

Jordan in his *Genera of Fishes* (pp. 247, 279) gives *Wallago dinema* Blkr. as the orthotype of *Wallago* and again the same species (*Belodontichthys macrochir* Blkr.=*Wallago dinema* Blkr.) as the orthotype of *Belodontichthys* Blkr. In accordance with the strict interpretation of the International Rules of Zoological Nomenclature *Wallago* should be used for species now included under *Belodontichthys* and a new generic name proposed for *Silurus attu* and its allies. But in view of the great familiarity of the generic name *Wallago* in its present accepted sense, I am retaining this name for *W attu* and its allies. The matter will, however, be referred in due course to the International Congress of Zoological Nomenclature for inclusion of *Wallago* and *Belodontichthys* among the *nomina conservanda*.

The genus is represented by a single species—*Wallago attu*—in Indian waters.

V FISHES OF THE GENUS *Heteropneustes* MÜLLER.

The genus *Heteropneustes* was established by Müller¹ to accommodate *Silurus fossilis* Bloch² of which he regarded *S. singio* Hamilton³ as a synonym. Though the most important diagnostic character is stated to be the respiratory tubes as described by Taylor⁴ in *S. singio*, Müller indicated that in external features his new genus was intermediate between *Silurus* and *Heterobranchus*. In the same year, Valenciennes⁵ proposed the genus *Saccobranchus* for *Silurus singio* of which he regarded *S. fossilis* Bloch as a synonym. As the name implies, the main character of the genus is the presence of accessory respiratory sacs. Though *Saccobranchus* is a well known generic name among fishes, on grounds of priority, *Heteropneustes* must replace it, as pointed out by Müller⁶ himself I have also looked up the original dates of publication of these genera and support this contention.

Valenciennes placed *Saccobranchus* near *Clarias* and *Heterobranchus* and remarked: "La ressemblance extérieure du crâne des Saccobranches avec les Clarias et les Hétérobranches dépend du développement des mêmes os; ainsi, le crâne est élargi en avant par l'agrandissement des sous-orbitaires; en arrière, par celui des mastoïdiens et des surtemporaux. La proéminence interpariétale fait une saillie sur l'occiput, sans qu'il y ait de casque ou de chevron sur les premiers interépineux. Les dents sont en velours aux mâchoires et sur deux plaques arquées au chevron du vomer. Les rayons branchiostèges sont au nombre de sept; les barbillons de huit. De chaque côté des apophyses supérieures, et au-dessus du corps de vertèbres, existent deux sacs coniques, s'étendant jusqu'aux deux tiers de la longueur du corps, et ouverts en avant par deux orifices pratiqués sur le haut et entre les peignes des branchies." Bleeker⁷ also regarded *Saccobranchus* a close

¹ Müller, *Arch. Anat. Physiol.*, p. 115, 1839 (1840).

² Bloch, *Naturges. Ausländ. Fische*, VIII, p. 46, pl. cclxx, fig. 2 (1794).

³ Hamilton, *Fish. Ganges*, pp. 147, 374, pl. xxxvii, fig. 46 (1822).

⁴ Taylor, *Gleanings in Science*, p. 170 (1830).

⁵ Valenciennes, in Cuvier & Valenciennes' *Hist. Nat. Poiss.*, XV, p. 339 (1840). According to Sherborn [*Ann. Mag. Nat. Hist.* (9) XV, p. 600, 1925] volume 15 of *Hist. Nat. Poiss.* was published in November, 1840.

⁶ Müller, *Abh. Kön. Akad. Wiss. Berlin*, p. 244, 1839 (1841).

⁷ Bleeker, *Ned. Tidschr. Dierkunde*, I, pp. 119, 120 (1863).

ally of *Heterobranchus* and *Clarias* and included the three genera in his family Heterobranchioidei. At the same time he grouped these genera into two subfamilies, viz., Heterobranchiformes for *Heterobranchus* and *Clarias* and Saccobranchiformes for *Saccobranchus*. Günther¹, however, included *Saccobranchus* in his group Silurina (for *Silurus* and its allies) under Siluridae Heteropterae and separated it from the other two genera which he placed under Clariina of Siluridae Homalopterae. This system was adopted by Day² and other ichthyologists, but challenged by Regan³ on osteological characters. Regan brought back *Saccobranchus* under Clariidae though he kept it in a separate group within the family, as was done by Bleeker. Pape's⁴ anatomical studies of *Saccobranchus* have thrown considerable light on the systematic position of the genus. According to him the skeleton shows that the fish is not only primitive in some respects but has certain features of both *Clarias* and *Silurus*. In view of these osteological details and on account of the fact that *Clarias* and its allies possess a totally different type of accessory respiratory organ it seems desirable that *Heteropneustes* should constitute a family by itself bearing superficial relationship to the Clariidae. Externally the members of the two families can be distinguished by the extent of their dorsal fin, which is short in *Heteropneustes* and usually very long in Clariidae. The new family Heteropneustidae may be defined as follows:—

Body elongate, compressed. Head greatly depressed, its dorsal and lateral parts covered with osseous plates. Gill-cavity with an accessory air-sac extending backwards into tail region. Cranial roof with occipital and frontal fontanelles; occipital part of skull prolonged into a process. Mouth small, terminal. Barbels 4 pairs, one pair nasal, one pair maxillary and 2 pairs mandibular. Nostrils wide apart, anterior tubular, posterior slit-like behind base of nasal barbel. Eyes small, lateral, with free orbital margin. Dorsal short, without spine, somewhat in advance of ventral. Adipose dorsal absent or represented by a low adipose ridge along posterior third of tail. Anal long, just reaching or united with caudal. Pectorals with a strong, osseous spine. Ventrals six-rayed. Caudal almost rounded. Branchiostegals 7. Gill-openings wide. Gill-membranes separated by a deep notch, not united with isthmus. Teeth small, arranged in broad bands in jaws; those on vomer in a patch on either side.

There is only one genus in the family represented by two species—*Heteropneustes fossilis* (Bloch) and *H. microps* (Günther). *H. singio* (Ham.) and *H. microcephalus* (Günther) are synonyms of *H. fossilis* (Bloch).

The range of the family, as known at present, extends from Ceylon, India and Burma to Cochin China. It is not found in the Malay Archipelago.

¹ Günther, *Cat. Fish. Brit. Mus.*, V, p. 30 (1864).

² Day, *Faun. Brit. Ind. Fish.*, I, pp. 101, 102 (1889).

³ Regan, *Ann. Mag. Nat. Hist.* (8), VIII, 1 p. 568, 569 (1911).

⁴ Pape, *Jenaische zs. Natw.*, LII, pp. 445-520 (1914).