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## THE HISTORY OF ORGANIC EVOLUTION<sup>1</sup>

THE meaning of evolution is probably more misunderstood than any doctrine of science. The reason is that it has been discussed very freely by those who are not informed, and in this way much misinformation has been propagated.

The general meaning of organic evolution is that the plant and animal kingdoms have developed in a continuous, orderly way, under the guidance of natural laws, just as the solar system has evolved in obedience to natural laws.

There are at least three important reasons why evolution should be regarded as a necessary part of college training.

(1) It has revolutionized modern thought. Every subject to-day is being attacked on the basis of its evolution. Not only are inorganic and organic evolution being considered, but also the evolution of language, of literature, of society, of government, of religion. In other words, it is a point of view which represents the atmosphere of modern investigation in every field.

(2) It is persistently misunderstood. From the press, the lecture platform and even the pulpit, one frequently hears or reads amazing statements in reference to organic evolution. If it were made an essential feature of student training, there would be developed a propaganda of information instead of misinformation.

(3) It has revolutionized agriculture. The practical handling of plants and animals, in the way of improving old forms and securing new ones, was made possible and definite when the laws of inheritance began to be uncovered through experimental work in evolution.

## PERIODS IN THE HISTORY OF EVOLUTION

There have been three distinct periods in the history of evolution, based upon the method of attack. These three methods may be spoken of in general as speculation (ancient), observation and inference (medieval) and experimentation (modern).

<sup>1</sup> Lecture delivered at a joint meeting of the New York Association of Biology Teachers, the Chemistry Teachers Club of New York, the Physics Club of New York, and the Torrey Botanical Club, at the Hotel Majestic, New York City, on March 27, 1926, and arranged under the direction of the Science Committee of the Board of Education.

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