# Collaborative action to improve our native woodlands

by **Peter Watson,**
Deer Initiative chief executive

We all recognise that wild deer are an important part of our wildlife. They must, however, be managed to keep them in balance with their habitat and prevent serious damage to woodland SSSIs, tree plantations, crops, gardens and other wildlife.

In 2010 it was estimated that the current wild deer population in England was approximately 750,000 (Ward et al, 2010[1]). With the current management regime it is likely that all the species will increase at rates between 1-10% per annum. This is not sustainable for the long term without a more collaborative approach of intervention. If management continues only at current levels by 2020 the deer population could be as high as one million deer in England alone.

The annual cost of damage to agriculture in the East of England alone was estimated in 2008 at between £1.9 and £4.6 million. Further damage to woodland plantations and forestry is estimated at between £0.6 and £0.9 million per year and damage to conservation valued at £0.3 million per year.

Furthermore, the number of road accidents involving wild deer is a matter of major concern in England. Where busy roads pass through areas of high wild deer population, the risk both to motorists and the wild deer themselves is considerable. The economic cost of wild deer related road traffic accidents nationally are estimated at £50 million a year.

The potential future costs and benefits of wild deer over the next five and ten years were estimated in the East of England, based on the assumption that populations increase over the next ten years at the same rate as ranges have expanded over the last 30 years. Recent research suggests that in the next five years, the net cost of wild deer to the region will amount to £8.8 to £11.5 million, and that this will increase to a cost of £10.1 to £12.4 million in 10 years. These changes will be equivalent to a 12- 25% increase in costs over the next five years and a 21-44% increase in costs over the next ten years.

It could be perceived that there is little market demand for advice and support relating to the management of wild deer. However, Government believe that this is not due to lack of need, but due to a lack of knowledge by landowners, woodland managers and foresters. As stated in the document *Reviewing Forestry Commission England's approach to reducing the impact of deer on forestry and woodlands* (2014):

"Collaboration is needed between landowners in addition to management activities in individual woods as wild deer move around wide areas encompassing many landownership boundaries. Legally they belong to no-one and are no one's direct responsibility."

In response, the Forestry Commission and Natural England recently offered a four-year competitive grant to improve the condition of native woodlands in England. The grant was awarded to the Deer Initiative Ltd. The aim of the programme is to enable landowners to sustainably and collaboratively manage wild deer in England. Our proposal was based on building and disseminating an evidence base through knowledge transfer and the development of local landscape scale collaborative approaches.

We have identified a number of areas across the country where lack of collaboration has led to high density of wild deer or feral wild boar populations where the impacts, especially on biodiversity, are currently considered to be unacceptable. The aim of these local innovative projects is to draw together

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The estimated deer population in England alone in 2020, if management continues at current levels. At present, population is estimated at 750,000 in England.

landowners to form cohesive Deer Management Units (DMU) that understand the wider objectives for deer management and the wider landscape management of deer. This will be undertaken through a mixture of direct meetings with landowners, carrying out baseline work, ongoing monitoring, population management and volunteer engagement.

Over the last three years, we have been building 'deer density maps' with colleagues from FC and NE. Having identified the potential priority areas, we compared the areas with two of the more abundant herding species maps (Red and Fallow) to ensure that as far as possible the boundaries match the known deer ranges. The viewing range of classes for each priority area was then manipulated so that >>

## THE DEER INITIATIVE MANAGEMENT PROPOSAL

## Actions and deliverables

• Meetings with land owners and land managers including one-to-one contacts with agents, meetings with groups and awareness presentations. We have developed a management tool to help with this in conjunction with the Sylva Foundation[2]

• Population baseline evidence and ongoing monitoring:

**Thermal imaging (TI)**. This is our preferred option for establishing deer density at a landscape scale.

**Trail cameras.** To establish movement patterns and habitat usage across the range TI is supplemented by the use of Trail cameras).

**Activity and impact surveys.** In addition to population monitoring we have also developed an impact monitoring methodology to provide demonstrable evidence of deer impacts. Our aim is to train practitioners and other volunteers in using this methodology and then provide a collation and interpretation service to allow adaptive deer management.

**Exclosure plots.** In support of the impact monitoring we have also developed an exclosure plot design together with a monitoring protocol. This provides a visual demonstration of the impacts of deer and is particularly useful for persuading landowners of the requirement for collaborative deer management.

• Deer population management. A key element of landscape-scale collaborative management are organised cull periods. These activities require a significant level of support to ensure they are effective, humane and safe. We have developed a methodology to train and support collaborative culls and this will be used in the new project.

• Volunteer engagement and supervision. Key to any successful wildlife management activity is building a consensus within the local stakeholders other than the landowners and practitioners. Wherever possible this should include involving volunteers in the monitoring and related activities. We have developed a protocol for building such a consensus and developing a volunteer support base through, community meetings, supervision and provision of equipment.

• Continuing Management. Finally, we are convinced that local projects require local management and we have developed a model based around a locally chaired steering group supporting a local Deer Management Unit (DMU).

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>> each area shown was around 1000km²; final maps were then produced showing the priority areas.

These areas were then assessed properly for physical boundaries. In time, to further refine the models, geographic information showing the extent of Ancient Woodland covering the country may also be included in the analysis.

In parallel with the above process we have also compared the potential priority areas with existing collaborative management boundaries to identify areas where management is taking place and where adjustments may be required. As more data becomes available on the condition of forestry, agriculture and the spread of diseases the maps will be updated to allow a more in depth analysis of where the most suitable Priority Areas. Each of the Priority Areas is sub-divided into Action Areas which further match local land owning and more importantly deer range boundaries.
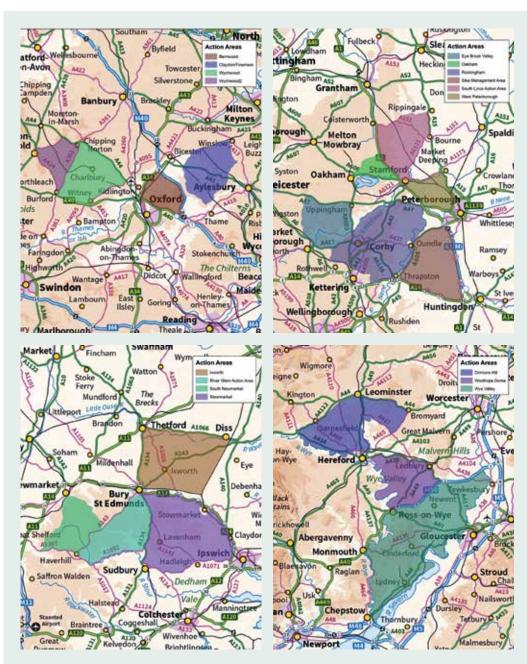
We are at the beginning of a four-year project to show that collaborative action by local landowners can improve woodland condition, especially for protected sites. Our approaches will no doubt change as we learn from the individual projects and from advances in deer management elsewhere.

**www.thedeerinitiative.co.uk**

**REFERENCES**

1 Ward, A. I., Acevedo, P., Real, R. and Smith, G. C. (2010), *Assessing biogeographical relationships of ecologically related species using favourability functions: a case study on British deer.* Diversity and Distributions, 16: 515–528.

2 Sylva Foundation: **www.myforest.org.uk**

**Deer Initiative Action Areas, clockwise from top left: Oxford, Rockingham, Wye and Suffolk.**