

# Breeding Bird Survey of Trowbridge Woods, Wiltshire

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Natural England Commissioned Report NECR471

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## Foreword

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the author and do not necessarily represent those of Natural England.

Since 2015, Natural England has been gathering evidence to ascertain whether land in the area southeast of Trowbridge, in west Wiltshire, meets the published guidelines for the selection of Sites of Special Scientific Interest (SSSIs). This report is one of several commissioned by Natural England to provide the evidence required to identify those areas which should be included in a SSSI designation, to identify the features to be designated and to inform definition of the SSSI boundary. This report will also help to inform future site monitoring and provide information to support land management advice.

## Executive Summary

A suite of breeding bird surveys has been completed during the 2021 breeding season. The breeding status assessment is summarised below, with the full territory analysis described in Table 7 7.

Seven target species were confirmed breeding within the northern block (see The breeding bird status assessment is shown in Tables 4, 5 and 6 for the Northern Block of woods, Picket and Clanger Wood, and the Other Southern Woods respectively. The records, presented by species, are shown on the maps in Appendix 2.

Table 4 4) including goldcrest, great spotted woodpecker, long-tailed tit, nuthatch, stock dove, treecreeper and tawny owl. A further five species were identified as probable breeding species including bullfinch, coal tit, green woodpecker, jay and spotted flycatcher. Possible breeders include cuckoo. A total of 36 estimated territories were present for these species.

Five target species were confirmed breeding within Picket and Clanger Wood (see Table 55) including coal tit, green woodpecker, great spotted woodpecker, long-tailed tit and tawny owl. A further seven target species were identified as probable breeding species including redstart, goldcrest, jay, nuthatch, spotted flycatcher, sparrowhawk and treecreeper. Possible breeding species include nightingale, stock dove and siskin. A total of 62 estimated territories were present for these species.

Four target species were confirmed breeding within the other southern woods (see Table 66) including coal tit, great spotted woodpecker, red kite and long-tailed tit. A further five target species were identified as probable breeding species including bullfinch, goldcrest, jay, nuthatch and treecreeper. No possible breeding species were recorded. A total of 12 estimated territories were present for these species.

Whilst the highest diversity of target species was recorded within the northern block, the highest number of territories of target species was recorded within Picket and Clanger Wood. A total of 110 estimated breeding territories were present across all areas for all target species (see Table 77).

The most noteworthy species recorded are the presence of a singing male nightingale in Picket and Clanger Wood and nesting red kite within the other southern woods. These have been described further in the results.

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# 1. Introduction

Natural England is considering the notification of a Site of Special Scientific Interest (SSSI) ("Trowbridge Woods SSSI") which would protect a series of habitats and wildlife corridors supporting one of the UK's largest populations of Bechstein's bats. The area includes the existing Picket and Clanger Wood SSSI, owned and managed by the Woodland Trust, as well as Green Lane Wood and Biss Wood County Wildlife Sites, owned and managed by Wiltshire Wildlife Trust. Other smaller woods, areas of planted woodland, scrub, and connecting land within the area are in private ownership.

The key outcomes for this project are:

**Aim:** To establish whether the woodland and scrub breeding bird assemblages at Picket and Clanger Wood SSSI together with the new areas of woodland and scrub under consideration for SSSI designation, meet the revised Guidelines for the Selection of SSSIs (2020).

**Objective:** To determine the breeding status of target woodland and scrub bird species in the survey area.

The woodland parcels were grouped as follows:

- Northern Block – Green Lane, Biss, Smith's Well & Jubilee Woods
- Picket and Clanger Wood
- Other Southern Block Woods – Kettle Lane, Flowers Wood East, and Woodside Woods

## 2. Methodology

### 2.1 Survey Methodologies

The breeding bird surveys were undertaken by Ben Mitchell BSc (Hons) MCIEEM, and Niall Machin BSc (Hons) MCIEEM, both experienced and competent ornithologists.

The methodology was as follows:

- A Common Bird Census (CBC) methodology was used (Gilbert, 2011).
- Transect routes were designed to ensure sufficient coverage of the areas required (see Figure 2 and Figure 3). A guide of coverage within 50m of all areas of the site was used as a basis to ensure that sufficient effort was employed to provide a high degree of confidence in the data.
- Specific areas of interest (glades/rides/coppice etc) were identified on the survey plans and were included within the transect routes. The time/effort employed in these areas was altered subject to emerging survey results and bird activity of interest as the survey season progressed.
- Surveys commenced in early April and continued until late June, as evenly spread across this period as possible in order to cover early/late breeding periods for all species likely to be present, subject to weather conditions. An optimum spacing of 10 days between visits was scheduled but this was subject to weather constraints and had to be adapted accordingly. The project start date was also later than planned and the surveys had to be compressed as the July dates proposed were later deemed less important for the species likely to be present, both of which resulted in some compression of the period between surveys in order to complete the 10 visits in the appropriate breeding season window (see Table 1 and Table 2).
- All surveys were conducted in suitable weather conditions as detailed in Table 1 and Table 2.
- All notable registrations were recorded with a Geographic Information System (GIS) reference, using standard British Trust for Ornithology (BTO) codes, with notes on behaviour to identify likelihood of breeding. BTO bird species codes are provided separately as a supplementary data sheet, reproduced with permission from the British Trust for Ornithology, [www.bto.org](http://www.bto.org). A key to the symbols of bird behaviour is given at Appendix 1. The target species include those listed in the Guidelines for the Selection of Biological SSSIs (Drewitt, Whitehead, & Cohen, 2020) as set out in the Lowland Scrub Target Species (excluding heathland) and Woodland Target Species lists at the end of this section.
- Additional data was captured on non-target bird species such as blackcap and song thrush that will be submitted separately as these are valuable records to further inform habitat management.

- Eight dawn visits were commenced approximately one hour after sunrise and continued no later than 3.5 hours after sunrise to coincide with the peak activity period, completed in alternating directions to avoid survey bias.
- Two dusk visits were completed targeting crepuscular/nocturnal species and the areas of interest described above. These were timed at dusk with sunset occurring in the middle of the survey and followed a slightly modified route to that of the dawn surveys to add more time in the habitat areas of interest and other habitats identified as being suitable for target nocturnal species during the dawn surveys. The dusk surveys were scheduled within the key periods for species specific surveys for woodcock and breeding owls (May-June) (Gilbert, 2011).
- The survey area is shown in **Error! Reference source not found.** with the dawn and dusk transect routes shown in **Error! Reference source not found.** and **Error! Reference source not found.**
- In addition to the original survey scope, two Song Meter+ automated recording devices were deployed to increase the survey effort focussing on woodcock, nightingale, and owl species. These units were deployed in the locations shown on **Error! Reference source not found.** and **Error! Reference source not found.** Microphones were positioned on extendable poles at 4m in areas with clear air space above, at the side of large glades. The units recorded all sounds within the audible spectrum for 1.25 hours starting 15 minutes pre sunset to 1 hour post sunset (as per BTO woodcock survey timings: [Woodcock survey methods | BTO - British Trust for Ornithology](#)). The units were deployed for 10 nights (16th to 26th June) to cover the key breeding period for woodcock and the fledging period for juvenile tawny owl, mindful of long-range forecasts. Audio analysis was completed by Ben Mitchell.

### **Lowland Scrub Target Species (excluding heathland)**

Target bird species for scrub include Turtle dove, Grasshopper warbler, Cuckoo, Nightingale, Long-eared owl, Linnet, Willow tit, Lesser redpoll, Long-tailed tit, Bullfinch, Garden warbler, Yellowhammer, Lesser whitethroat.

### **Woodland Target Species**

Target bird species for woodland include Grey heron, Goldcrest, Little egret, Crested tit, Honey buzzard, Coal tit, Red kite, Willow tit, Goshawk, Marsh tit, Sparrowhawk, Long-tailed tit, Buzzard, Wood warbler, Osprey, Garden warbler, Hobby, Nuthatch, Woodcock, Treecreeper, Stock dove, Spotted flycatcher, Cuckoo, Nightingale, Tawny owl, Pied flycatcher, Long-eared owl, Redstart, Green woodpecker, Tree pipit, Great spotted woodpecker Siskin, Lesser spotted woodpecker, Lesser redpoll, Jay, Common crossbill, Raven, Bullfinch, Firecrest, Hawfinch.

Figure 1. Map of Survey Area

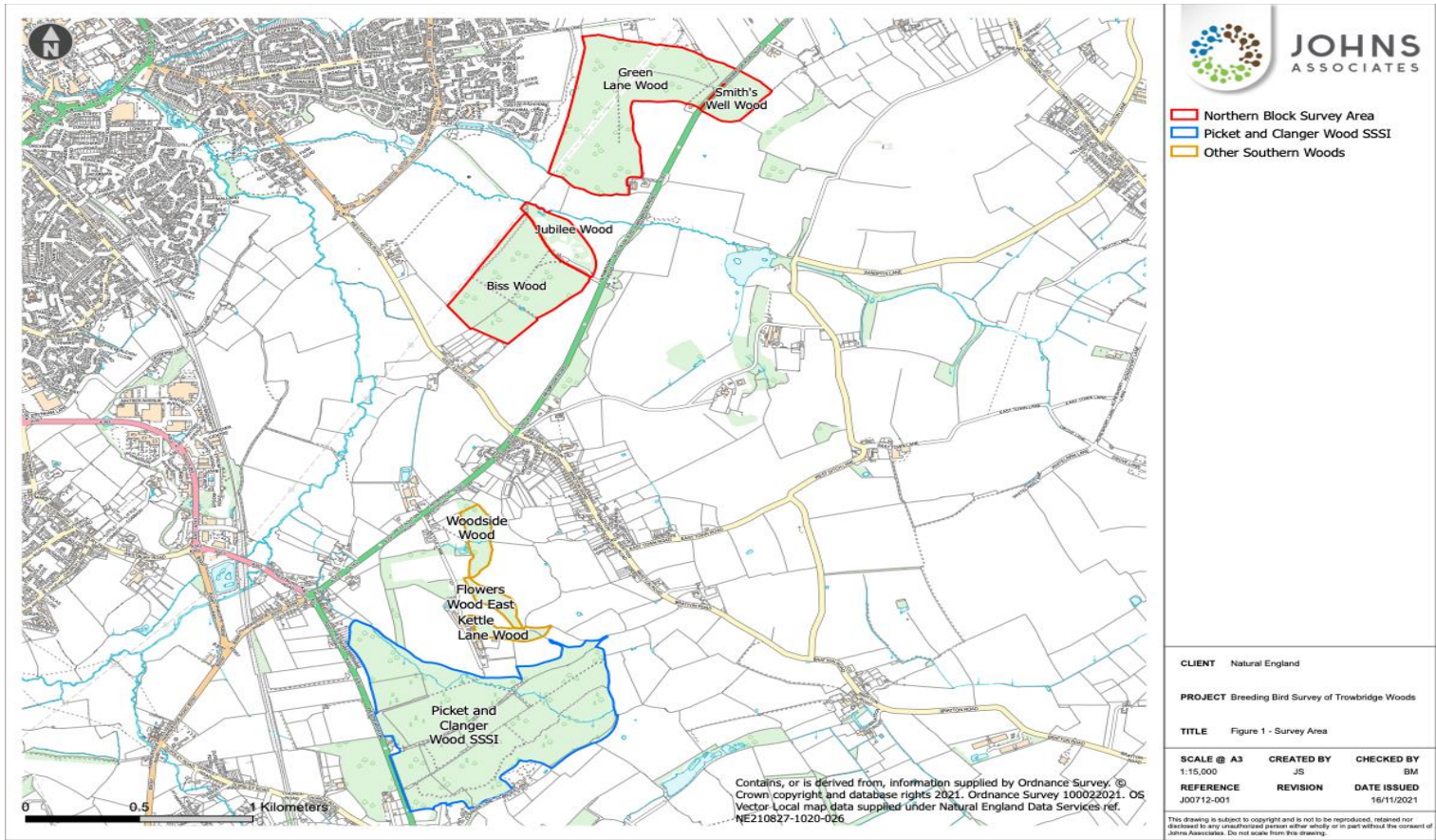
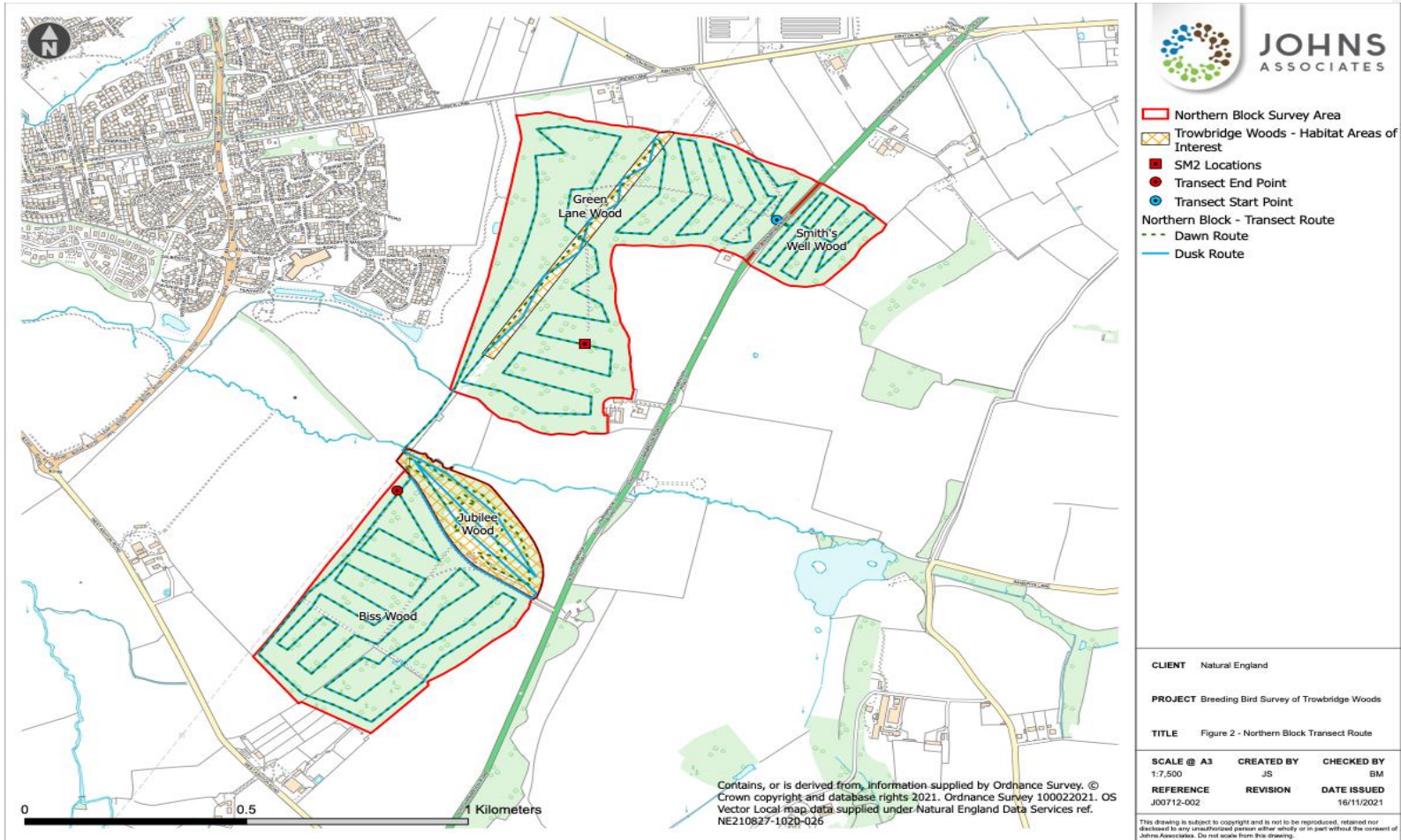
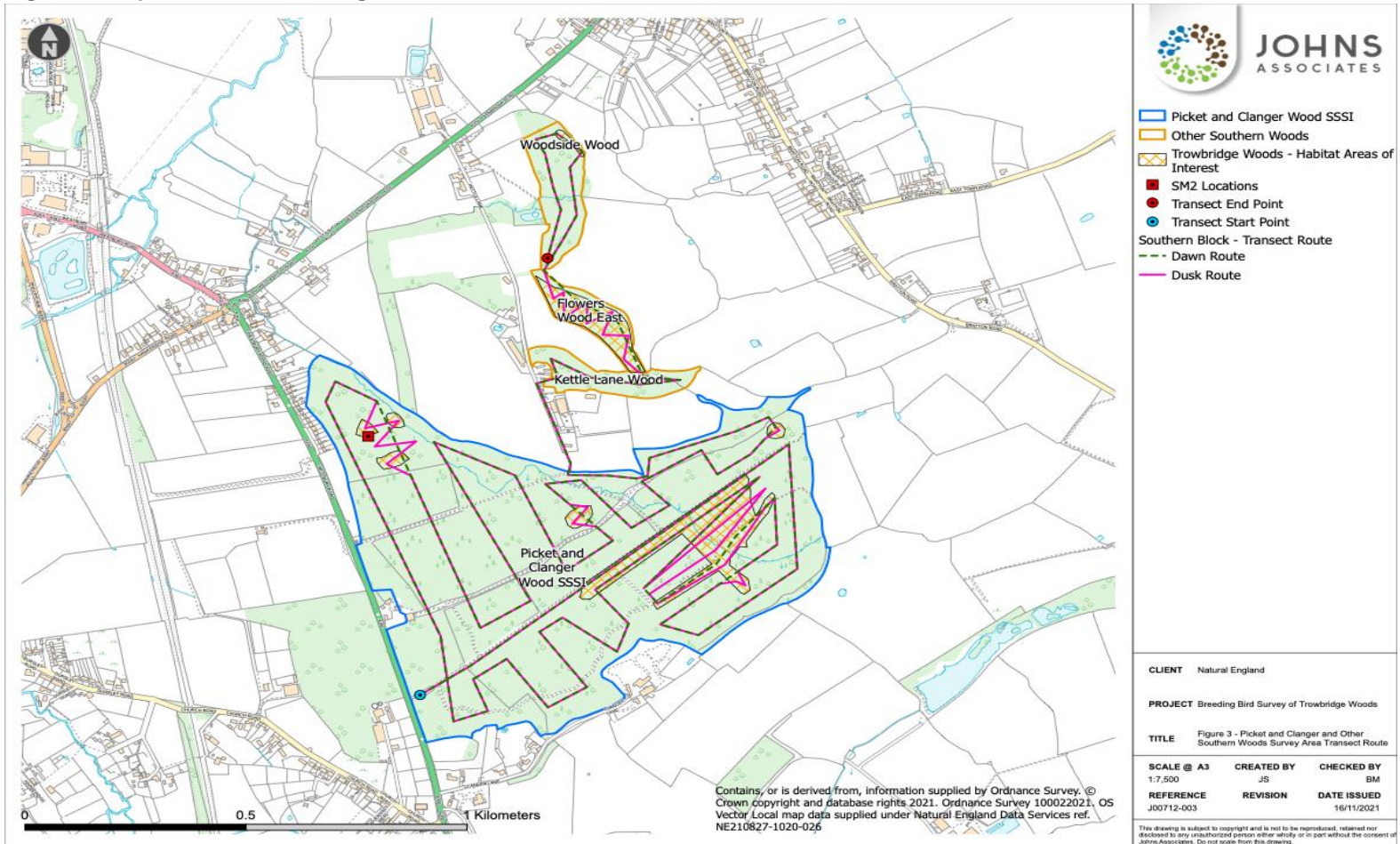


Figure 2. Map of Northern Block transects and automated detector location



**Figure 2. Map of Picket and Clanger and other Southern Woods transect and automated detector location**



**Table 1. Survey Dates - Northern Block**

Survey Date	Visit No.	Time	Surveyor	Weather
08.04.21	1	Dawn	Ben Mitchell	5°C, Calm, Clear
15.04.21	2	Dawn	Ben Mitchell	7°C, Calm, Clear
20.04.21	3	Dawn	Ben Mitchell	6°C, Calm, Overcast
05.05.21	4	Dawn	Ben Mitchell	7°C, Calm, Clear
18.05.21	5	Dawn	Ben Mitchell	8°C, Calm, Clear
19.05.21	6	Dusk	Niall Machin	10°C, Calm, Clear
01.06.21	7	Dawn	Niall Machin	9°C, Calm, Overcast
10.06.21	8	Dusk	Ben Mitchell	11°C, Calm, Overcast
11.06.21	9	Dawn	Niall Machin	12°C, Calm, Clear
23.06.21	10	Dawn	Ben Mitchell	10°C, Calm, Overcast

**Table 2. Survey Dates - Picket and Clanger Wood and other southern woods (combined survey)**

Survey Date	Visit No.	Time	Surveyor	Weather
09.04.21	1	Dawn	Ben Mitchell	6°C, Calm, Clear
16.04.21	2	Dawn	Ben Mitchell	5°C, Calm, Clear
30.04.21	3	Dawn	Ben Mitchell	6°C, Calm, Overcast
12.05.21	4	Dawn	Ben Mitchell	8°C, Calm, Overcast
19.05.21	5	Dusk	Ben Mitchell	7°C, Calm, Clear
28.05.21	6	Dawn	Niall Machin	10°C, Calm, Overcast
03.06.21	7	Dawn	Niall Machin	8°C, Calm, Clear
10.06.21	8	Dusk	Niall Machin	10°C, Calm, Overcast
15.06.21	9	Dawn	Niall Machin	9°C, Calm, Clear
24.06.21	10	Dawn	Ben Mitchell	10°C, Calm, Clear



## 2.2 Territory Analysis Methodology

The records were assessed following the BTO Common Bird Census instructions (Marchant, 1983) the key principles adopted herein are:

- A minimum of two separate registrations on discrete dates of any given species is required to constitute a cluster, except where a single registration records clear evidence of breeding.
- A value was assigned to each species as to the estimated range (Table 3). Territory sizes are particularly challenging to define given the lack of specific research and information on variables such as habitat structure and quality, and that of habitat immediately adjacent to the site. This is the 'best fit' of an average territory size for each species, based directly on the registrations recorded.
- Circular buffers were used to define individual territories assigned to reflect observations on site and to present the maximum likely territories that comply with the cluster threshold.
- Clearly, territories are entirely flexible in their shape and extent, and this has been used as a proxy for the basis of this assessment.
- These have been presented on single species plans to ensure full transparency of the approach taken to this analysis.

