

ECOLOGICAL SURVEY

Bird Survey at Greno Woods, Sheffield
April - June 2015



July 2015

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Sheffield and Rotherham Wildlife Trust are grateful for the efforts of the volunteers who carried out the majority of the fieldwork for this survey, including:

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Contents

1.0	INTRODUCTION.....	4
1.1	Site	4
1.2	Aims of survey	4
2.0	METHODOLOGY	5
2.1	Survey Planning and Set Up.....	5
2.1.1	Route.....	5
2.1.2	Volunteers	5
2.1.3	Training and Scheduling.....	6
2.2	Survey Methodology	7
2.2.1	Survey Instructions	7
2.2.2	Recording Results	8
3.0	RESULTS.....	9
3.1	Species Lists	9
3.2	Issues and Comments.....	13
3.2.1	Ability of Surveyors – Identification.....	13
3.2.2	Ability of Surveyors – Detectability	13
3.2.3	Ability of Surveyors – Distance and Location	13
3.2.4	Route A	14
3.2.5	Weather conditions/time of year	14
3.2.6	Adapted Nature of the Survey/Disturbance Factors	14
4.0	Recommendations	15
4.1	Further Analysis.....	15
4.2	Repeating/Extending Survey	15
4.3	Changes to Future Survey Methodology	15
5.0	APPENDICES	16
5.1	APPENDIX ONE – Survey Maps.....	17
5.2	APPENDIX TWO – Route Instructions	21
5.3	APPENDIX THREE – Survey Methodology.....	28
5.4	APPENDIX FOUR - Results	33

1.0 INTRODUCTION

1.1 Site

Greno Woods is located on Sheffield's northern fringe, straddling the A61 adjacent to Wharncliffe and Wheata woods. It covers an area of 169 hectares (418 acres) and is centred on OS Grid Reference SK 330 950. Approximately 162 hectares of the reserve comprises broadleaf woodland and coniferous plantation woodland, with the remaining 6.7 ha comprising heathland and birch scrub which has been enclosed for grazing.

Purchased for the purposes of conservation, public recreation and the production of sustainable timber, the woods have been managed by the Sheffield and Rotherham Wildlife Trust (SRWT) since 2010. The majority of the Trust holding (Greno Wood and Little Hall Wood) lies to the west of the A61, with Low Hall Wood to the east.

1.2 Aims of survey

Since SRWT started to manage the woodland, a number of ecological and other surveys have been commissioned in order to inform a comprehensive management plan for the site.

The Greno Project Manager identified that although there was some data available for bird species present in the area, it was very broad (i.e. in kilometre squares) and it was difficult to be certain if a particular bird species was present in the area of Greno Woods now owned by the Trust. This survey was commissioned to acquire a basic understanding of the species present in specific areas within the woods.

Although a comprehensive survey such as a Common Bird Census would have been ideal, the reality of funding and available resource meant that this was not feasible. Carrying out a more basic bird survey would make best use of the resource available, and also offer the opportunity for local volunteers to get involved in the work.

Various survey methods for obtaining a 'snapshot' of the bird species present were discussed, and a modified Point Count Transect Survey method was chosen for the following reasons:

- Less intensive than either a Common Bird Census or a full transect survey; although not a full census of the bird population, with an adequate sample size a reasonable estimate of the bird species present can be obtained.

- Points to be sampled can be placed along a certain route and/or to cover a certain area e.g. areas of recent clear fell, in order to collect data about specific habitat types/changes on the bird population. (Hence a modified Point Count Transect Survey; the unmodified version would be a number of randomly placed points.)
- With sufficient maps/instructions, points could be easily located by surveyors without the need for staff/survey co-ordinator to be present.
- Point count transect surveys can be repeated in future years to enable longer term monitoring to take place.
- As long as a minimum of three survey visits take place at each point, the survey is flexible and allows for more or fewer volunteers to take part.
- Although this survey aims to simply present a list of bird species present, collecting the data in distance bands, and recording it with habitat information, means that additional analysis of the data can be undertaken at a future time (e.g. as a student project).

2.0 METHODOLOGY

2.1 Survey Planning and Set Up

2.1.1 Route

After discussion with the Greno Project Manager, three routes (Route A, B and C) were identified through the lower part of Greno Woods. Each route followed the network of footpaths and bridleways and most of the points were centralised on the path. Although this meant a higher risk of disturbance from users of the woodland (walkers, horseriders, cyclists) it made it more likely that all the surveyors would find the correct spot to survey from.

It was agreed that each point would be at the centre of a circle that was divided into three distance bands: 0-25m, 25-50m and 50-100m. This formed the survey area. The Survey Co-ordinator reviewed the routes using MapInfo to ensure that there was no overlap between points and created maps of each route. (Maps in Appendix 1)

The Survey Co-ordinator then walked each route and took photographs of each point, using these to write up comprehensive instructions on how to get to each point. (Instructions in Appendix 2)

2.1.2 Volunteers

Initially the Greno Project Manager approached a small number of experienced birders, unfortunately not all of them were able to participate. The

Survey Co-ordinator also approached people who had previously assisted with bird surveys, and asked Trust staff with the relevant experience if they could participate.

Over the last four years of work at Greno Woods, the Trust has built up a large mailing list of people who are interested in the work taking place there, and who have in many cases attended one or more events based in the woodland. A general appeal was sent out to the mailing list asking for experienced birders to get in touch if they would like to assist. It was stressed that surveyors did not have to be expert birders, but that they should be able to recognise common species, preferably by song.

In total, 17 individuals/pairs of potential surveyors expressed an interest and were invited to attend a training session. Of these, 5 decided not to take part, leaving a total of 12 survey teams (mostly individuals, but some pairs).

2.1.3 Training and Scheduling

The volunteers were invited to attend a 2 hour training session, this was run twice give everybody the opportunity to attend and covered:

- Survey methodology;
- Route maps and instructions;
- Survey sheets and a list of BTO 2-letter codes;
- A walk outside with a measuring device (trundle wheel) to check range estimation at 25, 50 and 100 metres;
- A bird quiz of images and birdsong (to ensure everybody had an adequate level of knowledge to carry out the survey); and
- Scheduling of volunteers.

Volunteers were asked to survey each route once, taking on one route per month i.e. a total of three routes. As there were more survey teams than route slots available, a nine-day timespan was allocated to each month's survey, to allow multiple surveys of the same route to take place without overlap.

Each route slot spanned three days, to give some flexibility for when the survey should take place to account for weather, other commitments etc.

