

Supporting Materials

An alternative approach to evaluating the energetic carrying capacity of the landscape for Mallard *Anas platyrhynchos* wintering in the Mississippi Alluvial Valley, USA

Table S1. The CropScape identifier code value and landcover name for land covers included in the “other” category in this study, along with the percentage of each landcover available within the home ranges and at Mallard locations. Values > 1% are in bold.

Value	Landcover type	Availability (%)	Mallard observations (%)
2	Cotton	3.1	0.4
6	Sunflowers	< 0.1	0
10	Peanuts	< 0.1	0
12	Sweet Corn	< 0.1	0
24	Winter Wheat	1.0	0.3
26	Double Crop: Wheat/Soybean	2.1	0.5
27	Rye	< 0.1	0
28	Oats	< 0.1	0
29	Millet	< 0.1	0
37	Other Hay	0.2	0.2
42	Dry Beans	< 0.1	0
44	Other Crops	< 0.1	0
46	Sweet Potatoes	< 0.1	0
48	Watermelons	< 0.1	0
49	Onions	< 0.1	0
53	Peas	< 0.1	0
57	Herbs	< 0.1	< 0.1
59	Grass Seed	< 0.1	< 0.1
74	Pecans	0.2	0.2
92	Aquaculture	< 0.1	0.1

Table S1 (*continued*).

Value	Landcover type	Availability (%)	Mallard observations (%)
111	Open Water	5.2	16.2
121	Developed/Open Space	2.6	0.9
122	Developed/Low Intensity	0.1	< 0.1
123	Developed/Med Intensity	< 0.1	< 0.1
124	Developed/High Intensity	< 0.1	0
131	Barren	0.1	< 0.1
141	Deciduous Forest	0.9	< 0.1
142	Evergreen Forest	< 0.1	0
143	Mixed Forest	< 0.1	0
152	Shrubland	0.7	7.4
176	Grass/Pasture	0.7	0.3
219	Greens	< 0.1	0
225	Double Crop: Wheat/Corn	< 0.1	< 0.1
236	Double Crop: Wheat/Sorghum	< 0.1	< 0.1
238	Double Crop: Wheat/Cotton	< 0.1	0
239	Double Crop: Soybeans/Cotton	< 0.1	< 0.1
240	Double Crop: Soybeans/Oats	< 0.1	0
241	Double Crop: Corn/Soybeans	0.2	0
242	Blueberries	< 0.1	0

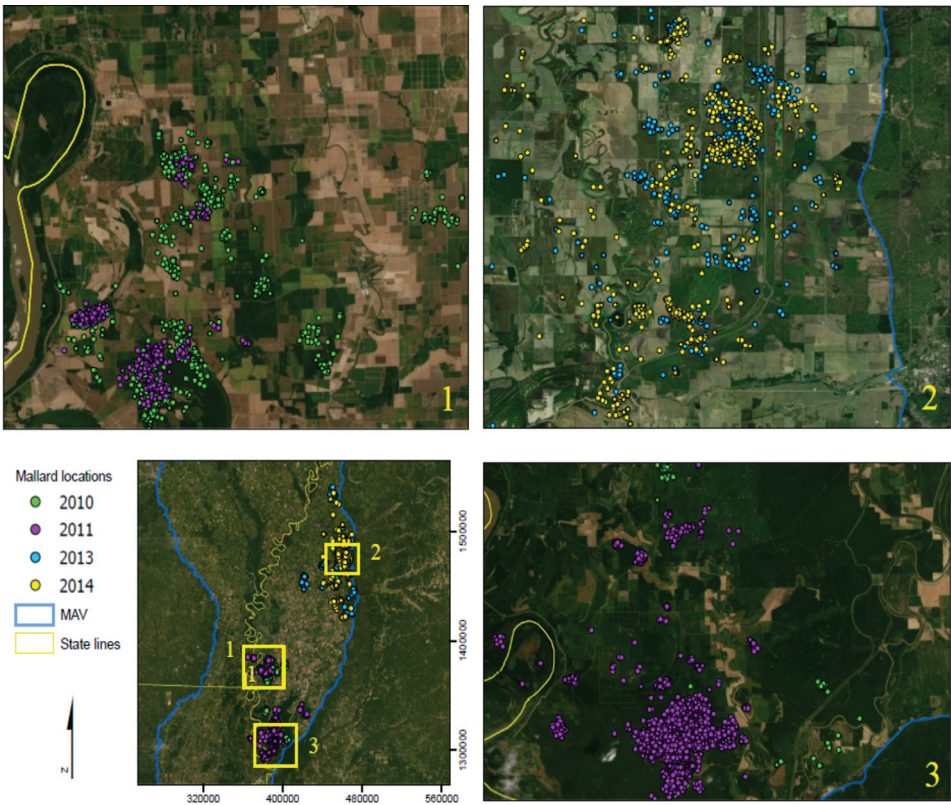


Figure S1. Detailed aerial view of the locations of radio-tagged female Mallard (panels 1–3) within the Mississippi Alluvial Valley (bottom left), in winters 2010/11–2014/15.

