CONSERVATION AND MANAGEMENT OF RED DEER
ON THE NATIONAL TRUST HOLNICOTE ESTATE

A review and consultation on past management and new
Holnicote Deer Management Strategy 2015 - 2025

Prepared on behalf of The National Trust by
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1 OVERVIEW

Red deer have been closely associated with Exmoor’s cultural history, and unlike in most other parts of England are believed to have had an uninterrupted presence here since pre-historic times. The occurrence of wild red deer in significant numbers today continues to be highly valued by tourists and locals alike as one of the special qualities of Exmoor National Park, with their iconic status also recognised in the Park’s emblem. The National Trust’s Holnicote Estate extends over 5026 hectares, making it the largest contiguous landholding under single ownership within Exmoor NP. The very diverse landscape and habitats offered by the estate and consistency of management over many years have helped maintain Holnicote as one of the prime strongholds for Exmoor’s red deer population. Roe deer are also well established on the estate but occur in comparatively low numbers.

Whilst red deer form such an important part of the local fauna, as the largest truly wild herbivores in Britain their presence in high numbers can lead to significant and varied impacts on semi-natural habitats as well as on other land uses. The diverse nature of Holnicote, encompassing large expanses of open access SSSI moorland, Horner Woods NNR, other woodland and coastal habitats, as well as 14 tenanted farms, presents considerable challenges for deer management. A deer plan for Holnicote in keeping with the National Trust’s national guidelines on deer management has already been in place for some years, and has helped to maintain numbers of red deer for the estate as a whole at relatively stable levels over the past decade. Intermittent conflicts nevertheless arise between the interests of some tenant farmers concerned about excessive localised deer numbers, damage to crops and hedges, and to a lesser extent between the differing needs for grazing in conservation woodland and moorland habitats.

The purpose of the present review was to develop a long term deer management strategy that, by strengthening the existing plan with additional policies and practical local measures, aims to reconcile the differing requirements for public amenity, recreation, wildlife conservation, farming and forestry within the estate. Preparation of the new strategy has been underpinned by a wide ranging review including site visits and extensive local consultation undertaken by an independent deer consultant - Jochen Langbein of Langbein Wildlife Associates.

The main elements of the review more specifically included:

- Extensive consultation, initially by means of a questionnaire survey sent to all farm tenants and selected neighbours, followed by site visits and direct individual consultations with tenants, as well as with the longstanding deer manager and other NT Holnicote countryside staff.
- Inspection of internal NT deer documentation including existing local and national deer management policies, supplementary local damage assessment reports and costs incurred.
- Collation of information on annual deer census and cull statistics, and assessment of their distribution across the estate over recent years.
- Literature review of earlier reports and research on deer management related to Holnicote or the wider Exmoor area, and others offering alternative approaches to red deer management.
- Participation by the consultant in the annual deer censuses of the estate and adjoining land, and a number of additional night surveys using night vision equipment, and also trail cameras.
- Presentation of main findings and draft recommendations arising on future deer management at a meeting with Holnicote farm tenants and NT staff to obtain interim feedback.
Further information and discussion of the consultation are presented here in an Appendix to this policy document, with additional detail of past research, statistics, and site specific aspects collated in a supplementary document for internal use. Based on evaluation of all the findings and management recommendations arising the new Holnicote Deer Strategy for 2015 – 2025 is presented below.

2 HOLNICOTE DEER MANAGEMENT STRATEGY 2015 - 2025

2.1 INTRODUCTION

Red deer have been closely associated with Exmoor’s cultural history, and unlike in most other parts of England are believed to have had an uninterrupted presence here since pre-historic times. The occurrence of wild red deer in significant numbers today continues to be highly valued by tourists and locals alike as one of the ‘special qualities of Exmoor’, with their iconic status recognised in the Exmoor National Park emblem. The National Trust’s Holnicote Estate extends over 5025 hectares, making it the largest contiguous landholding under single ownership within the Exmoor NP. The very diverse landscape and habitats offered by the estate and consistency of management over many years have helped maintain Holnicote as one of the prime strongholds for Exmoor’s red deer population.

Whilst red deer form such an important part of the local fauna, as the largest truly wild herbivores in Britain their presence in high numbers can lead to significant and varied impacts on semi-natural habitats as well as to farming and other land uses. The diverse nature of Holnicote, encompassing large expanses of open access SSSI moorland, Horner Woods NNR, much other woodland and coastal habitats, as well as 14 tenant farms, presents considerable challenges for deer management. This strategy, although focussed primarily on red deer, also covers management of roe deer which are regularly present on the estate, and policies for other more transient deer species not yet currently established at Holnicote.

Purpose of Strategy

The overarching aim of deer management at Holnicote will be to:

“Ensure a sustainable and healthy population of red and roe deer on Holnicote, in balance with natural resources available to feed and shelter them throughout the year whilst containing excessive damage to farming and forestry.”

The purpose of the present strategy is to lay out subsidiary objectives, management actions and principles the National Trust will follow in achieving that overarching aim.

