

Federal Aid in Wildlife Restoration Project №: W-15-R
 Title of Job: 2024 July Rural Mail Carrier Survey



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The 2024 July Rural Mail Carrier Survey was conducted 8-11 July 2024. We received 360 cards by 7 August 2024, of which 333 cards contained complete information needed for analysis (Tables 1-3). Rural carriers made observations while traveling 142,418 miles of rural roads in 83 of Nebraska's 93 counties.

Caveats. Interpretations of the percent change from previous year's indices and longer-term means are only meaningful in relation to the indices themselves. That is, when an index value is low, insignificant changes in the index can translate into large percent changes, but result in no observable difference in abundance within the region. For example, an increase in a species' index from 0.01 animals observed per 100 miles to 0.02 animals per 100 miles is a 100% increase, but would not likely be noticeable to hunters afield. Further, survey methodology does not allow the estimation of population size or density, but only trends in relative abundance through time. At a statewide scale, these indices are correlated with annual harvest and are, therefore, useful for forecasting conditions hunters may encounter in the fall, particularly when combined with results from other surveys.

Interpretations. In 2024, statewide indices of relative abundance were higher than or similar to those for 2023 for the various upland game species. However, none of the statewide indices were significantly different than those observed in July 2023, based on confidence intervals. Regional indices were also mixed, but generally higher depending on the species. Pheasant age ratios were higher in the Northeast, Panhandle, and Southwest regions, and were lower elsewhere compared to 2023.

Take-Home Message. The results of the 2024 July Rural Mail Carrier Survey indicate that the relative abundance of small game species was higher compared to July 2023, but not significantly so. Fall abundance for most species will depend on this summer's production, so the results of the October Rural Mail Carrier Survey may provide more clarity on what to expect this fall.

TABLE 1. Raw counts of prairie grouse, wild turkey, cottontail, and jackrabbits from the 2024 July Rural Mail Carrier Survey by pheasant management region (Figure 1).

Region	Carriers	Miles	Grouse	Turkey	Cottontail	Jackrabbit
Central	46	20,038	74	370	578	18
Northeast	75	32,884	98	324	563	15
Panhandle	37	12,741	14	164	132	17
Sandhills	33	13,330	29	259	142	8
Southeast	98	43,331	7	304	587	7
Southwest	44	20,094	12	451	218	10
Statewide	333	142,418	234	1,872	2,220	75

TABLE 2. Raw counts from the 2024 July Rural Mail Carrier Survey for pheasants and pheasant age-ratios by pheasant management region (Figure 1).

Region	Carriers	Miles	Total Pheasants	Juveniles/Adults
Central	46	20,038	126	0.23
Northeast	75	32,884	223	0.12
Panhandle	37	12,741	162	0.55
Sandhills	33	13,330	14	0
Southeast	98	43,331	209	0.41
Southwest	44	20,094	242	0.57
Statewide	333	142,418	976	0.31

TABLE 3. Raw counts from the 2024 July Rural Mail Carrier Survey for bobwhites, by bobwhite management zone (Figure 2).

Zone	Carriers	Miles	Bobwhites
East Central	56	22,744	100
North Central	43	19,861	86
Northeast	66	30,124	78
Republican	21	9,428	43
Southeast	38	18,023	103
West Platte	76	30,329	41
Not Quail Range (NQR)	33	11,908	0
Statewide	333	142,418	451

Results.

Pheasant: This year’s statewide pheasant index was higher than in 2023 and was higher than the 5- and 10-year averages. Regionally, survey results were higher everywhere except the Northeast region. Relative abundance continues to be highest in the Southwest and Panhandle regions (Table 4). Statewide, pheasant age ratios, which can be indicative of production, were mixed compared to 2023 (Table 2).

Quail: The bobwhite index was comparable to 2023 and was below the long-term averages. In 2024, a decline was observed in the East-Central management region and were higher in the North Central, Republican, and Southeast regions (Table 5).

Wild Turkey: Statewide, this year’s wild turkey index was similar to 2023, and was higher than the 10-year mean. Increases were observed in 2 of 6 regions (Central and Sandhills; Table 6).

Prairie Grouse: The statewide index for prairie grouse was higher than in 2023. Regionally, results were higher, with indices higher everywhere but the Southwest region (Table 7).

Cottontail/Jackrabbit: The statewide cottontail index was higher than that observed in 2023 and decreases were observed only in the Southwest (Table 8). Jackrabbit indices increased in 3 management regions and the statewide index was similar to 2023 (Table 9). Relative abundance of jackrabbits was highest in the Central and Panhandle regions.

In 2024, 41 of 333 usable cards returned (12.3%) contained no observations of any wildlife species, which is slightly up from the 39 of 330 cards (11.8%) with no observations returned in 2023 (Table 10).

FIGURE 1. Pheasant management regions.

