



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

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The Welsh Assembly Government's strategy for
Wild deer management in Wales

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Minister's foreword



Deer were early inhabitants of Wales and their value as a quarry species was historically recognised in hunting forests and also as a managed source of venison in a number of Welsh deer parks. However the Welsh countryside in which deer now exist has been hugely shaped by human activity. Agricultural developments have transformed the landscape and in more recent history deer were unknown in many parts of Wales. The more recent trends of woodland expansion and management of other habitats have created an environment that has encouraged the wider geographical spread of deer where populations with fewer natural predators have been able to expand. On occasions this can lead to negative impacts on the managed and natural environment.

Many of the objectives of our *Woodlands for Wales* strategy will be more difficult to deliver unless the negative impacts of deer are properly addressed. This is also the case for a number of our objectives for agriculture and the natural environment. These are the reasons why I asked for the development of a wild deer strategy that would create a framework for their sustainable management and the development of actions to achieve our vision that: **"Wales benefits from its wild deer population in balance with the natural, social and economic environment."**

This strategy and the associated action plan stress the importance of coordinating the management of deer by landowners, public bodies and non-governmental organisations at a landscape scale. Through this approach and the range of other actions cited in this strategy, we aim to uphold the value of wild deer as part of our natural heritage, and ensure that where their active management is required, it is sustainable as well as safe, humane and effective.

Elin Jones
Minister for Rural Affairs

February 2011

1: Introduction

In the last 20 years or so there has been an increase both in deer numbers and their distribution in Wales. While public awareness of wild deer in Wales is still fairly low, they are a valued part of our natural heritage. Wild deer can fulfil important ecological roles as well as providing a range of other benefits such as recreational nature-watching and as a source of sustainable venison. When deer become the dominant factor in an ecosystem the pressure on the other components of that system, other species and the habitat, becomes too great and they suffer. The landscape of Wales has been heavily influenced by man and, along with the loss of some of their natural predators, provides a habitat in which deer can thrive. Although wild deer are not yet as numerous or widespread in Wales as in other parts of the UK, their impacts on agriculture, forestry and vulnerable habitats are becoming more obvious, as are collisions between deer and vehicles on the roads, and the potential role for deer in the epidemiology of specific diseases. Deer are likely to become more established in urban and peri-urban¹ areas, leading to increased concerns over deer welfare and impacts on gardens and public green spaces.

For all these reasons, we decided to develop this strategy and in April 2010 Forestry Commission Wales circulated an 'issues paper' summarising current knowledge about wild deer in Wales and the key issues for their management. The issues paper and a summary of comments can be found on the Forestry Commission Wales website at: <http://fcnotes/website/forestry.nsf/byunique/INFD-8CZED6>. In September 2010 a draft version of the Wales Deer Strategy and Action Plan was circulated to stakeholders. This document, **Wild deer management in Wales** and the associated **Action Plan 2011–2015** (which is currently being finalised) are based on discussions with and responses from stakeholders.

Annex 1 provides an introduction to wild deer in Wales, and **Annex 2** summarises the key deer management challenges identified in the April 2010 issues paper. As wild deer populations increase and their distributions expand, issues that have been affecting other parts of the UK are likely to become more prevalent in Wales. Taking action now should help ensure sustainable management and avoid the development of the significant problems experienced in other parts of the UK.

As these issues have become more obvious, we and our partners have progressively scaled up our response. For more than two decades, Forestry Commission Wales has played a key role in the monitoring and management of wild deer populations. Since 1999, the Deer Initiative Partnership (**see Annex 3**) has been working with landowners and other stakeholders in Wales to raise awareness, provide technical advice, support the establishment of collaborative deer management initiatives, conduct research and support training and standards. A considerable amount has been achieved with limited resources, thanks in large part to in-kind support from stakeholders. Outcomes so far include a better understanding of the challenges and risks presented by the increase in wild deer, better awareness amongst stakeholders of the issues and solutions, and in some areas an increase in collaborative management, including the use of Deer Management Groups.

¹By 'peri-urban' we mean transitional areas around settlements characterised by a mixture of land uses, often including housing, transport, industry, agriculture, forestry and 'natural' areas. See, for example, Dandy et al. (2009) The management of roe deer in peri-urban Scotland. Forest Research.



1.1 What do we mean by 'deer management'?

Deer do not respect land ownership boundaries and the herding deer species in particular (red, sika and fallow) need to be considered and in some instances managed at a landscape scale. This often requires cooperation between a number of landowners. Normally the first stage would be to gauge the need for deer management in the area, and this would involve an assessment of actual or likely damage, and the numbers of deer in the area.

