

one another in their manner of hunting, and in their ardour after different kinds of game or vermin.

With plants the period of vegetation is easily changed and is inherited, as in the case of summer and winter wheat, barley, and vetches; but to this subject we shall immediately return under acclimatisation. Annual plants sometimes become perennial under a new climate, as I hear from Dr. Hooker is the case with the stock and mignonette in Tasmania. On the other hand, perennials sometimes become annuals, as with the Ricinus in England, and as, according to Captain Mangles, with many varieties of the heartsease. Von Berg<sup>40</sup> raised from seed of *Verbascum phæniceum*, which is usually a biennial, both annual and perennial varieties. Some deciduous bushes become evergreen in hot countries.<sup>41</sup> Rice requires much water, but there is one variety in India which can be grown without irrigation.<sup>42</sup> Certain varieties of the oat and of our other cereals are best fitted for certain soils.<sup>43</sup> Endless similar facts could be given in the animal and vegetable kingdoms. They are noticed here because they illustrate analogous differences in closely allied natural species, and because such changed habits of life, whether due to habit, or to the direct action of external conditions, or to so-called spontaneous variability, would be apt to lead to modifications of structure.

*Acclimatisation.* — From the previous remarks we are naturally led to the much disputed subject of acclimatisation. There are two distinct questions: Do varieties descended from the same species differ in their power of living under different climates? And secondly, if they so differ, how have they become thus adapted? We have seen that European dogs do not succeed well in India, and it is asserted,<sup>44</sup> that no one has there succeeded in keeping the Newfoundland long alive; but then it may be argued, and probably with truth, that these

<sup>40</sup> 'Flora,' 1835, B. ii. p. 504.

<sup>41</sup> Alph. de Candolle, 'Géograph. Bot.,' tom. ii. p. 1078.

<sup>42</sup> Royle, 'Illustrations of the Botany of the Himalaya,' p. 19.

<sup>43</sup> 'Gardener's Chronicle,' 1850, pp. 204, 219.

<sup>44</sup> Rev. R. Everest, 'Journal As. Soc. of Bengal,' vol. iii. p. 19.