



**POCKLINGTON GREEN  
CORRIDORS**



# The Biodiversity of Pocklington



Review of the Pocklington Green Corridor  
surveys 2020 - 2023

**January 2024**

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# Contents

<b>Executive Summary .....</b>	<b>3</b>
<b>Introduction .....</b>	<b>4</b>
Project Background .....	4
Ecological Monitoring .....	4
<b>Bird Surveys.....</b>	<b>6</b>
Methods.....	6
<b>Bird Survey Results .....</b>	<b>7</b>
Species Richness.....	7
Avian Diversity.....	9
Protected and Declining Species.....	10
Additional Records and Notes .....	15
<b>Assessment of Avian Diversity .....</b>	<b>17</b>
<b>Mammal Sightings .....</b>	<b>18</b>
European Protected Species.....	19
Invasive Mammalian Species.....	19
<b>Amphibian Sightings.....</b>	<b>20</b>
<b>Pollinator Records.....</b>	<b>21</b>
Pollinator Survey Results.....	22
<b>Recommendations for Biodiversity Enhancements .....</b>	<b>24</b>
Woodland Enhancement .....	24
Farming Practices for Biodiversity.....	25
Public Usage and Enjoyment .....	25
<b>A Landscape Perspective .....</b>	<b>26</b>
East Riding Habitat Corridors.....	26
Local Nature Recovery Network .....	29
<b>Conclusions .....</b>	<b>30</b>
<b>Acknowledgements .....</b>	<b>31</b>
<b>References.....</b>	<b>32</b>
<b>Legislation and Species Protections.....</b>	<b>33</b>

## List of Figures

Figure 1. Digital OS map of Pocklington with corridors and transects for the bird and pollinator surveys. ....	5
Figure 2. Total species recorded in each corridor per survey season. ....	7
Figure 3. Percentage breakdown of individuals per species recorded in the north corridor. ....	8
Figure 4. Percentage breakdown of individuals per species recorded in the east corridor. ....	8
Figure 5. Percentage breakdown of individuals per species recorded in the south corridor. ....	9
Figure 6. The total number of bumblebee species recorded on each transect ('B-Line') during 2021. ....	22
Figure 7. An overview of major habitat types within East Riding. ....	26
Figure 8. Major habitat types within East Riding with arrows denoting the approximate location and direction of county-wide habitat corridors. ....	27
Figure 9. Location of the 'B-lines' superimposed onto the habitat map of East Riding. ....	28
Figure 10. The habitat corridors and 'B-lines' from the previous two figures overlaid onto the same map. ....	28

## List of Tables

Table 1. Shannon-Weiner diversity index of each wildlife corridor for the full 2020-23 period and for the winter and summer survey seasons over the same period. ....	9
Table 2. Summary of bird species recorded during all winter and summer surveys of each corridor. ....	11
Table 3. Summary of pollinator species recorded and the transects in which they were each observed. ....	23

## List of Photographs

Photograph 1. North facing view along the north corridor. ....	6
Photograph 2. Female Siskin in Pocklington Woods. Photo credit: Chris Train. ....	10
Photograph 3. Mallard with offspring seen at the lake at the Madhyamaka Kadampa Meditation Centre. ....	16
Photograph 4. Hedgehog seen during the early morning in Primrose Woods along the east corridor. ....	18
Photograph 5. Common Frogs and frog spawn at Kilnwick Percy golf course. ....	20
Photograph 6. Common Blue Butterfly near Pocklington Beck. ....	21
Photograph 7. English Bluebells in Pocklington Woods. ....	29

## Executive Summary

Three areas of high priority habitats (designated 'green corridors') were surveyed to assess their levels of biodiversity. The main focus of the project was to record bird species as well as occasional recording of mammals, amphibians and pollinating insects.

All three corridors are adjacent to either agricultural land, residential developments or both and the management of these areas will allow for the creation of biologically diverse green spaces that can be enjoyed by residents and local wildlife alike.

A total of 70 bird species were recorded across all three corridors from two independent visits each winter (November to February) and summer (May to August) from 2020-23. These include 38 species (54%) listed under (Schedule 1), the UK Biodiversity Action Plan (UK BAP) or those listed as a 'conservation concern' (BoCC 5).

The species diversity in each corridor is broadly correlated with their respective levels of woodland cover. Using an index to calculate species diversity, the north and east corridors were found to have a greater diversity of bird species.

Many species listed for their scientific and conservation importance (e.g. Bullfinch, Dunnock, Marsh Tit, Red Kite and Song Thrush) were recorded in at least one corridor indicating that areas within and surrounding Pocklington are locally important to the survival of these declining species.

Pollinator species were observed at a more consistent level in areas of relative habitat stability with those occupying arable field margins fluctuating highly with cutting timings.

Pocklington is geographically important for regional biodiversity as it sits at a crossroad between a large belt of natural habitat across the East Riding of Yorkshire, between sites designated for their conservation importance and nationwide projects focussed on nature recovery.

## Introduction

### Project Background

- 1.1 The Pocklington Green Corridors project was first imagined during the summer of 2020 with the intent of identifying the natural assets in the local landscape and providing a record of the avian assemblage present. The findings provide a baseline assessment which may be used to inform future ecological enhancements. Three major areas of semi-natural habitat were identified in and around Pocklington. These areas have been designated 'Green Corridors' in recognition of i) their importance to local biodiversity, ii) opportunities for future expansion/connectivity and iii) public access.
- 1.2 Since the project's inception the three Green Corridors have been officially designated in the Pocklington Neighbourhood Plan, where they are referred to as 'wildlife corridors', ensuring they will become material considerations in the planning process.
- 1.3 The extent of woodland habitat varies within each corridor; from high coverage in the north corridor (including ancient and replanted woodlands), to fragmented patches along the east corridor and mostly hedgerows and tree lines in the south corridor. These differences result in contrasting bird communities of within each corridor and thus will inevitably require differing approaches to conserve and enhance the biodiversity of each.
- 1.4 Birds are the focus of the project due to these diverse taxa being good indicators of habitat quality with species exhibiting myriad ecological lifestyles and trophic levels (levels within the food web) allowing for inferences to be made regarding the state of other taxonomic groups. Mammals and amphibians tend to be more allusive and requiring a much greater amount of survey time.

### Ecological Monitoring

- 1.5 To monitor the biodiversity within each corridor a series of ecological surveys were undertaken in order to determine appropriate management of the Green Corridors as well as quantifying the impacts of future ecological enhancements or of new developments.

- 1.6 All bird surveys were conducted along publicly accessible footways typically ranging from 1.5 - 2km in length. These surveys are used to determine the ecological value of these specific areas and whether the habitats on site are important to the local survival of ecologically significant and/or rare species.
- 1.7 Mammals and amphibians were recorded incidentally in areas of appropriate habitat along or in close proximity to the Green Corridors. Pollinator surveys (or 'BeeWalks') were conducted from March - August 2021. Their locations were chosen based on their proximity to grassland and agricultural land, both of which offer opportunities for improved management to enhance floral diversity.