Deer Management Objectives

Subsidiary objectives in managing deer at Holnicote include to:

- Maintain the largest population of red deer as far as is consistent with maintenance of biodiversity among sensitive wild plant communities and other countryside management objectives.
- Maintain a healthy and viable population also of roe deer consistent with the above objective, but prevent as far as practicable the establishment of non-native deer species on Holnicote.
- Contain deer damage to commercial farm crops, forestry and amenity woodland on the estate within reasonable bounds.
- Seek to co-operate and achieve consensus with neighbours on landscape scale deer management.
- Minimise incidence of deer vehicle collisions along road sections commonly crossed by deer.
Management Approach and Principles

It is recognised that to achieve a suitable balance between these and other conflicting objectives will require good communication and compromise between different interests. To derive greatest benefits for nature conservation, public amenity, farming and forestry and for the deer themselves, a combination of approaches will be integrated. This will include culling to maintain deer population size and structure within target bounds laid out in the plan, as well as protective measures and habitat manipulation to divert deer pressure away from the most vulnerable areas to other areas where their presence may be encouraged.

In achieving its deer management objectives The National Trust:

- Will not seek to maintain populations of deer to maximise their revenue potential.
- Will not permit commercial stalking on its land.
- Will not permit the hunting of deer with dogs on its land. (Though a trained dog may be used to track an injured deer to enable human dispatch when necessary).
- Will aim to reconcile the differing needs for nature conservation, public amenity, farming and forestry.
- Will carry out all deer management operations in a safe and humane manner. Any culling and processing of deer will be carried out to stringent high standards with full regard for the safety of visitors and staff, the welfare of livestock, and H&S and Hygiene (See Sections 3 and 4).
- Will co-operate with neighbours in deer census and other landscape scale deer management initiatives.
- Will review the effectiveness of this strategy and update it accordingly after 5 years.

2.2 HOLNICOTE DEER MANAGEMENT AREA AND SUB-COMPARTMENTS

The National Trust Holnicote estate covers 5026 ha (12,500 acres) encompassing moorland rising to above 500m near Dunkery Hill in the south and to over 300m at Selworthy Beacon in the north of the estate, separated by a low lying vale and flood plain leading into Porlock Bay. The full extent of the estate boundary is shown in the map below.

Red deer are a herding species which may range over several hundred hectares even during daily feeding movements, and over the period of a year adults males in particular will cover much greater areas as they move between autumn mating grounds to distinct areas used overwinter and early summer that may be several kilometres apart. Plans for managing overall red deer numbers and sex ratio for Holnicote should therefore be firmly based on the full extent of the estate, and seek to liaise also with owners of neighbouring land used by the same deer. Roe deer, by contrast are territorial and live in much smaller ranges, and their management is more readily achievable at a much smaller scale.

While it is recognised that high localised deer pressure can lead to significant damage to farm crops, as well as to certain sensitive semi-natural habitats and natural tree regeneration, it is equally recognised that some habitats are improved and maintained by deer activity. Therefore within the framework of the deer management plan for the estate as a whole, it is appropriate to seek to vary deer density in differing sub compartments. That is, in response to anticipated damage to tenanted farmland, as well as to help create and maintain a diversity of habitats, and also provide a variety of opportunities for the public to view deer.
To accommodate differing emphasis being given to management aims in different parts, the estate will be divided into three main deer management compartments:

**A) South (Dunkery – Robin How Moorlands and Horner Wood)**
Including all NT land lying south of the deer fence and woodland and moorland boundary running from Brockwell to Horner and on to Doverhay, encompassing Horner NNR, Luccombe Plantation and the Dunkery moorland and commons as well as three let NT Hill farm holdings at Cloutsham, Woodcock Leys and Wilmersham. (Total size 2925 ha)

**B) The Vale**
Composed mostly of land lying below 150m above sea level, given over predominantly to farmland livestock grazing, with some arable fields and scattered woodlands. Includes 9 different NT tenant farms, as well as some substantial blocks of woodland (incl. Great Wood, Little Headon and Tivington Plantation) as well as other plots of land managed in-hand or under grazing licences, as well as numerous private dwellings especially around villages of Selworthy and Luccombe. (Total size 1140 ha)

**C) North (Bossington Hill - Selworthy Beacon – Selworthy Woods)**
Covering land lying to the north of the lane from Little Headon Plantation to Selworthy and on to Bossington along the woodland boundary of Selworthy Woods and Allerford Plantation. Encompasses extensive woodland and upland moorland at Bossington Hill and Selworthy Beacon, a small portion of East Lynch farm and all of two tenanted NT Hill farms at Hindon and Wydon. (Total size 960 ha)
Aside from the deer fence along the boundary of Horner Wood and Luccombe plantation, which at present provides some limited deterrent to deer from the south entering the Vale, there are no major physical barriers to movement of deer between these areas. While it is recognised that some deer will commonly move between them, the management sub-divisions are intended foremost to assist with planning of management targets and measures to control deer distribution and impacts.

### 2.3 Deer Species Present and General Policies

Of the six species of deer living wild in Britain, resident breeding populations are currently established within Holnicote only of the two truly native species (red deer and roe deer).

As noted in section 2.1 above, the Holnicote deer strategy aims foremost “To ensure a sustainable and healthy population of red deer and roe deer on Holnicote ...”.

