



Wharncliffe Heath Local Nature Reserve Breeding Bird, Nest Box and Nocturnal Bird Survey 2025



By Wharncliffe Heathlands Trust

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1.0 Introduction

This report details the findings of the breeding bird survey, the nest box project, and nocturnal bird survey for Wharncliffe Heath Local Nature Reserve (the Site) in 2025. A breeding bird survey for the whole Site has been undertaken every year since 2011. Prior to 2011, surveys that focused exclusively on the heathland areas of the reserve were undertaken in 2000, 2002, 2009 and 2010. These surveys are used as a tool for monitoring the reserve's breeding bird assemblage, the effects of past and current management prescriptions, and to inform future management strategies.

1.1 Site Location and Ownership

Wharncliffe Heath Local Nature Reserve is located to the east of Deepcar, Sheffield, South Yorkshire (approximate central OS grid ref SK 29747 97648). It is under the ownership of Forestry England, and managed jointly by Wharncliffe Heathlands Trust (WHT) and Forestry England (FE).

1.2 Statutory and Non-Statutory Designations

Certain areas within the Site have statutory designations, including Scheduled Ancient Monument (SAM), Geological SSSI and a Local Nature Reserve (LNR). It is also a Sheffield Local Wildlife Site.

1.3 Site Description and Habitats

The Site is approximately 60 ha in size, and consists predominantly of heathland, gritstone escarpment, sessile oak/silver birch dominated wood pasture (Plate 2), and mixed woodland. The heathland and wood pasture areas of the Site are located within three enclosures (northern, southern and western). The largest of these is the western enclosure, which includes Wharncliffe Crags and wood pasture areas further west. The northern and southern enclosures are located in the central area of the Site, with the majority of the site's heathland within the northern enclosure (Plate 1), and a heathland/wood pasture mosaic in the southern enclosure. Two permanent ponds are also found on the Site, the largest being the "Dam Pond" found in the woodland to the north of the Site, and a smaller "Grazing Pond" located to the east of the southern enclosure. The mixed woodland to the east of the Site consists of oak dominated semi-natural ancient woodland, thinned conifer plantation and secondary woodland dominated by silver birch.



Plate 1: An area of heath in the northern enclosure, bordered by silver birch dominated secondary woodland.



Plate 2: An area developing wood pasture to the west of the reserve.

2.0 Methodology

The breeding bird survey was undertaken following an adapted version of the British Trust for Ornithology (BTO) Common Bird Census (CBC) methodology (Gilbert *et al.*, 1998), which uses a territory mapping approach. The entirety of the reserve was systematically surveyed for breeding/territorial activity during a total of ten survey visits undertaken between 7th April and 30th June 2025.

During each survey visit, the site was walked along a pre-defined route, covering all parts of the reserve. All visual and/or auditory contact with birds was recorded on a field map using standard one or two letter BTO species codes and activity codes.

Field signs characteristic of confirmed breeding include nest building in vegetation/nest boxes etc, excavation of nest holes in trees, active nests found during the surveys, adult(s) carrying food, the presence of nestlings or newly fledged young, and adult(s) removing faecal matter. Field signs characteristic of holding a territory include birds singing, courtship behaviour and adult birds giving alarm calls. For the purposes of this study, proof of breeding records observed on non-survey visits to the site are included.

Additional visits were made to record birds utilising nest boxes on the reserve in May and June. This was aided by the use of an endoscope when necessary.

Separate visits after sunset were made between late May and July to establish the status of crepuscular and nocturnal species on the reserve, including using the standard methodology set out by the BTO to record woodcock, where counts of the territorial “roding” flights undertaken by males at dusk and dawn are used to estimate the number of breeding males.

3.0 Results

A full list of territorial species and the number recorded in 2025 can be found in Table 1. Historical territory numbers from 2011 onwards can be found in Table 2. The usage of nest boxes in 2025 and previous usage can be found in Table 3.

