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Highland LBAP Review

Highland Biodiversity Plan

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Project manager: Dr Peter Cosgrove
Researcher/reporter: Diana Gilbert and
Mr Stephen Corcoran

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EnviroCentre
Craighall Business Park
Eagle Street
GLASGOW
G4 9XA

t 0141 341 5040
f 0141 341 5045
w www.envirocentre.co.uk
e info@envirocentre.co.uk

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Highland LBAP Review: HIGHLAND BIODIVERSITY ACTION PLAN

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HIGHLAND BIODIVERSITY ACTION PLAN

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1. BACKGROUND

Until the Highland Biodiversity Partnership was formalised in 2005 the focus for LBAP delivery in the Highlands was through local area Biodiversity Action Plans (BAPs). In 2001 a document entitled *A framework for biodiversity in Highland*¹ was produced which outlined some of the key biodiversity interests in the area, summarised across the broad habitat types and identified opportunities for action. It was within this framework that the seven (excluding Cairngorms) area BAPs were produced between 2001 and 2004 for Highland region.

During this time, biodiversity focused projects have been delivered across Highland through the activities of numerous agency, Non Government Organisations (NGOs) and local environmental group initiatives out with the banner of Highland Biodiversity. These projects have tended to serve the purpose of the commissioning body and have not necessarily been related to any Highland or local priorities as set out in the area BAPs. The lack of delivery relating directly to Highland biodiversity has caused concern and in 2004 a Highland Biodiversity Project was set up to provide funding to area groups for delivery of biodiversity projects relevant to their area BAPs. Both the framework and the area plans identified opportunities for action but not short-term targets for delivery. This combination of issues lead to the Highland Biodiversity Partnership commissioning work at the area and Highland levels to ensure progress on delivery (Area Implementation Plans and the Highland Biodiversity Action Plan respectively).

The culmination of all this activity is this document, *The Highland Biodiversity Action Plan* (Highland BAP). This has been drawn from the review of the eight area biodiversity action plans with the purpose of identifying strategic issues and utilising the 2005 and 2006 Highland Biodiversity Forum² workshop outcomes to identify strategic issues. Local area biodiversity groups were also invited to contribute what they considered to be the strategic issues that needed to be addressed at the Highland level.

2. PURPOSE

The purpose of the Highland BAP is to provide a short-term (five year) focus for activity to address strategic issues arising out of the local area BAPs. It has become clear that in order for further progress to be made, particularly to address specific negative impacts across the Highland area, action is required at a more strategic level. This plan identifies these strategic issues and sets out mechanisms and opportunities for addressing them. The Highland BAP will also act as a work programme for the members of the Highland Biodiversity Partnership. For further details on the role and remit of the partnership, please see Annex 1.

3. HIGHLAND BIODIVERSITY

The parallel review of habitats and species in Highland has established that Highland holds at least 44% (166 species) of the most threatened and high priority species listed on the UKBAP list³. No other area in the UK supports this number or proportion of threatened UK BAP species, which means that Highland is the most important place in the UK for threatened, rare and declining

¹ The Highland Council (2001) A Framework for Biodiversity in Highland. The Highland Biodiversity Partnership, Inverness

² www.highlandbiodiversity.com

³ www.ukbap.org.uk/species.aspx

biodiversity. The following brief accounts (3.1-3.3) are summaries of the key findings of the species and habitats review (reported fully elsewhere). Highland also holds large proportions of several important habitats including 35 out of 45 of the UK's Priority Habitats, which is reflected in the high number of threatened and rare priority species associated within these habitats.

3.1 UK BAP Priority Species and Habitats

The level of information available on the presence or absence of UK BAP Priority Species and Habitats is relatively good and up to date for Highland. Unfortunately the available data does not allow (except for one or two very well researched species or habitats e.g. corncrake and native pinewood) for comparisons of status across the 7 local BAP areas. Taxonomic groups where recent national Atlases have been completed (e.g. Butterflies and Flowering plants) usually hold information at the 10km sq tetrad level for Priority species.

3.2 UK Species of Conservation Concern

The level of information available on the presence or absence of UK Species of Conservation Concern at a Highland level is mixed, being relatively good for some well-researched species and non-existent for poorly researched species. There is little data on presence, or absence or discernable trends in status across the 7 local BAP areas. Some taxonomic groups, where recent national Atlases have been completed (e.g. Butterflies and Flowering plants), usually hold information at the 10km² tetrad level for Species of Conservation Concern.

3.3 Locally Important Species

Each LBAP area listed species which local members considered important. In many instances, the information on these species (unless co-incidentally UK BAP Priority species) is generally very poor. Where information is known it is likely to have been the focus of a local survey and such data tends to have been collected on a different geographical area basis e.g. the Assynt parish, rather than say the Sutherland BAP area. Some taxonomic groups, where recent local atlases have been collated (e.g. mammals and bumblebees), usually hold information at the 10km² tetrad level.

4. THE POLICY FRAMEWORK

Although still largely based on the voluntary principle, policy in the UK and Scotland has recently moved significantly towards protecting and looking after environmental assets, and in particular biodiversity. The Wildlife and Countryside Act of 1981 still provides the legislative backbone for species and habitat protection through schedules and designations. The recent Nature Conservation (Scotland) Act (2004) now takes this further to a duty on public bodies to "*further the conservation of biodiversity*". The Scottish Executive has set out a description of what this means⁴, and produced a Scottish Biodiversity List⁵ of flora, fauna and habitats considered to be of principal importance for biodiversity conservation in Scotland. The recent changes in agricultural support certainly add weight to this trend with the introduction of Good Agricultural and Environmental Condition (GAEC)⁶ linked to Single Farm Payments.

⁴ <http://www.biodiversityscotland.gov.uk/pageType2.php?id=6&type=2&navID=28>

⁵ <http://www.biodiversityscotland.gov.uk/pageType2.php?id=35&type=2&navID=92>

⁶ Good Agricultural and Environmental Conditions (GAEC) - The Scottish Framework, <http://www.scotland.gov.uk/Topics/Agriculture/grants/Schemes/CrossCompliance/GAEC>

Commitment to “*respecting the limits of the planet’s environmental resources and biodiversity*” is one of the five principles on which the UK and Scottish Sustainable Development strategies are based⁷. These, in turn, provide the context for the development of other strategies such as the recently developed Scottish Tourism Strategy that acknowledges the importance of the natural environment with claims that “*Scotland is now established as Europe’s leading wildlife tourism destination*”⁸. Biodiversity in Highland is a significant player in this achievement.

