

# Late Nesting Bird Project 2018 Report

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#### Introduction

The Late Nesting Bird Project was initiated in 2017 and is designed to collect information about Yellowhammer and other bird species that may be nesting in hedgerows during the months of August and September. Through previous work, including Bird Atlases and BirdWatch Ireland's Countryside Bird Survey, there is now good knowledge of the distribution of breeding bird species in Ireland. However, there is limited information available on the breeding ecology of many species in Ireland, in particular the duration of the breeding season. Data gathered in the UK and anecdotal evidence suggests that several species, particularly Yellowhammer, continue to nest in hedgerows through late summer. The Late Nesting Bird Project will help fill in this gap in our knowledge.

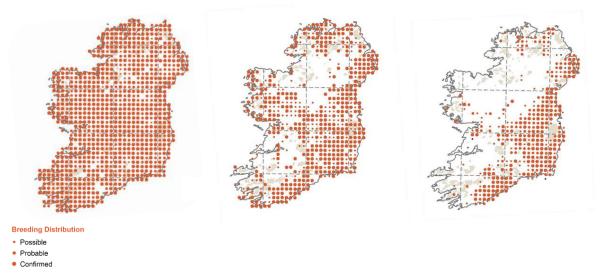


Figure 1: Breeding distribution of Yellowhammer from 1968-72 Altas (left) 1988-91 Atlas (middle) and 2007-11 Atlas (right)

Using data from the various Bird Atlases, *Figure 1* illustrates the decline in breeding distribution of Yellowhammer in Ireland since 1970 when it was a ubiquitous breeding species in the country. Due to declines in the breeding range and population the Yellowhammer is now Red-listed in the Birds of Conservation Concern in Ireland<sup>1</sup>.

The 2017 Survey was very successful in collecting nesting data on Yellowhammers through a specially designed recording portal on the National Biodiversity Data Centre (NBDC) website. Breeding evidence for late nesting Goldfinch, Greenfinch and Blackbird, as well as other non-hedgerow late nesters, was also collected. The NBDC continue to be essential partners in the Late Nesting Bird Project and the recording portal was reconfigured to include all bird species that potentially nest in hedgerows. The 2018 Survey continued utilising the dedicated support of volunteers and local BirdWatch Ireland Branches to carry out fieldwork. In addition, a professional licensed nest searcher was contracted to collect additional information on nesting Yellowhammer ecology.

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<sup>&</sup>lt;sup>1</sup> Colhoun K. & Cummins, S. 2013 Birds of Conservation Concern in Ireland 2014-19. Irish Birds 9:523-544

#### **Raising Awareness**

To raise awareness about the Late Nesting Survey and to appeal for records several methods were used. Three workshops were arranged with the help of local BirdWatch Ireland Branches. These were held in Carlow, Laois and Louth and were widely promoted through social media including BirdWatch Ireland's Facebook page and Twitter accounts and a link to the survey was prominently featured on the home page of the BirdWatch Ireland website. In addition, the survey was promoted in the August edition of the BirdWatch Ireland free ezine *E-Wings* which has 25,000 subscribers. The project coordinator was interviewed about the project on Dundalk FM and Community Radio Castlebar in late July. A workshop was held during Heritage Week at Dún na Rí Forest Park with the support of both the Cavan and Monaghan Branches of BirdWatch Ireland. Throughout the course of the survey many appeals for records were put out on various platforms that were shared widely with several Facebook posts reaching in excess of 2,000 people and over 19,000 impressions being made on Twitter.



Figure 2: General appeal for records on Facebook.

	DisdeMetter is GOLd-Maller in	Impressions	6,468
	BirdWatch Ireland is seeking Late	Total engagements	169
	Ireland. There are 3 free workshops coming up where volunteers can learn more. More info here https://www.birdwatchireland.ie/OurWork/ResearchSurveys/LateNestingBirdSurvey/tabid/1608/Default.aspx Thanks to @HeritageHubIRE 4 funding this & @BioDataCentre for online portal.	Likes	5
		Media engagements	3:
		Link clicks	3
		Retweets	2
		Detail expands	2
		Profile clicks	0
		Replies	

Figure 3: Promotion of the Survey on Twitter.

