

believed that this would be attained in the study of biology, when the forms and the phenomena of life, in all individual organisms, had become accurately known, by the help of the finest instruments and means of observation. It is true that among these strictly empirical, or so-called exact naturalists, there were always very many who rose above this narrow point of view, and sought the final aim in a knowledge of the general laws of organization. Yet the great majority of zoologists and botanists, during the thirty or forty years preceding Darwin, refused to concern themselves about such general laws; all they admitted was, that perhaps in the far distant future, when the end of all empiric knowledge should have been arrived at, when all individual animals and plants should have been thoroughly examined, naturalists might begin to think of discovering general biological laws.

If we consider and compare the most important advances which the human mind has made in the knowledge of truth, we shall soon see that it is always owing to philosophical mental operations that these advances have been made, and that the experience of the senses which certainly and necessarily precedes these operations, and the knowledge of details gained thereby, only furnish the basis for those general laws. Experience and philosophy, therefore, by no means stand in such exclusive opposition to each other as most men have hitherto supposed; they rather necessarily supplement each other. The philosopher who is wanting in the firm foundation of sensuous experience, of empirical knowledge, is very apt to arrive at false conclusions in his general speculations, which even a moderately informed naturalist can refute at once. On the other hand, the purely empiric naturalists, who do not trouble themselves about the