

eton, which is most fully developed in *Ceratodus*; these fins in *Lepidosiren* and *Protopterus* being filamentous. The tail, as in *Chimæras*, is diphycercal; but in at least one extinct species: *Dipterus heliodus* the tail was heterocercal. The scales are cycloid, and in the several species they differ much in size. In general shape and character *Protopterus* approaches more closely to *Lepidosiren* than either do to *Ceratodus*. The scales in the two former genera are small, whilst those of the latter are very large. Again in the two former the vertical fin begins before the middle of the fish, and, as has been stated, the paired fins are converted into long filamentous organs; whilst in the latter the vertical fin begins behind the ventrals, which are placed of course as they are in all Ganoids abdominally, and the paired fins are proportionately shorter and paddle shaped.

Unfortunately the specimen of *Protopterus annectens*, and another for Prof. Ramsay Wright of Toronto University, which I brought from Liverpool did not survive; and on dissolving the capsule the former had all the appearance of having been dead for some time. However, after placing the dead fish for a short time in spirits diluted with water, I succeeded in sufficiently softening out the specimen so as to enable me to make an examination of its structure.

This species is elongated and compressed in shape. The gill-cleft and the eye are small. The filamentous pectorals and ventrals are fringed down the sides—the fringes according in plan with the rays of the verticle fin: which fin bears a multitude of close fitting rays throughout its length. Adjacent to the gill-cleft and immediately above the pectorals, there are branchial appendages. The scales, being small, are numerous, and embedded in the skin. Each jaw has a large tooth, a molar, with cusps.

The following recorded characters of structure, in this specimen were more or less obscure, owing to its shriveled condition. The lateral line runs nearly straight from the gill-cleft to the caudal portion of the vertical fin. There are two pairs of nostrils. The lung agrees with that of *Lepidosiren* in being "divided into lateral halves," and differs in that respect from *Ceratodus* in which genus the lung is single.