

Scottish Natural Heritage's Protected Areas for Nature Review: a submission from RSPB Scotland

RSPB Scotland's vision is for a world richer in nature; that wild birds are no longer declining; nature is being restored; and this sustains and enriches the lives of people. This world guarantees future generations clean air and water, a stable climate, abundant and diverse wildlife, and a robust, diverse and sustainable economy. Given the importance of protected areas for Scotland's natural environment, RSPB Scotland welcomes SNH's review of protected areas and the opportunity to feed into it. Here we outline RSPB Scotland's position regarding terrestrial protected areas for nature and the leading role we want to see SNH play in their effective management. We have also taken this opportunity to respond to the independent panel's Protected Areas for Nature Review (Annex 1).

Summary:

- Scotland holds unique assemblages of nationally and internationally important species;
- Scotland's natural environment is worth an estimated £21.5-23 billion per annum;
- Anthropogenic pressures such as resource use, habitat loss, pollution and invasive non-native species are causing rapid changes to the natural environment resulting in species declines;
- Protected areas play a fundamental role in protecting and reversing declines of priority species and habitats, a role which is endorsed by national and international policy and the academic community;
- Climate change poses a significant threat to Scotland's biodiversity, and the current conservation effort is insufficient to mitigate the likely impacts;
- We need our existing protected areas to be made **bigger**, to be **better** managed and to be **joined** to other sites through wider landscape conservation measures, to secure resilient, functioning and well managed ecological networks.

As the Scottish Government's statutory nature conservation agency, SNH should:

- Recognise the clear consensus across the global conservation community regarding the essential role and clearly evidenced value of protected areas in conserving biodiversity, and the need to manage and protect these sites **in conjunction with** wider landscape measures;
- Acknowledge that, whilst coverage of protected areas in Scotland is sufficient to meet the coverage aspect of the 2020 Aichi Target 11*, too few of these sites are effectively and sustainably managed to meet the effectiveness aspect of the target and they are not yet integrated into wider landscapes;
- Reinstate the target of favourable condition for 95% of features for which on-site remedies are available and commit to identifying policy and funding mechanisms to deliver offsite remedies;
- Commit to developing a monitoring system which can adequately measure the impact that conservation interventions are having on feature condition, and thereby help to 'benchmark' and track progress towards favourable condition;
- Recognise the wider benefits that protected areas deliver for nature and people;
- Fully utilise the regulatory tools at their disposal to cost-effectively reduce the pressures on protected areas and work with the relevant agencies to ensure that all available policy instruments are used to improve feature condition;
- Engage more proactively and constructively in EU level and national conversations which dictate and target the funds available for nature conservation in Scotland.
- Coordinate development of a framework to drive the delivery of the measures required to secure favourable condition of all Natura 2000 sites in Scotland.

* To have over 17% of the terrestrial & inland waters, and 10% of the coastal and marine waters of the world by area, in effective, equitably managed and ecologically representative connected systems of protected areas, integrated into wider landscapes and seascapes.

Introduction

RSPB Scotland is part of the RSPB, the largest wildlife conservation organisation in Europe with over one million members from both urban and rural areas, around 90,000 of which are in Scotland. The RSPB manages 150,742ha of land for the benefit of nature conservation across 212 reserves in the UK. We have a long history of managing and conserving protected areas for nature, nationally with our UK colleagues and internationally with our Birdlife partners, and are responsible for 672 notified features within the protected areas we manage in Scotland. We also promote the conservation of birds and other wildlife in the wider countryside through our Futurescapes programme and combine scientific research, education, advice and policy advocacy to secure positive outcomes for nature.

Scotland supports a rich and varied natural heritage, much of which has been shaped and influenced by man for centuries. The mountains, moorlands and heath which cover 46% of Scotland's land area contain 90% of the UK's montane habitat¹ and one of the largest contiguous areas of blanket bog in the world², as well as iconic species such as mountain hare, golden eagle and red deer³, ptarmigan, dotterel and wildcat⁴. Freshwater habitats support globally important populations of Atlantic salmon and freshwater pearl mussels¹. Almost 1000 species of bryophytes occur in Scotland, representing 87% and 60% of UK and European totals respectively and up to 5% of the global total⁵. Agricultural land can also provide vital wildlife habitat. Machair, a High Nature Value farming system of international significance, is globally restricted to northern and western Scotland and north-west Ireland and supports a wide variety of bees and butterflies, birds and one of the only British populations of the Irish lady's tresses orchid⁴. In combination, these assemblages of species and habitats have contributed immeasurably to Scotland's economy and around a fifth of Scottish industries rely on the natural environment⁶.

Habitats, and the ecosystems within which they sit, have utilitarian values (natural capital) and attempts have been made to attach economic values to some of the supporting, regulating, provisioning and cultural services provided by them. Natural heritage in Scotland, including the ecosystem services provided by it, have been valued at £21.5-£23 billion per annum¹, with nature-based tourism worth £1.4 billion per year and supporting 39,000 jobs⁷. A number of Scotland's other key industries, including forestry, food and drink depend on clean water, fresh air and fertile soil. Natural heritage also has an intrinsic value for people who live and visit Scotland, which means it is valued for what it is rather than what it can do⁸. For example, 86% of people in Scotland think that peatlands should be protected for future generations and they are recognised as a key component of Scotland's natural heritage⁹. We have a clear moral obligation to protect biodiversity and to ensure that it is conserved and enhanced for future generations to enjoy. Surveys in 2007 and 2009 indicated that 80% of adults in Scotland have an interest in biodiversity and are concerned about biodiversity declines¹⁰. However, Scotland's landscape is changing, habitats are being lost, species are in decline and vital ecosystem services are increasingly under threat¹. Unsustainable resource use, habitat loss, pollution and invasive non-native species are considered some of the greatest threats to biodiversity and climate change is adding increasing pressure to already vulnerable species and habitats.

