

# ***PHEASANT CROWING SURVEY - 2010***

## **PERFORMANCE REPORT STATEWIDE WILDLIFE RESEARCH AND SURVEYS**

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# **KANSAS PHEASANT CROWING SURVEY – 2010**

## **Federal Aid in Wildlife Restoration Grant W-39-R-16**

Prepared by: Randy Rodgers, Wildlife Research Biologist

The survey period was from April 25 through May 21 and was extended 6 days later than the normal May 15 ending date due to poor weather conditions. The results of the 2010 survey and comparisons to the 2009 data are presented in table 1. All of the 63 established routes were assigned for 2010 (routes in Osage and Coffee counties are run only in even-numbered years) and 60 were successfully run. Forty-six of the routes were completed in both 2009 and 2010 by the same observers. Personnel assigned these surveys are noted in Table 2. Rangewide and regional trends since the survey's 1997 initiation are shown on page 5.

**Rangewide:** The 2010 Pheasant Crowing Survey (PCS) index was 19.3 crows per station and the comparable routes increased a mean of 1% over 2009. This was not a significant increase ( $P = 0.344$ ). Overall, 22 of the 46 comparable routes increased, 22 decreased, and 2 were unchanged from last year. **Northwest:** All of the 12 routes were run and all 11 were run by the same observers as in 2009. The regional Northwest PCS index was 39.3 and the mean of the 11 comparable routes decreased 3%, not a significant change ( $P = 0.429$ ). Five of the 11 routes run by the same observer in both years increased, 5 decreased, and 1 was unchanged. **Northcentral:** Eleven of the 12 routes were run, yielding a PCS index of 13.0. Nine of these routes were run by last year's observers. Of these, 2 routes increased, 7 decreased, and the average of those 9 routes decreased 17%, which was statistically significant ( $P = 0.043$ ). The Smith County route was not run. **Northeast:** All of the 10 routes were run and 9 were completed by the 2009 observers. The regional PCS index was 6.3. The mean index for the 9 comparable routes increased 8% which was not statistically significant ( $P = 0.297$ ). Five of the 9 comparable survey routes increased and 4 decreased. **Southwest:** Seventeen of the 18 routes were completed and 12 of those were run by the same observer as last year. The regional PCS index was 22.5. Six of the 12 comparable routes increased, 5 decreased, and 1 was unchanged yielding an average decrease of 9%, not a significant change ( $P = 0.187$ ). The Seward–Haskell route was not run. **Southcentral:** Eight of the 9 survey routes were successfully run this spring and 5 of those had the same observers as in 2009. This yielded a regional PCS index of 7.3. The PCS index for the 5 comparable routes increased 53%, which was statistically significant ( $P = 0.040$ ). Four of the 5 comparable routes increased and 1 decreased. The Kingman–Reno route was not run.

Although the winter of 2009–10 was generally colder and produced more snow than average, conditions were not sufficiently severe to significantly impact pheasant populations. As is typical, regional changes in the PCS indices this year largely reflect weather conditions during the 2009 reproductive period. The only region to experience a significant decline was the northcentral region where excessive heavy rains during the 2009 late nesting and early brood-rearing periods reduced production. Despite what appeared to be excellent nesting and brood-rearing conditions in the northwest, there was little change in the index from 2009 to 2010, possibly suggesting that the excellent population in the region is near carrying capacity. Somewhat surprising was the significant increase in the southcentral region. Pheasant harvest reports last fall were better than expected in the southcentral region, but the strong increase may have been influenced by the fact that only 5 of the 9 survey routes in the region could be used for the 2009–2010 comparison. Although the increase in the southwest regional index was modest and not statistically significant, it is likely the increase was real and reflected the improved spring moisture and breeding conditions in the region in 2009, following drought during the 2008 nesting and brood-rearing periods.

Table 1. Kansas Pheasant Crowing Survey Results -- 2010.

Route	2009 Crows Per Station	2010 Crows Per Station	1-Year Change (%)
Gove NE	29.4	35.4	20
Gove SW	27.6	34.4	25
<b>N</b> Gove-Logan	41.0	44.1	8
<b>O</b> Graham	78.4	39.9	-49
<b>R</b> Logan	43.8	35.5	-19
<b>T</b> Logan SE	26.9	18.6	-31
<b>H</b> Norton	51.4	51.6	0
<b>W</b> Rawlins-Thomas	27.1	44.8	65
<b>E</b> Sheridan	47.7	46.2	-3
<b>S</b> Sherman		53.4	
<b>T</b> Thomas	24.1	37.3	55
Trego	31.8	30.3	-5
Region Mean*	39.0	39.3	<b>(-3)</b>

