

**Feàrna Ecology**

**Phase I survey**

**Ground adjacent Ord Terrace, Strathpeffer (NH478577)**

**Ross-shire**

**Area = 1.75 ha**

**Surveyed by Tim Dawson**

**on 4 September 2014**



## Introduction

The land in question, site of a possible community garden project, lies within The Highland Council area (Vice County number 106). It has no existing designation for nature conservation.

The area surveyed forms the south east and south west boundaries of the village school playing field, and runs up to the A834 Contin – Dingwall road, being separated from that by a beech hedge.

The land is owned by The Highland Council, and this survey has been carried out at the request of Strathpeffer Residents' Association who are carrying out a feasibility study into the possibility of developing a community garden and other facilities on the site. The Highland Council may lease the land to Strathpeffer Residents' Association once a business plan has been agreed.

## Summary Description

The land in question (1.75 ha), which is located in the south eastern part of Strathpeffer in Ross-shire, consists of a large stand of Rosebay willowherb *Chamerion angustifolium* with some scattered trees and a small area of mixed semi-natural woodland. A strip of semi-improved grassland runs through the site from north to south, and within or close to this are patches of scrub. To the west is a raised area of playing field that has been uncut for approximately 2 years, and has been colonised by marshy grassland.

The high point of the site, the southern tip, lies at an altitude of 93 metres and the south western boundary is defined by housing in Ord Terrace.

The site is largely man-made, and the predominant habitats are typical of suburban fringe in the local area. Lease to the Strathpeffer Residents' Association, however, presents opportunities to develop amenities for local people and also to promote the more natural attributes of the site, for example by removal or killing of non-native trees, increasing the component of lying and standing dead wood and possibly by development of a bog garden.

Signs of protected species were looked for during the survey. No direct signs were found, but the following points should be noted:

- The nearest recorded site for great crested newts is approximately 400 metres from the survey site. This is a European Protected Species. It is therefore possible that great crested newts may be discovered whilst carrying out any works associated with the community garden.
- There is one tree that has potential for use by roosting bats. This tree is assessed as being Category 2 (moderate potential) for bats as defined by the Bat Conservation Trust. All British bats are European Protected Species.

## **Boundary Statement**

The site boundary is formed by the current limits of the site identified as having potential for development as a community garden, and is defined by a footpath (The Chisholm's Trail) to the west, by housing to the south west, by the beech hedge adjoining the main road to the south east and by the edge of the existing playing field to the north.

## **Surveyor's Statement**

The site was surveyed to Phase I standard. This involves mapping the habitat type according to the codes used in The Nature Conservancy Council Phase I Manual, and recording the dominant species. Relative abundances of plant species were recorded using the standard DAFOR scale:

D ominant  
A bundant  
F requent  
O ccasional  
R are

Target notes were recorded for small scale features of interest.

The surveyor holds an M Sc in Ecology and a Higher National Certificate in Habitat Surveying. The surveyor has completed approximately 20 previous surveys of this type and also has significant experience of botanical field study teaching in a wide variety of habitats.

A walkover survey for protected species, such as bats and great crested newt, was incorporated into this survey.

## **Limitations of survey**

The survey was carried out a little late in the season, meaning that the vegetation was quite rank, and it is possible that some less conspicuous plants, and also signs of protected species, were missed owing to being concealed amongst tall vegetation. It is also possible that some early flowering species, such as orchids, may have been missed.

**Amenity grassland**  
**Area = 0.13 hectares**

**Phase I code J1.2**

This area comprises a strip of mown grassland around the edge of the raised area of playing field that has recently been allowed to grow over. There are two rows of planted cypress trees along the south western edge. Given that the grass is mown, it is not possible to identify the grass species, and these would anyway be of little interest in a habitat of low value for nature conservation.

**Marshy grassland**  
**Area = 0.57 hectares**

**Phase I code B5**

This comprises the grown-over area of raised playing field and is dominated by soft rush *Juncus effusus* and Yorkshire fog grass *Holcus lanatus*. There is also abundant jointed rush *Juncus articulatus*. There are some plant species indicating acid conditions, such as rare heath bedstraw *Galium saxatile* and occasional wavy hair grass *Deschampsia flexuosa*. There is no evidence of any peat accumulation, and probing with a stick indicated that the soil is shallow.

