

# Feral Wild Boar and Deer in the Forest of Dean

Population surveys in the  
public Forest Estate 2018

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## Introduction and Methods

The populations of feral wild boar and deer were surveyed in the forest of Dean to assess changes in numbers since 2017. The survey was based on observations made using thermal imaging and population estimates obtained using distance sampling (Buckland *et al* 2001). 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, primarily to monitor numbers of feral wild boar.

The survey adopted the same methods as previous surveys, and covered the same parts of the forest as the 2017 survey. Surveys were carried out at night between the 21<sup>st</sup> March and 11<sup>th</sup> April 2018.

## Results

### **Wild Boar**

In total, 131 sounders were detected during the survey with an average of 4.32 boar per sounder, an increase from 2017 when 105 sounders were found with an average of 4.05 per sounder.

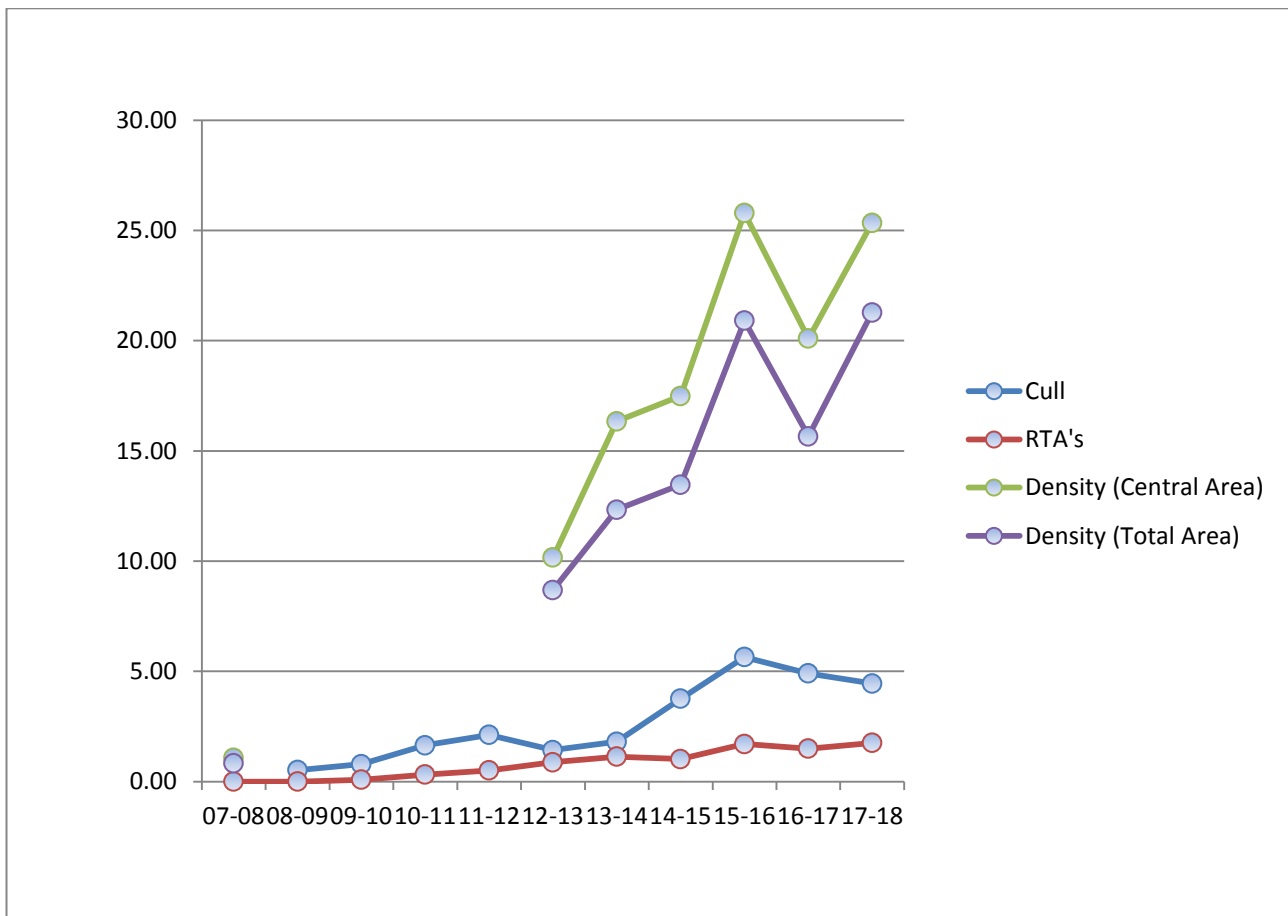
The estimated number of boar was 1635 with a 95% confidence interval ranging from 1200 to 2228, indicating an increase from 1205 estimated in 2017 and a recovery to levels estimated in 2016 (see figure 1).