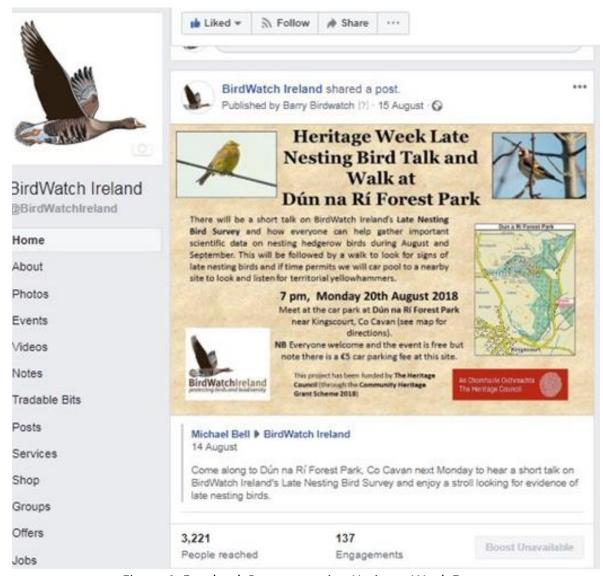


Figure 4: Facebook Post promoting Heritage Week Event.

## Workshops

The first workshop was held in Tinryland Parish Hall, Co Carlow on 30th July and there was an excellent turnout of 30 participants. A slide presentation (see Annex 3) was presented giving background about the survey and informing the audience how to contribute records. A short walk outdoors followed allowing everyone to get views of singing Yellowhammers. The second workshop was held at the home of Peter Phillips near Ardee, Co Louth on 31st July. Peter's family were most gracious hosts and everyone enjoyed the hospitality and relaxed atmosphere. A short walk to some nearby cereal fields followed. The third workshop was held outdoors at Ballyfin, Co Laois on 2nd August and everyone had great views of singing Yellowhammers while learning about the survey. Finally, a Heritage Week talk and walk was held at Dún na Rí Forest Park near Kingscourt on 20th August. Although no Yellowhammers were seen, over 20 participants enjoyed a pleasant walk through woodland and learning about Yellowhammers, the survey and the need for this type of work to support conservation efforts. None of these events could have taken part without the support of the Carlow, Louth, Laois, Cavan and Monaghan Branches of BirdWatch Ireland.



Figure 5: Some of the audience at Tinryland Parish Hall, Co Carlow.



Figure 6: Searching for Yellowhammers during Co Louth workshop



Figure 7: Meeting up at Ballyfin, Co Laois



Figure 8: Attendees at Heritage Week Event at Dún na Rí Forest Park, Co Cavan.

## **Survey Methods**

Participants were asked to note breeding evidence of hedgerow nesting birds during the months of August and September and to record their observations using a specially designed recording portal on the National Biodiversity Data Centre website. As well as location and species, recorders were asked to note breeding evidence (to reduce disturbance to breeding birds recorders were instructed not to actively search for nests) under one of the following categories:

- -Singing male
- -Visiting probable nest site
- -Agitated behaviour
- -Carrying nest material/nest building
- -Nest containing eggs
- -Adult carrying faecal sac or food
- -Nest with young seen or heard
- -Recently fledged young



Figure 9: Recording portal on NBDC website.

## **Survey Results**

A total of 339 records were received from across 20 counties. Thirteen records of non-hedgerow nesting species such as Swallow and House Martin were received and these are excluded from the following results. House Sparrows typically nest in crevices in buildings, though will occasionally nest in hedgerows, so they are included. Field work was carried out by a professional nest searcher in July, August and September in Offaly but his 42 July records were excluded from this analysis to tie in with main survey period of August and September. Figure 10 shows a concentration of records in Leinster (and principally in the three counties where workshops took place – Laois, Louth and Carlow and also Offaly were field work was carried out by the professional nest searcher).

