

CONTRIBUTIONS OF TRANSLOCATION TO NORTHERN BOBWHITE POPULATION RECOVERY



D. Clay Sisson, Theron M. Terhune II, William E. Palmer, & Reggie E. Thackston
Tall Timbers Research Station and Land Conservancy

INTRODUCTION

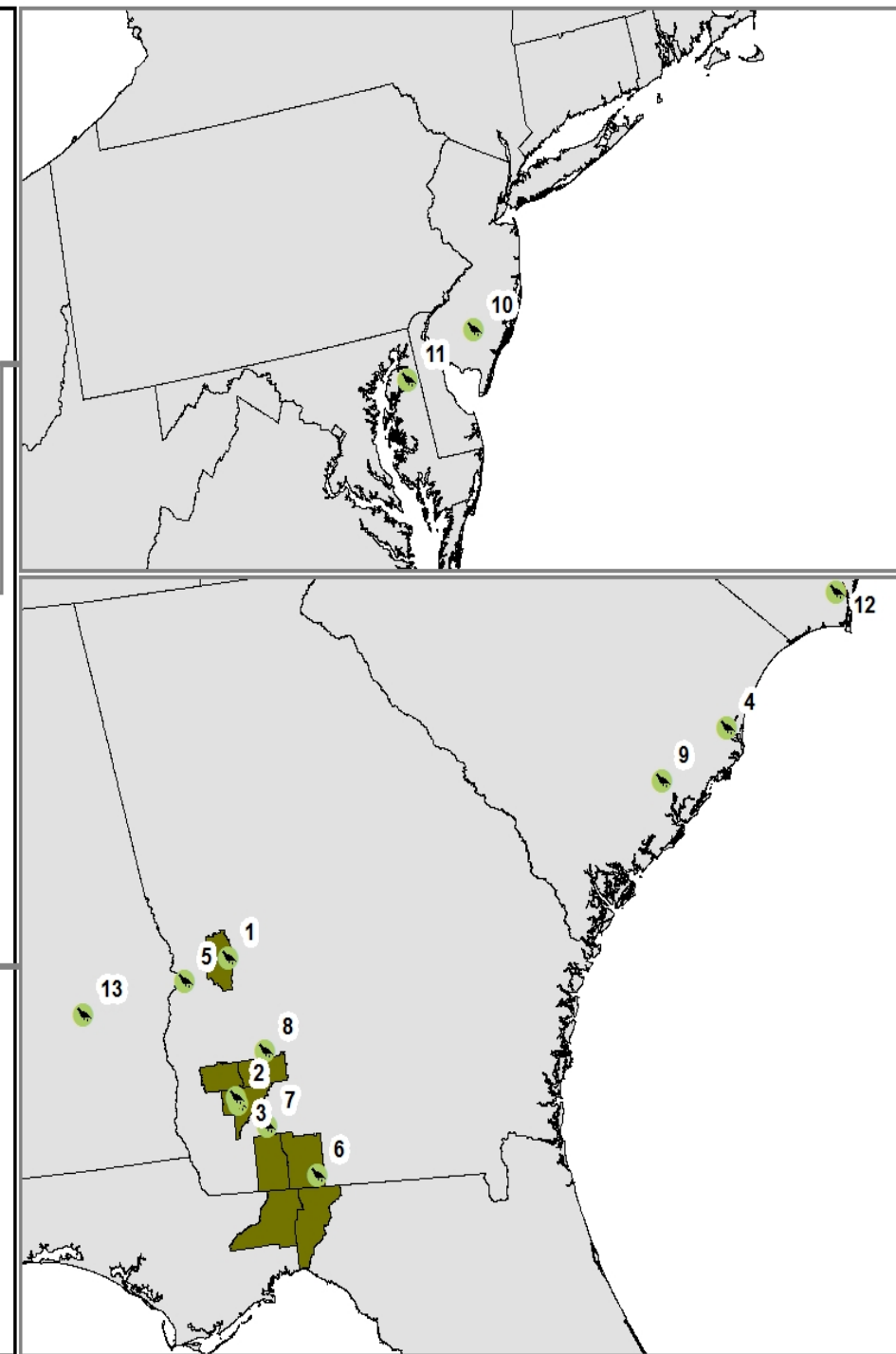
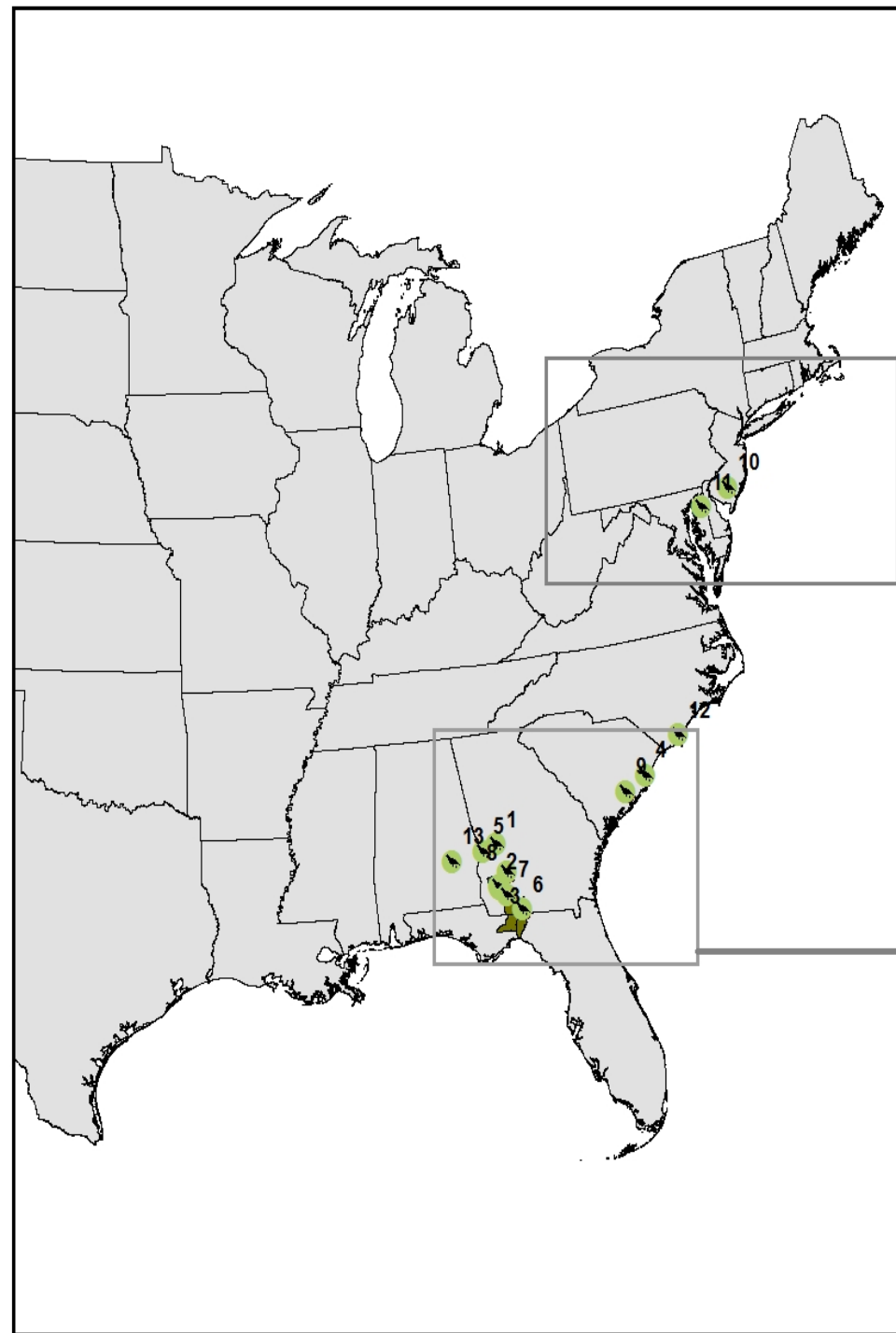
- NBCI 2.0 – “develop new population epicenters”
- Brennan (2012) Quail VII – “glaring omission of success stories”, “how NBCI will be judged”
- Translocation Studied and Successfully Applied (Terhune et al. 2005, 2006, 2008, 2010)
- Translocation History and Georgia Policy (Sisson et al. 2012) Quail VII