Evening survey slots were also available – these were not compulsory but it was hoped that there would be at least one evening survey per route.

Not all surveyors were able to commit to carrying out a survey in every month, however there were sufficient surveyors to comfortably cover the minimum requirement of one visit to each route per month.

The final survey schedule is illustrated below – the dark colours indicate allocated and completed survey slots. The total number of survey visits were:

Route A – 8 morning visits and 3 evening visits

Route B – 8 morning visits and 3 evening visits

Route C – 8 morning visits and 4 evening visits

The survey visits were not evenly spread over the three survey months, but there were at least two morning visits each month.

	12/13/14 Apr		15/16/17 Apr		18/19/20 Apr	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Route A						
Route B						
Route C						
	3/4/5 May		6/7/8 May		9/10/11 May	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Route A						
Route B						
Route C						
	31 May/1/2 Jun		3/4/5 Jun		6/7/8 Jun	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Route A						
Route B						
Route C						

2.2 Survey Methodology

2.2.1 Survey Instructions

The full methodology statement is attached in Appendix Three. All survey teams were asked to carry out the survey as follows:

- All morning surveys to be carried out and completed within the first 6 hours after dawn (avoiding the first 30 minutes after sunrise), preferably before 10:30 a.m.
- Dusk surveys to be carried out in the two hours before dusk.
- Point counts to be carried out by walking to the point location, orientating the survey sheet to North and waiting for 2 minutes for any disturbance to settle. Then, a timed count of 5 minutes to take place, during which every bird seen or heard is noted on the survey sheet in the appropriate distance category and in the appropriate location relative to North, using the standard BTO two-letter codes (a “registration”).
- Birds in flight or outside the 100m zone could also be noted. Surveyors were also asked to note any disturbances e.g. walkers, road noise.
- Surveyors did not have to record birds while walking between points, but could note down extra species if they wished to do so.

2.2.2 Recording Results

The Survey Co-ordinator used the available OS maps, aerial photographs and a recce visit to create habitat maps for each route point. The habitats were named following the Woodland Types habitat map created by Alastair Willison in 2011, but updated for areas where thinning/clear felling had taken place.

Once a survey team had completed their allocated survey(s), they were asked to return their survey sheets to the Survey Co-ordinator.

The completed survey sheets were overlain on the habitat maps to identify where each registration was located.

Each registration was then entered onto an Excel spreadsheet as per the example below:

Point	Date	Start Time	Surveyor	Species	Distance Band	Habitat	Notes
C1	12/04/2015	07:05	J. Riley & M. Todd	Blue Tit	25m	Native Broadleaves	

Entering the data in this way allows simple results such as species lists to be created, but also allows for more complex analysis by (for example) habitat type, time of day etc. The use of distance banding also means that the data can be run through the free “Distance” software available at <http://distancesampling.org/> to arrive at an estimate of population density, although this analysis is outside of the scope of this initial report.

3.0 RESULTS

3.1 Species Lists

The Survey Co-ordinator was asked to produce Species Lists for all points, routes and the woodland overall. After inputting a total of 1747 registrations, the summarised species lists are presented below. Full data including raw data, species lists per point and species lists per route are available in Appendix Four.

When viewing the results, please note the following: The 'number of registrations' is the number of times a bird was recorded i.e. its two letter code written on a survey sheet. The 'number of surveyors' is the number of times a particular species was recorded by a particular surveyor PER POINT. For example Surveyor 1 recorded 3 Blue Tits at A1 during their morning visit, this is recorded as 3 "registrations" and 1 "surveyor". The more "surveyors" seeing the same species, the more confident we can be that the species is present.

A total of 50 species were identified during the survey. Route A had 37 species; Route B had 44 species; and Route C had 39 species.

The top five species recorded overall were:

1. Wren
2. Robin
3. Chaffinch
4. Blue Tit
5. Blackbird

The least frequently recorded species (five registrations or fewer) were:

- | | |
|------------------------|----------------------|
| • Buzzard | • Spotted Flycatcher |
| • Garden Warbler | • Swallow |
| • Gull species | • Swift |
| • Jackdaw | • Tawny Owl |
| • Linnet | • Tree Pipit |
| • Mallard | • Warbler sp. |
| • Red-legged Partridge | • Whitethroat |
| • Siskin | • Wood Warbler |
| • Sparrowhawk | • Yellowhammer |

Species considered noteworthy but not included above include:

- At least one Cuckoo regularly heard or seen, especially over the heath and clear fell areas around Route B, with a pair of Cuckoos seen several times;
- a considerable number of Willow Warbler registrations, particularly over the heath on Route B;

- Good Blackcap presence, particularly along Route C;
- A small number of Bullfinch registrations on all routes;
- Meadow Pipits present in small numbers along all routes, but particularly Route B;
- Song Thrush singing strongly during many of the surveys, especially around Routes B and C – it is likely that the registrations for Song Thrush have been overstated due to the way their song carries;
- At least one Kestrel seen over each route (possibly the same Kestrel seen multiple times);
- Woodcock present along Routes A and C.

