The safest way is to always wear a life preserver. If you don't—At least slip one leg thru a strap of your seat cushion. If the boat suddenly sinks or you are thrown out—you will have a preserver to cling to—not floating somewhere out of reach.

Florida WILDLIFE MAGAZINE • FLORIDA GAME AND FRESH WATER FISH COMMISSION
The Hickory Mound Impoundment has provided a multitude of recreational opportunities to residents of the panhandle area of Florida, and also much useful scientific information concerning fish and game management. It is a prime study area for state biologists. The area, covering approximately 700 acres, is located in the Aucilla Wildlife Management Area (Taylor County portion). It lies southwest of Perry, just a few miles east of the mouth of the Econfina River on the Gulf of Mexico.

Since its creation five years ago, the area has become a popular spot with sportmen, who have enjoyed good fishing, hunting, trapping, camping, and crabbing there. "The impoundment," as it is commonly referred to locally, was originally a broad, brackish water marsh covered with needle rush, Juncus, interrupted by islands of slash pine, Pinus elliottii, and live oak, Quercus virginiana. It is bordered with nearly pure stands of cabbage palm, Sabal palmetto, from the mixed hardwood-pine forests inland.

Initially diked in 1966, the impoundment was completed in 1968 and subsequently flooded in an attempt to control the rushes. During 1968 and 1969, much of the needle rush was controlled, and many other important aquatic plants proliferated within the confines of the impoundment. Included were Chara, a large alga which waterfowl readily eat; widgeon grass, Ruppia maritima, another important waterfowl food; and water hyssop, Bacopa sp.

Biologists have noted for many years the appeal that newly impounded waters hold for large numbers of migrating waterfowl, owing in part to the variety and abundance of tasty aquatic plants found there. By naturally or artificially fluctuating the water level within a reservoir or natural body of water, one can, theoretically, manage the aquatic plants, the fish, and the waterfowl.

Management biologists have also reported for years that impounded waters gradually lose their productivity in fishing and waterfowl use after the first few years, as the waters become stagnant or enriched because of stabilization and go through natural aging processes at an accelerated rate.

With these ideas in mind, the Hickory Mound Impoundment was set up on a water fluctuation management program designed to renew the life of the reservoir periodically.

Drained in the spring of 1969, the area was exposed to the atmosphere and allowed to dry during June and July. The exposed marsh was burned in late July, leaving a 3-inch stubble, and then reflooded, in August, prior to the duck hunting season, which opened in November.

While there was only limited waterfowl use during the '69 season, a large number of blue crabs flourished within the reservoir. Game biologists charged with the management responsibilities (Continued on next page)
The impoundment dike system sustained extensive hurricane damage in 1972, but was repaired over a period of several months prior to the fall duck hunting season. Hunting pressure was light to moderate, with waterfowl use at a low level, partly because of the short-stopping of waterfowl in northern regions.

Fresh water and salt water fishing, both in and around the impoundment area, have been generally good. Spotted weakfish (speckled trout) and redfish are taken within the impoundment. Sunfish (shellcracker) can be found in good numbers, and Crappie, black bass, and largemouth bass can be caught by those who fish here with very light tackle has a couple of strikes before freebieing them to hopefully fight again.

A LOT OF THE FISH I have released in the past 50 years never lived long enough to be appreciative. The subject of releasing fish caught on hook and line becomes more timely since there has been a recent series of reports on survival rates under various conditions. Not all reasons for releasing fish are commendable. The guy who keeps pulling them off a stringer and chunking them back to make room for bigger ones in filling his limit is probably killing most of those he returns to the water. Some laws, such as the snook regulation that a fish must be 18 inches long to be kept, encourages the return of fish, no matter how badly they may be damaged. There are times and places when it's possible to catch 100 small smock before getting a "keeper." Since smock are easily damaged by hooks, there's considerable loss.

For many years we have been making great effort at returning sailfish, and charter boats piously fly release flags showing their score. I've always been strong for that and suspect, even if the fish dies, the release spirit is a good thing. You can say that no fish is wasted if it's returned to the water, alive or dead, as it gets back into the food chain. There isn't any universal agreement on the subject, but it now appears the sailfish grows very rapidly and lives only a short time, probably no more than three years. They say most of the larger fish caught wouldn't live long enough to spawn again, even if released, and that we should concentrate on releasing the smaller ones. The rate of survival with released sailfish is impossible to reckon, of course, but some authorities say the fish has very little chance if it's thoroughly played out. It's nearly paralyzed, they say, and if it doesn't die because of poor respiration, it will be an easy mark for sharks. There used to be quite an argument about sailfish that disgorge their stomachs when hooked. Some fishermen said the act was a normal one and that the fish would take back its stomach and prosper if it doesn't die because of poor respiration, it will be an easy mark for sharks. Also, digestive juices can destroy many hooks, and it's not unusual for fish caught wouldn't live long enough to spawn again, even if released, and that we should concentrate on releasing the smaller ones.

A fish that has been played to complete exhaustion with very light tackle has a couple of strikes before freebieing them to hopefully fight again. The mouth-hooked fish has a much better chance of survival than one which swallows a shiner or plastic worm. Admittedly, digestive juices can destroy many hooks, and it's not unusual to catch an apparently healthy bass with a swallow. 