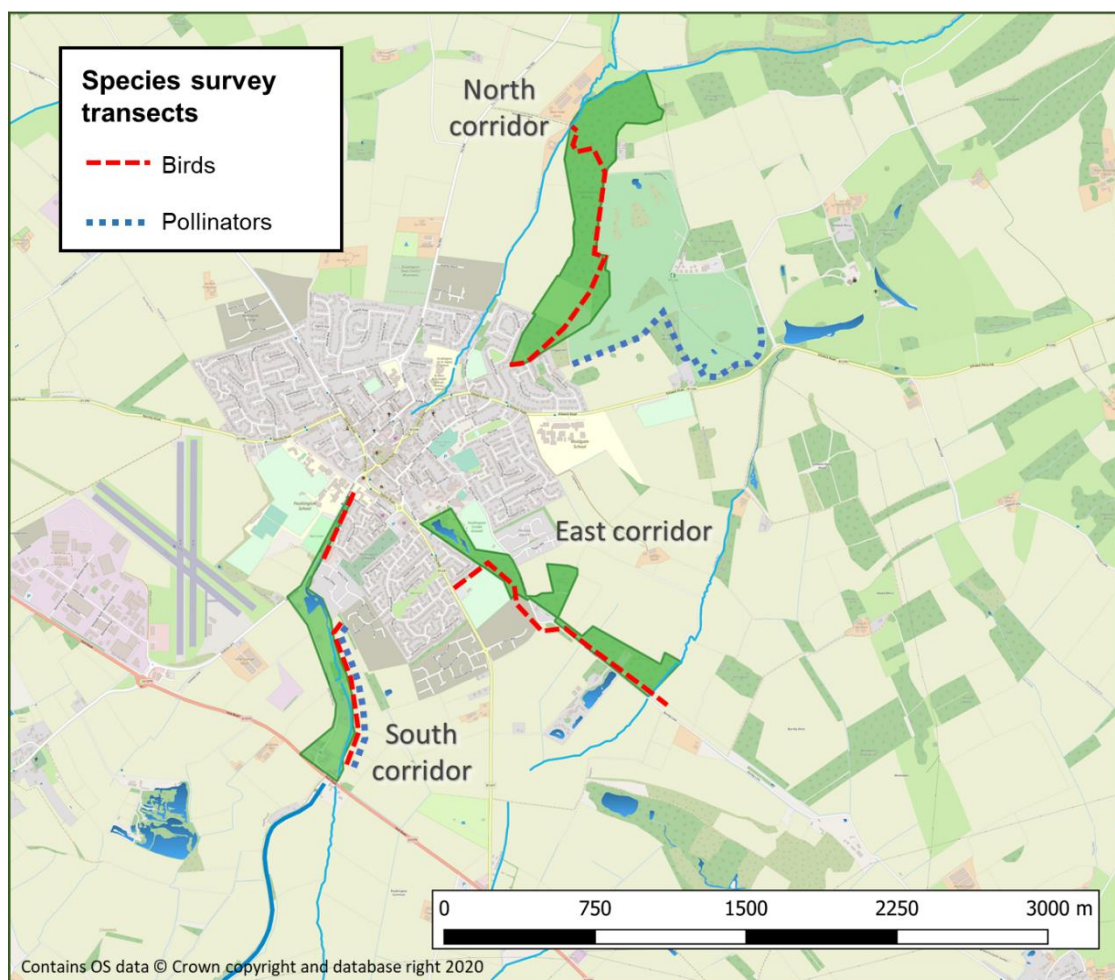


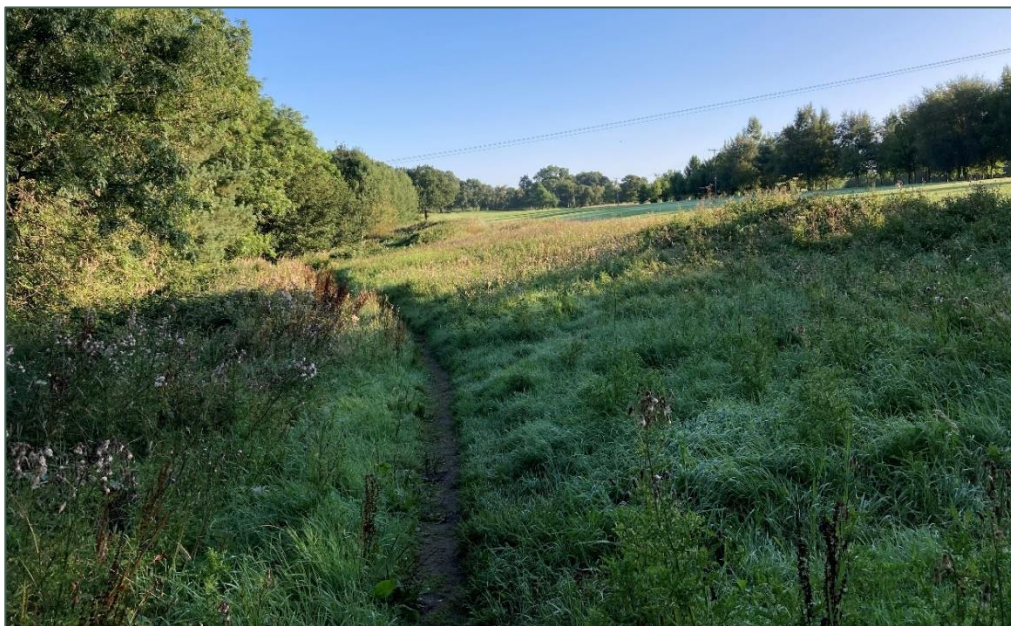
Figure 1. Digital Ordnance Survey (OS) map of Pocklington with corridors and transects for the bird and pollinator surveys shown as red dashed and blue dotted lines respectively. The three Green Corridors are coloured green with bodies of water, canals and streams highlighted in shades of blue.



## Bird Surveys

### Methods

- 2.1 The surveys followed the methodology from the BTO Breeding Bird Survey (see <https://www.bto.org/our-science/projects/bbs/taking-part/survey-methods/recording-birds>).
- 2.2 Surveys were conducted during the summer and winter seasons between 2020 and 2023 with two surveys carried out per season between November and February (winter) and May and August (summer). All surveys were conducted in optimal weather conditions (dry, with little/moderate wind) and within a few hours of sunrise as this tends to be the period of highest bird activity.
- 2.3 Both visual and aural observations of birds were recorded along each transect (divided into 200m sections) and up to 100m either side of the transect line (footway).
- 2.4 The records obtained in this will be submitted to the North & East Yorkshire Ecological Data Centre (NEYEDC) ensuring observations are included and considered during the planning process in future development applications.



*Photograph 1. North facing view along the north corridor with Pocklington Woods to the west and Kilnwick Percy golf course to the east.*

## Bird Survey Results

### Species Richness

- 3.1 A total of 70 unique species were recorded from two visits to each corridor during the winter and summer seasons from 2020-23. Over this period an average of 33 species were recorded in the north corridor, 31 in the east and 26 in the south.

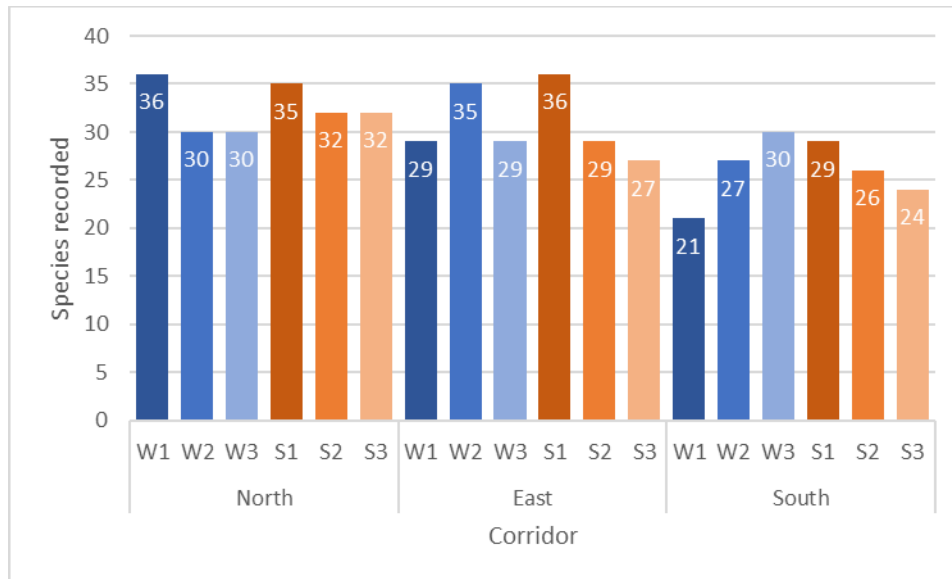


Figure 2. Total species recorded in each corridor per survey season. Blue bars denote winter surveys (W1-3) with orange bars representing summer surveys (S1-3).

- 3.2 The most common species recorded in every corridor was Woodpigeon. Other species observed during every survey included Blackbird, Blue Tit, Carrion Crow, Dunnock, Great Tit, Jackdaw, Robin and Wren. The Chiffchaff, a seasonal visitor, was also recorded during every summer survey undertaken.
- 3.3 The number of individuals per species recorded can be broken down to give an indication of the relative species abundance and how this may vary from one corridor to the next. The general bird assemblage of each is likely to differ due to various environmental factors such as the type of habitats present, the variability of each (landscapes that are more heterogenous tend to support more biodiversity) and the type of land-use that is in close proximity to each corridor.



