Land at Five Acres, Upchurch

Preliminary Ecological Appraisal

16/08/2023

Client	Trevor Kenney
Job name	Land at Five Acres, Upchurch
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	Name	**Position**	**Date**
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Report Contents

1 Introduction

1.1 Site Description

The site comprises land at Five Acres, located off Holywell Lane, to the south of Upchurch, in the County of Kent at approximate postcode ME9 7HN.

A small part of the overall site is the subject of this report, which is estimated to be <0.1 ha in size, centred on Ordnance Survey (OS) grid reference TQ 84695 66939 and containing a single-storey agricultural building with associated hard standing and amenity grassland. The wider site is predominantly used seasonally as a caravan/camping site.

The land immediately surrounding the site is rural in character, dominated by agricultural fields, along with orchards, hedgerows, scattered trees, woodland and a low density of residential housing and commercial properties.

The site and surrounding area are illustrated in aerial images provided in Appendix 1, an existing site plan is provided in Appendix 2 and photographs of the site are provided in Appendix 3.

1.2 Proposed Works

It is understood that a planning application is to be submitted to Swale Borough Council, the Local Planning Authority (LPA), for a Class Q conversion of the agricultural building to residential.

1.3 Aims of Study

To inform the planning application, GreenLink Ecology Ltd. has been commissioned to conduct a Preliminary Ecological Appraisal (PEA) for the site, to include a detailed desk study and a survey to identify what habitats are present and look for any evidence of, or potential for, protected/notable species. The key objectives of this PEA are to:

- Identify likely ecological constraints associated with the proposals;
- Identify mitigation measures likely to be required;
- Identify additional surveys that may be required to inform an Ecological Impact Assessment[1] (EcIA); and
- Identify potential opportunities offered by the proposals to deliver ecological enhancement.

[1] *CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.*

2 Methodology

2.1 Desk Study

The Kent and Medway Biological Records Centre (KMBRC) was contacted and records requested for statutory and non-statutory designated sites for nature conservation and for protected/notable species from within one kilometre of the site.

2.2 PEA Survey

A survey was undertaken on 25th July 2023 by experienced consultant ecologist Marcus Fry MCIEEM[2], in accordance with the published guidelines[3]. The native plant species and habitat types present were identified and any evidence of, or potential for, protected/notable species and their habitats was recorded. On the day of the survey, the weather conditions were sunshine with scattered clouds and the temperature at midday was around 25°C.

[2] *Member of the Chartered Institute of Ecology and Environmental Management (Full)*

[3] *CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.*

3 Results

3.1 Desk Study

3.1.1 Designated Sites

According to the KMBRC data (Appendix 4), the closest statutory designated sites include the Medway Estuary and Marshes Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Ramsar site, located over one kilometre to the north-west of the site. The closest non-statutory designated site is the Lower Halstow Brickworks Local Wildlife Site (LWS), located over one kilometre to the north-east of the site.

The Medway Estuary and Marshes SSSI/SPA and Ramsar site is designated primarily for wetland habitats of conservation importance and for breeding/over-wintering birds, along with other rare species.

The Lower Halstow Brickworks LWS is also designated for breeding/over-wintering bird interest and supports a variety of notable habitat types.

3.1.2 Protected/Notable Species

The KMBRC data (Appendix 5) includes records for species of plant, invertebrate, fish, amphibian, reptile and mammal, many of which are relatively common/widespread, that are protected in ways not relevant to the proposed works (e.g. from trade/sale/exploitation) and/or they have specialist habitat requirements not supported by the site. None of the species in the KMBRC data are considered likely to be present within the proposed development site.

3.2 Habitat Description

In addition to the agricultural building, which is considered in a subsequent section, the site contains small areas of hard standing and amenity grassland.

The hard standing includes concrete and paving areas, located around parts of the building's perimeter. This represents an artificial habitat type of inherently low ecological value, with no potential for protected/notable species.

The amenity grassland is located beyond the hard standing and is a species-poor habitat that is regularly mown, with perennial rye-grass (*Lolium perenne*), daisy (*Bellis perennis*) and white clover (*Trifolium repens*) recorded during the survey. This represents a habitat type that is of low ecological value, with no potential for protected/notable species.

In summary, none of the plants within the site are protected/notable species and they do not constitute habitats that are of conservation concern.

3.3 Protected/Notable Species

3.3.1 Bats

Since the proposed works include the existing building, which could potentially impact upon bats, this was assessed internally and externally by Natural England licence holder Marcus Fry MCIEEM (no. 2015-10955-CLS), for any evidence of, or potential for bats, in accordance with the 2016 Bat Conservation Trust's (BCT) published guidance[4].

[4] *Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, Bat Conservation Trust (3rd Edition)*

Features and evidence considered during the survey included:

- Roof and wall construction;
- Features that have the potential to be actual bat roosts or provide access to roosting opportunities within the building;
- Scattered or accumulated bat droppings (identified by their dry, powdery texture when compressed) within the building or around entrances to potential roosts;
- Oily staining, scratch marks and/or urine staining around access points to potential roosting locations;
- Places where cobwebs have been swept away; and
- The actual presence of live or dead bats.

The building is single-storey and constructed from corrugated metal panels (roof and walls) which are supported by a timber frame. There is no roof void present and the building is uninsulated.

In summary, there was no evidence for bats recorded in association with the building and there was no significant potential identified for roosting bats to be present.