Route	2009 Crows Per Station	2010 Crows Per Station	1-Year Change (%)
<b>N</b> Barton	15.7	20.1	28
<b>O</b> Cloud	5.0	2.9	-42
<b>R</b> Ellis	12.7	19.3	~
<b>T</b> Ellsworth	6.9	6.7	-3
<b>H</b> Lincoln	21.1	15.9	-25
<b>C</b> Mitchell	21.0	8.9	~
<b>E</b> Osborne	20.2	16.5	-18
<b>N</b> Phillips	18.5	13.1	-29
<b>T</b> Republic	15.5	8.6	-45
<b>R</b> Rice	9.4	12.5	33
<b>A</b> Rooks	24.6	18.0	-27
<b>L</b> Smith	10.5		~
Region Mean *	15.1	13.0	<b>(-17)</b> **

Route	2009 Crows Per Station	2010 Crows Per Station	1-Year Change (%)
<b>N</b> Brown-Nemaha	0.6	1.8	184
<b>O</b> Dickinson-Clay	10.6	16.2	53
<b>R</b> Jackson-Jeffers.	0.6	2.1	280
<b>T</b> Marshall		4.3	~
<b>H</b> Morris	0.8	1.7	111
<b>E</b> Ottawa	22.6	20.3	-10
<b>A</b> Riley	4.2	4.7	13
<b>S</b> Shawnee	1.2	0.8	-32
<b>T</b> Wabaunsee	1.6	1.2	-24
Washington	12.4	10.1	-18
Region Mean *	6.1	6.3	<b>(+8)</b>

Routes consist of 11 stations at approx. 2-mile intervals.  
The listening interval at each station is exactly 2 minutes.

\* Means are derived from all completed survey routes in the respective year. Annual change and statistical significance are computed only from survey routes completed in both years by the same observer.

\*\* Denotes a significant change ( $P < 0.10$ ) from previous year (1-tailed  $P$ , Wilcoxon Signed Rank Sums Test).

~ Indicates a different observer from previous year.

Route	2009 Crows Per Station	2010 Crows Per Station	1-Year Change (%)
Clark	21.0	17.6	-16
Edwards	7.2	14.3	99
Finney	18.1	31.3	73
Ford	43.6	33.2	-24
<b>S</b> Gray	39.4	50.3	28
<b>O</b> Hodgeman	25.4	33.3	31
<b>U</b> Kearny-Hamilton	4.0	19.3	382
<b>T</b> Morton-Stanton	9.1	8.3	~
<b>H</b> Ness-Lane	26.3	26.3	0
<b>W</b> Pawnee	30.6	31.4	2
<b>E</b> Pawnee (Irrig.)	19.4	16.0	-18
<b>S</b> Pratt		8.8	~
<b>T</b> Rush	28.4	20.8	-27
Scott		37.0	
Seward-Haskell	16.6		~
Stafford-Barton	15.3	10.9	-29
Stevens	28.3	16.8	~
Wichita-Greeley	9.3	6.9	~
Region Mean *	21.4	22.5	<b>(+9)</b>

