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Highland LBAP Review

Sutherland Implementation Plan 2006-2009

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**Highland LBAP Review:
Sutherland Implementation Plan
2006-2009**

SUTHERLAND IMPLEMENTATION PLAN 2006 - 2009

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1. INTRODUCTION

This implementation plan represents the next step in biodiversity action planning in Sutherland and should be read in conjunction with The Sutherland Biodiversity Action Plan (2003). It has been drawn up by the Sutherland Partnership Biodiversity Group and EnviroCentre Ltd.

Like the Sutherland Biodiversity Action Plan (SBAP), this document forms part of a suite of area BAPs and associated Implementation Plans that have been produced for the Highland Council area by local biodiversity groups. It is anticipated that the Highland Biodiversity Partnership will be responsible for working on the strategic and cross-boundary issues identified in each of the area BAPs, and each local biodiversity group is represented on the Partnership. A Highland Biodiversity Action Plan is also underway, to draw out the main issues from the area BAPs and provide a work schedule for the Highland Biodiversity Partnership.

It is therefore envisaged that the Highland LBAP Implementation Plans will be the main tool for local biodiversity groups, funding bodies, other partners, community groups and individuals to make progress on biodiversity issues at a local level.

1.1 *Local biodiversity group*

The Sutherland Partnership Biodiversity Group is a body of interested individuals representing a number of public sector agencies, NGOs, businesses and community interests that was initiated at the time of writing of the original area BAP. The Group is a sub-group of the Sutherland Partnership (SP) which supports the process through the provision of administrative and financial backing. This includes taking responsibility for drawing down funds for biodiversity projects, and for stewardship of administrative and financial arrangements underpinning those projects. Although the Group does not have a separate constitution or bank account, it is subject to the Memorandum and Articles of the Sutherland Partnership. Biodiversity project funds are held, until disbursed, in the SP "Projects" account. Currently, SP also provides the Group Chairman.

Membership is as follows:

William Sutherland (Chairman)	Sutherland Partnership
Ian Mitchell	Scottish Natural Heritage
Ian Evans	Assynt Field Club
Andy Summers	HC Senior Ranger
Shona Marshall	West Sutherland Fisheries Trust
Paul Castle	HC Ranger
Steve Robertson	North Highland Forest Trust
Willie Beattie	Forestry Commission (Scotland)
Kenny Graham	RSPB

1.2 *Habitats and species priorities*

The Sutherland Partnership Biodiversity Group has not undertaken a formal process to identify specific individual priorities in terms of habitats or species for the area. However, their recent choice of biodiversity projects to implement suggests particular interest in some habitats and

species. For example, projects include specific management to safeguard a population of uncommon bumblebees present on croft in-by-land. The Group has also supported a range of projects undertaken by other groups, for example, contributions to a project related to the Lochinver Heronry, contribution to bird ringing, a cetacean interpretation panel, a marine invertebrate identification course and the undertaking of wildlife audits in local communities.

In so far as these projects reflect any definite priority it is one that takes account of other activity ongoing out with the Group. For this implementation plan the Group concentrated their efforts on producing a set of project proposals that they felt could be delivered in the next three years.

2. SUTHERLAND IMPLEMENTATION PLAN PROJECTS

These projects have been chosen through a process whereby the Group selected actions from the area BAP they wished to focus on. Through a refinement process identifying achievable targets for a three-year period and topics that had a willing leader, the following projects were developed. The Group agreed this plan and the projects through e-mail consultation on 24th July 2006.

2.1 *Collecting and growing native tree seeds*

Project aim: To raise awareness of the benefits of individual involvement in environmental activities.

Project objectives:

- To raise awareness of wildlife in towns and villages;
- To involve volunteers and 4 schools in establishing stands of native trees in their communities or school grounds;
- To encourage a long term interest in a developing wildlife feature;
- To encourage individuals to observe wildlife on their doorstep;
- To promote wildlife gardening;
- To encourage schools to make their grounds more attractive to wildlife; and
- To encourage the use of native species in landscaping works around towns and villages.

Project lead: THC Rangers, Andy Summers, and 3 colleagues.

Project partners: Schools, Community groups and the THC Community Arts Officer.

