

Supplementary material

Appendix 1

Table A1. Reproductive parameters used to estimate the number of lesser snow goose goslings hatched at the Karrak Lake colony annually between 1993 and 2014.

Year	Apparent nest success ¹	Clutch size	Egg survival ²	Hatching success ³
1993	0.87	3.6	0.9706	0.934
1994	0.87	3.6	0.9706	0.934
1995	0.83	3.5	0.9794	0.934
1996	0.89	3.6	0.9652	0.934
1997	0.83	3.7	0.9802	0.934
1998	0.84	3.5	0.9750	0.934
1999	0.83	3.5	0.9593	0.934
2000	0.70	2.9	0.9813	0.934
2001	0.66	3.5	0.9725	0.934
2002	0.73	3.1	0.9945	0.934
2003	0.86	3.6	0.9829	0.934
2004	0.60	3.0	0.9712	0.934
2005	0.66	3.3	0.9684	0.934
2006	0.88	3.6	0.9787	0.934
2007	0.69	2.9	0.9324	0.934
2008	0.70	3.4	0.9749	0.934
2009	0.74	3.1	0.9382	0.934
2010	0.71	3.1	0.9284	0.934
2011	0.75	3.1	0.9668	0.934
2012	0.81	3.5	0.9684	0.934
2013	0.94	3.7	0.9704	0.934
2014	0.90	3.6	0.9585	0.934

¹ The ratio of successful nests to total number of nests.

² The probability that an egg within a clutch survived incubation given that the nest was successful. Egg survival was not measured in 1993 or 1994; mean egg survival from 1995-2014 was used in place.

³ The probability that an egg hatched a gosling, conditional on egg persistence in the nest until hatch. Estimated from lesser snow geese nesting at La Pérouse Bay, Manitoba (Rockwell et al. 1997) between 1973 and 1984.

Table A2. Reproductive parameters used to estimate the number of Ross's goose goslings hatched annually at the Karrak Lake colony between 1993 and 2014.

Year	Apparent nest success ¹	Clutch size	Egg survival ²	Hatching success ³
1993	0.87	3.1	0.9834	0.934
1994	0.86	3.3	0.9834	0.934
1995	0.86	3.3	0.9827	0.934
1996	0.93	3.6	0.9824	0.934
1997	0.76	3.4	0.9907	0.934
1998	0.85	3.3	0.9848	0.934
1999	0.89	3.4	0.9776	0.934
2000	0.84	2.9	0.9893	0.934
2001	0.69	3.4	0.9908	0.934
2002	0.83	3.0	0.9866	0.934
2003	0.85	3.5	0.9897	0.934
2004	0.73	3.0	0.9903	0.934
2005	0.71	3.1	0.9843	0.934
2006	0.93	3.4	0.9802	0.934
2007	0.76	2.8	0.9531	0.934
2008	0.79	3.0	0.9837	0.934
2009	0.79	2.9	0.9927	0.934
2010	0.86	3.1	0.9860	0.934
2011	0.88	2.9	0.9975	0.934
2012	0.87	3.4	0.9781	0.934
2013	0.95	3.4	0.9690	0.934
2014	0.91	3.2	0.9423	0.934

¹ The ratio of successful nests to total number of nests.

² The probability that an egg within a clutch survived incubation given that the nest was successful. Egg survival was not measured in 1993 or 1994; mean egg survival from 1995-2014 was used in place.

³ The probability that an egg hatched a gosling, conditional on egg persistence in the nest until hatch. Estimated from lesser snow geese nesting at La Pérouse Bay, Manitoba (Rockwell et al. 1997) between 1973 and 1984.