OBJECTIVES

- DOCUMENT CONTRIBUTIONS MADE TOWARDS NBCI 2.0 POPULATION RECOVERY GOALS BY TTRS WILD BOBWHITE TRANSLOCATION PROGRAM
- DOCUMENT COSTS (\$) OF WILD QUAIL MANAGEMENT AND TRANSLOCATION

PARTNERS

- GEORGIA DNR WRD
- FLORIDA WILDLIFE COMMISSION
- ALABAMA DEPT OF CONSERVATION
- NORTH CAROLINA CONSERVATION COMMISSION
- SOUTH CAROLINA DEPT OF NAT RESOURCES
- NEW JERSEY FISH AND GAME
- UNIVERSITY OF GEORGIA
- UNIVERSITY OF DELAWARE
- WASHINGTON COLLEGE
- NEW JERSEY AUDUBON
- CHESTER RIVER FIELD RESEARCH STATION
- PRIVATE LANDOWNERS (DONOR & RECIPIENT)

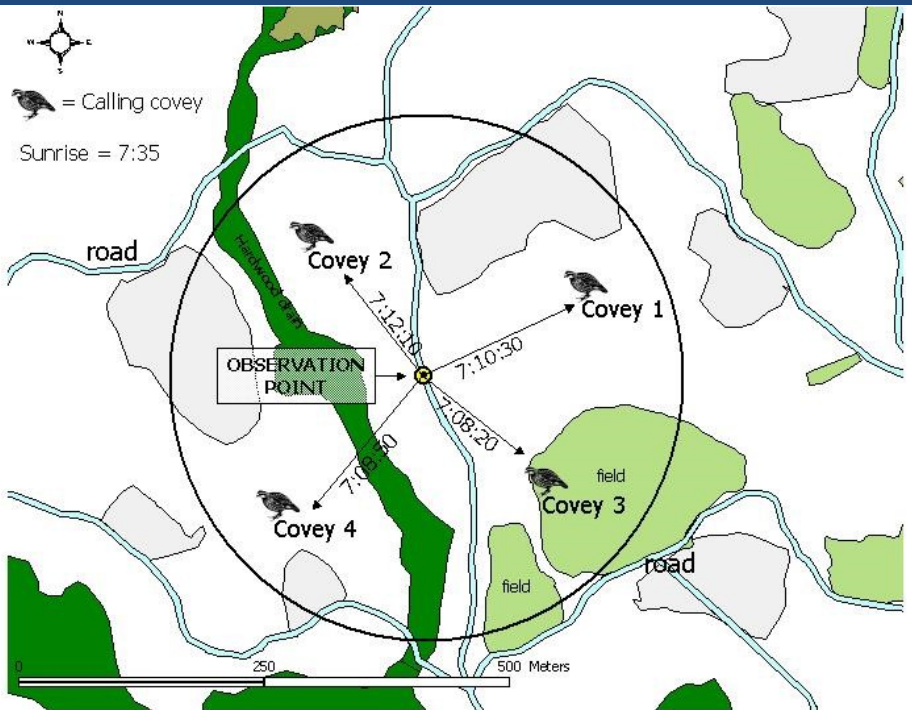


METHODS



MONITORING

POINT COUNTS = SPRING MALES & FALL COVEYS



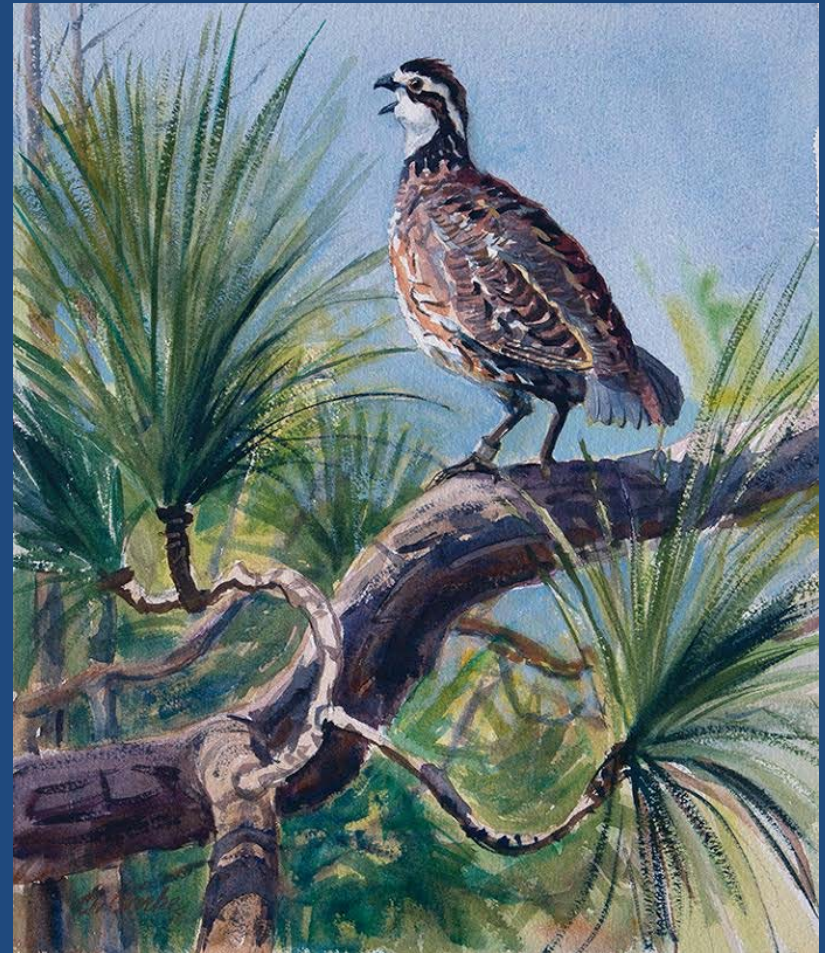
ESTIMATING VALUE PER BIRD (VB)

