

TECHNICAL
NOTE

Cambridge South East Transport

SUBJECT	PROJECT NO.	DATE
CSET Bat Tree Survey	100125485	19th March 2026

Notice

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This document has 41 pages including the cover.

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
1.0	Issue	AW	NC	LMG	EK	19/03/2026

Client signoff

Client	Cambridgeshire County Council				
Project	Cambridge South East Transport			Project No.	100125485
Client signature/ date					

TECHNICAL NOTE

1. Introduction

1.1 Terms of Reference

AtkinsRéalis UK Limited was commissioned by the Greater Cambridgeshire Partnership (GCP) to undertake tree surveys for potential bat roosts in connection with the Cambridge South East Transport (CSET) Scheme (hereafter referred to as the Proposed Scheme).

The Proposed Scheme is located approximately 3.3 km southeast of Cambridge City Centre as shown in **Appendix A** (hereafter referred to as the Site).

This technical note has been undertaken with reference to current good practice¹ and provides the results of the specific bat surveys undertaken to inform the Proposed Scheme.

All UK bat species are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). The surveys have been undertaken to inform appropriate mitigation should these species be found (see relevant ecological legislation in **Appendix B**).

This report is intended to inform design development and Site layout in relation to bats.

1.2 The Site and Proposed Scheme

The Site begins at Ordnance Survey National Grid Reference (OSNGR) TL 45981 55041 and ends at OSNGR TL 52090 50137 (refer to **Appendix A** for the Site Location Plan). The bridge carrying the A11 over the River Granta is located at OSNGR TL 51854 49333.

The GCP is the local delivery body for a City Deal signed by central Government to bring powers and investment to the region, including improvements to critical infrastructure. The GCP comprises five partners:

- Cambridge City Council;
- Cambridgeshire County Council;
- Cambridgeshire & Peterborough Combined Authority Business Board
- South Cambridgeshire District Council; and
- University of Cambridge.

The Proposed Scheme, is a mostly new, segregated, guided bus route, travel hub, and active travel path located to the southeast of the city. The Site comprises all of the land within the red line boundary which coincides with the proposed Order Limits as defined in the draft Transport and Works Act Order (TWAo) accompanying the application.

¹ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition).

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1.3 Background Information

A suite of bat surveys of the Site has been undertaken between 2019 – 2022. Following surveys undertaken in 2022, a total of 15 trees (2 high bat roost suitability and 13 moderate bat roost suitability) were identified during the ground level tree assessments as having potential to support roosting bats.

The 2022 report² recommend further surveys (further assessment required (FAR)) to ascertain whether these trees support roosting bats. The trees recorded for further survey are listed in **Table 1-1** below.

Table 1-1 - Trees for Further Survey

2022 Tree Reference	2025 Tree Reference	Grid Reference	Species	Age
Tree 9	Tree 1	TL 51274 49809	Ash	Mature
Tree 10	Tree 2	TL 51309 49819	Ash	Mature
Tree 11	Tree 12	TL 51332 49810	Ash	Mature
Tree 12	Tree 6	TL 51336 49772	Ash	Mature
Tree 13	Tree 5	TL 51339 49753	Pine	Mature
Tree 14	Tree 4	TL 51336 49763	Ash	Mature
Tree 15	Tree 7	TL 51439 49662	Willow	Mature
Tree 18	Outside of updated zone of influence, survey not required.	TL 52154 49788	Oak	Mature
Tree 22	Tree 8	TL 48429 50918	Willow	Mature
Tree 23	Tree 9	TL 51861 49806	Oak	Mature
Tree 24	Tree 10	TL 51906 49786	Oak	Mature
Tree 25	Tree 11	TL 51953 49769	Oak	Mature
Tree 26	Tree 3	TL 51326 49813	Ash	Mature
Tree 27	Outside of updated zone of influence, survey not required.	TL 51290 49002	Sycamore	Mature
Tree NF05	Tree 13	TL 49181 50546	Walnut	Mature

1.4 Scope of the Assessment

This technical note presents the findings of the further bat surveys (aerial inspection and dusk emergence) of the 13 of the 15 trees identified in 2022.

² Greater Cambridge Partnership, Cambridge South East Transport, (CSET) Phase 2 Summer Bat Survey Report, December 2022

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2. Methods

2.1 Aerial Surveys

Each aerial inspection was carried out by surveyors holding a Natural England Level 2 bat survey licence. Aerial tree climbs were completed and were spaced at least three weeks apart on the following dates:

- Inspection 1: 3rd to 6th August 2025;
- Inspection 2: 26th to 29th August 2025;
- Inspection 3: 16th to 18th September 2025.

All trees were subject to three aerial climbing surveys and assigned either PRF-I (suitable for individual bats) or PRF-M (suitable for multiple bats) depending on the suitability of the potential roost feature (PRF).

During the inspection, information on the individual PRFs were recorded including dimensions, internal conditions, any evidence observed, protection from the elements, etc.

2.2 Dusk Emergence Surveys

Four trees (Tree 2, 4, 6 and 8) were deemed too unsafe to undertake aerial surveys; therefore, three dusk emergence surveys of each tree were undertaken.

Dusk emergence surveys were undertaken in the evening, from approximately fifteen minutes before sunset until 1.5-2 hours after sunset. Surveyors were positioned around the structure and infra-red cameras (Nightfox Whisker and Pixfra ARC A613) and lights and full spectrum bat detectors (Elekon BatScanner, Wildlife Acoustics EM3+, BatLogger M) were utilised to record sound files and activity for post-survey analysis. Surveyors and cameras were positioned in order to observe the PRFs identified from the original survey. Information was recorded on species, numbers, access points, roosting locations and flight-paths.

The activity surveys were carried out in optimal weather conditions³.

The survey details are summarised in **Table 2-1Error! Reference source not found.** below, along with weather conditions.

³ Sunset temperature of 10°C or above, and no rain or strong wind.

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Table 2-1 - Survey timings

Tree Surveyed	Date	Sunset time	Start – End time	Start – End Temperature (°C)	Start – End Wind speed ⁴ and direction	Start – end precipitation ⁵	Start – End Cloud cover ⁶
Tree 2	26.08.2025	20:00	19:45 - 21:30	19 °C - 18 °C	2 - 2	0 - 0	6 - 7
Tree 6	27.08.2025	19:57	19:42 - 21:27	20 °C - 18 °C	2 - 1	0 - 0	6 - 6
Tree 4	28.08.2025	19:55	19:40 - 21:25	18 °C - 18 °C	1 - 0	0 - 0	4 - 3
Tree 8	29.08.2025	19:53	19:38 – 21:23	18 °C - 18 °C	1 - 1	0 - 0	4 - 4
Tree 2 Tree 8	16.09.2025	19:11	18:56 - 20:41	16 °C - 16 °C	1 - 1	0 - 0	1 - 2
Tree 4 Tree 6	17.09.2025	19:09	18:54 - 20:39	19 °C - 18 °C	2 - 1	0 - 0	1 - 3
Tree 4 Tree 6	08.10.2025	18:20	18:05 - 19:50	15 °C - 14 °C	1 - 1	0 - 0	3 - 4
Tree 2	09.10.2025	18:18	18:03 - 19:48	13 °C - 12 °C	1 - 1	0 - 0	1 - 2
Tree 8	10.10.2025	18:15	18:00 - 19:45	18 °C - 17 °C	2 - 0	0 - 0	1 - 0

2.3 Limitations

The dusk emergence surveys were undertaken at the end of the survey season with those surveys undertaken in October outside of the recommended survey window. However, each tree was surveyed in August and September and the weather (refer to **Table 2-1**) remained suitable for active bats.

Ecological surveys are limited by factors which affect the presence of animals such as the time of year, migration patterns and behaviour. Bat roosts are transient, and bats may make use of features outside of the survey dates and in the future. The absence of evidence of bats from any structure cannot be taken as conclusive proof that the species is not present or that it will not be present in the future.

⁴ Wind speed score of 0-12 against Beaufort scale: 0 = calm, 2 = light breeze, 4 = Moderate breeze, 6 = strong breeze, 7 = High wind, 9 = Strong gale, 12 = Hurricane.

⁵ Precipitation intensity on scale of 0-5: 0 = Dry, 1 = Light drizzle, 2 = Light rain, 3 = Moderate rain, 4 = Heavy rain, 5 = Torrential rain.

⁶ Cloud cover on a scale of 0-8: 0 = Sky completely clear, 4 = Sky half cloudy, 8 = Sky completely cloudy.

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3. Results

3.1 Aerial Surveys

No evidence of bats was recorded during the aerial tree surveys.

A summary of the findings of the aerial survey is provided in **Tabel 3-1** below, full details are provided in **Appendix C**.

