though not nearly so much so as in Testudo. After the nerves have passed the skull-box, they run, in Trionyx, first sideways in a right angle, and after a short while, in a second knee, forward to the eyes. In Testudo they run also sideways in nearly a right angle, but pass into the eyes without forming a second knee; in Emydoidæ they bend in a wide angle, or rather in a curve, forward and sideways; while in Chelydra and Cinosternum they run very much as in Trionyx; finally, in Chelonii proper they run forward and sideways, as in Emydoidæ.

Though there can be no doubt that the brain is the organ to which all the passive and the active manifestations of the psychical life of vertebrate animals must be referred, nothing is yet known of the ways in which the peculiar kinds of psychical manifestations of an animal are connected with the peculiarities of structure of its brain. This is a field hardly touched yet by naturalists, though a knowledge of these relations alone can give its deeper value to the morphology of the brain. Comparative anatomists must confess, that thus far the innumerable modifications in the form of the brain of Vertebrata have in no way been brought into causal relation with the peculiar psychical faculties of the animals in which they are observed. Nay, animals which have entirely different habits have sometimes identical brains, for instance, Salmo and Coregonus; while others, which hardly differ in their mode of life, present great differences in this respect, for instance, Acipenser, and the large species of the Catostomus tribe.

SECTION XI.

DIFFERENCES IN THE MODE OF LIFE OF TESTUDINATA.

A knowledge of the mode of life of animals is generally considered as furnishing, at the outset, a test of their internal organization, and the means of ascertaining the degree of their affinity. Although this is true in a certain sense, the limits within which there exists such a correlation between the habits of animals and their structure are not at all defined. Among Mammalia, it would seem as if the mode of life coincided with the limits of the orders, if we take, as genuine orders, the leading divisions adopted in that class; though we find already here frugivorous and insectivorous Chiroptera, etc. Among Birds, the diet is still less restricted to the orders; we find herbivorous and piscivorous species in the same family, for instance, among the Ducks. Among Turtles, we have seen that the limits, within which the habits, the mode of life, and the diet, are the same, coincide with the natural limits of families. The Chelonioidæ