Ecological Survey: 2015 Bird Survey, Greno Woods

Summarised Results for Greno Woods (All Routes)								
	Totals Route A		Totals Route B		Totals Route C		Totals	
Species	Total no. of registrations	Total no. of surveyors	Total no. of registrations	Total no. of surveyors	Total no. of registrations	Total no. of surveyors	Total no. of registrations	Total no. of surveyors
Blackbird	42	24	36	25	49	35	127	84
Blackcap	9	8	8	8	14	12	31	28
Blue Tit	56	28	37	23	48	32	141	83
Bullfinch	3	3	2	2	4	3	9	8
Buzzard	2	2			1	1	3	3
Carrion Crow	18	13	18	14	16	13	52	40
Chaffinch	27	20	59	36	76	51	162	107
Chiffchaff	20	14	23	19	39	32	82	65
Coal Tit	8	6	24	15	13	12	45	33
Collared Dove	3	3	2	2	3	3	8	8
Cuckoo	7	5	23	19	13	11	43	35
Dunnock	2	2	12	11	6	6	20	19
Garden Warbler			1	1	2	2	3	3
Goldcrest	1	1	11	9	11	8	23	18
Goldfinch	5	2	2	2	2	2	9	6
Great Spotted Woodpecker	4	4	14	13	8	7	26	24
Great Tit	26	19	40	32	25	20	91	71
Green Woodpecker	5	8	9	9	4	4	18	21
Greenfinch	2	2	8	8	4	3	14	13
Gull species			1	1			1	1
Jackdaw	1	1					1	1
Jay	6	5	10	8	5	5	21	18
Kestrel	1	1	2	2	3	3	6	6
Linnet			2	2			2	2
Long-tailed Tit	5	1	7	6	1	1	13	8
Magpie	4	3			2	1	6	4
Mallard			2	1			2	1
Meadow Pipit	1	1	7	6	4	1	12	8
Mistle Thrush	1	1	2	2	10	10	13	13
Nuthatch	5	5	5	5	4	4	14	14
Pheasant	2	2	22	19	20	18	44	39
Red-legged Partridge					1	1	1	1
Robin	54	34	57	43	77	55	188	132
Siskin			2	1	2	1	4	2
Song Thrush	7	6	20	17	16	15	43	38
Sparrowhawk			3	2			3	2
Spotted Flycatcher			2	1	2	2	4	3
Swallow			2	2			2	2
Swift			3	2			3	2
Tawny Owl			3	3	2	2	5	5
Treecreeper	2	2	4	3	5	5	11	10
Tree Pipit	1	1	4	3			5	4
Warbler sp.	1	1	3	1			4	2
Whitethroat			1	1	1	1	2	2
Willow Warbler	15	13	67	35	30	21	112	69
Woodcock	2	2			4	1	6	3
Wood Warbler	1	1					1	1
Woodpigeon	28	24	40	28	46	34	114	86
Wren	51	29	81	49	64	41	196	119
Yellowhammer			1	1			1	1
Total no of registrations/surveyor recordings for each route:	428	171	682	329	637	274	1747	774
Total no of species for each route:	37		44		39		50	

Results Sorted by Most Frequent to Least Frequent (Overall)

Species	Total no. of registrations	Species	Total no. of registrations
Wren	196	Treecreeper	11
Robin	188	Bullfinch	9
Chaffinch	162	Goldfinch	9
Blue Tit	141	Collared Dove	8
Blackbird	127	Kestrel	6
Woodpigeon	114	Magpie	6
Willow Warbler	112	Woodcock	6
Great Tit	91	Tawny Owl	5
Chiffchaff	82	Tree Pipit	5
Carrion Crow	52	Siskin	4
Coal Tit	45	Spotted Flycatcher	4
Pheasant	44	Warbler sp.	4
Cuckoo	43	Buzzard	3
Song Thrush	43	Garden Warbler	3
Blackcap	31	Sparrowhawk	3
Great Spotted Woodpecker	26	Swift	3
Goldcrest	23	Linnet	2
Jay	21	Mallard	2
Dunnock	20	Swallow	2
Green Woodpecker	18	Whitethroat	2
Greenfinch	14	Gull species	1
Nuthatch	14	Jackdaw	1
Long-tailed Tit	13	Red-legged Partridge	1
Mistle Thrush	13	Wood Warbler	1
Meadow Pipit	12	Yellowhammer	1

3.2 Issues and Comments

There are a number of factors to bear in mind when analysing the results of the surveys, including:

3.2.1 Ability of Surveyors – Identification

All but two of the surveyor teams had at least one surveyor who had undertaken an Identification Test at the training day. This was designed to assess their ability to identify common species by sight and by sound. All surveyors were judged to be at least competent at bird identification – none were absolute beginners.

It quickly became apparent that out in the field, it was far more important to be able to identify birds by sound than by sight, particularly because many of the survey points were located in areas of dense or tall woodland where visibility was poor.

Some of the surveyors noted that they were unable to identify all birds by sound alone, so there is likely to be some under-recording of less common species. Some surveyors recorded question marks for species they were unable to identify; these have not been included in the statistics unless they were able to identify at least to family group.

3.2.2 Ability of Surveyors – Detectability

The age profile of most of the surveyors tended towards the older end of the spectrum. It is common in older people to lose some of the ability to hear higher registers, and this can affect their ability to hear some bird species. At least three surveyors commented that they were no longer able to hear Goldcrest, and two surveyors mentioned that they found Bullfinch difficult to detect by song. It is likely that there is some under-recording of species like this, particularly Goldcrest.

3.2.3 Ability of Surveyors – Distance and Location

Although most of the surveyors had a practical demonstration of the distance bands during the training, the reality of trying to apply these distance bands in a woodland setting can be difficult. It is highly likely that some of the registrations have been noted in incorrect distance bands, with the likelihood increasing the further away the bird was from the centre of the point.

Surveyors were also asked to ensure they oriented themselves to North and noted their registrations accordingly, there may be some errors in recording as one naturally turns around the circle during the five minutes of the point count.

3.2.4 Route A

The initial mapping of Route A included a path that turned out on the ground not to exist; this was missed during the recce and it was not until the surveys started that this was noted by several volunteers. The decision was taken to continue using the 'wrong' route and the maps were amended accordingly. There is therefore some overlapping of the Route A points (specifically points A2 and A3) which is not ideal, and the potentially more species-rich edge to the north that was originally intended to be part of the route has not been included.

3.2.5 Weather conditions/time of year

The weather conditions were generally good during the survey; the practice of giving a three-day 'slot' during which to conduct the survey meant that very bad weather could be avoided. A couple of surveyors recorded fairly strong winds during their surveys, which could impact the detectability of species, but there were enough surveys of each point that this should not cause any significant impact on the results.

The surveys were conducted between mid-April to early June; most species present should have been picked up during the surveys, but there is the possibility that late migrants may be under-represented in the results.

3.2.6 Adapted Nature of the Survey/Disturbance Factors

The survey was not a true randomised point count, as the decision was taken to base each route around accessible footpaths and bridleways. This affects the results as the sample contains bias towards more heavily used areas which will have had additional management along the edges for safety reasons; the habitat is essentially bisected at almost every point by a gap of varying size.

This probably affects the birds using the area; either birds will avoid the area because it is too open, or they will prefer it because it acts as a mini ecotone. The pathways probably improve detectability of species at close range as it is easier to see over an open area as opposed to dense woodland.

Almost every surveyor reported some form of disturbance during the survey, from walkers, cyclists, horse riders, dogs, groups of youths and road noise. These disturbance factors are inevitable in a well-used woodland reserve. A more randomised point distribution would have gone some way to correct for these disturbance factors. Disturbance could influence whether a bird species utilises an area or not; conversely as the disturbance along these routes is more or less constant, the resident birds in particular may well be used to the disturbance factors.