Target note 1

Grid reference NH47805771

Area in southern corner of marshy grassland that is dominated by jointed rush, which gives it a distinctive brown colour that is darker than the rest of the habitat. The following species were found:

Bog stitchwort	<i>Stellaria uliginosa</i>	Rare
Broad-leaved willowherb	<i>Epilobium montanum</i>	Frequent
Corn mint	<i>Mentha arvensis</i>	Rare
Creeping bent grass	<i>Agrostis stolonifera</i>	Rare
Creeping buttercup	<i>Ranunculus repens</i>	Frequent
Heath bedstraw	<i>Galium saxatile</i>	Frequent
Jointed rush	<i>Juncus articulatus</i>	Dominant
Lesser spearwort	<i>Ranunculus flammula</i>	Rare
Meadow foxtail	<i>Alopecurus pratensis</i>	Occasional
Neat feather moss	<i>Pseudoscleropodium purum</i>	Frequent
Oval sedge	<i>Carex leporina</i>	Rare
Self-heal	<i>Prunella vulgaris</i>	Occasional
Sweet vernal grass	<i>Anthoxanthum odoratum</i>	Occasional
Tufted hair grass	<i>Deschampsia cespitosa</i>	Rare
White clover	<i>Trifolium repens</i>	Frequent
Yorkshire fog grass	<i>Holcus lanatus</i>	Frequent

Target note 2

Grid reference NH47865778

A small flush on the northern eastern edge of the marshy grassland, with the following species:

Bugle	<i>Ajuga reptans</i>	Rare
Creeping bent grass	<i>Agrostis stolonifera</i>	Dominant
Creeping buttercup	<i>Ranunculus repens</i>	Frequent

Cuckoo flower	<i>Cardamine pratensis</i>	Rare
Water forget-me-not	<i>Myosotis scorpioides</i>	Occasional
White clover	<i>Trifolium repens</i>	Frequent

The bugle, cuckoo flower and water forget-me-not suggest neutral or slightly alkaline conditions at this location.

There is a smaller additional area of marshy grassland, dominated by soft rush, adjacent to the smaller of the two rosebay willowherb stands.

**Dense scrub                      Phase I code A2.1**  
**Area = 0.04 hectares**

A strip of scrub lies adjacent to the existing childrens' play area and is dominated by wild raspberry *Rubus idaeus*. There is a single rowan tree *Sorbus aucuparia* near its northern end.

There is also a larger patch of scrub, dominated by broom *Cytisus scoparius*, immediately north west of the stand of mixed semi-natural woodland.

**Bare ground                      Phase I code J4**  
**Area = 0.03 hectares**

This is the childrens' play area, consisting of bark chips surrounded by a fence, with slides and climbing frames. There is some scrub incursion from the edges, mainly broom and wild raspberry.

**Tall ruderal                      Phase I code C3.1**  
**Area = 0.4 hectares**

An area that slopes down to north north east and is overwhelmingly dominated by rosebay willowherb. The main area occupies the southern-most ground of the site, but there are also two smaller stands of rosebay willowherb to the north, adjacent to a strip of semi-improved acid grassland. There is frequent neat feather moss and occasional creeping thistle *Cirsium arvense*, cocksfoot grass *Dactylis glomerata* and bramble *Rubus fruticosus*. There are five mature trees in the main area, these being goat willow (two), a horse chestnut *Aesculus hippocastanum*, a sycamore *Acer pseudoplatanus* and a silver birch *Betula pendula*. The willow and birch are both considered native in the search area. All of these trees are found on the higher ground close to the boundary beech hedge.

Target note 3                      Grid reference NH47895766

Large, mature, spreading goat willow with moderate potential as a bat roost. No tree holes were observed, but the tree is starting to die back and the bark to peel, with the possibility of creating spaces for bats to roost.

**Semi-improved neutral grassland**  
**Area = 0.43 hectares**

**Phase I code B1.2**

This compartment is linear, follows an old fence line and abuts the strip of amenity grassland that has been cut as a path immediately south east of the larger area of marshy grassland, then extends to the north east alongside the school sports pitch. It is dominated by Yorkshire fog grass and creeping soft grass *Holcus mollis* and there is frequent creeping thistle, broad-leaved willowherb *Epilobium montanum* and cocksfoot grass. The presence of occasional meadow vetchling suggests a neutral, unimproved grassland, yet this species is found in gardens locally. There is scattered scrub consisting of goat willow, broom and wild raspberry, as well as isolated trees of beech, goat willow, ash, lime and silver birch.

