**Appendix D.** Most recent estimates of population size in the breeding areas, with sources. Where the census unit is birds (number counted on the cliff), we have used a conversion factor of 0.73 to obtain the number of pairs. The total number of adult birds in winter (Appendix F) was then obtained as twice the number of pairs. Study colonies listed here are those where geolocators were deployed and retrieved.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Breeding area | Study colonies | Number | Census unit | Year | Source |
| Arctic Canada | Prince Leopold Island, Minarets | 540,000 | Pairs | 1972-2000 | Gaston et al. (2012) |
| Atlantic Canada | Gannets | 8176 | Pairs | 2000-2009 | S. Wilhelm, pers. comm. |
| Hudson Bay | Coats, Digges | 1,000,000 | Pairs | 1983-2000 | Gaston et al. (2012) |
| NW Greenland | Saunders Ø, Parker Snow Bay, Kippaku, Ritenbenk | 428,100 | Birds | 2006-2011 | Merkel et al. (2014) |
| SW Greenland | Kitsissut Avaaliit | 18,800 | Birds | 2006-2011 | Merkel et al. (2014) |
| E Greenland | - | 6500 | Birds | 2006-2011 | Merkel et al. (2014) |
| Iceland | Látrabjarg, Grímsey, Fontur | 330,000 | Pairs | 2005-2008 | Garðarsson et al. (in press) |
| Jan Mayen | - | 111,000 | Birds | 2010 | H. Strøm, unpubl. data |
| Spitsbergen | Diabasodden, Ossian Sars, Amfifjellet | 735,000 | Pairs | 1973-1995 | Bakken and Pokrovskaya (2000) |
| Bjørnøya | Bjørnøya | 115,000 | Pairs | 1973-1995 | Bakken and Pokrovskaya (2000) |
| Mainland Norway/Russia | Hornøya | 3500 | Pairs | ?? | K.E. Erikstad & H. Strøm, unpubl. data |
| Novaya Zemlya | - | 850,000 | Pairs | 1936-1993 | Bakken and Pokrovskaya (2000) |
| Franz Josef Land | - | 25,000 | Pairs | 1984-1992 | Bakken and Pokrovskaya (2000) |

**References**

Bakken, V., Pokrovskaya, I., 2000. Brünnich’s guillemot *Uria lomvia*, In The status of marine birds breeding in the Barents Sea region. eds T. Anker-Nilssen, V. Bakken, H. Strøm, A.N. Golovkin, V.V. Bianki, I.P. Tatarinkova. Norsk Polarinstitutt, Tromsø.

Garðarsson, A., Guðmundsson, G.A., Lilliendahl, K., in press. The numbers of large auks on the cliffs of Iceland in 2006-2008. Bliki 33, xx-yy.

Gaston, A.J., Mallory, M., Gilchrist, H.G., 2012. Populations and trends of Canadian Arctic seabirds. Polar Biology 35, 1221-1232. <http://dx.doi.org/10.1007/s00300-012-1168-5>.

Merkel, F., Labansen, A.L., Boertmann, D., Mosbech, A., Egevang, C., Falk, K., Linnebjerg, J.F., Frederiksen, M., Kampp, K., 2014. Declining trends in the majority of Greenland’s thick-billed murre (*Uria lomvia*) colonies 1981-2011. Polar Biology 37, 1061-1071. <http://dx.doi.org/10.1007/s00300-014-1500-3>.