

which passes forwards, and ends opposite the 8th dorsal vertebra, and covers the whole of the longissimus division in the lumbar region, and 1 inch of the sacro-lumbalis division next the ilium; also from the neural spines and zygapophyses of the caudal vertebræ, from the neural spines, zygapophyses, and transverse processes of all the sacral vertebræ, from the inner surface of the ilium, from the anterior surface of the sacrum, from the ligament between the ilium and sacrum, from all the lumbar vertebræ between the neural spines and the zygapophyses, and from the sides of these vertebræ between the zygapophyses and the ventral tips of the transverse processes.

The *Ilio-costalis* or *Sacro-lumbalis* in *Phoca vitulina* is the outer division of the erector spinæ. It is a long band running along the back, broadest and strongest at the posterior end, narrowest and tendinous at the anterior. Along its outer margin is a series of serrations, the seven posterior being muscular, the nine anterior tendinous. It is chiefly adherent to the outer surfaces of the ribs over which it lies, especially along their posterior and anterior borders. It is *inserted* by the digitations along its outer edge into the outer surfaces of the posterior seven ribs by muscular fibres, into the posterior borders of the anterior seven ribs by tendinous slips, and into the dorsal tubercle of the transverse process of the 7th cervical vertebra. In the large *Phoca vitulina* it also *arises* by tendinous slips from the angles of the 14th to the 5th ribs on their anterior borders. It is supplied by the posterior primary division of the spinal nerves.

In *Arctocephalus* it is an offshoot from the erector spinæ, and its origin can be partly traced to 1 inch anterior to the crest of the ilium. It is very narrow posteriorly, and expands gradually as it approaches the last rib, where it covers its inner two-thirds, while the anterior two-thirds of the muscle is narrow and tendinous on the dorsal surface, and terminates by giving off long tendinous slips. It is *inserted* into the dorsal surfaces of the 6th to the 15th ribs. Along its outer margin it has a number of tendinous digitations which are long at the anterior end, and short posteriorly. The most anterior goes into the dorsal tip of the transverse process of the 7th cervical, the rest pass to the dorsal borders of the 1st to the 12th ribs. The posterior slips are half tendinous and half muscular.

The *Musculus accessorius ad ilio-costalem* and the *Cervicalis ascendens* are wanting in both *Phoca vitulina* and *Arctocephalus*.

The *Longissimus dorsi* in *Phoca vitulina* lies to the inner side of the sacro-lumbalis, but is not quite so large or long, and is under cover of the fascia lumbo-dorsalis. It *arises* from the under surface of this fascia out of the erector spinæ, from the dorsal tips of the zygapophyses of some of the lumbar vertebræ, and from the anterior zygapophyses of all the dorsal vertebræ. It lies along the outer side of the zygapophyses, and is *inserted* by muscular fibres into the outer surfaces of the posterior five ribs, by tendons into the anapophyses of some of the dorsal vertebræ (posterior six), into the dorsal tips of the transverse processes of all the other dorsal vertebræ, which are homologous to the anapophyses, into the dorsal division of the transverse process of the 7th cervical vertebra, and by tendinous slips along its inner border into the dorsal surfaces of the anterior borders of the 6th to the 11th ribs. From the anterior zygapophyses of the 11th and 12th dorsal vertebræ two strong tendons arise, which divide equally between the multifidus and this muscle. Opposite the 6th rib a large piece of this muscle goes into the transversalis cervicis. In the large *Phoca vitulina* it is *inserted* in addition into the 9th, 10th, and 11th ribs on their posterior surfaces.

In *Arctocephalus* it is a long narrow band covered by dense fascia in its posterior half. This division of the erector runs into the neck, giving off a number of serrations from its under surface, the