Deer Management Plans are the key tool in setting objectives and management actions. The range of actions includes:

- Population assessment and impact monitoring
- Direct population management: controlling numbers
- Adaptation: forest and woodland design, and changing tree establishment techniques
- Protection: physical protection such as fencing, and chemical deterrents or scaring devices

To ensure high standards of safety, deer welfare and food hygiene, the industry has developed a comprehensive set of Best Practice Guides (available on the Deer Initiative Partnership website, www.thedeerinitiative.co.uk).

Immuno-contraception for deer is being researched as a means of controlling numbers, but effective applications for wild deer in this country have yet to be developed.

1.2 The future of wild deer in Wales – our vision

The Welsh Assembly Government believes that we should uphold the value of wild deer as part of our natural heritage, and ensure that where their active management is required, it is sustainable as well as safe, humane and effective. As part of building a sustainable society, we should ensure that wild deer are managed responsibly and ethically, minimising impacts on woodlands, agriculture and protected habitats. Where deer have to be culled it should be recognised that there are some opportunities for the marketing of wild venison. Wild deer are not owned by anyone², and so we need to take collective responsibility. However, the leading role for deer management lies with landowners and deer managers.

We recognise the importance of achieving a balance between social, economic and environmental needs. Wild deer should be managed sustainably where they threaten this balance, and in particular where there are impacts on the key strategic themes of our *Woodlands for Wales* strategy³, or on our commitments to agriculture and rural development.

Our vision is that:

“Wales benefits from its wild deer population in balance with the natural, social and economic environment.”

We will use *Woodlands for Wales* as the framework for this vision. Sustainable landscape-scale deer management will contribute towards delivering the key outcomes of the strategy. Framed around the foundation theme of Welsh woodlands and trees (which has a number of specific outcomes) further outcomes are delivered under each of the four strategic themes:

- Responding to climate change
- Woodlands for people
- A competitive and integrated forest sector
- Environmental quality

See 1.5.4 for the full list of *Woodlands for Wales* outcomes

Deer management promoted under *Woodlands for Wales* and our other relevant policies will have wide-ranging benefits. The heritage and landscape values of deer should be recognised, but this needs to be balanced against our requirements for healthy and resilient ecosystems and the rural economy. There needs to be a strong focus on managing the negative impacts caused by deer when they become significant. We also need to take steps to control the spread of non-native deer species. Therefore deer management will be encouraged where populations are assessed as having a significant impact on the value or cultural benefits of woodlands, agriculture, or on the wider environment and safety of the people of Wales.

1.3 Equality and diversity

As part of our commitment to equality and diversity, the Welsh Assembly Government will ensure that we treat all users of our woodland, our stakeholders and staff fairly, with dignity and respect, regardless of race, disability, gender, age, sexual orientation and religion and belief. There is no evidence that there will be negative impacts on any of these groups arising from the aims of this strategy. However we will encourage those involved in deer management in Wales to consider whether there are any potential negative impacts arising from the actions they undertake to deliver the aims, and that they take appropriate steps to ensure they are removed or minimised.



² In UK law wild deer are *res nullius*. Wild deer are not owned, but the right to shoot them usually resides with the owner of the land, and any dead deer normally belong to the landowner.

³ See the website at: <http://wales.gov.uk/topics/environmentcountryside/forestry/woodlandsforwales/?lang=en>

1.4 Guiding principles – our approach to wild deer management

Valuing wild deer

Management of wild deer should reflect the values we place on them. They are valued by many people as part of our natural heritage, and others value them for recreational stalking and venison. Native species in particular can fulfil important ecological roles and make positive contributions to biodiversity. At the same time these positive values need to be balanced against the considerable negative impacts deer can have on agriculture, forestry, and the wider environment.

Partnership between stakeholders and the Welsh Assembly Government

The lead responsibility for deer management lies with landowners and land managers, whether owners or tenants. As wild deer regularly cross man-made boundaries, cooperation at a landscape scale is crucial.

We and our agencies help to support landowners, land managers and others through an agreed framework for sustainable wild deer management. This includes:

- Policy and regulation
- Advice and technical support
- Influencing and supporting research
- Disease surveillance and control
- Supporting awareness, education and training
- Providing grant aid
- Venison processing, marketing and food standards
- Setting an example and supporting local management operations through the management of deer on the Assembly Government Woodland Estate and other public land.

We remain committed to the partnership approach for the coordination, delivery and review of this framework for wild deer management. We believe this is best achieved through a broad range of public, private and voluntary sector stakeholders working together.