4.0 Recommendations

4.1 Further Analysis

The scope of this report only covers creating a species list for the three routes from the survey data gathered. It is recommended that the data collected is used to conduct additional analysis, for example species utilising specific habitat types. The use of distance banding also means that the data can be run through the free “Distance” software available at <http://distancesampling.org/> to arrive at an estimate of population density.

4.2 Repeating/Extending Survey

The survey has been designed to be repeatable; either single points or entire routes can be repeated at will, and the results compared. This could be over time, or after specific events e.g. woodland management has taken place. Over time, a comprehensive picture of the impact of woodland management could be built up, although it should always be borne in mind that this type of survey is a ‘snapshot’ method.

4.3 Changes to Future Survey Methodology

Volunteers should be made aware of the importance of having strong skills in recognising birds by song and call; in many areas of the woodland, this is more important than being able to recognise them by sight.

If this survey is to be repeated in future, one of my strongest recommendations is that habitat maps of each point are created BEFORE the surveys start, and that the habitats are watermarked onto the survey sheets. This will help surveyors to orientate themselves more effectively and use the distance banding more accurately. It may take a little more time to set up, but the time spent will be repaid when entering the data after the surveys have been conducted.

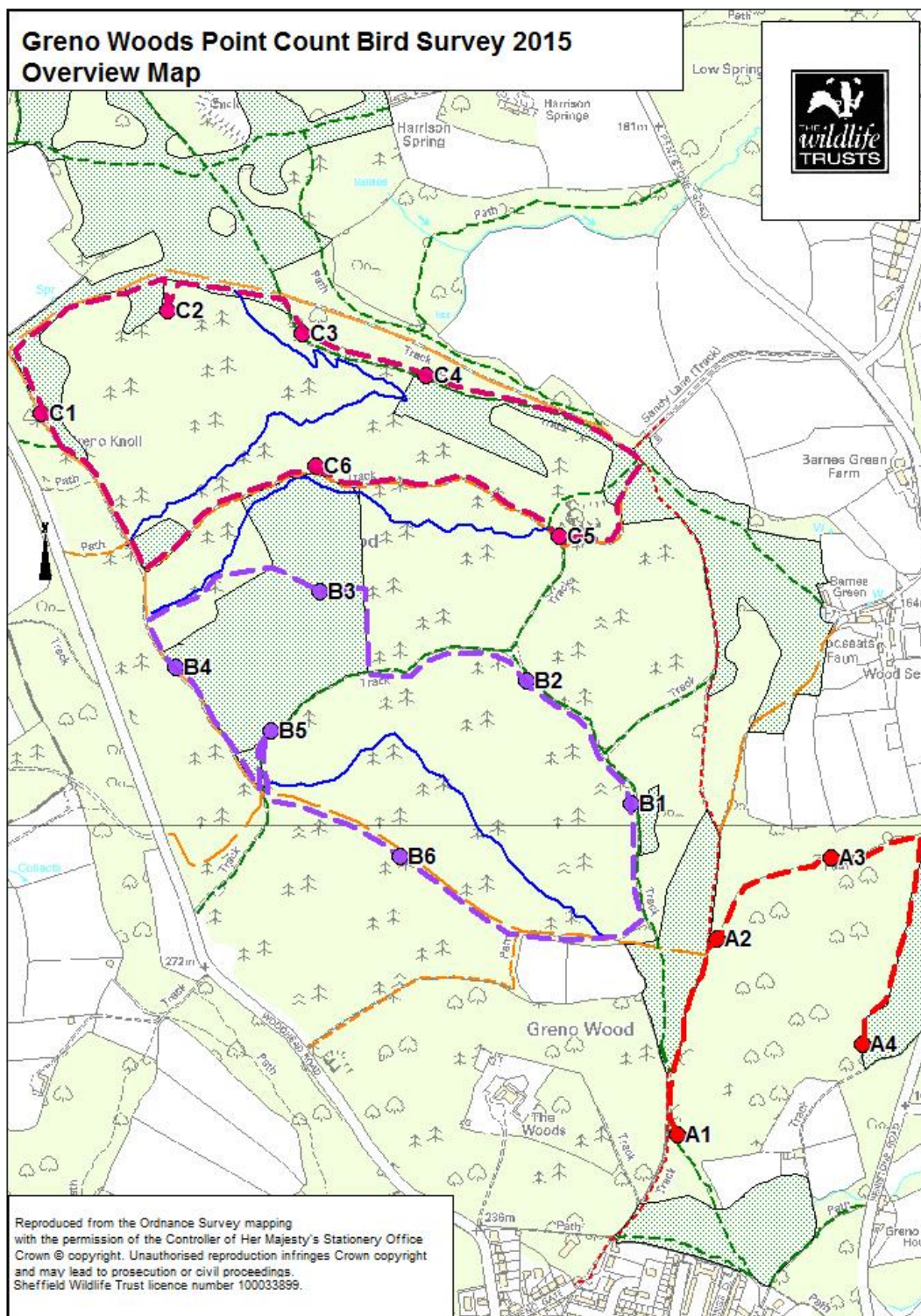
The Reserve Manager must decide when repeating Route A whether to stick with the amended route used during this survey, or to redraw the route to incorporate the species-rich edge adjacent to the fields that was originally intended.