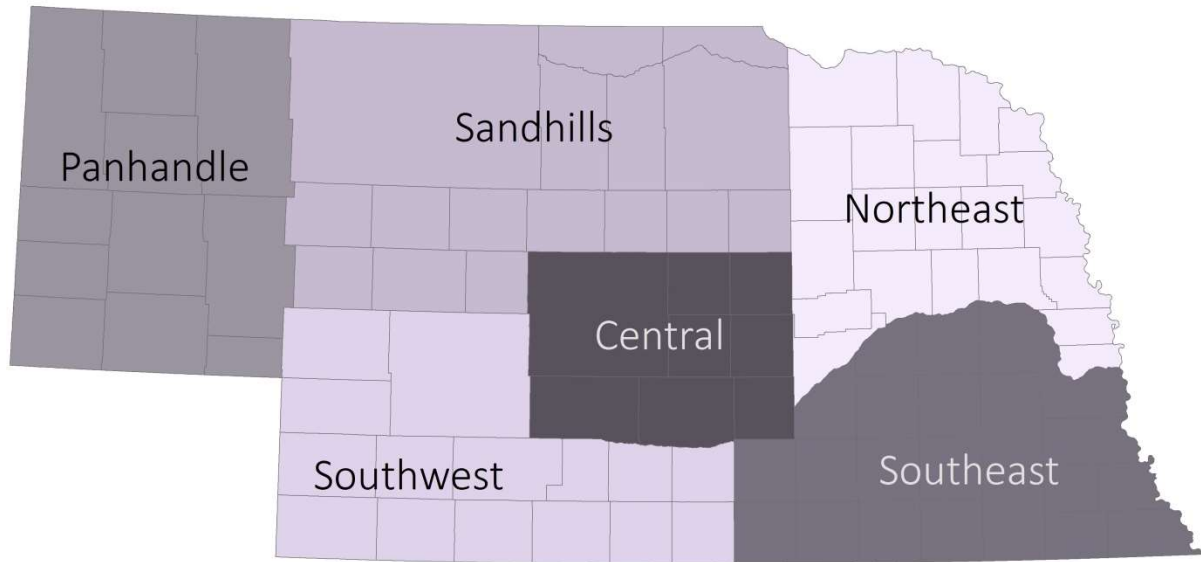


FIGURE 2. Bobwhite management zones.

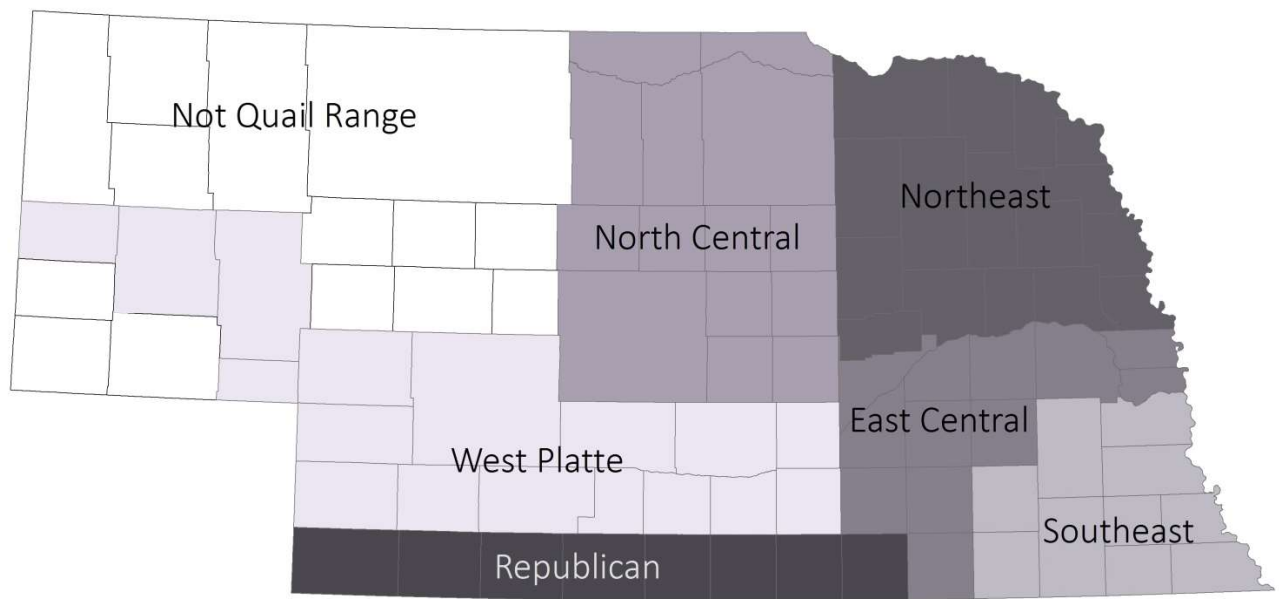


TABLE 4. Pheasant indices from the 2024 July Rural Mail Carrier Survey by pheasant management region (Figure 1). Carrier means are weighted by miles traveled per carrier.

