plants or Lündstrom on the little shelters (domatia) which various trees offer to useful mites,—we gain the impression that even the general life of plants is not very different after all from that of animals. This, as it seems to us, is the greatest result of the modern study of the bionomics of plants.

Although the idea of a struggle for existence is very ancient, expressed, for instance, by Empedocles, Aristotle, and Lucretius, it remained little more than a general impression until Darwin and Wallace showed not only its reality, but how it may operate as a factor in evolution. Both of these naturalists have referred to the work of Malthus as one of the sources of their inspiration, and it has been pointed out by Prof. Geddes that the biological emphasis on struggle is entirely congruent with the keen competitive conditions of an industrial age.

The Struggle for Existence.

The colour of Darwin's picture of nature certainly suggests a very keen and continuous struggle for existence. He speaks of "the battle for life" and "the severe, often recurrent struggle". "In a state of nature, animals and plants have to struggle from the hour of their birth to that of their death for existence." On the other hand, it should be carefully observed that Darwin used many saving-clauses. Thus, in speaking of the struggle for existence, he says, "I should premise that I use this term in a large and metaphorical sense, including dependence of one being on another, and including (which is more important) not only the life of the individual, but success in leaving progeny". Similarly Mr. Wallace says, "The struggle for existence, under which plants and animals have been developed, is intermittent and exceedingly irregular in its incidence and severity".

The reality of the struggle is beyond all doubt, but there remains a lack of statistics and analysis without which even the biologist can hardly escape from platitudes. We require to have some measure of the intensity of the struggle in actual cases, and a more careful distinction between its different modes. It is obviously unsatisfactory that the important generaliza-