



Newsletter for the south Florida canal and urban pond angler

Our Purpose: To identify excellent south Florida freshwater fishing opportunities and to provide urban anglers with relevant information that will enhance the quality of their outdoor experience.



Florida has four black bass species. All are being addressed by the new Black Bass Management Plan.

Progress on Black Bass Management Plan continues

The Florida Fish and Wildlife Conservation Commission’s **Division of Freshwater Fisheries Management (DFFM)** is creating a new black bass management plan. We are seeking public input on the first draft that was created using input from nearly 5,000 resource users and a technical assistance group comprised of Floridians whose businesses and recreational enjoyment depend on wise management of our bass fisheries. Focal areas needing public input include issues such as management of hydrilla and other nonnative aquatic plants and fish, tournament management, trophy bass documentation, habitat enhancement,

fish stocking and the pros and cons of more detailed and flexible fisheries regulations versus more standardized regulations. To comment on the current draft, which is still in the formative stage, visit:

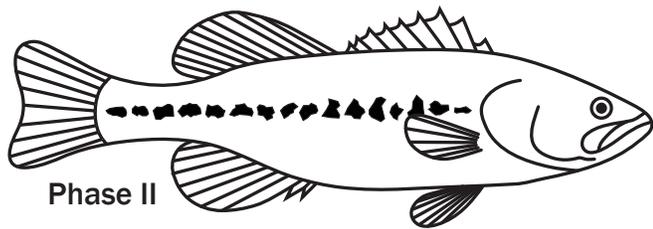
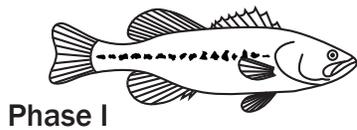
MyFWC.com/BassPlan_Survey

**Fish biology:
Coded wire tagging**

FWC recently stocked 40,000 wire-tagged largemouth bass into Lake Trafford. The stocking is part of an ongoing restoration project at the Collier County lake, which suffered several severe fish kills beginning in 1996. The tagging is part of an evaluation study comparing survival of different sizes of stocked bass. The newly-stocked fish were “Phase II” largemouth bass fingerlings, three to four inches long. Their survival will be compared with an earlier stocking of 200,000 “Phase I” largemouth bass fingerlings, that were about one-and-a-half inches long.



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Actual size of Phase I and Phase II hatchery-raised largemouth bass fingerlings. The larger Phase II fingerlings should have fewer potential predators, and in turn be able to eat a more diverse range of prey, therefore contributing to a higher survival rate.

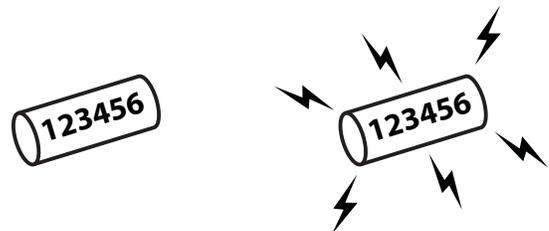
In the wild, mortality of newly-hatched fingerlings is extremely high—often well over 90%. As young fish grow, an increase in size of even a couple inches radically increases an individual’s chances of survival. In theory, the larger Phase II largemouth bass will have fewer predators, and should also be able to eat a wider range of prey, therefore contributing to a higher survival rate than the smaller Phase I’s. So why not stock all Phase II’s? Because these larger bass are more expensive and much more difficult to “grow out” to the desired size. However, despite this increased effort and cost, if Phase II bass have a much higher survival rate than Phase I bass, then it may still be more economical to produce fewer Phase II’s for stocking. (Incidentally, FWC helped pioneer the challenging process of raising largemouth bass to Phase II size on artificial food.) Lake Trafford, where fish kills essentially eliminated largemouth bass from the 1,500-acre lake, is providing a unique opportunity to evaluate these two stocking sizes on a large scale. As the newly stocked fish become established, FWC fisheries biologists will be sampling the bass population to determine what percent of adult fish were originally stocked as Phase I’s, and what percent were originally stocked as Phase II’s.

