

# Regional Bobwhite Quail and Cottontail Rabbit Survey 2007

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## **Abstract**

Data on male bobwhite quail densities were collected biennially since 1991 in 15 counties comprising the species' primary range. Populations showed a small insignificant decrease ( $p = 0.53$ ) in 2007, with the overall trend still a significant decline. The mean number decreased from 0.07 in 2005 to 0.05 in 2007. The number of cottontail rabbits seen while running the quail survey was 0.28, an increase from 2005 level of 0.22.

## **Methods**

Department personnel ran roadside surveys along predetermined transects in 15 counties across Wisconsin's primary bobwhite quail range. Annual surveys began in 1949, and have been run biennially since 1991. The surveys took place between 15 June and 5 July, beginning at sunrise on mornings with less than 40% cloud cover and winds less than 5mph. Surveyors made 20 stops approximately one mile apart, and recorded at each stop the number of whistling males heard during a two-minute period. The number of cottontail rabbits seen while running the transect was also recorded. The data were entered into the DNR UNIX production server and analyzed using the Statistical Analysis System (SAS).

## **Results**

Whistling bobwhite quail routes have been conducted in Wisconsin's primary quail range (Figure 1) since the summer of 1949. The number of routes run in 2007 was the same as in 2005 (25). The number of whistling males per stop decreased 26%, from 0.07 in 2005 to 0.05 in 2007 (Figure 2.). The number of whistling males per stop remained well below the long-term average (0.57) as well.

Surveyors were also instructed to record all cottontail rabbits seen on the survey route. The numbers of cottontail rabbits seen per transect increased 27%, from 4.4 in 2005 to 5.6 in 2007.

Winter temperatures for the 2006-2007 season were above average, and normal precipitation was generally the norm for most of the winter. This temperate weather should have had a positive impact, allowing bobwhite quail populations to increase.

In general, the continued declines of bobwhite quail in Wisconsin and nation-wide reflect factors beyond winter conditions. Such causative factors are thought to include habitat deterioration, predation, and possibly pesticides. Continued losses of grass lands and changes in land use threaten the future of this sassy little game bird in Wisconsin.

The outlook for rabbits seems to be better than quail. The trend for rabbit numbers is stable in the long term. Their numbers have increased from their 2005 level and are as high as they have been in 25 years (Figure 3.).

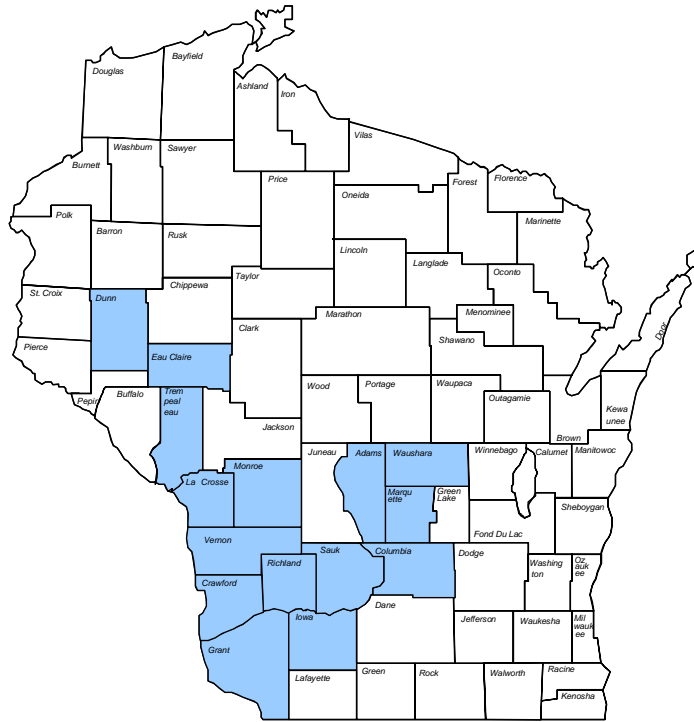


Figure 1. Shaded counties comprise Wisconsin's primary bobwhite quail range.

