

run through the bone and open outward by a fine slit in that bridge. The Crocodiles have one large musk gland on each side near the inner and lower edge of the two branches of the lower jaw, not far from their posterior angle. The position of these glands is nearly the same as in Testudo. Many Saurians have similar glands on the lower surface of the thigh. In Chelydra there are no such glands, though they emit a musk-like stench, quite as strong as that of the Cinosternoidæ. It is however possible, that in this family the odor arises from a large number of small glands opening between the warts of the skin; but I neglected to examine this point in the proper season. Though the product of these glands may be of some use in keeping the skin fat and elastic, still its more important function may be to enable the sexes to find each other at the time of copulation, as we observe it so plainly in Snakes.

#### SECTION XIV.

##### THE DEVELOPMENT OF TURTLES FROM A ZOÖLOGICAL POINT OF VIEW.

The growth of Turtles is exceedingly slow. In this respect they differ greatly from the Batrachians, which complete their growth, either entirely or nearly so, during the first year of their life. The true Reptiles, on the contrary, acquire slowly the age of maturity; and among them the Turtles are the slowest in their growth, and acquire latest, as far as we know, the period of puberty. I have collected data which prove satisfactorily that our common *Emys* (*Chrysemys*) *picta* does not lay eggs before it is ten or eleven years old; and even then it is by no means full grown.

Like most other Reptiles, Turtles lay their eggs either in moist ground, or in dryer places near the water, (fresh-water Turtles,) or in dry ground, (land Turtles,) or in hot sand, (*Chelonioidæ*).<sup>1</sup> The embryo breaks through the shell of the egg by means of the horn it has upon its snout, (see above, p. 288,) after an incubation varying, in different genera or families, from six weeks to three or four months and even more.<sup>2</sup> The outline of the carapace of all *Amydæ*, at the time of its formation, is remarkably similar, namely, ovate, or orbicular and flat; at least, this is the case with all the young which I have had an opportunity to see. There may be an exception with reference to these features in Testudo only,

<sup>1</sup> Respecting the laying of the eggs, more will be found in Part III.

<sup>2</sup> For more details respecting the act of incubation, see Part III.