The role of protected areas

Protected areas represent the very best of Scotland's natural heritage and play a fundamental role in conserving and reversing declines of priority habitats and species. They have a function in the maintenance of ecosystem services, education, tourism and recreation and provide opportunities for scientific research¹¹. There is also a growing body of evidence demonstrating the health¹² and socioeconomic benefits¹³ derived from protected areas. They are the front line of defence against the growing pressures on the natural environment and the policies and legislation which underpin them are the key drivers for the protection of vulnerable habitats and species. When given appropriate weight in decision making, protected areas ensure that development does not damage

our most important places for wildlife, they provide a spatial steer which reduces uncertainties, delays and wasted effort and enables the right developments in the right place, maximising environmental, social and economic benefits (Example 1).

Example 1: The protected area network as a spatial planning tool

The huge growth of onshore wind in Scotland, which unlike in many other countries has largely happened without causing significant harm to birds, is a major national success story. A large part of the reason for this success has been the influence of the protected area network. There is no national strategic plan for onshore wind in Scotland but the protected area network has, in the absence of such a plan, acted as a de-facto strategic spatial planning tool, highlighting to developers which parts of the country are most sensitive to development. This has been reinforced by the Scottish Ministers refusing consent for developments that would harm protected area interests, reflected in the lack of overlap between onshore windfarm proposals and SPAs. Particularly important in this regard was Scottish Ministers refusal in 2008 of the proposed Lewis Wind Power project, which would have damaged a large part of the Lewis Peatlands SPA. The refusal of this project and the clear message from Scottish Ministers that alternative, less environmentally damaging projects were available, set a bench mark for subsequent decision-making. As a result Scotland has gone from having practically no onshore wind capacity 20 years ago to over 5GW of installed capacity in 2014, and without significant impacts on bird populations. In contrast, offshore there is not yet a comprehensive designated sites network. Offshore wind developers have had no guidance as to the sensitivity of sites and as a result have progressed projects in areas that undoubtedly should be protected but have not yet been. This has resulted in conflict and delay, with significant efforts and finance being invested in sites which it may not be appropriate to progress.

A network of 1,868 protected areas¹⁴ make a significant contribution to the protection of the 39 priority habitats and 197 priority species in Scotland¹⁰. These include 1425 Sites of Special Scientific Interest (SSSIs) designated under the Nature Conservation (Scotland) Act 2004; 239 Special Areas of Conservation (SACs), designated under the Habitats Directive (92/43/EEC); 153 Special Protection Areas (SPAs), designated under the Birds Directive (2009/147/EC); and 51 Ramsar sites designated as internationally important wetlands. SPAs and SACs are collectively referred to as Natura 2000 sites. Within all of these sites, important species benefit from conservation efforts focused on the protection and maintenance of the habitats upon which they depend. Important habitats are also protected in their own right. This broad habitat focus can also benefit non-target species, preserve ecosystem function, contribute to halting the loss of biodiversity, increase resilience to climate change and secure multiple benefits for society; contributing to Aichi Targets 11, 14 and 15¹⁵ (Example 2). However, in some cases it may be necessary to take species-specific action, particularly for species experiencing rapid declines or at high risk of extinction (Example 3). Protected areas are pivotal to reversing such declines; contributing to delivery of Aichi Target 12¹⁵.

Protected areas can deliver much wider benefits too and the ecosystem services provided by the Natura 2000 network have been well documented¹⁶. Natura sites provide the full range of provisioning (eg. food, fibre, fuel, medicines), regulating (eg. water regulation and purification, erosion control, pollination, genetic diversity) supporting (eg. nutrient cycling, water cycling, production) and cultural (eg. recreation, education, research) ecosystem services¹⁷. Considering these benefits, full conservation protection of the Natura network in Scotland has been valued at €211.5 million per year. When the costs of implementation are factored in, there is a benefit:cost ratio of 7:1 over 25yrs¹⁷, representing good value for money. Of these benefits, the links between health and well-being are drawing increasing attention. Wildlife-rich green space has been linked to stress reduction in adults¹⁸ and children¹⁹; health inequalities in economically deprived communities

are linked to nature deprivation²⁰; access to nature can promote social interactions, which deliver well-being benefits²¹; and nature-rich neighbourhoods are associated with lower levels of crime, domestic violence and aggression²². There are physical benefits too. Individuals with access to nature are more likely to be active and less likely to become overweight or obese²³; and the health benefits of Scottish woodlands, through recreation, are estimated at £19 million per year¹⁰. Fewer data are available on the specific contribution of protected areas but Benet-Garcia *et al.* (2015) found that human well-being increased significantly more between 1989 and 2009 in municipalities in Andalusia which contain protected areas¹². Protected areas may also improve economic activity within surrounding communities. Canavire-Bacarreza and Hanauer (2013) found that communities within and around protected areas exhibited differentially greater levels of poverty reduction compared to communities outside the protected areas network¹³.

