Lure Retention and Smallmouths

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Select Science—One of the consequences of angling is that a fish can break off and swim away with a lure in its mouth. The effects of retained lures on fish, however, have received little scientific study. Researchers at Carleton University in Ontario, Canada, studied how retention of three different types of lures affected the behavior, physiology and reproductive success of nesting male smallmouth bass.* Males guard both the eggs and newly hatched fry for up to a month after spawning.

Bass that were guarding nests were captured and soon released as members of one of four groups: no lure (control group); small crankbait; leadhead jig with a curlytail grub and 1/0 hook; or unweighted plastic worm on a 1/0 worm hook. Lures were embedded in the upper jaw. After release, bass were evaluated by their behaviors including time to return to nest, abandonment of the nest, and guarding behavior. Physiological indicators—blood glucose, lactic acid, and hematocrit (number of red blood cells) were also measured.

» Smallmouths with retained lures took an average of 4 to 5 minutes to return to nests, depending on lure type.

Although there was little difference in the time to return to their nests, bass with crankbaits or jigs in their jaws exhibited reduced parental care activity over control bass or bass with neutrally buoyant worms in their jaws. Such reduced nest-guarding resulted in more predation by sunfish and other nest-robbers. Blood glucose was elevated in fish with retained lures, suggesting that they were subject to chronic stress. ■

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*Henry, N.A., S. J. Cooke, and K. C. Hanson. 2009. Consequences of fishing lure retention on the behaviour and physiology of free-swimming smallmouth bass during the reproductive period. Fish. Res. 100:178-182.