Before inserting this list I wish to give a short description of the body of a Pycnogonid, and at the same time to state the nomenclature I have made use of.

The body of every Pycnogonid consists of four segments, the first of which is to be considered as formed by the connection of the head with the first thoracic segment. At the anterior end this first segment is furnished with a long and stout proboscis. This proboscis is situated either about the front of the first segment, as in *Nymphon*, and in this case is capable of very limited motion, or as in *Ammothea* and *Ascorhynchus*, though also situated about the front, it is connected with the segment by means of an articulation, and for that reason is highly movable, or it is, as in *Phoxichilidium*, situated on the ventral surface of the first segment, and bent forward; or finally, it is situated about the ventral side, and at the same time lapped over it (*Böhmia*, mihi). The form and size of this proboscis varies greatly. At its extremity it is furnished with a triangular mouth. It is to be considered as an unpaired outgrowth of the region surrounding the mouth, and has nothing to do with a true head, as was supposed by Savigny. Neither is there anatomically or embryologically any real ground for the opinion, suggested by Huxley,[1] that the proboscis represents the united chelicerae and pedipalpi like that of Acarina.[2]

The cephalic part of the cephalothoracic segment is generally furnished with three pair of appendages, which long ago received the names of mandibles, palpi, and ovigerous legs. As far as has been ascertained till now, there is not a single genus of Pycnogonid, which does not show these three pair of appendages either in the adult state, or during its embryological development. Yet cases are not rare, in which in the adult animal, either the first (the mandibles) or the second pair (the palpi) or both are deficient. With respect to the third pair of appendages (the so-called ovigerous legs), on the contrary, they are never found wanting, as far as we know, in the adult animal of either sex. Whoever studies different forms of Pycnogonids, will soon discover what a difference may be caused in the appearance of the cephalic part of the body by the presence or absence of the cephalic appendages; hence it is that the various authors who have proposed a classification of the group have largely made use of this presence or absence of cephalic appendages. Although there is no doubt, I believe, that good characteristics may be derived from the number of these appendages, the following may show how extremely necessary it is to be cautious in this matter.

[1] Huxley, Anatomy of Invertebrated Animals, p. 386, London, 1877.

[2] On a tranverse section, the proboscis of the Pycnogonids always shows a more or less distinctly triangular shape, the mouth is also triangular, &c. The total form, therefore, is to be compared with the fruit of a monocotyledonous plant, composed of three carpels. Of these one is placed dorsally, the two others meet longitudinally in the middle of the ventral side. If anybody should feel inclined to try again to homologise the proboscis with cephalic appendages, he will have to call the dorsal piece the labrum, and the two others the homologues of mandibles. However, in the earliest stages of development I have observed, the proboscis has already the form of a short cylindrical appendage, and I must point out the anatomical fact that the proboscis for the greater part is innervated from the supraœsophageal ganglion.