of life is firmly established in the world of our senses. On the whole the composition of living matter, its physical structure, the changes of matter and energy which constitute the metabolic process, together with the totality of such changes, which make up the fundamental economic process of that largest community which consists of all living beings, are all clearly defined.

 $\boldsymbol{C}$ 

## THE CHARACTERISTICS OF LIFE

Under the circumstances it is certainly no rash enterprise to seek a definition of some of the essential characteristics of life. Al-

a knowledge of its kind, after recognizing the truth that it is only a surface knowledge.

"For the conclusions we lately reached and the definition emerging from them, concern the order existing among the actions which living things exhibit; and this order remains the same whether we know or do not know the nature of that from which the actions originate. We found a distinguishing trait of Life to be that its changes display a correspondence with coexistences and sequences in the environment; and this remains a distinguishing trait, though the thing which changes remains inscrutable. The statement that the continuous adjustment of internal relations to external relations constitute Life as cognizable by us, is not invalidated by the admission that the reality in which these relations inhere is incognizable."—Herbert Spencer, "The Principles of Biology." New York and London, 1909, Vol. I. Revised and enlarged edition, pp. 122-123.