

Supplemental Material

Table S1. Mean (\pm SD) lifetime reproductive success (*LRS*) and breeding lifespan (*LS*) for female and male Cassin's auklets that never double brooded ($nDB = 0$), had double brooded once (1), or double brooded two or more times (2+) in their lifetime. Sample sizes (n) for each group are shown.

<i>nDB</i>	Females			Males		
	<i>LRS</i>	<i>LS</i>	<i>n</i>	<i>LRS</i>	<i>LS</i>	<i>n</i>
0	1.2 (1.2)	4.7 (2.5)	152	1.4 (1.4)	4.5 (2.5)	222
1	3.1 (1.7)	7.0 (2.8)	31	3.9 (1.9)	7.5 (2.6)	72
2+	7.0 (3.1)	10.1 (3.5)	24	8.7 (3.5)	11.9 (3.6)	72

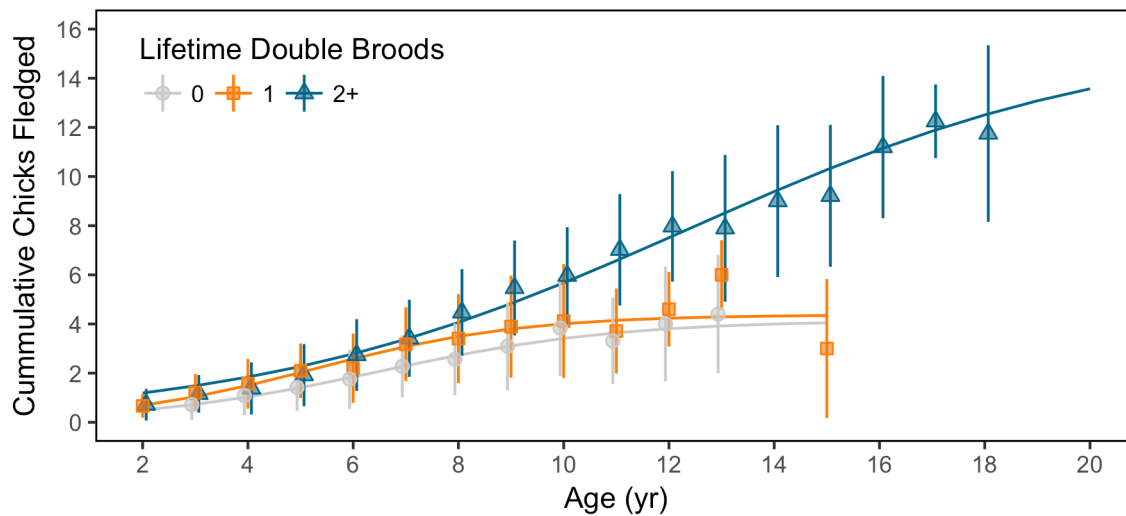


Figure S1. Mean (\pm SD) cumulative number of chicks fledged for each age class of Cassin's auklets that only attempt single broods (grey), had double brooded once (orange), or double brooded two or more times (blue) in their lifetime. A logistic regression was fit to show the trend in cumulative successful chick fledges over time.

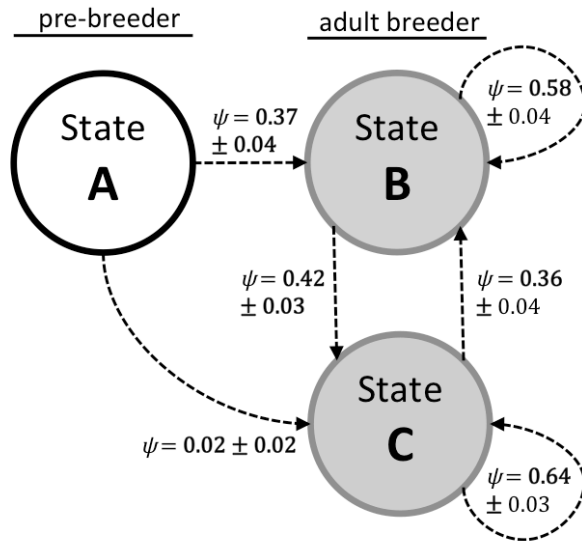


Figure S2. Diagram of observed states, with estimated probability of transition (ψ_t^{rs}) from a pre-breeding state and between breeding states, defined as the probability an individual in state r at time t will be in state s at time $t + 1$. Observable states are defined as pre-breeder (A), single brooded (B), and double brooded (C).

