

Ruffed Grouse Drumming Survey Summary 2014

Ruffed grouse were monitored by counting drumming males on 46 routes throughout 6 mountain ranger districts. Each route consisted of 3-27 listening stations located on game lands.

Observers counted drumming males within a 4 minute listening period per station during the last week in March through the first week in April.

Grouse drummed at 78 of the 618 stations (13%). A total of 82 drumming males were detected. Each grouse detected drummed an average of 1.1 times within the 4 minute listening period. In 2014, Nantahala ranger district had both the highest abundance (0.22 grouse per station) and station occupancy rate (21%). Grandfather ranger district had the lowest abundance (0.06 grouse per station) and station occupancy rate (6%).

Historically grouse abundance and station occupancy rates have been highest in the Cheoah ranger district and lowest in the Grandfather ranger district (Fig 1), after accounting for yearly effects ($P < 0.05$).

Linear trend analyses continued to indicate the largest declines within Cheoah ranger district (-0.014 ± 0.004 grouse heard per station, $P < 0.01$). The Appalachian ranger district also showed small declines (-0.003 ± 0.002 grouse heard per station, $P < 0.01$). Despite recent increases, the Pisgah ranger district had the most dramatic short-term declines over the past 3 years. Pisgah counts were the highest for the mountains (0.32 grouse per station) in 2012, but in 2014 dropped to the lowest (0.10 grouse per station). All other ranger districts did not show any significant trend changes since 2002 ($P > 0.05$).

After accounting for variations between ranger districts, significant drumming count fluctuations are sometimes seen between years ($P = 0.03$) (Fig 2). Since the inception of the survey in 2002, the highest counts were recorded in 2003 and 2011 (0.17 grouse heard per station), while lowest count was recorded in 2007 (0.09 grouse heard per station).

