

# Tyrone - Cavan Interconnector

Appendix 7.6  
Breeding Bird Report (2019)

SONI

June 2019

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## Table of Contents

1.	Introduction .....	1
1.1	Background.....	1
1.1.1	Previous Work .....	1
1.2	Site Description.....	1
1.3	Survey Aims .....	1
2.	Methods .....	2
2.1	Limitations.....	2
2.2	Survey Personnel Experience .....	2
3.	Results .....	2
3.1	Data Request.....	2
3.2	Breeding Bird Survey.....	2
4.	Impacts .....	5
5.	Mitigation Measures .....	5
6.	Residual Impact Assessment.....	6
7.	Conclusion .....	6
8.	References.....	6

## Tables

Table 1.1: Details of previous work. ....	1
Table 3.1: Records received from CEDaR. ....	2
Table 3.2: Breeding bird survey results. ....	3
Table 3.3: Summary of numbers of bird numbers in relation to tower locations. ....	5

# 1. Introduction

## 1.1 Background

AECOM was commissioned by SONI to conduct an updated assessment of breeding birds along the Tyrone – Cavan Interconnector.

This document describes the results of the updated assessment to determine any changes to the status of breeding birds along the Tyrone - Cavan Interconnector and any additional impacts.

There has been no change to the legislation regarding breeding birds since the Consolidated ES (2013). Information on the relevant legislation and policy pertaining to breeding birds is presented in the Consolidated ES (2013).

## 1.2 Previous Work

An overview of previous survey effort for breeding birds along the Tyrone - Cavan Interconnector is presented in Table 1.1. Full details can be viewed in Section 10.3.3 of the Consolidated ES (2013).

**Table 1.1: Details of previous work.**

Survey Details	Date	Survey Notes
Surveys for breeding birds along part of the route were carried out in 2005 and 2006 with the rest of the route covered in 2008. The substation site was surveyed in July 2006.	2005, 2006 and 2008	A total of 50 species were recorded. No breeding bird 'hotspots' were noted, rather, birds were well-dispersed throughout the wider countryside. However, an area of wet grassland (H808400) around 200 m to the east of the proposed overhead line route had grasshopper and sedge warblers, and reed bunting and was considered locally notable.
A single survey of the proposed route was carried out over eleven days.	June 2011	A total of 43 species were recorded. Eleven species recorded in earlier surveys were not observed during the present survey, whilst four species were recorded in 2011 that were not previously recorded.
One survey carried out in May and one survey in July along public roads close to the Tyrone - Cavan Interconnector	May – July 2012	A total of 42 species were recorded. No new species were recorded, whilst 11 species that had previously been recorded were not encountered in 2012.

Desk study data consulted for the Consolidated ES (2013) did not identify any barn owl sites within 1.5 km of the centreline of the overhead line. No evidence of barn owl has ever been found despite searches being made within suitable nesting sites.

## 1.3 Site Description

Habitats, and their potential to host breeding birds, have not significantly changed since previous surveys as presented in the Consolidated ES (2013). Details are presented in Chapter 7 of the 2019 Addendum.

## 1.4 Survey Aims

The survey aims are unchanged from the Consolidated ES (2013).

## 2. Methods

The methods remain unchanged from the Consolidated ES (2013).

Records received from CEDaR in 2019 were searched for birds.

A breeding bird survey was conducted over eight days from 9 May 2019 to 22 May 2019. The entire route, access tracks and other associated areas were surveyed as far as access allowed. Surveys were carried out between the hours of 05:30 and 11:00.

Suitable locations for barn owl breeding e.g. old barns, mature trees with cavities and other structures close to the Tyrone - Cavan Interconnector were checked for nests and breeding activity.

### 2.1 Limitations

Survey land access was possible to approximately 70% of the Tyrone - Cavan Interconnector study area. In areas where access was not achieved, surveys were carried out from the nearest adjacent vantage point using binoculars, where necessary. This is more than surveys in 2011 (47%), but less than the 2012 surveys (97%). Limitations of the methods used remain unchanged from the Consolidated ES (2013).

### 2.2 Survey Personnel Experience

The breeding bird survey was carried out by Dr Paul Lynas (Principal Ecologist). Surveyor experience is provided in Chapter 7 (Ecology) Appendix 7.2 of the 2019 Addendum.