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Sustainable management

We are committed to ensuring environmental, social and economic sustainability. This approach also applies to the management of wildlife and natural resources – including deer. Wild deer need to be managed at a landscape scale to reflect their population dynamics, but in balance with smaller scale environments and in the context of our long-term strategies, such as the planned expansion of woodland and dealing with the challenges of climate change. Therefore the use of local deer stalkers will help to build up community knowledge, provide social sustainability and minimise the carbon footprint of deer management.

Protecting deer welfare

Stakeholders have underlined the need to ensure high standards of welfare for wild deer, in particular through the use of trained and competent people in deer management and the application of best practice. Best Practice Guidance (see the Deer Initiative Partnership website, www.thedeerinitiative.co.uk) has been developed to help ensure that informed deer stalkers and managers are able to operate to the best standards of safety, food hygiene and deer welfare. Deer welfare is threatened by deer–vehicle collisions (DVCs) which can create a public safety hazard. It is also threatened by illegal activities such as poaching, and where deer populations reach higher densities there is an increased risk of adverse impacts on deer health.

Evidence-based policy

Sustainable deer management relies on sound scientific evidence, and it is important to continue to develop and challenge the evidence base so that deer management can improve and achieve its objectives. In support of this the Deer Initiative Partnership regularly reviews developments in scientific research and their application to practical welfare-orientated deer management.

Building on existing mechanisms

This strategy and action plan is built on the work done so far by our agencies, our partners and other stakeholders who have confirmed a number of key drivers (**listed in Annex 2**) that merit more attention. We will continue to work through a partnership approach to make the best use of available resources in the implementation of this strategy.

1.5 Policy drivers - the need for action

1.5.1 Deer and their impacts in Wales

Wild deer are still considered a rarity by many people in Wales, but numbers are increasing and deer are now more common and widespread in Wales than at any time in recent history.

Deer are herbivores and when at high densities can have significant negative impacts on forestry and woodland, priority habitats and protected sites. Significant localised impacts on agriculture have also been recorded. Therefore if deer are not managed appropriately they may affect delivery of the outcomes of the *Woodlands for Wales* strategy, undermine our commitments to agriculture and rural development, and compromise our ability to achieve objectives regarding UK and international biodiversity.

Climate change mitigation efforts include a planned increase in woodland cover, production of biofuels and improved habitat connectivity in Wales. These developments are all likely to provide favourable habitats for deer and this should be taken into account at the earliest stages of project planning.

Deer are likely to become increasingly established in urban and peri-urban areas and while this may provide more opportunities for people to see wild deer, the increased risk of collisions involving deer and vehicles (DVCs) highlights concerns about deer welfare and public safety. More urban deer will also result in negative impacts on gardens and green spaces. More deer in the countryside will increase the risk of rural DVCs, as well as greater risk of diseases that can affect people and farm livestock, requiring more emphasis on disease surveillance. The control of deer numbers will therefore remain an important objective.

1.5.2 International commitments

Biodiversity

Our international commitments to protect and conserve biodiversity may be at risk from deer populations that are out of balance with their environment. This is principally in terms of impacts on flora and other fauna, particularly in woodland ecosystems.

The international Convention on Biological Diversity (CBD) 1992 makes specific reference to the richness of forest biodiversity and the links between this and socio-economic factors and goods and services it provides.

EU legislation related to biodiversity includes:

- Council Directive (79/409/EEC) on the Conservation of Wild Birds, whose requirements are fulfilled by UK legislation such as the Wildlife and Countryside Act 1981
- Council Directive (92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora, transposed by The Conservation (Natural Habitats, &c.) Regulations 1994, recently amended and consolidated in The Conservation of Habitats and Species Regulations 2010

Published in 1994, the UK Biodiversity Action Plan (UK BAP) sets out the UK's response to its obligations under Article 6A of the CBD. The goal of the UK BAP is the conservation and enhancement of habitats and species.

Climate change

With the Climate Change Act 2008, the UK introduced the world's first long-term legally binding framework to tackle the dangers of climate change. The legislation has significant implications for forestry and woodland management in that the first of the key aims underpinning the Act are to reduce carbon emissions and create a low carbon economy. Our targets on the expansion of woodland cover (an additional 100,000 hectares by 2030) and the creation of a renewable source of timber for Wales would be directly threatened by the impact of higher numbers of deer.

