

Sawfishes sure can wield a saw (w/ video)

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Sawfishes wouldn't be sawfishes if they didn't come equipped with long toothy snouts—their saws. Now, researchers reporting in the March 6 issue of *Current Biology*, have figured out what they use those saws for, and it turns out the answer is quite impressive. It might even help save the critically endangered and incredibly elusive sawfishes.

"I was surprised to see how skilled sawfish are with their saw," said Barbara Wueringer of the University of Queensland. "They use their saw to impale prey on the rostral teeth by producing several lateral swipes per second."

Unlike sawfishes in the wild, the animals she and her team caught on hidden cameras were fed on dead fish, "but their strikes were sometimes strong enough to split those fish in half." The animals then proceeded to swipe their meals onto the floor and dig in.

Sawfishes don't use their saws just to kill and manipulate prey, but also to sense their next mark in the first place. That's contrary to other jawed fishes whose long "noses" are generally used for one or the other purpose, not both, the researchers said.

Wueringer's team earlier found that the saws of freshwater sawfishes are covered in thousands of electroreceptors. Those tiny sensors enable sawfishes to detect the electric fields of other animals in their midst. Tiny canals in the skin covering the saw also allow them to detect water movements. The two senses together give them an edge as hunters in the dark and murky waters in which they live.

In the new study, the researchers observed recently captured sawfishes in action. They watched as those sawfishes tore into already dead fish and responded to weak electrical fields that mimicked live, hidden prey.

"Now we know that sawfish are not sluggish bottom dwellers as previously believed, but agile hunters that hunt in the three-dimensional space of the water," Wueringer said.

What the researchers observed is contrary to what you might read in any textbook, she added. The sawfishes' saw had been considered more like a rake, used by the fish to sift through sand in search of something to eat.

Wueringer said this new view might even lead to changes in the fishing practices that are allowed in prime [sawfish](#) territory, noting that the saw is partly to blame for sawfishes' global decline: their saws are easily entangled in fishing gear.

Provided by Cell Press

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