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Churnet Grange Development

Phase 1 Habitat Survey



Moorlands Ecology
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Moorlands Ecology

Environmental Consultancy

"Working towards a greener society"

Phase 1 Habitat Survey at, Churnet Grange, Station Road, Cheddleton. For the planning application to develop holiday accommodation.

For

Carl Copestake (John Rose Associates)

On behalf of

Mr Ray Hill (Proprietor)

Moorlands Ecology Reference: 109

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Phase 1 Habitat Survey

1. INTRODUCTION

1.1 Background

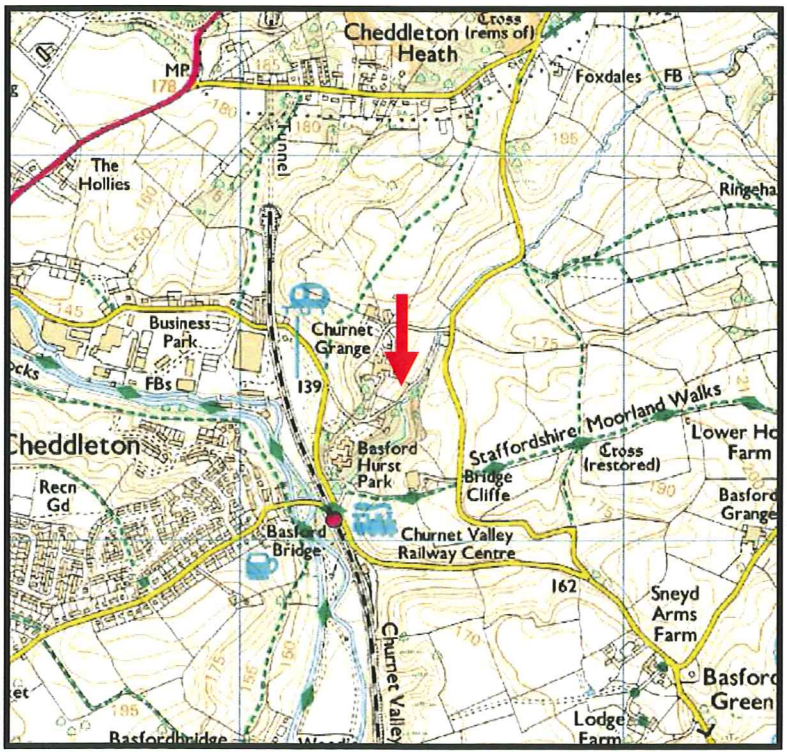
This report has been prepared at the request of Mr Carl Copestake (John Rose Associates) on behalf of Mr Ray Hill (Proprietor), in relation to the presence of rare flora/fauna species at the proposed development of holiday accommodation at Churnet Grange, Station Road, Cheddleton, Staffordshire.

An initial scoping site survey was undertaken on 14th of December 2007. The aim of this survey was to identify which (if any) flora and fauna species may be affected by the proposed development of the site, and in order to assess the need to protect rare/endangered flora/fauna species, if they are found to exist at the site.

1.2 Site Description

The proposed development site comprises of; semi-mature to mature coniferous/deciduous trees, hedgerows, agricultural fields and a lagoon. The surrounding landscape comprises of areas of agricultural land, hedgerows, semi– mature to mature broad-leaved woodlands and a scattering of houses.

Figure 1: Map Location of the development project site, Churnet Grange, Station Road, Cheddleton - indicated by the red arrow.



2. LEGISLATION

Plants

Wildlife and Countryside Act 1981: United Kingdom legislation for plant protection extends to land, including land covered by water, and territorial waters. The legislation prohibits any person from intentionally (in Scotland, also recklessly) picking, uprooting or destroying wild plants which are listed on the Wildlife and Countryside Act 1981 (Schedule 8) and it is an offence to sell such wild plants. The legislation also prohibits the uprooting of wild plants not listed on the Schedule, unless the uprooting is carried out by the owner or occupier of the land on which the plant is growing, or by someone having their permission to do so, or unless the action is authorised in writing by the appropriate local authority, although such authorisation does not confer a right of entry to the land.

