The Petrels.—A large collection of these birds, obtained for the most part in the Southern Ocean, was handed to the late Professor Garrod for anatomical examination, and on his death was transferred to the late Mr. W. A. Forbes, who made an exhaustive report upon their structure and affinities. The following paragraphs contain his most important conclusions:—"The propriety of the division of the entire order Tubinares into two main families, which must be termed the Oceanitidæ and Procellariidæ,[1] first proposed by Professor Garrod in 1873, has been fully borne out by my further investigations into the structure of these forms. To the differences in their myological formulæ, and in the presence or absence of cæca, may now be added numerous other points, both external and internal.

"The Oceanitidæ agree together in having the following peculiarities which are not shared in—with one or two exceptions marked by an *—by any of the Procellariidæ:—

"The number of secondary remiges is never more than ten. The tarsi are not uniformly reticulate, but are either ochreate, or covered by large transversely-oblique scutes anteriorly. The claws are very flat, depressed, and lamellar. There are no colic cæca * (absent in *Halocyptena* only of the Procellariidæ). There is a peculiar *expansor secundariorum* muscle. The tendon of the *tensor patagii brevis* is quite simple throughout. The *semi-tendinosus* muscle has a well-developed accessory head. The *ambiens* muscle, when present, does not pass over the knee, but is lost on the cnemial process of the tibia. The number of cervico-dorsal vertebræ is twenty-one. The clavicles have a long, curved, symphysial process. The leg bones are longer than the wing bones. The tarsus is longer than the mid-toe* and ulna, and at least twice as long as the femur. The tibia is at least twice as long as the humerus, and much longer than the manus. The basal phalanx of the middle toe is as long as, or longer than, the next two taken together.

"The Oceanitidæ also agree together in having no basipterygoid processes, no uncinate bone, a peculiarly short and stout humerus, radius, and ulna, a single circular nasal aperture, a sternum with its posterior margin quite or nearly entire, a larger *gluteus primus*, as well as in numerous other smaller details already noticed. All these characters never coexist together in any Procellarian form, and, if my observations are correct, the Oceanitidæ further differ from the Procellariidæ by having a *biceps brachii* muscle of the normal form, with no patagial slip.

"The Procellariidæ, on the other hand, have the following characters:—

"The number of secondary remiges is never less than thirteen, and is usually much greater. The tarsi are pretty uniformly covered with small hexagonal scutellæ. The claws

[1] *Cf. Proc. Zool. Soc. Lond.*, p. 737, 1881.