Table 3-1. Aerial Tree Survey Results

2025 Tree Reference	Grid Reference	Species	Potential Roost Features	
			PRF-M	PRF-I
Tree 1	TL 51274 49809	Ash	One woodpecker hole. One knot hole.	One lightning strike.
Tree 2	TL 51309 49819	Ash	N/A – Not climbed due to presence of power lines	
Tree 3	TL 51326 49813	Ash	N/A	Two woodpecker holes. Two wounds. One limb snap,
Tree 4	TL 51336 49763	Ash	N/A – dead tree not safe to climb.	
Tree 5	TL 51339 49753	Pine	One wound.	N/A
Tree 6	TL 51336 49772	Ash	N/A – tree not safe to climb	
Tree 7	TL 51439 49662	Willow	Two snap outs. One cracked limb.	N/A
Tree 8	TL 48429 50918	Willow	Four woodpecker holes. One wound. One split.	N/A
Tree 9	TL 51861 49806	Oak	One knot hole. One helical split.	Two knot holes. One helical split.
Tree 10	TL 51906 49786	Oak	Two snap holes. One pruning cut.	One knot hole.
Tree 11	TL 51953 49769	Oak	One snap out. One wound.	N/A
Tree 12	TL 51332 49810	Ash	One knot hole.	N/A
Tree 13	TL 49181 50546	Walnut	One knot hole.	One wound. One knot hole.

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3.2 Dusk Emergence Surveys

No bats were observed emerging or re-entering any of the trees surveyed, survey sheets are provided in **Appendix D**.

A summary of bat species recorded during the emergence surveys is provided in **Table 3-2** below.

Table 3-2 - Bats Species Recorded During Emergence Surveys

2025 Tree Reference	Surveys Date	Emergence Recorded	Species Recorded
Tree 2	26.08.2025	No	One common pipistrelle recorded commuting through the woodland.
	16.09.2025	No	Two common pipistrelle, one soprano pipistrelle and one noctule recorded. Pipistrelle species observed foraging high in canopy of open glades in woodland. Soprano pipistrelle heard social calling. Activity levels more or less constant throughout the duration of the survey.
	09.10.2025	No	One common pipistrelle and one soprano pipistrelle recorded. Soprano pipistrelle heard social calling.
Tree 4	28.08.2025	No	Two common pipistrelle and one noctule recorded commuting through the woodland and foraging along woodland edge track. Activity was more or less constant until the end of the survey.
	17.09.2025	No	Two common pipistrelle and one soprano pipistrelle recorded commuting and foraging along the woodland edge track. Activity was more or less constant until the end of the survey.
	08.10.2025	No	One common pipistrelle, one soprano pipistrelle and one noctule recorded commuting and foraging along the woodland edge track. Social calls were also recorded for common pipistrelle and soprano pipistrelle.
Tree 6	27.08.2025	No	Two common pipistrelle and one soprano pipistrelle recorded commuting through the woodland and foraging along woodland edge track. Activity was more or less constant until the end of the survey.
	17.09.2025	No	One common pipistrelle and one soprano pipistrelle recorded commuting through the woodland and foraging along woodland edge track. Activity was more or less constant until the end of the survey.

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	08.10.2025	No	One common pipistrelle, one soprano pipistrelle and one Noctule recorded commuting and foraging along the woodland edge track. Social calls were also recorded for common pipistrelle and soprano pipistrelle.
Tree 8	29.08.2025	No	One soprano pipistrelle and one noctule recorded commuting distantly near the woodland.
	16.09.2025	No	One common pipistrelle and one soprano pipistrelle recorded commuting distantly near the woodland.
	10.10.2025	No	One soprano pipistrelle and one noctule recorded commuting distantly near the woodland.

4. Discussions and Recommendations

No bat roosts have been identified within the trees during the surveys undertaken in 2025. However, all of the trees surveyed contained features that were either suitable for multiple bats (PRF-M) and/ or single bats (or a very small number of bats).

It is recommended that prior to construction, the survey is updated of all trees within 50 m of the red line boundary. Should bat roosts be recorded, it may be necessary to obtain a licence from Natural England prior to commencement of the works.

4.1 Report Validity

In the event of scope or programme changes or if works do not commence within 12 months of the date of this report, then updates to the surveys may be required to ensure the validity of the data, as per CIEEM guidance⁷.

⁷ CIEEM (2019) Advice Note on the Lifespan of Ecological Reports and Surveys. Available from [Advice note on the Lifespan of Ecological Reports and Surveys | CIEEM](#)

Appendix A. Site Location Plan

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A.1 Site Location Plan (1 of 3)



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A.2 Site Location Plan (2 of 3)



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A.3 Site Location Plan (3 of 3)



Appendix B. Relevant Ecological Legislation

Species	Legislation	Relevant offences	Licensing procedures and guidance
Bats <i>European protected species</i>	Conservation of Habitats and Species Regulations 2017 (as amended) Reg 43.	Deliberately ⁸ capture, injure or kill a bat; deliberate disturbance ⁹ of bats; or damage or destroy a breeding site or resting place used by a bat. [The protection of bat roosts is considered to apply regardless of whether bats are present.]	Mitigation licences issued for development by Natural England (NE). Guidance documents: <i>NE Standing Advice for protected species</i> <i>European Protected Species: Mitigation Licensing - How to get a licence</i> (NE 2013) <i>Bat Mitigation Guidelines</i> (Natural England 2004) <i>Bat Workers Manual</i> (JNCC 2004)
	Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9.	Intentionally kill, injure or take a bat; intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection or disturb ¹⁰ a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.

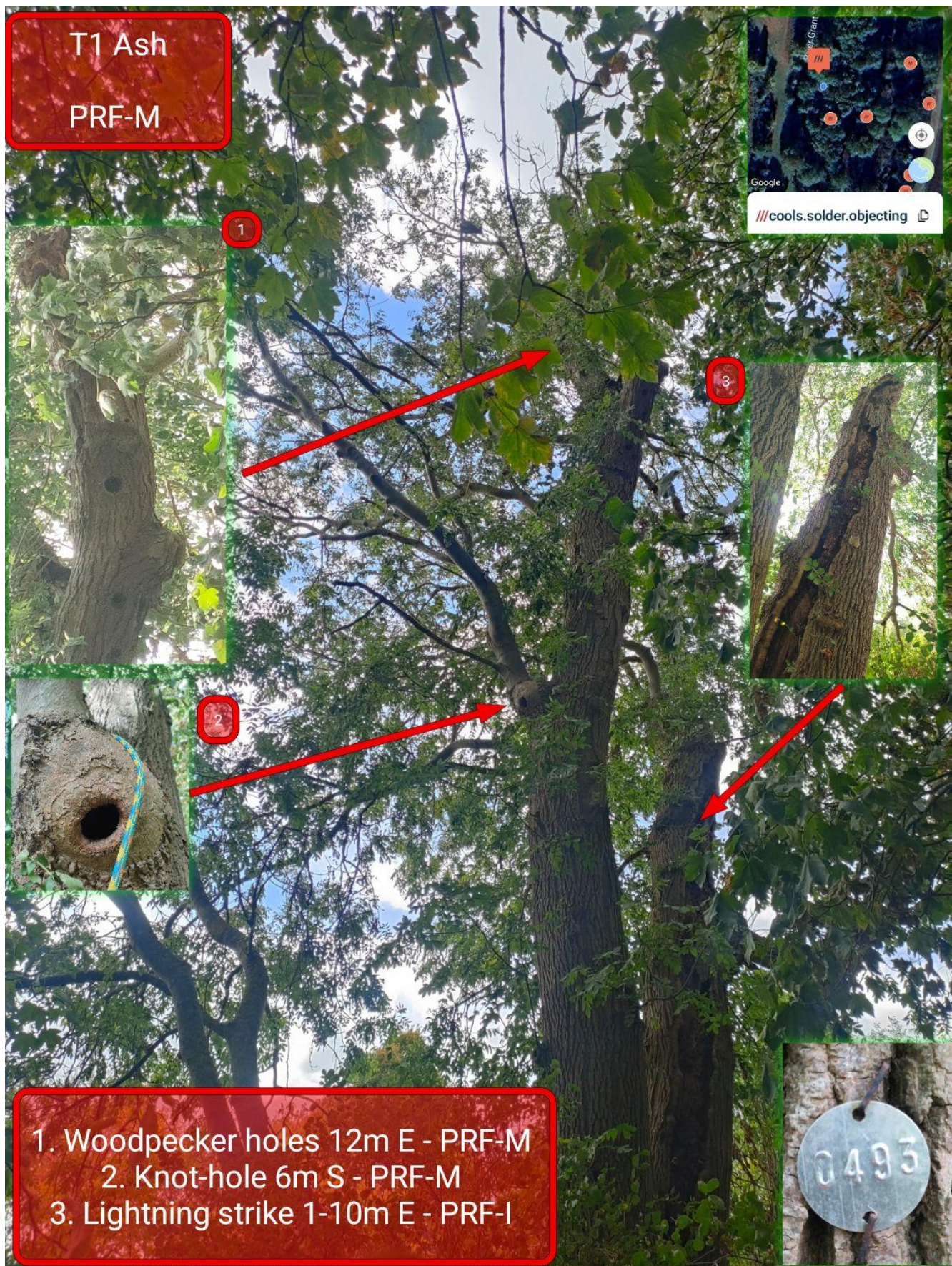
⁸ Deliberate capture or killing is taken to include “accepting the possibility” of such capture or killing.