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**Table 3. Estimated territory size**

Note 1: Estimated range is considered an underestimate but does not affect territory count based on distribution of records.

Common Name	BTO Species Code	Estimated Range (diameter)(m)
Bullfinch	BF	800
Coal tit	CT	300
Green woodpecker	G.	1500
Goldcrest	GC	300
Grey heron	GH	200 [note 1]
Great spotted woodpecker	GS	1000
Jay	J.	1000
Red kite	KT	5000 [note 1]
Long-tailed tit	LT	500
Nuthatch	NH	600

Common Name	BTO Species Code	Estimated Range (diameter)(m)
Redstart	RT	600
Stock dove	SD	1000 [note 1]
Spotted flycatcher	SF	800
Sparrowhawk	SH	1500 [note 1]
Siskin	SK	600
Treecreeper	TC	400
Tawny owl	TO	1500 [note 1]

## 3 Results

### 3.1 Target Species

The following species have been described in further detail due to their significance from a local context and the nature of the observations.

#### Red kite

The pair began nest construction in early May and the adults were present throughout the survey period and both observed during the final survey visits on 26.06.21. No chicks were observed but the location of the nest did not allow clear line of sight into the centre of the nest. The presence of the adult birds throughout the survey period is understood to imply a successful nesting attempt but no information could be drawn on the productivity.

#### Nightingale

A single adult male nightingale was recorded during the first dusk visit to the southern block (19.05.21) and observed singing and displaying in the large clearing to the north of the main conifer plantation in the Clanger Wood section. Subsequent visits, both as further formal survey visits and visits by Niall Machin to observe this bird were unsuccessful and this remains the only occasion where this species was observed despite significant further survey effort. This record is understood to indicate a lone male, perhaps on passage to other breeding grounds. This is a notable record and one worthy of further consideration in terms of the management of this area of the woodland to encourage breeding.

#### Tawny owl

A total of one family was recorded consistently during both dusk and automated detector surveys in the central area of Green Lane Wood, with three chicks recorded calling simultaneously.

A total of two apparently discrete families were recorded, one in Clanger Wood and one in the vicinity of the recently coppiced area in the centre of Picket Wood. The Clanger Wood family were recorded both during the site surveys and frequently on the automated detector with at least two chicks. The family in the centre of Picket Wood had at least three chicks calling simultaneously.

### Other Notable Species Records

Other non-target species of note were also recorded during these surveys including blackcap, willow warbler, song thrush, mistle thrush and chiffchaff. These records will be submitted separately to this report.

### Automated Detector Surveys

A total of 20 hours of recordings were analysed for each woodland block in order to increase the survey effort for crepuscular species. Despite this increased effort, a notable absence of woodcock records was observed. This does not conclusively demonstrate absence as the spatial coverage using this method was limited to the specific locations of the devices with a detection radius estimated at ~50-100m, however the most suitable habitat areas for woodcock were covered using this methodology.

Tawny owls were recorded at both locations frequently with chicks calling throughout.

No other target species were recorded on the automated detectors.

## 3.2 Summary Breeding Status Assessment

The breeding bird status assessment is shown in Tables 4, 5 and 6 for the Northern Block of woods, Picket and Clanger Wood, and the Other Southern Woods respectively. The records, presented by species, are shown on the maps in Appendix 2.

**Table 4. Breeding Status Assessment – Northern Block**

Common Name	BTO Species Code	Breeding Status Code	Breeding Status	Notes
Bullfinch	BF	P	Probable	Single pair observed in suitable nesting habitat on one occasion.
Coal tit	CT	T	Probable	4 territories.
Cuckoo	CK	H	Possible	Single male singing on one occasion.
Green Woodpecker	G.	T	Probable	2 territories.

Common Name	BTO Species Code	Breeding Status Code	Breeding Status	Notes
Goldcrest	GC	FF	Confirmed	7 territories. Observed carrying food on one occasion.
Grey heron	GH	H*	Non-breeding	*Single bird observed roosting in a tree immediately adjacent to site then two birds observed in same tree on later visit. Unusual record.
Great spotted woodpecker	GS	FF	Confirmed	Male observed carrying food on one occasion. 3 territories.
Jay	J.	T	Probable	14 records. 2 territories.
Red kite	KT	F	Non-breeding	Flying along A350 foraging – likely the same bird from Picket and Clanger Wood.
Long-tailed tit	LT	FL	Confirmed	Recently fledged young present combined with 4 territories supports confirmed status.
Nuthatch	NH	FL	Confirmed	Recently fledged young present combined with 4 territories supports confirmed status.
Redstart	RT	H	Possible	Single bird on one occasion.
Stock dove	SD	ON	Confirmed	1 territory present around pole nest box in adjacent field. Pair observed loafing on porch of box.
Spotted flycatcher	SF	P	Probable	Pair observed in suitable nesting

Common Name	BTO Species Code	Breeding Status Code	Breeding Status	Notes
				habitat in breeding season. 2 territories.
Sparrowhawk	SH	T	Possible	Single bird on one occasion.
Treecreeper	TC	NE	Confirmed	1 nest containing eggs identified. 5 territories present.
Tawny owl	TO	FL	Confirmed	Adults with 3 young chicks observed. 1 territory present.

**Table 5. Breeding Status Assessment – Picket and Clanger Wood**

Common Name	BTO Species Code	Breeding Status Code	Breeding Status	Notes
Coal tit	CT	FF	Confirmed	Adult observed carrying food into nest. 12 territories.
Green woodpecker	G.	ON	Confirmed	Adults observed alarming adjacent to potential nest hole. 2 territories.
Goldcrest	GC	P	Probable	Pairs observed in suitable nesting habitat. 17 territories.
Great spotted woodpecker	GS	NY	Confirmed	Chicks heard calling from nest hole. Up to 3 territories present (likely overestimate).
Jay	J	A	Probable	Alarming and territorial behaviour observed. 3 territories.
Long-tailed tit	LT	FL	Confirmed	Family groups observed on two occasions with recently fledged young. 2 territories.
Nightingale	N	S	Possible	Single male heard on one occasion 19.05.21 but not observed on subsequent surveys.
Nuthatch	NH	B	Probable	Numerous observations. Highly likely breeding. One observation of nesting material being carried. Fledged young also observed. 6 territories.
Redstart	RT	S	Probable	Singing males present in same location on two separate visits. One territory.
Stock dove	SD	S	Possible	3 "territories" present.

Common Name	BTO Species Code	Breeding Status Code	Breeding Status	Notes
Spotted flycatcher	SF	P	Probable	Pair observed in suitable nesting habitat. 1 territory.
Sparrowhawk	SH	T	Probable	Female observed hunting on 2 occasions. 1 territory
Siskin	SK	S	Probable	Singing males observed 28.05.21 and 03.06.21.1 territory.
Treecreeper	TC	T	Probable	29 observations singing in suitable nesting habitat. 9 territories.
Tawny owl	TO	FL	Confirmed	Adults with 3 young chicks observed. 1 territory present.

**Table 6. Breeding Status Assessment – Other southern woods**

Common Name	BTO Species Code	Breeding Status Code	Breeding Status	Notes
Bullfinch	BF	P	Probable	1 territory.
Coal tit	CT	FF	Confirmed	Adult observed carrying food into nest. 1 territory.
Goldcrest	GC	P	Probable	Pairs observed in suitable nesting habitat. 2 Territories.
Great spotted woodpecker	GS	NY	Confirmed	Chicks heard calling from nest hole. Up to 2 territories present (likely overestimate).
Jay	J	A	Probable	Alarming and territorial behaviour observed. 1 territory.
Red kite	KT	ON	Confirmed	Nesting observed throughout survey period multiple times. No chicks observed. No line of sight into nest but prolonged sitting observed on nest. 1 territory.
Long-tailed tit	LT	FL	Confirmed	Family groups observed on two occasions with recently fledged young. 1 territory.

Common Name	BTO Species Code	Breeding Status Code	Breeding Status	Notes
Nuthatch	NH	B	Probable	Numerous observations. Highly likely breeding. One observation of nesting material being carried. Fledged young also observed. 2 territories.
Treecreeper	TC	T	Probable	Observations singing in suitable nesting habitat. 1 territory.

### 3.3 Territory Analysis

The territory analysis summary is shown in Table 7 below. The records presented by species, with assigned territories, are shown in Appendix 2 below.

**Table 7. Territory Analysis - Summary Results**

Species	Northern Block	Picket and Clanger	Other Southern Woods	Grand Total
BF	0	0	1	1
CT	4	12	1	17
G.	2	2	0	4
GC	7	17	2	26
GH	1	0	0	1
GS	3	3	2	8
J	2	3	1	6
KT	0	0	1	1
LT	4	2	1	7
NH	4	6	2	12
RT	0	1	0	1
SD	1	3	0	4
SF	2	1	0	3
SH	0	1	0	1
SK	0	1	0	1
TC	5	9	1	15
TO	1	1	0	2
Grand Total	36	62	12	110

## 4. Appendices

### Appendix 1 Nomenclature and Symbology

Table 8. BTO Symbology.

Symbols are used to describe the bird behaviours recorded during the survey, used on all the maps in Appendix 2. The table of symbols is reproduced with permission from the British Trust for Ornithology. [www.bto.org](http://www.bto.org)

Behaviour	
=	Alarming
-	Calling
○	Singing
	Stationary
⊛	Territorial Dispute
fam	Family
●	Non-specific Registration
*	Nest
→	Flying
—	Same Bird
- - -	Simultaneous Registration
NH2	Multiple birds observed, denoted by number

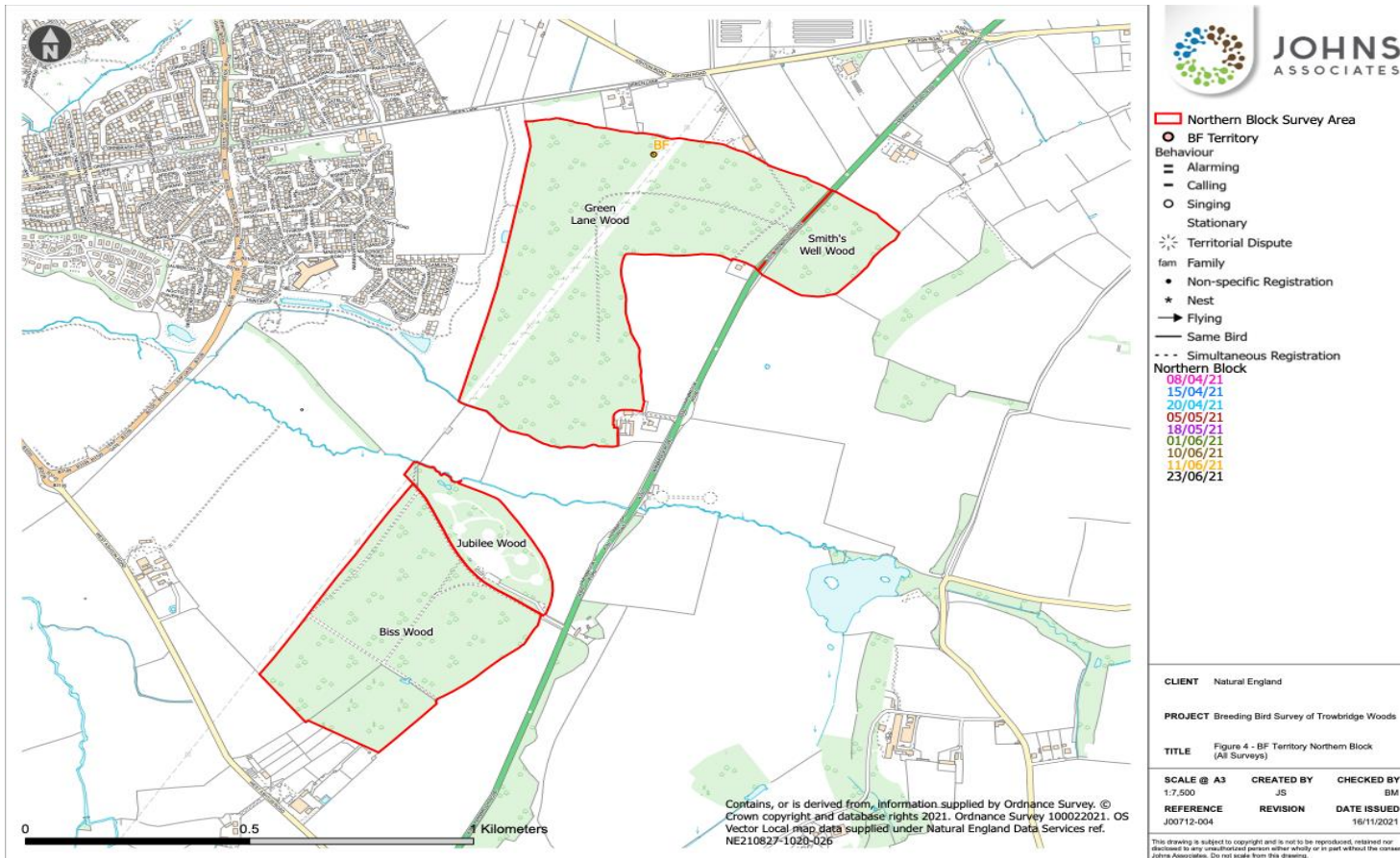


### **BTO Species Codes**

Species codes are listed in the supplementary data sheet. Reproduced with permission from the British Trust for Ornithology. [www.bto.org](http://www.bto.org)

## Appendix 2

Figure 3. Bullfinch registration (BF) with breeding behaviour symbol (no territory recorded): Northern Block



**Figure 4. Bullfinch registrations (BF) with breeding behaviour symbols and territory: Picket and Clanger and other southern woods**

