Fish Scales

Except for a few fishes such as catfish and lampreys, all have scales. *Here* are four different kinds of scales:

- **Ctenoid** scales of fish like the bass and sunfish overlap like shingles on a roof and have a comb-like edge on the posterior rim of the scale.
- **Placoid** scales of sharks and rays are like small teeth, complete with enamel, outer coating, dentine inner layer, and center pulp cavity.
- **Ganoid** scales of the garfish are covered with a hard enamel called "ganoid," triangle-shaped, they fit together edge to edge like floor tile.
- **Cyloïd** scales of fish like suckers and minnows overlap each other like shingles. They fit together edge to edge like floor tile.

Florida Wildlife Scrapbook

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- Fishing
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**The Cover**

To many anglers, Florida and Largemouth Bass fishing forms a blend, similar to lure and eggs. Add to the fishing the pleasures of early spring weather, plus a pretty girl, and the picture is perfect for a cover scene.

**Color Photo From Cypress Gardens, Florida**

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CONSERVATION SCENE

New Steps Taken to Halt Decline of the Bald Eagle

U.S. Senate Approves The Wild Rivers Act

First conservation bill to move in the new session of Congress was the Wild Rivers Act, approved by a 71 to 1 Senate vote, the Wildlife Management Institute reports. The highly supported proposal now goes to the House Interior and Insular Affairs Committee where it may run into some difficulty particularly if Congress adjourns near mid-year.

The Senate bill basically sets forth congressional intent to forever preserve some few remaining rivers of the U.S. for their water conservation, fish, wildlife, scenic, outdoor recreation, and other values. As reported by the Senate Interior and Insular Affairs Committee, the bill, S. 1446, created a National Wild Rivers System consisting initially of parts of the Salmon, Middle Fork of the Clearwater, Deschutes, White, John Day, Gallatin, Methow, Green, Teton, Snake, Owyhee, Middle Fork of the Salmon, Kootenai, North Santiam, McKenzie, and Rogue rivers. Idaho, Rogue River, Oregon, Rio Grande River, New Mexico, and the Eleven Point in Missouri, a surprise amendment on the Senate floor added the Caquon and Shenandoah Rivers, West Virginia.

S. 1446 proposes study of the following rivers for possible addition to the wild rivers system: Buffalo, Tennessee; Green, Wyoming; Hudson, New York; Missouri, Montana; Nobiara, Nebraska; Skagit; Washington; Susquachanna, New York and Pennsylvania; Connecticut, Wisconsin, Susquehanna, New York; Surwanse, Georgia and Florida; and the Youghiogheny, Maryland and Pennsylvania.

Other Senate amendments to the bill were mostly of a clarifying or technical nature. One important amendment stipulates that all rivers within units of the national wilderness system shall be subject to the provisions of the act. Another amendment along the same lines, inserted at the last minute, declares that it is the responsibility of resource managers to maintain the wilderness character of the lands.

Conservation Convictions and Human Self-Interest

By ERNEST SWIFT
National Wildlife Federation

Dr. Lewis Pergelli, School of Forestry, Montana University, has grown himself both a philosopher and an able writer. He has the faculty of finding the "eye of the hurricanes" in his conservation themes, with humor and without pomposity. Both are admirable qualities.

His thesis, "The Art of Social Conservation," should receive a wider range of readers than I imagine it has. No doubt many converts have read it; the unconverted, finding no fish and bear stories included, might well pass it up. They are not about to be contaminated by philosophical conservation imagery.

In it, Dr. Pergelli attempts to arrange economic and recreational needs and show that they are inseparable. To broaden the base, it is healthy to winnow and sift the ideas of many people. To emphasize his own original logic—which is considerable—Dr. Pergelli quotes a number of great philosophers, teachers and administrators, past and present. This is a justifiable means of proving that many people have been and are concerned with a common subject.

However, after years of personally attempting to locate the "eye of the hurricane," I find that our leadership of skirts, gosses over, or fails to explain in bold language the basic principle which dominates all conservation effort. And that is self-interest of the individual.

Dr. Pergelli gets mighty close at times. He states that most textbooks dealing with natural resources fail to mention human resources to avoid complicating the picture. Then he goes on to say, "We only assume that proper conservation of the natural resource complex adds up to a proper conservation of the total human resource." I am not sure whether he favors the "airway dismissal" or the "assumption.

In other words, human beings are a part of the community of life, dependent on resources for survival. If the natural resources are cured, this insures human survival. In my opinion the resources must be of first concern or there will be no life continuity.

Dr. Pergelli goes on to quote Laurence Rockefer, chairman of the ORRRC, in saying: "We pay lip service to the fact that the motivating conservation and that he believes nature was created for man's enjoyment. He then states: "There is stronger evidence, however, than that the emphasis is placed only upon the accumulation of material wealth as an end in itself, civilizations have declined and nations have perished."

The statement is correct, but does not go far enough. Since man first stood on his hind legs he has attempted to create a favorable Jehovah image of himself, but as judge and jury of his own conduct—which is not accepted in his own creation of jurisprudence—he is bound to be prejudiced. Nor does man want any

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FLORIDA WILDLIFE

from the primed gentian to the tassel-eared squirrel, 36 of America's greatest living examples of natural beauty are featured on a new set of decorative stamps. Produced and distributed by the National Wildlife Federation, these stamps have been issued each year since 1938 and mailed to persons interested in conservation, and wildlife. More than two million citizens throughout the United States will receive the 1966 edition during the next six months, according to J. A. Brownridge, Business Manager of the Federation.

Lithographed in full-color from original paintings by some of the country's outstanding wildlife artists, the 1966 wildlife conservation stamps feature portraits of 196 species and subspecies of birds, fish, mammals, reptiles, insects, and butterflies. The result is a sheet of colorful stamps suitable for any decorative or educational use. Many school children and teachers use these stamps in learning about American wildlife and save them in special albums published for that purpose by the Federation. The albums contain complete descriptions of the species portrayed on the stamps and other articles of interest to nature students.

Winter Waterfowl Count

The mid-winter waterfowl survey conducted jointly by the Florida Game and Fresh Water Fish Commission and the U. S. Fish and Wildlife Service was carried out this year between January 2 and January 8. The survey showed an increase of nearly 400,000 ducks observed.

The importance of a nation-wide program to collect data for wildlife management purposes.

Bald Eagle Protection

SECRETARY OF THE INTERIOR Stewart L. Udall recently ordered new protective steps to halt the steady decline of the bald eagle—America's symbol—in the contiguous 48 states. He warned that (Continued on page 32)
FISHING

Although the gar fish is hard to hook, it will strike at a variety of baits and artificial lures

By CHARLES WATERMAN

OUTBOARD MOTORS PROBABLY CAUSE MORE MINOR PHYSICAL INJURIES THAN DO BLOCKING BACKS. Some­body around a boat dock always seems to have a sprained shoulder, a strained back or a stiff neck from cranking an outboard. I don’t know how many times I’ve hanged up myself pulling a starter rope.

Pulling a starter rope, you see, is an unusual motion, employing stresses seldom encountered at any other pursuit. In fact, about the only similar project I can think of would be trying to open a badly stuck door while standing on a teeter-totter.