$$VB = MC + OC + TTC$$

$$MC = \frac{\text{land mgmnt budget}}{FA * HR * WA}$$

$$OC = \frac{\text{cost of hunt}}{\text{daily bag limit}} - MC$$

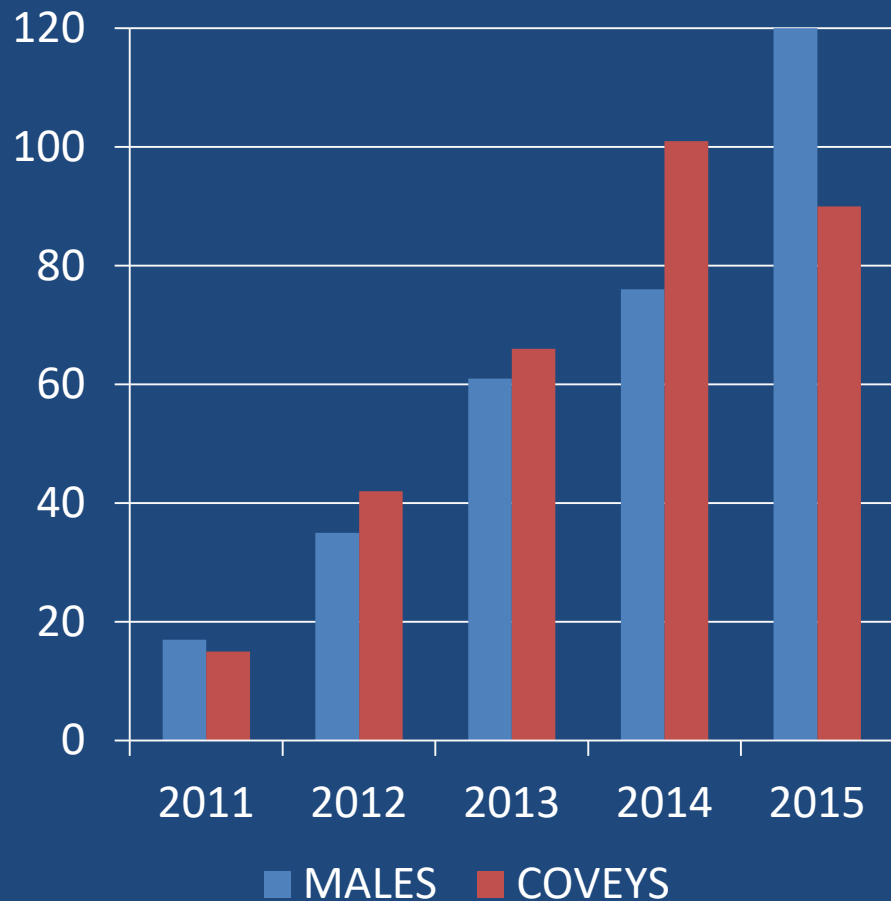
$$TTC = PT + TP + PB + \text{trap} + \frac{\text{transport} + \text{misc}}{\text{\# birds}}$$



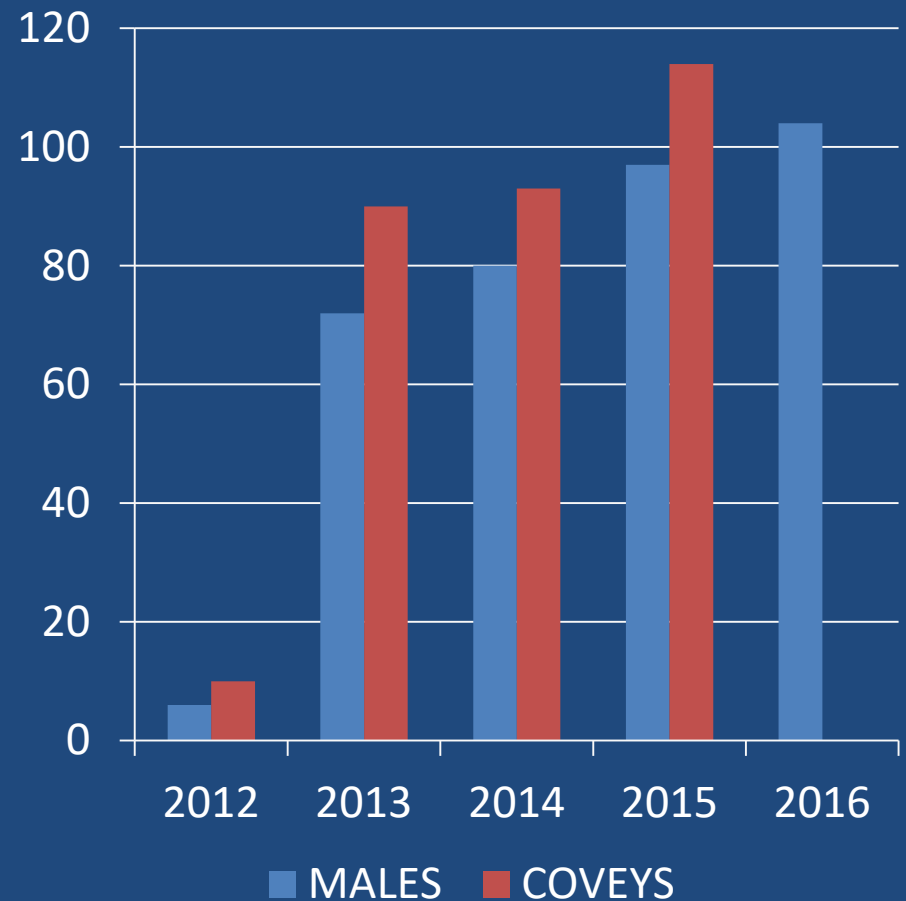
RESULTS									
SITE	COUNTY	STATE	HA	KM	YEARS	#BIRDS	<u>DENSITY</u> (PRE)	<u>BIRDS/HA</u> (POST)	# ADDED
1	Marion	GA	1,200	116	2003-4	127	0.75	3.25	3,000
2	Baker	GA	800	16	2006	100	0.50	1.25	600
3	Baker	GA	720	13	2007-09	219	0.35	1.56	871
4	Gtown	SC	2,200	687	2009-11	401	0.38	3.50	6,864
5	Stewart	GA	1,920	115	2011-13	524	0.08	2.38	4.416
6	Thomas	GA	1,000	28	2011	60	NA	NA	NA
7	Mitchell	GA	600	21	2012-13	105	0.13	1.00	525
8	Lee	GA	3,360	43	2012-14	327	0.38	3.00	8,820
9	Berkeley	SC	3,600	470	2013-16	451	0.38	1.88	5.418
10	Burlington	NJ	5,600	1,292	2015-16	164	NA	NA	NA
11	Kent	MD	2,700	1,207	2015-16	128	NA	NA	NA
12	Brunswick	NC	4,480	680	2013-17	1,058	0.25	2.75	11,200
13	Bullock	AL	1,600	170	2015-17	202	0.63	1.20	1,000
TOTAL			29,780			3,866			42,714

