2013 Pronghorn Production Surveys

PERFORMANCE REPORT
STATEWIDE WILDLIFE RESEARCH AND SURVEYS

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The U.S. Fish and Wildlife Service
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4040 North Fairfax Drive, Suite 130
Arlington, VA 22203
2013 Pronghorn Production Surveys

Matt Peek
Pronghorn program coordinator

The 2013 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. The production survey was not conducted in Chase County in 2013. 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.

Drought in western Kansas appears to be driving pronghorn population dynamics at the current time. Buck ratios in two of three units are below our objective of 35 bucks per 100 does. This is likely the result of increased harvest pressure on the buck population as a result of poor production the last couple years. Though limited draw permits were reduced and firearm and muzzleloader success rates declined in 2012, archery harvest has increased the last couple years such that high harvest levels have been maintained. As a result, we are anticipating a younger buck population than in previous years. Mature bucks were observed during surveys in all units, but there may be fewer and hunters may have to work harder to find them than in years past.

In recent weeks, most of the pronghorn range has experienced much needed rainfall. However, it was after the most critical time for fawn survival, and fawn ratios remained poor, though improved in Units 2 and 18. Fawn ratios don’t greatly influence hunter satisfaction with the current year’s hunt (though poor production means fewer pronghorn seen in a given year), but may better serve as a predictor of things to come. Fawn ratios over the past several years predict a population in decline. Limited permit quotas were further reduced from 2012 levels in 2013, but based on these survey results, additional and deeper permit cuts will be in order for 2014.

It is important to remember that these production surveys are not intended to determine population size, but rather to evaluate sex and age ratios of the population. Due to smaller herd size and habitat conditions, pronghorn visibility is lower than during winter counts. This survey may also be conducted when conditions are less suitable for observing pronghorn than permitted in winter (i.e. during midday or when there’s cloud cover). This year, one survey was partially conducted with only one spotter plus the pilot when there are typically 3 spotters. Consequently, the percent of pronghorn observed within a given survey area is unknown.

Table 1. Results of summer 2013 aerial pronghorn production survey for each pronghorn hunting unit.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Ratio</th>
<th>Actual Number</th>
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<tbody>
<tr>
<td></td>
<td>Bucks</td>
<td>Does</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>17</td>
<td>38</td>
<td>100</td>
</tr>
<tr>
<td>18</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>
Location and number of pronghorn observed

2013 Summer Survey Area

Figure 1. Unit 2 – Survey area and pronghorn observations (Sherman and Wallace Counties).
Location and number of pronghorn observed

2013 Summer Route

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

2013 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.