THE CAUDAL FIN OF THE EEL *CHAUDHURIA*.

(With text-figure.)

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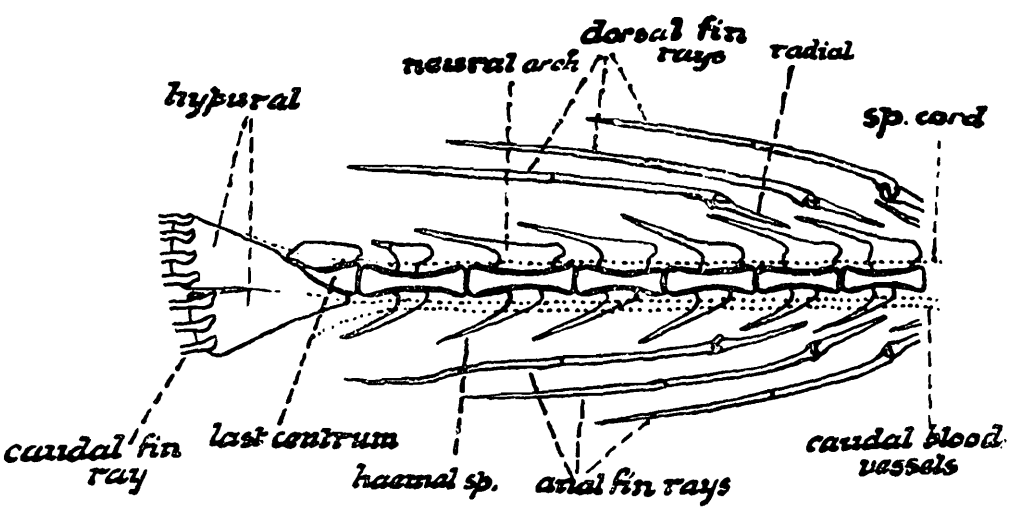
A special interest attaches to the caudal fin of this peculiar eel [1] since it is discontinuous ; in all other known eels the caudal fin is continuous with the dorsal and anal fins, in which the fin-rays are supported by radials or interspinous bones alternating with the neural and hæmal spines. In *Chaudhuria*, the last fin-rays of the dorsal and anal fins are attached to radials situated between the sixth and seventh vertebral arches counted from the posterior end ; there is thus a considerable space devoid of fin-rays separating the dorsal and anal from the caudal fin. However the fin fold is practically continuous and the last dermotrichia of the dorsal and anal fins reach backward as far as the last centrum.



The neural and hæmal arches of the terminal centra are typical of the Apodes, the neural arch having an extended base with a long backwardly directed spine. The penultimate centrum has a somewhat reduced neural arch ; this is a feature common not only to the eels but to the majority of the Teleostean fishes, and is probably due to suppression consequent on the upturning of the extremity during the heterocercal stage. As regards the spine of this neural arch, I cannot say with certainty whether it is present or not ; the anterior dorsal edge is certainly truncated, which suggests the absence of the spine ; at the same time, there *appears* to be a very small spine attached to this angle of the arch, but determination by dissection of such a small structure is almost impossible ; the point however is of minor importance. The neural arch of the last centrum is typically elongated, extending some

[1] The genus and its only known species (*C. caudata*) are described by Annandale on pp. 27-28 of this volume.

short distance along the upper edge of the hypural bone, and is devoid of a spine.

Two large hypural bones are present, fused at their bases and firmly attached to, or even fused with, the last centrum ; the last (*i.e.*, the upper) hypural is the larger and bears four jointed fin-rays, while the ventral hypural bears three. None of the fin-rays bifurcate, but extend as simple rays to the edge of the fin fold.

The courses of the spinal cord and the caudal blood vessels are indicated in the figure by dotted lines.

It will be seen that this caudal fin is a wholly ventral structure, since all the supports are ventral to the spinal cord. In the majority of Teleosts, a few dorsal elements enter into the caudal fin, but in *Chaudhuria* all such elements have been eliminated ; this is a definitely specialized character. The separate caudal fin itself also suggests a specialization above the average eel, and it is probable that the tail is a more definitely propulsive organ than in other Apodes where progression is by a wriggling motion after the fashion of the primitive fishes.