Example 2. Habitat focus: blanket bog restoration

Scotland contains the one of the largest contiguous areas of blanket bog in the world². About 4% of the total global resource is found in the Caithness and Sutherland peatlands²⁴, of which 175,000ha is protected by SSSI designation and 145,370ha is classified as an SPA under the Birds Directive and a Ramsar Wetland of International Importance. 143,571ha of the SPA is also designated as an SAC under the Habitats Directive. The blanket peats of Caithness and Sutherland support Annex II species marsh saxifrage and a number of Annex I priority bird species, including 48% of the UK's breeding population of common scoters²⁴ and significant breeding populations of golden eagle, short-eared owl, merlin, golden plover, dunlin, greenshank, red throated diver, wood sandpiper, wigeon and black-throated diver²⁵. They represent a vital carbon resource by capturing and sequestering carbon. As functional wetlands they can also alleviate flooding, provide a clean, secure and cost-efficient drinking water supply and provide an archive of cultural and environmental change. However, drainage, afforestation, burning, grazing and trampling by sheep and deer, vehicle use and domestic peat cutting have all had an impact on the functioning of the blanket bog. When bogs are damaged, the vegetation assemblages change and the habitat becomes less suitable for the species they once supported. Damaged bogs begin to release the carbon locked in the peat layer, which contributes to greenhouse gas emissions. Dissolved organic carbon is released into the water causing discolouration, which is costly to treat and has impacts on fish spawning. Peatland restoration is a cost-effective way of reversing the damage and restoring blanket bog function. It contributes to conserving a representative sample of natural and semi-natural habitats/species in the UK; helps halt biodiversity loss; delivers multiple benefits of sustainable land use and increases climate resilience. The SPA and SAC designations in Caithness and Sutherland have attracted two large EU Life –funded projects since 1994 to deliver restoration, highlighting the importance of a habitat and species focus and the essential role the Directives play in driving and securing nature conservation.

Example 3. Species-specific action: Corncrake recovery

The corncrake is listed under Annex I of the Birds Directive and is a Biodiversity Action Plan Priority Species. The Corncrake declined across every county in Scotland and the rest of the UK from the 19th century until the 1990s. At that time the species appeared to be heading for extinction in Scotland. A conservation effort began in 1991, focused on the remaining core areas in Western Isles, Argyll Islands, Skye, Durness and Orkney. This conservation initiative started out with very targeted measures for farmers and crofters outside protected areas; it then used a developing protected areas network to focus efforts and funding; extending to fund wider corncrake measures beyond this protected area network. This approach, using the protected area network to target funds and secure effective management, supported by wider countryside measures, demonstrates clearly what delivery of Aichi Target 11¹⁵ should look like. The result was the reversal of the corncrake's decline, contributing to delivery of Aichi Target 12¹⁵, a trebling of the population (Figure 1) and an increasing utilisation of measures beyond protected areas. The story of corncrake recovery is therefore a good example of the role of the protected area network as a core from which a wider approach can build²⁶.

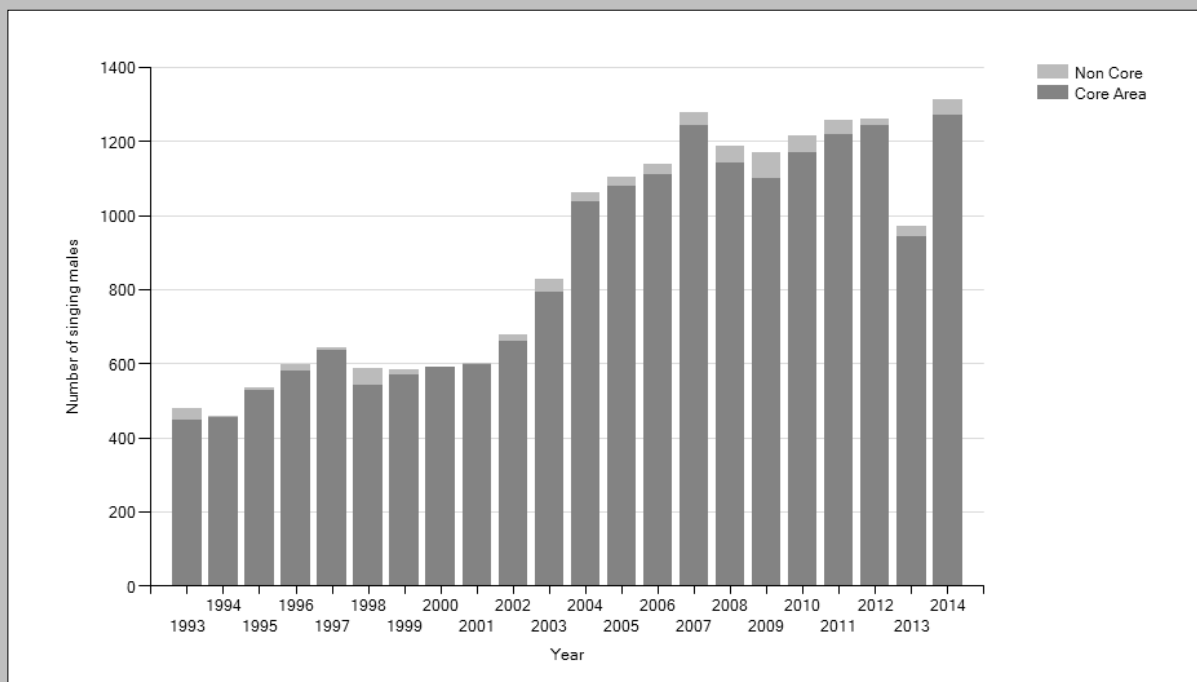


Figure 1: Number of singing male corncrakes at core and non-core sites between 1993 and 2014, based on annual monitoring by RSPB.

