

Sharks and Rays: Myth and Reality

Week 4

Description of Alimentary Tract

Dr. Marcelo Carvalho: Digestion begins in the mouth where prey items are initially captured. Sharks do not chew their prey as we do. They take off large chunks of prey and the prey immediately moves down into the orobranchial chamber, the pharynx [or throat] of the shark, where it is further pushed down into the esophagus. I have cut one of the lobes of the liver to show. From the esophagus it makes its way into the stomach. The esophagus and the stomach cannot be differentiated externally; it's one long tube.

From the stomach, food goes into the intestine, which is very short. The intestine is very important because that's where absorption of nutrients occur. The pancreas, this organ right here, is rather small - this is one lobe of pancreas. It secretes enzymes into the intestine for digestion. After absorption of nutrients occurs, the food passes into the rectal chamber where water is further absorbed. Then it makes its way into the cloaca where it is finally expelled from the organism.

Accessory organs not crucial to digestion are the spleen, which is a rather large, V-shaped organ, and the rectal gland, which is important in osmoregulation.

You can see the distal tip of the rectal gland right here.