⁹ Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.

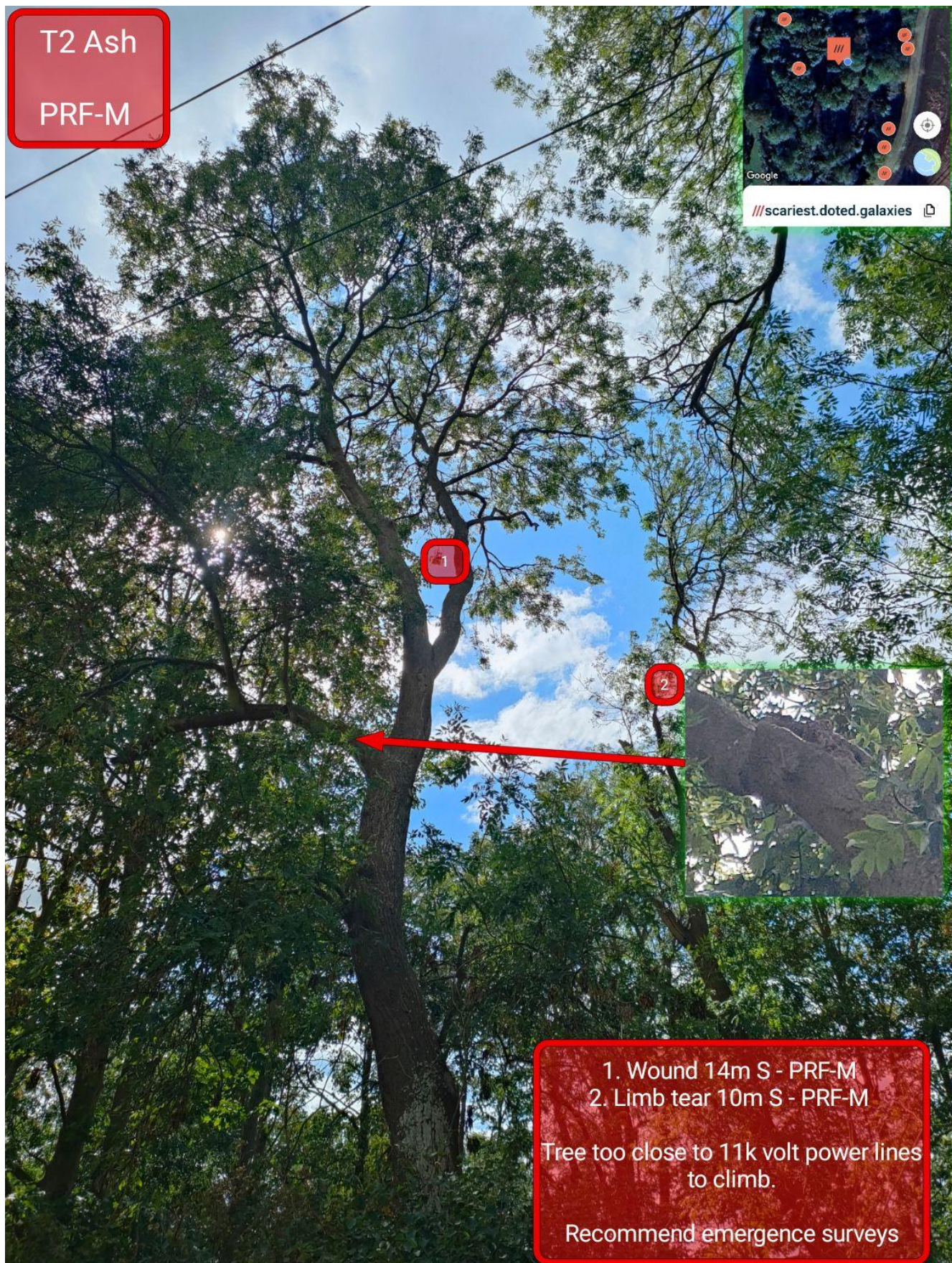
¹⁰ Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 (as amended) remain an offence under the Wildlife and Countryside Act 1981 (as amended) although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.

