

vomer can be seen through the opening. Hard palate either truncated or emarginate. Malar very elongated and reaching back almost to glenoid fossa. Vomer articulating on floor of nose only with crests of superior maxillæ. Carotid canal opens either within boundary of foramen lacerum posterius or immediately anterior to it. Basi-occipital mesially keeled and seldom perforated. Anterior nares not quite terminal. Neck of considerable length. Palms and soles hairless, used in land locomotion, and manus and pes capable of being turned forwards. Three middle digits of pes short and feeble compared with pollex and minimus, and with well-developed nails. Outer upper incisor caniniform; inner upper incisors with anterior and posterior cusps. Permanent dentition—in.  $\frac{3-3}{2-2}$ , c.  $\frac{1-1}{1-1}$ , p. c.  $\frac{5-5}{5-5}$  or  $\frac{6-6}{5-5} = 34$  or 36. Mammæ 4. Scapula with præspinous very much larger than postspinous fossa. Humerus without a supracondyloid foramen. Ilium with crest slightly everted and well in front of base of sacrum. Femur with small trochanter usually present. Astragalus without a calcaneal process.

## PHOCIDÆ.

The family Phocidæ has been divided into the following subfamilies—Phocinæ, Ogmorhininæ, and Cystophorinæ.<sup>1</sup>

## PHOCINÆ.

Anterior nares oblique and in front of infraorbital foramen; beak but little prolonged in front of opening; no postorbital process; interorbital and interzygomatic parts of frontal greatly compressed laterally; horizontal part of premaxilla thin; widest part of hard palate behind molar teeth, and in line with hinder edge of maxillary root of zygoma, from which spot the palate diminishes in transverse diameter both forwards and backwards. Zygomatic process of maxilla not much prolonged back below malar. Inner wall of orbit entire or almost entire. Tympanic bullæ swollen. Pterygoids vertical in direction. Dentition—in.  $\frac{3-3}{2-2}$ , c.  $\frac{1-1}{1-1}$ , p. c.  $\frac{5-5}{5-5} = 34$ . Mandible with both a subcondyloid process and an angle. Nails strong in all the digits. Toes of hind foot almost equal in length. Humerus with supracondyloid foramen.

This subfamily contains the genera *Phoca* and *Halichærus*.

<sup>1</sup> For a number of years I have lost no opportunities of collecting specimens of the crania of the Seals of the North Atlantic for the Anatomical Museum of the University of Edinburgh, and from the courtesy of several gentlemen, more especially the late Mr. Charles Edward Smith, Dr. A. J. M. Bentley, Dr. James Foulis, Captain M'Donald, the Rev. Dr. Joass, Dr. W. Stewart Campbell, Dr. W. Livesay, and Mr. Charles A. Anderson, the collection is now very complete.