

## **APPENDIX B**

### **INFORMATION SUBMITTED BY DEREK SCOTT**

Please note: Names of private individuals have been redacted from the following documents for the purposes of confidentiality and data protection, with the exception of names of persons already known and in the public domain in relation to the application before the Board (e.g. objectors), names of authors of published works (e.g. academic research papers) or names of employees of ROD or organisations of relevance (e.g. BirdWatch Ireland).



## Red-billed Choughs and the proposed new Cable Car on Dursey Island

### Some observations and comments

Derek A. Scott : February 2020



Photo: [REDACTED]

#### THE INFORMATION BASE

The authors of the Biodiversity chapter in the EIA state that the desk study undertaken for their assessment *included a thorough review of the available baseline data relating to biological diversity in the study area*. This was sadly not the case.

A huge amount of information is available on the birds and other fauna of Dursey Island dating back to September 1977. This information has been obtained very largely by me and another six regular bird-watching visitors to the island, namely [REDACTED]. However, at least sixty other bird-watchers have visited the island since the 1980s, and provided details of their observations either to me or to [REDACTED]. I have spent over 4,000 days recording birds and other wildlife on Dursey Island, and over the last 20 years, have averaged 172 days a year on the island (more than any other person now living except for my neighbour [REDACTED], who averages about 280 days a year). [REDACTED] visits the island almost every other weekend and averages about 75 days a year, while [REDACTED] and [REDACTED] have been visiting West Beara every autumn since 1986 and spending an average of 23 days on the island each year. Until his death in April 2011, [REDACTED] visited the island almost every weekend and averaged about 65 days a year on the island, while in recent years, [REDACTED] and [REDACTED] have become Dursey 'regulars', each spending an average of about 20 days on the island each year.

From 1992 to 2002, I produced annual reports of my own bird observations, but since then I have produced annual reports summarising the observations of all observers known to me, and covering not only the birds but also the mammals, reptiles, amphibians, butterflies, moths and dragonflies. Copies of these reports have been distributed to all contributors, the Cork County Bird Recorder and anyone else who has expressed an interest. They are neither confidential nor hard to obtain. I attach my annual reports for 2010 and 2015 as examples. Similarly, [REDACTED] and [REDACTED] have produced annual reports on their observations in West Beara and on Dursey Island every year since 1986.

Given the huge amount of information that is readily available on the birds and other fauna of Dursey Island, it seems to me most strange that the authors of the Biodiversity chapter in the EIA did not take the trouble to contact me or any of the other Dursey regulars and request our input. These authors must certainly have known of our existence, as one of the EIA researchers, Mr Tadhg Twomey, stayed in [REDACTED]'s house on the island, and visited my garden on 31 May 2019 to see a European Nightjar that had been found there by [REDACTED]. It is similarly strange that not one of the five objections lodged to date makes any reference to any of the work undertaken by me or any other of the regular birders who have visited the island during the last 40 years, and as far as I am aware, no-one contacted any of us for our advice or comment before lodging their complaint. While I can accept that Louth Environment Group, Tony Lowes at Friends of the Irish Environment, An Tiasce and John Conway might never have heard of me (as, indeed, I had never heard of them), I am very disappointed in Birdwatch Ireland for not having contacted me and at least requesting my comment before lodging their objection. Birdwatch Ireland certainly knows of my existence:

- I have been a member of Birdwatch Ireland for many years;
- I carried out the Black Guillemot survey on Dursey Island in 1999.
- I carried out the seabird survey on Dursey Island in 2000
- I carried out the Chough survey on Dursey Island and nearby parts of the mainland (squares V43, V44, V53, V54) in 2002.
- I provided information to [REDACTED] and Mike Trewby when they were studying the Choughs on Dursey Island between September 2003 and April 2004.
- I carried out surveys of the island throughout the year for the Bird Atlas Project from 2007 to 2011.

My garden (Scott's garden) has become famous amongst the bird-watching community both in Ireland and in the UK for the number of extreme rarities that have occurred there. Over 120 birders visited my garden on 21 and 22 September 2013 in search of the Wilson's Warbler – the second record for the Western Palearctic.

Table 1 summarises the number of days on which there has been some coverage on Dursey Island by competent observers known to me since my first visit to the island on 16 September 1977. Annual coverage by all observers and by me is shown in Figure 1. Coverage by quarter-monthly periods throughout the year is shown in Figure 2.

A full list of the birds (248 species), mammals (22 species), reptiles (two species), amphibians (one species), butterflies (20 species), moths (133 species to the end of 2015) and dragonflies (three species) known to have occurred on Dursey Island since 1977 is presented in Appendix I. Much of the information on birds, mammals and butterflies gathered over the past 44 years has been summarised in some form or another; e.g.

1. Details of all records of 197 species of birds recorded on fewer than 300 occasions have been presented in a series of tables containing over 9,500 records. As an example, I attach the table giving all records of the 69 rare birds and semi-rarities (accreditation species) that have been recorded on Dursey Island between September 1977 and December 2018.
2. Details of all records of cetaceans have been submitted in annual reports to the Irish Whale and Dolphin Group since 2001.

3. Details of all records of butterflies were submitted in annual reports to David Nash at the Dublin Field Naturalists Club from 2002 to 2016.
4. Annual reports on the migrant Lepidoptera and Odonata occurring on Dursey Island were published in the journal *Atropos* from 2003 to 2015.
5. The occurrence of 64 species of the commoner migrant birds has been summarised in a series of charts (see examples in Figure 3).
6. A short report has been compiled on the breeding birds of Dursey Island (see Appendix II).
7. A short report has been compiled on the non-breeding birds of Dursey Island (migrants, occasional visitors and rarities; see Appendix III).

I have also been recording maximum and minimum temperatures at my house in Tillickafinna (at c.140 metres above sea level) since 1992, and measuring rainfall since 1994 (see Figures 4 and 5). Note that I was not present on the island when the temperature plummeted to -6.0°C in early March 2018, during the “beast from the east”.

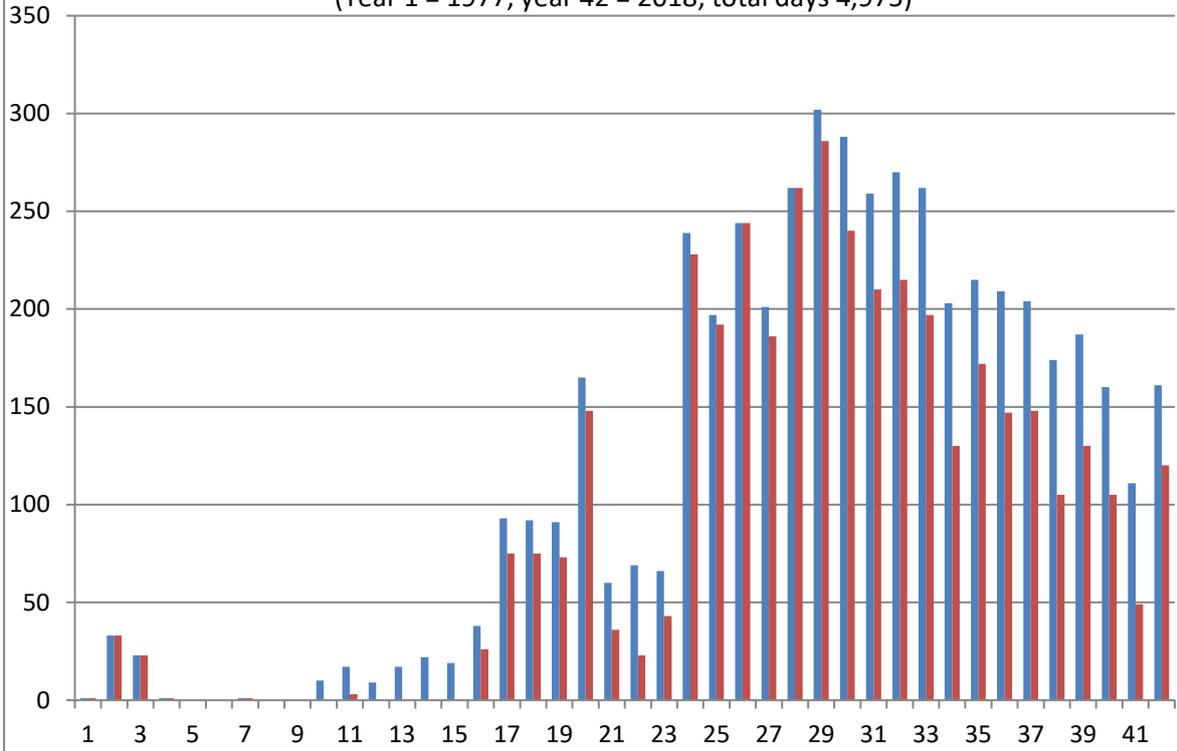
**Table 1. Days with some coverage by competent observers on Dursey Island, Co. Cork : pre-1992 and 1992 to 2018**

Year	<92	92	93	94	95	96	97	98	99	00	01	02	03	04	05
Jan	1	0	0	0	8	0	0	0	9	31	0	20	8	19	18
Feb	0	0	0	0	0	8	0	0	5	28	21	28	0	16	28
Mar	0	0	0	0	0	14	10	2	0	18	31	22	27	29	16
Apr	1	0	3	16	27	0	0	0	12	23	10	15	20	16	22
May	1	0	31	10	20	7	2	5	14	30	18	31	12	31	31
Jun	1	0	24	28	1	29	7	15	0	29	28	17	9	22	30
Jul	1	3	0	11	18	31	0	9	0	21	21	31	26	25	31
Aug	6	0	8	0	6	31	4	8	0	11	10	9	7	23	31
Sep	49	18	0	10	11	10	12	10	0	25	11	18	27	12	19
Oct	88	17	17	16	0	31	25	20	23	14	31	19	31	24	31
Nov	2	0	10	0	0	4	0	0	0	4	2	7	12	14	22
Dec	3	0	0	1	0	0	0	0	3	5	14	27	22	31	23
<b>Total</b>	<b>153</b>	<b>38</b>	<b>93</b>	<b>92</b>	<b>91</b>	<b>165</b>	<b>60</b>	<b>69</b>	<b>66</b>	<b>239</b>	<b>197</b>	<b>244</b>	<b>201</b>	<b>262</b>	<b>302</b>

Year	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Jan	26	30	27	25	11	20	20	19	10	15	23	5	7	352
Feb	19	8	11	13	14	25	17	2	3	3	2	3	3	257
Mar	23	25	24	17	8	22	17	22	6	4	11	5	4	357
Apr	24	21	24	14	19	11	5	11	15	10	5	4	8	336
May	31	27	26	31	22	21	25	26	8	19	9	18	31	537
Jun	23	19	19	11	21	17	30	16	28	22	4	18	19	487
Jul	26	15	29	29	7	7	9	19	29	16	24	5	4	447
Aug	17	31	21	20	31	19	8	11	6	7	6	6	6	343
Sep	30	18	30	30	30	30	10	27	27	16	14	4	18	516
Oct	27	28	27	27	22	31	30	24	24	27	31	19	31	735
Nov	17	11	14	20	9	7	29	21	5	30	3	7	23	273
Dec	25	26	18	25	9	5	9	6	13	18	28	17	7	335
<b>Total</b>	<b>288</b>	<b>259</b>	<b>270</b>	<b>262</b>	<b>203</b>	<b>215</b>	<b>209</b>	<b>204</b>	<b>174</b>	<b>187</b>	<b>160</b>	<b>111</b>	<b>161</b>	<b>4975</b>

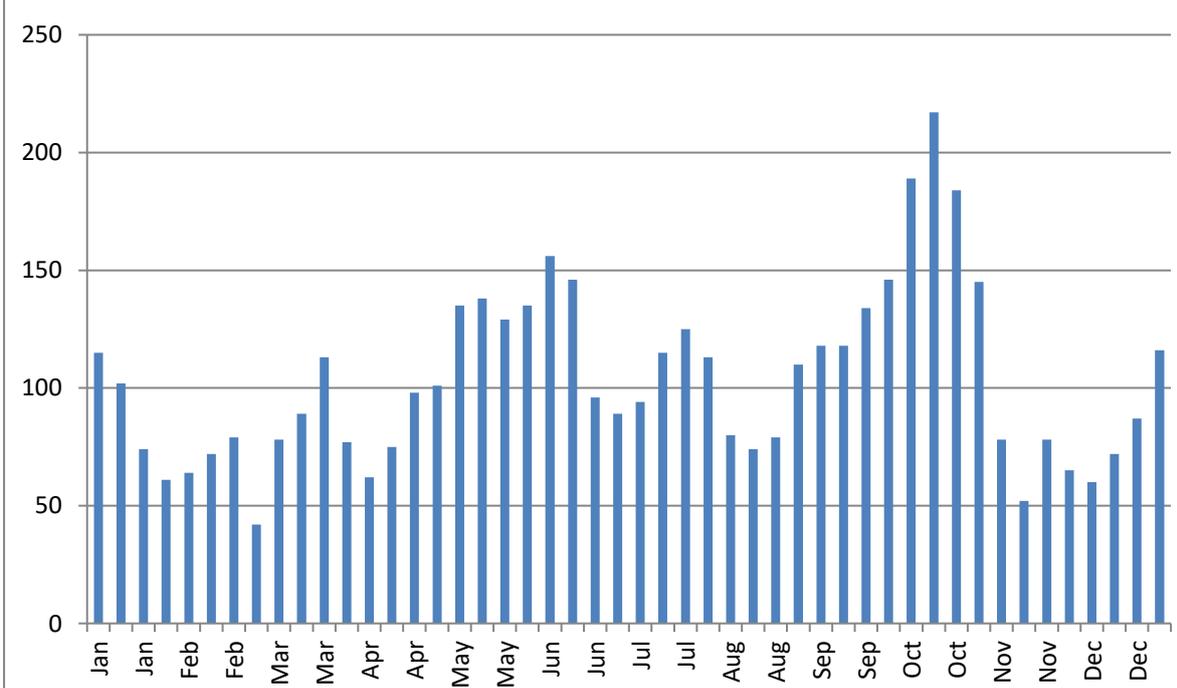
**Figure 1: Days with some observer coverage on Dursey Island 1977-2018**

Blue = all observers; red = Derek Scott  
 (Year 1 = 1977, year 42 = 2018; total days 4,975)

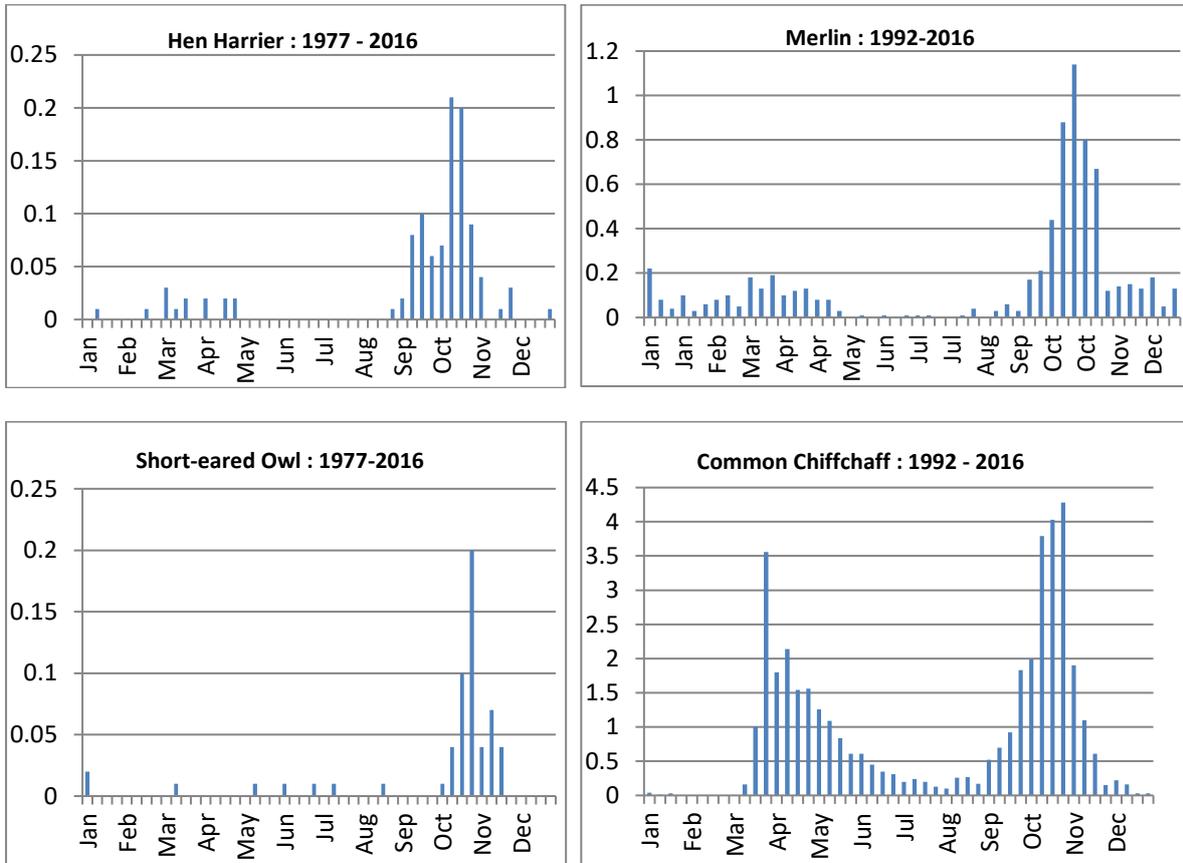


**Figure 2: Observer coverage on Dursey Island 1977-2018**

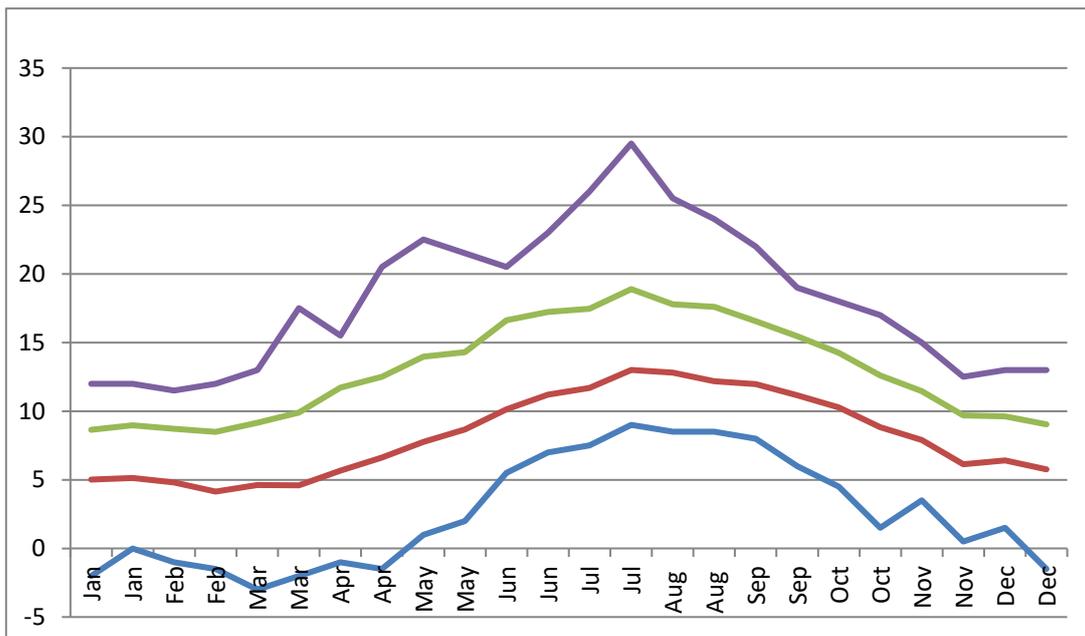
by quarter-monthly period (4,975 days)



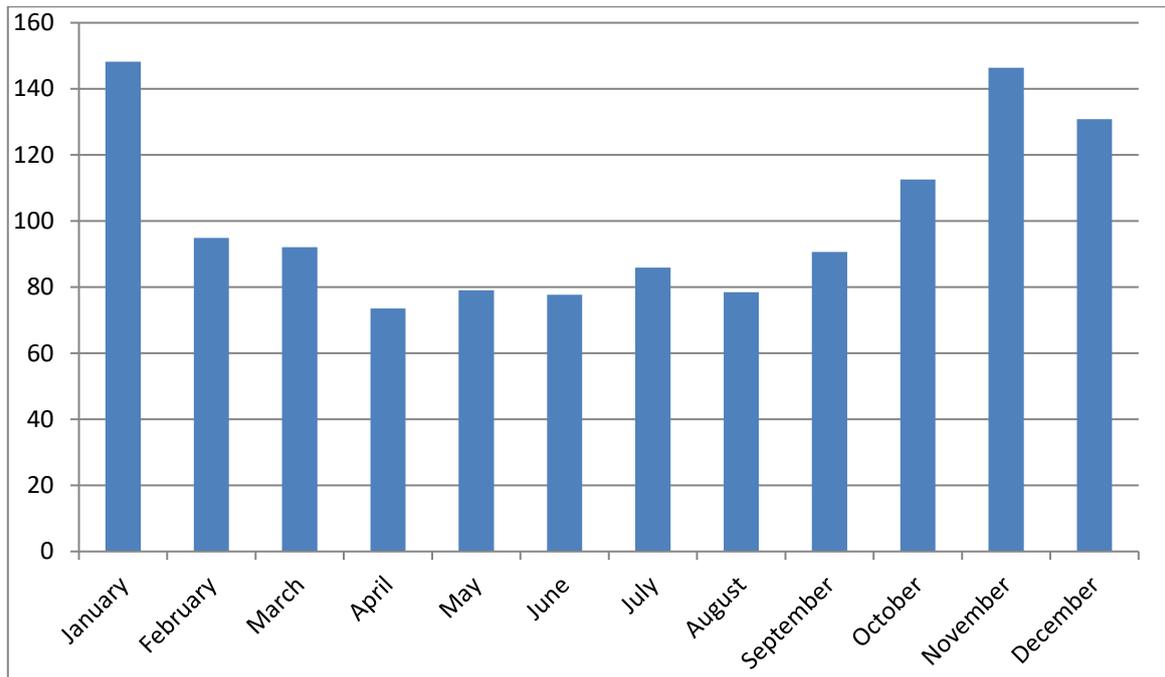
**Figure 3. Charts for selected species**  
Average number of birds per day in each quarter-month period:



**Figure 4. Average Temperatures in Tilickafinna, Dursey Island, from 1994 to 2018**  
Average temperatures in each half-month period in °C based on 7,504 readings  
Absolute minimum, average minimum, average maximum and absolute maximum



**Figure 5. Average monthly rainfall in mm : 1997 – 2018 based on 3,608 readings**  
(average annual rainfall - 1,210 mm)



## GLOBAL STATUS OF THE CHOUGH

There are numerous references in the EIA and the objections to the fact that the Chough is on Annex 1 of the EU Birds Directive and is on the Amber List in Ireland. However, there is no mention in any of these documents of the global status of the Red-billed Chough. According to BirdLife International, the Red-billed Chough is listed as a species of Least Concern (BirdLife International 2016). It has a very extensive range, stretching from Western Europe and northwest Africa through southern and central Europe, northeast Africa, the Middle East, Central Asia, the Himalayas, Bhutan and northeast India to eastern and northeast China. The European breeding population alone has been estimated at between 12,300 and 17,400 pairs. Eight subspecies are generally recognised, three of which occur in Europe: *P. p. pyrrhocorax* in Ireland, western Scotland, the Isle of Man, Wales and southwest England; *P. p. erythroramphos* in Portugal, Spain, northwest and southern France, southwest Switzerland, central Italy, Sardinia and Sicily; and *P. p. docilis* in the southern Balkans, Greece (including Crete), and Turkey east to the Caucasus, Lebanon, northern Israel, central Syria, northern Iraq, Iran, Turkmenistan, Afghanistan and western Pakistan. Note that the nominate form is confined to Britain and Ireland, and numbers only some 1,170 – 1,470 pairs (800-900 pairs in Ireland, 120 pairs on the Isle of Man and 250-350 pairs in Scotland and Wales). A small group of Red-billed Choughs arrived naturally in Cornwall in 2001, and nested in the following year. This was the first English breeding record since 1947, and a slowly expanding population has bred every subsequent year.

