



TCMS

Leadloch

Bird Survey
August 2022



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SUMMARY

At the start of 2022 Tinto Countryside Management Solutions, (TCMS) was approached by Lindsay Mackinlay, (UK Biodiversity Manager) at The Future Forest Company, (FFC) to carry out a breeding bird survey at its Leadloch property near Fauldhouse.

The study area covered roughly 160ha, with the three surveys being undertaken relating to this area and immediate adjacent ground.

A total of twenty-four breeding species and seven non-breeding species were recorded at Leadloch. Three wader species were recorded along with a range of other bird species on or adjacent to the site, however no wader species were noted as breeding on the site. Several species that merit conservation concern were noted on or adjacent to the site, including skylark and curlew.

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1. Introduction

1.1 Site Description

Location: Immediately to west of Fauldhouse, West Lothian, but entire property is located within North Lanarkshire.

Lying at approximately 230m to 255m and centred on Grid reference –NS 91249 59962

Leadloch was previously a mixed lowland livestock farm on marginal, relatively flat land with a total area of 160ha. The site is divided between improved grassland with much soft rush, degraded raised bog (with some conifer belts in places) and species-poor marshy grassland with rosebay willowherb in many places likely due to past disturbance from pipeline works. There is also a large area of fen mire in one area. Many fields are divided by over-mature (beech/pine) tree lines. The site lies southwest of a railway line and north-east of a significant raised bog area.

A dilapidated farmhouse and some associated buildings remain, although for safety reasons the farmhouse is fenced off with no access to it.

Map 1. Leadloch property boundary



1.2 Aims of Survey

The aim was to survey the site in order to obtain accurate baseline information on its breeding bird assemblage, including assessing the nature conservation importance of bird species and communities at the property, in terms of both species' rarity and diversity, in a Scottish, UK and international context. Also, to obtain accurate baseline information on the sites breeding bird assemblage and investigate any bird data available from the local Biological Records Centre within 1km of the site boundary.

Make recommendations for the conservation management and monitoring of any important bird communities and/or individual species of conservation importance.

All species were noted, including highlighting those that are red & amber listed birds of conservation concern (BoCC5) ¹.

2. Method

2.1 Biological Records

TCMS interrogated the NBN atlas Scotland to provide background information on bird records within Leadloch (1km Buffer).

FFC had also carried out this work during early ecological appraisal work as well as liaising with a local RSPB contact over likely wader interest on the site. No information on birds was available for the site and FFC therefore felt it would prove fruitless to contact the local records centre on this occasion. FFC had also checked the Barn Owl Trust mapping website but found no records or high probability of barn owls for the site.

2.2 Field Survey

2.2.1 Breeding Birds including Waders

The survey method followed was an adaptation of the Brown & Shepherd (1993) ².

All species displaying territorial, or breeding behaviour were recorded (e.g., in song, carrying food or nesting material, with young, alarm calling) were recorded on a field-map then digitized using QGIS®

Results are recorded in both table 1 and Appendix 1

¹ BTO/RSPB (2022) Birds of conservation concern 5: The red list for birds.

² Brown, A. F. and Shepherd, K. B. (1993) A method for censusing upland breeding wader populations.

Timings

Three visits were undertaken for breeding birds. Surveys were undertaken between April through to late-June 2022, with approximately 3-4 weeks between visits and generally in good conditions; see **Table 1**.

Table 1. Survey dates and weather conditions for breeding bird surveys

Survey	Date	Start	End	Visibility	Temp (°C)	Wind (Beaufort)	Conditions
1	7/4/2022	08.30	13.00	Good	9-18	3-4	Overcast and dry (c60% cloud)
2	8/5/2022	08.00	14.00	Good	10-18	2-4	Overcast and dry (c50% cloud)
3	25/6/2022	07.30	13.30	Excellent	13-20	3-5	Dry with sunny spells (c20% cloud)

2.3 Designated Sites

Nature Scot GIS datasets were interrogated for any protected sites with bird interest within a 2 km radius of the site. Leadloch is not included in a protected site, and no designations are within the 2km radius; see map in **Appendix 2**

3. Results

Results relate to the FFC Leadloch property area, either within that area or close by.