The natural assets of Highland have long been recognised as important and now feature in most strategic development documents. For example, in the latest Corporate Plan⁹ for The Highland Council (prepared before the Nature Conservation (Scotland) Act 2004 was enacted), one of the measures is the preparation of the compliance report on the Council’s duties relating to biodiversity. The Highland Council’s sustainability policy, as with that of Highlands and Islands Enterprise¹⁰, is aimed at progressively taking account of environmental impacts, with resulting benefits for biodiversity. One of the themes of the last structure plan was the adoption of a proactive approach to the wise use of the natural environment, and it is within this context that the most recent Local Plans have been developed. For example, the first strategic theme in the Ross & Cromarty East Local Plan¹¹ is *Conserving and promoting the identity of Ross & Cromarty East* and the supporting statements identify, among other things, a number of key habitats and sites with important natural heritage features.

With this growing policy emphasis highlighting the importance of biodiversity and the dependence of key industries on a healthy and clean environment, the need for careful management of these assets is clear. As the UK’s most important area for UK BAP species and habitats the consequences of poor management are clear. As the flagship area for UK biodiversity, Highland should be setting an example in good management and promoting its achievements at every opportunity.

In many cases, the effective implementation of these policies is through constructive partnership between public bodies and local community initiatives, synchronising Highland initiatives with practical local biodiversity action.

5. REVIEW OF EIGHT AREA BIODIVERSITY ACTION PLANS

The review of the eight Highland area biodiversity action plans (area BAPs, including Cairngorms as specifically requested) assessed both the issues identified in each area and the actions listed to address them. These aspects were assessed using the framework themes agreed with the Highland Biodiversity Partnership at the start of this process. For the details of these assessments and the framework themes see Annex 2.

⁷ SE 2005 Choosing Our Future: Scotland’s Sustainable Development Strategy, www.scotland.gov.uk/Publications/2005/12/1493902/39032

2005 Securing the Future - UK Government sustainable development strategy, The Stationery Office www.sustainable-development.gov.uk/publications/uk-strategy/index.htm

⁸ VisitScotland 2006 Scottish Tourism: The Next Decade - A Tourism Framework for Change, Scottish Executive www.scotland.gov.uk/Publications/2006/03/03145848/0

⁹ The Highland Council CORPORATE PLAN 2004 – 7 www.highland.gov.uk/NR/rdonlyres/744F532E-E758-442F-8EA1-9D93DA6771CD/0/corporateplan.pdf

¹⁰ Sustainable development and the HIE network - the way ahead www.hie.co.uk/sustainability-plan.htm

¹¹ Ross & Cromarty East Local Plan Written Statement 2006 <http://195.173.143.171/plintra/devplans/race/dep-draft-mods2/written-statement.pdf>

Sixty-one different issues were identified from these eight documents across the broad habitat categories, with 637 different actions identified to address them. In general, throughout the seven core local Highland areas there was a moderate degree of agreement between the prioritisation of these different issues, with raising awareness being the highest, and gathering information and policy and appropriate strategic measures jointly second.

However, most (550) of the 637 actions identified by local area BAPs (86%) related to only 3 of the 8 strategic themes discussed in Section 6 (lack of awareness of Highland biodiversity, lack of information on Highland habitats and species and lack of appropriate policy or strategic measures). This does not mean that the remaining strategic themes were not considered important by local BAPs, merely that some issues or themes are best dealt with at a local level (through the BAP groups) and others are more strategic and perhaps best tackled by the Highland Biodiversity Partnership. It is the intension of the partnership to take forward action on these issues that were largely omitted by the local groups.

Inclusion of the Cairngorms LBAP doubled the number of actions addressing habitat loss, inappropriate management, invasive species and pollution, erosion and climate change issues. It would be tempting to infer from this that the Cairngorms plan is more orientated to directly addressing issues on the ground, whereas in general across Highland the interest is in raising awareness, finding out more or re-directing the problem to agencies to tackle through policy change or incentives. However, this would be simplistic as the process used to develop the action plans was different in the Cairngorms from the rest of Highland.

The terminology used in the Cairngorms LBAP is similar with that used across the rest of Highland (and in LBAPs in general) but the layout suggests a quite different approach was used to determine the actions. The eight framework themes adopted for this review had been used in the Cairngorms LBAP during its development, resulting in a final document with a structure differing from the other Highland plans. It should also be noted that there is a Biodiversity Project officer for the Cairngorms LBAP area whose role is focused on the development and implementation of projects to deliver the plan with partners. The remaining local Highland area plans were written in the absence of a specific delivery mechanism in the knowledge there would be dependency on the voluntary action of each of the area groups.

During this review all the issues and actions have been allocated to the framework themes, a process which is a matter of qualitative judgement and not quantitative science. Annex 1 summarises the issues and actions from all eight plans as part of the process of identifying the priority strategic issues across Highland.

The links between the projects identified in the Highland BAP and Area Implementation Plans and the UK and Scottish BAPs are identified and summarised in the accompanying document *'HBAP all projects table'*. Every local area project has a direct link (or indirect link in the case of the Highland Soil Biodiversity project) to the UK and Scottish BAPs and their implementation contributes to the delivery of these national priorities. However, some projects are so far-sighted that they go beyond the current UK BAP priorities e.g. the West Sutherland Elver Project, and tackle species like European eels, that will be included in the revised UK BAP Priority species lists. European eels are

the fastest declining UK vertebrate (>98% decline) and so local action taking in place Highland could be seen as an exemplar of best practice possible at the local level.

6. HIGHLAND STRATEGIC ISSUES

Three sources have been used to identify the strategic issues that have been taken forward as key areas to address in this plan. Firstly, a process was initiated at the 2005 Highland Biodiversity Forum (HBF) to identify key issues. The outcomes of this process were a series of lists of issues, too long to address in this plan. At the 2006 HBF these were summarised and workshops were asked to identify the three that they considered caused the main blockages to delivery at local level.

There was almost unanimous consensus among the three workshops about the priority of issues from the list provided.

