

slight, yet when taken in conjunction with the past of the rapid multiplication, it becomes great, and a new species may be originated.

This power of variation is vastly greater than we are apt to imagine, the evidence as to its extent and amount becoming more abundant and definite as we pass from lower to higher forms. Then variations are shown to occur not only in the external parts but also in the internal organs, *e.g.*, the length of the alimentary canal, number of ribs, size and proportions of skulls, etc., and as these variations are to a great extent independent of each other, they thus afford almost any combination that may be needed. With these variations of internal and external structure are found changes of habits. Birds give up fruits and berries for a flesh diet often at first as a result of imitation. So are the instincts of animals subject to variation.

Concerning plants the variability is notorious. Even Darwin himself did not fully recognize the amount of variability that actually exists. Take, *e.g.*, the melon. A French botanist devoted six years to their study; there are no less than thirty distinct varieties, which differ in fruits, foliage, mode of growth, size, color, shape and characteristics. A great many examples are cited to show that there is hardly an organ or a quality in plants or animals which has not been observed to vary, and whenever any of these variations have been useful to man he has been able to increase them to a marvellous extent.

But the question now has to be faced, Can new species of animals and plants be produced by Natural Selection?

By a very comprehensive induction he shows that changed conditions, such as climate, soil, etc., bring about whatever change of structure or habit is required in the struggle for existence, so that the fittest may survive; character diverges, new habits are formed, so as to seize upon vacant places in Nature, whether suited to an aquatic mode of life in marshy places, or an arboreal mode of life in the forests. Hence two varieties of wolves are developed—one of which pursues deer, the other of which lives on sheep. And so when species can save themselves by adopting new habits or occupying vacant spaces there is a tendency to a great diversity in organism. When physical or organic conditions change some species increase, others diminish and become extinct. So are