
PROBLEMS WITH BASS CAUGHT IN DEEP WATER

Returning largemouth bass back into the lake to be caught again another day is the basis behind catch-and-release fishing. This is especially true among bass tournament anglers today. A key fact, however, is when catching bass at depths greater than 30 feet of water, largemouth lack the ability to rapidly adjust gasses in their swim bladder. As the fish is pulled to the surface, the swim bladder will expand rapidly and may result in bass floating belly-up on the surface, unable to swim back to the depths after the weigh-in. This “barotrauma” can happen anytime, but can be especially true during winter tournaments in Arizona when bass tend to hold deeper in the water column.

The standard method of deflating the swim bladder is by using a hypodermic needle to puncture the sac, also known as “fizzing.” This method is widely used to mitigate barotrauma and aid for a successful release of bass back to the watery depths. Research has shown, however, that a swollen bladder is only one of a variety of physiological problems bass suffer when brought up from their deep-water haunts. Therefore, other tactics are called for to maximize the successful return and survival of largemouth bass after the weigh-in.

There have been a few studies looking into the impact of deep-water capture on largemouth bass, but few have looked at fish caught deeper than 30 to 35 feet. Most largemouth bass fisheries in the United States are relatively shallow when compared to Arizona and other mainly western state reservoirs. Even in the deep, canyon bound reservoirs in Arizona, habitat and food availability usually keep largemouth in water shallower than 60 feet, but it is not unheard of for anglers to catch bass in even deeper waters especially in the winter months when water temperatures are similar throughout the reservoir and bait fish such as threadfin shad can be in large schools down to 80 to 90 feet. M. Feathers and Dr. A. Knable of the California Polytechnic State University used a hyperbaric chamber to simulate pressures on bass caught in deep water (Feathers and Knable 1983). They depressurized largemouth bass ranging in length from 8 to 16 inches to simulate rapid movement to the surface from 30, 60, and 90 feet. The fish suffered expanded bladders, external hemorrhaging, and ruptured stomach tissues at all simulated depths. Fish from 60 and 90 feet also bled internally and some suffered from exophthalmos (popeye) and everted stomachs. When raised from 30 feet, about 25% of the bass died, usually after a delay of one or two days. When raised from 60 to 90 feet, more than 40% died, usually within a few hours. Hemorrhaging and gas bubbles in the blood were apparently more deadly than gas-bladder expansion. Bass under 10 inches were more likely to die than larger fish. The authors didn't attempt to deflate bladders.

Research done at a Southern Illinois University laboratory showed that when done correctly, and soon after capture, fizzing using a hypodermic needle can be very successful in mitigating the effects of barotrauma (Shasteen and Sheehan 1997). So for bass tournament anglers, a few considerations are worthy of discussion during practice and certainly before the tournament starts: how deep are you finding fish? Are the big fish you want in water deeper than 30 feet? What size fish are you looking to keep for your weigh-in?, and will this fish be a candidate for release using something other than fizzing?

Depending on your answers to the first two, consider fizzing immediately after you boat a fish from deeper than say 30 to 35 feet. They will probably be OK in the livewell until weigh-in provided your tank temperatures are cool enough (see Department recommendations for Tournament Anglers). If you are finding fish in deeper water, say 40 feet plus, consider using an alternative method that involves recompressing bass by lowering them to at least one atmosphere (33 feet) without puncturing the swim bladder. This really comes into play when selecting your top 5 fish. If a fish comes up from 40+ feet, and will not make the cut, simply release it using inverted metal, or weighted plastic crate tethered to a 40-foot rope. Simply stay over more than 40 of water, place the fish in the crate, invert it quickly into the water, and lower the fish to at least 33 feet. If you catch a fish in greater than 60 feet of water, no matter what, consider keeping it. Chances are pretty good it won't make it very long after the weigh-in. That could be variable if you fizz it right away, but if it sits in the livewell for very long, it's a long shot to make it.

The take home lesson here is that bass which are caught deeper than 30 feet are going to have swim bladder problems and those caught in greater than 60 feet should not be released due to a poor survival rate. Internal damage will have occurred and the fish probably will not survive, no matter how much air we release from the swim bladder. But a majority of bass caught in less than 35 to 40 feet of water can be successfully released.

Though the milk crate method may not be practicable in a traditional tournament setting, it is the preferred alternative to fizzing if you don't need to hold a fish and you're finding them in really deep water. With this method, puncturing the bladder is not necessary because the bladder will naturally be squeezed down to half its size. The bass will then be able to right themselves and swim out from the bottom of the crate. Bladder and blood problems are reduced and bass have a greater chance for survival. Even if done frequently, fizzing risks puncturing other organs and vessels. Also this method does nothing for the gas bubbles forming in the bloodstream, causing blockages to heart and other vital organs.

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Literature Cited

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