

IV. Size is, therefore, an important element in the system of animal structures. As size diminishes, in all departments of animal life, the structure changes. To the human structure there is a limit; to the quadruped also, beyond which the structure is an impossibility; and so seems the case among Crustacea. The Decapod, as the size diminishes, reaches the lowest limit; and then, to continue the range of size in species, another structure, the Tetradecapodan, is instituted; and as this last has also its limit, the Entomostracan is introduced to continue the gradation; and, as these end, the Rotatoria begin. Thus Crustacea are made to embrace species, from a length of nearly two feet (or two hundred and fifty lines) to that of a one-hundred-and-fiftieth of a line. These several types of structure among Crustacea do not graduate, as regards size, directly from one to another, but they constitute overlapping lines, as has been sufficiently shown.

V. In the opposite extreme of organic beings, the vegetable kingdom, the same principle is illustrated. Plants may be so minute as to have free motion and activity, as in animals. The spores of certain Algæ are known to have powers of locomotion, and some so-called Infusoria, are now admitted to belong to the vegetable kingdom. These are examples of locomotive plants. Now, ordinary plants, like Cirripeds, are examples of sedentary species, that have outgrown the limits of activity. The life-system of a plant, is in fact sufficient in power to give locomotion only to the minute plant-individuals alluded to; and infusorial species of plants retain it, as long as they live. But when, as in the Algæ, vegetative growth proceeds in the enlargement of the minute infusorial spore, it immediately outgrows its activity, and becomes a sedentary plant. In most other plants, the seed have never the minute size which admits of motion.

The mean size of the Entomostracan type was stated to be *one line*; of the Rotatorial type, *one-sixth* of a line; and we may add, that the mean size of the plant type—understanding by this, as in other cases, the mean size admitting of the highest activity—if deduced from the size of plant-infusoria, would be about one-sixtieth of a line.

We observe, that the smallest size of the perfect Macroura (first type) is very nearly the mean size as to length of the animals of the second type. So also, the smallest size of the perfect animal of the second type (Tetradecapoda) is very nearly the mean size of the most perfect animals of the third type; and the smallest size of the perfect animal of the third type is nearly the largest size in the fifth type.