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XXIX. *Some Observations on the Sea Long-worm of Borlase, Gordius marinus of Montagu. By the Rev. Hugh Davies, F.L.S.*

*Read June 7, 1814.*

As the concise definition of the genus *Gordius*, in the *Systema Naturæ*, does by no means include the characters of this very extraordinary animal, I deem it necessary to give the following more comprehensive one of it under the other name which has been bestowed on it.

LINEUS longissimus. *Sowerby's Brit. Misc. p. 15. t. viii.*

*Black Line-worm.*

CORPUS lineare, lævissimum, longissimum, mirandum in modum exertile et retractile.

CAPUT antice emarginatum, proboscidem cylindrico-clavatam exserens.

Os inferum, lineare, longitudinale.

OCULI nulli.

This is the *Gordius marinus* of Mr. Montagu, *Trans. Linn. Soc. vii. p. 72*; and *Brit. Zool. ed. 1812, iv. p. 74*; but not *Gordius marinus* of Linnæus.

I laid a perfect specimen of this very wonderful creature in its own element in the largest dish I have, with a design to observe its habits or manners.

It partook in a great measure of the nature of the leech, and seemed in some degree amphibious; as it frequently, in part, left the water, and, to the length of a foot or two, or more, extended itself along the edge of the dish, and the table on which the dish

was



was placed. At other times, particularly in the day-time, it was compactly collected together in a heap, and perfectly still, unless the dish or table was touched, of which it seemed very sensible. This it indicated by a vibratory motion of its whole mass, and retracting the head and forepart, which were generally somewhat extended. In the night I always found it coiled in a more lax and diffuse manner, covering nearly the whole dish; but on the approach of a candle it seemed affected, and inclined to contract itself; so that, although I could not see that it had eyes, I evidently discerned that it was very sensible of light. It frequently by morning assumed somewhat of a spiral or screw-like form; and on one morning in particular I was highly gratified in finding it almost perfectly and closely spiral from end to end. I was forcibly struck with this appearance, as it seemed to suggest to me the solution of a difficulty which perplexed me much, concerning the manner how such a wonderfully soft, delicate and seemingly unmanageable length of body could possibly move itself from one place to another. But from the moment when I observed this, I became perfectly at ease with regard to that particular, being convinced that this must be the state which the creature assumes when disposed to change its station; not only as thus it is contracted, with regard to length, into the most compact size which its make is susceptible of, but likewise that, when so modified, every spire or volution, by a distinct impulse exerted in an appropriate manner, will assist in the act of progression, and of shifting forward the whole of its amazing length at nearly the same instant.

When I took it up at the sea-side, collecting such an immense length in a confused manner into the confined space of an oyster-shell, (a very large one indeed,) I thought it had been almost impossible to have unravelled it; but it is astonishing to think how



readily it was disentangled, owing to the extraordinary profusion of mucus which nature has provided it with, doubtless for that purpose.

It is impossible to make a guess at the length of it when alive, on account of its constantly extending and contracting itself when touched, and that with such ease as almost to exceed belief. I once observed a part of the fore end extended to a length between two and three feet, along the margin of the dish and the table, which part, on the animal being disturbed, was in a short time contracted, so as not to exceed so many inches; and as I assert that, when it was thus extended, it was full three times the size in diameter which I had seen it of on some other occasions, I may well say that it is capable of extending itself, or of being extended, without any inconvenience, to twenty-five or thirty times the length that it is of at another time.

It varies very considerably in colour as it contracts or extends itself, which is from a dusky to a reddish-brown; but it has, when placed in a strong light, especially in sun-shine, a gloss of a fine rich purple all over; when most contracted it appears nearly black.

Having thus attended to this remarkable animal for a fortnight, giving it daily a fresh supply of sea-water, I put it into a bottle, which, by the by, though the bottle was wide-mouthed, I effected with no little trouble, owing to its facility of extending and contracting itself, and likewise its being so slippery from the quantity of mucus with which it abounds. When, however, this was done, I poured on it some spirits; it was convulsed, and greatly contracted with regard to length, and consequently much enlarged in thickness, though neither nearly to that degree which I had often observed when it was alive; and in an instant, to my great surprise, it projected, from the emarginate part of the front,

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