Climate change

Climate change is a game changer. By 2050, Scotland will see warmer, wetter winters and warmer drier summers, increased frequency and intensity of extreme precipitation events, reduced frequency of frost and snowfall and a rise in sea levels²⁷. Many species are expected to experience shifts in their breeding distributions across Europe, both in location and in extent, as northern and southern range boundaries shift northwards in response to climate change²⁸. We have already started to see the impacts of climate change on wildlife (Example 4). A quarter of UK butterfly species and many moths are spreading north and several have colonised Scotland in recent decades, including the comma and holly blue butterflies⁴; and mean numbers of 12 breeding seabird species declined by 42% between 1986 and 2013, with climate change impacts on prey species thought to be a key factor in their decline²⁹. Some species and habitats are more susceptible to the impacts of a changing climate than others. Coastal habitats may be particularly vulnerable due to sea level rise. For example, machair is a low-lying habitat and rising sea levels increase the risk of flooding with brackish water, causing salt deposition and osmotic stress of species in the affected area. Wetter weather could adversely impact land management efforts, with consequences for the wildlife which depend on the habitat and for farm incomes³⁰.

When managed effectively, priority habitats can contribute to climate mitigation and adaptation. For example, intact peatlands are the single largest carbon store in the UK, whereas damaged peatlands release carbon. Therefore, peatland restoration both increases absorption of carbon from the atmosphere and stops it being released from the soil, with a net long-term cooling effect on the climate³¹. Restoration of wetlands, floodplains and woodland can all contribute to flood alleviation. For example, salt marsh is a valuable natural sea defence and decreases in coverage of salt marsh are associated with increased maintenance and construction costs of hard sea defences, with higher sea walls required³². Several studies have also shown that protected areas provide vital habitat for range-expanding species. Hiley *et al.* (2013) found that protected areas were the initial colonization points for all of the six species of wetland birds which have established breeding populations in the UK since 1960³³; and Gillingham *et al.* (2015) found that range-expanding butterflies and birds were more likely to colonize protected areas³⁴. However, species with lower dispersal ability, and those living at higher altitudes and at the northerly reach of their ranges may be particularly at risk as they have nowhere to go when their climate envelope shifts. For example, dotterel may feel the negative effects of warming and snow buntings may be lost as they depend directly on characteristically snowy habitats³⁵. Improving the management of protected areas, alongside wider conservation measures, will be vital for increasing the resilience of species and habitats to climate change.

Example 4. Climate change impacts on the breeding phenology of golden plover

The golden plover is a moorland wading bird which is listed on Annex 1 of the Birds Directive³⁶. In the UK, golden plover breed on a range of open habitats, generally synchronising the hatching of their first clutch each year to match the emergence of adult tipulids, which are an important prey species³⁷. Pearce-Higgins and Yalden (2004) found that abundance of tipulid adults was an important determinant of breeding success in golden plover and was positively correlated with both bodyweight gain and chick survival³⁷. However, Pearce-Higgins *et al.* (2005) found that first laying dates were negatively correlated to March and April temperature (Figure 2) and their models suggest that first laying dates have advanced by 9 days during the 1990's. Using climate projections for 2070-2099, they predicted that first laying dates could advance by up to 25 days, whilst tipulid emergence was predicted to advance by only 12 days in the same period. The results suggest that warmer springs may result in a mismatch between first-laying dates and emergence of tipulids, with implications for chick survival³⁸. A subsequent study demonstrated that tipulid abundance is negatively correlated with August temperature the previous year and consequently golden plover abundance is negatively affected by August temperature two years previous. The authors concluded that the impacts of temperature increase on prey abundance could lead to extinction of golden plover over the next 100 years, depending on the magnitude of warming³⁹. Tipulids are also impacted by the lower soil moisture associated with drained peatlands but drain blocking can increase both soil moisture and tipulid abundance. Therefore, peatland restoration could be an important tool for increasing climate resilience of both tipulids and their avian predators, including golden plover⁴⁰. Adaptive management options, combining both increasing tipulid abundance and reducing nest and chick predation, could significantly reduce the risk of severe population declines and extinction of golden plover, highlighting the importance of site-based management for climate adaptation and species resilience⁴¹.

