

although equally true, is but rarely insisted on. The gradation of lizards to serpents is of the most imperceptible kind, and there are animals, regarding which it is difficult to decide to which division they should belong. The gradation from the frog tribe to fishes is still more remarkable, and animals have been recently discovered of so intermediate a nature as to render it a delicate matter to pronounce whether they are to be referred to the batrachia or to fishes. These facts are apt to carry away the imaginations of young naturalists, especially when the other point of view is neglected. There are groups of animals in which transitions are impossible, and combinations of organs which can never occur. A tiger with cloven hoofs, and still more, a winged serpent, cannot exist. In like manner there are some divisions of the animal kingdom so well defined, and whose differences from all other classes are so great, that we can scarcely imagine a transition to another class. Thus, to take an obvious instance, there is no middle term between a vertebral and an invertebral animal. In the vertebral the mass of the nervous system is included in a long cavity extending from the head down the hollow of the spine: the hard parts, the bones, are internal. In the invertebral, on the other hand, the nervous cords run along the abdomen, and under the viscera, not above, as in verte-