

Table S1. Results of GLMM models explaining the instantaneous speed of South-Georgian diving petrels from Kerguelen Islands. Explanatory variables (Dist\_colony = distance from the colony; SST = sea surface temperature; Chl-a = chlorophyll-a concentration; Bathy = bathymetry), Akaike Information Criterion (AIC), Delta AIC (difference in AIC compared to the best model) and Log-likelihood are given for each model. Models are ranked according to their respective AIC value

<b>Models</b>	<b>AIC</b>	<b>Delta AIC</b>	<b>Log-likelihood</b>	<b>Nagelkerke Pseudo R<sup>2</sup></b>
<b>Speed ~ Dist_colony + SST + Chl-a + Bathy</b>	21662.8	0	-10824.4	0.42
<b>Speed ~ Dist_colony + SST</b>	21671.1	8.2	-10828.5	0.41
<b>Speed ~ Dist_colony</b>	21727.4	64.6	-10859.7	0.40
<b>Speed ~ SST</b>	22431.7	768.9	-11211.9	0.21
<b>Speed ~ Bathy</b>	22500.9	838.1	-11246.5	0.19
<b>Speed ~ Chl-a</b>	22848.9	1186.1	-11420.4	0.06
<b>Speed ~ Year</b>	23008.7	1345.9	-11500.3	< 0.01
<b>Speed ~ 1</b>	23010.6	1347.8	-11502.3	0

Table S2. Degree of isotopic niche overlap (%) among years. The overlap between two ellipses is calculated based on the maximum likelihood fitted ellipses (Jackson et al. 2011)

Year	2016	2018	2019
2016	–	25.8	29.5
2018		–	18.4
2019			–

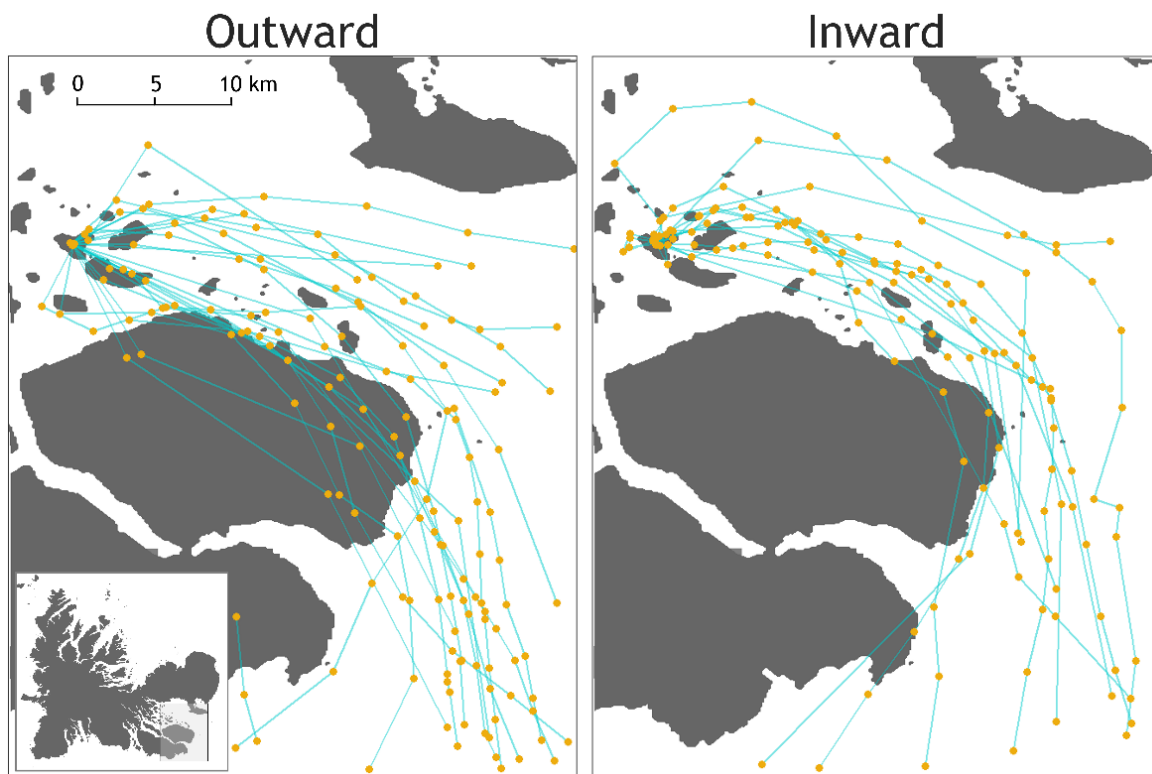


Fig. S1. Outward and inward movements of South Georgian diving petrels (*P. georgicus*) close to their colony showing the flight paths direction in relation to land and marine areas.