This protection has subsequently been enforced and extended by the implementation of The Conservation (Natural Habitats etc.) Regulations 1994 and the Countryside and Rights of Way Act 2000

Some rare plants, listed on Schedule 8 of the Wildlife & Countryside Act have additional protection and it is an offence for any person, including the landowner, intentionally to pick, uproot or destroy these specially protected wild plants.

The law provides a defence to both the above offences if the act was incidental to a lawful operation, such as a planning permission would provide, and could not reasonably have been avoided.

Please see APPENDIX E for Plants listed on Schedule 8 of the Wildlife and Countryside Act, 1981

3. METHODOLOGY

3.1 Walkover Survey

A walkover survey of the site/surrounding area was undertaken. This survey was carried out to obtain knowledge of the appropriate habitat requirements and resources that are needed for protected species to live.

3.2 Phase 1 Habitat Site Survey

Two ecologists from Moorlands Ecology undertook field surveys in accordance with the guidelines present in the Handbook for Phase 1 Habitat Survey (JNCC, 2004). This has become a widely accepted method for surveying semi-natural habitats and is regarded as an essential part of the Environmental Impact Assessment (EIA) process whenever ecological receptors are likely to be affected by re/development (IEMA, 1995; IEEM, 2003).

Moorlands Ecology also used the DAFOR scale during the survey. The DAFOR scale is a quantitative definition of frequency intended to assist with the assessment of Churnet Grange's attributes.

This is a version of the well known DAFOR scale, as follows:

The DAFOR Scale: Rapid assessments for the quality of the main vegetated 'zones'.

The following is a quantitative definition of frequency, intended to assist with the assessment of habitat types. 1 square metre quadrates should be used and 10 random stops (quadrates) in total carried out per site.

- **D**ominant: the species appears at most 6 (60%) stops and it covers more than 50% of each quadrate.
- **A**bundant: species occurs regularly throughout a stand, at most 6 (>60%) stops and its cover is less than 50% of each quadrate.
- **F**requent: species recorded from 3-6 (30%-60%) of stops.
- **O**ccasional: species recorded from 1-3 (1%-3%) of stops.
- **R**are: species recorded from up to 1 (1%) of stops.

Additional Target Notes

Additional target notes were made where applicable to record:

- Key habitat features.
- Important habitats too small to be mapped and to identify dominant species.
- Other features of ecological interest.

Protected Fauna Species

Signs for the presence of protected species (Amphibians, reptiles, mammals and birds) such as burrows, latrines, tracks etc were also observed for.

4. FIELD SURVEY RESULTS

4.1 Walkover Survey

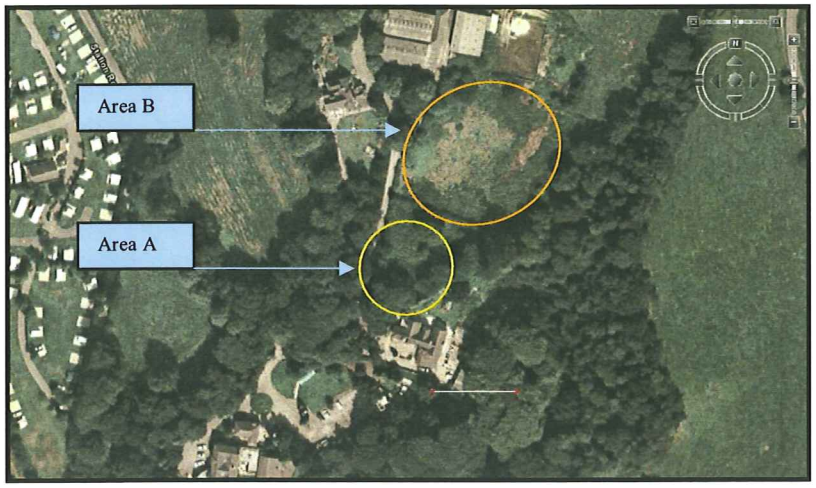
During the walkover survey the habitats that were identified consisted of mixed species hedgerows, agricultural fields and individual tree species ranging from saplings to over mature trees. Also identified was a lagoon which appeared to have formed from the run off of a neighbouring farmer's slurry pit. The agriculture fields (proposed development site) showed considerable amount of poaching (trampling by horses) which has caused a considerable impact on the ground vegetation.