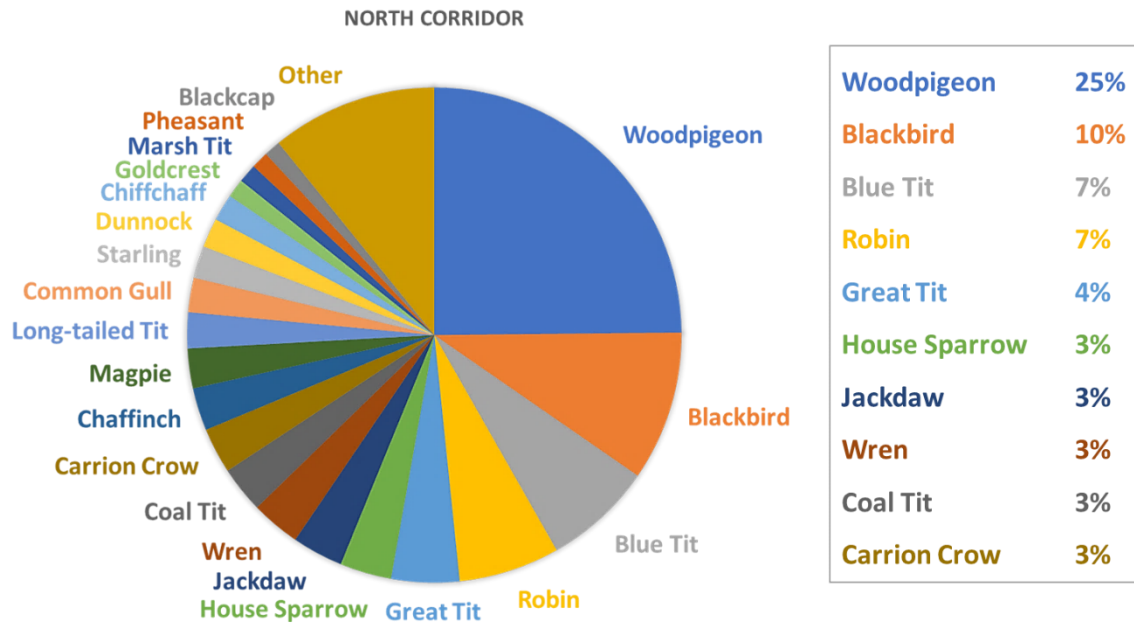


Figure 3. Percentage breakdown of individuals per species recorded in the north corridor. All species with fewer than 20 individuals recorded have been combined into the 'other' category. The proportion of the 10 most numerous species are shown to the right of the chart.

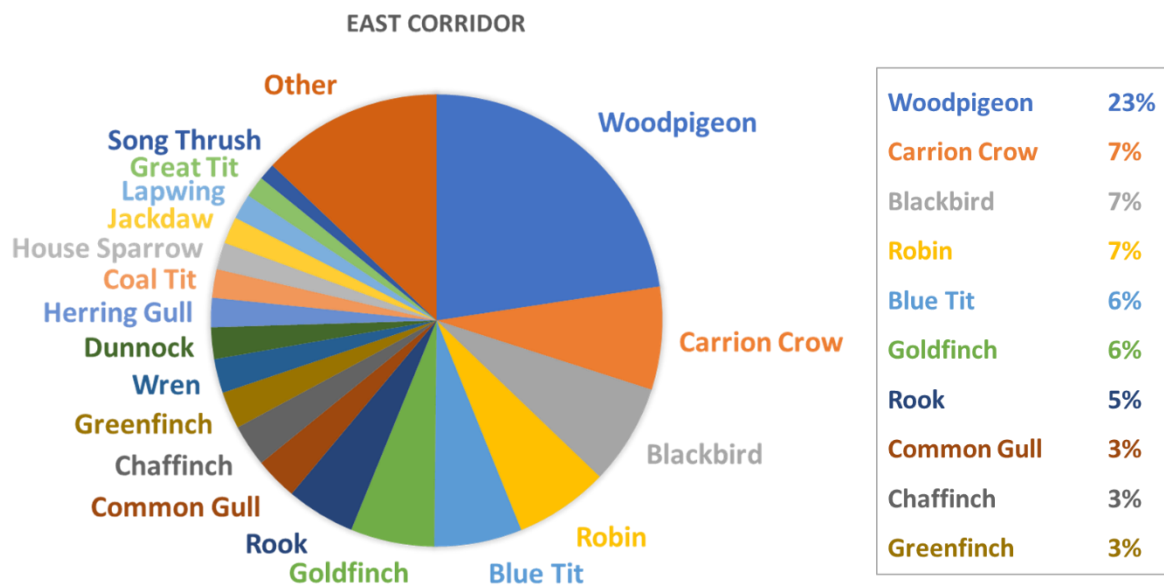


Figure 4. Percentage breakdown of individuals per species recorded in the east corridor. All species with fewer than 20 individuals recorded have been combined into the 'other' category. The proportion of the 10 most numerous species are shown to the right of the chart.

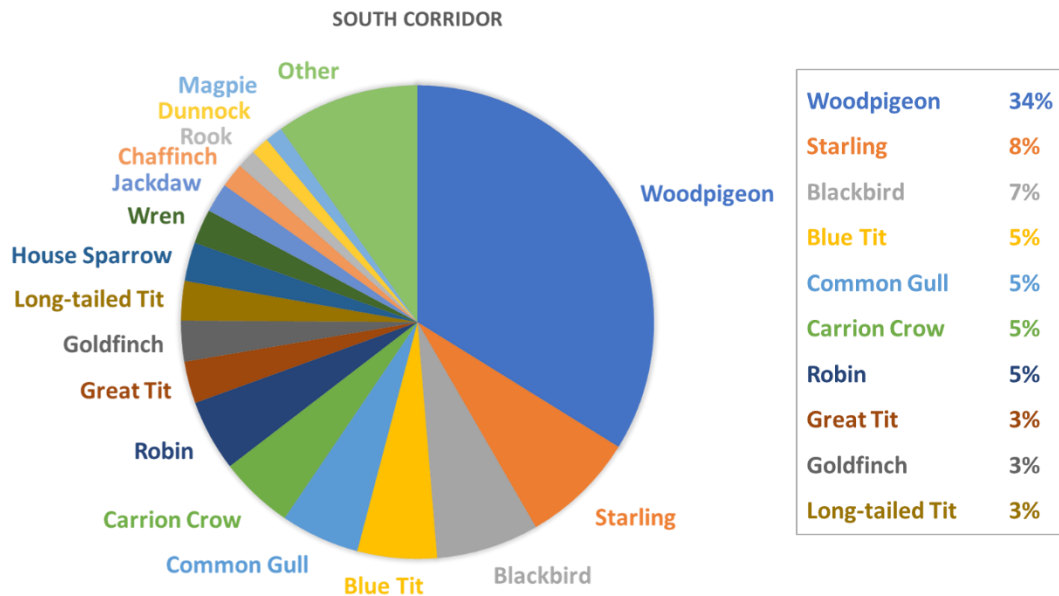


Figure 5. Percentage breakdown of individuals per species recorded in the south corridor. All species with fewer than 20 individuals recorded have been combined into the 'other' category. The proportion of the 10 most numerous species are shown to the right of the chart.

## Avian Diversity

- 3.4 The diversity of the avian communities within each corridor can be quantified using the Shannon-Wiener diversity index. This is a commonly used index in ecological studies to measure the biodiversity of species within a particular area or habitat. Values typically range from 0 - 5 depending on how many species are recorded (the maximum possible for all multicellular organisms on Earth would be ~16).

Table 1. Shannon-Weiner diversity index of each wildlife corridor for the full 2020-23 period and for the winter and summer survey seasons over the same period. The number of unique species per corridor are also given for all winter and summer seasons combined.

	North Corridor		East Corridor		South Corridor	
	Winter	Summer	Winter	Summer	Winter	Summer
Species	40	48	43	42	40	39
Diversity Index	2.863	3.036	3.003	2.913	2.599	2.553
	3.0205		3.076		2.684	

- 3.5 The north and east corridors were calculated as having a higher diversity score compared to the south corridor across the full project period. The diversity of birds in the east corridor produced a higher index than that of the north despite more species being recorded in the latter. This is reflective of the relative abundance of birds within locality as the assemblage of birds in the north corridor had a greater dominance of Woodpigeon (Figures 3 & 4).
- 3.6 The benefit of calculating the index for each corridor during the summer and winter months allows for the seasonal variation of species to be assessed which can guide future biodiversity enhancements that target seasonal migrants.

## Protected and Declining Species

- 4.1. 38 species (54% of the total recorded) were designated for their scientific and/or conservation priority in England. These designations include 'Schedule 1' (protected by special penalties), 'UK BAP' (listed in the UK's Biodiversity Action Plan) or included in 'BoCC 5' (Birds of Conservation Concern 5). The latter assesses the historical decline, recent trends in population and range, population size, localisation and international importance of each species, as well as its global and European threat status.



*Photograph 2. Female Siskin in Pocklington Woods. Photo credit: Chris Train*

Table 2. Summary of bird species recorded during all winter and summer surveys of each corridor. Species of higher protection and conservation importance are given in **bold** and those coloured **amber** and **red** are listed under those respective categories described in 'BoCC 5'.