Species	BoCC Status ¹	Number of Territories
Woodcock (<i>Scolopax rusticola</i>)	Red	6
Cuckoo (<i>Cuculus canorus</i>)	Red	1
Woodpigeon (<i>Columba palumbus</i>)	Amber	3
Tawny Owl (<i>Strix aluco</i>)	Amber	1
Nightjar (<i>Caprimulgus europaeus</i>)	Amber	2
Tree Pipit (<i>Anthus trivialis</i>)	Red	5
Wren (<i>Troglodytes troglodytes</i>)	Green	48
Dunnock (<i>Prunella modularis</i>)	Amber	8
Robin (<i>Erithacus rubecula</i>)	Green	126
Blackbird (<i>Turdus merula</i>)	Green	7
Song Thrush (<i>Turdus philomelos</i>)	Red	3
Blackcap (<i>Sylvia atricapilla</i>)	Green	8
Garden Warbler (<i>Sylvia borin</i>)	Green	3
Chiffchaff (<i>Phylloscopus collybita</i>)	Green	17
Willow Warbler (<i>Phylloscopus trochilus</i>)	Amber	53
Goldcrest (<i>Regulus regulus</i>)	Green	3
Common Redstart (<i>Phoenicurus phoenicurus</i>)	Amber	4
Pied Flycatcher (<i>Ficedula hypoleuca</i>)	Amber	19
Blue Tit (<i>Cyanistes caeruleus</i>)	Green	74
Great Tit (<i>Parus major</i>)	Green	35

¹ Stanbury, A.J., Eaton, M.A., Aebischer, N.J., et al. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 747-750

Coal Tit (<i>Periparus ater</i>)	Green	4
Nuthatch (<i>Sitta europaea</i>)	Green	6
Treecreeper (<i>Certhia familiaris</i>)	Green	1
Chaffinch (<i>Fringilla coelebs</i>)	Green	16
Linnet (<i>Linaria cannabina</i>)	Red	4

Table 1: Summary of all territorial birds recorded at Wharncliffe Heath Nature Reserve during the breeding season in 2025.

Species	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Mallard	0	0	0	0	0	1	2	0	1	1	0	0	0	0	0
Pheasant	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0
Sparrowhawk	0	0	0	0	0	0	0	0	2	2	0	1	1	1	1
Common Buzzard	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Woodcock	n/a	n/a	n/a	n/a	n/a	8	8	8	12	7	5	5	5	4	6
Cuckoo	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Wood Pigeon	0	0	0	0	0	0	0	0	0	4	4	5	5	3	3
Nightjar	1	1	1	1	1	1	1	1	2	6	1	1	1	1	2
Tree Pipit	6	4	5	5	5	5	3	4	5	5	5	5	5	2	5
Willow Warbler	23	20	18	24	24	34	38	30	51	61	60	31	30	55	53
Chiffchaff	1	1	0	2	2	3	5	5	4	5	3	5	5	6	17
Blackcap	1	2	1	4	3	3	5	5	4	17	8	10	11	6	8
Garden Warbler	1	0	1	2	2	1	1	1	2	3	0	0	0	0	3
Common Redstart	1	0	1	1	1	0	0	0	0	0	0	0	2	3	4
Pied Flycatcher	0	0	0	1	3	6	3	5	12	8	15	6	14	11	19
Spotted Flycatcher	0	0	0	1	1	1	1	0	1	0	1	0	0	1	0
Blue Tit	1	6	15	21	12	19	33	42	51	76	73	59	96	69	74
Great Tit	2	3	3	8	6	8	19	24	33	52	50	31	46	20	35
Coal Tit	1	0	1	1	0	1	3	2	2	12	10	7	9	2	4
Long-tailed Tit	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Wren	11	10	5	22	23	27	26	21	25	67	60	67	59	41	48
Robin	7	6	13	14	17	19	18	20	27	71	91	69	88	132	126
Nuthatch	1	1	1	1	0	0	1	2	10	12	5	4	10	5	6
Dunnock	1	2	2	2	2	3	4	3	3	10	10	7	9	6	8
Great-spotted Woodpecker	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0
Goldcrest	0	0	0	0	1	1	3	3	3	2	5	2	9	2	3
Treecreeper	0	0	0	0	0	1	2	1	2	4	4	1	0	2	1
Blackbird	0	0	0	0	0	0	2	2	2	6	10	8	11	8	7
Song Thrush	0	1	2	0	0	1	1	2	3	3	3	2	3	2	3
Mistle Thrush	0	1	0	0	0	1	1	2	1	4	2	1	1	1	0
Chaffinch	5	4	10	10	11	11	8	8	9	6	11	12	19	17	16
Lesser Redpoll	0	0	0	0	0	0	2	1	1	0	2	0	0	0	0
Siskin	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Linnet	3	3	2	2	4	3	3	4	3	6	6	4	6	4	4