4.2 Phase 1 Habitat Site Survey

The following habitats were found at the proposed development site. Each habitat is colour coded which can be found in APPENDIX B: Phase 1 Habitat Map (development site). A full list of species can be found in

APPENDIX A: Flora / Fauna species seen on site.

Figure 2: Site location of each area surveyed.



Area (A) Flora Species Identified

Scattered and Clustered Trees

Trees identified during the assessment consisted of semi-mature to mature tree species such as Scots Pine, Ash, Silver Birch, Holly, Oak, and Elder.

Hedgerow

The hedgerow layer consisted of Rhododendrons, Ash, Silver Birch, Holly and Sycamore.

Ground Flora

The ground flora consisted of Bramble, Creeping Ivy, Common Nettle, Fox Glove, Fern, Wild Carrot, Perennial-rye-grass and False Oat-grass.

Area (B) Flora Species Identified

Hedgerow

The established hedgerow layer consisted of mature Holly and Hawthorn.

Ground Flora

The ground flora consisted of Bramble, Creeping Ivy, Common Nettle, Fox Glove, Fern, Perennial rye grass and False Oat-grass.

Lagoon

The lagoon appears to have been formed from the run off from the neighbouring farmer's slurry pit. The lagoon is shallow (ranging from 0 -30 cm's deep) and runs north to south in direction and follows the topography of the land.

Fauna Species:

Birds

Bird species recorded included Kestrel.

5. RECCOMENDATIONS

Ecological Data Search

Moorlands Ecology would normally advise all clients to have an ecological data search carried out for a proposed development site. Unfortunately this is not possible due to time constraints for this project.

The following recommendations should form part of the planning conditions.

Trees and Hedgerows Retention

It is recommended (and should form part of the planning conditions) that as much of the important ecological features present on the proposed development site should be retained. These include the hedgerows and the trees of varying ages. These ecological features have nature conservation importance due to the maturity of some of the trees, food resources for small mammals and birds, nesting and/or roosting opportunities for bats and birds in the area and wildlife corridors.

Please see appendix B: Phase 1 Habitat map

6. SUMMARY/CONCLUSIONS

No flora species listed on Schedule 8 of the Wildlife and Countryside Act 1981 were found to exist at the proposed development site

The ecological value of the grassland has been greatly reduced by the heavy poaching of grazing horses and the increased nutrients from the horses' manure. Also the run off from the neighbouring slurry pit has increased the nutrients present on the proposed development site. This has enabled aggressive flora species (nettles and docks), to colonise large areas of the grassland, turning the grassland into tall herb vegetation.

The lagoon present on the site is thought to offer low ecological value to wildlife because of the high concentration of slurry.

7. REFERENCES

English Nature. (2004) *Bat Mitigation Guidelines.* English Nature

RSPB (2002) The population Status of Birds in the UK, Bids of conservation concern: 2002-2007

The Conservation (Natural Habitats, &c.) Regulations 1994. HMSO

Wildlife and Countryside Act (1981)

Countryside and Rights of Way Act (2000)

Joint Nature Conservation Committee. (1990) Handbook for Phase 1 Habitat Survey

8. APPENDENCES

APPENDIX A: Flora/Fauna Species Located on Site.

APPENDIX B: Phase 1 Habitat Map (development Site).