The European range has declined and become fragmented in recent decades due to the loss of traditional pastoral farming, persecution and perhaps disturbance at breeding and nesting sites, and only in Spain is the species still widespread. It is for this reason that the Red-billed Chough has been categorised as 'vulnerable' within the European Union, although it is thought that the numbers in France, Great Britain and Ireland may now have stabilised.

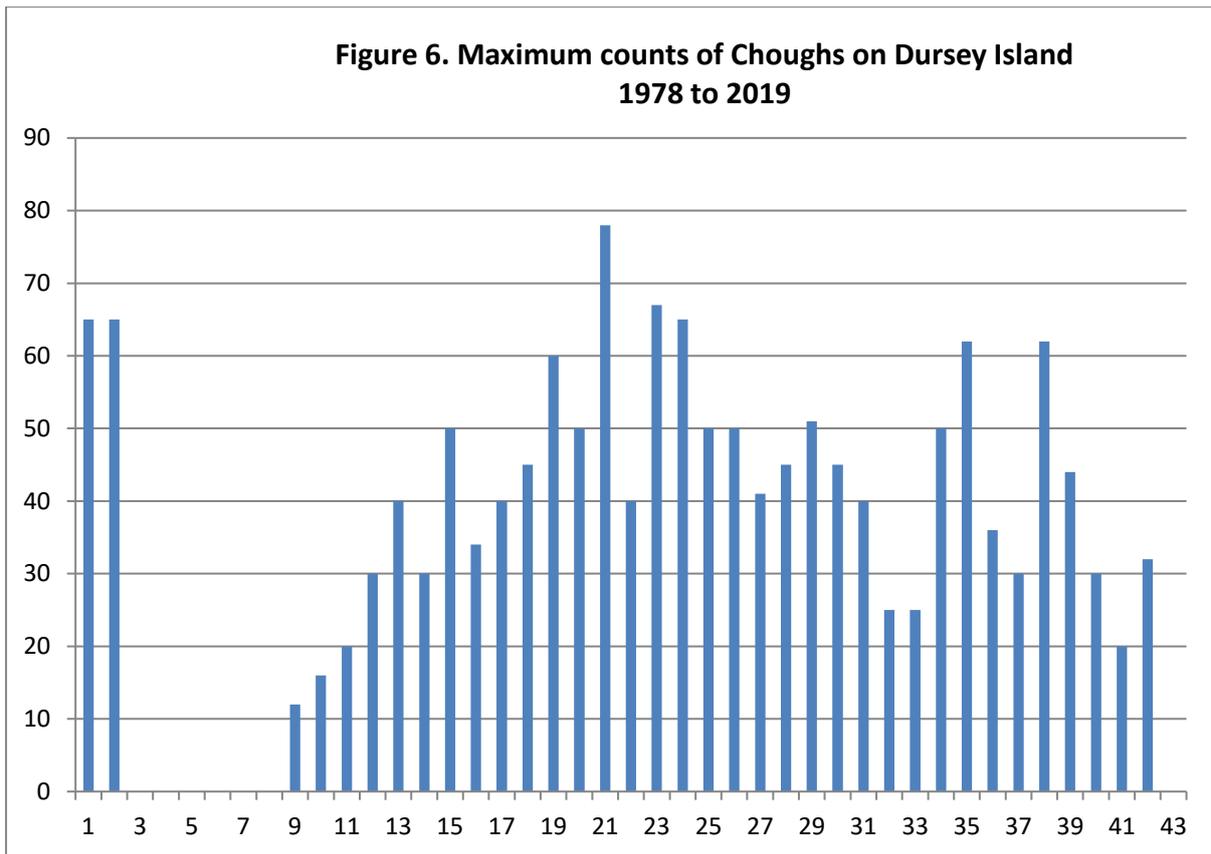
The authors of the EIA follow Birdwatch Ireland in stating that Ireland holds over 60% of Northwest European population of the Chough, although they do not define what they mean by 'Northwest Europe'. It would be better to say that Ireland holds over 60% of the total population of the nominate form *pyrrhacorax* (which excludes the birds breeding in northwestern France). The statement by Keribiou et al. 2009 that they “studied the impact of tourism on the rare and endangered chough *Pyrrhacorax pyrrhacorax*” adopts some degree of poetic licence.

#### CHOUGHS ON DURSEY ISLAND

Table 2 and Figure 6 show the maximum counts of Choughs on Dursey Island in the 36 years for which data are available between 1978 and 2019. Note that there was no coverage in spring or summer in the years before 1993 (year 16 in Fig.2).

**Table 2. Maximum counts of Choughs on Dursey Island, Co. Cork : 1978-2019**

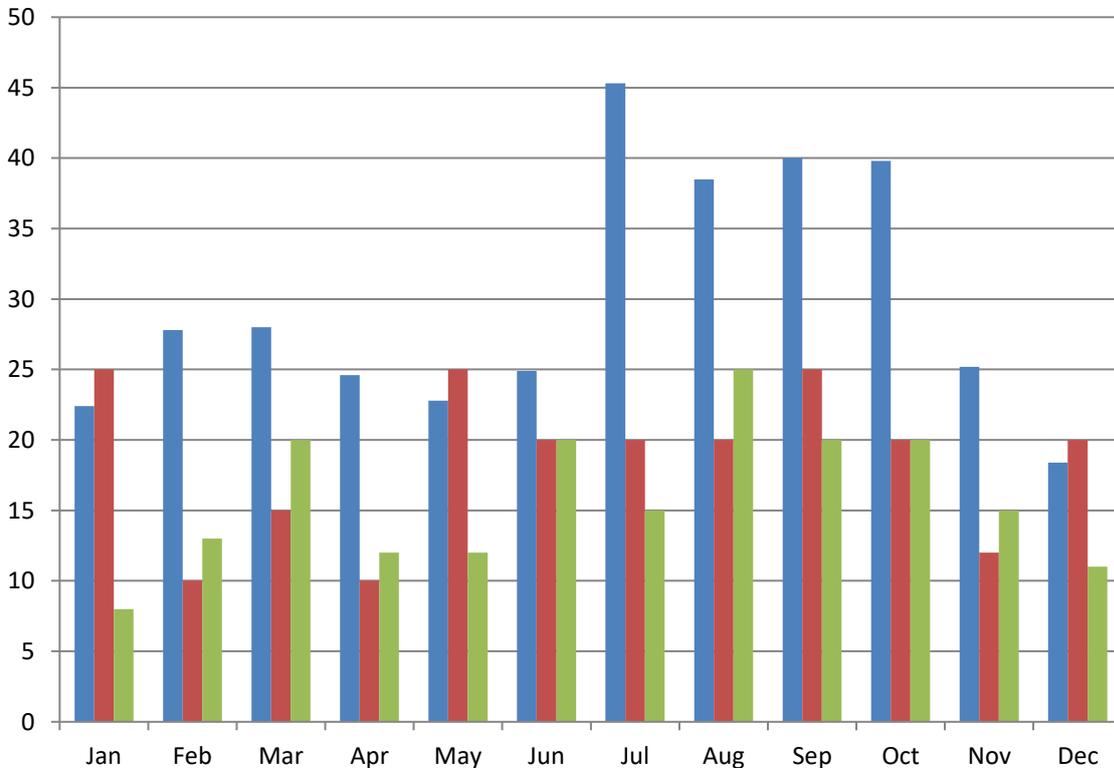
Year	Maximum counts	Maximum
1978	50 on September; 65 on 21 September	65
1979	65 on 12 September; 50 on 29 Sep. & 5 October	65
1986	12 on three dates in October	12
1987	16 in October	16
1988	20 on 15 October	20
1989	30 on Dursey; 40 on the mainland	30
1990	40 on Dursey; 50 on the mainland	40
1991	30 on several dates in October	30
1992	40 on 25 September; 50 on 2 September	50
1993	34 on 24 September	34
1994	40 on 4 October	40
1995	45 on 26 July.	45
1996	60 on 25 September, 26 September & 3 October	60
1997	50 on five dates 21 – 26 October	50
1998	78 on 4 September	78
1999	40 in early Feb; maximum in autumn 30 on 25 Oct.	40
2000	67 on 29 July, 53 on 17 September	67
2001	65 on 15 July, 60 on 20 October	65
2002	50 on 2 September, 50 on 3 October	50
2003	50 on 13 September	50
2004	41 on 16 September	41
2005	45 on 6 November	45
2006	51 on 18 July	51
2007	45 in October	45
2008	40 on 12 July	40
2009	25 in March, May and September	25
2010	25 in August	25
2011	50 on 10 October and 14 October	50
2012	62 in 24 September	62
2013	36 in September	36
2014	30 on 7 September and 24 September	30
2015	62 on 24 July	62
2016	44 on 17 October	44
2017	30 on 12 October	30
2018	20 in October (after exceptionally cold March)	20
2019	32 on 4 and 15 July	32



In the 27 years since 1992, when there has been good to very good year-round coverage of the island (years 16 to 42 in Fig.2), the breeding population seems to have remained stable at 8-10 pairs, except for marked drops in 2008 and 2009 (years 32 and 33), and again in 2018 (year 41). Numbers recovered rapidly after the low numbers in 2008 and 2009, and seem to be recovering after the fall in 2018. Figure 7 shows the average of the maximum counts of Choughs in each month of the year during the eight years from 2000 to 2007, and the maximum counts in each month in the poor years of 2008 and 2009. Note that in the good years for Choughs on Dursey Island, numbers peak in July (average maximum 45), as might be expected as the young birds fledge. Numbers remain high throughout August, September and October, but then drop off rapidly in November. By December no more than 20 birds remain on the island. This suggests that there is either a high mortality of the young of the year in late autumn, or a movement of birds away to the mainland. It is interesting to note that in a survey of the island on 28 and 29 December 2019, Michael O’Clery found a total of 20 Choughs – the norm for this time of year.

While some young birds of the year doubtless move to the mainland where they join a flock of non-breeders which return to the island to forage on fine days in the following early spring (hence the higher counts in January, February and March), it would seem that the majority disappear from the population permanently. High mortality of juvenile Choughs in the first few months after fledging has been recorded in several studies (see Reid *et al.* 2011). With the onset of the winter storms and shortening day length, inexperienced young birds, forced into suboptimal feeding areas by the highly territorial resident adults, will have difficulty in finding sufficient food and, weakened by starvation, will fall easy prey to Peregrine Falcons, which regularly patrol Dursey Island in the autumn and early winter. Under normal conditions, predation by Peregrine Falcons on adult Choughs would appear to be rare. I have seen Peregrines on several occasions stooping at adults without success, and once found a recently killed Chough that had obviously been predated by a Peregrine.

**Figure 7. Monthly maximum counts of Choughs on Dursey Island  
2000-2007 averages (blue), 2008 (red) and 2009 (green)**



The authors of the Biodiversity chapter in the EIA state that there has been a *30% decline in Chough population since the last census and that in 1992. The cause of this decline is ultimately unknown.* This statement is repeated without questioning in Birdwatch Ireland’s objection to the proposal. It is suggested that the cause of the decline might be disturbance from visitors, and yet much the most obvious cause of the sudden decline in numbers of breeding pairs in 2018 is increased mortality of adult birds during the exceptionally severe weather in early March 2018. Choughs thrive in West Beara because of the mild maritime climate (see Figure 4). The average minimum temperature in Tilickafinna in January, February and March is just under 5.0°, and frost is rare. Prior to 2018, much the worst cold spell since I began keeping records in 1994 was in late February and early March 2001, when the temperature fell below freezing on six nights in a row and fell to -3.0°C on the night of 28 February/1 March. However, there was no snow associated with this cold spell, and the Chough population remained high. However, the “beast from the east” in early March 2018 produced heavy snowfall, and the temperature dropped to -6.0°C. The entire island was covered in deep snow for three or four days; an event almost unprecedented in living memory (see Figures 8 & 9). Choughs would have been unable to forage and, as it was approaching the end of winter, the birds would have been in poor condition and less able to cope with the harsh conditions than if these had occurred earlier in the winter. Tilickafinna resident [REDACTED] reports having found one dead Chough in the snow during this period.

This extremely severe weather in early March 2018 with prolonged snow cover seems to have hit the Choughs badly, as numbers were well down on previous years. No more than seven were recorded until the end of May. The highest counts in summer were 11 on 2 June, 12 on 29 June and 11 on 25 August. There were up to 12 in early September, 19 on 19 September, and up to 20 in October, but no more than 11 in November, and only eight in December. The maximum count of 20 in 2018 was the lowest since the late 1980s, when observer coverage was very poor.

**Figure 8. Dursey Island in the snow : 2 March 2018**



**Figure 9. Tilickafinna and the west end of Dursey Island in the snow : 2 March 2018**



## THE DIET OF THE CHOUGH

The authors of the EIA note that Choughs *feed almost exclusively on insects and arachnids (including ants, beetles, spiders and soil-dwelling invertebrate larvae, particularly those of leatherjackets (Tipulidae spp.), wireworms (Elateridae) and beetles, with some plant material (particularly grains) also eaten during the winter months when insect availability is low.* However, no mention is made of the diet of the Choughs on Dursey Island. There is very little discussion of the possibility that scarcity of food may be a factor in the regulation of Chough numbers on the island, although it is noted in the EIA that *there is evidence to indicate that the availability of suitable forage is a key limiting factor on survival of juveniles (Keribiou & Julliard, 2007; Keribiou et al., 2009).*

Choughs are primarily insectivorous, with the larvae of crane flies (Tipulidae) being important in the diet. Crane fly larvae, commonly known as leather jackets, live in the top layers of soil and can become so abundant as to become agricultural pests. Throughout the 2000s and early 2010s, crane flies were common to abundant on Dursey, and in one year could be said to have reached plague proportions (entering our house in large numbers whenever we left the front door open, much to my wife's annoyance). When I was operating a moth trap regularly in my garden in 2005, 2006, 2007 and 2008, the catch of crane flies often exceeded that of all the moths combined. However, for unknown reasons, crane flies have been very scarce in recent years. This was particularly the case in 2018 and 2019, when even my neighbour [REDACTED] commented on their scarcity. In the eleven weeks that I was in residence in Tillickafinna from late August to mid-November 2019, I saw only two crane flies (one in my garden and one in my house). If, as seems likely, crane fly larvae are important in the diet of Choughs on Dursey, the recent scarcity of crane flies might have hit the Choughs badly. This is all speculation, but it certainly provides a better explanation for the recent sudden decline in numbers of Choughs than an increase in disturbance from an increase in the number of visitors.

## VISITOR DISTURBANCE AND CHOUGHS

Much is made in the EIA and all of the objections to the possibility that disturbance from visitors could pose a threat to the Choughs on Dursey Island. The authors of the EIA note that:

*With respect to human disturbance, Bullock and colleagues (1983) state that, "the species is extremely tolerant of human disturbance and continues to breed at several tourist spots. Prolonged disturbance, such as climbing in inland quarries in the vicinity of traditional nest sites, seems the only serious form of direct [human disturbance] threat".*

The authors go on to say:

*Indeed, research indicates that Choughs at tourist sites can become habituated to human disturbance in terms of physiological and behavioural responses (Jimenez et al., 2011) and surveys conducted for the purposes of an Appropriate Assessment at Bray Head, Valentia Island, Co. Kerry (Wild Eye & Ecology Ireland, 2018) support this conclusion: "Chough at Bray Head appear to show a high degree of tolerance to disturbance from human visitors to the site, with many instances of birds not flushing even at low distances of 15-20m, and many instances of Chough approaching humans to distances of less than 20m".*

Nevertheless, the authors of the EIA then ignore the conclusions of Bullock *et al.* (1983) and Jimenez *et al.* (2011) in favour of the conclusions of Keribiou *et al.* (2009), who worked on a small population of Choughs on Ouessant (Ushant) Island off the coast of Brittany in France.

These authors concluded that *human disturbance constitutes a significant threat to the short-term viability of chough populations in heavily trafficked areas.*

Thus, the conclusion often repeated in the EIA and in the four objections that increasing numbers of visitors on Dursey Island might result in higher mortality rates in the Chough population is based almost entirely on the work of Keribiou *et al.* (2009). The authors of the EIA make at least 15 references to this study, and go so far as to reproduce this paper in full in their Appendix 7.3. However, the authors have completely ignored the important work by Reid *et al.* (2003a, 2003b and 2004) on Red-billed Choughs on Islay in the Inner Hebrides in Scotland, and have clearly overlooked the paper by Reid *et al.* (2011) entitled *Diagnosing the timing of demographic bottlenecks: sub-adult survival in red-billed choughs.* As the findings of Reid *et al.* (2011) are relevant to the situation on Dursey, I have reproduced the summary and conclusions of their paper in Appendix IV.

Reid *et al.* (2011) estimated monthly survival probabilities of Choughs throughout the first year from fledging for eight Chough cohorts, and found that on average, the survival probability was only 0.83 during the first month after fledging (May–June), accounting for c. 24% of all first-year mortality. On Ouessant, the survival probability for the first month from fledging was over 0.95, representing only c. 5% of total first-year mortality. Thus, despite the huge numbers of visitors on Ouessant, the immediate post-fledging survival of Chough is higher on this island than on Islay where visitor numbers are small in relation to the size of the island.

The differences between the conditions for Choughs on Dursey Island and those for Choughs on Ouessant are so great as to render any comparison almost ridiculous. Dursey and Ouessant are both small islands on the western fringes of Europe with mild maritime climates and small populations of Red-billed Choughs. But there the similarities end.

Ouessant (Ushant) Island (Figure 10) is a low-lying island some 8 km long by 3 km wide, with a total area of 1,558 ha (5.8 sq.mi). Elevations range from sea-level to 61 m (200 feet), with the average being only 30 m or 98 ft. The island lies 20 km off the west coast of Brittany, and is very densely populated. The population was 1,510 in 1800, increasing gradually to 2,953 in 1911, then decreasing gradually to 1,062 in 1990 and 862 in 2016. Tourism is the main industry, the island attracting some 150,000 visitors a year in recent years, but the island is intensively farmed, with vegetables and cereals being grown commercially. The island is connected to the French mainland by both air and sea. Passenger ferries operate from Brest and Le Conquet year-round, and also from Camaret in summer. The island has its own airport with the airline Finistair operating flights in Cessna 208 planes from Brest Bretagne airport. There are at least twelve hotels and bed & breakfasts on the island. One of the four main hotels is shown in Figure 11. There is also a campsite located in the middle of the island, close to the sea and run by the Municipality. It caters for up to 300 people in tents only, and is open from 1 April to 30 September. The island is criss-crossed with a network of roads and tracks, and there is a coastal path around the entire island.

There must be numerous occasions during the summer months when there are well over a thousand people remaining on the island overnight (the 850 residents, seasonal workers servicing the tourist trade, and people staying at the hotels, bed and breakfasts and camp site). The total number of day visitors visiting the island at the height of the tourist season in August varied from 27,431 to 42,243 during the period 1998 to 2005 (Keribiou *et al.* 2009). Thus there must be many days in summer when there are over 2,500 people on the island with easy access to almost every part of the island. Many if not most of the day visitors will gravitate to the 37.5 km coastal path which circumnavigates the island and passes through an estimated 97% of the main feeding habitat of the Choughs (Keribiou *et al.* 2009).

**Figure 10. Ouessant (Ushant) Island**



**Figure 11. One of the four main hotels on Ouessant**



According to Keribiou *et al.* (2009), the breeding population of Choughs on Ouessant has remained fairly stable at 10 to 13 pairs for the last 50 years, and averaged 12 pairs during the eight years of their study (1998 to 2005). **The mere fact that Ouessant continues to support a stable population of Choughs despite the extremely high human population density (at times exceeding 1.6 individuals per hectare. or 67 individuals for each km of coastal path) is surely testimony to the fact that the Red-billed Chough is tolerant of very high levels of human disturbance.**

By contrast, Dursey Island is a rugged, hilly island some 6.5 km long by 1.5 km wide, with a total area of 560 ha (2.2 sq.mi). There are three main peaks, the highest rising to 252 m (827 feet). It lies only some 260 metres off the tip of the Beara Peninsula and is connected to the mainland by Ireland's only cable car. This is one of the island's main attractions for tourists. On the highest point on the island there is a signal tower dating to the Napoleonic Wars which also attracts many tourists. Farming for sheep and beef cattle remains important, but tourism is now becoming important, with the island attracting some 20,000 visitors a year in recent years. Dursey has no shops, pubs or restaurants, and there are no designated campsites.

There are thought to have been some 400 people living on the island in the early 17<sup>th</sup> century, but by 1861 the population had fallen to 237. Numbers then declined steadily to 128 in 1946, 53 in 1966, 20 in 1991, nine in 1996, and six in 2006. The current official population of two comprises a 'returnee' – an islander who spent his entire working life in the UK and whose family still lives there – and my neighbour [REDACTED], a local farmer who spends his working week at his house on the island, and his weekends at his house in Castletownbere.

One can assume that there is disturbance to Choughs on Ouessant throughout the day and almost throughout their foraging habitat. However, the situation on Dursey is completely different. The first cable car run of the day is at 09:30, and this is often taken up by islanders who have priority. Thus, the first visitors are unlikely to be on the island and heading off along the track much before 10:00. It is a 50-minute steady walk mostly uphill from the cable car to the point at the west end of the high cliffs, where the townland of Tilickafinna first becomes visible. I can see this point in the track from my veranda, and know from many years of observation, that the first hikers do not arrive here until about 11:00. It is then another 30-minute hike through Tilickafinna, up and over the Western Hill and down to the Tip. Most day visitors are heading back by mid-afternoon, and it is rare to see anyone heading back through Tilickafinna after 16.00. Thus, there will be no disturbance to foraging Chough near the Tip before about 11:30, and very little after 15:30. My own observations indicate that the Chough, like the great majority of other diurnal passerines on the planet, forages most actively in the three or four hours after sunrise and in the hour or two before sunset. I know for a fact that Choughs are early risers, as they are invariably one of the first birds I hear or see when I am out on my veranda to watch the sunrise. During the height of the tourist season in July and August, the peak period for foraging in the morning will be long before the first visitors arrive at the Tip, while the peak period for foraging in the evening will be long after the last visitor has left. A problem may however arise with campers. It is not rare in Tilickafinna to see one or two walkers with huge back-packs hiking out to the Tip of the island in the afternoon, and hiking back the next day. These people have obviously been camping at the Tip, either in the ruins of the old lighthouse or on the greensward between Maoil Mhor and Maoil Beg. In either case they could cause significant disturbance to nesting Choughs, Oystercatchers and other birds.

In their Figure 1, Keribiou *et al.* (2009) attempt to link daily variation in the average proportion of Choughs that were observed foraging with daily variation in the average number of visitors per zone in their study area. In 'winter', they observed high levels of foraging activity throughout the day from '08:00 to 20:00', whereas in 'summer', foraging

activity dropped off sharply at noon; rose again from 17:00 and was high from 18:00 to 21:00. As might be expected, in 'winter' there were very few visitors, whereas in 'summer', visitor numbers rose rapidly in the morning to a peak at noon; remained high until 16:00 and then fell off rapidly in the early evening.

Sadly it would seem that Keribiou *et al.* were not early risers, and rarely if ever worked late. In mid-summer, the sun rises over Ouessant at 05:30 and sets at 23:00. In mid-August, at the height of the tourist season, it rises at 06:30 and sets at 22:30, while in mid-winter, it rises at 09:00 and sets at 18:00. These substantial changes in day-length, and thus in the amount of foraging time available, are not taken fully into account by Keribiou *et al.* who give the average proportion of Choughs that were observed foraging in 'winter' from 08:00 to 20:00 (over a 12 hour period), and the average proportion that were observed foraging in 'summer' from 07:00 to 21:00 (over a 14 hour period). Day-length on Ouessant is less than 12 hours from 21/22 October until 21/22 March (as it is everywhere else in the Northern Hemisphere), while day-length exceeds 14 hours from mid-April to the end of August.