Appendix C. Aerial Surveys Results

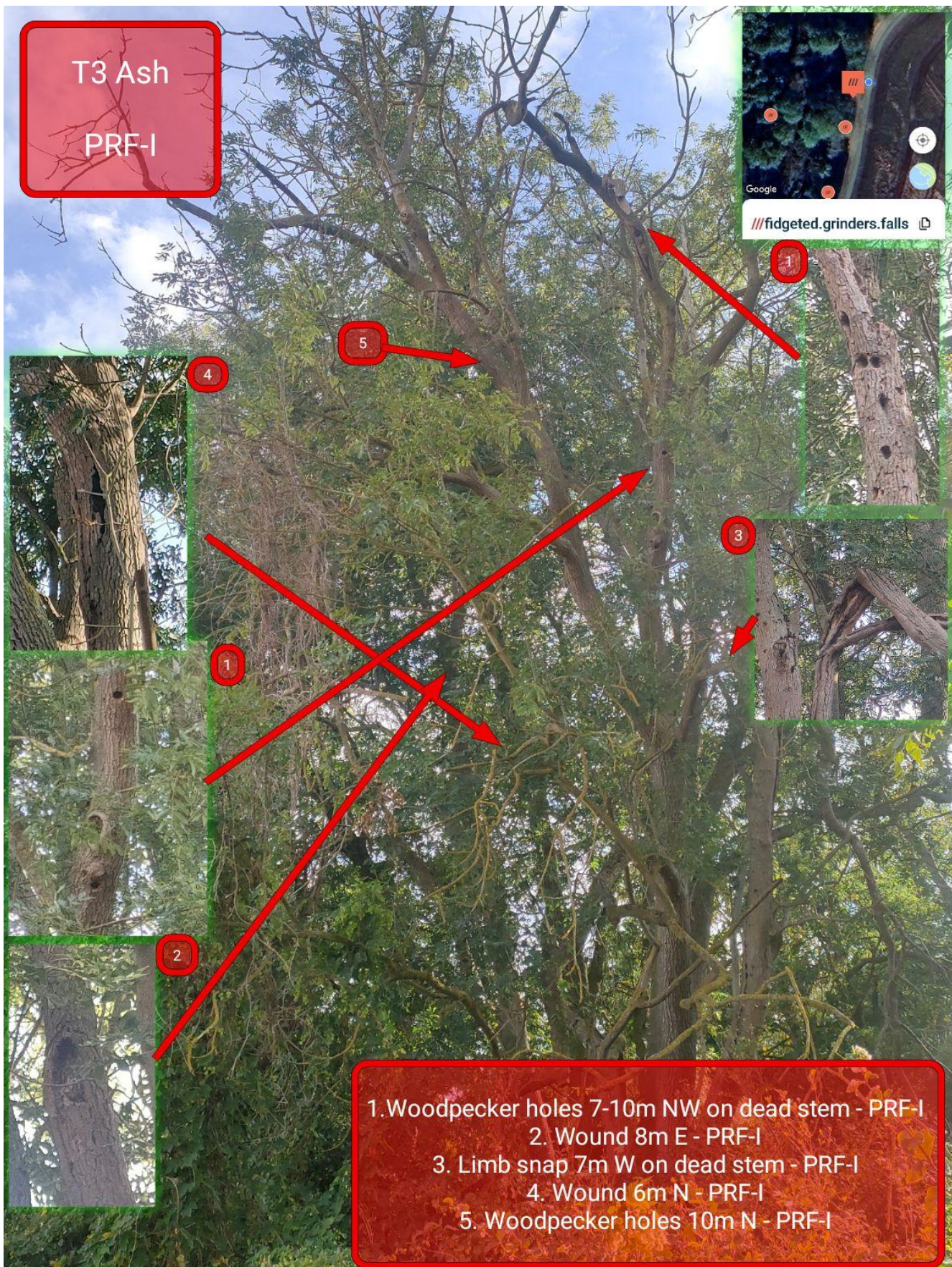
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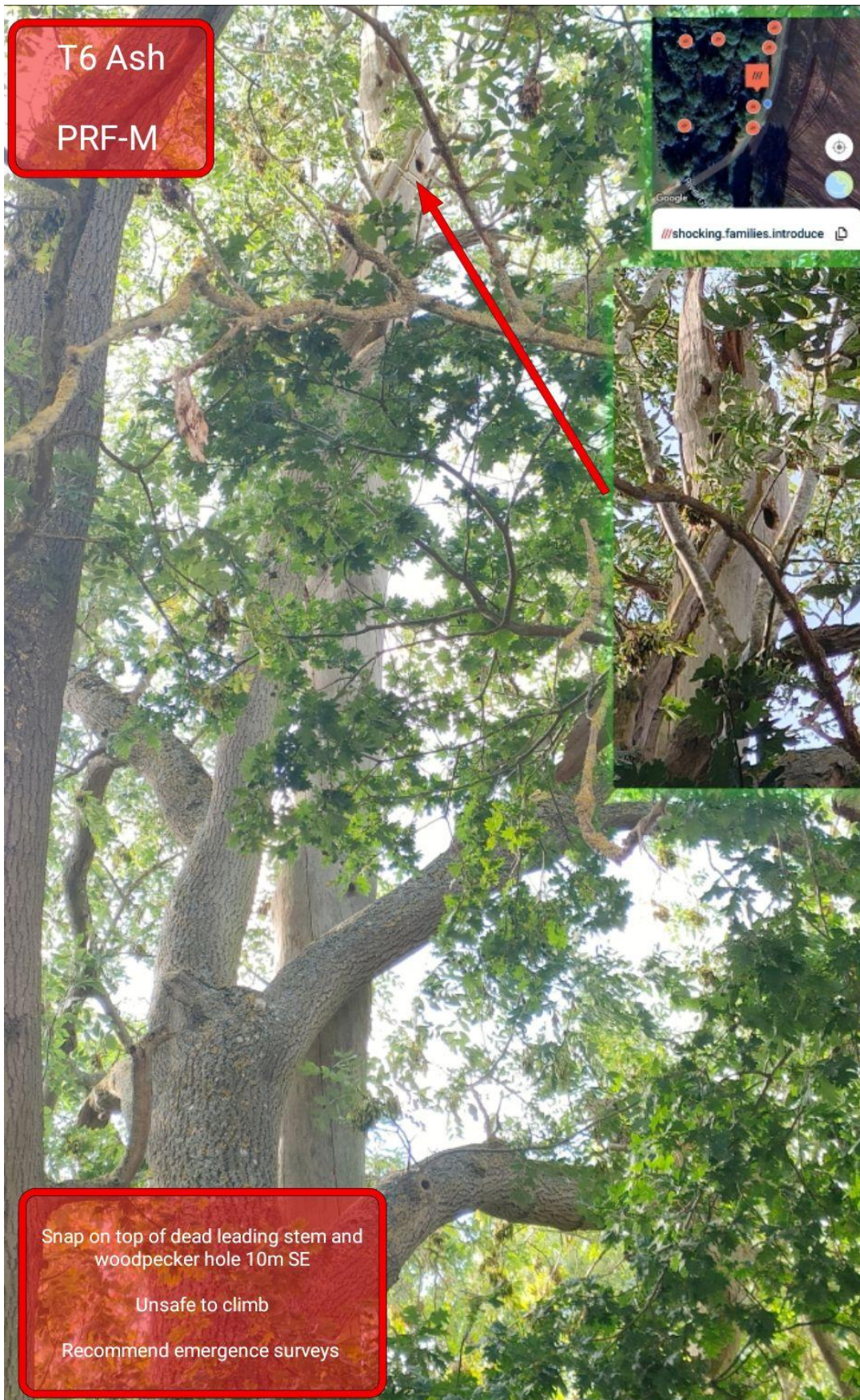
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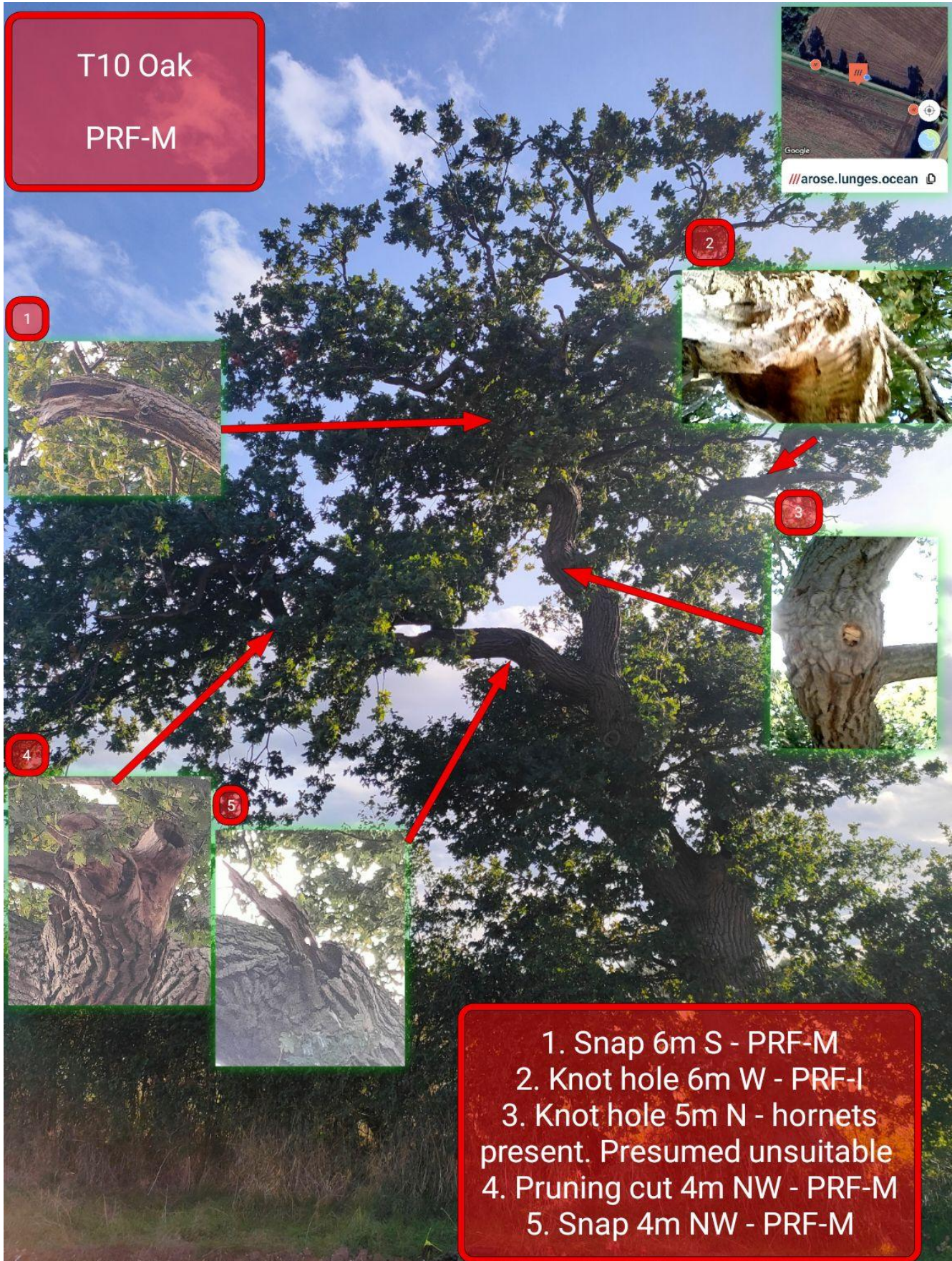
