## 2012 Pronghorn Production Surveys

# PERFORMANCE REPORT STATEWIDE WILDLIFE RESEARCH AND SURVEYS

A Contribution of Pittman-Robertson Funds Federal Aid in Wildlife Restoration

Grant W-39-R-19

## Kansas Department of Wildlife and Parks

Robin Jennison Secretary

Prepared by

Matt Peek Wildlife Research Biologist

Joe Kramer Director Mike Mitchener Wildlife Section Chief





#### PERMISSION TO QUOTE

This is an annual progress report that may contain information that is subject to future modification or revision. Persons wishing to quote from this report, for reproduction or reference, should first obtain permission from the Chief of the Wildlife Section, Kansas Department of Wildlife and Parks, 512 SE 25th Avenue, Pratt, KS 67124.

#### **EQUAL OPPORTUNITY STATEMENT**

This program receives Federal financial assistance from the U.S. Fish and Wildlife Service. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972, the U.S. Department of the Interior and its bureaus prohibit discrimination on the basis of race, color, national origin, age, disability or sex (in educational programs). If you believe that you have been discriminated against in any program, activity or facility, or if you desire further information, please write to:

The U.S. Fish and Wildlife Service
Office of Diversity and Civil Rights Programs- External Programs
4040 North Fairfax Drive, Suite 130
Arlington, VA 22203

### **2012 Pronghorn Production Surveys**

Matt Peek Pronghorn program coordinator

The 2012 aerial pronghorn production surveys have been completed. Total numbers of pronghorn observed in each pronghorn hunting unit and their respective buck:doe:fawn ratios are presented in **Table 1**, and data from Chase County can be found in **Table 2**. Survey routes and location of pronghorn observations for each hunting unit are provided in **Figures 1-3**. Trends in buck:doe and doe:fawn ratios since 2001 can be found in **Figures 4 and 5**, respectively.

Buck:doe ratios averaged 42 per 100 within the three hunting units, and ranged from 21:100 in Unit 17 to 51:100 in Unit 2. Our current objective is 35 bucks per 100 does, which is based on a combination of interest in maintaining a good age structure for harvest and the need to keep permit allocations up in order for the current permitting system to remain functional (to keep preference point requirements from becoming so high hunters won't apply). Permit allocations are adjusted annually to move each unit towards this objective, but there is annual variation within this survey (associated with taking a sample), so other indicators are also taken into account in this process. Especially when sample sizes are small as occurred in unit 18 this year, results must be critically evaluated in relation to other indicators.

Most of western Kansas was under extreme drought from prior to the fawning season through the survey period, which likely resulted in the very poor production that appears to have occurred throughout the western range. Fawn:doe ratios ranged from 14:100 in Unit 2 to 20:100 in Unit 17 (60:100 would be considered good). This is the second year in a row production has been very poor in Unit 18. Fawn ratios don't greatly influence hunter satisfaction with the current year's hunt, but are may be considered a predictor of things to come. However, last year's winter count was the highest on record for Unit 18 (over 300 pronghorn were observed). Several factors may account for this apparent inconsistency (pronghorn movements, sampling error, density dependent survival, etc.), and we will be looking for explanations in future surveys.

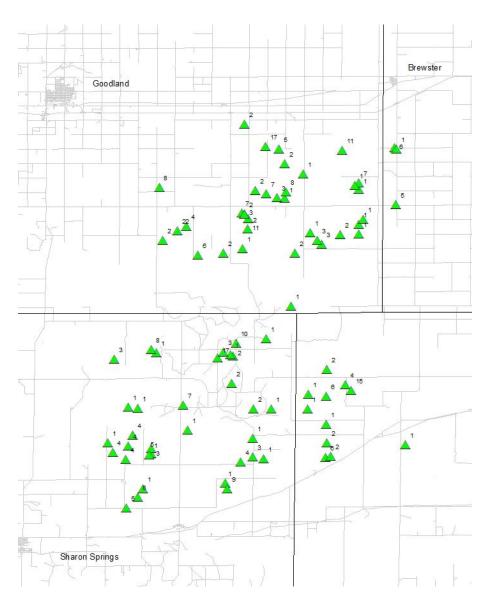
The small Flinthills population continues to persist (Table 2), and production has been fair to good recently. Buck numbers have also been sufficient such that harvest has become a consideration as a way to renew interest in this population. We will be exploring options relative to this in the near future.

Table 1. Results of summer 2012 aerial pronghorn production survey for each pronghorn hunting unit.