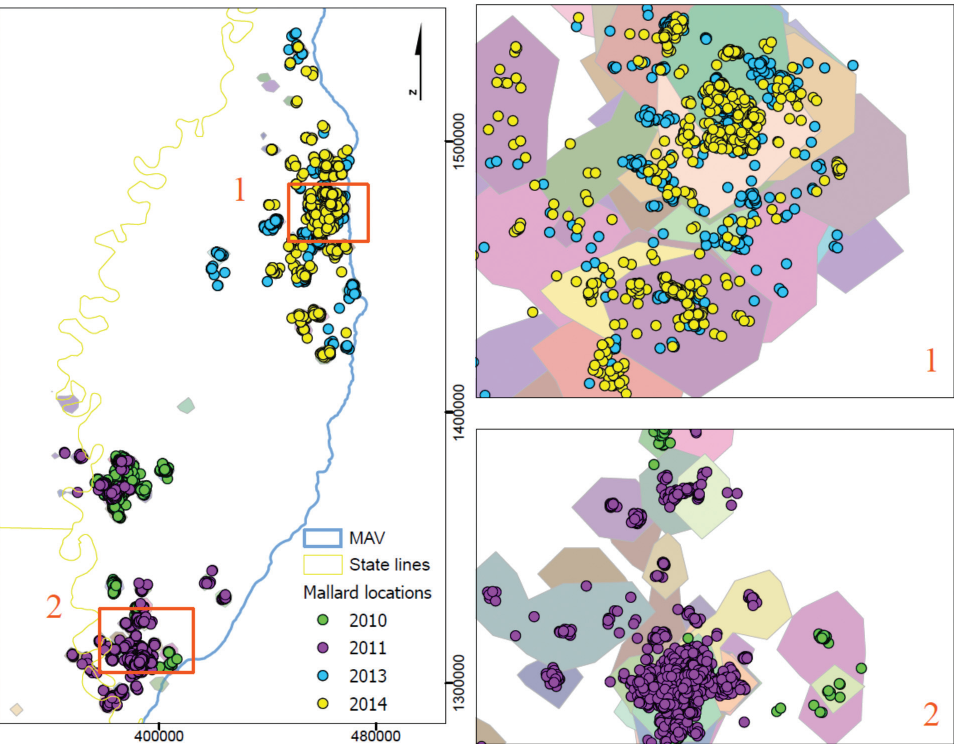


Figure S2. Detailed view of the locations of radio-tagged female Mallard within individual home ranges (two right panels) in the Mississippi Alluvial Valley (left panel), in winters 2010/11–2014/15. Mallard locations by winter, as well as individual home ranges, are displayed in different colors.