Red deer make up over 80% of all deer on Holnicote, and the remaining sections of this strategy document will focus primarily on management of that species. Further information about aspects relating more specifically to roe deer, their local status and future management on Holnicote are summarised in Appendix II.

Establishment of additional deer on the estate will in general be discouraged, in particular with regard to non-native introduced deer such as sika that pose a risk of hybridisation with the native red deer, and muntjac that once established tend to be difficult to control and have significant impact on native woodland flora disproportionate to their small size. However, if any other deer species should occur on the estate in future and direct management action becomes required, this will be undertaken to the same welfare and safety standards as applicable to red and roe deer.

More detail on the biology, status and distribution within or near the Exmoor NP of other deer species not currently established at Holnicote can be found in a recent report compiled for the Exmoor NPA (*Exmoor’s Other Deer*, Langbein 2009).

#### Red Deer - General background

Red deer are our largest land-mammals in the UK. Adult body size in southern England lies between 80 to 120 kg for females, and 90 to 190 kg (exceptionally 255 kg) among stags depending on age. They are intermediate grazer / browsers with grass an important part of their diet all year, though taking more heather and other dwarf shrubs, holly, ivy and other woody browse in winter. For much of the year adult males may occur in single sex groups often in separate areas from groups of hinds and calves, returning to females ranges during the autumn mating season. The rut (peak of mating time) when stags can be heard roaring and seen fighting and defending harems of hinds, occurs from late September to late October, and is a spectacle that brings many visitors to Exmoor.

Aside from being an important component of the local fauna that has shaped woodland and moorland development over many centuries, they continue to be of great amenity value and are known to contribute very substantially to tourism throughout the ENP. On the other hand negative impacts through red deer can occur both through overgrazing on semi-natural habitat and impact on agricultural pastures and crops, making management to control red deer numbers and contain excessive damage essential.
2.4 Red Deer Target Population Numbers and Distribution

Red deer are the species with the longest history and close cultural association with Exmoor and also Holnicote more specifically. For reasons outlined more fully in introduction to this strategy, the maintenance of the largest population of red deer as far as consistent with maintenance of biodiversity and other countryside management objectives will continue to form a core objective for local NT deer management.

In aiming to balance their significant benefits and impacts The National Trust will seek to:

- Retain a population on Holnicote of 350 - 400 red deer in late winter
- Among the above at least 100 – 105 should be stags and prickets (yearling males).

A selective annual cull will be undertaken to control numbers within those upper and lower bounds, which equate to a density between 7.0 to 8.0 deer per 100 hectares for the estate as a whole. However, using habitat management and other measures aside from culling, management will be directed at keeping deer pressure at significantly lower levels (near 2.5 per 100 ha) on the low-lying farmland in ‘The Vale’, and relatively higher (near 10 per 100 ha) on the upland moorland and commons.

The target breakdown of late winter numbers among the three main deer management blocks will be:

<table>
<thead>
<tr>
<th>Area</th>
<th>Number of Red Deer</th>
<th>Area Size (ha)</th>
<th>Target Density (per 100 ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“South”</td>
<td>290 – 330</td>
<td>2925</td>
<td>9.9 - 11.3</td>
</tr>
<tr>
<td>“The Vale”</td>
<td>25 – 30</td>
<td>1140</td>
<td>2.2 - 2.6</td>
</tr>
<tr>
<td>“North”</td>
<td>30 – 40</td>
<td>960</td>
<td>3.6 - 4.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>350 – 400</strong></td>
<td>5025</td>
<td><strong>7.0 – 8.0</strong></td>
</tr>
</tbody>
</table>

In setting these particular target densities overall and by area consideration has been given to:

- minimising impact to lowland farms at Holnicote and maintain deer density there no higher than the average deer density found commonly across farmland throughout the wider Exmoor region.
- take into account the significant area of SSSI woodland especially in the “South” area, for which a value of 6 per km\(^{-1}\) has been used, as opposed to 12 km\(^{-1}\) for the area of moorland and other upland grazing, when setting the combined sustainable target deer density for that area.

The numbers of red deer seen on NT Holnicote during regular annual late winter deer counts undertaken over the past 15 years have varied from a low of 303 up to 478. These visual counts (see Figure 1 and Section 2.5 below) do not presume to record every deer present, but give a good basis for noting trends across years. For the four years from 2000 to 2003 counts had consistently exceeded 440 head, but 5-yr moving averages ever since have stabilised around 390 over the past decade. As the counts take place towards the end of February each year, at that time deer population numbers are not yet at their annual minimum, as some further culling continues through to end of March for female and end of April for male red deer. This as well as possible under or indeed overestimation of numbers at census will be taken into account when projecting annual levels of increase and cull requirements.

Management of the herd will also take account of fluctuations in populations caused by seasonal movement onto and off the estate, and maintain flexibility to enable adjustment of cull targets to accommodate site-specific problems.
**Figure 2**: Red Deer counts from year 2000 to 2015 on Holnicote (red), and total if including also deer seen in adjoining count blocks on neighbouring land (see Appendix II for further breakdown)

**Sex ratio**

The ratio of adult female to male red deer on Holnicote during late winter based on evaluation of censuses over the most recent five years has averaged 2.6 : 1 (females 1 year or older : males 1 year or older), and 2.0 : 1 overall (females : males; including calves). These sex ratios are already less skewed towards females than during the previous 10 years.