Region	Mean pheasants per 100 miles & 90% Confidence Limits	Percent Difference from:			
		2023	Mean 2019-2023	Mean 2014-2023	Mean 2004-2023
Central	0.63 (0.28-0.97)	54	90	51	-11
Northeast	0.68 (0.35-1.00)	-19	1	4	-33
Panhandle	1.27 (0.42-2.13)	22	-9	-23	-11
Sandhills	0.11 (0.03-0.18)	57	-65	-76	-84
Southeast	0.48 (0.24-0.72)	45	55	26	-31
Southwest	1.20 (0.67-1.74)	41	-4	-16	-36
Statewide	0.69 (0.53-0.85)	19	9	-2	-30

FIGURE 3. Regional and statewide time series (1979-2024) of pheasant abundance indices from the July Rural Mail Carrier Survey by pheasant management region (Figure 1).

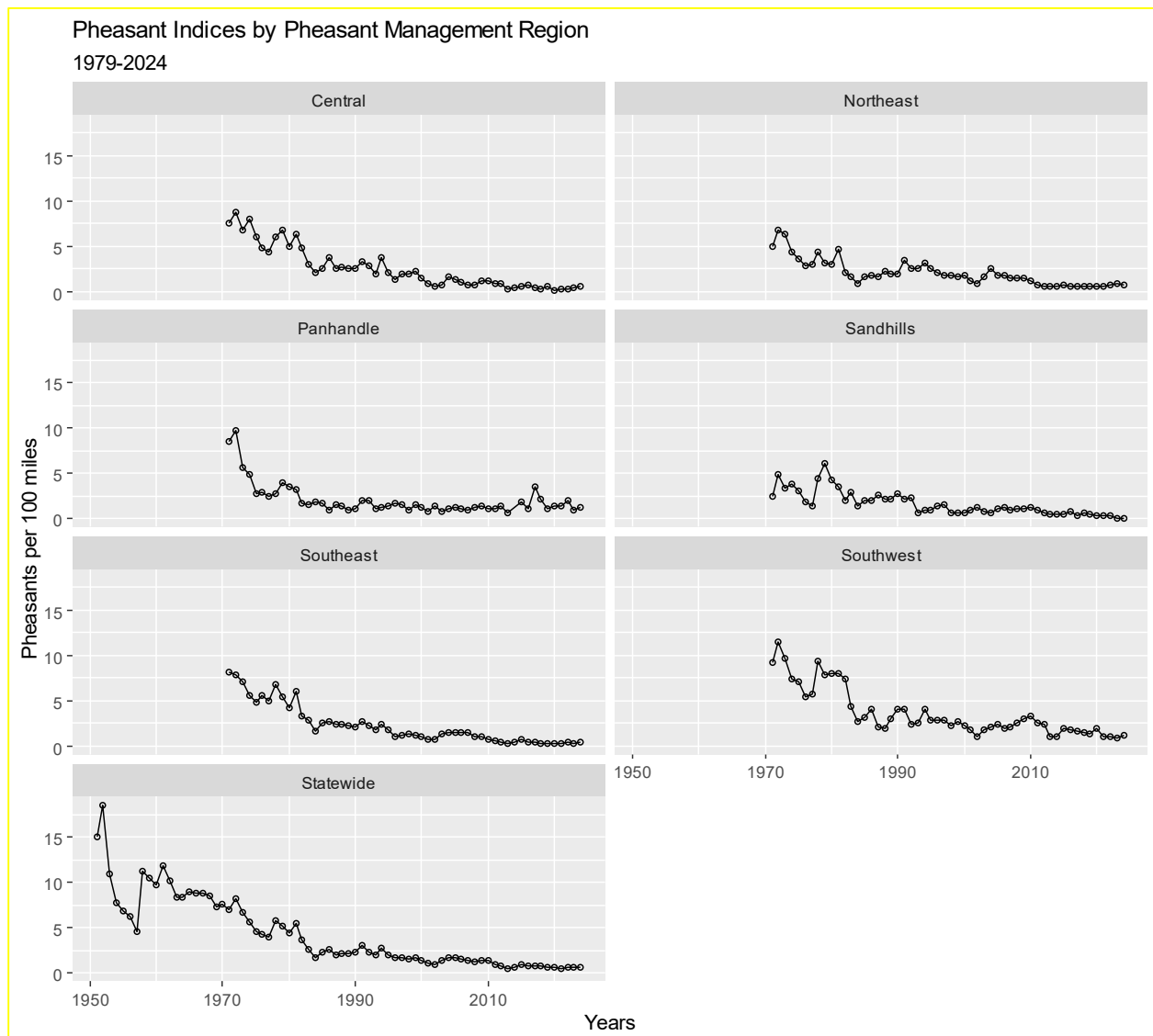


TABLE 5. Northern bobwhite indices from the 2024 July Rural Mail Carrier Survey by bobwhite management zone (Figure 2). Carrier means are weighted by miles traveled per carrier.

