

joints, and the margin of the segment next the joint was formed of unossified cartilage. The 9th or xiphisternal segment was situated behind the last pair of sternal ribs; it was 290 mm. long, and whilst its anterior third was ossified, the remainder consisted of cartilage, which widened at its free end into a leaf-like expansion. The first seven pairs of costal cartilages articulated with the side of the sternum at the junction of its segments with each other, the 8th pair was jointed to the side of the 8th segment and the 9th pair at the junction of the 8th and xiphisternal segments. The 8th and 9th costal cartilages also articulated with each other close to the sternum. The maximum sterno-vertebral diameter of the cavity of the thorax was 430 mm. and the greatest transverse diameter of the cavity was 370 mm.

*Anterior Extremity.*—The *scapula* did not have so well-marked a falciform shape as is usual in the seals. The dorsum was divided into two fossæ; the postspinous was deeply grooved immediately below and parallel to the spine, and its vertical diameter was about three times more than its greatest antero-posterior diameter. The præspinous fossa was almost triangular in shape, and its vertical diameter was about twice as great as the antero-posterior. The area of the præspinous was somewhat greater than that of the postspinous fossa. The spine had no great prominence, and was without an acromion. The coracoid was stunted, and in the younger skeletons was not fused with the body of the scapula. The scapula was prolonged by a triangular suprascapular cartilage, and its extreme breadth or vertical diameter, including this cartilage, was 34·5 cm., whilst the length or antero-posterior diameter was 19·5 cm. The subscapular and præspinous fossæ were smooth and only slightly concave.

The *humerus* was 26 cm. long, and had a strong deltoid ridge with a bicipital groove internal to it. The upper and lower epiphyses were not fused with the shaft; that of the internal condyle was quite distinct from the radio-ulnar articular epiphysis, and that for the head was separate from that for the inner tuberosity. There was no supra-condyloid foramen and the shaft of the bone was not much twisted.

The *radius*, 24 cm. long, was rounded above and had the usual cup-shaped head, and was flattened in its lower half as is usual in seals. The anterior border of the shaft was strongly ridged for the tendon of insertion of the pronator teres. The *ulna*, 28 cm. long, was expanded above at the olecranon and attenuated below. In both bones of the forearm the epiphyses were not united to the shafts. The radius was anterior to the ulna, and its cup was a more important factor in the elbow joint than the articular surface of the ulna. The radius articulated at its lower end with the ulna, scapholunar, and cuneiform; the ulna articulated with the radius, cuneiform, and pisiform.

*Manus.*—The *carpus* possessed seven bones. The *pisiform* was a mere nodule and articulated with both ulna and cuneiform. The *cuneiform* articulated with the ulna, radius, scapholunar, unciform, and 5th metacarpal. The *scapholunar* was large and articulated with radius, cuneiform, trapezium, trapezoid, os magnum, and unciform. The