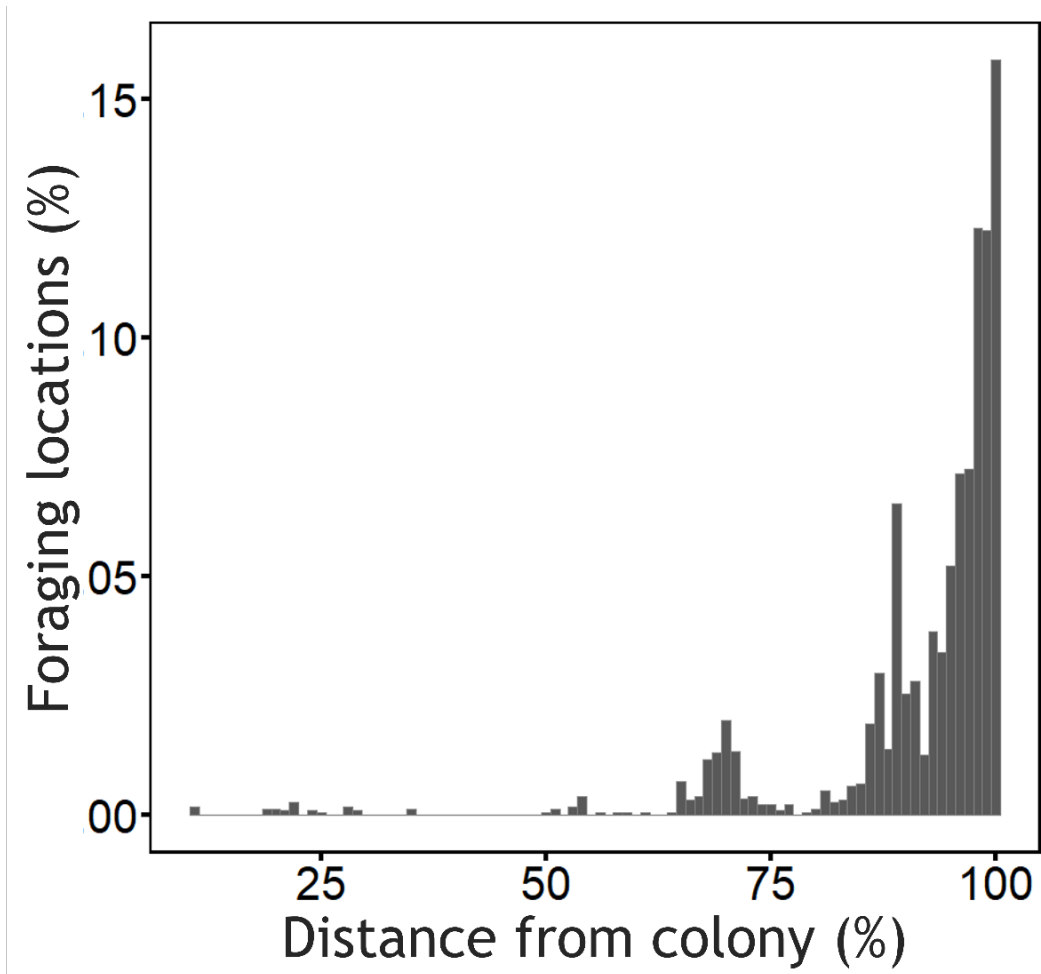


Fig. S2. Distribution of foraging locations ( $< 9.1 \text{ km h}^{-1}$ ) along the maximum range gradient from the colony (0% = colony location; 100% distal point). For each trip, the distance from the colony was standardised by dividing the distance from the colony by the the maximal distance from the colony (distance between colony and distal point). The distal point represents the farthest location from the colony reached during each trip.