

*Majaqueus*, *Puffinus*, &c. The knee-gap may become so deep as to completely divide the inferior tract into two parts below (e.g., *Pelagodroma*, *Prion*, and, according to Nitzsch, *Halobæna*).<sup>1</sup>

The hypopterygium is usually well-developed, with long feathers, and the humeral tracts are very strong and broad.

The contour-feathers always have an after-shaft, though in the Diomedeinæ it is extremely small, most so in *Diomedea exulans* where it is reduced to a short tuft, about half an inch long, of five or six nearly simple, straight plumes. In the smaller Albatrosses it is larger, and in the rest of the group, including *Pelecanoïdes*, it is of good size.

All the forms have their spaces as well as tracts covered by down-feathers, which may become very long and close-set, especially in *Pagodroma*.

The oil-gland is always large, globular, with its surface covered above at the base—which is also partly covered by the termination of the uropygial band of the dorsal tract—by scattered semi-plumes, and with a tubular mamilla, provided with a good tuft of down-feathers. The tuft and gland are never absent. In the Oceanitidæ and smaller forms (*Cymochorea*, &c.) the tuft of feathers simply encircles the apex of the gland, but in the larger ones it sends a median prolongation across it as well, so as to divide the surface of the mamilla into two lateral parts, separated from each other by the median row of feathers, and each with its opening or openings. The number of these varies in the different forms of the group, as already indicated by Nitzsch (*loc. cit.*, p. 144). *Diomedea exulans* has about half a dozen small ones in each half, arranged in a crescent. *Diomedea brachyura* and *Thalassiarche* have numerous small apertures opening into a single large circular common opening. The Fulmars, except *Aeipetes*, have several apertures in each half, as have *Daption* and *Pagodroma*, *Ossifraga* having as many as five. *Majaqueus* has four; *Æstrelata* three. *Aeipetes*, *Pelecanoïdes*, *Bulweria*, and the smaller Procellariidæ, as well as the Oceanitidæ, have apparently only two pores, one in each half of the gland.

The very young birds, I may remark, are, in all the species I have seen, covered with a thick coating of fluffy grey down, which is pushed off as usual at the ends of the contour-feathers when the latter appear. There are apparently no intermediate changes of plumage, the first plumage of the young bird being similar to that of the adult,<sup>2</sup> a condition of things very unlike that in the Gulls (*Laridæ*) with which the Tubinares have so often been associated. Besides the long down on the tracts corresponding to the future tracts of contour-feathers, the young birds have a shorter downy covering distributed pretty uniformly, as in the adults, over the intervening spaces, and between the feathers of the tracts.

<sup>1</sup> Nitzsch lays some stress on the angle, whether acute or obtuse, made by the lumbar tracts at their junction with the dorsal; but the difference in the direction of the two parts is not, as seen in entire birds, so obvious as would be judged from Nitzsch's figures (*loc. cit.*, pl. x. figs. 2, 3), which were probably made up from the examination of skins only. The lumbar tracts, where the connecting rows of feathers are best developed, seem always to run outwards and backwards from the dorsal tracts, as shown in his figure of *Puffinus obscurus*.

<sup>2</sup> *Diomedea exulans* may be an exception.