3.3.2 Breeding Birds

The majority of the building has no potential for breeding birds, due to an absence of suitable nesting locations.

However, the landowner has constructed two internal ledges on either side of the middle doorway for use by nesting birds, which have been used recently, most likely by blackbird (*Turdus merula*), although there was no evidence that the nests were in active use.

4 Assessment

4.1 Constraints

It was possible to directly access the entire site and the survey was undertaken by an experienced consultant ecologist using standard survey techniques and in accordance with the published guidelines. It is therefore considered that there were no significant constraints to the PEA.

4.2 Potential Impacts

4.2.1 Designated Sites

Although there are statutory and non-statutory designated sites present in the local area, these are >one kilometre from the site and buffered from it by substantial areas of land. Since the proposals are limited in scope and restricted to the existing site footprint, they should not have any impact on designated sites.

4.2.2 Habitats

The hard standing and amenity grassland represent common/widespread habitat types that are of low ecological value and therefore, impacts to habitats are considered to be insignificant.

The proposed works could actually have a positive impact for habitats through the provision of a landscaping scheme with a high proportion of native species, as recommended in a subsequent section.

4.2.3 Protected/Notable Species

4.2.3.1 Bats

Since it is considered that there is no significant risk of impacts to bats as a result of the proposed works, bats should not be affected by the proposed works.

The proposed works could actually have a positive impact for bats through the provision of wall-integrated/mounted bat boxes, as recommended in a subsequent section.

4.2.3.2 Breeding Birds

Since there are two internal ledges on either side of the middle doorway that have been used recently by nesting birds, the proposed works could impact on birds if the building is converted during the breeding season (March-July/August, as a guide).

To avoid the seasonal risk of impacts to breeding birds, mitigation measures are recommended in a subsequent section.

The proposed works could actually have a positive impact for birds through the provision of wall-integrated/mounted nesting features, as recommended in a subsequent section.

4.3 Legislation and Policy

4.3.1 Bats

All species of bat and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) and by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

The legislation makes it illegal under the Wildlife and Countryside Act 1981 (as amended) to:

- Intentionally or recklessly kill, injure or take a wild bat;
- Be in possession or control of any live or dead wild bat, or any part of, or anything derived from a wild bat;
- Intentionally or recklessly damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection; and
- Intentionally or recklessly disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection.

The legislation makes it illegal under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species;
- Deliberately disturb wild animals of any such species. Disturbance of animals includes in particular any disturbance which is likely to:
    - impair their ability -
        - to survive, to breed or reproduce, or to rear or nurture their young; or
        - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
    - to affect significantly the local distribution or abundance of the species to which they belong;
- Deliberately take or destroy the eggs of such an animal; or
- Deliberately damage or destroy a breeding site or resting place of such an animal.

4.3.2 Breeding Birds

Breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally or recklessly kill, injure or take any wild bird or take, damage or destroy its nest whilst it is in use or being built, or to take or destroy its eggs.

4.3.3 National Planning Policy Framework

The Government revised the National Planning Policy Framework (NPPF) in July 2021. The NPPF states that when determining planning applications, LPAs should minimise impacts on biodiversity and secure measurable net gains for biodiversity.

5 Recommendations

5.1 Mitigation Measures

5.1.1 Designated Sites

Since it is considered that there is no significant risk of impacts to designated sites as a result of the proposed works, mitigation measures are not required for designated sites.

5.1.2 Habitats

Mitigation measures are not considered necessary for the hard standing and amenity grassland, since impacts to these habitat types are considered insignificant.

5.1.3 Protected/Notable Species

5.1.3.1 Bats

Since it is considered that there is no significant risk of impacts to bats as a result of the proposed works, mitigation measures are not recommended for bats.

However, if at any time it becomes apparent that bats are actually present and at risk of impacts, works will need to temporarily cease whilst a Natural England licence holder is consulted about how to proceed further without the risk of an offence being committed.

5.1.3.2 Breeding Birds

The two internal ledges on either side of the middle doorway should be removed between September to February, to avoid the risk of breeding birds being at risk of impacts whilst the building is converted.

If it is necessary to conduct this work during the breeding season, it should be carried out under the supervision of an experienced ecologist, who will check for the presence/absence of any active birds' nests.

If any active nests are found then works with the potential to impact on the nest must cease and an appropriate buffer zone should be established until the young have fledged and the nest is no longer in use.

5.2 Enhancement Measures

To ecologically enhance the site, the following measures are recommended, which are considered to be proportionate to the scale of the proposals:

- The landscaping scheme should include a high proportion of native species, including shrubs, climbers, bulbs and small trees;
- The dwelling should incorporate 2 no. wall-integrated/mounted bat boxes, installed circa >3-4 metres from ground level on the gable ends and not illuminated by any existing or proposed artificial lighting; and
- The dwelling should incorporate 4 no. wall-integrated/mounted bird boxes, installed >2-3 metres from ground level and not positioned to face due south, to avoid the risk of over-heating during the summer months.

6 Conclusions

To inform the planning application, GreenLink Ecology Ltd. was commissioned to undertake a PEA of the site, which has been completed without significant constraint.

The desk study data identifies that although there are statutory and non-statutory designated sites present in the local area, these are >one kilometre from the site and since there is no risk of impacts as a result of the proposed work, mitigation measures are not required for designated sites.