- The lack of a fully functioning Highland-wide biological recording system;
- The lack of capacity in area biodiversity groups to deliver; and
- The lack of control and continuing spread of invasive non-native species.

The review of the area BAPs provided the second source of strategic issues and the third was feedback from area groups during the initial meetings when developing area implementation plans.

To the initial list of three priorities above, the following issues were added to make up the full list of strategic issues to be addressed in this action plan.

- The general lack of awareness across the Highland population about habitats and species and factors affecting them;
- The lack of sensitivity in the construction and maintenance of roads, and in the selection and management development of sites;
- The lack of locally sensitive incentive schemes;
- The lack of reference to, and neglect of, soil biodiversity;
- The lack of progress on marine issues in general;
- The lack of sources of native plants, particularly wildflowers; and
- The lack of control of wild harvesting.

The general environmental issues of agricultural and marine waste featured prominently in the area plans. Apart from beach clean ups, little action has been taken on these issues. It is felt that some aspects of these (such as disposal of litter and chemicals) fit into existing regulatory mechanisms which perhaps require better policing and control or refined targeting of resources. Other aspects, such as agricultural plastics and beach debris are primarily environmental issues with only secondary consequences for biodiversity. Elements of these issues relating to the marine environment were encompassed in the more general issue of neglect of the marine environment.

Another issue raised was the need for better evaluation of the socio-economic benefits of biodiversity. Many evaluations have been undertaken in recent times into of the value of the natural environment in its entirety or from a particular sectoral perspective. It would be worth assessing whether it is possible to construct a coherent story in relation to the socio-economic value of biodiversity in Highland from existing sources and communicating this effectively, rather than commissioning new research.

Each of these issues, set within its framework theme, is explained below. Section 7 sets out proposals for addressing the issues.

6.1 Lack of Information

6.1.1 Biological recording

Biological recording was identified as a critical issue through the 2005 HBF annual meeting and confirmed as such at the 2006 meeting. This issue featured as a key issue in the area BAPs and was agreed as important at many of the local biodiversity group meetings.

A proposal to address this issue was raised in a paper entitled Highland Biodiversity Partnership: Funding Proposal (October 2005), as one element to be included in a broader capacity building project. The proposal included a figure of £45K for surveying, survey training and information capture on the basis of involving the public in biodiversity. This only dealt with some of the problems identified during this review and which have been outlined below.

The elements of the issue that have been raised by local groups were:

1. No clear focused repository for, or distributor of Highland data and species/habitat information. Current arrangements do not have sufficient resources or prioritisation within their existing agency support structure;
2. Collection of data is unsystematic and largely un-collated. Data collection often tends to be single objective focused and not undertaken in ways that lend themselves to collation into broader biodiversity data collections;
3. Data collection is fed upwards to national collation systems but complete Highland, or sub-Highland level data is not readily retrievable; and
4. Data collection skills (identification, surveying) generally are limited within local groups.

The on-going development of the Highland Biological Recording Group (HBRG) means the group now holds a good dataset and is now the recognised place to submit Highland records and request information and datasets. The group is limited by resources and additional expenditure/support for the HBRG by the Highland Biodiversity Partnership would expand and consolidate the important work undertaken to date.

There appears to be consensus that a useful recording system would not only collect and hold information on Highland biodiversity (species and habitats) but include aspects of its protection, management and enhancement for:

- Feeding into national and international datasets;
- Retrieving by local areas for a range of purposes (e.g. establishing local wildlife sites for inclusion in The Highland Council (THC) planning processes, identifying gaps, focusing management effort);
- Use in formulating strategic policy on the siting of developments, e.g. Local Plan revisions;
- Use by developers to better find sites and to manage site works to reduce impacts on biodiversity;
- Use by tourism providers for location information and access to images and information; and

- Use in developing locally sensitive incentive schemes to focus positive land management (e.g. Land Management Contracts).

A large investment from the voluntary sector has been made in gathering information, and in the case of the HBRG, in collating and making available information about Highland wildlife and plants. However, as a membership organisation HBRG cannot, as currently supported, be expected to fulfil the overall Highland need on an informal basis. In short, there appears to be a need for a complete appraisal of the scope and potential role of a Highland wide recording system and how it might be financed in the long-term. On-going discussions have been underway since 2004 with the HBRG to take these issues forward the issues raised by local groups.

This is an opportunity to coordinate future species and habitat surveys across the area through forward planning that includes high levels of local involvement. Currently it appears bodies/agencies that commission or undertake survey work in isolation of broader Highland BAP interests, all but ignoring local area BAP needs or wishes. Furthermore, it would be a significantly progressive step to engage with local communities or environmental groups, offering to train and employ local people in some of these surveys (work has been done across Highland by volunteers with communities under the banner of the HBRG). This approach has been shown to work in the Cairngorms and has recently been adopted in Dumfries.

6.2 Lack of Awareness

6.2.1 Highland Biodiversity

With Highland supporting nearly half (44%) of UK BAP Priority species it is important that everyone is aware of and takes some interest in the importance of Highland's biodiversity. Yet the most frequently cited actions within the area BAPs, which were emphasised at the 2006 HBF meeting on April 1st, were those addressing lack of awareness. There is some debate about the general level of appreciation of biodiversity within the general public but it is perceived that a lack of awareness or knowledge is still leading to loss of habitat and decline in species. A simple example is the small number of domestic cats in the countryside that wear collars with bells to warn wildlife of their presence.

Lack of awareness spans all sectors of the community from gardeners and land managers to those developing incentive schemes, codes of practice and guidance accompanying them. Without considerable effort invested in policing land management activities and compliance with legislation, we are largely dependent on raising the general levels of awareness thereby making it far more difficult for digressions to occur and go unnoticed. The publicity campaigns run in a number of areas to alert the public to illegal freshwater pearl mussel fishing is a good demonstration of the effectiveness of such campaigns.

Perhaps the single most important action would be for all THC literature and that of local partner organisations to raise this **44%** figure at every opportunity when describing the attributes of the area. If everyone within the region realises that Highland is the most important place in the UK for threatened habitats and species, then the general level of biodiversity awareness is likely to increase.