Target note 4      NH47875771

Small patch of white butterbur *Petasites albus*. This is non-native and could spread through the site.

Target note 5      NH47875770

Site of bonfire used during community action day approximately two years ago. This currently serves as a useful habitat pile and therefore provides potential shelter for hibernating hedgehogs and food for insects. It could also conceivably be used as a refuge by hibernating great crested newts *Triturus cristatus*.

**Mixed semi-natural woodland**  
**Area = 0.15 hectares**

**Phase I code A1.3.1**

This woodland is densest in the centre, with more open ground adjacent to the boundary beech hedge, and to the west where it peters out into scattered goat willow specimens. To the south, the canopy and shrub layers are dominated by aspen *Populus tremula*. Further north and east, there are frequent Japanese larch *Larix kaempferi*. Other trees in the canopy are wych elm *Ulmus glabra*, sweet chestnut *Castanea sativa* and beech *Fagus sylvaticus*. Of these, only the aspen and wych elm are considered native. Aspen is also listed as a priority species within the Ross & Cromarty (East) Biodiversity Action Plan, and is therefore considered to be of local conservation importance. The ground flora is dominated by cocksfoot grass, with occasional ground elder *Aegopodium podagraria*.

## **Management Suggestions**

The woodland is considered to be the most valuable habitat on this site. It could be improved by ring-barking the non-native trees (beech, larch and sweet chestnut) to create standing dead wood for bats, insects and birds (where compatible with any adjacent paths that may in future be built) or felling to create lying dead wood. On-site information would need to be provided to explain why the dead wood was there, and to discourage its removal for firewood.

It would be desirable to retain isolated native trees in other habitats. Non-native trees could be ring-barked as for those in the woodland block. It would also be beneficial to plant new trees of native species. Possible candidates include alder, ash, birch, bird cherry, wych elm, wild cherry (gean), oak, rowan, crack willow, goat willow, blackthorn, elder, guelder rose, hawthorn, hazel, holly, eared willow, grey willow and osier willow, with the exact species choice being dictated by the soil conditions.

It may be desirable to retain the marshy grassland if this proves to be compatible with local desires. Such habitat is good for insects, especially dragonflies, and could be improved by sowing wildflower seed using species that are found in moderately acid conditions.

Non-native species such as rosebay willowherb and white butterbur are considered undesirable on the site, and the presence of the former has given rise to numerous complaints from local residents. These species should be removed as part of the community garden project.

Great crested newts and bats are European Protected Species and these are listed on Schedule 2 (animals) of the Habitats Regulations 1994 (as amended). This means that it is an offence to disturb or harm them. No direct evidence of these species was found during the survey, but if either great crested newts or any bat species were to be discovered during works on the site, the operator(s) should stop work immediately and contact Scottish Natural Heritage (Dingwall office) for advice, as a European Protected Species licence might be required in order to continue the works. Further details of the relevant legislation can be found at <http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/legal-framework/habitats-directive/euro/>

## Bibliography

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The larger area of marshy grassland, seen from grid reference NH47815770 and looking east north east. The area dominated by jointed rush - and described in target note 1 - can be seen in the foreground.



The largest area of tall ruderal vegetation, dominated by rosebay willowherb, seen from grid reference NH47855774 and looking south south east. The goat willow, horse chestnut and sycamore trees can be seen in the distance.



The mixed semi-natural woodland block photographed from grid reference NH47885777 and looking south east. Scattered goat willow can be seen to the right of the picture, with the aspen left of centre and some Japanese larch to the left.



The northern section of the strip of semi-improved neutral grassland, taken from grid reference NH47925777 and looking north east. The school playing field (outwith the survey area) is seen to the left.