After a lot of years of random yanking on starter ropes, I learned how from a 200-pound weightlifter. I was fishing with him and he was running the ropes, I learned how from a 200-pound weightlifter.

By pulling a starter rope, you see, is an unusual motion, employing stresses seldom encountered at any other pursuit. In fact, about the only similar project I can think of would be trying to open a badly stuck door while standing on a teeter-totter.

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Most jig and flies used in Florida waters are made of easily acquired bucktail or chicken feathers. The requirement, cleaning and dying of various feathers and hair for fishing purposes is an important business for a small segment of the fishing industry and some flies are built of exotic materials extremely hard to come by.

When my wife Debbie started doing a little fly tying some years back (in response to my heart­rendering wails of excessive fly costs) I, personally, retired from the field after making a few clumsy tarpon streamers but she got into some fresh water trout flies that required unusual feathers, even though she has never claimed to be an expert.

Talking about this material business to a professional fly manufacturer, I asked why there seemed to be such vague information about some of the hair and feathers and learned that much of the material is smuggled into the country by roundabout means to avoid taxes on the importation of birds and animals. This doesn’t seem to be the case because I have been talking with such lawbreakers because by the time the material gets to the user it’s probably been through a lot of hands and I don’t even infer that major suppliers of material condone such practices but I have found considerable silence about some odd ball feathers called for now and then. I wouldn’t know which materials made illegal entry anyway.

Business being what it is, many of the proud names of the tackle business have been hung on inferior merchandise, especially in the reel department. Short cuts and more short cuts to manufacture have enabled builders to keep their heads up in a very competitive field.

A good way, at left, to wrench your back, hurt your wrist, hang your hand and sprain your elbow. It’s a careless position for cranking on outboard. The right way to start a big outboard, below, is to stand up, use both hands, and pull underhanded.

FLORIDA WILDLIFE

APRIL, 1966

To the fisherman this means that a Whoozis reel which once led the world in value may now be made of inferior stampings and cheapened metals in order to meet price in the face of rising labor costs. The time has come when you’ll have to go a bit past the trade name to be sure of quality in more than one instance.

FELLOWSHIP ME the other day asking about methods of catching garfish on rod and reel and it turned into a pretty tough one to answer as I’ve seen them caught occasionally on all sorts of rigs but I can’t say that I know of any one method that excels.

In south Florida canals where they sometimes school up in great numbers you can catch them on all sorts of artificial and they’ll take shrimps, worms, bait or shiners but most of those gar are quite small.

There are several kinds of gar, the big daddy being the alligator which grows to tremendous size and puts up a rough fight on heavy tackle. For a while there were numerous reports about catching them in southern rivers but I haven’t heard much lately. I think most of them took large cut baits or live fish. Many Florida gars, usually much smaller than the alligators, bite on plastic worms and other moving plugs. They will take small surface plugs although the ones I’ve caught are not hard or fast strikers. They’ll often follow the bait for a long way, seemingly out of curiosity and with no intention of striking.

A gar is extremely hard to hook and difficult to

(Continued on next page)
land because the hook generally pulls out but once it gets solid placement in the bony jaw you'll have your hands full getting it loose and many folks don't like to hold of a gar, viewing it with the same revulsion they hold for snakes. You can get bitten by a gar but I don't think they ever actually snap at you the way a bluegill will. Most gar will thresh on the surface although they can hardly be credited with leaps.

Don't get the idea I can go out and catch gar any time. Most of those I've caught have been taken in places where they were thick, sometimes lying so close together as to do a general shift when one fish turned. Although their teeth are sharp, they're close together as to do a general shift when one is credited with leaps. Although I've been bitten by a gar but I don't think they ever actually nip off the line the way a barracuda will.

I never ate a gar and most folks wouldn't consider them as food although Seminole Indians consume quite a few, generally spearin them in shallow caves. Gar gill fishing or bow hunting can be done legally if you'll check with a local conservation official for permission. Neither method is likely to substantially reduce the overpopulation but it won't do any harm and can be fun.

I see that some rod makers are placing the guides along the side toward which the stick naturally bends in the case of casting rods and on the opposite side in spinning and fly rods. It's logical enough in preventing the rod from taking a "set" although sets are of minor importance in good quality glass and some deep sea anglers who don't use their rods for casting actually prefer to have a set before they hook the fish.

In sightinfg down a rod blank you'll find that it almost invariably tends to bend a little one way or the other although I don't consider that a "crooked" rod. However, if there are two or more bends, plainly visible, I'd say it's a poor blank. Really crooked rods have unusual stresses and are apt to throw a lure where you aren't looking but that isn't necessarily true of one that simply bends gently into a natural set caused by long use. Sometimes most of the set is caused by a ferrule and the rod itself isn't bent much.

Bamboo rods will usually set to some extent and some of the most expensive fly rods in the over $100 bracket set pretty badly and pretty soon. I find that impregnated bamboo holds its shape in most cases with only minor setting.

In most cases a slight bend in your pet casting rod is nothing to worry about. After long, hard use it is customary to have the guides placed on the other side of a rod that has begun to set but such a procedure can change the action and the worst combination is north or south guides on a tip that bends east or west. I'm no physics professor. That's the best I can explain it.

Histories of fishing are incomplete as historians have unaccountably shown considerable more interest in political upheavals than in lure and rod developments but in looking over some works on ancient angling I find some tentative dates that are interesting.

Nobody pretends to know when live or cut bait was first suspended from stone or bone hooks but artificial lures may have been in use 200 years, B.C. —most historians suspect that the lure was some sort of fly and flies were definitely in use in the Middle East in the third century.

After the flies came the spoons, possibly made from shells at first, and artificial minnows were in use around 1800 in England. The "plug" as we know it came considerably later.

Spoons were commercially produced in America about 1848 and the pilot models were evidently fashioned from kitchen utensils. The New Fisherman's Encyclopedia, edited by Ira Gabrielson, says the first plugs were patented at about the same time, late in the 1860's, and were the Heddon Dowagiac and the Rush Tango. Plugs were on the market about 1888.

The first plugs are still good fish catchers and those of 50 years ago can hardly be told from the current crop in most cases.

I think it is very strange that the "jig," one of the most elementary forms of artificial lure, took so long to come into its own in fresh water. As recently as 1946 I heard a party of fishermen laughing loudly at a friend who in desperation tried a salt water jig on black bass. Since the spinning rod is almost ideal as a light jig manipulator, I'm assuming that the popularity of spinning really put the show on the road for "leadheads, doll flies" and "darts"—simply freshwater names for jigs.

Almost all fresh water fishermen find use of a pushpole convenient at times but real pushpole wizards are found in the Keys and we could take some advice from the island lads.

About the best poles are made of fiberglass and about the same size as volleyball poles. In fact some of the pushers use volleyball poles (generally factory seconds) and professional guides may prefer them up to 16 feet long but such fancy rigs probably aren't suited to the small water angler who can generally get a highly satisfactory pole by simply buying a piece of 1½-inch round at the lumber yard. One-inch stuff isn't tough enough for me and 2-inch poles are unnecessarily big for casual use. Usually 12 feet is about minimum length.