Thirty-one bird species were recorded (Appendix 1) with twenty-four of those species confirmed or suspected as breeding; see **Appendix 1**

Species included in this section relate to them being included in either the red or amber BoCC5 lists.

3.1 Black Grouse

No leks were identified and no black grouse were recorded, when carrying out desk research and during the field breeding bird surveys.

It was also noted that there are no historical black grouse leks within a 1km radius of the site.

3.2 Waders

Three farmland wader species were identified.

- Curlew – distant displaying birds observed off the site towards the southwest and within the adjacent raised bog area. Up to two pairs in this area. **See summary map Appendix 3.**
- Snipe - were observed in a couple of locations within the site, (on the first visit). No displaying birds seen/heard during the early survey breeding snipe on the property, but suitable habitat exists.
- Oystercatcher - were observed on the third visit and thought to be passing through the site and to be non-breeders.

Table 2. Wader Registrations

Refer to Appendix 2 and Appendix 3

Species			Field Description /Compartment Number	Number of birds
Scientific name	Common name	BTO Code		
<i>Vanellus</i>	Lapwing	L.	No records	0
<i>Gallinago</i>	Snipe	SN	Northern section of the site	4 birds
<i>Numenius arquata</i>	Curlew	CU	Off the site to the southwest	3 birds
<i>Haematopus ostralegus</i>	Oystercatcher	OC	Around the recently cleared farm buildings area.	2 birds
<i>Tringa totanus</i>	Redshank	RK	No records	0

3.3 Passerines

- Skylark - up to five individuals were noted displaying predominately in the northern section of the property and immediately adjacent. Juvenile birds were noted. Based on this assessment this species is considered not to be significantly more abundant than would be expected on other farmland of this type. **Four territories confirmed within the property plus one in raised bog to the southwest just off the property. See summary map Appendix 3**
- Meadow Pipit – up to six individuals were noted displaying predominately in the northern section of the property and immediately adjacent. Juvenile birds were noted. Based on this assessment this species is considered not to be significantly more abundant than would be expected on other farmland of this type. **Up to five territories confirmed within the property. See summary map Appendix 3**
- Reed Bunting – up to five individuals were noted displaying/singing again mainly in the northern section and southwestern field. **Three territories confirmed within the property. See summary map Appendix 3**
- Willow warbler – Up to four individuals were noted singing throughout the property. **One territory confirmed within the property. See summary map Appendix 3**
- Grasshopper warbler – up to three birds heard calling on the second visit and mainly around the Lead Loch area. Believed to be birds on passage and looking for territories but unable to confirm actual breeding.
- Sedge warbler – individual singing on edge of Lead Loch. **One territory confirmed within Lead Loch. See summary map Appendix 3**
- Lesser redpoll – up to five birds were recorded foraging in trees along edges of plantations throughout the site.
- Starling – up to eight individuals including juveniles in flock around old farm buildings area
- Song thrush – one individual noted singing on edge of plantation on eastern edge of property.
- Mistle thrush – one individual noted alarm calling in the most westerly mature tree field boundary.

3.4 Raptors

- Buzzard - Individual birds were recorded hunting mainly along the conifer block edges.
- Peregrine falcon – passing through on the third visit and showing interest in the feral pigeons around the old farmhouse.

3.5 Other birds

- Lesser Black-backed Gull – several recorded flying over the site along the western boundary on two of the site visits.
- Cuckoo - one bird noted displaying on the western edge of the property on second visit.
- Swift – several birds noted feeding over the Lead Loch on the third visit.

3.6 Schedule 1 species

Two protected Schedule 1 species under the Wildlife and Countryside Act 1981, as amended in Scotland were recorded.

- Peregrine Falcon – passing through on the third visit and showing interest in the feral pigeons around the old farmhouse.
- Barn owl – pellets (old) indicating presence of barn owl, (roost site) discovered in the farm outbuilding at Leadloch. However, no evidence of live individuals was found during survey visits.