	Ratio			Actual Number		
Unit	Bucks	Does	Fawns	Bucks	Does	Fawns
2	51	100	14	102	199	28
17	21	100	20	17	82	16
18	35	100	19	9	26	5
Total	42	100	16	128	307	49

Table 2. Results of summer 2012 aerial pronghorn production survey for the Chase County (Flinthills) population.

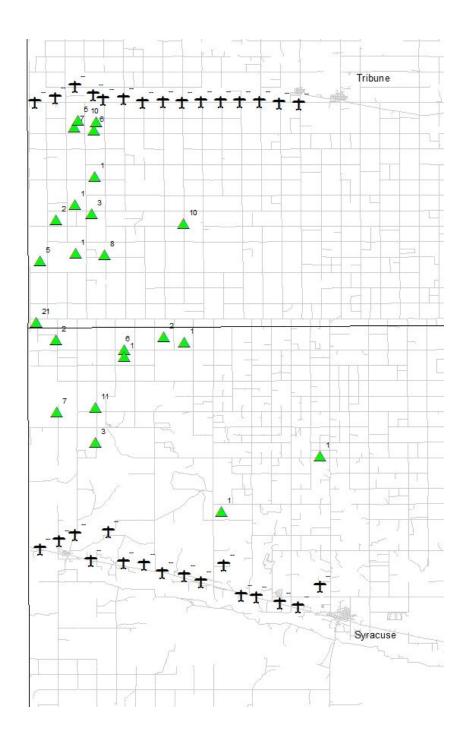
	Ratio			Actual Number		
Unit	Bucks	Does	Fawns	Bucks	Does	Fawns
CS Co	92	100	33	11	12	4



▲ Location and number of pronghorn observed

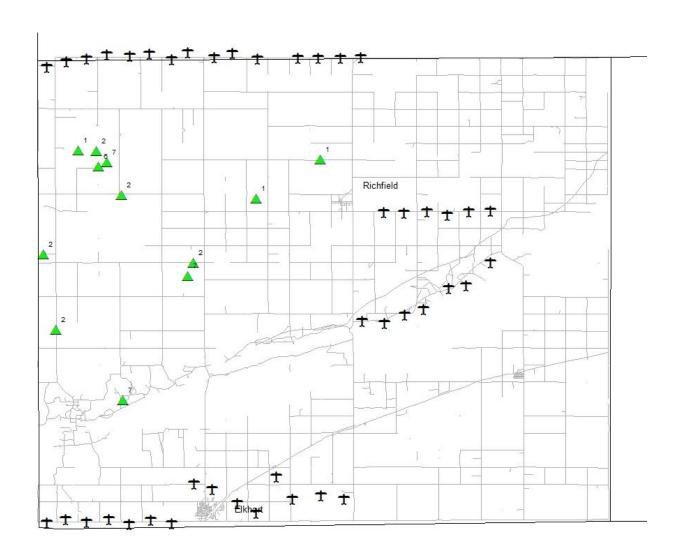
**★** 2012 Summer Route

Figure 1. Unit 2 – Survey route and pronghorn observations (Sherman, Wallace, Thomas and Logan Counties).



- ▲ Location and number of pronghorn observed
- † 2012 Summer Route

Figure 2. Unit 17 – Survey route and pronghorn observations (Hamilton and Greeley Counties).



- ▲ Location and number of pronghorn observed
- **↑** 2012 Summer Route

Figure 3. Unit 18 – Survey route and pronghorn observations (Morton County).

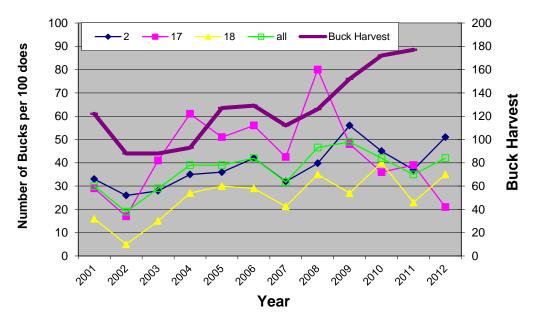


Figure 4. Number of pronghorn bucks per 100 does for each unit since 2001, and total annual buck harvest

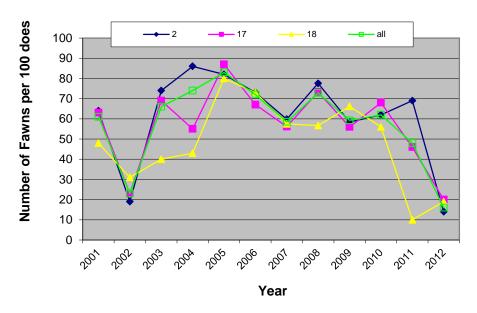


Figure 5. Number of pronghorn fawns per 100 does for each unit since 2001.