The desk study data also includes a wide variety of records for protected/notable species, although none of the records relate to the site and none of the species are likely to be present within the site or immediate surrounding area.

The survey that was undertaken by an experienced consultant ecologist, determined that the site contains common/widespread habitat types that are not of conservation concern. Mitigation measures for habitats are not considered necessary since impacts are insignificant.

During the survey, the potential presence of legally protected/notable species was considered, including bats and breeding birds.

There was no evidence for bats recorded in association with the building and there was no potential identified for roosting bats to be present. Therefore, since there is no significant risk of impacts, mitigation measures are not recommended for bats.

To avoid the seasonal risk of impacts to breeding birds, in relation to the two internal ledges on either side of the middle doorway, mitigation measures are recommended in this report.

Recommendations have also been made for ecological enhancement measures to ensure a net gain for local biodiversity, in particular habitats, bats and breeding birds.

Overall, there are no known overriding ecological constraints that would prevent the proposed works going ahead, subject to the recommendations made in this report being correctly implemented.

7 Disclaimer

This report is issued to the client for their sole use and for the intended purpose as stated in the agreement between the client and GreenLink Ecology Ltd. under which this work was completed, or else as set out within this report.

This report may not be relied upon by any other party without express written agreement. The use of this report by unauthorised third parties is at their own risk and GreenLink Ecology Ltd. accepts no duty of care to any such third party.

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Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that GreenLink Ecology Ltd. performed the work. The content of this report has been provided in accordance with the provisions of the CIEEM Code of Professional Conduct. GreenLink Ecology Ltd. works where appropriate to the scope of our brief, to the principles and requirements of British Standard BS42020.

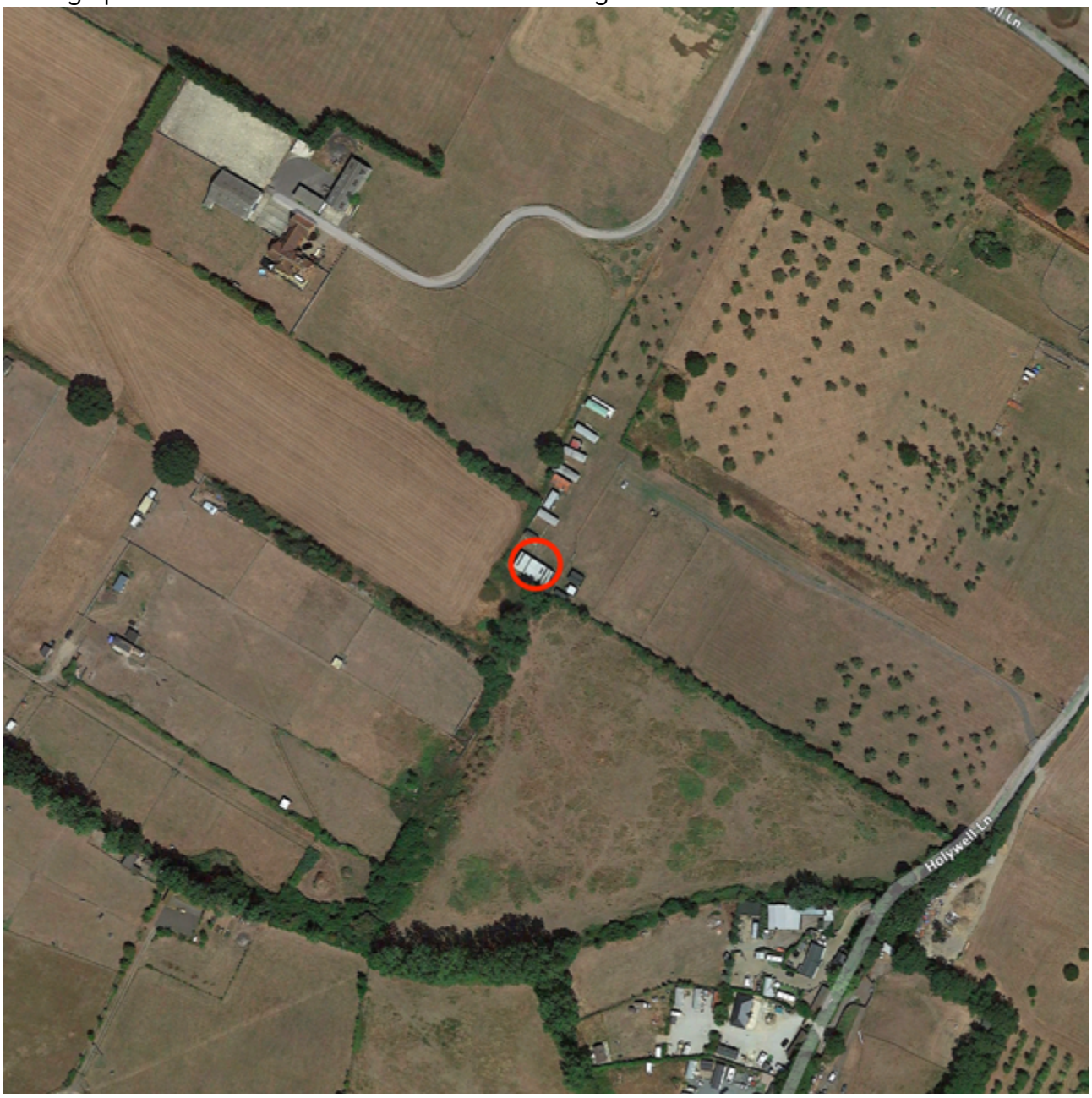
Nothing in this report constitutes legal opinion. If legal opinion is required the advice of a qualified legal professional should be secured. Observations relating to the state of built structures or trees have been made from an ecological point of view and, unless stated otherwise, do not constitute structural or arboricultural advice.

