

Sharks and Rays: Myth and Reality

Week 4

Nostrils of Shark Ray

Dr. Marcelo Carvalho: This is the shark ray, *Rhina ancylostoma*. It's an Indo-Pacific, tropical water, very large ray that has the body of a shark. It still swims by beating its tail from side to side. It's a very interesting species. So, this is a small embryonic specimen, a late term pup, or just recently born.

Using the shark ray, we can learn about one more sensory system of the sharks and rays which is the olfaction. By looking at the nostrils, we can see that they're composed of an incurrent aperture [hole in to which water flows] and an excurrent aperture [hole out of which water flows]. Water enters through the incurrent aperture, stimulates the nasal epithelium underneath, and then exits through the excurrent aperture. If I hold open the flap, we're able to see the nasal epithelium on the inside of the blind sac, which is [called] the nares.