

This skull, therefore, had not yet reached a stage in which the possibilities of additional growth in length at the basis cranii were exhausted. In the Challenger specimens from Heard and Kerguelen Islands both the occipito-sphenoidal and intra-sphenoidal synchondroses were still unossified, so that if these animals had lived, their crania would undoubtedly have increased in length and in other dimensions. It will be noticed from the measurements given in Table I. that though the condylo-premaxillary length in Professor Scott's specimen was more than the same dimension in the Challenger skull from Heard Island, yet that the length to the extreme projection of the occipital crest was greater in the latter cranium. The difference in absolute dimensions between the male and female crania is clearly therefore to be regarded as a sexual differentiation.

Important sexual characters were seen also in the teeth in the two sexes. In both the males and females the formula was—incisors  $\frac{2-2}{1-1}$ , canines  $\frac{1-1}{1-1}$ , post-canines either  $\frac{5-5}{5-5}$  or  $\frac{4-4}{4-4}$ , although in one female there were six post-canines on one side of each jaw. But the relative size of the teeth in the two sexes varied very materially, especially in the canine and incisor teeth. In Table II. I have given the comparative dimensions of some of the teeth in one of the Heard Island males and in the largest female from Betsy Cove, Kerguelen; all these measurements were taken in a straight line.

TABLE II.—RELATIVE SIZE OF TEETH.

	♂ Heard Island. mm.	♀ Kerguelen Island. f. mm.
Length of upper canine, . . . . .	153	...
"  its enamelled crown, . . . . .	24	16
Greatest transverse diameter at alveolar border, . . . . .	36	12
Length of upper inner incisor, . . . . .	44	...
"  its enamelled crown, . . . . .	5	7
Length of upper outer incisor, . . . . .	75	...
"  its enamelled crown, . . . . .	7	8
Length of first post-canine, . . . . .	39	...
"  its enamelled crown, . . . . .	5	6
Length of last post-canine, . . . . .	22	...
"  its enamelled crown, . . . . .	4	4
Length of lower canine, . . . . .	140	...
Greatest transverse diameter at alveolar border, . . . . .	39	9

The incisor and canine teeth had conical crowns and elongated single fangs, which in the canine teeth were fluted. The crowns of the post-canines were somewhat laterally compressed, and many of them were marked by shallow, vertical grooves, which indicated a division into two or even three imperfect lobes or cusps; the fangs were all simple. In the older crania the greatest circumference of the teeth was after they had emerged from