APPENDIX C: Location of the Development site

APPENDIX D: Photographic records

APPENDIX E: Plants Listed on Schedule 8 of the Wildlife and Countryside Act, 1981.

APPENDIX A: Flora / Fauna Species Located on Site.

Dominant Plant Species Found on the Site

		DAFOR
Brambles	*Rubus fruticosus*	F
Common Nettle	*Urtica dioica*	F
Broad Buckler Fern	*Dryopteris austriaca*	F
Fox Glove	*Digitalis purpurea*	O
Ivy	*Herbera helix*	O
False Oat-grass	*Arrhenatherum elatius*	*F*
Perennial Rye-grass	*Lolium perenne*	F
Docks	*Umex crispus*	F

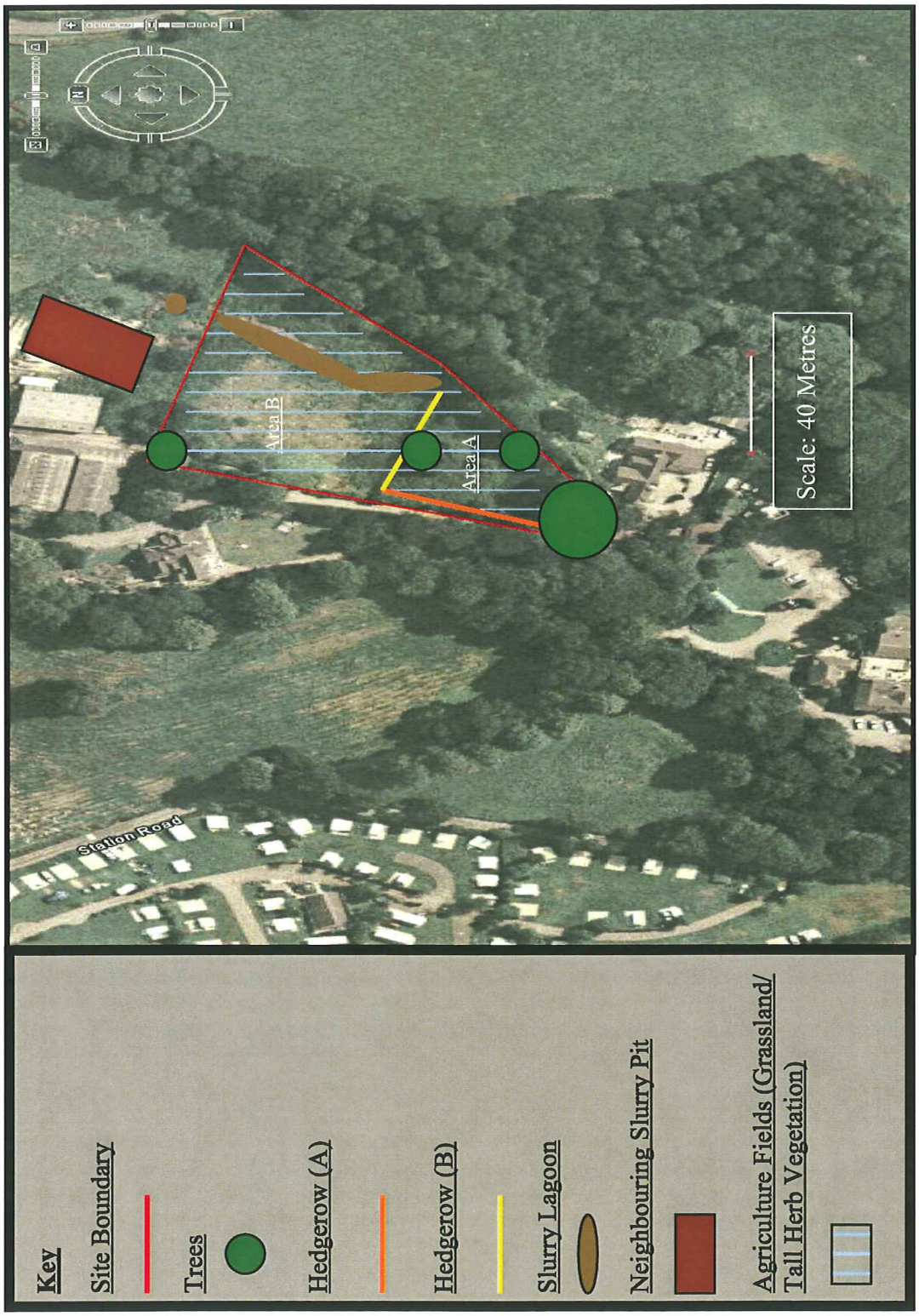
Tree Species

		DAFOR
Hawthorn	*Crataegus*	F
Silver Birch	*Petula pendula*	O
