

“But when we have reached the branch representing the generic form we have made but little progress in the phylogenesis of *Salix*. With *Populus* this genus forms a small order, Salicineæ. The two genera are closely allied, yet separated by well-marked characters; it is not, however, difficult to conceive of both having sprung from a generalised form. But there is no record of such a form. The two genera appear together among the earliest known dicotyledons, the willows being represented by six and the poplars by nine species. The ordinal form, if it ever existed, must necessarily be much older than the period of the Upper Cretaceous rocks, that is, than the period to which the earliest known dicotyledons belong.

“The Salicineæ are related to five other natural orders, in all of which the apetalous flowers are arranged in catkins. These different though allied orders must be led up by small modifications to a generalised ameniferous type, and thereafter the various groups of apetalous plants by innumerable eliminations of differentiating characters until the primitive form of the apetalous plant is reached. Beyond this the uncurbed imagination will have more active work in bridging over the gap between Angiosperms and Gymnosperms, in finding the intermediate forms that led up to the vascular cryptogams, and on through the cellular plants to the primordial germ. Every step in this phylogenetic tree must be imagined. The earliest dicotyledon takes us not a step farther back in the phylogenetic history of *Salix* than that supplied by existing vegetation. All beyond the testimony of our living willows is pure imagination, unsupported by a single fact. So that here, also, the evidence is against evolution, and there is none in favour of it.”

It is easy to see that similar difficulties beset every attempt to trace the development of plants on the principle of slow and gradual evolution, and we are driven