Forest management

The Pan-European Criteria for Sustainable Forest Management, agreed at the Third Ministerial Conference on the Protection of Forests in Europe, held in Lisbon in June 1998, are the:

- Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles
- Maintenance of forest ecosystem health and vitality
- Maintenance and encouragement of productive functions of forests (wood and non-wood)
- Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems
- Maintenance and appropriate enhancement of protective functions in forest Management (notably soil and water)
- Maintenance of other socio-economic functions and conditions.



1.5.3 Welsh Assembly Government policies and priorities

Our key policies on the natural environment, forestry, agriculture and rural development are affected and influenced by wild deer management. Currently these include:

- *Woodlands for Wales*, which sets out our strategy for woodlands and trees for the next 50 years.
- The Environment Strategy for Wales, which underpins our UK and international commitments to reversing biodiversity loss. It also addresses:
 - Access and recreation
 - Climate change
 - Wildlife crime
 - People and the environment
- The Wales Biodiversity Framework, which sets out how the biodiversity outcomes of the Environment Strategy for Wales will be progressed and includes reducing the impacts of non-native species

Other relevant policies include those on wildlife management, animal health and welfare, rural/countryside based learning and training, food standards, as well as the Farming, Food and Countryside strategy and related grant schemes, the Wales Transport Strategy and the Bioenergy strategy. In the food sector our policies include the Local Sourcing Action Plan, the Food for Wales strategy, and the Strategic Action Plan for the Welsh Red Meat Industry.





1.5.4 Woodlands for Wales: The Welsh Assembly Government's Strategy for Woodlands and Trees

Special reference is made to our *Woodlands for Wales* strategy, because of the close relationship between deer and woodland habitats. The delivery of elements of the strategy, especially in relation to increasing woodland cover, more native tree species, improving connectivity, increasing species diversity and a move towards reducing our reliance on clearfelling through Lower Impact Silvicultural Systems (LISS) in forestry and woodland management will require more active deer management in both private and public sectors.

Woodlands for Wales identifies twenty key outcomes under the **five themes** of the strategy:

Welsh woodlands and trees

- More woodlands are managed sustainably
- Woodland ecosystems are healthy and resilient
- Woodlands are better adapted to deliver a full range of benefits
- Woodland cover in Wales increases
- The management of woodland and trees is more closely related to other land uses
- Urban woodlands and trees deliver a full range of benefits

Responding to climate change

- Welsh woodlands contribute to reducing the carbon footprint of Wales

Woodlands for people

- More communities benefit from woodlands and trees
- More people enjoy the life-long learning benefits of woodlands and their products
- More people live healthier lives as a result of their use and enjoyment of woodlands
- More people benefit from woodland related enterprises

A competitive and integrated forest sector

- More Welsh-grown timber is used in Wales
- The forest sector is better integrated and more competitive, supporting the Welsh economy
- Increased use of timber as a key renewable resource
- A thriving, skilled workforce in the forestry sector

Environmental quality

- Woodland management achieves high standards of environmental stewardship
- Woodlands and trees of special conservation value are in favourable management
- Woodland biodiversity is supported and native woodland is in favourable management
- Woodlands and trees make a positive contribution to the special landscape character of Wales and to sites of heritage and cultural importance
- New and existing woodlands and trees contribute to water and soil management

It is important that deer management relates to these key outcomes, as well as the wider responsibilities we have to the environment and society.



1.5.5 Summary - the need for action

Wild deer bring a number of benefits, but without appropriate management they will directly affect the identified outcomes of the *Woodlands for Wales* strategy, our commitments to agriculture and rural development, and international and EU biodiversity commitments. They will also present a threat to woodland creation for carbon sequestration and to biofuel production, both of which relate to our climate change policies. Agriculture, forestry and other woodlands may suffer economic impacts from deer. If deer numbers are not managed we anticipate a probable increase in DVCs in both rural and urban areas, and other issues that may arise from more deer in the urban and peri-urban environments.

In order to build on existing partnerships and efforts, there is a need for wider stakeholder engagement and more effective coordination so that our environmental, social and economic aims are not undermined.

2. An agenda for action

This agenda identifies eight key outcomes we wish to see in relation to deer in Wales and the actions required to deliver them. An action plan will be finalised during 2011 and will set out specific short-term actions and identify the lead organisations and timescales involved.