Table 3. Barn owl presence

	
<p>Barn owl pellets on floor of farm out buildings.</p>	<p>Farm building to the right with barn owl pellets</p>

3.7 Other wildlife

- Roe Deer - individuals recorded on second and third visits, mainly around Lead Loch area.
- Brown Hare – one recorded on second visit in southwest corner field.
- Signs of Badger and Moles, predominately in the southwest corner field of the property.
- Several species of butterflies; Green Veined White, Peacock, Ringlet and Orange Tip.

4. Discussion

Most species recorded were considered to be common species with stable UK populations (i.e., green listed) though there were a few breeding species shown in Appendix 1, that merit conservation consideration as they are either listed as Birds of Conservation Concern⁴ (BoCC5; red or amber listed) and/or listed on the Scottish Biodiversity List⁵.

Red listed moorland/open ground birds include skylark and curlew. Habitat for skylark and curlew would be lost if the whole of the site is afforested **see 5.1.1**. However, skylark are likely to persist in unplanted areas and planted areas while the trees are young.

Curlew were recorded off the property and displaying at a distant that would the northern section of the site is suitable for breeding curlew with suitable management – see **5.1**. See comments below.

The Lead Loch, (fen mire) is a valuable habitat with red listed species such as Grasshopper warbler and Swift being attracted to it. In addition, a couple of amber listed species; sedge warbler and reed bunting were recorded and thought to be breeding in or around this area.

Access was restricted to the dilapidated farm house building but suspect that swallows would be nesting in the building along with the feral pigeons. Barn owls have been using the associated farm buildings as highlighted in the section **3.6** and this needs to be encouraged.

5. Recommendations

The Lead Loch, (fen mire) is a valuable habitat for birds and any tree planting within or immediately around the mire is not recommended.

Indeed, the northern section of the property, (from the Lead Loch generally northwards) into the large peatland/bog area is also a potentially valuable area for birds and could be improved through some restoration work to attract breeding curlew, see **5.1**.

Maintaining mature and dying broadleaf, trees such as those within the improved field boundaries would be valuable for breeding birds including starling and jackdaw.

Having a mix of conifer and broadleaved species will benefit a wider range of bird species including red listed species like, mistle and song-thrush along with spotted flycatcher.

5.1 Land management to attract curlew

It is understood that FFC are currently applying to remove existing Sitka spruce belts which cut across the large bog area in the northern part of the site in line with a proposed Peatland Action project to restore the currently modified bog. This would result in a larger wetter, open, bog area across a large area of the northern part of the site over to where it adjoins the railway to the NE. This would be expected to enhance a large area for potential use by waders, including curlew.

Key management options to encourage breeding curlew:

- Avoid conversion (by drainage, liming, fertilising, or re-seeding) to improved grassland.
- Graze to achieve a mosaic of taller, tussocky vegetation and shorter grassy areas. This can be achieved by careful stock movements, by adjusting stocking rates, by using supplementary feeding to target grazing, and by using cattle and sheep where possible. Also consider suitable cutting regime. No grazing will take place on the site beyond a field opposite the road entrance.
- Retaining or recreating wet flushes, boggy areas and damp, rough grassland by avoiding or minimising new drainage, and by blocking grips and drains where feasible. These provide important invertebrate-rich feeding areas, particularly for chicks.

It is understood that FFC intend to create several pond features on the site within current plans.

5.1.1 Tree and Shrub planting

Waders avoid nesting and feeding in areas close to tall tree and shrub cover. Avoid planting trees, shrubs, or hedges within 30 metres of, (and potential) curlew nesting and feeding areas. The minimum viable area of open ground is approximately three hectares, but the ideal is to have more than 10 hectares of open ground.

5.2 Farm buildings

To ensure the long-term conservation of the barn owls, swallows, and swifts on the site.

- Incorporate barn owl nest boxes plus suitable structures for nesting swallows and swifts in the farm buildings and farmhouse, (depending on its future use?).
- Contractors/workers to be briefed on the legislation* as it relates to barn owls and breeding swallows in the farm buildings and future works.
- Contractors must cease work immediately if they find barn owl in their work area and seek advice from a professional ecologist prior to the re-commencement of works.

