

accordingly separated with care from the rest of the cat. The presence of gymnoti is also considered as the principal cause of the want of fish in the ponds and pools of the Llanos. They, however, kill many more than they devour: and the Indians told us, that when young alligators and gymnoti are caught at the same time in very strong nets, the latter never show the slightest trace of a wound, because they disable the young alligators before they are attacked by them. All the inhabitants of the waters dread the society of the gymnoti. Lizards, tortoises, and frogs, seek pools where they are secure from the electric action. It became necessary to change the direction of a road near Uritucu, because the electric eels were so numerous in one river, that they every year killed a great number of mules, as they forded the water with their burdens.

Though in the present state of our knowledge we may flatter ourselves with having thrown some light on the extraordinary effects of electric fishes, yet a vast number of physical and physiological researches still remain to be made. The brilliant results which chemistry has obtained by means of the Voltaic battery, have occupied all observers, and turned attention for some time from the examinations of the phenomena of vitality. Let us hope that these phenomena, the most awful and the most mysterious of all, will in their turn occupy the earnest attention of natural philosophers. This hope will be easily realized if they succeed in procuring anew living gymnoti in some one of the great capitals of Europe. The discoveries that will be made on the electromotive apparatus of these fish, much more energetic, and more easy of preservation, than the torpedos,\* will extend

\* In order to investigate the phenomena of the living electromotive apparatus in its greatest simplicity, and not to mistake for general conditions circumstances which depend on the degree of energy of the electric organs, it is necessary to perform the experiments on those electrical fishes most easily tamed. If the gymnoti were not known, we might suppose, from the observations made on torpedos, that fishes cannot give their shocks from a distance through very thick strata of water, or through a bar of iron, without forming a circuit. Mr. Williamson has felt strong shocks when he held only one hand in the water, and this hand, without touching the gymnotus, was placed between it and the small fish towards which the stroke was directed from ten or fifteen inches distance. (Philosophical Transactions, vol. lxxv, pp. 99 and 108).