- **Over the coming 5 years red deer management will seek gradually to reduce sex ratios further to around 1.5 : 1 (among adult deer 1yr and older), and near 1.35 : 1 (overall sex ratio)**

The greater the extent the sex ratio is skewed in favour of females, the greater is the annual growth rate of the population, and consequently the numbers needing to be culled. However, in managing deer on its land the Trust does not aim to maximise population productivity or venison harvest. The primary objectives – to minimise negative impacts to farming and biodiversity and also enhance amenity value of the red deer herd - are in fact better served by aiming for a low sex ratio. If that lower sex ratio is achieved the size of annual cull required to prevent increases will fall, freeing up more of the deer managers’ time to be more selective and target culling where it most needed, and for other preventative methods to minimise damage. It may also help reduce the net annual emigration of hinds and followers off the estate, as appears to be the case based on review of the relationship between counts and average cull levels within the estate. An increased proportion of stags that are more settled within the estate boundaries on the other hand will enhance viewing opportunities for the public, a high proportion of visitors to the estate being known to visit in the hope of observing the autumn rut.

The above target population sizes and sex ratios will be reviewed 5 years into the strategy, to ensure they continue to meet overall deer management objectives in relation to deer impact and distribution.
2.5 **DEER CENSUS TECHNIQUES**

A number of separate annual visual red deer counts have been conducted on Holnicote every year covering different parts of the estate, and provide the best available data on deer numbers over the past two decades. The largest of these counts covering all of the “South” area within Holnicote, forms part of the much wider Exmoor & District DMS count. This is undertaken at dawn on two consecutive mornings during mid-February across much of Exmoor, with several hundred regular volunteers participating to count deer for a number of hours from first light at dawn in a specific block of 1 to 2 km² allocated to them. In addition, two further similar counts are organised around a week later; one for the Selworthy and North Hill area overseen by NT in association with Exmoor NP staff, and another as part of the Grabbist Hill DMG that adjoins the Holnicote “Vale” area to the east.

These visual counts do not presume that every deer present in the areas will be observed on the day. The main value of the deer counts lies in being undertaken in the same manner year on year to provide an objective index of long term population trends, as well as a guide to the breakdown of the herd into adult males, hinds and where possible calves.

- The three large-scale visual counts in late winter will continue to be the main technique used as annual guide to deer numbers, sex / age breakdown and distribution across Holnicote.
- In addition some night-time counts will be undertaken as a cross check when possible in association with the adjoining Grabbist Hill DMG.

2.6 **MANAGING DEER NUMBERS**

Direct control of deer numbers within the agreed bounds of population size (see 2.4 above) is to some extent a separate though overlapping issue from additional measures aimed at minimising the impact of that population to be retained, which will be covered a later section. In order to reach and maintain the desired population size and structure set out in this plan, a cull to remove the annual increment of the population is unavoidable, given the almost complete absence of natural predators and only low level of natural or other mortality among the local deer.

**Culling Policy**

In undertaking any culling of deer on NT land all current legal requirements as laid down in the Deer Act 1991 and Regulatory Reform order 2007 will be strictly adhered to at all times. In addition:

- All culling of deer on Holnicote will be undertaken by the present or future deer manager(s) employed by the Trust.
- National Trust staff will work to the standards and guidance regarding H&S and Hygiene laid out in the Trust’s National Policy (*The Management of Deer on National Trust Land, 2009*), and will strive to demonstrate exemplary management of the deer cull and subsequent processing of any carcasses.
- When culling female deer during the early part of the season, i.e. in November, every effort will be made to cull any dependant young before culling the mother.
- There will be a presumption by NT against culling of adult stags (unless severely injured) during the month of October to avoid unnecessary disturbance to deer during the main rutting period, and recognition that large numbers of the public wish to observe the deer at this time.

**Calculation of the Annual Cull**

Annual cull targets set at the end of the close season will be used as a tool to help manage deer numbers towards achievement of the overall target population for the estate. Nevertheless, it is
recognised that strict adherence to targets is less important than the resultant condition of the habitat and the deer themselves. The senior NT deer manager will draw on a range of information when setting cull targets; these may include:

- Data from the visual counts and additional assessments of annual numbers of calves reared.
- Computer projection to evaluate different cull scenarios, and expected natural or other losses.
- Assessments of population sex ratio, and apportioning cull accordingly to take substantially higher proportion of females whilst sex ratios are heavily females biased.
- Field observations including of the health and condition of the deer, and feedback from consulting with tenants and neighbours on local deer issues throughout the year.

**Organisation of the cull**

One of the common obstacles to stable management of red deer populations at the landscape scale is that in many cases the area over which deer are managed by differing small landholders may encompass only a small part of the seasonal or even daily range covered by the deer. The NT Holnicote estate by contrast has the advantage in this respect of covering a relatively large area compared to most other Exmoor landholdings, though significant movement of deer on and off the estate nevertheless occurs.

