

The trawlings, with the exception of the failures mentioned above, were very productive, and a large number of new forms were procured. At a trawling in 1900 fathoms, 400 miles west of Inaccessible Island, two specimens of a very remarkable new genus of fishes were captured, described by Dr. Günther as follows:—

*Ipnops*.—“This genus belongs to the Scopeloid family; the shape of the body is elongate, subcylindrical, the caudal portion much exceeding the abdominal in length. The scales are large, but deciduous. Fins normally developed. The head is depressed, with a long, broad, spathulate snout; the mouth wide, with the lower jaw projecting, and armed with rows of minute teeth.

“The structure of the eyes is quite unique. Externally they appear as a continuous flat cornea-like organ, longitudinally divided into two halves, which covers the whole of the upper surface of the snout and partly overlies the bone. The functions of the organ are difficult to determine. From Professor Moseley’s examination it seems at present probable that it is an organ of modified vision and not of luminosity as I at first believed.”

Mr. John Murray was the first to examine by means of sections the structure of the organs, and point out their remarkable peculiarities. Professor Moseley, who has lately

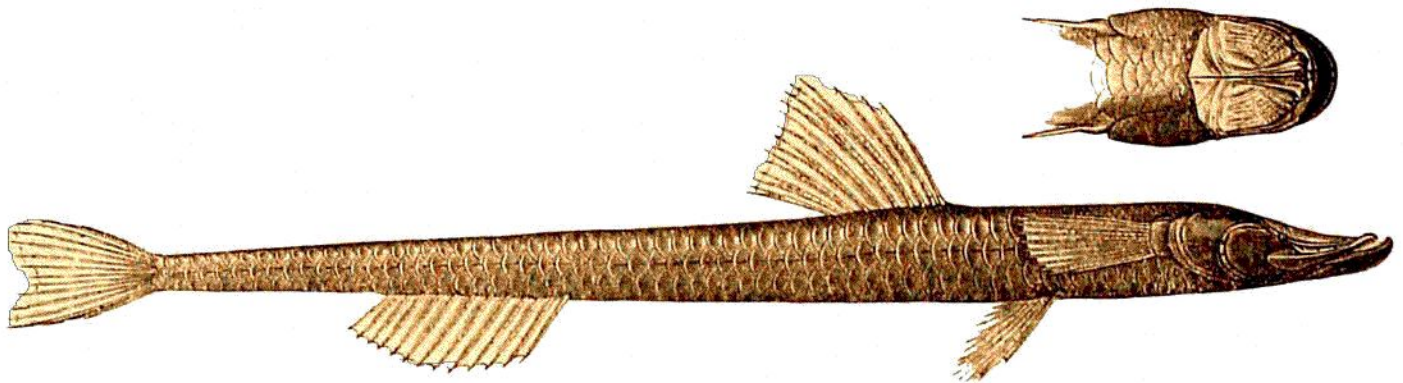


FIG. 97.—*Ipnops murrayi*, Günth. 1600 to 1900 fathoms.

re-examined the eyes of this fish by means of Mr. Murray’s preparations, writes:—“Their structure is quite unique. They are flattened out to an extraordinary extent, closely united together along a straight line traversing the middle line of the snout, and at first sight appear like a single white patch or label covering the whole upper surface of the snout. Each eye is covered by a transparent flat membrane probably the representative of the cornea, beneath which, and separated from it by a shallow chamber filled with fluid, is a retina of very remarkable structure. The retina extends over the whole area covered by the cornea, and is composed of a layer of remarkably long rods, without, as far as can be detected, any cones. The rods, which break up with more than usual readiness into transverse disks, have their free ends turned towards the pigmented choroid. A very thin layer of nerve fibres intervenes between them and the light, and apparently represents the entire remaining layers of the retina usually present. The choroid is divided into a series of hexagonal areas which