

UNITED STATES GOVERNMENT
MEMORANDUM

DATE: April 25, 2012

REPLY TO

ATTN OF: Kathy McPeak

SUBJECT: 2011 & 2012 Report of Prairie Grouse Breeding Ground Surveys on Fort Niobrara NWR

TO: Steve Hicks, Alan Whited

Objective: To monitor trends in abundance of sharp-tailed grouse and greater prairie chickens on Fort Niobrara NWR.

Methods: Annual prairie grouse breeding ground counts were conducted 8 mornings April 11-26, 2011 and 7 mornings April 9-24, 2012 on Fort Niobrara NWR. Refuge grasslands south and east of the Niobrara River totaling approximately 12,000 acres were searched for displaying grouse beginning ~30 minutes before sunrise and continuing for 1-2 hours depending upon weather and bird activity. Leks located on private land within ½ mile of the refuge were included in the survey. Refuge biologist McPeak visited each lek at least twice to confirm activity and number of males displaying. Listening surveys were conducted by biological technician S.Magstadt in 2011 and refuge manager S.Hicks in 2012 in habitat units where traditional grounds moved or could not be located.

Results: A total of 191 sharp-tailed grouse males were counted on 20 grounds in 2011 and 186 males on 18 grounds in 2012. These results are down from the historic high count of 251 males on 18 grounds recorded in 2010. Eleven grounds are well established with 11-28 males counted per lek, two grounds (habitat unit 36a) have fewer than 5 birds but have been at these locations for several years and would be considered “traditional”, and the remaining 5-7 grounds (depending upon year) each had 1-4 birds, were loosely organized, and not consistent in their location.

A total of 41 greater prairie chicken males were counted on 8 grounds in 2011 and 56 males on 6 grounds in 2012. These results are similar to counts in recent years of 50-60 males observed on 6-8 grounds. Most of the prairie chickens are booming on lands adjacent to the refuge which are difficult to count (bird sightability) and results on any given day can be highly variable.

Refer to attached map and data graphs for specific information.

Discussion: Sharp-tailed grouse and greater prairie chicken lek counts have been conducted on Fort Niobrara NWR since 1956 as an index for abundance. Trend analyses of data suggest the 5-year trend for sharp-tailed grouse is stable with the 10-, 15-, and 20-year trends positive indicating a stable to increasing population. Trend analyses of prairie chicken data the past 20 years suggest the population is stable with the long-term trend (1956-2012) positive.

Sharp-tailed grouse and greater prairie chicken populations are affected by a variety of factors and can fluctuate greatly from one year to the next. Both species use a range of vegetation structures to meet their life requirements (short for displaying, taller for nesting, more heterogeneous for brood rearing). Lek count data continue to suggest that the refuge is providing quality habitat for *sustainable* populations of sharp-tailed grouse and prairie chickens; and because prairie grouse are considered an “umbrella” species, the refuge is also likely providing good habitat for a broader suite of grassland birds.

NGPC results??