

CHAPTER XX.

PEDIGREE AND HISTORY OF THE ANIMAL KINGDOM.

III. VERTEBRATE ANIMALS.

The Records of the Creation of Vertebrate Animals (Comparative Anatomy, Embryology, and Palæontology).—The Natural System of Vertebrate Animals.—The Four Classes of Vertebrate Animals, according to Linnaeus and Lamarck.—Their increase to Nine Classes.—Main Class of the Tube-hearted, or Skull-less Animals (the Lancelet)—Blood Relationship between the Skull-less Fish and the Tunicates.—Agreement in the Embryological Development of Amphioxus and Ascidiae.—Origin of the Vertebrate Tribe out of the Worm Tribe.—Main Class of Single-nostriled, or Round-mouthed Animals (Hag and Lampreys).—Main Class of Anamnionate Animals, devoid of Amnion.—Fishes (Primæval Fish, Cartilaginous Fish, Osseous Fish).—Mud-fish, or Dipneusta.—Sea Dragons, or Halisauria.—Frogs and Salamanders, or Amphibia (Mailed Amphibia, Naked Amphibia).—Main Class of Amnionate Animals, or Amniota.—Reptiles (Primary Reptiles, Lizards, Serpents, Crocodiles, Tortoises, Flying Reptiles, Dragons, Beaked Reptiles).—Birds (Feather-tailed, Fan-tailed, Bush-tailed).

NOT one of the natural groups of organisms—which we have designated as tribes, or phyla, on account of the blood-relationship of all the species included in them—is of such great and exceeding importance as the tribe of Vertebrate Animals. For, according to the unanimous opinion of all zoologists, man also is a member of the tribe; and his whole organization and development cannot possibly be distinguished from that of other Vertebrate animals. But as from