

careful study to the subject with very perfect material. No other attempt of the kind has hitherto been made with the same degree of completeness.

Thus we see that here, and, in fact, in every other domain of systematic zoology and botany, the most arbitrary proceedings prevail, and, from the nature of the case, must prevail. For it is quite impossible accurately to distinguish varieties and races from so-called "good species." *Varieties are commencing species.* The variability or adaptability of species, under the influence of the struggle for life, necessitates the continual and progressive separation or differentiation of varieties, and the perpetual separation of new forms. Whenever these are maintained throughout a number of generations by inheritance, whilst the intermediate forms die out, they form independent "new species." The origin of new species by division of labour or separation, divergence or differentiation of varieties, is therefore a *necessary consequence of natural selection.*

That the constant disposition of organisms to separate or diverge in form in this manner, must be a necessary consequence of natural selection, Darwin himself was the first to perceive; and he has convincingly proved this in the fourth chapter of his chief work. However, he applies his principle of divergence as well as his principle of selection, mainly only to independently living creatures, and endeavours to show how the variations of the individuals lead to the origin of *new species* by selection and divergence. Now, in our last chapter, we have seen that the theory of selection can be much more extensively and generally applied by the fact that all the single parts in the organism, and, above all, the cells, can be transformed by selection.