http://www.geology.19thcenturyscience.org/books/1857-Agassiz-NatHist/README.htm



ing, or in attacking their prey and in defending themselves. The Chelydroids make the same use of their tail when adult. The long tail of the young is therefore typical here, and not an embryonic feature, as it is in the Emydoids. The Chelydroidæ are mud Turtles; they walk on the mud, or on the bottom of the water, and, when put into the water, they instantly dive to the bottom. Nevertheless, in this family, the feet are also better adapted for swimming in the early part of life than later; at least, the web between the toes is thinner, and thus the toes more movable than in the adult. This is particularly obvious when comparing the hind feet of the young Gypochelys with those of the adult; for in the latter they are heavy, bulky, plantigrade, walking feet.

Most of the characters which we have considered thus far are common to the two American genera of Chelydroidæ, Chelydra and Gypochelys. But there are already features, in the young of the first year, which constitute generic differences. This is particularly evident in the head and tail. The head of the young Gypochelys exhibits already fully that wedge-shaped eagle bill, running sharply down in front, by which it is so clearly distinguished from Chelydra when adult; while, in the young Chelydra, the head is already much shorter, and the jaws more rounded. Again, the tail distinguishes them also when young most strikingly; its lower surface, in Gypochelys, being covered with many small more or less imbricated scales, just as in the Anguiformes among Lizards, while in Chelydra, as in most Snakes, there run all along the under surface of the tail, two rows of large scales. In Lizards and in Snakes, this amounts to a family character, the scales of the tail being there of more importance than in Turtles, in which we can only recognize generic differences in their peculiarities.

The American members of this family are divided into two strongly marked groups, one comprising the genus Gypochelys, the other the genus Chelydra. These groups have clearly defined generic characters; but it is a question, whether some of their distinguishing characters have not a more than generic value. The elements of form are in general the same in both; but there are wide differences in the forms of the head, which are, perhaps, such as to make each group a sub-family.[1] In Gypochelys every thing about the head is fitted to give the

[1] Whether the family of Chelydroids contains two sub-families or not, there can be no doubt that its North American representatives belong to two distinct genera. It will be easier to settle the question of the sub-families after an opportunity has been had to compare carefully the genus Platysternum. It may seem immaterial to ascertain this point, when it is considered that the whole family numbers only three genera. But, if the principles which I have advocated in the first part of this work are correct, it will be found that Platysternum will either be intermediate between Chelydra and Gypochelys, in which case the family would not be subdivided, or Platysternum will lean more towards one or the other of the American genera, in which case it would at once appear that it embraces two distinct sub-families.