Forest Research

Feral Wild Boar and Deer in the Forest of Dean

Population surveys in the public Forest Estate 2019

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Introduction and Methods

Since release, the population of feral Boar in the Forest of Dean has been of interest and concern to both local landowners as well as the general public. The population is now monitored annually to establish changes in abundance and this report provides results up to and including the latest survey carried out in March 2019.

The survey was based on observations made using thermal imaging and population estimates obtained using distance sampling[1]. This approach has proved very effective in previous studies for estimating the abundance of wild ungulates in forested landscapes which offer limited visibility[2-5].

Thermal imaging surveys were carried out in the Forest of Dean every 3-5 years from 2000 to assess changes in numbers of deer. Since 2013 however they have been carried out annually, to monitor numbers of feral wild boar which were increasing rapidly at that time. The current survey adopted the same methods as previous surveys and covered the same parts of the public forest estate as the last survey[6]. Observations were made at night between the 4th and 25th March 2019.

Results

Wild Boar

In total, 163 sounders were detected during the survey with an average of 2.98 boar per sounder, indicating a decline from the numbers detected in 2018 (131 sounders with 4.32 per sounder).

The estimated population size is now 1172 with a 95% confidence interval ranging from 885 to 1552, indicating a significant decrease from 1635 estimated in 2018 and a return to levels estimated in 2017. Further, density of boar is similar in both central and peripheral parts of the forest, in contrast to previous years (see figure 1).

The number of recorded casualties (RTA's) has also decreased from the number recorded in 2018, to 98. This figure includes both the number of recorded road casualties as well as animals found dead in the forest. The number of RTA's continues to show a close correlation with estimated population size (see figures 2 and 3).

Deer

The estimated population of deer was 1631 (95% conf. interval 1327 - 2004). Of the number observed, 76% were Fallow deer; 15% were muntjac and 9% were roe deer.

Figure 1. Trends in numbers of wild boar culled, killed on roads (RTA's) and population density 2008-2019. Figures are numbers per km^2.

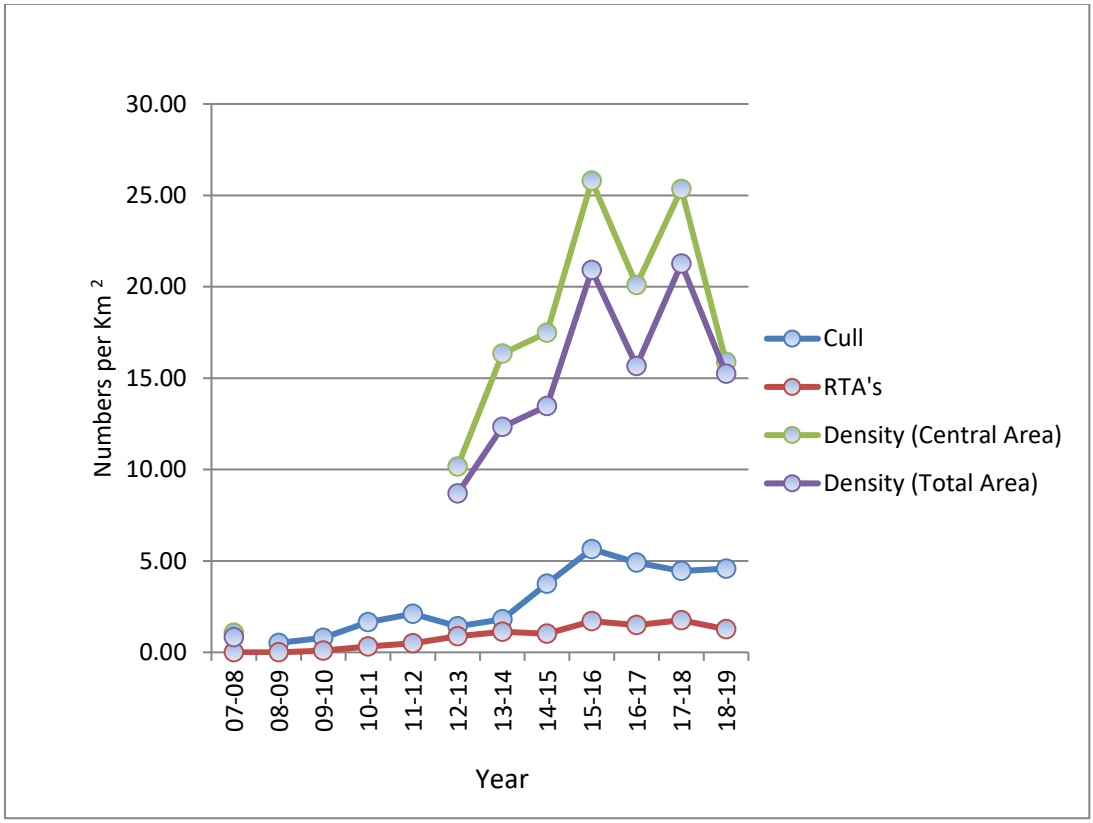


Figure 2. Trends in the number of feral boar culled and the number of recorded traffic casualties and found carcases (RTA's)