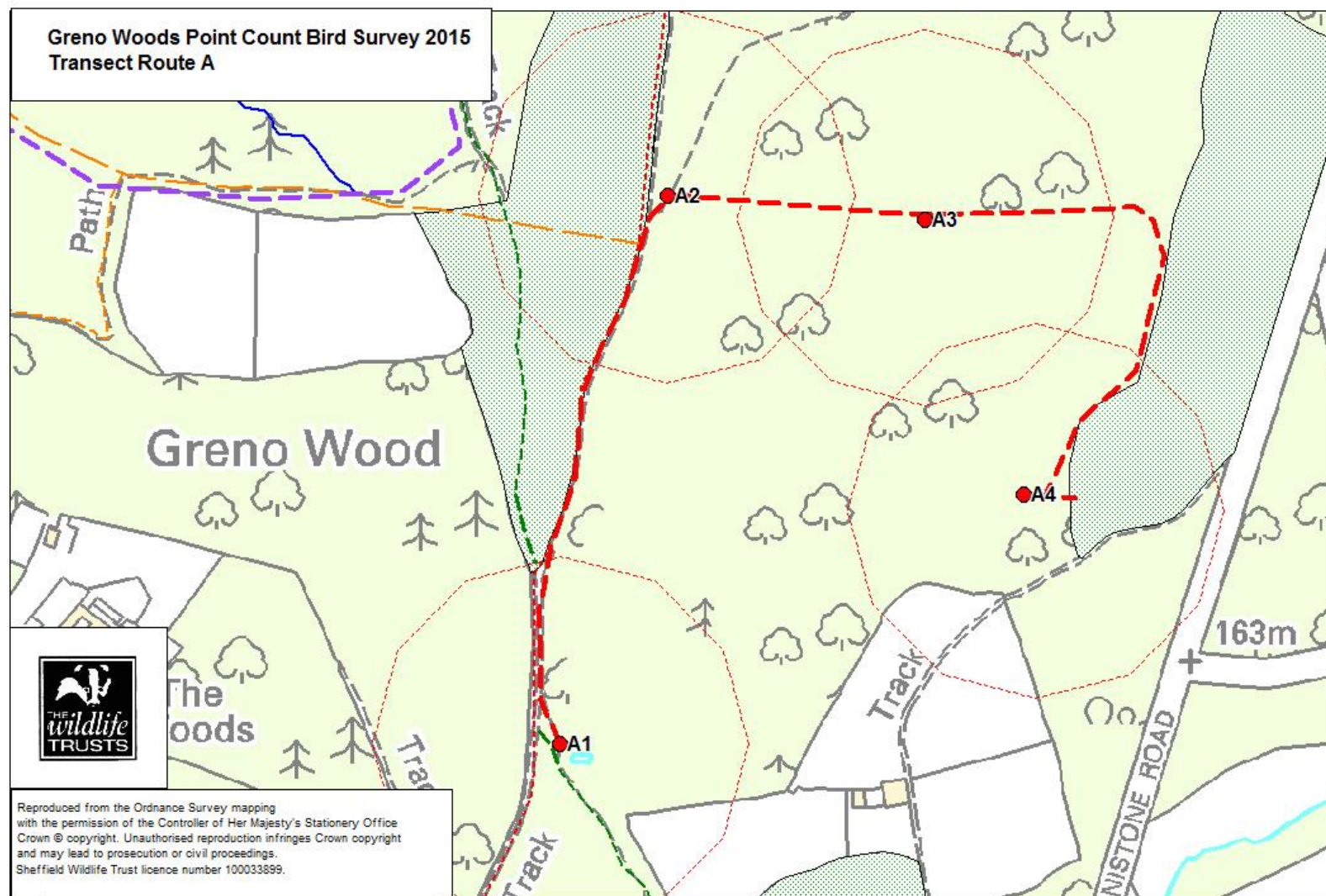
The disturbance factors of using a route based on paths and bridleways could be mitigated by including some point count locations that are away from paths; these would have to be physically marked in some way to ensure that surveyors could locate the points.