Keribiou *et al.* seem to be implying that in the absence of disturbance from tourists, the foraging activity of Choughs would remain high throughout the day. However, it would seem highly unlikely that Choughs would need to forage for 17 hours a day in June (from sunrise at 05:30 to sunset at 22:30) and up to 15 hours a day in August, when weather conditions are generally fine and food supplies are presumably at their most abundant, if they can survive the winter, with only nine hours of daylight (from sunrise at 08:30 to sunset at 17:30) from late November to the end of January, when winter storms may make foraging difficult and food supplies are getting scarce. Rather, I would maintain that the dropping off of foraging activity from noon until 17:00, as apparent in Keribiou *et al.*'s Figure 1, is at least partly, and perhaps largely, a reflection of the Chough's natural behaviour to take a break from foraging during the early afternoon so that the birds can rest and preen. As noted above, my own observations indicate that the Choughs on Dursey Island forage most actively in the three or four hours after sunrise and in the hour or two before sunset. In August, at the height of the tourist season on Ouessant, Choughs can forage with little disturbance from visitors from 06:30 until noon, and again from 17:00 to 22:30, a total of 11 hours, *i.e.* two hours more than the birds have for foraging in mid-winter.

Keribiou *et al.* (2009) state that the Choughs on Ouessant are limited to coastal sites where short grassland habitat above cliffs is maintained by marine physical factors, such as wind and salt spray. In particular, Choughs are never seen in inland agricultural grasslands, which tend to be undergrazed with vegetation that is too tall for Choughs to forage in. On page 20 of the Biodiversity chapter in the EIA, the authors state that: *Choughs in Ireland are known to forage principally on grazed grassland with short sward heights, earthen banks, coastal machair and maritime turf, and to a lesser degree, also on heathland, dunes, cliffs, improved grassland and tidewrack.* However, on page 55, the authors state that almost the entire area of Dursey Island (5.98 sq.km) is suitable habitat for Choughs at one time of the year or another. This is a gross misrepresentation of reality, as large parts of the island are unsuitable for foraging Choughs, e.g. the numerous fields that have not been grazed for many years, the large areas of bracken, notably south of the main track at The Waters, and the large areas of heather moorland, not to mention the paved track, private gardens, boulder areas and cliff faces. I suggest that no more than 25% of the island provides the right conditions for foraging Choughs, *i.e.* close-cropped greensward and fields that have been heavily grazed to a short sward. As noted in the EIA, the western end of the island, which takes in the hills of Maoil Mhor and Maoil Beg, has an open short grassland sward, and supports the highest levels of foraging activity by Choughs.

The authors of the EIA go on to say: *The average flush distance observed in the Study Area was 31.6m (N = 49 observations; min. = 10m; max. = 150m; median = 30m). Applying a 50m buffer (30m flush distance + 20m as a precautionary buffer) to the established paths and road on Dursey Island, it has been estimated that approx. 1.33km<sup>2</sup> of potential chough foraging habitat (22% of total area) could be subject to human disturbance at peak times (assuming walkers are well distributed across the island's network of roads and paths).*

It would seem that the figure of 1.33. sq.km was arrived at by multiplying the total length of track in Plate 7.2. (13.3 km) by 100 metres to give a total of 133 ha. This implies that the entire track used by islanders and visitors passes through Chough foraging habitat, which it clearly does not. It also seems to ignore the overlap and close juxtaposition of the outward and return tracks for about two kilometres near the Tip. That about 22% of the total foraging habitat of the Choughs might be subject to some disturbance from visitors may not be far off the mark, but the numbers certainly need to be reworked.

As stated in the EIA, the walking routes used by visitors on Dursey are largely situated inland, along the high elevation spine of the island and immediately south of it, while on Ouessant, there are cliff-side walking trails along the entire coastline. As such, a much greater proportion of Chough foraging habitat is affected by human disturbance on Ouessant (up to 97%) than on Dursey (22%).

## WEATHER

Tourist numbers, as measured by sales of tickets on the cable car, peak in July and August, but this does not necessarily mean that there is a corresponding increase in the numbers of visitors reaching the tip of the island and 'spilling out' onto the greensward between Maoil Mhor and Maoil Beg. July and August are the warmest months of the year (see Figure 4), but there are frequent prolonged periods of low cloud and mist, occasionally lasting for three or four days, and exceptionally for five days in a row. Low cloud, with a ceiling at about 400 feet, envelopes the island, and the main track from the gate at the west end of Kilmichael almost to the west wall (just east of Maoil Mhor) is in thick mist. My house, at 450 ft above sea level, is shrouded in thick mist, and can be for up to five days on end. Only the most dedicated visitors are going to walk all the way to the Tip in thick mist, and few, if any, are going to stray far from the track for fear of getting lost, Disturbance to Choughs on these days of thick mist would be minimal.

The frequency of periods of low cloud and mist has been increasing in recent years, and the 'season' of mist has been getting longer, with more periods of mist in spring and autumn, This is presumably linked to climate change. In the past, periods of mist were infrequent in September, but in 2019, there was thick mist at my house in Tilickafinna for at least half the day on a total of 14 days in the month of September (as compared with only five days in October).

## OTHER FAUNA OF DURSEY ISLAND

There are numerous errors, omissions and misrepresentations in Table 7.12 (Endangered and Protected Species within and up to 5km Offshore of the Zone of Influence) and Table 7.24 (List of protected habitats/species identified in the Zone of Influence) in the EIA. These could easily have been avoided if the authors of the Biodiversity section had requested information from me first. I have neither the time nor the enthusiasm to comment on all of the problems here, but will address a few of the major issues.

## Bats

The information on bats on Dursey Island given in section 7.4.2.1 would have benefitted greatly from the information readily available in the annual Dursey Island Bird Reports (all freely available upon request). This information is presented in Appendix V

## Sika Deer

There have been two records of a Sika Deer on Dursey Island. The first was a young male found by [REDACTED] in the gorse in the upper part of The Valley on 15 October 2014 and seen later that day by [REDACTED]. It was seen by [REDACTED] in the Ballynacallagh area on 25 October, and in The Valley and the fields north and south of the track at Kilmichael on 30 October ([REDACTED]). The deer appeared to be in excellent health and had presumably swum across to the island in search of new pastures and/or does. It was seen by several of the islanders, but there are no reports of it having been shot and it presumably swam back to the mainland soon after 30 October.



Sika Deer, 15 October 2014 (Tony Lancaster)

The second record was of one seen by [REDACTED] in The Valley on 11 September 2018.

## Irish Stoat

The highlight of a visit in February 1996 was “a Stoat running down our garden path and foraging along one of our walls in the afternoon of 2<sup>nd</sup>, as we were opening up the house. Where this animal had come from, and where it subsequently went to, are a mystery”. This would appear to be the only record of an Irish Stoat on Dursey Island.

## Common Otter

Common Otters are probably present year-round on Dursey Island, and may well breed on the island. Information on this species as summarized in the annual Dursey Island Bird Reports from 1992 to 2018 is presented in Appendix VI.

## **Grey Seal**

The information on Grey Seals in Tables 7.12 and 7.24 is woefully inadequate. There are at least two regular haul-out sites on the island, one below Ivy Gully on the south coast in Tilickafinna, and one at Gull-bathing Area on the north coast about 1.5 km east of the Tip. Each site occasionally holds as many as 10 seals. Small pups are seen in most years hauled out at various localities around the island and have presumably been calved nearby. Information on Grey Seals on Dursey Island as summarized in the annual Dursey Island Bird Reports from 1992 to 2018 is presented in Appendix VII.

## **Greater Black-backed Gull**

The Greater Black-backed Gull is a Birdwatch Ireland Amber-listed species which is afforded statutory protection under the Wildlife Acts and the Birds Directive (Annex II). Until the last few years or so, Greater Black-backed Gulls were common around Dursey Island throughout the year, and there was a large daytime roost on the lower north slope east of Gull-bathing Area and about one km east of the Tip (see Table 3). However, in my 27 years of carrying out bird surveys on Dursey Island during the breeding season (1993 to 2017), I never found any evidence that Greater Black-backed Gulls were breeding on the island, although on 15 June 2011, I observed a pair showing territorial behaviour on top of a small stack in the bay north of the Cable Car. There was no sign of a nest, and these were presumably young adults prospecting. A report of a pair nesting on the cliffs below Tilickafinna in June 2018 was never confirmed.

There was a thriving breeding colony of a minimum of 50 pairs on Crow Island from at least 2000 until the island was set ablaze by an arsonist (most probably the local farmer) during the breeding season about six or seven years ago. I have not been able to ascertain if a colony has been re-established within the last few years. In addition, at least 40 pairs were nesting on the Cow in 2002 (visible by telescope from the Northwest Tip), and may still be there. It is doubtless these colonies that accounted for the large numbers of birds around Dursey Island in the past.

Unfortunately, because of a serious spinal problem I have been unable to walk out to the Tip of Dursey Island since September 2014, and I have been unable to check on the status of the gull roost since then. Sadly, the other bird-watchers who regularly visit the island do not bother to make counts of the commoner species.

## **Lesser Black-backed Gull**

In the 1990s, it was thought that there were between five and ten pairs of Lesser Black-backed Gulls breeding on Dursey Island, judging by the number of pairs of adults seen during spring and early summer. Nests were found at two sites, one on the northwest coast and the other on the cliffs below Tilickafinna. Only four nests were found during the seabird census in May and June 2000, but this was thought to have been an underestimate. Numbers increased gradually during the 2000s, and by 2010, there were at least 10-15 pairs. On 10 May 2014, [REDACTED] found a colony with at least 20 occupied nests at the regular site on the cliffs below Tilickafinna, and numbers appear to have remained at that level in 2015. No counts have been carried out at this site since then, although 31 adults were counted near the Tip on 5 May 2018.

## **Hen Harrier, Merlin and Short-eared Owl**

The occurrence of these three species on Dursey Island is summarised in Figure 3.

**Table 3. Counts of Great Black-backed Gulls at the daytime roost on Dursey Island**

Year	Date	Number	Remarks
1994	15 September	60	Mostly adults moulting
1995	29 April	35	Immature birds
1995	14 July	90	Mostly immature birds
1996	11 October	300+	Mainly adults; during a storm
1997	October	300-400	Mainly adults, on several dates during storms
1998	-	-	No high counts recorded
1999	-	-	No high counts recorded
2000	29 January	60+	
2000	6 February	150	
2000	12 June	100+	
2000	6 September	85+	
2000	28 September	300+	
2000	28 November	150	
2001	-	-	No high counts recorded
2002	October & Nov	250	On several occasions
2003	-	-	No high counts recorded
2004	-	-	No high counts recorded
2005	-	-	No high counts recorded
2006	21 September	220	
2006	22 September	200+	
2006	5 & 6 October	200+	
2007	3 September	200	
2007	29 October	170	
2008	3 September	150	Mostly adults
2009	1 January	150	Mostly adults
2009	29 November	120	Mostly adults
2010	15 September	130	Mostly adults
2010	8 October	100	Mostly adults
2011	11 September	210	
2011	22 September	220	Mostly adults
2011	25 September	200+	
2011	10 October	200+	
2011	16 October	200+	
2012	-	-	No high counts recorded
2013	21 July	200+	
2014	-	-	No high counts recorded
2015	-	-	No information available
2016	-	-	No information available
2017	-	-	No information available
2018	22 September	75	██████████(pers. Com.)
2019	-	-	No information available

## TOURIST NUMBERS IN GENERAL

My wife and I purchased a derelict house on half an acre of rough grassland in July 1992, long before Dursey Island was on the tourist map, and when it was still a rare event to see a tourist come as far out as Tilickafinna. We went there for the peace and solitude, far away from the madding crowd. We would have been very happy to have been the last two people to be allowed to buy a property on the island, and delighted if the cable car had been restricted to 'islanders' only. We were blissfully happy to have found a retreat way beyond the pale, with no electricity, telephone, television, mobile phone coverage or mains waters supply, seemingly frozen in time, away from the hustle and bustle of life in crowded Western Europe. But we knew it would not last, and soon realised that we were not the only people to appreciate the great scenic beauty of the island. With some reluctance, we accepted the arrival of more 'incomers' and ever increasing numbers of tourists, and having spent much of our lives travelling the world as 'tourists', we could scarcely object at having to share our little bit of paradise with like-minded individuals.

The argument that increasing numbers of tourists might pose a significant threat to the island's wildlife or natural beauty is somewhat spurious. It has been my observation over the past 25 years that the principal threats to wildlife and the natural environment of Dursey Island come from the islanders and not from visiting tourists. These threats include:

1. Regular burning of the commonage in spring, often in March and April and occasionally well into May. Most if not all of the farmers do this. Burning in late spring must destroy many nests of Skylarks, Meadow Pipits, Stonechats and Linnets, all of which have been decreasing in recent years, but probably does not pose a threat to the Choughs.
2. Poisoning: at least one of the island farmers regularly puts out poisoned bait to kill the "black crows", i.e. Ravens, during the lambing season in spring. On one occasion a few years ago, this resulted in the poisoning and death of an islander's valuable sheep dog.
3. Shooting: persons, including one former islander, were observed in 2000, 2001, 2002, 2004 and 2012 trying to shoot Grey Seals from a boat off Tilickafinna, while persons carrying shot-guns have been seen walking out through Tilickafinna towards the Tip on several occasions, presumably intent on shooting Grey Seals.
4. The tossing of domestic refuse off the cliffs: this continues near the east end of the island, but my neighbour [REDACTED] and I have managed to persuade the islanders not to toss rubbish off the high cliffs in Tilickafinna (a favourite locality for the dumping of refuse and old cars in the past). Until the introduction of a regular ferry a few years ago, it was customary for the islanders to push their unwanted wrecked cars off the cliffs. Since then, all old cars have been taken off on the ferry, with one notable exception. Now that scrap metal prices are low, in early April 2018 an islander tried to push his wrecked car off the cliffs near the east end of the island, but the car became stuck half way.
5. Overgrazing. There is serious overgrazing all over the island, and this is clearly very damaging to the natural vegetation, only tiny pockets of which linger on in sites on the cliffs that are inaccessible to sheep. The great swathes of Bluebells which adorned parts of the north side of the island in spring in the mid-1990s have long since disappeared, to be replaced by extensive stands of bracken. Sheep numbers probably peaked at something over a thousand in the early 2000s, when the farmers' subsidies were linked to the number of ewes in their possession. Overgrazing at its present level does not pose a problem for the Choughs, which prefer to forage in heavily grazed areas, notably on the extensive close-cropped greensward at the west end of the island.

I have always welcomed an increase in visitor numbers, as it is my belief that when there are lots of tourists about, the islanders are less likely to get up to mischief. In all my years on Dursey, I have never once seen any tourist do anything that I thought might pose a direct threat to the Choughs or any other wildlife. Of the thousands of visitors crossing to the island in the cable car, only about 25% make it out all the way to the Tip, and those that do almost never stray far from the marked trails, with the notable exception of bird-watchers who roam widely over the island. Visitors walking along the main trails will doubtless inevitably flush the occasional group of foraging Choughs, but in my experience the birds soon settle again to resume foraging. When I surveyed the Chough population in 2002, all ten breeding sites were in crevices or caves in the cliffs, totally inaccessible to visitors. For the last five or six years, a pair has bred successfully in a ruined house in Tilickafinna, about 100 metres from the main track. The only people that I have seen approaching this building have been bird-watchers (I know that at least two have entered the house to check the nest).

I believe that it is worth considering why visitors come to Dursey Island, and how their experience might be affected by an increase in the numbers of visitors. I suggest that visitors visit the island for one or more of the following reasons:

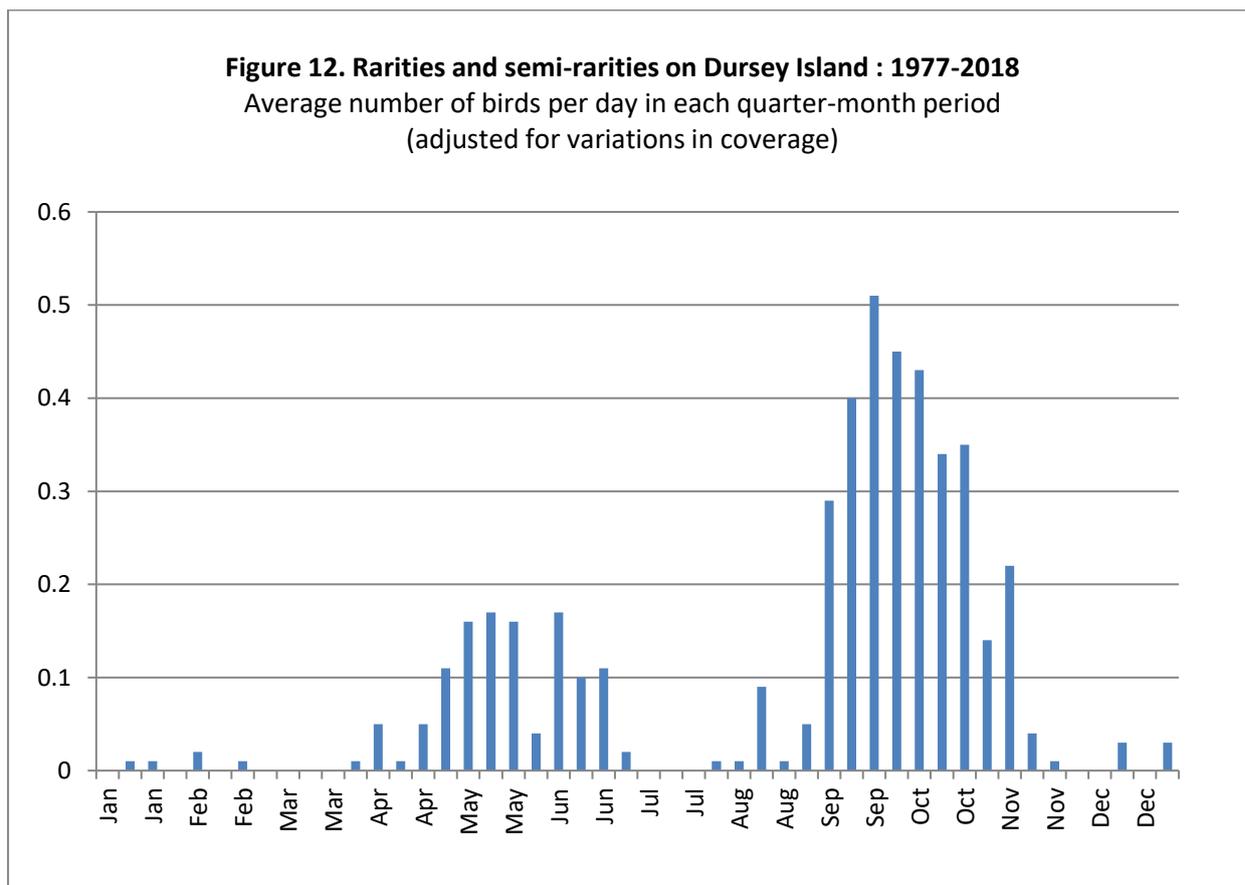
- A. Simply for a spin on the cable car. My wife and I have often noticed that many people do not even bother to get off the cable car on the island side.
- B. For a spin on the cable car, and a short stroll on the island (often no further than the jetty or old monastery).
- C. For a healthy morning or afternoon's stroll out to Kilmichael and back.
- D. For a good hike along the main track to the Tip and back, with a prime objective of getting to the Tip - an important point in the Wild Atlantic Way.
- E. For a full day's hike to take in as much of the island as possible, usually taking the main track out to the Tip and returning via the central hilly route and Napoleonic tower.
- F. To go bird-watching, usually with an emphasis on finding scarce or rare migrants.
- G. On a twitching trip, to see a very rare bird which has been found on the island by one or other of the Dursey 'regulars'. Such 'twitchers' rarely stray far from where the rarity has been seen.
- H. To go 'whale-watching'. A few individuals may hike out to the Tip in the hope of seeing dolphins and possibly even a Minke Whale. However, unless they are armed with a good pair of binoculars and/or telescope and are prepared to spend a couple of hours or more looking out to sea, their chances of seeing anything will be slim.

The principal negative impact of a large increase in visitor number on all of these types of visitors would be increased waiting times to get on and off the cable car. This is something that the proposed new cable car would go a long way to resolving. It seems unlikely that even a big increase in visitor numbers would have an adverse effect on visitors in groups A, B, C, D, E and H. The number of serious bird watchers (Group F) visiting the island remains low (far less than 1% of all visitors) and most come during the spring and autumn migration seasons, when there is greatest chance of finding something interesting (see Figure 12) and visitor numbers are generally quite low. Twitchers (Group G) are accustomed to turning up in crowds, depending on the rarity of the bird in question. The extremely rare birds which attract the biggest crowds of twitchers mostly turn up in late autumn (from late September to early November), outside the main tourist season.

There are many references in the material relating to Dursey Island to the fact that it is a good place for bird-watching and wildlife viewing in general. Sadly this is not generally true. As far as land birds are concerned, outside the spring and autumn migration seasons, the island has a typically impoverished island avifauna. The only birds a visitor is likely to see are a few Choughs, Stonechats, Wheatears, Skylarks, Meadow Pipits and other common Irish birds, all of which are just as easily seen on the mainland. Lots of seabirds are often visible from the Tip, but unless a visitor has a decent pair of binoculars, he or she will see little other than Gannets, Fulmars and a few gulls. For the experienced bird-watcher,

however, Dursey is a great place for observing bird migration and for finding rare species. As shown in Figure 12, the great majority of real rarities (species that have occurred in Ireland on fewer than about 10 occasions) and semi-rarities (the so-called 'accreditation species') recorded on Dursey Island have turned up in spring (April, May and the first half of June) or in autumn (September, October and the first half of November). A keen bird-watcher visiting Dursey Island at the height of the tourist season in July and August is very unlikely to find anything unusual on the island, irrespective of the amount of disturbance from other visitors along the tracks. As far as mammals are concerned, a visitor at any time of the year is unlikely to see anything other than the odd Harbour Porpoise or Grey Seal in the Sound, or perhaps a Brown Rat running across the track.

Undoubtedly the greatest attraction that Dursey Island has to offer for most visitors is a chance to admire some of the finest coastal scenery in Europe, with spectacular views from various points on the island, taking in the Mizen Head, Sheep's Head, Blackball Head and Crow Head to the southeast; the Bull, the Cow and the Calf off the Tip; and the Skelligs, Puffin Island, the Kerry Peninsula and the Blaskets off to the north. I do not see how the number of visitors on the island at any one time can detract from this scenic grandeur. Only the weather can do that. Those halcyon days when I could walk out from the cable car to the Tip and back without seeing another living soul are now long gone, but the spectacular views, the seascapes and the skyscapes remain unchanged.



## RECOMMENDATIONS

1. A detailed study of the foraging habits of the Choughs on Dursey Island should be undertaken to determine where the birds are foraging, in which habitats and at what times of the day. An attempt should also be made to determine what they are eating.
2. The results of the visitor questionnaire, specifically those relating to the proportion of visitors reaching the actual tip of the island i.e. the old lighthouse, and 'spilling' out onto the greensward (the Chough 'hotspot'), should be double-checked. It has been my observation that many of the visitors reaching Tilickafinna go only as far as the summit of the western hill before turning back. Presumably, when they see the tip of the island in the distance and are confronted with a steep descent, they decide that they have done enough. The ideal way to double-check the results of the questionnaire would be to station an observer near the summit of Maoil Mhor, where he/she would have an unobstructed view of the west end off the island from the summit of the western hill down to Maoil Beg. The observer would then be able to record the number of visitors reaching the summit of the western hill, the number coming all the way out to the old lighthouse, and the number wandering out onto the greensward towards Maoil Beg. These numbers could then be compared with the numbers of visitors crossing to the island, as recorded by ticket sales. Obviously, the observer would have to be in position before the first visitors have arrived in Tilickafinna (i.e. before 11:00), and would have to stay until the last visitors have left. These counts should be carried out in a variety of weather conditions: ideally on a fine sunny weekend at the height of the tourist season and on a day with the cloud ceiling at about 400 feet when much of the island is shrouded in thick mist.
3. I fully agree with the recommendation in section 7.8.4 in the EIA that: *Not including guide dogs, pets and/or working dogs of island residents and farmers, dogs shall be prohibited from travelling to Dursey Island.*
4. I fully agree with the recommendation in the EIA that: *Not including bicycles for the personal use of island residents/farmers, visitors shall be prohibited from bringing bicycles to the island in the cable cars.*
5. I strongly recommend that no minibuses be permitted for commercial use on the island for several reasons: (a) little will detract more from a hiker's experience on the island than having to keep stepping aside for a bus; (b) visitors using the bus could in theory get out to the Tip about an hour earlier than visitors coming out on foot, and could stay longer at the Tip in the evening, thereby prolonging disturbance to nesting birds at the Tip; (c) any bus used for commercial purposes on the island will have to be taxed and insured, whereas the islanders' vehicles are not. It is only a matter of time until there is a collision between a bus and an islander's vehicle, with severe repercussions for all islanders with vehicles on the island; (d) the bus often carries family parties with small children and disgorges them at the end of the track where they scamper about noisily ('screaming little kids'). Any child too young or unfit to walk out to the west end of Dursey is unlikely to gain anything useful from a trip out to Tilickafinna, and will surely be better off playing near the jetty.
6. Camping should be restricted to designated camp grounds. I would suggest two to start with: one near the jetty or old monastery, with easy access to toilet facilities at the cable car (I have often seen people camping in this area); and one in Tilickafinna, perhaps in or near the westernmost field, but certainly no further west than the summit of the western hill. Camping on the greensward near the Tip should be strictly prohibited because this would cause prolonged disturbance not only to nesting and foraging Choughs, but also to nesting Oystercatchers and the occasional pair of nesting Ringed Plovers.
7. If disturbance by visitors on the greensward near the Tip is perceived to pose a threat to the Choughs and other breeding birds, it would be a simple matter to cordon off all the greensward areas to the north of the track out to the old lighthouse for the duration of the breeding season and main tourist season, e.g. from the beginning of

April until the end of August. The cordoning could be achieved with a sturdy rope set high enough for sheep to pass back and forth. The more signs there are stating why the area is cordoned off, the better. The Dursey regular bird-watchers would doubtless ignore the cordoning if it were extended into September, as the north side of Maoil Beg is much the best sea-watching spot in autumn.

