

# **The future for wild deer in the Scottish uplands: joint agency working to promote biodiversity**

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## **Background**

There are four species of wild deer present in upland Scotland: two native – red and roe deer and two non-native - sika and fallow deer. Deer are an important component and shaper of biodiversity in the Scottish uplands through positive, negative, direct and indirect impacts (Milne *et al.* 1998). For example, red deer help to maintain species richness through grazing grassland communities (Virtanen *et al.* 2002) and also provide carrion, thus supporting eagle populations (McGrady *et al.* 2004). On the other hand, deer can prevent regeneration of woodland through browsing of seedlings (Mitchell & Kirby 1990; Andrews *et al.* 2000) or trample sensitive flush and bog communities (MacDonald *et al.* 1998). Non-natives also pose a potential threat to biodiversity with interbreeding between sika and red deer. Red and roe deer are included on the Scottish Biodiversity List (<http://www.biodiversityscotland.gov.uk/>); a list largely otherwise dedicated to rare and endangered species, owing their inclusion to their ranking as the most important species in a public survey. Red deer are our largest native land mammal and accordingly play a prominent role in the social and economic fabric of the Scottish uplands.

The role of wild deer in the biodiversity of the Scottish uplands is reflected by the range of agencies involved in delivering public sector objectives through influencing deer management. This abstract outlines the main agencies and policies involved and highlights how new joint working arrangements aim to improve effectiveness and efficiency in delivery.

## **Joint agency working**

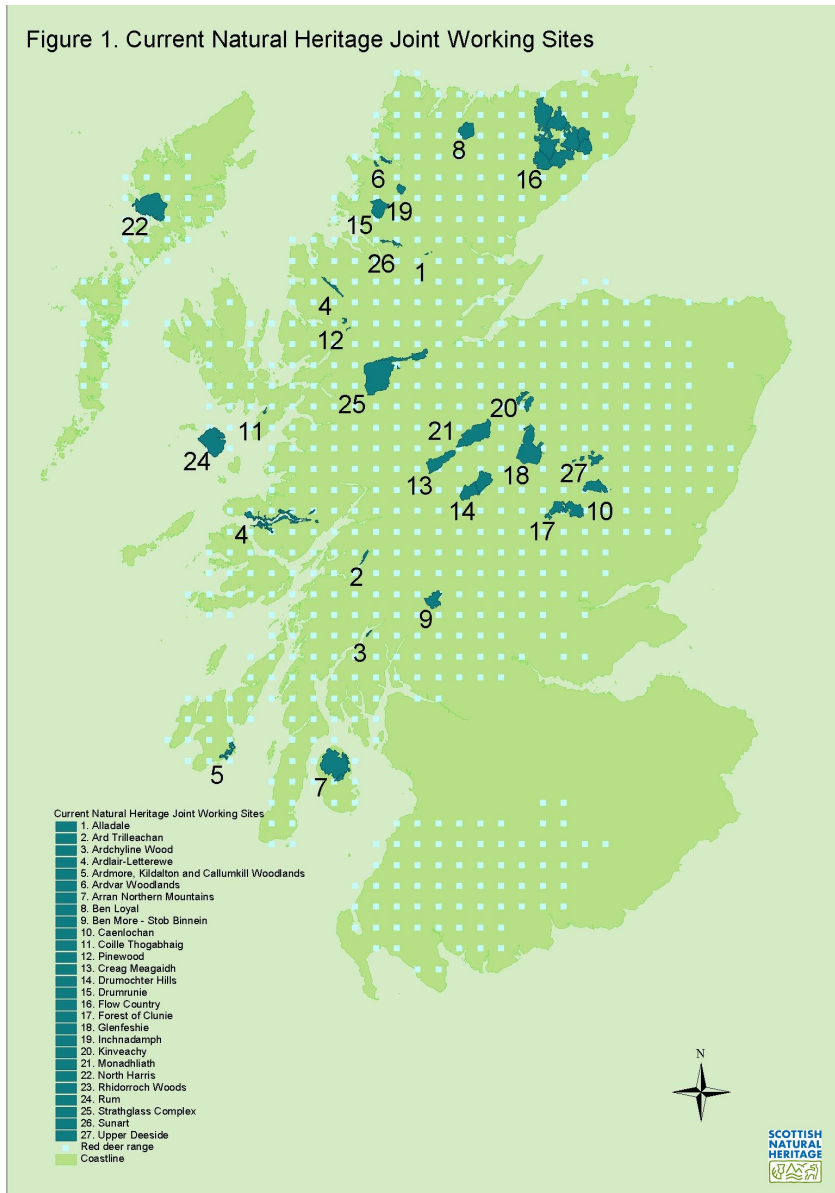
The government agencies; namely Deer Commission for Scotland (DCS), Scottish Natural Heritage (SNH), Forestry Commission Scotland (FCS) and the Scottish Executive Environment and Rural Affairs Department (SEERAD), deal directly with the impacts of deer on biodiversity through a number of regulatory and incentivised policy processes (Table 1).

