it had swallowed another deep-sea fish about 9 inches long (Halargyreus johnsonii), the stomach of which was forced up into the mouth by the distended air-bladder, showing how rapidly both fishes must have ascended to the surface. The body of this specimen is  $8\frac{1}{3}$  and the tail 23 inches long. It is preserved in the British Museum.

4. A young specimen in the British Museum, the history of which is unknown; its body is 3, its tail 8½ inches long. It is much shrivelled, having been preserved for a long time, but supplies some valuable information on points in which the larger is imperfect.

I first give a detailed description of the Madeiran specimen.

The figure of the fish on Pl. LXVI. will give a better idea of its general appearance than could be supplied by a description; it represents the specimen with its victim in situ; when the stomach is empty the abdominal integuments are contracted, yet protrude as a wrinkled bag, which, however, does not extend beyond the vent.

The whole fish is covered with a thin, jet-black skin, which is easily ruptured. a lateral view of the head the sides are nearly vertical, occupied chiefly by the broad and long mass of muscle, which is situated between the suspensory and palato-pterygoid This portion of the head extends far backwards and obliquely downwards, and is bordered below by the slender and slightly curved maxillary. External to the anterior extremity of the maxillary lies the small eye which is somewhat obscured by the skin, and situated so that the fish can discern objects approaching from the side, from the front and from below. In front of the eye there is only the short, triangular, flexible rostral appendage, which, at least in this specimen, is bent downwards. mandible is as slender and simple a bone as the maxillary, and curved in such a manner that it can be closely fitted to the latter. When the mouth is shut, the mandibulary forms an acute angle with the suspensory and with its fellow. However, the joints at the opposite ends of the mandible are so loose, that the fish had the power of throwing down the lower jaw until "it was almost in a line with the upper"; and even now the two rami of the mandible can be so far drawn apart, as to form a right angle at the symphysis. The posterior end of the palato-pterygoid projects free out of the muscle, and covered with skin only, leans against the maxillary at a distance of half an inch in advance of the mandibulary joint.

Viewed from above, the cranium appears extremely short and broad, slightly convex longitudinally as well as transversely; it is broadest vertically above the hind margin of the eye, where the side of the cranium projects outwards; its transverse diameter at this place is half an inch, but little less than the length of the cranial portion to the end of the rostral appendage. Thick occipital or nuchal muscles are inserted immediately behind the line between the lateral projections of the skull, and hide the occipital portion of the cranium, the backward extent of which cannot be ascertained without dissection.