

Cretaceous period," in any other sense than one might say, we are living in the Silurian period; with this difference only, that the Cretaceous period is much nearer to us in point of time than the Silurian, and that we can thus trace a relationship between certain living types and certain Cretaceous forms, such as we can not hope to establish in the case of Silurian fossils.

Lastly, it is to be observed that certain classes of animals are always likely to prevail under certain favouring conditions, wholly irrespective of any generic connexion between successive faunæ thus represented. Thus, the conditions present in the deep Atlantic are such as favour the existence of numerous *Foraminifera*, siliceous sponges, Echinoderms, and Brachiopods. Similar conditions existed in the seas in which the chalk was deposited, and we need not, therefore, be surprised that similar groups of organisms abounded in the cretaceous ocean. Similarly, there are portions of the incalculably older Carboniferous Limestone fairly comparable to the chalk in texture (making allowance for the vast difference of age), and containing forms of life, which may be regarded as representative of the Cretaceous fauna, such as *Foraminifera*, smooth *Terebratulæ*, and other Brachiopods, with Crinoids and sea-urchins. The conditions, however, present in the deep Atlantic cannot be exactly similar to those of the Cretaceous seas; for the *Cephalopoda* of the chalk seem to have no representatives in the abyssal mud of the Atlantic, whilst this class was well represented in Carboniferous times; so that there is, if anything, a closer genetic connexion between the chalk and the Carboniferous Limestone than between the chalk and the Atlantic "ooze."

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