

naturalists have seen not rarely an additional pair in the upper jaw;⁵⁷ and Professor Gervais says that there are dogs "qui ont sept paires de dents supérieures et huit inférieures." De Blainville⁵⁸ has given full particulars on the frequency of these deviations in the number of the teeth, and has shown that it is not always the same tooth which is supernumerary. In short-muzzled races, according to H. Müller,⁵⁹ the molar teeth stand obliquely, whilst in long-muzzled races they are placed longitudinally, with open spaces between them. The naked, so-called Egyptian or Turkish dog is extremely deficient in its teeth,⁶⁰—sometimes having none except one molar on each side; but this, though characteristic of the breed, must be considered as a monstrosity. M. Girard,⁶¹ who seems to have attended closely to the subject, says that the period of the appearance of the permanent teeth differs in different dogs, being earlier in large dogs; thus the mastiff assumes its adult teeth in four or five months, whilst in the spaniel the period is sometimes more than seven or eight months. On the other hand small dogs are mature, and the females have arrived at the best age for breeding, when one year old, whereas large dogs "are still in their puppyhood at this time, and take fully twice as long to develop their proportions."⁶²

With respect to minor differences little need be said. Isidore Geoffroy has shown⁶³ that in size some dogs are six times as long (the tail being excluded) as others; and that the height relatively to the length of the body varies from between one to two, and one to nearly four. In the Scotch deer-hound there is a striking and remarkable difference in the size of the male and female.⁶⁴ Every one knows how the ears vary in size in different breeds, and with their great development their muscles become atrophied. Certain breeds of dogs are described as having a deep furrow between the nostrils and lips. The caudal vertebræ, according to F. Cuvier, on whose authority the two last statements rest, vary in number; and the tail in English cattle and some shepherd dogs is almost absent. The mammæ vary from seven to ten in number; Daubenton, having examined twenty-one dogs, found eight with five mammæ on each side; eight with four on each side; and the others

⁵⁷ Isid. Geoffroy Saint-Hilaire, 'Hist. des Anomalies,' 1832, tom. i. p. 660, Gervais, 'Hist. Nat. des Mammifères,' tom. ii., 1855, p. 66. De Blainville ('Ostéographie, Canidæ,' p. 137) has also seen an extra molar on both sides.

⁵⁸ 'Ostéographie, Canidæ,' p. 137.

⁵⁹ Würzburger, 'Medecin. Zeitschrift,' 1860, B. i. s. 265.

⁶⁰ Mr. Yarrell, in 'Proc. Zoolog. Soc.,' Oct. 8th, 1835. Mr. Waterhouse showed me a skull of one of

these dogs, which had only a single molar on each side and some imperfect incisors.

⁶¹ Quoted in 'The Veterinary,' London, vol. viii. p. 415.

⁶² This is quoted from Stonehenge, a great authority, 'The Dog,' 1867, p. 187.

⁶³ 'Hist. Nat. Général,' tom. iii. p. 448.

⁶⁴ W. Scrope, 'Art of Deer-Stalking,' p. 354.