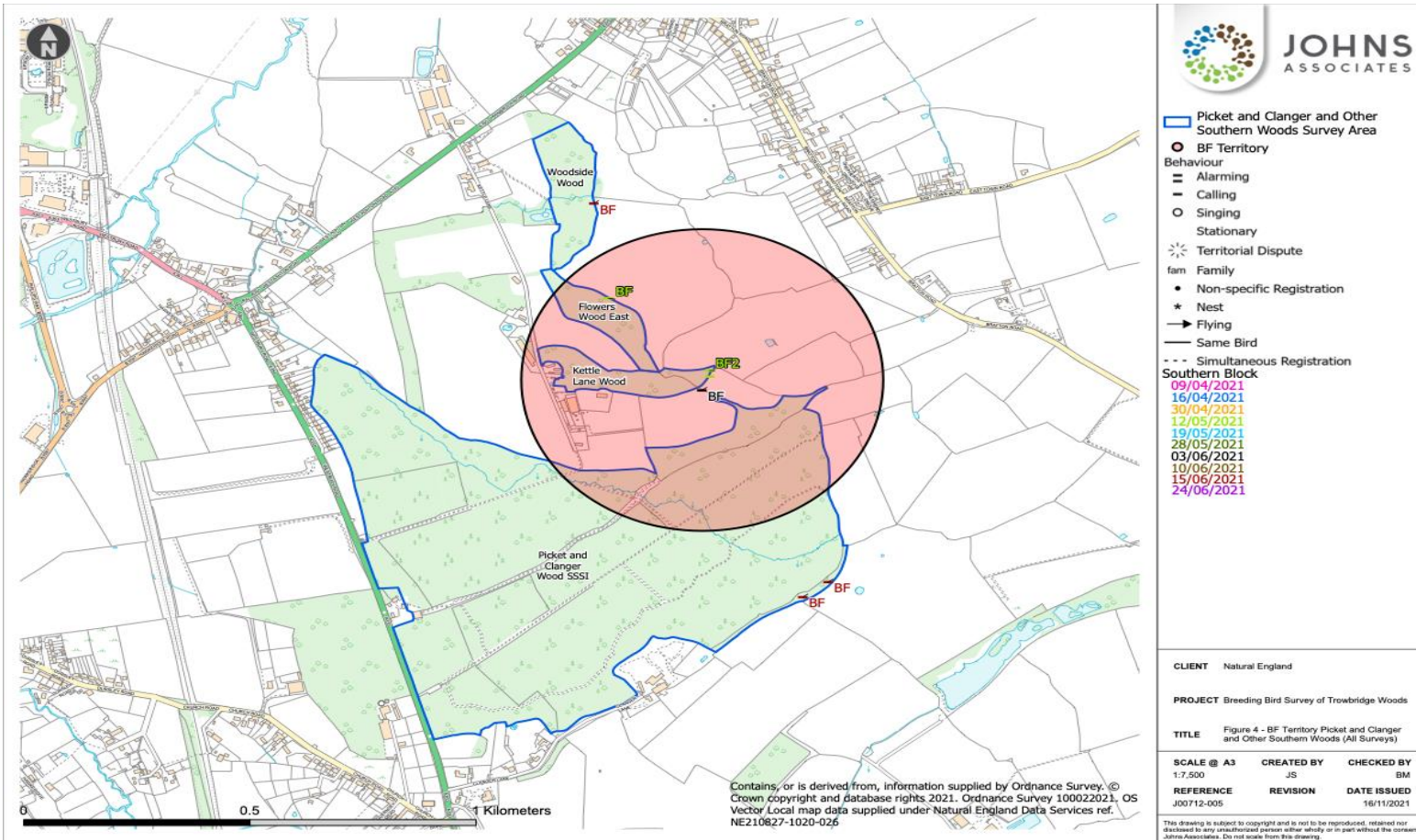
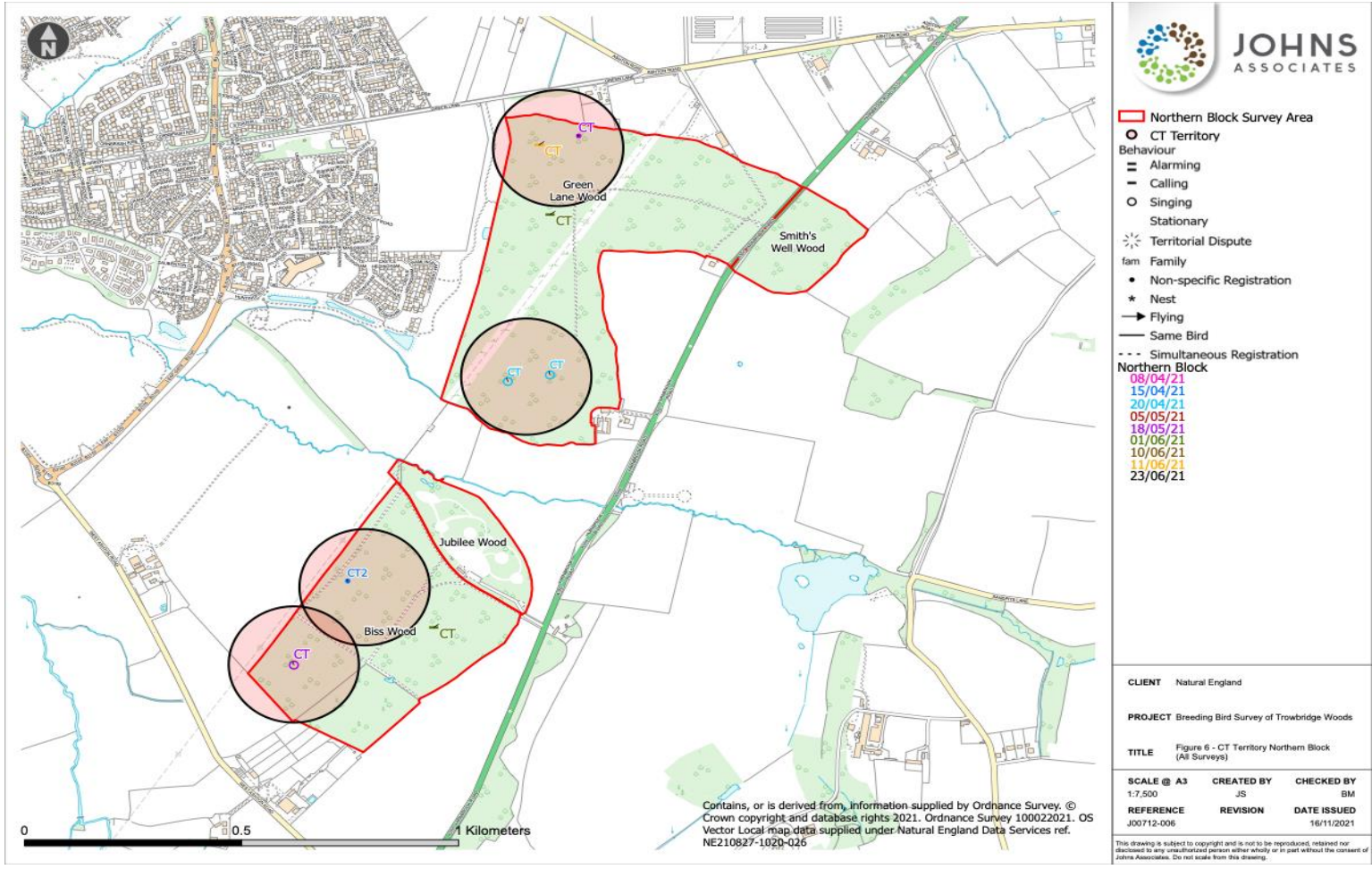


Figure 5. Coal tit registrations (CT) with breeding behaviour symbols and territories: Northern Block



**Figure 6. Coal tit registrations (CT) with breeding behaviour symbols and territories: Picket and Clanger and other southern woods**

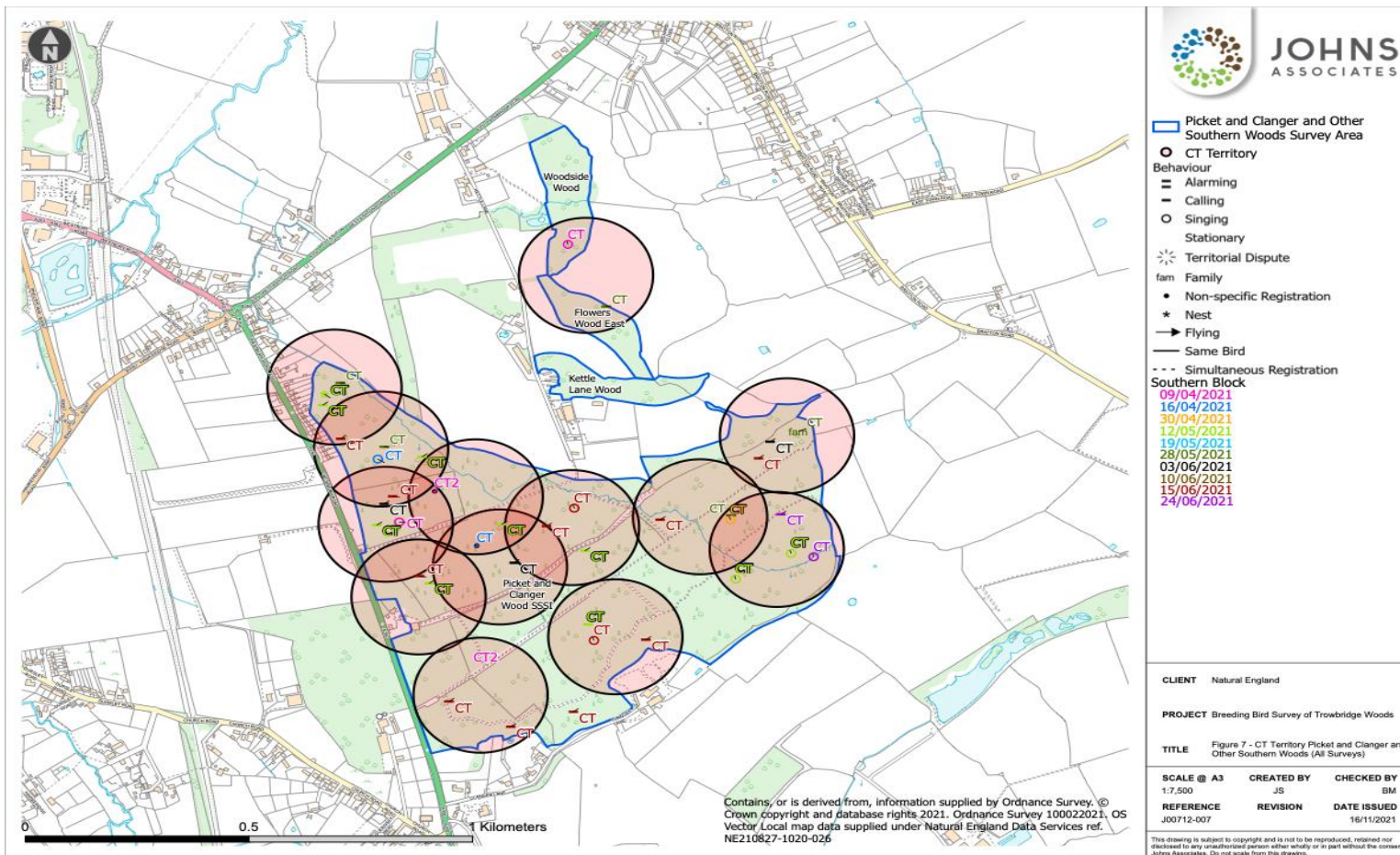
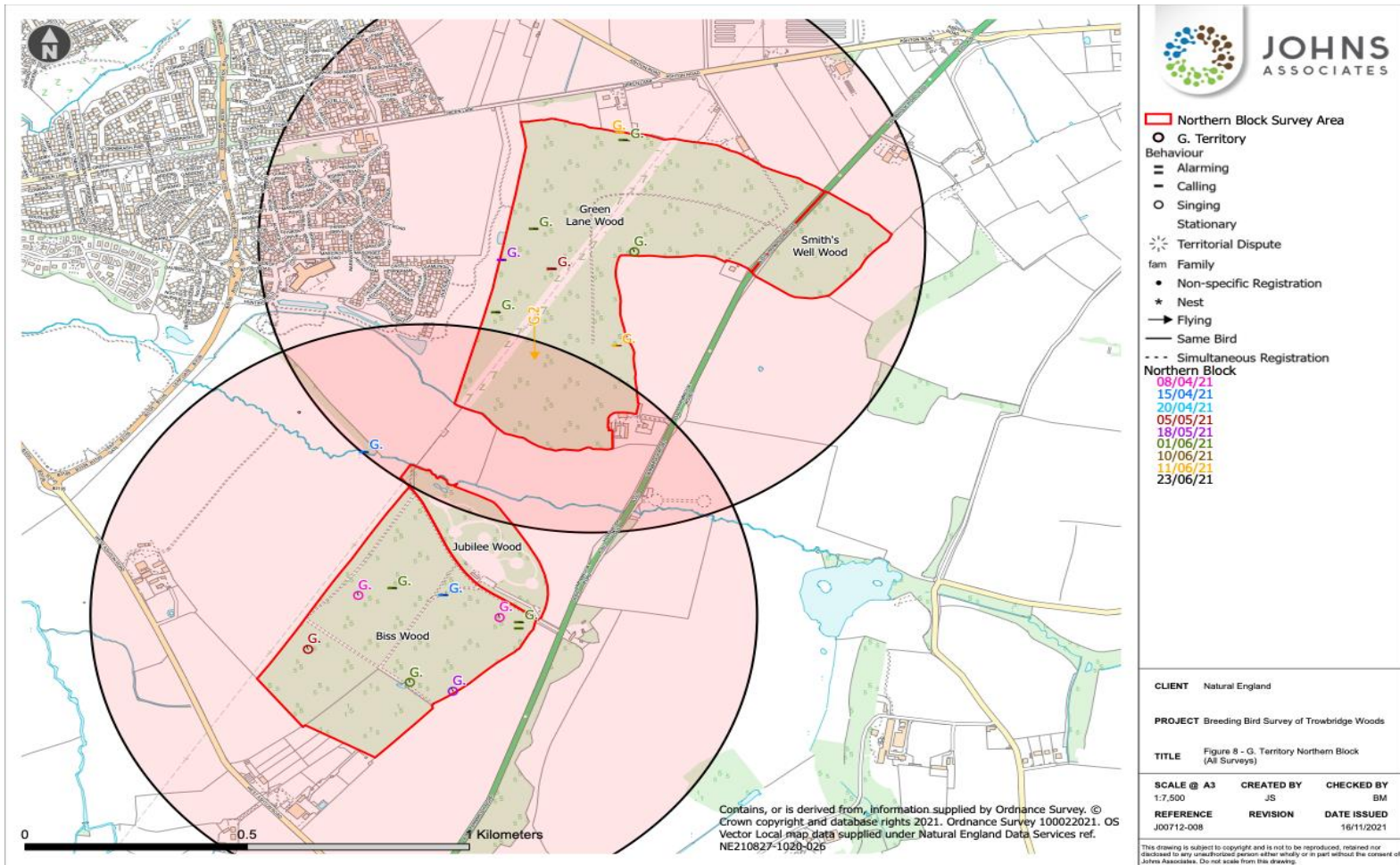


Figure 7. Green woodpecker registrations (G.) with breeding behaviour symbols and territories: Northern Block



**Figure 8. Green woodpecker registrations (G.) with breeding behaviour symbols and territories: Picket and Clanger and other southern woods**

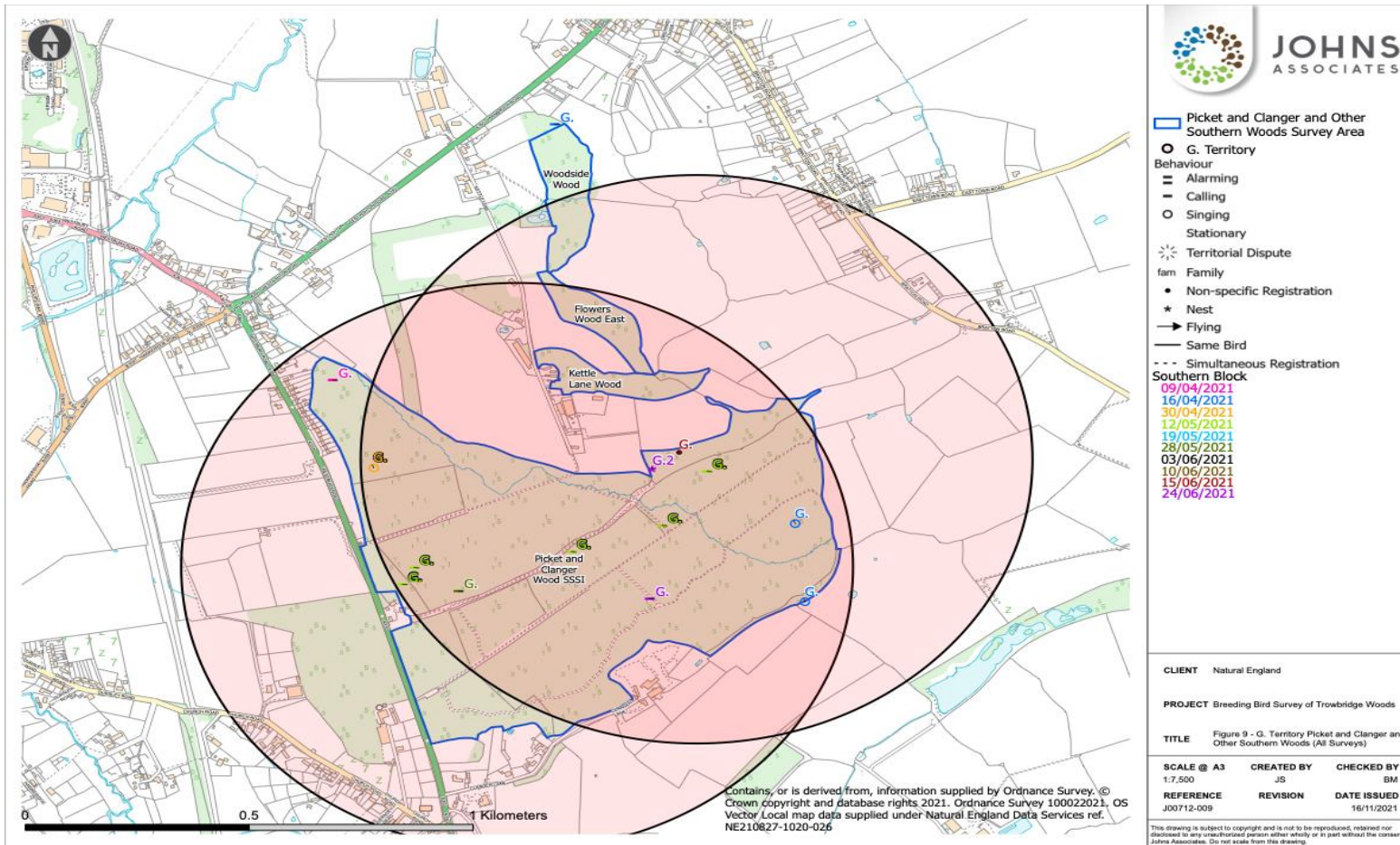
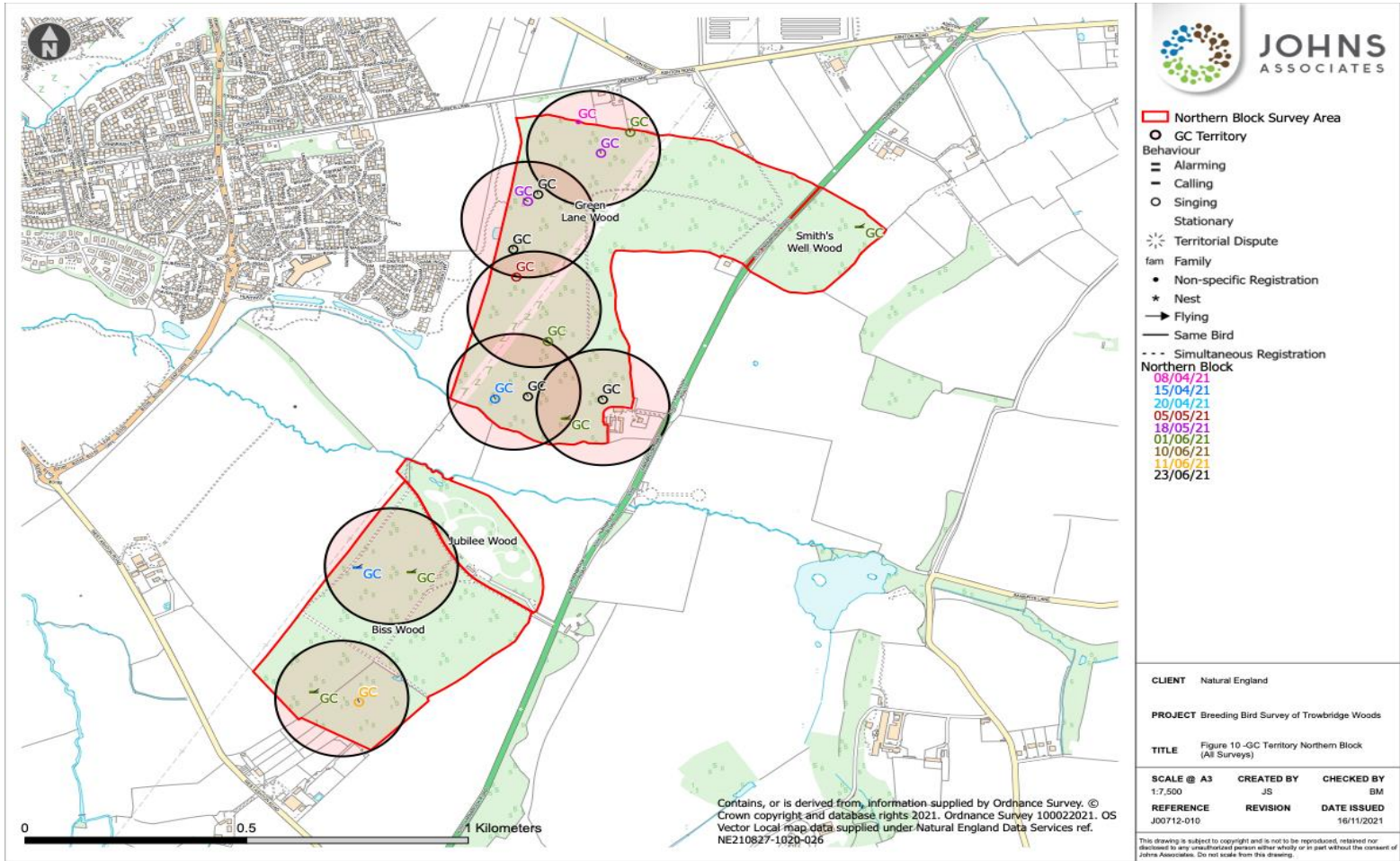


