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II. *Remarks on Scolopendra eléctrica, and Sc. subterranea.* By  
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*Read April 7, 1789.*

**A**MONGST the English insects of the genus *Scolopendra* there appears to me to exist a species which is not distinctly described, and I believe is generally confounded with the *Scolopendra eléctrica* of Linnæus, which it so much resembles that it is not easy to give a criterion by which it may at all times be distinguished from it. The most striking difference, as to its external appearance, consists in its being of a much lighter colour than the *Scolopendra eléctrica*; the *eléctrica* being of a full brown, or approaching to a chesnut colour, while this other species is never much deeper than a straw colour. Another distinctive mark is, that it is narrower and thinner in proportion than the *eléctrica*; and though I have never accurately counted the number of feet, yet I am strongly inclined to think that they are more in number than those of the *eléctrica*. But what seems most to indicate a difference of species is the very different habitation of this insect; for while the *Sc. eléctrica* is found in houses, and amongst wood, linen, and other substances, the species or variety I am now speaking of is never found any where but at a considerable depth below the surface of the ground, and principally resides in garden ground, in which it may be generally found about the roots of plants at most seasons of the year, except in very frosty weather. If placed in a dry box it will scarce survive more than a single day, and frequently

quently not so long. On the contrary, the *eléfrica* may be always preserved in this manner at least a month, and frequently two or three months together, without seeming to lose much of its vigour; nay, it may even be kept pretty closely confined between two glasses for many days without any danger of perishing.

Another very curious particular belonging to the *Sc. eléctrica* (and which cannot be observed in the other species) is, that if cut in two about the middle, both parts will live and appear vigorous for a very considerable time; sometimes a fortnight; but with this very extraordinary circumstance, that the tail-part always survives the head-part two or three days; so that the principle of vitality is much more powerful in the lower part of the creature than in the upper.

This experiment I made and frequently repeated several years ago, and till lately imagined that it had not been observed by any other person; but I lately observed a remark by Haller in his *Bibliotheca Anatomica*, that the circumstance of both the cut parts living has been mentioned in a German work entitled *Unzer's Kleine Schriften*. This being a work I have never seen, I can only quote the very brief expression of Haller, viz. "*Scolopendræ dissectæ utraque mediætas vixit:*" yet there is no mention of the posterior part surviving the anterior, nor is the particular species of the insect mentioned.

I am aware that it may be objected to the idea of these two sorts of *Scolopendra* being specifically different, that the different habitation of the animal, and a difference in colour, are not sufficient to constitute a difference of species, especially as some animals are supposed to reside in habitations of the greatest possible difference; the *Fasciola hepatica* for instance, which is supposed to inhabit the waters, and yet is found in great abundance and in great vigour in the liver and gall-bladder of sheep. It is also a well-known circum-

circumstance, that the larvæ of many insects are subterraneous, while the insects in their complete state inhabit the surface. Yet with respect to the two *Scolopendræ* before mentioned, I must still think that there are sufficient grounds for supposing a real and specific difference; and in order that they may the more easily be distinguished, it might not perhaps be improper to give to the species thus imperfectly described, the trivial name of *subterranea*.

I am by no means certain that the *Sc. subterranea* yields any of that phosphoric light which prevails so strongly in the other: should this be uniformly the case, there is still another argument in favour of a real specific difference.