Hawk and Owl Trust

Baling for Biodiversity

NORFOLK WILDLIFE TRUST

County Wildlife Site

Management Plan

Hoe Common (2230)

Norfolk Wildlife Trust and Hawk and Owl Trust

August 2013

Contents

1.Background

Hoe Common is a lowland dry heath bordered by secondary woodland and hedge banks. The heath has suffered severe encroachment by Bracken (Pteridium aquilinum) and Gorse (Ulex europeaus) but two substantial areas of heath dominated by Ling heather (Calluna vulgaris) still remain. Secondary woodland is dominated by Silver birch (Betula pendula) and Pedunculate oak (Quercus robur) with some veteran pollard trees surrounded by a bank on the east. The location of the site is shown in map 1 below.

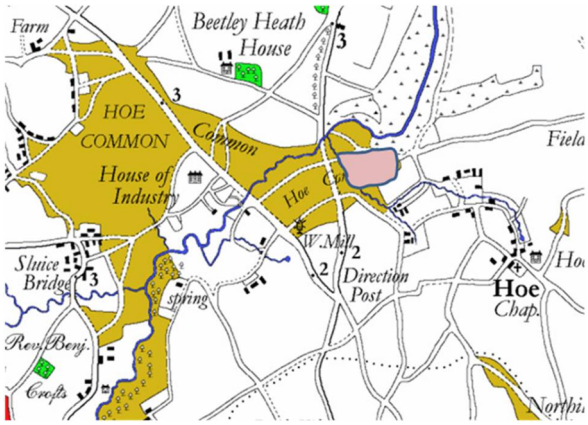
A public footpath runs along the northern boundary of the site linking the B1110 to the Hoe – Worthing road. There is full public access to the site with a number of regularly used paths within the site. There are proposals to use this path as part of a pedestrian link route between the Gressenhall Museum and a new halt on the Mid-Norfolk Railway.

Hoe Common was notified as a County Wildlife Site 2230 in 2012, but was previously part of CWS 1029. The site was designated for its interest as a fragment of lowland heath, with interesting features including the veteran pollard oaks on the boundary, two species of heather and a population of adders. The site is managed by local volunteers and a board of trustees. The site is adjacent another County Wildlife Site Hoe Gravel Pit (1029), a mosaic of former mineral workings with mature scrub, grassland and open water lying to the south of the Common.

Map 1: Location of Hoe Common

2. History

Faden's 1790 Map of Norfolk (Lark's Press, 1989), shows the original much larger extent of Hoe Common (see Map 2 below) prior to enclosure. The current Common occupies the area shaded in pink. A small tributary of the River Whitewater which once ran along the western perimeter of the site, appears to no longer exist.



Map 2: Faden's 1790 map showing the original extent of Hoe Common

Historically heaths such as Hoe Common were used for rough grazing on open heather and grassland, for the collection of firewood and fuel (birch, gorse etc.) and animal bedding (bracken). This tended to control the invasive species keeping the heath open and allowing the heather and grass to flourish. Indeed, The Enclosure Act of 1811 set aside 12 acres of land as a Fuel Allotment for the poor of Hoe for the cutting of peat and brushwood.

A series of trenches on the eastern side of the site are believed to have been created for military training purposes during World War 1 but their full history is still to be investigated. The 1946 RAF aerial photograph of the site (see Fig 1 below) shows how little tree cover there was still on the site.

Fig 1: 1946 Aerial Photograph from Norfolk County Council

The history of the site thereafter is not well documented but the heath went largely unmanaged for many years except for management works undertaken by locals and an uncontrolled fire in 1976 which burned off most of the gorse and birch, allowing the heather to regenerate

By the mid-1990s the Common was dominated by bracken and gorse and encroaching woodland had covered about 65% of the site and bracken / gorse a further 25%. A management plan was developed under the auspices of the Wensum Valley Project to restore the site which made considerable progress clearing areas of invading birch and opening up areas for heather regeneration. The work won a Countryside Award from Breckland Council in 2000 but then management work began to tail off after the Wensum Valley project was unable to continue its support.