POPULATION RESPONSE

LEE COUNTY, GA



BRUNSWICK COUNTY, NC



MANAGEMENT COST

BUDGET ITEM	COST PER ACRE	SD
Salaries/Payroll	\$32.47	\$12.82
Payroll Benefits/Taxes	\$12.68	\$5.51
Vehicles	\$1.19	\$0.76
Woods Management/Land Clearing/Forestry	\$19.62	\$6.34
Quail Management & Development	\$7.43	\$3.57
Contract Services	\$5.17	\$4.21
Equipment Purchase/Lease	\$5.49	\$4.76
Equipment Maintenance/Repairs	\$4.95	\$3.43
Fuel & Travel	\$4.96	\$1.85
TOTAL	\$93.96	\$25.31

ESTIMATING VALUE PER BIRD (VB)

$$VB = MC + OC + TTC$$

$$MC = \frac{\text{land mgmnt budget}}{FA * HR * WA} \quad \$ 398.63 (\pm 181.33)$$

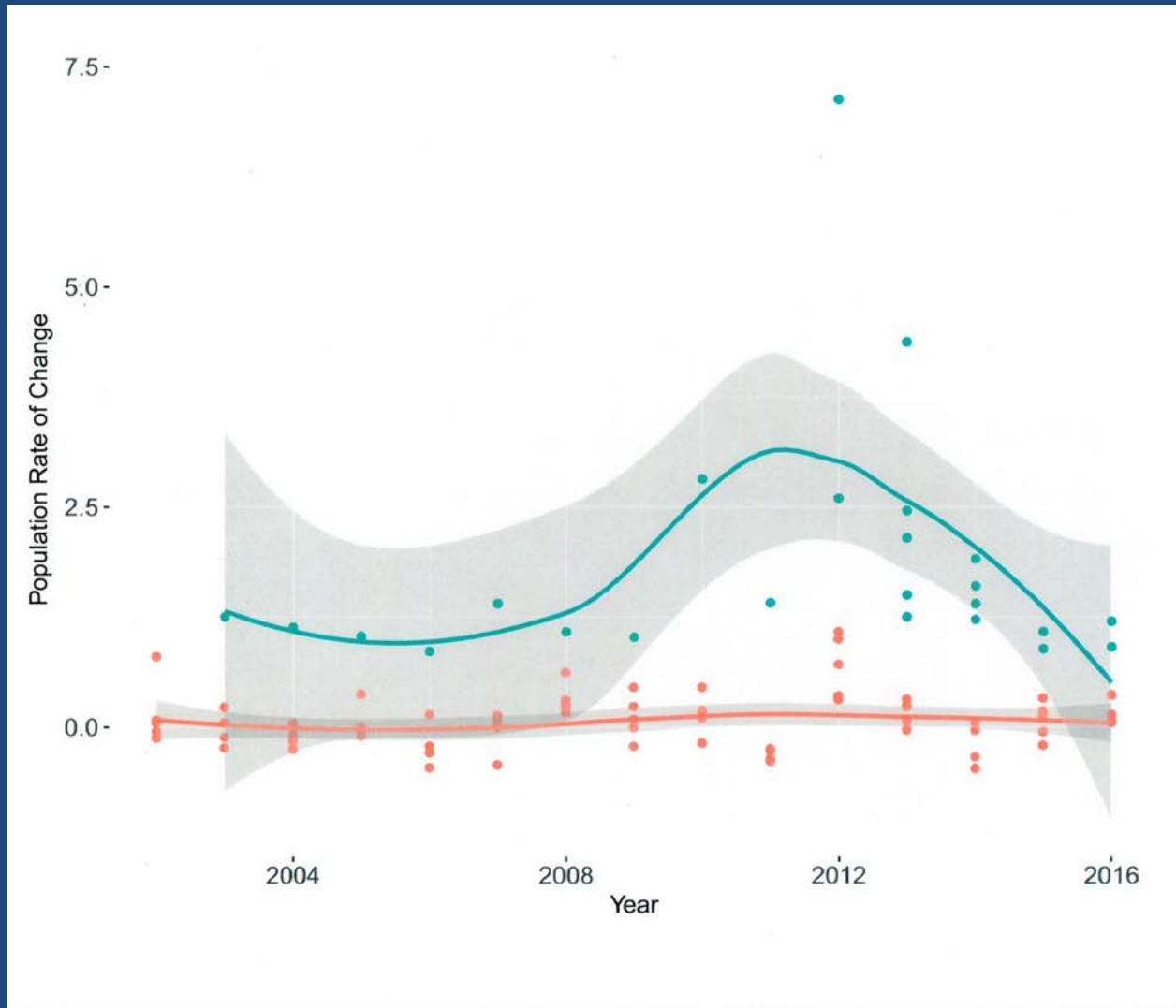
$$OC = \frac{\text{cost of hunt}}{\text{daily bag limit}} - MC \quad \$170.92 (\pm 107.48)$$

$$TTC = PT + TP + PB + \text{trap} + \frac{\text{transport} + \text{misc}}{\text{\# birds}} \quad \$166.24 (\pm 65.71)$$

$$VB = MC + OC + TTC$$

- $VB = \$398.63 + \$170.92 + \$166.24$
- $VB = \$735.79 (\pm 267.79)$
- TOTAL BIRDS DONATED FOR TRANSLOCATION
 $= 3,866 \times \$735.79 = \$2,844,564$

