

CONTRIBUTIONS TO THE CRANIAL OSTEOLOGY OF THE
FISHES.

No. I.

Tandanus tandanus Mitchell.

By

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INTRODUCTION.

(Figures 1-5.)

Though presenting a general similitude throughout the class, the skull of the bony fishes is subject to a variety of modifications. These modifications affect not only the form but also the number, and therefore the relations one to another of the component bones.

These modifications have been subjected to analysis from time to time incidentally to the description of several isolated forms. Except however in text books, where perforce the reviews are brief, no general attempt has been made to harmonise the various modifications.

The Director, Dr. C. Anderson, has kindly placed at my disposal a very fine series of heads of Elasmobranchs and Teleostei. From the American Museum of Natural History I have received heads of *Amia*, *Acipenser*, *Lepidosteus*, and other Teleostei. My thanks are also due to Dr. T. L. Baneroff of Eidsvold, Queensland, for *Ceratodus* heads.

With all this mass of material to work upon, it is hoped to present a comprehensive review of the piscine cranium. A series of descriptions accompanied by drawings will be offered first. In these descriptions comparative notes will be made as brief as possible. The descriptive series will be followed by a review of the whole, and it is towards this last that each of the others is contributory.

In 1922 I published "A New Interpretation of the Bones in the Palate and Upper Jaw of the Fishes¹." Throughout this series the nomenclature there introduced will be used. In order to obviate

¹ Kesteven—Journ. Anat., lvi, 1922, pp. 307-324.