6.2.2 Lack of sensitivity in the construction and maintenance of roads, and in the selection and management of sites

This is an issue that has been ongoing in Highland for a considerable time. To a large extent the Environmental Impact Assessment legislation should provide for the identification of issues of site selection and provide for the provision of mitigation measures for protected species (e.g. mammals) during and following development. However, experience with new roads, for example in relation to otters on Skye, does not bear witness to the effectiveness of this mechanism. The EIA legislation does not cover existing roads and their impacts, nor relatively minor road maintenance exercises that change the nature of key elements of the road, verge and drainage channels. This issue primarily relates to the lack of knowledge amongst those developing proposals and those implementing them and their understanding of the implications of getting it wrong. There is an issue relating to the lack of knowledge about how significant the losses on roads are, especially for protected species, such as otter and red squirrel.

Practical measures have been taken in the Cairngorms National Park in respect of new developments where a leaflet about biodiversity and development is sent out with every planning application form. THC have produced draft guidance on the production of a Sustainable Development Statement, which is now required by all except householder planning applications. The concept of biodiversity planning gain is now beginning to gain ground elsewhere, literally in East Dunbartonshire where a policy of two for one replacement is being developed. This policy is based on a hierarchy of sites and relates to the protection of most important sites, and a two for one replacement of habitats lost in those sites that are not designated or protected in any way. For example, if a housing development was likely to result in the loss of 5ha of non-designated birch woodland, then the council would expect to see the targeted creation of 10ha elsewhere in consultation with planners/ecologist.

Tackling this issue falls within THC's obligations under the Nature Conservation (Scotland) Act 2004, and is now within the Highland Biodiversity Officers' job remit to work with the THC Services on projects related to the strategic issue of road maintenance and mammal casualties.

6.2.3 Lack of reference to, and neglect of, soil biodiversity

Soil is rarely acknowledged as the fundamental element of all terrestrial habitats it undoubtedly is. Soil has similarly been ignored as a habitat in its own right and as a repository for a vast number of different organisms. Soil biodiversity is hardly mentioned in any of the area BAPs or the Highland biodiversity framework. However, the subject has recently received an increased profile from SEERAD and is now attracting greater attention. The key issue is one of almost complete lack of knowledge or awareness of soil related biodiversity and its appropriate management.

6.2.4 The need for concerted action on marine issues

The issues associated with Highland's sea and coast illustrates the difficulty of dealing with a habitat that is continuous, and for which there are few sensible geographical boundaries. It is indicative of these difficulties that to date there has been a low level of activity from the area biodiversity groups on marine issues and most of the coastal projects have centred on beach clean ups. In a concerted

effort to tackle marine issues effectively, the sea area around Highland is currently the subject of consultation over a proposal for a Regulatory Order relating to the control of fishing.

The Moray Firth coast has been listed as one of five 'biodiversity hotspots' in Scotland¹². To date there has been no strategic planning to specifically take account of issues facing this biodiversity interest around the Moray and Highland coast. It has yet to be seen whether the designation of the Moray Firth as a Special Area of Conservation under European legislation is the strategic measure necessary to protect and enhance the biodiversity of this important site.

6.3 Lack of Appropriate Policy or Strategic measures

6.3.1 Area BAP delivery

The issue of lack of capacity has been well demonstrated over the last few years in the struggle that some groups have had to spend funds provided for projects. There is no lack of enthusiasm or interest in most of the area groups, but when the majority of members are participating on a voluntary basis or on a short time allowance from their employer there is very little time either to develop or manage projects. To date the funding provided for implementation has not allowed for project management to be covered. The consequence is that the projects that have delivered effectively to date are largely dependent on a few volunteers, THC rangers and NGOs who donate their time and resources. The personal circumstances of those working on a voluntary basis often change and this can have dramatic impacts on the delivery of projects they may be involved with, that do not have any alternative delivery mechanisms.

The circumstances of each of the local area groups varies and their requirements consequently vary too. Some are constituted bodies with bank accounts, which carry a heavier administrative burden than the more informal set up of some other groups. Some groups have a willing voluntary secretary who undertakes all meeting secretariat responsibilities, others do not have anyone willing or able to take on that role, and others have a rotating secretary and so limited activity takes place outside meetings.

Most local area groups have raised the issue of lack of contact with other local Highland area biodiversity groups and with other Scottish LBAP groups. In addition, several groups acknowledged that they are not as representative of their area as they could be but cite the lack of resources as an issue in being able to engage with more people. Perhaps there is a link here that could be made with the Highland Wellbeing Alliance.

As with biological recording, this topic was raised prior to this work being undertaken and some agreement was reached on providing additional capacity to local areas at the same time as maintaining what is special about how the groups currently operate. However, this has yet to be implemented and following the development of the area implementation plans further discussion of the capacity building needs of areas may be useful.

¹² (Scotland's Biodiversity – an overview' by MB Usher, in Biodiversity in Scotland: Status, Trends and Initiatives p 5-21 ed Fleming LV, Newton AC, Vicker JA and Usher MB, SNH 1997

The ranges of functions that additional capacity could provide are:

1. To provide administrative support for the biodiversity groups (meeting secretary etc). In Sutherland, the Sutherland Partnership provides some administrative and financial support and this works relatively well, although this does not include taking meeting minutes. Other areas are dependent on organisation spare capacity (very rare) or volunteers (with variable success);
2. To co-ordinate the delivery of projects, liaise with HBAP officer, administration of grant claims;
3. Provide community facilitation on behalf of the area group, by initiating and maintaining contact with organisations in order to stimulate projects, provide advice, organise events. This role would need to complement that of local ranger services;
4. Project support, quality control and reporting; and
5. Project co-ordination. Where possible, the volunteer time in co-ordinating projects has been evaluated and included, as an in-kind contribution. This demonstrates the considerable value from and the dependence that is placed on volunteers. It also demonstrates why it is so difficult to generate projects and identify leaders for them.

Depending on which of the above functions are needed, the level of capacity might vary both in the skills required and therefore the level of remuneration. The proposals put to THC in 2005 include £2k per area per annum over 3 years. Depending on the skills required this would cover 3 days a month at £17k or 2.5 days a month at a £20K salary. This level of input could only address the first two bullet points above and so could essentially be described as an administration post with no requirement for biodiversity knowledge. This is the minimum input that will allow some groups to function more effectively, but it will not allow for any significant development or capacity building in the community.