Zone	Mean bobwhites per 100 miles & 90% Confidence Limits	Percent Difference from:			
		2023	Mean 2019-2023	Mean 2014-2023	Mean 2004-2023
East Central	0.44 (0.23-0.65)	-20	-18	-29	-21
North Central	0.43 (0.04-0.82)	30	37	-22	-35
Northeast	0.26 (0.09-0.43)	4	15	40	16
Republican	0.46 (0.21-0.71)	24	-20	-42	-40
Southeast	0.57 (0.20-0.94)	24	30	-29	-24
West Platte	0.14 (0.05-0.22)	8	-30	-40	-45
NQR	0	NA	NA	NA	NA
Statewide (QR)	0.32 (0.24-0.40)	7	1	-23	-26

FIGURE 4. Regional and statewide time series (1979-2024) of indices of northern bobwhite abundance from the July Rural Mail Carrier Survey.

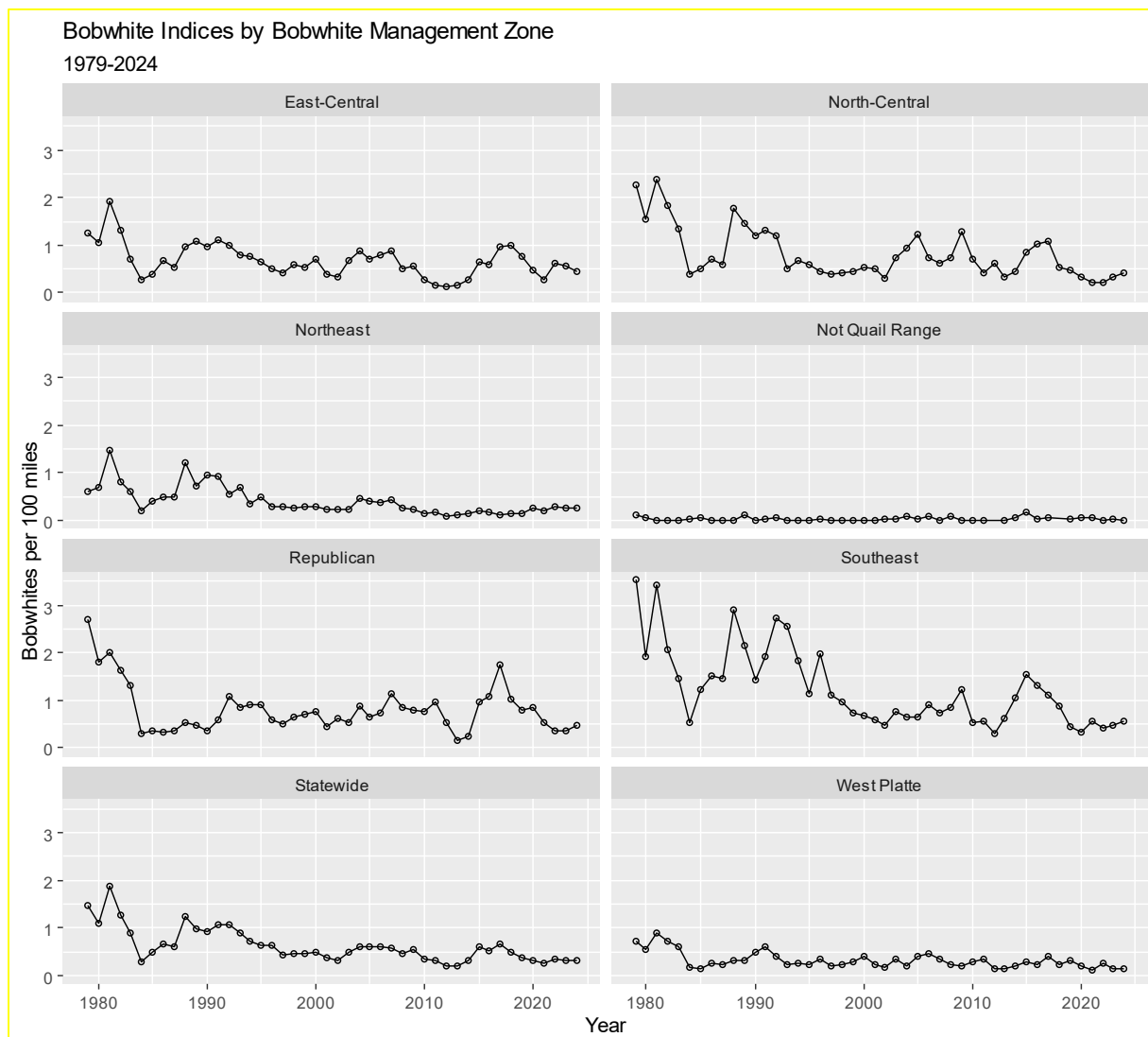


TABLE 6. Wild turkey indices from the 2024 July Rural Mail Carrier Survey by pheasant management region (Figure 1). Carrier means are weighted by miles traveled per carrier.

