PROCELLARIA GLACIALIS, Linn.

J. Gould & H. Richter del et lith.

Walter Imp.

PROCELLARIA GLACIALIS, Linn.

Fulmar.

Procellaria glacialis, Linn. Faun. Suec., p. 51.

Fulmaris glacialis, Steph. Cont. of Shaw's Gen. Zool., vol. xiii. p. 234, pl. 27.

Procellaria hiemalis, Brehm, Vög. Deutschl., p. 800.

Rhantistes glacialis, Kaup, Natürl. Syst., p. 105.

PENNANT remarks that no bird is of so much use to the islanders of St. Kilda as the Fulmar Petrel; for it supplies oil for their lamps, down for their beds, a delicacy for their tables, a balm for their wounds, and a medicine for their distempers. Besides being abundant in this great nursery, the Fulmar occasionally occurs all round the coasts of England, Scotland, and Ireland, as well as the seas of the Arctic regions generally, especially those of Hudson's Bay, Davis's Straits, and Baffin's Bay. It is also to be found in Iceland, the Faroe Islands, Spitsbergen, Greenland, and Norway, and occasionally on the coasts of Holland and France; and Audubon states that it extends along the eastern side of America as far south as Long Island. To me, the most interesting account of the bird and its habits, the manner of its capture, and the uses to which it is applied by the St.-Kildians is that furnished by Mr. John Macgillivray to his father, from actual inspection, in 1840, a part of which I take the liberty of transcribing.

"St. Kilda has long been noted as the only breeding-place in Britain of the Fulmar Petrel. It exists there in almost incredible numbers, and to the natives is by far the most important of the productions of the island. It forms one of the principal means of support to the inhabitants, who daily risk their lives in its pursuit. The Fulmar breeds on the face of the highest precipices, and only on such as are furnished with small grassy shelves, every spot on which, above a few inches in extent, is occupied by one or more of its nests. The nest is formed of herbage, seldom bulky, generally a mere shallow excavation in the turf, lined with dried grass and the withered tufts of the sea-pink, in which the bird deposits a single egg, of a pure white when clean, which is seldom the case, and varying in size from 2 inches 7 lines to 3 inches 1½ line in length, and 1 inch 11 lines to 2 inches in breadth. On the 30th of June (having partially descended a nearly perpendicular precipice 600 feet in height, the whole face of which was covered with the nests of the Fulmar) I enjoyed an opportunity of observing the habits of this bird, which has fallen to the lot of few of those who have described them as if from personal observation. The nests had all been robbed about a month before by the natives, who esteem the egg of this species above all others—those of the Ank, Guillemot, Kittiwake, and Puffin ranking next, and the Gannet, Scart, and Cormorant last of all. Many of the nests contained each a young bird, a day or two old at furthest, thickly covered with long white down. They were very clamorous on being handled, and vomited a quantity of clear oil, with which I sometimes observed the parent birds feeding them by disgorging it. The Fulmar is stated, in most works of ornithology, to possess the power of ejecting oil with much force through its tubular nostrils, as a means of defence; but although I surprised several upon the nest, I never observed them to do so. On being seized they instantly vomit a quantity of clear amber-coloured oil, which imparts to the whole bird, its nest and young, and even the very rock it frequents, a peculiar and very disagreeable odour. Fulmar oil is amongst the most valuable productions of St. Kilda, and is procured of two kinds by different processes. The best is obtained from the old bird by surprising it at night upon the rock, and tightly closing the bill until the fowler has secured the bird between his knees with the head downwards. By opening the bill the Fulmar is allowed to disgorge about a table-spoonfull of the oil into the dried gullet and stomach of the Solan Goose, used as a reservoir for that purpose. These, when filled, are secured with a string, and hung on cords across the interior of the huts until required for use. The oil thus procured and preserved, besides supplying their lamps, is used by the inhabitants as a medicine, being sometimes of considerable efficacy in chronic rheumatism, and acting as a cathartic; while, from its nauseous taste and smell, it would doubtless prove an effectual emetic also to any but a St.-Kildian. In the beginning of August the natives descend the rocks for the young Fulmars, which are then nearly fledged, and, by boiling with water, in proper vessels, are made to furnish a large quantity of fat, which is skimmed off, and preserved in casks in the solid form. The old Fulmar is much esteemed as food by the St.-Kildians, principally on account of its subcutaneous covering of fat, a substance of which they are immoderately fond.

