriminately burning the woods. But there has been created in the public mind an unwarranted outlook on woods burning.

Education campaigns against wildfires have cre-

ated the impression that all woods fires are strictly taboo—a gross crime against nature, literally. The "Smokey Bear" campaign to prevent forest fires has really had an impact upon the American public!

Today, controlled burning is coming to be recognized as a valuable timber-, range-, and wildlife management tool. It is used by foresters primarily as a preventive measure against destructive wildfires—which is simply "fighting fire with fire." The hazard of experiencing a devastating wildfire is greatly reduced by periodic controlled burning since a tract of timber which is not burned regularly builds up an immense accumulation of "fuel."

In Florida, this fuel is primarily wire grass and brush—undergrowth which creates a real wildfire hazard. Many of the ravaging wildfires that occur in the western states would be less destructive—or could be prevented—if periodic clearing by controlled burning were practiced.

Fire is also used by foresters at times when

natural reproduction from a seed fall is desired. Burning off the dense undergrowth, called under-story, permits the seed to come in contact with the soil and, therefore, to germinate.

The present trend in forestry, however, is toward clear-cutting the timber and replanting young seedlings mechanically—practices which are very costly and often destructive to wildlife habitat.

Much of the timbered land in the state is owned by large commercial corporations. Some of these big landowners are still reluctant to burn, which is difficult to understand when the value of fire as a hazard-reducing agent is considered. One damaging wildfire can be considerably more costly than the expenses involved in periodic controlled burning.

Some of our pine timberland is ecologically dependent upon fire to maintain desired stands of trees. Hardwood species invade these lands and

eventually gain dominance where burning is not practiced.

Fire in longleaf pine stands is used to control brown spot needle blight.

Much of our state's unimproved cattle range is burned annually to improve grazing conditions. Some of this land is timbered; some is not. Burning makes the young, succulent blades of wire grass and other herbs and grasses palatable and available to the cattle. It improves conditions for wildlife, too, if the range is not overgrazed.

Controlled burning is practiced worldwide for game production. It is beneficial to wildlife in two major ways: it increases the supply of native foods and permits freedom of movement.

On some of the game plantations in Florida, controlled burning has been practiced for generations. On these plantations, and on one of the Game and Fresh Water Fish Commission's public hunting areas, where burning is an annual practice, a quail population of a bird per acre is being produced.

One might not grasp the significance of this figure until it is realized this means a covey of birds on every 12 acres of land over 1,000-acre tracts. Biologically, this is thought by some to be the highest wild quail population that can possibly be produced!

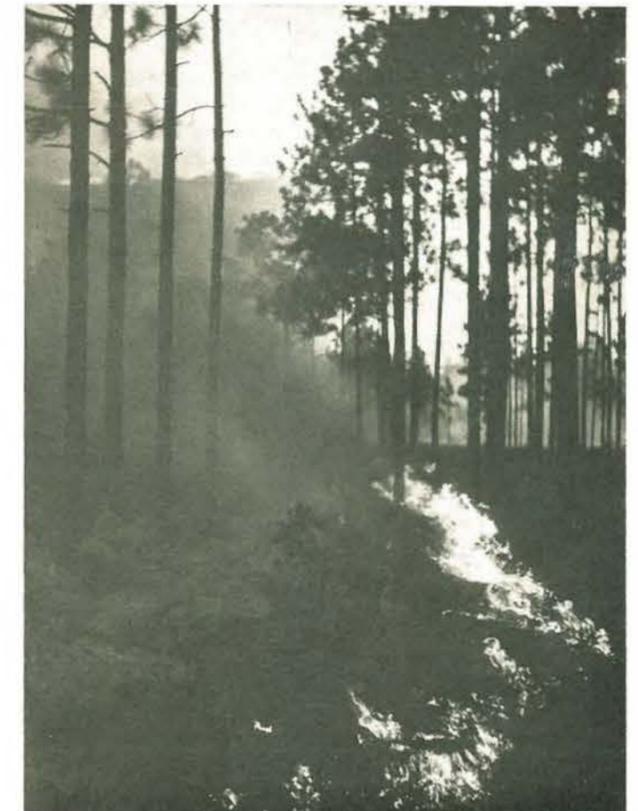
How does burning work its "magic?"

It increases the native food supply, primarily by
(Continued on next page)

By **WAYNE MURRAY, Biologist**
Game Management Division



A game manager, after precautions and planning, sets fire to an area to be control-burned, above left. This practice is a valuable timber and wildlife management tool. Plowed firebreaks, above, help contain controlled burns as well as wildfires. Excellent practice is the burning of large tracts in checkerboard fashion in alternating years, right.



(Continued from preceding page)

permitting seeds of annual weeds and grasses to germinate and grow. These seeds have impermeable seed coats. Some of them will remain in the soil for centuries before germinating—without fire, which scars the tough seed coat and permits air and moisture to enter and stimulate germination.

Many of these annuals are important foods of quail, turkey and deer. Native legumes and grasses are of particular importance. One sedge, commonly known as nut rush, or slough grass, is also a good dove food.

It is impossible to maintain consistently high game populations in Florida without fire. Food planting in the form of food plots on unburned land only concentrates game rather than increasing it. Planting food plots for wild turkeys in areas of low turkey population can be disastrous to the remnant birds, which become quite vulnerable to hunters' guns as they are attracted to the food plots.

Burning also lessens the density and growth of perennial vegetation and, as we mentioned, makes for freedom of movement of birds.

Try to imagine young quail or turkeys moving about in knee-high wire grass. Undoubtedly, many of our small turkey poults die from chill and exposure as a result of struggling to maneuver through dense growth following cold summer rainfall or heavy dew. Fire controls the growth of undesirable understory shrubs and grasses. Without fire, these shrubs and grasses move in rapidly on some lands and tend to create a jungle effect. Not only is it detrimental to game living in such habitat; it is next to impossible to hunt game under these conditions.

Photo By Lovett Williams



Too much understory, or low brush and grass, is death on young quail and on turkey poults, left. Chilled from struggling through wet grass, many die. Fire removes jungle-like perennial growth, and promotes voluntary stands of native legumes, above, and other valuable food-producing annual plants. Wind, humidity, and time of year are important considerations in the art of controlled burning, above right—always consult for advice.



Photo By Art Runnels

Our nation has become recreation minded. More and more emphasis is being placed on outdoor programs by national, state and local governments. Camping and picnicking are among the leading forms of outdoor recreation. Controlled burning is one of the most economical and effective means of maintaining attractive wooded sites.

Brush and heavy wire grass growths are controlled by fire, permitting the camper and hiker to get off the roads; to move about and enjoy the natural scenic beauty. Florida's timbered areas are truly beautiful about a month following a spring



Photo By Wallace Hughes

burn when the forest floor is carpeted with lush, green grass studded with bracken ferns. Fire as a tool has a very definite place in recreational forestry programs.

Controlled burning is somewhat of a science and an art. It is impossible here to attempt to explain all the techniques involved in the process. At times it is better to burn with a "backfire" rather than a "headfire." Most controlled burning is done with headfires after being secured with backfires. Generally, a slow-burning, so-called "cool" fire is desirable. The desired results largely determine the type fire needed to do the job. At times a fast, sweeping fire is needed to burn wet lands. A very hot fire is necessary to control encroaching understory shrubs.