The "foot" is a matter of personal preference. I just use a triangular piece of wood fastened to one side of the bottom of the pole but such a rig would undoubtedly bring accusations of "greenhorn" or "Yankee" in some circles.

Expert polers generally push toward the rear, guiding the pole along their hips and they get incredible speed. I've heard it said that expert Seminole polers, working in pairs, could get nearly 18 miles an hour from their dugouts but that seems pretty fast and the estimate isn't mine. I do know that some Keys guides can go like the devil with heavy boats I wouldn't consider poling equipment at all.

I did a little poling for Stu Apte, the guide, and he kept bawling me out for inefficiency but Stu, who is capable of chasing cruising fish all over a flat that's too deep to pole anyway and goes at what I consider terrific speed, says his former guiding partner, Woody Sxoto, was the Keys champ.

Woody, who is a physical culture fan and weightlifter, is also a canoe racer, doing 100 miles a day without strain, and is a very powerful man in addition to being something of a crank about technique.

Anyway, a few minutes of concentration with technique will show you how to get the most out of a pushpole, even if it takes a lot of practice to cash in on your information.
CRICKETS

By ART HUTT

IF THERE'S ONE BLUEGILL bait that will make more bobbies bounce, it's that odorous, soft morsel that thrives in the heat, sings unconcernedly while it's sliced-shanked and bite-sized, this tasty teaser attracts the hand-sized hustlers as readily as a display of penny candy draws drooling small fry.

Oneangler I know uses a wide-mouth jar with a section of inner-tube around it to provide shade and to protect the glass. The slick sides cannot be climbed, yet the angler has an unobstructed access to a cricket when he needs one in a hurry.

I've seen a homemade affair with a piece of inner-tube stretched across a wide-mouth jar. A hand-accommodating, self-sealing slit in the rubber allowed an easy entrance to the bait.

There are many commercial models, from a 30-cent cardboard container to neat wire and wood cages. Very few have provision for shading the contents, however, but I think your bait lasts longer and stays livelier if you drape a cloth over it.

Just remember, though, that when you are in a hurry to get your hook rebaited, a container you can reach into quickly is a good choice. One that lets you shake a single cricket down through a slippery funnel has merit, too.

Also, if you want to hold some extra crickets over for a few days, give them a piece of peeled potato to chew and suck on. They'll thank you for it by staying healthy until the next bream bout.

But a problem of fishing with crickets has been the desire to get involved in do-it-yourself cricket collecting. On the other hand, nothing is as disconcerting as having a bream-bed fishing trip planned, and then come up with only a ten minute's fishing supply of crickets.

Happily, "factories" producing millions of chirping charges per season have reduced this concern to a great big zero. The modern angler, cricket cage in hand, hastens to his friendly neighborhood bait shop and "collects" a hundred crickets in as many seconds. Price is painless—about $1.00 to $1.50 per hundred.

For temperature's sake, most of these cricket farms are in the southern states. In Florida, the largest, Lucky Lure Cricket Farm at Leesburg, produces 7-to-8 million crickets in their big season from April through August. As you would assume,

(Continued on next page)
raisers use gray crickets, not the common black field cricket. Actually, rather than gray, they're a light brown in color, and seem to thrive in dark, which they like. To keep their cannibalistic tendencies in check and to make them grow fast, a generous supply of sterilized chicken mash is placed in their trays each day. When they have a thirst, they quench it at the water feeder—the type used to water chickens. However, the ring at the bottom has a foam-rubber insert to keep the crickets from drowning.

To pamper them further, a 90-degree temperature and a below-60 humidity is aimed at. Heaters are used whenever the temperature varies too far from the ideal. On warm days, fans circulate the air and dehumidifiers are switched on to dry it out.

Each growing box yields from seven to ten thousand crickets, enough to make a cricket counter crotchety if each one had to be counted individually. Crickets are obliging though, a trait used to advantage. Quart cans, previously punched with holes, washed, painted and sand-sprinkled before being put on a bus for a trip to another state. They ride in screen-windowed cardboard boxes, filled with excelsior. These boxes hold up to 1,000 crickets each and have ended up in every state in the union except Hawaii and Alaska.

For counting, left, the bait dealer dumps crickets through funnel into a jar. This jar holds thirty, There's variety in commercial cricket corps, right. Screen-windowed box is used for shipping.

(Continued from preceding page)
LAW ENFORCEMENT

The vast Everglades, extending across the southern part of Florida, south of Lake Okeechobee, is one of the largest fresh water marshes in the world. As unique as it is in general topography—so is it as a huge hunting, fishing and outdoor recreation wilderness.

For the Wildlife Officers assigned to this strange "sea of grass," a completely different field routine is required, as unique as the Everglades and its available outdoor recreation pursuits.

There is probably no wilderness area in the country where such a variety of transportation means must be utilized by field personnel to patrol, protect, and aid the outdoorsman as well as the borders of wildlife that roam these hundreds of square miles of sub-tropical marshlands.

The top photo shows team-flying patrol over the Everglades. The small plane, piloted by Gerald Fidler, acts as spotter for activities that may need close inspection, and the helicopter lends for "check out" by pilot Andy Hutchens. Best known patrol craft throughout the Everglades sawgrass country is the airboat, above, showing typical patrol by Wildlife Officer Jim Sistrunk.

Aircraft and airboats also operate as a team, left, as charger pilot Hutchens guides officers Sistrunk and Gary Phelps in area demanding careful investigation.

EVERGLADES STYLE

Photo Story
By JIM BRANTLY

Information-Education Division

Everglades Region Wildlife Officers, above, of Enforcement Area 18, Broward County, head out into the Everglades where they dispense to their respective patrol areas. The photo below illustrates efficiency of airboating hunter inspection by helicopter, which can do work of both airboat and helicopter with its ability to land on both wet and dry 'glades.
Continued From Preceding Page

One of the strangest vehicles used for Everglades Patrol is the Commission’s special half-track, shown here with Wildlife Officers John Maple, George Eddie and Tom Morris. This is the only “land” vehicle that can operate through the sawgrass country, whether wet or dry conditions prevail. Wildlife Officers of the Everglades Region build and maintain their own equipment such as airboat, weasel and half-track buggy.

In the Collier County area of the Everglades, right, Wildlife Officer Waydon Durrance drives his special built wheel swamp buggy, maintaining radio contact with Cub pilot Gerald Fidler. Many sections of the 'glades are made up of dense cypress swamps, ideal haven for many forms of game and exotic wildlife.

In the Collier County area of the Everglades, right, Wildlife Officer Waydon Durrance drives his special built wheel swamp buggy, maintaining radio contact with Cub pilot Gerald Fidler. Many sections of the 'glades are made up of dense cypress swamps, ideal haven for many forms of game and exotic wildlife.

Wildlife Officer Tommy Horne, left, patrols through cypress country in Collier County with “weasel,” perfect vehicle for those areas where much of the surface is coral rock. This type of coral is generally found in the lower portions of the Everglades, along coastal areas that were at one time under salt water. The photo below is a closer view of Officer Durrance “plowing” his wheel swamp buggy past heavy cypress country in the western half of the Everglades.

