

Committee(s):	Date(s):	Item no.
Epping Forest and Commons	10 September 2012	
Subject: The current purpose and management of the Epping Forest Deer Sanctuary, Theydon Bois	Public	
Report of: Superintendent of Epping Forest SEF 27/12	For Information	

Summary

This report informs your Committee of the history and the current management of the Epping Forest deer sanctuary, an enclosed area of Buffer Land situated to the south west of Theydon Bois, which was purchased at a cost of £5,500 (£101,420 at 2011 prices) especially for this purpose.

The Conservators of Epping Forest have maintained and operated a deer sanctuary at Theydon Bois since 1959, principally to protect the Epping Forest Fallow deer herd, which was felt to be in danger of widespread loss in the face of rapid urbanisation adjacent to the Forest; the rise of the motor car; and the changing patterns of Forest leisure use. The Sanctuary has also sought to preserve the black or melanistic variety of Fallow deer which was reputedly introduced to the Forest in the 1600s or earlier. Over the past 53 years, this approach, supported by selective culling has maintained a core herd of the melanistic variety within the sanctuary, while the continuing influx of the common strain of Fallow deer into the Forest and adjoining Buffer Lands, has seen the previous dominance of the melanistic strain markedly decline.

The current management of the deer sanctuary requires significant staff resources to support its successful operation. The current average income from venison sales of £3,000/annum does not fully meet the £11,200 costs of management. Your officers are currently assessing opportunities to improve income streams and are cooperating with international research to properly assess the significance of the melanistic Fallow deer herd. A further report on options for long term management will be made during 2013..

Recommendations

I recommend that

- i. this report be received.
- ii. a further report on the future management of the Epping Forest deer sanctuary is brought to your Committee once the results of historical research have been received and the outcome of the English Woodland Grant Scheme (EWGS) application is known.

Main Report

Background

1. Fallow deer (*Dama dama*) are known to have been present in the Royal Forest of Waltham, of which Epping Forest was a part, since the late Middle Ages. Fallow deer have several forms which are defined by their coat colour, referred to as a pelage. Typical colours include the:
 - i. common – a tawny yellow colour dappled with spots – the source of the ‘fallow’ name;
 - ii. brown;
 - iii. melanistic - black;
 - iv. menil - a paler version of the common form;
 - v. blue - essentially a grey form and
 - vi. Leucistic - white (but not abino).
2. Traditionally, the preponderance of particular pelage colours in herds was thought to reflect the emergence of particular strains or races which are genetically stable. Recent research suggests pelage colour does not breed true and that genetic isolation through imparking and the culling preferences of park owners may play a more significant role in the emergence of a dominant pelage colour.
3. The history of Fallow deer in Epping Forest is well documented by Verderers’ Court Records; observations by historical commentators and regular reports to your Committee during the City of London’s stewardship. Over time significant comment has been reserved for what was considered to be Epping Forest’s famous black or melanistic deer herd.
4. As outlined in a short history in Appendix 1, there is some evidence to suggest that the melanistic herd at Epping Forest was established from a Norwegian variety of Fallow deer introduced by James I. This melanistic variety has been romantically identified by some observers as ‘the old Forest breed’ of Fallow deer. Heavy poaching had reduced deer numbers from a typical range of 300-400 in the medieval Royal Forest to just 10 by 1860 and 13 in 1878. Under the Conservator’s control numbers grew to 270 by 1902, but fell standing at around 150 for the first half of the 20th Century.
5. Although the original reports outlining the reasons for the decline in deer numbers have been lost, Superintendent Alfred Qvist writing in 1971 pointed to the movement of deer away from the Forest woodlands to the quieter estate woodlands North of the Forest. This was attributed to the growing urbanisation of the areas surrounding Epping Forest and the changing pattern of visitor use, especially the growth of dog walking, together with the growth of motor cars and the consequent increase in Deer Vehicles Collisions (DVCs) on local roads.

6. By 1954, a significant decline in the Epping deer population to 67 animals had prompted your Committee to consider a series of contingency plans including the creation by gift of a second melanistic deer herd at Whipsnade in 1956 and the purchase in 1959 of 35 hectares (88 acres) of land at Theydon Bois to form a dedicated deer sanctuary. A further 9 hectares (24 acres) of woodland, would eventually be combined with the deer sanctuary in 1980. See appendix 2.
7. At the same time there was a wider discussion in post-war Britain regarding the growth of the 'Leisure Society' and the new pressures this would bring to the Countryside, Michael Dower writing in 'The Fourth Wave' (1965) warned of a 'wave' of leisure following industrialisation; railways and car-based suburbs driven by a 'battalion of cars'. Such dystopian prophecies undoubtedly reinforced the importance of a deer sanctuary away from the Forest's obligations to the new age of leisure.
8. What is less well understood is whether the concerns of the time related to the entire loss of deer from the Forest or fundamentally the loss of the melanistic bloodline particularly associated with Epping Forest.
9. A significant component of the management of the deer sanctuary is the wide ranging restrictions on public access. These restrictions were created to protect the deer from the concerns of the time and the necessity to purchase land that could be operated outside the Epping Forest Acts 1878 and 1880. In placing the deer sanctuary outside the stated purposes of the Acts, the continued operation of the current arrangements will create challenges for the Conservators with regard to its legal status.