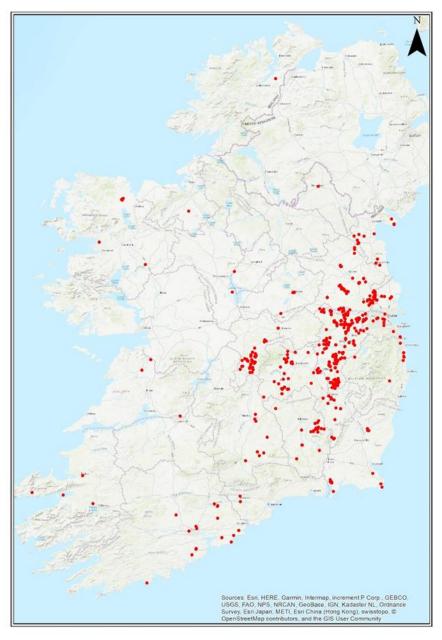


Figure 10 Map showing all records for August and September, 2018 for late-nesting hedgerow birds.

As expected, Yellowhammer was the most frequently recorded species during August and September with a total of 168 records. The next most regularly recorded species were Goldfinch (19), Greenfinch (16), Woodpigeon (10) and Blackbird (9). Other species recorded were Spotted Flycatcher (8), House Sparrow (8), Wren (5), Collared Dove (5), Chiffchaff (4), Bullfinch (3), Robin (2), Song Thrush (2), Stonechat (2), Linnet (2), Willow Warbler (2), Magpie (1), Tree Sparrow (1), Goldcrest (1), Dunnock (1), Lesser Redpoll (1), Long-eared Owl (1), Pied Wagtail (1), Reed Bunting (1), Sedge Warbler (1).

	Yellowhammer	Goldfinch	Greenfinch	Woodpigeon	Blackbird
Carlow	8	5	12	8	2
Clare	1				
Cork	12	4			1
Donegal	1				
Dublin	2	3			1
Kerry		1			
Kildare	3	3		2	
Kilkenny	8	1	1		
Laois	44				1
Louth	13				2
Meath	11		1		1
Offaly	50				
Roscommon	1				
Sligo			1		
Tipperary	2				
Waterford	1				
Westmeath					1
Wexford	8	1	1		
Wicklow	3	1			
Total	168	19	16	10	9

Table 1: Number of records from August and September 2018 per county for all species with a minimun of 9 total records.

Figure 11 shows all records of breeding activity for August and September with singing males in blue, probable breeders (visiting probable nest site, agitated behaviour) in grey and confirmed breeding (recently fledged young, occupied nest, adult carrying nesting material, faecal sac or food) in red. The categories of probable and confirmed breeding follow the methodology used by the British Trust of Ornithology in carrying out Breeding Bird Atlas field work. As might be expected the number of records generally declined over the period. Two factors are likely to have influenced recording frequency; (i) greater recording effort made immediately after the workshops; and (ii) poor weather may have prevented people getting out to survey on some days. It is interesting to note that while records of singing males, had fallen to a low level by mid-August, the number of confirmed breeders remained fairly constant until mid-September with the last record of breeding evidence being on 24th September. This would suggest many birds are exhibiting territorial behaviour in early August but breeding activity continues well into September.

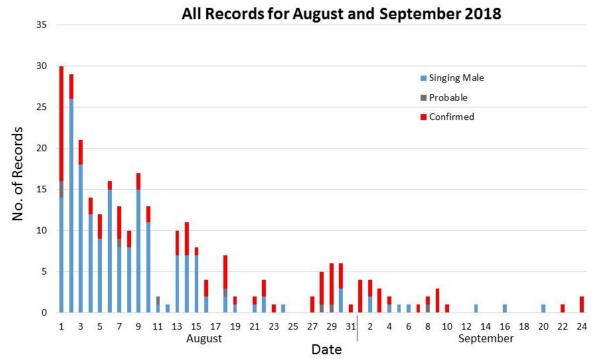


Figure 11: Singing male (blue), probable (blue) and confirmed (red) breeding records per day for all species during August and September 2018.

