



Starling Learning



Breeding Bird Survey 2022

Lukestone



Carried out by



Starling Learning



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1. Introduction

1.1 Background

Starling Learning was commissioned by Iain and Sheena Graham of the Aird Farming Group to carry out a breeding bird survey at their Lukestone Farm. The survey was commissioned to establish the breeding bird population of the site and to identify any other species of significance such as Otter (*Lutra lutra*) that may be present.

This report describes the breeding bird population of the site, it contains:

- a) The results of the field surveys including species maps showing individual territories; and
- b) An evaluation of the ornithological interest in terms of habitat compartments and bird species communities, species population significance within local and regional contexts, identifying, key species and Species of Conservation Concern; and
- c) Details of protected mammal species recorded.

1.2 Site description

The survey area is characterized as *Rugged Upland Farmland bordering on to Rugged Moorland Hills*, landscape assessment types found throughout areas of Inverclyde and Renfrewshire. There are areas of upland pastoral grazing that give way to areas of heath and moorland. Lukestone Farm has several areas of improved pasture, marshy grassland, broadleaved plantation woodland, scrub woodland, hedgerows and is bisected by the Mill Burn, that flows into the River Gryfe.

A central grid reference for the development site is NS 33064 66563. Figure 1 below shows the location.

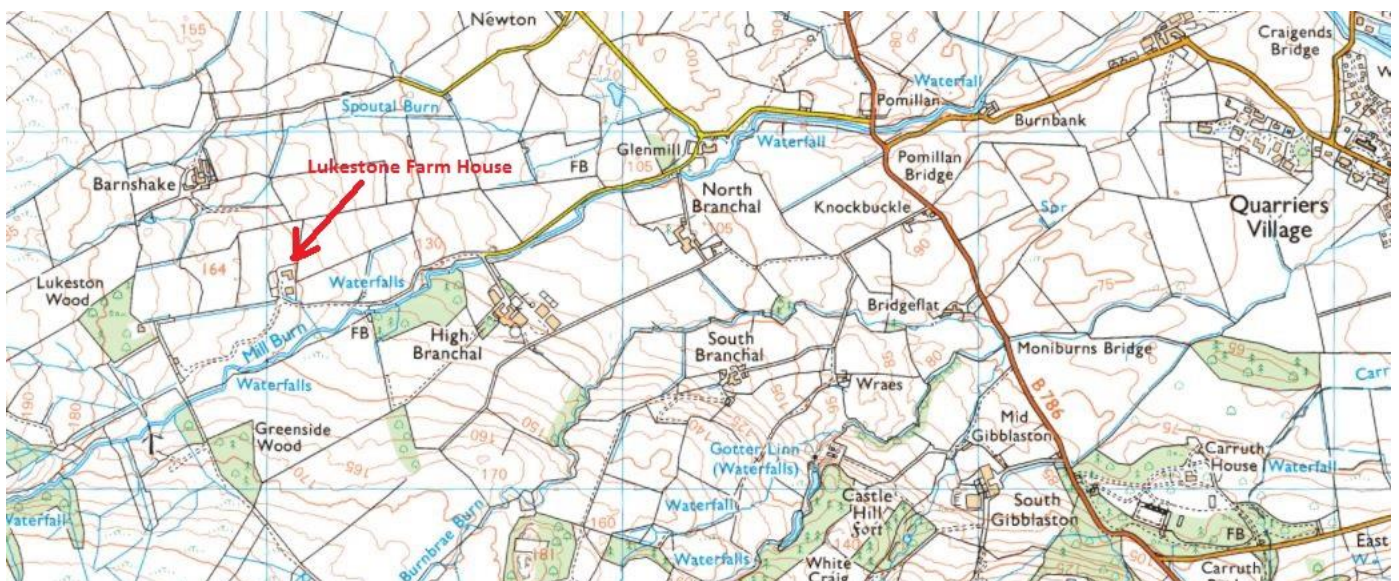


Figure 1. Location of survey area, Lukestone

2. Methodology

2.1 Field Survey

The survey of the breeding birds was based on *Common Bird Census* mapping methodology (IBCC 1969, Bibby *et al* 1992) as recommended by the *British Trust for Ornithology* for censusing breeding birds.

