numerical proportion of recent species in the newer pliocene formations as compared to the older pliocene, and of them again as contrasted with the miocene; for it appeared invariably that a greater number of the acephala or lamellibranchiate bivalves could be identified with living species than of the gasteropods, and of these last a greater number in the lower division, that of entire-mouthed univalves, than in that of the siphonated. In whatever manner the changes have been brought about, whether by variation and natural selection, or by any other causes, the rate of change has been greater where the grade of organisation is higher.

It is only, therefore, where there is a full representation of all the principal orders of mollusca, or when we compare those of corresponding grade, that we can fully rely on the percentage test, or on the proportion of recent to extinct species as indicating the relation of two groups to the existing fauna.

The foraminifera which exemplify the lowest stage of animal existence, being akin to the sponges, exhibit, as we learn from the researches of Dr. Carpenter and of Messrs. Jones and Parker, extreme variability in their specific forms, and yet these same forms are persistent throughout vast periods of time, exceeding, in that respect, even the brachiopodous mollusca before mentioned.

Dr. Hooker observes, in regard to plants of complex floral structure, that they manifest their physical superiority in a greater extent of variation, and in thus better securing a succession of race, an attribute which in some senses he regards as of a higher order than that indicated by mere complexity or specialisation of organ.*

As one of the consequences of this law, he says that species, genera, and orders are, on the whole, best limited in plants of higher grade, the dicotyledons better than the monocotyledons, and the dichlamydeæ better than the achlamydeæ.

* Introductory Essay, &c., p. vii.