

November-December 2016

COOKIECUTTER SHARK

by Lanny and Marilyn Johnson

"Dad, we saw your friend Mr. Pierson at the dentist today. While we were waiting, he began telling Mom and me of a shark he had been reading about. It sounded like a way cool shark, so Mom took me to the library after the dentist. I looked into it and took notes so that I could write a paper about it for a school project."

"So tell us about this 'way cool shark'."

"First of all, can you guess what shark this is?" Mary asked. "It is

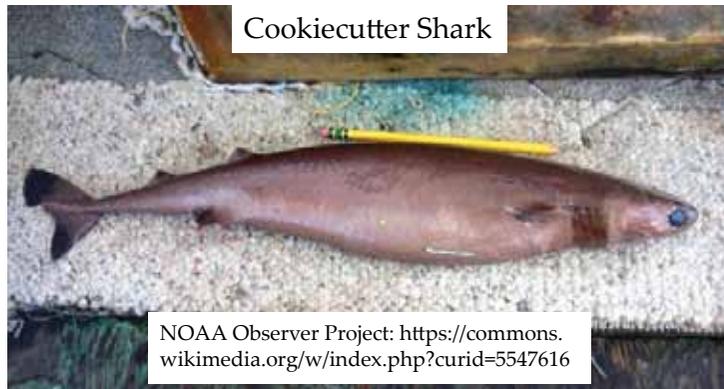
one of the smallest sharks; the males grow to a maximum of 16.5 inches (42 cm) long, while females grow up to 22 inches (56 cm). Yet, this shark has the largest teeth of all the sharks. Any guesses?"¹

"You have me stumped, Mary. How can a small shark have teeth bigger than a great white shark, which can grow to over 20 feet (6.10 m) long?" Mr. Jones asked.

Mary giggled and answered, "Well, this

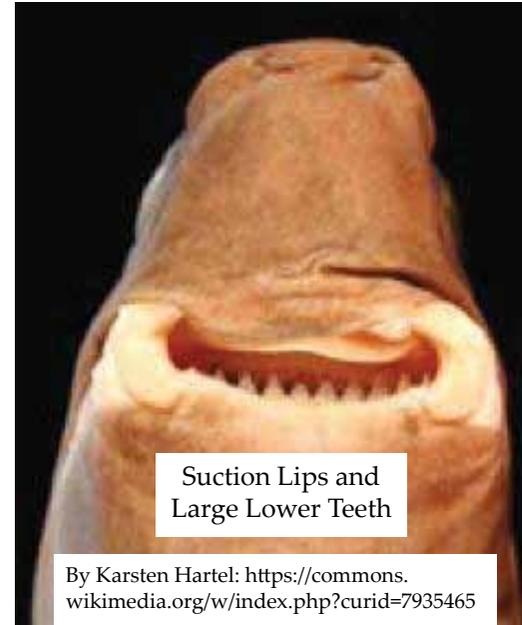
shark does have very large teeth when you compare them to the rest of the body! The shark I am talking about is the *cookiecutter shark*. They are named that because of the cookie-shaped mark their bite leaves on the bodies of their prey.

"There is the smalltooth cookiecutter shark (simply known as the cookiecutter shark) and the largetooth cookiecutter shark. Both are the same size, but the largetooth cookiecutter has much larger teeth. The cookiecutter has a long, thin, cigar-shaped brown body and a dark band



Mary explained.²

"The cookiecutter lives in the warm, deep waters around islands near the Equator in the Atlantic and Pacific Oceans. When I say they live in deep water, I mean deep! They spend the day at the depth of 3,200 feet (975 m)." Looking at her brother, Mary joked, "Billy, that's like 11 football fields long! And they have even been found as deep as 2.3 miles (3.7 km). At night they rise into shallower waters about 300 feet



around its gills (leading some people to call it the *cigar shark*). Near the front of the head it has large, oval, green eyes, a short, cone-shaped snout and a rounded mouth with large, thick suction lips,"

glow up to 3 hours after they die! Some scientists think cookiecutters use this glow to blend in with the moonlight and the dark band around its throat acts as a lure to help draw their prey up from the bottom.^{4,5}

"When large fish or marine mammals get close, cookiecutter sharks quickly fastens onto their prey using their thick lips and tongue which act as a suction cup. Then, they sink in their teeth! The top jaw has 30 - 37 tiny teeth that are narrow and straight like needles. The bottom jaw has 25 - 31 teeth that are all hooked together. The bottom teeth are larger and wider than the top

(91 m) below the surface to find food. Once in awhile they will rise all the way to the top.³

"As they swim towards the surface, the cookiecutters' undersides begin to glow a bright green color! They are bioluminescent, which means they can make their own light, kind of like fireflies. On their bellies they have special light-making cells called 'photophores'. What's really creepy is the cookiecutters' photophores can emit a