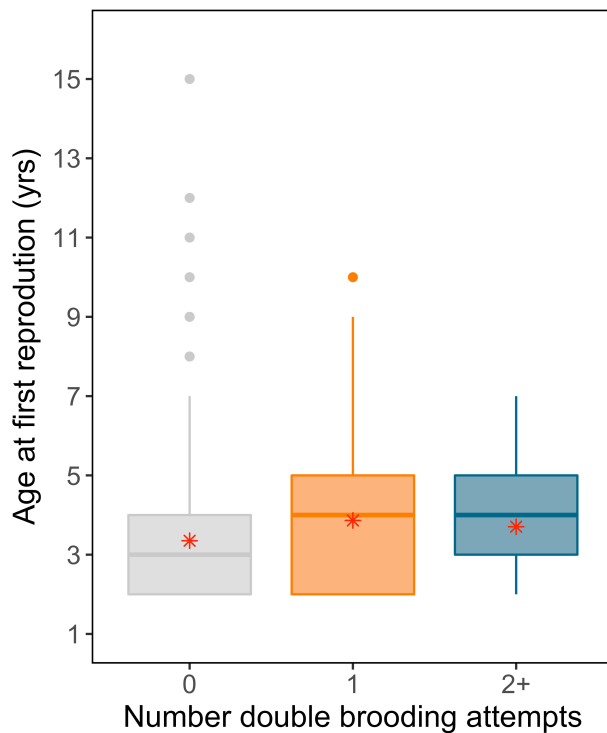


Figure S3. Boxplot showing no difference in age at first reproduction for male and female Cassin's auklets combined between birds that never double brooded (0), double brooded once (1), and 2 or more times (2+) in a lifetime. Red asterisks show mean values for each group.