Species	Schedule 1	UKBAP	North		East		South	
			Winter	Summer	Winter	Summer	Winter	Summer
<b>Barn Owl</b>	✓				✓			
Blackbird			✓	✓	✓	✓	✓	✓
Blackcap				✓		✓		✓
<b>Black-headed Gull</b>			✓		✓		✓	✓
Blue Tit			✓	✓	✓	✓	✓	✓
<b>Bullfinch</b>		✓	✓	✓	✓	✓	✓	✓
Buzzard			✓	✓	✓	✓	✓	
Carrion Crow			✓	✓	✓	✓	✓	✓
Chaffinch			✓	✓	✓	✓	✓	✓
Chiffchaff				✓		✓		✓
Coal Tit			✓	✓	✓	✓	✓	✓
Collared Dove			✓	✓		✓	✓	✓
<b>Common Gull</b>			✓	✓	✓	✓	✓	✓
<b>Common Redstart</b>				✓		✓		
Coot					✓			
<b>Corn Bunting</b>		✓					✓	
<b>Curlew</b>		✓				✓		
<b>Duncock</b>		✓	✓	✓	✓	✓	✓	✓
<b>Fieldfare</b>	✓		✓		✓		✓	
Garden Warbler				✓				✓
Goldcrest			✓	✓	✓	✓	✓	✓
Goldfinch			✓	✓	✓	✓	✓	✓
Great Spotted Woodpecker			✓	✓	✓	✓	✓	
Great Tit			✓	✓	✓	✓	✓	✓
Green Woodpecker				✓				
<b>Greenfinch</b>			✓	✓	✓	✓	✓	✓
Grey Heron					✓	✓		
<b>Grey Wagtail</b>							✓	
<b>Greylag Goose</b>	✓			✓	✓		✓	
<b>Herring Gull</b>		✓	✓		✓			
<b>House Martin</b>				✓		✓		✓
<b>House Sparrow</b>		✓	✓	✓	✓	✓	✓	✓
Jackdaw			✓	✓	✓	✓	✓	✓
Jay			✓	✓				
<b>Kestrel</b>			✓	✓				✓
<b>Lapwing</b>						✓		✓
<b>Linnet</b>		✓		✓				✓
Little Egret							✓	

Species	Schedule 1	UKBAP	North		East		South	
			Winter	Summer	Winter	Summer	Winter	Summer
Long-tailed Tit			✓	✓	✓	✓	✓	
Magpie			✓	✓	✓	✓	✓	✓
Mallard					✓	✓	✓	✓
Marsh Tit		✓	✓	✓	✓	✓		
Mistle Thrush			✓	✓	✓		✓	
Moorhen					✓		✓	✓
Nuthatch			✓	✓	✓	✓		✓
Pheasant			✓	✓	✓	✓	✓	✓
Pied Wagtail			✓	✓		✓		
Raven						✓	✓	
Red Kite	✓		✓	✓	✓			✓
Redwing	✓		✓		✓			
Reed Bunting				✓				
Robin			✓	✓	✓	✓	✓	✓
Rook					✓	✓	✓	✓
Siskin			✓					
Skylark						✓		✓
Song Thrush		✓	✓	✓	✓	✓	✓	✓
Sparrowhawk			✓	✓	✓		✓	
Spotted Flycatcher		✓		✓				
Starling		✓	✓	✓	✓		✓	✓
Stock Dove			✓		✓		✓	
Swallow				✓		✓		✓
Swift				✓		✓		
Tree Sparrow							✓	
Treecreeper			✓	✓	✓	✓	✓	✓
Whitethroat				✓				
Willow Warbler				✓				✓
Woodcock					✓			
Woodpigeon			✓	✓	✓	✓	✓	✓
Wren			✓	✓	✓	✓	✓	✓
Yellowhammer		✓				✓		

#### Schedule 1 species

- 4.1.1. Five 'Schedule 1' species were recorded during the project period – Barn Owl, Fieldfare, Greylag Goose, Red Kite and Redwing.

- 4.1.2. A **Barn Owl** (*Tyto alba*) was sighted in early February 2021 along Burnby Lane in the east corridor. Publicly available records show Barn Owls have been recorded in the fields between the south and east corridors, as well as the wider landscape surrounding Pocklington. This is indicative of a potentially healthy field vole population, their most common prey type.
- 4.1.3. **Fieldfare** (*Turdus pilaris*) were recorded feeding in the north and east corridors and are a good indicator of habitat with well-developed hedgerows and woodlands. Though not of conservation concern in mainland Europe, their breeding and winter populations and ranges in the UK have all been declining in recent years. Retention and enhancement of existing hedgerows in the south corridor would likely see Fieldfare numbers increase in this area.
- 4.1.4. **Greylag Geese** (*Anser anser*) were observed flying over the north and east corridors, likely between surrounding waterbodies. The once separated populations of England and Scotland have become more cohesive and their numbers across the UK have been increasing since the 1980s with substantial increases within Yorkshire and Humberside areas. The greylag goose are also amber listed due to internationally important numbers of migrant Icelandic birds wintering in Scotland.
- 4.1.5. A **Red Kite** (*Milvus milvus*) were sighted during summer and winter at the most northern transect in Pocklington Woods (north corridor) as well as the Burnby Lane (east corridor). The open habitat adjacent to large woodland provides ideal foraging habitat for Red Kite. Pocklington Woods and Kilnwick Percy golf course along the north represents highly suitable habitat that appear to support multiple individuals year-round.
- 4.1.6. **Redwing** (*Turdus iliacus*) were often seen at woodland edges along the north and east corridors (and along Pocklington Beck in the south corridor by volunteers). Farmland with hedges, bushy heaths and gardens provide ideal foraging grounds for Redwing which likely explains their high numbers at the border of Pocklington woods and Kilnwick Percy golf course.

#### UK BAP species

- 4.2.1. 12 species listed in the UK's Biodiversity Action Plan were recorded during survey visits: Bullfinch, Corn Bunting, Curlew, Dunnock, Herring Gull, House Sparrow, Linnet, Marsh Tit, Song Thrush, Spotted Flycatcher, Starling and Yellowhammer.



- 4.2.2. **Bullfinches** (*Pyrrhula pyrrhula*) were recorded in marginal habitats at the top of Chapel Hill and Pocklington Beck Burnby Lane (north and south corridors respectively). The Bullfinch population has declined by 36% since 1967 largely due to habitat loss but have been increasing in the Yorkshire and Humberside region since 2003. Hedgerows are of vital importance to this species as they prefer to forage on land connected to small mixed woodland.
- 4.2.3. **Dunnocks** (*Prunella modularis*) were recorded in every corridor with hedgerows providing ideal feeding and breeding habitat for this species year-round. Its heightened conservation concern is a result of a significant decline in numbers during the 1970s and 1980s though population trends have stabilised both nationally and within Yorkshire in recent years. The habitat around Pocklington would appear to support a healthy local population of the species.
- 4.2.4. **Herring Gulls** (*Larus argentatus*) were seen feeding on the football grounds adjacent to Primrose Woods (east corridor). Herring Gulls have experienced breeding and winter population declines in the UK in recent years though this is thought to be due to population fluctuations across larger temporal scales.
- 4.2.5. **House Sparrows** (*Paser domesticus*) are a common sight around the residential developments of Pocklington and were recorded in every corridor. National populations have declined by 30% yet their numbers in Yorkshire and Humberside have been consistently above the national average for the last few decades.
- 4.2.6. **Linnet** (*Linaria cannabina*) was recorded along Pocklington Beck (south corridor). This is the typically habitat of the species including woodland edges, edges of cultivation, fallow fields and scrub. Despite the large UK and European populations there have been widespread decreases in the late 20th century due to the intensification of agriculture, loss of hedgerows, and the eradication of fallow and weedy fields.
- 4.2.7. **Marsh Tits** (*Poecile palustris*) were spotted year-round in Pocklington Woods and Burnby Lane the north and east corridors. A 71% reduction in the UK population since 1967 is thought to be driven by low annual survival with reduced structural and floristic diversity of woodland reducing the availability of suitable breeding territories. The shrub layer both within and bordering Pocklington Woods likely provides such ideal breeding territory for this species.

- 4.2.8. **Song Thrushes** (*Turdus philomelos*) were heard in every corridor at least once. This species has been 'downgraded' red to amber in 'BOCC 5' as the species is currently showing a general increase nationwide, although population levels remain relatively low. Retention of foraging and nesting habitat, including hedgerows and mature trees will ensure that their population does not decline further.
- 4.2.9. **Starlings** (*Sturnus vulgaris*) are common among the residential developments around Pocklington with individuals recorded in the north and south corridors (Chapel Hill and West Green, respectively). Starling numbers have declined by 66% in Britain since the mid-1970s with little explanation, though a possible decline in soil invertebrates during dry summers brought on by land-use changes may be to blame.