8 Appendices

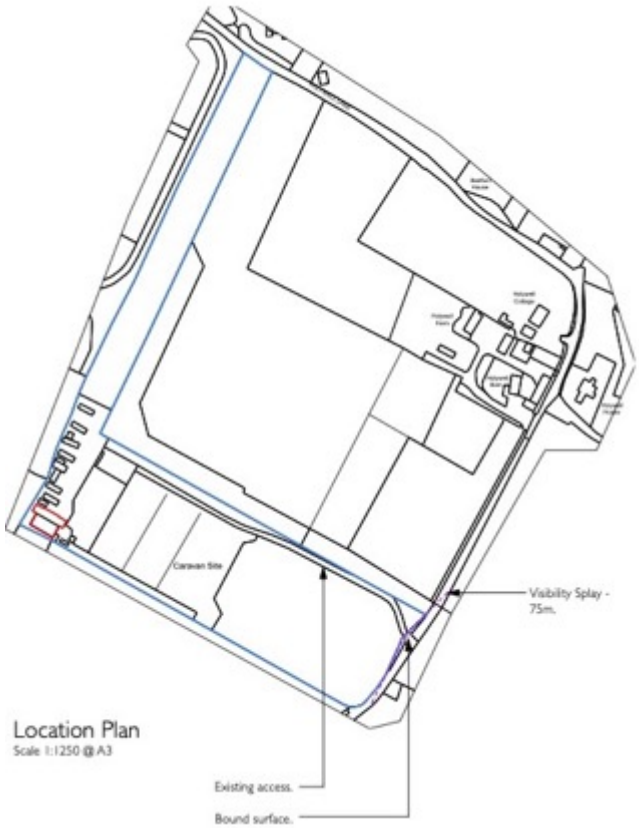
Appendix 1: Aerial image illustrating the site location and surrounding area

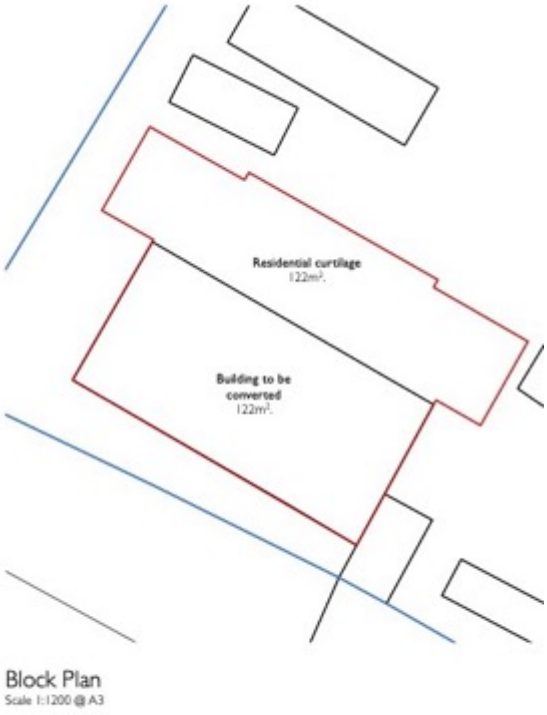
Photograph 1: The approximate site boundaries and immediate surrounding area