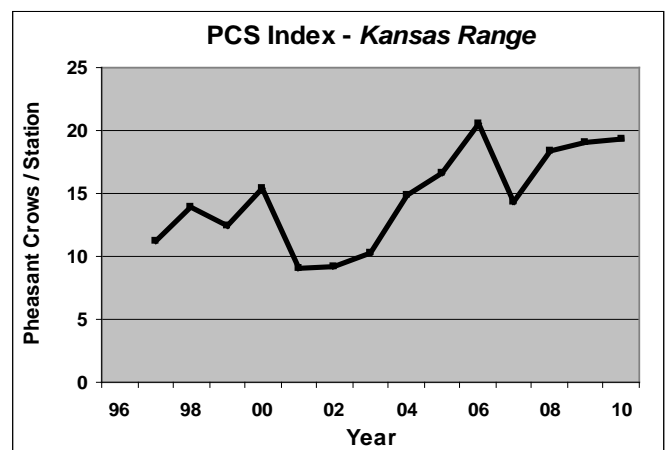
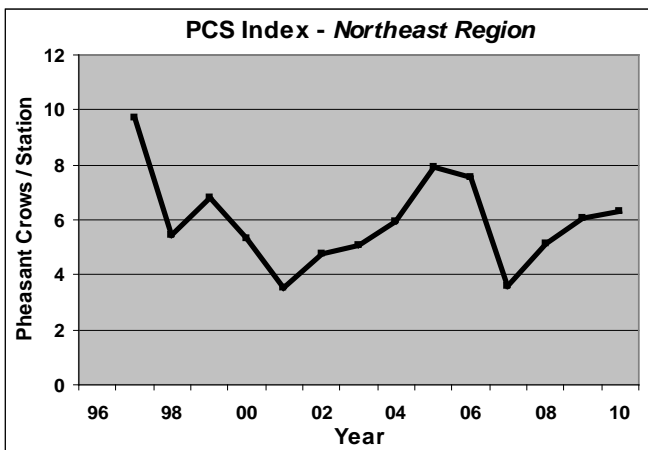
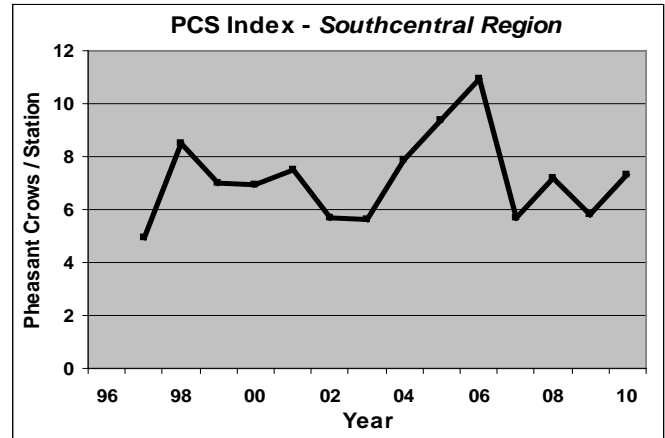
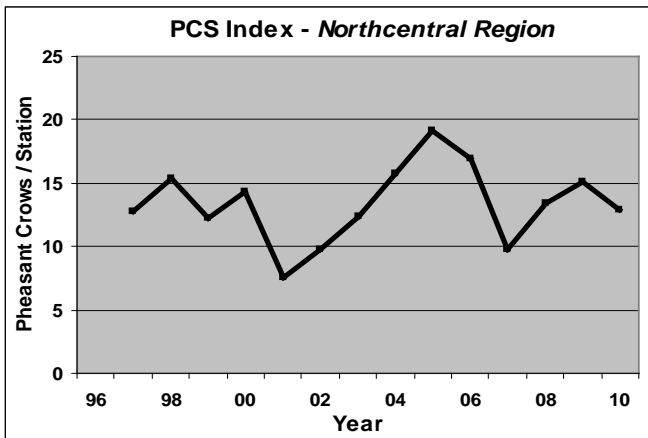
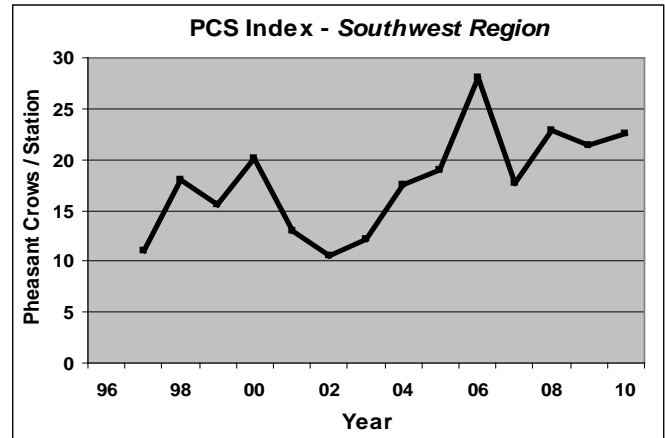
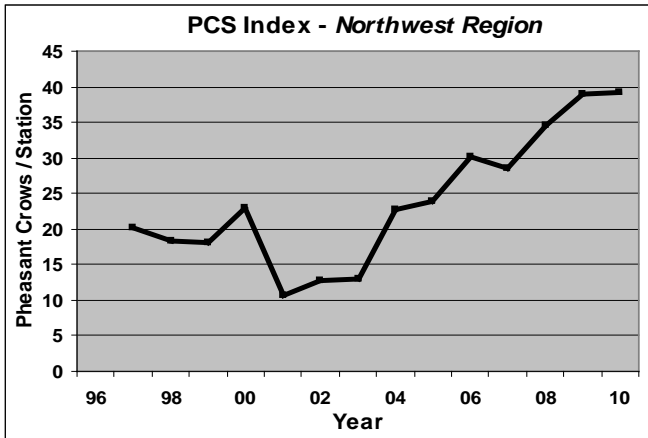
Route	2009 Crows Per Station	2010 Crows Per Station	1-Year Change (%)
<b>S</b> Butler-Marion	1.3	1.7	36
<b>H</b> Comanche		3.9	~
<b>C</b> Cowley-Sumner	5.6	12.1	114
<b>E</b> Harper		6.5	~
<b>N</b> Kingman-Reno	7.4		
<b>T</b> McPherson	6.4	9.7	53
<b>R</b> McPhers.-Marion	9.0	12.7	41
<b>A</b> Reno	8.3	9.4	~
<b>L</b> Sedgwick-Harv.	3.0	2.7	-10
Region Mean *	5.8	7.3	<b>(+53)</b> **

