cartilaginous structure formed of two separated or two medianly- united pieces, each of which sometimes, as in *Chimæra* and *Callo- rhynchus,* shows much resemblance to the innominate bone of higher Vertebrates in that it sends up a process simulating (and probably representing) the iliac element and possesses a sort of obturator foramen. In Osseous Fishes the pelvic girdle is normally repre­sented by two innominate bones medianly joined, each of which may, by rare exception, as in *Lophius,* send up a tall ilium-like process. In no Fish, however, does the pelvis become solidly united with the spinal column. In the cartilaginous Ganoids it is very rudimentary, and each lateral portion (which has a slightly- developed pubic and iliac process) is separated from its fellow on the opposite side, while in *Lepidosiren* there is only a single simple median cartilage with no iliac process.

The skeleton of the *pectoral limb,* or *fin,* of most Elasmobranchs consists of three considerable basal cartilages, placed side by side, articulating with the pectoral arch, and named the propterygium, the mesopterygium, and the metapterygium. Of these the proptery­gium is proximal or anterior in position. To the distal ends of these are articulated a number of slender elongated more or less segmented radial cartilages, and to the distal portions of these are annexed the horny fin-rays which form the solid supports of the distal portion of the fin.

Sometimes there may be but two and rarely only one basal cartilage, which one must then be considered as representing the whole three condifferentiated. In *Ceratodus* there is a single basal cartilage followed by a series of small cartilages—secondary radial cartilages diverging from both sides of that series and having fin- rays annexed to them. In *Lepidosiren* the limb skeleton is still more simplified, consisting only of a single series of short slender cartilages with small fin-rays attached to one side alone, without the intervention of any radial cartilages.

In some Bony Fishes *(e.g., Polypterus)* the basal cartilages are more or less ossified, as are also most of the radiais next them, while to these small cartilaginous radiais are annexed, which support ossified fin-rays. In some other Ganoids certain of the radial cartilages articulate directly with the pectoral arch. In the *Teleostei* a few, not above five, more or less ossified cartilages lie side by side and articulate with the pectoral arch, and one or more rows of small cartilages succeed to them. These two elements represent the basal and radial cartilages of Elasmobranchs, and to them are articulated the relatively large fin-rays which make up the far greater part of the Teleostean pectoral limbs.

The skeleton of the *ventral fin* or *pelvic limb* is almost always more simple than that of the pectoral one. Only very rarely, as in *Ceratodus, Lepidosiren,* and *Callorhynehus antarcticus* (see *Trans. Zook Soc.,* vol. X. p. 455, and plate lxxix. figs. 3 and 4), have they a close, or pretty close, resemblance. Generally the Elasmobranch ventral limb is supported by an elongated cartilage, the basipterygium, which articulates with the pelvic cartilages and bears on its ventral border a series of cartilaginous radialia with which the fin-rays are connected. In *Polyodon folium* there are only radiais which support fin-rays but are not themselves supported by any basipterygium, nor is there any pelvic cartilage. In the *Teleostei* the fin-rays are directly attached to the osseous pelvic elements.

*The Unpaired Appendicular Elements.—*Besides the two pairs of limbs there are, as has been mentioned, certain azygous structures commonly known as the unpaired or azygous fins or limbs. They are only found in Fishes, and consist of the dorsal, caudal, and anal fins. These may all run one into the other and form a continuous fin fringe to the body from the head round the tail and forward again to the vent, as in Eels and many Gadoid and Blennioid Fishes. In most cases, however, there are one or two distinct dorsal fins, and an anal fin also distinct from the caudal one.

The structure of the *dorsal fin* in Elasmobranchs is singularly like that of their paired fins, inasmuch as it is supported by an elongated or segmented basal cartilage or cartilages, from the dorsal margin of which radial cartilages (generally elongated, slender, and seg­mented) proceed, having the fin-rays connected with them distally. The basal cartilages may or may not be directly connected or become confluent with the subjacent spinal skeleton. There may be (as in the second dorsal of *Callorhynchus antarcticus)* but a single longi­

tudinal series of more or less elongated cartilages side by side, like radial cartilages devoid of any subjacent basal cartilages. In the *Teleostei* the fin-rays may be osseous and in the form of more or less strong spines, or soft and of a horn-like consistency, and segmented both vertically and horizontally; and fin-rays generally consist of two (right and left) halves, which, although closely applied together for the greater part of their length, diverge proximally to embrace the skeletal element to which they are annexed. These latter elements in the *Teleostei* are small ossicles or chondrifications, termed “ inter- spinous bones or cartilages.” They extend upwards between the neural spines of the axial skeleton and the dorsal surface of the body. *Anal fins* are essentially similar in composition to dorsal fins.

The *caudal fin* is modified according to the condition of the posterior termination of the axial skeleton, the different condition of which in Fishes has already been noticed (p. 112). Much-modified axial elements generally form the support of the fin-rays, but the numerous complex and varied conditions which these parts may pre­sent in different forms is a matter of ichthyology, which can hardly find a place in a general description of the Vertebrate skeleton.

*Nature and Origin of Appendicular Skeletal Parts.—* From the researches of the late Prof. Balfour it appears that the paired limbs arise as differentiations of continuous lateral folds or projections from the surface of the body, and the azygous fins arise as differentiated projections from its dorsal and ventral surfaces. Thus all these appendicular parts may be viewed as different species of one funda­mental set of parts (pterygia), for the sum total of which the term “ sympterygium ” has been proposed (see *Trans. Zool. Soc.,* vol. X. pp. 481, 482). The paired limbs and azygous fins are of similar origin and nature. Separate narrow solid supports, in longitudinal series, and with their long axes directed more or less at right angles with the long axis of the body, were developed in varying extent in all these four folds or projections. These sup­ports have, it would appear, very often united to form basal cartilages, the original single and united condition persisting in such forms as the ventral fin of *Polyodon* and the second dorsal of *Callorhynehus,* both already noticed.

The paired limbs are thus, in all probability, essentially peripheral structures which have become more or less closely connected with the axial skeleton. Their proximal parts uniting and growing inwards have often become directly connected with parts of the axial skeleton. Thus the limb-girdles seem to have arisen,—namely, as ingrowths from the basal cartilages of the limbs ; and therefore the whole appendicular skeleton belongs to a different skeletal category from that of the head and spinal column or axial endoskeleton.

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SKELTON, John, an eccentric English scholar and poet of the 15th century. Mr Dyce, the editor of his works, fixes his birth about 1460. His first essay in verse was a poem after the manner of Lydgate on the death of Edward IV. (1483). He lived to pay compliments to Catherine, wife of Henry VIII., to jeer at the Scotch over the battle of Flodden, and to make fierce attacks on Wolsey, and is supposed to have died in 1529. In general intellectual force, fierceness of invective, wildness

of buffoonery, and coarseness of language Skelton bears some likeness to Swift. But he stands by himself as one of the most eccentric and paradoxical characters in English literature. He began life apparently as the protegé of a pious, learned, and literary lady, the mother of Henry VII., who founded St John’s College and Christ’s College, Cambridge, and translated devotional works from the French. He was himself one of the most notable scholars of his time, was appointed tutor to Henry VIII., was