Silky shark observed with regrown fin after extensive injury

December 29 2023, by Bob Yirka

A marine biologist at the University of Miami's Rosenstiel School of Marine, Atmospheric, and Earth Science, has documented a case of a silky shark with a regenerated dorsal fin, after much of it was lost due to maiming by an unknown person. In her paper published in Journal of Marine Sciences (2023). DOI: 10.1155/2023/6639805
Marine Sciences, Chelsea Black describes how the shark came to her attention and how she was able to observe the fin regrowth.

Fin repair in sharks is rather common, though it is rarely full. Typically scar tissue forms in wounds, closing them, offering a small degree of regeneration. Prior to this latest observation, only one other instance of fin regeneration in any type of shark has been observed. And no prior cases have been documented of a silky shark regrowing large portions of a lost fin.

The shark was first spotted by a diver off the coast of Florida, near Jupiter—he had noticed that the shark had a very large chunk of its dorsal fin missing. He contacted researchers at the University of Miami, who assigned doctoral student Black to look into it. She discovered that the shark had been included in a research effort involving study of silky sharks—a satellite tag had been affixed to its dorsal fin.

In studying pictures taken of the shark, she noted that the injury line traced the contours of what had once been the satellite tag site. Some unknown person had cut the tag off the fin, leaving a massive gap. The piece of missing fin was so large that Black expected the shark would likely die due to difficulties in catching food.
Black was surprised to find a year later, however, that the same shark was swimming in the same waters, only this time, most of the missing fin had been rejuvenated. She estimated that the shark had lost just over 20% of the fin, and regained approximately 87% of it through rejuvenation. Thus far, testing of the shark has been purely observational, thus it is not known if the regrowth was due to rejuvenation of fin tissue, or if it simply filled in most of the missing parts with scar tissue.

**More information:** Chelsea Black et al, Resilience in the Depths: First Example of Fin Regeneration in a Silky Shark (Carcharhinus

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