

Four sympatrically nesting auks show clear resource segregation in their foraging environment

Isabeau Pratte*, Gregory J. Robertson, Mark L. Mallory

*Corresponding author: pratteisabeau@gmail.com

Marine Ecology Progress Series 572: 243–254 (2017)

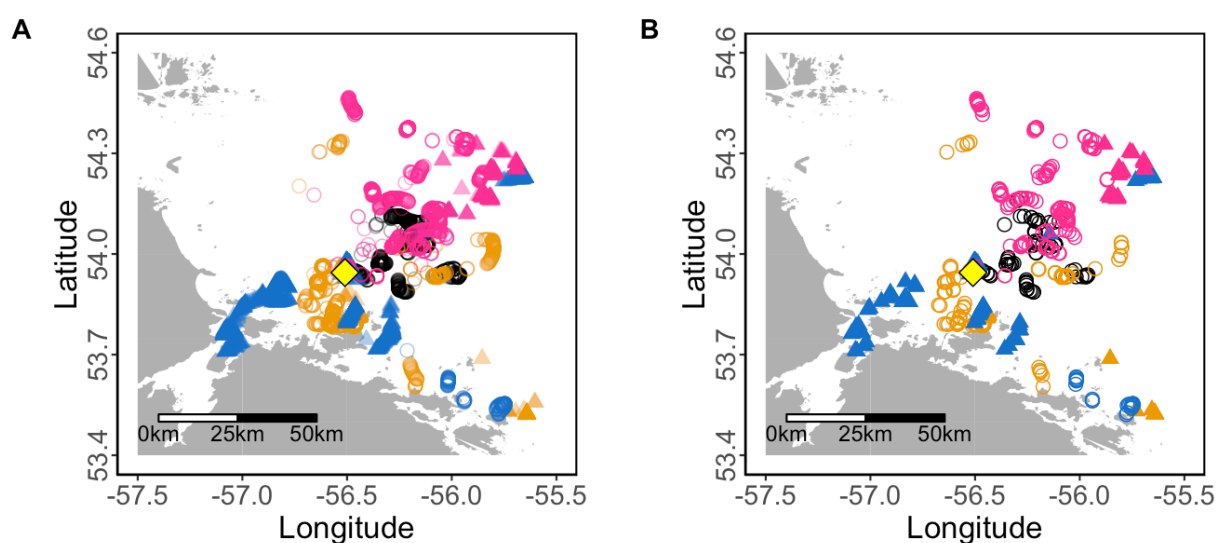


Fig. S1 (A) All the GPS foraging locations ($\leq 5 \text{ km h}^{-1}$; Shoji et al. 2014) from the four auks (blue = razorbill, $n = 5$; orange = common murre, $n = 5$; black = Atlantic puffin, $n = 3$; pink = thick-billed murre, $n = 7$) breeding at the Gannet Islands (yellow diamond) in 2015. (B) Example of randomly selected foraging locations (25 per individual) used in the foraging range analysis. In both figures open circles represent locations of birds captured at incubation and full triangles are locations of birds captured at chick-rearing

LITERATURE CITED

Shoji A, Owen E, Bolton M, Dean B, Kirk H, Fayet A, Boyle D, Freeman R, Perrins C, Aris-Brossu S, Guilford T (2014) Flexible foraging strategies in a diving seabird with high flight cost. *Mar Biol* 161:2121-2129.

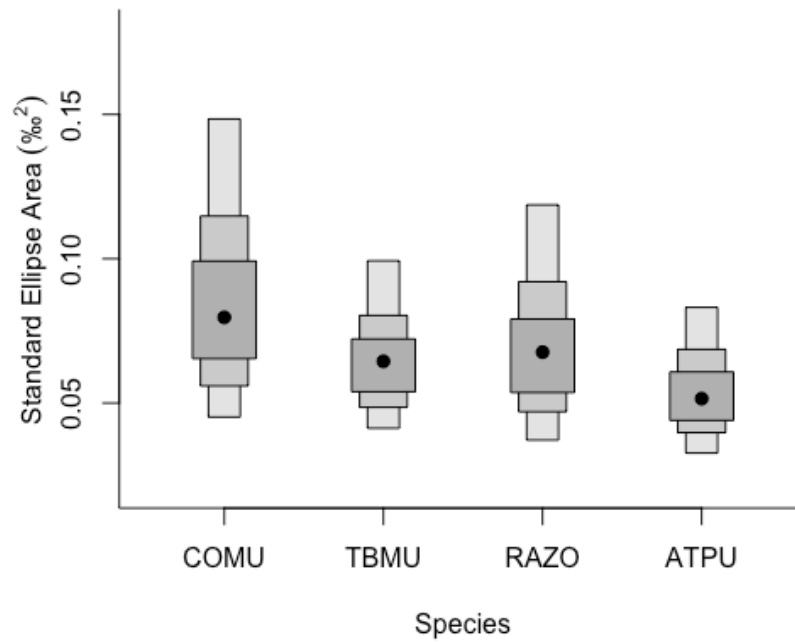


Fig. S2 Density plots showing the mean ellipse areas (black dot) and their credible intervals (50, 75 and 95%) obtained following a Bayesian approach of posterior estimate of simulated Standard Ellipse Areas (SEA_B; Jackson et al. 2011) based on $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values in blood of the four auks species breeding at the Gannet Islands in 2015. Abbreviation of the species name: ATPU (Atlantic puffin), COMU (common murre), RAZO (razorbill), TBMU (thick-billed murre)

Table S1. Summary of the tracking sample sizes after resampling at 6 min intervals, selecting only trips with 20 locations or more, and then selecting 25 random locations per individuals for the four species: ATPU (Atlantic puffin), COMU (common murre), RAZO (razorbill), TBMU (thick-billed murre) at the Gannet Islands in 2015. One ‘trip’ corresponds to one voyage by an individual between departure and return to the colony. Foraging positions are locations outside the colony and the surrounding islands when the speed between two successive positions was below 5 km h^{-1}

Species	Individuals	Trips	Foraging positions				
			Total	Mean \pm SD per id	Mean \pm SD per trip	Min per trip	Max per trip
ATPU	3	7	570	190 \pm 32	81 \pm 49	20	152
RAZO	5	10	927	184 \pm 123	93 \pm 52	21	176
TBMU	7	15	914	131 \pm 61	61 \pm 28	31	131
COMU	5	11	762	152 \pm 104	69 \pm 77	20	241