Project implementation and outputs:

There is perceived to be a distinct lack of awareness about wildlife in and around towns, and a lack of involvement from residents. To involve people in constructive practical projects is considered an effective method of achieving increased awareness. This project aims to engage people at a range of levels through a number of different means including a tour of Puppet State Theatre production of "*The man who planted trees*" to communities and schools; a follow up workshop, in schools and communities, demonstrating how to collect and grow native trees seeds to young plants ready for planting out. A leaflet about the project will also be produced.

Actions:

- Arrange school and community tour for Theatre;
- Arrange follow up workshops to identify interest in project;
- Produce and distribute promotional leaflet for project and theatre tour;
- Establish community or school nursery area;
- Collect and plant tree seeds;
- Identify individuals to ensure nursery maintained;
- Identify locations for the eventual planting of trees;
- Organise annual event for each community/school on a different local wildlife topic;
- Maintain nursery over 2 – 3 years; and
- Plant out trees and organise after care programme.

Resources:

- Co-ordinator;
- Local community or school contact;
- Theatre show;
- Workshop venues;
- Sites for collecting seed (different species at different times of the year);
- Seed boxes/growing medium, gloves, hand tools, etc;
- Leaflet;
- Native tree growing information;
- Information about other relevant wildlife;
- Materials related to establishing tree stands, fencing, stakes, forks, spades; and
- Project signs for planted trees.

Outputs:

- Four native tree nurseries in Sutherland primary schools;
- Increased awareness and skills in identifying and growing native trees; and
- Establishment of native tree stands in the communities growing trees.

Proposed timetable:

Theatre tour and workshops 2007, timing depends of tree spp (elm/ash early summer, most others late summer – winter) summer – winter 2007; nursery set up summer – winter 2007; nursery maintenance throughout 2007/08/09 – first planting out spring 2009.

Links to UK BAP and Scottish BAP List

The project has a direct link in helping to increase native trees species, which are part of UK BAP and Scottish BAP listed woodland habitats present in Sutherland.

Indicative costs:

The following costs have been estimated:

Task	Effort/materials	Cash	In Kind
Co-ordination	Minimum 24 days @ £100		£2,400

Leaflet	Text & pictures	£200	
	Print 1,000	£200	
Theatre tour	Theatre tour 4 venues (see attached for detail)	£2,409	
Workshops	Venue hire & refreshments 4 @ £150	£600	
	Materials - wildlife and tree growing information (10 x 10 copies @ £1)	£100	
	Tree seed collection – transport 4 @ £50	£200	
Tree nursery	Seed boxes, growing medium etc 4 x £100	£400	
Tree planting	Materials – fencing (?), spade etc 4 x £75	£300	
	Project signs at tree stands 10 @ £15	£150	
	Contingency	£441	
	Total	£5,000	£2,400

2.2 North West Sutherland Waxcap Grassland Survey

Waxcaps (*Hygrocybe* species) are brightly coloured grassland fungi, which, together with some other groups such as earth tongues and fairy clubs, are recognised indicators of long-established, biodiverse, unimproved grassland. This habitat has suffered drastic declines throughout Europe and much of lowland Britain. Croft grasslands in the North West may include a substantial proportion of the remaining examples of this habitat in the Highland area.

Project aim: To produce an initial assessment of the status and condition of grasslands supporting waxcap fungi in the parishes of Assynt, Eddrachilles and Durness.

Project objectives:

- To establish and populate from existing information a database of waxcap fungi and associated species from the target parishes;
- To provide an initial assessment of the relevance of different geologies and grazing regimes on the condition of sites; and
- To gather information about new sites from local residents.

Project lead: Assynt Field Club, Ian Evans.

Project partners: Local & visiting mycologists.

Project implementation and outputs:

This survey will gather a database of all existing information on waxcaps and associated species in the parishes of Assynt, Eddrachilles and Durness and supplement it by fieldwork targeted on a number of specific sites differing in their underlying geology (many are on coastal shell-sand or limestone) and grazing intensity (heavy sheep grazing may benefit this group of fungi). It will then attempt to evaluate the sites surveyed and any other locations for waxcaps that are reported and can be visited.

The survey will be supervised by the Assynt Field Club and has the enthusiastic support of mycologists active in the North West. It will also encourage the reporting of likely sites by local naturalists and the wider public, and the identification (subject to expert confirmation) of the readily recognisable species.

Actions:

- Establish a database for recording information;
- Collect information from local recorders;
- Identify sample of about 10 sites for field survey, selected from different grazing regimes and different geologies;
- Produce & circulate promotional leaflet requesting information on sites from the public;
- Undertake field survey;
- Process and evaluate field survey data with reference to existing information;
- Produce a report on the status of waxcap fungi in North West Sutherland; and
- Distribute report to agencies.

