

collection of the Columbidae in the British Museum, and, with the exception of a few forms (such as the *Didunculus*, *Calænas*, *Goura*, &c.), I do not hesitate to affirm that some domestic races of the rock-pigeon differ fully as much from each other in external characters as do the most distinct natural genera. We may look in vain through the 288 known species⁴ for a beak so small and conical as that of the short-faced tumbler; for one so broad and short as that of the barb; for one so long, straight, and narrow, with its enormous wattles, as that of the English carrier; for an expanded upraised tail like that of the fantail; or for an œsophagus like that of the pouter. I do not for a moment pretend that the domestic races differ from each other in their whole organisation as much as the more distinct natural genera. I refer only to external characters, on which, however, it must be confessed that most genera of birds have been founded. When, in a future chapter, we discuss the principle of selection as followed by man, we shall clearly see why the differences between the domestic races are almost always confined to external, or at least to externally visible, characters.

Owing to the amount and gradations of difference between the several breeds, I have found it indispensable in the following classification to rank them under Groups, Races, and Sub-races; to which varieties and sub-varieties, all strictly inheriting their proper characters, must often be added. Even with the individuals of the same sub-variety, when long kept by different fanciers, different strains can sometimes be recognised. There can be no doubt that, if well-characterized forms of the several races had been found wild, all would have been ranked as distinct species, and several of them would certainly have been placed by ornithologists in distinct genera. A good classification of the various domestic breeds is extremely difficult, owing to the manner in which many of the forms graduate into each other; but it is curious how exactly the same difficulties are encountered, and the same rules have to be followed, as in the classification of any natural but difficult group of organic beings. An "artificial

⁴ 'Coup d'Oeil sur l'Ordre des Pigeons,' par Prince C. L. Bonaparte, Paris, 1855. This author makes 288 species, ranked under 85 genera.