Scots pine	*Pinus Syivestris*	O
Oak	*Quercus robur*	F
Elder	*Sambucus nigra*	R

Birds: Recorded on the Site or in the Surroundings Habitats

Black Bird	*Turdus merula*
Robin	*Erithacus rubecula*
Blue Tit	*Parus caeruleus*

APPENDIX B: Phase 1 Habitat Map (Development Site).



APPENDIX C: Photographic Records

View of Area B; showing slurry run off in the lower section of the field



View of Area A; showing the hedgerow and a cluster of trees.



Area B; showing hedgerow and a section of the lagoon in the lower section of the field.

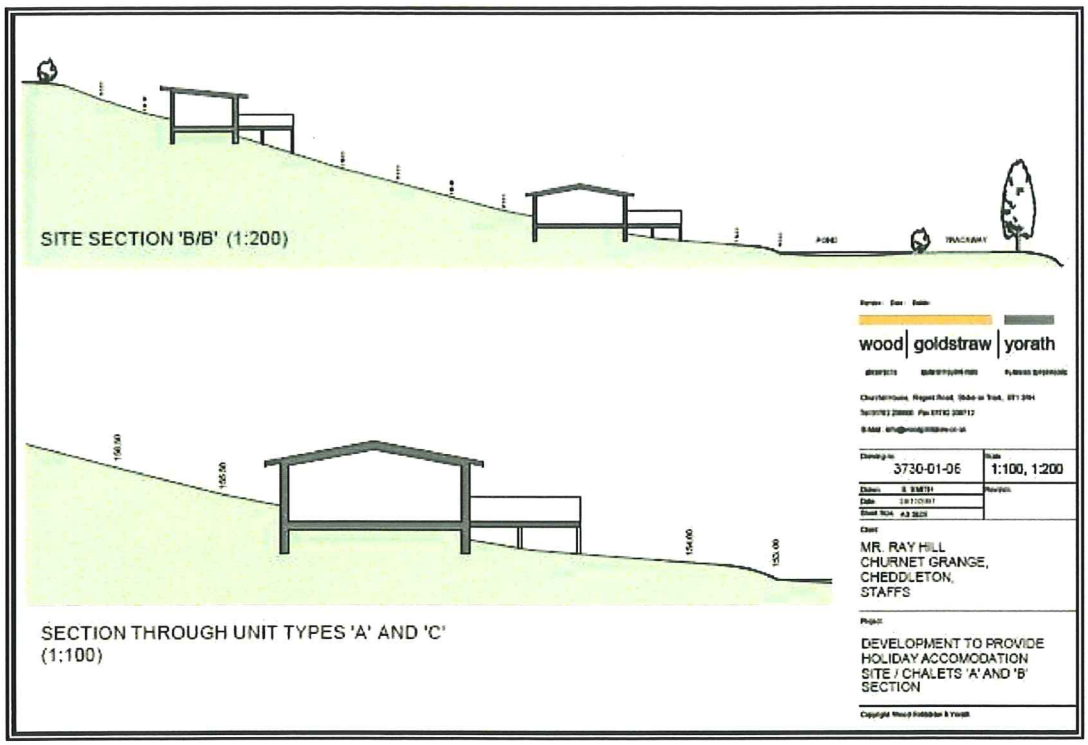


Area B: showing poaching caused by the horses.