(Continued on next page)
Some new thoughts on returning fish have come up in connection with the bass-catching tournaments conducted by the Bass Anglers Sportsman Society. Bass contests are somewhat controversial, and there's been a great deal of study concerning the relatively new system of returning fish to the water after they are weighed and scored. I won't go into detail on the percentages of recovery, especially since they vary greatly. There have been both good and bad reports. The consensus is that skewed hook placement reduces recovery chances, and that excessive handling and consequent abrasion will make fungus attacks deadly.

Here's how the contestants have been doing it:

It is mandatory for the fishermen to use livewells in their boats. Upon reaching the dock they put their catch into plastic bags, with water, and before the fish are weighed they are thoroughly dunked in water containing acriflavine, an antiseptic that coats the fish and holds down fungus danger. The fish are weighed they are thoroughly dunked in water after they are weighed and scored. I won't release, except for very brief periods.

I'd say that, regardless of any past record, the contestant people are doing all they can, and the studies attendant upon the contests are very valuable where fish releases are concerned.

Some of us don't feel that fishing should be a competitive sport, but whether you like bright jumpsuits and boats labeled with lure names or not, I doubt if you can come up with any legitimate case against the contests. The old argument that the contestants took too many fish is partly refuted by the frequent occurrence of return fishing. There have been reports of fish released back in a majority of cases, and are often ready to strike again a day or so later.

FLORIDA WILDLIFE

MAY, 1973

Hook and line fishing for mullet doesn't rank as one of the world's most popular sports, and the popular notion that the jumpy rascals are primarily algae eaters doesn't encourage me to go fishing for them. Still, I can't help but admire the devotion of those who have spent a lifetime battling the small fish in a majority of cases, and are often ready to strike again a day or so later.

An example of highly satisfactory release procedure involves fresh water trout caught with flies and hooked in the mouth. If handled with reasonable care, they seem to recover quickly and fully in a majority of cases, and are often ready to strike again a day or so later.

I once saw a beautifully wrapped Japanese rod that had been meticulously put together by someone who had the slightest idea of what it was for—and when you tried to cast with it, you also wondered what it was for.

There has been a lot of exaggeration between the contest and the builder. My best story on that concerns a fine fisherman who had definite ideas about what a fly rod should be, and was engaged by a manufacturer to "design" a glass rod. Now the fisherman didn't know how to make a rod; he just knew what a rod ought to feel like. The designer said he couldn't talk much after he announced they had what he liked.

When the "designer" got hold of a "production" rod, he found it was a real dog, so he went screaming back and said bitter things about rod builders. Right at the moment I really don't know of any manufacturer to "design" a rod.

I believe it was a Number 10, which I considered pretty big for a mullet. I've seen mullet caught with plugs, but it was obvious that they had been snagged in most cases. Whether they actually approached the plug out of curiosity and got too close, I wouldn't know. Anyhow, Joe Lucas of Cocoa Beach came up with an unusual one the other day when he caught a 14-inch mullet on a Crocodile spoon—in the mouth. What's more, Joe says he saw the fish come for it. Maybe, he adds, it was mental telepacy—the mullet tuning in on his thoughts. It seems Lucas had been plotting some deliberate fly fishing for mullet when the spoon incident happened.

When the B.A.S.S. invitational fishing contest was held at Welaka in February, the hottest spot reached by the speedy bass boats was the Rodman Pool, leftover 8,000-acre impoundment that was originally a part of the cross state barge canal. Officials of the tournament stated that it just might be the hottest bass fishing in the United States this year. The experts caught 4,247 pounds of bass, many from the pool, and a fish of 12 pounds 13 ounces, caught by J.F. Skinner of Birmingham, Ala., was the biggest.

A real mullet expert is Dave Chermsardi, who fishes on the Florida East Coast much of the time, and has landed as many as four mullet on the same day. He catches them when they're skimming the surface with their mouths, and says he suspects they may inhale their little flies by accident.

My wife Debbie caught a good-size one a while back on a little green nymph she was fishing for bluegills. I believe it was a Number 10, which I considered pretty big for a mullet.

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albinism
in
nature

HARDLY A MONTH goes by that a newspaper or magazine in some part of the state doesn't carry an item, usually with a picture, of an all-white bird or mammal that has turned up to enliven conversations within its coverage area.

Through subscription to a statewide news clipping service, the Game and Fresh Water Fish Commission is able to keep fairly well abreast of the variety and frequency of occurrence of albinism in wildlife. (Not that all albinos in the wild are detected, much less captured or photographed and reported in the press; but it seems safe to say that the reports coming in do represent a good sample of this fairly common happening in nature.)

Among the species most often recorded are small mammals—gray squirrels, raccoons and opossums. During the fall and winter months, deer are occasionally reported by surprised hunters who have glimpsed an albino or part-albino animal in the woods. A few such specimens are taken in the legal harvest each year.

In the bird kingdom, a white robin on the lawn always turns a few heads—and camera lenses—among birding enthusiasts; and a white crow, of all things, is not unheard of.

Albinism is defined as the absence of normal pigmentation in a person, animal or plant. (We confess, however, we've yet to read or hear about an all-white tree or wildflower.) True albinos have abnormally light-colored everything. An animal's fur is white, and its toenails are too, if it has any. Its eyes are pink, and so is its skin. In human, the skin is pale and very light-sensitive; the hair is light-colored, if not pure white; and the eyes are pink.

