

separating the Monorrhina, as we have separated the Skullless animals, from the Fishes, with which they have hitherto been erroneously classed.

We owe our first accurate knowledge of the Monorrhina, or Cyclostoma, to the great zoologist, Johannes Müller of Berlin; his classical work on the "Comparative Anatomy of the Myxinoida" forms the foundation of our modern views on the structure of the Vertebrate animals. He distinguished two distinct groups among the Cyclostoma, which we shall consider as sub-classes.

The first sub-class consists of the Hags (*Hyperotreta*, or *Myxinoida*). They live in the sea as parasites upon other fish, into whose skin they penetrate (*Myxine*, *Bdellostoma*). Their organ of hearing has only one annular canal, and their single nasal tube penetrates the palate. The second sub-class, that of Lampreys, or Prides (*Hyperoartia*, or *Petromyzontia*) is more highly developed. It includes the well-known Lamperns, or Nine-eyes, of our rivers (*Petromyzon fluviatilis*), with which most persons are acquainted. They are represented in the sea by the frequently larger marine or genuine Lampreys (*Petromyzon marinus*). The nasal tube of these single-nostriled animals does not penetrate the palate, and in the auricular organ there are two annular canals.

All existing Vertebrate animals, with the exception of the Monorrhina and *Amphioxus* just mentioned, belong to the group which we designate as Double-nostriled animals (*Amphirrhina*). All these animals possess (in spite of the great variety in the rest of their forms) a nose consisting of two lateral halves, a jaw-skeleton, a sympathetic nervous system, three annular canals connected with the auricular