

NOTES

HYPEROSTOSIS IN *MURAENESOX TALABONOIDES* (BLEEKER)

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ABSTRACT

Hyperossification has been observed in supra-occipital bones, some of the dorsal fin rays and vertebrae of eel *Muraenesox talabonoides* (Bleeker), in all the specimens above 82 cm.

During the course of studies on the fishery and biology of the marine eel, *Muraenesox talabonoides* (Bleker), some of the dorsal fin rays were noticed ossified. Further investigations revealed hyperossification in vertebrae and supra-occipital bones also. A number of workers have reported this phenomenon in different species, notable among them are Barnard (1948), Gopinath (1951), Bhatt and Murti (1960) and James (1967). However, no ossification had earlier been recorded in any of the *Muraenesox* spp.

Hyperostosis in *M. talabonoides* had been observed in all the specimens above 82 cm. This phenomenon was not related with maturity, as this species had been reported to mature at the size group of 120-130 cm (Kagwade 1969). The ossified bone was in the form of solid compact mass without any air space.

The supra-occipital bones of the fish in most of the cases got over-ossified into a pair of solid compact mass (Fig. 1). Mostly it was symmetrical, but in a few cases asymmetrical ossification has also been observed. The extent of ossification did not always increase with the size of the fish. Large fish may have thin supra-occipital bones compared to smaller individuals. As in juveniles, in a few adults also the supra-occipital bones did not show any ossification. Among dorsal fin rays first one-fourth of them exhibited no ossification and in the last three-fourth a number of fin rays were ossified with intervening normal fin rays. The dorsal fin rays got ossified in the form of bulbs in the lower region.

Ossification of vertebrae was in the form of thick plate, quadrangular in shape. As in the case of normal bones the enlarged bones were covered by

a layer of muscles and externally by the skin. The bony enlargements were clearly perceptible externally. In the hinder region vertebrae were ossified only on one side, whereas in the middle region both the sides of vertebrae were ossified.

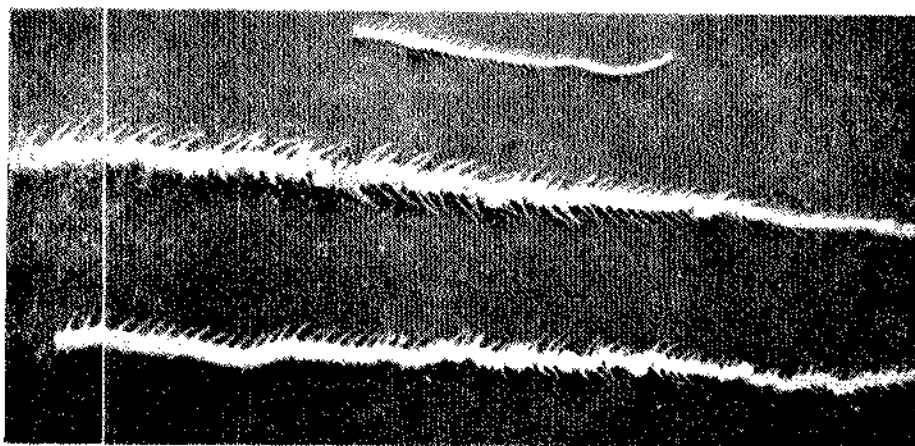


FIG. 1. Vertebral column of *M. talabonoides* showing ossifications.

Similar ossifications of vertebrae and dorsal fin rays have been observed in *M. talabon*.

The ossification of these bones may in all probability be due to a demand for hydrostatic balance and stability in the fish.

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