- It is considered essential therefore that at least all deer control within the estate is undertaken to a single coherent annual cull plan, rather than undertaken by individual tenants and stalker in different parts.
- In addition NT will seek to liaise as much as possible with neighbours including via the Grabbist Hill DMG who may hold many of the same deer on their land found in Holnicote Vale at other times of the year, to help mutual goals to be achieved.
- Deer found dead or having to be dispatched during the year due to causes such rut-injuries, deer-vehicle collisions, dog attacks or fence deaths will be subtracted from the cull target.

**Distribution of cull effort**

Aside from the main aim of maintaining numbers of deer for Holnicote overall within relatively stable and predictable bounds year to year, the way in which the cull is targeted and distributed across the estate can also help to redistribute deer distribution and reduce negative localised impacts. Deer tend to respond to increased persistent culling pressure in some areas by settling more so in areas where there is a presumption against or only minimal cull activity. Therefore, even though the total cull target to remove the annual population increment could be much more quickly achieved by taking the great majority of the cull in the South management block where deer density is greatest, the proportion of the deer managers’ time allocated to culling focussed on The Vale and North management blocks should be at least equally high.

A map showing the distribution of all cull locations over the past two cull seasons is shown overleaf. Over the past six years on average over 22% of the deer cull has already been taken within the Vale, but a rather variable proportion (5% to 30%) in the ‘North’ sun-compartment.

In order to contain excessive damage and achieve the relatively low deer density targets set for The Vale, the proportion of time allocated to culling deer will be split approximately evenly among the three management sub-compartment (The Vale / North / South). It is accepted that man-hours per cull achieved in The Vale is likely increasingly to exceed those in other areas as deer density there falls.
Figure 2: Distribution of cull (inclusive of any deer found dead) across Holnicote May 2013 to Apr 2015.

Deer-Vehicle collisions and other deer casualties
If a traffic collision with a deer occurs on a public road within the perambulation of Holnicote the NT deer manager or rangers will aim to assist and ensure injured deer at road side can be attended to as quickly as possible. Deer carcasses resulting from road accidents or otherwise found dead collected by Trust staff will not be sold into the human food chain, but will be recorded and taken into account in relation to annual cull figures.
2.7 MANAGING DEER DISTRIBUTION AND IMPACTS

Having set the desired deer population size and structure to be held on Holnicote, and cull plans how these will be achieved and monitored (as outlined in 2.4 – 2.6 above), a range of additional approaches will be employed in order to minimise the residual level of negative impacts on crops and biodiversity arising from the agreed target numbers of deer to be retained on the estate. Measures aside from culling will become increasingly important to mitigate ‘source-sink’ effects, which will otherwise lead, for example, to new deer from outside being drawn into the Vale as deer density there falls.

Approaches used to prevent damage and help concentrate deer pressure away from the most vulnerable areas may include the following in differing parts of the estate:

- Creation and maintenance of wide grassy woodland rides and glades
- Temporary tree and crop protection (using tree guards, shelters, temporary fencing)
- Diversionary grazing (by making some grass keep on in-hand land more accessible to deer)
- Selective removal of dense on-farm holding cover near crop fields
- Review and realignment of deer fencing (or removal where no longer serves a useful purpose)
- Hill Farm Deer strategy support agreements (to provide areas of pasture accessible to deer)

An initial range of possible suitable locations where and manner in which each of the above approaches might be employed within the estate was drawn up as part of the deer review, for implementation pending more detailed assessment of their feasibility and resources required.

2.8 OTHER MONITORING

A number of other monitoring schemes (in addition to the annual deer counts outlined in section 2.5) will be put in place to help assess the effectiveness of the deer strategy at achieving its various aims of:

- a sustainable and healthy population of red and roe deer on Holnicote,
- in balance with natural resources available to feed and shelter them throughout the year,
- whilst containing excessive damage to farming and forestry.

Monitoring of deer health and condition will include:

- Detailed cull records (including date, location, species, sex, age-class, carcass weight, reproductive status, general condition, checks for signs of disease, including TB).
- Records of others casualties including from deer-vehicle collisions (maintained as above).

Monitoring impact of deer on the environment

- Woodland impact assessments: A reassessment of woodland condition in relation to deer and other grazing within Horner Wood NNR will be instigated when possible during the period covered by this strategy to determine any notable changes since the latest such survey in 2009.
- Moorland stocking rates: Red deer contribute a small but significant share of the overall grazing requirements for the HLS schemes for the Dunkery and Bossington Hill moorlands, and review of their numbers alongside those of cattle, ponies and sheep will be especially important if major changes in other stocking occur in future years.
- Reported deer damage: A log will be maintained to record all reports and complaints about perceived deer damage, including dates, location, type, any follow-up action taken (e.g. to inspect damage) and outcome.
2.9 **DEER AND THE PUBLIC**

