

on the beak and round the eyes, and with Barbs that round the eyes, goes on increasing with age. This augmentation of character with advancing age, and more especially the difference between the males and females in the above-mentioned several respects, are remarkable facts, for there is no sensible difference at any age between the two sexes in the aboriginal rock-pigeon; and not often any strongly marked difference throughout the family of the Columbidae.<sup>35</sup>

### *Osteological Characters.*

In the skeletons of the various breeds there is much variability; and though certain differences occur frequently, and others rarely, in certain breeds, yet none can be said to be absolutely characteristic of any breed. Considering that strongly-marked domestic races have been formed chiefly by man's selection, we ought not to expect to find great and constant differences in the skeleton; for fanciers neither see, nor do they care for, modifications of structure in the internal framework. Nor ought we to expect changes in the skeletons from changed habits of life; as every facility is given to the most distinct breeds to follow the same habits, and the much modified races are never allowed to wander abroad and procure their own food in various ways. Moreover, I find, on comparing the skeletons of *Columba livia*, *œnas*, *palumbus*, and *turtur*, which are ranked by all systematists in two or three distinct though allied genera, that the differences are extremely slight, certainly less than between the skeletons of some of the most distinct domestic breeds. How far the skeleton of the wild rock-pigeon is constant I have had no means of judging, as I have examined only two.

*Skull.*—The individual bones, especially those at the base, do not differ in shape. But the whole skull, in its proportions, outline, and relative direction of the bones, differs greatly in some of the breeds, as may be seen by comparing the figures of (A) the wild

<sup>35</sup> Prof. A. Newton ('Proc. Zoolog. Soc.,' 1865, p. 716) remarks that he knows no species which present any remarkable sexual distinction; but Mr. Wallace informs me, that in the sub-

family of the Treronidae the sexes often differ considerably in colour. See also on sexual differences in the Columbidae, Gould, 'Handbook to the Birds of Australia,' vol. ii. pp. 109-149.