



## BRENT GOOSE MIGRATION ROUTES

Across the northern hemisphere all Brent populations begin their northward shift to arctic breeding ranges in late spring. The timing of these movements is generally driven by the increasing solar radiation which opens up the arctic through spring and summer; the precise in-year timing varies year by year and there is some evidence that Brent are already heading north earlier than was normally the case. Irish Brent begin to move north on the first leg of the journey from late March - we have good information on this from ring observations where we can see birds from France moving to Ireland, and Irish wintering Brent moving gradually northward. Also at the end of March the vanguard arrival is typically in the last days of March. The main movement occurs in April and our colleagues in western Iceland observe increasing numbers at around a dozen key sites along this western coastline. With the goal of the breeding season in mind (egg-laying in mid-June) the focus of birds is twofold - to build up energy reserves for investment in nesting (especially important for females) and also enough to fuel the migration to what is an unpredictable landscape many thousands of miles further north.

Numbers in Iceland build through May and by the end of that month virtually all birds will already be there; they will rapidly leave Western Iceland en masse destined for Greenland and Canada. They will first encounter sea ice off the coast of eastern Greenland, rapidly cross the inland ice (flying at ca. 2,500m) and then more sea ice in the Davis Strait (which separates Greenland from Canada) as they cross into the still frozen archipelago of the eastern Queen Elizabeth Islands which is their species main breeding range. If conditions are suitable, a proportion of birds will attempt to breed, raising up to five chicks which are ready to fly by late August and embark on their first journey south, their parents guiding them on the same route as taken in spring this time escaping the first snows and frosts which will make the arctic inhospitable for most wildlife until the following spring. The annual cycle is complete with the arrival of flocks of old and new birds onto Irish intertidal sites throughout the autumn. Numbers peak in October at around 4 coastal sites which hold large Zostera beds - Strangford Lough, Lough Foyle, Tralee/Castlemaine and Tramore and as autumn progresses Brent disperse and occupy the full range of sites right around the coastlines of Ireland, with smaller numbers in northern France and western Britain.