The number of recorded casualties (RTA's) has also increased from the number recorded in 2017, to 135. 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).

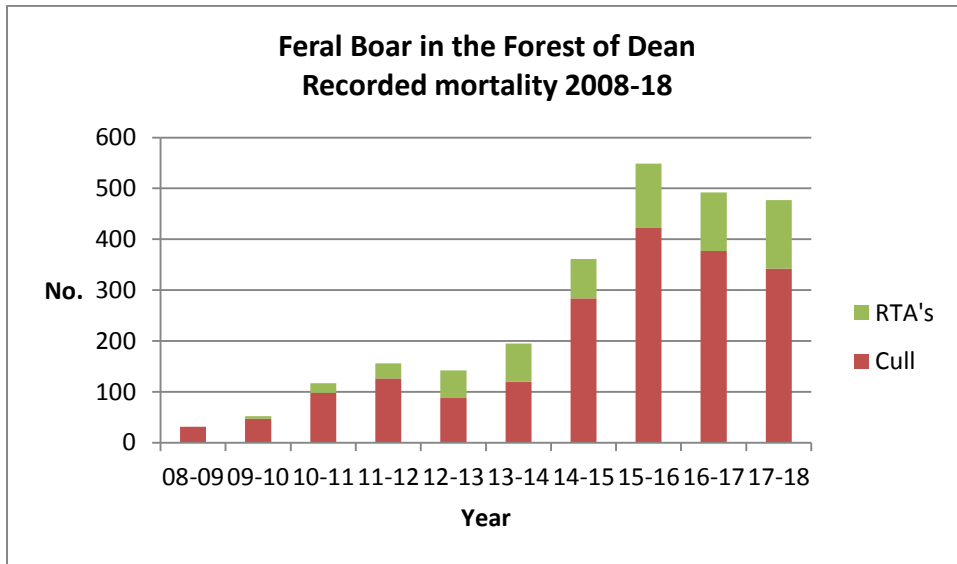
### **Deer**

The estimated population of deer was 2107 (95% conf. interval 1714 - 2589). Of the number observed, 67.5% were Fallow deer; 26.1% were muntjac and 6.4% were roe deer. The estimated numbers of deer have increased substantially in the last two years (see figures 4a and 4b). The greatest relative increase is in muntjac deer, which have now spread throughout the forest as well as increased in density.

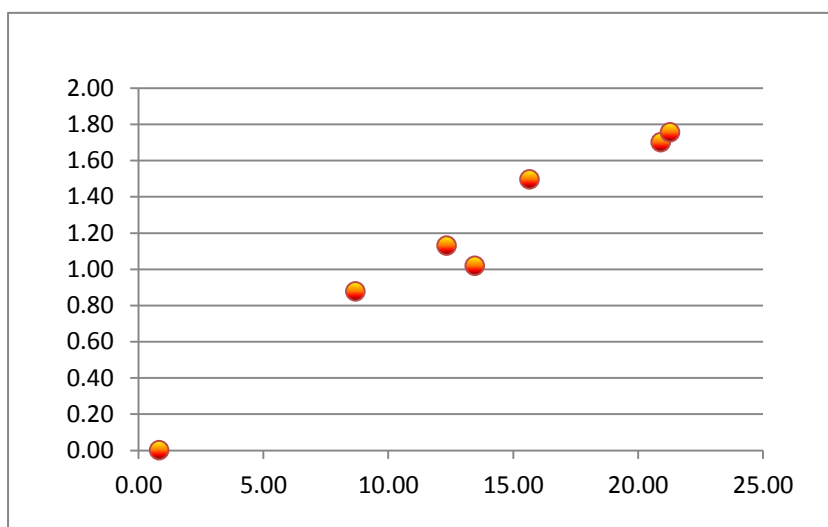
**Figure 1.** Trends in numbers of wild boar culled, killed on roads (RTA's) and population density 2008-2017. Figures are numbers per km<sup>2</sup>.