Figure 12 below illustrates that the majority of Yellowhammer records received were for the first half of August. Nesting activity declines as the season progresses, and a similar pattern was noted in 2017. Of the 151 Yellowhammer records between 1st and 15th August the vast majority were of singing males with two records of probable breeding (visiting probable nest site, agitated behaviour) and nine records of confirmed breeding (adult carrying faecal sac or food, carrying nesting material/ nest building or recently fledged young). Seven of the 18 records for the remainder of the season were of confirmed breeding. The latest records were of recently fledged young on 22nd September. Again, this fits a pattern of birds exhibiting territorial behaviour in early August with breeding activity continuing well into September.

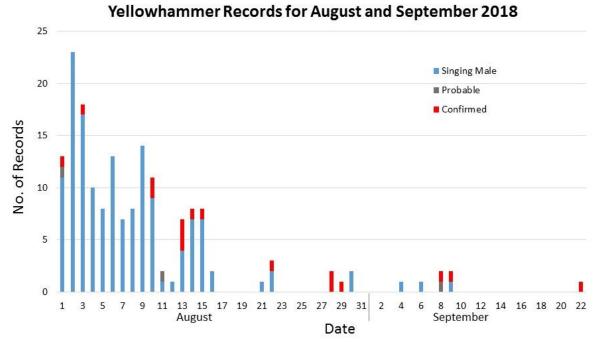


Figure 12: Singing male (blue), probable (grey) and confirmed (red) breeding records per day for Yellowhammer during August and September 2018.

#### **Offaly Yellowhammer Nest Search 2018**

Data from an actual nest, as opposed to inferred data from observing adults, can be very important in determining exact nesting dates, particularly if multiple visits to a single nest can be achieved. To trial the feasibility of specific nest searching activity to collect such data, a licensed nest searcher was engaged to carry out nest finding field work in Co Offaly in 2018. The primary goal was to locate Yellowhammer territories and find active nests. Work began in late July and ran to mid-September and the data collected for August and September is included in the Figures 11 and 12.

Although territorial male Yellowhammers are very easy to locate and recording time in active territories can reveal the presence of females (indicating a pair) or even young (often when adults are observed carrying food), locating and confirming nests is challenging. Some of the difficulties preventing many nests from being located are set out below.

- 1. Yellowhammers typically nest low in thick vegetation in hedgerows. As a result, the nests are very well concealed, and are rarely found by "cold" searching a likely stretch of habitat.
- 2. The recording window may be as little as 12 days for any one nest (the time between hatching and chicks being large enough to "explode". "Exploding" is a behaviour designed to reduce the impacts of predators: prior to fledging, large (but flightless) young may leave the nest if it is disturbed. As a result, a predator may catch one of the departing young but is unlikely to capture the whole brood. Although adults will continue to feed vocal chicks out of the nest, these chicks have a lower chance of survival due to the lack of the protection of the nest,

being more susceptible to adverse weather (particularly rain as the chick can no longer be brooded as it would be on the nest) and to predators. Although this behaviour is designed in response to disturbance from a predator, chicks may "explode" from a nest when it is impacted by other disturbance events, such as being looked at by a nest recorder.

3. Yellowhammers are very susceptible to disturbance at the nest, and may be at risk of deserting a nest if disturbed during the incubation period. Care must also be taken when visiting nests where chicks are being fed.

Together, these factors combine to make cold-searching for Yellowhammer nests not a recommended approach. However, a longer lead in time may allow more observations on territory usage and enable more directed effort and this should be trialled.

Whilst nest searches should only be conducted by licenced personnel, casual data from nests which are found by chance can yield valuable information and observers should be encouraged to ensure that any such data are submitted.