Much of the additional capacity needed could be delivered on the basis of 2 days per week per area for which the overall cost would be in the order of £45,000 per annum. The requirements for each area are different and further discussions with each would better determine the particular level of support that is needed.

The determination of this issue does not form part of the Highland Biodiversity Action Plan as it is being dealt with elsewhere.

6.3.2 Locally sensitive incentives

Most area BAPs cite the lack of local sensitivity in the Rural Stewardship Scheme (RSS) and forestry grants as an issue. Future Agri-environment and forestry support will be administered and integrated through tiered Land Management Contracts (LMCs). In the recent past forestry has delivered a more regional focus through the establishment of Woodland Improvement Grants (WIGs), which provided incentive to address specific local issues, (for example the management of pine woods in the Cairngorms). This type of grant was further refined in the Locational Premia (LP) of the Scottish Forestry Grant Scheme and is expected to continue under the new arrangements. There is one drawback, as with tier 3 of LMCs, which is that they will become increasingly competitive as resources fall.

The relevance of scale requires to be addressed in this issue. Schemes which have a level of Highland sensitivity are a definite improvement but, as with the RSS, this can actually disadvantage some peripheral areas where different species and habitat priorities are prevalent. A sub-Highland level of sensitivity would be more appropriate, with the different areas agreed with the involvement of local biodiversity groups.

This issue does not require a project but would be more effectively addressed through the efforts of the individual partners in the course of their negotiations with SEERAD and FCS. There are already proposals for regional committees for LMCs but continuing support/pressure is needed to ensure they are established and benefit local biodiversity sensitivities. In the meantime, there may be some value in partners identifying with area groups the particular priorities for each area and ensuring that there is a reasonably consistent message being delivered to SEERAD.

6.4 Habitat and Species Loss and Fragmentation

6.4.1 Local sources of wild flowers

This issue has a number of elements. Most obvious is the development of well-intentioned projects to increase the prevalence of arable annuals on farmland. At present there is no outlet of suitable local seed for such projects and the seed is brought in from a supplier further south. This is potentially a serious issue for the local northern population of the cornflower, in particular, but also for local species which may have become specially adapted to conditions in the Highlands.

An equally serious aspect of this issue is that whilst there are no local native plants available gardeners unwittingly buy foreign varieties that have the capacity to become invasive and compromise the integrity of the native plants e.g. Spanish bluebell replacing our native bluebell.

6.5 Inappropriate Management

6.5.1 Uncontrolled wild harvesting

This issue is difficult to quantify as little data is available. Across the area BAPs wild harvesting of shoreline shellfish, dredging and trawling for shellfish and crustaceans has been raised as a serious cause for concern. This issue does not include illegal activity, such as freshwater pearl mussel harvesting. There is a Marine Regulatory Order currently being discussed as a mechanism to address this issue around the Highland coast. Before any additional action is taken, the potential success/effectiveness of this order should be established.

6.6 Pollution, Erosion and Climate Change

6.6.1 Agriculture and marine waste

These combined issues relate to a number of different aspects. One of which is the amount of litter-type waste that occurs on farmed land, in the sea and around our coasts. This is considered more of an environmental than a biodiversity issue and as such is not of primary concern to this initiative. The issues also include the run off of chemicals (pesticides and fertilizers), fuel and

lubricants from the same sources. Agricultural policy, and the impact of the Water Framework Directive are both beginning to ensure good practise in the use and disposal of such substances is developed and adhered to. Similarly there are moves to develop thinking on nutrient budgeting for farms. These issues have implications far wider than Highland and require to be, and are being, tackled at higher Scotland wide levels.

6.7 Invasive Non-native Species

6.7.1 The spread of invasive non-native species

There is a large range of invasive non-native species present in, and spreading towards, Highland. Some of those already present are best dealt with at the local level, such as those plants that are described as noxious plants and have specific legislative control. E.g. Japanese knotweed (*Fallopia japonica*) can be effectively controlled with appropriate partnership working. There is a Skye & Lochalsh project to continue control of this plant in its strongholds in the area.

For others species, such as American signal crayfish, SNH in the recently published draft species framework, proposes swift and immediate action following the detection of new populations.

There are some species though, particularly those yet to be classified as noxious where the issue is more than just control and eradication. *Rhododendron ponticum* is one such that is still stocked and sold by garden centres and nurseries, and in fact is promoted on a number of websites, which additionally acknowledge, but undersell, its problems. SNH has also included this plant in the draft species framework currently in a consultation phase. If *R. ponticum* remains in the SNH plan it will assume national priority status, and attract resources to tackle its spread. The framework mentions action to eradicate the species from west coast oak woods of international importance but not from other habitats or areas, nor to deal with the issue of its availability in garden centres and nurseries.

7. FROM ISSUE TO ACTION

This section sets out basic details and indicative costs (based on experiences elsewhere with similar sized ventures) of six projects to be developed for implementation. The detailed costs will be determined by the Highland Biodiversity Partnership, once the final scope, scale and duration of projects has been agreed with all the participating partners. Suggested targets have been identified and these Pan Highland projects have been worked up for early delivery and it is anticipated that the Highland Biodiversity Partnership will agree further actions to deliver on the remaining issues in the next year or so with partners.

Each of the Pan Highland projects has a direct link to the important UK BAP habitats and species present in Highland. These local delivery projects will benefit a large number of the most rare and threatened species found in Highland. From a rolling programme of raising general awareness of Highland biodiversity with residents and visitors to the targeted control of invasive non-native species, there is a tremendous opportunity to deliver action on UK BAP targets that must happen in Highland for the species and habitats to benefit. The single biggest threat to an array of (relatively obscure) UK BAP Priority lower plants is the threat of direct habitat loss and shading from Rhododendron. By targeting the Rhododendron control programme towards areas with important

populations of UK BAP lower plants, local groups can probably make the single biggest contribution to the protection and contribution of these often over-looked species.

The problem of lack of information about biodiversity is an opportunity to consolidate, improve and provide more resources for biological recording in the Highlands and the Highland Biological Recording Group in particular. It is difficult to protect and enhance some of Highland's rarest UK BAP species if their whereabouts and status is poorly known. Additional investment in biological recording in the Highlands will help to plug information gaps on many poorly known species. Once more is known about the location, status and management needs of these species, then work can be done to raise the profile of the species' management needs, directly contributing to the conservation of dozens of UK BAP species.

