

survive, and that the young progeny find their changed environment so unfavorable that most of them perish, hence their rarity.

It is with a pathetic interest that the naturalist examines a fresh specimen of a Canadian *Polyodon*, when the rare opportunity occurs. Its uncouth and indeed grotesque form is largely due to the exaggerated length of the snout which is as long and flat as a canoe paddle. It is said to enable the fish to grub amongst sand and mud and to dislodge small crustaceans, and possibly mollusca, which are supposed to constitute its food. The organ is an enormous and cumbersome one for so simple a purpose, and it is possible that this lengthy nose or rostrum has other uses. It is, of course, a far more formidable organ than the snout of the shovel-nosed sturgeon (*Scaphirhynchus*). It recalls the powerful weapon of the Saw-fish (*Pristis*) and the Sword-fish (*Xiphias*), and differs most markedly from all its Ganoid congeners in its general external form. Of course the Sword-fish is a shark, and the Saw-fish is a Teleostean allied to the Mackerels (*Scomberidae*), both equally distantly separated from *Polyodon*, yet there is a striking resemblance in the flat, elongated, blade-like snout of all three. The anatomist finds, however, that these externally similar structures are very differently formed, and bear no resemblance to each other when their osteology is examined. Thus in *Pristis* the mesethmoid rod which, in such a fish as the haddock, projects from the frontal bone, covering the fore part of the head, is prolonged and flattened, and provided along its lateral edges with twenty or thirty strong teeth. On the other hand, in *Xiphias*, the Sword-fish, the double vomer, which underlies the mesethmoid and roofs over the mouth anteriorly, grows forward, along with the two premaxillary or upper-jaw bones, and the three form the toothed flat beak which is often thirty inches in length. It is the palato-quadrate cartilages in *Polyodon* which are lengthened and shielded by bony maxillary plates which form the long spatulate beak in front of the head in this species. I was struck by the massive rotundity and vertical depth of the body in the Paddle-nosed Sturgeon under consideration. The protruding beak occupied fully one-third of the total length of the fish. Its eyes, small, dull, and in life no doubt expressionless like those of the common Sturgeon, were low down and