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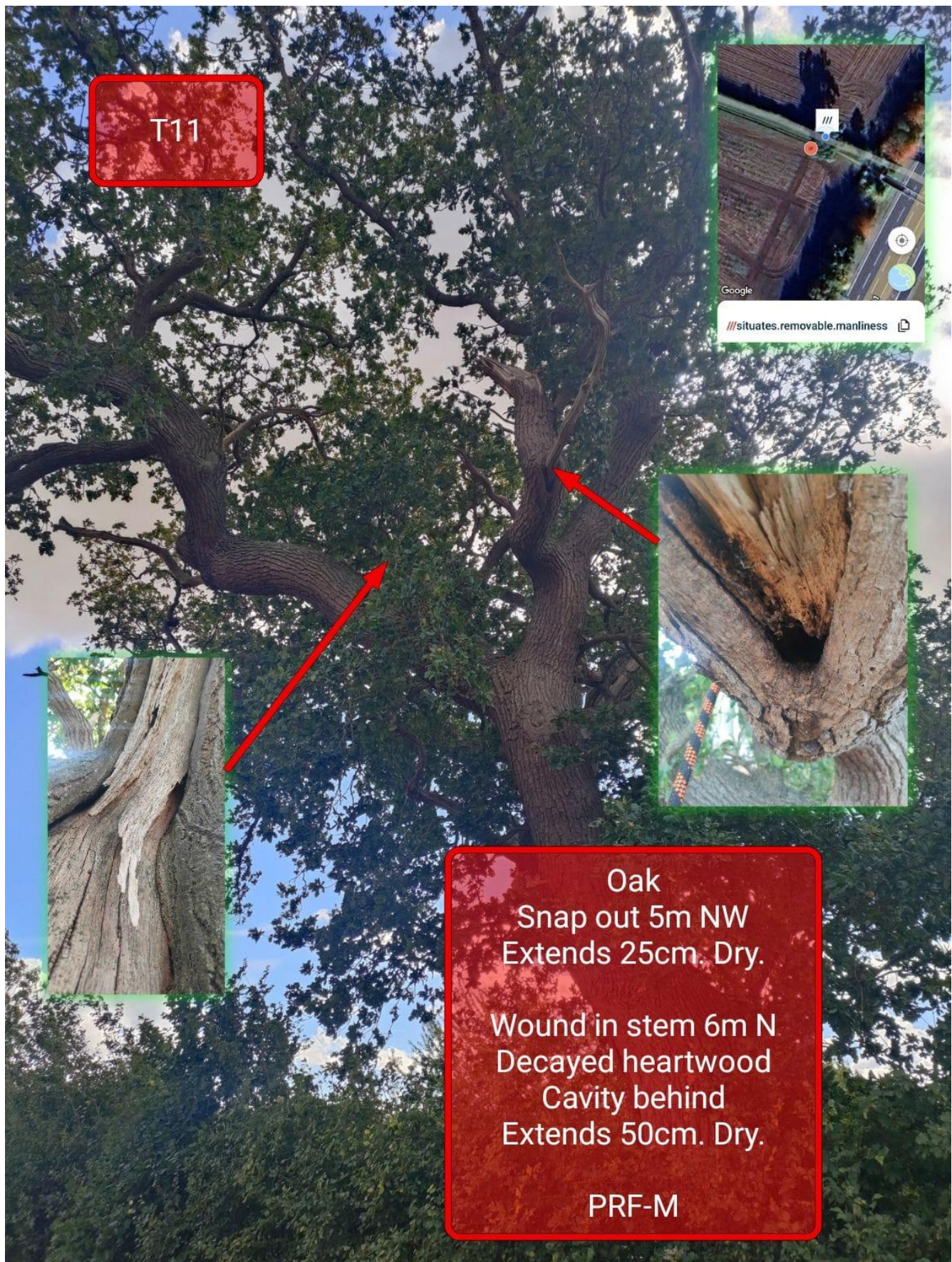
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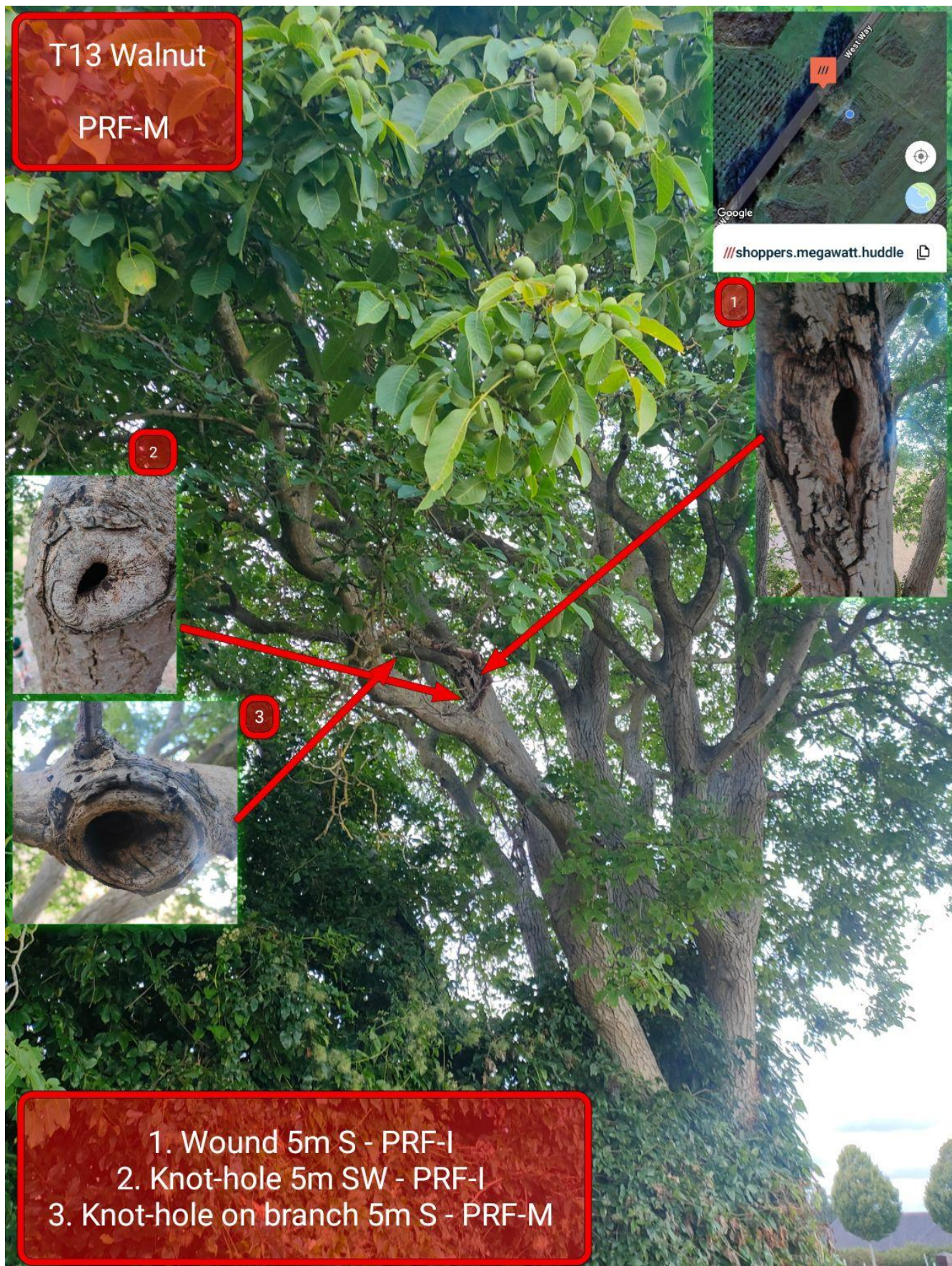
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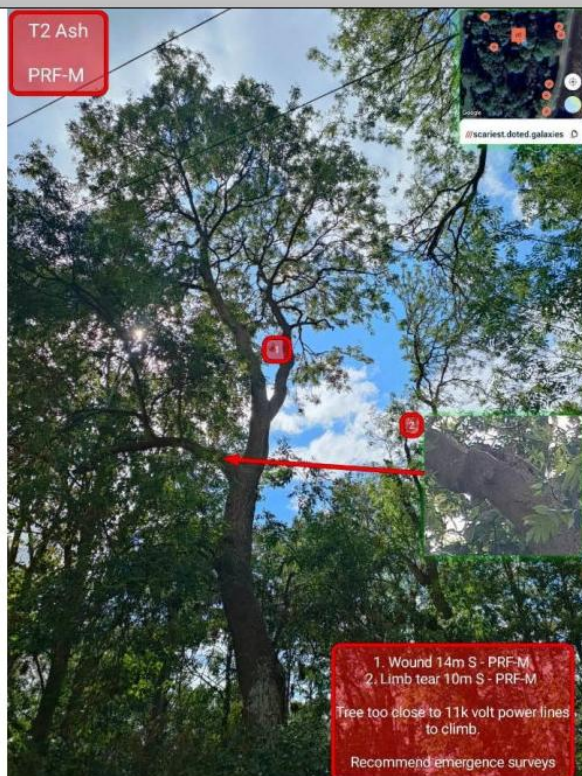
Appendix D. Dusk Emergence Surveys