2.2 The survey and analysis was carried out by Liz Parsons. Joe Greenlees and Diane Lyons of Starling Learning.

2.3 The site was surveyed twice in spring and summer 2022, first on the 11th of May and again on the 6th of July, commencing approximately at dawn (circa 30 minutes before sunrise). Visits were made during dry, fair weather conditions, and no visits were conducted in windy weather or below average temperatures. Each visit was conducted at a pace that ensured that most birds would be detected if calling, singing or visible.

2.4 The main purpose of the survey was to measure and plot the populations of breeding land bird communities within the farm setting. The aim was to establish if current farming methods are conducive to successful bird populations on the farm.

2.5. Particular attention was paid to bird species of conservation concern. These are defined as red and amber-listed species in “Birds of Conservation Concern 5”.

3. Field Survey Results

3.1 Breeding pairs

The site holds a wide variety of moorland, woodland and scrub bird species. A total of 39 species gave a total of approximately 173 breeding territories. The commonest were those associated with moorland, such as Lapwing (*Vanellus vanellus*) and Meadow pipit (*Anthus pratensis*), as well as species associated with woodland, such as Wren (*Troglodytes troglodytes*) and Chaffinch (*Fringilla coelebs*).

Amongst the findings were several Red listed species, these are species that are considered to be in critical decline including; Curlew (*Numenius arquata*), Grasshopper Warbler (*Locustella naevia*), Lapwing (*Vanellus vanellus*) and Starling (*Sturnus vulgaris*). Amber listed species on site include; Bullfinch (*Pyrrhula pyrrhula*), Oystercatcher (*Haematopus ostralegus*). All territories and registrations of breeding birds are shown on Breeding Bird Figures 1 to 7.

Table 1. Breeding Bird Territories, Lukestone 2022

Species	Conservation	Breeding pairs	BTO Code
Blackbird <i>Turdus merula</i>	Green listed	3	B.
Blackcap <i>Sylvia atricapilla</i>	Green listed	3	BC
Blue Tit <i>Cyanistes caeruleus</i>	Green listed	1	BT

Bullfinch	<i>Pyrrhula pyrrhula</i>	Amber listed	2	BF
Buzzard	<i>Buteo buteo</i>	Green listed	1	BZ
Chaffinch	<i>Fringilla coelebs</i>	Green listed	17	CH
Collared Dove	<i>Streptopelia decaocto</i>	Green listed	2	CD
Cuckoo	<i>Cuculus canorus</i>	Red listed	1	CK
Curlew	<i>Numenius arquata</i>	Red listed	2	CU
Dipper	<i>Cinclus cinclus</i>	Amber listed	2	DI
Goldcrest	<i>Regulus regulus</i>	Green listed	3	GC
Goldfinch	<i>Carduelis carduelis</i>	Green listed	7	GO
Grasshopper Warbler	<i>Locustella naevia</i>	Red listed	1	GH
Great Tit	<i>Parus major</i>	Green listed	1	GT
Grey Wagtail	<i>Motacilla cinerea</i>	Red listed	2	GL
House Martin	<i>Delichon urbica</i>	Red listed	2	HM
House Sparrow	<i>Passer domesticus</i>	Red listed	3	HS
Lapwing	<i>Vanellus vanellus</i>	Red listed	15-18	L.
Linnet	<i>Linaria cannabina</i>	Red listed	1	LI
Long-tailed Tit	<i>Aegithalos caudatus</i>	Green listed	1	LT
Mallard	<i>Anas platyrhynchos</i>	Amber listed	2	MA
Meadow Pipit	<i>Anthus pratensis</i>	Amber listed	21	MP
Mistle Thrush	<i>Turdus viscivorus</i>	Red listed	1	M.
Oystercatcher	<i>Haematopus ostralegus</i>	Amber listed	1	OC
Pheasant	<i>Phasianus colchicus</i>	Green listed	4	PH
Pied Wagtail	<i>Motacilla alba</i>	Green listed	2	PW
Reed Bunting	<i>Emberiza schoeniclus</i>	Amber listed	2	RB
Robin	<i>Erithacus rubecula</i>	Green listed	5	R.
Skylark	<i>Alauda arvensis</i>	Red listed	10	S.
Snipe	<i>Gallinago gallinago</i>	Amber listed	5	SN
Song Thrush	<i>Turdus philomelos</i>	Amber listed	2	ST
Sparrowhawk	<i>Accipiter nisus</i>	Amber listed	2	SH
Starling	<i>Sturnus vulgaris</i>	Red listed	2	SG
Swallow	<i>Hirundo rustica</i>	Green listed	4	SL
Treecreeper	<i>Certhia familiaris</i>	Green listed	1	TC
Wheatear		Amber listed	1?	W.
Willow Warbler		Amber listed	15	WW
Woodpigeon	<i>Columba palumbus</i>	Green listed	3	WP
Wren	<i>Troglodytes troglodytes</i>	Amber listed	18	WR