How will researchers be able to tell the difference? Well, that’s where wire tags—known to scientists as **coded wire tags** or **CWT**—come into play. Wire tagging involves inserting a nearly microscopic stainless steel wire fragment into the body of a fish. Several specific locations

can be used, such as the left or right “cheek,” or other muscle tissue where the small tag can be securely embedded. These wire tags are extremely small: 0.5 mm in diameter and 1.1 mm long (or about 1/50th of an inch in diameter, and less than 1/20th of an inch long). This is close to the size of the exposed lead in an extra fine mechanical pencil. The main advantage of such tiny tags is that they can be used on animals too small for other types of tags. Their small size also means minimal injury to fish during tagging, and these tags are retained in the host’s body for life. Although designed for use in fish, coded wire tags have also been used successfully in reptiles, amphibians, and crustaceans.

Actual size of a coded wire tag: ➡ ⊖

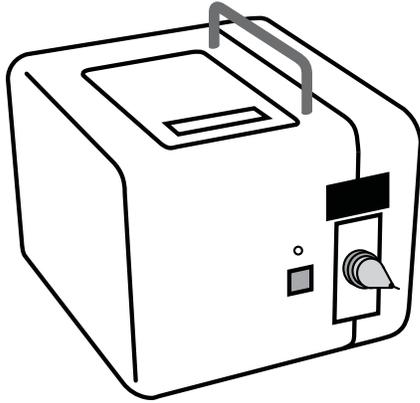
The wire tags are “coded” for identification (hence the name). Coded wire tags are numbered for identification, and can be magnetized. Magnetic wire tags can be “read” in a live fish in the field using a **wand** or hand scanner, and the fish can be released unharmed. The tags may all be coded the same as a group, or may be coded individually depending on the purpose of the study. For the Lake Trafford stocking, the question is whether surviving bass originated from the Phase I fingerlings or the Phase II fingerlings, so only a “Yes/No” determination is needed. For this reason all the tags used for the Phase II bass were coded the same. If a tag is present (determined by the magnetic hand scanner), it’s a Phase II bass; if a tag is absent, it’s a Phase I bass.



Coded wire tags can be identified by being numbered, or numbered and magnetized. These are shown magnified fifteen times.

The tagging process itself can be quite a production. A **tag injector** is required to insert the wire tags into the fish. It is loaded with a spool of stainless steel wire that is pre-numbered, either with the same number for “group” identification (as in the Trafford study), or with

sequential numbers if individual fish must be identified. The tag injector feeds wire off the spool, cuts it, magnetizes it, and then injects it into the fish through a hypodermic needle.

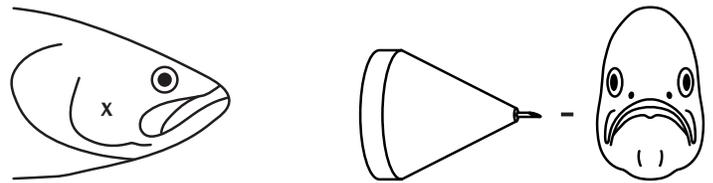


A tag injector. The needle is at the tip of the cone on the lower right of the box.

Fish to be tagged are placed in a holding pan with water containing anaesthetic. Once the fish are anesthetized, they are held up to the needle of the tag injector. The part of the fish to be tagged is gently pushed onto the needle, and the tag injected. The Trafford bass were all tagged in the right cheek. Even with tags that are all coded identically, future batches of fish could be differentiated by tagging in the left cheek or another area of the body.