Wind direction, wind velocity, and the relative humidity should always be taken into consideration before setting a fire, and the local fire control tower of the Florida Division of Forestry should be notified and consulted.

Burning should be done in February in south Florida; around the first of March in north Florida. It is better to burn in small blocks rather than over large, continuous acreages. If large tracts are to be burned, occasional plots should be left unburned for game- and other bird nesting and for wildlife escape cover.

On some timberland, particularly on flatwoods types, perennial species of vegetation are important as food. Some of these are blackberry, gallberry, palmetto, wax myrtle, and runner oak. These will not produce fruit the year of the fire, but burning stimulates them to produce an abundance of food the following year. For this reason, it is better to burn an area in a checkerboard pattern on a two-year rotation basis.

Controlled burning is the cheapest and most effective game management tool with which to work. This is being recognized more and more, but there are still millions of acres of forest lands that need controlled burning—which is now a U.S. Government-approved Agricultural Conservation Program practice. Any landowner interested should contact his county Agricultural Stabilization and Conservation Service office. The landowner who control burns can be reimbursed 30¢ per acre by the U.S. Department of Agriculture, which shares the cost of approved conservation practices of many types through the A.S.C.S.

Anyone interested in obtaining more information on controlled burning should consult a game biologist of the Florida Game and Fresh Water Fish Commission or the farm forester of the Florida Division of Forestry in his home county.

Fire can be a friend. ●

Sandhill Cranes in Florida

some are visitors and some
residents—all determined
about where they live

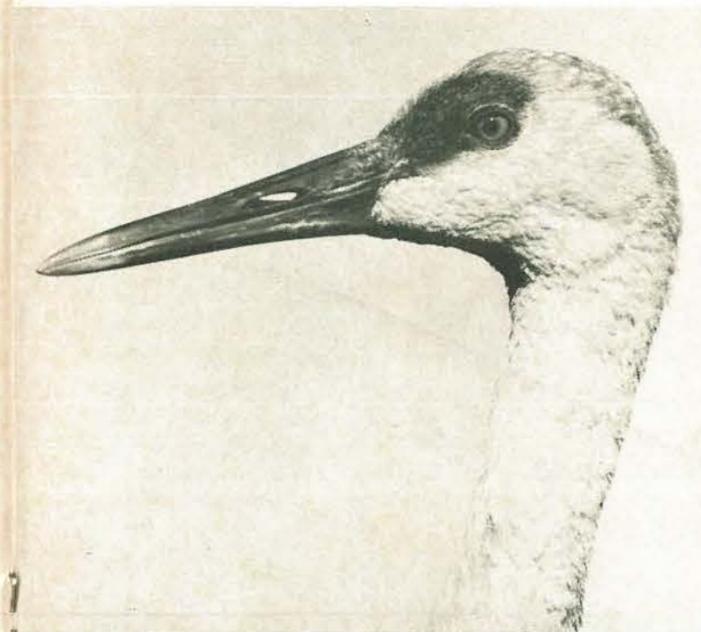
By GENE SMITH



TO THE OCCASIONAL ornithologist—that's a weekend birdwatcher—the profusion of Florida birdlife is at once delightful and a bit bewildering. Many kinds of birds come and go seasonally—some just passing through on their way to the tropics and back; others stopping over in Florida for the winter. Other species never leave the state at all. Some of these are found statewide; others are restricted to certain parts of the state by special habitat requirements.

A unique example of the latter is the big Sandhill Crane—something like an overweight Great Blue Heron. Some of them stay; some go; all are picky about where they live.

Photos By Lovett Williams



The spectacular beauty of sandhill cranes alighting on roosting and feeding grounds, left, at Paynes Prairie near Gainesville—capture and banding site of the Commission's Wildlife Research Project. The above photo reveals the bird's sturdy bill and red forehead marking. The Greater and Florida Sandhills, all but identical, stand about four feet tall, right.

Two races of Sandhills occur in Florida: The Greater Sandhill Crane (*Grus canadensis tabida*), a winter visitor only, and the Florida Sandhill Crane (*Grus canadensis pratensis*), which lives and breeds here. (There are two other races of Sandhills in North America: the Lesser, *G. c. canadensis*, and the Cuban, *G. c. nesiotus*.)

Even to the trained eye, the Greater and Florida Sandhills are hard to distinguish from each other. They stand 3½-to-4 feet tall at the head; they're both predominantly gray in color, with the Greater being slightly larger and slightly darker than the Florida subspecies. Both have red, partly bare foreheads, long legs, and long, stout, straight bills.

Both are carried on the list of rare and endangered species, maintained and published by the Department of the Interior, U. S. Fish and Wildlife Service. They are classified as "rare." (The Whooping Crane, *Grus americana*, is listed as "endangered"—and has been for years. It does not occur in Florida, although there is evidence that it once did. It is white, not gray; it winters on the gulf coast of Texas and occasionally into Mexico. Many people in Florida refer to Sandhill Cranes as "whooping cranes." For the sake of comparison of numbers,

(Continued on next page)





Biologists capture sandhills by drugging method, left; after leg-banding and wing-tagging the drowsy birds slowly recover, right, and are released. The Florida race is non-migratory—generally hatch young, lower left, in March and April. Ordinarily cranes have long life spans—perhaps as high as 25 years for some individuals.



Photos By Lovett Williams

(Continued from preceding page)

some 9,000-to-10,000 Greater and Florida Sandhill Cranes are estimated to be living today, compared to only about 50 Whooping Cranes.)

The Greater Sandhill was for many decades something of a mystery bird. It was suspected, for example, that the race was a winter migrant to Florida from its breeding grounds in Michigan and Wisconsin. Some were reported from time to time in Tennessee and Ohio—probably in migration routes—so it was assumed they wintered in south Georgia and Florida, intermingling with the stay-at-home Florida Sandhill race.

Only within the last three years has that suspicion been confirmed beyond all doubt. Greater Sandhill Cranes do come to Florida for the winter.

Personnel of the Game and Fish Commission's Wildlife Research Project, headed by wildlife biologist Lovett Williams, have successfully baited, drugged, captured, color-marked, banded, and released alive approximately 170 Sandhill Cranes since 1967-68. This work was done at Paynes Prairie, a wet, pasture-like expanse of some 12,000 acres, near Gainesville, which harbors around 2,000 Greater Sandhills each winter—by far the greatest concentration found east of the Rocky Mountains.

Williams says, "We have received at least 70 reports of color-marked, Florida-banded Greater Sandhill Cranes being sighted on the nesting grounds in Wisconsin and Michigan, and four records of band recoveries that confirm their migratory route through Georgia, Tennessee, Kentucky and Ohio."



In addition to the banding and wing-tagging work, studies on the parasites of Sandhills are being conducted by Dr. Don Forrester at the University of Florida. Much valuable information has already been obtained, says Williams, pointing out that this information may aid the management of the species. (The natural flocking tendencies of the big birds could result in devastating losses should disease or extreme parasitism reach epidemic proportions within the Paynes Prairie flock.)

The Fish & Wildlife Service lists the following reasons for the decline of the migrating Greater Sandhill Crane: "Destruction of extensive marsh nesting habitat and intolerance of human disturbance of nesting grounds."