* = A special level of protection is afforded to Barn Owls (and certain other species of bird) under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In summary, barn owls are protected against intentional or reckless disturbance whilst building a nest or whilst at, on or near a nest containing eggs or dependent young.

Appendix 1 - Summary of all bird registrations

Birds identified at Leadloch proposed woodland creation site (number of registrations of all bird species with confirmed or suspected breeding species within the property or immediately adjacent in **bold**).

BTO Species Code	Species		Survey Timing			Conservation and Protection Status (JNCC/BTO) ³⁻⁴		
	Scientific name	Common name	April 7 th 2022	May 5 th 2022	June 25 th 2022	Birds of Conservation Concern5	Scottish Biodiversity List species	North Lanarkshire LBAP
WP	<i>Columba palumbus</i>	Woodpigeon	2	4	1	Green		
FP	<i>Columba livia "domestica"</i>	Feral Pigeon		4	5	Green		
CK	<i>Cuculus canorus</i>	Cuckoo		1		Red;BAP	✓	✓
BZ	<i>Buteo buteo</i>	Buzzard	2	1	1	Green		
PE	<i>Falco peregrinus</i>	Peregrine Falcon			1	Green	✓	✓
OC	<i>Haematopus ostralegus</i>	Oystercatcher			2	Amber		
CU	<i>Numenius arquata</i>	Curlew	3	3	1	Red; BAP	✓	✓
SN	<i>Gallinago gallinago</i>	Snipe	4			Amber		
LB	<i>Larus fuscus</i>	Lesser Black-backed Gull	3		1	Amber		
JD	<i>Corvus monedula</i>	Jackdaw	3	13	6	Green		
C.	<i>Corvus corone</i>	Carrion crow	5	8	3	Green		
S.	<i>Alauda arvensis</i>	Skylark	3	6	6	Red; BAP	✓	✓
GH	<i>Locustella naevia</i>	Common Grasshopper Warbler		3		Red;BAP	✓	✓
WW	<i>Phylloscopus trochilus</i>	Willow Warbler		3	1	Amber		
GT	<i>Parus major</i>	Great Tit	1	2	1	Green		
BT	<i>Cyanistes caeruleus</i>	Blue Tit	1	1	1	Green		
M.	<i>Turdus viscivorus</i>	Mistle Thrush		1		Red		
ST	<i>Turdus philomelos</i>	Song Thrush		1		Amber	✓	✓
GC	<i>Regulus ignicapilla</i>	Goldcrest		1	1	Green		
WR	<i>Troglodytes</i>	Wren	2	5	1	Green		
SG	<i>Sturnus vulgaris</i>	Starling		8		Red; BAP	✓	✓
SL	<i>Hirundo rustica</i>	Barn Swallow		2	6	Green		