5.0 APPENDICES

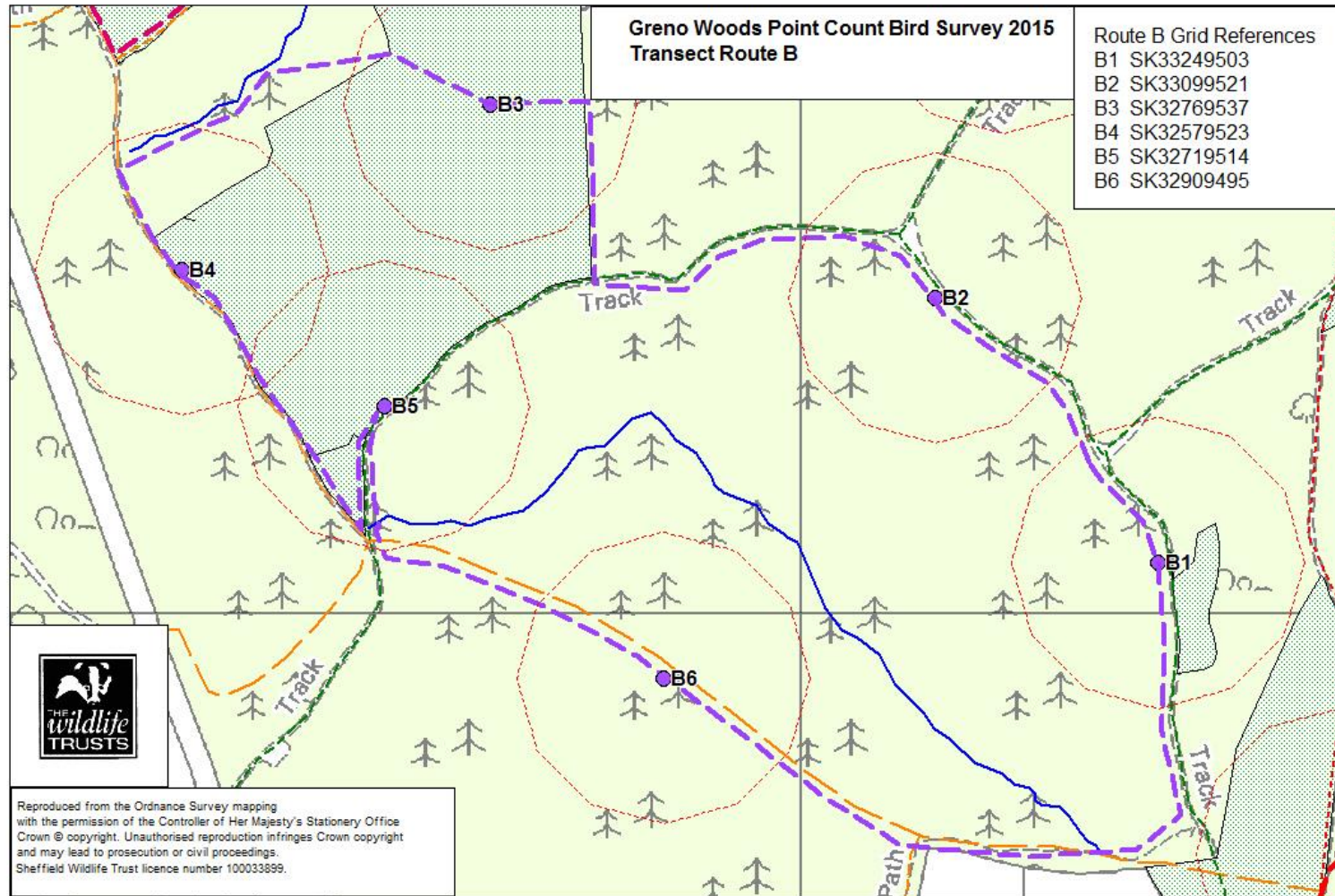
5.1 APPENDIX ONE – Survey Maps

A1 - Overview Map – Showing original route for Route A

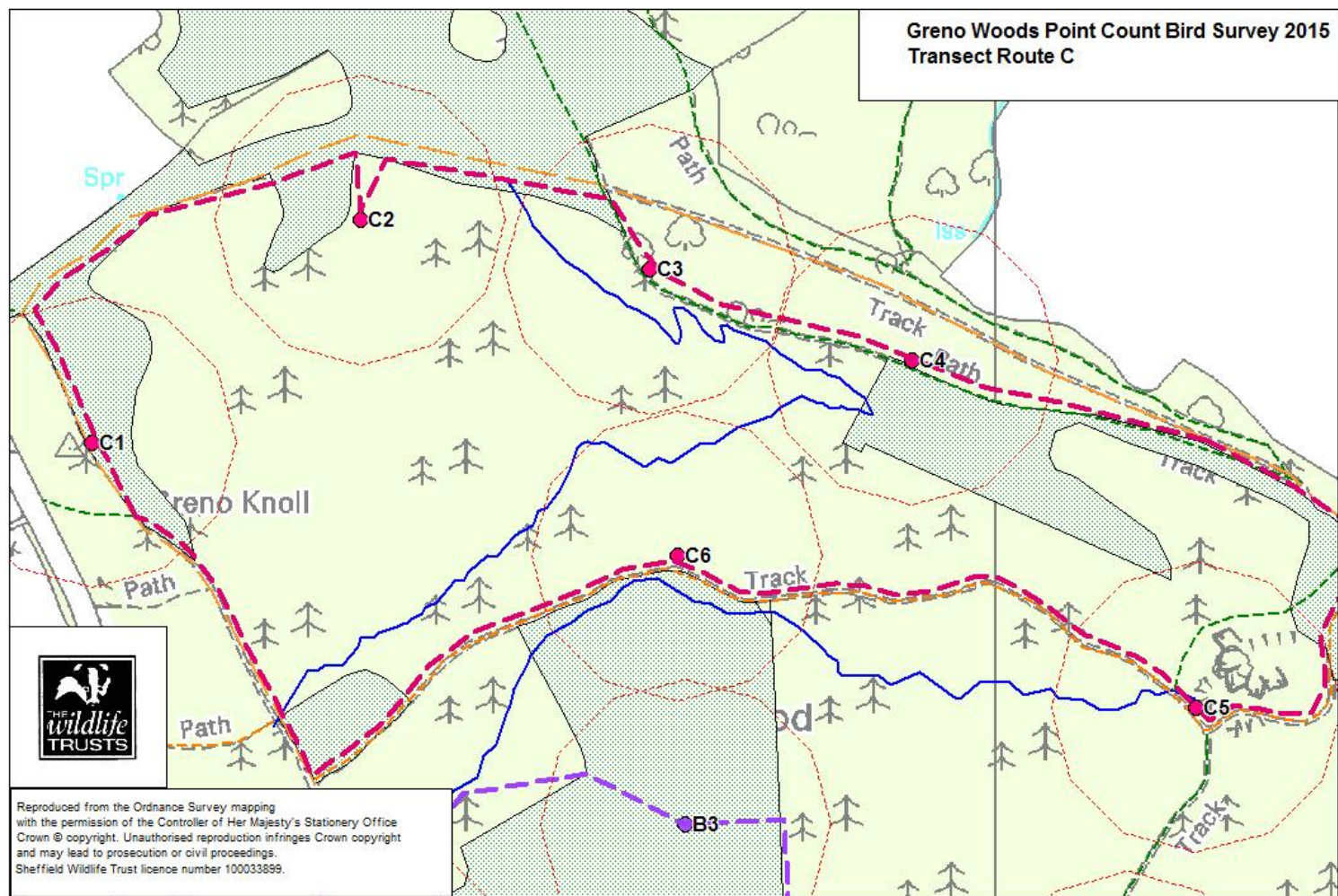




A3 – Route Map for Route B



A4 – Route Map for Route C



5.2 APPENDIX TWO – Route Instructions

Sheffield & Rotherham Wildlife Trust Greno Woods Bird Survey 2015

Route Instructions & Photos of Vantage Count Points

Transect Route A



Point A1

This point is easily found by walking north up the Trans Pennine Trail (well-made path). You will see a square pond (known as Sharpe's Wood Oyl) with a bench nearby. Stand at the bench.



Point A2

Get back on the Trans Pennine Trail and continue walking north, taking the right hand fork. Continue on until you see a signpost pointing towards the Loop Path off to your left. Just past this on the right is an area of newly coppiced trees, at the corner is a signed footpath leading to a path (often a bit muddy) heading east along the edge of the coppiced area. Stand at the footpath marker post.



Point A3

****You will need to count paces!**** Take the mud path east and walk 260 paces (counting from the footpath marker post). When you stop you should be in the middle of mature sweet chestnut coppice to your left (N), and young woodland to your right (S). The photograph shows the view down the track to the East, you can just see cars passing on the road through the trees. If you can find the trees in the picture well done, but don't worry if you can't find the exact spot.



Point A4

Carry on along the path, it will curve to the South and eventually you will arrive at a stacking area for cut wood, near a private track. Just before the path opens out into the stacking area, on your right hand side there is a little informal path leading up the hill (see the first photo).



Go up this path and walk a little way until you come to a triple-stemmed tree (second photo) overlooking a quarry site that is used by bikes (jumps etc.) and stand at this tree. Please look out for bikes in this area.

To exit you can carry on up this informal path which takes you through a cleared and replanted area and back up to Point A1 – beware, it can be a bit marshy/muddy. Alternatively you

can exit to the road along the marked track, or retrace your steps back to the TPT.

Transect Route B

Point B1



This point is accessed from the junction of the new bridleway (Loop Path) with an older mud track (often very muddy!). Take the turning North, marked by a red-banded Forestry Commission footpath marker. You will walk through conifer plantation on your left, with recently thinned mixed woodland on your right. Walk past a large holly on your right and you will see an area of clear felling which has been replanted. Stand by the large fallen conifer in the photo.



Point B2

Continue up the main track, walking uphill. There is a large clear-felled area on your left (S). Just before you reach a bench, there is a wooden red-banded footpath marker. Stand at the marker.



