Sharks stun sardine prey with tail-slaps

July 10 2013

Thresher sharks hunt schooling sardines in the waters off a small coral island in the Philippines by rapidly slapping their tails hard enough to stun or kill several of the smaller fish at once, according to research published July 10 in the open access journal *PLOS ONE* by Simon Oliver of the Thresher Shark Research and Conservation Project, and colleagues from other institutions.

The researchers tracked shark activity with handheld video cameras and analyzed 25 instances of tail-slapping to stun prey. Sharks seemed to initiate the behavior by drawing their pectoral fins inward to lift their posteriors rapidly, followed by tail-slapping forceful enough to stun or kill several prey, and even cause dissolved gases to bubble out of the water. After a successful hunting event, sharks ate an average of 3.5 sardines.

For large marine predators, being able to stun more than one prey at a time is likely to be a more efficient means to hunt than chasing after many small fish in a school. Dolphins and killer whales are known to use tail-slaps to control or stun prey, while humpback and sperm whales use tail-slaps to communicate over long distances.

"This extraordinary story highlights the diversity of shark hunting strategies in an ocean where top predators are forced to adapt to the complex evasion behaviours of their ever declining prey," said Dr Simon Oliver the study's lead investigator.

More information: Oliver SP, Turner JR, Gann K, Silvosa M,

D'Urban Jackson T (2013) Thresher Sharks Use Tail-Slaps as a Hunting Strategy. *PLOS ONE* 8(7): e67380.doi:10.1371/journal.pone.0067380

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