### Additional Records and Notes

- 4.3. The following observations were made outside of the dedicated survey times or by residents of Pocklington. These are not included in the above but are nevertheless notable sightings for the local area.
- 4.4. Following a summer survey of the east corridor, a resident allowed the surveyor within the grounds of Willow Waters Fishery. The lakes within this area support many species of waterfowl that are not visible from Burnby lane. These include Moorhen, Mute Swan and Mallard, all of which were confirmed to be breeding within the grounds of the Fishery. Passerine species including Goldfinch, Chaffinch (accompanied by fledglings), Blackbird and Swallow were also seen foraging within the area along with a Red Kite seen flying over nearby farmland.
- 4.5. Upon completion of north corridor surveys the surveyors return route took them onto Woodhouse Lane which often yield sightings of Chaffinch, Common Whitethroat, Dunnock, Linnet, Pied Wagtail, Raven, Skylark, Swallow, Swift, Tree Sparrow and Wren.
- 4.6. Several members of the 'Greener Pocklington' group observed a Black Redstart (Schedule 1, amber listed) within residential gardens near the south corridor. Despite an estimated 100 breeding pairs, Black Redstart can be seen at various locations across the UK and can turn up almost anywhere, more often around the coast during winter months.

- 4.7. A leucistic Grey Heron was observed on a number of occasions at the lake near the Kilnwick Percy golf course. Leucism is a genetic disorder resulting in the partial or complete loss of melanin pigment in the feathers of birds (though it can affect other groups of taxa as well). It's differentiated from albinism by the coloration of eye pigment, which is normal with leucistic individuals but pink with albino individuals.
- 4.8. Several local residents observed a Little Egret around Pocklington including the fields of the gliding club (southwest of the town). This species is a recent colonist to the British Isles and usually found along the east coast of England though they are becoming increasingly common inland and northwards. The distinguishing feature between a Little Egret and a leucistic Grey Heron is the black beak of the former with the latter having a paler yellow beak.
- 4.9. The south and east corridors were occasionally walked at night to record any owl activity present. Tawny owls (both male and females) were heard calling along Burnby Lane (east corridor) as well as the small, wooded area along Pocklington Beck (south corridor). Tawny Owls are the UK's most common breeding owl species and are very widespread and common within wooded habitats.



*Photograph 3. A female Mallard with offspring seen at the lake at the Madhyamaka Kadampa Meditation Centre.*

## Assessment of Avian Diversity

- 5.1 It should be noted that despite repeated surveying of each corridor the data presented here is a mere snapshot of the local avian biodiversity. Assessment of population trends cannot be accurately determined from 12 visits to each site over the three years.
- 5.2 The north and east corridors contain a high amount of semi-natural habitat compared to the wider agricultural landscape with their higher diversity index scores reflecting this. Both corridors have large or fragmented patches of woodland that are able to support a greater diversity of bird species.
- 5.3 A higher diversity score was calculated for the east corridor (3.076) and is somewhat surprising given the greater extent of Pocklington Woods along the north corridor, yielding a score of 3.02 by comparison. This minor difference is explained by a higher number of species recorded along the east corridor at lower presence levels and had more fortuitous species observations. For example, the farmland between woodland patches allowed for the occasional foraging opportunity for Grey Heron, Woodcock and Curlew as well as farmland specialists Lapwing, Skylark and Yellowhammer (Table 2).
- 5.4 Pocklington's built environment supports a local population of House Sparrow and Starling (both red listed) as they were consistently recorded in every corridor near residential dwellings. Pocklington is also regularly visited by thrush species in the winter (Song Thrush, Mistle Thrush, Redwing and Fieldfare, Table 2) which feed on the fruits of common hedgerow shrub species, such as Hawthorn. Regular summer visitors include Blackcap and Chiffchaff which were observed in every summer survey of all three corridors.
- 5.5 The most common bird of prey species recorded were Buzzard and Red Kite (with 14 and 9 individuals recorded respectively across all surveys) and Sparrowhawk, Kestrel and Barn Owl were all observed at comparatively lower presence levels. Every bird of prey species were observed at least once within the east corridor but were more numerous in the north corridor leading to a higher average species richness (2 species per survey) compared to an average of 1-2 species in the east corridor and 0-1 in the south corridor.



## Mammal Sightings

- 6.1 There was no dedicated survey time for mammals but a point survey in Pocklington Woods in the summer of 2021 revealed the area to be home to **Bank Voles**. Several mammal species were also recorded during the bird surveys undertaken, these ranged from common species such as Grey Squirrel and Rabbit to more elusive species including Red Fox, Hedgehog and Roe Deer.



*Photograph 4. Hedgehog seen during the early morning in Primrose Woods along the east corridor.*

- 6.2 **Hedgehogs** were observed on numerous occasions in Primrose Woods (east corridor) usually during the early hours. Hedgehogs are crepuscular and while their numbers in England have been declining in the countryside, due to more intensive agricultural practises, woodland edges, hedgerows and suburban gardens have become important habitats for the species.
- 6.3 **Hares** were observed in the arable fields near Woodhouse lane (adjacent to the north corridor). Crop diversity is important to Hares because their nutritional requirements vary according to the season and so they move between crop types. A reduction in the variety of crops have contributed to their decline over the last century.

## European Protected Species

- 6.4 The transects through the south and east corridors were occasionally walked at night to record any owl activity. During one of these night walks a small number of **bats** (assumed to be a pipistrelle species) were seen foraging near the Cypress trees along Pocklington Beck.
- 6.5 Pipistrelle bat species (i.e. Common Pipistrelle and Soprano Pipistrelle) are the most common bat species which share our urban environment. They are more adaptable in their roosting preferences and so have begun to share our urban and rural environment. Confirmed sightings of these two species were recorded in the Linden estate by two local residents using a bat detector (Common Pipistrelle echolocate at 45kHz with Soprano Pipistrelle calling at 55kHz).
- 6.6 A few roadkill victims were also observed throughout the year. These were noted as an indicator of possible sites for species-specific mitigation measures. Most of the road fatalities were hedgehogs with the majority seen along Burnby Lane.
- 6.7 In addition, a **Water Vole** casualty was observed in April 2021 along Kilnwick Road. Water Vole have experienced the most dramatic population decline of all British mammals, falling by 90% in the 1980s and 1990s due, in large part, to the spread of American Mink.

## Invasive Mammalian Species

- 6.8 A data search of mammalian records of the area returned a record of **American Mink** in Pocklington Canal Head (SSSI). Furthermore, a photograph was posted on social media during the first half of 2021 showed an American Mink (initially thought to be an Otter) swimming in Pocklington Canal with two offspring. American Mink are a threat to native British wildlife, particularly Water Vole, so the revelation of at least one reproducing individual in Pocklington Canal is alarming and should be addressed to ensure they do not spread to other waterbodies or waterways.



## Amphibian Sightings

- 7.1 No dedicated survey time was devoted to recording amphibians although a desktop search into previous records of Great Crested Newts was conducted but yielded not recorded presence within 2km of Pocklington.
- 7.2 Several **Smooth Newts** were found inhabiting the garden pond of a local resident, highlighting the importance of including such water sources in garden design.
- 7.3 **Common Frog** and **Common Toad** were observed breeding in the ponds in the south of the Kilnwick Percy golf course. Large clusters of frog spawn were noted in these ponds in late March 2021. These ponds appear to provide locally important breeding habitat for these species as well as several areas for refugia.



*Photograph 5. Common Frogs breeding near a pond (left). Frog spawn on the edge of a pond dominated with reeds (right). Both photos were taken at Kilnwick Percy golf course.*

## Pollinator Records

- 8.1 In the summer of 2021, pollinator surveys were carried out to record the number of bumblebees and butterfly species along transects within or near the Green Corridors (*Figure 1*). These areas were chosen due to their proximity to grassland habitats and agricultural land, both of which offer opportunities for improved management to enhance wildflower and associated pollinator diversity. See <https://beewalk.org.uk/> for more details. Butterfly species were also recorded along the Pocklington 'B-lines' during the Big Butterfly Count of 2021 which ran from Friday 16th July to Sunday 8th August.
- 8.2 Pollinator surveys were conducted from March to August with one following Pocklington Beck (transects 3 to 6 of the south corridor bird survey) and the other beginning at Chapel Hill and following the public footpath along the Kilnwick Percy Golf course (Kilnwick Percy Wildlife Trail). These surveys were also open to members of the public as they include more widely recognised bumblebee and butterfly species.
- 8.3 Pollinator abundance, in general, tend to be more variable across the year and from one location to the next. Nectar sources tend to vary considerably throughout the year and can be severely impacted by management activities. More regular surveys from March to September would provide a more accurate depiction of pollinator abundance across the year.