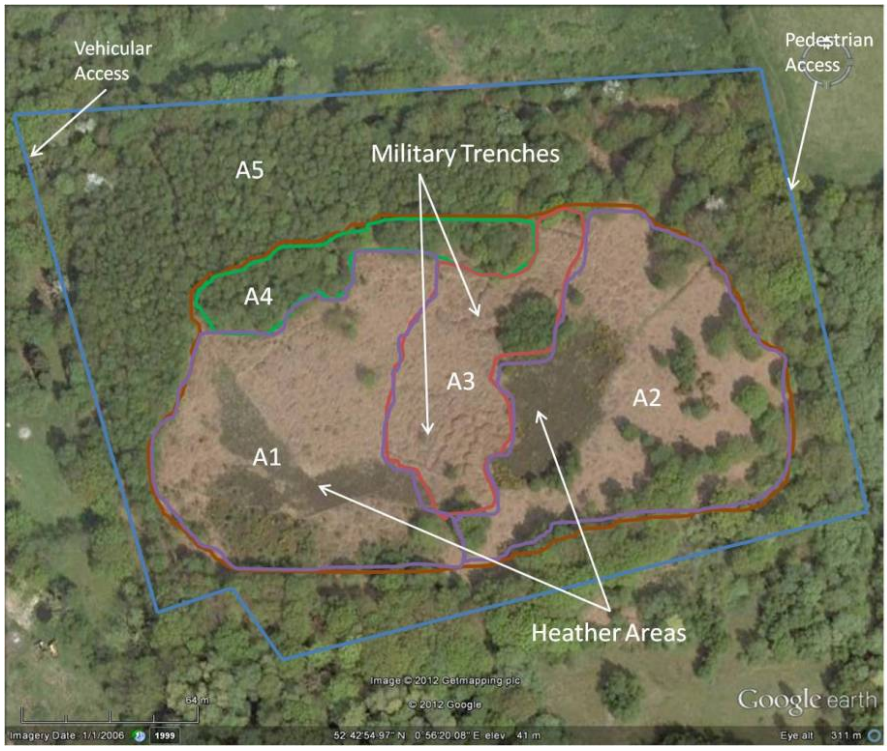
The Common is now returning rapidly to the condition it was in before the restoration work of the late 1990s.

3. Habitats & current site condition

Hoe Common is an area of dry lowland heath bordered on all sides by secondary woodland and in the east a pollard hedge. The lowland heath has been encroached by bracken and increasingly gorse, but two areas of open heathland remain from past management activities.

A habitat survey was carried out by Norfolk Wildlife Trust in May 2012, reported the following distribution of habitat types across the site:

Habitat Code	***Habitat type***	***Percentage coverage***
C1	Bracken	40
A1.1.1	Semi-natural Broadleaved Woodland	35
D1.1.2	Dry dwarf scrub heath - acid	15
J2.2	Defunct hedge	5
J2.3	Hedges with trees	5



Map 3: Habitat Areas Approx. 2006 aerial photograph showing habitat areas. Some habitat changes have taken place since the photo was taken.

The following distinct areas have been defined for management purposes:

Area A1: Neglected Heathland / Bracken

Heathland restored by past management work remains to the north of an informal footpath. Bracken is encroaching and becoming increasingly dominant in this area. There are a small number of mature single oaks and birches in the bracken to the north of the area. The heather is of varied age and structure and there are a number a grass species present. To the south of the footpath is an area of gorse and scrub with small birch and oak saplings.

Area A2: Neglected Heathland / Gorse

This area of remnant heathland is dominated by heather but has become neglected and suffered encroachment by Gorse. Mature oaks and birches form the southern fringe of this area. Young birch forms a stand to the south of an informal path which abuts the heather.

Area A3: Military Trenches

Bracken dominates this part of the common. Archaeology is a key constraint in this part of the site as it contains disused military trenches which are sometimes hard to discern due to the depth of vegetation. This area is separated from A2 along its eastern edge by a stand of young birch trees.

Area A4: Woodland regeneration

Along the northern woodland boundary saplings of oak and birch are regenerating the woodland edge and encroaching into the heath.