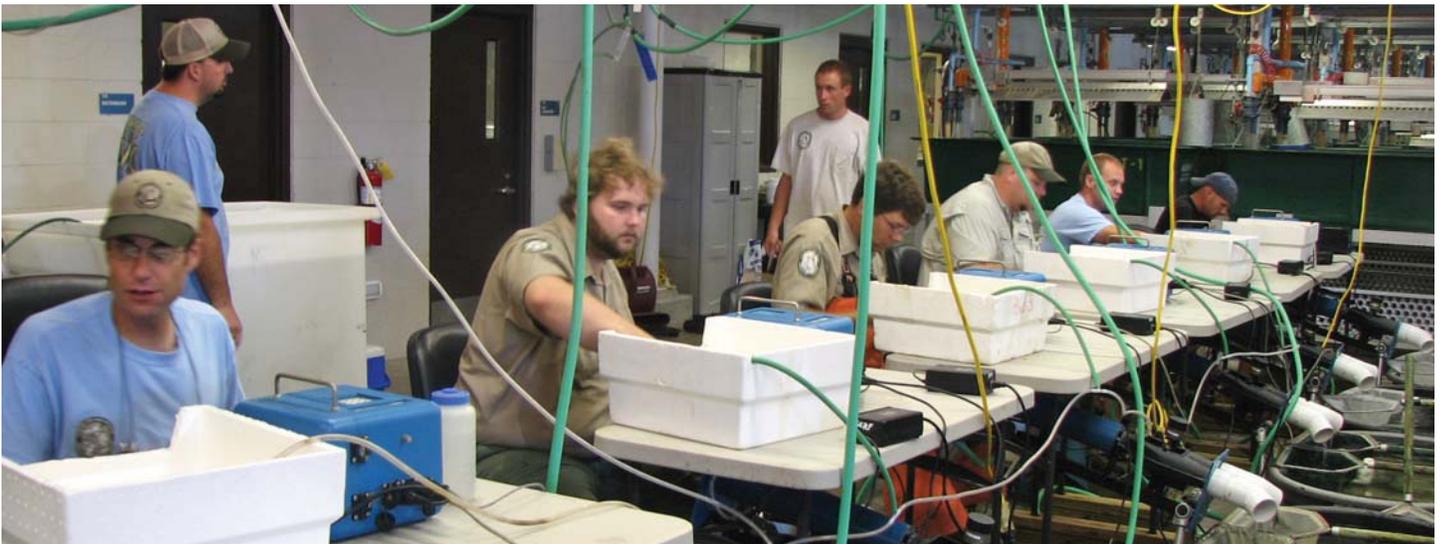
Tag injection is triggered by the tagger via a foot pedal similar to a sewing machine pedal. Care must be taken not to damage or bend the delicate needle. Tagged fish are then

dropped into a **quality control device** or **QCD** under the table, between the tagger's legs. This device scans the fish as it slides down to make sure a tag was actually inserted. If a magnetic tag is detected, the fish is shunted into a dipnet on the right, resting in a receiving tub. If no tag is detected, the fish is shunted into a dipnet on the left for further checking and, if necessary, re-tagging. FWC fisheries biologist Dennis Renfro has created refinements to this system, including the cone-shaped needle holder which not only protects the delicate needle but makes tagging easier.



The Phase II bass for Lake Trafford were wire tagged in the right cheek. Shown is a close-up of the needle assembly of the tag injector.

The tagging process is delicate when working with such tiny tags and small fish. If the fish is not held precisely up to the injection needle, the tag may be inserted incorrectly or even not at all—a “miss.” (If someone yells “Ouch!,” you know that the wrong species just got tagged.) If the tagger accidentally activates the pedal twice, two tags will be injected and the tag injector beeps. If the tagger doesn't depress the pedal far enough, no tag is in-



Tagging the 40,000 largemouth bass for Lake Trafford required six tag injector stations and up to 10 workers at a time. The many hoses are providing oxygen to the anesthetized bass in the white holding pans, and a constant flow of water through the quality control devices and receiving tubs.

jected, but the tagger might not realize what happened. The tag injector has a counter that keeps track of the number of fish tagged, and such errors can give an inaccurate estimate. The quality control device accounts for such errors by checking the fish as they pass down the chute. Practice is needed to become proficient.

The largemouth bass tagged for Lake Trafford required six tag injecting stations and as many as 10 people at a time working together to complete the job. The tagging rate averaged about 13,000 fish per day, taking three days to tag the entire lot. Now that these fish are swimming the lake, they will be contributing to the restoration of what is expected to become an outstanding bass fishery.

For more articles about other types of fish tagging, see The City Fisher Issues 6 and 7, available online at:

MyFWC.com/NEWSROOM/FRESHWATER_FISHBUSTERS_INDEX.HTM#CITYFISH

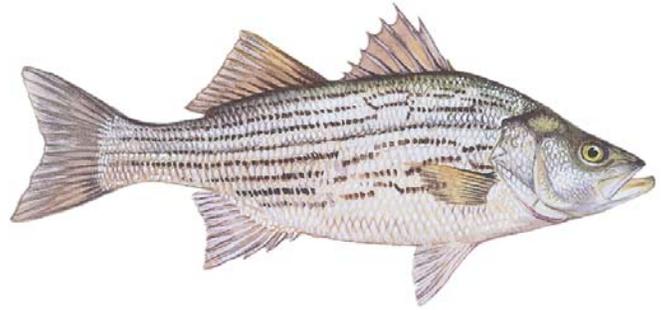
Note: Despite the severe impact that the Lake Trafford fish kills had on largemouth bass, other species were not as badly affected. Black crappie have come back very quickly in the lake, no doubt benefitting from the temporary absence of predatory bass in the system. A recently-concluded creel survey on the lake documented a reasonable two-fish-per-hour catch rate for this species. In addition, Lake Trafford was listed as one of FWC's "Top Spots" for crappie this year. Other species currently available to anglers in Lake Trafford include bream (sunfish) and catfish. For more information, contact the Lake Trafford Marina at 239-657-2401.