3.2 Other species

A further three species were recorded feeding within or flying over the survey area but not proven breeding. Those were Carrion Crow (*Corvus corone*), Canada Goose (*Branta canadensis*) and Great Black-backed Gull (*Larus marinus*).

4. Protected Mammal Species

4.1 Otters

The vegetation at the edge of the Mill Burn provides a buffer of good foraging habitat for Otter on the site as well as commuting routes to the wider area of the regional park. It is likely that this 2 km stretch is part of the home range of Otters, whose main activity will be focussed on the River Gryfe.

All evidence of Otter activity on the site is detailed in the Table 2 below:

Table 2. Otter evidence on the Mill Burn

Location	Evidence	Description
NS 32971 66328	Lie up and spraint	Area next to river suitable for lying up with one spraint present.
NS 33403 66520	Lie up	Area of bank, suitable for lying up with flattened vegetation.
NS 33106 65750	Lie up and spraint	Rocky ledge suitable for lying up with spraint present.

4.2 Badger (*Melis melis*)

Evidence of badger forage was found at NS 33224 66449.

4.3 Other mammal species recorded on the site include Roe Deer (*Capreolus capreolus*) and Brown Hare (*Lepus europaeus*). The site is significant for Brown Hare, with many individuals recorded.

5. Evaluation of Ornithological Value of Site

5.1. Status of breeding birds

The farmland at Lukestone has been shown to have a wide variety and reasonable densities of many bird species. . A number of red and amber listed species of conservation concern¹ were recorded and these are highlighted. Most of these are also UKBAP Priority Species².

5.2 The site is particularly significant for breeding Lapwing and holds a high percentage of Renfrewshire's breeding population.

5.3 Current on going management on the moorland is likely to enhance the area for other breeding waders including Curlew.

¹ RSPB Birds of Conservation concern 5. Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green.

² UK BAP priority species were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP).

Figure 2. Blue Tit (BT), Pied Wagtail (PW), Long-tailed Tit (LT), Treecreeper (TC), Grasshopper Warbler (GH), Great Tit (GT), Grey Wagtail (GL), Mistle Thrush (M.), Stonechat (SC), Canada Goose (CG), Reed Bunting (RB) and Bullfinch (BF)