These actions build on activities undertaken to date, in particular by relevant parts of the Welsh Assembly Government, our agencies and others in the Deer Initiative Partnership. Many actions will need the participation of a wide range of stakeholders to ensure their success, and we will be actively seeking to facilitate opportunities for stakeholders to become increasingly involved in implementation. At the same time, we will work with and build on existing partnerships to:

- Ensure that all our relevant departments are aware of the value and impacts of deer when drawing up their respective policies
- Ensure that all our relevant departments, agencies and partners giving advice on deer management do so in line with this strategy and the latest research and guidance available

2.1 Raise awareness of deer and their impacts, both positive and negative

- 2.1.1 Through a partnership approach we will work with and support the public, private and voluntary sectors, including through the Wales Biodiversity Partnership and local BAP groups, to raise awareness of the impacts of wild deer, and encourage the reporting of both sightings and deer damage.
- 2.1.2 Forestry Commission Wales will seek to educate young people about deer and their management, promoting links between woodlands, deer and wild venison by developing education resources for use in the Forest Education Initiative. Forest Education Officers will investigate using deer and their management as case studies to deliver National Curriculum objectives.
- 2.1.3 We will encourage a wider understanding of deer in relation to the development, management and use of urban and peri-urban environments. This includes working with the Welsh Local Government Association and local authority planning and conservation departments.
- 2.1.4 We will support, with others, the promotion of a wider understanding of deer and their impacts to the general public in Wales.



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2.2 Manage the impacts of deer

- 2.2.1 We will support the periodic collation of evidence on the distribution and impacts of wild deer in Wales.
- 2.2.2 We will promote collaborative deer management at a local and landscape scale as appropriate, including the identification of priority geographical areas where actual or potential impacts are of particular concern. This will include supporting farmers, woodland managers and landowners to reduce the impact of deer on agriculture, woodland condition, timber quality, biodiversity and the wider landscape.
- 2.2.3 We will, through Forestry Commission Wales, endorse and where appropriate support the development of local networking for sustainable deer management.
- 2.2.4 We will include consideration of deer impacts on land management policies, and of those policies affecting deer, as they are reviewed or developed.
- 2.2.5 We will, through Forestry Commission Wales and the Countryside Council for Wales, monitor developments in alternative control methods, including the use of immuno-contraception, and will consider their potential for application in Wales.

2.3 Where possible reduce the impacts of non-native deer species

- 2.3.1 The Working Group on Non Native Species of the Wales Biodiversity Partnership (and in line with the CBD and the GB Invasive Non-native Species Framework Strategy) will develop species-specific action plans with partners to address the non-native deer species (sika and muntjac) already found in Wales.
- 2.3.2 We will work with Wales and GB non-native species groups to monitor the risks of invasion by (or introduction of) other non-native deer species into Wales, and where appropriate consider measures to address these risks.
- 2.3.3 We will encourage effective control of non-native deer species (including where appropriate, the elimination of non-native deer species) in Wales through the implementation, by our partners and stakeholders, of the species-specific action plans described above.



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2.4 Ensure that deer management is delivered in a responsible, competent and ethical manner

- 2.4.1 We endorse the National Occupational Standards and recognise the Deer Stalking Certificate (DSC) as the benchmark for stalker training.
- 2.4.2 We, through Forestry Commission Wales, and the Ministry of Defence will lead by example in ensuring that deer management on public land is carried out in a sustainable manner and in line with best practice.
- 2.4.3 Through our agencies we will endorse and encourage the development and use of Best Practice Guidance and dissemination of information on best practice, for example through newsletters, websites and events.

2.5 Make venison from wild deer management more widely available to local markets

- 2.5.1 We will support the application of Best Practice Guidance to ensure high standards of food hygiene and traceability in the processing and sale of wild venison (see also 2.4.3).
- 2.5.2 Through our Food, Fisheries and Market Development Division we will investigate ways to support the development of the wild venison industry in Wales in line with the Food for Wales strategy, 'Food for Wales, Food from Wales'.

2.6 Minimise the number and severity of Deer-Vehicle Collisions (DVCs) in Wales

- 2.6.1 Through our Department for the Economy and Transport we will support and encourage the identification, analysis and dissemination of information on reported DVCs.
- 2.6.2 Through our Department for the Economy and Transport, working with partners where necessary, we will implement the most cost-effective methods of targeted action where appropriate to minimise the incidence of DVCs in Wales.



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2.7 Monitor animal health and disease issues in wild deer and address where appropriate

- 2.7.1 Through the Office of the Chief Veterinary Officer we will continue to support the monitoring of and research into bovine tuberculosis (bTB) in wild deer that may have an impact on the health and welfare of farmed and companion animals.
- 2.7.2 Deer are susceptible to some of the same diseases as farmed livestock, such as bluetongue and foot and mouth disease as well as bTB. We will, through our agencies' work with partners, encourage deer stalkers, managers and landowners to provide a key function in surveillance by reporting suspected cases of disease in line with Best Practice Guidance and by assisting in ad hoc surveys.