Resources:

- Co-ordinator;
- Use of computer, with database;
- Access to existing information on waxcap sites in the target area;
- Mycological expertise;
- Promotional material aimed at the public; and
- Report.

Outputs:

- A database for collation of site information for waxcap fungi; and
- A report outlining the status of waxcaps in North West Sutherland.

Proposed timetable:

Establish database and carry out desk collation of information – Spring 2007; identify field sample sites and survey protocol Spring/summer 2007; field survey (weather/condition dependent) late Summer/Autumn 2007, 2008 & 2009; set up casual public information gathering summer 2007; accept reports from public - Summer 2007, 2008 & 2009; and assessment of collected data & report writing – Autumn/Winter 2009.

Links to UK BAP and Scottish BAP List

The project has a direct link to UK BAP and Scottish BAP listed waxcap fungi species and species rich grassland HAPs.

Indicative costs:

The following costs have been estimated:

Effort/materials	Cash
Field Survey – travelling expenses >750 miles	£300

Report writing and production	£150
Consumables (ink, paper etc)	£50
Total	£500

2.3 Wood Pasture Study

Wood pasture has until recently been seen as a southern, lowland habitat. It is now recognised that, prior to the late 18th century most if not all Scottish woodlands would have been grazed woodlands. As such, remnant wood pasture represents a highly significant and neglected cultural and natural heritage resource. This management system involved pollarding forest trees in a grazed environment as a way of safeguarding the tree and utilising the combined benefits of shade and shelter for stock, as well as providing winter forage and small diameter wood for fuel or other uses. So far there has been little focused survey or study to detail the quality and quantity of the resource and to understand how the practice varied across Scotland.

The pollarded trees found in wood pasture are now among the oldest trees in Scotland both because they have been specifically safeguarded for their valuable forage and timber, and because the act of pollarding helps to prolong their life by reducing their vulnerability to wind blow. Their age and structure has also led to their becoming a nearly unique biodiversity resource, being the main refuge for a relatively wide range of invertebrates and lower plants. Similarly, the uncultivated, open semi-natural under-storey of grassland, wildflower meadows or heathland associated with these veteran trees, has provided a haven for specialised wildlife and higher and lower plants (e.g. waxcaps in grassland) within this classic cultural landscape.

Project aim: To describe the extent of the wood pasture resource in Sutherland and identify future management needs.

Project objectives:

- Collate existing information about the nature of wood pasture;
- To complete a sample field survey of wood pasture in Sutherland; and
- To promote positive nature conservation management of the existing wood pasture sites.

Project lead: North Highland Forest Trust, Steve Robertson.

Project partners: FCS, FR, SNH, SEERAD, SNW, SAC and FWAG.

Project implementation and outputs:

The project will gather information about the resource in Sutherland, including the identification of potential sites. A key part of the project will be to hold a training and information day. This will help pool existing knowledge, ensure compatibility of survey techniques, raise the profile of the habitat type and encourage interest and engagement with the project from a wide audience, including crofters and farmers, as well as providing a good opportunity to lever in additional funding. The project will undertake a field survey and gather local information about at least ten sites spanning the range of site types in Sutherland. The survey will use existing documented

information¹ and on the ground and local evidence, both ecological and archaeological, to pull together a picture of how wood pasture was managed and used in Sutherland. Subsequently a report will be produced describing the nature and range of wood pasture in Sutherland. It will propose which are the best sites and suggest management for their future safeguard and enhancement. A promotional leaflet will be produced to foster a greater understanding of the importance and relevance of this bio-cultural habitat, both in terms of its biodiversity value and associated cultural significance. It will also identify key aspects of their management.

Actions:

- Review existing knowledge, known site information and search maps for potential sites;
- Identify and train local surveyors and known site owners/managers;
- Promote the habitat type to a wide audience across the North;
- Undertake field survey of approximately ten sites and gather local information about them;
- Produce report of findings from desk exercise and field survey;
- Disseminate report to agencies in support of prioritising incentives for management through forestry and agricultural grants; and
- Produce leaflet about the nature and management of Sutherland wood pasture, and distribute to site owners/managers and more generally.

Resources needed:

- Co-ordinator;
- Knowledge of wood pasture ecology and history, and Sutherland sites;
- Training capacity in wood pasture survey;
- Survey protocol and forms;
- Surveyors;
- Leaflet; and
- Report.