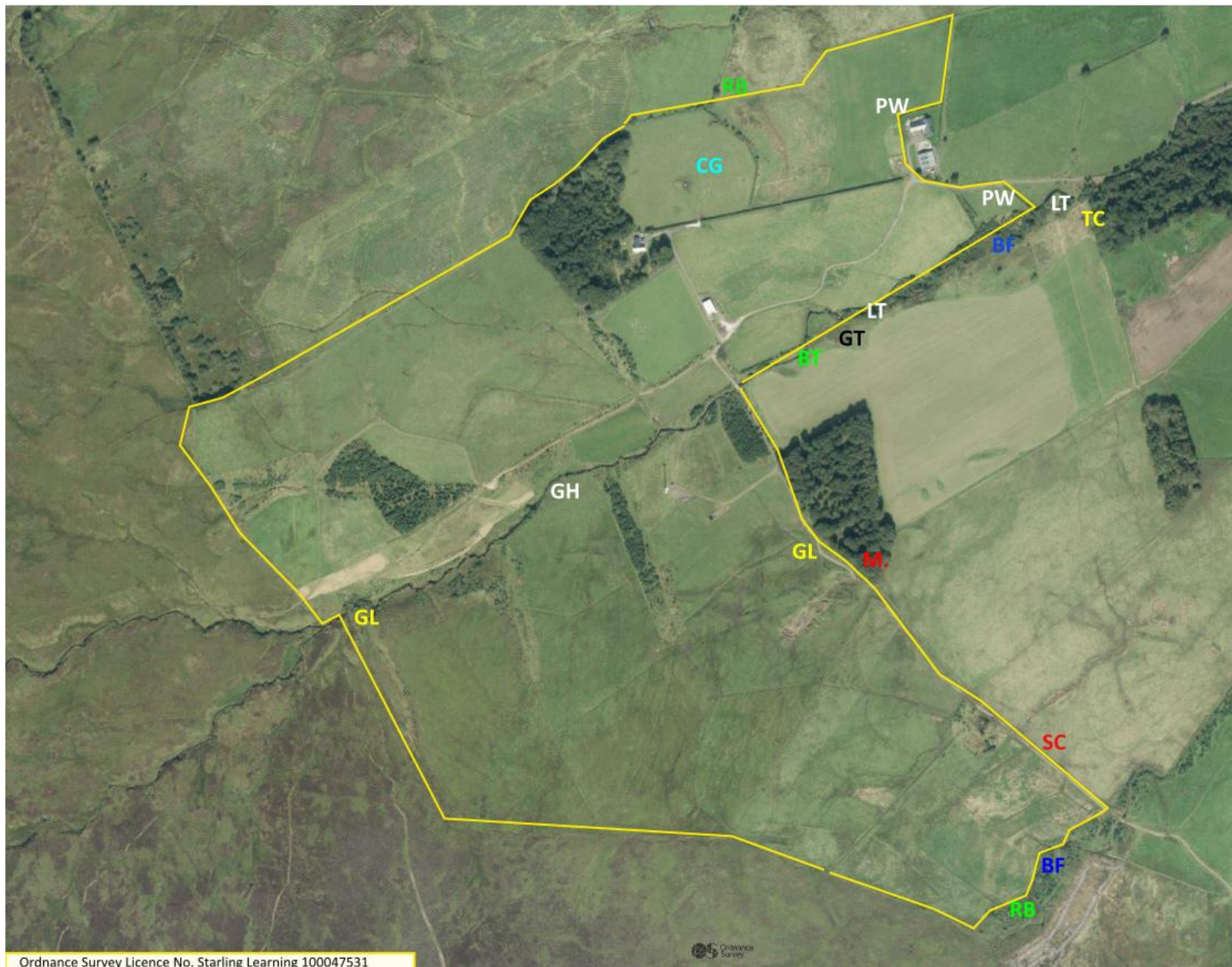


Figure 3. Blackcap (BC), Collared Dove (CD), Goldcrest (GC), House Martin (HM), House Sparrow (HS) and Swallow (SL)