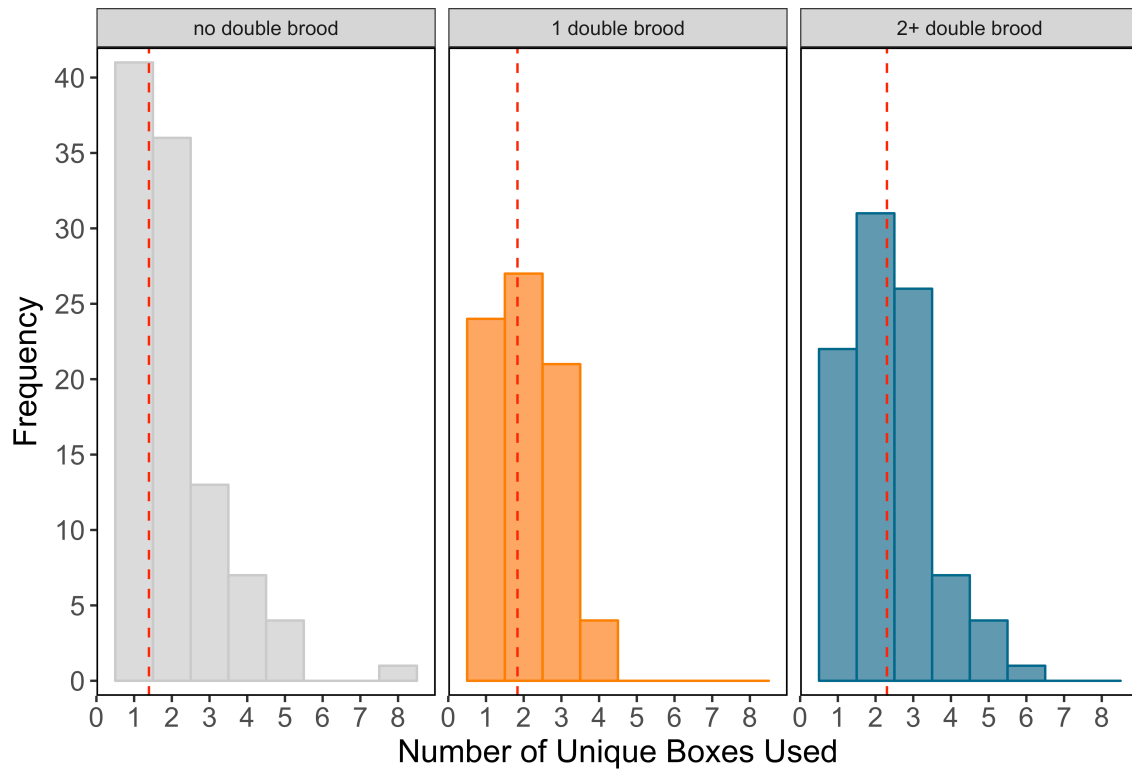


Figure S4. Histograms showing the frequency of different nest boxes used by auklets that never double brooded (grey), double brooded once (orange), or double brooded 2 or more times (blue) throughout their reproductive lifespan. Red dashed line indicates mean value for each group.

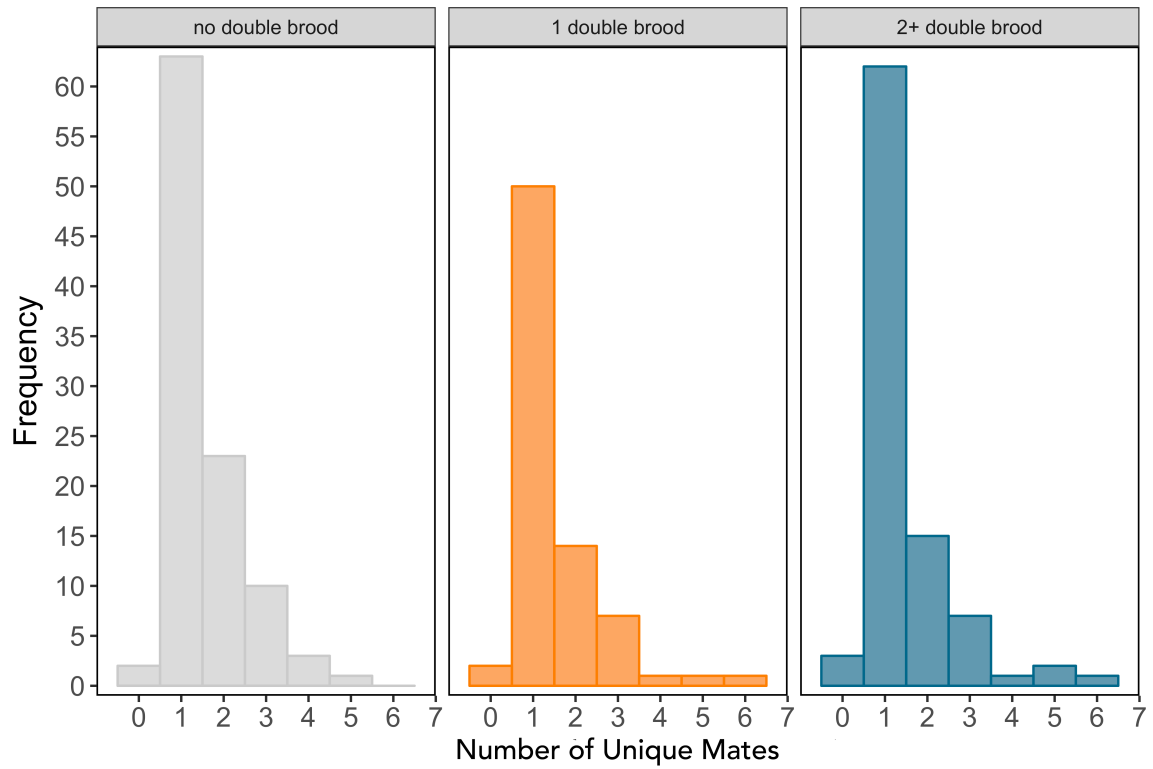


Figure S5. Histograms showing the frequency total number of unique mates used by auklets that never double brooded (grey), double brooded once (orange), or double brooded 2 or more times (blue) throughout their reproductive lifespan.