Figure 9. Goldcrest registrations (GC) with breeding behaviour symbols and territories: Northern Block





**Figure 10. Goldcrest registrations (GC) with breeding behaviour symbols and territories: Picket and Clanger and other southern woods**

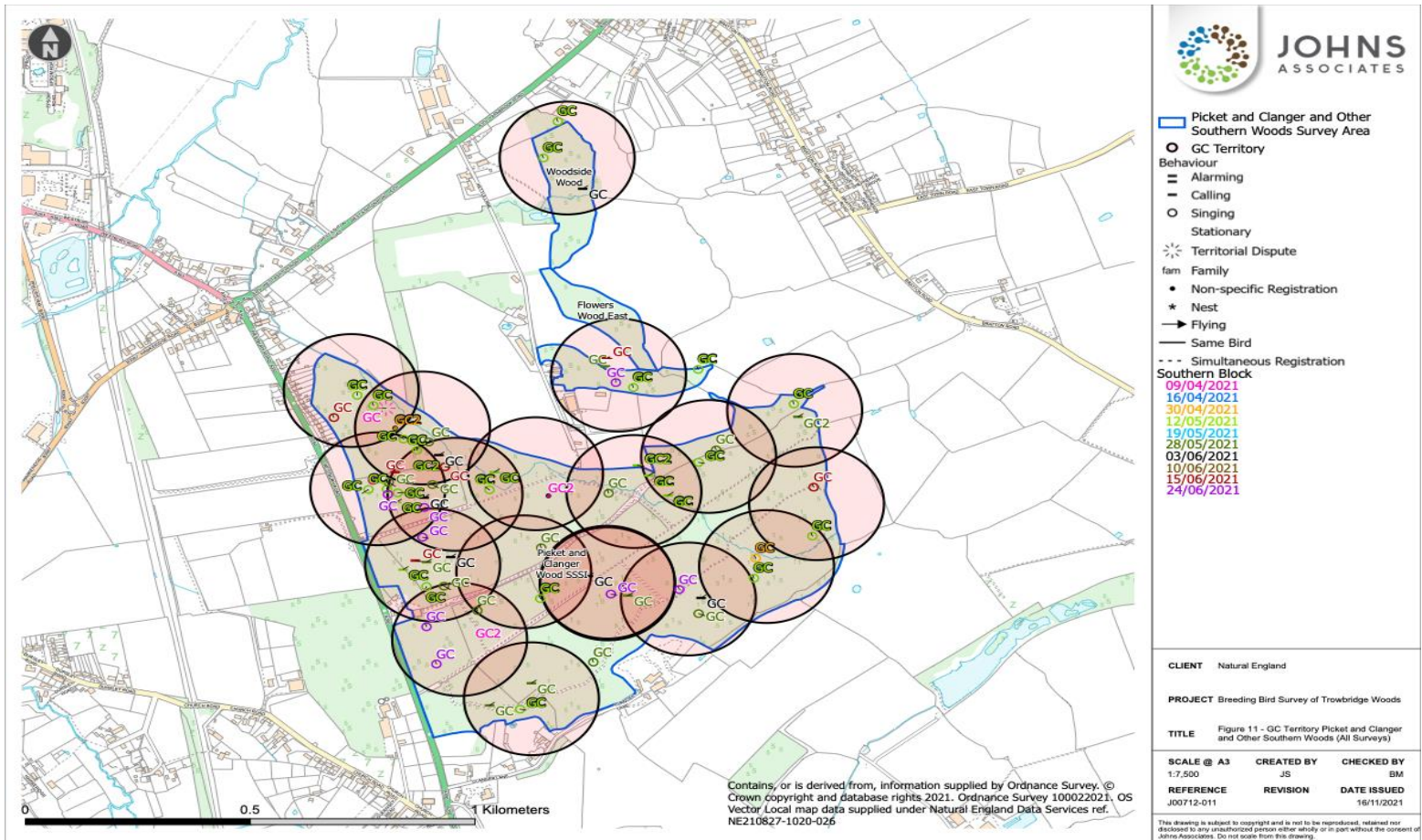


Figure 11. Grey heron registrations (GH) with breeding behaviour symbols and territory: only present in the Northern Block

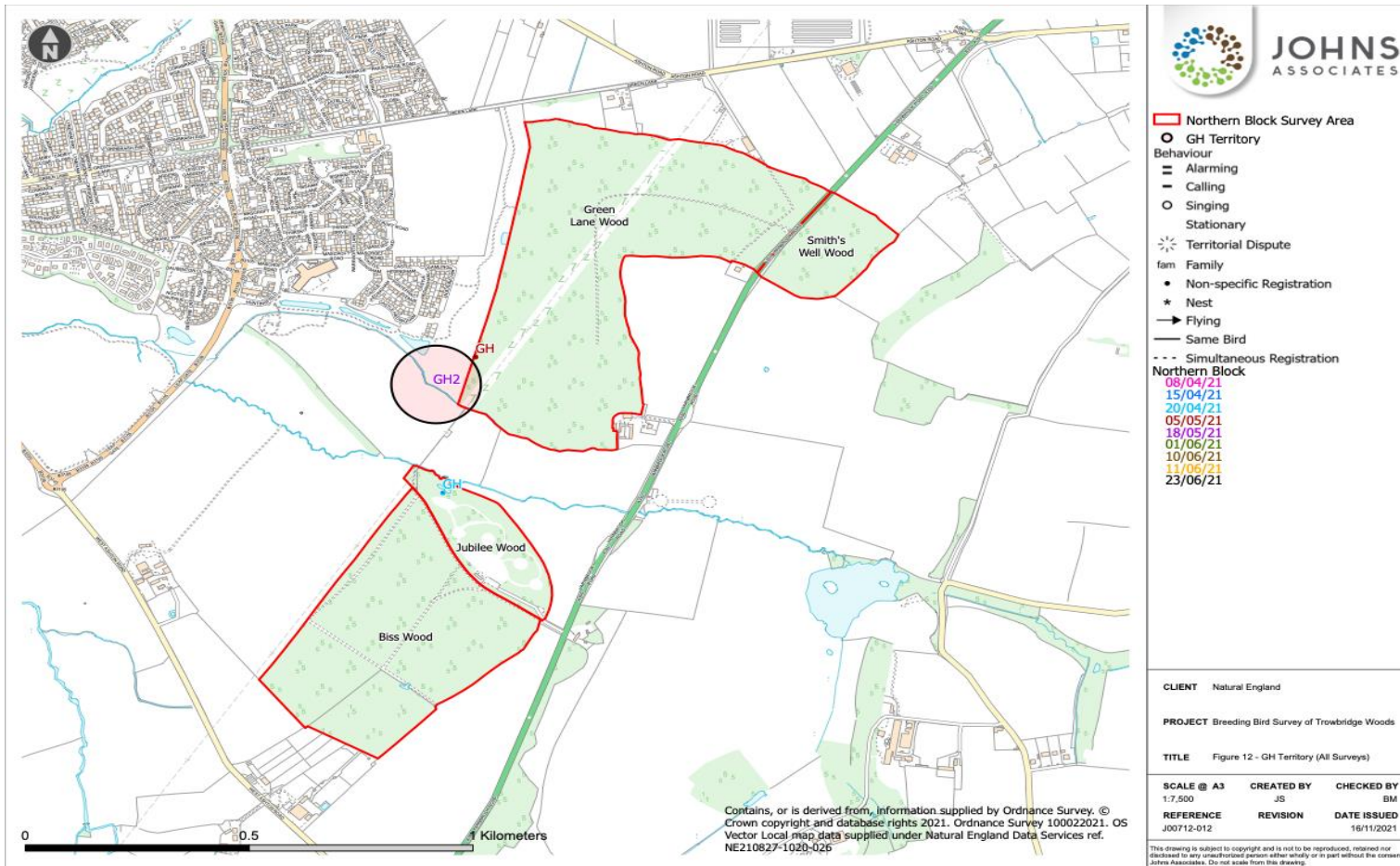
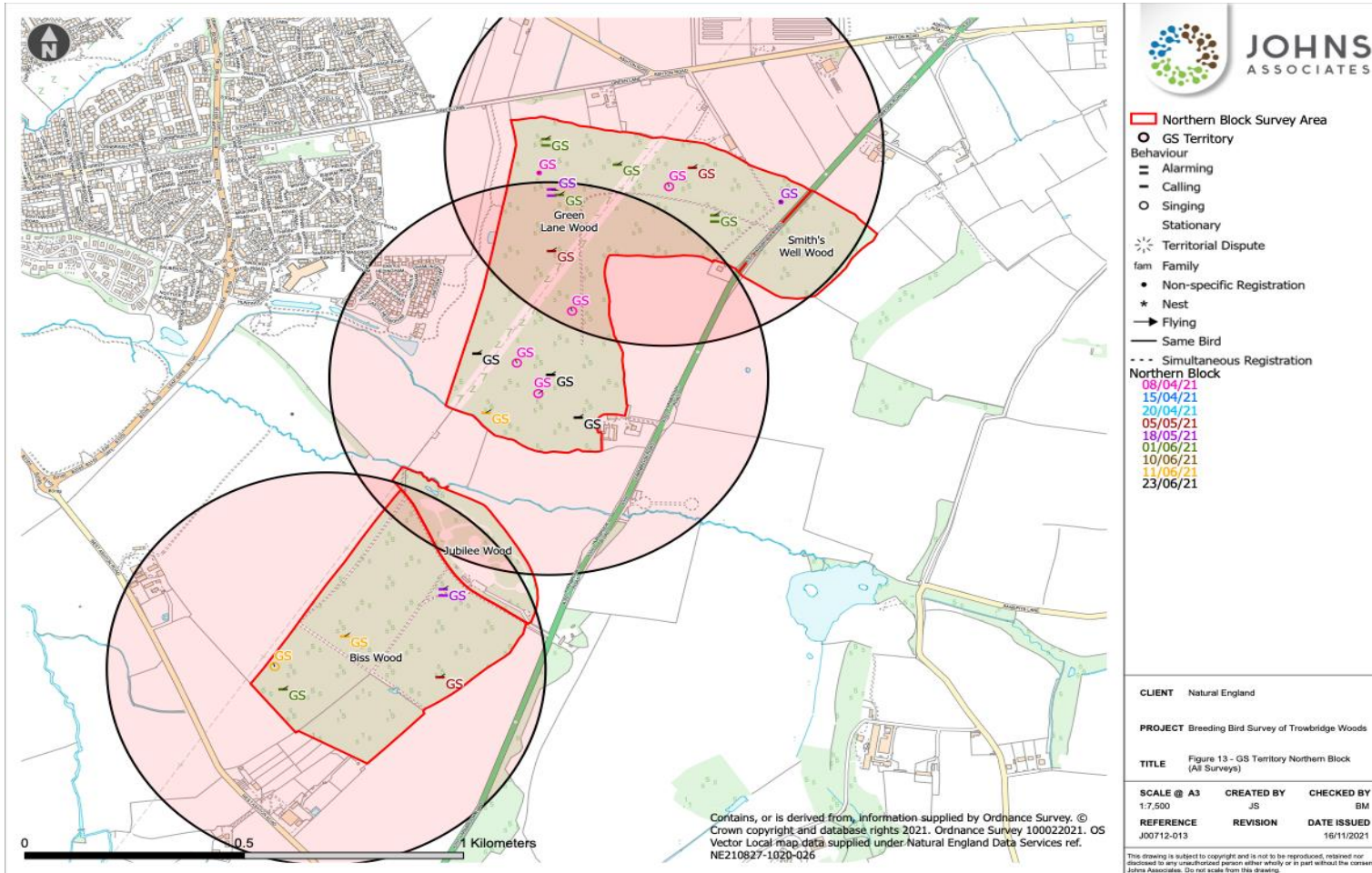


Figure 12. Great spotted woodpecker registrations (GS) with breeding behaviour symbols and territories: Northern Block



**Figure 13. Great spotted woodpecker registrations (GS) with breeding behaviour symbols and territories: Picket and Clanger and other southern woods**

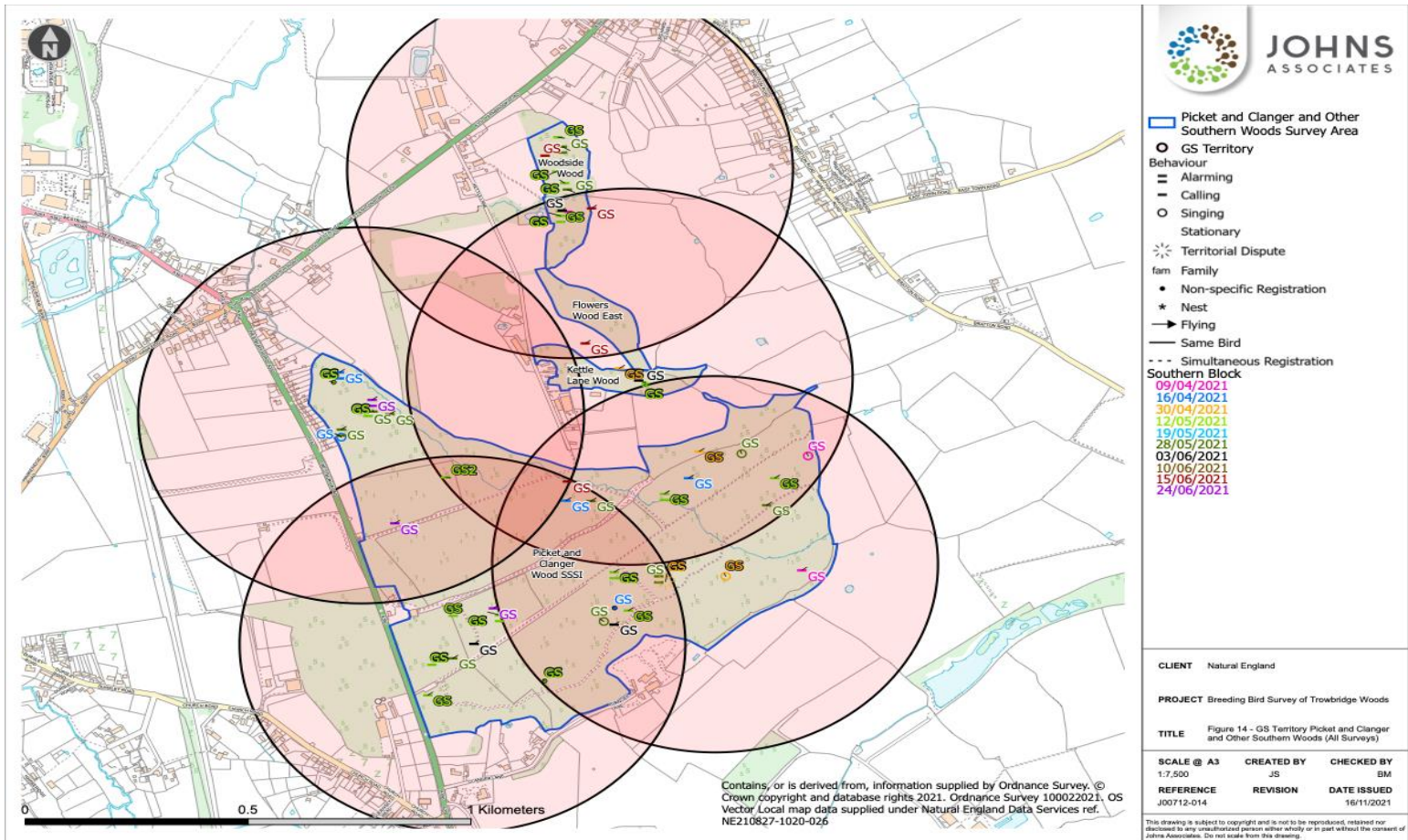


Figure 14. Jay registrations (J.) with breeding behaviour symbols and territories: Northern Block

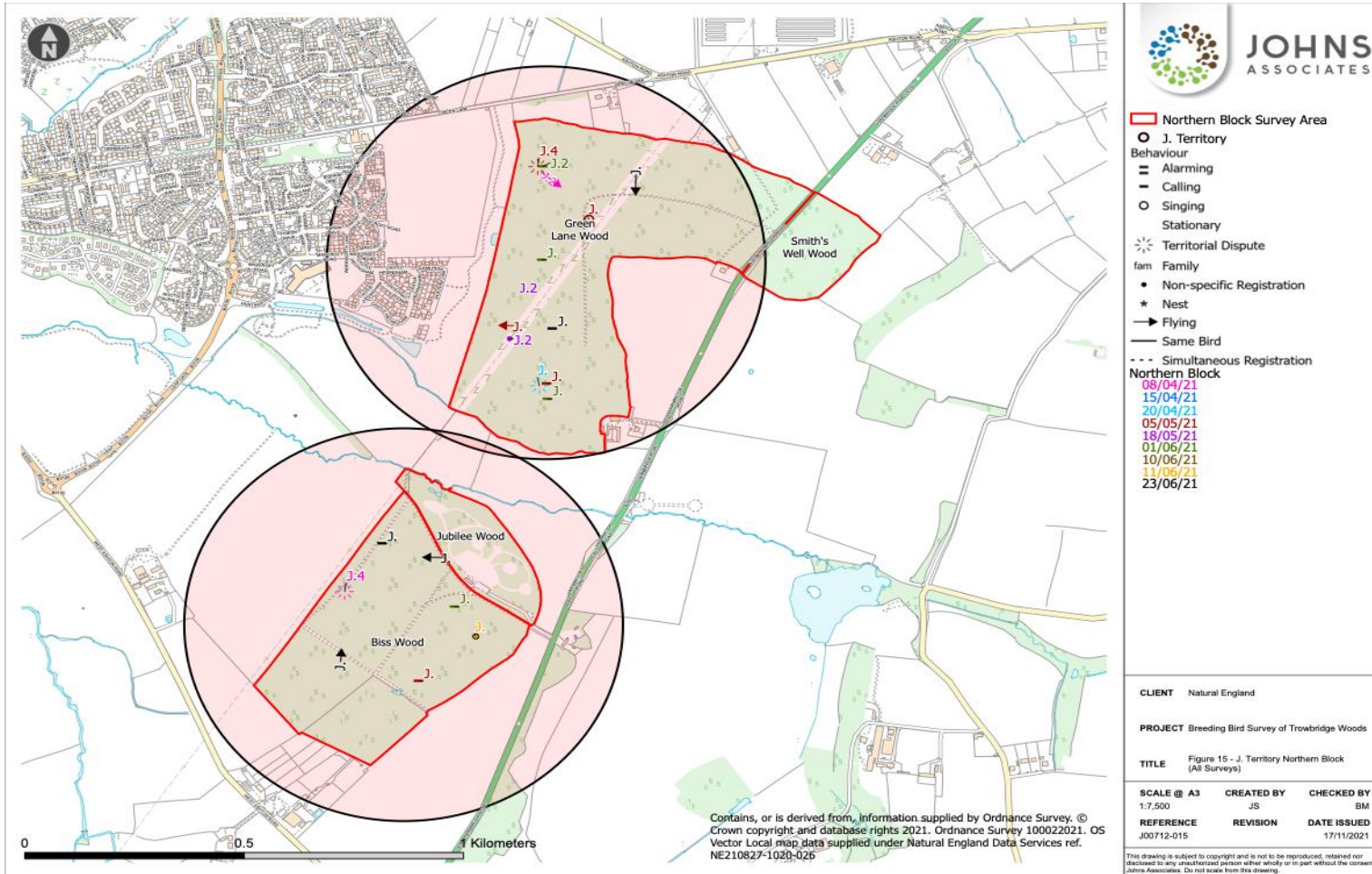


Figure 15. Jay registrations (J.) with breeding behaviour symbols and territories: Picket and Clanger and other southern woods