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Underwater growth and cover provide fresh water fish with both food and protection

**FISH the COVER**

*By CHARLES WATERMAN*

Only five per cent of the bass are to be found along the shoreline, announced the inventor of a method of open water fishing some 15 years ago.

"That may be," said one diehard, "but those are the five percent I want."

Fishing to the shoreline, around obstructions, across the bonnets and through the grass is what makes bass fishing for some fishermen, even though there are other ways of catching them. Thirty years ago, before spying on bass became well organized, I assumed all of the bass were along the shore and I never thought of fishing anywhere else.

Shoreline fishing has lately become somewhat out of date but there are times when it's still the best way and, even when bass aren't hanging out next to the edge, chances are they're around some kind of cover, even if it's in the middle of a lake and completely invisible to determined fishermen.

Bass aren't alone in this desire for something to hide behind or sneak through and the best crappie fisherman I know spends half of his time hung up in sunken brush.

It seems the other half of his time is spent unhooking crappie. His credo is simply, "You gotta' be where they are to catch 'em," and he keeps prodding for snagged lures long after I'd have blown my stack and taken up slot fishing or something.

Fish hang out around cover for two reasons—protection and food. I hear the Japanese have been building salt water reefs for centuries and we've been doing it here for fifteen years. When I was a kid, sneaky operators used to sink cut brush to attract panfish.

They like a bigger "reef" better but I've found salt water fishing extremely good over a wreck that had crumbled to a mere 8-inch ridge on the floor of a bay.

I was once taken by a guide to the wreck of a sunken inboard boat with promise of plenty of snook, channel bass and tarpon. When we got there it was a slick calm and the entire wreck was outlined by bait on the surface in only six feet of water. The guide knew just how much of the wreck was left and with a little help on his part I made out the outline of the hull remains, the engine and even the big flywheel—all spelled out on the surface of cloudy water by tiny bait fish. About that time the snook began to swim through the bait and I started casting.

The big fish couldn't hide in that little old wreck but the bait could or thought it could. The same thing happens in fresh water and sometimes a clump of vegetation is surrounded by bass who know the bait is in there and they just wait for it to come out. That's the real key to the case where a guy runs up to a clump of grass, cuts his outboard and starts fishing while the wake is still shaking the foliage. The gimmick is that his wake stirs up the bait, driving it into the open, the bass go on the prowl and fishing is good. That kind of operation doesn't always work but it works often enough to be worth an occasional try.

Where you have current, obstructions act both as hiding places and as shields from the moving (Continued on next page)
A fallen tree such as this requires a little extra attention, especially where current turns it into a desirable fish haven.

(Continued from preceding page)

water. Only a stupid fish would keep swimming against the current if he could find dead water to rest in. When you drift a shoreline with a brisk flow, the fish are apt to be on the downstream side of stumps, trees or rocks. That doesn't mean you low rivers may have quiet pockets in the form of he wants. They're generally next to an obstruction but enables him to watch against the current if he could find dead water to be drifted past logical fish hangouts and twitched enough to be attractive without being hauled out of the strike zone. Sometimes there are "dead" patches in a current, inviolate to a fisherman. The right kind of an obstruction can sometimes pile up a bit of dead water upstream from the obstruction itself, even though it looks turbulent to the fisherman. Very swift, shallow rivers may have quiet pockets in the form of bottom depressions that hold good-sized fish. The best mangrove snapper fishing I ever had was in a shallow tidal runout with most of the water only three inches deep and swishing by at high speed. If you looked closely, you could see darker spots, indicating bottom pockets and each pocket had a hungry mangrove snapper who would grab any fly you got to him. All sorts of things happen to the current in a bend of a stream making it a good bet for bass and panfish. Fishing a swift spring run, I have caught a lot of bream on popping bugs in water so shallow they actually showed their fins from time to time but they were in areas sheltered from the swift, main current.

The natural way for a lure to be worked past an obstruction in a current is downstream and across. Going straight upstream is unnatural; coming straight downstream it's hard to get any action from underwater baits. Surface lures, however, can be drifted past logical fish hangouts and twitched enough to be attractive without being hauled out of the strike zone.

If there's enough current to bring food to a fish, he'll generally take up a feeding station from which he actually intercepts his lunch. He's generally next to an obstruction that keeps the full current weight off him and conceals him from his prey but enables him to watch a likely sector.

Obstacles located in current are tough to work with live bait and probably the best method is with a cane pole and short line which enable a fisherman to keep a big shiner from tangling up. Many of the top Florida guides drift past such spots while running shiners on a slack line but most live bait users figure that kind of fishing is too much trouble and seek more open spots. Almost any time I see a bass being maneuvered downstream with someone running shiners before it, I find it's a professional guide on the ears.

Really cluttered shorelines are most easily fished with surface lures, current or no current. You can see exactly where you want to toss it and most fishermen like to see a surface strike. Once you get a surface plug into some open water surrounded by stumps, weeds, logs or rocks it's nice to have one that will do its stuff without much forward motion because you may not be able to achieve a good lie on every cast and it's nice to work each effort to the limit—a procedure that appears easy but seems to be completely beyond some fishermen. Their idea seems to be that once the plug is in the water the main objective is getting it back to the boat and out of harm's way. Since bass are notorious for hang-dire operation on surface baits, this isn't the way to fill a skillet.

A surface bait can be kept in a very small area and still stir up a lot of fuss if you use very short and quick flicks of the rod tip, returning the tip to the place it started after each twitch. You'll generally make a plug move slightly toward you with every wiggle but it won't come more than a few inches if you're careful and that's the kind of manipulation that gets the most out of the clustered shorelines, bonnet pockets or weed gaps.

Some plugs are especially adapted to this operation. The balsa-wood, Rapala-type plugs are pretty good at it. Surface plugs employing spinners don't have to be moved much if the spinners turn easily and a king of the tease'em-sit-in-one-place-and-raise cane is the tip-up bait with a stern spinner and a nose that sticks high in the air until twitched.
(Continued from preceding page)

imitations of living baitfish, the weedless spoon or pork rind bait looks like nothing that swims, walks or flies. Some of the best of them can be dredged right through an acre of eel grass without hanging up and still do a fair job of hooking but weed guards are accessories to be approached with slide rules and incantations. Too limber and you catch weeds; too stiff and you don’t catch fish so I regretfully comment that the old time-proven designs get my vote most of the time.

Attaching spinners to the ends of wire weed guards is nothing new and probably the old Shannan twin spinner was the first popular lure to use that method. If the fish strikes right at the spinner or spinners he’s getting a pretty square shot at the hook. Although hanging ‘way out there s ome distance from the body of the lure, the outtrigger spinner doesn’t seem to scare fish. There’s a theory that fish lying in pads or grass get sketchy looks at a bait anyway and just swat a series of impressions as a modern art lover drools over something which looks like an inky accident.

In late winter I’ve seen some horrific lures that were successful, an angler just hanging on additional spinners, beads and balsa skirts until the thing became all he could hurl and the explanation is that bass are preparing to spawn and are on the prowl in an evil mood. Although bucktail and pork rind used to be considered essential features of the weedless “wiggler” type of lure, rubber skirts have pretty well taken over from deer hair and it’s likely that the more subtle writhings of bucktail are lost to what he wants.