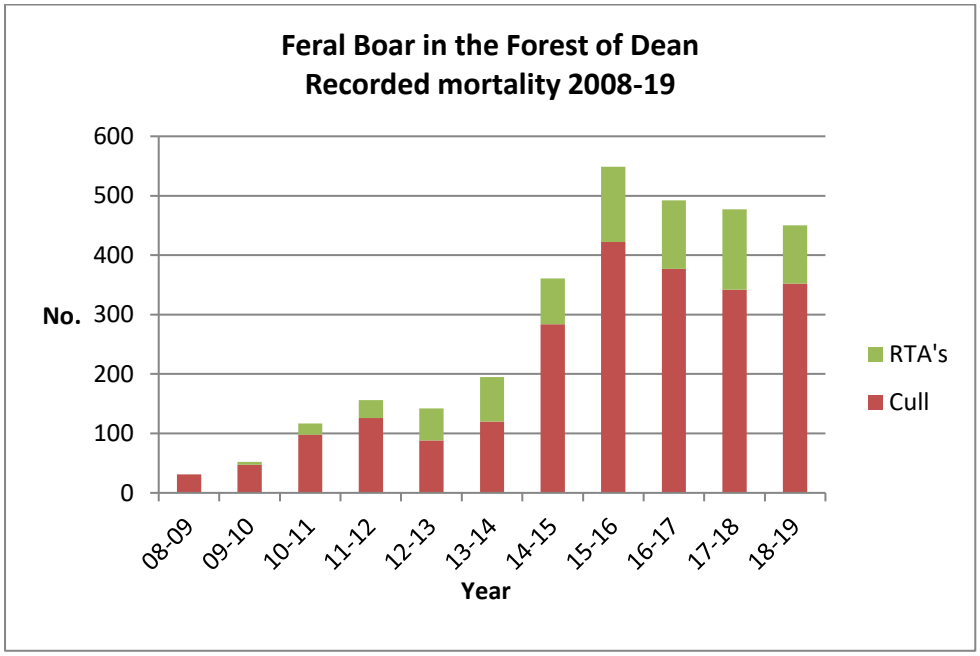


Figure 3. Numbers of feral boar RTAs recorded each year (vertical axis) in relation to estimated population density (Both variables expressed as numbers per km^2 of forest area; $r = 0.981$; $p < 0.01$)

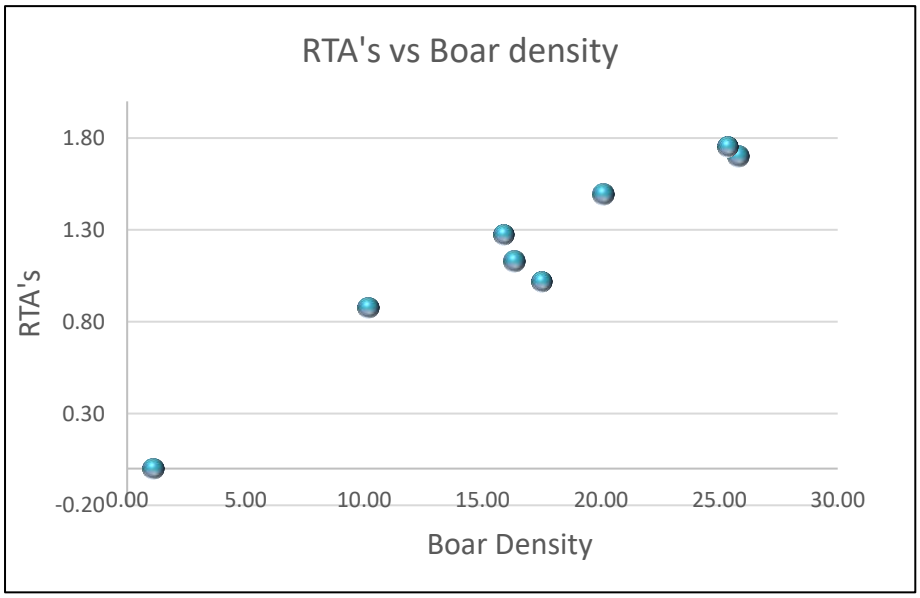
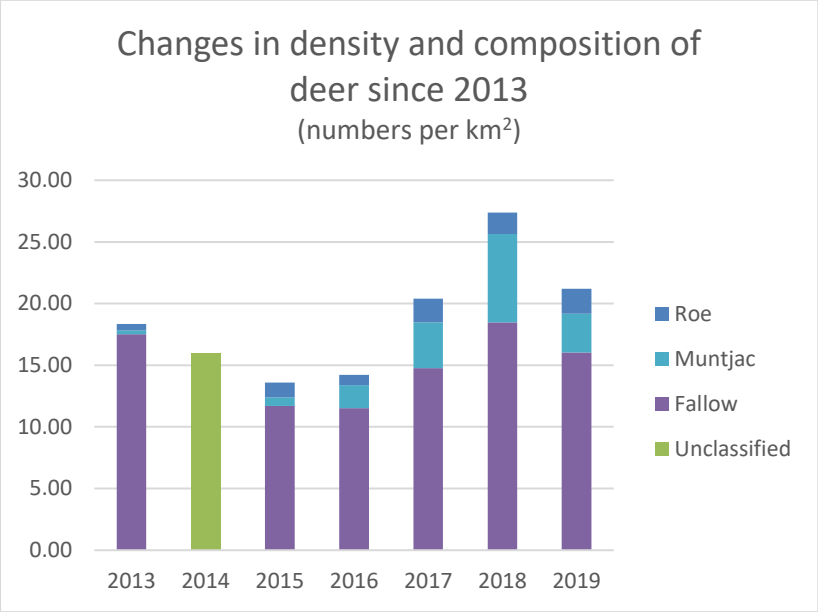


Figure 4. Changes in the density and composition of the deer population in the forest of Dean between 2013 and 2019.



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