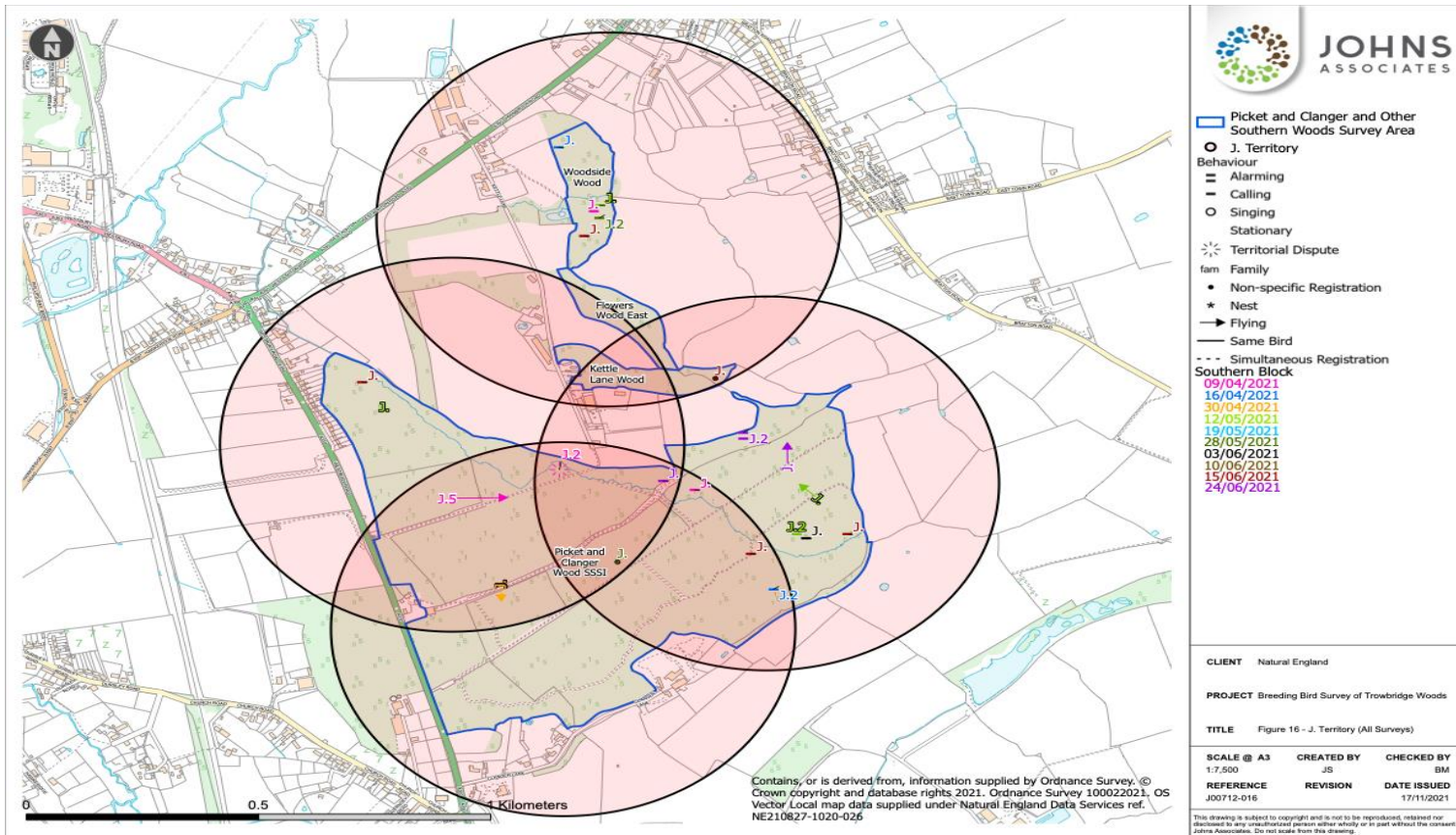
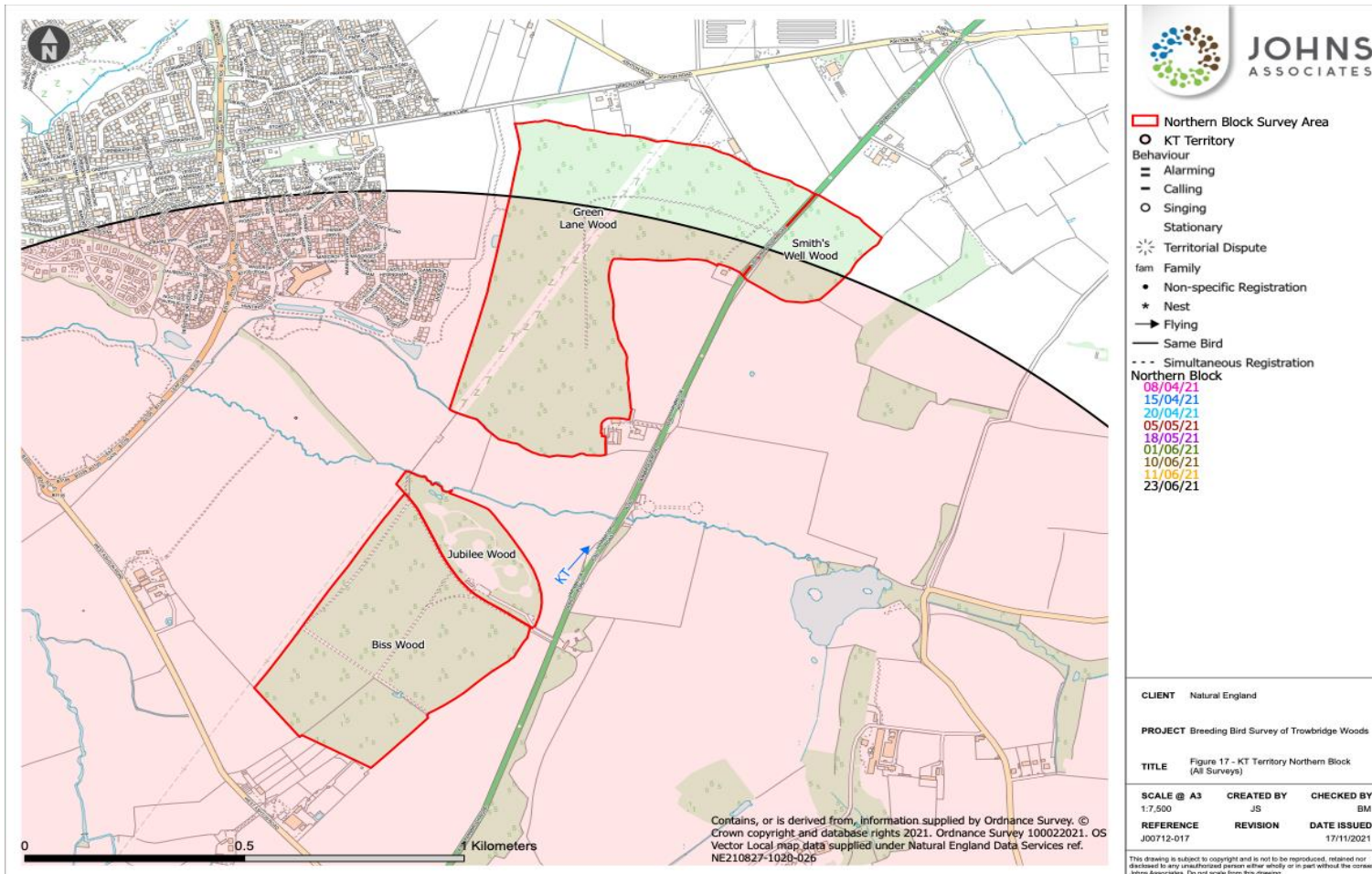


Figure 16. Red kite registration (KT) with breeding behaviour symbol and territory: Northern Block



**Figure 17. Red kite registrations (KT) with breeding behaviour symbols and territory: Picket and Clanger and other southern woods**

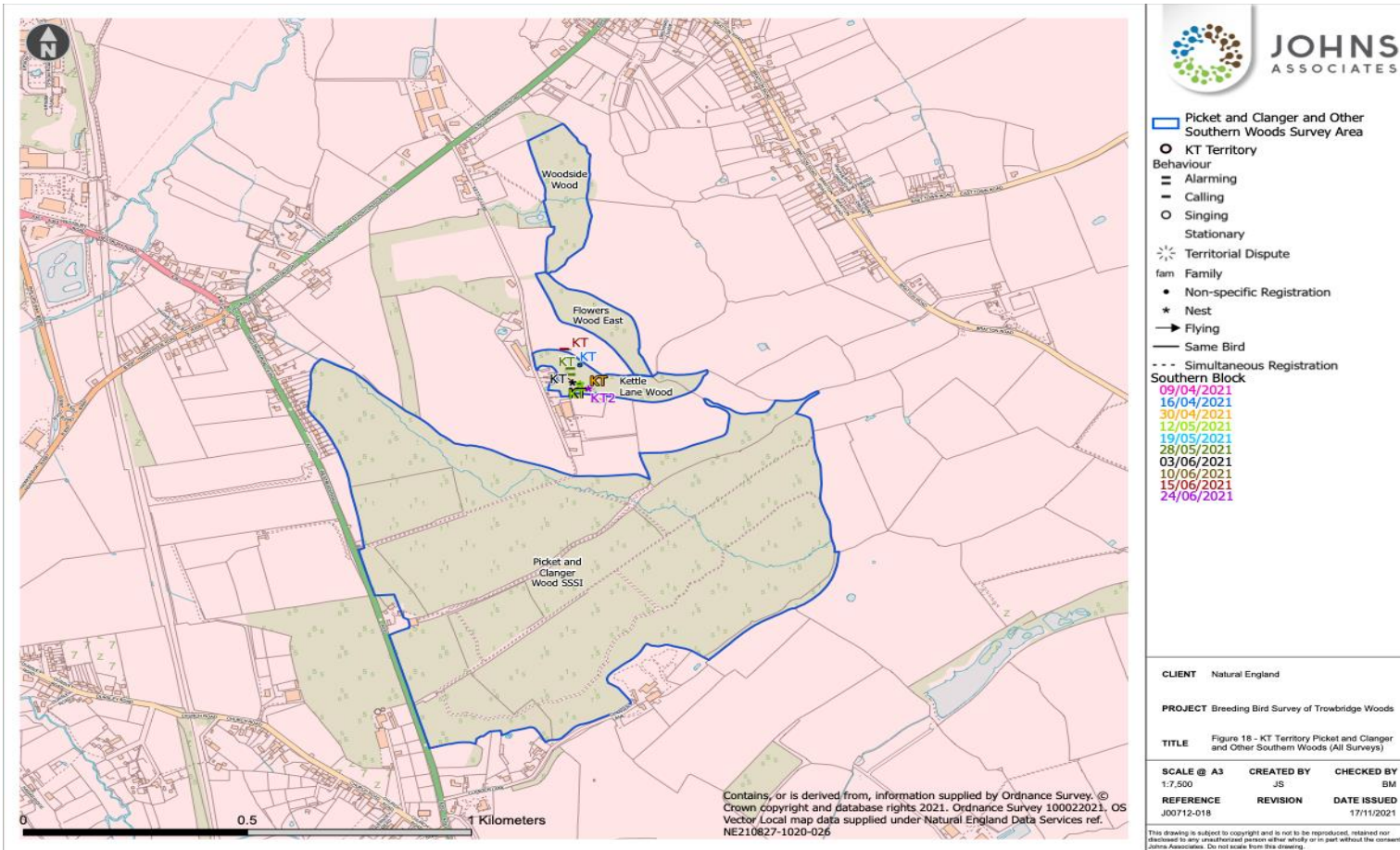
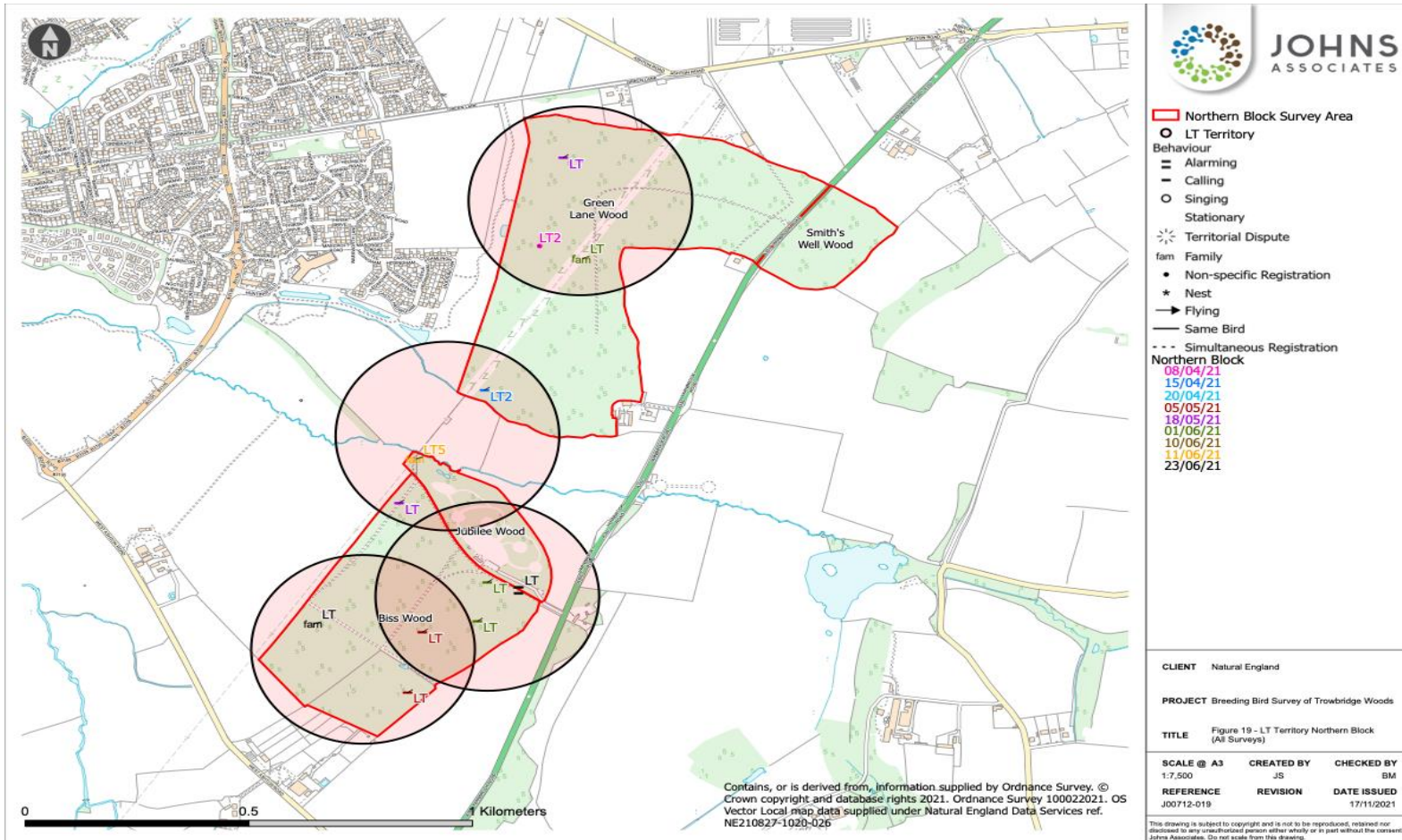




Figure 18. Long-tailed tit registrations (LT) with breeding behaviour symbols and territories: Northern Block



**Figure 19. Long-tailed tit registrations (LT) with breeding behaviour symbols and territories: Picket Clanger and other southern woods**