Outputs:

- Surveyors trained in recognising wood pasture;
- Printed information about wood pasture for site managers;
- An initial database of sites in Sutherland; and
- An initial assessment of the resource in Sutherland.

Links to UK BAP and Scottish BAP List

The project has a direct link to UK BAP and Scottish BAP listed Wood pasture HAP and associated species.

¹ Stiven R, Holl, K (2004) *Wood Pasture*. SNH Battleby,
Quelch, P. (2001) *Ancient Wood Pasture in Scotland* MFST,
Smith, M., Holl, K, (no date) *Ancient Wood Pasture in Scotland: Classification, Inventory and management*. SNH unpublished report.

Indicative costs:

The following costs have been estimated:

Task	Effort/materials	Cash	In kind
Desk-based research	Review of existing information / knowledge	£750	
<i>Ideally, the desk work, above, would be undertaken in Autumn/winter 2006, allowing the field work to start in 2007, immediately following training. (This cost has not been included in the total below)</i>			
Co-ordinator	5 days @ £150		£750
Field research	Training day (e.g. cost supported by NHFT) to train local surveyors, land managers (to develop and retain knowledge in the North) & raise project profile	£750	£750
Field survey	~ 10 sites survey and site reports @ £300 per site	£3,000	
Report		£600	
Leaflet	Design & print	£650	
	Total	£5,000	£1,500

2.4 *Salmon in the Classroom*

Project aim: To involve schools in raising salmonids within the classroom as an educational exercise.

Project objectives:

- To establish "Salmon in the Classroom" projects at 2 schools per year in Sutherland;
- To involve primary school children in raising young fish from eyed eggs for reintroduction into the rivers from which they were taken; and
- To raise the awareness of children about freshwater and the importance of maintaining a good quality habitat.

Project lead: West Sutherland Fisheries Trust, Shona Marshall.

Project partners: HC Rangers and Schools.

Project implementation and outputs:

The West Sutherland Fisheries Trust visits each school in autumn to explain the project, discuss salmon life cycles, and other issues related to maintaining healthy fish populations. The school will then be supplied with eyed eggs in January to raise into juvenile fish with visits from WSFT to ensure there are no problems. The fish will be released back to the river in spring. There will be a final day electro-fishing and kick sampling to monitor the river.

Actions:

- Identify schools interested to take up the project;
- Hold an introductory day in each school;
- Deliver eye eggs to each school;
- Monitor and rear salmon to release age from eggs;
- Release fish into river; and
- Monitoring event on the river.

Resources:

- Co-ordination;
- Rearing equipment, tanks, filters, thermometers, pipettes, pumps, ice packs;
- Fish food;
- Transport for fish from classroom to river;
- Electro-fishing and kick sample kit, including trays for sorting;
- Educational materials about fish and their life cycles; and
- Salmon rearing expertise.

Outputs:

- Increased awareness about freshwater fish, in particular salmon (or trout).

Proposed timetable:

The project will take place for 3 years, but could continue for longer if funding permitted.

Links to UK BAP and Scottish BAP List:

The project has a direct delivery link to the Scottish BAP list, which lists Atlantic salmon.

Indicative costs:

The following costs have been estimated:

Task	Effort/materials	Cash
Expert input	WSFT 2 days per school @ £200	£800
Equipment	For rearing for 2 schools	£150
	Educational Materials x 2 schools	£100
	Total (per year)	£1,050

The overall cost for three years would be approximately £3,150.

2.5 West Sutherland Elver Project

Across Europe there has been a decline in the numbers of glass eels re-entering rivers to 1% of the mid 1980's figure. "In particular, knowledge of stocks is very limited, and management of fisheries in areas such as Wester Ross is completely unregulated and the current situation can only be detrimental to what are widely regarded as depleted populations".² There is also nothing known on the status in Sutherland. So, there is general consensus that it would be useful to start pulling information together, and to see what existing information is available.

Project aim: To establish a baseline of the elver fishery in Sutherland and provide recommendations for a more sustainable management system.

Project objectives:

- To establish the current basis of elver fishing in Sutherland;
- To assess the current sustainability of the fishery;
- To recommend any changes that would improve the sustainability; and
- To produce a report detailing the findings and recommendations.

Project lead: West Sutherland Fisheries Trust, Shona Marshall.

Project partners: SNH and HC Natural Resource Group.