Some of the strangest looking color abnormalities among wildlife species are seen in part-albinos, such as the white-tailed deer shown. These pied, or pied, animals are more numerous, it appears, than pure albinos, and they almost always have normally colored eyes.

In earlier times in rural Florida, much superstition surrounded snow white animals in the forests, and they probably did appear rather ghostly on a moonlight night. But various people thought of such happenings differently. Some considered these unusual animals good omens, but most held the opposite view. The fact is, the only bad luck associated with albino wildlife is apt to befall only the specimen itself, for without the protection afforded by normal coloration, the chances of an animal's surviving to maturity are considerably reduced.

Look at it this way: How would you like to be the only white squirrel in a patch of woods shared by a family of bobcats, a pair of barred owls, and a hungry Cooper's hawk?
C\n\nalling Birds and Mammals is an easy way to have year-round entertainment, and learn a lot about wildlife. It's an inexpensive hobby which can give you hours of pleasure, even in your own back yard.

Since the dawn of man, hunters have used sound as a way of locating or attracting animals. Beating anders together may attract deer during the mating season. Imitating a romantic turkey hen pulls a gobbler.

Most dedicated hunters do their practice calling during the closed hunting season. As long as you do not carry a gun or molest wildlife, it is not against the law to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species. There is tremendous legal freedom to call any species.

The male establishes a territory and, in turn, attracts a female. Whether the female is attracted to that particular male or to the territory he controls, depends on which biologist you are talking to. At any rate, the male has a definite territory, the boundaries of which are clear to him. Generally, he does not mind other species of small birds using his area. What he will not tolerate is the intrusion of another male bobwhite. Every morning, the male whistles his loud and precise "bob-white" call. Contrary to what some poets believe, this is not a cheery good morning to the world. It is a signal to all other birds in hearing distance that he is on the job guarding his territory. It is both a warning that his land is posted and an invitation to a female to join him there.

If you hear a bobwhite whistling at a distance, pucker your lips and return the same call, which is easy to imitate. He will reply to you, sometimes for as much as an hour if you wish to keep it up. He is letting you know where he is, and this means where his territory is. He will not be alarmed as long as you, the imitation bird, keep your distance. If you're a good woodman and can sneak closer without being seen, you'll notice a change in the frequency and intensity of his calls when you, with your answering calls, pass the invisible boundary of his territory. He may very well run or fly toward you, determined to defend his domain from an encroaching male bobwhite.

A similar pattern of response can be evoked from a mockingbird, a robin, a dove, a goose, and from many mammals. Challenging territory in the breeding season is an excellent way to attract wildlife for observation. It's easy to practice on songbirds in your own yard. The trick is to give the right calls and not to be seen and identified. Once you're recognized as a faker, the game is over.
(Continued from preceding page)

Knowing what stimulates a response from a bird or mammal is learning that species’ weakness. This has practical value to the hunter. During the quail hunting season, the birds are gregarious and run in coveys of 10 to 20 birds. After a covey has been widely scattered, the birds are anxious to get back together. If the hunters are quiet, they will soon hear the anxious recall cry of “peelee, peelee.” A broken covey late in a winter afternoon will quickly fill the air with recall whistling, as no bobwhite wishes to sleep alone.

Some hunters become quite skillful at using a metal, cylindrical call, well drilled with holes, to imitate the recall cry; others are expert with using whistles. The replies to the hunters indicate where the birds are, and the hunters can move in to flush, with or without dogs.

I have seen a few hunters expert enough to whistle late in the afternoon and have birds fly in for a flush, with or without dogs. The replies to the hunters indicate where the birds are, and the hunters can move in to flush, with or without dogs.

An interest in learning to call leads to more knowledge and understanding of wildlife. Or does it? Whether the egg or the chicken came first, there is no doubt that a knowledge of calling, and the ability to call, leads to more enjoyment in hunting or just watching wildlife.

Calling crows to the shotgun has long been a favorite off-season sport. Some people frown on this because there is evidence crow populations have decreased during the past decade, possibly because of insecticides and pesticides. If you live in a city, you might not understand why some people wish to shoot crows, a bird seldom used for table fare. On the other hand, if you are a farmer with an orchard or pecan grove, losing hundreds of dollars annually to crows, then you probably wish more people hunted them. Whatever your feelings about crows, they are highly responsive to calling. If you don’t wish to shoot crows, it is just as satisfying to call in a flock and have them dive-bomb you. When crows fly into battle, it’s a sight to behold and something to hear. It’s aggression on black wings!

There are more than 20 types of crow calls, the best usually made of wood with adjustable reeds for varying pitch and tone. The crow caller must know what makes the crow respond. Crows are curious, and a simple “caw, caw, caw” may bring a few. The crow is loyal to its flock and young in the nest. It seems to love a fight, especially with a hawk or its deadly enemy, the horned owl. Crows can be incited to fever pitch, some callers imitate the hawk whistle, working the black warriors into such rages that they come back time after time despite shooting and a number of dead crows. Camouflage clothing and careful movement are important in successful crow calling. Once they’ve seen you and identified you as man, the game ends.

