

By *zoophytes*, Treviranus here means organisms of the lowest order and of the simplest character, namely, those neutral primitive beings which stand midway between animals and plants, and on the whole correspond with our *protista*. "These zoophytes," he remarks in another passage, "are the original forms out of which all the organisms of the higher classes have arisen by gradual development. We are further of opinion that every species, as well as every individual, has certain periods of growth, of bloom, and of decay, but that the decay of a species is *degeneration*, not dissolution, as in the case of the individual. From this it appears to us to follow that it was not the great catastrophes of the earth (as is generally supposed) which destroyed the animals of the primitive world, but that many survived them, and it is more probable that they have disappeared from existing nature, because the species to which they belonged have completed the circle of their existence, and have become changed into other kinds."

When Treviranus, in this and other passages, points to *degeneration* as the most important cause of the transformation of the animal and vegetable species, he does not understand by it what is now commonly called degeneration. With him "degeneration" is exactly what we now call *Adaptation* or *modification*, by the action of external formative forces. That Treviranus explained this transformation of organic species by Adaptation, and its preservation by Inheritance, and thus the whole variety of organic forms by the interaction of Adaptation and Inheritance, is clear also from several other passages. How profoundly he grasped the mutual dependence of all living creatures on one another, and in general the *universal connection*