Photograph 2: The site location and wider surrounding area



Appendix 2: Site location plan





Appendix 3: Photographs of the site

Photograph 1: Front of the building, looking south-west

Photograph 2: Side (west) of the building, looking south-east

Photograph 3: Side (east) of the building, looking south-west

Photograph 4: Rear of the building, looking east

Photograph 5: Interior of the building

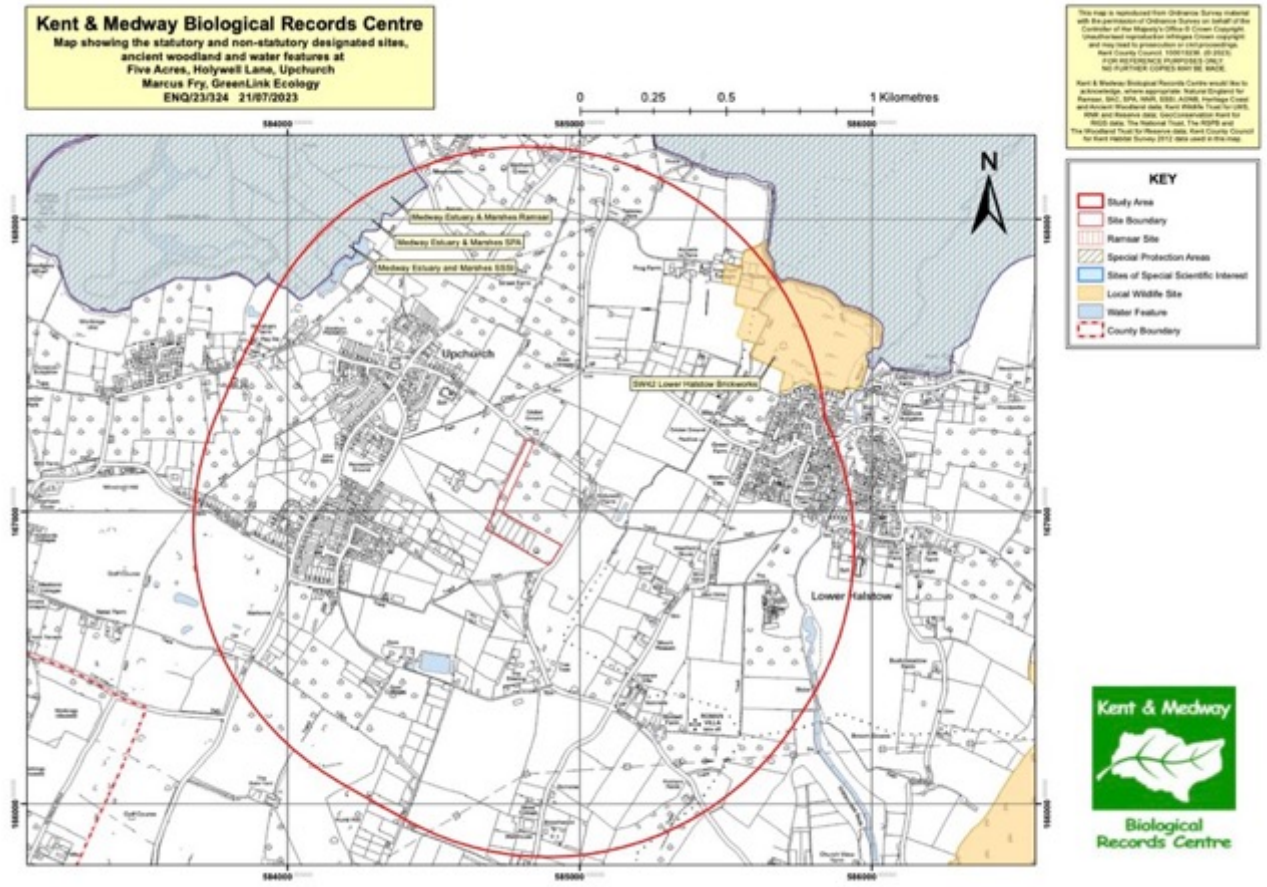
Photograph 6: Interior of the building

Photograph 7: Interior of the building

Photograph 8: Internal nesting feature inside middle room

Photograph 9: Internal nesting feature inside middle room

Appendix 4: KMBRC Designated Areas map



Appendix 5: KMBRC Protected Species Inventory

Protected Species Inventory

Brogdale Farm Office, Brogdale Road, Faversham ME13 8XZ
Tel: (01795) 532385
Fax: (01795) 532386
E-Mail: info@kmbrc.org.uk
Web: www.kmbrc.org.uk

Kent & Medway Biological Records Centre

Area requested - Five Acres, Holywell Lane, Upchurch.
Enquiry on behalf of Marcus Fry, GreenLink Ecology Ltd
21/07/2023 ENQ/23/324
1km radius search surrounding - TQ8469666942

Scientific Name	Common Name	Species Status	KMBRC Key	Date	Grid Ref.	Location
Hyacinthoides non-scripta	**Bluebell**	WCA8	SR00014500003ZSNZ	22/04/2019	TQ8466	Upchurch south - Gore Farm
Ruscus aculeatus	**Butcher's-broom**	ECH_V	SR00014500004SHG9	05/10/2022	TQ8468	Upchurch - Ham Green
Ruscus aculeatus	Butcher's-broom	"	SR00026600005RR2	1991 - 1999	TQ86P	Ham Green
Anacamptis pyramidalis	**Pyramidal Orchid**	CITES	SR00014500001M4QM	05/07/2014	TQ8567	Lower Halstow west
Dactylorhiza fuchsii	**Common Spotted-orchid**	CITES	SR00014500000P55J	23/06/1992	TQ86	Lower Halstow Brickpits
Dactylorhiza fuchsii	Common Spotted-orchid	"	SR00014500000P8F7	23/06/1992	TQ86	Lower Halstow Brickpits
Dactylorhiza fuchsii	Common Spotted-orchid	"	SR00026600005RG8	1991 - 1999	TQ86I	Otterham Quay
Neotinea ustulata	**Burnt Orchid**	CITES	SR00014500000R78	1960	TQ86	Queen Down Warren
Neottia ovata	**Common Twayblade**	CITES	SR00026600005RC4	1991 - 1999	TQ86I	Otterham Quay
Menyanthes trifoliata	**Bogbean**	CITES	SR00014500000P55A	23/06/1992	TQ86	Lower Halstow Brickpits
Lucanus cervus	**Stag Beetle**	ECH_II, Bern_III, WCA5(p)	SR00014500004OVH	23/06/2002	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVI	23/06/2003	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV0	14/06/2003	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV3	15/06/2003	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVA	21/06/2003	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVB	21/06/2003	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVC	21/06/2003	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUS	06/03/2002	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUW	09/06/2003	TQ840667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVJ	23/06/2003	TQ841666	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVW	29/06/2003	TQ841666	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVX	29/06/2003	TQ841666	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV5	17/06/2002	TQ841667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUT	07/06/2003	TQ841667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV6	19/06/2002	TQ842667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV1	15/06/2002	TQ842672	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVF	22/06/2003	TQ842672	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVG	22/06/2003	TQ842672	Upchurch Sittingbourne