However, inferring ongoing nesting from the behaviour of adults remains the most widely applicable method which still yields very valuable information.

For the work reported here, an area of west Offaly was thoroughly searched for active Yellowhammer territories during late July and early August. These areas were revisited during mid-August to mid-September to confirm breeding and search for active nests. All records were mapped onto Google Maps using a Smartphone at the time of recording to ensure locations, times and dates for each record was accurate. Details of Yellowhammer occurrence were recorded into a notebook. These data were then reconciled with the map data to determine sites for follow-up visits, and all data were entered into the online NBDC Late Nesting Birds Portal.

Annex I shows the recording activities undertaking during this contract. A total of 18 days were spent recording Yellowhammers in the field, with a further day contacting local farmers to seek permission to access land.

Annex 2 shows the records of Yellowhammers from fieldwork during which a total of 119 singing male yellowhammers were recorded. In addition, five pairs (male with female) were also observed and breeding was confirmed at five sites (three with adults carrying food, and two (Knocknamase and Lissanierin) adults were seen feeding recently-fledged juveniles.

With breeding chicks likely to be in the nest at just three sites (Fancroft, Lowerton Hill, and Pass) where birds were seen carrying food, no nests were located despite extensive searches in the area. Following advice and best practice, 30 minutes were spent undertaking nest searches where birds were seen carrying food. This short time is designed to balance the effort needed to locate the well-hidden nests with the need to limit disturbance to this species. With the large number of singing males observed at the start of fieldwork (in July and early August) it was anticipated that nesting behaviour would continue throughout August and into September. However, at most sites, activity reduced markedly in later August, and there were no sightings of territorial birds at all during September. The

disappointing lack of finding nests reflects both the lack of Yellowhammers observed showing appropriate nesting behaviour (carrying food) and the difficulty in actually finding the nests.

In future, initiating recording earlier in the Yellowhammer nesting season would allow the progress of birds in certain territories to be more accurately tracked, thereby improving the knowledge of the timing of breeding to ease the finding of nests at the appropriate time. Furthermore, starting earlier may also allow nests to be located earlier in the nesting cycle (i.e. at the building stage) when desertion due to disturbance is less likely and, also less of an issue to the birds (they would be able to continue to build elsewhere) than disturbance during incubation (which could lead to complete failure of the breeding attempt).

The recording area used in this study should form an established monitoring plot with annual data collection to observe the impact of hedgerow cutting activity on population trends. Similarly, such work could be expanded to include habitat assessments which may be critical in determining and identifying Yellowhammer nesting.

#### Conclusion

The Late Nesting Bird Project is an exemplary example of citizen science being used to fill in gaps in scientific knowledge. The dedication of volunteers and local BirdWatch Ireland Branches has resulted in the collection of hard data that can be used to support the conservation of bird species especially at their most vulnerable time during the breeding season.

Partnership with the NBDC has also worked exceptionally well and the staff have been very helpful. The project has also created a lot of public awareness and advantage should be taken of this to grow the project in future. Workshops and events to date have been concentrated in the eastern part of the country and could next year be extended to other regions such as the southern coastal counties and parts of the west where more isolated Yellowhammer populations exist.

Both the 2017 and 2018 Late Nesting bird surveys have provided data which help fill a large gap in the knowledge of the timing of late nesting bird activity in Ireland. The results show that Yellowhammer, a red-listed species of conservation concern, nests well into August and September. This information also provides additional evidence to support the concerns about changes to Section 40 of the Wildlife Act which would allow hedge cutting in August and potential negative impacts to Yellowhammer.

However, the results also indicate that a range of other species are nesting later than was anticipated. Therefore, it is important that more data is collected on a systematic, nationwide basis on late nesting bird activity to improve our knowledge of breeding phenology in Ireland. The focus should be on species of conservation concern that may be impacted by activities affecting late breeding, such as cutting of hedgerows.

The survey work in Offaly showed that actual nest finding proved to be problematic and difficult and there were lessons learned from trialling the methodology. However, starting actual nest finding earlier in the season would allow a longer lead-in time, possibly enabling observers to collect data on territory usage over a longer period, possibly allowing more targeted search effort.