The Bureau says of the Florida Sandhill: "(It is not known to be declining in Florida, but increased human populations and conversion of some of the wet prairie . . . might start a downward trend . . ."

Greater and Florida Sandhill Cranes are fully protected by state and Federal laws. Some hunting of the Lesser Sandhill Crane is permitted under migratory game bird regulations, but not in areas where the Greater and Florida Sandhill Cranes also occur. (Small separate populations of the Florida Sandhill race live in the Okefenokee Swamp of

Georgia and in southern Mississippi, where they're on the decline. A few reports of sightings continue to come from southern Alabama, but the cranes no longer breed there.)

Sandhill Cranes lay only two eggs a year, and, usually, only one young bird survives. Steady reproduction depends on good weather, low predation, good numbers of healthy breeding birds, and, of course, privacy. Habitat of a particular type is the big factor. Sandhills must have wide open spaces. They are very wary birds. They only feel safe in areas where they can see the approach of danger for great distances. Too, they like wetlands because they probe with their bills for a lot of their semi-aquatic foods.

The spacious wet prairies and marshes of central Florida—Paynes Prairie, the verdant Kissimmee River Valley, the Fisheating Creek area, the broad shores of Lake Okeechobee, portions of the Everglades National Park, Loxahatchee National Wildlife Refuge—all these places still offer the things Sandhill Cranes, and great numbers of other birds, need for survival.

Whether or not these great, graceful, noisy, dancing cranes remain with us depends purely and simply on how closely we guard our natural wetlands, north and south, against ourselves. ●

a shipwrecked merchant—nearly three hundred years ago—brought the name to what is now

THREE PARKS in ONE

By VIRGINIA NEWMAN



IT MATTERS NOT a whit to thousands of modern tourists flocking there today that Florida's Jonathan Dickinson State Park, near Stuart, is named for a shipwrecked Quaker who probably never set foot within the park's 9,500-acre boundary.

Jonathan Dickinson is the state's most popular park for camping, and offers such a variety of terrain that it is often described as "three parks in one."

As you enter from U.S. Highway 1, thirteen miles south of Stuart, you see the rolling white sand dunes typical of coastal areas. Deeper into the park you pass, through the low, flat pinelands so similar to the interior of Florida. A cruise down the leisurely Loxahatchee River or one of its tributaries reveals a tropical wonderland with all the sights and sounds of a jungle.

These scenic attributes provide a breathtaking backdrop for the outdoor recreational facilities that have been provided by the Division of Recreation and Parks, Florida Department of Natural Resources.

Close to 200,000 visitors last year took advantage of the park's superb camping, picnicking, swimming, boating, horseback riding, and vacation cabin facilities.

Probably very few of that number knew the interesting history behind the park's namesake. It was named for a famous Quaker merchant who was shipwrecked in the vicinity on September 23, 1696 while enroute from Jamaica to Philadelphia. Jonathan Dickinson, his wife, and their infant child were among the fortunate survivors who managed to come ashore about five miles north of St. Lucie Inlet.

The small band was quickly discovered by unfriendly Indians. These pious people were given only rotten fish to eat and made to walk the beach naked before their captors permitted them to leave five days later.

Dickinson's journal of the shipwreck and subsequent ordeals has been widely read and quoted, mainly for its account of life during that early period in Florida's colorful history.

The journal reveals that they finally reached their destination after an arduous journey.

Although the Dickinson band is not believed to have actually entered what is now the state park, onlookers no doubt could see the wreck of his ship,

At Jonathan Dickinson State Park you may launch your own boat, rent a canoe, or take the wild river scenic cruise on lovely Loxahatchee River, above left. This was No. 1 "camping" park in the state last year—attracting around 120,000 campers, left. The park boasts 200 campsites and cabin units—plus exotic jungle-type plant life, right.

the *Reformation*, from what has come to be called Hobe Mountain.

The "mountain," which reaches an elevation of only 85 feet, might be described as a sand dune in regions to the north, but to south Florida natives who don't see many hills, it's still a mountain—and the kids love it.

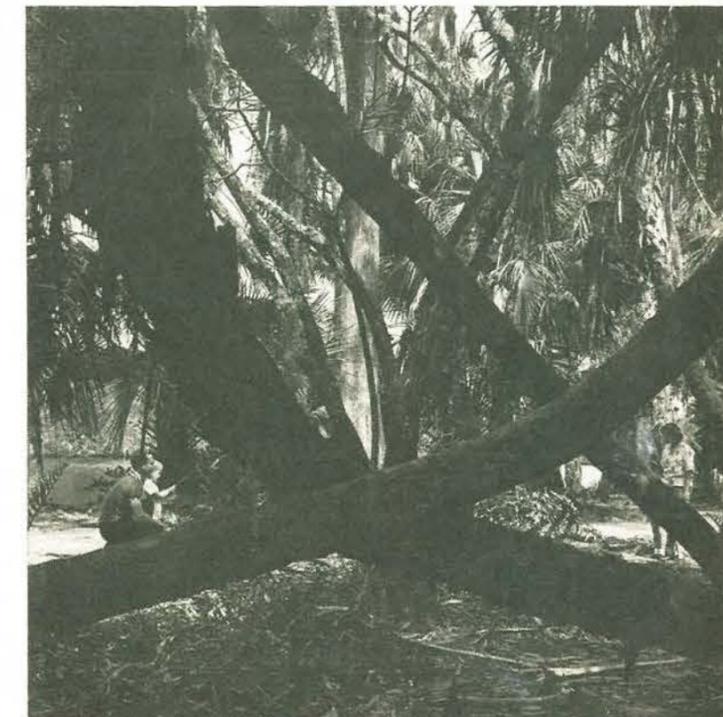
A very popular activity at Jonathan Dickinson is fishing. A double boat dock and launching ramp is located on the Loxahatchee River, and a cruise on this wild river and its tributaries is a never-to-be-forgotten trip. Kitchen Creek and the upper region of the river offer fresh water fishing, with salt water fishing on the lower part of the Loxahatchee.

No power boats are allowed on Kitchen Creek, but canoes and row boats are welcome. Boats of several types may be rented from the concessionaire or, if you are more interested in looking than fishing, you can take the scenic boat tour offered during the summer.

Overhanging the placid waters of the river and the streams that join it are heavy tropical growths of cabbage palms (*Sabal palmetto*), coconut trees, 10-foot-tall ferns, air plants, the intriguing strangler fig, the plant that begins life as a vine and becomes a tree 60 feet high, exotic wildflowers, and the rare pond apple.

A great deal of the parkland is characterized by Australian pines—which shade the family campgrounds.

Jonathan Dickinson has 200 campsites, with picnic
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tables, barbecue grills, electricity, and water lines. Restroom buildings are nearby. Recently added for the convenience of campers with travel trailers is a sanitary dumping station, where camper wastes can be disposed of in accordance with State Board of Health regulations. Automatic washers and driers are available at the park, too.

Some 120,000 tent and trailer campers flocked to Jonathan Dickinson last year—far more campers than visited any other Florida state park. It is the leader so far again this year, as nearly 93,000 campers have been attracted by the wide, private campsites, all within a short distance of the swimming area on the river.

South Florida's warm climate enables swimmers to enjoy a long season. Members of the park staff say the swimming area is often filled during the Christmas holidays of a mild winter.