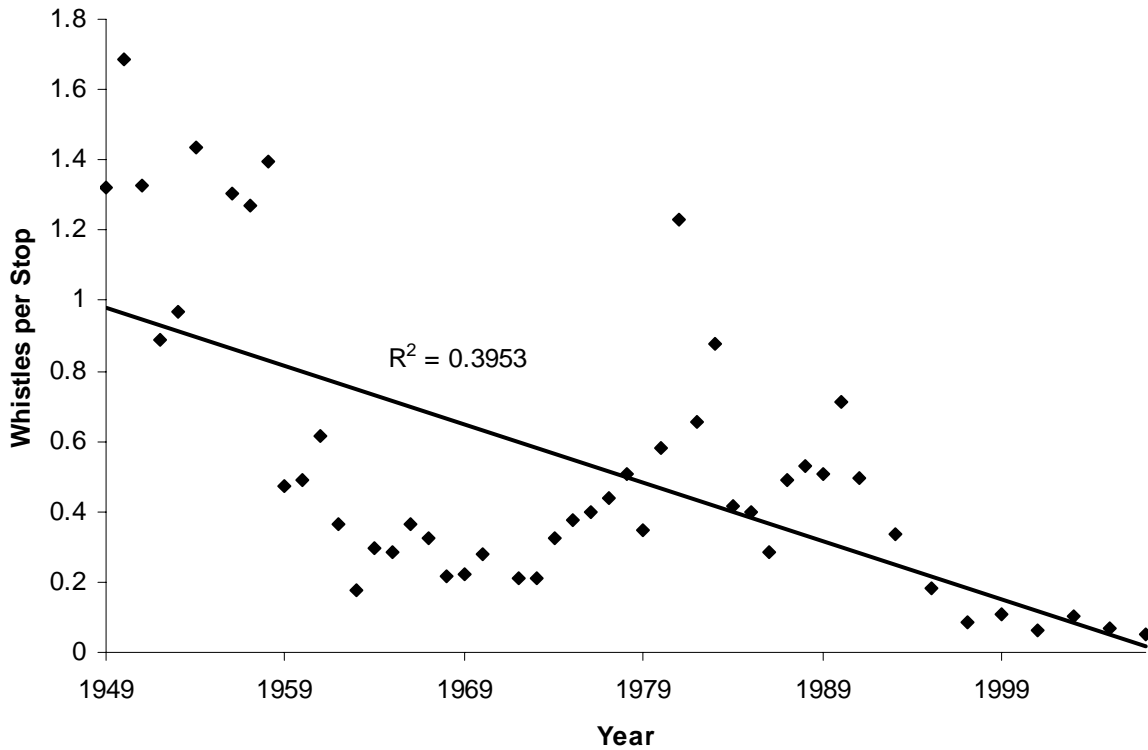
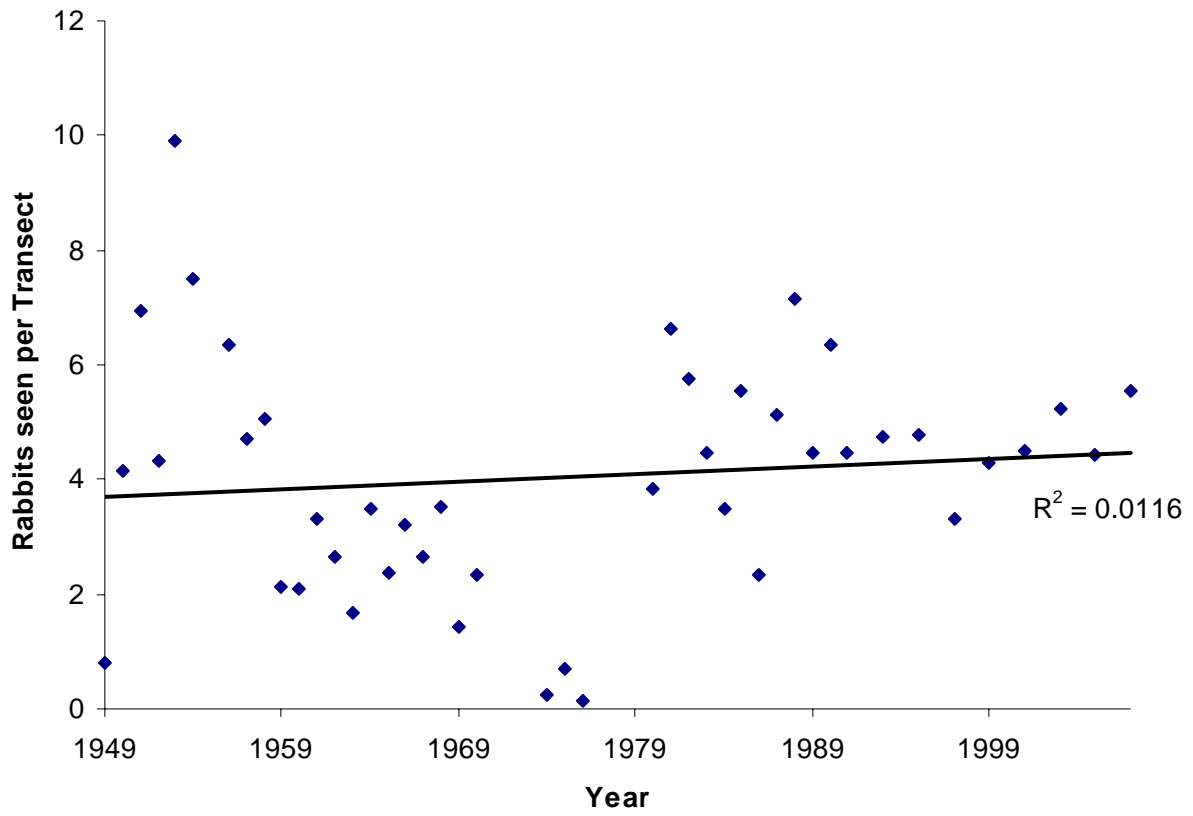


Figure 2. Mean number of whistling males heard per stop 1949-2007.



**Figure 3.** *Number of rabbits seen per quail transect 1949-2007.*