DISCUSSION & MANAGEMENT IMPLICATIONS



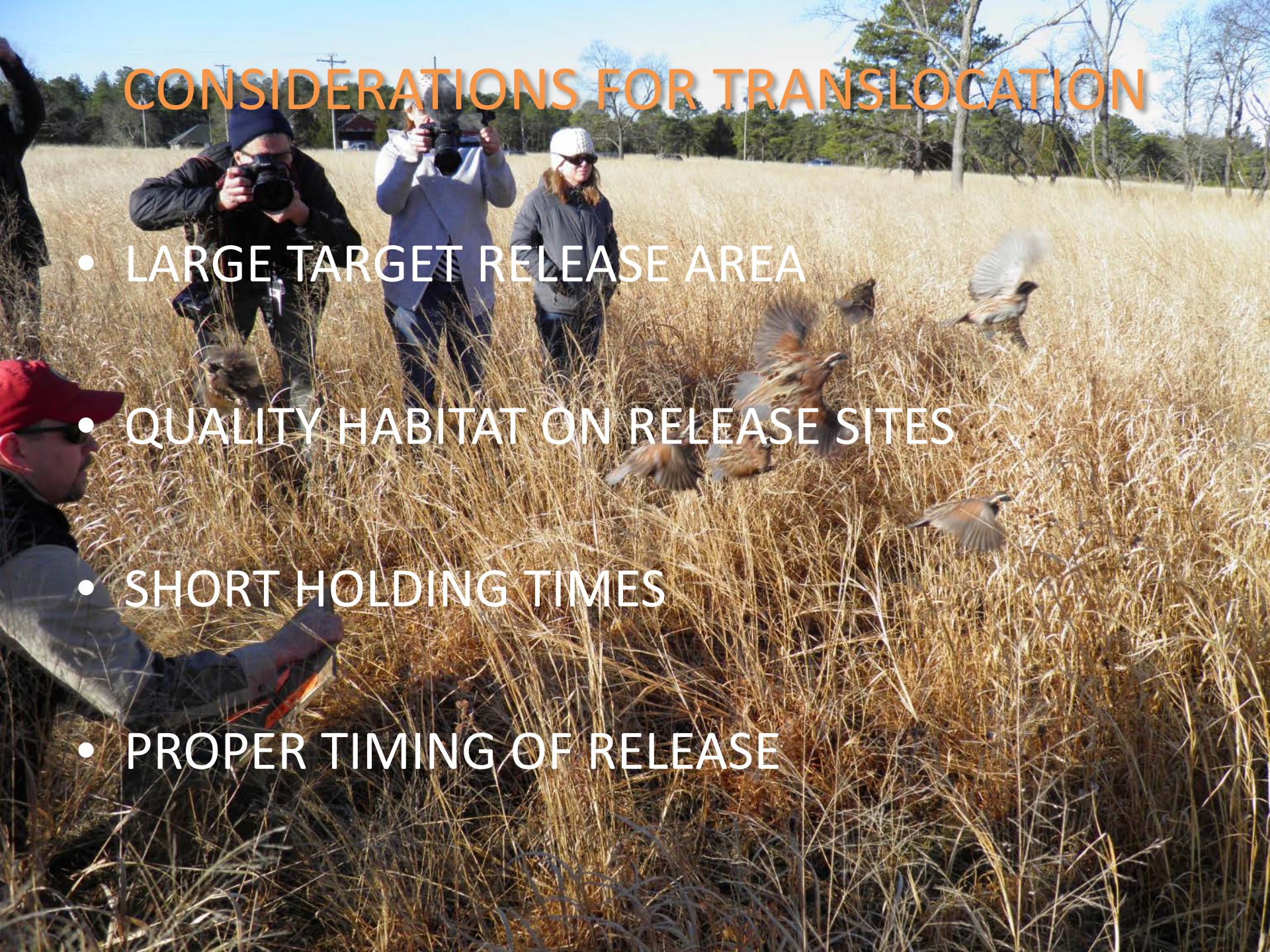
CONTRIBUTIONS OF TRANSLOCATION:

- POPULATION RECOVERY GOALS OF NBCI 2.0
- CREATE NEW POPULATION HUBS
- ECONOMIC BENEFIT TO RURAL ECONOMIES
- PARTNERSHIP OF PRIVATE, STATE, AND NGO COULD SERVE AS MODEL FOR SIMILAR PROGRAMS



CONSIDERATIONS FOR TRANSLOCATION

- LARGE TARGET RELEASE AREA
- QUALITY HABITAT ON RELEASE SITES
- SHORT HOLDING TIMES
- PROPER TIMING OF RELEASE





QUESTIONS?