

MM. Grandidier and A. Milne-Edwards have given figures of the skeletons and separate bones of *Prion vittatus*, *Puffinus chlororhynchus*, and *Thalassidroma oceanica*.

III. COMPARATIVE ANATOMY OF THE TUBINARES.

My object in working out the present report has been, not to produce a detailed description of the structure of any particular Petrel, but to describe the most important deviations from the ordinary avian type met with in this group, and to compare the members of it with each other, and with other groups of birds, in those points of their structure in which experience has shown birds to differ from each other.

Some of the modifications here described are of great physiological and morphological interest, whilst the numerous differences in points of detail displayed in the different sections and genera of the Tubinares lead one to expect that the future study of systematic ornithology will be not a little elucidated by the labours of the anatomist, wherever he, as in the present case, has material at his command sufficient for something like an adequate study of a natural group on the basis of structural differences more important than those that can be discerned from the superficial inspection of an ordinary skin.

In the present section the external characters, pterylosis, and visceral anatomy are first described; these are succeeded by an account of the myology, to which follows a description of the tracheal structures, and of certain other points in the anatomy of the soft parts. An account of the osteology concludes the whole.

1. EXTERNAL CHARACTERS AND PTERYLOSIS.

There are some points in the external characters of the Tubinares that may be noticed here, because in ordinary skins they can only be made out with difficulty, owing to changes and distortion in the process of drying.¹

The order Tubinares derives its name from the character, prevalent throughout the group, of the external nares, which are prolonged into a more or less lengthy cylindrical tube, lying usually on the dorsal surface of the beak, and opening by one or two apertures (*cf.* figs. 1, 32, and 33, *infra*, pp. 12 and 59). The exact disposition and degree of development of these tubes vary in the different members of the group.

In the Oceanitidæ, and the smaller species of Procellariidæ (belonging to the genera *Procellaria*, *Cymochorea*, and *Halocyptena*), the nasal tubes quite coalesce, lying on the dorsal surface of the beak for about its basal half; the tube so formed rises rather

¹ I need not do more here than refer to the peculiar bill of the Tubinares,—the peculiarity arising from the subdivision, into more or less distinct plates, of the corneous covering of the mandibles,—as it is sufficiently described in systematic works on ornithology.