Species profile: Sunshine bass

Size: These fish grow larger in colder climates, but in south Florida will average one to two pounds; a five-pounder is considered a large fish. The state record rests at 16.3 pounds.

Identification: The sunshine bass is actually a hybrid, created by crossing a **striped bass** with a **white bass**. This silvery white fish is marked with broken black stripes on the front half of the

body, and straight stripes on the rear half. The change in pattern at the middle can be quite distinct. Sunshine bass do not reproduce in Florida (although limited spawning has been reported elsewhere). For this reason, sunshines must be stocked regularly to maintain a population.



Similar species: Only the two parent species could be confused with this fish. Neither the white bass nor the striped bass are found regularly in the southeast part of the state; anything caught locally can be safely assumed to be a sunshine bass. The original hybrid used a female striped bass and male white bass and is called a **Palmetto bass** because it was first produced in hatcheries in South Carolina, the "Palmetto State". The **Sunshine bass** is so called because FWC biologists first created this reciprocal hybrid with a female white bass and male striped bass because the fish could be spawned at a more opportune time for Florida conditions.

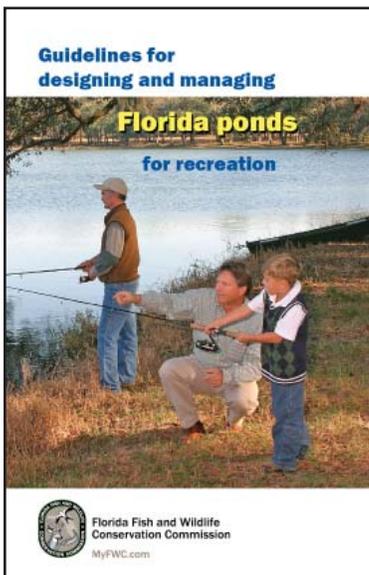
Angling qualities: The sunshine bass is a hard fighter, easily outperforming the largemouth pound-for-pound. This open-water species is not as readily accessible as the largemouth bass, however. During summer months, the deepest and coolest holes will be the only places to try, and reaching them usually requires a boat. During winter, sunshines will migrate and can be ambushed at natural bottlenecks such as bridges or converging points within a lake. This is when shorebound anglers can get in on the action. The 6th Avenue bridge in Lake Worth has been the most popular ambush point with bank anglers over the years. Sunshine bass are highly piscivorous, making shad and shiners the best live baits. Top lure choices obviously include both lipped and lipless shad-imitating crankbaits, such as Rat-L-Traps and Shad Raps. Minnow imitations such as Rapalas and Rebels will also work well. Spoons and jigs are also sound choices, especially when working the deep holes. Interestingly enough, cut saltwater shrimp fished on the bottom can be quite productive, and is

often the bait of choice among shoreline anglers working the 6th Avenue bridge.

Sunshine bass were historically very popular with anglers on the Osborne-Ida chain in the eighties and nineties, but for some reason this interest waned over the last decade. Recently, however, this feisty sportfish has again been garnering more notice from guides and individual anglers alike. This attention is well-deserved; the most recent creel survey on Lake Osborne ended with a very respectable catch rate of nearly four fish per hour for this species. Anglers that have never found a piece of sunshine at the end of their line should give this fish a try!

! More than 20,000 sunshine bass were just stocked in lakes Osborne, Ida, and Pine in September. Fish from previous stockings can also be found in lakes Catherine and Clarke.