7.1 *Lack of Information*

The HBP will agree actions under this heading in the next year or so. As indicated under 6.1 these discussions are likely to centre around support for the Highland Biological Recording Group and the Highland Biological Records Centre.

7.2 *Lack of Awareness*

The HBP will agree actions under this heading in the next year or so.

7.2.1 Highland biodiversity events programme

Generally, different groups organise awareness raising events to serve a particular issue at a particular time, or for an ad hoc reason in a limited geographical areas. For example, FWAG demonstration days, local group day tutorials (e.g. as run by Boleskine Environmental Network). The different mechanisms have proved effective for the different audiences and this proposal aims to bring them together in a more co-ordinated programme of events with wide coverage across Highland for greater impact and efficiency. The project also aims to raise general awareness in Highland of one fact about biodiversity, namely Highland's unparalleled importance for rare and threatened species.

Most awareness raising events include common ingredients. The purpose of focusing on a series of events is to create a degree of efficiency the benefits of which will be in:

- Consistent and quality information, text and images;
- Increased likelihood of disinterested individuals or groups being contacted; and
- Greater potential for an impact on strategy or policy.

Project aim: To raise general awareness of biodiversity and related issues in Highland with residents and visitors within the next 5 years.

Project objectives:

- To make every citizen (visitor and resident) aware that Highland is home to nearly 50% of the UK's highest priority species;
- To identify a programme of topics (habitats, species and issues) to be tackled;
- To involve local groups on Highland wide, or part Highland coverage for a particular issue;
- To implement an event programme in each of two years; and

- To generate an image library for the topic (see 7.2.2).

Project lead: Highland Biodiversity Partnership.

Project partners: Tourism providers and VisitScotland, land use bodies, including SAC, FWAG, SEERAD, SNH, FCS, DCS, SEPA, environmental organisations, including SWT, RSPB, BCT, HC Rangers, community environmental groups, local biodiversity groups, educational bodies, including primary, secondary schools, colleges and UHIMI.

Project implementation and outputs:

One mechanism would be to establish a rolling programme of topics (either a species, habitat or issue) that could be the focus of a series of activities aimed at different sectors at the same time, with the collaboration of land use, tourism, school and social bodies. The rationale for this is that activities and events organised for specific groups only tend to attract those who are already interested. For example, otter is a Priority species with a high percentage of its distribution in Highland. Despite its legal protection populations are still being adversely affected by poor consideration in the design of mitigation measures on roads, by some land use management measures and by increasing people pressure in some areas. An event programme which included the following would be difficult to ignore and could be highly effective at raising awareness:

- High media coverage; and
- Information on their biology and habitat requirements and the issues of human interactions distributed through: schools, FWAG farm visits and wider land use demonstrations, land based training through SAC and HC Ranger guided walks for locals and visitors.

The use of a single memorable biodiversity message, namely Highland's unparalleled importance for rare and threatened species, should be promoted where possible, especially within all published literature from the HBP partners. Tourism often seeks to define a unique selling point, and with Highland being the most important place in the UK for rare and threatened wildlife, this is a fantastic opportunity to engage with visitors and residents alike. ***'Help keep Highland the most important place for rare and threatened wildlife'*** could be developed as the Highland BAP's strap-line and be used on all further work.

The project would be expected to generate >6 newspaper articles per year, >3 items on TV/radio. A programme of topics should be agreed within the first year, with an aim to address at least one topic per year. Finally, events will need to be held within each local area. The long-term aim would be to ensure that all relevant published outputs from the HBP partners contain the single biodiversity message about the importance of Highland for rare and threatened species.

Project links to UK BAP and Scottish Biodiversity Lists:

From the 160 UK BAP Priority species present in Highland, more 50 species have over 50% of their UK distribution/population in Highland. These species range from deep sea fish to very small liverworts and mosses to more high profile species such as otter, red squirrel and twin flower. Some are the subject of separate specific projects, such as capercaillie and corncrake. For some, there is little that such a campaign would achieve unless focused on their wider habitat or a specific issues which is threatening its survival e.g. Atlantic lejeuna, or Skye bog sphagnum. For others (see below), there is much that a targeted awareness raising campaign could achieve. In addition, there

are issues raised in this review that could be addressed through a targeted publicity campaign, such as the impact of non-native invasive species on these important Highland populations.

From the habitats and species review, and the issue and action review, the following are potential candidates for such as approach:

Butterflies and moths – Highland is the main area for chequered skipper, but is also home to many other UK BAP and Scottish BAP Lepidoptera. In general, Lepidoptera in Highland are under recorded (something Skye & Lochalsh propose to address in their implementation plan) so a targeted awareness and training campaign across Highland may aim to recruit recorders as well as encourage more positive consideration of the needs of these insects during land management planning.

Riparian woodlands – this topic would allow the inclusion of a number of UK priority woodland habitats (for example wet woodland and upland mixed ashwoods) which are very poorly represented but Highland is nonetheless the main distribution area, and a number of animal and plant species as well as more general issues relating to woodland and freshwater management.

Indicative costs: The costs of each event programme would be dependent on the individual topic chosen and the level of available information but is likely to be in the order of £10 - £15K, including some contracted organisation.

7.2.2 Highland biodiversity images

One of the handicaps to readily creating publicity for area biodiversity is the lack of available good images of habitats and species that are area specific. Both Caithness and Sutherland have invested in the development of an image library and have subsequently found it very useful. This proposal is to undertake the development of such a library for each area that does not have one. The benefit of delivering this project at the Highland scale is in the obvious efficiencies in the commissioning of new images and the potential to share images between areas.

Project aim: To set up a biodiversity image library containing quality photographs of Highland habitats, species and areas within 2 years.

Project objectives:

- Provide biodiversity practitioners in Highland with high quality images of the important habitats and species to use in awareness raising projects/events.

Project lead: Highland Biodiversity Partnership.

Project partners: Organisations/individuals with suitable images, including the UK BAP species and habitats lead partners.