## 3. Results

### 3.1 Data Request

CEDaR provided 12 records from within the last 20 years, representing five species of birds. Full details are provided in Table 3.1.

**Table 3.1: Records received from CEDaR.**

Common name	Scientific name	Date	Protection	Notes
Kingfisher	<i>Alcedo atthis</i>	Four records between 17/06/2000 and 07/01/2015	Birds Directive Annex 1, The Wildlife (Northern Ireland) Order 1985 (Schedule 1, Part I).	Associated with the River Blackwater and Callan River.
Little egret	<i>Egretta garzetta</i>	Two records between 25/01/2016 and 12/02/2017	Birds Directive Annex 1	Recorded at River Callan
Long-eared owl	<i>Asio otus</i>	One record on 20/08/2015	The Wildlife (Northern Ireland) Order 1985 (Schedule 1, Part I)	No further information
Spotted flycatcher	<i>Muscicapa striata</i>	One record on 30/06/2013	NI Priority Species	No further information
Yellowhammer	<i>Emberiza citrinella</i>	Three records between 1999 and 2001	NI Priority Species	No further information

### 3.2 Breeding Bird Survey

During the breeding bird survey, a total of 1,969 bird registrations were made of 45 species. As some of these registrations were pairs and family groups, a total of 2,737 individual birds were recorded. Of

these, 41 were noted displaying breeding behaviour. Thirteen species of conservation concern for breeding in Ireland, as listed in Colhoun and Cummins (2013), were recorded in relation to the Tyrone - Cavan Interconnector. Eleven of these species were recorded displaying breeding behaviours, of these eleven, one species is Red listed and ten are Amber listed. All other breeding individuals identified during the survey are Green listed (Colhoun and Cummins, 2013). Nine species recorded are listed as Priority Species in Northern Ireland, eight of which were recorded displaying breeding behaviour (NIEA, 2010). Four Priority Species are also Amber listed species.

Kingfisher and stock dove, both Amber listed species were noted along the route but were not seen to be displaying breeding behaviour. Grasshopper warbler was the only Priority Species not recorded displaying breeding behaviour. Even though breeding behaviours were not noted, these species may exploit suitable breeding habitat within the Tyrone - Cavan Interconnector or close by.

No evidence of barn owls was observed. Barn owl are considered in more detail in Appendix 7.1 of the 2019 Addendum.

Details of the species observed are presented in Table 3.2 along with their breeding status, Priority Species status and conservation status in Ireland (NIEA, 2010; Colhoun and Cummins, 2013).

**Table 3.2: Breeding bird survey results.**

Common name	Scientific name	NI Priority Species	Irish conservation status	Non-breeding individuals	Breeding pairs	Total
Blackbird	<i>Turdus merula</i>		Green	86	86	172
Blackcap	<i>Sylvia atricapilla</i>		Green	0	56	56
Blue tit	<i>Parus caeruleus</i>		Green	41	5	46
Bullfinch	<i>Pyrrhula pyrrhula</i>	Yes	Green	5	1	6
Buzzard	<i>Buteo buteo</i>		Green	2	4	6
Chaffinch	<i>Fringilla coelebs</i>		Green	125	89	214
Chiffchaff	<i>Phylloscopus collybita</i>		Green	0	49	49
Coal tit	<i>Parus ater</i>		Green	16	2	18
Collared dove	<i>Streptopelia decaocto</i>		Green	1	6	7
Dunnoek	<i>Prunella modularis</i>		Green	9	73	82
Feral pigeon*	<i>Columba livia</i>		Green	0	1	1
Goldcrest	<i>Regulus regulus</i>		Amber	26	7	33
Goldfinch	<i>Carduelis carduelis</i>		Green	26	6	32
Grasshopper warbler	<i>Locustella naevia</i>	Yes	Green	0	2	2
Great tit	<i>Parus major</i>		Green	15	6	21
Grey heron	<i>Ardea cinerea</i>		Green	1	0	1
Hooded crow	<i>Corvus cornix</i>		Green	42	4	46
House martin	<i>Delichon urbicum</i>		Amber	13	3	16
House sparrow	<i>Passer domesticus</i>	Yes	Amber	17	19	36
Jackdaw	<i>Corvus monedula</i>		Green	66	22	88
Kingfisher*	<i>Alcedo atthis</i>		Amber	1	0	1
Lesser redpoll	<i>Carduelis cabaret</i>	Yes	Green	6	1	7
Linnet	<i>Carduelis cannabina</i>	Yes	Amber	2	2	4
Magpie	<i>Pica pica</i>		Green	47	4	51
Mallard	<i>Anas platyrhynchos</i>		Green	3	1	4

