

Table S1. Seasonal avian frugivores on Fort Liberty, NC that had sufficient observations for spatial occupancy estimates (Wall et al. *in revision*). The mean (\pm SD), across LISU locations, for the Quasi-SDE components, Quantity, and Quality, are also shown. Study species are shown in bold.

Common Name	Scientific Name	Quantity	Quality	Quasi-SDE
American crow	<i>Corvus brachyrhynchos</i>	1.352 (2.467)	0.151 (0.041)	0.204 (0.425)
American robin	<i>Turdus migratorius</i>	0.184 (0.352)	0.08 (0.03)	0.016 (0.033)
blue jay	<i>Cyanocitta cristata</i>	0.136 (0.237)	0.111 (0.029)	0.015 (0.026)
Carolina chickadee	<i>Poecile carolinensis</i>	0.051 (0.089)	0.155 (0.039)	0.007 (0.014)
downy woodpecker	<i>Picoides pubescens</i>	0.029 (0.061)	0.055 (0.02)	0.002 (0.005)
eastern bluebird	<i>Sialis sialis</i>	0.052 (0.126)	0.064 (0.018)	0.004 (0.009)
eastern kingbird	<i>Tyrannus tyrannus</i>	0.036 (0.088)	0.034 (0.01)	0.001 (0.003)
eastern towhee	<i>Pipilo erythrophthalmus</i>	0.227 (0.394)	0.305 (0.096)	0.069 (0.126)
indigo bunting	<i>Passerina cyanea</i>	0.083 (0.243)	0.403 (0.179)	0.038 (0.117)
northern flicker	<i>Colaptes auratus auratus</i>	0.286 (0.547)	0.105 (0.039)	0.028 (0.053)
pine warbler	<i>Setophaga pinus</i>	0.041 (0.079)	0.137 (0.035)	0.006 (0.012)
pileated woodpecker	<i>Dryocopus pileatus</i>	0.466 (0.813)	0.073 (0.025)	0.033 (0.062)
red-cockaded woodpecker	<i>Dryobates borealis</i>	0.018 (0.041)	0.022 (0.006)	0 (0.001)
red-headed woodpecker	<i>Melanerpes erythrocephalus</i>	0.165 (0.306)	0.123 (0.032)	0.02 (0.036)
summer tanager	<i>Piranga rubra</i>	0.029 (0.048)	0.061 (0.019)	0.002 (0.003)
tufted titmouse	<i>Baeolophus bicolor</i>	0.055 (0.095)	0.151 (0.064)	0.009 (0.018)
white-eyed vireo	<i>Vireo griseus</i>	0.025 (0.045)	0.071 (0.025)	0.002 (0.004)
yellow-billed cuckoo	<i>Coccyzus americanus</i>	0.04 (0.086)	0.046 (0.013)	0.002 (0.004)

$$\text{Quasi-SDE} = \text{quantity} \times \text{quality}$$

$$\text{Quasi-SDE} = (1/[n_F/G_C] \times O_P) \times (\text{mean} [\text{spatial } O_B \times \text{spatial } S_B])$$

Quantity is the product of (1) the inverse quotient of n_F , the number of fruits for a given LISU cell and G_C , the gut capacity (number of fruits) of a given bird species and (2) O_P is the species-specific occupancy value for a given LISU cell. The Quality component of the Quasi-SDE is calculated as follows (1) the product of the following two items (A) O_B is a occupancy raster (species-specific), and (B) S_B is the *L. subcoriacea* suitability raster (species-specific) is calculated, and then (2) the mean value (AB product) of the cells that were within species-specific buffered distances of each LISU was calculated; the species-buffered distance was the mean dispersal distance of a bird species as determined by a linear regression with a predictor of bird mass (g). The mean value per species across LISU with fruit (n=39) for Quantity and Quality was then calculated (reported above).