New pond management booklet available

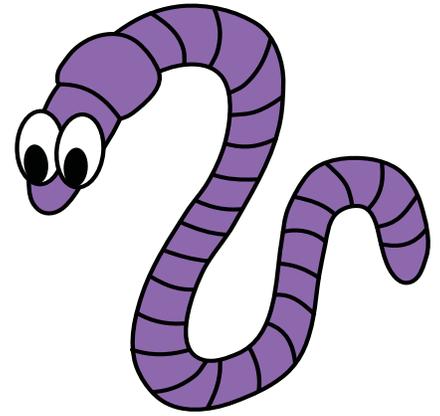


A new publication by FWC titled **Guidelines for designing and managing Florida ponds for recreation** is now available. The brochure covers basic pond design, aquatic vegetation management, fish stocking, and fishing pond amenities such as fish feeders and aerators, among other topics. The information targets

municipal governments, park and recreation departments, and homeowner associations that want to manage their lakes for fishing. However, the basic lake management strategies outlined are also effective for minimizing problems in any lake or pond, such as bank erosion and nutrient loading. Agricultural landowners, homeowners and other individuals with small "fishing ponds" on their property will also find the flyer helpful. Copies can be obtained via the contact information on the back of this newsletter.

The venerable worm

No lure defines bass fishing like the plastic worm. When you see someone with a 10-inch purple Culprit dangling from their rod tip, you *know* that you're meeting a fellow hawg hunter. Plastic worms have been putting bass on the hook for decades, and for good reason. First, worms are easily rigged weedless, letting you fish spots—and reach bass—a crankbait couldn't touch. They're also fairly economical, so when you do sacrifice a worm to a brushpile it doesn't break the bank. Finally, plastic worms are so soft—especially today's modern offerings—that bass will often hang on to them long enough for even beginners to get a solid hookset.



History

The "rubber" worm has been around for over a century, with the first patent for one purportedly recorded in 1877. Early offerings were actually made of rubber, resulting in a fairly stiff bait with little action and buoyancy that didn't make any rocks jealous. Modern worm angling really had its start in the late 1940's, when Nick Creme concocted a soft vinyl worm formula on his home stove. The Creme Wiggle Worm hit the market in 1951, and bass fishing hasn't been the same since. There are now countless variations on that original design, with almost as many colors available. And although there are now plastic curly-tail jigs, crawdads, frogs, lizards and even outlandish-looking "creature baits," worms still outnumber the rest of the plastic-bait crowd. And with good reason—even after a hundred years, bass haven't stopped eating them.

Styles

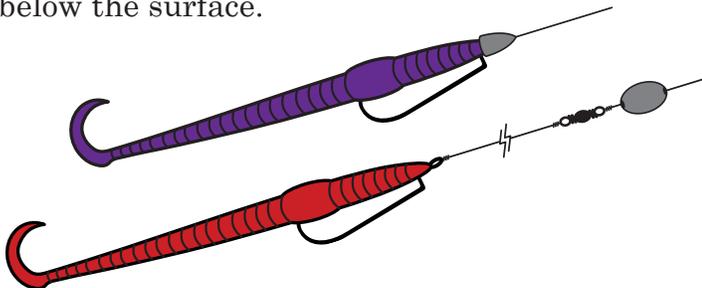
There are too many variations, both subtle and bizarre, to cover all of them here. However, most modern offerings will fall under either the "curly tail" or "no tail" category. I've always preferred worms with a swimming curly tail (or

“ribbon tail”) in order to provide more action to my retrieve. The curly tail on a worm can vary from the simple crescent-moon curl of the classic Culprit Original Worm to longer-tailed offerings such as the Bass Assassin Worm Assassin. One of my favorites as a kid and beginning bass angler was the Mann’s Augertail, which had a super-long swimming tail.

But you don’t need a tail to catch bass. “Do-nothing” or finesse worms put plenty of fish in the boat, too. These straight or “stick” worms can be rigged and fished in the same ways as more traditional worms, and may be just the ticket when finicky bass become wary of more typical offerings. These worms are usually tapered like traditional worms, sans the tail. However, some brands are just straight, such as the Zoom Double Ringer.

Rigging

The two best-known worm rigs are the Texas rig and the Carolina rig. I see—and use—the **Texas rig** most often. This involves a direct line connection to the worm hook, with a sliding worm or cone sinker in front of the worm. This is a great rig for most situations, and will allow you to snake a worm in and out of vegetation, stickups, or other structure without hanging up. Use the minimum amount of weight to get the job done. In fact, when fishing floating or extremely shallow vegetation, I sometimes forego the worm sinker entirely and fish the worm across the top of the vegetation, or just below the surface.

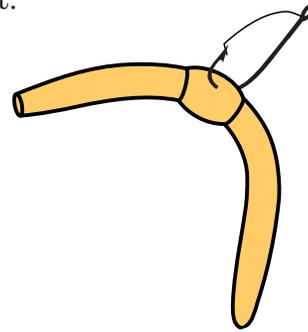


A Texas rig (top) and Carolina rig (bottom).