My favorite grass and pad lure is the Arbogast Hawaiian Wiggler No. 2, using a lush rubber skirt that the more subtle writhings of bucktail are lost to what he wants.

In very clear water such as found in Crystal River and the Homosassa it’s only the underwater growth that makes it possible for you to approach the fish. You cast a lure into an open spot in the coontail moss, for example, and the fish sees only the lure pop into his front yard, the boat and fishermen being concealed by the submerged forest. A little thought while maneuvering through such waters will enable you to approach likely spots before the fish are spooked.

Lake fishermen, especially, often neglect to learn just where underwater cover extends to and the simple soul who appears to be fishing in open water may know something you don’t about underwater growth of one kind or another. The grass or weeds may be on the bottom and fish may be lying over it rather than under it.

Bass may be suspended a considerable distance from the bottom, temporarily, when feeding or they may loaf well up in bottom growth but if there are no obstacles to it, they actually lie near the bottom most of the time. In deep lakes they are apt to choose the depth they want by moving up or down the slope of a shore with light cover and many a fisherman has discovered the “secret” that by standing on the bank or holding his boat there he can cast a sinking lure well out, let it sink to near bottom and then reel it up the sloping bottom until he finds where the fish are living at the moment. Not many Florida lakes have that kind of construction but it’s worth a try now and then.

Any time you start complaining about hangups and the trash that clings your spinner, just stop and think how much fun it would be fishing in a well-stocked bathtub.
Public Safety through COMMUNICATIONS

By GENE SMITH
Information-Education Division

How big is a big organization? I’d say that an organization whose president lives in Florida, whose vice-president lives in Washington State, Illinois and Texas, whose secretary-treasurer lives in Pennsylvania and whose trade journal editor lives in Michigan, is a bit to bet whatever the answer to the question.

This widely dispersed group of administrators belongs to the Associated Public-Safety Communications Officers, Incorporated (APCO), whose president is J. Rhett McMillian, Jr., Chief of the Communications Division of the Florida Game and Fresh Water Fish Commission since 1948.

McMillian is the 32nd president of APCO and the first from a state conservation agency to hold this distinguished position. His leadership of the Associated, which fosters and develops every phase of Public Safety communications and promotes cooperation between all city, county, state and federal agencies using radio communications equipment in this country, has been marked by notable success, coming largely from Rhett’s straight-from-the-shoulder critical analysis of and direct approach to problems in Public Safety communications, some of which could eventually affect us all.

The mid-winter conference of the Florida Chapter of APCO was held in Panama City Beach, Florida in January. At the 3-day conference President McMillian’s National APCO Report was certainly the highlight.

Here is some of what he said:

Concerning THE APCO BULLETIN, the national journal published monthly by the Association—"A house organ such as the BULLETIN is a true reflection of its parent membership. If its membership contributes nothing then the magazine is nothing."

On matters pertaining to Civil Defense and Public Safety communications—"At the risk of causing an efficiency, it seems that working with the various Civil Defense agencies is largely unwarranted in terms of solid information which can be held in the hand. It is realized that this is probably caused by constant change and reformation within Civil Defense, diminishing budgets, undeclared wars and a chameleon arsenal which makes any permanent planning of population defense a practical impossibility. However, it would seem that those things which are relatively permanent in nature, such as Public Safety communications, would be the very things that would cause Civil Defense to be continually in contact with us with suggestions and plans for improvement—especially as they relate to their programs. Certainly, if anything is to ever be accomplished with Public Safety backup communications systems it is a fact that Civil Defense is going to have to learn our language, not us learn theirs."

"It makes one wonder what the condition will be during a real national emergency when the internal Civil Defense terminology, like a foreign language, hits the points of entry of the Public Safety communications in this country. Somehow we have not got the message across to the many local Civil Defense agencies— that their internal communications procedure, which may eventually end up on Public Safety terminals, should be better geared to conform to our format and procedure. Certainly, Civil Defense has come to us if this warp is not to be straightened out, but first we have to invite them in terms which will make them understand the problem and thus respond in an understanding manner."

On a national communications procedure manual—"...we find ourselves looking squarely at the perplexing problem of establishing a nationally approved and standardized Public Safety Communications manual, including radioteletype, teletype writer and voice communications. We must have this manual. It is inconceivable to consider ourselves as an association of professional communicators without being in a position to furnish a needy Public Safety Radio Service with a means of improving their communications according to a relatively standard format. Civil Defense-wise, the manual is an absolute must if coast-to-coast communications are to exist."

Concerning APCO’s Project Series Foundation—"I have recently attended a series of script readings and reviews of the audio-visual (material), which will be in the form of a color movie (about Public Safety communications) suitable for general public and TV viewing. ... (It) is a worthwhile endeavor professionally produced and of the highest quality attainable in the motion picture industry ... the Project will for the first time allow APCO to be introduced in a compelling manner to the general public. We want and remember that it is the public, after all, who will see to it that we get the frequencies we need ... when they are better and more fully informed and decide to do something about it."

McMillian’s entire report was published in the February edition of the APCO BULLETIN.

Who is this well-informed and outspoken leader, who, it is acknowledged by his colleagues, has guided and given real purpose to a national professional organization while also operating a top-notch radio communications system for the Game and Fresh Water Fish Commission?

Rhett McMillian was born in Aiken, South Carolina, on July 9, 1912. He moved to New Smyrna Beach, Florida during his early school years. He began his technical radio career in 1930 and in 1936 was Southeastern representative of a major radio tube manufacturer. He opened his own radio sales and service facility in 1938 which he operated until the beginning of World War II.

After a stint as a civilian technician with the Air Service Command he left the Federal Civil Service as an associate engineer and, in 1946, joined the Florida Department of Public Safety, where he became Chief of Communications. In 1948 he transferred to the Game and Fresh Water Fish Commission as the Chief of Communications.

Rhett designed and installed the Commission’s radio communications system, the first high-band statewide mobile relay system of its kind, and has constantly up-graded the system ever since.

As a member of the staff of the Game and Fresh Water Fish Commission and wears a Major’s insignia. He has a number of technical training courses to his credit and holds a Radio-telephone First Class License.

He is a past president of the Florida Chapter of APCO; was National Conference Chairman in 1957 and was chairman of the committee which authored the APCO Constitution and By-Laws. He created and founded the Confederate Communications Commission, a select group of nationally known communications personalities, and also founded the Florida Society of Communication Administrators. Rhett is also the creative writer; edits the Florida DISPATCHER; and writes the editorial columns for the APCO BULLETIN.

With his charming wife, Vivian, and their son, Buzz, he resides in New Smyrna Beach. A daughter, Ann Brindle, and granddaughter, Vicki, live in New Orleans. Rhett’s office is located in the Federal Communications Building at the New Smyrna Beach Municipal Airport.

How big, then, is a big organization?

Often geography has nothing to do with it. An organization is as big as the ideas that guide it and the mission it sets for itself.

