

Federal Aid in Wildlife Restoration Project N^o: W-15-R-75
Title of Job: 2019 Northern Bobwhite Whistle Count Survey

Job: H1



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Northern bobwhite whistle counts were conducted between 15 June and 11 July 2019, inclusive, in each of the bobwhite management zones (Figure 1). Statewide, within the range of the bobwhite, the mean number of males heard calling per stop in 2019 was lower than in 2018 (Table 1). Regional indices were also lower, except in the West Platte zone, than in 2018 (Tables 1 & 2, Figure 2).

Caveats. The bobwhite whistle count survey does not provide information on bobwhite population size, but is an index of breeding male abundance. At a statewide scale, these indices are correlated with harvest, and are useful for forecasting conditions hunters might encounter during the fall hunting season, particularly when combined with the results from other surveys.

Interpretations. The 2019 indices of abundance declined considerably compared to 2018 in all regions except the West Platte and East Central regions; however, confidence intervals overlapped for all regional indices, indicating decreases were not statistically significant. The statewide index was significantly lower in 2019 compared to 2018. Regional and statewide 2019 indices were also lower than 5-year mean, except in the West Platte region, but were not statistically significant.

Take-home Message. Bobwhite populations appear to have fallen from recent highs, likely the result of severe winter and early spring weather conditions. In Nebraska, bobwhites are at the northern extent of their current range in the US, and populations on this northern range are generally limited by extreme winter weather conditions. Many areas of the state experienced above normal snowfall and extreme low temperatures during the spring of 2019, which appears to have reduced this year's breeding population. The fall population will largely depend on production during the nesting season that is currently underway. Bobwhites are prolific breeders and have the ability to rapidly repopulate when good habitat conditions persist.

Table 1. Mean number of calling male bobwhites heard per stop along roadsides during the 2019 bobwhite whistle count survey, by bobwhite management zones (Figure 1).

Zone	Number of Routes	Calling Males per Stop:		
		2019 ̄ & 90% CI	2018 ̄ & 90% CI	2014-2018 ̄ & 90% CI
East Central	5	1.05 (0.35-1.75)	1.03 (0.00-2.97)	1.18 (0.00-2.76)
North Central	5	0.29 (0.00-0.65)	1.24 (0.00-2.55)	1.27 (0.37-2.17)
Northeast	5	0.50 (0.18-0.81)	0.72 (0.08-1.36)	0.51 (0.22-0.81)
Republican	6	1.12 (0.38-1.87)	1.95 (1.29-2.61)	1.87 (0.86-2.89)
Southeast	14	1.26 (0.83-1.70)	2.15 (1.55-2.74)	1.94 (1.51-2.37)
West Platte	6	1.44 (0.04-2.84)	1.32 (0.23-2.41)	1.35 (0.49-2.21)
Statewide	41	1.02 (0.77-1.27)	1.61 (1.29-1.93)	1.49 (1.20-1.78)

Table 2. Percent change in the mean number of calling males heard during the 2019 bobwhite whistle count survey from 2018 and the 5-year mean, by bobwhite management zone (Figure 1).

Zone	Percent Difference from:	
	2018 Mean	2014-2018 Mean
East Central	2	-11
North Central	-77	-77
Northeast	-31	-2
Republican	-43	-40
Southeast	-41	-35
West Platte	9	7
Statewide	-37	-32

Figure 1. Bobwhite management zones.

