

close to the root of the paddle-snout. They were placed as in some of the whales just above the angle of the mouth. The mouth was of enormous capacity, toothless and quite underneath the head, far back as in all sturgeons. The gape was enormous so that the lower jaw formed a huge tongue-shaped flap, pointed in front and capable of being very widely opened. Next to the absurd elongated snout and the great capacity of the mouth, the most noticeable feature was the remarkable leathery operculum. In the Sturgeon it is small and insufficient to cover the red gills, but in *Polyodon* it sends back a pointed flap long enough to reach nearly half the length of the body. From this upper flap the hind margin of the operculum gracefully curved down and forward and the flap on each side met below and formed a prominent projecting collar in the jugal or throat region. The skin was, soft slimy and naked, in contrast to the enamelled scales and bony plates which cover the skin in other Ganoid fishes. It resembled the smooth integument of the porpoise: but was of a dark bluish purple colour, varied by pale blue wavy lines passing diagonally and slightly opalescent. The opercular flap is traversed by radiating sinuous mucus canals. The paired fins, pectoral and ventral, occupy the characteristic Ganoid position quite underneath the body. They are powerful, and possess a stout and prominent basal part or peduncle. The great dorsal fin and the equally large anal fin resemble the same members in the Sturgeon: but the basal portion is far more massive and the margin more deeply lunate. The tail is an enormous organ, very deeply forked and the upper lobe is extremely high, and the back bone extends to the tip, a perfect heterocercal caudal fin. All the fins are dusky and leathery like those of a shark.

An anatomical examination would have revealed many interesting features: but it was not possible. It would, for example, have shown the absence of ribs, the persistence of the gristly rod or notochord, whose sheath never becomes segmented. There is, in *Polyodon*, no true backbone. The operculum develops a bony basal part: but it is attached to the suspensorium of the jaws, which is cartilaginous, except at the upper part articulating with the periotic surface of the skull. It is interesting to find that the spiracles which, with one exception, are found on the top of