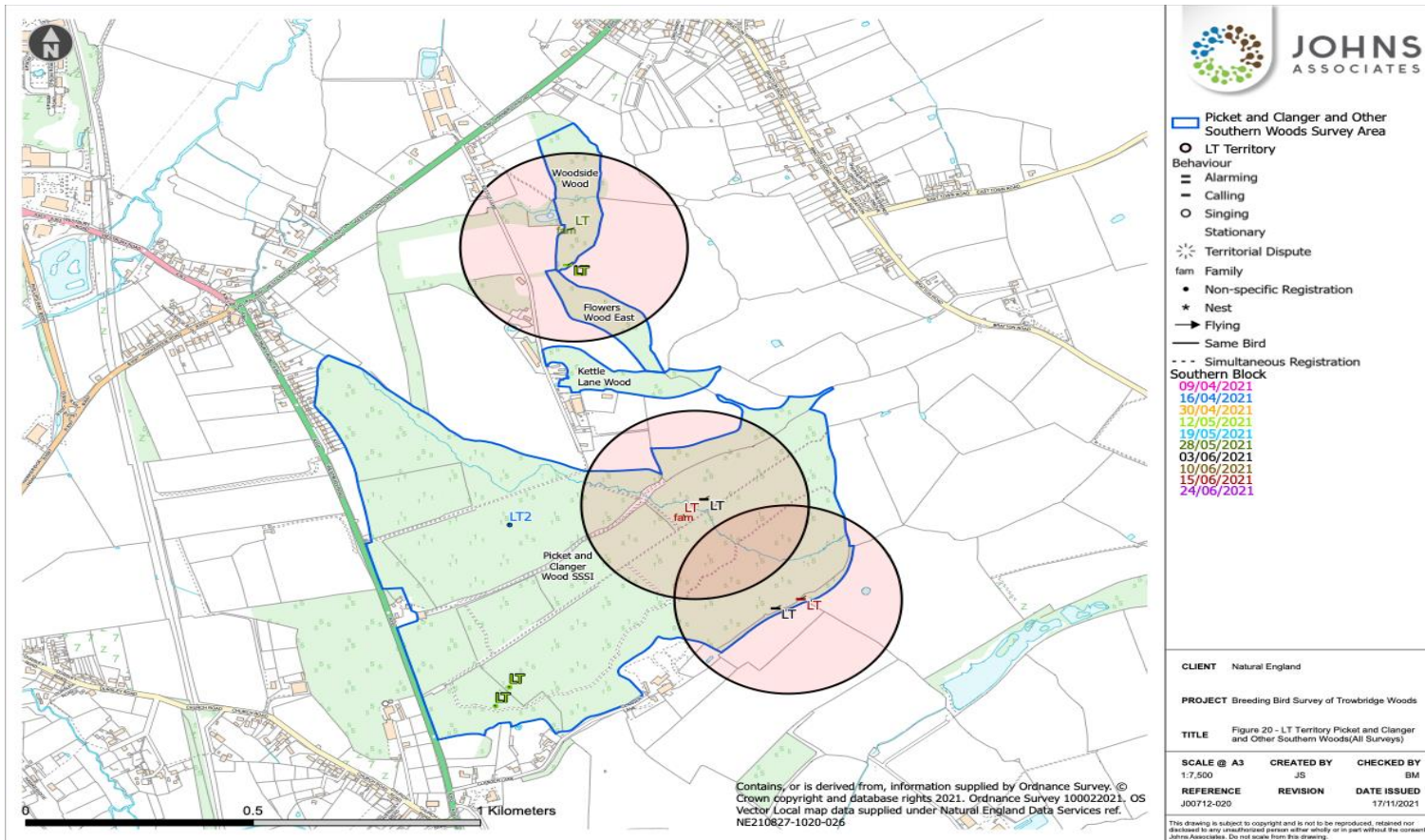
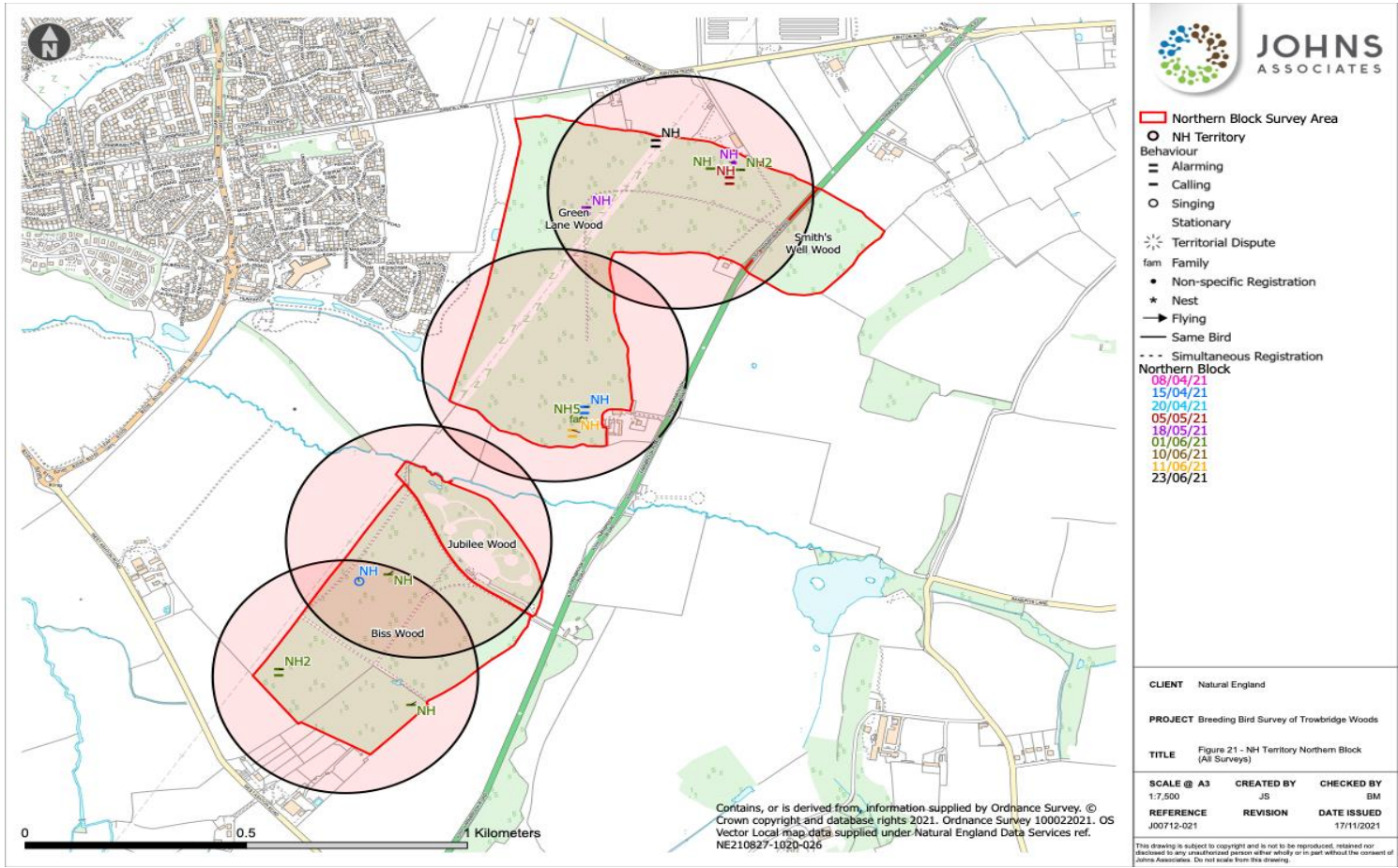


Figure 20. Nuthatch registrations (NH) with breeding behaviour symbols and territories: Northern Block



**Figure 21. Nuthatch registrations (NH) with breeding behaviour symbols and territories: Picket and Clanger and other southern woods**

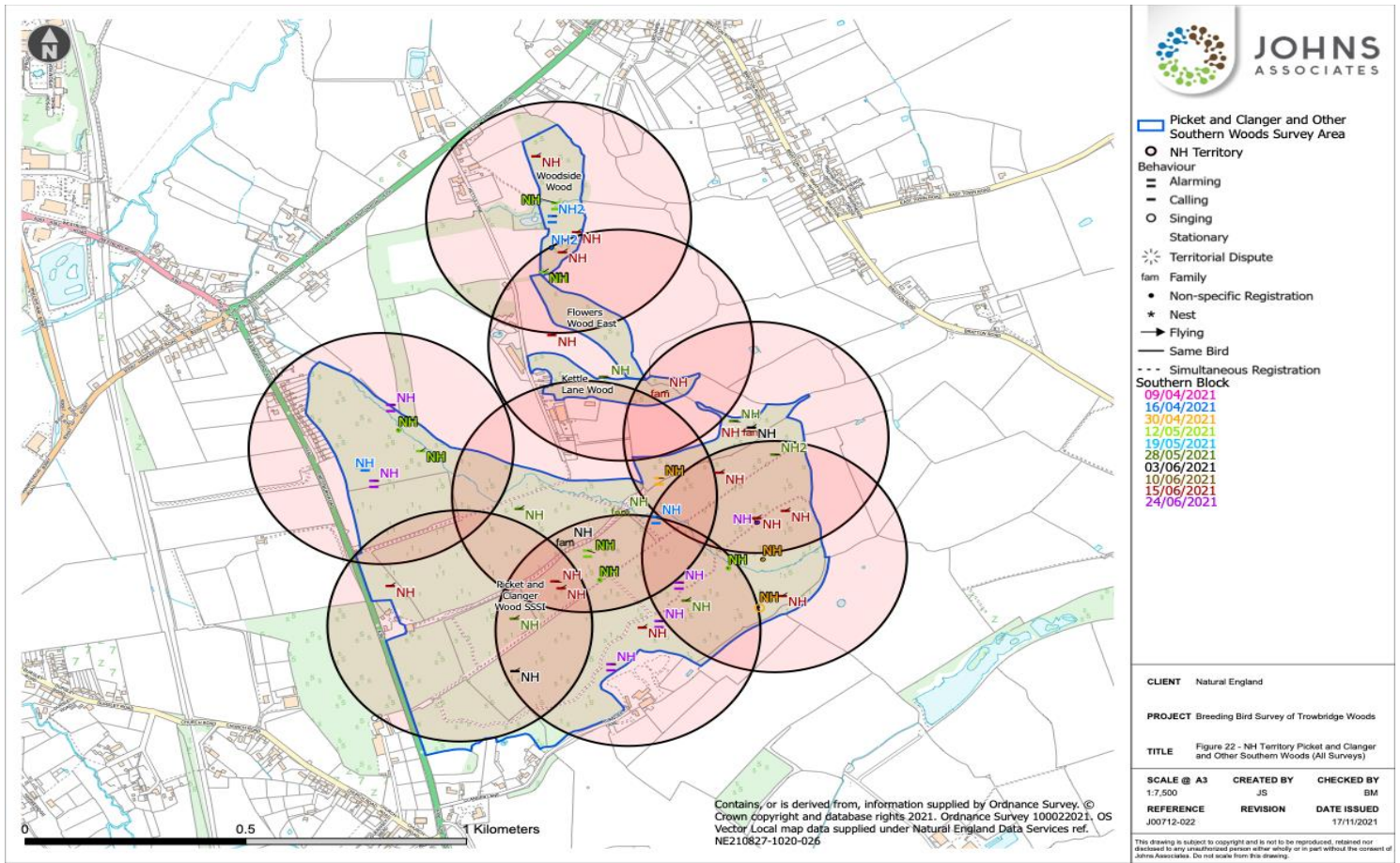
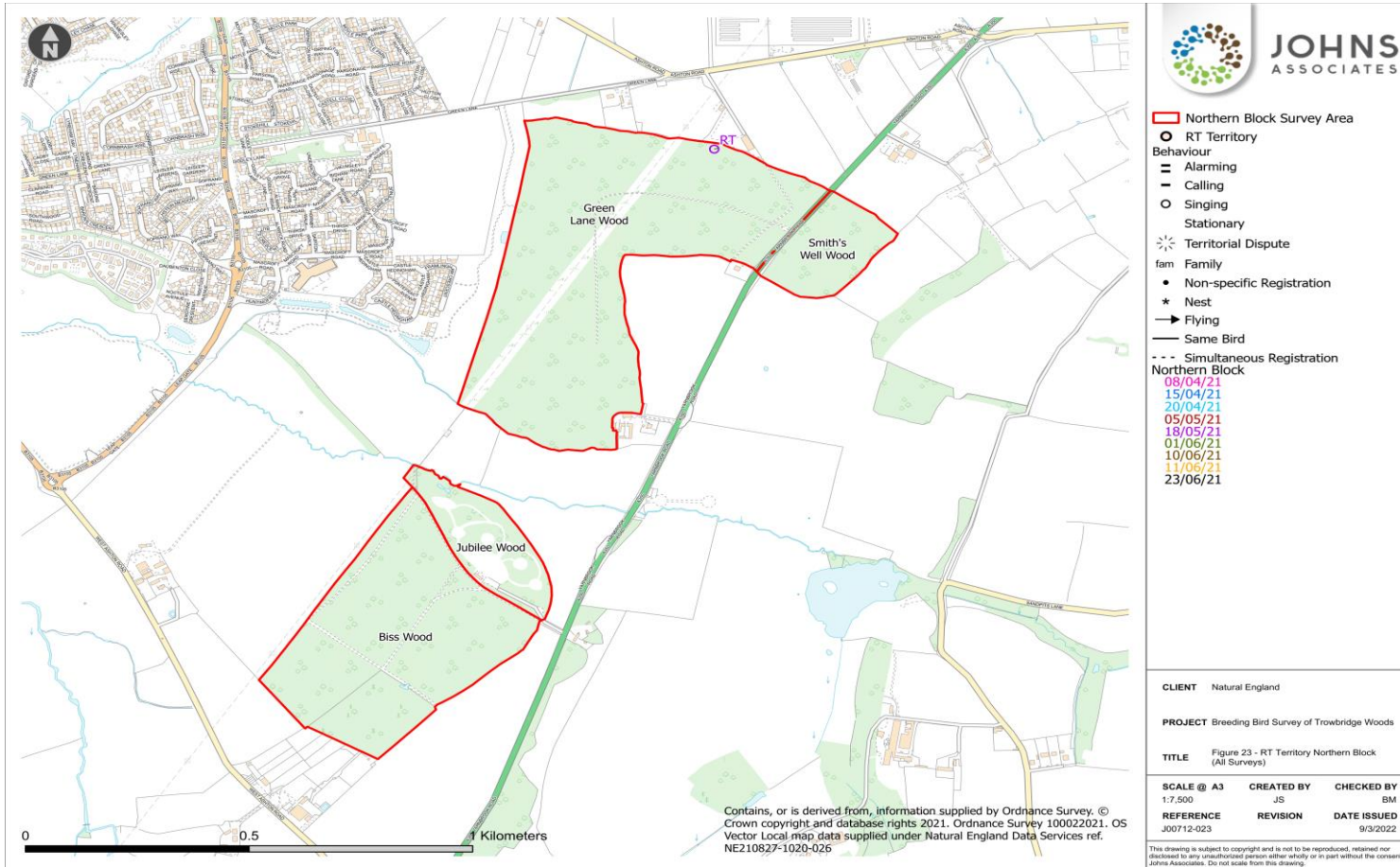


Figure 22. Redstart registration (RT) with breeding behaviour symbol (no territory recorded): Northern Block



**Figure 23 Redstart registration (RT) with breeding behaviour symbols and territory: Picket and Clanger and other southern woods.**

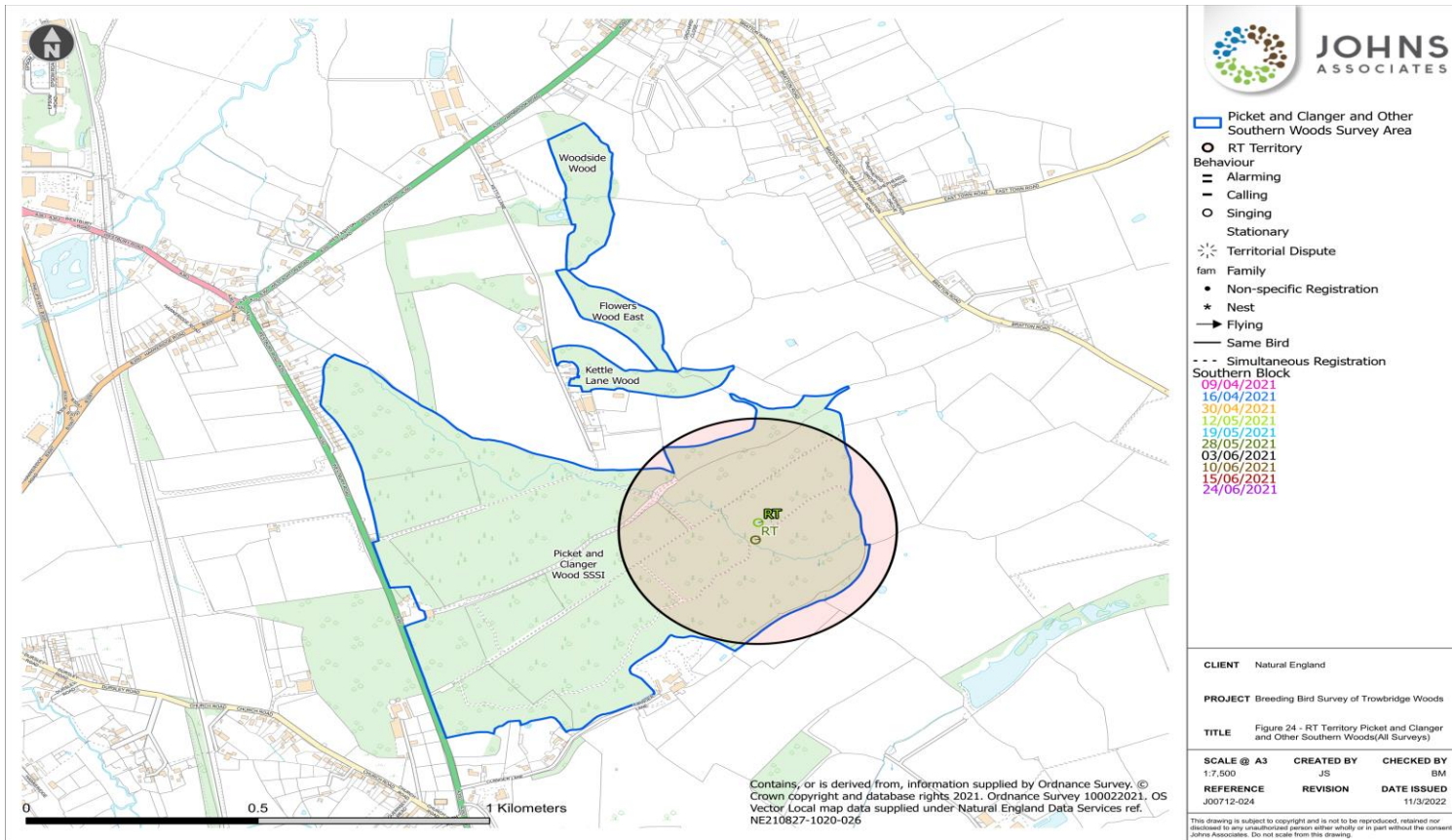
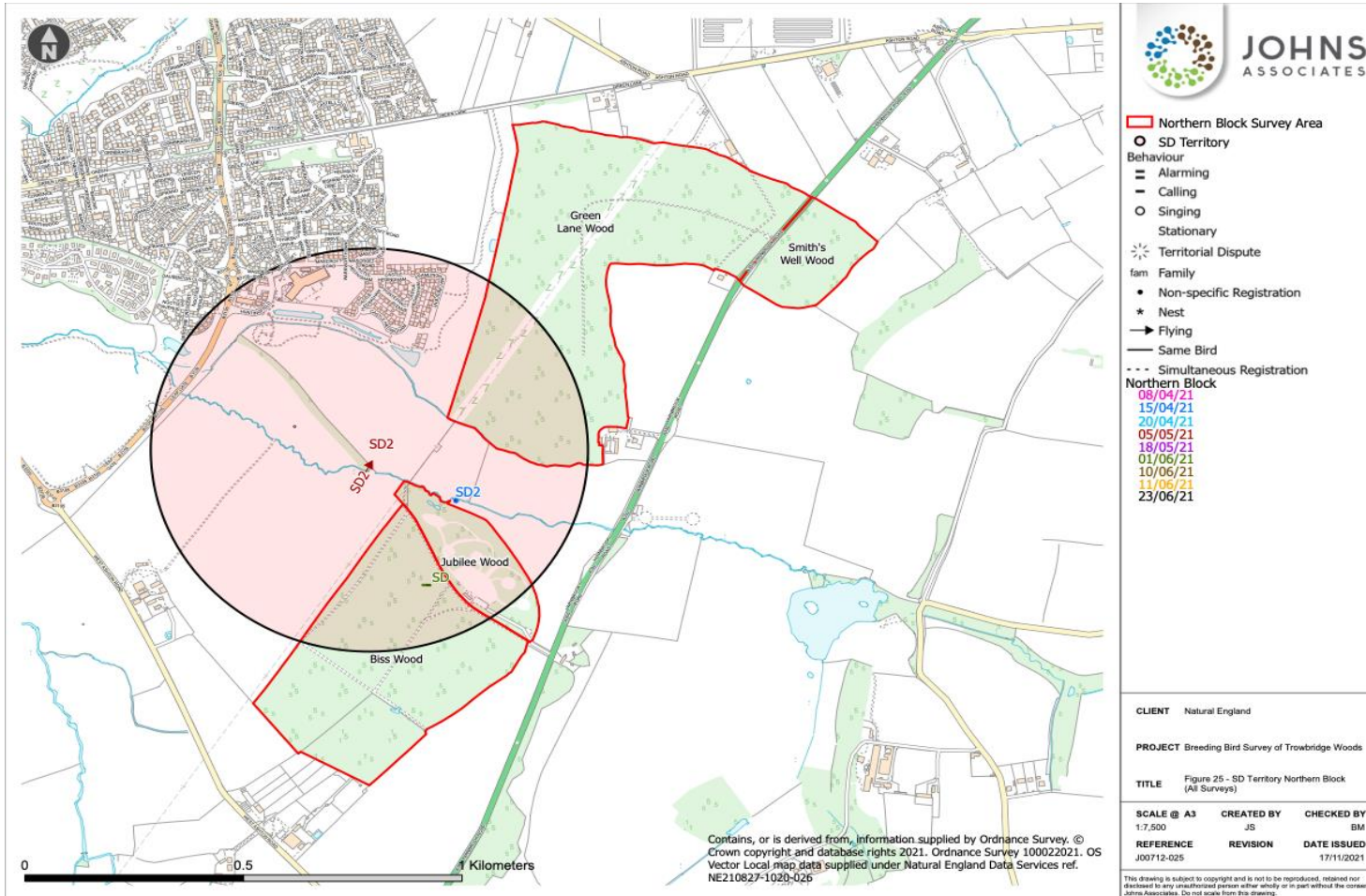


Figure 24 Stock dove registrations (SD) with breeding behaviour symbols and territory: Northern Block.