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D.1 Tree 2

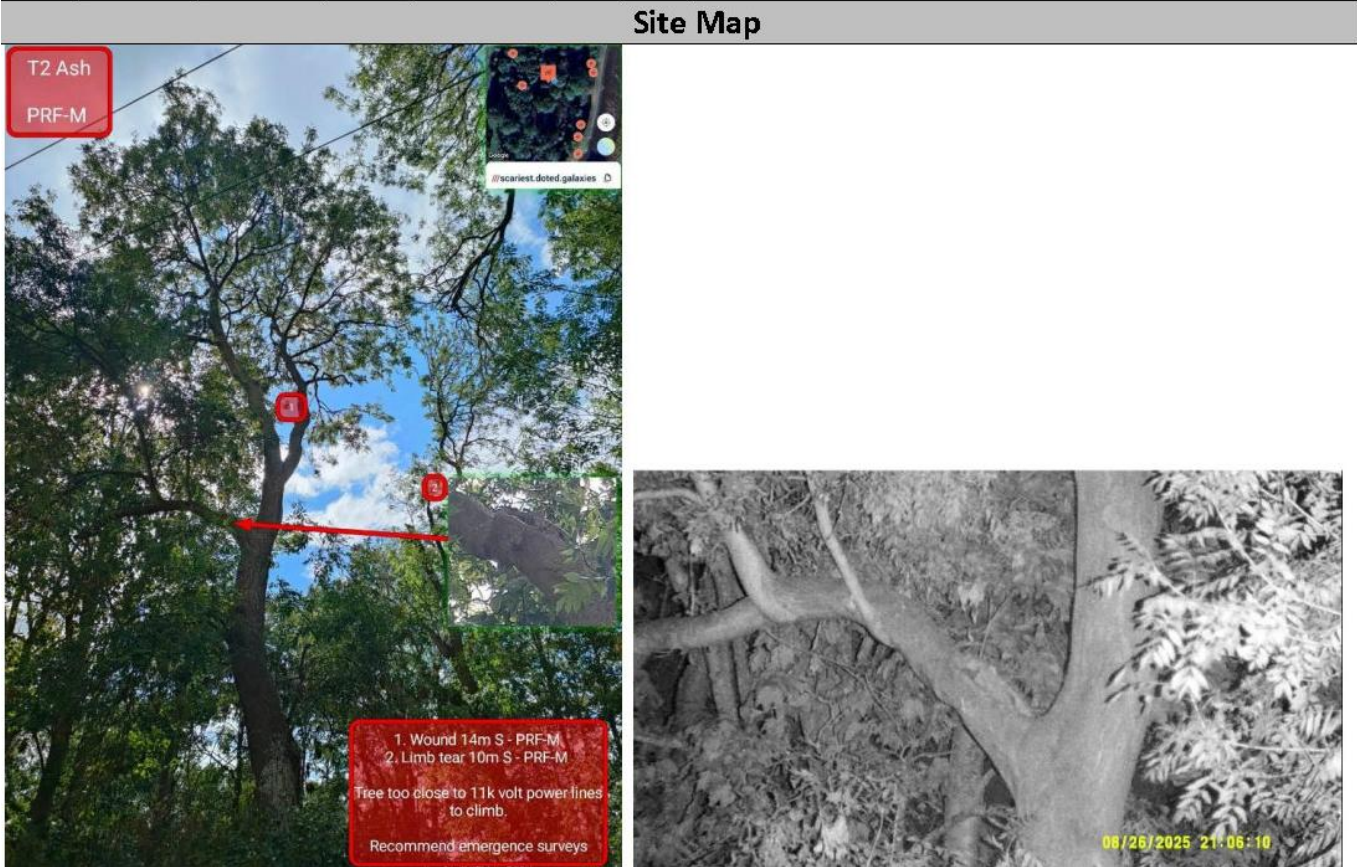
Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)								
Date: 26.08.2025		Site: T2 (v1) ///scariest.doted.galaxies Cambridge South East Transport (CSET)			Dusk/Dawn		Sunset: 20:00	Project No.:
Surveyor: Hartmoor Ecology		Start Time: 19:45	Finish Time: 21:30				Sunrise: 06:01	Detector: Elekon BatScanner
Camera: Nightfox Whisker		Time on camera at survey start: 19:45		Time on detector at survey start: 19:45		Time to analyse video from: 20:21		
Camera SD card No.: 03								
Weather start:	19°C, 2 wind, 6 cloud, 0 rain			Weather end:	18°C, 2 wind, 7 cloud, 0 rain			Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk Photo of elevation: Y Darkest point screenshot: Y
Surveyor Location	///reworked.cork.trouble facing SW							
Limitations to survey	None							
Survey Summary	<u>No emergences</u> A total of 1x Pip45 recorded commuting through the woodland.							
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes	
-	20:21:19	Pip45	1	C	Y	-	HNS	
-	20:24:00 - 20:26:00	Pip45	1	C	-	-	N-S, 5m E of T2, 10m high	

Site Map



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Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)											
Date: 26.08.2025		Site: T2 {v1} ///scariest.dotted.galaxies Cambridge South East Transport (CSET)			Dusk/Dawn		Sunset: 20:00		Project No.:		
Surveyor: Hartmoor Ecology		Start Time: 19:45		Finish Time: 21:30			Sunrise: 06:01		Detector: Elekon BatScanner		
Camera: Nightfox Whisker		Time on camera at survey start: 19:45			Time on detector at survey start: 19:45		Time to analyse video from: 20:21				
Camera SD card No.: 03											
Weather start:		19°C, 2 wind, 6 cloud, 0 rain			Weather end:		18°C, 2 wind, 7 cloud, 0 rain			Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk Photo of elevation: Y Darkest point screenshot: Y	
Surveyor Location		///reworked.cork.trouble facing SW									
Limitations to survey		None									
Survey Summary		<u>No emergencies</u> A total of 1x Pip45 recorded commuting through the woodland.									
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes				
-	20:21:19	Pip45	1	C	Y	-	HNS				
-	20:24:00 - 20:26:00	Pip45	1	C	-	-	N-S, 5m E of T2, 10m high				



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Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)							
Date: 09.10.2025		Site: T2 (v3) ///scariest.doted.galaxies Cambridge South East Transport (CSET)			Sunset: 18:18		Project No.:
Surveyor: Hartmoor Ecology		Start Time: 18:03	Finish Time: 19:48	Dusk/Dawn	Sunrise: 07:14		Detector: Wildlife Acoustics EM3+, BatLogger M
Camera: Nightfox Whisker, Pixfra ARC A613		Time on camera at survey start: 18:03			Time on detector at survey start: 18:03		Time to analyse video from: 18:32
Camera SD card No.: 03							
Weather start:	13°C, 0 wind, 1 doud, 0 rain			Weather end:	12°C, 1 wind, 2 cloud, 0 rain		Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk Photo of elevation: Y Darkest point screenshot: Y
Surveyor Location	///reworked.cork.trouble facing SW, ///farmland.buck.impeached facing NE						
Limitations to survey	None						
Survey Summary	<u>No emergences</u> A total of 1x Pip45 and 1x Pip55 recorded. Pip55 heard social calling.						
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes
-	18:32:50	Pip55	1	C	-	-	Circling high in glade W of T2
-	18:44:22	Pip45	1	C	-	-	
-	19:12:55	Pip55	1	C, F, S	-	-	Social calls
-	19:48:00						

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D.2 Tree 4

Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)							
Date: 28.08.2025	Site: T4 (v1) ///flank.powers.unloads Cambridge South East Transport (CSET)			Dusk/Dawn	Sunset: 19:55	Project No.:	
Surveyor: Hartmoor Ecology	Start Time: 19:40	Finish Time: 21:25	Sunrise: 06:04		Detector: Eleckon BatScanner		
Camera: Nightfox Whisker	Time on camera at survey start: 19:40		Time on detector at survey start: 19:40		Time to analyse video from: 20:31		
Camera SD card No.: 02							
Weather start:	18°C, 1 wind, 4 doud, 0 rain		Weather end:	18°C, 0 wind, 3 cloud, 0 rain		Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk	
Surveyor Location	///labs.seducing.reactng facing W						Photo of elevation: Y Darkest point screenshot: Y
Limitations to survey	Cluttered canopy. Farm machinery using track.						
Survey Summary	<p>No emergences</p> <p>A total of 2x Pip45 and 1x NycNoc recorded commuting through the woodland and foraging along woodland edge track. Activity was more or less constant until the end of the survey.</p>						
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes
-	20:31:19	Pip45	1	C	Y	-	-
-	20:32:00	NycNoc	1	C	-	-	High above woodland
-	20:44:00	Pip45	1	F	-	-	Along track
-	20:48:50	Pip45	2	F	-	-	Along track
Site Map							
 							

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Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)								
Date: 17.09.2025		Site: T4 (v2) ///flank.powers.unloads Cambridge South East Transport (CSET)			Dusk/Dawn		Sunset: 19:09	Project No.:
Surveyor: Hartmoor Ecology		Start Time: 18:54	Finish Time: 20:39				Sunrise: 06:37	Detector: Eleckon BatScanner
Camera: Nightfox Whisker		Time on camera at survey start: 18:54		Time on detector at survey start: 18:54		Time to analyse video from: 19:32		
Camera SD card No.: 02								
Weather start:	19°C, 2 wind, 1 doud, 0 rain			Weather end:	18°C, 1 wind, 3 cloud, 0 rain			Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze - Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk Photo of elevation: Y Darkest point screenshot: Y
Surveyor Location	///labs.seducing.reacting facing W							
Limitations to survey	Cluttered canopy. Farm machinery using track.							
Survey Summary	No emergences A total of 2x Pip45 and 1x Pip55 recorded commuting and foraging along the woodland edge track. Activity was more or less constant until the end of the survey.							
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes	
-	19:32:28	Pip45	1	F	Y	-	Along track	
-	19:33:24	Pip45, Pip55	2	C	-	-	-	
-	19:34:20	Pip45, Pip55	2	F	-	-	Along track	