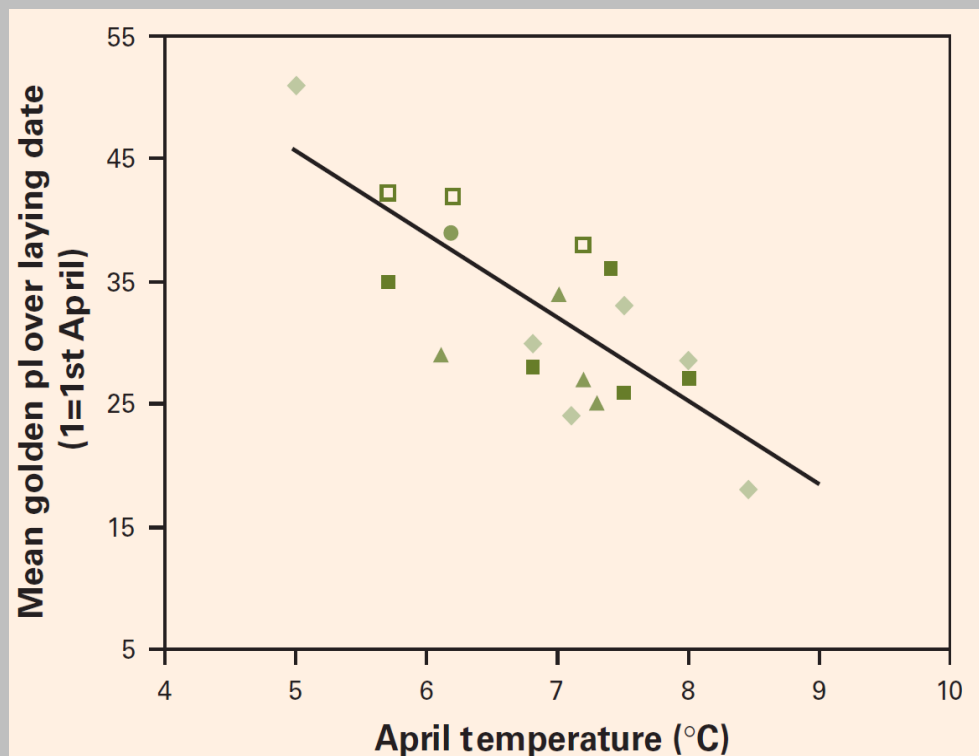


Figure 2: Correlation between mean first-clutch golden plover laying date and mean April temperature in the United Kingdom. Symbols relate to individual studies³⁸.

Landscape-scale approach

Despite hard-won successes in the past, the fact is that the current scale of conservation effort just isn't enough. UK and international targets to halt the loss of biodiversity by 2010 were missed and wildlife will need even greater conservation efforts to meet the challenges of the future. We need to continue to secure effective management and protection of nature reserves and protected areas, whilst undertaking targeted and effective nature conservation action in wider countryside to restore and recreate vibrant landscapes in which birds and other wildlife can thrive. Aichi Target 11¹⁵ aims to achieve "... ecologically representative connected systems of protected areas, integrated into wider landscapes and seascapes". Lawton *et al.* (2010) describe what must happen to deliver this⁴², illustrated in Figure 3 and summarised as follows:

- creation and management of new conservation sites (**more**)
- increasing the size of sites (**bigger**)
- improving the quality of sites through better management (**better**)
- enhancing connections between sites (**joined**)

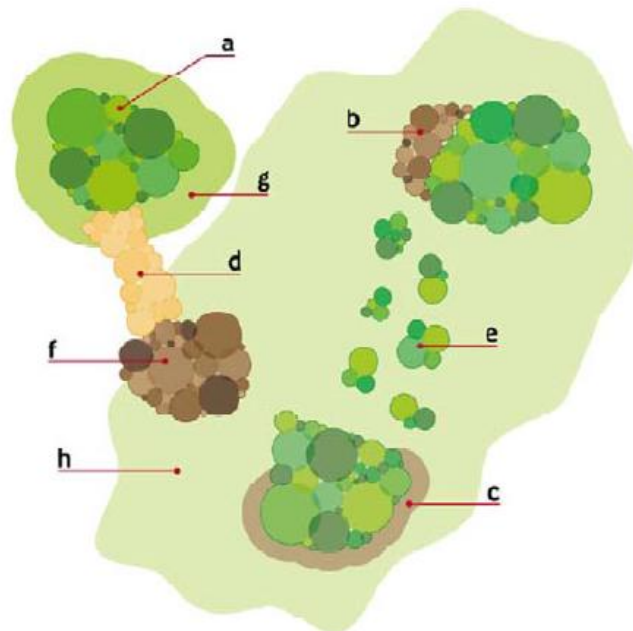


Figure 3: Notional, spatial representation of a landscape delivering an ecological network⁴² by (a) increasing site quality, (b) and (c) increasing site size through extension or ecotones, (d) and (e) increasing connectivity, where appropriate, using continuous or 'stepping stone' corridors, (f) creating new sites, and (g) and (h) enhancing the wider landscape by buffering of sites or general improvements in sustainable management.

Landscape-scale conservation requires concerted governmental support to make it happen: support that recognises the huge contribution nature makes to the UK's economy and well-being, and provides in return an appropriate level of funding, over and above that already earmarked for species and site safeguards. There are some positive signals in Scotland that the government supports this approach. For example, the Scottish Rural Development Programme 2014-2020 now offers a cooperation fund which provides a mechanism for securing sustainable land management beyond single farm level⁴³; and SEPA aims to be much more strategic and use a partnership approach to secure delivery of the second cycle of river basin management plans⁴⁴. Forestry Commission Scotland has long recognised the benefits of a landscape-scale approach and is involved in a number of landscape-scale restoration projects⁴⁵. A number of NGOs also realise the benefits of influencing land management in the wider countryside, including Scottish Wildlife Trust with their

Living Landscapes programme and John Muir Trust's rewilding work. The RSPB also has a programme of landscape-scale conservation called Futurescapes. Within these landscapes we use the full conservation toolkit to secure the best outcomes for nature, including protection and management of existing high quality habitat including protected areas and our own reserves, restoration of degraded sites and recreation of lost habitat. This is supported by novel research, policy and advocacy, community engagement and advisory work to secure sustainable land management in the wider landscape outside of reserves and protected areas.