8. I strongly recommend that the last cable car run in summer be no later than 20:00, as it was until recently. Visitors should be informed that they must be back at the cable car no later than 19:30. If visitors do not need to get back to the cable car until 20:30, some individuals could linger at the Tip until 19:00, giving the Choughs and other breeding birds little time in peace in the evenings.
9. As recommended in the EIA, all permitted walking routes should be well marked, especially near the west end of the island where in the past the trail markers were few and far between, and in some cases confusing.

In my opinion, any suggestion that the recent apparent decline in Chough numbers on Dursey Island is directly linked to the recent increase in tourist numbers is nonsense. I very much doubt that the number of visitors coming to Dursey Island is ever likely to reach a level at which they will pose a threat to the Chough population, given that about three-quarters of visitors get no further west than Kilmichael. However, if there appears to be a real danger of this happening, the number of visitors crossing to the island can easily be controlled at the cable car by restricting the number crossing to the island on any one day, e.g. to 250 or 300.

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## APPENDIX I

### DURSEY ISLAND SPECIES LISTS

#### Birds

**Red-throated Diver** *Gavia stellata*  
**Black-throated Diver** *Gavia arctica*  
**Great Northern Diver** *Gavia immer*  
**Great Crested Grebe** *Podiceps cristatus*  
**Northern Fulmar** *Fulmarus glacialis*  
**Albatross sp** *Diomedea* sp  
**Fea's-type Petrel** *Pterodroma feae*  
**Cory's Shearwater** *Calonectris diomedea*  
**Great Shearwater** *Puffinus gravis*  
**Sooty Shearwater** *Puffinus griseus*  
**Manx Shearwater** *Puffinus puffinus*  
**Balearic Shearwater** *Puffinus mauretanicus*  
**Little Shearwater** *Puffinus (assimilis)*  
**European Storm Petrel** *Hydrobates pelagicus*  
**Leach's Petrel** *Oceanodroma leucorhoa*  
**Northern Gannet** *Sula bassana*  
**Great Cormorant** *Phalacrocorax carbo*  
**European Shag** *Phalacrocorax aristotelis*  
**Little Egret** *Egretta garzetta*  
**Western Cattle Egret** *Bubulcus ibis*  
**Grey Heron** *Ardea cinerea*  
**Whooper Swan** *Cygnus cygnus*  
**Bean Goose** *Anser fabalis*  
**Pink-footed Goose** *Anser brachyrhynchus*  
**Canada Goose** *Branta canadensis*  
**Barnacle Goose** *Branta leucopsis*  
**Brent Goose** *Branta bernicla*  
**Common Shelduck** *Tadorna tadorna*  
**Eurasian Wigeon** *Anas penelope*  
**Gadwall** *Anas strepera*  
**Common Teal** *Anas crecca*  
**Mallard** *Anas platyrhynchos*  
**Northern Pintail** *Anas acuta*  
**Garganey** *Anas querquedula*  
**Common Eider** *Somateria mollissima*  
**Long-tailed Duck** *Clangula hyemalis*  
**Common Scoter** *Melanitta nigra*  
**Common Goldeneye** *Bucephala clangula*  
**Red-breasted Merganser** *Mergus serrator*  
**European Honey Buzzard** *Pernis apivorus*  
**Red Kite** *Milvus milvus*  
**White-tailed Eagle** *Haliaeetus albicilla*  
**Marsh Harrier** *Circus aeruginosus*  
**Hen Harrier** *Circus cyaneus*  
**Montagu's Harrier** *Circus pygargus*  
**Northern Goshawk** *Accipiter gentilis*  
**Eurasian Sparrowhawk** *Accipiter nisus*  
**Common Buzzard** *Buteo buteo*  
**Osprey** *Pandion haliaetus*

**Common Kestrel** *Falco tinnunculus*  
**Merlin** *Falco columbarius*  
**Eurasian Hobby** *Falco subbuteo*  
**Peregrine** *Falco peregrinus*  
**Common Quail** *Coturnix coturnix*  
**Common Pheasant** *Phasianus colchicus*  
**Water Rail** *Rallus aquaticus*  
**Corncrake** *Crex crex*  
**Common Crane** *Grus grus*  
**Eurasian Oystercatcher** *Haematopus ostralegus*  
**Stone Curlew** *Burhinus oedicephalus*  
**Little Ringed Plover** *Charadrius dubius*  
**Ringed Plover** *Charadrius hiaticula*  
**Eurasian Dotterel** *Eudromias morinellus*  
**European Golden Plover** *Pluvialis apricaria*  
**American Golden Plover** *Pluvialis dominica*  
**Grey Plover** *Pluvialis squatarola*  
**Northern Lapwing** *Vanellus vanellus*  
**Red Knot** *Calidris canutus*  
**Sanderling** *Calidris alba*  
**Little Stint** *Calidris minuta*  
**White-rumped Sandpiper** *Calidris fuscicollis*  
**Pectoral Sandpiper** *Calidris melanotos*  
**Curlew Sandpiper** *Calidris ferruginea*  
**Purple Sandpiper** *Calidris maritima*  
**Dunlin** *Calidris alpina*  
**Buff-breasted Sandpiper** *Tryngites subruficollis*  
**Ruff** *Philomachus pugnax*  
**Jack Snipe** *Lymnocyrtus minima*  
**Great Snipe** *Gallinago media*  
**Common Snipe** *Gallinago gallinago*  
**Eurasian Woodcock** *Scolopax rusticola*  
**Black-tailed Godwit** *Limosa limosa*  
**Bar-tailed Godwit** *Limosa lapponica*  
**Eurasian Whimbrel** *Numenius phaeopus*  
**Eurasian Curlew** *Numenius arquata*  
**Upland Sandpiper** *Bartramia longicauda*  
**Common Redshank** *Tringa totanus*  
**Common Greenshank** *Tringa nebularia*  
**Green Sandpiper** *Tringa ochropus*  
**Common Sandpiper** *Actitis hypoleucos*  
**Ruddy Turnstone** *Arenaria interpres*  
**Red-necked Phalarope** *Phalaropus lobatus*  
**Grey Phalarope** *Phalaropus fulicarius*  
**Pomarine Skua** *Stercorarius pomarinus*  
**Arctic Skua** *Stercorarius parasiticus*  
**Long-tailed Skua** *Stercorarius longicaudus*  
**Great Skua** *Stercorarius skua*  
**Mediterranean Gull** *Larus melanocephalus*  
**Little Gull** *Larus 26oronat*  
**Sabine's Gull** *Larus sabini*  
**Black-headed Gull** *Larus ridibundus*  
**Common Gull** *Larus canus*  
**Lesser Black-backed Gull** *Larus fuscus*  
**Herring Gull** *Larus argentatus*

**Yellow-legged Gull** *Larus cachinnans*  
**Iceland Gull** *Larus glaucoides*  
**Glaucous Gull** *Larus hyperboreus*  
**Great Black-backed Gull** *Larus marinus*  
**Black-legged Kittiwake** *Rissa tridactyla*  
**Sandwich Tern** *Sterna sandvicensis*  
**Roseate Tern** *Sterna dougallii*  
**Common Tern** *Sterna hirundo*  
**Arctic Tern** *Sterna paradisaea*  
**Little Tern** *Sterna albifrons*  
**Black Tern** *Chlidonias niger*  
**Common Guillemot** *Uria aalge*  
**Razorbill** *Alca torda*  
**Black Guillemot** *Cephus grylle*  
**Little Auk** *Alle alle*  
**Atlantic Puffin** *Fratercula arctica*  
**Rock Dove** *Columba livia*  
**Stock Dove** *Columba oenas*  
**Wood Pigeon** *Columba palumbus*  
**Collared Dove** *Streptopelia decaocto*  
**European Turtle Dove** *Streptopelia turtur*  
**Eurasian Cuckoo** *Cuculus canorus*  
**Barn Owl** *Tyto alba*  
**Long-eared Owl** *Asio otus*  
**Short-eared Owl** *Asio flammeus*  
**European Nightjar** *Caprimulgus europaeus*  
**Common Swift** *Apus apus*  
**Alpine Swift** *Apus melba*  
**European Bee-eater** *Merops apiaster*  
**Hoopoe** *Upupa epops*  
**Wryneck** *Jynx torquilla*  
**Short-toed Lark** *Calandrella brachydactyla*  
**Wood Lark** *Lullula arborea*  
**Eurasian Skylark** *Alauda arvensis*  
**Sand Martin** *Riparia riparia*  
**Barn Swallow** *Hirundo rustica*  
**House Martin** *Delichon urbica*  
**Richard's Pipit** *Anthus richardi*  
**Tawny Pipit** *Anthus campestris*  
**Olive-backed Pipit** *Anthus hodgsoni*  
**Tree Pipit** *Anthus trivialis*  
**Meadow Pipit** *Anthus pratensis*  
**Red-throated Pipit** *Anthus cervinus*  
**Rock Pipit** *Anthus petrosus*  
**Yellow Wagtail** *Motacilla flava*  
**Grey Wagtail** *Motacilla cinerea*  
**Pied Wagtail** *Motacilla alba*  
**Bohemian Waxwing** *Bombycilla garrulus*  
**Winter Wren** *Troglodytes troglodytes*  
**Duncock** *Prunella modularis*  
**European Robin** *Erithacus rubecula*  
**Thrush Nightingale** *Luscinia luscinia*  
**Bluethroat** *Luscinia svecica*  
**Red-flanked Bluetail** *Tarsiger cyanurus*  
**Black Redstart** *Phoenicurus ochruros*

**Common Redstart** *Phoenicurus phoenicurus*  
**Whinchat** *Saxicola rubetra*  
**Common Stonechat** *Saxicola torquata*  
**Northern Wheatear** *Oenanthe oenanthe*  
**Grey-cheeked Thrush** *Catharus minimus*  
**Ring Ouzel** *Turdus torquatus*  
**Common Blackbird** *Turdus merula*  
**Fieldfare** *Turdus pilaris*  
**Song Thrush** *Turdus philomelos*  
**Redwing** *Turdus iliacus*  
**Mistle Thrush** *Turdus viscivorus*  
**Grasshopper Warbler** *Locustella naevia*  
**Sedge Warbler** *Acrocephalus schoenobaenus*  
**European Reed Warbler** *Acrocephalus scirpaceus*  
**Blyth's Reed Warbler** *Acrocephalus dumetorum*  
**Eastern Olivaceous Warbler** *Hippolais pallida*  
**Icterine Warbler** *Hippolais icterina*  
**Melodious Warbler** *Hippolais polyglotta*  
**Dartford Warbler** *Sylvia undata*  
**Subalpine Warbler** *Sylvia cantillans*  
**Sardinian Warbler** *Sylvia melanocephala*  
**Barred Warbler** *Sylvia nisoria*  
**Lesser Whitethroat** *Sylvia curruca*  
**Common Whitethroat** *Sylvia communis*  
**Garden Warbler** *Sylvia borin*  
**Blackcap** *Sylvia atricapilla*  
**Greenish Warbler** *Phylloscopus trochiloides*  
**Two-barred Greenish Warbler** *Phylloscopus plumbeitarsus*  
**Arctic Warbler** *Phylloscopus borealis*  
**Pallas's Warbler** *Phylloscopus proregulus*  
**Yellow-browed Warbler** *Phylloscopus inornatus*  
**Dusky Warbler** *Phylloscopus fuscatus*  
**Wood Warbler** *Phylloscopus sibilatrix*  
**Chiffchaff** *Phylloscopus collybita*  
**Willow Warbler** *Phylloscopus trochilus*  
**Goldcrest** *Regulus regulus*  
**Firecrest** *Regulus ignicapillus*  
**Spotted Flycatcher** *Muscicapa striata*  
**Red-breasted Flycatcher** *Ficedula parva*  
**Pied Flycatcher** *Ficedula hypoleuca*  
**Long-tailed Tit** *Aegithalos caudatus*  
**Coal Tit** *Parus ater*  
**Blue Tit** *Parus caeruleus*  
**Great Tit** *Parus major*  
**Golden Oriole** *Oriolus oriolus*  
**Red-backed Shrike** *Lanius collurio*  
**Woodchat Shrike** *Lanius senator*  
**Eurasian Jay** *Garrulus glandarius*  
**Eurasian Magpie** *Pica pica*  
**Red-billed Chough** *Pyrrhocorax pyrrhocorax*  
**Jackdaw** *Corvus monedula*  
**Rook** *Corvus frugilegus*  
**Hooded Crow** *Corvus (corone) cornix*  
**Carrion Crow** *Corvus (corone) corone*  
**Common Raven** *Corvus corax*

**Common Starling** *Sturnus vulgaris*  
**Rose-coloured Starling** *Sturnus roseus*  
**House Sparrow** *Passer domesticus*  
**Tree Sparrow** *Passer montanus*  
**Red-eyed Vireo** *Vireo olivaceus*  
**Common Chaffinch** *Fringilla coelebs*  
**Brambling** *Fringilla montifringilla*  
**European Greenfinch** *Carduelis chloris*  
**European Goldfinch** *Carduelis carduelis*  
**Eurasian Siskin** *Carduelis spinus*  
**Common Linnet** *Carduelis cannabina*  
**Twite** *Carduelis flavirostris*  
**Lesser Redpoll** *Carduelis cabaret*  
**Mealy Redpoll** *Carduelis flammea*  
**Arctic Redpoll** *Carduelis hornemanni*  
**Common Crossbill** *Loxia curvirostra*  
**Common Rosefinch** *Carpodacus erythrinus*  
**Eurasian Bullfinch** *Pyrrhula pyrrhula*  
**Hawfinch** *Coccothraustes coccothraustes*  
**Northern Parula** *Parula americana*  
**Yellow-rumped Warbler** *Dendroica coronata*  
**Blackpoll Warbler** *Dendroica striata*  
**Ovenbird** *Seiurus aurocapillus*  
**Wilson's Warbler** *Wilsonia pusilla*  
**Dark-eyed Junco** *Junco hyemalis*  
**Lapland Bunting** *Calcarius lapponicus*  
**Snow Bunting** *Plectrophenax nivalis*  
**Yellowhammer** *Emberiza citrinella*  
**Ortolan Bunting** *Emberiza hortulana*  
**Rustic Bunting** *Emberiza rustica*  
**Little Bunting** *Emberiza pusilla*  
**Yellow-breasted Bunting** *Emberiza aureola*  
**Reed Bunting** *Emberiza schoeniclus*  
**Corn Bunting** *Miliaria calandra*

248 species

## Mammals

Pygmy Shrew  
 Long-eared Bat  
 Common Pipistrelle  
 Soprano Pipistrelle  
 Brown Rat  
 Sika Deer  
 Stoat  
 American Mink  
 Common Otter  
 Common Seal  
 Grey Seal  
 Northern Bottle-nosed Whale  
 Common Dolphin  
 Bottle-nosed Dolphin  
 Risso's Dolphin

Killer Whale  
Long-finned Pilot Whale  
Harbour Porpoise  
Minke Whale  
Sei Whale  
Fin Whale  
Humpback Whale

22 species

### **Reptiles**

Common Lizard  
Leatherback Turtle

### **Amphibians**

Common Frog (deliberately introduced in 2005, but not by me!)

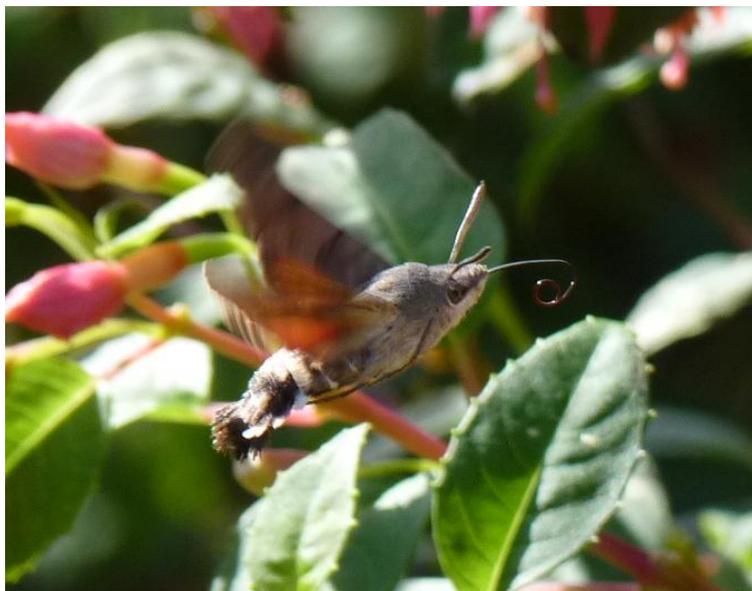
### **Butterflies**

Large White  
Small White  
Green-veined White  
Orange-tip  
Clouded Yellow  
Green Hairstreak  
Small Copper  
Common Blue  
Holly Blue  
Red Admiral  
Painted Lady  
Small Tortoiseshell  
Peacock  
Dark Green Fritillary  
Speckled Wood  
Wall Brown  
Ringlet  
Grayling  
Meadow Brown  
Monarch

20 species

## Moths

(list last updated on 17 January.2016)



Hummingbird Hawk-Moth, 7 October 2011 (Derek Scott)

Map-winged Swift *Hepialus fusconebulosa*  
Forester *Adscita statices*  
Six-spot Burnet *Zygaena filipendulae*  
Northern Eggar *Lasiocampa quercus callunae*  
Fox Moth *Macrothylacia rubi*  
Emperor *Pavonia pavonia*  
Buff Arches *Habrosyne pyritoides*  
Mullein Wave *Scopula marginepunctata*  
Small Fan-footed Wave *Idea biselata*  
Single-dotted Wave *Idea dimidiata*  
Riband Wave *Idea aversata*  
Vestal *Rhodometra sacraria* (Migrant)  
Flame Carpet *Xanthorhoe designata*  
Dark-barred Twin-spot Carpet *Xanthorhoe ferrugata*  
Garden Carpet *Xanthorhoe fluctuata*  
Shaded Broad-bar *Scotopteryx chenopodiata*  
July Belle *Scotopteryx luridata*  
Common Carpet *Epirrhoe alternata*  
Yellow Shell *Campptogramma bilineata hibernica*  
Confined to sea-cliffs in Cork and Kerry  
Purple Bar *Cosmorhoe ocellata*  
Chevron *Eulithis testata*  
Northern Spinach *Eulithis populata*  
Autumn Green Carpet *Chloroclysta miata*  
Spruce Carpet *Thera britannica*  
July Highflyer *Hydriomena furcata*  
Foxglove Pug *Eupithecia pulchellata*  
Netted Pug *Eupithecia venosata*  
Lime-speck Pug *Eupithecia centaureata*  
Wormwood Pug *Eupithecia absinthiata*

Ling Pug *Eupithecia absinthiata goossensiata*  
 Thyme Pug *Eupithecia distinctaria*  
     Nationally scarce B (UK); western and coastal.  
 Narrow-winged Pug *Eupithecia nanata*  
 V-Pug *Chloroclystis v-ata*  
 Double-striped Pug *Gymnoscelis rufifasciata*  
 Treble Bar *Aplocera plagiata*  
 Magpie Moth *Abraxas grossulariata*  
 Clouded Border *Lomaspilis marginata*  
 Brown Silver-line *Petrophora chlorosata*  
 Early Thorn *Selenia dentaria*  
 Swallow-tailed Moth *Ourapteryx sambucaria*  
 Bordered Grey *Selidosema brunnearia*  
     Nationally scarce A (UK); acid bogland, scattered localities in Ireland.  
 Common Heath *Ematurga atomaria*  
 Grey Scalloped Bar *Dyscia fagaria*  
 Convolvulus Hawk-moth *Agrius convolvuli* (Migrant)  
 Hummingbird Hawk-moth *Macroglossum stellatarium* (Migrant)  
 Striped Hawk-moth *Hyles livornica* (Migrant)  
 Buff Tip *Phalera bucephala*  
 Puss Moth *Cerura vinula*  
 Scarce Footman *Eilema complana*  
 Crimson Speckled *Utetheisa pulchella* (Migrant)  
 Garden Tiger *Arctia caja*  
 White Ermine *Spilosoma lubricipeda*  
 Buff Ermine *Spilosoma luteum*  
 Muslin Moth *Diaphora mendica*  
 Ruby Tiger *Phragmatobia fuliginosa*  
 Cinnabar *Tyria jacobaeae*  
 Square-spot Dart *Euxoa obelisca*  
     Nationally scarce B (UK); coastal; local in south and west of Ireland.  
 Turnip Moth *Agrotis segetum* (Resident and migrant)  
 Heart and Dart *Agrotis exclamationis*  
 Crescent Dart *Agrotis trux*  
     Coastal cliffs; local.  
 Dark Sword-grass *Agrotis ipsilon* (Migrant)  
 Flame *Axylia putris*  
 Flame Shoulder *Ochropleura plecta*  
 Northern Rustic *Standfussiana lucerneae*  
     Cliffs, screes; local.  
 Large Yellow Underwing *Noctua pronuba* (Resident and migrant)  
 Lesser Yellow Underwing *Noctua comes*  
 Lesser Broad-bordered Yellow Underwing *Noctua janthe*  
 Least Yellow Underwing *Noctua interjecta*  
 True Lover's Knot *Lycophotia porphyrea*  
 Ingrailed Clay *Diarsia mendica*  
 Small Square-spot *Diarsia rubi*  
 Setaceous Hebrew Character *Xestia c-nigrum*  
     Suspected immigrant  
 Double Square-spot *Xestia triangulum*  
 Dotted Clay *Xestia baja*  
 Six-striped Rustic *Xestia sexstrigata*  
 Square-spot Rustic *Xestia xanthographa*  
 Heath Rustic *Xestia agathina agathina*  
     Heathland and moorland; local.

