

northward is Mud puppy, but in the south it is known as Water-dog or Dog-fish. It has a wide distribution in eastern America, including the great lakes system and those of the great rivers southward. When full grown it is said to vary from eight inches to two feet in length. In the Ottawa specimens of one foot in length may probably be considered as above the average size. The individual mentioned above was about five inches long, and, although alive when on exhibition, it had been so badly injured in its forcible removal from its place of exit, that its days seemed to be numbered. The mud-puppy is lizard-shaped, with four short legs, on each of which there are four toes, and its tail is almost as long as the body, and broad and flattened so as to form a powerful paddle for propelling the animal if it wants to leave the bottom. At the base of the head on each side it has three tufts of large bushy gills of a bright red colour, and two slits or branchial clefts. These are the structures for maintaining respiration in the water, but it has sufficient lung development to enable it to live for some time when removed from its proper element. It is apparently largely nocturnal in its habits, lurking among stones and weeds on the river bed, but may also be active in daylight, as some years ago I saw several caught with hook and line by some boys who were fishing on the Aylmer wharf. Its food consists of worms, insects in their various stages, small crustaceans, tadpoles, small fishes, frogs and other small living forms upon which it can seize; probably it feeds upon dead animal substances as well. Its presence in the water mains cannot injure the water supply, except when one gets drawn into a service pipe and causes a blockade. The animal belongs to the batrachians, which occupy a position intermediate between the fishes and reptiles, and is placed in the family Proteidæ, the lowest group (of living forms) in the class Batrachia. The majority of the batrachians undergo metamorphoses, by which the gill-bearing young lose these organs and develop lungs, and on maturity leave an aquatic for a terrestrial existence. The frog is a good example; its young, the familiar tadpole or pollywog, has external gills, or branchiæ, and a broad swimming tail, but gradually loses these appendages and develops legs, which are remarkably serviceable both for land and water. Our friend the mud-puppy, however, never outgrows the