Those lovers of the outdoors who don't like to camp but have always dreamed of having a cabin in the woods near a winding river and close to nature can fulfill their wishes—at least temporarily—by renting a cottage in the park.

These modern cabins, complete with all the conveniences of home, fill up quickly during the prime

The interior of the park is ecologically similar to the pine flatwoods of interior Florida, not the coastal region. Hiking the woods roads, below, and visiting undeveloped areas within the park boundary may reveal array of native wildlife ranging from the great Bald Eagle to the common Opossum, above. The people like it as it is.



Photo By Gene Smith

summer vacation months, however, so persons wishing to rent them during June, July and August are advised to send reservations well in advance. (Route 1, Box 27, Hobe Sound, Fla., 33455.)

For the convenience of guests, a concessionaire sells groceries, ice, charcoal, soft drinks, and similar items.

Not all the park's visitors rent cabins or set up camps, of course. For those just in for the day, dad can fish to his heart's content while mom and the kids rent bicycles and tour the nature trails or hire horses for a ride over a seldom-seen, undeveloped section of the park.

Deer, the Florida sandhill crane, opossum, raccoon—in fact, almost any native animal or bird can be spotted on a nature tour.

One of the most thrilling sights is the bald eagle, which nests annually in Jonathan Dickinson Park. An amusing sign on one of the park roads reads, "Caution: Low Flying Eagles."

This park is a neighbor to some of the most exclusive residential and developmental property in the United States. It is adjacent to Bob Hope's new country club development and to the sequestered winter homes of some of the nation's wealthiest industrialists.

But Jonathan Dickinson State Park belongs to the people of Florida. Its public lands are for their enjoyment. And, as proved by public wrath when "progress" threatens the natural beauties of the park or the river, the people plan to keep it that way. ●

Gun Books

there are many types of gun and hunting books of value to the outdoorsman, some of which take searching—by mail—and patience before locating

HUNTING



By EDMUND McLAURIN

MANY READERS of this column have long memories.

It is not unusual for someone to write mentioning a particular column published as far back as two or three—or more—years ago.

So, it is not at all surprising that an offering of a little over a year ago has brought many reader responses.

The subject of that column, in the April 1969 issue of this magazine, was interesting, practical gun books I have read—which I recommended to others who love the shooting sports.

However, some readers have expressed disappointment that they have been unable to find certain book titles in local bookstores and have been told, in some instances, that they were "out of print" and, therefore, unobtainable.

Now, just because a book happens to be out of print, or cannot be found in a local bookshop does not necessarily mean it cannot be located and read. Copies exist—in public and private libraries, in secondhand stores, and in the retail stocks of national dealers that specialize in obtaining and reselling hard to find or out-of-print books.

Getting your hands on such a book simply boils down to personal perseverance and effort directed to likely sources.

Incidentally, I never recommend the reading of any gun book that I do not feel truly interesting reading and technically valuable to a shooter or collector of guns—and only after having read the text myself.

As information, Rutgers Book Center, 127 Raritan Avenue, Highland Park, New Jersey 08904, may have the particular gun book that you have so far been unable to find. When writing, ask the firm to accept a standing order if the desired title is not currently in stock.

Another source of gun subject books, both new titles and those no longer printed, is John Roby, 3703B Nassau, San Diego, California 92115.

For a book that seemingly remains just beyond physical possession despite your best "detective" efforts, write the Brainard Book Company, Box 444, La Grange, Illinois 60525. This firm offers to locate for you any title ever published!

I have taken advantage of this unique book service and, while paying a bit more than publisher's price for some truly rare titles, have not found

charges exorbitant. Pride of possession of a much desired gun book dims memory of price anyway.

Another last ditch effort—and one that seldom fails to pay off—is to place an inexpensive classified advertisement in THE SHOTGUN NEWS, Columbus, Nebraska 68601, whether you want an out-of-print book title, a no-longer-made gun, or simply wish to locate and renew ties with a former shooter-friend of presently unknown residence.

The semimonthly issues contain only classified and display advertising of interest to shooters and gun collectors. Mailings go all over the world, and the individual issues are invariably read far more carefully than most hometown newspapers.

More than 30 years of familiarity with this publication stand behind my conviction of the value of a SHOTGUN NEWS classified ad as a likely lead to a particular firearm or component part need, or as a contact medium.

Most of the gun books that are still in print are easy to get, even if you cannot find a particular title locally.

GUNS MAGAZINE, 8150 Central Park, Skokie, Illinois 60076, maintains a mail order bookstore as a public service. So does Gallant Publishing Company, Covina, California 91722, creators of the monthly GUN WORLD MAGAZINE.

Stoeger Arms Corporation, 55 Ruta Court, South Hackensack, New Jersey 07606, and Ray Riling Arms Books Company, 6844 Gorsten Street, Philadelphia, Pennsylvania 19119, catalog long lists of gun books.

Instruction manuals and component parts charts on military rifle models—like the Garand, .30M1 Carbine, Springfield 1903, M-14 and AR-15—and service model handguns, both American and foreign—are available from Sarco, Inc., 192 Central Avenue, Stirling, New Jersey 07980.

Owners of Luger handguns will find interesting reading between the covers of LUGERS AT RANDOM, available from Handgun Press, 5832 South Green Street, Chicago, Illinois 60621. Also, a published report on the United States Army's trials of the German military handgun, titled U.S. Trials of 1900 Luger, will be on sale after July 1970. Coventry Publishing Company, Box 297, Gretna, Louisiana 70053, is the mail order source.

For Luger handgun owners wishing to know more

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about the mechanical operation, component parts, takedown and reassembly of Luger handguns, an instruction book is sold by Stoeger.

Pistols based on the Mauser mechanical system are covered in their own special volumes. MAUSER SELF-LOADING PISTOLS—a beautifully bound book—is available from James N. Bedford, Box 649, Stuttgart, Arkansas 72160. Another book on Mauser handguns is SYSTEM MAUSER, from Gun Digest Publishing Company, 540 Frontage Road, Northfield, Illinois 60092.

One of the most useful of gun reference books is John Olson's SMALL ARMS LEXICON AND CONCISE ENCYCLOPEDIA. The book is literally "loaded" with factual information about guns and gun terms. It makes interesting, easy reading—especially during TV commercials.

Whether scanned momentarily or perused with full attention, this volume serves to clarify many often misunderstood technical points.

For example, the word *Parabellum* has so long been associated with the 9mm Luger cartridge and the Luger handgun that many persons incorrectly believe the word means "Luger."

Not so!

Translated, *Parabellum* means "for war." As Olson's book explains, *Parabellum* was the name for a German machinegun used in World Wars I and II, and is the name popularly applied in Europe to the official German sidearm, the Pistole 08, from 1908 to 1938. (It is the same pistol with the toggle action that sold in the United States under the registered trademark LUGER.)

I would like to add—by way of information—that the famous German-made Luger was an American invention, not German.

Hugo Borchardt was its original designer. He sold the basic mechanical design to the German firm of George Luger after failing to find a manufacturer for the handgun in this country. The Luger firm modified and improved the original design and gave it its trade name.