Area A5: Secondary Woodland

Secondary woodland fringes the perimeter of the site. There is a large bank on the eastern perimeter with bare stony soil and mature oaks; there is a range of ground cover species including bramble, ground ivy and bracken. Here the secondary oak is of even age with no dead wood and no shrub layer. On the southern boundary there are veteran oaks and occasional beech but it is primarily silver and downy birch with frequent elder. In the south west corner is a dip with a damper area close to a stream course with male fern and water forget me not. The woodland is oak and holly with denser birch growth on the edge of the heath. The western boundary is primarily young oak and birch with occasional holly, rowan and hawthorn. The northern boundary has a relic hawthorn edge north of the public footpath. The woodland is mainly silver birch and oak with garlic mustard and herb Robert as ground cover. There is also a large crab apple.

4. Vision for Hoe Common CWS

The long term vision for this site is to maintain and expand existing areas of lowland heath, which is a priority action plan habitat in Norfolk. The heathland will be managed to create a diversity of age structures within the heather and trees will be cleared from the centre of the heath to prevent encroachment.

Gorse scrub will be reduced and controlled across the site.

Adders will be protected. Site management in line with HLS prescription starting October 2013

Areas free of bracken will be created and maintained. Management by grazing ponies could help to maintain these conditions in the longer term.

Trees will be cleared from the centre of the heath (but the adder hibernacula maintained). Tree clearing through ring barking will allow the creation of standing and fallen deadwood which will create perching habitat for birds and habitat for invertebrates.

The perimeter woodland will be largely untouched but there will be some thinning and glade creation to allow more light into the under storey. The edges will be scalloped on south facing areas to create warm areas which are particularly beneficial to butterflies and reptiles.

5. Aim of management plan

The aim of this management plan is to set out a methodology based on a period of ten years for restoring parts of the site to lowland heath/acid grassland and to maintaining them in a sustainable, cost-effect manner with community volunteer participation. In parallel, the structure of the surrounding woodland and edge habitat will be improved.

Lowland heath/acid grassland is a priority habitat for biodiversity work in Norfolk and targets for maintaining and expanding the county's heathland resource are set out in the Norfolk Lowland heath/dry acid grassland biodiversity action plan, which can be found at: http://www.norfolkbiodiversity.org/actionplans/habitatactionplans/lowland_heathland.aspx

6. Conservation priorities & aims of management work

- To increase the amount of lowland heathland by managing and removing invading scrub and non-ruderal species. This management needs to be capable of being sustained over time and be cost-effective.

- To create greater structural and age diversity within remaining areas of gorse and secondary woodland, benefiting a greater range of wildlife.

- To optimise habitat for adders and other reptiles and avoid disturbance to any existing colonies during management work

- To meet the requirements of any HLS scheme entered into during the life of the plan. This is likely to include ensuring benefits to heathland vegetation characteristic of the area and controlling bracken

7. Indicators of Success

- By year 5, cover of Bracken and Gorse should be reduced to <10% on the target areas of heath/acid grassland.

- By year 5, cover of silver birch should be reduced to <10% of open areas of heath/acid grassland.

- By year 5, there should be a wide range of age classes of dwarf shrubs present. This should include between 10% and 40% cover of pioneer stage; between 10% and 50% cover of degenerate stage and no more than 20% cover of dead dwarf shrubs.

- In each year, fresh gaps/ pathways through bracken stands (that result in the exposure of bracken litter to direct sunlight) should be at least occasional in June and July.

- By year 5, at least two desirable wildflower species such as ling and bell heather, heath bedstraw and sheep's sorrel should be occasional.

8. Constraints

· **Public Access**

This is an open access site heavily used by dog walkers there is therefore a need to maintain public access. If any areas need to be closed for work hazard sign and appropriate precautions need to be taken to ensure public safety. There is gated access from the B1110 suitable for vehicles.

· **Grazing**

There is insufficient fodder to reintroduce grazing on the site at present. In time there may be sufficient grazing for 2-3 Ponies or highland cattle for a month. Grazing with sheep is not suitable at this site due extensive dog walking. Weight of animal will need to be considered in relation to the trenches. Options for short term grazing may be appropriate in the future and these could be advised by NWT staff.

· **Archaeology**

Interest in the form of military trenches possibly used for training. In accordance with archaeological advice, management work in this area should be limited to hand tools and no heavy machinery used in this area.