2.8 Minimise illegal activities related to wild deer in Wales

- 2.8.1 We will, through our environmental bodies, work with enforcement agencies, landowners and local communities to encourage reporting and tackling of incidences of deer-related wildlife crime, including poaching and illegal releases.



3. Delivery

This strategy has set out the outcomes that we require for wild deer management, to benefit the economy, environment and people of Wales. Delivering this ambition, in the context of the challenges facing land use and management, is going to require sustained, concentrated and cooperative effort from the public, private and voluntary sectors.

To progress implementation of the strategy we have set out for each of our outcomes what we want to see happen and how we plan to get there. These key activities are the basis from which we will develop an Action Plan, providing the short-term focus to make progress towards our long-term ambitions. The Action Plan will aim to capture all the activities required to implement this strategy, not just those to be undertaken by us. It needs to be fully inclusive and equitable across all sectors of society, and we recognise that we shall need many delivery partners to achieve success.

4. Monitoring

Implementation of the Action Plan will include monitoring of its delivery on an annual basis to ensure progress toward the outcomes required by this strategy. This strategy will be reviewed on a five-year basis to assess its effectiveness in managing wild deer in Wales.



Annex 1: Wild deer in Wales

The 'Wild deer management in Wales' issues paper <http://fcnotes/website/forestry.nsf/byunique/INFD-8CZED6> describes the status of wild deer in Wales and their positive and negative impacts in more detail. Here we provide a brief introduction to the deer that are living wild in Wales and the main management issues associated with each species.

Of the five species currently resident in Wales, red deer and roe deer are native. Sika and muntjac are non-native species, having been introduced in the late 19th century. Fallow deer are now widely regarded as 'naturalised'.

Deer distribution maps

The Wales deer distribution maps have been produced using data collated by the British Deer Society (BDS) as part of their Great British Deer Survey. The Welsh Assembly Government thanks the BDS for permission to reproduce their data and Alastair Ward and Kirsty Lees at the Food and Environment Research Agency for creating the maps for this document.

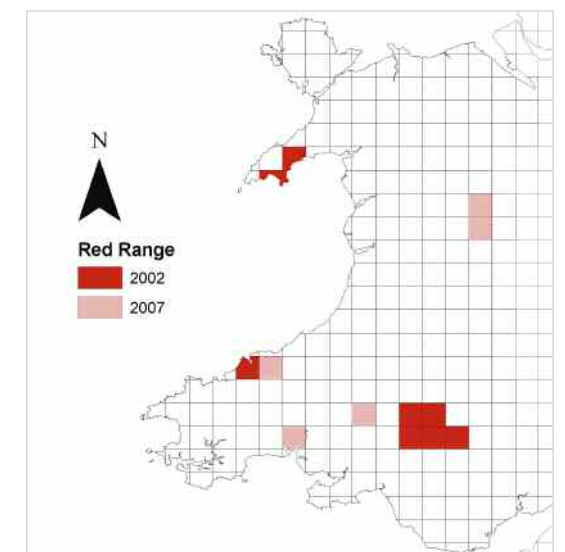
The 2007 distribution of deer is based on sightings made by BDS members of a minimum of one deer within a 10 km grid square, with additional survey material provided by Forestry Commission Wales cull records, the Deer-Vehicle Collisions Project and the Deer Initiative in Wales.

The maps illustrate the reported distribution of deer in Wales in surveys in 1972 and 2002, as well as the 2007 survey. The distribution data should be interpreted on the basis that deer are still present in the areas highlighted by the earlier surveys.

Red deer (Cervus elaphus)

The red deer is the largest native land mammal in Wales. Adult stags (males) can weigh up to 200 kg. Although considered to be indigenous to Wales, its current distribution is limited. The population of red deer now currently living wild in the Brecon Beacons originated from a deer farm in the 1980s. There are also some escapees from Margam Park found in the surrounding area. Sightings of red deer have also been reported in the Llyn Peninsula and Welshpool areas.