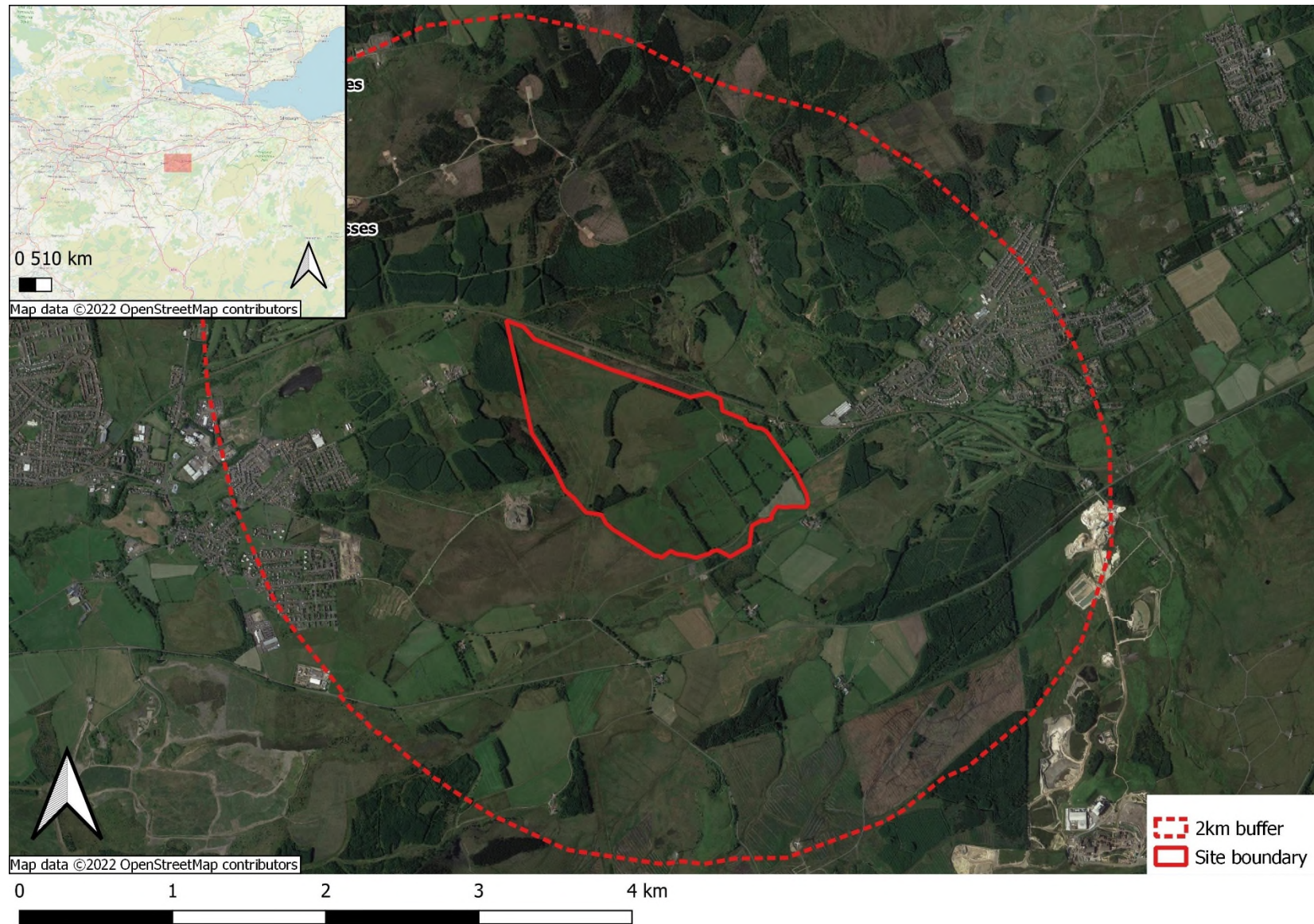
SI	<i>Apus apus</i>	Common Swift			2	Red	✓	✓
RB	<i>Emberiza schoeniclus</i>	Reed Bunting		4	4	Amber;BAP	✓	✓
SW	<i>Acrocephalus schoenobaenus</i>	Sedge Warbler			1	Amber		
MP	<i>Anthus pratensis</i>	Meadow pipit	4	14	24	Amber		
R.	<i>Erithacus rubecula</i>	Robin		1		Green		
CH	<i>Fringilla coelebs</i>	Chaffinch	4	8	4	Green		
SK	<i>Spinus spinus</i>	Siskin		4		Green	✓	✓
LR	<i>Acanthis cabaret</i>	Lesser Redpoll		3	1	Red; BAP	✓	✓
GO	<i>Carduelis citrinella</i>	Goldfinch	2	3		Green		

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⁴ <https://registry.nbnatlas.org/public/show/dr583> (accessed 15/08/2022)

³ <https://www.rspb.org.uk/globalassets/downloads/bocc5/bocc5-a5-4pp-09-11-2021.pdf> (accessed 15/08/2022)

Appendix 2 - Environmental Designation Map



Appendix 3 - Bird Survey Maps (Codes listed in Appendix 1)