*Photograph 6. Common Blue Butterfly near Pocklington Beck.*

## Pollinator Survey Results

- 8.4 A total of eight bumblebee species and eight butterfly species were recorded between March and August 2021. The arable fields adjacent to Pocklington Beck returned less consistent results but a greater total of species during favourable weather conditions. The vegetation here was subject to several cuttings over the course of the surveying months.

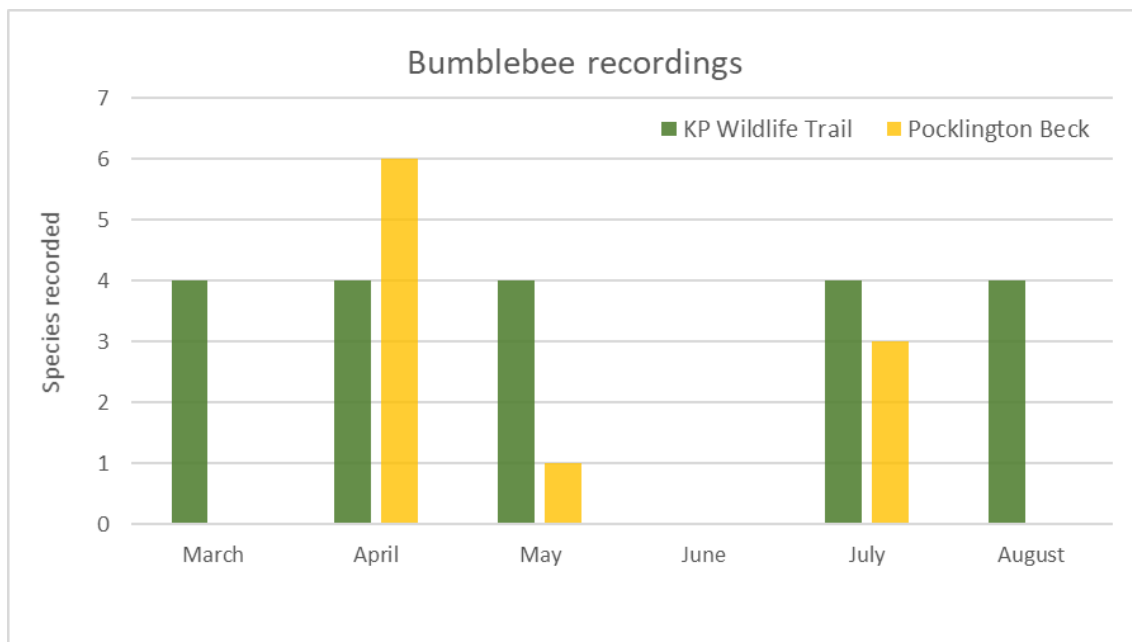







Figure 6. The total number of bumblebee species recorded on each transect ('B-Line') during 2021. No surveys were conducted in the month of June due to time constraints.

- 8.5 The transect that follows the Kilnwick Percy Wildlife Trail was found to produce more consistent numbers of species during survey visits. The areas of grassland which had been left to grow in the south and west of Kilnwick Percy golf course were often frequented by numerous species of pollinators.
- 8.6 The arable fields adjacent to Pocklington Beck returned less consistent results but a greater total of species during favourable weather conditions. The vegetation here was subject to several cuttings over the course of the surveying months. Following these cuttings, few if any species would be seen during surveys which that particular month until the vegetation had regrown.

*Table 3. Summary of pollinator species recorded and the transects in which they were each observed.*

Species		KP Wildlife Trail	Pocklington Beck
Buff-tailed Bumblebee		✓	✓
Common Carder Bee		✓	✓
Early Bumblebee		✓	
Field Cuckoo Bumblebee			✓
Garden Bumblebee			✓
Red-tailed Bumblebee		✓	✓
Tree Bumblebee		✓	
White-tailed Bumblebee		✓	✓
Brimstone Butterfly		✓	✓
Common Blue Butterfly			✓
Gatekeeper Butterfly		✓	
Green-veined White Butterfly			✓
Orange-tip Butterfly		✓	
Peacock Butterfly		✓	✓
Red Admiral Butterfly		✓	✓
Small Tortoiseshell Butterfly		✓	✓

## Recommendations for Biodiversity Enhancements

### Woodland Enhancement

- 9.1. Tree planting, while providing great habitat for birds and mammals, should not replace existing open habitat (e.g., grassland) as these also present valuable habitats for numerous species. A preferred technique is to **create a mosaic of habitats that support a far greater diversity of species than any single habitat**. This method allows for the creation of ecologically productive edge habitat that is beneficial to many species, particularly birds.
- 9.2. **A consistent, unbroken, multi-layered habitat** ensures woodland retains a high ecological value. Retaining clusters of over-story trees will help provide continuous habitat for birds. Maintaining an unbroken canopy provides value to forest-dwelling birds along with groundcover, bushes and under-story trees.
- 9.3. **Deadwood and brush piles should be left in place**. An average of 40 species in a given areas of forest use dead trees and logs for perches and cover, as well as an important source of insects that are prey items for many birds.
- 9.4. **Plant a variety of berry, seed and nut producing trees**. Native species like Hawthorn, Wild Cherry, Beech and Oak are of a high biodiversity value as they provide foraging opportunities for fruit and insect eating bird species and create safe spaces for birds to hide from predators.
- 9.5. **Minimise the negative impacts of edge habitat and accentuate the positive**. Woodland edge habitat is where a forest transitions into grassland and can be very ecologically productive. Locations within Kilnwick Percy golf course is one of the best local examples of a productive edge habitat. Abrupt habitat transitions can favour introduced predators, such as domestic cats, and impact local bird populations. Such negative effects can be minimised by creating a transition zone by planting trees sparsely on the forest edge and encouraging the growth of thickets of fruit-bearing native shrubs.

## Farming Practices for Biodiversity

### Arable land

- 9.6.1. **Create grass margins around arable fields to increase food and nesting habitat for species** such as Yellowhammer. If you can maintain flower-rich margins, then this will be better for wildlife. A strip of unfertilised land where vegetation (such as ruderal plants and wildflowers) has been allowed to regenerate naturally is recommended through the middle of large fields.

### Hedgerow and field margin management

- 9.6.2. **Retain areas of scrub as both nesting cover and a food source**. Cut ditch-side and field margin vegetation in autumn/winter on a two to three-year rotation. **Plant up gaps in hedgerows with native, thorny species which will provide nesting cover**.
- 9.6.3. **Provide hedgerows of differing sizes around areas of farmland**. This will cater to a variety of farmland bird species. For example, Yellowhammers favour hedgerows less than 2 metres tall. Hedgerows should be trimmed only once every 2 – 3 years and never in the same year.

## Public Usage and Enjoyment

- 9.7. The **north corridor** is frequented by residents and could be improved with a focus on **public education to highlight Pocklington's natural and cultural heritage**. The proximity to recent development along The Mile and the existing public access to Kilnwick Percy wildlife trail would ensure these efforts have maximum impact on residents. New signage has recently been installed in Primrose Woods, thus a similar effort for Pocklington Woods along with the installation of bird and bat boxes would enhance the area for both wildlife and people alike.



## A Landscape Perspective

### East Riding Habitat Corridors

- 10.1. No habitat exists in isolation, the Green Corridors are supported by adjacent and proximal habitats as well as natural connections (typically hedgerows and tree lines). Pocklington's Green Corridors exist in an agricultural dominated landscape with fragmented natural habitats.
- 10.2. A more holistic view of the habitats within East Riding would provide greater context of Pocklington's significance in the biodiversity recovery of the county. Enhanced habitat connectivity would allow mobile species of Pocklington to have greater access to the wider environment for food, shelter, and breeding opportunities and vice-versa.

