

that this liquid is contained in a little box, of which the anterior and posterior surfaces are made of thin glass.

The numbers which I have obtained in the same medium and for the same individual are very close, which justifies our having confidence in the results of experiments so delicate ; but, moreover, as may be seen from the table which I give in my memoir, the distances of distinct vision in the air and in water are always very nearly the same. Fishes, therefore, as I have already said from the consideration of the structure of the eye, see as well in the air as in water.

Hence, also, the vision of Amphibia finds a natural explanation, as the visual organs of those animals resemble those of Fishes. Nevertheless, as a confirmation of the theory, I have subjected to the same experiments the eyes of some Batrachia ; and in these also the distances of distinct vision in air and in water are, so to speak, identical. I shall only remark, in concluding this analysis, that, in the Amphibia, distinct vision, which is necessarily very short in water in consequence of the imperfect transparency of that medium, must, on the contrary, be able to extend itself in the air to very variable distances, which necessitates the existence of a faculty of accommodation ; and accordingly the presence of the ciliary muscle, the chief agent of that faculty, has been recognized in their eyes.

LX.—*Description of a new Siluroid Fish from Ceylon.*

By Dr. ALBERT GÜNTHER.

[Plate XV.]

A SMALL collection of freshwater fishes, made by the Rev. Bancroft Boake in Ceylon, and kindly submitted to my examination by F. Layard, Esq., contained two Siluroid fishes of the genus *Arius*, which are of great interest, inasmuch as they prove that the peculiar habit which I have described in an American species, *A. fissus* (Fish. v. p. 173), viz. the mode in which the parent fish takes care of its progeny, is not confined to South-American species, but exists also in the East-Indian ones. The mature ova are of the same large size in all these fish ; and in all it is the male which carries them in the spacious cavity of its mouth. According to Mr. Boake, who has published an account of the habits of these fish, they are called *Angaluwa*. Three specimens were in the collection, belonging, however, to two very distinct species, new to science. Two of these, a male and a female, 14 inches long, are *Arius Boakii*, so named by Mr. W. Turner, who also had received examples, and read an account of them at the last meeting of the British Association. We may there-

fore be satisfied with mentioning here that this species is, curiously enough, so closely allied to the *A. fissus*, that, but for the remoteness of their respective habitats, we should almost have hesitated to separate them specifically. The female may be externally distinguished by a broad oblique fold of the skin on the inner side of the ventral fins. The second species is

Arius Layardi, sp. n. Plate XV.

This species is closely allied to *A. tonggol* and *A. argyropleuron*, from the East-Indian archipelago, but differs in having no trace of vomerine teeth, and in possessing longer maxillary barbels.

D. 1/7. A. 18. P. 1/11.

The height of the body is contained four times and four-fifths in the total length (without caudal), the length of the head three times and one-third; head depressed, broader than high, its width being three-fifths of its entire length, or equal to its length without snout. Head above nearly entirely covered by skin, only the ridge of the occipital process being granular. Occipital process triangular, with the lateral margins straight, longer than broad; it is raised into a median ridge along the middle, which, on the head, is continued as a narrow, deep, uninterrupted groove, terminating on the snout. Basal bone of the dorsal spine narrow. Vomerine teeth none; teeth on the palate coarsely granular, in two pear-shaped groups, situated as far back as in *A. tonggol* (see Günth. Fish. v. p. 164), and much convergent behind. Snout much depressed, produced; the upper jaw somewhat prominent, but rather shorter than the postorbital portion of the head. The maxillary barbels extend to the root of the pectoral. The soft dorsal fin is as high as the body; its spine is rather slender, as long as the head without snout; granulated in front and serrated behind. Pectoral spine as strong as, and rather shorter than, that of the dorsal fin. Caudal deeply forked, with the lobes subequal in length. Colour immaculate.

A male, 11 inches long, is in the collection.

We may add the Ceylonese names of several species sent by Mr. Boake:—Rallia=*Etroplus maculatus*; Corallia=*Etroplus suratensis*; Loola=*Ophiocephalus striatus*; Connia=*Ophiocephalus Kelaartii*; Hoonga=*Clarias Teysmanni*; Kamaya=*Anabas oligolepis*; Pooloota=*Polyacanthus signatus*; Kanaya=*Channa orientalis*.

The Cyprinoids will be described in the seventh volume of the 'Catalogue of Fishes.'



Günther, Albert C. L. G. 1866. "Description of a new siluroid fish from Ceylon." *The Annals and magazine of natural history; zoology, botany, and geology* 18, 473–474.

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