Influencing land management outside of the protected area network and reserves is challenging – but essential. Land-based businesses, namely agriculture and forestry, affect 92% of Scotland's land area¹ and have contributed to the declines of natural habitats previously discussed. Targets for renewable energy development, forestry expansion and food production can sometimes be in direct conflict with protected area objectives but can also offer significant opportunities for enhancing or complementing protected areas. Therefore, a coordinated, integrated and strategic approach must be taken to land use in Scotland if we are to protect and enhance natural heritage in the wider countryside. This is not currently happening. However, the Scottish Land Use Strategy⁴⁶ and National Planning Framework 3 should provide a mechanism to guide and inform the choices we make about land use and land management at a national, regional and local level in Scotland. It will be critical that these policy instruments have the concept of ecological networks, including but not confined to protected areas, at their heart.

The role of SNH

- **Leadership and ambition:** SNH is funded by Scottish Government and its duties are to: secure the conservation and enhancement of nature and landscapes; foster their understanding and facilitate their enjoyment; and promote their sustainable use and management^{47,48}. With statutory responsibility for nature conservation, SNH must lead by example, starting by demonstrating full commitment to preserving our most special sites, securing the equitable and effective management of protected areas. Protected areas have the potential to deliver so much more for species and habitats. However, progress towards site improvements has stalled in recent years. The target to achieve 95% of protected areas in favourable condition by 2010 was missed and subsequently dropped by Scottish Government in favour of an unquantified target to “*improve the condition of protected nature sites*”⁴⁹. This is a disappointing indication of a lack of ambition regarding delivery of protected area objectives. As a consequence, between a quarter and a fifth of designated features remain in unfavourable condition and there has been little progress in improving condition in recent years. This need not be the case: protected areas targets can be met with effective management and adequate resources (Example 5). **Scottish Government, and SNH, must reinstate the target of achieving favourable conservation status at 95% of sites for which on-site remedies are available and commit to identifying policy and funding mechanisms to deliver offsite remedies.**
- **Regulation:** SNH has a number of legislative tools which could be used to deal with some of the key pressures impacting on feature condition. For example, the Hill Farming Act 1946 as amended by the Wildlife and Natural Environment (Scotland) Act 2011 and the Climate Change (Scotland) Act 2009⁵⁰ provides statutory restrictions on moorland burning, which is one of the top 10 pressures impacting on feature condition⁵¹. Despite the availability of statutory levers, there is an over-reliance on voluntary or incentive-based measures and a reluctance to enforce legislation, resulting in ongoing damage of protected areas (Example 6). **SNH should fully utilise the regulatory tools at their disposal to reduce the pressures on protected areas.**

Some pressures, such as agricultural operations, water management and water quality, are the responsibility of other statutory agencies and are influenced by wider EU policies such as the Common Agricultural Policy (CAP) and the Water Framework Directive (WFD). For example, SEPA is currently developing the second cycle of river basin management plans to deliver WFD objectives. These plans have the potential to secure improvements in water management and water quality affecting protected areas. However, protected areas are not currently a key consideration for prioritisation of action. In addition, some of the water quality standards required to reach good ecological status under WFD are not high enough to meet the water quality required to reach favourable condition for priority species, such as freshwater pearl mussels (SNH, *pers comm.*). **SNH should work with the relevant agencies to ensure that all available policy instruments are used to improve the condition of protected areas.** Where necessary, SNH should exercise powers under Section 12 of the Nature Conservation (Scotland) Act 2004 to advise such other bodies of the steps that should be taken.

- **Monitoring:** Outputs of SNH's Site Condition Monitoring (SCM) Programme indicate a positive trend in the percentage of natural features in favourable condition, which is reported to have risen from 71.4% in 2005 to 78.8% in 2014¹⁴. However, the figures reported are misleading for several reasons:
 - The 2005 figure is not comparable to the 2014 figure because the "unfavourable recovering (management change)" category is absent in 2005. This makes 2007 the first comparable year. The percentage of features in favourable condition changed from 76% in 2007 to 78.8% in 2014.
 - Only a small proportion of features are monitored each year and the results are added to a cumulative annual total. Regardless of their condition status, the features added will have little impact on trends represented by the cumulative annual total. Hence, increases and decreases in overall feature trends will not be discernible using this method of reporting.
 - We question why, over this nine year period, more features are not moving from unfavourable recovering to favourable condition if, as the figures suggest, adequate measures have been identified and employed for them to qualify as unfavourable recovering during this time.

SNH should commit to developing a monitoring system which can adequately measure the impact that conservation interventions are having on feature condition, and thereby to 'benchmark' and track progress towards favourable condition. This would benefit both land manager and statutory agencies.