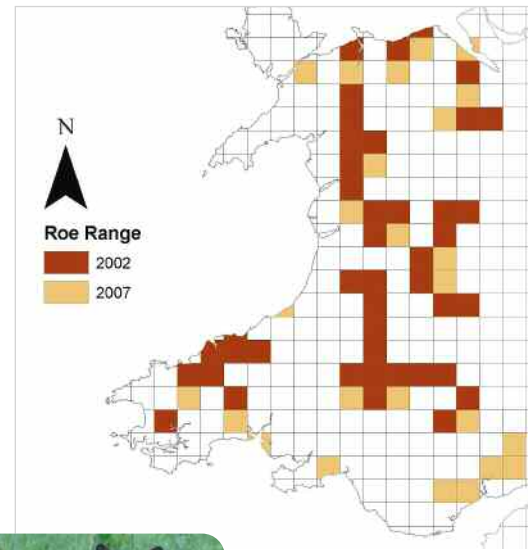
Red deer can have considerable impacts on agricultural crops, principally through grazing and trampling. They can also cause significant damage to woodlands through browsing of both naturally regenerating and planted young trees, bark stripping and the fraying of trees.



Roe deer (*Capreolus capreolus*)

Roe deer are a fairly small deer, typically weighing about 10–25 kg, depending on sex and age. They are indigenous to the British Isles and are now found in parts of Wales, encouraged by the expansion of suitable woodland habitats. They originally migrated into Wales in the early 1970s from the English border counties. Releases are also believed to have taken place during the latter part of the 20th century, in Powys and other areas of North and South Wales.

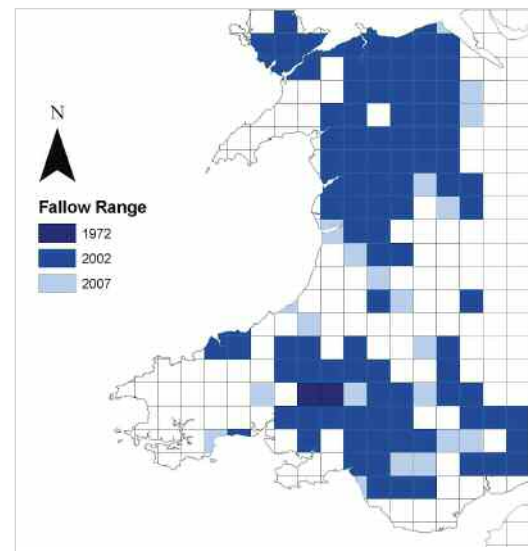
Roe are good colonisers of woodlands that do not have resident deer, as is the case in most of Wales. The priority is to limit their impact on regeneration in woodlands managed under LISS and keep populations at sustainable levels. Roe deer will also move into urban areas where there are suitable habitats, impacting on green spaces, and also becoming victims of road accidents.



Fallow deer (*Dama dama*)

Fallow deer were reintroduced to Britain during the 11th or 12th centuries (and possibly as early as Roman times). Fallow are medium-sized deer with bucks (males) weighing up to 95 kg. Fallow are an attractive species and became popular for inclusion in deer parks, from which escapees later established in the wild. They are now amongst the most widespread of all the wild deer species in Wales. Large fallow populations can be found in the areas near Abergele, Dolgellau, Welshpool, Llandeilo, Neath Port Talbot and Chepstow as well as in the Lower Wye Valley.

As a herding species fallow deer present a number of challenges. They are the species most commonly associated with DVCs in Wales and are significant grazers of agricultural crops. Localised high densities of fallow (and red) deer have the potential to act as a 'spill-over host' for bTB. While it is unlikely that they play a significant role in the transmission of the disease to domestic livestock, the presence of bTB in deer would indicate a local problem and potentially require management action.



Sika deer (*Cervus nippon*)

A native of Asia, sika were originally introduced as an ornamental species in deer parks, from which escapees have established as wild populations. They are medium-sized, with stags (males) in the UK reaching up to 70 kg in weight. They are genetically closely related to red deer and hybridisation occurs. Although wild sika were not found in Wales in 2007, there is currently a small population of red/sika hybrids living in Cardigan that originate from a deer park. There have also been anecdotal reports of individual sika in the Wye Valley and Powys.

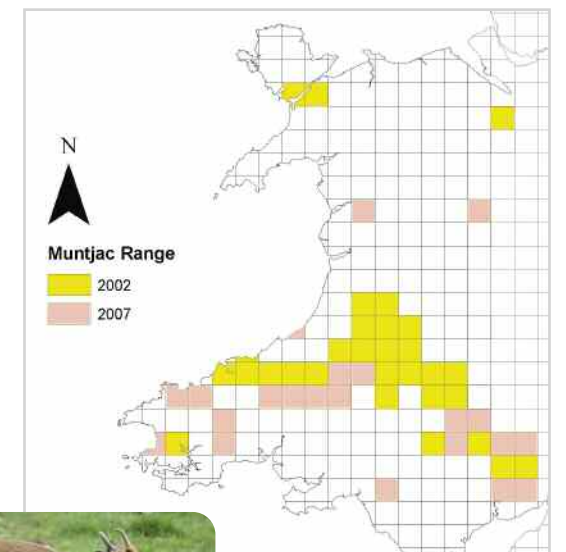
As a non-native species the main management challenge in Wales is controlling or removing this species. The threats to woodlands from large numbers of sika deer can be serious, affecting the competitiveness of the woodland sector and the biodiversity value of woodland habitats.