Red Chestnut *Cerastis rubricosa*  
 Shears *Hada nana*  
 Bordered Gothic *Heliophobus reticulata hibernicus*  
     Extreme south of Ireland from Wexford to Kerry  
 Dot Moth *Melanchra persicariae*  
 Bright-line Brown-eye *Lacanobia oleracea*  
 Glaucous Shears *Papestra biren*  
 Broom Moth *Ceramica pisi*  
 Campion *Hadena rivularis*  
 Pod Lover *Hadena perplexa capsophila*  
     Rocky coastlines; western.  
 Grey *Hadena caesia*  
     Red Data Book (UK); rocky coasts in south and west of Ireland.  
 Antler Moth *Cerapteryx graminis*  
 Brown-line Bright-eye *Mythimna conigera*  
 Clay *Mythimna ferrago*  
 Delicate *Mythimna vitellina*  
     Regular immigrant to south-west Britain and southern Ireland  
 Smoky Wainscot *Mythimna impura*  
 Common Wainscot *Mythimna pattens*  
 Shoulder-striped Wainscot *Mythimna comma*  
 Shark *Cucullia umbratica*  
 Red Sword-grass *Xylena vetusta*  
 Red-line Quaker *Agrochola lota*  
 Lunar Underwing *Omphaloscelis lunosa*  
 Pink-barred Sallow *Xanthia togata*  
 Sweet Gale Moth *Acronicta euphorbiae*  
     Nationally Scarce A (UK); occurs on west coast of Ireland locally to Cork.  
 Knot Grass *Aronicta rumicis*  
 Straw Underwing *Thalpophila matura*  
     Local in Ireland; mainly coastal.  
 Small Angle Shades *Euplexia lucipara*  
 Angle Shades *Phlogophora meticulosa* (Resident and migrant)  
 Dark Arches *Apamea monoglypha*  
 Dusky Brocade *Apamea remissa*  
 Marbled/Rufous/Tawny Marbled Minor *Oligia strigilis/versicolor/atruncula*  
 Middle-barred Minor *Oligia fasciuncula*  
 Cloaked Minor *Mesoligia furuncula*  
     Local and coastal in Ireland.  
 Rosy Minor *Mesoligia literosa*  
 Common Rustic *Mesapamea secalis*  
 Small Wainscot *Chortodes pygmina*  
 Flounced Rustic *Luperina testacea*  
 Ear Moth sp. *Amphipoea* sp.  
 Rosy Rustic *Hydraecia micacea*  
 Frosted Orange *Gortyna flavago*  
 Crescent *Celaena leucostigma*  
 Uncertain *Hoplodrina alsines*  
 Rustic *Hoplodrena blanda*  
 Mottled Rustic *Caradrina morpheus*  
 Anomalous *Stilbia anomala*  
     Local in Ireland; moorland and grassy uplands.  
 Small Yellow Underwing *Panemeria tenebrata*  
     Local; thinly distributed in south-west Ireland  
 Bordered Straw *Heliopsis peltigera* (Migrant)

Gold Spot *Plusia festucae*  
Silver Y *Autographa gamma* (Migrant)  
Dark Spectacle *Abrostola triplasia*  
Spectacle *Abrostola tripartita*  
Herald *Scoliopteryx libatrix*  
Straw Dot *Rivula sericealis*  
Snout *Hyponia proboscidalis*

130 species

### **Dragonflies**

Common Darter  
Red-veined Darter  
Common Hawker

## APPENDIX II

### The breeding birds of Dursey Island, Co. Cork

Derek Scott, July 2017

- Northern Fulmar** *Fulmarus glacialis*: A common breeding bird on the cliffs, especially along the north coast and around the Tip; 575 occupied nest-sites were counted during the census of the island's breeding seabirds in 2000. Present offshore year-round, although rather scarce in late autumn and early winter, except during stormy weather.
- European Shag** *Phalacrocorax aristotelis*: Present year-round, most frequent in the Sound and at a regular roost near the jetty, where as many as 60 birds have been recorded. A few pairs breed on the cliffs at various locations around the island; some 9-13 pairs were recorded during the census in 2000.
- Common Kestrel** *Falco tinnunculus*: A pair bred on the cliffs below Tilickafinna until 2003, but there has been no evidence of breeding since then. Now a regular visitor from the mainland from July to November (up to five birds in a day) and an occasional visitor in other months.
- Peregrine** *Falco peregrinus*: Recorded in every month of the year, but generally elusive except in late autumn when birds can often be seen hunting for migrants near the tip. A pair bred on the high cliff on the north side of the island in 2004 and 2005 and on the cliffs below Tilickafinna in 2011 and 2012. Breeding was also suspected in 2002, 2006 and 2013.
- Eurasian Oystercatcher** *Haematopus ostralegus*: Present year-round; most frequently encountered on the shores of the Sound and on Illanebeg. There are usually five or six breeding pairs scattered round the island. A regular high-tide roost near the jetty can hold up to 15 or 20 birds.
- Ringed Plover** *Charadrius hiaticula*: There were two or three breeding pairs on the island until 2002, but since then the only breeding records were of single pairs in 2004, 2005 and 2010. Pairs have bred near the jetty, on Illanebeg, on the central north coast and near the tip. The Ringed Plover is also a scarce passage migrant in autumn, mainly in August and September.
- Lesser Black-backed Gull** *Larus fuscus*: The tiny breeding population of four or five pairs on the cliffs on the northwest coast and below Tilickafinna remained stable throughout the 1990s and early 2000s, but then increased to about 15 pairs in 2010 and at least 20 pairs in 2014 and 2015. Mainly a summer visitor: the adults arrive back at the breeding sites in the first half of February and most have left by the end of August or early September. Late migrants can occur as late as the end of October or early November, and there are occasional records of adult birds in December and January.
- Herring Gull** *Larus argentatus*: A common bird year-round, breeding at several sites on the cliffs; 21 pairs were located during the census in 2000.
- Razorbill** *Alca torda*: Present year-round. A few pairs breed at one site on a cliff on the north coast. Commonly seen feeding offshore and flying to and from the breeding colonies on the Cow and the Bull.
- Rock Dove** *Columba livia*: Formerly a resident on the island, breeding on the high cliffs on the south coast and perhaps elsewhere, but last bred in 1993. Since 1997, there has been only one record of genuine wild Rock Doves on the island: a party of four at the tip on 5 October 2013.
- Eurasian Skylark** *Alauda arvensis*: A common breeding bird over much of the island, although numbers seem to have decreased in recent years. Mainly a summer visitor, with the first of the breeding birds usually arriving back on the island in the second

- week of February, and most having left the island by the end of October or early November. A few birds occasionally appear on fine days in December and January.
- Barn Swallow** *Hirundo rustica*: Between five and ten pairs breed on the island, mostly in the 'villages' although occasionally a pair breeds in a shed near the jetty. A summer visitor; the first passage migrants have been seen as early as 18 March, but the local breeding birds do not usually arrive until 10-15 April. The breeding birds and their offspring have usually left by the end of September; late migrants have been recorded on many occasions in October, on four occasions in November, and once in December (a bird on 4 December 2009).
- Meadow Pipit** *Anthus pratensis*: Present year-round and the commonest small breeding bird on the island; also a very common passage migrant, especially in autumn. Many of the breeding birds leave the island in late autumn and only some 30-50 remain throughout the winter months.
- Rock Pipit** *Anthus petrosus*: A common breeding bird on the cliffs all round the island, and present year-round. Seldom seen far from the cliffs, except during severe storms when many birds move up onto the cliffs tops and occasionally into the fields.
- Pied Wagtail** *Motacilla alba*: Present year-round; there were formerly three or four breeding pairs, a pair in each 'village' and a pair near the jetty, but only one pair bred in 2011 and there have been only two or three pairs since then.
- Winter Wren** *Troglodytes troglodytes*: A common resident, breeding not only in the townlands but also on some of the cliffs.
- Dunnock** *Prunella modularis*: A common resident, breeding mostly in the townlands.
- European Robin** *Erithacus rubecula*: A common resident, breeding mostly in the townlands. The island population is often swelled in October with the arrival of migrants, but most of these birds do not stay around long.
- Common Stonechat** *Saxicola torquata*: A common resident; there are usually at least 10 breeding pairs scattered widely over the island. Many of the island birds disappear in late autumn, leaving no more than about a dozen birds on the island in mid-winter.
- Northern Wheatear** *Oenanthe oenanthe*: A common summer visitor, breeding widely over the island, but most numerous near the west end. The first of the breeding birds usually arrive between 13 and 18 March and most have departed by the end of September, although a few linger on well into October. A bird on 20 November 2011 was exceptional.
- Common Blackbird** *Turdus merula*: A fairly common resident, breeding in the townlands. In some years, large numbers of migrants arrive in October but these soon move off again.
- Song Thrush** *Turdus philomelos*: Formerly a fairly common resident, with five or six pairs breeding in the townlands in the 1990s and early 2000s, but numbers then dwindled to only two or three pairs. None nested on the island in 2011 and since then there have been only one or two breeding pairs. The Song Thrush is, however, a common passage migrant in October, with some 20-25 birds remaining on the island throughout the winter.
- Sedge Warbler** *Acrocephalus schoenobaenus*: A pair of Sedge Warblers bred for the first time on Dursey in 2005. A pair probably bred in 2007, and a pair definitely bred in 2009. There were two pairs in 2010 and 2011, and one or two pairs in 2012, 2013, 2014 and 2015, but none was recorded during the breeding season in 2016. The Sedge Warbler is a common passage migrant in spring (late April to early June) and an uncommon passage migrant in autumn (early September to mid-October). A bird on 16 March 2008 was exceptionally early.
- Blue Tit** *Parus caeruleus*: Formerly only a visitor to the island in small numbers in autumn, but present throughout the year in recent years; one pair may have bred in 2009 and has bred annually in Kilmichael since 2011.
- Great Tit** *Parus major*: Formerly only a visitor to the island in small numbers in autumn, but present throughout the year in recent years. A pair bred for the first time in 2006, and one or two pairs have bred annually since then.

- Eurasian Magpie** *Pica pica*: A resident on the island. There was probably only one breeding pair in the 1990s, but there have been two pairs since then, one in the Ballynacallagh and Kilmichael area and one in Tilickafinna. Numbers are occasionally swelled in autumn with the arrival of parties of day visitors from the mainland.
- Red-billed Chough** *Pyrrhocorax pyrrhocorax*: A common and conspicuous resident on the island. There are between eight and ten breeding pairs. Most pairs breed in crevices or caves on the cliffs, especially around the western half of the island, but in recent years a pair has bred in a ruined house in Tilickafinna. Ten pairs were found breeding during the Chough Census in 2001. Flocks of as many as 40 or 50 birds are not uncommon in late summer and autumn.
- Hooded Crow** *Corvus cornix*: Present year-round. At least six nests were found during a comprehensive survey of the island in 2000, but no more than three or four pairs have bred in recent years. Also a regular commuter from the mainland in spring and autumn, with birds flying over from the mainland in the morning and returning in the evening.
- Common Raven** *Corvus corax*: Present year-round. A pair breeds every year on the cliffs in Tilickafinna, and usually rears three or four chicks to fledging. Another pair probably breeds near the east end of the island, but their nest-site has never been found. Also an occasional commuter from the mainland in spring and autumn, with up to 20 birds flying over from the mainland in the morning and returning in the afternoon.
- Common Starling** *Sturnus vulgaris*: The small breeding population is present on the island year-round. Numbers increased from between five and eight pairs in the 1990s to 10-12 pairs in 2005 and 2006, but then decreased to only two pairs in 2010 and 2011. Since then, numbers have increased again to at least six pairs in 2015 and 2016. Flocks of up to 100 or so often fly over from the mainland on fine days in winter and early spring, and flocks of up to 400 or 500, mostly juveniles, are often present in summer and early autumn.
- House Sparrow** *Passer domesticus*: Formerly a common resident, breeding around the occupied houses in Kilmichael and probably also Ballynacallagh, but last known to breed in 1994, when there were two or three pairs. None has bred on the island since then, but small flocks occasionally appear on the island in late summer and autumn, and there have been a few records of individuals turning up in spring.
- European Greenfinch** *Carduelis chloris*: Formerly only a fairly common passage migrant in autumn (early October to early November). A few birds began to overwinter in 2002 and at least one pair bred on the island in 2005. One or two pairs bred annually from 2006 to 2010, and three or four pairs have bred since then. Greenfinches were present year-round from 2005 to 2009, but since then, the birds have disappeared for a brief period in mid-winter (from mid- or late December to mid- or late January).
- Common Linnet** *Carduelis cannabina*: A common breeding bird, widespread over the island. Almost entirely a summer visitor, usually arriving back in the breeding areas in mid-March and departing in late October or early November, although a few birds, and occasionally small flocks, sometimes appear on fine days in winter. Post-breeding flocks of up to several hundred birds are often seen in late summer and early autumn.
- Lesser Redpoll** *Carduelis cabaret*: Primarily a scarce passage migrant in spring (late March to late June) and a fairly common passage migrant in autumn (early September to late November). However, one pair bred successfully in Scott's garden in Tilickafinna in 2012, and reared four young to fledging.
- Yellowhammer** *Emberiza citrinella*: There were still several pairs breeding in Ballynacallagh and Kilmichael in 1992 and 1993, but only one or two pairs bred in 1994, and these were the last. There have been only two records of Yellowhammers on Dursey since 1995, both of single birds on 11 May 2002 and 9 October 2016.
- Reed Bunting** *Emberiza schoeniclus*: Up to three pairs were breeding in the marshy fields below Kilmichael until 1996, and a pair may have bred in 1997. There was no evidence of breeding in the years 1998 to 2005, but two pairs bred in 2006, and one

or two pairs have been present during the breeding season and probably breeding every year since then. The local breeding birds appear to be present on the island throughout the year, and in some years there is a small influx of birds from the mainland in autumn.

### **Possible breeding birds**

**Common Pheasant** *Phasianus colchicus*: The Common Pheasant was first recorded on Dursey Island as recently as 2008, when a male appeared on 23 October and remained until at least 2 November. The next was not until November 2010, but since then, pheasants have occurred with increasing frequency. All records were of males until 3 July 2016, when a female was seen in Kilmichael. There have now been records in every month of the year except February, and there were at least two calling males present in 2015 and 2016. It seems only a matter of time before the species starts to breed on the island.

**House Martin** *Delichon urbica*: The House Martin is a fairly common passage migrant in spring (mid-April to early June) and autumn (late July to mid-October). In 2004, a pair lingered on until the middle of June and constructed a nest on a building in Kilmichael, but this was soon abandoned.

**Grasshopper Warbler** *Locustella naevia*: The Grasshopper Warbler is a scarce passage migrant in spring and rare passage migrant in autumn. Spring migrants have often been heard in song, but few stay more than a day or two. However, in 2010, a singing male held a territory in suitable breeding habitat in Kilmichael from 2 to 14 May and on one occasion was seen with a second bird, almost certainly a female. It is possible that these birds were breeding. A bird was heard in song at the same site on 3 June 2013.

**Chiffchaff** *Phylloscopus collybita*: The Chiffchaff is a very common passage migrant in spring (mid-March to mid-June) and autumn (late July to late November), with one or two birds occasionally lingering on into December or even early January. However, one or two birds have remained almost throughout the summer in Scott's garden in Tilickafinna in most years since 2005, and it seems likely that a pair attempted to breed in 2012.

**European Goldfinch** *Carduelis carduelis*: The Goldfinch is primarily a scarce passage migrant in spring (mid-March to early June) and a very common passage migrant in autumn (early September to early November), with a small number of birds lingering on through December into January and occasionally early February. However, one or two pairs were present throughout the summer in 2012, suggesting that this is another species that might one day breed on Dursey Island.

**Postscript:** Three female or juvenile **Common Pheasants** were seen in the upper part of The Valley on 1 November 2018, suggesting that breeding might have occurred. However, breeding was not proven until 2019, when a female was seen with large fledglings in Tilickafinna in summer.

## APPENDIX III

### Migrant birds of Dursey Island, Co. Cork

Derek Scott, July 2017

The three figures in brackets after the species name are: the total number of records in the period 1977 to 2016; the maximum count in a single day; and the number of years in which the species was recorded during the 25-year period from 1992 to 2016, respectively. An asterisk indicates a large and uncertain number.

#### Seabirds seen offshore

- Cory's Shearwater** *Calonectris diomedea*: (13, 25, 7): First recorded on 27 July 1980.  
**Great Shearwater** *Puffinus gravis*: (27, 265, 8): First record: one on 10 September 1978.  
**Sooty Shearwater** *Puffinus griseus*: (355, 1,675, 25): Passage migrant in autumn.  
**Manx Shearwater** *Puffinus puffinus*: (\*, \*, 25): Abundant summer visitor offshore.  
**Balearic Shearwater** *Puffinus mauretanicus*: (41, 6, 16): Also in Sep 79, Oct 79 & Sep 91.  
**European Storm Petrel** *Hydrobates pelagicus*: (113, 8,000, 21): Summer visitor to offshore islands.  
**Northern Gannet** *Sula bassana*: (\*, \*, 25): Abundant resident, breeding on Bull.  
**Great Cormorant** *Phalacrocorax carbo*: (\*, \*, 25): Resident, breeding on the Cow.  
**Common Scoter** *Melanitta nigra*: (295, 100, 25): Passage migrant in summer & autumn.  
**Grey Phalarope** *Phalaropus fulicarius*: (73, 70, 15): Also in Oct 79, Sep 89 & Sep 91.  
**Pomarine Skua** *Stercorarius pomarinus*: (93, 43, 24): Passage migrant in spring and autumn.  
**Arctic Skua** *Stercorarius parasiticus*: (258, 11, 25): Passage migrant in spring and autumn.  
**Long-tailed Skua** *Stercorarius longicaudus*: (7, 4, 7) First record: one on 2 October 1996.  
**Great Skua** *Stercorarius skua*: (456, 17, 25): Passage migrant in spring and autumn.  
**Sabine's Gull** *Larus sabini*: (23, 33, 9): First record: one on 7 October 1979.  
**Black-headed Gull** *Larus ridibundus*: (231, 32, 25): Occasional visitor in summer & autumn.  
**Great Black-backed Gull** *Larus marinus*: (\*, \*, 25): Common year round; breeding on nearby islands.  
**Black-legged Kittiwake** *Rissa tridactyla*: (\*, \*, 25): Year round; breeding on nearby islands.  
**Sandwich Tern** *Sterna sandvicensis*: (77, 12, 21): Passage migrant in spring and autumn.  
**Common Tern** *Sterna hirundo*: (13, 12, 8): Also in Aug 78, Aug 83 & Jun 91.  
**Arctic Tern** *Sterna paradisaea*: (82, 775, 18): Passage migrant in autumn.  
**Common Guillemot** *Uria aalge*: (\*, \*, 25): Year round; breeding on other islands.  
**Black Guillemot** *Cephus grylle*: (\*, \*, 25): Mainly a summer visitor; but not known to breed.  
**Atlantic Puffin** *Fratercula arctica*: (276+, 447, 24): Summer visitor, breeding on the Bull.

#### Winter visitors

- Red-throated Diver** *Gavia stellata* (143, 11, 25): Passage migrant and winter visitor.  
**Great Northern Diver** *Gavia immer* (263, 22, 23): Passage migrant and winter visitor.  
**Merlin** *Falco columbarius*: (570, 5, 25): Passage migrant and winter visitor.  
**Purple Sandpiper** *Calidris maritima*: (143, 19, 19): Winter visitor in small numbers.  
**Jack Snipe** *Lymnocyptes minima*: (57, 3, 21): Also in 78, 79, 88, 89 & 90.  
**Common Snipe** *Gallinago gallinago*: (\*, 900, 25): Common winter visitor.  
**Eurasian Woodcock** *Scolopax rusticola*: (103, 37, 17): Also in Oct 78 & Jan 79 (six).  
**Ruddy Turnstone** *Arenaria interpres*: (257, 26, 25): Winter visitor in small numbers.  
**Common Gull** *Larus canus*: (\*, 18, 25): Winter visitor in small numbers.  
**Iceland Gull** *Larus glaucoides*: (37, 3, 15): First record: one on 9 October 1991.

**Glaucous Gull** *Larus hyperboreus*: (42, 2, 16): First record: one on 9 October 1979.

**Redwing** *Turdus iliacus*: (711+, 1,500, 24): Passage migrant and winter visitor.

**Common Chaffinch** *Fringilla coelebs*: (1,243+, 175, 25): Passage migrant and winter visitor.

**European Goldfinch** *Carduelis carduelis*: (979+, 240, 25): Passage migrant and winter visitor; in recent years, one or two pairs birds were present in late spring and summer in 2012 and 2013, but were not known to have bred.

### Visitors from the mainland

**Grey Heron** *Ardea cinerea*: (259, 12, 25): Regular visitor in summer and autumn.

**Mallard** *Anas platyrhynchos*: (16, 5, 5): Also 10 records in 1978 & 1979.

**Eurasian Curlew** *Numenius arquata*: (\*, \*, 25): Occasional visitor in summer & autumn.

**Common Redshank** *Tringa totanus*: (28, 2, 8): First record: one on 3 October 1998.

**Western Jackdaw** *Corvus monedula*: (73, 380, 23): Occasional visitor, mainly in autumn.

**Rook** *Corvus frugilegus*: (69, 106, 18): Occasional visitor, mainly in autumn.

### Common Passage Migrants

(over 50 records and recorded in most, if not all, years)

**Hen Harrier** *Circus cyaneus*: (93, 2, 23): Passage migrant, mainly in autumn.

**Eurasian Sparrowhawk** *Accipiter nisus*: (511+, 3, 25): Passage migrant & scarce winter visitor.

**European Golden Plover** *Pluvialis apricaria*: (259, 110, 25): Passage migrant in spring and autumn.

**Eurasian Whimbrel** *Numenius phaeopus*: (321, 475, 25): Passage migrant, mainly in spring.

**Wood Pigeon** *Columba palumbus*: (76, 180, 18): Also in Apr 78 (two) & Aug 78 (two).

**Collared Dove** *Streptopelia decaocto*: (193, 7, 24): First record: three on 3 May 1993.

**European Turtle Dove** *Streptopelia turtur*: (57, 2, 22): Also in 78, 79, 89 & 90.

**Short-eared Owl** *Asio flammeus*: (53, 3, 18): Also in Oct 78 & Nov 78.

**Common Swift** *Apus apus*: (92, 80, 22): Also in Sep 78 & Jul 80.

**Sand Martin** *Riparia riparia*: (115, 13, 25): Passage migrant in spring and autumn.

**House Martin** *Delichon urbica*: (262, 30, 25): Passage migrant, mainly in spring.

**Yellow Wagtail** *Motacilla flava*: (78, 4, 19): Also in 78, 79, 83, 86, 90 & 91.

**Grey Wagtail** *Motacilla cinerea*: (442+, 9, 25): Mainly a passage migrant in autumn.

**Black Redstart** *Phoenicurus ochruros*: (180, 17, 22): Passage migrant in spring and autumn.

**Common Redstart** *Phoenicurus phoenicurus*: (67, 5, 23): Passage migrant, mainly in autumn.

**Whinchat** *Saxicola rubetra*: (170, 12, 23): Passage migrant, mainly in autumn.

**Ring Ouzel** *Turdus torquatus*: (61, 14, 21): Also in 79, 88, 89 & 91.

**Fieldfare** *Turdus pilaris*: (260, 300, 21): Passage migrant, mainly in autumn.

**Mistle Thrush** *Turdus viscivorus*: (69, 7, 18): Also in Sep 79 & Oct 88 (two).

**Grasshopper Warbler** *Locustella naevia*: (39, 4, 17): First record: one on 17 April 1994. A pair may have bred in 2010.

**European Reed Warbler** *Acrocephalus scirpaceus*: (86, 6, 21): Also in 78, 79, 90 & 91.

**Common Whitethroat** *Sylvia communis*: (197, 21, 24): Passage migrant in spring and autumn.

**Garden Warbler** *Sylvia borin*: (99, 2, 23): Passage migrant in spring and autumn.

**Blackcap** *Sylvia atricapilla*: (623+, 20, 25): Passage migrant in spring and autumn.

**Yellow-browed Warbler** *Phylloscopus inornatus*: (80, 9, 19): Also in Oct 86 (three) & Oct 88 (three).

**Chiffchaff** *Phylloscopus collybita*: (1,606+, 45, 25): Passage migrant in spring and autumn; one or two birds have remained throughout the summer in most years since 2005.

**Willow Warbler** *Phylloscopus trochilus*: (648+, 40, 25): Passage migrant in spring and autumn.  
**Goldcrest** *Regulus regulus*: (525+, 150, 25): Passage migrant in spring and autumn.  
**Spotted Flycatcher** *Muscicapa striata*: (247, 11, 25): Passage migrant in spring and autumn.  
**Pied Flycatcher** *Ficedula hypoleuca*: (73, 5, 20): Also in 78, 79, 86, 87, 89 & 90.  
**Brambling** *Fringilla montifringilla*: (86, 13, 16): Also in 78, 79, 88 & 90.  
**Eurasian Siskin** *Carduelis spinus*: (284, 400, 24): Passage migrant, mainly in autumn.  
**Lapland Bunting** *Calcarius lapponicus*: (111, 10, 23): Passage migrant in autumn.  
**Snow Bunting** *Plectrophenax nivalis*: (178, 24, 23): Passage migrant, mainly in autumn.

