

## THE BREEDING HABITS OF THE FIGHTING FISH

(*Betta pugnax*, Cantor).

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(Plate xxxviii.)

The life histories of several members of the Anabantidæ, have been investigated and the results of the observations made known. Special mention may be made of *Osphronemus*, *Polyacanthus* and *Trichogaster (Colisa)*. For our knowledge of the breeding habits of these interesting fishes we are mainly indebted to French naturalists, chief among whom stands M. Pierre Carbonnier.

Not having access to the whole of the literature of the subject I am unable to know if the life history of *Betta pugnax*, Cantor<sup>1</sup> has been described. A list of Carbonnier's papers will be found in the Royal Society's Catalogue of Scientific Papers.<sup>2</sup> Of these, one of the two following may contain some account of *Betta* :—

14. Importation de poissons exotiques, anabas, poissons combattants, gouramis. Soc. Acclim. Bull., i., 1874, pp. 526-529.

17. Reproductions de poissons exotiques. *Ibid*, viii., 1881, pp. 103-112.

The work cited does not appear to be in Australia, so that I may perhaps be excused if I publish matter already known. The term "poissons combattants" doubtless applies to *Betta*, but it may be noted that the name occurs under "Importation" and not under "Reproductions." The photograph of the nest of *Betta* here published will be of interest and is possibly unique.

The fishes, which I had under observation, were kindly obtained at my request by my friend Captain H. de C. Wetherall, who procured them from Pinang during a voyage to the Strait Settlements. They reached my hands on April 5th. last, and on the following day the male commenced to blow the bubbles characteristic of the family. Rising to the surface a mouthful of air was taken and retained for two or three seconds, during which time it received a coating of mucous.

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<sup>1</sup> Cantor—Cat. Malay. Fishes, 1850, p. 84, pl. ii, figs. 1-3.

<sup>2</sup> Cat. Sci. Papers, xii., 1902, p. 142.