In the past 15 years, predator calling has increased in popularity across the nation. It is used to attract coyotes, foxes, hawks, owls, bobcats and raccoons. The caller puts out a sound like a squealing, suffocating rabbit, or a strangled seagull, or the hinges of hell, or all three combined. Most animals are undoubtedly attracted because it sounds like an animal in trouble and handy for consumption; others surely come to it out of curiosity. The predator call gets better results at night for mammals and owls. If you decide to try it, you must be careful not to shoot a protected species. Just about everything which responds has total protection or a closed season. Hawks and owls are protected in Florida. If you use a light at night, don’t have a gun or do anything which might make people think you are jacklighting deer. In fact, it’s a good idea to call your wildlife officer before you leave and tell him where you’ll be calling.

It certainly is not necessary to shoot a predator as the final step after fooling it with a call. It’s exciting enough just to hear and see it working towards you, to note the startled expression when it realizes it has been duped, and to watch the fast getaway. To many hunters, calling ducks is the best part of waterfowling. To learn to give a high-ball call (Continued on next page)
hunting is the greatest of the arts. It is a traditional art in most of the sanctuary areas. From bone, to scratching slate with a cedar stick, to scratch box—which can be shaken for a gobbling sound. The flock wants to get back together. In the spring, the hunter plays the role of a lovesick hen to lure a gobbler towards a new conquest. Or the hunter may gobble as though he is a new monarch moving in to take over the territory.

Most turkey hunters do as little calling as possible, fearing a wrong note will scare the bird. Two of the best turkey hunters I’ve known did just the opposite. They moved through the woods with a mouth yelper and scratch box throwing up a symphony of turkey flock music. They imitated juveniles and hens, and gobbled like dominant males. When they got a reply, they settled into a hiding place but still kept up the chorus. I do not know if they were playing up to the curiosity of the real turkeys or acting as though a flock was invading, or both, but they brought turkeys home every time.

If you wish to learn wildlife calling, and have a place to practice, you can learn much of it at home by listening to instructional records and reading about the behavior of species you wish to talk to. Before you do much practicing on the call, try to find an experienced caller and induce him to tutor you on breath control, positioning the call in your mouth, and other fine points. Listening to tapes will help you learn the right sounds, pitches, and notes. It will save you weeks of time if your tutor will take you afield to show you his technique of calling, such as calling intervals, his action when he gets a reply, and how he selects a hidden spot to call from. It will be helpful if he walks out 50 or 100 yards and listens to your imitations and re-turns to make constructive criticism. A call may sound very different at a distance than what you think it does with the call only five inches from your ears.

Two sources of information and aids on bird calling are: National Audubon Society, 650 Third Ave., N.Y., N.Y. 10022 and National Wildlife Federation, 1412 Sixteenth St., N.W., Washington, D.C. 20036. Your local chapters of these organizations can put you in touch with experienced callers.

The outdoor magazines have advertisements on a variety of mouth and electronic calls, instructional aids, and other information on calling wildlife. Your local sporting goods store is a quick source of information.

One warning: Mouth calls are irresistible to small children. When the neighborhood gang discovers you have game calls, they’ll be drawn like bees to honey. On the other hand, if you have to “children sit” all some evening, game calls are a good way to keep them occupied, if you can stand it.

An effective self-blowing call for dabbling ducks—mallards and others—is theubby type. Make it with one hand, as shown, and it sends out a merry feeding chuckle. Play it as on occasion, with both hands, and it produces a loud high-falutin’ call that says, “Hey, come on down and join us!” Pava-ling ducks are supposed to accept this lure and turn around.

Cooper’s Hawk

**BY GENE SMITH**

**YOU MAY KNOW the Cooper’s hawk by another name: blue darter, big blue darter, or just plain chicken hawk. All three describe this bold predator to a degree.**

The Cooper’s hawk, Accipiter cooperii, is a medium-sized hawk that feeds mostly on small birds. It is a low-flying, extremely agile hawk that frequents woods and adjacent clearings, where it finds ample prey. It is no larger than a common crow.

Only two Accipiters (bird hawks) are found regularly in Florida: Cooper’s, which is reported throughout the state but is termed “an uncommon resident” that breeds only in the northern portion; and the Sharp-shinned hawk, A. striatus, a smaller, lighter version of the Cooper’s, and a winter visitor only. (The sharpshin is the little blue darter colloquially.) Ornithologists say the Cooper’s is the chicken hawk in North America, since it is more domesticic poultry than all the other hawk species combined. But it is not as damaging today as it once was, for not as much poultry range has been opened these days, even in rural areas, and, too, there aren’t all that many Cooper’s around anymore.

Unlike the larger Buteo hawks, which have long, broad wings and act as though a flock was invading, or both, they brought turkeys home every time.

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With—the Cooper’s has short, rounded wings and a long, rudderlike tail that aids it in maneuvering through the trees as it darts about in pursuit of prey. Its tail is rounded at the end and has narrow black bands across it.

The Cooper’s typical relaxed flight consists of a series of three or four wingbeats followed by a glide, then more flaps and another glide. But in pursuit, it goes with great speed in a direct line if in the open, often close to the ground and with the wings half folded. It is capable of stopping abruptly, flipping onto its back, or dipping down to pass over a tree trunk to snatch a robin from the ground or knock a field mouse senseless. Many observations confirm that the earthy Cooper’s hawk will keep an ob­ject between itself and its prey until the last moment—a tree, a fence, or even a house or shed. And it is so fast that it nearly always makes its kill.