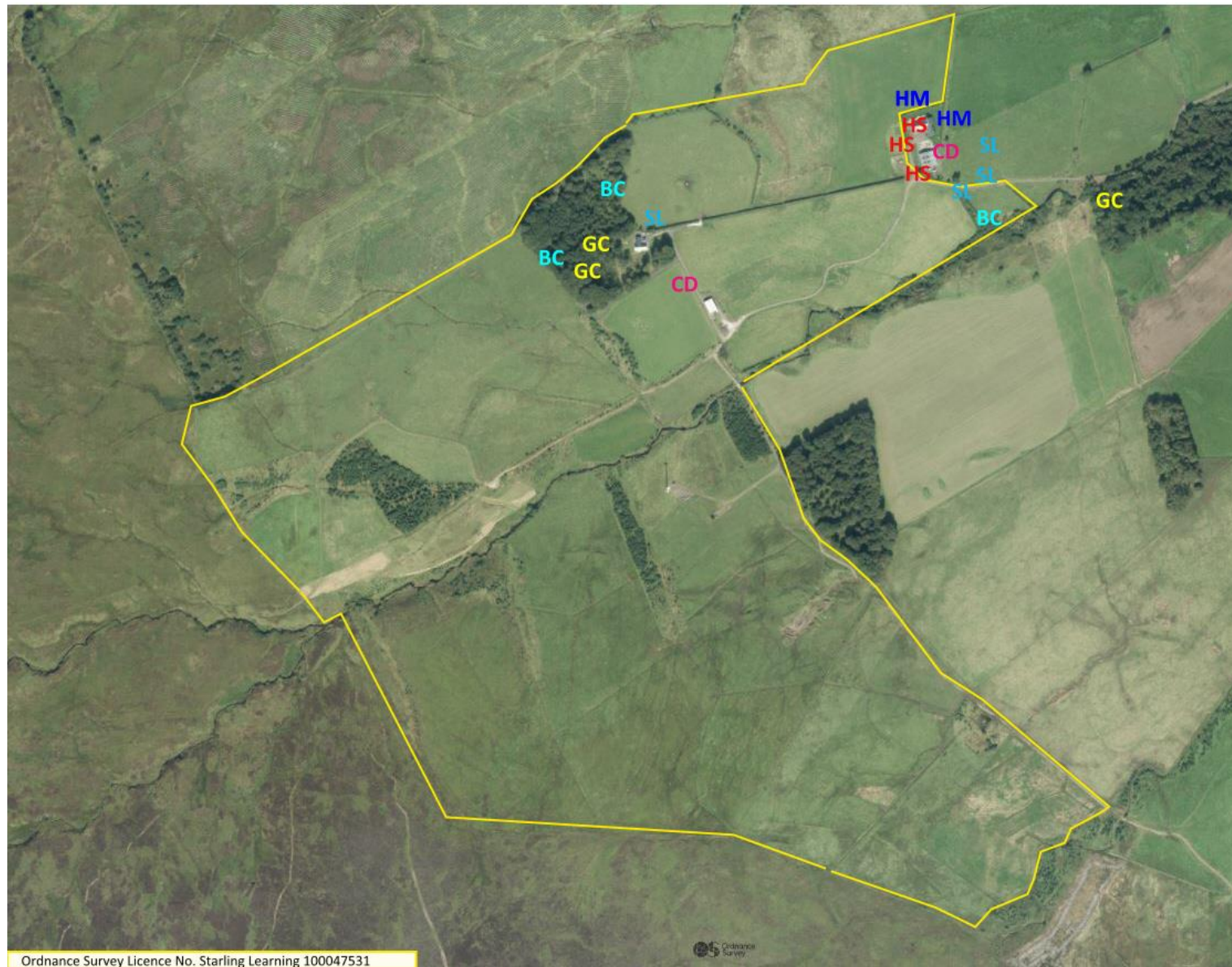


Figure 4. Blackbird (B.), Mallard (MA), Pheasant (PH), Robin (R.), Starling (SG), Song Thrush (ST) and Wheatear (W.)