The public agencies are increasingly working together to promote sustainable deer management. This trend is reflected in the formation of the Deer Inter-agency Liaison Group (DILG) in 2004 and the adoption of the Joint Working Agreement on the use of incentives and regulation in addressing deer impacts, including those on the natural heritage (<http://www.scotland.gov.uk/Topics/Rural/JointAction/deerhome>).

On the ground, this has led to an integrated approach, working with owners to address natural heritage impacts on important designated sites. Currently Joint Agency action is ongoing on 27 natural heritage sites across upland Scotland (Figure 1). This involves assessing impacts, designing habitat targets, developing deer management plans where appropriate, providing financial support or securing management through control agreements.

Table 1. Regulatory and incentivised policy mechanisms involving deer impacts on biodiversity in the uplands

<b>Legislation / Policy</b>	<b>Aim / Objective in relation to biodiversity and deer</b>	<b>Agencies involved</b>
Deer (Scotland) Act 1996	Sustainable deer management; prevention of damage to natural heritage.	DCS
Nature Conservation (Scotland) Act 2004	Duty on all public bodies to further the conservation of biodiversity.	DCS, SNH, FCS, SEERAD
Wildlife and Countryside Act 1981 (Amendment 1999)	Maintaining red deer 'refugia' (free from sika genes) on named west coast islands.	SEERAD DCS
Conservation (Natural Habitats &c) Regulations, 1994  (N.B. equivalent term to Favourable Conservation Status applies under Wild Birds Directive 79/409/EEC)	To avoid deterioration of the qualifying habitat(s), ensure that the integrity of the site is maintained and the site makes an appropriate contribution to achieving Favourable Conservation Status for the habitat as a whole.	DCS, SNH, FCS, SEERAD
Natural Care	Financial help to support land managers to manage SSSIs and Natura sites in a way that will conserve and improve their interests.	SNH
Forestry grant schemes	To help to protect and enhance biodiversity.	FCS
LMCs / GAEC	Cross-Compliance and Good Agricultural and Environmental Condition (GAEC) will secure a basic level of environmental protection. Options under Tiers 2 and 3 will seek to deliver environmental enhancement.	SEERAD
Diffuse Impacts	Ongoing research to facilitate a consensus on what are reasonable and legislative compliant objectives, indicators and targets in relation to deer impacts outwith designated sites.	SEERAD DCS
Scottish Biodiversity Strategy Implementation plans	Actions in relation to wild deer including: <ul style="list-style-type: none"> <li>Strengthening deer management policies and practice to meet biodiversity conservation objectives.</li> <li>Research to understand the nature of environmental change affecting biodiversity values in the uplands (esp. grazing intensity by different species).</li> </ul>	DCS FCS SNH
Case studies for sustainable deer management	Seeks to consider how best to protect against 'diffuse damage' by deer and deliver the wider countryside requirements of the Natura 2000 legislation, alongside the legitimate social and economic objectives of deer managers and other interested parties.	DCS
Species framework	Priorities for action for SNH in relation to species management and biodiversity. Includes red and roe deer.	SNH
Environmental Assessment (Scotland) Act 2005	Considers the environmental effects, including biodiversity, of all new strategies, plans and programmes developed by the public sector.	DCS, SNH, FCS, SEERAD



While the focus is currently on the interests on designated sites, a number of initiatives are looking at how biodiversity interests in the wider countryside can be protected and enhanced, as illustrated in Table 1. Equally, initiatives are exploring how deer managers can be supported to deliver public objectives.

### Co-ordinated research

The same bodies are also seeking to co-ordinate agency funded deer research through the Deer Research Co-ordination Committee. The Committee advises on research priorities and proposals, shares information and jointly manages some projects, for example the Diffuse Impacts project (Table 1). Another example arising from this Committee is a joint SNH/DCS research project looking at the impacts of deer on the erosion and re-vegetation of exposed peat on blanket bog ([http://www.dcs.gov.uk/info\\_researchAgencies.htm](http://www.dcs.gov.uk/info_researchAgencies.htm)).

## Conclusions

In recent years there has been a concerted effort to co-ordinate the efforts of the key agencies in influencing the management of wild deer populations to deliver public biodiversity objectives in the uplands of Scotland. The benefits of these efforts are starting to be seen, but the achievement of the aspirations set out in the legislative and policy frameworks will require the continued support and collaboration of policy makers, deer managers and other interested parties. Over the coming year DCS will be consulting on a new (SEERAD family) Strategic Vision for deer management, which will provide all interested parties with an opportunity to propose their vision for wild deer in shaping the biodiversity of the uplands.

## References

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