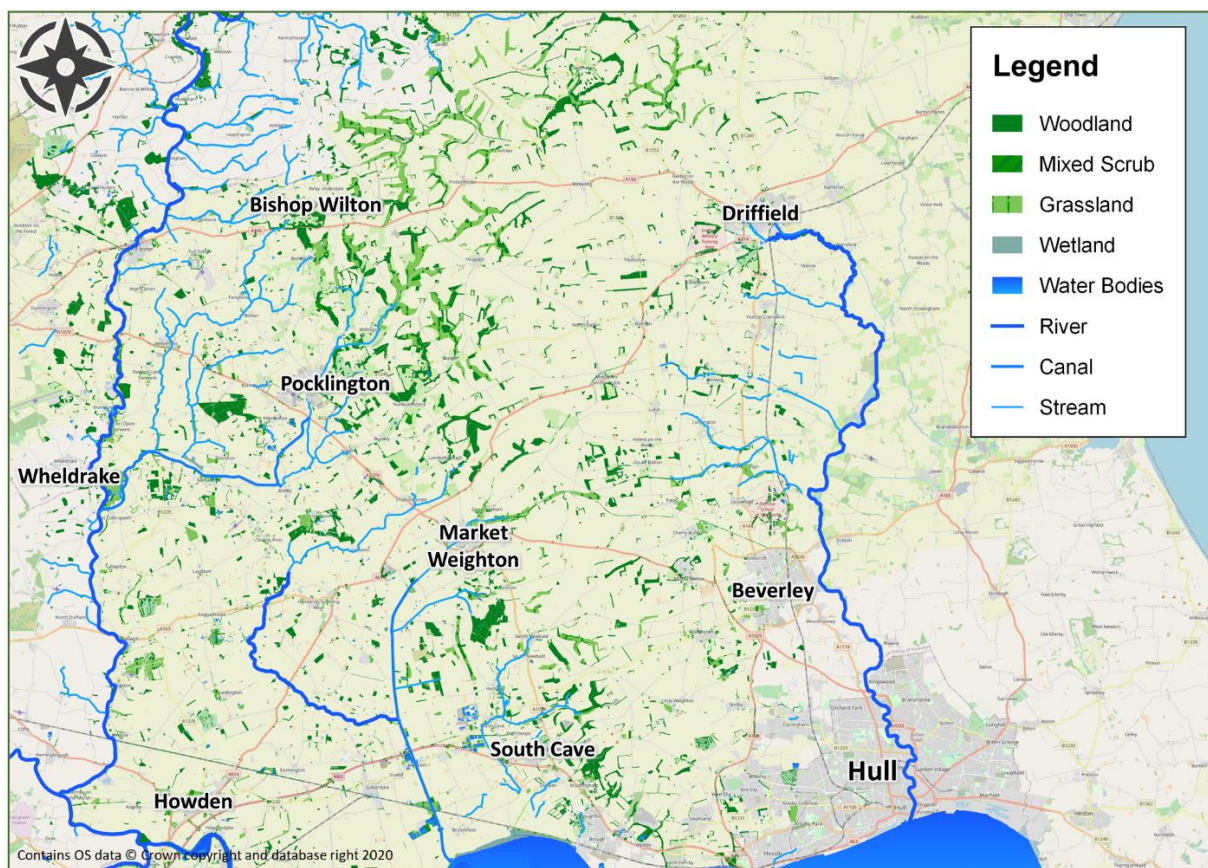


Figure 7. An overview of major habitat types within East Riding. Map generated through digital mapping software (QGIS) focussing on the area between the River Derwent and the River Hull.

- 10.3. A major habitat corridor spans 35km across East Riding from the Humber Estuary to the Howardian Hills and incorporates the Pocklington Green Corridors. The north-south orientation of this corridor is significant as it allows species to alter their distribution ranges as environmental conditions change in the face of human-induced climate change.

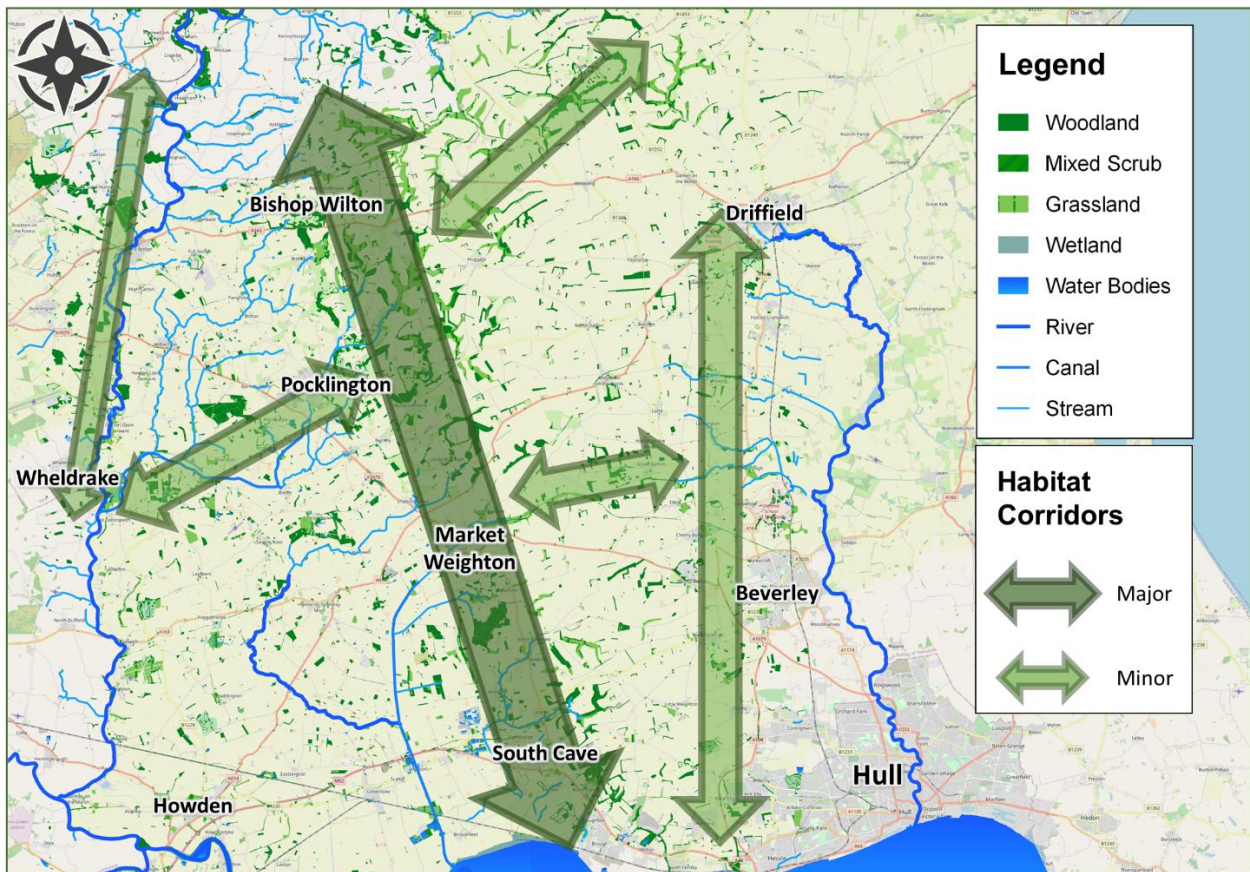


Figure 8. Major habitat types within East Riding with arrows denoting the approximate location and direction of county-wide habitat corridors.

- 10.4. The conjunction of the habitat corridors overlaid with the 'B-line' signifies the geographical importance of Pocklington for nature recovery at the county level. Therefore, Pocklington and the surrounding area can be considered a geographical 'hub' for regional biodiversity.