## Species list

Common name	Gaelic name	Scientific name	Dominant species code (where applicable)
Ash	Uinnseann	<i>Fraxinus excelsior</i>	
Aspen	Critheann	<i>Populus tremula</i>	Pot
Beech	Faidhbhile	<i>Fagus sylvatica</i>	
Bog stitchwort	Flige	<i>Stellaria uliginosa</i>	
Bramble	Dris	<i>Rubus fruticosus</i> agg.	
Broad-leaved dock	Copag Leathann	<i>Rumex obtusifolius</i>	
Broad-leaved willowherb	Seileachan Coitcheann	<i>Epilobium montanum</i>	
Broom	Bealaidh	<i>Cytisus scoparius</i>	Cys
Bugle	Glasair Choille	<i>Ajuga reptans</i>	
Bush vetch	Peasair nam Preas	<i>Vicia sepium</i>	
Cocksfoot grass	Garbh-fheur	<i>Dactylis glomerata</i>	
Common mouse-ear	Cluas Luch Choitcheann	<i>Cerastium fontanum</i>	
Common nettle	Deanntag	<i>Urtica dioica</i>	
Common sorrel	Samh	<i>Common sorrel</i>	
Corn mint	Meannt an Arbhair	<i>Mentha arvensis</i>	
Creeping bent grass	Fioran	<i>Agrostis stolonifera</i>	
Creeping buttercup	Buidheag	<i>Ranunculus repens</i>	
Creeping soft grass	Mìn-fheur	<i>Holcus mollis</i>	Hx
Creeping thistle	Fòthannan Achaidh	<i>Cirsium arvense</i>	Car
Cuckoo flower	Flùr na Cuthaig	<i>Cardamine pratensis</i>	
Dandelion	Beàrnan Bride	<i>Taraxacum officinale</i> agg.	
False oat-grass	Feur Coirce Brèige	<i>Arrhenatherum elatius</i>	
Garlic mustard	Gàirleach Callaid	<i>Alliaria petiolata</i>	
Goat willow	Geal-sheileach	<i>Salix caprea</i>	
Ground elder	Lus an Easbaig	<i>Aegopodium podagraria</i>	
Heath bedstraw	Màdar Fraoich	<i>Galium saxatile</i>	
Heath wood-rush	Learman Monaidh	<i>Luzula multiflora</i>	
Hogweed	Odharan	<i>Heracleum sphondylium</i>	
Japanese larch	Learag Sheapanach	<i>Larix kaempferi</i>	
Jointed rush	Lachan nan Damh	<i>Juncus articulatus</i>	
Lesser spearwort	Glaisleun	<i>Ranunculus flammula</i>	
Lime	Teile	<i>Tilia</i> sp.	
Male fern	Marc-raineach	<i>Dryopteris filix-mas</i>	
Meadow foxtail	Fiteag an Lòin	<i>Alopecurus pratensis</i>	
Meadow vetchling	Peasair Bhuidhe	<i>Lathyrus pratensis</i>	
Neat feather moss		<i>Pseudoscleropodium purum</i>	
Oval sedge	Seisg Ughach	<i>Carex leporina</i>	
Perennial rye grass	Breòilleann	<i>Lolium perenne</i>	
Ragwort	Buaghallan	<i>Senecio jacobaea</i>	

Rosebay willowherb	Seileachan Frangach	<i>Chamerion angustifolium</i>	Cha
Selfheal	Dubhan Ceann-chòsach	<i>Prunella vulgaris</i>	
Silver birch	Beith Dhubhach	<i>Betula pendula</i>	
Soft rush	Luachair Bhog	<i>Juncus effusus</i>	Je
Springy turf-moss		<i>Rhytidiadelphus squarrosus</i>	
Sweet chestnut	Castan	<i>Castanea sativa</i>	
Sweet vernal grass	Borrach	<i>Anthoxanthum odoratum</i>	
Tufted hair grass	Cuiseag Airgid	<i>Deschampsia cespitosa</i>	
Velvet bent grass	Fioran Min	<i>Agrostis canina</i>	
Water forget-me-not	Cotharach	<i>Myosotis scorpioides</i>	
Wavy hair grass	Mòin-fheur	<i>Deschampsia flexuosa</i>	
White butterbur	Gallan Bàn	<i>Petasites albus</i>	
White clover	Seamrag Bhàn	<i>Trifolium repens</i>	
Wild raspberry	Sùbh-craoibh	<i>Wild raspberry</i>	Ri
Wych elm	Leamhan	<i>Ulmus glabra</i>	
Yorkshire fog grass	Feur a' Chinn Bhàin	<i>Holcus lanatus</i>	HI

## Note

Gaelic names are included in order to promote awareness of Gaelic, and also to provide a reference point for possible place names within the proposed community garden.