

transversely laminated on their costal surface, the ova falling into the abdominal cavity.¹ Singularly the right ovary is interrupted in the middle, thus consisting of an anterior and posterior portion which are separated by a space equal in length to one of the portions. Peritoneum deep black in the anterior part of the abdominal cavity, but gradually losing the pigmentation behind.

The kidneys are confluent, and occupy the hindmost part of the abdominal cavity; their secretion is collected in a wide tube which lies between them and the intestine; it contained three large specimens of a *Distoma*.²

The stomach contained shrimp-like Crustaceans.

After removal of the dermal ossifications and the visceral portions of the skull, the cranium (Pl. LX. figs. 3, 5, 7) proper appears as the much depressed brain-capsule with the anterior facial part greatly elongate and narrowed. The whole of the upper surface is flat, horizontal, the sides of the brain-capsule sloping inwards towards the basal median line. The occipital region is vertical with scarcely any protuberances, but with a low exoccipital crest. Also the sloping sides are remarkably smooth. The facial portion terminates in front in a broad, diamond-shaped *rostrale* (*r*), composed of a bilamellate very thin bone which is the main support of the rostral prolongation of the snout.

The primordial cartilage persists as a thin layer in the otic and occipital regions, but has entirely disappeared in the roof of the brain-capsule and in the sphenotic region; it reappears as a thin thread along the front part of the interorbital septum, expands in front of the orbit in a lateral præorbital process (fig. 5, *cp*), is thickest along the narrow snout, and terminates in a long tapering point which is wedged in between the two halves of the rostrale (fig. 4, *ec*).

The bones which cover the primordial cartilage are of extreme thinness, yet firmer and more elastic than in many other deep-sea fishes. Only the basi-occipital and basal bones are somewhat thicker than the rest. In the occipital region the basi-occipital (fig. 8, *bo*) occupies the greater part of the area, covering also the infero-posterior portion of the side of the brain-capsule; its conical excavation for the articulation with the vertebral column is large and deep. A subquadrangular supraoccipital (*spo*) is wedged in between the pair of well-formed paroccipitals (*paro*).

The side of the brain-capsule gives the appearance of continuous cartilage owing to the thinness and transparency of the superficial ossifications, the largest of which is the alisphenoid or prootic (figs. 5, 7, *po*), with the large foramen for the fifth nerve in advance of its centre. It is joined to the exoccipital (*exo*) by a faint sutural line; this lamella

¹ In the definition of this family (Fish., vol. vii. p. 482), the ovaries are described as "closed"; and, indeed, the appearance of the ovaries of the only specimen then available, which are so much distended by the mature ova that the lamination has entirely disappeared, seemed to warrant this view, although already Mr. Johnson (*Proc. Zool. Soc. Lond.*, 1863, p. 408), in the original description of *Halosaurus owenii*, states that these organs are "uncovered with a sac."

² *Distomum halosauri*, Bell, *Ann. and Mag. Nat. Hist.*, 1887.