Besides Olson's definitions, there are all sorts of helpful illustrations—from gun models and component parts to shooting range layouts and proper firing positions. Information charts cover such unusual facts as unidentified trade marks that appear on firearms, the properties and melting points of various metals used in gunsmithing, and calculated free flight ranges of various shotshell loadings and hunting rifle calibers.

Another Stoeger publication, THE GUNSIGHT GUIDE, provides a wealth of practical information for any shooter who has only a vague idea of the many available sight combinations and their specialized uses.



Its greatest value to the reader, in my opinion, is it enables him to make product and reported performance comparisons without having to consult several different reference sources. Also, after reading GUNSIGHT GUIDE the reader knows exactly what to look or ask for when visiting sporting goods stores that stock metallic and scope sights.

TO AN EXPERIENCED hunter, fisherman, or inveterate camper, a good knife is indispensable. On it depend many efficiently-handled outdoor living chores.

A quality-made knife, whatever the style, can serve its owner for the better part of his active outdoor life, if not all of it. Most are created to give this kind of service.

Unfortunately, few do.

Losses, theft, breakage, and deterioration—through owner carelessness, forgetfulness, neglect, and abuse take a heavy toll.

Carelessness is embodied, for example, in such acts as placing a knife where it can be knocked off a dock or out of a boat; failing to secure it in its sheath or in the garment pocket so it cannot be inadvertently lost; and laying it on a car or truck after use, from which it may be lost along the road who-knows-where.

Neglect is failing to wipe a knife clean and dry after use and letting rust ruin it completely or pit its blade to such a degree that even careful cleaning and sharpening will not restore its original good looks and serviceability.

Pocket knives are particularly neglected. Periodically, the hinge and housing of any folding knife should be cleaned with a toothbrush and mineral spirits, dried, and lightly lubricated.

Abuse takes many forms. Commonly it consists of using a knife as a can opener; using the blade to pry; chopping hard substances, as in demonstrating steel quality and cutting efficiency by a needless and harmful exhibition of bolt cutting; using a knife as a cold chisel or screwdriver; throwing a knife not designed for throwing just to see if you can make it "stick"; or even leaving a knife in strong detergent until chemical action discolors or warps its handle.

A true outdoorsman values a good knife and takes care of it, which includes such little, easy actions as wiping the blade clean of water, fruit juices, grit, and blood, and keeping the knife lightly oiled or waxed—and sharp.

A dull knife is not only a less efficient tool, but it is relatively unsafe. When dull, a greater force is required to do a cutting job, and the chance for knife slip and injury increases in direct proportion to blade dullness and "extra force." In the hands of an experienced, careful person, a sharp knife is definitely safer than a dull one.

Anyone who has the right kind of sharpening stone—like an oil-moistened natural fine-grit Arkansas or a lily-white Washita—and proper approach to the job can easily put a sharp, useful edge on a knife blade made of good steel.

Hold the back of the blade up from the flat surface of the sharpening stone at an angle of 10 or 15 degrees. Stroke the blade's cutting edge against the stone from heel to point of blade, just as if you were trying to cut a thin slice of the stone. Alternate your smooth, even strokes, first honing one side of the blade and then the other, keeping the stone well lubricated with a light-bodied oil.

You'll soon have a sharp cutting edge.

The Timberland Owner

By JOHN MARSMAN, *Savage Arms*

THE ECONOMIC Research Service of the U.S. Dept. of Agriculture disclosed recently that 12.4 million acres of public domain lands under the jurisdiction of the Bureau of Land Management (BLM) lack adequate public access routes.

Perhaps of more concern to the shooting sportsman, who has been the victim of a land squeeze since World War II, is the fact that an additional 5.4 million acres of BLM lands are denied the public for recreational use by adjoining landowners who apparently hold ingress and egress rights.

Add the countless acres of huntable land under private ownership which is posted, and the acreage lost to residential and commercial development, and sportsmen find themselves facing a serious situation.

While State Conservation Departments are doing much to see that the sportsman has more land on which to hunt and fish, think how much more serious it would be if timberland owners were not friends of the sportsman? How many outdoor buffs have paused to ponder the consequences they would suffer if private forest industries decided to close their holdings to public use?

It would mean a loss of 65 million acres now open to outdoor recreation, and most of it is available to hunters.

An American Forest Institute survey conducted last year covered 65,688,333 acres owned or controlled by 234 major firms. More than 95 percent of the owners keep their lands open to public use.

Stainless steel blades are frequently difficult to give really sharp cutting edges. Many manufacturers have not mastered the art.

Case is one maker that has. Just recently I removed a Case stainless steel sheath knife from packing box and experimentally tested its factory sharpness by attempting to shave unmoistened hair on my forearm. The knife shaved hair wherever applied, first stroke! Few stainless steel blades of factory-fresh packaging will do that; most require additional sharpening.

Some sportsmen are masters when it comes to knife blade sharpening. While I can do a creditable job, still, I bow to the superiority of the sharpening jobs done by friends George Weiser of Largo and Bill Fair of Palatka. Seemingly with no more obvious effort than tying a loose boot lace, each can put a cutting edge on a knife that will shave arm hair or slice paper at the merest touch.

To use a knife that sharp is easy and pleasurable. ●

Fisherman enjoy use of 97.1 percent of the total acreage surveyed, or 63,787,350 acres. Hunters have access to 93.5 percent, or 61,409,000 acres.

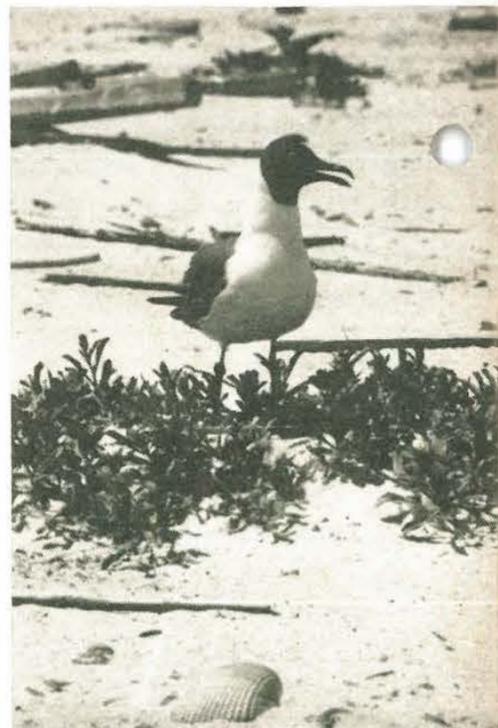
Here's the amazing part. In making available this vast outdoor playground to the public, it costs the companies more than \$7 million annually. The estimated gross value of recreational improvements to forest lands is \$13.4 million. Yet, only one-tenth of the firms surveyed charge a fee for use of their lands.

Hunters, for example, may seek game on 49.2 million acres without a permit or fee. Permit hunting is allowed on another 7 million acres, while only 2 million of the 61.4 million acres surveyed carry a small fee for hunters. In addition, more than 86,000 miles of company roads give hunters easier access to game.

These generous landowners ask only one thing of those who take advantage of the privileges—responsibility. Caution is urged while smoking or using campfires. People are asked not to litter the areas used, to stay away from off-limits sections where logging is in progress, to obey fire regulations and game laws and to drive carefully.