Point B3

Carry on up the track, going straight on. At the fenceline with the heathland area, turn right (N) to walk up a narrow, semi-hidden mud path. Follow along the outside of the fenceline until you reach a stile. Go over the stile into the heathland and follow the track until you are just past a slightly more open area of heather and bracken, with a small group of young, multi-stemmed oaks

and a single conifer on your right (pictured – the photo looks back down the way you’ve just come). Stand here. Beware of wood ant nests in this area.



Point B4

Continue to follow the path out of the heathland, going over a stile into conifer woodland. Follow along the fence line, staying in between the fence and the adjacent parallel bike track – there is no marked track. Cross the bike track (be cautious) to rejoin the main track. Turn left (SE) onto the well-made track and walk downhill until you come to a picnic bench on your left. Stand at the picnic bench.



Point B5

Carry on down the main track with the fence on your left. Where the heathland ends and the fence turns left, nip off the track, follow the fence line and stand at the gate entrance into the heath. Please watch out for the barbed wire across the top of

the fence!



Point B6

Retrace your steps back to the main track and continue walking downhill. At the junction of multiple paths, take the well-made track signposted “Loop Path”. A bike track will be parallel to your left for a little while. Ahead of you there is a large area of clear fell on the right hand side. Just as you get to the clear fell, stand at the last tree on the right (at the same point as the man standing in the photo).

Transect Route C



Point C1

This point is accessed from the well-made track running parallel to the Woodhead Road. The concrete trig point is off the path to the west and is visible from the path. Stand at the trig point.



Point C2

Continue along the track and turn right when you reach a junction, carrying on downhill. Note the fields to your left and locate them on the map; in line with the edge of the field the track has a hump, just downhill from this there is a little mud path to the right of the path, which goes under the arch of a broken tree (see 1st picture).



Walk approximately 45 paces along this path into a little clearing and stand at a short dead tree trunk (2nd picture).



Point C3

Continue down the track to a junction just past a bench and turn right onto the path just past BOC Gas Post no. 401. Walk up the path until it starts to curve. Stand on the curve opposite a double-trunked tree to the left (N).



Point C4

Continue along the path. On the right, the conifer plantation ends with a distinct edge, opposite a muddy path leading downhill. Walk a little further along and stand on the path in between two holly bushes, next to an oak tree with a cut stump.



Point C5

Continue along the path and rejoin the main track. At the junction of the footpaths, take the one signposted to the Car Park, turning right and going slightly uphill. Beware of bikes around the quarry – this is often a very busy biking area. Go slightly past the quarry and find the orienteering marker post numbered XV86L. Stand there. N.B. the red marker point on the map is slightly out of place.



Point C6

Go back on yourself slightly and take the wide track that turns off to the right, so that you are walking with the quarry on your right, the bike track joins to the path ahead (please beware!). Walk uphill until you see the heathland area on your left. Where the bike track runs parallel to the

footpath and the heathland fence, get up on the bank and stand in between the bike track and the footpath near a large bike jump hump, next to a mossy stump – I don't recommend standing on the stump as pictured, in case you fall off!

5.3 APPENDIX THREE – Survey Methodology

Greno Woods Bird Survey 2015 Point Count Transect Methodology

Survey Location

- The survey will take place in Greno Woods.
- Three transects have been set up, these are labelled as Routes A, B and C on the attached map.
- Each point location is labelled as Point A1, A2 etc. There are varying numbers of points depending on the length of each transect.
- To reduce observer bias, each surveyor will be asked to do each transect route once, e.g. Route A in April, Route B in May, Route C in June. Please stick to the order you have been asked to do the routes in and let the co-ordinator know if for any reason you can't do a route.
- Three surveys need to be carried out for each route. To build in flexibility around weather/volunteer commitments etc., each survey needs to be done within a one-week window as follows:
 - 1st survey: between Sun 12th & Sun 19th April
 - 2nd survey: between Sun 3rd & Sun 10th May
 - 3rd survey: between Sun 31st & Sun 7th June
- Depending on the number of available surveyors, you may be allocated a smaller number of days to carry out the survey between (so that we don't have 2 people trying to do the same route on the same day!).
- All surveys must be carried out and completed within the first 6 hours after dawn (avoiding the first 30 minutes after sunrise). If you can manage to finish the survey before 10:30 am, that would be ideal.
 - April w/c 12/04/15 – between 06:40 and 12:10
 - May w/c 03/05/15 – between 05:54 and 11:24
 - June w/c 31/05/15 – between 05:13 and 10:43
- If you have signed up to do a dusk survey (optional), the survey window is much shorter and times need to be as follows:
 - April w/c 12/04/15 – between 18:00 and 20:00
 - May w/c 04/05/15 – between 18:45 and 20:45
 - June w/c 01/06/2015 – between 19:20 and 21:20
- If you are interested in carrying out additional surveys between these set times, please contact Julie Riley (co-ordinator).

What is a Point Count Transect?

- A point count is when an observer stands at a single point. From this point the observer records all the birds seen and heard within certain distances, over a set time period.
- A transect is a route (usually linear, sometimes circular) through a site.
- A point count transect is when point counts are done along a set route (rather than randomly across a site). Birds do not need to be counted on your way between points (although you can note them down if you wish on a separate piece of paper).

You Will Need:

- Binoculars
- Survey sheets
- Map
- Compass
- Clipboard and pencil
- Bird ID guide (e.g. Collins Bird Guide)
- Sturdy footwear and appropriate clothing
- Water
- Torch (if doing dusk survey)
- Mobile phone

General Survey Principles

- You must have a reasonable level of ID skill – it is essential to be familiar with common species.
- Recognising birds by songs and calls is often more useful than recognising them by sight, especially in woodland.
- Working quietly is vital – it will cause less disturbance and will mean you can hear birds as well as see them. If you are working with another person, please keep conversation to a minimum.
- It is fine to survey alone, but please make sure you have informed somebody of where you are going, and what time you are expecting to return. Please also make sure that you have read the attached risk assessment.
- If you are bringing a dog with you, they should be able to stay quietly at heel for the duration of the counting period, so that they do not cause a distraction.

- You should wear appropriate clothing for the weather and terrain; try to avoid 'loud' clothing e.g. white/brightly coloured clothes, or clothing that rustles.
- Good binoculars are essential.
- The ability to read a map and navigate between points is essential.
- The ability to estimate distance is essential. You can use a laser rangefinder if you can get hold of one. You should be able to estimate up to 100 metres.

Do Not Survey If:

- The weather is very windy (above Beaufort Scale 4) – birds will not be active.
- The weather is very wet (showers are OK – continuous rain or mist is not). Wet weather rule of thumb: if it is too damp to use a biro, use a pencil. If it is too damp to use a pencil, go home!