Site Map



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Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)							
Date: 08.10.2025		Site: T4 (v3) ///flank.powers.unloads Cambridge South East Transport (CSET)		Sunset: 18:20		Project No.:	
Surveyor: Hartmoor Ecology		Start Time: 18:05	Finish Time: 19:50	Dusk/Dawn		Sunrise: 07:12	Detector: Anabat Scout, Eleckon BatScanner
Camera: Nightfox Whisker x2		Time on camera at survey start: 18:05		Time on detector at survey start: 18:05		Time to analyse video from: 18:39	
Camera SD card No.: 02		Weather start: 15°C, 1 wind, 3 doud, 0 rain		Weather end: 14°C, 1 wind, 4 cloud, 0 rain		Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk Photo of elevation: Y Darkest point screenshot: Y	
Surveyor Location		///labs.seducing.reactng facing W					
Limitations to survey		Cluttered canopy. Farm machinery using track.					
Survey Summary		<u>No emergences</u> A total of 1x Pip45, 1x Pip55 and 1x Nyc sp. recorded commuting and foraging along the woodland edge track. Social calls were also recorded for Pip45 and Pip55.					
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes
-	18:39:21	Pip45	1	C, S	Y	-	Along track
-	18:39:48	Pip55	1	C	-	-	-
-	19:07:28	Nyctalus sp.	1	C	-	-	High above woodland
-	19:12:48	Pip55	1	C, S	-	-	Along track

Site Map



TECHNICAL NOTE

D.3 Tree 6

Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)							
Date: 27.08.2025		Site: T6 (v1) ///shocking.families.introduce Cambridge South East Transport (CSET)			Dusky/Dawn	Sunset: 19:57	Project No.:
Surveyor: Hartmoor Ecology		Start Time: 19:42	Finish Time: 21:27			Sunrise: 06:03	Detector: Elekon BatScanner
Camera: Nightfox Whisker		Time on camera at survey start: 19:42		Time on detector at survey start: 19:42		Time to analyse video from: 20:28	
Camera SD card No.: 01							
Weather start:	20°C, 2 wind, 6 cloud, 0 rain			Weather end:	18°C, 1 wind, 6 cloud, 0 rain		
Surveyor Location	///voters.visitor.pythons facing W						
Limitations to survey	Cluttered canopy. Farm machinery using track.						
Survey Summary	<p>No emergences</p> <p>A total of 2x Pip45 and 1x Pip55 recorded commuting through the woodland and foraging along woodland edge track. Activity was more or less constant until the end of the survey.</p>						
Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk							
Photo of elevation: Y Darkest point screenshot: Y							
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes
-	20:28:41	Pip45	1	C	Y	-	-
-	20:39:00	Pip45	1	C, F	-	-	Along track
-	20:42:00	Pip55	1	C, F	-	-	Along track
-	20:43:00	Pip45	2	C, F	-	-	Along track

Site Map



TECHNICAL NOTE

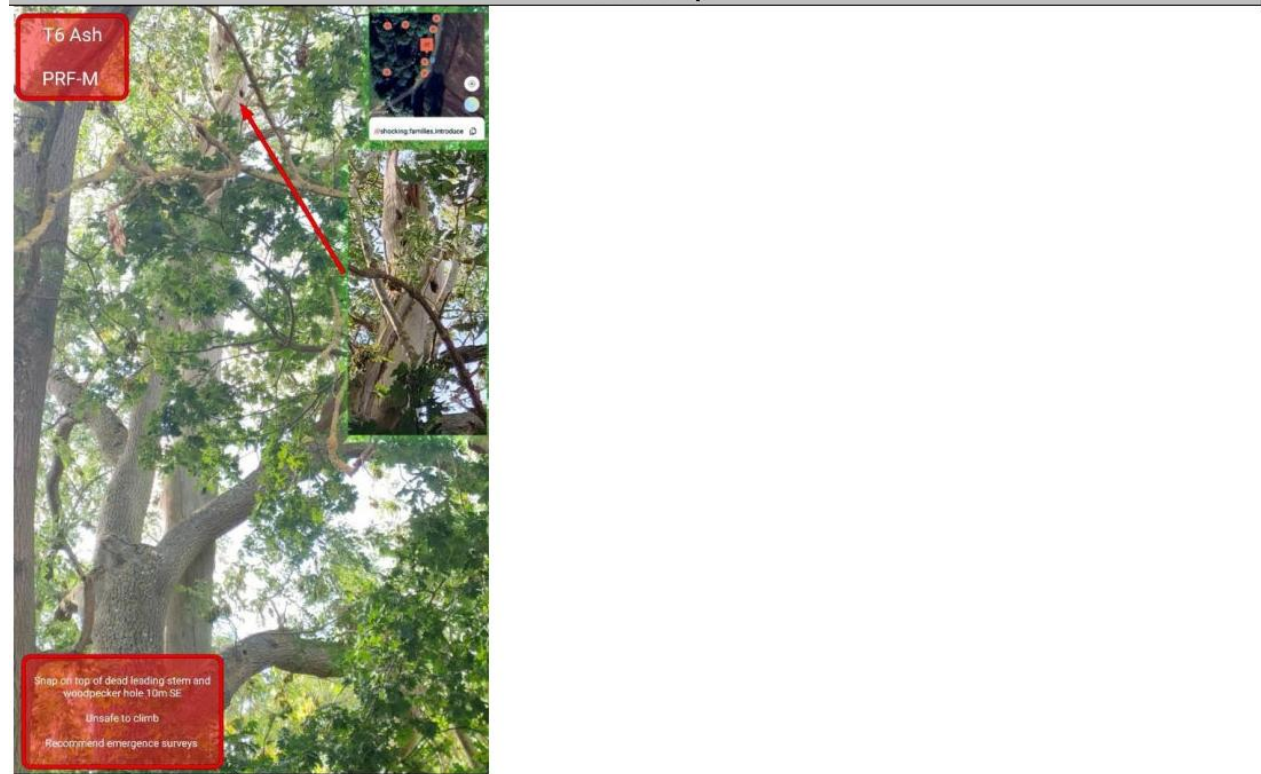
Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)								
Date: 17.09.2025		Site: T6 (v2) ///shocking.families.introduce Cambridge South East Transport (CSET)			Dusk/Dawn		Sunset: 19:09	Project No.:
Surveyor: Hartmoor Ecology		Start Time: 18:54	Finish Time: 20:39				Sunrise: 06:37	Detector: Elekon BatScanner
Camera: Nightfox Whisker		Time on camera at survey start:		Time on detector at survey start:		Time to analyse video from: 19:32		
Camera SD card No.: 01								
Weather start:	19°C, 2 wind, 1 cloud, 0 rain			Weather end:	18°C, 1 wind, 3 cloud, 0 rain			
Surveyor Location	///voters.visitor.pythons facing W							
Limitations to survey	Cluttered canopy. Farm machinery using track.							
Survey Summary	<p>No emergences</p> <p>A total of 1x Pip45 and 1x Pip55 recorded commuting through the woodland and foraging along woodland edge track. Activity was more or less constant until the end of the survey.</p>							
Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk Photo of elevation: Y Darkest point screenshot: Y								
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes	
-	19:32:28	Pip45	1	F	Y	-	Along track	
-	19:33:24	Pip45, Pip55	2	C	-	-	-	
-	19:34:20	Pip45, Pip55	2	F	-	-	Along track	
-	19:39:50	Pip45	1	F	-	-	Along track	

Site Map



TECHNICAL NOTE

Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)								
Date: 08.10.2025		Site: T6 (v3 ///shocking.families.introduce Cambridge South East Transport (CSET)			Dusk/Dawn		Sunset: 18:20	Project No.:
Surveyor: Hartmoor Ecology		Start Time: 18:05	Finish Time: 19:50				Sunrise: 07:12	Detector: Elekon BatScanner
Camera: Nightfox Whisker		Time on camera 18:05		Time on detector 18:05		Time to analyse video from: 18:39		
Camera SD card No.: 01		Time on camera at survey start:		Time on detector at survey start:				
Weather start:	15°C, 1 wind, 3 cloud, 0 rain			Weather end:	14°C, 1 wind, 4 cloud, 0 rain			
Surveyor Location	///voters.visitor.pythons facing W							
Limitations to survey	Cluttered canopy. Farm machinery using track.							
Survey Summary	<p>No emergences</p> <p>A total of 1x Pip45, 1x Pip55 and 1x Nyc sp. recorded commuting and foraging along the woodland edge track. Social calls were also recorded for Pip45 and Pip55.</p>							
<p>Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk</p>								
<p>Photo of elevation: Y Darkest point screenshot: Y</p>								
Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes	
-	18:39:21	Pip45	1	C, S	Y	-	Along track	
-	18:39:48	Pip55	1	C	-	-	-	
-	19:07:28	Nyctalus sp.	1	C	-	-	High above woodland	
-	19:12:48	Pip55	1	C, S	-	-	Along track	