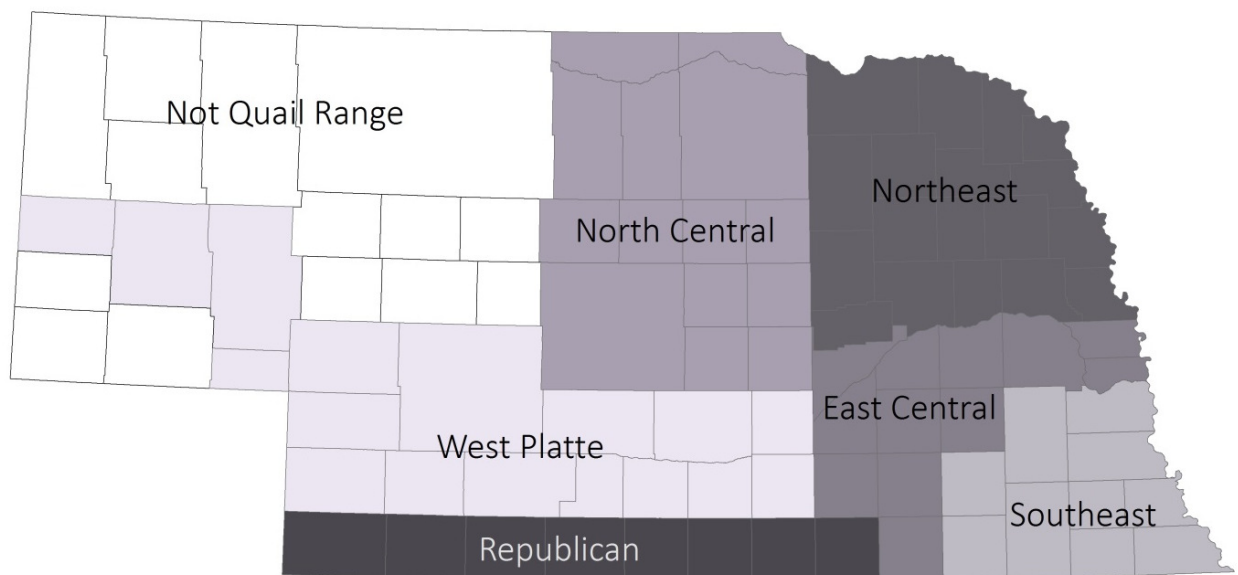
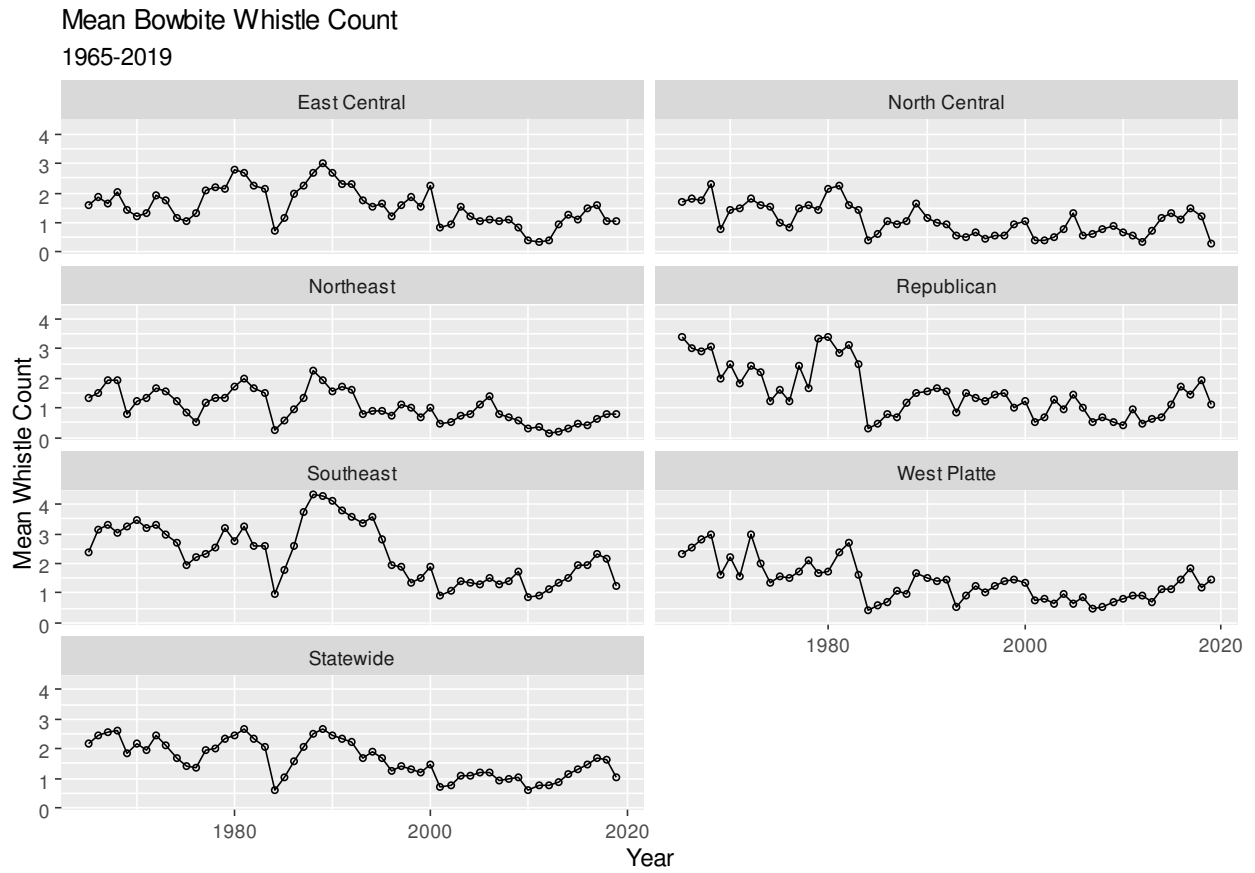


Figure 2. Time series (1965-2019) of the mean number of calling bobwhites heard per stop during the whistle count survey, by bobwhite management zone (Figure 1).



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