**Figure 25 Stock dove registrations (SD) with breeding behaviour symbols and territories: Picket and Clanger and other southern woods**

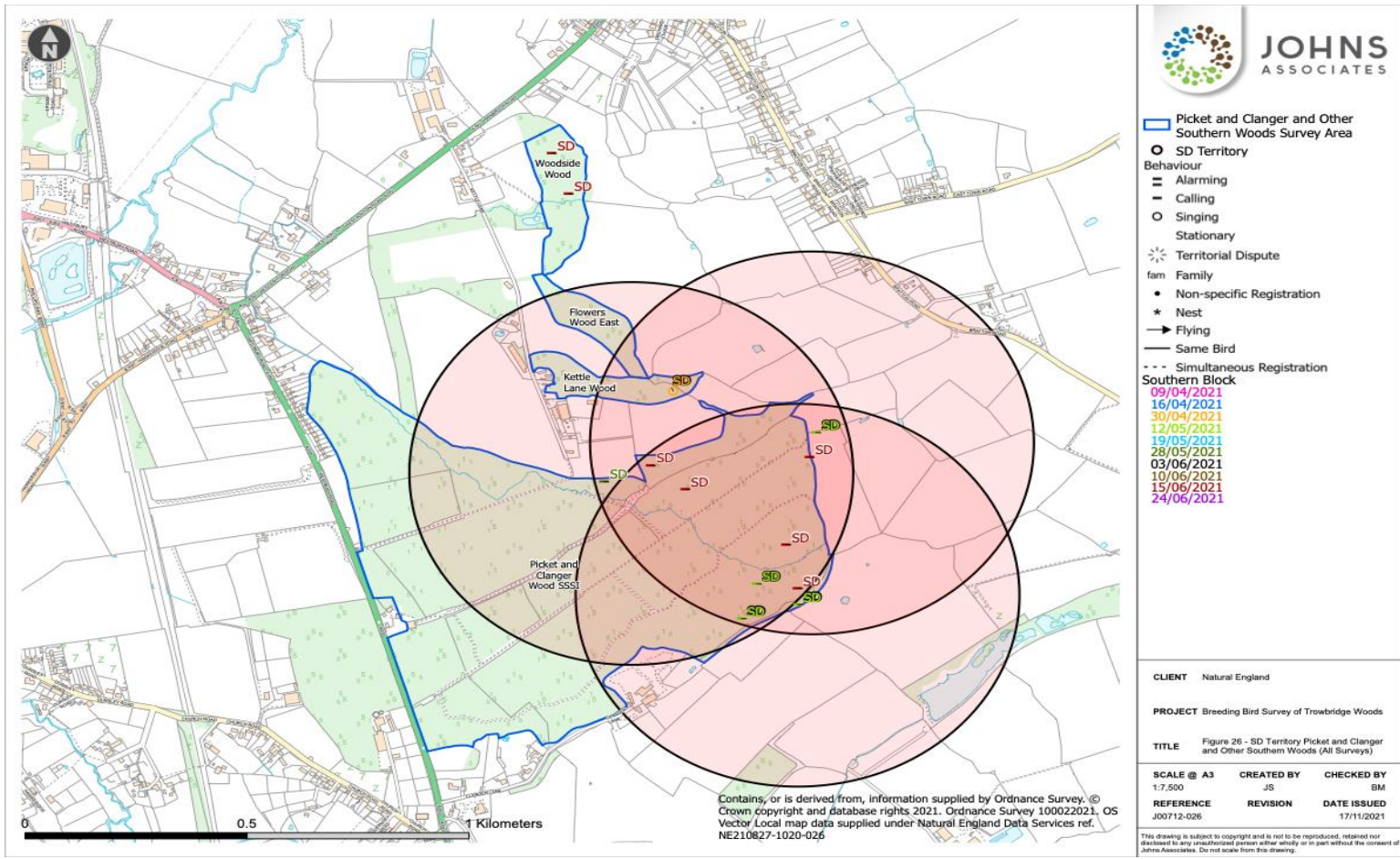
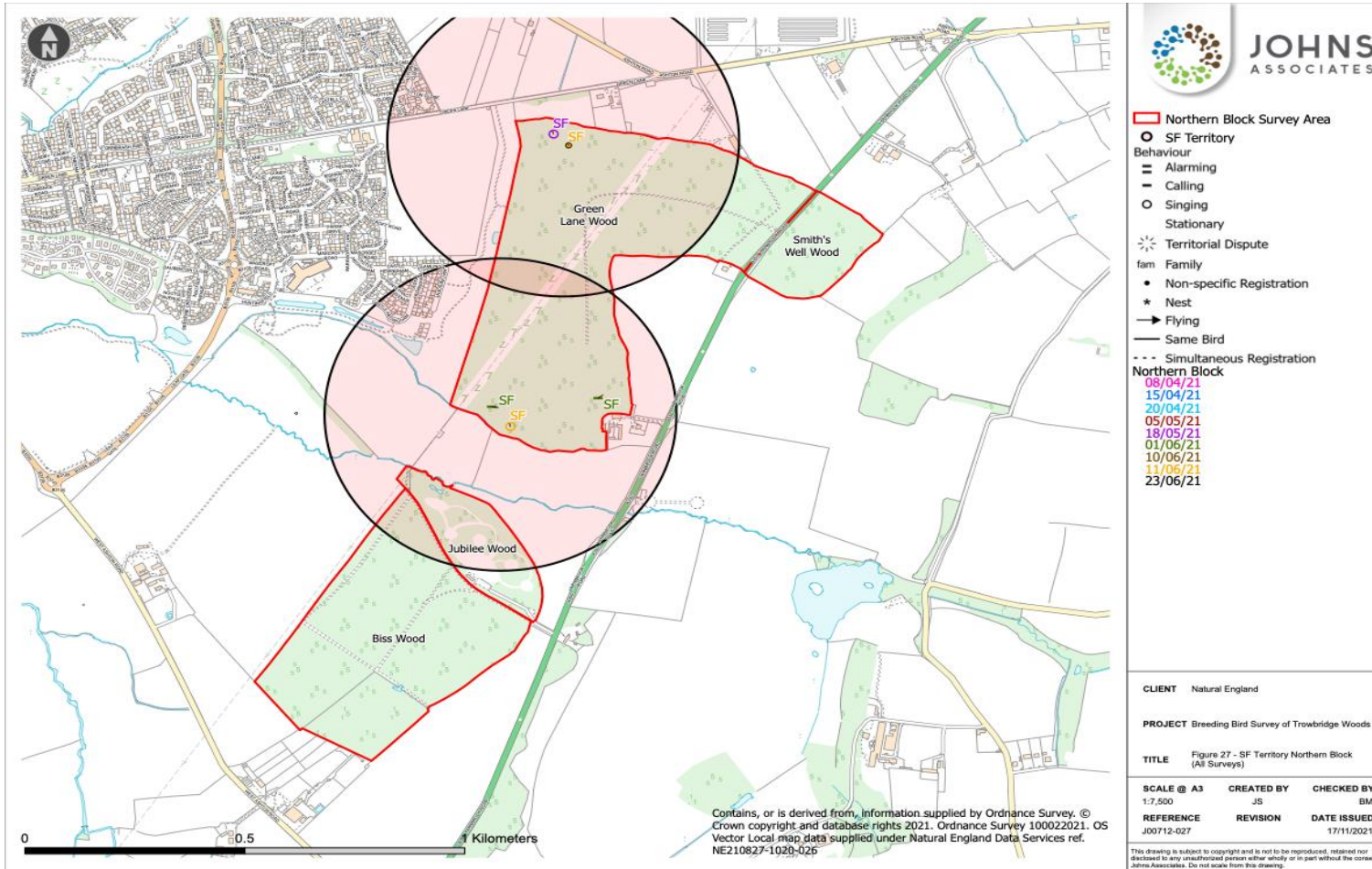




Figure 26. Spotted flycatcher registrations (SF) with breeding behaviour symbols and territories: Northern Block



**Figure 27. Spotted flycatcher registrations (SF) with breeding behaviour symbols and territory: Picket and Clanger and other southern woods**

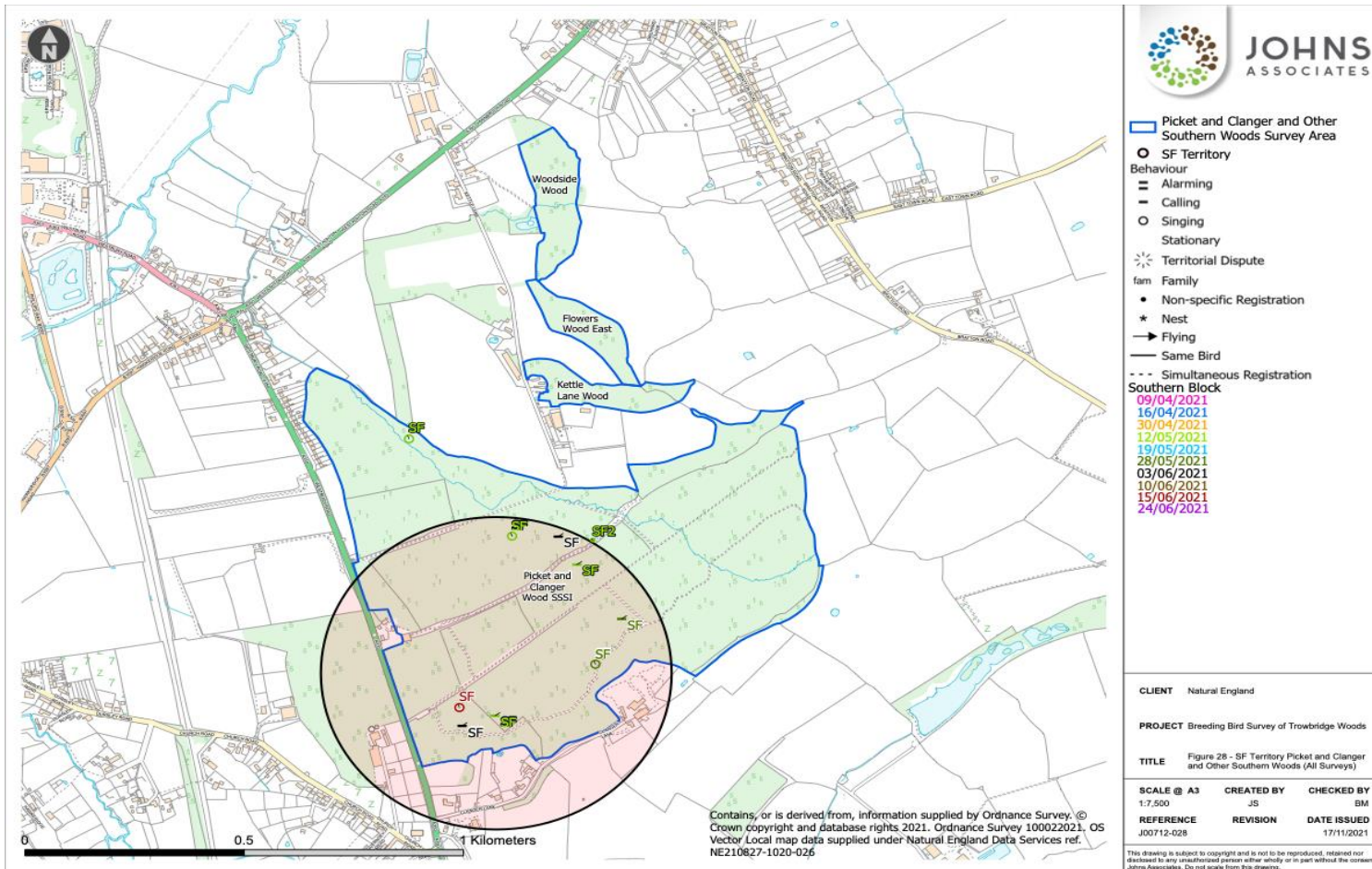
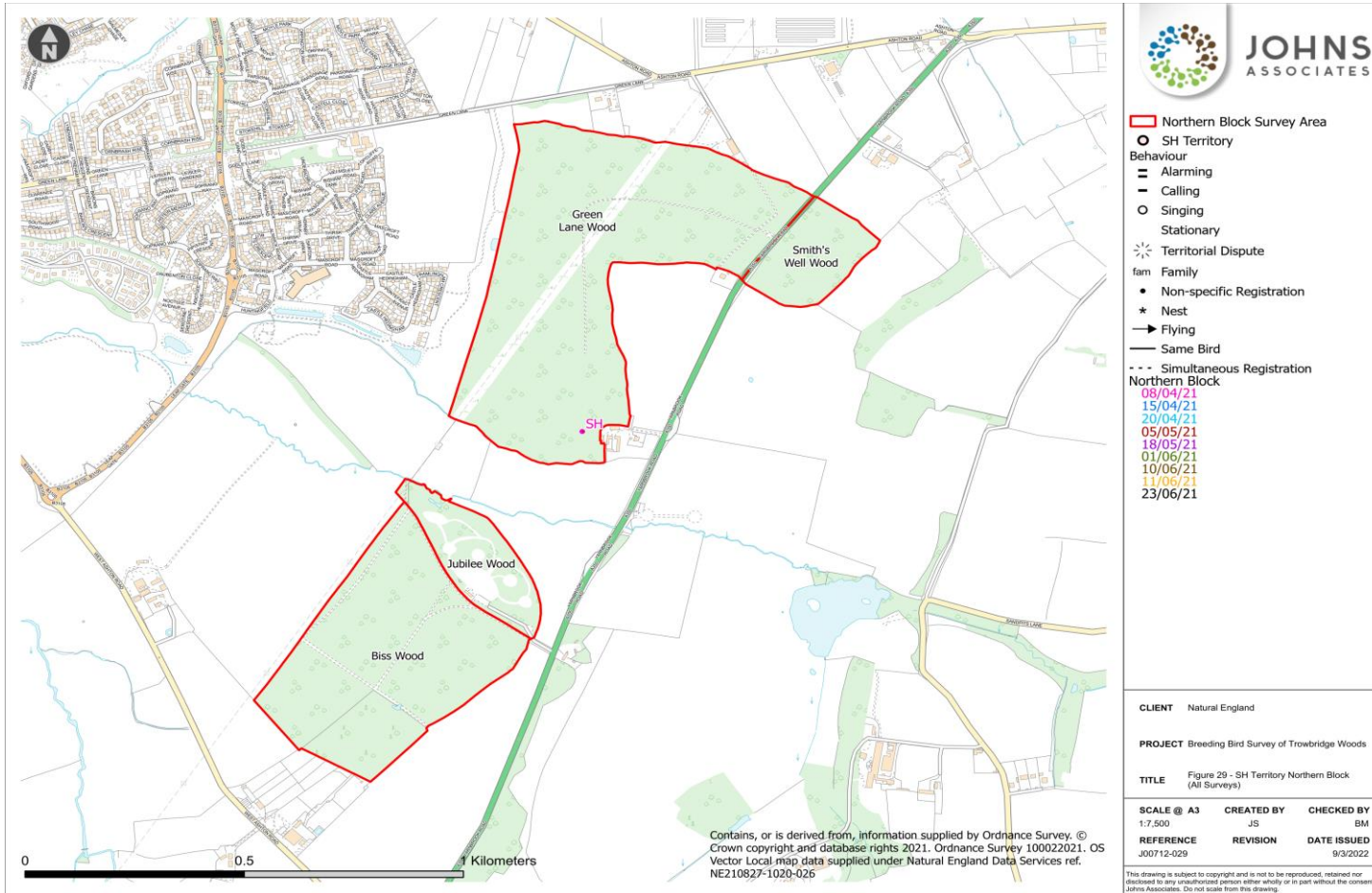
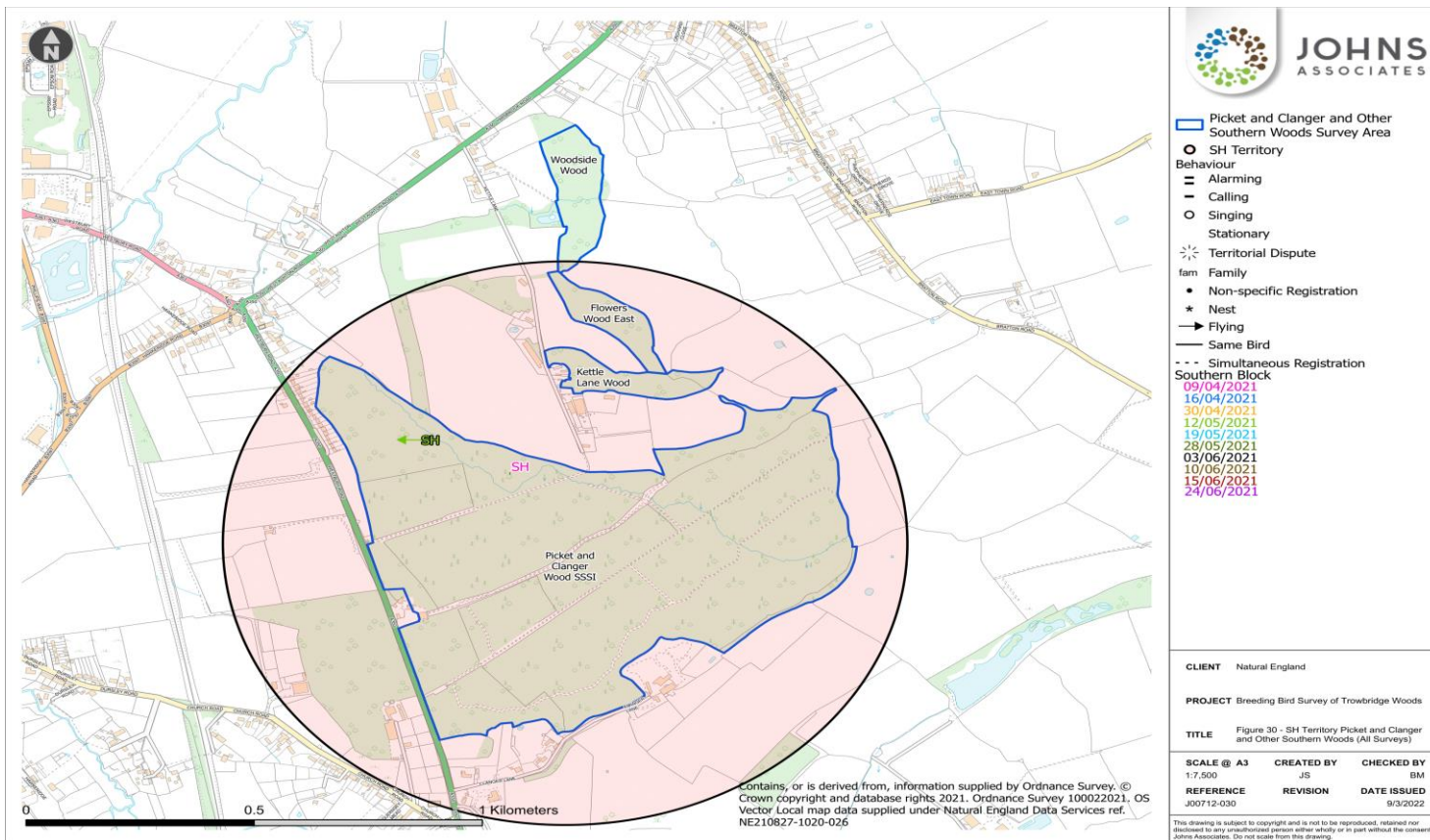


Figure 28. Sparrowhawk registration (SH) with breeding behaviour symbol (no territory recorded): Northern Block