### Scarce passage migrants

(fewer than 50 records and not recorded every year)

**Barnacle Goose** *Branta leucopsis*: (18, 44, 11): Also in October 1987 (10) & October 1990 (three).  
**Common Teal** *Anas crecca*: (13, 8, 5): Also in October 1978 & December 1978.  
**Water Rail** *Rallus aquaticus*: (16, 1, 9): First record: one on 1 January 1979.  
**Northern Lapwing** *Vanellus vanellus*: (22, 173, 9): Also in Dec 78, Jan 79 & Oct 79.  
**Dunlin** *Calidris alpina*: (30, 8, 12): Also in Sep 79, Sep 90 (two) & Oct 90.  
**Buff-breasted Sandpiper** *Tryngites subruficollis*: (11, 3, 7): First record: one on 5 in August 1978.  
**Bar-tailed Godwit** *Limosa lapponica*: (12, 6, 7): Also in Aug 78, Sep 78 & Sep 79.  
**Common Greenshank** *Tringa nebularia*: (17, 2, 7): First record: one on 28 August 1995.  
**Common Sandpiper** *Actitis hypoleucos*: (25, 3, 10): Also in Aug 78, Sep 89 & Oct 89.  
**Little Gull** *Larus minutus*: (15, 2, 8): Also in Oct & Dec 78, Oct 87 & Oct 91.  
**Stock Dove** *Columba oenas*: (11, 1, 8): First record: one on 23 October 1996.  
**Eurasian Cuckoo** *Cuculus canorus*: (14, 1, 11): First record: one on 8 May 1993.  
**Long-eared Owl** *Asio otus*: (11, 1, 8): First record: one on 19 October 1993.  
**Wryneck** *Jynx torquilla*: (45, 4, 15): Also in 78, 79, 88, 89, 90 & 91.  
**Short-toed Lark** *Calandrella brachydactyla*: (11, 1, 4): Also in 79, 83, 86, 88 & 89.  
**Richard's Pipit** *Anthus richardi*: (16, 1, 9): First record: one on 12 October 1978; also in Oct 1979.  
**Tree Pipit** *Anthus trivialis*: (34, 2, 14): Also in Aug 78, Oct 89 & Sep 90 (two).  
**Barred Warbler** *Sylvia nisoria*: (11, 1, 7): Also in Oct 89 (two) & Sep 91.  
**Lesser Whitethroat** *Silvia curruca*: (41, 2, 22): Also in Sep 90.  
**Firecrest** *Regulus ignicapillus*: (40, 4, 14): Also in Oct 78 (five) and Nov 78.  
**Red-breasted Flycatcher** *Ficedula parva*: (13, 1, 8): First record: one on 8 October 1986.  
**Coal Tit** *Parus ater*: (47, 35, 11): Also in Oct 91 (two).  
**Eurasian Golden Oriole** *Oriolus oriolus*: (11, 3, 7): First record: one on 3 June 2003.  
**Red-backed Shrike** *Lanius collurio*: (12, 1, 9): Also in Sep 89 & Oct 89 (two).  
**Carrion Crow** *Corvus corone*: (11, 4, 7): Also in Oct 79 (two), Oct 90 & Oct 91.  
**Tree Sparrow** *Passer montanus*: (13, 8, 8): First record: one on 7 May 1993.  
**Twite** *Carduelis flavirostris*: (21, 14, 5): Also in Apr 78, Oct 78, Oct 88 & Oct 91.  
**Common Crossbill** *Loxia curvirostra*: (23, 11, 7): First record: 11 on 3 October 1990.  
**Common Rosefinch** *Carpodacus erythrinus*: (23, 1, 12): First records: one on 12 October 1978 and one on 29 October 1978; also in Sep 90, Sep 91 & Oct 91  
**Ortolan Bunting** *Emberiza hortulana*: (14, 1, 10): First records: one on 26 September 1979 and one on 3 October 1979.

## Rarities

Of the 248 species of birds recorded for Dursey Island to date, 103 (over 40%) have been observed on fewer than 10 occasions. Many of these are common birds elsewhere in Ireland, but seldom appear on Dursey because of the lack of suitable habitat.

- Black-throated Diver** *Gavia arctica* (4, 1, 3): First record: one on 19 February 2002.  
**Great Crested Grebe** *Podiceps cristatus*: (1, 2, 1): Two on 9 October 1997.  
**Albatross sp** *Diomedea* sp: (1, 1, 0): One on 8 October 1991.  
**Fea's type Petrel** *Pterodroma feae*: (1, 1, 1): One on 23 September 2013.  
**Little type Shearwater** *Puffinus assimilis*: (1, 1, 0): One on 26 September 1979.  
**Leach's Petrel** *Oceanodroma leucorhoa*: (3, 1, 3): First record: one on 6 September 1995.  
**Little Egret** *Egretta garzetta*: (8, 3, 4): First record: one on 10 September 2009.  
**Whooper Swan** *Cygnus cygnus*: (8, 8, 7): First record: five on 19 October 2002.  
**Bean Goose** *Anser fabalis*: (1, 1, 1): One on 29 October 2015.  
**Pink-footed Goose** *Anser brachyrhynchus*: (4, 4, 4): First rec.: one on 21-27 April 2005.  
**Canada Goose** *Branta canadensis*: (1, 1, 1): One on 25 June 2002.  
**Brent Goose** *Branta bernicla*: (8, 8, 5): Also in September 1991.  
**Common Shelduck** *Tadorna tadorna*: (3, 6, 3): First record: two on 8 May 2000.  
**Eurasian Wigeon** *Anas penelope*: (4, 12, 30): Also in October 1979 (12).  
**Gadwall** *Anas strepera*: (1, 1, 0): One on 14 October 1978.  
**Northern Pintail** *Anas acuta*: (2, 40, 2): First record: 40 on 25 October 1993.  
**Garganey** *Anas querquedula*: (1, 1, 1): One on 25 April 2004.  
**Common Eider** *Somateria mollissima*: (1, 1, 0): One on 23 December 1978.  
**Long-tailed Duck** *Clangula hyemalis*: (1, 1, 1): One on 17 October 2002.  
**Common Goldeneye** *Bucephala clangula*: (1, 1, 1): One on 17 October 1992.  
**Red-breasted Merganser** *Mergus serrator*: (2, 3, 2): One on 23 April 1995; three on 29 October 2001.  
**Red Kite** *Milvus milvus*: (1, 1, 1): One on 4 June 2013.  
**White-tailed Eagle** *Haliaeetus albicilla*: (2, 1, 2): One from 27 September to 5 October 2010; one on 4 April 2013.  
**Marsh Harrier** *Circus aeruginosus*: (2, 1, 2): One on 16 September 1996; one on 10 October 2015.  
**Montagu's Harrier** *Circus pygargus*: (2, 1, 2): One on 15 May 2000, one on 13 May 2006.  
**Northern Goshawk** *Accipiter gentilis*: (3, 1, 1): One on 27 September 1990, one on 8-9 October 1990, and one on 3 November 1996.  
**Common Buzzard** *Buteo buteo*: (3, 1, 2): One on 5 September 2015, one on 10 October 2016 and one on 23 October 2016.  
**Osprey** *Pandion haliaetus*: (6, 1, 3): First record: one on 28 August 1978.  
**Eurasian Hobby** *Falco subbuteo*: (4, 1, 3): First record: one on 22 October 1983.  
**Common Quail** *Coturnix coturnix*: (5, 1, 5): First record: one on 15 June 1996.  
**Corncrake** *Crex crex*: (6, 1, 5): Also in October 1991.  
**Common Crane** *Grus grus*: (1, 2, 0): Two on 8 December 1978.  
**Stone Curlew** *Burhinus oedichnemus*: (1, 1, 1): One on 26 April 1999.  
**Little Ringed Plover** *Charadrius dubius*: (1, 1, 1): One on 5-8 May 2000.  
**Eurasian Dotterel** *Eudromias morinellus*: (7, 1, 5): First record: one on 29 August 1987.  
**American Golden Plover** *Pluvialis dominica*: (3, 1, 3): First record: one on 15-16 October 2011  
**Grey Plover** *Pluvialis squatarola*: (2, 1, 1): First records: singles on 14 and 15 Sep.1993.  
**Red Knot** *Calidris canutus*: (5, 2, 5): First record: one on 1 September 1998.  
**Sanderling** *Calidris alba*: (5, 3, 3): Also in September 1990 (3) & October 1990.  
**Little Stint** *Calidris minuta*: (1, 3, 1): Three on 17 September 1993.  
**White-rumped Sandpiper** *Calidris fuscicollis*: (1, 1, 0): One on 14 September 1978.  
**Pectoral Sandpiper** *Calidris melanotos*: (3, 1, 1): First record: one on 19 Sep. 1979.  
**Curlew Sandpiper** *Calidris ferruginea*: (1, 1, 0): One on 4-5 September 1978.

**Ruff** *Philomachus pugnax*: (1, 1, 0): One on 10 September 1978.

**Great Snipe** *Gallinago media*: (2, 1, 1): One on 22 October 1983; one on 21 October 2000.

**Black-tailed Godwit** *Limosa limosa*: (5, 1, 5): First record: one on 1 May 1995.

**Upland Sandpiper** *Bartramia longicauda*: (1, 1, 0): One on 18-24 September 1991.

**Green Sandpiper** *Tringa ochropus*: (3, 1, 2): First record: one on 19 August 1978.

**Red-necked Phalarope** *Phalaropus lobatus*: (1, 1, 1): One on 14 September 1992.

**Mediterranean Gull** *Larus melanocephalus*: (7, 1, 3): First record: one on 16 December 1978; also in October 1987 & September 1990.

**Yellow-legged Gull** *Larus cachinnans*: (2, 1, 2): First record: one on 23 May 1999.

**Roseate Tern** *Sterna dougallii*: (1, 4, 1): Four on 19 October 2001.

**Little Tern** *Sterna albifrons*: (1, 5, 1): Five on 23 September 2000.

**Black Tern** *Chlidonias niger*: (1, 1, 1): One on 5 September 1998.

**Little Auk** *Alle alle*: (7, 3, 4): First record: one on 7 October 1999.

**Barn Owl** *Tyto alba*: (2, 1, 2): One on 7 October 2007, and one on 24 May 2008..

**European Nightjar** *Caprimulgus europaeus*: (3, 1, 3): One on 5 June 1998, one on 1 June 2009, and one on 23 October 2012..

**Alpine Swift** *Apus melba*: (1, 1, 0): One on 27 July 1980.

**European Bee-eater** *Merops apiaster*: (3, 1, 3): One on 29 April 2008, one on 4 June 2011, and one on 19 April 2014.

**Hoopoe** *Upupa epops*: (8, 1, 8): First record: one on 9 September 1993.

**Wood Lark** *Lullula arborea*: (1, 1, 1): One on 20-21 October 2007.

**Tawny Pipit** *Anthus campestris*: (3, 1, 2): One on 14 October 1978, one on 24 April 2003, one on 16 September 2011.

**Olive-backed Pipit** *Anthus hodgsoni*: (3, 1, 1): One on 14 October 1990, one on 5 October 1992, and one on 10 October 2016.

**Red-throated Pipit** *Anthus cervinus*: (6, 1, 4): First record: one on 23 October 1979.

**Bohemian Waxwing** *Bombycilla garrulus*: (9, 5, 4): First record: two on 24 October 2004.

**Thrush Nightingale** *Luscinia luscinia*: (1, 1, 1): One on 22 October 2013.

**Bluethroat** *Luscinia svecica*: (2, 1, 2): One on 14 October 2003; one on 19-20 October 2004..

**Red-flanked Bluetail** *Tarsiger cyanurus*: (1, 1, 1): One on 10 November 2009.

**Grey-cheeked Thrush** *Catharus minimus*: (2, 1, 2): One on 14-15 October 2011, and one on 3 October 2013.

**Blyth's Reed Warbler** *Acrocephalus dumetorum*: (1, 1, 1): One on 26-27 September 2010.

**Eastern Olivaceous Warbler** *Hippolais pallida*: (1, 1, 0): One on 16 September 1977.

**Icterine Warbler** *Hippolais icterina*: (7, 1, 5): First record: one on 24-27 September 1978; also in October 1988.

**Melodious Warbler** *Hippolais polyglotta*: (8, 1, 6): First record: one on 30 September 1979.

**Dartford Warbler** *Sylvia undata*: (1, 1, 1): One on 16-23 May 1999.

**Subalpine Warbler** *Sylvia cantillans*: (4, 1, 3): First record: one on 16-17 May 1995.

**Sardinian Warbler** *Sylvia melanocephala*: (1, 1, 1): One from 20 April to 14 May 2014.

**Greenish Warbler** *Phylloscopus trochiloides*: (2, 1, 2): One on 3 September 2000, and one on 7-8 September 2005.

**Arctic Warbler** *Phylloscopus borealis*: (1, 1, 1): One on 13 September 2013.

**Pallas's Warbler** *Phylloscopus proregulus*: (3, 1, 1): One on 13 October 2016; one on 18 October 2016, and one on 28-30 December 2016.

**Dusky Warbler** *Phylloscopus fuscatus*: (1, 1, 1): One on 29 October 2016.

**Wood Warbler** *Phylloscopus sibilatrix*: (3, 1, 3): One on 28 April 1999, one on 16 August 2008, and one on 12 May 2009..

**Long-tailed Tit** *Aegithalos caudatus*: (2, 9, 2): Six on 11 October 2008; nine on 29 October 2012.

**Woodchat Shrike** *Lanius senator*: (1, 1, 1): One on 2-3 May 2010

**Rose-coloured Starling** *Sturnus roseus*: (3, 1, 2): One on 14-15 October 2011; one on 20 September 2014 and one on 3 October 2014.

**Red-eyed Vireo** *Vireo olivaceus*: (2, 1, 1): One on 23 September 1990, and one on 12 October 2010.

**Mealy Redpoll** *Carduelis flammea*: (4, 1, 3): First record: one on 10-12 October 1978.

**Arctic Redpoll** *Carduelis hornemanni*: (3, 1, 3): One on 4-10 October 1999, one on 1-2 May 2010, one on 5-10 June 2014.

**Eurasian Bullfinch** *Pyrrhula pyrrhula*: (9, 2, 4): First record: one on 22 October 2005.

**Hawfinch** *Coccothraustes coccothraustes*: (9, 6, 2): First record: one on 29 October 1978; also in October 1988 (two).

**Northern Parula** *Parula americana*: (1, 1, 0): One on 25 September 1989.

**Yellow-rumped Warbler** *Dendroica coronata*: (1, 1, 1): One on 3-6 October 2012

**Blackpoll Warbler** *Dendroica striata*: (1, 1, 1): One on 10 October 2006.

**Ovenbird** *Seiurus aurocapillus*: (1, 1, 0): One on 24-25 September 1990.

**Wilson's Warbler** *Wilsonia pusilla*: (1, 1, 1): One on 18-21 September 2013.

**Dark-eyed Junco** *Junco hyemalis*: (1, 1, 1): One on 9 June 2015.

**Rustic Bunting** *Emberiza rustica*: (4, 1, 3): First record: one on 7-10 October 1989.

**Little Bunting** *Emberiza pusilla*: (8, 1, 4): First record: one on 22-23 October 1983; also in October 1987 and October 1989 (two).

**Yellow-breasted Bunting** *Emberiza aureola*: (1, 1, 1): One on 9 October 2010

**Corn Bunting** *Miliaria calandra*: (2, 1, 1): One in July 1990; one on 1 May 2000.

## APPENDIX IV

### Diagnosing the timing of demographic bottlenecks: sub-adult survival in red-billed choughs

Reid, J.M., Bignal, E.M., Bignal, S., Bogdanova, M.I., Monaghan, P. & McCracken, D.I. (2011).

#### Summary

1. Determining the precise timing and location of major demographic bottlenecks, such as periods of low survival, is key to identifying ecological causes of variation in population growth rate. Such understanding is key to designing efficient and effective mitigation.
2. In a protected population of red-billed chough *Pyrhacorax pyrrhacorax* on Islay, Scotland, variation in population growth rate largely reflects among-year variation in first-year survival. First-year survival was unprecedentedly low during 2007–2010, threatening population viability.
3. We used colour-ring resightings to estimate monthly survival probabilities ( $\Phi_m$ ) throughout the first year from fledging for eight chough cohorts (totalling 519 individuals) representing the full observed range of variation in first-year survival. We thereby identify the time and location of recent low survival.
4. On average across all cohorts,  $\Phi_m$  varied among months, being low during the first month after ringing (May–June, accounting for c. 24% of all first-year mortality) and high during the last 4 months of the first year (January–May, accounting for c. 6% of all first-year mortality). Most mortality (c. 70%) occurred after fledglings dispersed from natal territories.
5. The 2007–2009 cohorts experienced low  $\Phi_m$  during July–December. This represents an additional low survival period compared to previous cohorts rather than decreased  $\Phi_m$  across all months or further decreases through periods when  $\Phi_m$  was low across all cohorts.
6. *Synthesis and applications.* These data have general relevance in showing that dramatically low annual survival, which needs to spark rapid management action, can reflect different and unanticipated periods of low survival rather than exaggeration of typical variation. With specific regard to conserving Islay's chough population, our data show that sub-adult survival has recently been low during July–December, probably reflecting conditions on key grassland foraging areas. Managers aiming to increase population viability should increase invertebrate diversity, abundance and availability at these times and locations, thereby increasing foraging options available to choughs.

#### Conclusions & management implications

Comparisons of variation in monthly survival probability ( $\Phi_m$ ) allow key mortality periods to be identified, targeted hypotheses explaining observed mortality to be generated and tested and hence efficient mitigation designed. Our analyses suggest that one appropriate time for management aimed at increasing overall first-year survival in Islay's choughs may be the fledging period (May–June), when some degree of low survival affected most cohorts and mean  $\Phi_m$  was only 0.83. On Ouessant, France,  $\Phi_m$  for the first month from ringing was > 0.95 across 73 choughs from six cohorts, representing only c. 5% of total first-year mortality (Kerbiou & Julliard 2007). This comparison suggests that it may be biologically realistic to increase  $\Phi_m$  on Islay. Post-ringing nest checks and resightings on Islay suggest that most

May–June mortality occurred post- rather than pre-fledging (E. Bignal *et al.*, unpublished data). In other bird species, post-fledging survival can increase with fledgling condition (e.g. Naef-Daenzer, Widmer & Nuber 2001; although see Anders *et al.* 1997). Managing for increased fledgling condition, whether through maintaining appropriate grassland habitat within breeding territories and hence increased parental condition and provisioning, or through direct provision of supplementary food, may therefore be beneficial on Islay.

In contrast, our analyses suggest little potential direct benefit of management aimed at increasing sub-adult survival during the last months of the biological year (January–May). Observed  $\Phi_m$  is already consistently high during these months, and any management-induced increase in  $\Phi_m$  through this time could only benefit the relatively few individuals that survive to January. This does not preclude the possibility that appropriate management during this period could benefit breeding adults.

Dramatic decreases in key demographic rates that are likely to cause substantial decreases in  $\lambda$  and rapid population decline need to spark rapid management responses. Our analyses show that the very low first-year survival experienced by the 2007–2009 chough cohorts primarily reflected low survival through a different and unexpected period, July–December, from that experienced by previous cohorts. July–December should clearly be a primary focus for urgent ecological investigation and development of management strategies targeted at increasing sub-adult survival in Islay's choughs.

Low  $\Phi_m$  during late summer and autumn is unlikely to reflect increased post-fledging dispersal away from Islay since no dispersers have been observed elsewhere, and unusual numbers of choughs were found dead on Islay during this period. Low  $\Phi_m$  during late summer is perhaps surprising since high prey abundance, mild weather and ample foraging time might all be expected. However, in Ouessant's choughs, survival was low during July–August ( $\Phi_m \approx 0.55$ ) and October–December ( $\Phi_m \approx 0.7$ – $0.8$ ), attributed to decreased invertebrate biomass and switches in main prey type (Kerbirou & Julliard 2007). By analogy, the recent low July–December survival on Islay may therefore reflect altered foraging conditions compared to previous years, potentially reflecting changes in invertebrate populations, weather and/or grassland management, or interactions among these variables that influence prey abundance and/or availability. The low July–December survival occurred after fledglings had dispersed from natal territories to traditional sub-adult foraging areas, which comprise specific grazed coastal dunes and fields that are cut for silage during the post-fledging period (Bignal, Bignal & McCracken 1997). An urgent goal should therefore be to determine the primary causes of mortality in these areas and their underlying ecological mechanisms (which may be lagged in time and space, Reid *et al.* 2008). These areas have recently experienced substantial changes in grassland management, partly driven by agricultural intensification and agri-environmental incentives. Although the short- and long-term consequences of these actions for the abundance and availability of the chough's invertebrate prey remain largely unquantified, management that creates long grass swards can render prey unavailable to foraging choughs (e.g. McCracken & Tallowin 2004). In addition, late summer (July–September) rainfall on Islay was substantially higher on average during 2007–2009 than during previous years. This may have reduced invertebrate activity and abundance and increased vegetation height during the period when high sub-adult mortality occurred. For example, wet weather may reduce colonization of freshly deposited cowpats by *Aphodius* spp. (e.g. Webb *et al.* 2010), thereby reducing the abundance of larvae on which sub-adult choughs often feed. A recent tendency towards warmer springs may have altered the abundance or phenology of other invertebrate prey, as observed in *tipulids* in English uplands (Pearce-Higgins *et al.* 2010), although there is as yet no evidence of similar changes in abundance in southern Scottish grasslands. Alternatively, warmer springs may have increased rates of vegetation growth and therefore reduced the availability of soil invertebrates to foraging choughs in late summer and early autumn. One primary

hypothesis is therefore that the recent low survival reflects food shortage due to changes in grassland management and/or weather. This hypothesis requires thorough test through targeted experiments (for example by manipulating grassland management and/or providing supplementary food) and further correlative analysis of links between  $\Phi_m$  and management, weather and invertebrate abundance. Effective conservation management for choughs may ultimately require greater recognition and better understanding of links between grassland management and invertebrate abundance and availability, especially in the context of agri-environmental schemes. Managing grasslands to generate a diversity of habitats supporting high invertebrate abundance and availability, thereby increasing the foraging options available to choughs at any time, may provide the best practical means of ameliorating impacts of changes in weather that cannot be managed directly (Reid *et al.* 2008). However, the possibility that sub-adult mortality may have other as yet unidentified causes, such as increased predation or disease, cannot be discounted.

These analyses have general relevance in demonstrating that the precise timing and location of major demographic changes which threaten population viability, such as unusually low survival, cannot be assumed to match previously known or postulated bottlenecks. Rather, detailed monitoring, covering a range of different years, may be required to pinpoint the timing, location and causes of demographic change and inform the most efficient and effective management responses. The analyses also have specific importance to conserving choughs on Islay in identifying the key periods and locations for targeted ecological investigation and the development of management actions aimed at increasing sub-adult survival and hence ensuring the viability of this protected population.

## APPENDIX V

### Bats on Dursey Island, Co. Cork : 1992 to 2019

Derek Scott : January 2020

**Observers:** Derek Scott (DS); Joanna Scott (JS), [REDACTED]  
[REDACTED]

1992: No records

1993: **Unidentified bats**

Single bats were seen hawking for moths around our cottage at Tilickafinna at dusk on 5 June and 19 June. Both were small bats, similar in size to Common Pipistrelle, and quite possibly this species (DS, JS).

1994: No records

1995: No records

1996: **Brown Long-eared Bat** *Plecotus auritus*

One was caught in a mist-net during a netting session for Storm Petrels on Cromwell Cliff at 23:30 hrs on 23 June (DS).

**Unidentified bats**

Small bats seen at dusk or dawn around our cottage in Tilickafinna as follows: one at 22:15 hrs on 20 July; one at 05:05 hrs on 25 July; one at 22:00 hrs on 2 August; one at 22:00 hrs on 5 August; one at 05:20 hrs on 12 August; and one at 21:05 hrs on 26 August. (DS, JS).

1997: No records

1998: No records

1999: No records

2000: No records

2001: **Unidentified bat**

One was seen flying around our garden at dusk on 23 and 24 August – a small bat, possibly a Pipistrelle (DS, JS).

2002: **Unidentified bats**

A small bat seen flying around our garden at dusk on 14 February (JS), and a small bat was seen flying about our buildings at dusk on 22 April (DS)

2003: **Unidentified bat**

A small bat flying around our house at dusk (1925-1930 hrs) on 10 October (DS, JS).