In other words, be a sportsman. That's not asking too much for use of 61,409,000 acres of wilderness land that could be closed to hunting if the owners so decided.

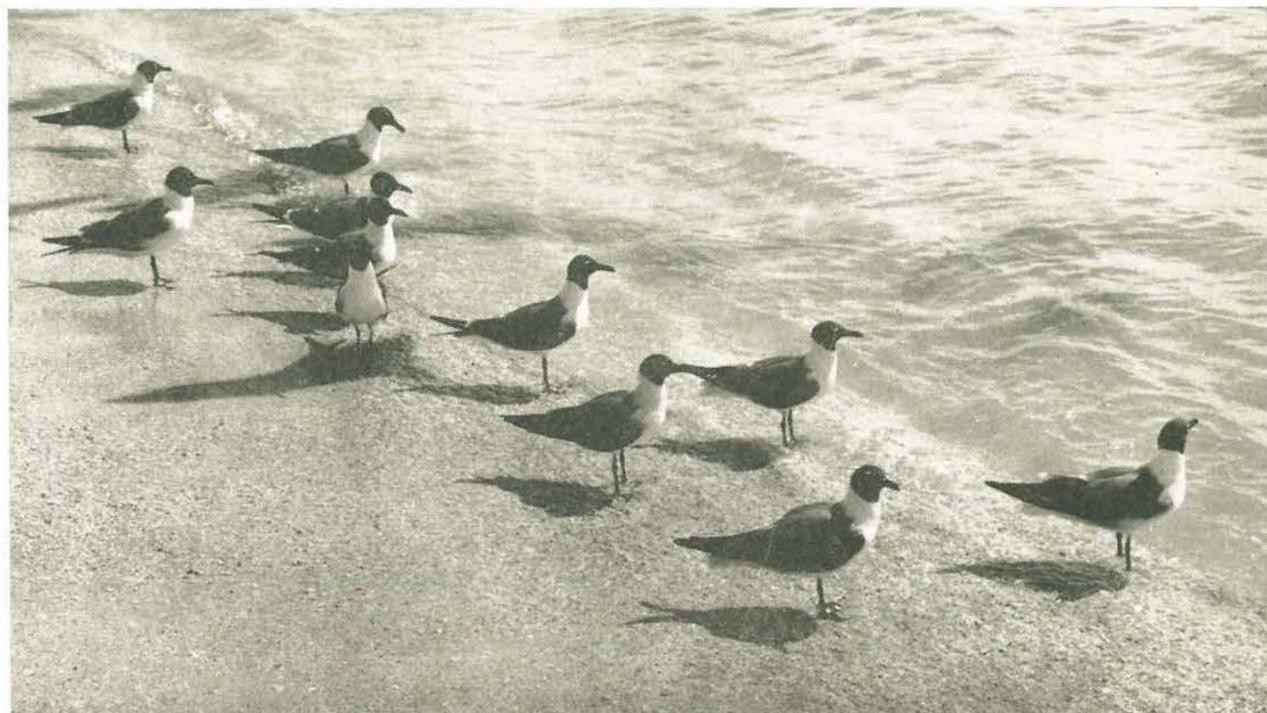
This fall, if you have occasion to hunt a tract owned by a private forest industry, take the time to find out which firm it is and send in a note of appreciation. Don't take for granted the generosity of these landowners, and above all, don't abuse the privilege being extended to you. ●



the Laughing Gulls

The black heads of summer adult Laughing Gulls are clearly visible in the typical flight scene shown left, above, and "now showing" at your favorite Florida beach. At right, above, is an adult at its nest site; below, a flock of handsome summer adults rest in soldierly order along water's edge. In winter, the black of adult birds is replaced by gray and white, opposite page, above. Below it is an immature bird, resembling the winter adult except it has varying shades of dusky gray, with very little white, and shows distinct feather patterns on the wings.

Photos By Lovett Williams



DON'T BE INSULTED if you should happen to hear derisive laughter behind your back at the beach this summer. It'll probably be coming from the Laughing Gulls. They're masters of deadpan humor.

This bird's common name stems, appropriately enough, from its voice—sometimes a polite "ha-ha-ha"; sometimes a jolly two-note chuckle, "ka-ha" or "ha-ha." Commonly, though, there is a long peal of strident, uninhibited laughter: "ha-ha-ha-ha-ha-haah-haah-haah"—the final notes being clearer, more sustained, and slightly higher pitched than those preceding. A whole flock engaging in such bellylaughter sets up quite a din!

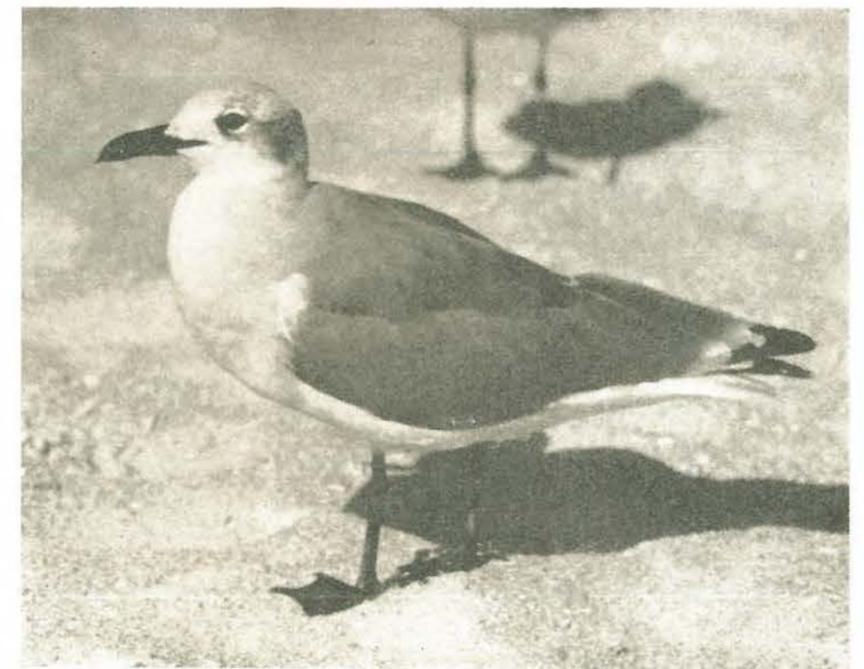
Laughing Gulls are common along all of Florida's 8,400-odd miles of tidal shoreline throughout the year. They only breed in a few parts of the state, however, notably in the Tampa Bay marshes and in the Florida Bay area of the Keys.

This is the only breeding gull of the South Atlantic and Gulf-Caribbean area, according to the Audubon Water Bird Guide by Richard H. Pough, but its breeding range extends northward on the Atlantic coast to Nova Scotia. It winters only from coastal North Carolina southward.

As you might have inferred already, Laughing Gulls are quite definitely coastal birds. Unlike many other "sea gulls," these don't venture inland very far or for very long. They are occasional visitors to fresh water lakes and rivers—for drinking, preening and bathing—but are soon winging back toward their beloved salt water haunts.