Current Position

10. The management of the sanctuary requires a significant level of staff resources to be made available. An annual cull is set in order to maintain herd size, sex ratio and to control any deer born with alternative colouring to the preferred black (melanistic) colour type. The annual cull for a herd of 100 needs to be in the order of 40 animals (Langbein 1996), and as stated in the 9 July 2012 report to your Committee (Deer Management on the Buffer lands) each deer culled requires 0.5 staff days.
11. Welfare checks on the herd are to be carried out at least every other day and periodic checks on the integrity of the perimeter fence are essential. Staff are also required to carry out supplementary feeding of the deer, from September through until the end of March, depending on the weather conditions, usually being three times a week. There is also a requirement for some grassland management to take place in the form of grass topping, harrowing and rolling, this can be carried out by in house staff if resources allow otherwise contractors need to be engaged to carry out the works.

12. Currently the post cull herd in the sanctuary is approximately 140 head plus a fawn drop of approximately 35. It is difficult to obtain an accurate count as the herd tends to form into large groups whenever approached or stressed (Langbein 1996). The current management of the deer sanctuary is the responsibility of the Head Forest Keeper and the day to day management is carried out by a Forest Keeper from the Northern team who have specialist skills in this area. The Keeper is assisted with winter feeding, fence checking and other tasks by the Northern Forest Keepers or other Forest Keepers as required.
13. The annual cull within the sanctuary is set by the Head Forest Keeper and the current aim is to reduce the herd size back to 100 head post cull as previously agreed by your Committee following the recommendations in a report commissioned in 1996 (Langbein 1996). This would require an annual cull in 2012/13 of 75 deer which would be difficult to achieve in a single year. The cull of 62 deer carried out in 2011/12 was probably as high as can be realistically achieved with the resources available. Therefore a cull of a minimum of sixty has been set for this year with the surplus being taken in the 2013/14 cull.
14. The annual cull is currently carried out by two Northern Forest Keepers who are fully qualified and trained to carry out the task. The City of London supplies Keepers with the necessary equipment and an agreed programme of training enabling them to carry out this task in a professional and humane manner. Epping Forest does not have any in-house chiller facilities to store the carcasses resulting from the cull. Cold storage is provided by the use of a chiller owned by one of the Forest Keepers that carry out the cull in the sanctuary. The chiller is registered with the local Environmental Health and is inspected by them on a regular basis.
15. A study of the DNA of the deer within the sanctuary is currently being carried out as part of a study funded by Arts and Humanities Research Council through Nottingham and Durham Universities into the origin of Historical Fallow deer herds in European Society 6000 BC – 1600 AD. Tongue tip samples from deer culled during 2011/12 and from the forthcoming 2012/13 cull are sent off for DNA analysis. The reason for using the tip of the tongue is that only one sample can be sent from each deer, there is no chance of replication. The initial outcome of this study should be presented in March 2013.
16. A visit to Whipsnade Zoo has taken place and found that the small herd of black fallow have been retained as a pure bred herd from the original 1955/6 deer presented to them. A return visit the sanctuary at Theydon Bois by Whipsnade staff is proposed and it is hoped that they will also participate in the Nottingham and Durham Universities study to help find out if indeed the deer are a true old established strain of melanistic Fallow deer.

17. Melanistic deer herds are also found at Haldon Forest Park, Devon; Levens Hall Park, Cumbria; Parham Estate, West Sussex; The Trentham Estate, Staffordshire; Packington Estate, Warwickshire; Powderham Castle, Devon; Raby Castle, County Durham.
18. Gaunt's Wood and Red Oak Wood, two areas of woodland within the sanctuary which have been fenced off since their replanting are included in the proposed EWGS application which is the subject of another report to your Committee 10 September 2012. The scheme would see a controlled reintroduction of the deer herd into these areas.
19. Although there is no public access to the sanctuary Forest Keepers regularly accompany groups and individuals on guided tours, about 25 groups in 2011. There is also a demand for the filming and photography opportunities the sanctuary can offer; not only of the deer but other wildlife as it is virtually undisturbed due to the limited access.

Options

20. There are a number of options available to your Committee ranging from closure of the sanctuary to the maintenance of its operation with different levels of herd numbers. As information regarding the significance of the current melanistic herd is not available, it is suggested that the current management approach is maintained until the management objective for the deer sanctuary can be more clearly articulated.