2004: **Unidentified bats**

A small bat flying around our house at dusk (between 2210 and 2230 hrs) on 30 May and 4, 5 and 7 June. A small bat in Kilmichael at dusk on 27 August ([REDACTED]). A small bat flying east past our house at dusk (2050 hrs) on 2 September. A large bat circling around in North Gully then flying off east along the north coast during the middle of the day on 7 October ([REDACTED]).

- 2005: **Common Pipistrelle** *Pipistrellus pipistrellus* and **Soprano Pipistrelle** *Pipistrellus* ?  
 Small bats, mostly if not all one of the pipistrelles, were seen flying around our house at dusk on 15 dates between 20 July and 11 September, with two together on 30 and 31 July. A single bat on 5 August was identified as a Common Pipistrelle (45 khz). On 9 August, a bat was seen to emerge from its daytime roost under the fascia board of our house. A single Common Pipistrelle and a single Soprano Pipistrelle (55 khz) were recorded in Kilmichael village on 7 August. Single bats were again seen around our house at dusk on 19 October, dawn on 28 October and dusk on 30 October (■■■■, DS, JS).
- 2006: **Unidentified bats**  
 Single small bats were seen flying around our house at dusk on 12 dates between 15 May and 12 October. In most cases, the bats were thought to be one of the pipistrelles, but on 14 July, 17 September and 12 October, the bats appeared slightly larger than pipistrelles, and were presumably some other species (DS, JS).
- 2007: **Unidentified bats**  
 A very poor year with only three records. The first of these was a very early individual over our garden in Tilickafinna at 1810 hrs on 2 February (■■■■). One was hawking over our garden at dusk (22:20 hrs) on 30 May (DS), and one was seen in Kilmichael village on 30 October (■■■■). In all three cases, the bats were thought to be one of the pipistrelles
- 2008: **Unidentified bats**  
 Another poor year with only four records, all in our garden in Tilickafinna. A small bat, probably one of the pipistrelles, at 22:40 hrs on 10 July, and again at 22:35 on 16 July (DS); a medium-sized bat from 20:10 to 20:20 hrs on 25 September; and a small bat, also probably a pipistrelle, at 21:30 hrs on 26 September (DS, JS).
- 2009: **Common Pipistrelle** *Pipistrellus pipistrellus*  
 One over ■■■■■'s garden at dusk on 8 September, identified with the aid of a bat detector (■■■■).
- Unidentified bats**  
 2009 was a very poor year for bats, with only the above record of a Common Pipistrelle and two records of unidentified small bats, probably also Common Pipistrelles: one over Scott's garden in Tilickafinna at 22:40 hrs on 2 June (DS), and another over this garden at dusk on 10 October (■■■■, JS).
- 2010: **Common Pipistrelle** *Pipistrellus pipistrellus*  
 2010 was an excellent year for bats on Dursey Island, with one or two individuals being recorded on 30 dates between 30 April and 16 October. Most of the records relate to a single individual in Scott's garden in Tilickafinna. This was recorded on 26 occasions between 1 May and 3 October, and seen emerging from its roost under the fascia board on the front of the house on 13 occasions. The time of emergence ranged from 22:40 on 14 and 15 June to 20:50 on 4 and 6 September. The bat was seen going to roost under the fascia board at 05:50 on 7 August and 07:05 on 25 September (DS, JS). It was heard to emit sounds at 50 kHz on 14 August and 17 September (■■■■). A second individual was present over the garden at dusk on 6 September, but this was not thought to be roosting in the house. Elsewhere, small bats were recorded outside ■■■■■ ■■■■■'s house in Kilmichael on 30 April, around ■■■■■'s house in Kilmichael on 16 July, 31 July, 19 September and 16 October, and in Kilmichael Valley on 14 August (■■■■). All but the first of these was heard to emit sounds at 50 kHz.

2011: **Common Pipistrelle** *Pipistrellus pipistrellus*

2011 was another good year for bats on Dursey Island, with one or two individuals being recorded on 15 dates. However, all except three of the records relate to a single individual roosting under the fascia board on the front of Scott's house in Tilickafinna. This individual (positively identified as a Common Pipistrelle in 2010) was recorded on 13 dates between 3 June and 24 October, with the latest time of emergence being 22:35 on 13 June and the earliest, 18:56 on 24 October. The bat was also seen going to roost under the fascia board at 06:10 on 20 August and 06:30 on 3 September. A second bat, presumably also a Common Pipistrelle, was present in Scott's garden in the early morning and again in the late evening of 3 September, but did not appear to be roosting in the house (DS, JS).

**Unidentified bats**

A small bat was seen flying around outside a shed in Kilmichael at night on 2 October (DC), and another small bat was seen flying back and forth along the south coast just east of Kilmichael Valley during the daytime on 4 November (■■■).

2012: **Common Pipistrelle** *Pipistrellus pipistrellus*

The only records of bats on Dursey Island in 2012 came from Scott's garden in Tilickafinna, where a single Common Pipistrelle was seen emerging from under the eaves of the house at dusk on 22 occasions between 18 January and 19 November (DS, JS). On 23 October, the bat emerged at 18:50 hrs and was joined by a second bat, presumably this species, at 19:05, but this was the only occasion on which two bats were seen together. The latest time of emergence was 22:31 on 21 and 23 June; the earliest times were 17:13 on 18 January and 17:15 on 19 November.

2013: **[Brown Long-eared Bat** *Plecotus auritus*]

A bat flying around inside a ruined house in Kilmichael after dark on 24 September was emitting sounds at 30 kHz, which suggests that it was a Brown Long-eared Bat (■■■). The only confirmed record of this species on Dursey Island is that of an individual caught in a mist-net in Tilickafinna on 23 June 1996.

**Common Pipistrelle** *Pipistrellus pipistrellus*

For the fourth year in succession, a Common Pipistrelle was seen on numerous occasions emerging at dusk from under the eaves of Scott's house in Tilickafinna. This bat was first seen at 22:16 on 31 May and then recorded on five dates in early June, on three dates in the second half of July, and again on 28 September and 4 and 5 October. The latest time of emergence was 22:31 on 7 June; the earliest was 19:45 on 5 October (DS, JS). On 13 September, the bat suddenly appeared at 21:30 flying around inside the house. Only when all the lights had been switched off did the bat find its way out of the front door! Two bats, presumably this species, were seen flying around together over Scott's garden at 20:05 on 24 September (DS, JS). Elsewhere, single Common Pipistrelles were identified with a bat detector (registering 45 kHz) in Kilmichael and Ballynacallagh on 20 September and in Kilmichael on 24 September (■■■).

**Unidentified bats**

A bat which emerged from under the eaves of Scott's house in Tilickafinna at 17:30 on 16 January and flew off to the south-west was too large to have been a pipistrelle (DS). A small bat seen by ■■■■ flying around Zuma garden in Ballynacallagh at dusk on 7 September could well have been a pipistrelle.

2014: **Common Pipistrelle** *Pipistrellus pipistrellus*

2014 was a very good year for bats on Dursey Island, with records on 36 dates and from four localities. For the fifth year in succession, Common Pipistrelles were seen on

numerous occasions emerging at dusk from under the eaves of Scott's house in Tilickafinna. The first bats of the year were two presumed Common Pipistrelles flying around over Scott's garden at 21:00 on 9 April (DS, JS). One or two individuals were seen emerging from the eaves of the house or flying over the garden at dusk on 17 occasions between 10 June and 28 July, and on eight occasions between 2 and 24 September (DS, JS). The bats were identified as Common Pipistrelles (45 kHz) with the aid of a bat detector on 22 and 24 September (■■■■). Emergence times in June and July ranged from 22:16 on 11 June to 22:35 on 21 June and 22:13 on 28 July; emergence times in September ranged from 20:45 on 6<sup>th</sup> to 20:08 on 24<sup>th</sup>. On 15 June, a presumed Common Pipistrelle was seen returning to roost at 04:30-04:35; and on 26 September, two were seen returning at 07:07. One or two Common Pipistrelles were also seen flying around after dark in Kilmichael on 18 April, 3, 16 and 17 May, and 21, 22, 23 and 24 September (■■■■). Again, these were identified with a bat detector. Elsewhere, single Common Pipistrelles were identified with a bat detector in Kilmichael Valley and Ballynacallagh on 25 September (■■■■). A small bat, probably a Common Pipistrelle, was seen in Ballynacallagh after dark on 18 July (■■■■).

#### **Unidentified bats**

A bat disturbed from under the eaves of Scott's house in Tilickafinna during the day on 23 June appeared to be somewhat larger than a Common Pipistrelle (DS). A similar largish bat flew out from under the eaves of Scott's house at 20:47 on 2 September, and presumably the same individual was seen flying about outside the house at 06:15 on 6 September and emerging from the eaves again at 20:50 that evening (DS, JS).

#### **2015: Common Pipistrelle *Pipistrellus pipistrellus***

2015 was another good year for pipistrelles on Dursey Island, with records on 21 dates. Single individuals were recorded at dusk in Kilmichael on 4 April, 6 April, 17 April, 13 August and 14 August (■■■■). For the sixth year in succession, a Common Pipistrelle roosted under the eaves of Scott's house in Tilickafinna. This was observed emerging from its roost or flying about over the garden on 22 May, on ten dates between 6 June and 4 July, on 3 and 11 October, on 3 and 22 November, and on 19 December (DS, JS). Emergence times ranged from 21:32 GMT on 26 June to 16:57 GMT on 19 December.

#### **Unidentified bat**

A bat flying around over Scott's garden in Tilickafinna at 22:24 BST on 11 June appeared to be somewhat larger than a Common Pipistrelle (DS).

#### **2016: Common Pipistrelle *Pipistrellus pipistrellus***

Small bats, presumed to be Common Pipistrelles, were seen emerging from under the eaves of Scott's house in Tilickafinna on 18 January (at 17:37), on six dates between 2 July (at 22:31) and 21 July (at 22:05), and on 26 September (at 19:57), 9 October (at 19:30), and 19 October (at 19:04). Two bats seen foraging over Scott's garden after dusk on 1 October, and one over the garden after dusk on 14 October were probably also Common Pipistrelles (DS, JS).

#### **Unidentified bats**

Single bats seen emerging from under the eaves of Scott's house at 22:30 on 2 July and at 22:13 on 18 July appeared to be slightly larger than Common Pipistrelles (DS). A small bat, possibly a pipistrelle, was seen circling Stapleton's house in Kilmichael at 19:40 on 30 September (DS).

#### **2017: Common Pipistrelle *Pipistrellus pipistrellus***

A small bat, presumed to be a Common Pipistrelle, was seen flying around Scott's garden in Tilickafinna at 22:18-22:25 on 27 May, and probably the same individual was

seen to emerge from under the eaves of Scott's house at 22:22 on 16 June (DS, JS).

2018: **Common Pipistrelle** *Pipistrellus pipistrellus*

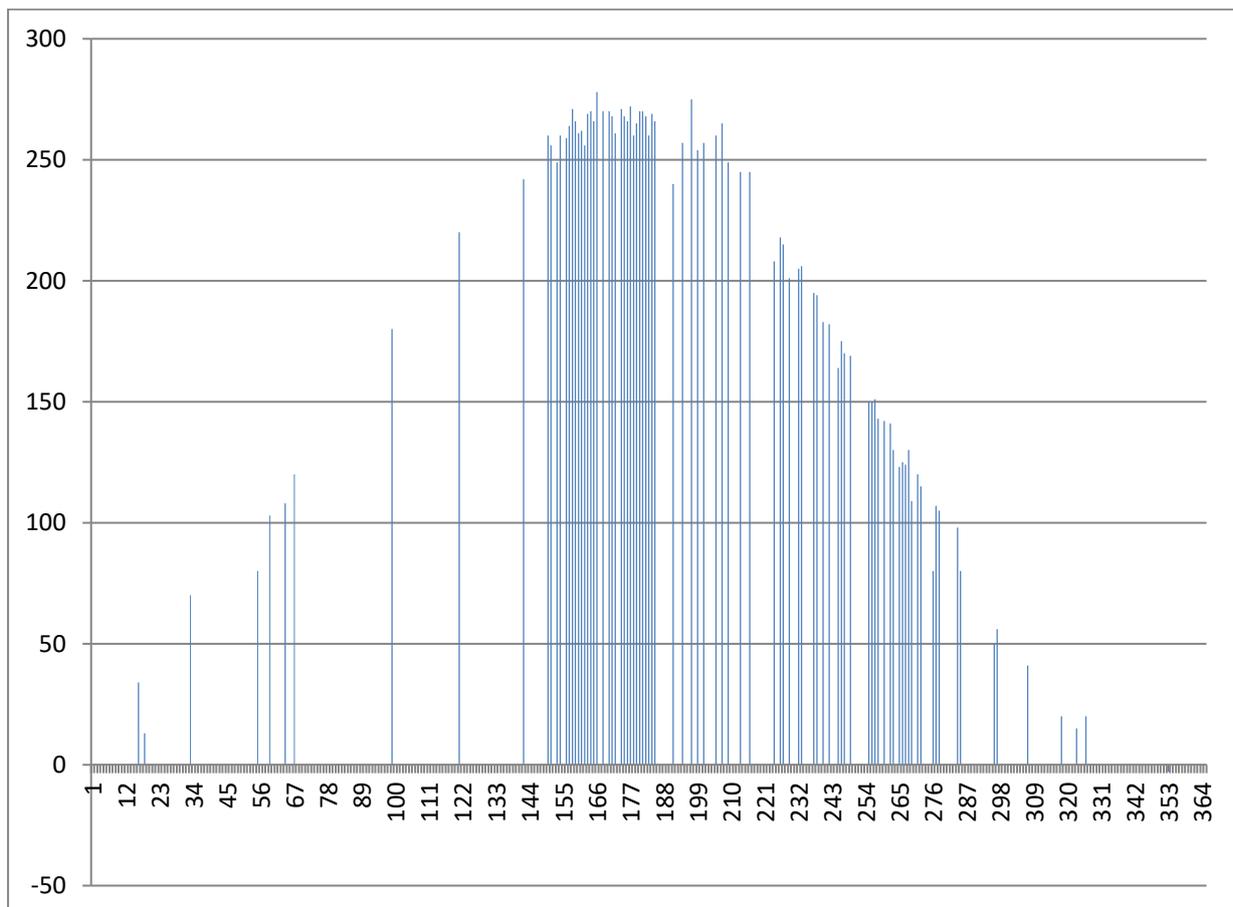
A small bat, presumed to be a Common Pipistrelle, was seen flying around over Scott's garden in Tilickafinna at 21:50 on 14 May, at 22:28 on 26 May, and at 22:10 on 1 June. Probably the same individual was seen to emerge from under the eaves of Scott's house at 22:28 on 2 June, at 21:51 on 3 June and at 22:26 on 5 June (DS). A presumed Common Pipistrelle was seen flying around over Scott's garden at 22:34 on 7 June, at 22:27 on 8 June, and at 22:33 on 12 June (DS).

**Unidentified bats**

A medium-sized bat was seen flying around over Scott's garden in Tilickafinna at 22:28 on 7 June, and again at 22:31 on 8 June (DS).

2019: **Common Pipistrelle** *Pipistrellus pipistrellus*

A small bat, presumed to be a Common Pipistrelle, was seen flying out from under the eaves of Scott's house at 20:50 on 6 September (■■■), and a small bat, possibly the same individual, was seen flying over Scott's garden at 20:29 on 14 September and at 19:20 on 12 October (DS).



**Figure 1: Emergence times of Common Pipistrelles in Tilickafinna, 2010-2015**

Vertical axis = minutes after 17:00 GMT (18:00 BST)

Horizontal axis: day of the year

## APPENDIX VI

### COMMON OTTER *Lutra lutra* ON DURSEY ISLAND, CO. CORK : 1992-2018

Derek Scott : January 2020



**Common Otters, 16 March 2015 (David Cooke)**

Otters are probably present year-round on Dursey Island, and may well breed on the island. There have been 43 records of Otters on Dursey Island since 1992, and 41 of these have been since 2001. Half of the records (22) came from the south coast between the Sound and Kilmichael Point and there were a further nine records in The Valley, but there were also three records from below the High Cliffs, four records in Tilickafinna (including three in Scott's garden), three records around the Tip and two records at Gull-bathing Area on the north coast. Thirty-four of the records relate to single individuals, but six records relate to two individuals together, two records to groups of three, and one record to a group of four (in the Sound). There have been records of Otters in every month of the year except June and August, the monthly distribution of records being as follows; January (7), February (3), March (8), April (4), May (2), June (0), July (1), August (0), September (5), October (4), November (2), December (7). The preponderance of records during the winter months may in part be explained by the frequency of storms which drive the Otters inland where they are more easily seen.

**Observers:** [REDACTED]

[REDACTED], Derek Scott (DS), Joanna Scott (JS), [REDACTED]  
[REDACTED]

**Note:** Records for the years 1992 to 2002 are those of DS, JS and [REDACTED] only.

1992: No records.

1993: One was seen feeding amongst the breakers below the cliffs at Tilickafinna in the late afternoon of 30 May (DS, JS).

- 1994: No records.
- 1995: One close inshore off the Tip and later swimming east along the north shore on 2 January (JS, [REDACTED]).
- 1996: No records.
- 1997: No records.
- 1998: No records.
- 1999: No records.
- 2000: No records.
- 2001: No records.
- 2002: A large individual, presumably a male, explored our garden in Tilickafinna on 2 February, and even stuck its head inside our front door (DS, JS). A female with a well-grown cub was watched foraging in the sea below the High Cliffs on 2 March (DS), and a medium-sized individual (possibly a female) wandered through our garden and across the fields to Mike's Bog on 5 December (DS, JS).
- 2003: No records.
- 2004: No records.
- 2005: One near the jetty on 3, 24 and 31 December ([REDACTED]).
- 2006: One on the rocks by Illanebeg on 8 January ([REDACTED]). One on the shore below Kilmichael on 25 December, three near the jetty on 26 December, and one by the stream in The Valley on 30 December ([REDACTED]).
- 2007: A good year, with five sightings. Two were seen near the jetty of 1 January ([REDACTED]), and there was one again near the jetty on 7 January ([REDACTED]). One was seen at Gull-bathing Area on the north coast on 17 February ([REDACTED]). There was a group of three on the shore near Illanebeg on 10 March ([REDACTED]). A young individual was watched for about 20 minutes foraging just off the rocks between the jetty and Illanebeg on 25 December (DS, JS).
- 2008: A very good year, with a total of seven sightings. As in 2007, two were seen near the jetty of 1 January ([REDACTED]). One was seen off Illanebeg on 1 March ([REDACTED]). There were two on the cliffs between the West Wall and the North-west Tip on 16 March ([REDACTED]). One was seen working along the stream near the pumping station in The Valley on 20 April ([REDACTED]). One was seen on the shore east of The Valley on 5 September ([REDACTED]). One was watched foraging in the Sound beneath the Cable Car on 15 September (DS, JS). One was seen off Illanebeg on 28 September ([REDACTED]).
- 2009: A poor year, with only one record: a single individual was seen on the cliffs just west of the Northwest Tip on 26 July (JS).
- 2010: One was seen at the bottom of The Valley on 27 September ([REDACTED]); one was seen in the fields above the stream at Kilmichael on 15 October ([REDACTED]), and one was seen at the bottom of The Valley on 21 November ([REDACTED]).

- 2011: A better than average year with four sightings: one was seen in the Sound on 23 January (■■■■); a very sleepy (or dead) individual was seen lolling about in the surf below the High Cliffs on 7 February (JS); one was seen by the stream in The Valley on 23 April (■■); and one was seen running down the fields east of The Valley in mid-afternoon on 22 October (DS). ■■■ also found signs of recent otter activity on Illanebeg and at Kilmichael Point on 8 October.
- 2012: The only record was of one found sheltering in Scott's garden in Tilickafinna on 25 December (■■).
- 2013: One was seen swimming in the sea off Gull-bathing Area on 16 March (■■). There was one near the jetty on 14 April (■■■■) and again on 19 May (■■), and a group of four was seen by several visiting birders in the Sound at 08:00 on 22 September.
- 2014: The only record was of one swimming across the Sound towards the island at 10:15 on 14 April (DS, JS).
- 2015: One was seen in the fields east of Kilmichael Point on 14 March (■■); two individuals were photographed with a camera trap near Kilmichael Point at 01:40 on 16 March (■■), and one was photographed with a camera trap in the upper part of The Valley on the night of 16 October (■■).
- 2016: One was photographed by a trailcam set by the stream in the upper part of The Valley on 6 March (■■).
- 2017: Two were seen below Cromwell Cliffs at 13:00 on 1 January (■■■■). One was seen near Illanebeg on 13 October (■■), and there was one in the Sound on 4 November (■■).
- 2018: No records.

## APPENDIX VII

# The Atlantic Grey Seal *Halichoerus grypus* on Dursey Island, Co. Cork

Extracts from annual reports 1992 to 2018

Derek Scott : January 2020

The annual reports from 1992 to 2002 include only the records of the author. Subsequent annual reports have also included the records of all observers who have provided their records to the author. These have included [REDACTED]  
[REDACTED]  
[REDACTED]

Note the reports of seal persecution in 2000, 2001, 2002, 2004 and 2012, and scarcity of the species since 2012.

1992: One in Foilbrade (north coast) on 5 October.

1993: Singles in Dursey Sound on 30 April, 8 May and 13 May.

1994: A female off the Tip on 15 April and on the rocks below Kilmichael on 21 April; a male in the Sound on 16 April, below Tilickafinna on 17 April, and off the Tip on 20 April

1995: Up to three offshore on three dates in early January, but then only four records: a female below Tilickafinna on 23 April, two females below Tilickafinna on 8 May; one female at the Tip on 23 July, and one female off the north shore on 29 July.

1996: Not recorded in February. Singles on four dates in March, with four on 21st. One or two on five dates in June, two dates in July, three dates in August, six dates in October and two dates in November. Most observations related to a large male at the Tip and/or a female around Illanebeg.

1997: Singles at or near the Tip on 21 March (female), 2 June (male), 7 June and 9 October, and a male at the Gull-bathing Area below the North Cliffs on 23 and 27 October.

1998: Singles at the Tip on 31 May (young male), near Illanebeg on 1 June (female) and below the North Slope on 5 June.

1999: Two on 27 January and one on 29 January. Up to four on 11 dates in April and May, mainly along the south coast.

2000: Singles on six dates in January and February, three dates in the second half of March, two dates in April, three dates in May, and once in early June (3<sup>rd</sup>). Then none until a male and a female on 4 August, and a male on 13 September, 30 September and 2 October. A very poor year, doubtless because of persecution by local fishermen. Hunters were seen on several occasions, shooting at seals from the shore and from small boats close inshore.

2001: One or two on five dates in February and early March, then six on 17 March (around the West End) and one on 24<sup>th</sup>. Two on 24 April and a single on 27 April. Up to four on eight dates in May, then none until a single on 5, 6 and 7 July. Then a long gap until a single on 4 and 6 September. One or two on four dates in October and a single on 5 November. Commoner in December, with four, including a very small pup, on 15 December, and a group of nine adults together on 19 December. Once again, seal hunters were observed on the island on a couple of occasions in May.

2002: Singles on nine dates in January, February and March, with two on 11 February. One or two on five dates from mid-April to early May, and six around the western end of the island on 11 May, but then none until a single on 5 July. Then singles on five dates to 26 July, with two on 21 July. Singles on four dates in August. None in September or the first half of October. Singles on 16 and 31 October, and three on 1 November. Up to three on five dates in December. Once again, seal hunters were observed on the island on several occasions in spring and summer.

2003: Fairly common in the early part of the year, but only six records of single individuals (including one found dead) between the end of April and the end of the year. Singles on 1 and 5 January, and two on 6 January. Up to six on 11 dates between 12 March and 2 April, and singles on 17 and 26 April. Then none until one on 5 September. One found dead at the Tip on 26 September, and singles on 28 September and 6 October. Then none until singles on 7 and 28 December.

2004: A rather poor year for this species on Dursøy. One on 1 January, and up to five on seven dates in February and March, but very few thereafter. A single individual on 25 April; singles on six dates in May, with three on 24<sup>th</sup>; one on 3 June and three on 6 June. Then none until one on 3 September, two on 5 September and one on 9 October. One on the north coast on 5 December, then one or two on five dates to the end of the year. There continues to be some direct persecution of the Grey Seals by at least one local fisherman.

