

tertius of the Petrels is altogether unrepresented in the Laridæ. The character of the cæca in the two groups is also quite different, and there are no special osteological resemblances between the two groups so far as I can see, for the mere schizognathous character of the palate is, we now know, not necessarily a mark of affinity. The character of the young plumage, the condition of the young birds, and the number, shape, and coloration of the eggs—points on which some stress may be laid in questions of this kind—are totally dissimilar in the two groups, as indeed are the habits of the adult birds themselves, though no doubt both are “web-footed” and more or less pelagic in habit. Such resemblances, however, can hardly be seriously considered as indicating any real affinities.¹

“L’Herminier, A. Milne-Edwards, and Huxley have all, in describing various points in the osteology of the Tubinares, pointed out similarities of various kinds between their osseous structure and that of various forms of the Steganopodes, though they still kept them close to the Laridæ. Eyton, on the other hand, places the various Petrels he describes in the family “Pelecanidæ,” the Gulls forming a separate family by themselves.

“But no one will be prepared, I think, to dispute that the Steganopodes are allied to the Herodiones, including under that name the Storks and Herons, with *Scopus*, only. Thus, on osteological grounds alone, there is sufficient ground for placing the Tubinares in the vicinity of the Steganopodes and Herodiones. And, in fact, neglecting the desmognathous structure of the palate,—the taxonomic value of which *per se* is becoming more and more dubious as our knowledge of the structure of birds increases,—there is little in the characters assigned to the groups Pelargomorphæ and Dysporomorphæ by Professor Huxley (*l.c.*, p. 461) that is not applicable to the general Petrel type.

“The completely double great pectoral muscle is a characteristic only found, as already observed, in the Ciconiidæ, Cathartidæ, the Steganopodes (except *Phalacrocorax*), and the Tubinares, and in all these forms it is associated with short colic cæca of peculiar shape (absent altogether in the Cathartidæ, as in some of the Tubinares), more or less completely webbed feet, tufted oil-gland (except in the Cathartidæ), holorrhinal nostrils, a tendency of the palatine bones to unite behind the posterior nares, truncated mandible, broad, strong, well-developed sternum, and strongly curved, well-developed clavicles. These birds also agree together in being ‘Altrices,’ the young birds being quite helpless after birth, and requiring to be fed for a long time by their parents—and in generally laying eggs of a white, or nearly white, colour.

“The group so constituted, of which the Ardeidæ and Falconidæ must also be considered as aberrant members,—the first family being closely related to the Ciconiidæ through *Scopus*, whilst the Falconidæ are probably, though much more remotely, connected with

¹ No views regarding the affinities of the Petrels other than that to the Laridæ already discussed, and that to the Ciconiiform birds, have, so far as I know, been seriously advanced by ornithological writers, Professor Garrod having abandoned his early idea that the Tubinares were probably related remotely to the Anseres and their allies (*cf. Proc. Zool. Soc. Lond.*, p. 112, 1874; Collected Papers, pp. 220 and 521).