A range of other species of birds was also recorded nesting in hedgerows across the country at this time of year. To date the primary focus of the Late Nesting Project has been on Yellowhammer but perhaps future work could greater emphasize the importance of collecting nesting data on all hedgerow species, given that several countryside bird species are facing an uncertain future.

**ANNEX I: Offaly Nest Search Fieldwork dates and activities** 

Date	Hours	Activity	Description	
19-Jul	4	Mapping	Printed out maps of the area where the survey will be carried	
			out. Used Google maps to pinpoint out areas of tillage ground	
			and marked them on the maps.	
20-Jul	8	Fieldwork	Drove around potential sites asking permission to enter the	
	land.		land.	
24-Jul	4	Fieldwork	Located 14 Yellowhammer territories in the Coolderry-Shinrone	
			area (site 1). 14 singing males, two pairs and one male with food	
			in mouth.	
			(For lone singing males I spent 15 minutes on each to see for	
			any sign of a female or him bringing food to the nest. For pairs	
			and adults with food I spent 30 minutes to try and locate the	
			nest.)	
			Entered sites onto Google maps	
24-Jul	4	Fieldwork	Located 13 Yellowhammer's territories in the Birr, Kinnitty area	
			(site 2) 13 singing males, one pair.	
			Entered sites onto Google maps.	
25-Jul	4	Fieldwork	Located 12 Yellowhammer's territories in the Clareen, Kinnitty	
			area (site 3) 12 singing males, one pair.	
			Entered sites onto Google maps.	
25-Jul	4	Fieldwork	Located 21 Yellowhammer's territories in the Kinnitty, Rath,	
			Kilcormac area (site 4) 21 singing males, 2 pairs, one male with	
			food. Entered sites onto Google maps.	
01-Aug	7	Fieldwork	Located 9 singing males at sites 1 and 2. No nest activity	
2-Aug	8	Fieldwork	Located 16 singing males at sites 2 and 4. No nest activity	
09-Aug	7	Fieldwork	Located 22 singing males and 3 new territories on sites 1 and 2.	
			Entered maps new sites onto Google maps.	
10-Aug	7	Fieldwork	Located 12 singing males, 1 new territory and one male with	
			food in mouth on sites 3 and 4.	
			Entered new site to Google Maps.	
14-Aug	8	Fieldwork	Dull, damp day few males out.	
			Located 5 singing males at sites 1 and 2, female feeding young	
			at Knock names, Coolderry.	
15-Aug	7	Fieldwork	Dull, damp day few males out.	
			Located 7 singing males at sites 3 and 4. No nest activity.	
21-Aug	7	Fieldwork	Checked sites 1 and 2, no birds seen	
22-Aug	8	Fieldwork	Located 2 males at site 3 and 4. No singing just alarm calls.	
28-Aug	8	Fieldwork	Checked sites 1 an 2. Located 1 male feeding young at	
			Lissanierin, Coolderry.	
29-Aug	7	Fieldwork	Checked sites 3 and 4. Located 1 male feeding young at	
			Ballyoran, kilcormac.	
04-Sep	7	Fieldwork	Checked sites 1 and 2, no birds seen.	
05-Sep	7	Fieldwork	Checked sites 3 and 4, no birds seen.	
11-Sep	7	Fieldwork	Checked sites 1 and 2, no birds seen.	
12-Sep	7	Fieldwork	Checked sites 3 and 4, no birds seen.	
18-Sep	7	Office	Entered my findings onto the data centre portal.	
10.5		Work		
19-Sep	7	Office	Started work on the draft report, e.g. methods, results,	
		Work	timesheet and conclusion.	