Laughing Gulls are far less inclined than some of their kindred to feed on garbage and similar refuse, or to follow the farmer's plow in search of grubs

By WALLACE HUGHES



Photos By Wallace Hughes

and other insects. They prefer fishes, shrimp and crabs plucked from the shallows of tidal flats or from the surface of the bay. Too, they sometimes "hawk" insects from the air in the manner of a swallow. Dragonflies are commonly taken. When fishing, it hovers like other gulls until a target is spotted below. Then it swoops down, snatches the prey, and wheels away to enjoy the meal on the wing—sometimes being pursued by another gull.

Alexander Sprunt, Jr., in Florida Birdlife, notes that the Laughing Gull has the habit of sometimes alighting on the head of a pelican as it is about to swallow a fish, and stealing the fish!

A good look at a pelican might make one wonder whether or not that's how the first pick-pocket got the idea. Only to our "artful dodger" of the bird world could such conduct be a genuine laughing matter. ●





CONSERVATION SCENE

Pollution Fighter's Kit

THE 1899 Federal Refuse Act prohibits the dumping of "refuse" into the Nation's navigable waters except under permit of the U.S. Army Corps of Engineers. "Refuse" is broadly interpreted, according to the National Wildlife Federation, to include "all foreign substances and pollutants" other than liquid municipal sewage.

The Act also provides that private citizens may report offenders to the appropriate U.S. Attorney, and receive a bounty for his efforts up to one-half of the maximum fine of \$2,500 for each incident or day of violation. Should the Government fail to act within a reasonable time, the informer can sue in the name of the United States and thereby collect his reward.

Wisconsin Congressman Henry S. Reuss believes in the law, and recently provided the U.S. Attorneys for the Eastern and Western districts of Wisconsin a list of 149 industries pouring harmful refuse into Wisconsin's lakes and streams without permits from the Corps.

Reuss says he'll turn any bounty money over to the appropriate agency of the Federal Government concerned with water pollution, and urged people across the country to take similar action to help end industrial pollution.

"Other state and federal laws on industrial water pollution are full of holes and hopelessly inade-

quate," Reuss said. "The 1899 Act, with an alert citizenry, can help the country move from talk to action in the fight on polluted waters—including by the citizen himself bringing the suit if need be."

He emphasized that the sums paid by industrial polluters under the 1899 Act procedure are essentially to recompense the public for having its waters ruined by non-permit violators: "I hope that public-spirited citizens will cover every river and lake in the country and take notes on who is polluting them. By turning the fines over to Federal water pollution authorities, we can be helping to pay for needed municipal waste treatment plants with the proceeds of action against the industrial violators."

DU Starts Record Year

TWO MILLION DOLLARS! That's the record amount which Ducks Unlimited will be spending in the building and rehabilitation of 63 high quality wetlands projects across Canada's prime waterfowl nesting regions during 1970.

Unanimous approval of the \$2-million allocation by its Board of Trustees keynoted the 33rd Annual Convention of Ducks Unlimited, Inc., held in April in San Antonio.

The appropriation to DU's construction affiliate, Ducks Unlimited (Canada), is described by Ducks Unlimited officials as "a positive step toward making our 'master plan' for the 1970's a reality. By 1980 we plan to acquire control on another four and a half million acres of important nesting habitat, bringing the total to 6.5 million acres before the end of the decade. To finance this record-breaking assignment, it will be necessary for DU to in-

crease its income by at least 20% annually over the next ten years."

The allocation for the first year of this decade is almost one third higher than the previous record, set last year. It will bring to the 16-million dollar level the total conservation funds sent to Canada during DU's 33-year history.

Proof of the concern for waterfowl and their environment was underscored by the fact that 117 delegates from all over the U.S., Canada and Mexico attended the conference.

Botany as High Adventure

THROUGH THE centuries courageous, adventurous men have sailed the seven seas, penetrated luxuriant jungles, climbed awesome mountains and crossed vast deserts and plains in quest of what has become the pride of our landscapes and gardens.

In THE PLANT HUNTERS, published by McGraw-Hill (\$10.95), Alice M. Coats distills years of research and scholarship into a fascinating account of their lives:

"Besides a good knowledge of botany and gardening," she notes, "a collector frequently had some skill in ornithology, zoology, geology, surveying or medicine—the latter particularly desirable. He had to be adaptable and able to get on with natives, and his life often depended on his being a good shot and fisherman. He had also to have great tenacity and endurance, the conditions of travel often being such that only curiosity, the greatest human motive-power next to love and hunger, could enable him to support them. It follows that the successful collectors were very remarkable men, and their lives and characters well worth recording."

A fascinating, immensely readable book, THE PLANT HUNTERS

is crammed with anecdotes and quotations from rare sources. It tells the story of intrepid explorers who risked life and limb to collect the trees, shrubs and flowers which today we enjoy and take for granted. It is a thoroughly documented reportage on the plants they discovered, the dangers they encountered, and above all on the human personalities which their travels and their own writings reveal.

It is, most interestingly, a curiously disparate collection of people, brought into brilliant relief. The author treats them chronologically, from the Renaissance to the outbreak of World War II, within ten geographical areas; the Mediterranean and Near East; Scandinavia and Russia; Japan; China; the Indies; the Antipodes; Africa; North America; South America, and Mexico and the Spanish Main.

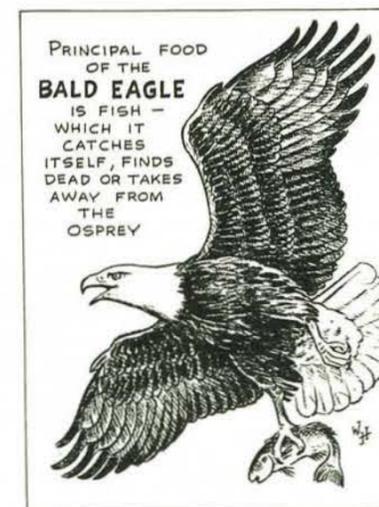
Enhanced by 26 illustrations, this 400-page book places the emphasis on the collectors whose discoveries were suitable for cultivation in the Northern Hemisphere, however those who worked in the tropics are not neglected. Many minor characters have been included, for while the major figures have been well served by biographers, the lesser ones have been scarcely chronicled.

Record Fish From Down Deep

A NEW WORLD depth record for collection of a vertebrate from the deep sea was established recently aboard the R/V JOHN ELLIOTT PILLSBURY, when a fish of the genus *Bassogigas* was trawled from a depth of 7,965 meters (26,132 feet), nearly 5 miles below the surface, in the Puerto Rico Trench. The expedition was part of the National Geographic Society/University of Miami Deep-Sea Biological Program under the direction of Dr. Gilbert L. Voss and Dr. Frederick M. Bayer at the Rosenstiel School of Marine and Atmospheric Sciences.

"Only three or four specimens

Nature Notes



of *Bassogigas* are known in world biological collections," said Dr. Voss, Chief Scientist of the expedition, "and our specimen is in the best condition of any that have been collected, as well as having been taken from the deepest water." The fish is about 6½ inches in length and has two small eyes, although it inhabited an area of total darkness. It will be studied and described by graduate student Jon C. Staiger, who has served as chief scientist on many of the School's deep-sea biological expeditions.

The remains of a squid which, in life, had probably reached 15 to 18 feet in length were also collected from the Puerto Rico Trench. This is the first-known record of the carcass of a large animal being taken from any one of the ocean deeps. The squid remains are being studied by Dr. Voss, who is Chairman of the School's Division of Biology.

