

though logical, would provoke misunderstanding; the Germans often use the word biology in the sense of Bionomics, but this is confusing; some suggest "the study of external relations", but all vital functions have external relations. So far as we know, the only other expressive term is that of *Œcology*, which Hæckel proposed in 1869, defining it as comprising "the relations of the animal to its organic as well as to its inorganic environment, particularly its friendly or hostile relations to those animals or plants with which it comes into direct contact . . . those complicated mutual relations which Darwin designates as conditions of the struggle for existence".

It is not possible to say much in regard to the historical development of this line of biological research, History of Bionomics. for it rarely acquired either dignity or definiteness until Darwin demonstrated its importance. In fact, one of the greatest debts which biology owes to Darwin is, that he gave new meaning to Bionomics.

It is true that since animate nature first claimed the intelligent interest of the observer, there have been those who were more strongly attracted to the study of habits, behaviour, and inter-relations than to any other aspect of life, yet their interest was oftener emotional than intellectual, and the real import of their study was unperceived. Thus, though Gilbert White, author of *The Natural History and Antiquities of Selborne*, was prototype of the better class of modern amateurs, and in such observations as those on earth-worms (1777) was a worthy predecessor of Darwin, he can hardly be said to have been aware of the wider import of his studies on habit.

Buffon may perhaps be called the greatest of the pre-Darwinian students of Bionomics. He had all the attributes of a philosophic naturalist, and deliberately set himself to a study of the habits of animals and their adaptations to their environment. This gives a particular interest to his *Histoire Naturelle*, which may be described as an eighteenth-century analogue of Brehm's *Thierleben*.