For boldness, this hawk has no equal. There are records of its robbing a poultry yard while several people were standing around. In one case reported by Bent, a Cooper’s chased a chicken into a barn, where a farmer killed it with a buggy whip. When feeding, they can often be approached to within a few feet before they fly. And Bent also reported that once a Cooper’s attacked a fellow who was collecting fossils. He defended himself with his geology hammer and succeeded in killing the hawk just after it affirmed the attack verbally. But, of course, such instances are rare. Most of the time this hawk sticks to the woods and goes for easier prey.

One study of its feeding habits showed Cooper’s hawks took 82 percent birds. Included were yellow-shafted flickers, meadowlarks, quail, grouse, robins, jays, various woodpeckers and sparrows, starlings, grackles, doves, domestic pigeons, quail, duckings of various species, and many small birds of brush and woods habitat—vireos, kinglets, warblers, nut­hatches, and others. The remainder of its diet in­cluded squirrels, rabbits and hares, foxes, rabbits, opossums, rats and mice, snakes and lizards, butter­flies and moths, grasshoppers and crickets, and even snails.

The handsome, black-capped Cooper’s hawk is distributed over most of the United States and parts of southern Canada and northern Mexico. In mixed forests of conifers and deciduous trees it may nest in either type, usually from 20 to 50 feet or more above the ground. However, in some areas of the Southwest where tail timber is scarce, the hawk nests in low brush, or it may nest on the ground in a few instances. If it chooses a hardwood, the stick nest is placed in a main crotch, where it is secure against a falling tree. If a hawk selects a pine tree, it may nest next to the trunk on several horizontal limbs, for maximum support.

The Cooper’s egg cup of the nest is shallow and nearly always well lined with bark chips. Small amounts of breast down are added, and quite often a few green leaves or pine needles.

In Florida, this species lays three or four eggs to a set, although up to six have been recorded elsewhere. They are bluish white, but not infre­quently show some pale brown spots.

In incubation, mainly accomplished by the female, requires approximately 36 days, according to Bliss or Fars or the World, by Grossman and Hamlett (1964), which adds the interesting note that male young leave the nest when 31 days old; females at 34 days. (Incidentally, females are larger than males at all ages.)

Cooper’s hawks pair in early spring and are quite faithful in returning to the same area to nest for several years. They may build a new nest annually, however, and use the old one as a feeding platform. They may build on an abandoned crow or squirrel nest, or simply refurbish their own nest of the previous season.

Bent says the Cooper’s full adult plumage is not acquired until its third year, and points out that the adult male is more brightly and heavily marked below and more bluish above than the adult female. Although it occurs in the southeastern states, it is not common. It is also reported to hunt in the Sooner State.
I have beach and tropical beauty that would put shame to the skyscrapers of Miami. Of land just five miles across a broad causeway from the city, you'll love this bit of beach at night, bearing electronic equipment which hopefully will emit discreet beeps in the presence of metal.

Black Caesar was reportedly a giant Negro "with arms like the mast of a ship." He was a slave who escaped when the ship carrying him foundered on a Florida reef. Caesar drifted in a small boat until he was rescued by a sloop. He took over the sloop by brute force, killing members of the crew who would not join him. Later, he commanded a larger vessel and became the notorious "Scourge of the Keys."

Eventually, Black Caesar was captured. He boasted just before they hanged him, at Williamsburg, Virginia, in 1719, that he had held captive a harem of 100 beauteous wenches, some white and some black.

Black Caesar was followed on Key Biscayne by another pirate who, either in tribute or for reasons of patriotism, called himself Black Caesar II. Little is known of him except that he was half Negro and half Scot and that he bragged when drunk of having pirated and hidden 26 tons of silver. None of it has ever turned up. Some say it is buried on Key Biscayne, or on nearby Elliott Key, site of the newly created Biscayne National Monument.

In 1825, the United States Government built a lighthouse on the Cape Florida tip of Key Biscayne. This lighthouse still stands. It is said to be the oldest structure in south Florida. It has led a perilous existence, battered as it has been by hurricane winds, defaced by graffiti, pounded by a surf that has gnawed away more than a mile of sand that originally separated it from the sea, and, when it was only 11 years old, survived a vicious Indian attack that gutted its interior with fire. (See "Old Cape Florida Lighthouse" by John Fix in Florida Wildlife, July 1966.)

The lighthouse, plus buildings that simulate dwellings of the early 19th century—these house educational material and historical artifacts—are part of the present Cape Florida State Recreation Area, created in 1966. On the northern portion of the island is another park, Dade County's sprawling Crandon Park, with spacious beaches and a most interesting zoo.

Between the parks lies the residential third of the island, comprising the Town of Key Biscayne, a colony of luxury homes (among them that of President and Mrs. Nixon), high-rise apartments, condominiums, and a number of large hotels. If you dig beneath the surface of the present town, through the sand that has since accumulated over the island, you will come to the rough pavings of an earlier town that dates back to 1839.

Most of Key Biscayne's 2,110 acres are heavily wooded. Coconut palms, sea grapes, and Australian pines predominate among the trees. The palms are descendants of those that were part of a commercial coconut plantation which succumbed to competition from the Philippines in the 1930's. The sea grapes and Australian pines were planted to serve as windbreaks to protect the fruit trees and a crop of pineapples from the gales that pelt the island with sand and salt spray.