The **Carolina rig** is great for fishing a weedy or otherwise cluttered bottom. A two-to-three foot leader is tied to the worm hook on one end and to a barrel swivel on the other. The swivel is tied to your main line, with an egg sinker ahead of it. When rigged with a floating worm, this setup will allow you to work the bottom while the worm hovers above the

clutter to attract a bass’ attention. Some anglers claim superior strike detection over the Texas rig with this method.

Another popular setup is the **wacky rig**. This one is usually used with finesse-style worms. The worm is hooked sideways, in the middle. A hook such as the popular Mustad W3369A or Eagle Claw 449W with a double wire weedguard is used, since the hook point is not embedded in the worm. Usually no weight is used, although a split shot can be added a couple feet up the line for added depth or casting weight.



A “wacky rig” worm setup. Usually, either no weight or a single split shot is used.

Basic techniques

One of the great things for beginning bass anglers is that it’s practically impossible to fish a worm wrong. I’ve had bass hit a worm while I was skimming it rapidly back across the surface after a bad cast, and when it was lying still on the bottom while I switched to another rod. If there’s such a thing as an “average” worm retrieve, it is probably bumping the worm along the bottom or through likely-looking cover, while allowing the worm to drop or rest momentarily and throwing in occasional twitches. Letting the worm rest on the bottom for a minute or two is called **dead worming** and will sometimes entice a reluctant follower to strike. Worms with curly tails can also simply be reeled steadily through the water, though most anglers will find that varying the retrieve will draw more attention. Plastic worms work well for flipping, too. If fishing a “wacky rig,” the worm is cast toward promising structure and allowed to slowly settle, with occasional twitches thrown in. This unhurried but deadly method requires extra patience. Although worms are nearly always

worked slowly compared to other lures, you should go even slower when especially hot or cold weather slows the fish down.

Colors

You don't have room in your garage for all the worm colors out there. However, keeping it simple can still guarantee results. If I had to pick only one worm color, it would be black. Second choices—in no particular order—would include red shad, watermelon, pumpkinseed, purple (grape) and motor oil. While bass definitely demonstrate color preferences, at least one of these time-tested standbys will usually produce fish at any given time.

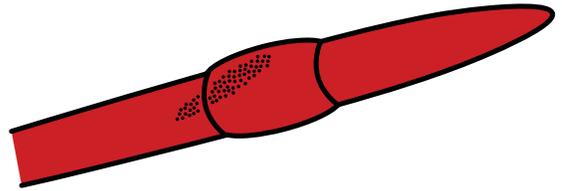
Size

Worm size can play a big role in what you're likely to land. As a light-tackle angler, I usually fish smaller, four- to six-inch worms. What I like about smaller worms is that I usually get lots of strikes. Be aware that some of these strikes will be from aggressive bluegill, especially with four-inch worms. Once when fishing an ultra-clear central Florida lake, I watched a bluegill rap on my worm hard enough to convince most anglers it was a 10 pound bass, had the real culprit not been visible. "Prickle" marks at the end of the worm or a tiny bite taken out of the curly tail will tell you when your worm is being harassed by bream. Switching to a larger worm will usually eliminate this problem. This is also the solution when you don't want lots of strikes from small bass, but want to target bigger fish. Fishing a twelve-inch or larger worm will leave all but the most aggressive bank runners behind, but you'll definitely be making a lot more casts for every strike you get. On the flip side, I've hooked four-pound bass on a four-inch worm—you never know!

The strike

Pay attention, because a bass might hit a plastic worm at any time. I've had bass grab a worm while it was sinking to a desired depth, and while it was sitting motionless on the bottom. Strikes can be hard or subtle, and I usually keep my rod tip high and my line taut in order to best detect them. You can't judge the size of the fish by the size of the strike; a friend that caught his biggest bass—a 12-pounder—

on a worm barely felt the take. I've had bass grab a worm and swim toward me during the retrieve, with only a slight heaviness to the line indicating that the fish was there. If you think you're not detecting subtle strikes, examine your worm for tiny "prickle" marks on the main body indicating it was picked up by a bass. Thankfully, the typical worm strike is usually more noticeable. A sharp tap-tap-tap or your line visibly moving off to one side will tell you that you've got a customer. I'll usually lower my rod tip and then set the hook as soon as the slack is taken up by the fish. If you find yourself missing strikes this way, though, set the hook almost immediately. Don't wait *too* long to set the hook, as bass will readily swallow plastic worms and become gut-hooked. I use barbless worm hooks to make hook removal easier and to improve survival of released bass.