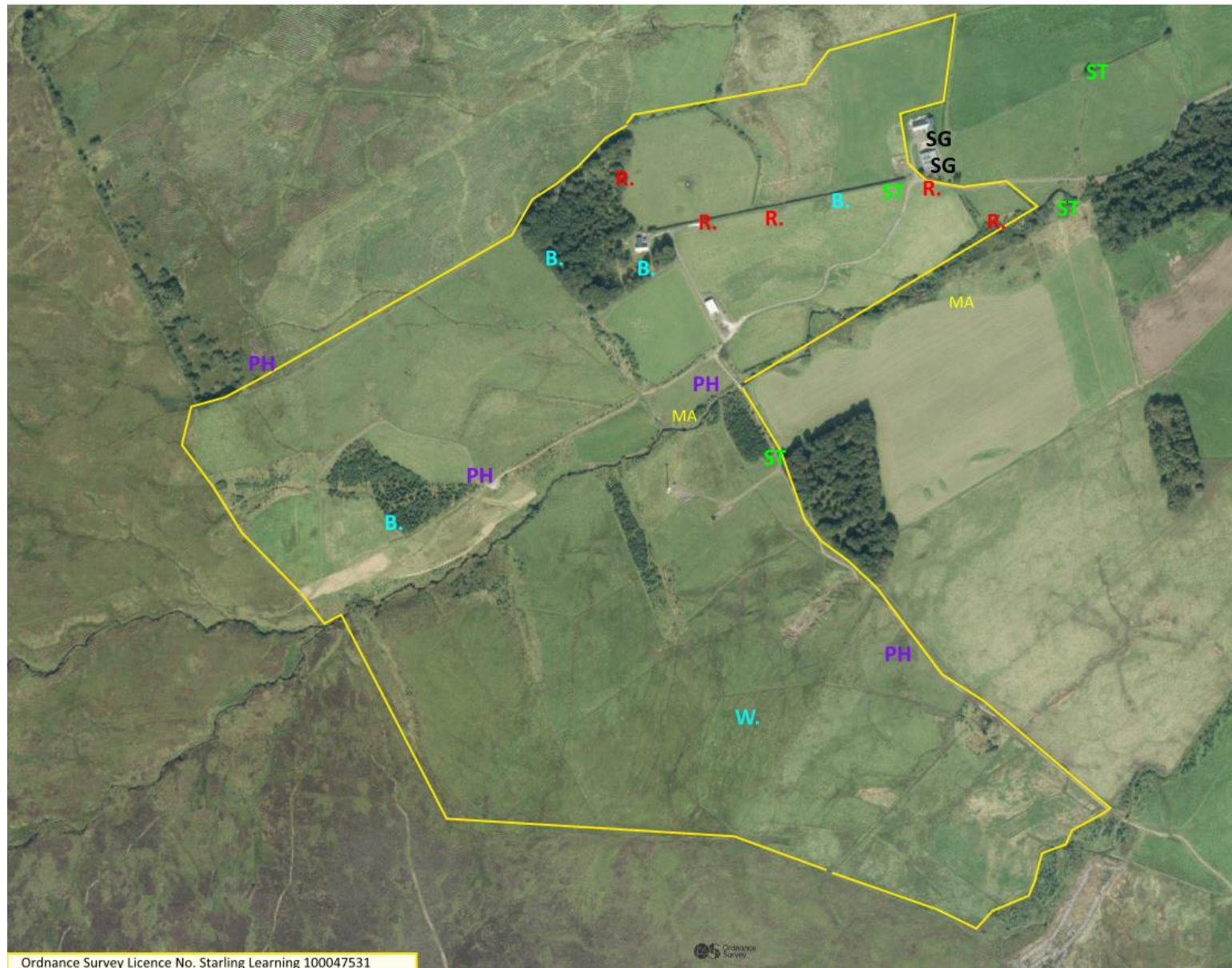


Figure 5. Buzzard (BZ), Chaffinch (CH), Linnet (LI), Sparrowhawk (SH), Willow Warbler (WW) and Woodpigeon (WP)

