Family size dynamics in wintering geese

# Datamap

*b* Wintering grounds of greater white-fronted geese *Anser a. albifrons* in the Netherlands and north-west Germany with sites (circles, *n* = 64) where 51,037 successful families within 1,884 flocks were recorded. Triangles mark 21 splits seen in 13 GPS tracked families. Area shaded grey bounds 10,635 observations of marked geese. Data were collected from 2000 - 2016. *a* Breeding grounds (ellipse) with Kolguyev Island (dot) and wintering area (rectangle).

# Distance ~ family size

Predicted distance of wintering site from breeding grounds on Kolguyev for *(a,b)* successful families in flocks, and *(c,d)* marked geese, within *(a,c)* the first 60 days, and *(b,d)* the remainder of winter. Winter days were calculated from flight activity data (see *Methods*).

# Family trends

Predicted size of *(a)* successful families in flocks and *(b)* families of marked geese after arrival on the wintering grounds. Predicted size of (*c*) successful families in flocks over flock size, and of *(d)* *1* successful families in flocks, *2* successful families of marked geese, and *3* all marked geese over summer predation levels. Arrival dates were calculated from flight activity data, and predation index from Arctic rodent abundance (see *Methods*).

# Flock trends

Predicted *(a)* flock size at distances from breeding grounds on Kolguyev. Predicted proportion of first winter juveniles in relation to *(b)* flock size, *(c)* days after arrival, and *(d)* summer predation index. Arrival dates were calculated from flight activity data, and predation index from Arctic rodent abundance (see *Methods*).