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Craniometric characteristics of the Mediterranean monk seal (*Monachus monachus* Hermann 1779) from the Adriatic Sea

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In this paper we present new anatomical, craniometric data on the Adriatic population of the Mediterranean monk seal.

In the bones collection of the Croatian Natural Museum in Zagreb, among other seal bones, there is a skull of the Mediterranean monk seal species (*Monachus monachus* Hermann 1779). It is labelled as the skull of a male. On the basis of the appearance of its suturae cranii and teeth and also according to literature data (4, 6), it is considered to be the skull of a young animal, about 2 months old, approximately 130-150 cm in length weighting about 80 kg. The skull of an adult Mediterranean monk seal is kept at the Tourist Office in Komiza, on the island Vis. This animal was killed in the water of Vis ten years ago. Unfortunately, this skull could not be measured.

The osteology of Genus *Monachus* has been described by King (3). She described all three species of *Monachus* and among others also the skulls of twelve individual Mediterranean monk seals from different parts of the world. However, she had no specimen from the Adriatic Sea. As there are no craniometric data on Mediterranean monk seals from the Adriatic Sea, we measured the skull of this rare species in the Adriatic Sea (1, 2, 5). The values obtained are: 1. facial

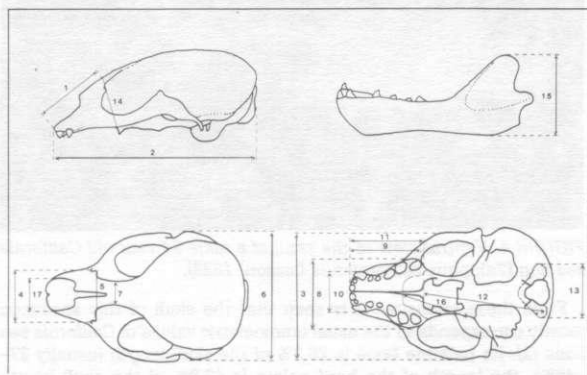


FIGURE 1. Schematic drawing of the young Mediterranean monk seal's skull with all measured lengths: 1. facial length, 2. condylobasal length, 3. zygomatic breadth, 4. interorbital breadth, 5. supraorbital breadth, 6. mastoid breadth, 7. least cranial breadth, 8. palatal breadth, 9. molar-premaxilla length, 10. breadth at canines, 11. palatal length, 12. condylopalatal length, 13. condylar breadth, 14. maxilla-supraorbital height, 15. coronoid height, 16. length of palatine bone, 17. the width of the external nasal openings.

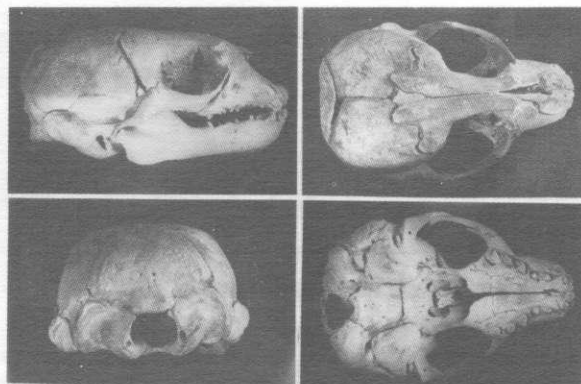


FIGURE 2. Different (lateral, dorsal, aboral, and ventral) views of skull of the male very young (2 months old?) Mediterranean monk seal (*Monachus monachus*, Hermann 1779) from the Adriatic Sea.

length 59 mm; 2. condylobasal length 164 mm; 3. zygomatic breadth 111 mm; 4. interorbital breadth 40 mm; 5. supraorbital breadth 41 mm; 6. mastoid breadth 112 mm; 7. least cranial breadth 22 mm; 8. palatal breadth 59 mm; 9. molar-premaxilla length 62 mm; 10. breadth at canines 39 mm; 11. palatal length 71 mm; 12. condylopalatal length 92 mm; 13. condylar breadth 54 mm; 14. maxilla-supraorbital height 52 mm; 15. coronoid height 44 mm; 16. length of palatine bone 43 mm; and 17. the width of the external nasal openings 23 mm. The sagittal crest of this young animal was not yet developed.

The cranial measurements of our specimen from the Adriatic Sea are more or less similar to the youngest Mediterranean monk seal from the island Madeira (3). Since these animals belong to different and geographically very distinct populations, it would be of interest to investigate, more precise, the anatomy of this threatened Adriatic species and to compare it with the animals of other populations.

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