- **Funding:** Financial resources are a major limiting factor on action to protect and restore biodiversity. Therefore, coordination, prioritisation and targeting of funds where they will have most positive impact is essential. The Common Agricultural Policy (CAP) represents a major investment of public money in Scotland's rural areas (c.£600 million in 2015/16) but too little of its budget is invested in achieving environmental outcomes. The new 'green payment' in Pillar I of the CAP (c£131 million in 2015/16) is welcome in theory but will do little to halt declines in biodiversity across farmland due to the weakness of the measures within it⁵². The agri-environment-climate scheme in Pillar II of the CAP (the Scottish Rural Development Programme (SRDP)) is therefore the main mechanism available for incentivising land management tailored to specific species and habitats and for designated sites. Adequately targeted, species-specific agri-environment schemes have proved effective at increasing populations of some bird species, for example corn bunting⁵³ and corncrake²⁶. The new scheme launched in 2015 will receive c.£47 million but this budget is severely overstretched. Scottish Government had the opportunity to transfer 15% of funds from Pillar 1 to Pillar 2, which would have made more money available to secure sustainable development of rural areas. However, only 9% was transferred. Of the funds

available to Pillar 2, more could have been allocated for agri-environment to secure conservation objectives but this opportunity was missed. Given the importance of agri-environment measures for securing protected area management and the need to green the CAP more widely, **SNH should engage more proactively and constructively in EU level and national conversations which dictate and target the funds available for nature conservation in Scotland.**

Other large pots of EU money are available to secure nature conservation, such as Interreg and the EU Life programme. The EU Life programme supports environmental, nature conservation and climate action projects in Europe. Scotland has benefited from Life projects aimed at machair, raised bogs, blanket bogs, oak woodlands, seabirds, Atlantic salmon, capercaillie, freshwater pearl mussel and hen harrier, amongst others. Across the UK, NGOs have managed 80% of the projects⁵⁴, ensuring that many millions of pounds were secured and spent on conservation projects in local communities, which delivered for habitats and species. Statutory agencies in England and Wales have recently taken a more strategic approach to funding for protected areas. Natural England, in partnership with the Environment Agency, is leading a Life project developing an improvement programme for England's Natura 2000 sites (IPENS). The two year project aims to develop a strategic approach to achieving favourable condition of England's 338 Natura sites⁵⁵. Natural Resources Wales is leading a similar project, producing a strategic framework for the management and restoration of all Natura sites in Wales, including both terrestrial and marine sites⁵⁶. **RSPB Scotland would like to see SNH take a similar approach and coordinate a structured Life programme securing favourable condition of all Natura sites in Scotland.**

Example 5: Condition Target Report of DFC Partner Organisations - Snapshot at 4th November 2014

Organisation	Total Features	Not Assessed	To be Identified	Net Features	Assessed Favourable	Recovering Due to Management	Partially Recovering	% favourable	No On-site Remedy	% Favourable incl. NOSR	Unfavourable Features
Crown Estate	411	18	0	393	310	8	3	81.7	62	97.5	11
DIO	334	17	0	317	247	6	8	82.3	47	97.2	9
FES	421	6	0	415	300	40	50	94.0	5	95.2	24
JMT	76	0	0	76	57	5	1	82.9	1	84.2	14
NTS	367	14	1	352	261	13	14	81.8	35	91.8	31
RSPB	672	22	0	650	516	17	12	83.8	67	94.2	40
SNH	704	23	0	681	520	41	23	85.8	69	95.9	33
SWT	309	12	0	297	202	21	29	84.8	31	95.3	16
Scottish Water	312	9	0	303	230	6	5	79.5	37	91.7	25

Example 6: Use of regulation: Burning within protected areas and on peatlands

The Muirburn Code⁵³ outlines the statutory restrictions on moorland burning in Scotland, as set out in the Hill Farming Act 1946 as amended by the Wildlife and Natural Environment (Scotland) Act 2011 and the Climate Change (Scotland) Act 2009. This legislation makes clear that it is an offence to carry out burning “...on a Site of Special Scientific Interest, without consent from Scottish Natural Heritage, if burning has been notified as an ‘Operation Requiring Consent’ [Nature Conservation (Scotland) Act 2004, s19]”. The Muirburn Code further recommends that blanket bogs and raised bogs on deep peat (more than 0.5 m - about 20 inches - deep), unless heather constitutes more than 75% of the vegetation cover, should be “fire-free” areas. However, Douglas *et al.* (2015) found that the proportion of moorland burned was significantly higher inside Natura 2000 sites, than on comparable squares outside protected areas⁵⁷. The majority of these Natura sites are underpinned with a SSSI designation, so it can be assumed that burning on SSSIs is also widespread. Douglas *et al.* (2015) also found that the annual number of burns from 2001-2011 increased significantly and a third of burned squares in Scotland and England were on peat $\geq 0.5\text{m}$, peaking at depths of 1-2m⁵⁷. It is not clear how much of this activity has been permitted by SNH, either because muirburn is not an ‘operation requiring consent’ or because consent has been granted, but burning can significantly alter vegetation composition and can reduce abundance of peat forming species such as *Sphagnum spp.* mosses. Burning has been found to be a contributing factor in unfavourable status of 87% of unfavourable upland bog features in Scotland⁵⁸. These data indicate that SNH must do more to monitor compliance with the relevant legislation and take a stricter stance when granting permission for muirburn within designated sites and on deep peat.

References

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Annex 1 – RSPB Scotland’s response to ‘Protected areas for nature – review’

SNH commissioned an independent panel review to answer the question: ‘what are protected areas for?’. Their report makes a number of non-specific recommendations about the future of protected areas in Scotland.

