

SOME AUSTRALIAN FISHES OF THE FAMILY GOBIIDÆ.

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(Plates xxxi.-xxxvii.)

text-figs 4-5.

It was the original intention of the authors to revise all the Australian species of the Family Gobiidæ, but circumstances have prevented us from carrying out our design. We therefore submit descriptions and figures of such species as we have been able to deal with, and give references to the others. We have been unable to allocate some of the species dealt with to any genera known to us, but as we lack several important papers on the classification of the Gobiidæ, we have preferred to leave them under the broader headings *Gobius* and *Eleotris* rather than create unnecessary additions to the already long list of Gobioid genera.

We have had the advantage of examining the very large collections contained in the Australian Museum, the Queensland Museum, the Macleay Museum, and the South Australian Museum. These include numerous types and cotypes, and many authentically labelled specimens, while the Australian Museum is fortunate in possessing a representative series of Indian fishes from the collection of the late Dr. Francis Day. All these have enabled us to clear up many points in the synonymy of the species dealt with.

We are greatly indebted to the Trustees of the Macleay Museum for the loan of all the Gobies and Eleotrids under their charge. We also have to thank Mr. Edgar R. Waite, Director of the South Australian Museum, for the loan of those in his collection.

Key to the Subfamilies of the Gobiidæ.

- a. Pectoral base very muscular and mobile; eyes erectile.....*Periophthalminae*.
- aa. Pectoral base not unusually muscular or mobile; eyes not erectile.
 - b. Ventral fins more or less united, usually with an anterior membrane connecting the spines¹.....*Gobiinae*.
 - bb. Ventral fins separate, with no anterior membrane between the spines.....*Eleotrinae*.

Family GOBIIDÆ.

Subfamily PERIOPHTHALMINAE.

Periophthalminae, Regan, Ann. Mag. Nat. Hist. (8), viii., 1911, p. 733.

Eyes close together, prominent, erectile; base of pectoral fin very muscular. Pectoral radials elongate, inserted on a broad, laminar ridge of the cleithrum; hypocoracoid and cleithrum enclosing a large foramen, Vertebrae 25-26 (10-11+14-16).

¹ This membrane is present in some species of *Zonogobius* (*Z. nuchifasciatus*), but is wanting in others (*Z. semidoliatus*).