Scientific Name	Common Name	Species Status	KMBRC Key	Date	Grid Ref.	Location
Lucanus cervus	Stag Beetle	"	SR00014500004OUZ	13/07/2003	TQ843671	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUU	07/06/2003	TQ843671	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUQ	05/06/2003	TQ843671	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV7	20/06/2003	TQ843672	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVS	27/06/2003	TQ843673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVT	28/06/2003	TQ843673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVU	28/06/2003	TQ843673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVK	23/06/2003	TQ843673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVL	23/06/2003	TQ843673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVO	24/06/2002	TQ843673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVP	24/06/2003	TQ843673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUR	05/07/2003	TQ843673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV8	20/06/2003	TQ843674	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV9	20/06/2003	TQ844673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVD	21/06/2003	TQ844673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVE	21/06/2003	TQ844673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVQ	25/06/2002	TQ844673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUV	07/06/2003	TQ844673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUY	13/06/2003	TQ844673	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500000R7YY	21/06/1998	TQ845665	
Lucanus cervus	Stag Beetle	"	SR00014500000R800	16/06/1998	TQ845680	
Lucanus cervus	Stag Beetle	"	SR00014500000R7Z0	21/06/1998	TQ848666	
Lucanus cervus	Stag Beetle	"	SR00014500004OVY	29/06/2003	TQ848666	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVM	23/06/2003	TQ848666	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OUX	11/07/2003	TQ848666	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500000R7ZO	21/06/1998	TQ848672	
Lucanus cervus	Stag Beetle	"	SR00014500000R7ZP	21/06/1998	TQ848672	
Lucanus cervus	Stag Beetle	"	SR00014500004OVR	27/06/2002	TQ849667	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVN	23/06/2003	TQ849669	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OVV	28/06/2003	TQ849669	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV2	15/06/2002	TQ850670	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00014500004OV4	16/07/2002	TQ850672	Upchurch Sittingbourne
Lucanus cervus	Stag Beetle	"	SR00026600000139E	10/06/2004	TQ86N	Lower Halstow
Anguilla anguilla	**European Eel**	OSPAR	SR00014500004NUGI	06/10/2015	TQ8583566976	
Pelophylax ridibundus	**Marsh Frog**	Bern_III	SR00047600000T0B	13/08/2012	TQ8468	Horsham Marsh
Pelophylax ridibundus	Marsh Frog	"	SR00014500004MXWJ	14/07/2021	TQ859669	Garnett Cottage
Rana temporaria	**Common Frog**	ECH_V, Bern_III, WCA5(p)	SR00014500004S3H1	2002	TQ842673	Rainham
Rana temporaria	Common Frog	"	SR00014500003T59Q	1995	TQ8467	Upchurch
Rana temporaria	Common Frog	"	SR00014500004NM6E	1990	TQ8567	Lower Halstow

Scientific Name	Common Name	Species Status	KMBRC Key	Date	Grid Ref.	Location
Rana temporaria	Common Frog	"	SR000266000001GJA	30/05/1981	TQ86I	Otterham Quay
Rana temporaria	Common Frog	"	SR000266000002FYQ	28/06/1994	TQ86I	Otterham Quay
Lissotriton vulgaris	**Smooth Newt**	Bern_III, WCA5(p)	SR0001450003T56D	1978	TQ8366	Rainham, nr
Lissotriton vulgaris	Smooth Newt	"	SR0001450003T56O	1995	TQ8467	Upchurch
Lissotriton vulgaris	Smooth Newt	"	SR0001450004NM6D	1990	TQ8567	Lower Halstow
Lissotriton vulgaris	Smooth Newt	"	SR000278000001Y4	19/04/1975	TQ86I	Dungeness
Lissotriton vulgaris	Smooth Newt	"	SR000266000020JM	24/04/1990	TQ86I	Otterham Quay
Lissotriton vulgaris	Smooth Newt	"	SR000266000015VH	17/08/1968	TQ86I	Otterham Quay
Lissotriton vulgaris	Smooth Newt	"	SR000266000017D9	19/04/1975	TQ86I	Otterham Quay
Triturus cristatus	**Great Crested Newt**	ECH_II, Bern_II, WCA5, CRoW	SR0001450003T56W	1978	TQ8366	Rainham, nr
Triturus cristatus	Great Crested Newt	"	SR000266000001GCW	1981 - 1990	TQ86I	Otterham Quay
Anguis fragilis	**Slow-worm**	Bern_III, WCA5(p)	SR0001450004N94S	25/05/2015	TQ8389066900	Wallbridge Lane, Upchurch
Anguis fragilis	Slow-worm	"	SR0001450004N6BH	04/08/2019	TQ8393566606	[Private Address]
Anguis fragilis	Slow-worm	"	SR0001450004NIWR	14/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Anguis fragilis	Slow-worm	"	SR0001450004NIWU	18/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Anguis fragilis	Slow-worm	"	SR0001450004NIWW	20/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Anguis fragilis	Slow-worm	"	SR0001450004N6Q0	28/06/2020	TQ8439167462	Nursery Days Upchurch
Anguis fragilis	Slow-worm	"	SR0001450004NNZ3	22/06/2019	TQ8439167462	Windmill Hill, Upchurch
Anguis fragilis	Slow-worm	"	SR0001450004N4WJ	31/08/2013	TQ85086633	Hollywell Lane
Anguis fragilis	Slow-worm	"	SR0001450004NJ11	02/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ12	02/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ14	07/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ15	07/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ18	16/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ19	16/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ1B	20/06/2017	TQ8544066856	Breach Lane, Lower Halstow