Region	Mean turkeys per 100 miles & 90% Confidence Limits	Percent Difference from:			
		2023	Mean 2019-2023	Mean 2014-2023	Mean 2004-2023
Central	1.85 (1.17-2.52)	65	23	30	15
Northeast	0.99 (0.53-1.44)	-24	-2	5	11
Panhandle	1.29 (0.60-1.98)	-10	-2	32	67
Sandhills	1.94 (1.24-2.64)	27	15	20	-25
Southeast	0.70 (0.51-0.89)	-16	-14	-20	-34
Southwest	2.24 (1.31-3.18)	-13	-23	-20	-18
Statewide	1.31 (0.09-1.53)	-3	-3	1	-7

FIGURE 5. Regional and statewide time series (2000-2024) of wild turkey abundance indices from the July Rural Mail Carrier Survey.

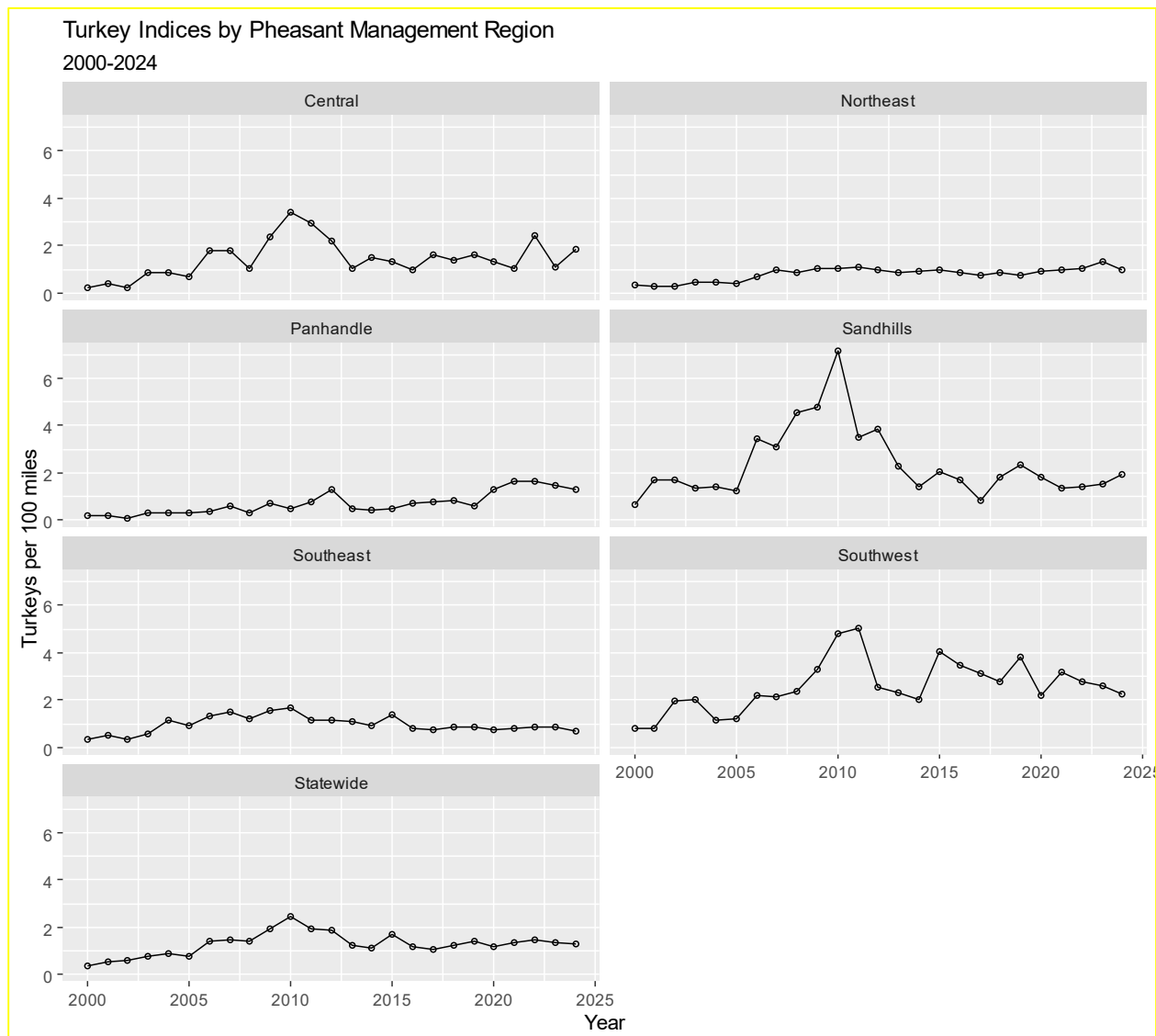


TABLE 7. Prairie grouse indices from the 2024 July Rural Mail Carrier Survey by pheasant management region (Figure 1). Carrier means are weighted by miles traveled per carrier.

