

merits. But as this relation is very frequently imperfectly or falsely understood, it is necessary to examine it now more closely, and to illustrate by a few examples the operation of the struggle for life, and the part it plays in natural selection.

When considering the struggle for life, we started from the fact that the number of germs which all animals and plants produce is infinitely greater than the number of individuals which actually come to life and remain alive for a longer or shorter time. Most organisms produce during life thousands or millions of germs, from each of which, under favourable circumstances, a new individual might arise. In most animals and plants these germs are eggs, that is cells, which for their development require sexual fructification. But many of the Protista, those one-celled, lowest organisms, which are neither animals nor plants, propagate themselves only in a non-sexual manner; the germ-cells, or spores, require no fructification. Now, in all cases the number of unsexual, as well as of sexual germs, is out of all proportion to the number of actually living individuals of every species.

Taken as a whole, the number of living animals and plants on our earth remains always about the same. The number of places in the economy of nature is limited, and in most parts of the earth's surface these places are always approximately occupied. Certainly there occur everywhere and in every year fluctuations in the absolute and in the relative number of individuals of all species. However, taken as a whole, these fluctuations are of little importance, and it is a fact that the total number of all individuals remains, on an average, almost constant. There is a con-