A very charming and outspoken leader, clown, who, it is acknowledged by his colleagues, has guided and given real purpose to a national professional organization while also operating a top-notch radio communications system for the Game and Fresh Water Fish Commission?
Florida Wildlife Officer Directory

The Florida Wildlife Officer, like any other law enforcement specialist, is dedicated to helping the public; in this case the protection and conservation of Florida's wildlife, according to established regulations of public ownership. He is an expert on laws relating to wildlife — and much more. He is a source of information for hunters, fishermen and many other outdoor enthusiasts.

The Florida Wildlife Officer is YOUR local representative of the Game and Fresh Water Fish Commission. His philosophy is to prevent violations rather than prosecute violators.

Northwest Florida Region: Robert M. Branthy, Manager
Office: 226 Airport Drive
Pensacola, Florida
Telephone: 995-0338

Area #1—Walton, Okaloosa, Santa Rosa and Escambia Counties
M. H. McMan, Area Supervisor
Pensacola, Escambia Officer

Area #2—Bay, Washington, Holmes and Jackson Counties
W. E. Ward, Area Supervisor
Westville, Holmes Officer

Area #3—Colthe, Gulf, Franklin and Liberty Counties
Walter Larkin, Area Supervisor
Bristol, Liberty Officer

Area #4—Leon, Wakulla, Gadsden and Jefferson Counties
Rhodes Hill, Area Supervisor
Tallahassee, Leon Officer

Area #5—Madison, Taylor, Suwannee, Columbia, Hamilton and Baker Counties
Frank Johnson, Area Supervisor
Live Oak, Suwannee Officer

Area #6—Alachua, Levy, Dixie, Gilchrist and Lafayette Counties
Dove Sterling, Area Supervisor
Gainville, Alachua Officer

Area #7—Davie, Nassau, Clay, Bradford and Union Counties
L. J. Barnes, Area Supervisor
Green Cove Springs, Clay Officer

BOATING

The spring boating season no matter what the style, is fast moving into high gear around the entire state

By ELGIN WHITE

THIS IS THE MONTH THAT IS, SKIPPER! To me, there are two or three months in Florida that are simply ideal for boating . . . any kind of boating. April, May and October seem to be just right, weather-wise.

And Miss April, with her gentle zephyrs and temperatures that won't burn you alive nor give you a deep freeze, sits boating blood like no other month.

Throughout our area, from the tunnic beauty of the Suwannee River to the golden shores off Miami Beach and the Florida Keys, boaters are coming out of hiding like relatives coming to Sunday dinner.

It would be hard for me to suggest the best area for a little family cruise this time of year, but I think I might be partial to a jaunt along Florida's northwest Gulf coast—the Miracle Strip.

April in Perdido is nothing compared to an April run along these fabulous white beaches. Good starting point is Apalachicola, where a fine municipal launching ramp puts you into the Apalachicola River, and from there westward through Lake Wimico, the Intracoastal Canal, Choctawhatchee Bay, the waters of Panama City, Destin, Fort Walton Beach and finally, Pensacola.

We have made this run about three times, and every time seems more enjoyable. There is calm water for the squishmash and even a little rough stuff for the brigands among us. When I mention rough stuff, I mean the waters of Choctawhatchee Bay and Santa Rosa sound and Pensacola Bay can get a little rough when a good nor'easter is piling in. Though most of the nor'westers moved on out with the vernal equinox, there are still some stiff blows in April, but it only makes boating along this route that much more of a challenge.

I sorta look for my old buddy, E. T. Bales, sports editor of the Chattanooga (Tenn.) News and Free Press to be suggesting we make another run along this route. E. T. went with us on a cruise down the Apalachicola back in October, and he fell in love with the place. He is a real boating "nut," and has never gone the route from Apalach to Pensacola, and I believe he might be gettin' a little itchy about taking that run. There are many, many Chattanoogens who come into this area every spring and summer, and the cruise would be a natural for Bales. And there isn't a nicer guy in the world . . . whether you're making a boat cruise or simply taking over a cup of coffee. This would be a much better world if there were more people like E. T. Bales in it.

If you're in southern Florida and don't want to haul all the way up to northern Florida for such a jaunt (but you should, if just for the change of scenery), give a buzz through the Keys some thought, or go over to the west coast for a run (Continued on next page)
down the Myakka River. The state park there is a
 reinforces oak country, skipper, simply beautiful! And I
 am continually amazed at how many Floridians haven't
 made this boat trip! Now's the time!

 Got an interesting bit of information from
 Tempo Products out of Cleveland on a new trim-
 tab for boats. This is a pretty effective little gim-
 mick, and is run on the hydraulic remote control
 unit which has an projecting nose on the gear case.
 Do this

 (Continued from preceding page)

 Orlando, has a special leisure boat cruise
 through primeval Florida they had no idea existed .
 We were in a canoe placed between two saw-
 blades, and the bottom didn't budge a whit!

 Many of our water sking addicts have asked a lot
 of questions regarding the sking set, and one of
 the way we got is "what is the best way to rig
 your hitch?"

 There are many good ways, and a new rig has
 been introduced that might eliminate many trial
 and error experiences. Called a Futurity hitch, it is
 a well engineered bar that is placed on the transom
 with its apex being well above the motor. The rig
 is hinged to tilt into the boat, eliminating climbing
 or reaching beyond the motor. The Futurity rig
 distributes stress throughout the transom and steer-
 ing drag, skidding and cavitation are greatly re-
 duced. Pull on the skier is from 3 to 4 feet above
 water, which is recommended height by the Ameri-
 can Water Ski Association. The towhook on the rig
 is easily reached, too. The Futurity hitch seems to
 be a fine answer for correct rigging, and is not ex-
 pensive as an accessory. It can be obtained from
 Kimball-Schmidt, Inc., of San Rafael, Calif. Costs
 just $34.95.

 REALIZING THAT MANY TOURISTS these days
 are getting to see things via boat that ordinarily
couldn't be seen at all, more and more Florida at-
 tractions are beckoning travellers onto the water.
 One such area, the blossoming attraction at Homos-
assa Springs, has a special leisure boat cruise
 throughout that fabulously beautiful
 primeval loveliness, and I hope it stays that way for
 forever.

 The boats are berthed underneath the modern
 new restaurant at Homosassa Springs, right on
 U.S. 19, and the cruise takes nature lovers on a run
 through primeval Florida they had no idea existed.
 Cool, clear waters offer vistas to the depths of the
 springs, and ducks, geese, and various and sundry
 forms of wildlife line the waterways, begging for
 handouts from usually generous travellers. Homos-
 sassa took the cue from Silver Springs, Weeki
 Watchee, Rainbow Springs and other such attrac-
 tions, and the boat cruise is now one of the best
 things going in the entire area.

 If you have your own rig, you can move on west-
 ward to the fishing village of Homosassa itself, put
 in at Duncan McRae's boat slip, and cruise back up
 to the springs area yourself. This is truly fabulous
 boating country. I think it is really Florida's last
 pristine wildness, and I hope it stays that way for
 a long, long time.

 Get a lot of comment from aquanauts who will
 take their boats into almost anywhere through
 weeds, grass, sand, grit, silt, and sometimes
 through plain, good water.

 So comes the natural query, "what's the best
 thing to do about marine grass and weeds?"