Region	Mean grouse per 100 miles & 90% Confidence Limits	Percent Difference from:			
		2023	Mean 2019-2023	Mean 2014-2023	Mean 2004-2023
Central	0.37 (0.12-0.62)	76	110	51	42
Northeast	0.30 (0.00-0.62)	200	355	525	618
Panhandle	0.11 (0.02-0.20)	57	-20	-12	9
Sandhills	0.22 (0.05-0.39)	47	9	-42	-35
Southeast	0.02 (0.00-0.03)	100	-17	-17	-37
Southwest	0.06 (0.00-0.15)	-54	-46	-34	-3
Statewide	0.16 (0.08-0.24)	78	74	55	63

FIGURE 6. Prairie grouse regional and statewide time series (1979-2024) of indices of abundance from the July Rural Mail Carrier Survey.

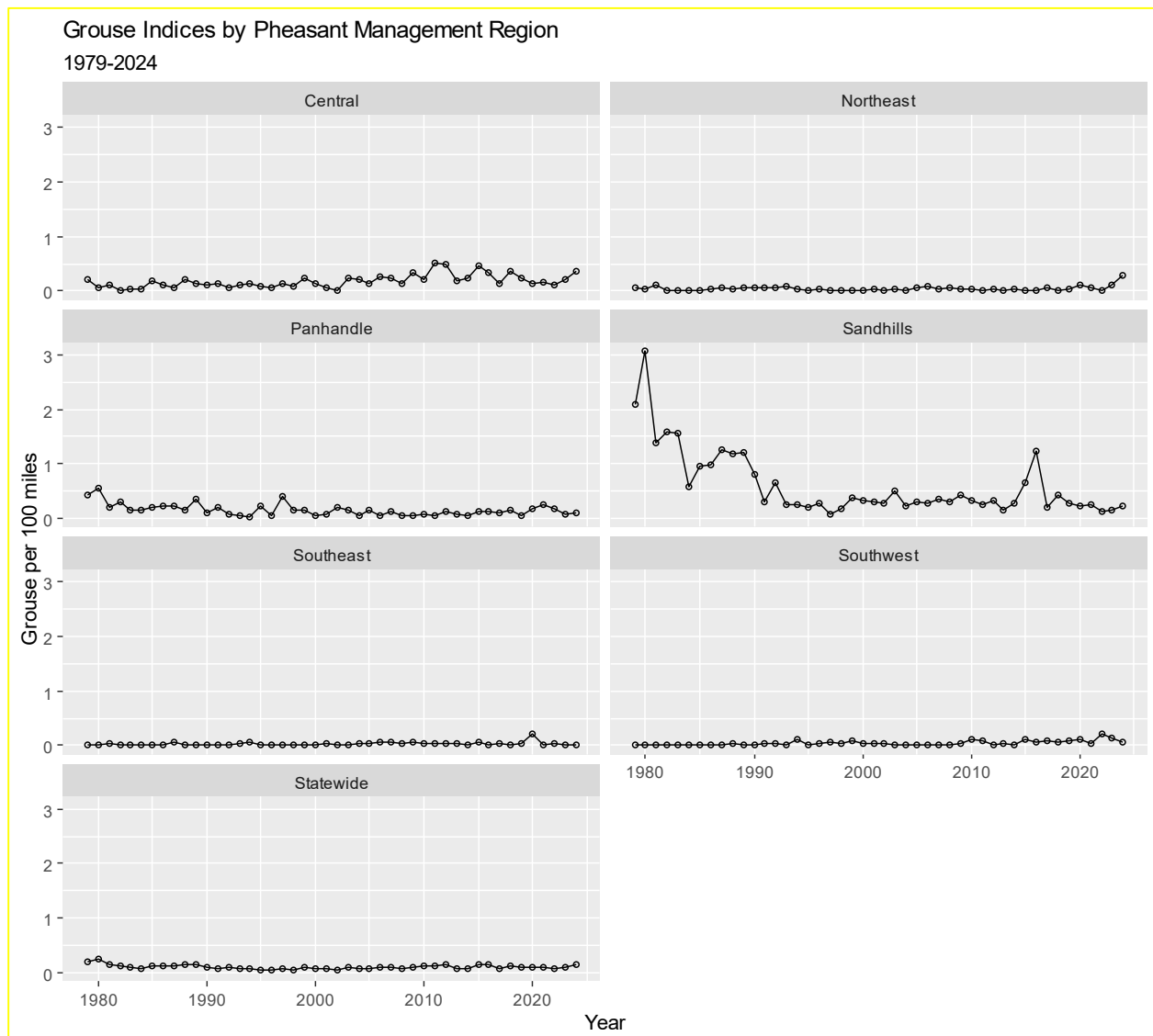


TABLE 8. Cottontail indices from the 2024 July Rural Mail Carrier Survey by pheasant management region (Figure 1). Carrier means are weighted by miles traveled per carrier.

