

BIOLOGY AND WAR

brown rat and black rat. The struggle may be between foes of entirely different nature—for instance, between carnivores and herbivores, between birds of prey and small mammals, between heather and bracken on the hills, between different kinds of trees in the tropical forest. The struggle may be between living creatures and the inanimate conditions of their life—for instance, between mammals and the winter, between plants and drought, between birds and the storm. When we compare the struggle between fellows and the struggle between foes with the third form of struggle, which we may describe as between living creatures and 'fate', we see that in the third mode the element of competition has dropped out. Thus perhaps we begin to see something of the subtlety of the struggle for existence. But we must go further.

THE CREATURE'S REACTIONS TO LIMITATIONS AND DIFFICULTIES

What has got into circulation is a caricature of nature—an exaggeration of part of the truth. For while there is in wild nature much stern sifting, great infantile and juvenile mortality, much redness of tooth and claw, and, outside of parasitism, a general condemnation of the unlit lamp and the ungirt loin, there is much more. In face of limitations and difficulties one organism intensifies competition, but another increases parental care; one sharpens its weapons, but another makes some experiment in mutual aid; one thickens its armour, but another triumphs by kin-sympathy. It is realized by few how much of the time and energy of living creatures is devoted to activities which are not to the advantage of the individual, but only to that of the race. Not that this need imply deliberate altruistic foresight, it is rather that in the course of nature's tactics survival and success have rewarded not only the strong and self-assertive, but also the loving and self-forgetful. Especially among the finer types part of the