Table 2: Historical territory numbers of birds recorded on Wharncliffe Heath from 2011-2025.

Year	Number of Boxes	Blue Tit	Great Tit	Coal Tit	Pied Flycatcher	Redstart	Nuthatch	Failed Tit sp.	Total Occupied Boxes (%)
2011	5	0	0	0	0	0	0	0	0 (0%)
2012	13	6	2	0	0	0	0	0	8 (62%)
2013	18	15	2	0	0	0	0	0	17 (94%)
2014	30	19	6	0	0	0	0	0	26 (87%)
2015	40	12	5	0	3	0	0	0	20 (50%)
2016	60	19	8	0	4	0	0	3	34 (57%)
2017	120	32	18	1	2	0	1	8	62 (52%)
2018	224	41	23	0	3	0	2	6	77 (34%)
2019	211	50	30	0	6	0	8	8	102 (48%)
2020	315	75	50	0	2	0	9	13	150 (48%)
2021	348	71	50	0	5	0	4	39	169 (49%)
2022	388	59	31	0	6	0	1	47	144 (37%)
2023	420	96	46	0	9	1	7	27	186 (44%)
2024	414	69	20	0	8	1	5	64	168 (40%)
2025	401	74	35	0	12	1	6	34	162 (40%)

Table 3: Numbers of bird species utilising nest boxes on Wharncliffe Heath from 2011-2025.

A total of twenty-five bird species had established territories on Wharncliffe Heath Nature Reserve in 2025. Twelve of these were Birds of Conservation Concern, which included five red list species: cuckoo (*Cuculus canorus*), tree pipit (*Anthus trivialis*), song thrush (*Turdus philomelos*), woodcock (*Scolopax rusticola*) and linnet (*Linaria cannabina*), and seven from the amber list: pied flycatcher (*Ficedula hypoleuca*), common redstart (*Phoenicurus phoenicurus*), nightjar (*Caprimulgus europaeus*), willow warbler (*Phylloscopus trochilus*), dunnock (*Prunella modularis*), woodpigeon (*Columba palumbus*) and tawny owl (*Strix aluco*).

Pied flycatcher numbers increased to the highest ever recorded on the reserve in 2025, with 19 established territories and 12 nesting attempts recorded. Most of the territories were found in wood pasture to the west of Wharncliffe Crags and woodland to the north east of the heath. Six of the nesting attempts were successful, with a total of 38 chicks fledging. Eight chicks fledged from three of the nests and broods of seven, five and two chicks fledged from the remaining three boxes, with a mean of 6.33 chicks per nest. All *pulli* from the nest boxes were rung by Dean Rea in June (under licence). A female bird was also controlled, which was found to have been rung at Padley Gorge, Derbyshire as a *pullus* three years prior. All of the failed nests were at the nest building or early egg laying stage. Causes for the failures are unknown, and there was no evidence of mustelid predation for any species using the nest boxes in 2025.



Plate 3: One of the pied flycatcher pulli being ringed by Dean Rea of Sorby Breck Ringing Group

It was another record year for common redstart on the reserve, with four established territories and two successful breeding attempts recorded. Following on from the first successful nesting attempt in 2024, another pair of redstart were found using a nest box in the southern enclosure, which successfully reared six young. Another nest containing at least three young was found in a cavity on a sessile oak close to the grazing pond.

