

it introduced him to the study of animal life from that side where organisation, the phenomena and the organs of life were the simplest, rudimentary as it were, and unformed. Here the great differences of form, the morphological differences which the observation of the higher and more developed creatures force upon our attention, disappear; not the marked differences, but the numerous relations, the endless varieties and resemblances, seem to command our consideration. These seem to be much more likely to "make us understand the beginnings of all organisation as well as the cause of its complexity and of its development."¹ Now in descending in the scale of the living objects of nature, Lamarck was struck by the fact that many of the phenomena of life which in the higher animals seemed to originate within were in the lower creatures produced

most inaccessible. According to Huxley (Lecture "On the Study of Biology," 1876, and "Evolution in Biology," 'Ency. Brit.,' 9th ed.), there were simultaneously three independent attempts to treat the phenomena of organic life as a whole and in connection, emanating from Bichat and Lamarck in France, and from G. R. Treviranus in Germany. The great but unfinished work of the latter, with the title 'Biologie oder Philosophie der lebenden Natur,' was begun in 1796, when the author was only twenty, but the first volume was not published till 1802, one year after Lamarck's 'Hydrogéologie.' Haeckel in his 'Natürliche Schöpfungsgeschichte' gives some account of Treviranus' ideas (Band I. Vorlesung 4). Although so much has been written about "Biology," the definition of the science is still uncertain. Prof.

Goebel says: "The word Biology is one of those conceptions of modern times which have not yet arrived at a generally accepted limitation. Some understand by it the whole science of living things, others only the doctrine of the phenomena of life in contrast to the purely descriptive branches." ('Pflanzenbiologische Schilderungen,' Marburg, 1889, vol. i. p. 1). With Lamarck biology was only one division of a general science of nature, for he says ('Hydrogéologie,' p. 8): "Toutes ces considérations partagent naturellement la physique terrestre en trois parties essentielles, dont la première doit comprendre la théorie de l'atmosphère, la Météorologie, la seconde celle de la croûte externe du globe, l'Hydrogéologie; la troisième enfin, celle des corps vivants, la Biologie."

¹ Philos. Zool., vol. i. p. 30.