http://www.geology.19thcenturyscience.org/books/1852-Humboldt-Travels/README.htm

bringing it near the organs or insulating the fish, covering it with a metallic plate, and causing the plate to communicate by a conducting wire with the condenser of Volta. We were at great pains to vary the experiments by which we sought to render the electrical tension of the torpedo sensible; but they were constantly without effect, and perfectly confirmed what M. Bonpland and myself had observed respecting the gymnoti, during our abode in South America.

Electrical fishes, when very vigorous, act with equal energy under water and in the air. This observation led us to examine the conducting property of water; and we found that, when several persons form the chain between the superior and inferior surface of the organs of the torpedo, the shock is felt only when these persons join hands. The action is not intercepted if two persons, who support the torpedo with their right hands, instead of taking one another by the left hand, plunge each a metallic point into a drop of water placed on an insulating substance. On substituting flame for the drop of water, the communication is interrupted, and is only re-established, as in the gymnotus, when the two points immediately touch each other in the interior of the flame.

We are, doubtless, very far from having discovered all the secrets of the electrical action of fishes which is modified by the influence of the brain and the nerves; but the experiments we have just described are sufficient to prove that these fishes act by a concealed electricity, and by electromotive organs of a peculiar construction, which are recharged with extreme rapidity. Volta admits that the discharges of the opposite electricities in the torpedos and the gymnoti are made by their own skin, and that when we touch them with one hand only, or by means of a metallic point, we feel the effect of a lateral shock, the electrical current not being directed solely the shortest way. When a Leyden jar is placed on a wet woollen cloth (which is a bad conductor), and the jar is discharged in such a manner that the cloth makes part of the chain, prepared frogs, placed at different distances, indicate by their contractions that the current spreads itself over the whole cloth in a thousand different ways. According to this analogy, the most violent shock given by the gymnotus at a distance