
VIII. *Description of the Hirudo viridis, a new English Leech, by George Shaw, M. D. F. R. S. Fellow of the Linnean Society.*

Read December 2, 1788.

AMONGST the variety of smaller animals which I have occasionally examined, there are some which appear to me to have entirely escaped the observation of naturalists; having no place in the *Systema Naturæ* of Linnæus, or in any of the numerous publications which have from time to time added to the stock of natural history; so that they may be considered as absolute non-descripts, and as such may be thought more deserving a particular survey:

The animal which I now purpose to describe is a small and very elegant species of *Hirudo* or Leech, which is to be found in such waters as are more than commonly clear and cold, or at least such as do not very easily freeze during a common frost. This species of *Hirudo* is not much more than the eighth of an inch in length, and I have seen it even less. In its general shape or outline it very much resembles the species called *Hirudo complanata*, or the small black leech (except that the extremity of its body is of a somewhat sharper form). The colour of this animal is a deep and beautiful grass-green; and, when magnified, a transparent edge or border appears to surround it. The eyes are two in number, and of a deep black.

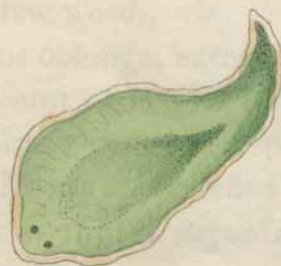
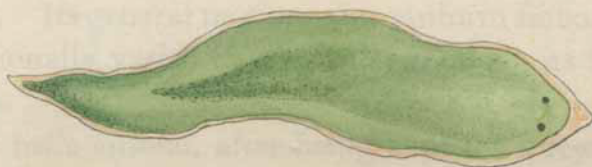
black. Its motions are in every respect analogous to those of the *Hirudo complanata*, *stagnalis*, and *octoculata*, which are all three sufficiently common in this country; but the small species now describing seems to possess a greater degree of contractile power than the three former, since it often assumes a shape approaching to a circular outline. Its general motion is an uniform smooth progression, which is occasionally varied by a circular motion, as if turning slowly on an axis.

This little animal, after being kept for a few days in a glass of its native water, seldom fails to appear filled with 5 or 6 ova, of a very considerable size in proportion to the parent animal, and which are of a much stronger and tougher nature than one would easily imagine; since, when taken out of the body, and pressed on a glass, it requires a considerable degree of force to break them. Their form is exactly oval, and their colour a deep brown. The larger species of the genus *Hirudo* are known to be viviparous; but the *H. octoculata* is (according to Linnæus) oviparous, and produces a peculiar sort of ovum, which it deposits on the stalks of water plants, and from which the young is afterwards excluded. It should seem therefore that this very small green *Hirudo* is oviparous also, and probably may deposit its ova in the same manner.

The remarkable colour of this diminutive species is alone sufficient to distinguish it at first sight from every other species yet known: as a trivial name, therefore, *Hirudo viridis* cannot be improper; and its specific character may be comprised with sufficient exactness in a very few words, viz.

H. *viridis* oblonga, extremitate acutiuscula.

To the above account of the *Hirudo viridis*, I must beg permission to add the extraordinary power of reproduction which the smaller species of the genus *Hirudo* are possessed of. This reproductive power is most conspicuous in the *H. stagnalis*, *complanata*, and *octoculata*, in
which



Hirudo viridis.

which animals it almost equals that of the polype. I do not recollect whether Spallanzani, and others who have attended to the subject of animal reproductions, have included these animals in their list. My own experiments were made in the year 1773, during which year these animals were divided in every possible direction; and the divided parts, after reproduction, were again subdivided, and again reproduced, without the failure of one single part.

TAB. 7. represents the *Hirudo viridis* both of its natural size and magnified.