

secondary cusps not present in upper post-canines except occasionally in 4th and 5th ; in lower post-canines secondary cusps not unfrequently present. Teeth single-fanged except the last lower and last two upper post-canines.<sup>1</sup>

*Halichærus grypus* (Fabricius). Grey Seal. North Atlantic Ocean.

*Phoca grypus*, Fabr., Skr. Nat. Selsk., i. p. 167, pl. xiii. fig. 4, 1790.

*Halichærus griseus*, Nilsson, Skand. Faun., i. p. 377, 1820.

*Phoca gryplius*, Fischer, Syn. Mamm., p. 239, 1829.

The only species.<sup>2</sup>

Interorbital constriction of frontal somewhat swollen about the middle. Occipital and sagittal crests present and not unfrequently a squamous ridge. Nasals wider than in *Phoca* and not ankylosed together. Premaxilla not expanding at its upper end and with only a limited articulation to outer border of nasal, not reaching its tip ; the two premaxillæ curve outwards from side of nasal, so that the widest part of anterior nares is in the upper third and the opening generally is very capacious. Zygomatic arches bulging, widest part of arch in the middle and much wider than the widest part of the cranium. Hard palate with rounded arch at posterior border, the crown of the arch considerably in front of both the hamulars and the malo-zygomatic joints ; posterior border of vomer visible in concavity of arch, but soon joining vomerine crest of palate. Horizontal part of premaxilla thicker than in *Phoca* and with distinct tubercle. Tympanic bulla swollen, generally smooth, but with a ridge in outer half, which is prolonged into thick wall of external auditory meatus. Foramen lacerum posterius moderate. Basi-occipital usually not perforated mesially. Par-occipital short. Mandible with a stunted, vertically elongated, subcondyloid process, scarcely inverted and quite distinct from the tubercle at the angle ; lower border of body thickened and scarcely inverted ; masseteric fossa very deep, coronoid broadly triangular.

<sup>1</sup> Nehring (*Sitzb. der Gesellsch. naturf. Freunde zu Berlin*, October 17, 1882) gives an account of *Halichærus grypus*, and refers to variations in the skull due to age and sex as well as individual modifications. He points out that the roots may vary in number in the hinder post-canine teeth, and that the accessory cusps are variable in the lower post-canines. He also states both from his own observations and those of Professor Gerstaecker that an accessory 6th upper molar not unfrequently occurs. Gerstaecker has seen it eight times in thirty-four crania, five times on one side only, thrice on both sides. I may also refer to the skull of a young *Halichærus grypus* which I described in the *Journ. of Anat. and Phys.*, vol. vii. p. 273, 1873, in which no teeth were developed except the canines.

<sup>2</sup> This Seal is often regarded, in so far as its distribution in Scotland is concerned, as restricted to the west coast, but, in addition to specimens from that side of the island, I have placed crania in the Anatomical Museum of the University from animals killed at the mouth of the Tay, off Montrose, at Golspie in Sutherlandshire, and from the Shetland Islands.