Region	Mean cottontails per 100 miles & 90% Confidence Limits	Percent Difference from:			
		2023	Mean 2019-2023	Mean 2014-2023	Mean 2004-2023
Central	2.88 (1.95-3.82)	46	123	99	35
Northeast	1.71 (1.25-2.18)	18	69	78	45
Panhandle	1.04 (0.69-1.38)	55	46	27	49
Sandhills	1.07 (0.31-1.82)	55	114	70	44
Southeast	1.35 (1.07-1.64)	16	30	21	4
Southwest	1.08 (0.67-1.50)	-19	5	-1	-7
Statewide	1.56 (1.35-1.77)	23	59	47	22

FIGURE 7. Regional and statewide time series (1958-2024) of cottontail abundance indices from the July Rural Mail Carrier Survey.

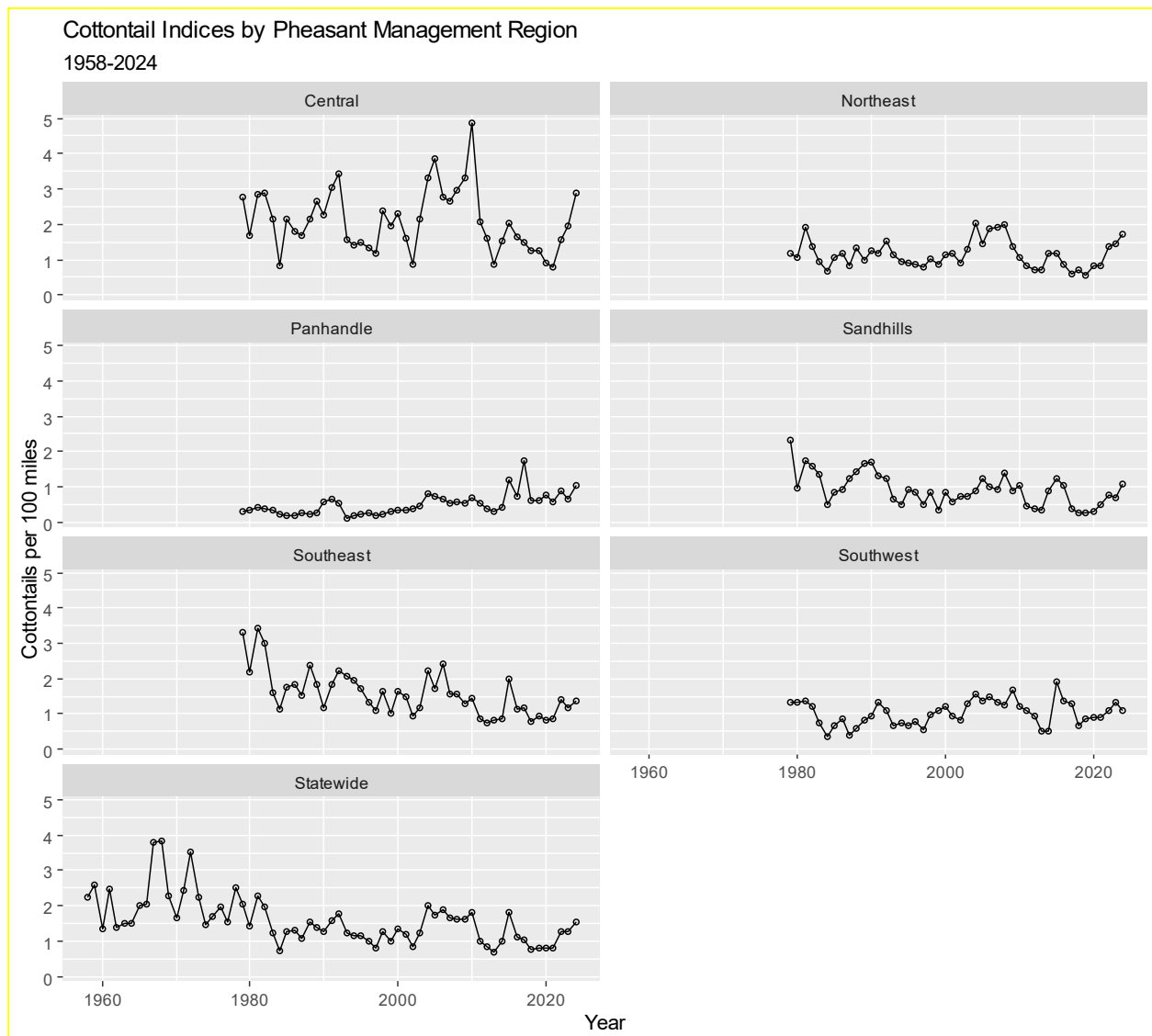


TABLE 9. Jackrabbit indices from the 2024 July Rural Mail Carrier Survey by pheasant management region (Figure 1). Carrier means are weighted by miles traveled per carrier.