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Anguis fragilis	Slow-worm	"	SR0001450004NJ1C	20/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ0X	22/05/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ0Y	24/05/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ0Z	24/05/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NJ0U	19/05/2017	TQ8544066856	Breach Lane, Lower Halstow
Anguis fragilis	Slow-worm	"	SR0001450004NM6B	01/05/1997	TQ8567	Heron Close, Lower Halstow
Zootoca vivipara	**Common Lizard**	Bern_III, WCA5(p)	SR0001450004N5Y5	25/03/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004N5Y6	25/03/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004N5Y7	31/03/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004N5Y8	31/03/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004NIWN	05/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004NIWV	20/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004NIWS	18/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004NIWT	18/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004NIWO	05/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004NIWP	14/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004NIWQ	14/04/2016	TQ8394367049	Jubilee Fields, Upchurch
Zootoca vivipara	Common Lizard	"	SR0001450004NJ0T	19/05/2017	TQ8544066856	Breach Lane, Lower Halstow
Zootoca vivipara	Common Lizard	"	SR0001450004NJ10	02/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Zootoca vivipara	Common Lizard	"	SR0001450004NJ0V	22/05/2017	TQ8544066856	Breach Lane, Lower Halstow
Zootoca vivipara	Common Lizard	"	SR0001450004NJ0W	22/05/2017	TQ8544066856	Breach Lane, Lower Halstow

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Zootoca vivipara	Common Lizard	"	SR0001450004NJ1A	20/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Zootoca vivipara	Common Lizard	"	SR0001450004NJ16	16/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Zootoca vivipara	Common Lizard	"	SR0001450004NJ17	16/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Zootoca vivipara	Common Lizard	"	SR0001450004NJ13	07/06/2017	TQ8544066856	Breach Lane, Lower Halstow
Zootoca vivipara	Common Lizard	"	SR0001450004NM6A	1990	TQ8567	Lower Halstow
Zootoca vivipara	Common Lizard	"	SR00014500000B41	March 2002	TQ857675	Lower Halstow
Zootoca vivipara	Common Lizard	"	SR000266000018SL	17/04/1976	TQ86I	Otterham Quay
Zootoca vivipara	Common Lizard	"	SR000266000015VI	17/08/1968	TQ86I	Otterham Quay
Zootoca vivipara	Common Lizard	"	SR000266000014H4	15/08/1972	TQ86M	Newington
Natrix helvetica	**Grass Snake**	Bern_III, WCA5(p)	SR0001450004NO6F	15/07/2020	TQ8465767805	Poot Lane Upchurch
Natrix helvetica	Grass Snake	"	SR00047600000T0A	13/08/2012	TQ8468	Horsham Marsh
Natrix helvetica	Grass Snake	"	SR0001450004NM6C	1990	TQ8567	Lower Halstow
Natrix helvetica	Grass Snake	"	SR0001450004MXWH	28/06/2021	TQ8575066822	Lower Halstow
Natrix helvetica	Grass Snake	"	SR000266000015YS	18/05/1974	TQ86I	Otterham Quay
Phoca vitulina	**Harbour Seal**	ECH_II, ECH_V, Bonn_II, Bern_III	SR00014500005UXY	10/08/2003	TQ8568	Halstow Creek
Stenella coeruleoalba	**Striped Dolphin**	ECH_IV, Bonn_II, Bern_II, WCA5, CRoW	SR0002450000002E	August 2002	TQ8367	Otterham Quay, Rainham
Meles meles	**Eurasian Badger**†	Bern_III, Badger Act	SR0001450004TJMF	17/03/2023	TQ86	
Mustela erminea	**Stoat**	Bern_III	SR0001450004LFDC	05/07/2020	TQ85156797	
Mustela erminea	Stoat	"	SR00026600000QM4	10/08/2000	TQ86M	Newington
Mustela nivalis	**Weasel**	Bern_III	SR000405000001PQ	15/07/1964	TQ8366	Otteham
Mustela nivalis	Weasel	"	SR00040500002KZQ	14/07/2016	TQ86	
Eptesicus serotinus	**Serotine**#	ECH_IV, Bonn_II, Bern_II, WCA5	SR0001450004TAJI	01/08/2022	TQ843675	St. Mary's Church, Upchurch
Nyctalus noctula	**Noctule Bat**#	ECH_IV, Bonn_II, Bern_II, WCA5	SR0001450004TAJE	22/08/2022	TQ843675	St. Mary's Church, Upchurch
Pipistrellus nathusii	**Nathusius's Pipistrelle**#	ECH_IV, Bonn_II, Bern_II, WCA5	SR0001450004TAJJ	01/08/2022	TQ843675	St. Mary's Church, Upchurch
Pipistrellus pipistrellus	**Common Pipistrelle**#	ECH_IV, Bonn_II, Bern_II, WCA5	SR0001450004TAJL	01/08/2022	TQ843675	St. Mary's Church, Upchurch
Pipistrellus pipistrellus	Common Pipistrelle	"	SR0001450004TAJG	22/08/2022	TQ843675	St. Mary's Church, Upchurch
Pipistrellus pygmaeus	**Soprano Pipistrelle**#	ECH_IV, Bonn_II, Bern_II, WCA5	SR0001450004TAJK	01/08/2022	TQ843675	St. Mary's Church, Upchurch

