

difficulties present themselves as regards the number of scales, which in young specimens are extremely thin and deciduous, and were mostly lost in the examples examined by Thompson, Richardson, and myself. The discrepancies in the statement as to the course of the lateral line, and the presence or absence of vomerine teeth, are likewise to be accounted for by the indifferent condition of the examples examined; and, finally, the black colour of the fins is a character which is absent in young specimens, but becomes more conspicuous with age.

Fully adult examples were first obtained by Lieut.-Col. S. R. Tickell, who in 1865 described them in Journ. Asiat. Soc. Bengal, p. 32, accompanying the description with a figure which, but for the scaling, would be a very good representation of the fish. The author was not sufficiently acquainted with the literature, and therefore described the fish as new, naming it *Asthenurus atripinnis*; however, the synonymy was rectified immediately afterwards by myself in the Zool. Record, 1866, p. 197. Tickell discovered the existence of vomerine teeth, and of an air-bladder; and although he denies the presence of a "lateral line," he expressly mentions and figures a "mesial groove with a ridge along each side," which groove is, in fact, the lateral line.

Singularly, the same specimens, which had been deposited by Tickell in the Calcutta Museum, were described again as new by Mr. F. Day (Proc. Zool. Soc. Lond., 1869, p. 522), as "*Bregmaceros atripinnis*, n. sp." The presence of vomerine teeth and a lateral line are denied in the diagnosis given by the author. Two pyloric appendages were found in this fish by the same author.¹

A second and very distinct form was discovered in New Zealand and described by Mr. Hutton in 1873,² under the name of *Calloptilum punctatum*. He states (correctly as I now think) that this fish should be placed into a distinct genus, but his description, as well as figure, were by no means satisfactory. Having received a half-grown specimen of this fish in 1876, I corrected Hutton's description in several points, expressing it as my opinion that "it should not be generically separated from *Bregmaceros macclellandii*," an opinion which, with perfect and adult specimens before me, I am obliged to abandon.

Lastly, the relation of these fishes is treated of by Mr. F. Day again in 1877.³ He treats of *Bregmaceros macclellandii* and *Bregmaceros atripinnis* as two distinct species, refers erroneously *Calloptilum punctatum* as a synonym of the latter, and misrepresents me as having identified the New Zealand fish with *Bregmaceros macclellandii*.⁴

Quite recently a fish apparently allied to these Indo-Pacific forms has been described by Messrs. Brown Goode and Bean,⁵ from the Mid Atlantic, under the name of

¹ Proc. Zool. Soc. Lond., 1873, p. 112.

² Trans. and Proc. New Zealand Inst., vol. v. p. 267, pl. xi., 1873.

³ Fishes of India.

⁴ I must also demur to this author crediting me with the grammatically erroneous term of "*Bregmaceros punctatum*." *Bregmaceros*, formed like *Rhinoceros*, is of the masculine gender.

⁵ Bull. Mus. Comp. Zool., vol. xii. p. 165, 1886.