**Annex 2: Offaly Yellowhammer Nest Search Results** 

Date	Townland	Birds seen	Notes
24-Jul	Clonkenny	3	Singing male
24-Jul	Dromoyle	1	Singing male
	,		Male and female seen
24-Jul	Grange	2	together.
24-Jul	Ardavagga	1	Singing male
			Male and female seen
24-Jul	Sharavogue	2	together.
24-Jul	Sharavogue	2	Singing male
24-Jul	Loughwheelion	1	Singing male
24-Jul	Knocknamase	1	Singing male
24-Jul	Ballygaddy Cross rds	2	Singing male
			Adult carrying faecal sac or
24-Jul	Fancoft	2	food
24-Jul	Knockarley	1	Singing male
24-Jul	Lissanierin	3	Singing male
24-Jul	Ballybrit	1	Singing male
24-Jul	Glas derry More	1	Singing male
24-Jul	Ardavagga	1	Singing male
24-Jul	Crinkill	3	Singing male
24-Jul	Aghancon Leap	1	Singing male
24-Jul	Aghancon	1	Singing male
24-Jul	Ballyshane	1	Singing male
25-Jul	Killyon	1	Singing male
25-Jul	Rathgibbon North	1	Singing male
25-Jul	Rathgibbon North	2	Male and female seen together.
25-Jul	Lisduff	1	Singing male
			Male and female seen
25-Jul	Pass	2	together.
25-Jul	Pass	2	Singing male
25-Jul	Rathihen	1	Singing male
25-Jul	Lowerton Hill	1	Male caring food.
25-Jul	Mullaghcrohy	2	Male and female seen together.
25-Jul	Glebe	1	Singing male
25-Jul	Fortal	1	Singing male
25-Jul	Killyon	2	Singing male
25-Jul	Derry Upper	1	Singing male
25-Jul	Cornagark	2	Singing male
25-Jul	Derrinboy	1	Singing male
25-Jul	Lugnaboley	2	Singing male
	, , , , , , , , , , , , , , , , , , ,		
25-Jul	Knockhill and Drinagh	3	Singing male

Annex 2: Offaly Yellowhammer Nest Search Results (continued)

Date	Townland	Birds seen	Notes
25-Jul	Ballindrinnan	1	Singing male
25-Jul	Ballyoran	1	Singing male
25-Jul	Cappagowlan	3	Singing male
25-Jul	Gortacur	1	Singing male
25-Jul	Ballycollin Lower	1	Singing male
25-Jul	Munny	1	Singing male
01-Aug	Lissanierin	1	Singing male
01-Aug	Ballybritt	1	Singing male
01-Aug	Knocknames	1	Singing male
01-Aug	Sharavogue	1	Singing male
01-Aug	Sharavogue	1	Singing male
01-Aug	Clonkelly	1	Singing male
01-Aug	Dromoyle	1	Singing male
01-Aug	Knockarley	1	Singing male
01-Aug	Ballyshane	1	Singing male
02-Aug	Longford Big	1	Singing male
02-Aug	Glebe	1	Singing male
02-Aug	killyon	1	Singing male
02-Aug	Rath gibbon North	1	Singing male
02-Aug	Derry Upper	1	Singing male
02-Aug	Cornagark	1	Singing male
02-Aug	Knockhill	1	Singing male
02-Aug	Cappagowlan	2	Singing male
02-Aug	Rathilhen	1	Singing male
02-Aug	Munny	1	Singing male
02-Aug	Pass	4	Singing male
09-Aug	Ballybritt	1	Singing male
09-Aug	Lissanierin	2	Singing male
09-Aug	Fancoft	2	Singing male
09-Aug	Knocknames	2	Singing male
09-Aug	Dromoyle	2	Singing male
09-Aug	Ballygaddy	3	Singing male
09-Aug	Aghancon	2	Singing male
10-Aug	Pass	5	Singing male
10-Aug	Garrysallagh	1	Singing male
10-Aug	Pass	1	Male with food
10-Aug	Longford Big	1	Singing male
10-Aug	Breaghmore Br	1	Singing male
10-Aug	Breaghmore	3	Singing male

## **Annex 3: Workshop Slides**