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Pipistrellus pygmaeus	Soprano Pipistrelle	"	SR0001450004TAJF	22/08/2022	TQ843675	St. Mary's Church, Upchurch
Pipistrellus pygmaeus	Soprano Pipistrelle	"	SR00026600000J44	11/06/1999	TQ86N	Lower Halstow
Plecotus auritus	**Brown Long-eared Bat**#	ECH_IV, Bonn_II, Bern_II, WCA5	SR0001450004TAJM	01/08/2022	TQ843675	St. Mary's Church, Upchurch
Plecotus auritus	Brown Long-eared Bat	"	SR0001450004TAJH	22/08/2022	TQ843675	St. Mary's Church, Upchurch
Plecotus auritus	Brown Long-eared Bat	"	SR00026600000M4Z	13/10/1999	TQ86N	Lower Halstow
Plecotus auritus	Brown Long-eared Bat	"	SR00026600000073V	20/08/1996	TQ86P	Ham Green
Erinaceus europaeus	**West European Hedgehog**	Bern_III	SR0001450004LFBN	04/08/2020	TQ838675	Upchurch
Erinaceus europaeus	West European Hedgehog	"	SR0001450004LFCZ	06/07/2020	TQ83966755	ME97EW
Erinaceus europaeus	West European Hedgehog	"	SR0004050000142E	30/06/2015	TQ84026686	
Erinaceus europaeus	West European Hedgehog	"	SR0001450004LFDB	03/07/2020	TQ84036686	ME97AJ
Erinaceus europaeus	West European Hedgehog	"	SR000405000006VE	29/09/2012	TQ84076685	
Erinaceus europaeus	West European Hedgehog	"	SR0001450004Q0S4	22/08/2022	TQ84356752	Upchurch Churchyard
Erinaceus europaeus	West European Hedgehog	"	SR0001450004LEZQ	27/09/2019	TQ84426749	Upchurch
Erinaceus europaeus	West European Hedgehog	"	SR000405000000AP	14/07/1971	TQ8465	Newington
Erinaceus europaeus	West European Hedgehog	"	SR00040500000090	29/09/1968	TQ8467	Upchurch
Erinaceus europaeus	West European Hedgehog	"	SR00014500005UTW	06/06/2003	TQ8567	Lower Halstow
Erinaceus europaeus	West European Hedgehog	"	SR0001450004LFDH	24/06/2020	TQ85716702	School Lane, Lower Halstow
Erinaceus europaeus	West European Hedgehog	"	SR0001450004LFDG	28/06/2020	TQ85736701	ME97EW
Erinaceus europaeus	West European Hedgehog	"	SR0001450004LFDF	02/07/2020	TQ85886710	Burntwick Drive Lower Halstow
Erinaceus europaeus	West European Hedgehog	"	SR000405000001596	20/11/2015	TQ86	
Erinaceus europaeus	West European Hedgehog	"	SR000405000000GT	10/06/1977	TQ86I	Motney Hill
Erinaceus europaeus	West European Hedgehog	"	SR00026600000DNS	22/04/1998	TQ86I	Otterham Quay
Erinaceus europaeus	West European Hedgehog	"	SR00026600000DNT	22/04/1998	TQ86N	Lower Halstow
Erinaceus europaeus	West European Hedgehog	"	SR000405000000IO	03/06/1979	TQ86N	Lower Halstow
Sorex araneus	**Eurasian Common Shrew**	Bern_III	SR000405000000S3	23/04/1968	TQ8465	Newington
Sorex araneus	Eurasian Common Shrew	"	SR000405000000RH	26/08/1967	TQ8567	Upchurch
Sorex minutus	**Eurasian Pygmy Shrew**	Bern_III	SR000405000000XX	24/04/1968	TQ8465	Hartlip
Sorex minutus	Eurasian Pygmy Shrew	"	SR000405000000YJ	14/09/1977	TQ86I	Motney Hill
Arvicola amphibius	**European Water Vole**	WCA5, CRoW	SR00014500005UOL	01/09/2000	TQ8466	Upchurch marshes
Arvicola amphibius	European Water Vole	"	SR00014500005UOM	01/09/2000	TQ8468	Upchurch marshes
Arvicola amphibius	European Water Vole	"	SR0001450003SGTQ	03/07/2017	TQ8567	near Lower Halstow
Arvicola amphibius	European Water Vole	"	SR000405000005W4	05/09/2011	TQ8575966853	Lower Halstow Stream (b)
Arvicola amphibius	European Water Vole	"	SR000405000005W2	05/09/2011	TQ8584066990	Stream in Lower Halstow
Arvicola amphibius	European Water Vole	"	SR00040500000568	27/01/1976	TQ86I	Motney Hill
Arvicola amphibius	European Water Vole	"	SR00026600000RUV	15/09/2000	TQ86I	Otterham Quay
Arvicola amphibius	European Water Vole	"	SR00026600000RUX	15/09/2000	TQ86N	Lower Halstow

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Arvicola amphibius	European Water Vole	"	SR00026600000RUY	15/09/2000	TQ86P	Ham Green