A high proportion of visitors to Holnicote are known to visit specifically in the hope of being able to observe deer, with a major increase over recent years in particular in numbers of the public coming to view the deer during the autumn rut. Several wildlife safari companies now also operate around Exmoor, of which many report that they include parts of the Holnicote estate during close to half of all their guided tours throughout the year. The moorlands around Dunkery especially offer good opportunities to observe deer from a distance from viewpoints along the network of minor public roads that traverse the Holnicote. Integration of rising visitor numbers, especially at sensitive times of the year such as the autumn rut and calving time in late spring, will require consideration of any detrimental impacts, such as the disturbance recreational access may have on the deer populations, traffic congestion and physical damage resulting from vehicles pulling up on soft roadside verges. Measures aimed at enhancing the public amenity value of red deer and wildlife viewing opportunities, but also alleviate some of its potential detrimental impacts, may include:

- Selective improvement to current main parking areas or lay-bys used by the public and deterrents (such as rocks, tree stumps) to vehicles pulling up on soft verges.
- Consideration of improved temporary, seasonal or permanent public information signs, to deter people from approaching too closely or walking through active rutting areas.
- Encouraging farm tenants to continue to enable deer access to rut on pasture fields, where these provide good viewing opportunities for the public at a distance and relatively low level of disturbance to the deer.
- Continue to provide led deer walks and talks by NT countryside ranger or deer manager.
- Development of a short ‘NT Holnicote Red Deer Management’ leaflet to help raise public awareness about the need for and local approach to managing deer numbers.

**2.10 CONCLUSION AND REVIEW**

The wide range of different measures discussed in this plan will bring best results if all or as many of them as possible are introduced and undertaken in combination to underpin one another. For example, setting aside and enhancing woodland rides and grass keep to provide better forage on the Trust’s *in-hand* land, will only be effective at reducing detrimental deer impacts on farming and wild plant communities if total deer numbers continue to be controlled within the agreed bounds. On the other hand focus on culling alone to reduce deer numbers in the Vale, without also positive steps to help retain a higher proportion of the population elsewhere, would in time be likely to lead to more deer from outside being drawn back in.

The effectiveness of this strategy will be reviewed internally and updated accordingly after 5 years.
APPENDIX I: SUMMARY OF CONSULTATION WITH TENANTS AND NEIGHBOURS

Introduction
Direct consultation by the deer consultant with a range of NT conservation staff, farm tenants and other stakeholders has formed an important element throughout development of recommendations and drafting the new deer strategy. An initial meeting with a steering group, made up of the local NT manager, land agent and other staff including the deer manager, and a number of Holnicote farm tenants was held in February 2014 to discuss the project remit and approach. It was agreed for the deer consultant to use an initial postal questionnaire to consult all farm tenants and a number of neighbouring landholders on a range of deer related questions, with follow-up site visits and individual meetings to a sub-set of farm tenants, as well as most parts of the moorland and woodland area within the estate.

The postal questionnaire was sent out in first instance to 14 NT tenants and 10 neighbouring landholders, with completed postal returns received from 9 of the tenants but only 3 neighbouring farms. A summary of the responses to the main questions posed in the questionnaire are outlined below. For four of those tenants who had not completed the postal questionnaire most questions were nevertheless discussed during follow up visits – so that results shown below are generally out of a total of 13 tenant farms (excludes Horner farm – which is not currently let). Additional issues and suggestions raised by individual tenants and other stakeholders during follow-up meetings are discussed at the end of this section.

Summary of Holnicote Farm Tenants’ responses to main questions from questionnaire
i. Size of Tenanted Farm holdings (excluding any additional land rented under separate grazing licences)

<table>
<thead>
<tr>
<th></th>
<th>Average Size 101 hectares (250 acres)</th>
<th>range: 36 to 191 ha (88 – 471 acres)</th>
</tr>
</thead>
</table>

ii. Predominant land use:

<table>
<thead>
<tr>
<th>Of all 14 farms</th>
<th>13 Mainly livestock</th>
<th>1 Mainly arable</th>
</tr>
</thead>
</table>

(In 10 cases mainly sheep grazing and remainder equal or more land devoted to cattle grazing). Only 1 of the farms is predominantly (>70%) arable, within just one other with a significant proportion (up to 30%).

(Responses below out of 13 tenant farms responding, except when fewer answered particular questions)

iii. On average how often are red deer seen on your land?

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>More Occasionally</th>
<th>Not known</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

iv. Have you noted significant increases in red deer numbers seen on your land over last 5 and 10 years?

<table>
<thead>
<tr>
<th>RED DEER</th>
<th>Increasing</th>
<th>Stayed same</th>
<th>Decreasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 to 2014</td>
<td>3</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>2005 to 2009</td>
<td>4</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

v. Perceived deer damage: In your opinion do deer cause significant damage to your land or crops?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Undecided</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>
vi. Have you noted a significant change in deer damage over the last 5 and 10 years?

