



## Female Shark's Virgin Birth

*By Christina Erb*

*Published: May 29, 2007*

A female hammerhead shark born in a Nebraska aquarium in 2001 has been identified as the first known shark to reproduce through parthenogenesis—a form of asexual reproduction that has been found in other vertebrate species like some snakes and lizards.

The bonnethead, a small hammerhead species, was held in captivity with two other female sharks for three years at the Henry Doorly Zoo in Omaha. At first, many scientists assumed she had either mated with another species or utilized sperm she had stored years ago.

But Mahmood S. Shivji, director of the Guy Harvey Research Institute, published a paper this week in the journal *Biology Letters* proving that the female shark's genetic material combined during the cell division of reproduction without the aid of male DNA.

"I think it was a very interesting discovery and it fills in a gap in the types of animals that we know who can do this," said Robert E. Hueter, director of the Center for Shark Research at the Mote Marine Laboratory in Sarasota, Florida. "[Previously,] we knew asexual reproduction was possible in all vertebrate animals except for animals and sharks. This shows that it didn't jump over the sharks as it went to amphibians."

The baby shark died shortly after its December 2001 birth, apparently killed by another fish, according to the *New York Times*.

Parthenogenesis among vertebrates is rare and has only been documented in captivated major jawed vertebrate lineages except for mammals and, until now, cartilaginous fishes.

"This certainly shows they have the capability to do this but there's not much of a reason to believe this is happening in the wild," Hueter said.

---