· **Felling licences**

It is not anticipated that a felling licence will be required for the tree removal work as the volumes in question will not exceed the 5 cubic metres per quarter limitation. If this were to be the case, further advice should be sought from Norfolk Wildlife Trust.

9. Management Prescriptions

Conservation Priorities	Prescriptions	Year/s	Timing	Who to deliver	Details
Increase area of lowland heath in areas A1 and A2	Remove mature birch and oak from open heath area Remove young birch and oak from open heath area Cut and treat stumps Fell significant young birch stands in north east of area A3 and south west of area A2 Oaks causing shade and acting as a seed source should be ring barked Monitor the amount of Broom across the site	1-2	Oct-Mar	Hawk and Owl Trust and community volunteers	All of the birch removed and stump treated, except around adder hibernaculum where ring baking should be used. Ring barked trees should be left as standing deadwood. Treat stumps with Natural England approved systemic herbicide such as Roundup. This should be applied with a brush immediately after cutting. If necessary treat re-growth during June / July. Check if felling licence required. Decide on a mix of felling and ring barking dependent on the level of objections. Broom is currently not a problem on the site. This should be periodically monitored.
Increase age & structural diversity of heather in areas A1 and A2	Implement programme of cutting blocks on rotation and / or Graze with ponies	1 - 10	Jan-Mar	Hawk and Owl Trust and grazier.	Cut <20% each year or 2. Never the whole area at once. Rake arisings off and create some bare ground. Seek advice from NWT before reintroducing grazing.

Bracken control	Options for the control of Bracken 1)Hawk and Owl Trust cut and bale 2) Look at spraying (Limited licence with Asulox if available) 3) Control bracken by cutting/ hand pulling or spraying by volunteers 4) Remove litter back to the sandy soil and treat subsequent regrowth of birch and bracken 5) Do a combination of the above.	1-5	June- Aug	Hawk and Owl Trust and community volunteers	Cut two or three times and collect arising. Use habitat map and aerial photos to identify area for bracken clearing. Removed litter can be left under the trees in the woodland to rot. This may require additional funding. Regrowth of birch and bracken should be treated with a weed wipe or pulled by hand. Do not cut as this will produce multi stemming. Discuss with NWT and Hawk and Owl Trust. Will be dependent on available funding.
Bracken control on military trenches	Remove bracken by hand pulling or spot treating. No scraping.	1-5	June -Aug	Community volunteers	

Manage areas of gorse	Manage infield mature gorse, reducing areas of stands where necessary, opening it up and managing it to diversify age and height	1-5	Sept - Feb	Hawk and Owl Trust and community volunteers	Retain gorse on edge of woodland to create graduated edge habitat. Gorse removal could be done by hand if volunteers were available. Or it could be cut in sections over a number of years with a brush cutter and rake.
	Cut and stump treat or hand pull emergent gorse	1-5	Sept - Feb	Community volunteers or contractors	Emergent gorse can be treated with a brushwood killer or a weed wipe if funds allow. Gorse will regenerate in cleared areas before heather so a weed wipe can be used at this stage with no detrimental effects to the remnant heathland.
Gorse control with military trenches	Remove mature and emergent gorse	1-5	Sept - Feb	Community volunteers	Gorse removal around the area of the trenches will need to be done by hand and mature plants stump treated.
Secondary Woodland management	Need to diversify woodland structure through thinning	1-10	Oct- Feb	Gressenhall trainees may be able to undertake tree felling	Gressenhall might charge.
	Woodland by the boundary- open up glades	8-10	Oct- Feb	As above	Not a priority, but would be very beneficial if time and resources allowed.