**Figure 29. Sparrowhawk registrations (SH) with breeding behaviour symbols and territory: Picket and Clanger and other southern woods**



**Figure 30 Siskin registrations (SK) with breeding behaviour symbols and territory: only present in Picket and Clanger and other southern woods**

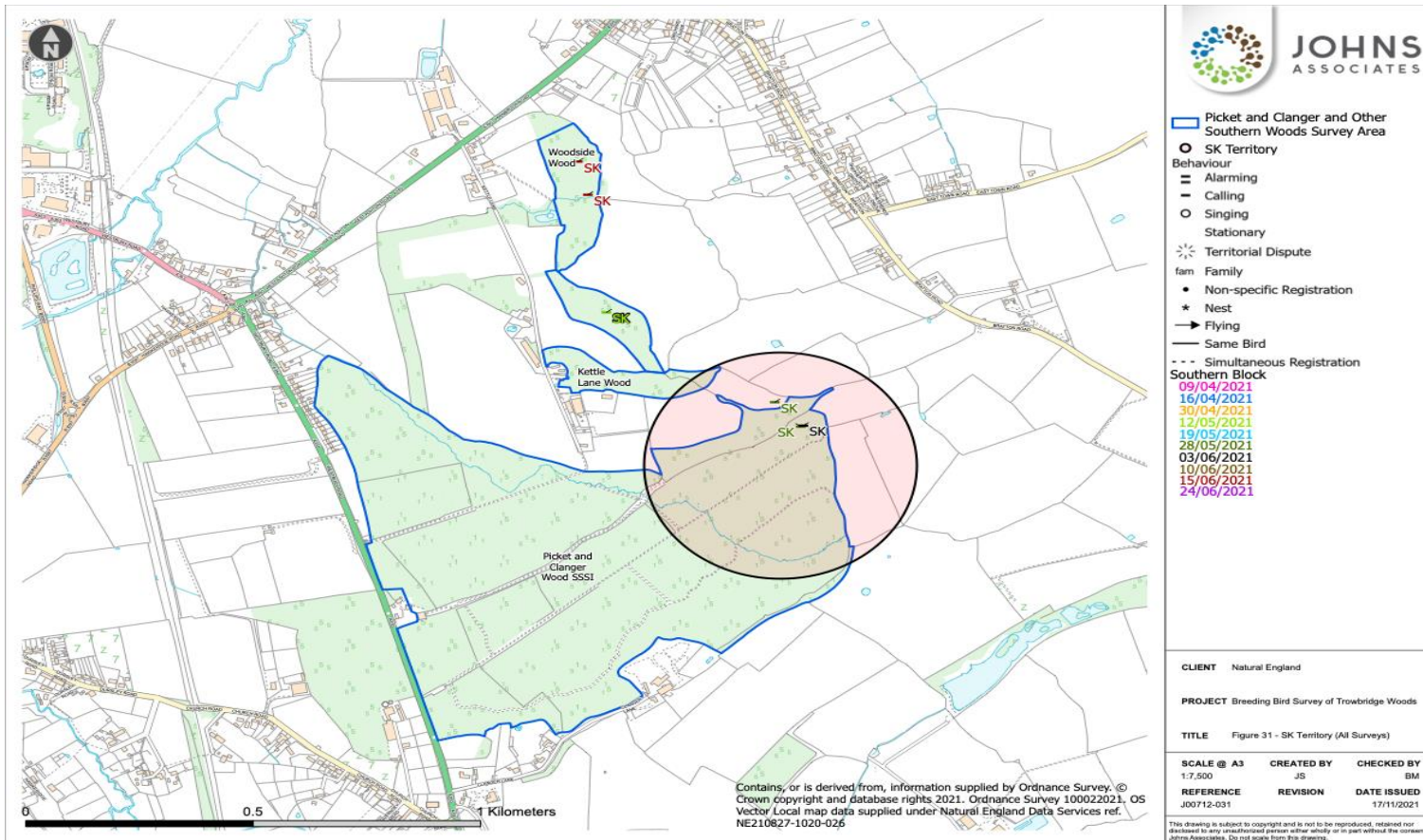
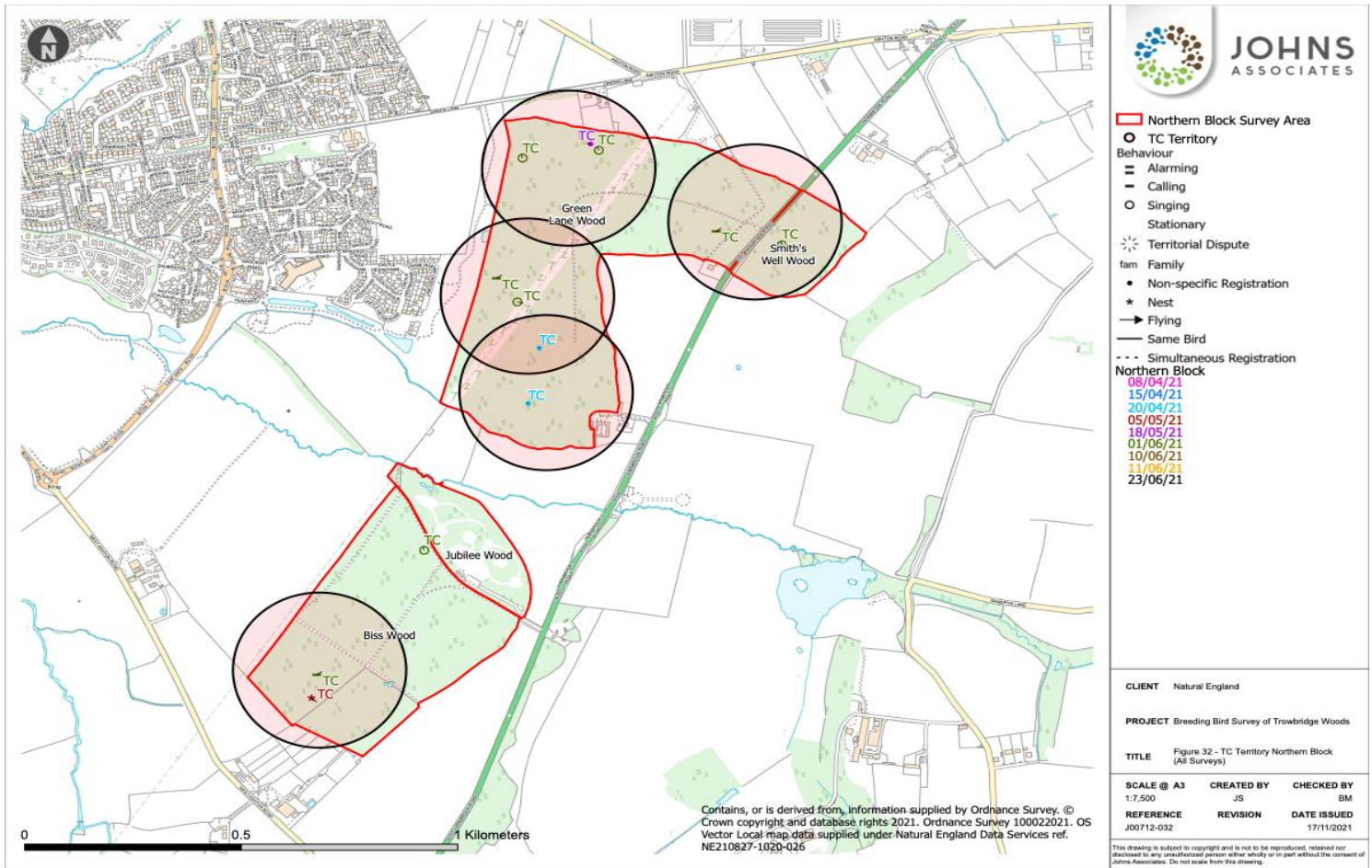


Figure 31 Treecreeper registrations (TC) with breeding behaviour symbols and territories: Northern Block



**Figure 32. Treecreeper registrations (TC) with breeding behaviour symbols and territories: Picket and Clanger and other southern woods**

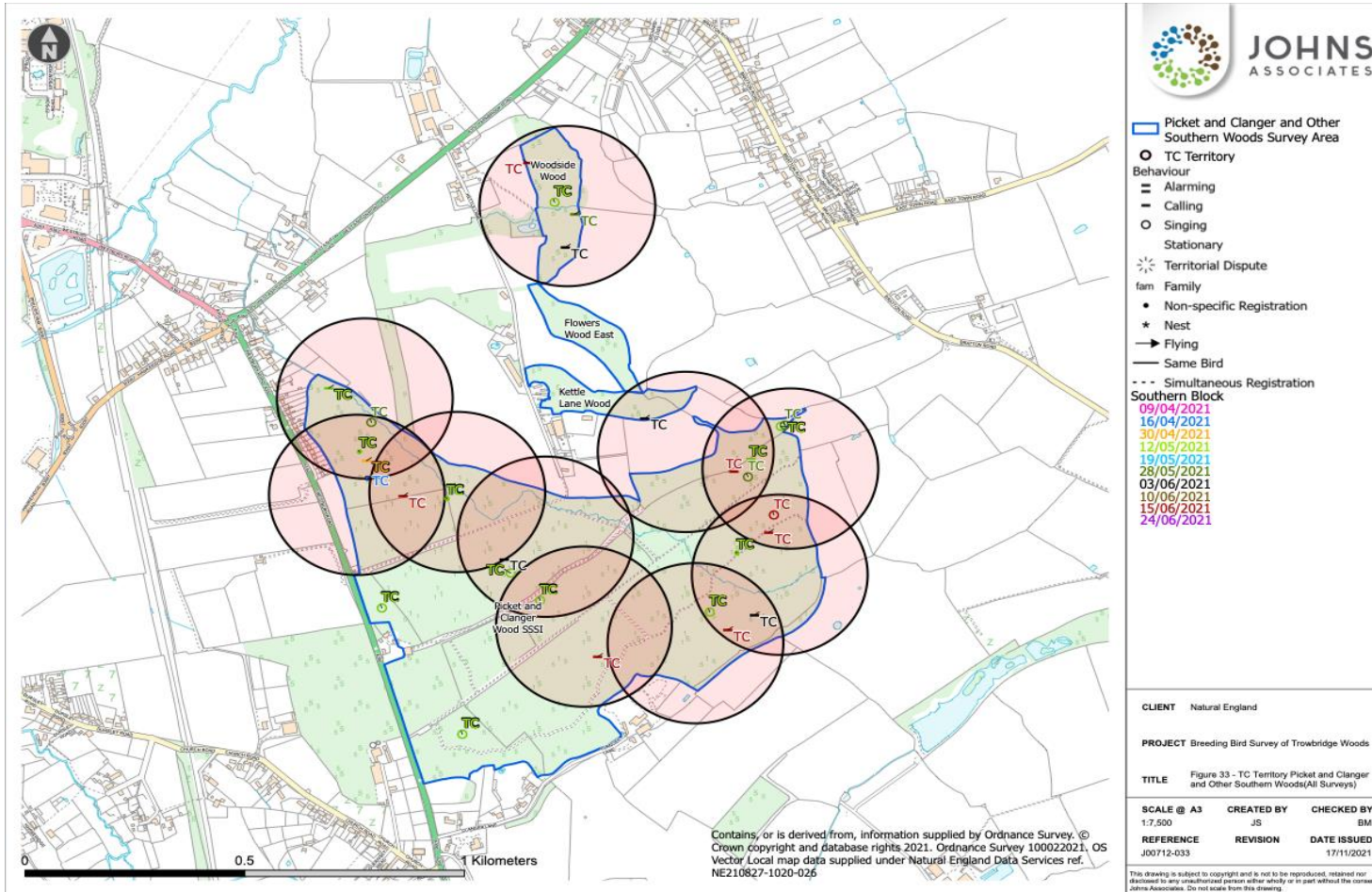
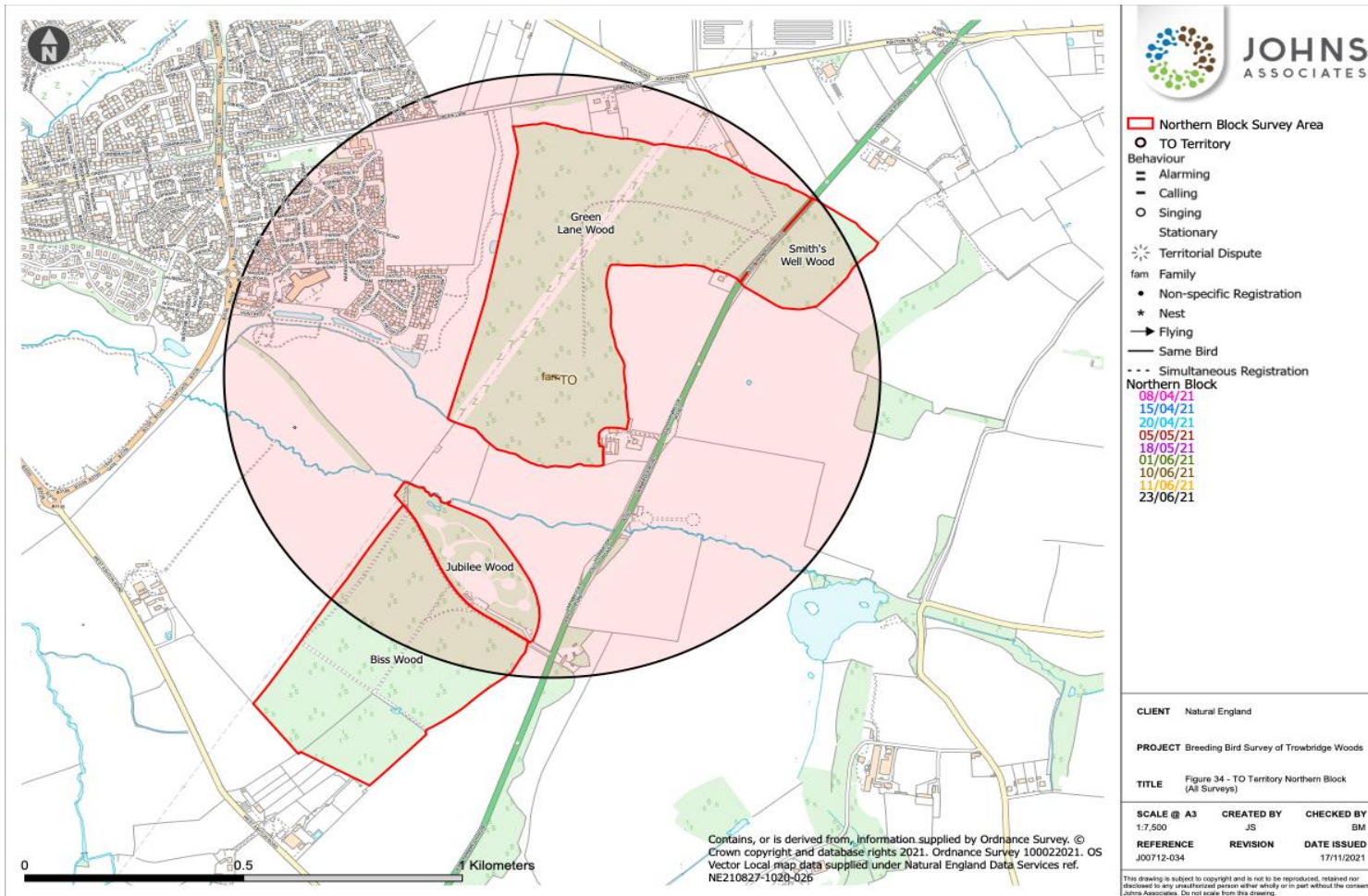
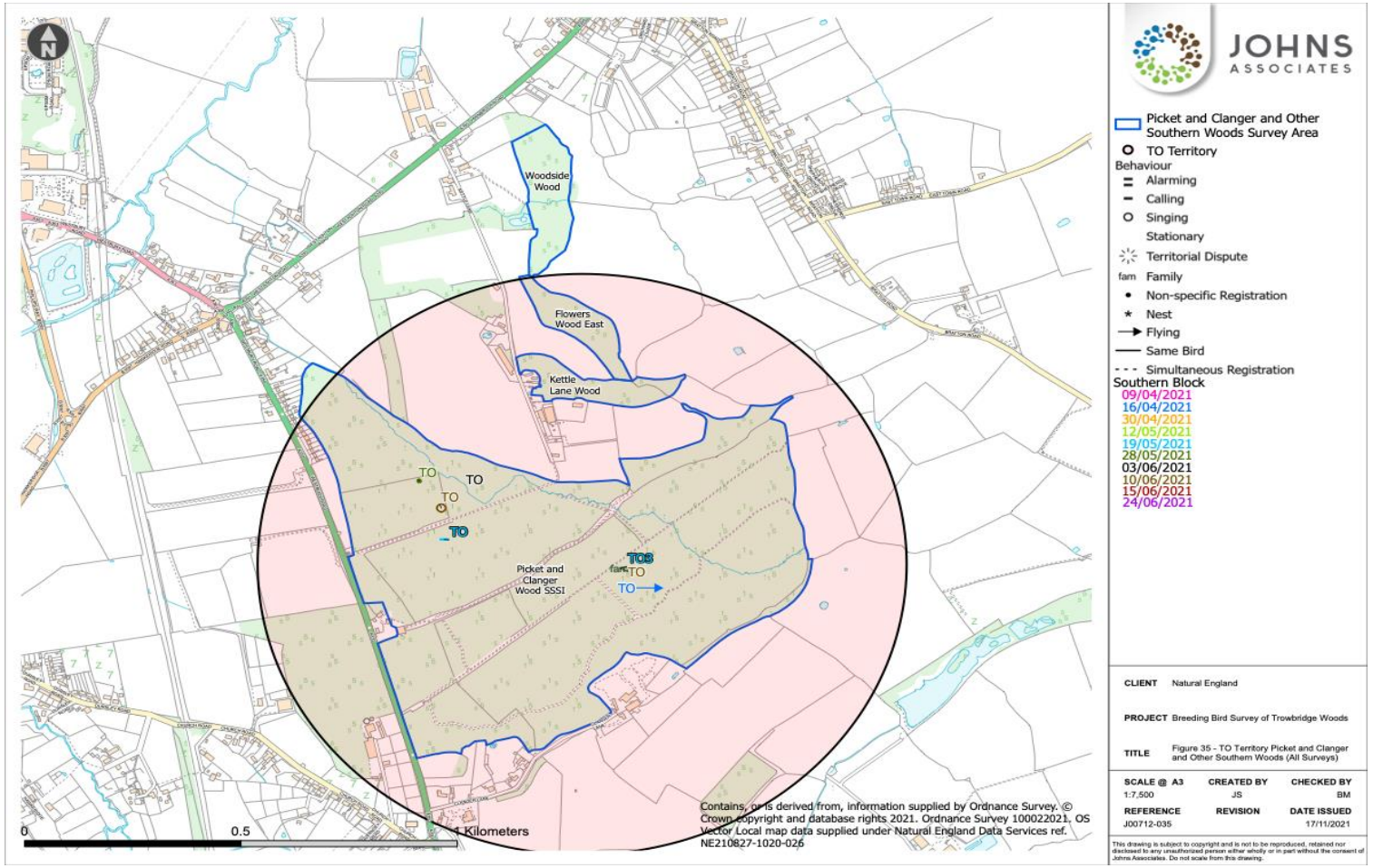


Figure 33. Tawny owl registration (TO) with breeding behaviour symbols and territory: Tawny owl Northern Block





**Figure 34. Tawny owl registrations (TO) with breeding behaviour symbols and territory: Picket and Clanger and other southern woods**



## 8. References

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