

ward, is straight, and parallel to the flattened part of the lower surface. The spinous apophyses of the back are very long; longest about midway of the body, a little shorter toward the neck, and shortest at the meeting with the sacrum. Thus the median longitudinal line of the upper surface is high above the column; it arches from end to end, descending much lower behind than before; it reaches far forward over the neck.¹ The upper surface is broad, bluntly curved at the front end, and narrower and more pointed behind; it reaches far forward in front of the arch of the first and second pairs of ribs, but arches little from side to side, and the bulk of the body is below the outer edge; it is depressed on either side of the middle longitudinal line, along where the ribs first meet it in passing out from the vertebræ. The outer edge is high above the base upon which the body rests; it falls from the front end to about midway, then rises over the hind legs, and again falls behind the pelvis, where it is lowest. The flattened lower surface is long and rather broad; it reaches forward somewhat farther than the upper surface, and backward to the hind edge of the pelvis; it is broadest nearly under the third pair of ribs, where it has about half the width of the body; it narrows but little forward, having a blunt, broad front end, but backward it narrows faster, and at its hind end has about the same width as the pelvis; it rises somewhat from the region where it is broadest to the front end.

It is important to notice, that both the upper and the lower surface extend far in front of the first vertebra of the back, and thus a large part (more than a third) of the neck is inclosed within the walls of the body. The carapace and plastron are joined from the arch of the second to that of the fifth pair of ribs. The bridge on each side, reaching down from the outer edge to the flattened lower surface, is necessarily long, and the openings about the ends of the body for the protrusion of the head and limbs and tail are high and large. The bridges reach considerably inward in descending; their free edges are turned far into the body, and the upper edge is united by long sutures with the second and fifth ribs. The plastron underlies the whole broad flattened lower surface of the body; its free edges project little beyond their attachment, in fact not at all, except about the front end, so that the plastron does not protect, as is the case in the Emydoidæ, any extensive part of the lower surface beyond that to which it is actually attached. The free edges of the carapace project rather widely over the legs, but little behind the pelvis, and only slightly over the neck.

¹ The effects produced in the outline of the outer surface by the varying thickness of the derm are omitted here, and noted below in the description of the shield, as they do not constitute an essential element of the form, but are rather an incidental structural result of it.