Route	2008 Crows Per Station	2010 Crows Per Station	2-Year Change (%)
<b>H</b> Coffee	0.0	0.0	
<b>E</b> Osage	0.0	0.0	
<b>A</b> Region Mean *			
<b>T</b> (SE routes run only in even years)			

Route	2009 Crows Per Station	2010 Crows Per Station	1-Year Change (%)
<b>R</b> Range Mean*	19.0	19.3	<b>(+1)</b>
<b>A</b> (Excludes SE)			

# Kansas Pheasant Crowing Survey Trends

(Note: Scales Differ)



Kansas Pheasant Crowing Survey Routes and Survey Regions

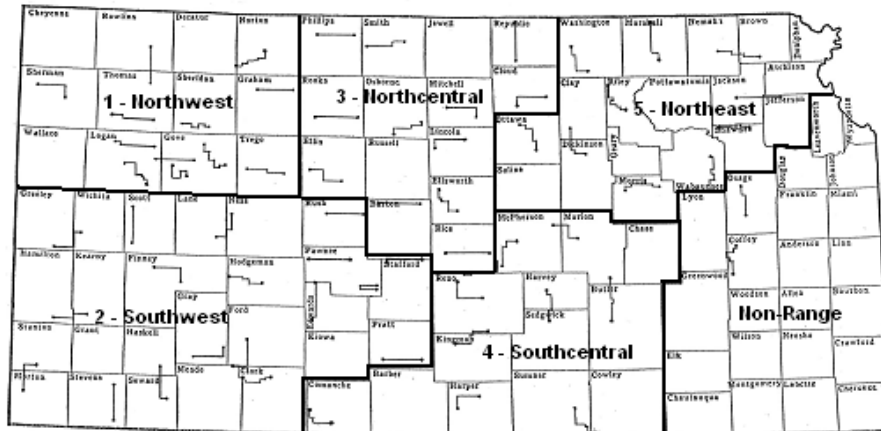


Table 2. Kansas Department of Wildlife and Parks personnel assigned pheasant crowing survey routes -- 2010.

Region	Route	Observer	Region	Route	Observer	
NW	Gove NE	Steve Price	SW	Clark	Jon Zuercher	
	Gove SW	Randy Rodgers		Edwards	Matt Stucker	
	Gove-Logan	Randy Rodgers		Finney	Daryl Fisher	
	Graham	Marc Gray		Ford	Aaron Baugh	
	Logan	Matt Bain		Gray	Lowell Aberson	
	Logan SE	Randy Rodgers		Hodgeman	Aaron Baugh	
	Norton	Cris Mulder		Kearny-Hamilton	Mark Sexson	
	Rawlins-Thomas	Matt Bain		Morton-Stanton	Kraig Schultz	~
	Sheridan	Josh Williams		Ness-Lane	Randy Rodgers	
	Sherman	Mike Hopper		Pawnee	Charlie Swank	
Thomas	Josh Williams	Pawnee (Irrig.)	Helen Hands			
Trego	Kent Hensley	Pratt	Chris Berens	~		
		Rush	Brian Hanzlick			
NC	Barton	Gene Scheweis	Scott	Manuel Torres		
	Cloud	Aaron Deters	Seward-Haskell *	Casey Gamble	~	
	Ellis	Mike Nyhoff	Stafford-Barton	Charlie Swank	~	
	Ellsworth	Matt Smith	Stevens	Landen Cleveland	~	
	Lincoln	Scott Thomasson	Wichita-Greeley	Justin Hamilton	~	
	Mitchell	Chris Lecuyer				
	Osborne	Toby Marlier	SC	Butler-Marion	Charlie Cope	
	Phillips	Marc Gray		Comanche	Matt Harvey	~
	Republic	Rob Unruh		Cowley-Sumner	Kurt Grimm	
	Rice	Steve Adams		Harper	Chris Stout	~
Rooks	Mike Zajic	Kingman-Reno *		Troy Smith		
Smith *	Mike Peterson	McPherson		Brent Theede		
		McPhers.-Marion	Bryan Sorensen	~		
NE	Brown-Nemaha	Randy Whiteaker	Reno	Scott Hanzlicek		
	Dickinson-Clay	Clint Thornton	Sedgwick-Harv.	Charlie Cope		
	Jackson-Jeffers.	Randy Whiteaker				
	Marshall	James Svaty	SE	Coffee **	Bob Culbertson	
	Morris	Brent Konen		Osage **	Matt Peek	
	Ottawa	Pat Riese				
	Riley	Corey Alderson				
	Shawnee	Brad Rueschhoff				
	Wabaunsee	Brad Rueschhoff				
	Washington	Clint Thornton				

~ New Observer  
 \* Route not completed  
 \*\* Southeast routes run only in even years.