 Best thing to do is stay out of them, but in many
 areas of our boating world this becomes an im-
 possibility. So, you weed diggers can note that if
 you're gonna continue to move through the jungles,
you had best select motors suitable to the con-
ditions.

 An important feature to look for in a good
 weedy-water motor is a leading edge on the lower
 unit which has an aftward rake to it so weeds will
 slide down and off. It should also be devoid of a
 projecting nose on the gear case.

 While a good weed-shrugging lower unit is of
 prime importance, there are some tricks which can
 accentuate its ability to navigate infested waters.
 In some areas, bottom growths break off and float
 on the water's surface. Being thus in a horizontal
 position, they sometimes tend to wrap around the
 leading edge of a lower unit above the cavitation
 plate, which keeps them from sliding down and
 off. When this starts to happen, the tip-off is easy
to recognize—the boat slows gradually and the
 spray pattern just behind the transom changes.
The cure is simple and quick—stop, run in reverse for
 a few seconds to wash the weeds off, and continue
 as before.

 To plow through extensive weedbeds it helps to
 move the motor's tilt pin to the rearmost hole. The
 additional tilt thus imparted to the lower unit's
 leading edge gives even more weed-shredding
 ability.

 A technique used to get through some kinds of
 aquatic growths, such as hydras and lily pads, is
to rush it into them at full speed. The motor's fast-
moving lower unit simply blasts them to shreds so
 there's no chance for them to start collecting on it.
 Do this only when you know the water's deep
 enough and free of submerged boulders so the pas-
sage won't risk damage or upset.

 Better yet—just stay out of the weeds.

 I HAVE BEEN IN many boats, but never in a canoe.
 Not even for a twenty-three skidoo run in Central
 Park.

 But canoes are making a heckofa comeback . . . if
 they ever left. Indians don't think so, and now-
 days fun-loving outdoors people are turning to the
 versatile canoe for all sorts of aura pleasure.

 There is a small Florida company that is pro-
ducing a new canoe that should make outdoormen
 out of all of us.

 Jackson Canoes of Longwood, Florida, are pro-
ducing what they call America's most versatile
 craft. The Jackson folks are producing a fiberglass
 canoe with what they call a "reinforced molded-in
 TUMBLE HOME." Don't know exactly what that
 is, but Ben Taylor over in Daytona Beach told me
 that this canoe is one that really resists tipping.
 In fact, it is so stable you really have to work to
 tipping it over! Now, this is MY kind of canoe, be-
 cause I swim just like a rock.

 The Jackson canoe has been produced with a
 truly flat bottom, and then reinforced with alumi-
 num to add more strength. In fact, I saw three
 huskies (all averaged over 200 pounds each) stand-
ing in one of these canoes placed between two saw-
 blades, and the bottom didn't budge a whit.

 Ben says the flat bottom, with the TUMBLE-
 HOME sides (that's being patented, so I don't know
 (Continued on page 34)
MUZZLE FLAMES

The type of hunting preferred, plus gun handling abilities should determine the style of gun to use.

By EDMUND MCLAURIN

FIELD TECHNICAL research indicates that probably more hunting and field shooting game occur because of shotgunners shooting behind their targets instead of far too far ahead.

The same study shows a decided modern day preference for multiple, fast-firing autoloaders.

The findings undoubtedly have close relationship.

Consider that successful upland shotgunning calls for application of one of three basic firing techniques:

The gunner can snap-shot his weapon like a hastily shouldered rifle, a method that is frequently advantageous when shooting an open-bored barrel on close, fast-flashing game.

Then there is the pointing-out technique, whereby the shooter judges target angle, speed, range and required muzzle lead; takes the figured lead and swings gun steadily to maintain that lead and fires deliberately. This method calls for considerable practice to be consistently successful.

In the third—the method I consider best—the shooter starts his gun-shoulder slightly behind his target, picks up gun speed until muzzle is moving faster than the target, and touches off the shot just as the swing passes through the target, neither slowing nor stopping the applied gun-swing until results are obvious. This follow through is comparable to that of a golfer's attempted long drive or a basketball player's arm follow through on a scoring try.

Consider, too, that most autoloadung shotguns, especially the older models, are heavier than pump guns and quite bulky because of the numerous parts embodied in their mechanisms. (Notable exceptions are certain models in the Franchi line, an Italian import of the Stoeger Arms Corporation, American distributors.)

Now, where a long barrel is also a major component of an autoloadung shotgun, the gun is apt to be heavy in the hand as well as muzzle heavy, and slow to align because center of gravity is unchangeably forward.

Besides being slow to point, too heavy a gun for your physique can be conducive to fatigue and poor shooting.

Then when competing in trapshooting—two forms of shooting where deliberate gun pointing is common practice—do heavy, long barreled guns come into their own. In these two specific applications, the increased sighting radius of a long barrel is an advantage.

Gun weight is not apt to be noticed much where the shooter merely traverses the narrow arc of the swing. However, weight of the gun can be felt with each trigger pull because of the usual recoil system, utilized and patented by John M. Browning.

The autoloaders are true semi-automatics (the trigger has to be activated manually for each shot), made on the basic working principle of the long-recoil system, utilized and patented by John M. Browning.

Although made only in 20 and 12 gauge both regular and Magnum shell chamberings, the Italian product can be had in several gun weight choices, in plain, muddled, or ventilated style barrel of 24", 26", 28", 30" and 32" length, either fitted with Poly Choke selective choke device or unbarred barrel bored shotguns' choice of Improved Cylinder, Skeet, Modified or Full Choke. Barrels are chromed. The extra-smooth finish contributes to delivery of consistent shot patterns and long barrel life.

For the many who wants to use a shotgun bored primarily to handle rifled slugs, a special slug model with 22 inch barrel is available, in either 20 or 12 gauge. There is also a turkey model, featuring a long, 36 inch barrel and turkey scene engravings on the sides of the receiver.

The 12 and 20 gauge Magnum models operate with 3-inch shells, but come with spare recoil and friction springs that can be easily substituted when using 2½" and 2¾" shells of standard velocity.

All of the Franchi model autoloaders are five shot repeaters—four shells in the magazine, plus one in the firing chamber. For legal use on American waterfowl, a wooden magazine plug is furnished with each shotgun, to convert the weapon to legal three shell maximum loading.

Besides wide choice of barrel lengths and chokes, the Franchi can be had all fancied-up for those shooters desiring ornamentation. For those able to pay the price, engraved, gold decorated models can be had right on up to $1,200.

Pump action shotguns are usually lighter in weight and can be less tiresome to carry when spending long hours afield. Too heavy a shotgun for your physique can slow your gun pointing, especially on close-fainting birds.
CONSERVATION SCENE

(Continued from page 4)

this species is threatened over much of its range.

Secretary Udall directed that bald eagle nesting sites on Na­
tional Wildlife Refuges be closed o f to protect the birds from dis­turbing nesting season. Approximately one square mile will be provided for each nesting area.

Udall also instructed that nest­ing areas, where appropriate, be included in designated natural areas to prevent further disturb­ance of cover.

The order states that timer cutting operations must not be permitted within one-half mile of trees containing bald eagle nests, and potential nest sites must be carefully preserved. It extends to any or all of the approximately 300 refuges if eagle nesting is in­duced.

