

<b>species</b>	<b>data</b>	<b>document</b>	<b>Last updated</b>
Barnacle Goose Greenland population	Survival	Methodology	16032022

As we were unable to obtain individual-based survival data for the Greenland population (GBG), we used estimates of natural survival obtained using individual-based data from the Svalbard barnacle goose (SBG) as prior information. SBG winter predominantly on the Solway Firth in south-west Scotland, where they have been protected from shooting since the 1950s (Trinder 2014b). The ecology of this population is similar to GBG and should provide a reliable baseline for survival in the absence of hunting.

To estimate the apparent survival of SBG, we modeled winter mark-recapture data with a Cormack-Jolly-Seber (CJS) framework using the RMark interface (Laake 2013) for the program MARK (White & Burnham 1999). We fitted several models which were evaluated using AICc. The best-performing model included annual variation in survival and resighting probability. No difference in resighting probability or survival was found between age classes. Mean and variance of survival were similar for males and females