Muntjac deer (*Muntiacus reevesi*)

Muntjac were introduced into deer parks in Britain from Asia in the late 19th century and became established in the wild following escapes and releases. They are a small deer (about 10–20 kg in weight). Sightings of muntjac deer have been noted along the English–Welsh border and the A55 and M4 corridors in north and south Wales; these are believed to be illegal local releases.

Muntjac deer present particular management challenges because of their ability to breed throughout the year. They are extremely adaptable, tolerant of people and make use of a variety of habitats including suburban gardens. Muntjac may undermine the Welsh Assembly Government's commitment to biodiversity targets, for as well as being a non-native species, they can have significant negative impacts on ground flora in ancient and semi-natural woodlands.



Chinese water deer (*Hydropotes inermis*) not yet established in Wales

Attempts to introduce Chinese water deer to Wales in the 1950s are thought to have failed. However, there is a potential for illegal introductions of Chinese water deer (and other non-native species) not yet established in the wild, and it is important to encourage monitoring and reporting to enable a timely response.



Annex 2: Key deer management challenges identified in the 'Wild deer management in Wales' (April 2010)

This strategy and action plan are built on the work done so far by the Welsh Assembly Government, its partners and other stakeholders who have highlighted the key drivers. The following drivers merit special attention and the Wild deer management in Wales issues paper [April 2010

<http://fcnotes/website/forestry.nsf/byunique/INFD-8CZED6>] describes them in detail:

- Trends in deer populations and distribution
- Introduction of non-native species
- Trends in land ownership and management
- Trends in public awareness
- Impacts on biodiversity
- Impacts on forestry
- Impacts on agriculture
- Deer-vehicle collisions
- Climate change
- Habitat connectivity
- Disease
- Venison
- Poaching

Annex 3: The Deer Initiative Partnership in Wales

The Deer Initiative is a broad partnership of public and private sector organisations dedicated to ensuring the achievement and maintenance of a sustainable and healthy population of wild deer in England and Wales. The Deer Initiative Partnership is supported by its executive arm, Deer Initiative Ltd. Deer Initiative partners in Wales are:

Association of Chief Police Officers
 British Association for Shooting and Conservation
 British Deer Society
 ConFor
 Country Land and Business Association
 Countryside Alliance
 Countryside Council for Wales
 Forestry Commission Wales
 Forest Research
 Game and Wildlife Conservation Trust
 Ministry of Defence
 National Farmers' Union Wales
 National Gamekeepers' Organisation
 National Trust
 Royal Society for the Prevention of Cruelty to Animals
 Royal Society of Wildlife Trusts
 St Hubert Club of Great Britain
 Union of Countryside Workers
 Veterinary Deer Society
 Woodland Trust

Glossary

Biodiversity	The variety of ecosystems and living organisms (species), including genetic variations between species
Carbon footprint	The representation of the effect that human activities have on the climate in terms of the net amount of greenhouse gases produced, usually measured as tonnes of carbon in the form of carbon dioxide
Deer Management Group	A formalised group of people managing deer at a landscape scale
Deer Park	An area of enclosed land holding domesticated deer
Deer Stalking Certificate	An industry standard for the training and competence assessment of deer stalkers. Level 1 includes identification, a written examination and shooting test; Level 2 involves shooting three deer and preparing them for the food chain in the presence of an assessor (More information available at: http://www.dmq.org.uk)
Habitat connectivity	The linking of identified habitats, in woodland often achieved by the planting of a wildlife corridor of trees and shrubs
Immuno-contraception	The use of vaccination to prevent pregnancy
Managed Environment	Land that is actively managed for agriculture, forestry or other purpose
Stakeholders	In relation to deer, persons or organisations with an interest in deer and deer management or land where deer are present
Stalking	The process of selecting and culling wild deer
Sustainable Management of Deer	Ensuring that goods and services from wild deer populations are retained for future generations
Venison	Meat prepared from the carcase of a deer

Further information

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Tel: 03000 680300 Fax: 03000 680301

Email: fcwenquiries@forestry.gsi.gov.uk

(Calls to 0300 numbers are charged at a 'Lo-call' rate, this will be the same irrespective of where you are calling from).

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