In cases where trees with nests are in danger of being blown down, the trees are to be stabi­lized, if possible.

The Interior's Bureau of Sport Fisheries and Wildlife, which ad­ministers the Refuges, will make every effort to inform the public of the plight of the bald eagle.

"The best protection that can be provided for the bald eagle," he said, "is that which can come from an informed and concerned public. This has been well de­monstrated in the case of the whooping crane.

In addition to ordering in­creased protection for the bird that is the symbol of America for Democracy, a stepped-up effort was directed to protect the nests of golden eagles and osprey.

The bald eagle already is clas­sified as "rare" in the Southeastern States, where a survey in 1963 showed 200 active nests. Re­production was successful in only 96 nests, with an estimated total of 174 young nests. A survey in the contiguous 48 states was estimated at about 5,000 in 1963.

New steps are now being taken to halt the rapid decline of the bald eagle.

John S. Gottschalk, Director of the Bureau of Sport Fisheries and Wildlife, said bald eagle reproduction apparently was less successful than usual last year due to this species except in Everglades National Park in Florida, where about 50 pairs of adults nested with 50 percent success.

Causes of decline are believed to be illegal shooting, the in­crease of human population in primary nesting areas, disturb­ance of nesting birds, loss of nest trees, and a possible reduced re­production as the result of pesti­cides taken in food.

Both bald and golden eagles are protected by Federal laws. Several states protect the bald eagle, some protect the golden eagle, and some protect both. The maximum Federal penalties for killing or possessing either is a fine of $500, or six months im­prisonment, or both. The laws are enforced by the Bureau of Sport Fisheries and Wildlife, which also is carrying out re­search to determine the effects of pesticides on eagle reproduction.

In the Southeast, the National Audubon Society is conducting intensive investigations of bald eagle distribution and breeding and is studying factors causing the decline in population.

The Florida Audubon Society has obtained agreements with landowners of 2,300,000 acres where nests are located to have the nesting areas treated as sanctuaries.

State Parks Museums

Completion dates for two new museums and two remodeled museums at Florida state parks have been announced by State Parks Director Bill Miller.

The new museums are at San Marcos de Apalache Historic Monu­ment near Tallahassee and Constitution Convention Monu­ment near Port St. Joe.

The San Marcos de Apalache museum is scheduled to be opened to the public April 1. The build­ing will house artifacts and ex­hibits depicting the history of the 16th-century Spanish fort.

The new Constitution State Park is expected to open August 1. Included among the exhibits will be works of Fred Dana Marsh, internationally-known ar­chitect and sculptor who exe­cuted the statue of the legendary "Chief Tomokie." The exhibit will con­cern that such quantities may ac­cumulate before evaluation can be completed.

The monitoring program, co­ordinated by the Federal Com­mittee on Pest Control, is a comprehensive effort to ascertain, on a continuing basis, the levels of pesticide residues in people, fish and wildlife, food and feed, soil and water. In the Fish and Wildlife Service, the monitoring involves samples of estuarine bottom sediments and selected forms of vertebrates and shellfish which serve as indicator spe­cies.

These forms of wildlife that occur at or near the top of food chains reflect the residues found lower in the food chain network. Fish to be monitored, in order of preference, are carp, buffalo, black bass, channel cat­fish, green sunfish, yellow perch, rainbow trout, and squawfish.

Wildlife species to be monitored will include fish, birds-black duck, starling, and bald and golden eagles. Oysters, clams, and bottom sediments will be studied to determine residue levels in estuaries.

All the samples will be taken from widely spaced geographic localities and at different seasons of the year, in order to give a representative evalu­ation, Dr. Dustman said.

CORRECTION

In the March 1966 issue of Florida Wildlife, on page 12, in the Roaring article about Fort Jefferson on the Dry Tortugas, mention was made that "ba­IIIing facilities" were available on the is­land. This is not true. Fishermen are warned to carry enough gas for the entire trip to and from Fort Jefferson.

Further information may be obtained from the National Park Service, CO. Box 279, Homestead, Fla., 33030.

Florida Wildlife Officer Law Enforcement Report

Statewide Report of Arrests for January and February 1966

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April, 1966

HUMAN SELF-INTEREST

(Continued from page 5)

impartial adjudications to come along and challenge his bias. This is an area of debate which few conservationists have any stom­ach for.

Take the simple example of bounties on so-called predators. The subject is centuries old, and he who can pronounce that such a system would conclude that is the last word in preserving game species. Bounties are simply a technique employed to save game species so that MAN can reap a greater har­vest. But without predators it has been proven that hunting can become self-destructive. In other words, all conservation ef­forts are based on human self­interest, so why surround them with a false aura of human no­bility which does not exist?

This dissertation is not an argu­ment for or against anything other than the need for being honest with ourselves. The strug­gle of conservation as a crusade has not been lifted into an era of intellectual probity where people live in den­sitv still preserve their own dignity and that of their sur­roundings.

It is repeatedly stated that there is need for more conserva­tion education, which in reality is nothing more than an attempt through social enlightenment to emphasize self-discipline as a ba­sic ingredient of wise conserva­tion. That other words, conservation education is a venture in social responsibility. This will not come about until more people see a moral as well as a social relation to the use of resources. Of these latter we have not yet begun to test the depth of our convictions.

In my opinion this is what Dr. Pengelly is telling us in his paper, "The Art of Social Conservation"—that we are going to have to test the depth of our convictions regardless of how unpalatable they are.
BOATING (Continued from page 29)
what it is) makes this canoe the safest ever built.
You can paddle 'em, sail 'em, go surfing with 'em.

SPRINGTIME IS A BUSTY time for auto dealers, and likewise, this time of year brings out the green stuff with boat buying addicts, too.

Which brings up a thought...which comes first, the chicken or the egg? No, I haven't flipped yet...what I'm getting at is you a guy (or gal) who chooses the motor first and then the boat to match...or vice versa?

Actually, it can be done either way. If you have really flipped over a special kind of motor, it is simply a matter of getting a boat to match its load it will normally carry or the kind of duties it will perform.

In selecting a rig there are a number of things to consider such as the nature of the waterways involved, trailerability, availability of launching sites, size of the family, degree of comfort wanted, etc.

Having picked your boat, now think of the power pack. One of the nice things about "going outboard" is that having selected a boat, it is possible to choose and quickly install the amount of power that is ideal for the boat and the performance desired.

The correct power for any given boat isn't a cut-and-dried matter of length or weight, or even of weight and length combined. There are other things, too.

For example, hull design is involved. One boat may like more power than another when climbing onto a plane. Or, one boat may be perfectly controllable with a large motor while another tends to get skittish at full throttle.

Some people shop for bargains, often buying boat and motor from separate sources. After trying out such a rig they realize to their chagrin that a mismatched rig is far from being a bargain; it is money down the drain, so to speak. The sensible thing is to do business with a well-established marine dealer. His advice is free and it guarantees that you will get the best possible boat and motor combination.

A firearm, the Franchi shotgun is notably safer as a firearm, the Franchi shotgun is notably safer

MUZZLE FLASHES (Continued from page 31)
could-well be improved in eye and sales' appeal by simulation.

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