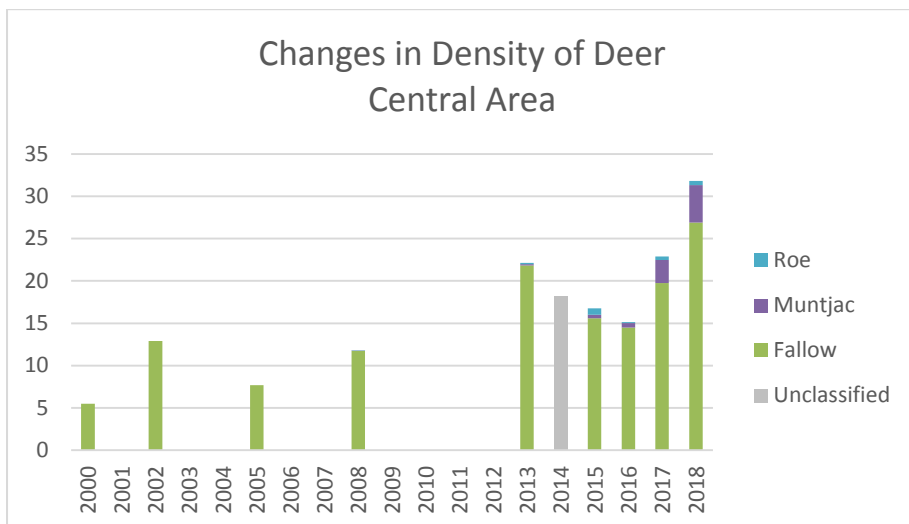
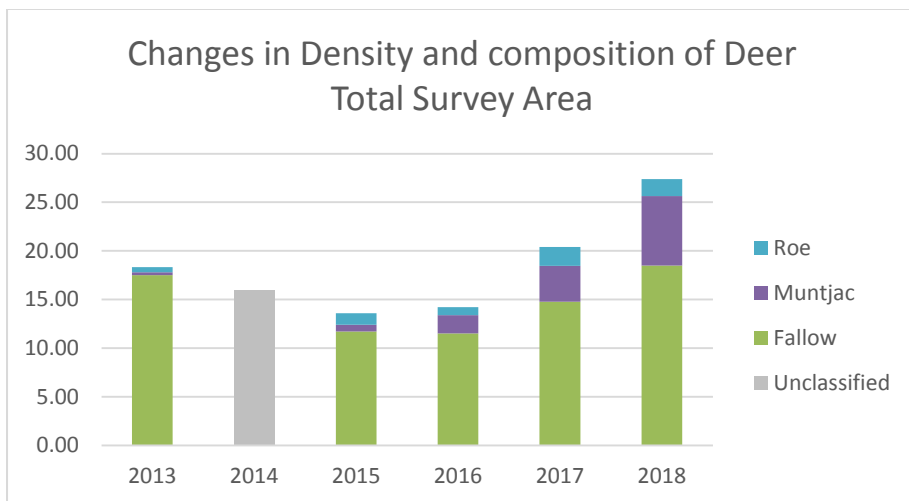
**Figure 2.** Trends in the number of boar culled and the number of recorded RTA's (Road traffic casualties)



**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<sup>2</sup> of forest area;  $r = 0.981$ ;  $p < 0.01$ )



**Figure 4a (above) and 4b (below).** Changes in the density and composition of the deer population in the forest of Dean between 2000 and 2018. Prior to 2013, surveys focused mainly on the central area.



## References

Buckland, S.T. Anderson D.R. Burnham, K.P., Laake, J.L. Borchers, D.L. Thomas, L. (2001) *Introduction to Distance Sampling*. Oxford University Press, Oxford.

Gill, R.M.A. and Waeber, K. (2017) *Feral Wild Boar in the Forest of Dean. Population survey in the Public Forest Estate 2017*. Forest Research Report.

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