2005: Fairly common in the first three months of the year, with up to eight on seven dates in January, up to six on three dates in February, and up to 11 (including nine pups) on six dates in March. Singles on 16 and 23 April, and singles on seven dates in the first 17 days of May, then none until one on 25 June and one on 24 July. Singles on three dates in August and two dates in September. Singles on 11, 22 and 28 October; two on 11 December, and singles on 18 and 29 December. Most were at Gull-bathing Area, below Tilickafinna and in the Sound.

2006: Recorded in every month of the year, but in smaller numbers than usual, with 21 of the 28 records relating to single individuals. Six were seen on the Calf on 29 April (DC, PR), but the only other reports of more than one in a day were: four (including two pups) on the south side of the island on 8 April; two near the jetty on 29 July; one at the Tip and one at Gull-bathing Area on 15 October; three at Gull-bathing Area on 24 October; two at the Tip on 13 December; and one in the Sound and three near the west end of the island on 30 December.

2007: Recorded in every month from January to August, but in smaller numbers than usual, with 21 of the 23 records relating to only one or two individuals. Up to four were recorded on five dates in January, and there was one on 17 February. One or two were recorded on five dates in March; there were up to three of three dates in April, one or two on four dates in May, two on 4 June, and singles on 14 July, 21 July, 4 August and 25 August. The bulk of these records were of individuals near the jetty or off the Tip, but there were also several records from Gull-bathing Area on the north coast and from the rocks below Ivy Gully in Tilickafinna. Three Grey Seals at Ivy Gully on 1 April included a small pup (BF). The only record in the last four months of the year was a single individual off the Tip on 20 October (██████).

2008: Recorded in every month except June and in slightly bigger numbers than has been the case in recent years. Most of the 55 records were during the first four months and last four months of the year, and there were no records between 19 May and 4 July. The highest single-day counts were 10 at various points around the island on 16 March and 12 at one site on the north coast on 31 December. Small pups were seen near the jetty on 10 February and 30 November. The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	5	1	8	6	5	0	2	3	7	8	3	7
Maximum count	4	5	10	4	2	0	1	2	2	3	3	12

2009: Recorded in every month of the year, but very scarce in late spring and summer. The highest single-day counts were 11 on 2 January and 10 on 12 December. The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	5	3	2	5	3	2	3	2	1	10	9	7
Maximum count	11	3	4	1	1	1	2	1	2	2	8	10

2010: Recorded in every month of the year, but very scarce in spring and summer. The highest single-day counts were 25 on 1 January, 16 on 2 January and 21 on 9 January, but thereafter the highest count was only six on 20 October and 31 December. The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	4	3	3	3	6	2	1	4	4	10	3	4
Maximum count	25	2	2	1	3	1	1	1	2	6	5	6

2011: Recorded in every month of the year except June and July; there were no records from 29 May to 19 August. The highest single-day counts were 17 on 1 January and 13 on 2 January, but thereafter the highest count was only seven on 20 and 28 October. The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	5	8	9	1	1	0	0	1	9	13	3	4
Maximum count	17	4	4	1	1	0	0	1	2	7	4	3

2012: This was a very poor year for Grey Seals around Dursey Island. No more than three were recorded in a day, and there were no sightings between 21 May and 13 September. Sadly, some local fishermen continue to shoot seals on the island. The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	6	1	3	0	2	0	0	0	2	5	4	3
Maximum count	2	1	2	0	2	0	0	0	3	2	2	1

2013: This was another poor year for Grey Seals around Dursey Island, with the only reports of more than three in a day being six on 4 April and six on 1 December. The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	3	0	7	1	2	5	1	1	1	6	4	2
Maximum count	3	0	1	6	2	2	1	1	1	2	1	6

2014: This was yet another poor year for Grey Seals around Dursey Island, with the only reports of more than two in a day being four on 1 January and six on 10 October. The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	1	1	3	1	2	4	1	1	3	6	2	0
Maximum count	4	1	1	1	1	1	1	1	2	6	1	0

2015: This was a very poor year for Grey Seals around Dursey Island, with the only report of more than two in a day being of three on 31 December. The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	4	0	0	2	2	2	0	1	0	5	3	1
Maximum count	1	-	-	2	1	1	-	1	-	1	1	3

2016: This was another very poor year for Grey Seals around Dursey Island, with the only reports of more than two in a day being of four on the rocks below Ivy Gully, Tilickafinna, on 18 October (■■■■), and three in the jetty/Illanebeg area on 31 December (■■■■). Single dead seal pups were found near the jetty on 20 February and 5 March (■■■■). The monthly distribution of records was as follows:

	J	F	M	A	M	J	J	A	S	O	N	D
Days with sightings	2	1	2	1	1	1	0	0	1	6	1	1
Maximum count	2	1	1	1	1	1	-	-	1	4	1	3

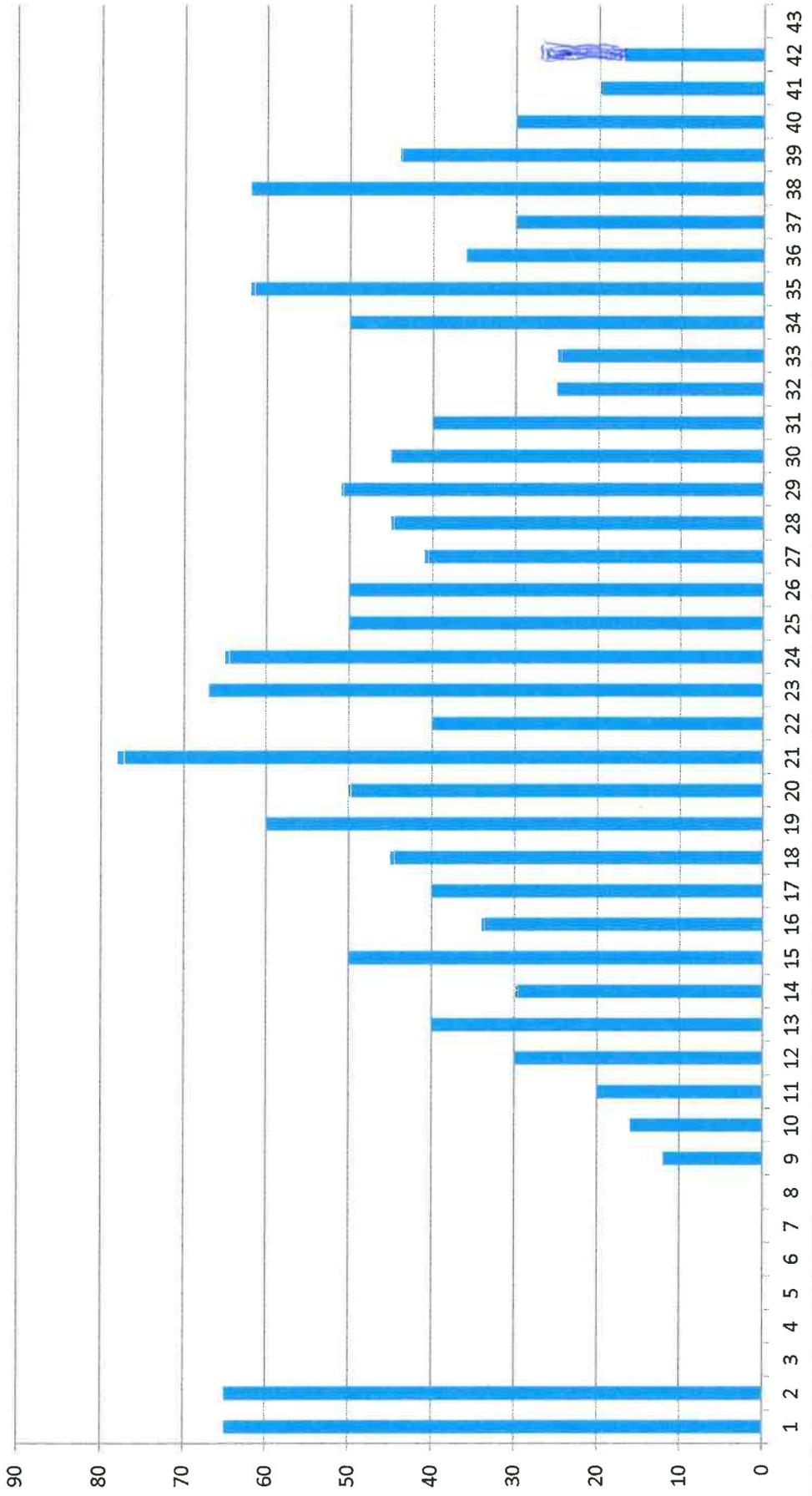
2017: One off the Tip, nine below Ivy Gully and one near the jetty on 1 January (■■■■ et al.); one in the Sound and 10, including one juvenile, below Ivy Gully on 2 January (■■■■■■■■■■). Singletons on 13 and 14 January, five on 11 February (three at the pier and two below Ivy Gully), and singletons on 14 April, 16 April, 7 August and 19 August (■■■■). One in the Sound on 2 October, and two at the pier on 8 October (■■■■). One on 28 and 29 October (■■■■). One below the High Cliffs on 31 December (■■■■).

2018: Two near the jetty on 1 January (■■■■). Then none until two at Gull-bathing Area on 3 June (■■■■). Singletons on 29 June, 12 September, and 14 September (■■■■). One at the Tip on 18 September and two there on 19 September (■■■■). One near the jetty on 20 September (■■■■). One in the Sound on 5 and 13 October, and two there on 20 and 28 October (■■■■). One below Ivy Gully on 1 November, and four there on 18 November (■■■■). One on 29 December (■■■■), and two pups at the jetty and on Illanebeg, respectively, on 31 December (■■■■).

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Maximum counts of Choughs on Dursey Island, Co. Cork  
1978 to 2019



Based on over 4,000 days of observation. There was no coverage of the island in the years 1980 to 1985.

**MAXIMUM COUNTS OF CHOUGHS ON DURSEY ISLAND, CO. CORK, IN  
AUTUMN**

**1978 to 2019**

Year	Maximum counts	Maximum
1978	50 on 1/9; 65 on 21/9	65
1979	65 on 12/9; 50 on 29/9 & 5/10	65
1986	12 on 3 dates	12
1987	16	16
1988	20 on 15/10	20
1989	30 on Dursey; 40 on mainland	30
1990	40 on Dursey; 50 on mainland	40
1991	30	30
1992	40 on 25/9; 50 on 26/9	50
1993	34+ on 24/9	34
1994	40 on 4/10	40
1995	30 on 28/9 (but 45 on 26/7)	45
1996	60 on 25/9, 26/9 & 3/10	60
1997	50+ on 5 dates 21 – 26/10	50
1998	78 on 4/9	78
1999	30 on 25/10 (40 in early Feb)	40
2000	53 on 17/9 (but 67 on 29/7)	67
2001	60+ on 20/10 (but 65 on 15/7)	65
2002	50 on 2/9, 50 on 3/10	50
2003	50 on 13/9	50
2004	41 on 16/9	41
2005	45 on 6/11	45
2006	51 on 18/7	51
2007	45 in October	45
2008	40 on 12/7	40
2009	25 in March, May and September	25
2010	25 in August	25
2011	50 on 10 and 14 October	50
2012	62 in 24 September	62
2013	36 in September	36
2014	30 on 7 and 24 September	30
2015	62 on 24 July	62
2016	44 on 17 October	44
2017	30 on 12 October	30
2018	20 in October (after exceptionally cold March)	20
2019	17 on 22 October (provisional)	17

17 February 2002

Mr Stephen Newton  
BirdWatch Ireland

Dear Stephen,

Since the Chough is undoubtedly one of the most characteristic birds of Dursey Island, I feel that I must make some effort in the up-coming survey of Choughs in Ireland. Fortunately, our house is situated almost directly above a major communal roosting and breeding site, so much of my work can be done from my veranda!

As regards the population of Chough on Dursey, I have just looked at all the records at my disposal (all my own records since September 1977, and all the trip reports compiled by [REDACTED]). On the face of it, the population at the present time does not seem to be any different from that in the late 1970s, although there may have been some decline in the 1980s followed by a recovery in the 1990s. I attach a summary of maximum counts during September and October, when the numbers of Chough on the island are generally at their highest and when observer coverage has been at its best. However, I include a few high counts from other times of the year in recent years, when I have been spending a great deal of time on the island.

I suspect that there are about ten pairs breeding on the island, and perhaps another five or so on the nearby mainland. There is clearly much commuting between the island and the mainland, and during prolonged periods of bad weather, numbers on the island can be quite low. I have discovered very few active nests, but I confess that I have never specifically looked for nests, and most of the suitable sites are difficult to view from the cliff tops.

Please tell me more about the up-coming survey. How are we supposed to survey Choughs, and what sort of information do you want? Dursey Island straddles three National Grid 10 km squares:

V4030 includes the west end of the island, as well as the Bull, the Cow and the Calf.

V4040 includes most of the island but nothing else. Our house is at V468400.

V5040 includes the extreme eastern end of the island, as well as the western end of the Beara Peninsula east to Allihies.

Covering V4030 and V4040 would be straightforward (except for the Bull and the Cow), but covering V5040 would be a major undertaking.

When we 'circumnavigated' the Bull and the Cow on 14 August 1996, we did not see any Choughs on these two islands. While we have often seen Ravens, Hooded Crows and Peregrines flying to and from the Cow (from Dursey Head), I do not recall ever having seen any Choughs make the crossing, so maybe there are none out there. Presumably the sea-bird surveyors have determined (or will determine) if there are any.



19 July 2002

Mr Gareth Thomas  
BirdWatch Ireland

Dear Gareth,

Herewith the results of my Chough survey in West Beara earlier this year (squares V43, V44, V53 and V54). We experienced some problems with the weather, particularly during the second survey, and as a result, I was not able to maintain a systematic approach to my coverage of the coastline. Rather, I ended up carrying out a succession of sorties to various stretches of the coast during trips to and from Castletownbere.

Of the 84 one km grid squares with some land in my four 10 km grid squares, I managed to get to all but 11. Five of these included only tiny bits of low-lying coast or offshore islets with no Choughs. I did not try to get to the Bull or the Cow (where I doubt there are any Choughs), and also missed four inland squares with rolling hills (and unlikely to have any Choughs).

Coverage during the first survey was rather more complete than in the second (see my coverage maps), partly because of the bad weather during the second survey, but partly also because I was on my own (and did not have my wife to drop me off and pick me up). However, the only big omission in the second survey was Blackball Head. On our first visit, my wife was accosted by an irate farmer with a shot-gun. We subsequently discovered that the guy was known to be something of a 'nutter', so I decided not to go back again.

Of the 37 sites that I located, 24 were confirmed breeding sites. Of the 13 'possibles', I reckon that nine were genuine breeding pairs. However, sites 19, 24, 27 and 36 were probably only prospecting birds.

Of the 32 actual 'nest' sites that I could pin-point, 30 were in crevices in sea cliffs, one (site 8) was in a big sea cave (at the north-east tip of Dursey Island), and one (site 16) was in a disused mine-shaft. The possible pair at Blackball Head (site 35) may well have been nesting in the old Martello Tower.

Note that my site 37 was about 100 metres east of my eastern boundary – in square V64.

The flocks on the mainland gave me few problems, as I saw rather few of them. However, the situation on Dursey was complicated in that we saw flocks more or less every day – of varying numbers of individuals and all over the island. The largest single flock during the survey period was a flock of 26 not far from our house on 5 May.

Note that I have not recorded every sighting of pairs of Chough on my forms. I have omitted observations of pairs simply flying by (a) when they appeared to be pairs I already knew of (or were to find later) flying between their nest site and a remote foraging area, and (b) when they were clearly non-breeding birds (flocks of two) on Dursey Island.

I attach a summary of my records of confirmed and possible breeding pairs in tabular form for easy reference.

## CHOUGH SITES IN WEST BEARA, CO. CORK : SPRING 2002

Derek A. Scott

Ref	Location	1 <sup>st</sup> visit	2 <sup>nd</sup> visit	Activity – 1 <sup>st</sup> visit	Activity – 2 <sup>nd</sup> visit	S	Status
01	V 470 397	17.04	11.05	SF, SG, PF, PG, 1-0	SF, SG, PF, PG, 1-1, 1-2	X	CONF
02	V 466 395	17.04	11.05	SF, SG	PF, PG, 2-2, FE	X	CONF
03	V 456 390	17.04	11.05	SF, PF, PG, 1-0	SF, SG, PF, PG, 1-1, 2-1, 1-0	X	CONF
04	V 453 390	17.04	11.05	SF, PF, PG, 1-2	SF, PF, PG, 2-2, FE	X	CONF
05	V 454 394	17.04	11.05	-	SF, SG, PF, PG, 1-1, 1-2, 2-2, FE	X	CONF
06	V 468 406	29.04	30.05	SF	SF, SG, PF, PG, 1-1, 2-2	X	POSS
07	V 494 418	29.04	30.05	SF, PF, PG, 1-2, 1-0	SF, SG, PF, 1-1	X	CONF
08	V 502 421	29.04	30.05	SF, 1-1	SF, SG, PF, PG, 1-1, 2-2	X	POSS
09	V 485 403	28.04	14.05	SG, PF, PG, 1-1, 1-0	PF, 2-2, FE	X	CONF
10	V 477 400	28.04	14.05	SF, SG, PF, PG, 1-2, 2-1	PF, PG, 1-1, 1-0, FE	X	CONF
11	V 546 477	03.05	01.06	SF	PF, PG, 2-2, FE	X	CONF
12	V 549 474	03.05	01.06	PF, PG	PF, PG, 2-2, FE	X	CONF
13	V 565 465	NV	22.05	-	SF, SG, PF, PG, 1-1, FE	X	CONF
14	V 576 460	03.05	22.05	SF, SG, PF, PG, 2-1	SF, SG, PF, 1-1	X	CONF
15	V 571 445	03.05	22.05	PF, PG, MF, 1-0	PF, PG, 2-2, FE	X	CONF
16	V 590 459	06.05	22.05	-	SF, PF, PG, 1-1, FE	X	CONF
17	V 552 431	03.05	01.06	SG, PF, 1-1	PF, PG, 2-2, FE	X	CONF
18	V 546 426	03.05	01.06	SF, PF, PG, (1-1)	PF, PG, 1-1	X	POSS
19	V 542 427	03.05	01.06	-	PF, PG		POSS
20	V 514 426	03.05	29.05	SG, PF, PG, (1-1)	SF, SG, 1-1, FE	X	CONF
21	V 507 424	03.05	29.05	SF, 1-1	PF, PG, 1-1, 2-2, FE	X	CONF
22	V 515 405	30.04	29.05	SF, SG, PF, 1-0	PF, PG, 1-1, FE	X	CONF
23	V 502 388	30.04	29.05	SF, PF, 1-2	SF, PF, 1-1, NY	X	CONF
24	V 508 390	30.04	29.05	PF, PG, 1-1	-		POSS
25	V 514 397	30.04	29.05	-	SF, PF, PG, 1-1, FE	X	CONF
26	V 524 402	30.04	29.05	SF, PF, PG, 2-2	SF, PF, 2-2	X	POSS
27	V 536 408	06.05	31.05	PF, PG	PF		POSS
28	V 539 408	06.05	31.05	SF, PF, 2-1, FE	SF, SG, 1-1	X	CONF
29	V 544 406	06.05	31.05	PF, (1-1)	PF, PG, 2-2	X	POSS
30	V 547 406	06.05	31.05	SF, PF, PG, MF, 2-1	SF, SG, PF, PG, 1-1, 2-2	X	CONF
31	V 552 407	06.05	31.05	SF, SG, PF, PG	SF, SG, PF, PG, 1-1	X	POSS
32	V 554 406	06.05	31.05	-	SF, SG, PF, PG, 2-2	X	POSS
33	V 563 407	06.05	31.05	SF, SG, 1-0	SF, PF, 1-1, FE	X	CONF
34	V 575 409	25.04	22.05	PF	SF, SG, PF, PG, 1-1, 2-2	X	POSS
35	V 586 394	25.04	NV	SF, SF, PF, PG, (1-1)	-		POSS
36	V 593 398	25.04	NV	SF, SG	-		POSS
37	V 601 400	25.04	NV	SF, SG, 1-1, FE	-	X	CONF

**Notes :**  
 X = site seen.  
 NV = site not visited.  
 Sites 01 to 10 are on Dursey Island

## CHOUGHS ON DURSEY ISLAND, CO. CORK

### 2002 to 2015 Update

2002 Present throughout the year. Ten pairs probably bred on the island (eight confirmed breeding, two possibly breeding, according to BirdWatch Ireland criteria). Monthly maxima were as follows: 19 in January, 36 in February, 48 in March, 19 in April, 30 in May, 30 in June, 30 in July, 40 in August, 50 in September (on 2<sup>nd</sup>), 50 in October (on 3<sup>rd</sup>), 30 in November, and 12 in December. A further 27 pairs (16 'confirmed' and 11 'possible') were located on the nearby mainland (west from Blackball Head and Rahis Point) during two Chough surveys in April/May and May/June.

2003 c.10 breeding pairs; highest count: 50 on 13 September

2004 c.10 breeding pairs; highest count: 41 on 06 September

2005 c.10 breeding pairs; highest counts: 40+ on 24 July & 45 on 6 November

2006 c.10 breeding pairs; highest count: 51 on 18 July

2007 c.10 breeding pairs; highest count: 45 in October

2008 c.10 breeding pairs; highest count: 40+ on 12 July

2009 About ten breeding pairs. 2009 was unusual in that there were no observations of large flocks in late summer and autumn and no indications of big communal roosts on the island. The maximum counts in each month were as follows: 25 in January; 10 in February; 15 in March; 10 in April; 25 in May; 20 in June; 20 in July; 20 in August; 25 in September; 20 in October; 12 in November; and 20 in December.

2010 Some eight to ten breeding pairs. As in 2009, there were no observations of large flocks in late summer and autumn and no indications of big communal roosts on the island. The maximum counts in each month were as follows: eight in January; 13 in February; 20 in March; 12 in April; 12 in May; 20 in June; 15 in July; 25 in August; 20 in September; 20 in October; 15 in November; and 11 in December.

2011 Some eight to ten breeding pairs. For the first time since 2008, a large flock appeared in late summer and autumn, spending much of its time foraging near the Tip and roosting on the cliffs below Tilickafinna. High counts included 34 on 20 August, 40 on 10 September, 44 on 3 October, 50 on 10 and 14 October, and 40 on 16 October.

2012 Some eight to ten breeding pairs. Once again, a large flock appeared in late summer and autumn, spending much of its time foraging near the Tip. High counts included 52 on 21 July, 53 on 10 August, 52 on 1 September and 62 on 24 September.

2013 Some eight to ten breeding pairs. The breeding season seems to have been poor, as no large post-breeding flocks were recorded in late summer and autumn. The highest counts were 22 in July, 36 in August, 35 in September and 25 in October.

2014 Present throughout the year, but apparently in lower numbers than has been the case for many years. No more than 14 were recorded in a day in the first half of the year, and no large post-breeding flocks were recorded in late summer and autumn. The highest counts were only 30+ on 7 and 24 September.

2015 Present throughout the year. Counts were generally rather low in the first few months of the year, but it seems that about ten pairs nested on the island and had a good breeding season, as a post-breeding flock of 62 was recorded at the High Cliffs on 24 July. Other large counts included a flock of 36 on 12 September and a flock of 43 on 19 September. There were still at least 20 on the island in November and December.

2016 Present throughout the year. Counts were generally rather low in the first half of the year, never exceeding 16, and it seems that the breeding season was not very good, as the largest post-breeding flocks in Tilickafinna and at the Tip in autumn were only 34 on 13 October, 44 on 17 October and 32 on 28 October. There were still about 20 birds on the island at the end of the year.

2017 Recorded in the usual numbers throughout the year. There were about 20 birds on the island on 1 January. In October, up to 25 were recorded almost daily, but with 30+ on 12 October: there was a flock of 21 at the Tip on most dates.

2018 The extremely severe weather in early March with prolonged snow cover seems to have hit the Choughs badly, as numbers were well down on previous years. No more than seven were recorded until the end of May. The highest counts in summer were 11 on 2 June, 12 on 29 June and 11 on 25 August. There were up to 12 in early September, 19 on 19 September, and up to 20 in October, but no more than 11 in November, and only eight in December.