<table>
<thead>
<tr>
<th>Period</th>
<th>Increasing</th>
<th>Stayed same</th>
<th>Decreasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 to 2014</td>
<td>3</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>2005 to 2009</td>
<td>6</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

vii. For which of the following do you consider deer damage significant on your land?
(nos of tenants who mentioned each crop type as):

<table>
<thead>
<tr>
<th>P.Pasture</th>
<th>Sown Leys</th>
<th>Cereals</th>
<th>Other arable</th>
<th>Fences/Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>11</td>
</tr>
</tbody>
</table>

viii. Deer Poaching

Do you perceive deer poaching as a significant issue on your land?

| YES 4 | NO 6 | UNSURE: 3 |

Do you think poaching has increased over past 5 years?

| YES 2 | NO 6 | UNSURE: 5 |

ix. How would you rank the significance of deer damage compared to that from other wild animals?

(Based on a ranking of 1 = most significant to 8 = least significant)

<table>
<thead>
<tr>
<th>Foxes</th>
<th>Badgers</th>
<th>Deer</th>
<th>Rabbits</th>
<th>Rats</th>
<th>Pigeons</th>
<th>Crows</th>
<th>Pheasants</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>2.9 (1)</td>
<td>2.2 (4)</td>
<td>3.4 (2)</td>
<td>5.4</td>
<td>6.5</td>
<td>3.2 (1)</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Figures above show the average rank for the different animal types based on response from 9 tenants who answered this question fully (and in brackets shows the number of tenants who ranked each as the single most significant animal type causing them most problems. Results show that Deer on average were the species ranking highest, though 5 of 9 respondents were more or equally concerned about either badgers, rabbits or crows.

tax. Do you consider red deer being an important asset for tourism a) on your own holding and b) for Holnicote as a whole? (If so note whether consider them as a minor or major asset)

Among 10 tenants answering this question – All 10 stated that they believe red deer to be a major asset to tourism for Holnicote and the wider region; of these 3 stated red deer as also being a major and 1 a minor asset for their own farm holding (e.g. as part of attraction for farm B&B / holiday lets).

xi. Do you feel overall that current deer management on Holnicote is proving effective at containing or reducing deer damage to acceptable level?

| YES 7 | NO 5 | *Variable 1 |

* (i.e. effective in some years, not in others, depending on crop type)

Summary of Additional Issues raised

An overview of some of the main issues and personal opinions raised (shown as “…”) regarding deer management by tenants consulted, not covered or else expanding on questions covered by the questionnaire during direct meetings are shown in condensed form below.
Deer Damage:

“While deer damage in cereal and other crops overwinter may appear light, this can affect cropping later in the year through creating bare and weed patches that need attending to later. Also what may appear low level damage in May to August from eating and knocking over crop causes part of crop to be missed by combine”.

“Deer issues lead to certain crops not being worth planting that might be preferable to include in rotation”.

Deer Control:

Three separate tenants indicated that still feel that they should be allowed to undertake their own deer culling when damage to crops occurs.

One proposed that tenants should have a stalker dedicated to cull deer solely on behalf of just the tenants to cover all of the Vale and North Hill.

One indicated that feels seasonal use of electric fencing to protect crops is entirely ineffective and messy.

Two indicated that they feel rifle deer cull is less effective now than when hunting with hounds moved the deer around more, that NT should again allow hunt to be part of management and control of the deer.

General Management – liaison:

“More integration of deer management with neighbouring landholders”

“Better signage needed for public visitors during rut to avoid disturbance to deer and parking hold-ups.”

Deer numbers:

The majority of tenants stated that they are happy or at least do not mind having 2 to 5 or even occasionally a few more deer on their land, but equally many felt they should not have to tolerate groups of around 10 or more deer present on a daily basis.

Two tenants did indicate they would much prefer not to see any deer on their farms on a regular basis and stated that “There are still too many deer coming onto farms, as not enough are culled in the Vale”.

Habitat management:

“More Bracken control is required on the moorland to improve grass forage”.

“Need to thin out Iron Pits (Knowle Top) plantation to reduce shelter and deer settling within farm boundary”.

“Deer runs across field boundaries part responsible for breaks in stock fencing” (raised by several tenants).

Consultation responses from neighbouring farming landholders:

The postal questionnaire was also sent out to 10 landholders with land close to or abutting NT Holnicote. Unfortunately only 3 responses were received, although one of these covered several farm holdings as well as stock put out on some of the NT commons.

Overall the responses from these individual private farm holdings were very similar to those of the NT tenants outlined above, each suggesting deer numbers and deer damaged had remained of broadly similar levels over the past 10 years. Deer were reported as being seen almost daily or at least weekly with numbers ranging from 20 to 60 on most days during winter and spring, and 8 to 50 in autumn to summer. As in case of NT tenants, main concerns about deer damage related to permanent pasture, sown leys and
damage to farm boundaries / banks. One also indicated that commonly 3 to 4 deer calves die as a result of being caught up trying to cross stock fences. Deer were ranked as the wild animals believed to cause most significant damage by one, but another felt both badgers and foxes were of greater concern than deer for their farm. Both the above felt that overall deer management on their land (in one case by rifle, and another via exempt hunting) is effective at keeping damage levels at acceptable levels.

Whilst the low level of responses to the external consultations from individual neighbouring farms was disappointing, circulation of and inviting comments on the new deer strategy when it has been finalised, may help to obtain greater level of engagement and co-operation on joint deer management objectives.