Visit 1 07/04/2022

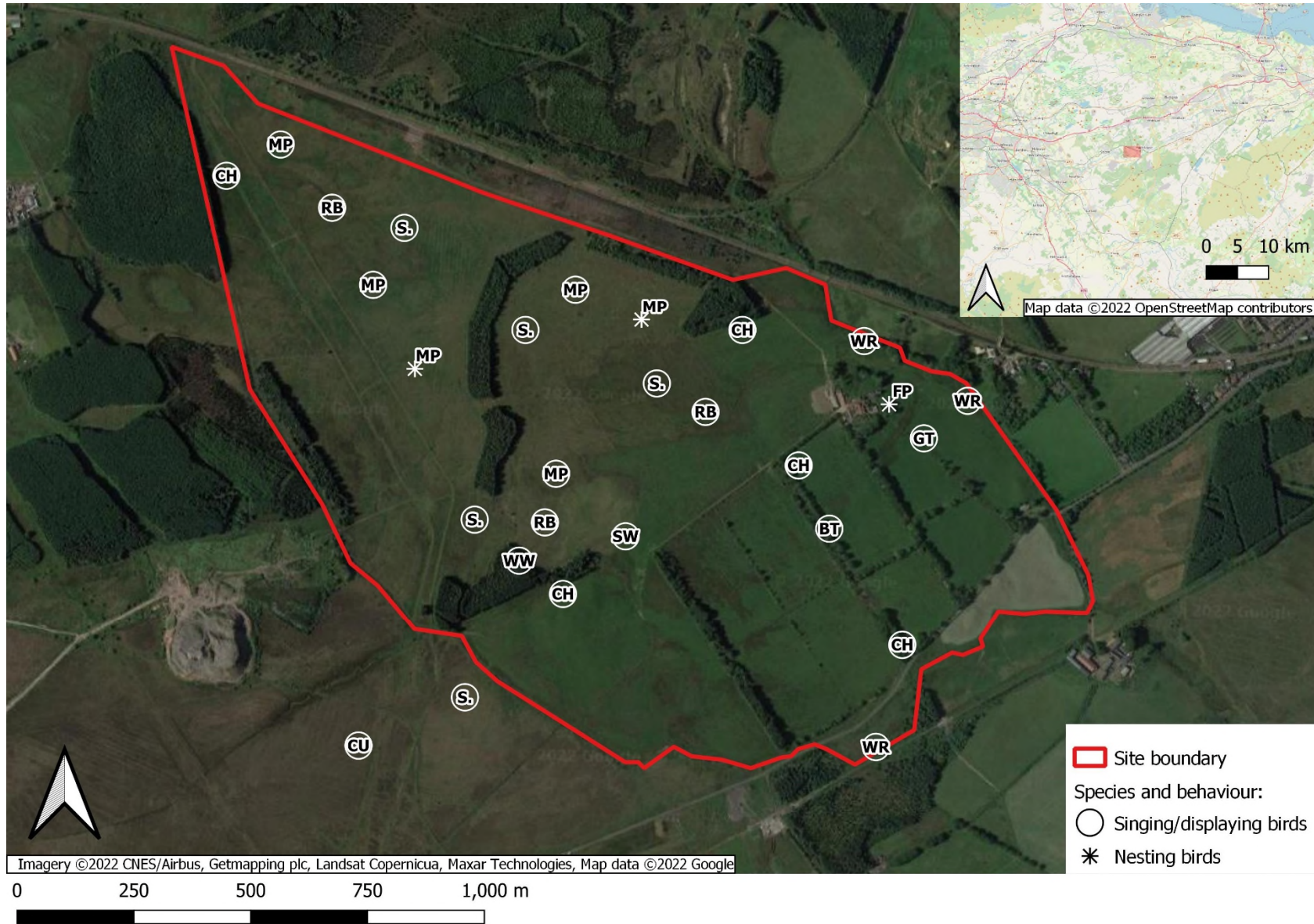


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Visit 3 25/06/2022



Summary Map



Leadloch Bird Survey August 2022

Appendix 4 - Images



Looking southeast showing improved grassland with soft rush and mature tree field boundaries.



Looking southeast within one of the mature tree field boundaries.



Looking east towards farmhouse and outbuildings. Small burn running east.



Looking north from small bog area on the south side of the B7010 road



Looking east showing improved field on south side of B7010.
Field grazed by sheep during survey.



Looking west across the fen mire, (Lead Loch).



Looking south west towards to improved grassland with soft
rush and to the large area of raised bog off the property.



Looking north along one of the two established tracks and
parallel gas pipeline.