Manage woodland edge	Remove young birch to a depth of approximately 20m to natural tree line to north of areas A1 and A2.	1-3	Oct-Feb Treat re-growth during June / July (If necessary)	Hawk and Owl Trust and community volunteers	Prevent birch regeneration by stump treating. Treat stumps with Natural England approved systemic herbicide such as Roundup. Apply with a brush immediately after cutting.
	Scallop the woodland allowing approximately 5m of scrub to regrow to form transition habitat.	1-10	Oct – Feb	Hawk and Owl Trust and community volunteers	
	Push the edge of the heathland to the woodland to create a woodland fringe to within 10m of the woodland edge	1-10	Oct – Feb	Hawk and Owl Trust and community volunteers	
Boundary Oaks	New boundary oaks should be created	1-3	Jan-Dec	Community volunteers	Seeds could be grown at local school and planted along the boundary to replace existing trees which are now too old to continue to pollard. This would in the long term to allow the creation of new pollards for the future.
Fencing	Remove barbed wire from boundary and replace fencing	1-2	Jan - Dec	Community volunteers	Has to be done in first couple of years due to time restriction on HLS funding for capital works. Seek extra funding for future work.
Review work plan		Annually	July – Sept	HOT, Hoe Common volunteers, NWT and NE	
Review management plan		5		Trustees, HOT and NWT	

Appendix 1: CWS Citation

County Wildlife Site Survey Form
(Ref. No. 2230)

Site Name: Hoe Common **Parish: Hoe**
Grid reference: TF 98595 17136 **Area: 4.78 ha**
District: East Dereham

Site description:
Hoe Common is an area of relict dry heath bordered by woodland and hedge bank. The heath is mainly dominated by bracken *(Ptilidium aquilinum)* but there are two substantial areas of heather (*Calluna vulgaris)* amongst it. The woodland is mainly secondary birch (*Betula pendula)* and oak (*Quercus robur)* with some veteran trees surrounded by a bank on the east. Hoe Common was formerly part of CWS 1029 and is separated from NWT Hoe Rough by a narrow lane.

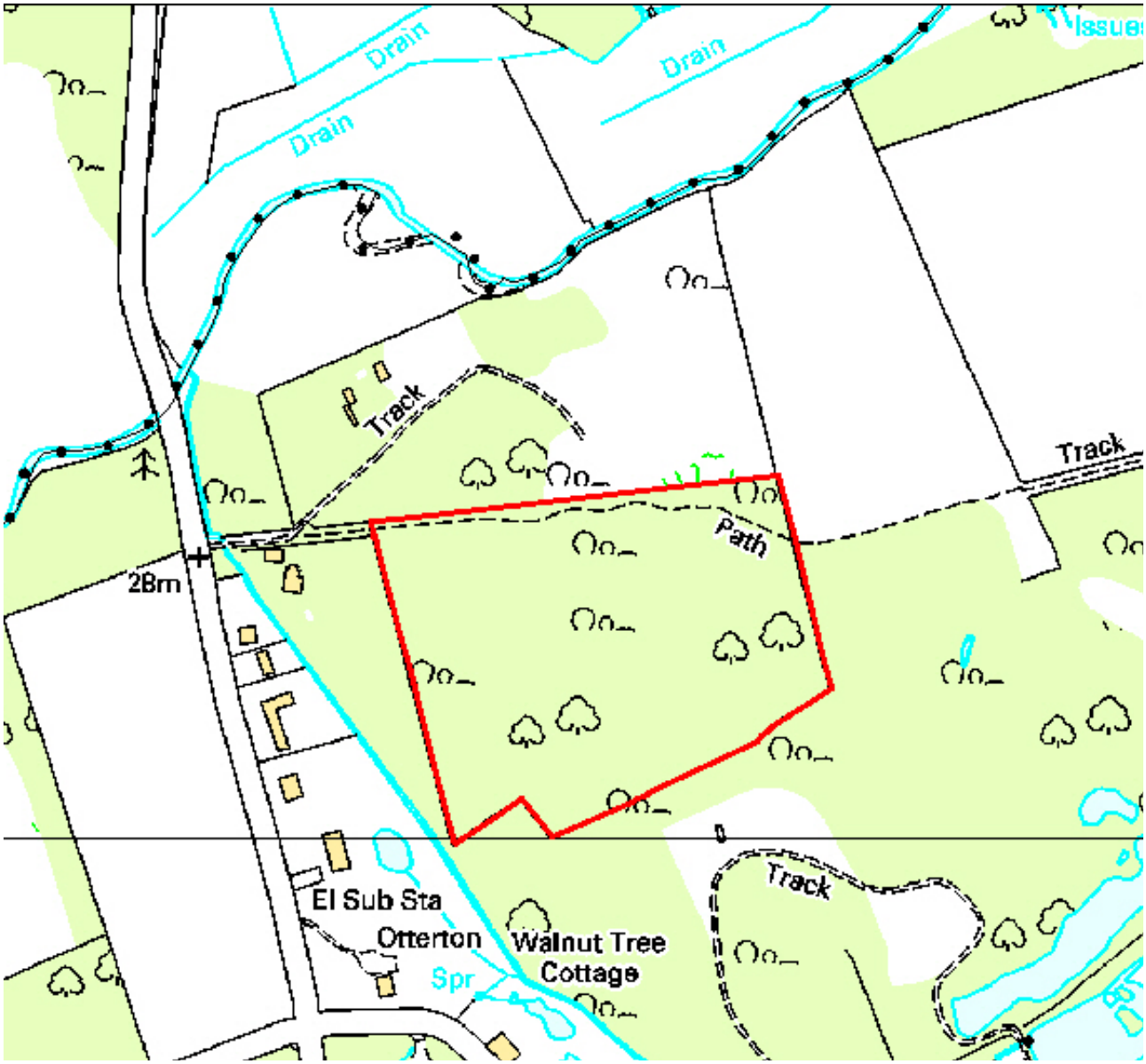
The eastern boundary of the site is marked by a large bank topped with mature oaks (Quercus robur) some of which are pollarded; there is bare stony soil on the bank where bramble (Rubus fruticosus agg.) is abundant and the moss *Mnium honum* dominant. Ground ivy *(Glechoma hederacea)* is common and bracken and buckler fern *(Dryopteris dilitata)* occasional. Wood sage (*Teucrium scorodonia*) is locally common along the bank with elm *(Ulmus procura)* suckers and a dead elm in the south east corner. Away from the bank there is an area of secondary oak woodland of even age. Holly *(Ilex aquifolium)* is occasional with silver birch rare. There is no shrub layer or regeneration. Bracken is the dominant ground layer species. There is no standing or fallen dead wood.

