

at the head of creation ; the lower mammalia follow, — each species in due order, according to its modicum of intelligence ; the birds succeed the mammalia ; the reptiles succeed the birds ; the fishes succeed the reptiles ; next in the long procession come the invertebrate animals ; and these, too, take rank, if not according to their development of brain proper, at least according to their development of the *substance* of brain. The occipital nervous ganglion of the scorpion greatly exceeds in size that of the earthworm ; and the occipital nervous ring of the lobster, that of the intestinal *Ascaris*. At length, when we reach the lowest or *acrite* division of the animal kingdom, the substance of brain altogether disappears. It has been calculated by naturalists, that in the vertebrata, the brain in the class of fishes bears an average proportion to the spinal cord of about two to one ; in the class of reptiles, of about two and a half to one ; in the class of birds, of about three to one ; in the class of mammals, of about four to one ; and in the high-placed, sceptre-bearing human family, a proportion of not less than *twenty-three* to one. It is palpably according to development of brain, not development of bone, that we are to determine points of precedence among the animals, — a fact of which no one can be more thoroughly aware than the author of the “*Vestiges*” himself. Of this let me adduce a striking instance, of which I shall make further use anon.

“All life,” says Oken, “is from the sea ; none from the continent. Man also is a child of the warm and shallow parts of the sea in the neighborhood of the land.” Such also was the hypothesis of Lamarck and Maillet. In following up the view of his masters, the author of the “*Vestiges*” fixes on the *Delphinidæ* as the sea-inhabiting progenitors of the simial family, and, through the simial family, of man.