Project implementation and outputs:

Beginning with images collated already, the HBP would seek to secure the rights to use habitat and species photographs for non-commercial purposes. The images would be created in slide and

digital formats and would be available through the Highland Biodiversity Partnership or a local website. The images could be used for a wide range of purposes, from simple publicity such as the production of Highland or area calendars, to use in management guidance information. There are overlaps with the Highland Biodiversity Events Programme and duplication of effort would need to be avoided.

Within 2 years, the image library should contain good images of the 50 species which have most or all of their UK populations within Highland and as many as possible of the remaining 160 UK BAP species present. Within 2 years, the image library should contain good images of the 35 UK BAP habitats present in Highland. A representative sample of images of other locally important species should also be collated during the 2 years. If good images of some of the 50 most important species are not available, the HBP should consider commissioning images to complete the library.

Links to UK BAP and Scottish Biodiversity List:

When the library is complete, it should contain images of each of Highland's 160 UK BAP Priority species and 35 habitats. Additional images (many of which are on the Scottish BAP list) will also be collected. This resource will then be made available to Highland groups and local biodiversity practitioners who wish to develop resources and carry out practical projects on many of the UK and Scottish BAP species present in Highland.

Indicative costs: The anticipated cost of such a project covering five areas is £25K, allowing for some efficiency through dealing with a number of areas together (Sutherland's library cost £6,000).

7.2.3 What is Highland soil biodiversity?

The purpose of this project is to raise awareness of the complexity of the biodiversity and ecology of soils, and how this varies with hydrology, altitude and vegetation cover. Where possible the effects of different land management operations on soil biodiversity will be explained.

Project aim: To ensure soil biodiversity is taken into consideration in environmental understanding, land management and the development of future incentive schemes.

Project objectives:

- To establish a soil focus group to achieve consensus on the on key issues and to steer the development of outcomes;
- To produce a document called "Highland Soil Biodiversity" describing the biodiversity of different soils and setting out how different activities impact on them;
- To launch the publication prior to wide distribution on the web and through hard copies; and
- To identify next steps.

Project lead: Highland Biodiversity Partnership and Dr James Merryweather.

Project partners: Representatives from organisations and agencies associated with land management activities e.g. SEERAD, SAC, FWAG and FC and academic soil scientists.

Project implementation and outputs:

At this stage, the project will collate existing information about soil biodiversity, focusing on information relevant to Highland. Inevitably through this process the gaps in current knowledge will be identified. From the information gathered a document called "Highland Soil Biodiversity" will be produced which can be used to promote soil biodiversity, and the issues associated with the principles of good management of soil biodiversity. The initial project should take 2-3 years to complete, but there would need to be the commitment of partners to take the recommendations forward through future developments within the land management sector (incentive schemes etc).

Links to UK BAP and Scottish Biodiversity List:

Evidently most of the UK and Scottish BAP terrestrial species are largely dependent upon suitable habitats which grow on the different soils found across Highland. This project aims to raise awareness of the soil medium and influence the land management that takes place across Highland. There are no direct links to specific UK and Scottish BAP species, but potentially all the listed terrestrial habitats could benefit indirectly from more information and appropriate land management decisions being taken.

Indicative costs: Indicative costs of the project are £3,800. This does not include any time costs associated with regular attendance of a soil focus group.

7.2.4 Marine biodiversity in the Moray Firth

In order to make any impact on issues in the Moray Firth there is a need to develop consensus across area and authority boundaries. The purpose of this project is to develop this consensus both on the important issues and on achievable solutions, particularly in relation to habitat and species loss issues. It is recognised that one of the initial problems is that there is a lack of information on marine biodiversity and there is no common level of knowledge or understanding of issues. This project will combine a range of awareness raising elements with strategic development of projects to address the issues.

Project aim: To achieve consensus on the key issues affecting marine biodiversity in the Moray Firth and start to implement actions to address them within 3 years.

Project objectives:

- To address the lack of information on marine biodiversity;
- To raise awareness about marine biodiversity; and
- To identify and agree ways of addressing habitat/species loss and inappropriate management.

Project lead: Highland Biodiversity Partnership.

Project partners: The Moray Firth Partnership have developed a project proposal and offered to lead and facilitate this project. They would require funding in order to do this, however their knowledge and familiarity with the subject matter make them well placed to undertake the work.

Project implementation and outputs:

This is a large and potentially complex project involving a range of awareness raising and information gathering exercises. The collection and collation of marine data will be developed in collaboration with the wider Highland biodiversity recording project development. The marine data collection will complement that project and provide a substantial set of data to the Highland Biological Records Centre once it is established.

Following a programme of awareness raising events (this could complement project 7.2.1) for residents and visitors, a cross-area core group, and an expert group will be involved in the identification of key issues and areas for action. These issues and their potential solutions will be widely debated and discussed. The final process will be the development of a marine biodiversity action plan for the Moray Firth, including developed and costed proposals to take forward.

Links to UK BAP and Scottish Biodiversity List:

All UK and Scottish BAP marine species within the Moray Firth could benefit from this project (from Bottlenose dolphins to Atlantic salmon). Very few local biodiversity projects in the UK have tried to tackle marine habitats and species issues, therefore lessons learned from managing this important marine area could be used elsewhere in Highland.

Indicative costs: A full project proposal is available upon request from The Moray Firth Partnership. This project would extend over three years and cost in the order of £50K.

7.3 *Lack of Appropriate Policy or Strategic measures*

The HBP will agree actions under this heading in the next year or so. As indicated under 6.3 these discussions are likely to centre around: (i) support for the work local area groups undertake, particularly the issue of capacity building, and (ii) locally sensitive incentives.

7.4 *Habitat and Species Loss and Fragmentation*

The HBP will agree actions under this heading in the next year or so.

7.4.1 *Local sources of wildflowers*

There are two approaches to this wildflower project. The first is to deal with the source of wildflower planting stock on a case-by-case basis. Any schemes proposing to plant native wild flowers would plan sufficiently in advance to organise the collection and contract growing of the required wild flowers and plants are subsequently returned and planted out. This approach is being used in Caithness in the growth of kidney vetch for a project related to enhancing the habitat of small blue butterflies.

The second approach is to take a wider view and to work with one or several nurseries to develop a line of native wildflowers that could not only be used for specific projects but could be used in more conventional plantings, such as in parks, school grounds and other public spaces. In this way there is the potential that there would be a sufficiently large market for such a venture to be commercially viable.