Common name	Scientific name	NI Priority Species	Irish conservation status	Non-breeding individuals	Breeding pairs	Total
Meadow pipit	<i>Anthus pratensis</i>		Red	7	3	10
Mistle thrush	<i>Turdus viscivorus</i>		Amber	7	6	13
Moorhen	<i>Gallinula chloropus</i>		Green	0	1	1
Pheasant	<i>Phasianus colchicus</i>		Green	15	2	17
Pied wagtail	<i>Motacilla alba</i>		Green	15	0	15
Raven	<i>Corvus corax</i>		Green	1	1	2
Reed bunting	<i>Emberiza schoeniclus</i>	Yes	Green	4	1	5
Robin	<i>Erithacus rubecula</i>		Amber	26	108	134
Rook	<i>Corvus frugilegus</i>		Green	27	4	31
Sedge warbler	<i>Acrocephalus schoenobaenus</i>		Green	1	8	9
Song thrush	<i>Turdus philomelos</i>	Yes	Green	6	39	45
Starling	<i>Sturnus vulgaris</i>	Yes	Amber	23	44	67
Stock dove*	<i>Columba oenas</i>		Amber	1	0	1
Stonechat*	<i>Saxicola torquatus</i>		Amber	0	1	1
Swallow	<i>Hirundo rustica</i>		Amber	50	8	58
Tree sparrow	<i>Passer montanus</i>	Yes	Amber	1	4	5
Whitethroat	<i>Sylvia communis</i>		Green	1	2	3
Willow warbler	<i>Phylloscopus trochilus</i>		Green	2	83	85
Woodpigeon	<i>Columba palumbus</i>		Green	53	90	143
Wren	<i>Troglodytes troglodytes</i>		Green	17	308	325
<b>Total count</b>				807	1162	1969
<b>Total species</b>				39	41	45

\* Species not previously recorded.

Bird communities were generally comparable to the three previous survey periods between 2005-2012, as were densities of likely breeding populations for most species. Fifteen species had previously been recorded that were not present in the 2019 survey including several Red listed (e.g. curlew and lapwing) and several Amber listed species (e.g. sparrowhawk and kestrel). Four species were identified in the 2019 survey that had not previously been recorded along the route, this included three Amber listed species; kingfisher, stock dove and stonechat. The presence of these additional species on this occasion poses no additional implications, as these species are widespread across similar habitats. This takes the total number of species ever noted along the Tyrone - Cavan Interconnector to 57 species.

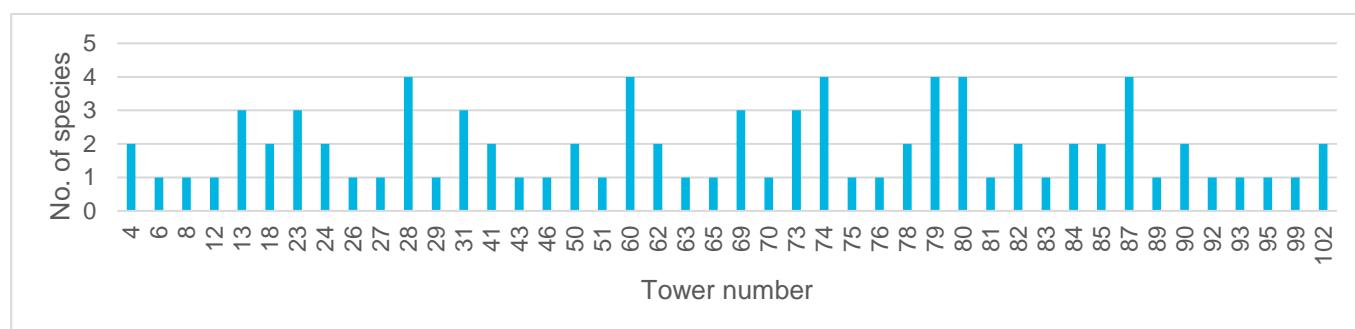
An analysis was carried out on the number of birds and number of bird species recorded within distance buffers of tower locations. A summary of the results is provided in Table 3.3. The majority of birds occurred outwith 100 m of any proposed tower location, and outwith the zone of influence of likely effects.

shows the number of species within 25 m of tower locations. Only tower locations where birds were recorded within 25 m are shown.