Dr. Bayer is studying a tube-dwelling sea anemone and a small

A TEN YEAR old boy stole the show from all the experts speaking at a local air pollution control hearing, according to the National Wildlife Federation. He favored cleaning up the air simply because, "... I want my children to live. That is if I live to have any children." And he sat down.

white limpet also taken from the Puerto Rico Trench and previously undescribed in scientific literature. A sea cucumber, 1 inch in length, is being described by an adjunct professor of the School, Dr. Elisabeth Deichmann of Harvard University. Other animals collected in the Trench include tube worms, free-living worms, and small white shrimp-like crustaceans.

Unfortunately, man's efforts to pollute the earth were evidenced by some of the other items brought up when tows were made in water 4½ miles deep. From the ocean bottom came empty paint cans, fruit juice cans, flip-top lids of beer cans, clinkers from steamship firerooms, pieces of old aluminum, empty bottles, and flashlight batteries.

Geologists were surprised to learn that several nodules of marcasite, a form of iron pyrite, were also brought up in the trawls. Marcasite is thought to be very rare in the deep sea.

The floor of the Puerto Rico Trench is quite level and consists of soft blue clay that is extremely sticky. The clay is covered with the largest amount of land plant material yet reported from any trench in the world. PILLSBURY tows brought up coconut husks, tree seeds, fronds, tree branches, mangrove roots, and turtle grass remnants.

Reorganization of Agencies

THE PRESIDENT'S Advisory Council on Executive Organization soon is expected to present recommendations for a major reorganization of federal agencies dealing with the nation's environment, according to the Wildlife Management Institute.

Conservationists should be alert to this fact, since there is little knowledge, in advance of the report, of how sweeping a change the council will propose. Conservation groups would welcome any reorganization that would im-

(Continued on next page)

(Continued from preceding page) prove the Federal Government's ability to respond to matters that adversely affect the environment. There is wide agreement that the present alignment of natural resources management and regulatory agencies could be improved to permit the United States to initiate more responsible and better coordinated programs for restoration and protection of our environment.

How the President will proceed on any plan for reorganization of the more than 20 agencies now concerned with natural resources is a question. There are three courses open to him. He can transmit a message and ask Congress for legislation; he can use his executive powers to effect reorganization, or he can do nothing. Should he ask Congress for legislation, conservationists and others would have a much greater chance to express their views at public hearings than they would if the reorganization is accomplished by executive orders.

Phytiatry Society Suggested

A GROUP of experts in the plant sciences is calling for the formation of a "Phytiatry Society" to be composed of those who specialize in the art or practice of diagnosing and curing, preventing or alleviating disease in plants; as opposed to the main body of plant pathologists, most of whom are more concerned with pure research, the Wildlife Management Institute reports.

The proposal was discussed in a recent paper by F. R. Harper, staff member of the Canadian Department of Agriculture Research Station at Bethridge, Alberta. Harper takes the name of the proposed new society from the Greek phuton—plant and iatros—physician. He points out that there now are virtually no practitioners in this field, and those that do exist suffer from formal training that is unsuited to their vocation. Supporters of Harper's view

point out the development of "Phytiatry" or similar profession would help bring about proper use of pesticides and tend to eliminate unnecessary and harmful applications of chemicals.

World of Miniature Arms

"MINIATURES are even better than snapshots. Home movies and photo albums can get pretty boring to a stranger, but miniature firearms interest everyone. Kids and grownups alike want to see how they work and non-gun types (there are crazy people in this world who don't like guns!) are still interested in the fineness of the workmanship." Writing these words in the conclusion to his book, *MINIATURE ARMS* (\$8.95), Merrill Lindsay sums up the universal appeal of this relatively unknown but fascinating field of collecting.

Published by McGraw-Hill in cooperation with Winchester Press, this highly unusual book explores the world of the intricate, finely-made miniature which combines the skills of the watchmaker, the machinist, and the jeweler. Among the trophies described and illustrated are a crossbow wheel-lock gun designed by Leonardo da Vinci; an 18th century music box in the form of a gem-encrusted, double-barrelled gold pistol; a 17th century Spanish blunderbuss pistol, known as a miquelet; derringers with ivory grips; and a pair of singleaction Colt revolvers carved with the Mexican eagle.

Profusely illustrated with 93 photographs (78 of them in full-color) by Bruce Pendleton, this handsome work will delight gun enthusiasts, art lovers, hobbyists, and collectors. The precision craftsmanship of the miniatures is a tribute to the skill of the artisans who made them. Most of the miniatures are working models intended to shoot; some of them were actually intended for defense.

The 112 pages of *MINIATURE*

ARMS are not limited to a description of pistols, cannon, and similar firearms. Words and pictures also examine miniatures of weapons and defense implements in use long before the discovery of gunpowder. Included are examples of such items as miniature armor, fully articulated, mirroring the suits of armor worn by knights; miniatures of jousts and knights, probably used for toys and to plan future strategies for warfare; miniature pole arms—lances, spears, halberds; cup hilted Spanish rapiers; and the onager, derived from earlier stone throwing artillery (catapult).

Linen Group Fights Pollution

LINEN SUPPLY companies throughout the country were encouraged to help pass local government regulations designed to combat pollution of air, water and earth.

The resolution was passed during the 58th annual convention of the Linen Supply Association of America in May at Miami Beach. The industry group has a membership of 1,534 companies in the United States, Canada and 28 other countries.

The 1,024 linen suppliers and associates in convention also resolved that the association will conduct further research into the elimination of pollutants that "endanger man's environment."

The group will also "further the cause of cleanliness in the environment by stressing the use of reusable linens rather than discardable materials that add to the ever increasing trash pile."

According to Samuel B. Shapiro, executive director of the association, the group has been actively engaged in research aimed at removing pollutants from contaminated waste water so that the water can be reused.

The companies, engaged in rental of linens, use considerable quantities of water in the laundering process. Ways are being sought to reclaim the water after use in laundering.

For that BIG ONE that



didn't get away

ELIGIBILITY REQUIREMENTS SPECIES

LARGEMOUTH BASS8 pounds or larger
CHAIN PICKEREL4 pounds or larger
BLUEGILL (BREAM)1 1/2 pounds or larger
SHELLCRACKER2 pounds or larger
BLACK CRAPPIE2 pounds or larger
RED BREAST1 pound or larger

All fish must be taken from the fresh waters of the state of Florida, as defined by the Game and Fresh Water Fish Commission. Fish must be caught on conventional fishing tackle, with artificial or live bait, in the presence of at least one witness.

The catch must be weighed and recorded at a fishing camp or tackle store within the state by the owner, manager, or an authorized agent of the respective establishment.

FLORIDA WILDLIFE'S FISHING CITATION

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

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

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 inscribed data listed below:

Name (please print) _____

Address _____

City _____ State _____ Zip No. _____

Species _____ Weight _____ Length _____

Type of Tackle _____

Bait or Lure Used _____

Where Caught _____ in _____ County

Date Caught _____ Catch Witnessed By _____

Registered, Weighed By _____ At _____

Signature of Applicant _____

CUT OUT AND SAVE THIS APPLICATION BLANK



Broad-winged Hawk (immature)

Photo By Leonard Lee Rue III

6-1-70
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