Flora Locale has already pioneered protocols for providing locally native seed and has developed guidance on buying native plants to guide buyers away from misleading suppliers. They also provide a list of suppliers highlighting those that have adopted the Flora Locale code of practice. However, their work is primarily focused on England.

Project aim: To remove the risk of losing local provenances of important native plants through inappropriate planting.

Project objectives:

- To secure supplies of key locally important native wildflowers;
- To interest nurseries in growing locally native wildflowers;
- For Highland native wildflowers to be used in public planting schemes; and
- To reduce the planting of non-local native and non-native varieties of wild flowers being planted in Highland.

Project lead: Highland Biodiversity Partnership.

Project partners: SNH, Inverness Botany Group (IBG), FWAG, THC, parks and education.

Nurseries that would be interested to discuss this prospect further might include: Scottish Origins, Christies Elite or Scotia Seeds.

Project implementation and outputs:

Collecting and growing native wildflowers

This will involve identifying an initial list of important plants, identifying where seed can be collected and any ground rules needed to reduce the impact on the native population. At least one nursery will need to be identified who would be willing to pioneer the growing of the native plants.

Marketing native wildflowers

At the same time as the plants are being grown potential markets will need to be identified, such as the Ross & Cromarty (East) wildflower project, the involvement of schools in garden projects, and the use of the plants in public space plantings.

Engaging with nurseries

The project aims to ensure that at least one of Highland's main nurseries stocks suitable native seeds for a range of Highland plant species within 3 years.

Promotion

Once the growing of the plants has been secured there is the potential to encourage the public to grow native wildflowers in place of exotic species, or varieties. This would require a promotional campaign, although if the nursery is successful it is likely to take this on itself. The level of promotion will also be dependent on the scale of the operation and the number of spare plants available.

Links to UK BAP and Scottish Biodiversity List:

Many UK and Scottish BAP plant species could benefit from this project. The project aims to use a variety of appropriate seed sources of suitable species. It is not possible to say which plant species

would benefit the most in different areas as this would necessarily be site specific. Through the involvement of SNH and the IBG, the choice of species could be directed towards UK and Scottish BAP species in the most need of help in Highland.

Indicative costs: The costs associated with this project may not be high. Any contract growing will be covered by the particular project contracting the plants. An initial seed collection may be achieved through volunteers, such as the IBG. The main resource will be setting up the project and the marketing to parks and schools. These costs are dependent on whether this element is undertaken by one of the partnership organisations, through the Highland Biodiversity Officer or through a contract. In the latter case the overall project costs can be anticipated to be in the order of £10k during the 3 years.

7.5 *Inappropriate Management*

The HBP will agree actions under this heading in the next year or so.

7.6 *Pollution, Erosion and Climate Change*

The HBP will agree actions under this heading in the next year or so.

7.7 *Invasive Non-Native Species*

The HBP will agree actions under this heading in the next year or so. The following project could be developed for any of several invasive non-native species present in Highland. However, according to UK BAP species action plans, the single biggest non-native species threat to terrestrial Priority species present in Highland is posed by *Rhododendron ponticum*. Therefore, to strengthen links with the UK and Scottish BAPs, it is considered that *Rhododendron* should be the first invasive non-native species tackled. If successful other invasive species should be effectively tackled.

7.7.1 *Rhododendron control*

There has already been a heavy investment in the eradication of this invasive plant from areas of the west coast where it threatens priority habitats, such as designated Atlantic oak woods. However, nothing has yet been done to halt the ongoing introduction of the plant into private and public gardens. This project is a combination of raising awareness of the nature of the problem and developing agreements with nurseries to either not stock this species at all, in any guise, or to actively discourage gardeners in the susceptible areas from buying the plants. The project could also develop a complementary focus to any eradication plans by offering an amnesty to gardeners who have *R. ponticum* in the area in which their plant is swapped for one which is not invasive.

Project aim: To stop the continuing introduction of seed sources for *R. ponticum* and to remove seed sources from areas through focused eradication programmes over an initial period of 3 years.

Project objectives:

- To stop nurseries supplying *R. ponticum* to gardeners in susceptible areas;
- To raise the awareness of the public to problems of this plant; and
- To contribute to the eradication of the species from high priority areas.

Project lead: Highland Biodiversity Partnership.

Project partners: Botanical interest groups e.g. local horticultural/gardening associations, nurseries, SNH, FC, THC. Local environmental projects could become involved too e.g. the Sunart Oakwood Project.

Project implementation and outputs:

The initial phase of this project (Year 1) is a research project to identify the scale of the Highland market in this plant. This will not solve the whole problem as a percentage of plants will be purchased remotely, by mail order or through electronic shops, but these options would be outside the scope of this project and the assumption is that the main market is still with local businesses. Stage two (Years 2 and 3) is to develop a strategy with the nurseries whereby they agree to stop stocking the plants, and *R. ponticum* as a rootstock. This would be undertaken in parallel with a Highland wide publicity campaign about the plant, potentially through project 7.2.1. Following this the project could offer a plant swap with anyone, within defined geographic areas, happy to remove their *R. ponticum*, or could work with SNH to target areas where eradication programmes are or will be implemented.

Links to UK BAP and Scottish Biodiversity List:

R. ponticum is implicated in the decline of, or considered to be a threat to, several UK BAP Priority lower plants in Highland (e.g. *Arthothelium dictyosporum*, *Arthothelium macounii*, *Acrobolbus wilsonii* and *Lejeunea mandonii*) and the habitats they occur within e.g. oak woods and mixed ash woods. The lower plant communities of the west coast are of great international importance, not just for their UK BAP species, but assemblages of plant species with very limited distributions. Some, but not all of these sites are designated and therefore may have already attracted some conservation management attention. It is anticipated that this project would target non-designated woodland sites of known importance for lower plants, complementing work undertaken on the designated sites.

Indicative costs: The anticipated costs of this project include the negotiation work with nurseries, the promotion of the project more widely, and the cost of removing plants from gardens and supplying alternatives. The overall cost is dependent on the scale that is desired for the project. The initial set up, negotiation and promotion elements would be in the order of £6,000. The cost of plant replacement will vary depending on the size of the plant to be removed and may be as much as £100 per plant swapped.