Other trees, such as the Florida mahogany, were planted to provide shade for tender seedlings. Not a few of the plants on the island are believed to be descended from those set out experimentally by the island's first lighthouse keeper, John du Bois, at the urging of botanist Dr. Henry Perrine, who shipped them from Campeche, in Mexico, where he was U.S. consul. A few years later, Dr. Perrine was killed during a Seminole uprising while carrying on plant experiments of his own on Indian Key (also included in the state park system), 75 miles to the south.

Key Biscayne is within sight of the great metropolis that is Miami, but the isle is blissfully removed from the hubbub and clamor of the city. On the island you can walk on sandy dunes, dive in the shade of the myriad palms, watch birds, gather shells, or stroll a jungle trail seemingly remote from civilization.

There are few places in our world today where such pleasures can be so easily arrived at or so inexpensively enjoyed. Provided, of course, that these are your cup of tea; that you prefer wildlife to the wild life.

Lush shade of Australian pines and coconut palms cools winding road near Cape Florida on Key Biscayne. Left, site of Cape Florida Lighthouse, shown below, the oldest structure in that part of Florida. Built in 1825.
There are famous bass fishermen, famous tarpon fishermen, and famous trout fishermen. As far as I know, there are no famous bluegill fishermen.

If you want fame, trophies, or riches, the bluegill is not the way to go.

I keep reading about sportsmen who come into a clubhouse and savor the memories of big bass, bobwhite quail, permit, or sailfish. Apparently bluegill fishermen do not drink much, or they do not have clubhouses. Anyway, it is not very stylish to go misty-eyed over an escaping bluegill, and if taxidermists counted on bluegill business, they’d starve.

I have given considerable thought to the reasons why bluegill fishermen are not held in high repute, and I think one of the main factors is clothing. An angler has all sorts of sporty togs, but now that the jumpsuit has come into its own, along with all of those colorful patches advertising bass clubs, outboard motors, plastic worms, and rods, the bass fisherman is a real individual. A deep-water ocean angler has all sorts of sporty togs.

A few fresh water fish are as sweet to the taste or as scrappy for their size . . .

bluegills are bream

I once thought I would add a little class to bluegill fishing, so I went and caught some bluegills while wearing a fly fisherman’s vest and a canvas hat with a wood duck feather in the band, but it didn’t catch on.

There is a thing the grouse hunters have up in New England—a lot of them wear neckties while hunting. I am told, it might be that a necktie would help the bluegill fisherman’s image, but I have not tried it.

It is a lot of fun to catch bluegills on a very light bamboo fly rod, and I have done quite a bit of that, although some people say it is a waste of a hundred-dollar stick to catch bluegills on it. Since I am pretty well south of where it could get me into trouble, I might say that an 8-ounce bluegill feels much the same as an 8-ounce trout on a hundred-dollar rod.

I’ll qualify that last statement a little. Let’s say the bluegill pulls harder than an 8-ounce trout, but usually doesn’t run as far on a very light line or leader. It is, of course, very unusual for a bluegill to be caught on any tackle suited to his size; many fresh water trout are hooked on tackle that is pretty sorely taxed, even by a half-pound fish. Most bluegills are caught on bait, generally with cane poles and with lines quite capable of hoisting to move quickly, and it’s not unusual to catch a big one with a piece of broken line hanging from his countenance. The guy who breaks him off generally thinks he has lost a much larger fish.

The bluegill gives the impression of being capable of swimming right through a crappie. He doesn’t think he has lost a much larger fish.

them out without finesse. Nor most cane pole fishermen lift upward on the fish as he is hooked, and although the bluegill may be the hardest of all fresh water fish to lift for his size, no fish is programmed for extended resistance when the pull comes from almost directly above.

The bluegill gets his hard fighting reputation from turning on his side and thus being hard to hoist, and there are those who say he won’t run at all, ever. He just goes round and round, they’ll tell you. That’s not true. He’s no wahoo, but if he’s hooked fairly far out so that your lift isn’t almost straight up he’ll dart away, generally toward cover. A great many lines are broken on “bream” because the fisherman jerks instead of pulling. Turned sidewise to the rod tip, whether it’s above him or far to one side, a slab-sided bluegill is hard to move quickly, and it’s not unusual to catch a big one with a piece of broken line hanging from his countenance. The guy who breaks him off generally thinks he has lost a much larger fish.

The bluegill gives the impression of being capable of swimming right through a crappie. He doesn’t swim very fast when hooked, but his direction changes are quick.

A bluegill that weighs a pound is a big one in nearly all Florida waters, but some Southern lakes produce “monsters,” some of them getting into the 3- to 4-pound class. There are also some very large bluegills in the lakes of the northern tier of adjoining states, and in occasional hotspots in between. Where I have fished for them, the bluegills tended to run to uniform size. It’s possible to catch a string of them with only an ounce or two separating the largest from the smallest.

