

October 13, 1835.

Richard Owen, Esq., in the Chair.

Mr. Bennett called the attention of the Meeting to a *Pteropine Bat* which had recently been obtained from the neighbourhood of the river Gambia, and which was exhibited. He directed especial notice to two large tufts of white hairs placed upon its shoulders and forming a very conspicuous feature in its appearance. These, he remarked, might probably cover cutaneous glands destined for the preparation of a secretion fitted to defend that part of the animal in its passage through the air, or perhaps to attract the opposite sex. It could scarcely be conceived that they have any influence in increasing the buoyancy of the animal; although the backward position of the wings might seem to render necessary such a supplemental aid: their position in advance of the ordinary alar membranes gives them, in fact, some resemblance to supplementary wings.

He stated that on account, chiefly, of the position of the wings so far backward as almost to seem to be placed behind the centre of gravity, he was disposed to consider that the *Bat* exhibited might be regarded as the type of a new genus, to which the name of *Epomophorus* might be given. But the genus would, he conceived, rest almost entirely on this single character, and he hesitated to propose it definitively until he had an opportunity of examining a specimen preserved in spirit, and consequently not liable to that distortion to which the individual skin exhibited might have been subjected. In one of the two other species of *Pteropi* previously obtained from the same country by Mr. Rendall, and brought under the notice of the Society on July 14 (page 100) by Mr. Ogilby, the same backward position of the wings exists. In dentary characters the new species agrees with those just referred to, the only exception being in the presence of a third abnormal incisor on the left of the upper jaw.

Regarding it as a form of some interest to zoologists, Mr. Bennett stated his intention to describe it more fully in a paper which he proposed to prepare on the subject. He characterized it as the

PTEROPUS EPOMOPHORUS. Pter. pallidè brunneus, posticè pallidior; ventre albido; scopà humerali albà magnà.

Long. tot. $6\frac{3}{4}$ poll.; *capitis*, $2\frac{1}{4}$; *expansio alarum*, 12.

Hab. in regione Gambiensi.

Professor Agassiz, at the request of the Chairman, explained his views of the affinities and distribution of the *Fishes* of the family *Cyprinidæ*.

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He commenced by remarking that among the genera referred by Cuvier to this family there were several, such as *Pæcilia*, *Lebias*, &c., which possessed maxillary teeth and a large number of branchiostegous rays. These genera, he conceived, ought to be excluded from the *Cyprinidæ*; and the family be considered as limited to fishes with mouths destitute of teeth, and having few branchiostegous rays.

To the family thus reduced the nearest affinities appeared to him to be the genera *Atherina* and *Mugil*. In internal organization the *Cyprinidæ* agree nearly with those genera; and this consideration, M. Agassiz conceives, is of much higher importance in the natural arrangement than the external character founded on the presence or absence of spinous rays in the dorsal and other fins. The affinity of the *Cyprinidæ* to the *Siluridæ* he regards as extremely doubtful: and although from the bearded *Carps* to the bearded *Siluri* there appears to be a natural transition by means of the bearded *Loaches*, it is important to distinguish that in these latter, as well as in the *Carps* and other *Cyprinidæ*, the beards, as they are called, are merely processes of the skin; while in the *Siluri*, the *cirri* of the angles of the mouth are actually prolongations of the maxillary bones, becoming gradually cartilaginous and tapering into thread-like extremities.

In the subdivision of the *Cyprinidæ*, M. Agassiz regards the form of the fins, and especially of the dorsal and anal, as furnishing indications of the highest value; and the form of the pharyngeal teeth as affording the characters next in importance. He first distinguishes the group comprising the genera *Anableps*, *Cobitis* and *Botia*, the latter established by Mr. Gray for the reception of those *Loaches* in which the suborbital bone is armed with a moveable spine. He then distinguishes another group comprising four genera: 1. *Cyprinus*, in which the pharyngeal teeth are large, and, when worn, resemble the molars of some *Rodent Mammalia*, such as the *Hare*; 2. *Barbus*, in which there are three rows of lengthened conical hooked teeth on each side of the *pharynx*; 3. *Gobio*, in which the pharyngeal teeth have the same form as those of the *Barbels*, but are more slender, and constitute only two rows; and 4. *Tinca*, the pharyngeal teeth of which are club-shaped, rounded at the end, and placed in a single row. In the genus *Leuciscus*, which M. Agassiz limits to *Leuc. Alburnus* and three allied species, the mouth is cleft obliquely, and the teeth, consisting of elongated cones, are disposed in four rows. From these the *Cyprinus Nasus* is to be generically distinguished as possessing six rows of pharyngeal teeth: its mouth is transverse and inferior, with the edges cutting. A third genus, containing many species, also requires to be distinguished, as having only two rows of teeth, one of which is hooked: in these the opening of the mouth is rounded. There remains the genus *Abramis*, distinguished by its long anal fin, in which the teeth are bevilled off and have

a cutting edge: of this genus eight species are known to Professor Agassiz.

In this enumeration of the genera of *Cyprinidæ* M. Agassiz limited himself to the European forms, and scarcely adverted to any but European species.

In illustration of his views preparations were exhibited of the pharyngeal teeth of *Cyprinus*, *Barbus*, and other genera, from the collection of Mr. Yarrell.



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