

species may originate at the same time in different localities, these first representatives of each species, at least, were not connected by sexual derivation; and as this applies equally to any first pair, this fancied test criterion of specific identity must at all events be given up, and with it goes also the pretended real existence of the species, in contradistinction from the mode of existence of genera, families, orders, classes, and types; for what really exists are individuals, not species. We may at the utmost consider individuals as representatives of species, but no one individual nor any number of individuals represent its species only, without representing also at the same time, as we have seen above (Sect. I. to V.), its genus, its family, its order, its class, its type.

Before attempting to prove the whole of this proposition, I will first consider the characters of the individual animals. Their existence is scarcely limited as to time and space within definite and appreciable limits. No one nor all of them represent fully, at any particular time, their species; they are always only the temporary representatives of the species, inasmuch as each species exists longer in nature than any of its individuals. All the individuals of any or of all species now existing are only the successors of other individuals which have gone before, and the predecessors of the next generations; they do not constitute the species, they represent it. The species is an ideal entity, as much as the genus, the family, the order, the class, or the type; it continues to exist, while its representatives die, generation after generation. But these representatives do not simply represent what is specific in the individual, they exhibit and reproduce in the same manner, generation after generation, all that is generic in them, all that characterizes the family, the order, the class, the branch, with the same fulness, the same constancy, the same precision. Species then exist in nature in the same manner as any other groups, they are quite as ideal in their mode of existence as genera, families, etc., or quite as real. But individuals truly exist in a different way; no one of them exhibits at one time all the characteristics of the species, even though it be hermaphrodite, neither do any two represent it, even though the species be not polymorphous, for individuals have a growth, a youth, a mature age, an old age, and are bound to some limited home during their lifetime. It is true species are also limited in their existence; but for our purpose, we can consider these limits as boundless, inasmuch as we have no means of fixing their duration, either for the past geological ages, or for the present period, whilst the short cycles of the life of individuals are easily measurable quantities. Now as truly as individuals, while they exist, represent their species for the time being, and do not constitute them, so truly do these same individuals represent at the same time their genus, their family, their order, their class, and their type, the characters of which they bear as indelibly as those of the species.