In Florida, the largest I’ve caught have been on grass flats when I was after bass. I’ve never found the bluegill fishing very fast in such places, and the assumption is that extra large fish are loners—big enough to make themselves at home among much larger fish. A bluegill that weighs a pound (Continued on next page)
is a whopper and sometimes a killer—i.e., too big to handle easily. In one case a bluegill went a pound—a whopper for Florida, but far off the world record of 4 pounds plus. (Continued from preceding page)

The relationship of bluegills to bass seems simple at first glance. Bass eat them, so it's assumed that there is one involving a "flip pole" (it's called many other things in various parts of the country). You simply take a light cane pole that works easily with one hand and attach a short section of level fly line with a piece of leader material, the whole works being a little longer than the rod itself. You should have three feet of leader for best results, and about 6-pound test line is right. The fly line is heavy enough to throw so you can use a fly, popping bug, or very light bait on the leader. A small-spinner-fly combination works well. Some fishermen use very small plugs. Level fly line is inexpensive, and it's hard to find it too heavy for this use.

Ultraplanting is one of the very best methods, keeping to something like 4-pound monofilament line. Some good anglers use 2-pound line, but that's cutting it pretty fine if there's much cover. For subsurface lures, it's hard to beat a very light spinner with some shiny beads for weight and a tiny treble hook dressed in squirrel hair, deer hair, or other soft substance. A very small pork rind can be good. The sponge rubber "bream killer" with rubber legs can also be used with a smaller spinner and fished fairly deep, although it's normally intended as a surface lure. My chief trouble with these spinner combinations is that they often twist the light line. Bead swivels can be a help, but as a rule the rubber spider "bream killer" is a bad offender if retrieved fast.

The retrieve is generally slow, which places a premium on easy-turning spinner blades. In the deeper places you may let the outfit sink for a while before starting to retrieve. Against shallow banks you begin cranking immediately. The rule of slow reeling is sometimes suspended, especially in the shallows. If you use small, sharp trebles, hooking the fish is seldom a problem.

The easy-turning spinner not only works well during a slow retrieve; it also does a good job for you while it's sinking, either turning or fluttering as the lure goes down. Bluegill depths are prettycritical, and it's often wise to establish a count to be sure of getting the right depth. There are even occasions when smaller fish are near the surface, with the larger ones close to the bottom. Very small jigs have caught a lot of bluegills, although I prefer the spinner combinations. Most of the bluegills I've caught on jigs have been incidental while I was really after crappie. There are times when the two fishes are living pretty much together. There are times when a small jig works well with a bobber on a spinning rod, and many crappie fishermen use a float with their jigs.

I know there are many small plugs and metal spoons that tear them up, but the turning spinners have been better for me, and I'm partial to the treble hooks because a bluegill has a very small mouth and can get hooked on them while just nipping.

For underwater lures, color is of varying importance. Yellow and white are most popular, and a fluorescent orange fly has been exceptionally good at times. Our most effective underwater fly is a green nymph with a little white in it, but that's used with a fly rod most of the time, rather than with the spinners. Not all effective bluegill lures are tiny. Bob Budd has caught thousands of them with a sinking plug behind a bead chain and a spinner, using two small treble hooks. The overall thing is much larger than any bluegill could expect to stuff into his gut, but they take it and that's all that counts.

I have missed hundreds of bluegill strikes because I was casting a popping bug that was too large, but if you use one just a bit bigger than ideal, you have much more chance of picking up an occasional bass.

Fly fishing for bluegills is probably the most fun of all, and there are times when it is by far the most productive method, especially in surface fishing. Bluegills will take anything from the largest to the tiniest of surface lures, and there are times when it is 100 percent possible to catch a limit on a single fly. A small popping bug or a rubber spider will do a lot of damage, but there is a limit to the damage they can do. Bluegills will eat anything, from green nymphs to little crawly baits. The retrieve may be slow, but it's generally hard to make the fly float any longer.

The most productive surface lure is generally a small popping bug or an olive or brown worm with rubber legs. The poppers should have either rubber legs or some feathers or hair that "work" in the water. Most surface bugs or flies are best when worked very slowly. Popping them helps sometimes, but on
more addicted to heavy cover than the bluegill, even though he isn't as well constructed for sliding between close-set grass stems.

I do most of my bluegill fishing with a very light fly rod, something that takes about a Number Six line, and I prefer a weight-forward line to turn over popping bugs. I consider that too light a rig to use with full-size bass bugs, however, and I've caught more bream with Number Eight rods than I've caught bass with Number Sixes. When in doubt, take the heavier stick. From 4- to 6-pound leader tippets are good.

There are some interesting gimmicks in using the fly rod, one of the more erudite being the matter of a large bug, followed by a wet fly, tiny streamer, or nymph. A foot of mono between the two is enough. The idea is that the popper attracts the fish and they then take the trailer if they don't want the big one. This works for bass as well as bluegills, and often for both on the same evening.

Any successful bluegill fisherman can operate faster if he carries a small pair of needle-nose pliers. The snap fish stringer is dangerous to the bluegill's rubbery mouth, and frequently it tears out. If you don't have a livewell, or ice chest, you can just string them through the gills.

Bluegill fillets are good, but you waste lots of fish that way. Most southern anglers fry their bluegills with only heads, scales, and innards removed. Some cook them until the small bones are digestible.

Incidentally, bluegills are bream, although the term is applied to many other sunfishes. —

**Sporting Ammo**

When we turn a faucet handle or flip an electric switch, we expect performance for contracted service. Similarly, when chambering a factory fresh cartridge or shotshell, we assume it's going to deliver the goods with customary wallop. To the credit of the American firearms and sporting ammunition industry, we're rarely disappointed.

