

**Sharks and Rays: Myth and Reality**

**Week 4**

**Electric Organ of Electric Ray**

**Dr. Marcelo Carvalho:** We have learned that sharks and rays are capable of detecting electric fields through the ampullae of Lorenzini. Some rays can actually produce electric fields. This is the Genus *Torpedo*, a marine genus that includes some 25 species. This particular species comes from the Mediterranean. Electric rays have two strong electric organs located here on the central portion of the disk. If we turn the ray over, we can see them even more clearly. We have removed the skin from the electric organ on this side of the specimen, and we can see the electric cells that make up the electric organ. These cells form a honeycomb-like structure with numerous electroplaques, one stacked upon the other. Here we can see one individual electroplaque.