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ART. 6.—SOME OBSERVATIONS ON THE MENOBRANCHUS LATERALIS ; *described and figured by Dr. HARLAN, in the Transactions of the Lyceum of Natural History of New York. By the Honble. WILLIAM SHEPPARD, of Woodfield, Mem. Geo. Soc. France, Cor. Mem. Nat. Hist. Montreal.*

[Read, 6th February, 1841.]

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This animal is an inhabitant of the waters of the St. Lawrence, being sometimes found at low-tide among the rocks at the margin of the river, particularly in the spring and autumn, when the waters are cold.

In the fall of 1839, my son took three of these reptiles in front of Woodfield ; one of them measuring eight inches long, the other two about six. They were kept all winter in an earthenware tub placed in the greenhouse, the temperature being generally about fifty degrees of Fahrenheit in the day, and forty degrees at night. They ate nothing all winter, although food was frequently offered them. The animals generally remained at the bottom of the tub, unless disturbed by the curiosity of spectators, when they would swim about with great agility, using their tail in manner of fishes : sometimes (although but seldom) they would crawl on the bottom of the vessel ; but this they did in a sluggish manner, the smoothness of the glazed surface evidently proving an ob-

*Observations on the Menobranchus Lateralis.* 55

stacle to their progress. At night they would become more active ; frequently while sitting in an adjoining room, we could hear them gambolling and sporting in the water, but on taking a light to them, they were always found quiet at the botttom. This circumstance seems to indicate that the animal may be nocturnal.

They appeared particularly sensitive at the extremities, for on renewing the water, which was usually done about twice a-week, if poured from the spout of a watering-pot, so as to fall either on the head or on the tail, they would writhe under it, and swim away with great celerity. The three pair of red branchiæ were at all times in motion, opening and closing, at the rate of about eighty times in a minute ; but not having taken notes of this I cannot be quite certain of the correctness of the rate. They would occasionally come to the surface and put out their snout, apparently for the purpose of inhaling air by the nostrils, for on again retiring to the bottom, a bubble of air was seen to rise from the branchiæ. Towards spring they gradually acquired appetite, eating small earthworms, which they swallowed in a peculiar manner, coming near the end of the worm, by a quick forward motion and sudden exertion they would take it down at one gulp, remaining themselves on the spot where their prey had been ; if the worm proved too large to be swallowed at once, the animal was obliged to make a succession of exertions, with an interval of some seconds between each, before it could get the worm down.

They are capable of living out of water, as those which were caught were found crawling on the mud a little above low water mark. They also escaped from their confinement during the night, on one occasion, from the vessel in which they were kept being completely filled with water, which enabled them to