

Appendix D. Illustration of individual foraging consistency indices using contrasting examples.

Individual consistency in initial departure direction and in the subsequent use of space during foraging trips were quantified, respectively, using the mean resultant length ($\hat{\rho}$) and the average Bhattacharyya's affinity ($\hat{\beta}_{x,y}$) between all pairwise combinations of three foraging trips. The examples in Fig. E1 illustrate two birds exhibiting contrasting degrees of spatial consistency. Both birds initially departed the colony in individually consistent directions but bird 31 ($\hat{\rho} = 0.97$) was less directionally consistent than bird 11 ($\hat{\rho} = 0.92$) and subsequently travelled to directionally disparate locations. Hence, bird 31 was considerably more spatially consistent across years ($\hat{\beta}_{x,y} = 0.92$) than bird 11 ($\hat{\beta}_{x,y} = 0.24$).

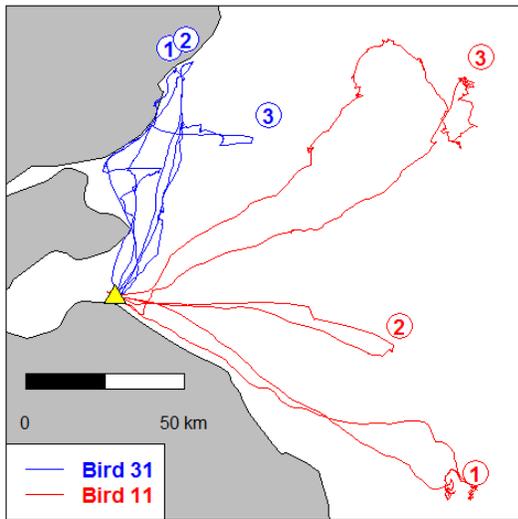


FIG. D1. The first foraging trip GPS-tracked in each study year (2010, 2011 and 2012) made by two gannets breeding at the Bass Rock. Numbers indicate the sequence of trips and the yellow triangle indicates the location of the colony.