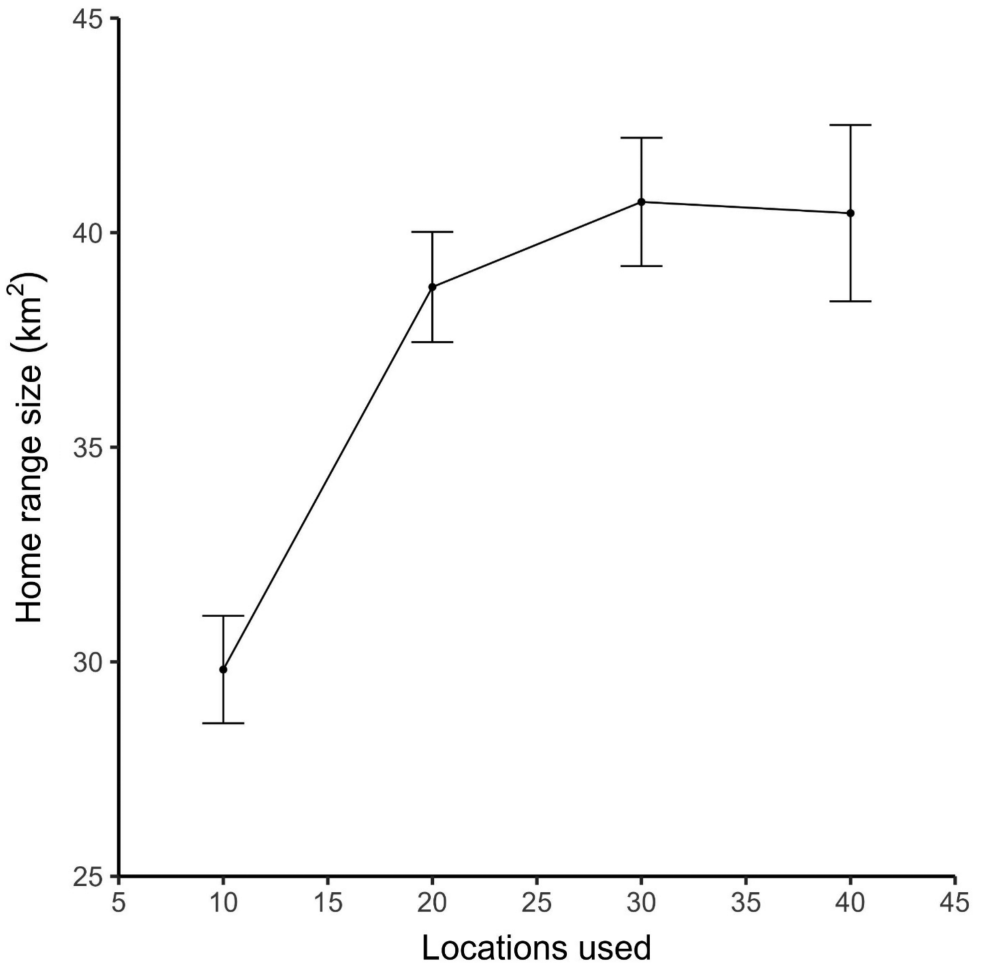


Figure S3. Home range size as a function of the number of locations used. A maximum of 40 locations are shown for clarity as size asymptotes at $\approx$ 30 locations and variations in size are not significant thereafter.

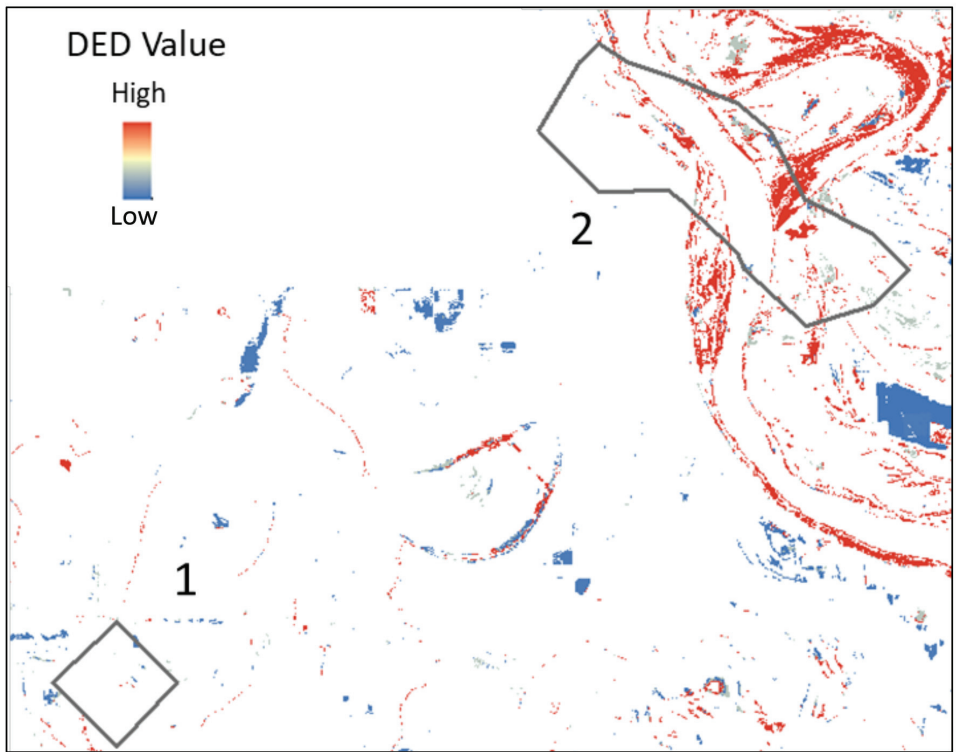


Figure S4. Home ranges for two mallards in the Mississippi Alluvial Valley, winter 2015. Note: (1) is a Mallard identified as having few DEDs; (2) is a Mallard with a home range over an expanse of DED rich forested wetlands.