

THE MIGRATIONS OF ANIMAL LIFE. At the utmost limits of northern travel attained by man, hordes of animals of various kinds have been observed to be traveling still further.

The Arctic zone, though not rich in species, is teeming with individual life, and is the home of some of the most numerous families known to the naturalist. Among birds, the swimmers, drawing their subsistence from open water, are predominant; the great families of ducks, *Auks*, and procellarine birds (*Anatina*, *Alcina*, and *Procellarina*), throng the seas and passages of the far north, and even incubate in regions of unknown northernness. The elder duck has been traced to breeding grounds as high as 78° in Baffin's Bay, and in conjunction with the brent goose, seen by us in Wellington Channel, and the loon and little auk, pass in great flights to the northern waters beyond. The mammals of the sea—the huge cetaces, in the three great families, *Belinida*, *Delphinida*, and *Phocida*, represented by the whales, the narwhal and the seal, as well as that strange marine pachyderm, the tusky walrus, all pass in *schools* toward the northern waters. I have seen the white whale (*Delphinopterus beluga*) passing up Wellington Channel to the north for nearly four successive days, and that too while all around us was a sea of broken ice.

So with the quadrupeds of this region. The equatorial range of the polar bear (*U. maritimus*) is misconceived by our geographical zoologists. It is further to the north than we have yet reached; and this powerful beast informs us of the character of the accompanying life, upon which he preys.

The ruminating animals, whose food must be a vegetation, obey the same impulse or instinct of far northern travel. The reindeer (*Cervus tarandus*), although proved by my friend, Lieutenant M'Clintock, to winter sometimes in the Parry group, outside of the zone of woods, comes down from the north in herds as startling as those described by the Siberian travelers, a "moving forest of antlers."

The whalers of North Baffin's Bay, as high as 75°, shoot them in numbers, and the Esquimaux of Whale Sound, 77°, are clothed with their furs. Five thousand skins are sent to Denmark from Egedesminde and Holsteinberg alone.

Before passing from this branch of my subject, I must mention, also, that the POLAR DRIFT-ICE comes first from the north. The breaking up, the thaw of the ice-plain, does not commence in our so-called warmer south, but in regions to the north of those yet attained. Wrangell speaks of this on the Asiatic Seas, Parry above Spitzbergen; and my friend, Captain Penny, shrewd, bold, and adventurous, confirms it in his experience of Wellington Sound.

In addition to all this, we have the OBSERVATIONS OF ACTUAL TRAVEL; although this, confirmatory as it is, must, like the theoretical views, be received with caution. Barentz saw an opening water beyond the northernmost point of Europe; Anjou the same beyond the Siberian Bear Islands; and Wrangell, in a sledge journey from the mouth of the Kolyma, speaks of a "vast illimitable ocean," illimitable to mortal vision.

To penetrate this icy annulus, to make the "northwest passage" the north-east passage to reach the pole, have been favored dreams since the early days of ocean navigation. Yet up to this moment complete failure has attended every attempt. One voyager, William Scoresby, known to the scientific world for the range and exactness of his observation, passed beyond the latitude of 81° 30'. But after discarding the apocryphal voyages of the early Dutch, whose