**Table 3.3: Summary of bird numbers in relation to proposed tower locations.**

Buffer distance from tower	Number of towers where birds occurred within the buffer	Number of individual birds	Number of species within buffer	Number of species per individual towers		
				Max.	Min.	Mean
Between 25 m	44	89	18	4	1	2
25 – 100 m	88	527	33	14	2	6
Within 100 m	88	616	33	15	1	5
100 - 200 m	94	1020	38	16	1	7

**Graph 3.1: Number of species within 25 m of tower locations.**

Between 2005-2008, 50 species (comprising 989 individuals) were noted, during the June survey in 2011, 43 species (comprising 599 individuals) were noted, and between May and July 2012, 42 species (comprising 1,381 individuals) were noted. Therefore, surveys conducted in May 2019 recorded similar numbers of species and individual birds to previous surveys. Total number of birds recorded during each survey year is presented in Appendix A of this Report.

## 4. Impacts

Although four species were identified in the 2019 survey that had not previously been recorded along the Tyrone - Cavan Interconnector, including kingfisher, stock dove and stonechat (Amber listed species); this is not considered to pose any additional constraints to the Tyrone - Cavan Interconnector. The presence of these additional species on this occasion poses no additional implications, as these species are widespread across similar habitats, including habitats present in the wider environment. Kingfisher and stock dove were not identified as breeding, whilst one breeding pair of stonechat were noted. Optimal kingfisher habitat is restricted to along the Blackwater River, therefore no impacts to potentially breeding kingfisher are predicted. Stonechat have broad requirements for breeding habitat, e.g. rough grassland and scattered scrub, and ample such habitat is present in the wider environment in the vicinity of the Tyrone - Cavan Interconnector. Furthermore, the stonechat were noted along the access track to proposed T1 at substation site, more than 200 m from T1.

The presence of additional species is not considered to have additional impacts, and the impacts identified in the Consolidated ES (2013) remain unchanged as a result of these updated surveys.

## 5. Mitigation Measures

Mitigation measures as identified in the Consolidated ES (2013) remain unchanged as a result of these updated surveys.

## 6. Residual Impact Assessment

The residual impacts identified in the Consolidated ES (2013) remain unchanged as a result of these updated surveys.

## 7. Conclusion

Species composition and numbers of breeding individuals varied slightly between survey years however the 2019 results are largely comparable to previous records. The species identified generally represent those commonly found in habitats of a mainly agricultural nature, such as those found along the Tyrone - Cavan Interconnector. It is considered that there are no changes in impacts from the previous report and mitigation methods as previously outlined remain appropriate and robust.

## 8. References

Bibby, C., N. Burgess, D. Hill and Mustoe, S. (2000) Bird Census Techniques. 2nd edition. Academic Press.

Colhoun, K. and Cummins, S (2013) Birds of Conservation Concern in Ireland 2014–2019. Irish Birds, 9(4), pp.523-544.

DAERA Planning and Environment (2017) Wild Birds. Advice for planning officers and applicants seeking planning permission for land which may impact on wild birds. DAERA, Belfast.

EC Directive 2009/147/EC on the Conservation of Wild Birds (The Birds Directive).

NIEA (2010) Northern Ireland Priority species list. DOE, Belfast.

SONI (2013) Tyrone – Cavan Interconnector Consolidated Environmental Statement.