Interpreting and responding to this document is problematic because it is ambiguous on several important levels. It might be construed that it has been written to provide ‘something for everyone’ and yet, in this, it fails to deliver clear direction because the future of our protected areas is a critical matter about which there are diverging views. Some elements of the text, if seen in isolation, we would agree with (for example the report recognises that protected areas work, that without them biodiversity would be worse off, that if we didn’t have them, we would need to invent them, and that protected areas alone are not enough to halt and reverse the loss of biodiversity). Others we would very strongly oppose. We have serious concerns about how information is interpreted and how conclusions and next steps are determined. Our overall conclusion, in as much as we can draw one, is that this paper may enable government and officials to do much less constructive nature conservation and monitoring in Scotland’s very best wildlife sites.

We outline our key concerns below.

- The ambiguous language used makes it unclear what is being recommended regarding the future of protected areas. Is it suggesting that we use Lawton¹ principles to build a bigger, better and more connected protected area network, supported by wider countryside measures? Or is it proposing making a direct trade-off, using the uncertainties of climate change to justify reducing investment in protected areas in favour of other less tangible measures? We fully support the former but **believe that measures across the wider landscape can only be successful with well managed protected areas at their core**. It is inappropriate to suggest that we must choose between protected areas or wider countryside measures. Both are needed to halt biodiversity declines.
- The report does not present or highlight any novel ideas or information – yet it presents itself as an innovation:
 - The text notes that protected areas are important but alone will never be sufficient to conserve nature. We agree but point out that the truth of this has been understood for well over a century². The report wrongly presents this understanding as something new. Yet it then proceeds to imply that this insufficiency somehow implies a ‘failure’ in the protected area system, requiring –perversely – that efforts and targets in protected areas should be scaled down:
“Protected areas have contributed significantly to the safeguarding of nature” (para. 9).
“On their own they would have no chance of doing more than slightly stemming the tide” (para. 10)
 - It is well understood that protected areas have made a significant contribution to nature conservation³
 - It is well understood that anthropogenic pressures and climate change are putting increasing burden on the natural environment

¹ Lawton (2010). Making space for nature: A review of England’s Wildlife Sites and Ecological Network. Submitted to the Secretary of State, the Department for Environment, Food and Rural Affairs

<http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf>

² Webb, W.M. (1913). The Nature Reserve Movement in Britain. *Journal of Ecology* 1; 1.

³ Donald, P. F *et al.* (2007) International Conservation Policy Delivers Benefits for Birds in Europe. *Science* 317; 810-813

- The fact that nature is dynamic and changes is obvious and very widely understood and appreciated⁴; we contend that the protected areas system is not in any way a denial of this dynamism.
- It is well understood that the protected areas network must be supported by wider measures beyond protected areas if we are to halt biodiversity declines. This is why NGOs have taken the initiative, developing landscape scale conservation programmes such as RSPB's Futurescapes and the Wildlife Trusts' Living Landscapes.
- We know that a policy shift is required to secure sustainable land use practices in the wider countryside. The Scottish Land Use Strategy aims to provide a framework for this and must receive the full backing of SNH and other Government bodies.
- The report doesn't adequately explore or address the reasons why the protected area network has not realised its full potential - for example the effects of inadequate resource allocation and reluctance of statutory bodies to use regulatory tools. Nor does it recognise that the NGO sector has shown, with effective management, that protected areas targets can be exceeded.
- The report then moves to a conclusion that, as budgets are finite and climate change generates uncertainties, investment of money, time and trouble for conservation in protected areas should be reduced. It presents this as a modern paradigm and is explicit that any focus on targeted habitat and species measures is out-dated, and a core driver of this posited 'failure'. We strongly disagree with this conclusion and maintain that the rationale behind it is flawed.
- Budgets are finite, and shrinking, yet the report does not address the fact that SNH are not fighting budget cuts. We would rather see SNH make a stronger case for nature in the face of austerity than lower their ambition
- It makes very strong assertions without providing supporting evidence. For example, regarding the overall objectives outlined in para. 17, we are extremely concerned by the statement "*We believe that all of these are valid and important but, for reasons outlined above, we have concerns about the scale and style of the current emphasis on the first, including the perverse impact of this on the others.*" (para. 18). Well managed protected areas can and do meet the needs of the designated features whilst increasing biodiversity, delivering multiple benefits and increasing resilience to climate change.
- It fails to recognise that protected areas were selected because they represent some of our most precious species and habitats – is it suggesting that we should be prepared to let these go?
- We categorically disagree that the Habitats (1992) Directive and Birds (1979, 2009) Directive are a 'command-and-control' framework. They simply provide the necessary *regulatory* framework within which land owners and managers operate. Their efficacy at conserving biodiversity is a matter of record. This is much less the case for the posited 'solely collaborative' framework that para. 53 suggests as an alternative. The EU Life+ funding programme, designed to help deliver the requirements of these Directives, already actively encourages and supports collaborative working and community engagement – a scheme that Scotland has greatly benefitted from.
- We contest that progressing with any one of these dilutions of the protected area system would be a mistake. The proposals are neither evidence-based nor logical. If read in isolation and implemented without wider analysis, they constitute a threat to the most treasured elements of the Scottish natural heritage and, unchallenged, they would undermine future efficacy of biodiversity conservation in Scotland.

⁴E. A. Woodruffe-Peacock (1913) *Change of Climate and Woodland Succession. Journal of Ecology Volume 1.1*