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Developing approaches to evaluate and mitigate the environmental impact of wild boar - WM0318

Description

Defra has the responsibility to facilitate the regional management of wild boar by providing local communities with advice and guidance on methods to control human-wild boar conflicts. Worldwide, wild boar are associated with damage to crops, substantial reduction of abundance of plant and animal species, spread of diseases, damage to livestock production and vehicle collisions. Recently established wild boar populations in England are still localised and might be in the initial phase of population increase and expansion. The proposed study aims develop surveillance techniques to monitor density and abundance and to detect range expansion of wild boar, evaluate a method to mitigate the impact of wild boar and to develop methods to evaluate the impact of wild boar on the biodiversity of woodland habitats and use these to assess this impact for the limited range woodland habitats within the scope of this study.

The first element of the project is the development of methods to monitor boar distribution and abundance. Several methods will be evaluated to determine local abundance, colonisation and range expansion by wild boar and to monitor wild boar population density, size and change. The study will also assess the relative cost-effectiveness of each of the methods and their suitability for different contexts and purposes. Key outputs of this part of the project will be (i) the identification of methods to estimate relative and absolute abundance of wild boar populations, (ii) the quantification of the effort required to produce density/abundance estimates to a known level of precision by different methods, (iii) the quantification of the financial costs required to provide these estimates and (iv) the identification of the suitability of each method for addressing specific questions pertaining to density, abundance and change, under different conditions.

In parallel, the study will evaluate one management option, electric fencing, frequently used in continental Europe to control wild boar impact on crops, to reduce contact rate between wildlife and livestock and to confine livestock on

farms. The effectiveness of electric fencing to exclude wild boar from areas containing food or females in oestrus will be tested in natural and semi-natural conditions. The key output of this part of the project will be the evaluation of feasibility and cost of electric fencing to prevent wild boar incursions in fenced areas.

The impact of wild boar will be assessed at a landscape scale, to determine which proportion of the woodland is affected by the presence of this species, and a localised scale by monitoring the impact on animal or plant species that are likely to be most affected by the presence of wild boar. The key outputs of this study will be (i) robust methods to measure the impact of wild boar on the biodiversity of woodland habitats in England, (ii) an assessment of this impact for the limited range of such habitats within the scope of this study

By assessing the risks associated with the presence of wild boar and by implementing methods to mitigate their impact, this approach will offer stakeholders tools to monitor abundance and potential expansion of this species and ensure that potential, large-scale human-wild boar conflicts are prevented or contained before they become intractable. In particular, these results will provide Defra with a science-based platform to oversee the implementation of the action plan to manage wild boar in the UK.

Objective

The proposed study has the following objectives:

1. Develop surveillance methods to monitor density and abundance of wild boar and to detect range expansion
2. Evaluate feasibility and cost of electric fencing to prevent wild boar incursions into fenced areas containing food or oestrus sows
3. Identify methods to evaluate the impact of wild boar on the biodiversity of woodland habitats and apply these to limited woodland habitats within the scope of this study

Time-Scale and Cost

From: 2008

To: 2011

Cost: £262,202

Contractor / Funded Organisations

[Central Science Laboratory](#)

Keywords

[Environmental Protection](#)

[Nature conservation](#)

[Wildlife conservation](#)

[Biodiversity](#)

Fields of Study and Contacts

[Wildlife Management](#) - <mailto:e.environment@defra.gsi.gov.uk>