Appendix D: Cross section and plan of the proposed development

Cross section of the proposed development



Plan of the proposed development



APPENDIX E: Plants listed on Schedule 8 of the Wildlife and Countryside Act, 1981

Vascular Plants

Ajuga chamaepitys	ground pine
Alisma gramineum	ribbon-leaved water-plantain
Allium sphaerocephalon	round-headed leek
Althaea hirsuta	rough marsh mallow
Alyssum alyssoides	small alison
Apium repens	creeping marshwort
Arabis alpina	alpine rock-cress
Arabis stricta	Bristol rock-cress
Arenaria norvegica	Norwegian sandwort
Artemisia campestris	field wormwood
Atriplex (Halimione) pedunculata	stalked orache
Bupleurum baldense	small hare's ear
Bupleurum falcatum	sickle-leaved hare's ear
Carex depauperata	starved wood-sedge
Centaurium tenuiflorum	slender centaury
Cephalanthera rubra	red helleborine
Chenopodium vulvaria	stinking goosefoot
Cicerbita alpina	alpine sow-thistle
Clinopodium menthifolium (Calamintha sylvatica)	wood calamint
Corrigiola littoralis	strapwort
Cotoneaster cambricus (C. integerrimus)	wild cotoneaster
Crassula aquatica	pigmyweed
Crepis foetida	stinking hawk's-beard
Cynoglossum germanicum	green hound's-tongue
Cyperus fuscus	brown galingale
Cypripedium calceolus	lady's-slipper
Cystopteris dickieana	Dickie's bladder fern
Dactylorhiza lapponica	Lapland marsh orchid
Damasonium alisma	starfruit
Dianthus armeria	Deptford pink
Dianthus gratianopolitanus	Cheddar pink
Diapensia lapponica	diapensia
Eleocharis parvula	dwarf spike-rush
Epipactis youngiana	Young's helleborine
Epipogium aphyllum	ghost orchid
Equisetum ramosissimum	branched horsetail
Erigeron borealis	alpine fleabane
Eriophorum gracile	slender cottongrass
Eryngium campestre	field eryngo
Filago lutescens	red-tipped cudweed
Filago pyramidata	broad-leaved cudweed
Fumaria reuteri (F. martinii)	Martin's ramping-fumitory
Gagea bohemica	early star of Bethlehem
Gentiana nivalis	alpine gentian

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Gentiana verna	spring gentian
Gentianella anglica	early gentian
Gentianella ciliata	fringed gentian
Gentianella uliginosa	dune gentian
Gladiolus illyricus	wild gladiolus
Gnaphalium luteoalbum	Jersey cudweed
Hieracium attenuatifolium	weak-leaved hawkweed
Hieracium northroense	Northroe hawkweed
Hieracium zetlandicum	Shetland hawkweed
Himantoglossum hircinum	lizard orchid
Homogyne alpina	purple colt's-foot
Hyacinthoides non-scripta	bluebell
Lactuca saligna	least lettuce
Leersia oryzoides	cut-grass
Limosella australis	Welsh mudwort
Liparis loeslii	fen orchid
Lloydia serotina	Snowdon lily
Luronium natans	floating water-plantain
Lychnis alpina	alpine catchfly
Lythrum hyssopifolia	grass-poly
Melampyrum arvense	field cow-wheat
Mentha pulegium	pennyroyal
Minuartia stricta	Teesdale sandwort
Najas flexilis	slender naiad
Najas marina	holly-leaved naiad
Ononis reclinata	small restharrow
Ophioglossum lusitanicum	least adder's-tongue
Ophrys fuciflora	late spider orchid
Ophrys sphegodes	early spider orchid
Orchis militaris	military orchid
Orchis simia	monkey orchid
Orobanche artemisiae-campestris (O. loricata)	oxtongue broomrape
Orobanche caryophyllacea	bedstraw broomrape
Orobanche reticulata	thistle broomrape
Petroraghia nanteuilii	Childing pink
Phyllodoce caerulea	blue heath
Phyteuma spicatum	spiked rampion
Polygonatum verticillatum	whorled Solomon's seal
Polygonum maritimum	sea knotgrass
Potentilla rupestris	rock cinquefoil
Pulicaria vulgaris	small fleabane
Pyrus cordata	Plymouth pear
Ranunculus ophioglossifolius	adder's-tongue spearwort
Rhinanthus serotinus (R. angustifolius)	greater yellow-rattle
Coincya wrightii (Rhynchosinapis wrightii)	Lundy cabbage
Romulea columnae	sand crocus
Rumex rupestris	shore dock
Salvia pratensis	meadow clary
Saxifraga cernua	drooping saxifrage
Saxifraga cespitosa	tufted saxifrage
Saxifraga hirculus	yellow marsh-saxifrage