"The Fulmar flies with great buoyancy and considerable rapidity, and when at sea is generally seen skimming along the surface of the waves at a slight elevation, though I never observed one to alight on or pick up any thing from the water. Several which I dissected had the stomach filled with pure oil, mixed up with the indigestible horny mandibles of some of the Sepiadæ, which, we may conclude, form their principal food. It is partially a nocturnal bird; for I seldom observed it at any distance from St. Kilda,

except during the evening and about daybreak, at the latter time always flying in the direction of the island as if hastening homewards. I have also, when at sea, engaged in cod-fishing to the westward of the Harris Islands, in very gloomy and rainy weather observed a few Fulmars flying about the boat, probably attracted by the fish we had caught. At its breeding-places, however, the Fulmar is always in motion, comparatively few being to be seen upon the rocks, the great mass being engaged flying in circles along the face of the precipice and always in the same direction, none crossing, probably on account of the confusion this would cause among such an immense multitude. I never heard them utter any cry when thus engaged, not even when their nests were being robbed. The Fulmar does not allow itself to be handled with impunity, but defends itself with its powerful bill, which it can use with as much effect as good will."

"Considering the vast number that resort to St. Kilda," says the elder Macgillivray, "it is surprising that so few are to be seen along the west coast of Scotland; on the eastern side, however, where there is no breeding-place, individuals often appear in stormy weather in the Moray Frith; and along the coast from St. George to Fraserburgh many continue all the winter, arriving toward the end of autumn and departing in spring."

From the various statements made by observers it appears that the Fulmar feeds on fishes, cephalopodous mollusca, cirripedia, and most other kinds of animal substance, especially such as are oily or fatty. The Rev. Mr. Scoresby, in his 'Arctic Regions,' states that it is the constant companion of the whale-fisher, joining his ship immediately on passing the Shetland Islands, and accompanying it to the highest accessible latitudes, keeping an eager watch for any thing thrown overboard. "Fulmars are extremely greedy of the fat of the whale. Though few should be seen when a whale is about to be captured, yet, as soon as the flensing process commences they rush in from all quarters, and, frequently accumulate to many thousands in number. They then occupy the greasy track of the ship, and, being audaciously greedy, fearlessly advance within a few yards of the men employed in cutting up the whale. If, indeed, the fragments of fat do not float sufficiently away, they approach so near the scene of operations that they are knocked down with boat-hooks in great numbers, and sometimes taken up by the hand. The sea immediately about the ship's stern is occasionally so completely covered with them that a stone can scarcely be thrown overboard without striking one. When any thing is thus cast among them, those nearest the spot where it falls take the alarm; and these, exciting fear in others more remote, sometimes put a thousand of them in motion; but as in rising into the air they assist their wings for the first few yards by striking the water with their feet, there is produced by such a number of them a loud and most singular splashing. It is highly amusing to observe the voracity with which they seize the pieces of fat that fall in in their way; the size and number of pieces they take at a meal; the curious chuckling noise which in their anxiety for despatch they always make, and the jealousy with which they view, and the boldness with which they attack, any of their species engaged in devouring the finest morsels. They frequently glut themselves so completely that they are unable to fly; in which case, when they are not relieved by a quantity being disgorged, they endeavour to get on the nearest piece of ice, where they rest until the advancement of digestion restores their wonted powers. Then, if opportunity permit, they return with the same gust to the banquet as before; and though numbers of the species may be killed, and allowed to float about among them, they appear unconscious of any danger to themselves."

We learn from Mr. Newton's "Notes on the Birds of Spitsbergen" that Dr. Malmgren found the Fulmar breeding in thousands on the north side of Brandywine Bay, lat. 80° 24' N., and in smaller numbers on the Alkenhorn and also on Bear Island. "The very limited number of the breeding-places of the Fulmar," remarks Mr. Newton, "forms a curious contrast to the extraordinary abundance of the species." A very interesting account of this bird by Capt. Elwes will be found in 'The Ibis' for 1869; but as the details are similar to those already given from the pen of John Macgillivray, I have not considered it necessary to make any extracts from it.

I have observed a considerable variation in the size of the Fulmars that have come under my notice, particularly in two which had been captured on the coast of Yorkshire, and were kindly sent me by Mr. J. H. Gurney, Jun. One of these was so much darker than the other in colouring that it might almost be described as of a uniform deep grey, while the other, a large old male, had the upper surface of a light silvery grey and the under surface pure white.

The figures represent a bird in the usual plumage, and the dark-coloured specimen above mentioned, both of the natural size.

Gould, John. 1873. "Fulmar, *Procellaria glacialis* [Pl. 82]." *The birds of Great Britain* 5, -. <https://doi.org/10.5962/p.324126>.

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