

may perhaps also be derived from arthropods similar to the Apodidæ, or the Branchiopoda, but their line of development leads through such forms as the Leptostraca (and their relatives), to the Cumacea, Tanaidacea, and Anomostraca; while the line of development of the arachnids leads from the Branchiopoda, or Apodidæ, through the trilobites to the Merostomata, Eurypterida, etc., as can be readily seen by comparing such fossil merostomes as *Bunodes lunula* and other antenna-bearing Merostomata, with the Trilobita.

I would, therefore, maintain the following points: 1. That the trilobites do not stand in the direct line of descent of insects, but rather in a side branch leading off from the Branchiopoda and Apodidæ to the Merostomata, Eurypterida, and other arachnoid forms. 2. That the line of development of insects leads from the branchiopod (and apodid) type of arthropod, through such forms as the Leptostraca and their relatives, to the Anomostraca, Tanaidacea, and other crustacean forms which have preserved many features characteristic of the ancestors of insects and "myriopods". 3. That the members of the Symphyla-Pauropoda group are in many respects quite similar to certain of the ancestors of the "myriopods" in general, and that the members of the Symphyla-Pauropoda group are likewise very similar to certain ancestral insects, whose line of development is quite closely paralleled by that of the "myriopods" in question. 4. That the Apterygota in general have departed the least from the ancestral condition of insects as a whole, and the Protura are as primitive as any known Apterygota. 5. That apterygotan forms such as the Lepismids, etc., are very like the ancestors of winged insects and are structurally very closely related to the ephemerids and Plecoptera, which, with the fossil Palæodictyoptera, are the most primitive representatives of the pterygotan group. The details of the discussion of the evolution of insects, together with the grouping of the orders into super-orders containing the forms which are anatomically the most closely related, will be taken up more at length in a later paper dealing with the latter phase of the subject.

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