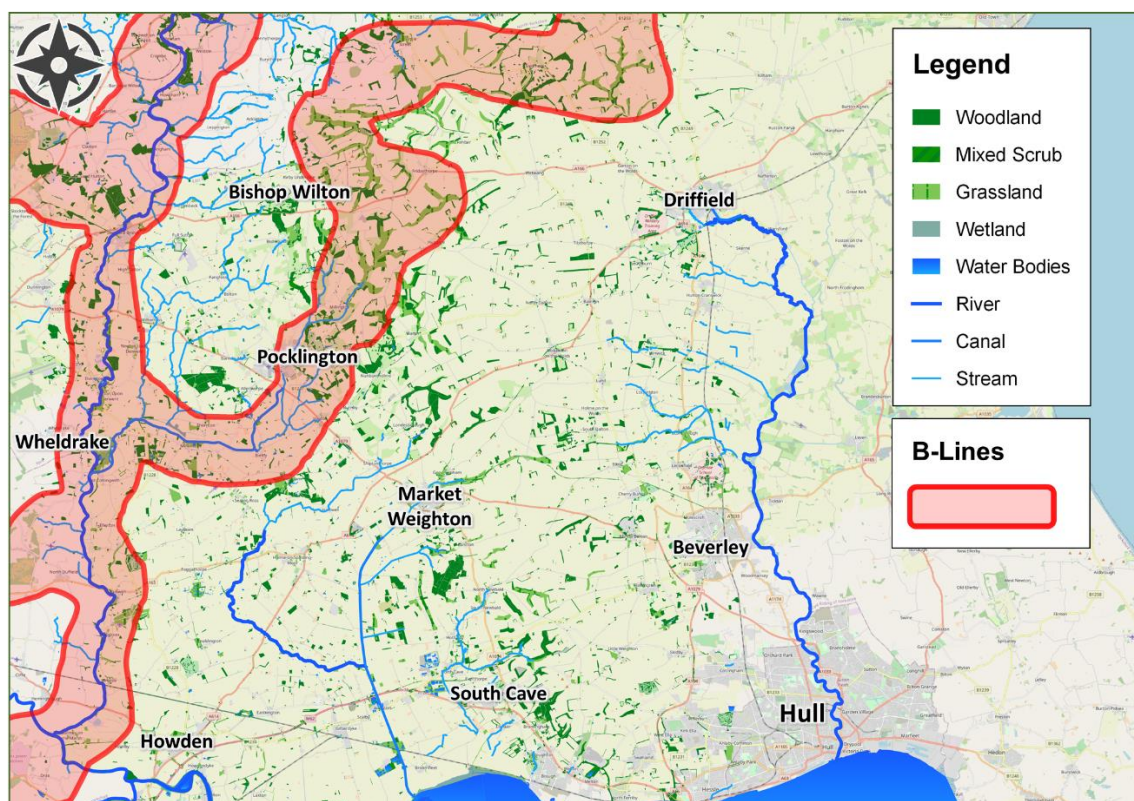


Figure 9. Location of the 'B-lines' superimposed onto the habitat map of East Riding.

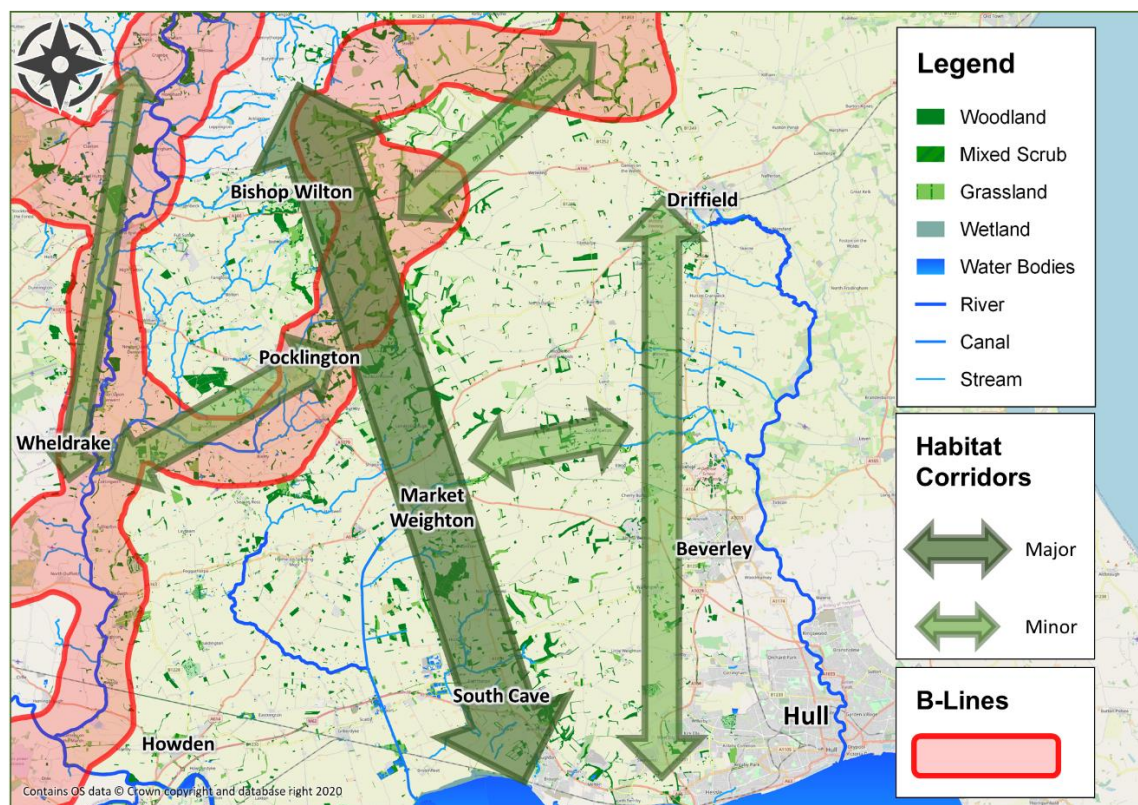


Figure 10. The habitat corridors and 'B-lines' from the previous two figures overlaid onto the same map.



## Local Nature Recovery Network

10.5.1. The East Riding of Yorkshire Council is developing a Local Nature Recovery Strategy (LNRS) which is a requirement under the Environment Act 2021. The LNRS will use similar principles to those shown above and will i) agree priorities for nature's recovery, ii) map the most valuable existing areas for nature and iii) map specific proposals for creating and improving habitat for nature and wider environmental goals.

10.5.2. It's anticipated the strategy will be completed by early 2025 for more information see <https://www.eastriding.gov.uk/environment/sustainable-environment/nature-conservation-and-wildlife/local-nature-recovery-strategy/>



*Photograph 7. English Bluebells in Pocklington Woods.*

## Conclusions

- 11.1. The three 'green corridors' consist of large areas of priority habitat that stretch from the urban spaces of Pocklington into the surrounding countryside. With proper management these regions will become healthier ecologically and support a greater diversity of birds and other wildlife.
- 11.2. Over half of the birds recorded during surveys are listed for their conservation and/or scientific importance with Bullfinch, Dunnock, Fieldfare, Greenfinch, House Sparrow, Marsh Tit, Song Thrush and Starling recorded at least one in every corridor.
- 11.3. The diversity of the avian community in each corridor is broadly reflective of their respective levels of tree cover (*Table 1*). The north corridor can be considered a local 'hotspot' of avian diversity being largely made up of Pocklington Woods (an ancient replanted woodland) and bordered by the Kilnwick Percy golf course. This juxtaposition of multiple habitat types supports a mosaic of habitat types across the landscape and will support a greater biodiversity than any single habitat type.
- 11.4. Pollinator records indicate that species may be more likely to exhibit periodic 'boom and bust' populations at the fringes of agricultural land where areas of relative habitat stability (pasture and modified grassland) yield more consistent year-round observations of butterflies and bumblebees.
- 11.5. Several common mammal species were also observed across all corridors. Protected mammal species, particularly bat species, are also present, locally important and could increase in number with more roosting provisions. These, as well as hedgehogs could be focal species to encourage community involvement in local conservation efforts.
- 11.6. In the context of East Riding, Pocklington is situated at an important juncture of landscape scale habitat corridors and biodiversity opportunity areas signifying the town could be a regional 'hub' of biodiversity within the county.

## Acknowledgements

I would like to thank the members of Pocklington Town Council and the Neighbourhood Plan Steering Group for their support and commitment to advancing a shared vision of a greener and more ecologically sustainable Pocklington.

Thanks also go out to Roly Cronshaw, Lynne Barratt and Jon and Sheila Dukes who facilitated collaboration with Pocklington Town Council and identified key contacts to help advance the project since its inception in 2020.

Finally, I would like to thank the committee members of the 'Greener Pocklington' group who regularly advertise the project to residents and continue their successful tree planting efforts in areas both within and adjacent to the green corridors and other locations within a 5 miles radius of the town.



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## Legislation and Species Protections

All wild birds are protected under Part 1 of the Wildlife and Countryside Act 1981. Some bird species are further protected, while breeding, under Schedule 1 of the Wildlife and Countryside Act. Schedule 1 species are protected against deliberate or reckless disturbance at, on or near an 'active' nest.

The UK is required by law to maintain a list of species of principle importance for biodiversity and conservation. These are species that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world's total population. They mainly derive from lists originally drawn up for the UK Biodiversity Action Plan (UK BAP). Section 40 of The Natural Environment and Rural Communities (NERC) Act 2006 places a legal obligation on public bodies in England to have regard to particular organisms and habitats which are of the greatest conservation importance whilst carrying out their functions.

All protected and priority species are material considerations for individual planning decisions under the National Planning Policy Framework (NPPF), which places responsibility on Local Planning Authorities to aim to conserve and enhance biodiversity and to encourage biodiversity in and around developments.

The Environment Act, which became law in 2021, allows the UK to enshrine better environmental protection into law following the UK's departure from the EU. It provides the Government with powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction.