The other species that utilise nest boxes had a better year in 2025 than in 2024, with 73 blue tit nests, 35 great tit nests and six nuthatch nests recorded.

The first nightjar of the year was recorded churring on 6th May, the earliest ever recorded on the reserve. Churring was recorded throughout June, with two birds recorded churring on the 16th June. At least six roding woodcocks were recorded during the nocturnal surveys, an increase from the previous year. At least one tawny owl juvenile was recorded on the 16th June, proving successful breeding.

Most of the other species on the reserve remained stable from the previous year. There were some notable exceptions, with 17 chiffchaff territories recorded, the highest ever for the Site, and five tree pipit territories, a return to more normal numbers after the low of two in the previous year. Three garden warbler territories were recorded in 2025, the first since 2020.

One sparrowhawk nest was located on the reserve in 2025, but this attempt failed, likely due to predation (Andy Platts, pers.comm).

There was a notable incidental record of spotted flycatcher on 16th June, but no confirmed territories were established.

4.0 Discussion

The number of pied flycatcher territories, nesting attempts and successful nests all reached a record high for the reserve in 2025. The favoured areas on the reserve continue to be the woodland to the north of the heath and the wood pasture below Wharncliffe Crags. It was interesting that the territorial birds to the north of the heath all (apparently) failed to attract a female. No nesting attempts were made in the boxes in this area despite around 50% of the boxes being untaken. The former site “stronghold” for pied flycatchers in the wood pasture of the southern enclosure had no nests or territories recorded. It is unclear as to why this area is no longer favoured, but might be recolonised if numbers of pied flycatchers continue to increase.

The colonisation of the reserve by breeding redstart seems to be continuing, with record totals for territories and known nesting attempts. Reasons for this sudden colonisation are unclear, but the felling of the Corsican pines in the eastern woodland creating a more open wood structure might have contributed. The nest boxes are also older now, and there is evidence redstart prefer older, partly damaged boxes for breeding in (Dean Rea, pers.comm). As such it may be advantageous to leave damaged boxes for use by redstart in the future. There were singing males in at least two other locations around the reserve that were only recorded during one survey visit, as such not being counted as territory.

The total percentage of occupied boxes remained the same as in the previous year, though the success in the boxes was much higher. The increase was welcome after the extremely poor breeding success recorded in 2024. While the numbers of blue and great tits recovered somewhat, the yearly total for both were on the lower end of recent average numbers. The totals for 2025 suggest that great tits were more adversely effected by the 2024 breeding season than other species. Perhaps numbers will increase to more “normal” levels in future years, climate and food availability permitting.

The first nightjar on the reserve in 2025 arrived around two weeks earlier than previously recorded. Whether this is a genuine early record, or just happens to have been recorded due to the presence of observers in unknown. It was encouraging to have at least two males present in 2025, with one of the birds recorded churring in woodland close to the Dam Pond. Further birds may colonise when proposed ecotone management increases the overall size of suitable open habitat.

References

Gilbert, G., Gibbons, D.W. and Evans, J. (1998) *Bird Monitoring Methods*. RSPB, Sandy

Stanbury, A.J., Eaton, M.A., Aebischer, N.J., et al. (2021). *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 114: 747-750

Woodcock Survey Methodology Taken From:
<https://www.bto.org/sites/default/files/u203/downloads/Woodcock%20count%20analysis%20method.pdf>

Appendix A: List of all bird species recorded in 2025

Mallard
Mandarin
Pheasant
Kestrel
Sparrowhawk
Common Buzzard

Woodcock
Wood Pigeon
Nightjar
Carrion Crow
Raven
Jay
Tree Pipit

Willow Warbler
Chiffchaff
Blackcap
Garden Warbler
Common Redstart
Pied Flycatcher
Spotted Flycatcher

Blue Tit
Great Tit
Coal Tit
Long – tailed Tit

Wren
Robin
Nuthatch
Dunnock
Great-spotted Woodpecker
Goldcrest

Treecreeper

Blackbird

Song Thrush

Mistle Thrush

Chaffinch

Goldfinch

Lesser Redpoll

Siskin

Linnet

Crossbill