

posterior to the trunk in their normal relations. If the trunk, like that of *Caligus*, corresponds to the mandibles and lips alone, then these legs may be analogues of the maxillæ, organs which in *Caligus* are a little remote from the trunk. But if the maxillæ are obsolete, or the trunk includes them in its constitution, as is possible and even probable, considering that the maxillæ in the Caligoidea are obsolescent and never elongated into proper legs, it will then follow, that the legs referred to correspond to the slender didactyle legs (first pair) of *Caligus*, or the tubular legs of *Argulus*, and to the maxillipeds (or second pair of maxillæ) in the Cyclopoidea and Cyproidea.

The four pairs of legs which follow, will, on the first supposition, correspond to the first four pairs in *Caligus*, two subprehensile pairs and two natatory, making the whole number of normal appendages *twelve*: on the second, to the second or prehensile pair, and three pairs of natatories, making the total *fourteen*. In *Cythere*, among the Cyproidea, we find ten appendages behind the antennæ, the six posterior of which are proper feet, and not natatory appendages; and this group may perhaps illustrate this point in the structure of the Pycnogonoids, rather than the Caligi. In fact, the Entomostraca take this pediform character for the feet and lose the natatory pairs, only among the Cyproidea and Limuli; and hence we may properly trace the transitions to the terrestrial Articulata, through these few-footed species.

On this ground, we make out the most probable view of the homologies of the parts in the Pycnogonoids to be as follows:—

APPENDAGES.	NORMAL HOMOLOGUES.
1. First and second pairs.	Second antennæ, two-branched.
2. Moveable trunk.	Mandibular and first maxillary segment.
3. Inferior or ovigerous legs.	Second maxillary (first pair of feet in <i>Caligus</i> ).
4, 5, 6, 7. Pairs of feet.	Next four segments following.

If we should suppose still another pair of maxillæ embraced normally in the moveable trunk, then the four pairs of legs would be homologous with the four pairs of natatories in *Caligus* and *Cyclops*, and the inferior legs, with the first or prehensile pair in these genera. But of this we have no evidence.

The legs in the Pycnogonoids consist each of *nine* joints, the antepenult of which is very short, and the last a claw. From the cha-