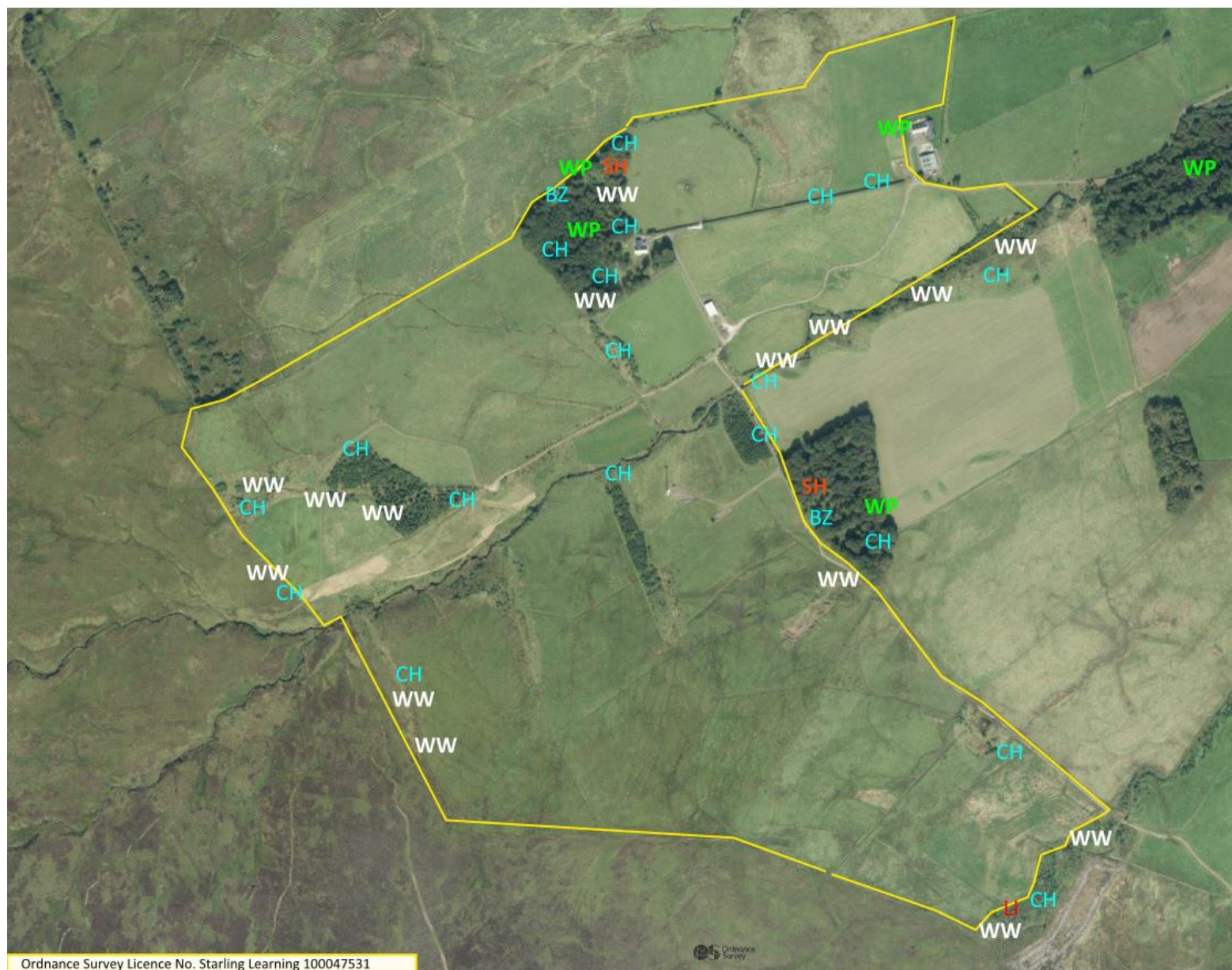


Figure 6. Cuckoo (CK), Dipper (DI), Goldfinch (GO), Meadow Pipit (MP), Skylark (S.), Whitethroat (WH) and Wren (WR)

