

them more or less completely in old age. Carinated species also are more numerous among the lower Amydæ than among Testudinina; all the Chelydroidæ and Cinosternoidæ are more or less carinated, especially in their younger age, and they are inferior to the Emydoidæ; many of the most aquatic Emydoidæ are also carinated, some through life, others only in the younger age; and we have already seen that the aquatic species are inferior to the terrestrial ones, and that the young Emydoidæ are more aquatic than the adults.<sup>1</sup>

From the few facts which I have already collected,<sup>2</sup> I am convinced that much valuable information could be obtained from a similar comparison of the changes which our common Mammalia and Birds undergo in early life, and that the time is not far distant when, in this way, the relative standing of the representatives of every family will be determined with remarkable precision. The results to which I have arrived by the study of the young Turtles will, I hope, stimulate other naturalists to turn their attention also to this interesting subject. Happily the time is coming when fewer new species are to be found, and, from want of materials for their ordinary work of registering animals, with scanty or insufficient characteristics, zoölogists may be led to more important investigations.

## SECTION V.

### GENERA OF TRIONYCHIDÆ.

It appears from the statement of Duméril and Bibron,<sup>3</sup> that Schweigger was the first to perceive the necessity of separating the soft-shelled Turtles as a distinct genus, which he called *AMYDA*, in a paper presented by him to the Academy of Sciences in Paris, in 1809. Geoffroy, however, changed that name to *TRIONYX*,<sup>4</sup> which Schweigger himself adopted when he published his paper,<sup>5</sup> as also did all herpetologists afterwards. This genus was not further subdivided until Wagler showed, in 1830, that it embraced species which exhibit marked structural differences, in the connection of the plastron and hind legs, and in the ossification of the marginal rim. For those species which have bony plates along the margin, and a wide hind lobe of the plastron, he retained the name of *Trionyx*,

<sup>1</sup> Compare the note to p. 293.

<sup>2</sup> See AGASSIZ, (L.) *Lake Superior*. Boston, 1850, p. 191; also *Twelve Lectures on Comparative Embryology*, p. 8 and 101.

<sup>3</sup> *Erpét. génér.* vol. 2, p. 464.

<sup>4</sup> *Ann. du Mus. de Paris*, vol. 14, 1809.

<sup>5</sup> *Prodromus Monographiæ Cheloniorum*; Königsberg. Archiv, 1812.