Proposals

21. I therefore propose that the current management of the deer sanctuary be continued until such time that the results of the comparative DNA study by Nottingham and Durham University are available; further historical research on the origins of the deer sanctuary are undertaken and the outcome of the EWGS application along with the resulting management changes are known. At this point the purposes and management of the deer sanctuary should be reviewed to determine whether the deer sanctuary still fulfils the purposes for which it was created.

Implications

Financial Implications

22. Maintaining a herd of deer in a sanctuary requires a considerable amount of resources and deer culling is a surprisingly labour-intensive activity. It is estimated that deer culling activity requires 0.5 staff days per deer culled. With an annual cull of 60 deer in 2012/13 this equates to 30 staff-days. Another 25 staff days are required for other management tasks such as winter feeding, welfare checks and fence inspections etc. This equates to a cost of approximately £6,200 per annum and represents a competing demand on the resources of the Forest Keeper service. Other routine costs include the purchase of feed and ammunition, together with occasional

expenditure associated with the provision of rifles, specialist clothing, high seats and training, this is financed from local risk budgets amounting to approximately £5,000 per annum. These costs are set against income from carcass sales. At an average carcass weight of deer from the sanctuary of 25kgs, with a ten year average value of £2 per kilo; an income of averaging approximately £3,000 per annum can be expected.

23. The venison industry is a product of deer management, reflecting on the continuing low demand amongst UK consumers, currently venison prices are low and stand in real terms, at about 50% of the price in 1980, although prices have tentatively improved recently. The sale of venison therefore tends to only defray some of the costs of deer management, rather than to provide a positive cost incentive for active management.
24. Work by the East of England Deer Initiative on venison marketing is currently being assessed to ascertain whether additional income can be obtained through direct branded sales of venison.

Legal Implications

25. Under section 4 of the Epping Forest Act 1878, deer on Forest Land are the property of the Conservators 'to be preserved as objects of ornament in the Forest'. It is unclear whether this protection was extended simply because of the fall in deer numbers, or the importance placed upon the melanistic form, or indeed both factors.
26. Outside the Forest, deer are wild animals, or *ferae naturae* under common law, and are not owned by anyone. In England and Wales, the landowner has the right to kill or take game on his or her land. The landowner may also extend authority, known as 'permission', to other people without restriction provided they observe the law in terms of close seasons.
27. The hunting of deer in England and Wales and the sale and purchase of venison is controlled by the Deer Act 1991. The close seasons for Fallow deer hunting is 1 May to 31 July inclusive for bucks and 1 April to 31 October inclusive for does, though as an enclosed herd there is no specific 'close season'.
28. The conveyance for the 58 acre of land from Mark Gerald Edward North Buxton contains a pre-emption for the benefit of the vendor and his successors to repurchase the land in the event of a future proposal to sell it by the City.
29. The conveyance also contains a restrictive covenant prohibiting any building to be erected same for agricultural buildings for use in connection with use as a deer sanctuary, the elevation and the position of which can be approved by the vendor or his successor.

Conclusion

30. The Conservators of Epping Forest have maintained and operated a deer sanctuary at Theydon Bois since 1959 most probably to preserve the melanistic variety of Fallow deer which was reputedly introduced to the Forest in the 1600s or earlier. Over the past 53 years, this approach, supported by selective culling has maintained a core herd of the melanistic variety within the sanctuary, while the continuing influx of the common strain of Fallow deer into the Forest and adjoining Buffer Lands, has seen the dominance of the melanistic strain markedly decline.
31. The significance of the melanistic variety of Fallow deer both across UK deer populations and in terms of historical continuity is currently unclear. It would seem sensible to continue with the current management of the deer sanctuary in the short term in order to preserve that melanistic strain and to work more closely with Whipsnade Zoo.
32. In the longer term, the publication of the comparative DNA study by Nottingham and Durham Universities into the origin of historical Fallow deer herds in the UK should provide clarity on the significance of the work of the sanctuary, providing an objective viewpoint against which the costs and continuing purpose of the deer sanctuary scheme can be properly reviewed.

Appendices

Appendix 1 A history of Fallow deer in Epping Forest

Appendix 2 A map of the deer sanctuary

Contact:

K French / keith.french@cityoflondon.gov.uk / 02085325310

Appendix 1 – A History of Fallow deer in Epping Forest – John Holtom

1. Thomas Bewick in his 1790 ‘General History of the Quadrupeds’ suggests that King James I stocked his chases at Enfield and Epping with a distinctive melanistic (dark) coated ‘Norwegian’ variety of Fallow deer provided by his Father-in-law the King of Denmark, from a herd which were originally established in Scotland. However, it is now known that this melanistic variety was present much earlier in Windsor Great Park with records dating back to 1465.
2. Some observers including Edward North Buxton have romantically believed that this melanistic variety of Fallow deer represented “the old forest breed” of Fallow deer being distinctively small in size; of a uniformly dark colour and possessing very attenuated antlers.
3. Fallow deer numbers in Epping Forest have fluctuated considerably over the last 150 years. Buxton suggests that overall numbers fell to as low as 10 animals in 1860. Following the Epping Forest Acts of 1878 and 1880 deer numbers began to increase from the 12 does and 1 buck quoted by Alfred Qvist and by 1902 they were up to about 270. During the 1920s deer numbers halved again, however, since the 1940s annual counts recorded well above 100.
4. However, by the 1950s concerns were being expressed with regard to deer numbers in Epping Forest. A report to your Committee of 8 March 1954 a deer count carried out by Forest Keepers, following a recent fall of snow, showed that the Fallow deer population in Epping Forest had fallen to just 67 animals. The decline in numbers was attributed to uncontrolled dogs and road fatalities. At this time most of the deer were living in the north of the Forest preferring the relatively peaceful areas away from public usage.
5. At the Forestal Sub-Committee meeting of 19 March 1954, reference was made to the newly formed Nature Conservancy, a forerunner of today’s Natural England, being approached with regard to the future protection of deer within Epping Forest, though the Committee did not expect any financial assistance from the Conservancy. The Committee resolved that the only way to preserve the deer numbers was to enclose land. The Comptroller and City Solicitor (C&CS) reported that for the purpose of providing a ‘deer park’ sanctuary for the herd of Forest deer, the Conservators had no power to enclose Forest Land, but the Corporation could purchase private land without public access from City’s Cash for this express purpose.
6. Following this resolution, the Superintendent investigated possible sites and firstly looked at both Copped Hall and Woodredon. No agreement could be reached with the appropriate owners. Following these discussions, Lt. Col. E N Buxton, the owner of Birch Hall, Theydon Bois approached the

Superintendent. as he had already held discussions with the Nature Conservancy and others in respect of enclosing land to form a deer sanctuary.

7. During 1955 and 1956, a small herd of the melanistic Fallow deer were presented to Whipsnade Zoo as a means of providing a separate complementary gene pool for future years should the Forest herd numbers be exposed to an unexpected loss.
8. On the 12 June 1959, 88 acres of farmland, formerly part of the Birch Hall Estate (See Appendix1), were purchased at a cost of £5,500 (£101,420 at 2010 prices) from Mark Gerald Edward North Buxton, including 12 acres of fields to the west of the current enclosure. Adjoining the 88 acres, were a further 24 acres of woodland known as Gaunt's Wood and Red Oak Wood. This woodland was held on a 21 year lease by the same land owner in order that valuable timber on that land could be harvested in the future.
9. The whole area was enclosed with deer fencing and deer leaps built into the perimeter, these allowed deer to enter the sanctuary but they were unable to leave the sanctuary. During the first years some of the land within the sanctuary was still farmed for corn and other crops, the meadows within the sanctuary were also used to graze cattle until such time as the deer numbers had built up to a sufficient level. The intention was to maintain a post cull herd of approximately 100 animals comprising of 50 does, 34 fawns, 6 prickets and 6 Bucks.
10. In 1962 byelaws relating to the deer sanctuary were made by the Conservators of Epping Forest under Section 17 of the City of London (Various Powers) Act, 1959. Additional Bye-Laws were made in 1965 using the City of London (Various Powers) Act, 1963.
11. Your Committee also witnessed the release in the deer sanctuary of a melanistic Fallow deer buck provided from the Whipsnade herd.
12. During 1985 the two areas of woodland, forming part of the sanctuary, Gaunt's Wood and Red Oak Wood (see Appendix 1) were clear felled under licence. Once this operation was complete on 11 May1987 the 24 acres of land costing £3,700, were conveyed to the City of London. Replanting took place in 1987/88 under the Broadleaved Woodland Grant Scheme of the Forestry Commission. The total area replanted was 12.6 acres with the largest open ground areas of 1.5 acres. A total of 5600 trees were planted comprising 4500 oak and 100 of each of the following Field Maple, Alder, Hornbeam, Ash Aspen, Cherry, Mountain Ash, Wild Service, White beam, Lime and Crab Apple. Unfortunately deer grazed over the trees and replanting had to be carried out and the woodland fenced off leaving 66 acres of grassland for deer grazing, this included the pond and the surrounding trees.

13. From the 31 October 2008 59.3 acres of the grassland within the sanctuary were included in the Entry Level Scheme (ELS) agri-environment scheme using the EK3 option (Permanent grassland with very low input). This resulted in 3602.5 points being added to the total Forest ELS score. Restrictions on the feeding of the deer imposed by the rules of the ELS scheme had been overlooked and in 2012 an area of 3.1 acres and the sites of 7 feeding posts were taken out of the ELS with the loss of 190.5 points.