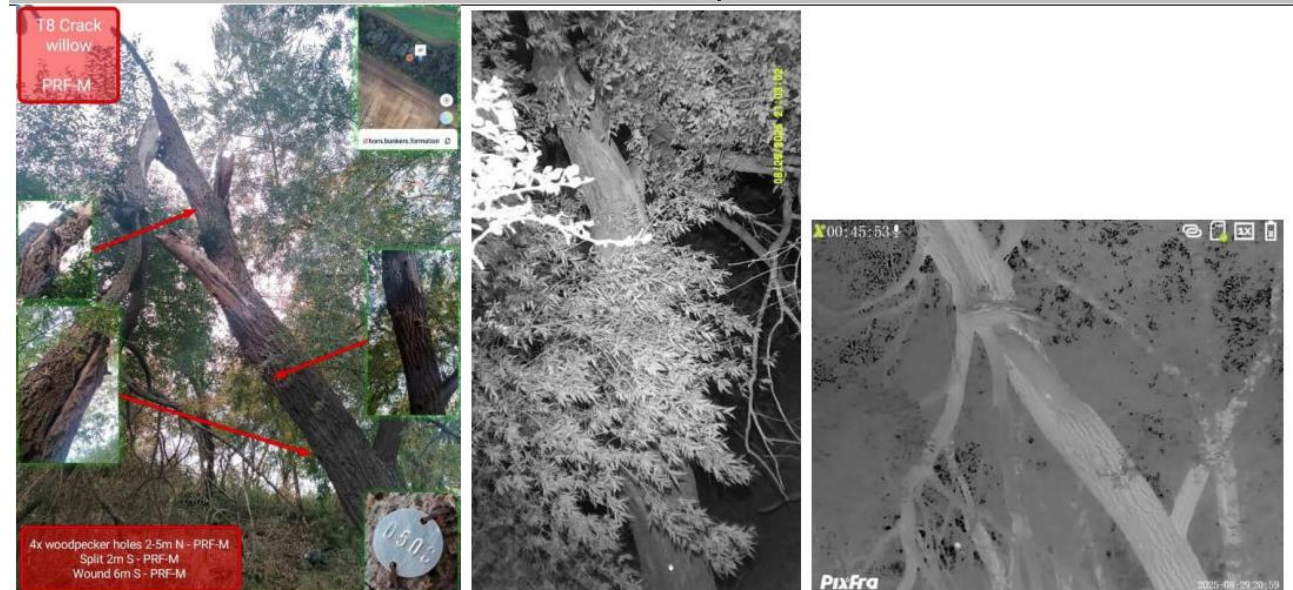
TECHNICAL NOTE

D.4 Tree 8

Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)					
Date: 29.08.2025	Site: T8 (v1) ///presumes.stag.stun Cambridge South East Transport (CSET)		Sunset: 19:53	Project No.:	
Surveyor: Hartmoor Ecology	Start Time: 19:38	Finish Time: 21:23	Dusk/Dawn	Sunrise: 06:06	Detector: Anabat Scout, Wildlife Acoustics EM3+
Camera: Nightfox Whisker, Pixfra ARC A613	Time on camera at survey start:	19:38	Time on detector at survey start:	19:38	Time to analyse video from: 20:20
Camera SD card No.: 04					
Weather start:	18°C, 1 wind, 4 cloud, 0 rain		Weather end:	18°C, 1 wind, 4 cloud, 0 rain	
Surveyor Location	///excellent.shirt.craftsman facing S, ///undulation.pads.hypocrite facing N				
Limitations to survey	Bank on south side with badger sett. Cluttered vegetation.				
Survey Summary	<p>No emergences</p> <p>A total of 1x Pip55 and 1x NycNoc recorded commuting distantly near the woodland.</p>				
Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk Photo of elevation: Y Darkest point screenshot: Y					

Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes
-	20:20:14	Pip55	1	C	Y	-	Brief, distant call
-	20:30:34	Pip55	1	C	Y	-	Brief, distant call
-	20:44:42	NycNoc	1	C	Y	-	Brief, distant call
-	20:55:07	NycNoc	1	C	Y	-	Brief, distant call

Site Map



TECHNICAL NOTE

Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)					
Date: 16.09.2025	Site: T8 (v2) ///presumes.stag.stun Cambridge South East Transport (CSET)		Dusk/Dawn	Sunset: 19:11	Project No.:
Surveyor: Hartmoor Ecology	Start Time: 18:56	Finish Time: 20:41		Sunrise: 06:35	Detector: Wildlife Acoustics EM3+
Camera: Nightfox Whisker	Time on camera at survey start:	18:56	Time on detector at survey start:	18:56	Time to analyse video from: 19:36
Camera SD card No.: 04					
Weather start:	18°C, 2 wind, 1 cloud, 0 rain		Weather end:	17°C, 0 wind, 0 cloud, 0 rain	
Surveyor Location	///excellent.shirt.craftsman facing S, ///undulation.pads.hypocrite facing N				Beaufort Scale: 0- Calm - Smoke rises vertically 1- Very light - Smoke drifts 2- Light breeze - Wind felt on face. Leaves rustle 3- Gentle breeze - Leaves and flags move 4- Moderate breeze- Paper blown about. Small branches move 5- Strong breeze - Small trees sway 6- Near gale - Large trees sway. Difficult to walk Photo of elevation: Y Darkest point screenshot: Y
Limitations to survey	Bank on south side with badger sett. Cluttered vegetation.				
Survey Summary	No emergences A total of 1x Pip45 and 1x Pip55 recorded commuting distantly near the woodland.				

Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes
-	19:36:03	Pip55	1	C	Y	-	Brief, distant call
-	19:54:08	Unknown	1	C	-	-	E-W non-echolocating, 12m N of T8
-	19:52:48	Pip45	1	C	Y	-	Brief, distant call
-	19:54:21	Pip45, Social calls	1	C	Y	-	Brief, distant call
-	19:55:17	Pip45	1	C	Y	-	Brief, distant call
-	20:00:28	Pip55	1	C	Y	-	Brief, distant call

Site Map



TECHNICAL NOTE

Bat Survey Recording Form (Dusk Emergence/Dawn Re-Entry)									
Date: 10.10.2025		Site: T8 (v3) ///presumes.stag.stun Cambridge South East Transport (CSET)			Sunset: 18:15		Project No.:		
Surveyor: Hartmoor Ecology		Start Time: 18:00		Finish Time: 19:45		Dusk/Dawn Sunrise: 07:16		Detector: Wildlife Acoustics EM3+, Anabat Scout, BatLogger M	
Camera: Nightfox Whisker, Pixfra ARC A613		Time on camera at survey start:		18:00		Time on detector at survey start:		18:00	
Camera SD card No.: 04								Time to analyse video from: 18:34	
Weather start:		18°C, 2 wind, 1 doud, 0 rain			Weather end:		17°C, 0 wind, 0 cloud, 0 rain		
Surveyor Location		///excellent.shirt.craftsman facing S, ///undulation.pads.hypocrite facing N							
Limitations to survey		Bank on south side with badger sett. Cluttered vegetation.							
Survey Summary		<p>No emergences</p> <p>A total of 1x Pip45, 1x Pip55 and 1x NycNoc recorded commuting distantly near the woodland.</p>							
		<p>Beaufort Scale:</p> <p>0- Calm - Smoke rises vertically</p> <p>1- Very light - Smoke drifts</p> <p>2- Light breeze - Wind felt on face. Leaves rustle</p> <p>3- Gentle breeze - Leaves and flags move</p> <p>4- Moderate breeze- Paper blown about. Small branches move</p> <p>5- Strong breeze - Small trees sway</p> <p>6- Near gale - Large trees sway. Difficult to walk</p>							
		<p>Photo of elevation: Y</p> <p>Darkest point screenshot: Y</p>							

Flight Path ID	Time	Species	No. bats	Activity (E, R, p, s, f, c)	HNS	SNH	Notes
-	18:34:16	Pip55	1	C	Y	-	Brief, distant call
-	18:47:49	NycNoc	1	C	Y	-	Brief, distant call
-	18:52:55	Pip45	1	C	Y	-	Brief, distant call
-	19:03:57	Pip55	1	C	Y	-	Brief, distant call
-	19:19:45	Pip55	1	C	Y	-	Brief, distant call

Site Map

