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4-1-2007

## Bass Strike Like Lightning

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Huskey, Steve. (2007). Bass Strike Like Lightning. North American Fisherman. Available at: http://digitalcommons.wku.edu/bio\_fac\_pub/1

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## Bass Strike Like Lightning

While they may not be able to sustain the swimming speeds of tuna, or strike with the velocity of a barracuda, bass are certainly no slouch when it comes to burning rubber. It all begins with their overall body shape. Just as we consider the aerodynamics of a new corvette or F-16, evolution has selected for a similar shape underwater. We call this hydrodynamically efficient shape 'fusiform' and we've used it to model our submarines and torpedoes. For a bass this shape leads to reduced maneuverability but increases their ability to overtake slightly slower prey, including lures ripped back to the boat fast enough to leave a rooster-tail.

When considering the swimming speed of a largemouth bass it is important to remember that bass first have to close the distance between themselves and their food. This behavior is categorized as 'approach velocity' and can be very fast for strikes at prey that: 1) are recognized by the bass, 2) are not perceived a as threat by the bass, and 3) are at prey with predictable movements. Numbers 1 and 3 both suggest that bass are able to "learn" about their prey. In fact, it's more along the lines of habituation to patterns of behaviors, but it still leads to success when pursuing dinner.

The second part of a bass attack is the 'strike velocity' and comes after the bass has decided that whatever is trying to get-the-hell-outta-Dodge must be edible. If feeding in vegetation where insects or shrimp are clung to the weeds, bass will decelerate during their strike to avoid eating a mouthful off salad. However, in the open water, a bass almost always accelerates during its strike.

Bass have been recorded at up to 10-12mph during burst speed events to escape a predator. However, one must remember that in this situation the bass has only one goal in mind – survival. In the event that a bass is pursuing a tasty morsel, it must manage its swimming velocity with a tremendously complex feeding mechanism that includes: lifting the head, dropping the lower jaw, protruding the upper jaw, depressing the floor of the mouth, and flaring the gill covers. As such, bass strikes tend be at a pace much less than their maximum swimming speed. That said, I have recorded bass strikes at up to 7mph which, even with today's efficient reel ratios is about as fast as you can retrieve a lure through water. Bottom line – they can out swim anything you can cast at them. If you rip it, they will come.