## Appendix A Bird totals by year

Common name	Scientific name	Total number birds			
		2005-08	2011	2012	2019
Blackbird	<i>Turdus merula</i>	73	62	115	172
Blackcap	<i>Sylvia atricapilla</i>	4	14	63	56
Blue tit	<i>Parus caeruleus</i>	29	9	34	46
Bullfinch	<i>Pyrrhula pyrrhula</i>	12	12	20	6
Buzzard	<i>Buteo buteo</i>	5	8	7	6
Chaffinch	<i>Fringilla coelebs</i>	57	56	152	214
Chiffchaff	<i>Phylloscopus collybita</i>	18	18	25	49
Coal tit	<i>Parus ater</i>	15	9	15	18
Collared dove	<i>Streptopelia decaocto</i>	1	1	4	7
Cuckoo	<i>Cuculus canorus</i>	-	-	1	-
Curlew	<i>Numenius arquata</i>	3	-	1	-
Dunnock	<i>Prunella modularis</i>	57	10	28	82
Feral pigeon	<i>Columba livia</i>	-	-	-	1
Goldcrest	<i>Regulus regulus</i>	9	-	-	33
Goldfinch	<i>Carduelis carduelis</i>	10	9	28	32
Grasshopper warbler	<i>Locustella naevia</i>	1	-	-	2
Great tit	<i>Parus major</i>	33	19	46	21
Greenfinch	<i>Chloris chloris</i>	13	2	21	-
Grey heron	<i>Ardea cinerea</i>	1	-	-	1
Grey wagtail	<i>Motacilla cinerea</i>	2	-	-	-
Hooded crow	<i>Corvus cornix</i>	7	11	17	46
House martin	<i>Delichon urbicum</i>	-	2	10	16
House sparrow	<i>Passer domesticus</i>	NC	3	44	36
Jackdaw	<i>Corvus monedula</i>	NC	18	24	88
Kestrel	<i>Falco tinnunculus</i>	1	-	1	-
Kingfisher	<i>Alcedo atthis</i>	-	-	-	1
Lapwing	<i>Vanellus vanellus</i>	2	-	-	-
Lesser black-backed gull	<i>Larus fuscus</i>	-	1	-	-
Lesser redpoll	<i>Carduelis cabaret</i>	4	2	5	7
Linnet	<i>Carduelis cannabina</i>	12	3	7	4
Long-tailed tit	<i>Aegithalos caudatus</i>	2	1	1	-
Magpie	<i>Pica pica</i>	NC	NC	NC	51
Mallard	<i>Anas platyrhynchos</i>	1	3	-	4
Meadow pipit	<i>Anthus pratensis</i>	9	-	5	10
Mistle thrush	<i>Turdus viscivorus</i>	2	2	3	13
Moorhen	<i>Gallinula chloropus</i>	1	-	2	1
Pheasant	<i>Phasianus colchicus</i>	3	7	3	17
Pied wagtail	<i>Motacilla alba</i>	3	1	5	15

Common name	Scientific name	Total number birds			
		2005-08	2011	2012	2019
Raven	<i>Corvus corax</i>	2	-	-	2
Reed bunting	<i>Emberiza schoeniclus</i>	13	4	4	5
Robin	<i>Erithacus rubecula</i>	179	29	154	134
Rook	<i>Corvus frugilegus</i>	17	NC	NC	31
Sand martin	<i>Riparia riparia</i>	-	2	-	-
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	2	4	2	9
Skylark	<i>Alauda arvensis</i>	2	1	-	-
Snipe	<i>Gallinago gallinago</i>	1	-	-	-
Song thrush	<i>Turdus philomelos</i>	34	14	58	45
Sparrowhawk	<i>Accipiter nisus</i>	3	1	1	-
Spotted flycatcher	<i>Muscicapa striata</i>	2	1	2	-
Starling	<i>Sturnus vulgaris</i>	NC	9	35	67
Stock dove	<i>Columba oenas</i>	-	-	-	1
Stonechat	<i>Saxicola torquatus</i>	-	-	-	1
Swallow	<i>Hirundo rustica</i>	NC	28	63	58
Swift	<i>Apus apus</i>	-	-	2	-
Tree sparrow	<i>Passer montanus</i>	9	1	4	5
Treecreeper	<i>Certhia familiaris</i>	-	1	1	-
Whitethroat	<i>Sylvia communis</i>	4	1	3	3
Willow warbler	<i>Phylloscopus trochilus</i>	107	76	112	85
Woodpigeon	<i>Columba palumbus</i>	35	53	70	143
Wren	<i>Troglodytes troglodytes</i>	189	91	183	325
<b>Total count</b>		989	599	1381	1969
<b>Total species</b>		50	43	42	45

NC = not counted, - = no count.