marine lilies and stars which are given in the following table, illustrate the laws of progress and differentiation in a striking manner. In each succeeding period of the earth's history we see the individual classes continually increasing in variety and perfection. (Gen. Morph. ii. Plate IV.)

The history of three of these classes of Star-fish is very minutely recorded by numerous and excellently preserved fossils, but on the other hand, we know almost nothing of the historical development of the fourth class, that of the Sea-cucumbers (Holothuriæ). These curious sausage-shaped Star-fish manifest externally a deceptive similarity to worms. (Fig. *D*, Plates VIII. and IX.) The skeletal structures in their skin are very imperfect, and hence no distinct remains of their elongated, cylindrical, worm-like body could be preserved in a fossil state. However, from the comparative anatomy of the Holothuriæ, we can infer that they have arisen, by the softening of the cutaneous skeleton, from members of the class of Sea-urchins.

From the Star-fish we turn to the fifth and most highly developed tribe of the invertebrate animals, namely, the phylum of Articulata, or those with *jointed feet* (Arthrotoda). As has already been remarked, this tribe corresponds to Linnæus' class of Insects. It contains four classes: (1) the genuine six-legged Insects, or Flies; (2) the eight-legged Spiders; (3) the Centipedes, with numerous pairs of legs; and (4) the Crabs, or Crustacea, whose legs vary in number. The last class breathe water through gills, and may therefore be contrasted as the main-class of gill-breathing Arthropoda, or Gilled Insects (Carides), with the three first classes. The latter breathe air by means of peculiar wind-pipes, or tracheæ, and may therefore appropriately be united