How to Carry Out a Point Count

- Walk to the point count location. The path will be the central point of your circle (unless your route includes off-path point locations).
- Orientate your survey sheet to the North – this is so that we know where the birds you record are, this is important if you are in an area of mixed habitat.
- Wait for 2 minutes for the birds you might have disturbed to settle. Use this time to ensure you are happy with your distance estimates.
- Set a timer for 5 minutes. During these 5 minutes, record every bird that you see and hear on the recording sheet, in the appropriate distance category and in the appropriate location relative to North and your position.
- If birds are flying overhead, mark these with an F in the space at the bottom of the recording sheet.
- Make sure that you record all the birds around you – rotate on the spot (but keep in mind where North is).
- Most birds will be heard rather than seen – cup your hands around your ears to focus the sound.
- If birds fly away from you as you are counting them, record them from the point you first saw them.
- If you flush birds as you approach the point count location, you can note them in the appropriate distance band, but please record that they were flushed.
- Try to avoid double-counting the same individual birds at a point count location by using careful observation and common sense.

- Use 2-letter species codes as per the attached sheet; if you make your own up please write out what they are on the back of the recording sheet (e.g. the standard code for Goldfinch is GO, but you might put GF – this is actually the code for Golden Pheasant!).
- Always write in one direction – SH (Sparrowhawk) is HS (House Sparrow) upside down!
- If you have seen/heard a bird but don't know what it is by the end of the five minute timescale, you can put a question mark down in the appropriate location on your survey sheet.
- **N.B.** The path acting as the centre of your point count is for convenience; however it is possible that other walkers will walk through your survey site and flush/disturb birds. If this happens please note how many times on your survey sheet.

Returning your survey sheets

- Please double check that your survey sheets are marked up with all the necessary information, and that your writing is legible.
- You can scan and email your sheets in to j.riley@wildsheffield.com, post them in to SRWT, Victoria Hall, 37 Stafford Road, Sheffield S2 2SF, or drop them into Reception at the above address. Please return them after each visit, rather than waiting until the end of the survey.

Any Questions or Problems?

If you have any problems, e.g. you are unable to carry out a count because you are ill, the weather has been consistently bad etc. then PLEASE let the co-ordinator Julie Riley know as soon as possible so that she can make alternative arrangements.

Point No:

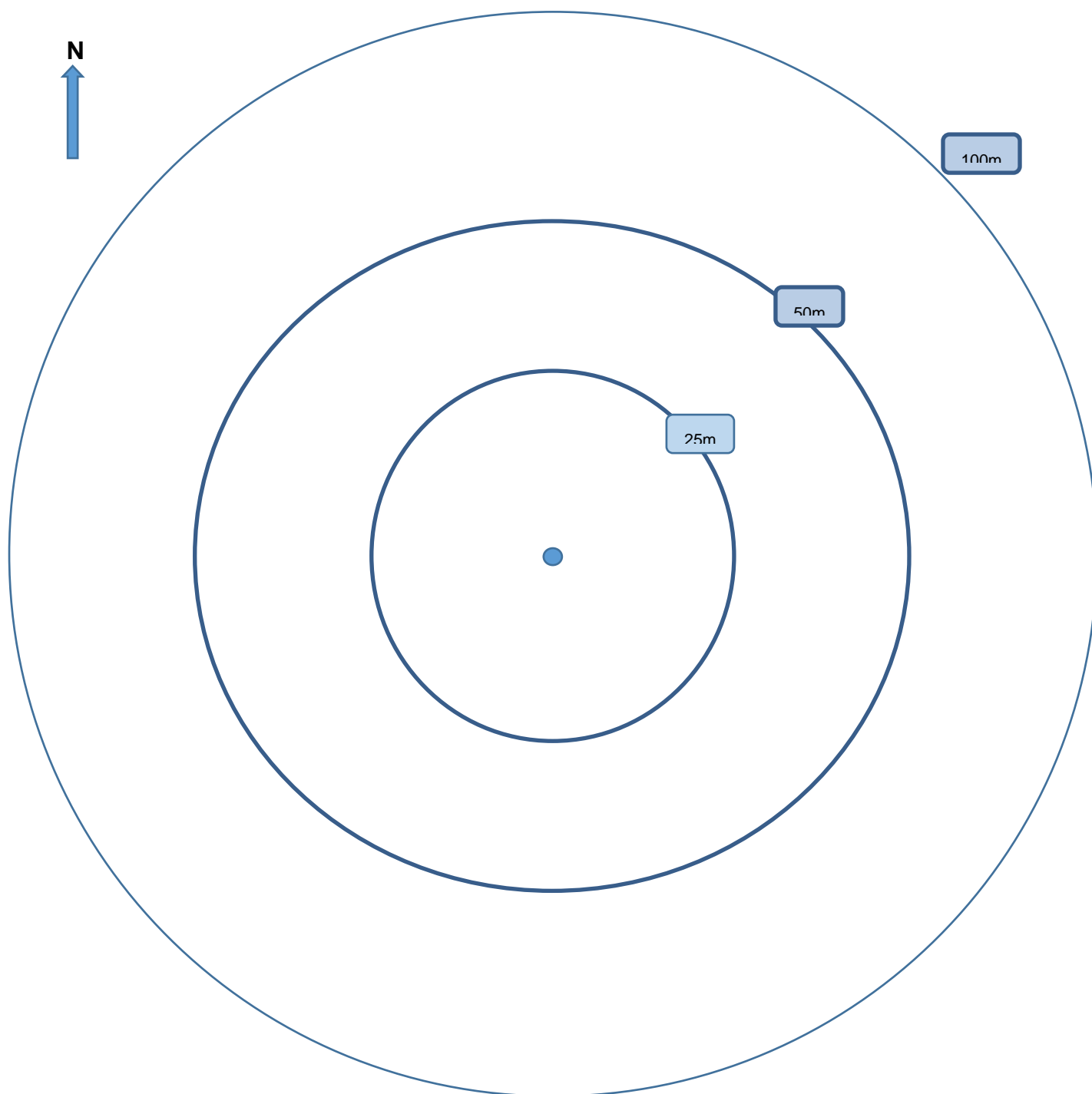
Visit:

Date:

Time start:

Time finish:

Observer:



5.4 APPENDIX FOUR - Results

Excel Spreadsheet with raw data and results by route

If not attached, the file is located in I:\4LL Living Land\1 Living Don Overall Programme\13 Greno Woods\1. Surveys\Bird Survey 2015 Point Counts