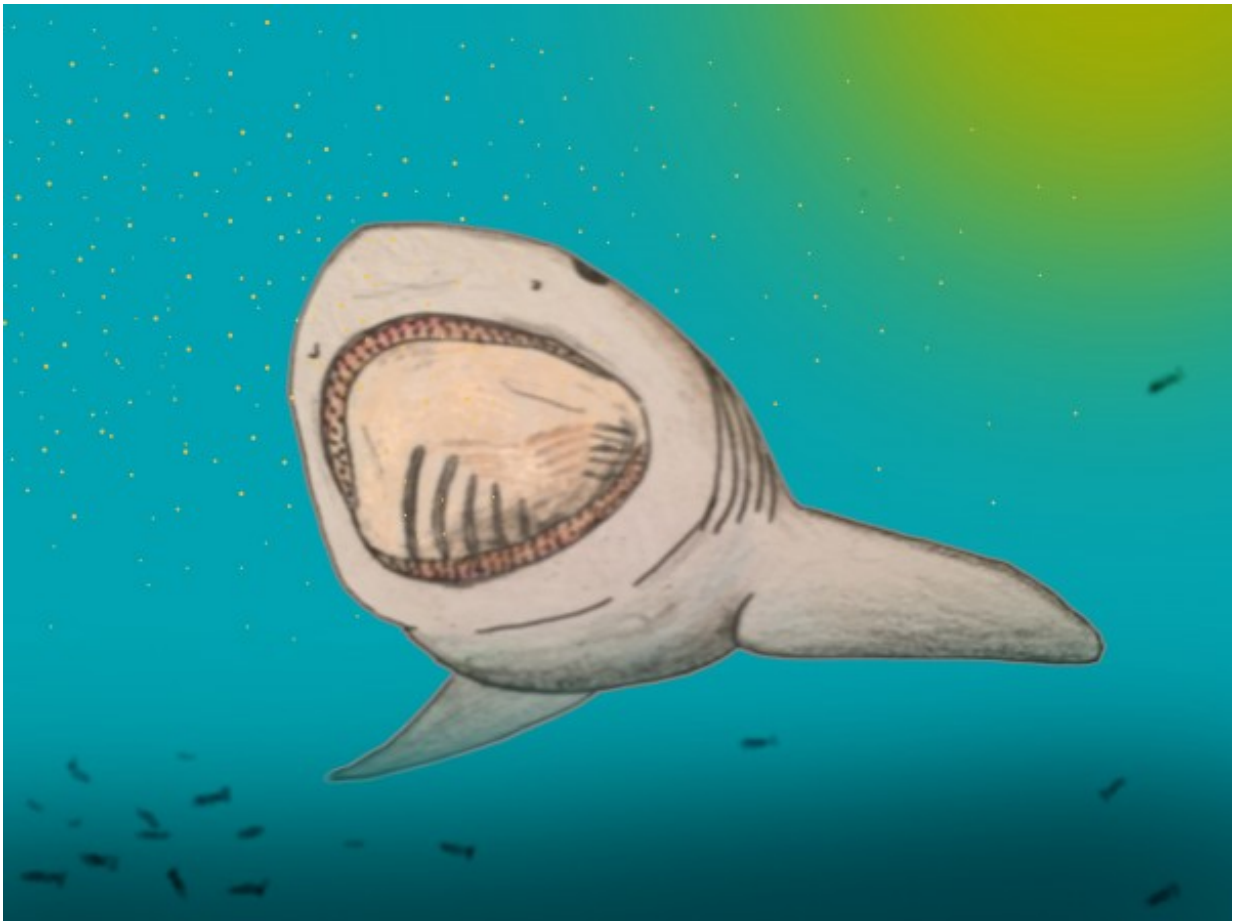


Researchers discover new lineage of prehistoric, plankton-eating sharks

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DePaul University paleobiologist Kenshu Shimada's rendering of a Pseudomegachasma shark hypothesizes it had a large mouth with many small teeth. DePaul University paleobiologist Kenshu Shimada's rendering of a Pseudomegachasma shark hypothesizes it had a large mouth with many small teeth. Credit: Kenshu Shimada

An international team of scientists has discovered a new lineage of extinct plankton-feeding sharks, *Pseudomegachasma*, that lived in warm oceans during the age of the dinosaurs nearly 100 million years ago. The fossil sharks had tiny teeth very similar to a modern-day, plankton-eating megamouth shark.

The study, "A new clade of putative plankton-feeding [sharks](#) from the Upper Cretaceous of Russia and the United States," is published in the September issue of the *Journal of Vertebrate Paleontology*.

Lead author, Kenshu Shimada, professor of paleobiology at DePaul University, said the findings are based on newly collected tiny [fossil](#) teeth, as well as a reinterpretation of previously reported specimens from Cretaceous rocks in the U.S. and Russia.

"The study is significant because *Pseudomegachasma* would represent the oldest known plankton-feeding shark in the fossil record," said Shimada. He added that these sharks would have evolved independent of the four known lineages of modern-day planktivorous cartilaginous fishes: the megamouth sharks, basking sharks, [whale sharks](#), and manta rays.

Pseudomegachasma means "false megamouth shark" due to its dental features superficially nearly identical to the modern-day plankton-eating megamouth shark or *Megachasma* that evolved much later in time. The new genus is represented by two extinct species, *Pseudomegachasma casei* from Russia and *Pseudomegachasma comanchensis* from the U.S. that evolved from a group of extinct sandtiger sharks that likely had a fish-eating diet.



Researchers, including DePaul University paleobiologist Kenshu Shimada, found the tiny, hook-shaped teeth of the prehistoric *Pseudomegachasma* shark in the U.S. and Russia. Credit: Kenshu Shimada

More information: "A new clade of putative plankton-feeding sharks

from the Upper Cretaceous of Russia and the United States." *Journal of Vertebrate Paleontology* [DOI: 10.1080/02724634.2015.981335](https://doi.org/10.1080/02724634.2015.981335)

Provided by DePaul University

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