On the southern boundary elder (*Sambucus nigra*) is frequent with both dead trees and suckers. Honeysuckle (*Lonicera periclymenum*) is abundant. There is one broom (*Sarothamnus scorparius*) bush here. The woodland in the south becomes frequented by silver birch and downy birch (*Betula pubescens*) with occasion veteran oaks.

At the south west corner of the site there is dip. It is damp as a stream runs nearby and male fern (*Dryopteris fili-max*) is abundant as is water forget me not (*Myostis aquaticus*). There is a patch of pendulous sedge (*Carex pendula*) by the stream. The woodland is made up of holly and oak with broad buckler fern (*Dryopteris dilatata*) frequent. On the edge of the heath there is denser birch growth.

The western boundary is made up of young secondary woodland with mixed oak and birch dominant. Hawthorn (*Crataegus monogyna*), holly and rowan (*Sombus acuparia*) are less common and bracken dominates the ground layer. There is fallen and standing dead wood with abundant fungi. This progresses to an area of mainly silver birch and less oak with occasional crab apple (*Malus sylvestris*) and sycamore (*Acer pseudoplatanus*). The north side is bordered by a relict hawthorn hedge, where garlic mustard (*Alliaria petiolata*), nettles (*Urtica diocia*) and herb robert (*Geranium robertianum*) frequent.

The central area of the site is mainly open with patches of birch and gorse (*Ulex europaeus*). Bracken dominates creating a thick layer of mulch. There are two patches of ling heath (*Calluna vulgaris*). Pill sedge (*Carex pilulifora*) is occasionally found amongst the bracken. Yorkshire fog (*Holcus lanatus*) and sheep's sorrel (*Rumex acetosellla*) are also occasional here. The *Calluna vulgaris* heath to the west has heather of varied age and structure. Pill sedge is frequent here and bell heather (*Erica cinerea)* is found here, but is rare. There are some encroaching birch saplings and gorse. The pathway through the heath has sheep's fescue *(Festuca ovina),* heath bedstraw *(Galium saxatile) and* sheep's sorrel.


Drain
Drain
Drain
Track
Track
Path
2Brn
El Sub Sta
Otterton
Walnut Tree
Cottage
Spr
Track