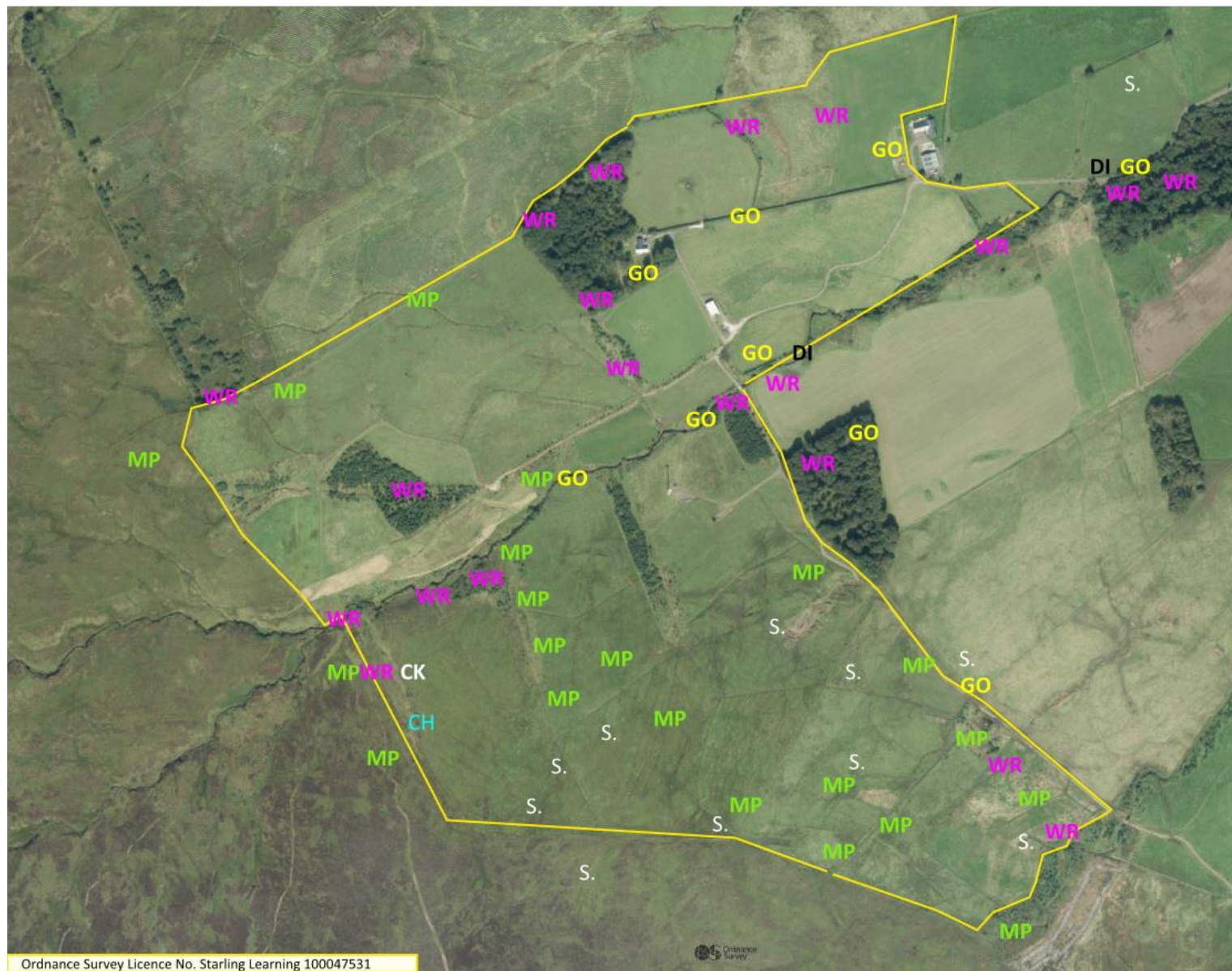


Figure 7. Breeding Waders: Lapwing (L.), Curlew (CU), Oystercatcher (OC) and Snipe (SN)