**Exmoor National Park Authority & Natural England**

In addition a comprehensive reply was received from Exmoor National Park Authority, who own and manage the large expanse of around 242 hectares of open moorland and some woodland on North Hill that adjoins land owned by the National Trust on Bossington Hill. Considered on its own and, more importantly, in conjunction with the adjacent National Trust land, North Hill contributes a highly valuable and internationally rare area of coastal heath, with conservation of this heathland being the primary reason for ENPA ownership of the area together with its public use. The ENPA have no direct farming interests in the area, but let the moorland for limited cattle grazing to the tenants of the NT farm at Hindon, in addition to a group of 17 Exmoor ponies of their own put out here for conservation grazing, both of which are covered by an Natural England HLS scheme for the area. ENPA does not undertake any culling of deer on this land, but provide a licence to the National Trust’s deer manager if required for deer welfare reasons for follow up & dispatch sick or injured deer on North Hill. No exempt deer hunting takes place on the hill. ENPA rangers work closely with the NT in undertaking the annual deer count for the North Hill and Selworthy Beacon area. In concluding their response ENPA emphasised that, from view of their own objectives and findings of past studies they have commissioned, Red Deer are a hugely important part of the regional fauna, as well as a major asset for both tourism and recreation to North Hill, The Holnicote Estate, the National Park and Greater Exmoor area.

Views were also obtained from Natural England’s conservation adviser for the area. In discussion of the overall level of herbivore grazing on the various SSSI moorland and woodland areas and HLS agreements covering different parts within Holnicote, it was confirmed that the presence and impact of deer at around their average population levels assessed over the past decade (350 – 450) had been taken into account when setting the additional agreed livestock grazing numbers over winter and summer. The semi-natural woodlands (most of which are unfenced and accessible also to stock from the commons as well as deer) were also mostly judged to be in favourable condition based on most recent survey data available, and the slightly reduced deer density targets proposed in the present strategy agreed to remain acceptable as part of the present overall moorland-woodland grazing management regime.
Appendix II: Roe Deer — Status and Management on Holnicote

Roe (Capreolus capreolus) are relatively small deer weighing up to 32 kg, with a maximum height of 75 cm at the shoulder, and are the most widespread deer species in Britain. They are selective browsers on a diverse mix of shoots and buds from woodland herbs, shrubs and grassland habitats. Population levels are dictated mostly by the suitability of habitat, favouring areas with herb rich and dense scrub layers rather than extensive forest cover. Roe are territorial and in spring and summer are generally solitary or occur in small groups consisting of a doe and her kids and sometimes a buck, commonly in woodlands that overlap with adjacent agricultural land, in preference to open heathland and pasture woodland heavily grazed by livestock or larger deer species. The Roe rut occurs in July-August. Home range sizes used by roe vary widely but most European studies have determined average sizes from just 30 to 170 ha.

Local status of Roe

After very low numbers of roe deer during the 18th and 19th century throughout England, roe became gradually re-established within Exmoor during the 1950s. Although now re-established in most woods across West Somerset including Horner, they still occur here in much lower numbers compared to counties such as Dorset and Sussex where they reach densities over 20 per km² in some areas. The total numbers of roe recorded within Holnicote in the late winter deer counts over the ten years 2005 to 2014 has averaged only 18 animals. Given that those large scale counts are primarily designed and directed at counting red deer, actual numbers of roe on the estate may well be nearer double that figure. However, numbers of roe culled per year on the estate have only averaged around 5 per year (including known casualties from e.g. dog attacks and road kills, commonly making up half that number). Nevertheless, there are few signs to date of a significant increase in their numbers. This may in part reflect the fact roe often have rather lower reproductive rate and juvenile survival in habitats such as Horner Woods that are also grazed by sheep, ponies and significant numbers of red deer. By contrast, within Holnicote highest density of roe is found in and around Selworthy and Allerford woods and other woodland copses on the estate that are not accessible to livestock. Roe deer are likely to thrive and increase most in future years in those areas where density of red deer and other grazing animals falls.

Future management of Roe within Holnicote

As one of the two truly native species of deer, roe have an important place in the woodland ecosystem and form a valued part the native fauna within Holnicote.

In view of their limited home ranges compared to red deer, management of the roe population and impact requires an approach that is far more site specific. At this time no specific target population size or annual cull target have been set for roe. Necessity for control of roe deer will be decided on a woodland by woodland basis, taking into account any issues raised by tenants and woodland management staff and areas where any new planting of trees or vulnerable crops is planned.

The policy for roe will be kept under regular review and maybe re-considered in the event that consecutive annual censuses should indicate that the roe deer population has risen to above 50 animals.
BIBLIOGRAPHY:

A selection of key references and past deer studies relevant to Holnicote is provided below:

Deer Act 1991 [web-link].
The Regulatory Reform (Deer) (England and Wales) Order 2007 [web-link].
Deer Management – Best Practice Guides [for England & Wales]
Langbein (2009) Exmoor’s Other Deer: current status of Fallow, Sika, Roe and Muntjac within Exmoor National Park and surrounding areas. ENPA [web-link].
Promar Int. (2009) Study into the Economic Impact of Red Deer on Exmoor. ENPA [web-link].

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