Most of the familiar name brand ammunition makers are members of the Sporting Arms and Ammunition Manufacturers Institute. By agreement, all ammunition produced by affiliate companies must meet SAAMI standards, and performance dependability is one of them.

Unfortunately, the most carefully produced shells and cartridges may face numerous hazards between the time of manufacture and firing. One of the commonest of these is improper storage.

The receiving wholesaler, for example, may thoughtlessly store a carload shipment of ammunition in a metal warehouse that is hot by day and cool at night; or he may stack cases where they receive the damaging heat of the sun.

Heat and moisture are enemies of sporting ammunition.

Ammunition that reaches the purchaser in perfect condition can suffer heat damage if stored at home too close to the furnace, steam pipes, or other sources of heat. Likewise, it can be damaged if left too long in a closed car glove compartment, or long exposed to the hot sun shining through the windshield of a hunting vehicle.

Such conditions can deteriorate the priming mixture to the point that it will not ignite properly. Also, the powder can be affected by the reduction of its normal moisture content, the result of which is an increase in explosive strength and firing pressure.

Extreme and prolonged dampness, as occurs in many home garages, and in hunting camps that are closed between seasons, is another prime cause of ammunition deterioration. Another is oil seepage caused by leaving ammunition in heavily oiled gun clothing, or more painstakingly cleaned with a cloth. There will likely be particles of dirt remaining in bullet casings, and when it passes through the rifle bore, this grit can be as abrasive as emory cloth. By examining a clean looking cartridge under a magnifying glass, after it has been dropped in the dirt and wiped off, you will see the tiny particles of dirt and sand adhering to the lubricated lead bullet. It will likely have a whitened appearance.

In addition to picking up abrasive deposits from being dropped, and from the bottom of hunting coat pockets, the soft lead bullet commonly loaded in .22 sporting ammunition is subject to easy nicking and scratching. If extensive, such defects can affect accuracy.

The conventional paper carton so long used by ammunition manufacturers to package 25 shotgun shells is a remarkably practical container, but once opened and partly emptied, or if a full box of shells is accidentally dropped, the little box can become an annoyance. The end flaps tend to pull apart, and the contents may be spilled all over the place.

Fortunately, there are ways to circumvent these annoyances.

To make a paper shell box a bit more durable, tape its bottom flaps securely with transparent tape—and hope the tops ones don't pull apart unexpectedly.

There is an alternate approach to keeping shotshells clean, dry and secure. Divide a full box of 25 shells into lots of five, and package each lot in a plastic sandwich bag, folded twice and stomped at the top for a practically waterproof seal. When ready to load your shotgun it takes only a moment to tear open one of the plastic bags. Meanwhile, the rest of your shells remain dirt-free and dry. (Continued on next page)
A waterfowler or deer hunter who uses a shotgun can best afford to waste cartridges. You can't possibly fully appreciate the field merits until you try such shell packaging in actual hunting. The pre-packaged practically eliminates shell handling confusion and loss of dropped shells.

Another approach to keeping up with your shells, and having them keep up with you, is to purchase a shell bag or belt.

A belt-style shell pouch, made of soft, heavy-duty Naugahyde, that holds up to two boxes of shells in a shell bag or belt.

A belt-style shell pouch, made of soft, heavy-duty Naugahyde, that holds up to two boxes of shells...
One of the best ways to see nature in action is to set up a small aquarium in the home. It's a tiny world of its own, mysterious at first, but as the interactions of plants and animals unfold, there's a different show every hour.

When my stepson, Steve Thie, who is 18, announced at dinner one evening that he was starting an aquarium, I was horrified. I had visions of all sorts of mechanical gadgets such as filters and aerators which would break down in the middle of the night. I could imagine emergency telephone calls to a plumber to come out and save our fish while we kept them alive in the kitchen sink. Worse yet, I thought of the problem of no one at home on weekends or during vacations.

Steve quickly explained that he planned a simple, self-cycling aquarium that maintained itself. He had been reading a book by the famous animal behavior scientist, Konrad Lorenz. In *King Solomon's Ring*, he read some books at the local library and checked with pet stores, there's no exact experimenting.

The next step was to catch 20 or 30 potguts and select 10 or 12 for the tank. Steve took a coathanger wire, bent it into a circle, and attached an old stocking as a net; he then tied on a wooden handle. I was rather dubious about him being able to catch minnows this way, but Steve had already observed how curious the mosquito fish is. He simply walked along the pond's edge until he saw potguts darting along. He knelt down and lowered his homemade net in about 10 inches of water and let it rest on the bottom; he held the handle and remained motionless. In a few seconds, a couple of potguts swam over to investigate the strange object. They not only weren't afraid of it, but swam in and out of the sock folds. Steve went "swoosh" and had his first specimens. He was soon back home with 30 potguts, ranging from one-half inch to nearly two inches long. He selected an even dozen for the tank and then drove back to the pond to release the others.

It took the potguts about two days to settle into their new home. They explored every inch of it and might have adapted quicker, but there was a constant parade of the four members of our family to see how our new guests were doing.

Steve knew from his reading that there is a tendency to overfeed. He had bought a high-protein, prepared fish food from a pet store and I was glad of it. I was all in favor of his having a naturally...
FISHING CITATION

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