Project implementation and outputs:

The project will establish baseline information about elver fishing in Sutherland in the context of current legislation and known European population trends and market condition. The current stocks will be assessed along with threats and issues of sustainability, including implications for reduced populations on their river habitats, to determine long-term viability. Data will be collected from sales and capture records and both quantitative and qualitative interview surveys. In gathering information and making assessments commercial fishers and sporting/coarse fishing interests will be involved. The findings of this work will be used to develop recommendations aiming to achieve a balance between economic, social and natural resource interests. A volunteer programme will be established that integrates with nationwide and other more formal programmes.

Actions:

- Review EU and Sutherland fishery and markets;
 - Review EU and Scottish regulations;
 - Preliminary assessment of eel stocks;
 - Identify threats to sustainability;
 - Provide recommendations for future management, and legislative changes;
 - Design long-term stock monitoring of elvers and yellow stage eels (intermediate pre-mature stage); and
 - Set up monitoring using volunteers and fisheries trusts.
-

Resources:

- EU & Scottish fishing legislation and regulations;
- Access to market records;
- Knowledge of eels, their biology and habitat requirements and issues of sustainability;
- Knowledge of eel fisheries (types of markets for different stages etc.);
- Knowledge of fish monitoring methods; and
- Volunteers.

Outputs:

- Information on elver fishing in Sutherland, in the context of EU & Scottish markets, legislation and regulation;
- Information on the sustainability of elver fishing in Sutherland;
- Recommendations for improving the sustainability of the eel fishery in Sutherland; and
- Regular long term monitoring of elver and yellow stage eels in Sutherland.

Proposed timetable:

Collect sales and capture record information spring 2007 and 2008; undertake qualitative and quantitative interview surveys summer 2007; survey rivers summer 2007, analyse data collected winter 2007/08, develop recommendations through 2008, final report spring 2009.

Links to UK BAP and Scottish BAP List:

The project has a direct link to the revised UK BAP list. Eels are the fastest declining UK vertebrate and will be listed as a Priority when the revised plan is published in autumn 2006.

Costs:

The following costs have been estimated:

Research and report as above	£1,000
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2.6 Angling Best Practise Leaflet

Project aim: To promote best practise angling across Caithness and Sutherland.

Project objectives:

- To revise, publish and distribute an electronic format best practise angling leaflet.

Project lead: Caithness and Sutherland Trout Angling Group (CASTAG), SNH, THC Rangers.

Project partners: Fishery Trusts, District Salmon Fishery Boards, schools.

² Royal Society Edinburgh response to Scottish Executive consultation "Protecting and Promoting Scotland's Freshwater Fish and Fisheries." 2000

Project implementation and outputs: The wording on an existing CASTAG leaflet on best angling practice in the peatlands will be adapted to a broader range of habitats. The revised leaflet will then be published and distributed electronically to anglers who fish in Caithness and Sutherland.

Outputs: a revised web-based leaflet downloadable in .pdf or word format.

Links to UK BAP and Scottish BAP List:

The leaflet has a direct link to UK BAP priority habitats (esp. peatland habitats).

Cost:

The following costs have been estimated:

	Cash	In kind
Text by members of the LBAP group		£500
Design & production from electronic format	£500	

2.7 Implementation Plan Budget

Collecting and Growing Native Tree Seeds	£5,000
North West Sutherland Waxcap Grassland survey	£500
Wood Pasture Study	£5,000
Salmon in the Classroom	£3,150
West Sutherland Elver Project	£1,000
Angling Best Practise leaflet	£500
Total	£15,150

2.8 Other project suggestions raised by the Sutherland group

- Socio-economic Benefits of Biodiversity;
- Biodiversity awareness days and nights;
- Heather Management Practice; and
- Water vole survey.

2.9 General issues raised by the group

- Difficulty of delivering projects from within the Group, dependent on others to volunteer; and
- Knowledge of and potential for coordination of action across different area biodiversity groups, partners, organisations and communities.

3. SUMMARY

The Sutherland Partnership Biodiversity Group have proposed, worked up and developed six local area projects for implementation: (i) Collecting and growing native tree seeds, (ii) North West Sutherland waxcap grassland survey, (iii) Wood pasture study, (iv) Salmon in the classroom, (v) West Sutherland Elver project, and (vi) Angling best practise leaflet. Depending upon how these are implemented, all six projects should deliver a range of benefits to UK and Scottish BAP targets.