If you think you're missing strikes, check for tell-tale patches of "prickles" on the worm. Prickles on the main body of the worm usually indicate bass, while those found on the end or curly tail of the worm suggest bluegill.

Gear

Most medium or heavier fishing rigs will do for worm fishing. As a light-tackle angler, I discovered that plastic worm fishing really showcased such lighter gear's limitations. Light rods aren't stiff enough and light lines aren't strong enough for really solid hooksets. Although I've caught dozens of bass on tiny four-inch worms using four-pound test, I've found that six-pound test is really the absolute minimum. For those not used to light tackle, eight- or ten-pound test line is even more practical. What lighter lines *will* give you is a more sensitive feel for strikes, and better casting distance when using little or no weight with your worm rig. With heavier lines, such as 14-pound test or heavier, you can compensate somewhat by using a heavier worm sinker or split shot. However, heavier lines and sinkers will make it harder to work and finesse your worm through and over brush or other structure.

As to rods and reels, I like a longer rod that gives me more “sweep” when setting the hook with a plastic worm. The stiffness and “crispness” of graphite over fiberglass also helps in setting the hook, and the graphite is far superior to glass in sensitivity and strike detection. If you’re buying a worming rod, it really should be graphite or better. For reels, pick one with plenty of ball bearings, and an ultra-smooth retrieve. Nowhere else is a smooth reel more critical; a “clunky” reel will cause you to miss subtle strikes. Also, the newer reels with instantaneous anti-reverse (no backplay) will help provide good hooksets. If you’ve ever had your reel clank backwards to the anti-reverse position as you set the hook, you know what I’m talking about.

There are many other techniques and topics related to plastic worms that could be covered here. However, this should be enough to get an angler started down the road to catching more bass with the venerable “rubber” worm.

Outdoors Rx

Fishing is fun—there’s no doubt about that! But nothing ruins a trip faster than a dangerous or even plain annoying injury, or a close call. Here are some quick tips to keep in mind while enjoying Florida’s great outdoors.



Boat smart

It’s impossible to say too much about boating safety. FWC recommends always, *always* wearing your PFD (personal flotation device), no matter your age and regardless of whether you’re under way or not. When on the water, paying attention and exercising common sense are the best safety devices. You can find a great deal more at:

MyFWC.com/SAFETY/Safety_Boat_Safety_index.htm

Fun in the sun

No one spending any time outside recently was surprised to hear that the heat records set last summer were broken this summer. While the sun helps give the Sunshine State its name and reputation for outdoors fun, it

also demands respect. When outdoors, use sunblock that’s at least SPF 30, and take advantage of the protection afforded by a wide-brimmed hat and light-colored clothing that helps reflect sunlight. Take plenty of water along and drink some regularly throughout the day—not just when you start feeling thirsty. Sports drinks can also help, but sodas just don’t cut it in Florida’s extreme heat. Avoid alcoholic beverages.

Big critters

A variety of Florida wildlife can make your fishing trip uncomfortable or even dangerous. Alligators or snakes? Leave them alone and keep your distance (though see last issue to find out why you have less to worry about snakes than you might think). And don’t feed the alligators! It’s dangerous *and* illegal.

Little critters

You’re more likely to come across mosquitoes than reptiles, and although smaller these can also be dangerous. Besides an annoying itch, Florida mosquitoes might also deliver West Nile Virus and, more recently, Dengue Fever. Clothing that covers the skin (such as long pants and long-sleeved shirts) reduce your risk, as will insect repellents containing DEET (don’t use on small children).

This newsletter is a publication of the South Region Fisheries Management Section of the Florida Fish and Wildlife Conservation Commission (FWC), and is paid for in part by Sport Fish Restoration funds. To contact The City Fisher, e-mail john.cimbaro@myfwc.com or phone John Cimbaro at 561-625-5122. You can also write to: John Cimbaro; Florida Fish and Wildlife Conservation Commission; 8535 Northlake Boulevard; West Palm Beach, FL 33412. Back issues are available. You can visit us at MyFWC.com.



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