Region	Mean Jackrabbit per 1000 miles & 90% Confidence Limits	Percent Difference from:			
		2023	Mean 2019-2023	Mean 2014-2023	Mean 2004-2023
Central	0.90 (0.19-1.61)	100	51	0	-2
Northeast	0.46 (0.05-0.86)	100	56	98	45
Panhandle	1.33 (0.57-2.10)	34	11	-55	-48
Sandhills	0.60 (0.13-1.07)	-5	53	-40	-63
Southeast	0.16 (0.03-0.29)	-69	-25	1	-50
Southwest	0.50 (0.14-0.86)	-53	-46	-73	-72
Statewide	0.53 (0.36-0.70)	-9	16	-34	-41

FIGURE 8. Regional and statewide time series (1963-2024) of jackrabbit abundance indices from the July Rural Mail Carrier Survey.

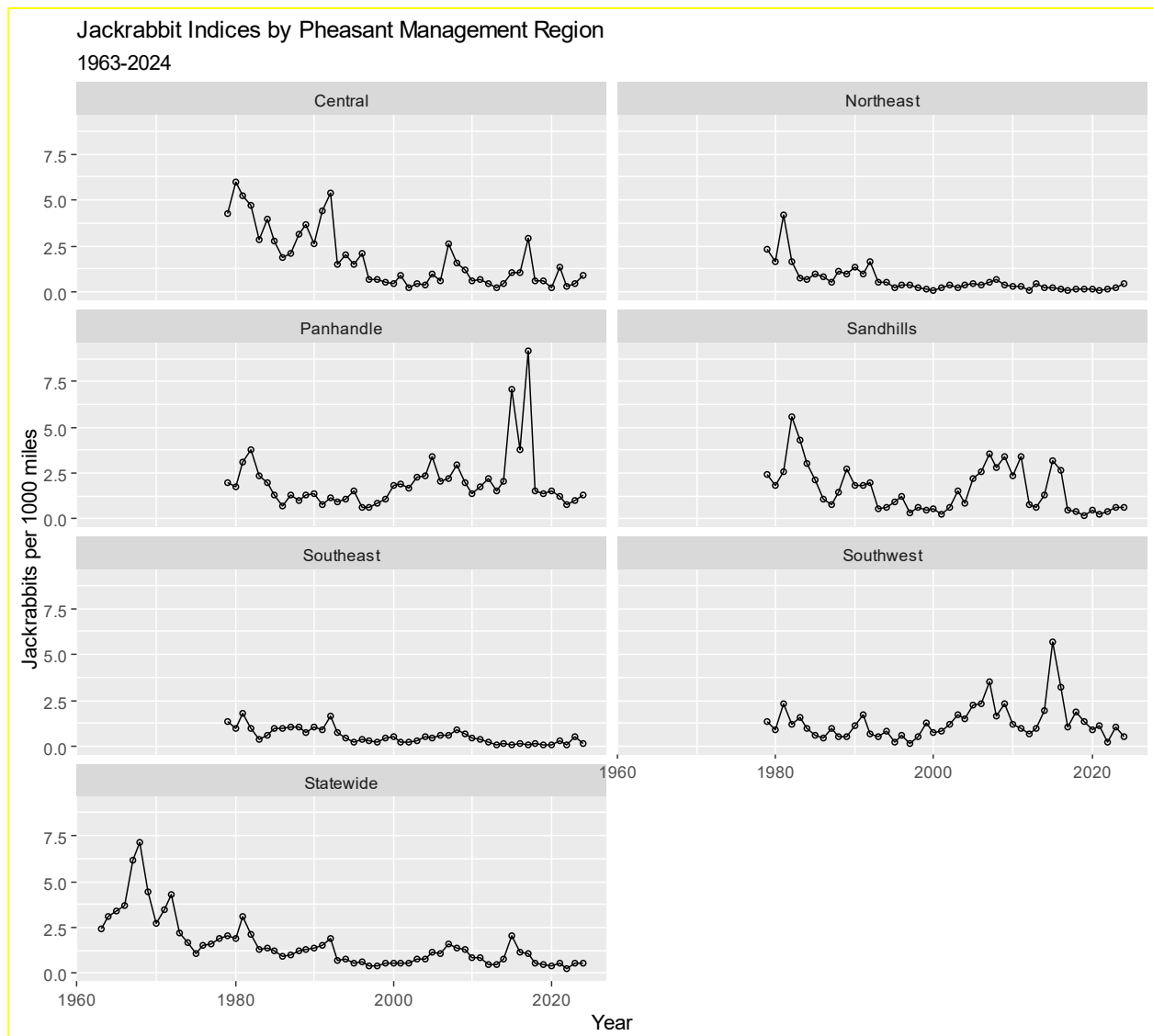


TABLE 10. Number of cards and percent of total cards ($n = 333$) that contained zero observations of each species of wildlife. Overall, 12.3% of cards contained zero observations of all species (41 cards).

	Pheasant	Bobwhite	Grouse	Turkey	Cottontail	Jackrabbit
Nº of Cards	166	254	287	142	94	292
Percent	50%	76%	86%	43%	28%	88%

For more information, contact Bryan O'Connor, Upland Game Program Manager at bryan.oconnor@nebraska.gov