

sturgeon must somehow do the same thing. Running almost the length of the body, the long swim bladder serves the same purpose. A duct connects the swim bladder to the gut, enabling the fish to refill its version of a “BC” by gulping air. Although the duct can be constricted, air is gradually lost, absorbed into the body tissues. At some point, about once a day, the sturgeon “BC” needs refilling. The fish gets antsy, wasting energy trying to stay neutrally buoyant at depth, and that’s when it suddenly accelerates and rockets to the surface. OK, but why not just swim slowly to the surface, stick the head up, and take a mouthful of air? The problem then, is getting back down to the bottom with a freshly re-inflated bladder. It is practically impossible to dive back to the bottom with a full BC, and nature did not provide these ancient fish with dive weights. The solution is to get as much elevation as possible, gulp air, then hit the water hard and power back down to the bottom. And that is exactly what sturgeons do.

Nature is rarely satisfied with solving one problem at a time. In most fish species, jumping is either a means of escaping larger predators, or a means of capturing smaller prey. In the Gulf Sturgeon, jumping is a necessary part of life, to keep that swim bladder full and functional. Nature has found a second

use for sturgeon jumping; group communication. Those ancient sturgeons behave more like herd mammals than like modern schooling fishes. Some Russian scientists say they are not really fish at all, but something else altogether. A sturgeon jump, with a loud smack, accompanied by a series of underwater snap sounds before and after, forms a characteristic sequence, what scientists call “a fixed behavioral pattern”. It would be tough to prove scientifically, but it seems inevitable to conclude that those magnificent sturgeons with their impressive jumps are simply letting each other know where the group is hanging out. Just like a herd of cattle loosely hanging out together in a field, mooing to let each other know the right place to be.

People either love or hate them, describing the ancient armored torpedo-shaped fish as either really nifty or truly ugly, either a delight to behold or a nuisance to power-boating on the Suwannee River. Either way, it is difficult not to be impressed by the aerial acrobatics of an armored six-foot-long sturgeon, and by the loud report when that fish hits the water. It is equally difficult not to be impressed with how nature has solved two very different problems at once. An ancient escape pattern, jumping to avoid being eaten, has evolved into a way to control underwater buoyancy, and simultaneously a means of acoustic communication. “Why do sturgeons jump?” you ask. *Now you know!*

Literature Cited

Catesby, M. 1731. The natural history of Carolina, Florida and the Bahama Islands. Vol. 1. London.

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Catching Air - Oscar Sosa photo