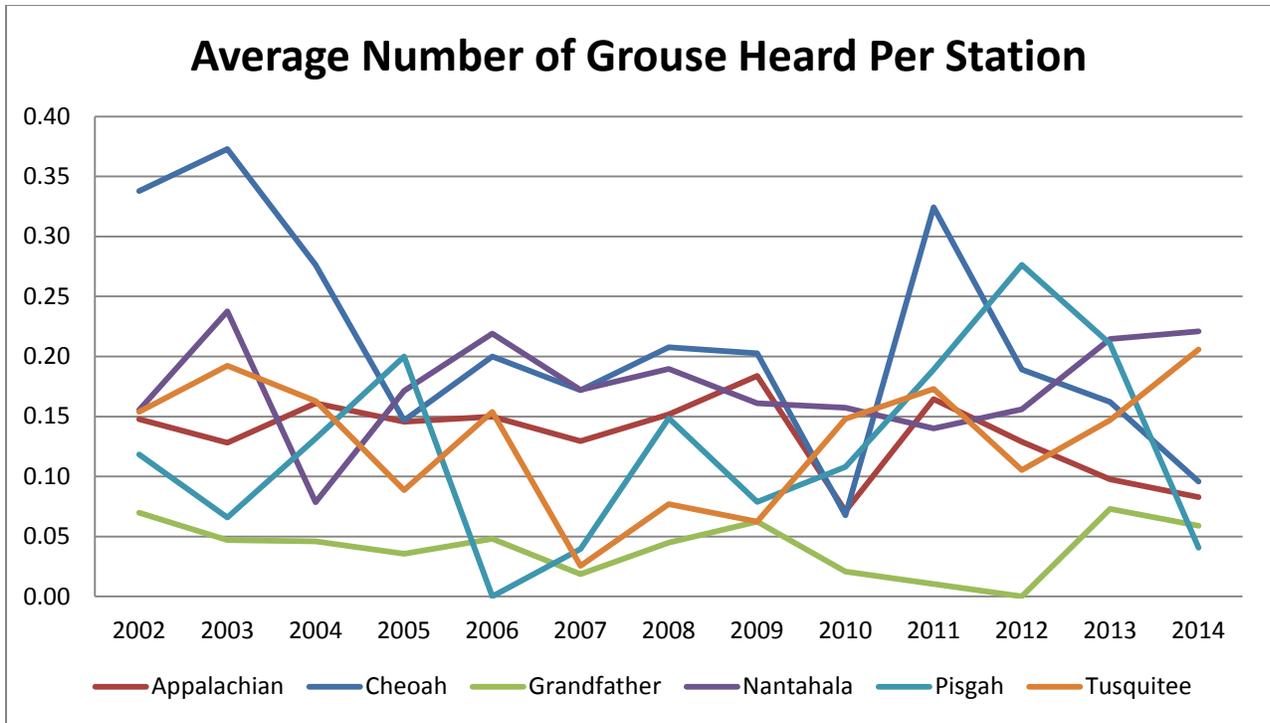


Figure 1. – Average Number of Grouse Heard Drumming Per Station By USFS Ranger District, North Carolina Grouse Drumming Survey, 2002-2014.

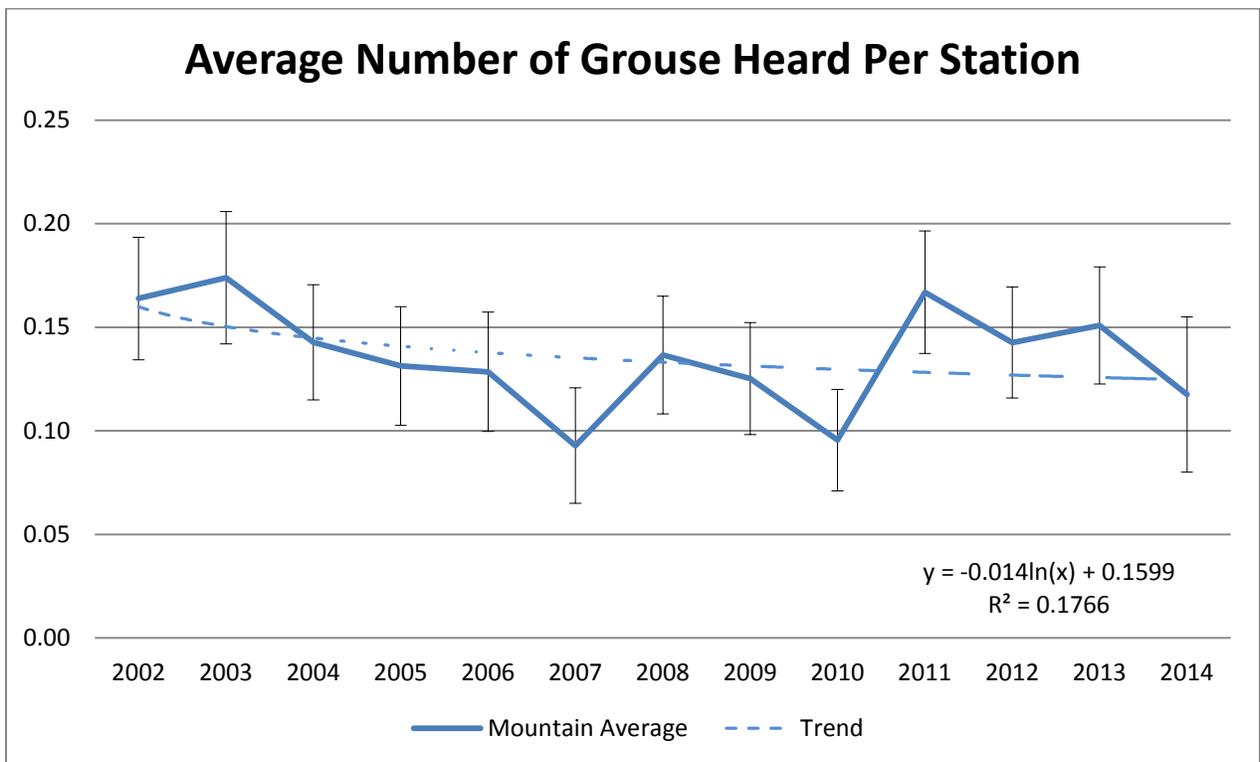


Figure 2. – Average Number of Grouse Heard Drumming Per Station, North Carolina Grouse Drumming Survey, 2002-2014.