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Scirpus triqueter	triangular club-rush
Scleranthus perennis	perennial knawel
Scorzonera humilis	viper's-grass
Selinum carvifolia	Cambridge milk-parsley
Senecio paludosus	fen ragwort
Stachys alpina	limestone woundwort
Stachys germanica	downy woundwort
Tephroseris integrifolia (ssp. *maritima*)	South Stack fleawort
Teucrium botrys	cut-leaved germander
Teucrium scordium	water germander
Thlaspi perfoliatum	perfoliate penny-cress
Trichomanes speciosum	Killarney fern
Veronica spicata	spiked speedwell
Veronica triphyllos	fingered speedwell
Viola persicifolia	fen violet
Woodsia alpina	alpine woodsia
Woodsia ilvensis	oblong woodsia

9 LIMITING CONDITIONS/DISCLAIMERS (Unless stated otherwise)

1. **The Service**

1.1 Moorlands Ecology agrees to supply Ecological consulting services of a preliminary nature or a more thorough service as advised or as commissioned.

2. **Fees**

2.1 The client(s) will settle the agreed fee in full, within 30 days of receiving the invoice. Reports will remain the property of Moorlands Ecology until full payment has been received. No liability is accepted for the contents of a report that is not paid in full. Any queries should be notified to Moorlands Ecology within 7 days of the invoice date.

2.2 If the client(s) fails to pay within the time specified in 2.1 then Moorlands Ecology shall charge the client(s) interest on the outstanding fee, both before and after any judgment, at the rate of 4% above the HSBC Bank base rate, until payment is made in full (A part of a month being treated as a full month for the purposes of calculating interest).

2.3 In the event that it is necessary to recover any outstanding fees from the client(s), the client(s) will fully reimburse any costs and expenses incurred during the recovery period, including court costs. Moorlands Ecology reserves the right to make a charge for every letter sent and telephone/fax call made, in connection with the recovery.

3. **The Report**

3.1 If any part of the report is lost, or altered without the written consent of Moorlands Ecology, then the entire report becomes invalid.

3.2 The general format of reports is a certified product and cannot be shown, copied or distributed to third parties without the permission of Moorlands Ecology. No liability is accepted for the contents of the report, other than to that of the client(s).

3.3 The report will purport not to express any opinion or comment as to the condition or structural integrity of any building and no reliance should be made on any such comments.

4. **Insurance Cover**

4.1 All work carried out by Moorlands Ecology is covered by a £1,000,000 professional indemnity insurance.

5. **Quality of Craftsmanship**

5.1 When appointing an Ecologist, please use only suitably qualified and experienced companies (The Local Authority and the Institute of Ecology and Environmental Managers may be able to provide a select list of such companies)

5.2 Moorlands Ecology will not accept liability for any works undertaken by any other companies, or contractors.