

REPORT OF THE 2018/2019 INTERNATIONAL CENSUS OF GREENLAND WHITE-FRONTED GEESE

by

GREENLAND WHITE-FRONTED GOOSE STUDY



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An Roinn
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SUMMARY

The global population of Greenland White-fronted Geese in spring 2019 comprised 21,466 individuals, a 5.8% increase on the revised total of 20,285 in the previous year; 9,335 were counted in Ireland and 12,131 in Britain. There were 201 fewer geese at Wexford, SE Ireland, (7,436 compared to 7,637), but numbers on Islay increased by 1,452 (27.3%) to 6,771. Reproductive success was again very low (6.9%) in Ireland and below average in Britain (11.5%). We also report a correction for winter 2017/18 due to incorrect reporting of count data which revises the spring 2018 count to 20,285 (as against the reported 20,529) a decline of 1.3% on the spring 2017 count.

This report presents the results of the surveys of the Greenland White-fronted Goose on the wintering grounds in winter 2018/19, combining counts from all the British resorts (coordinated by the Greenland White-fronted Goose Study) and those in Ireland (co-ordinated by the National Parks and Wildlife Service). We here publish a revised count for spring 2018 due to receipt of some incorrect counts from Scotland, which revises the total to 20,285 (as against the reported 20,529). The international coordinated count in spring 2019 found a combined global total of 21,466 Greenland White-fronted Geese, a 5.8% increase on the amended previous world population estimate of 20,285 in spring 2018.

In spring 2019, 7,436 were counted at Wexford (compared to 7,637 in spring 2018) and 1,899 (compared with 1,950) from the rest of **Ireland**. Missing spring counts were substituted for 10 Irish regular wintering resorts, amounting to 7.7% of the Irish total. Complete censuses of all known Greenland White-fronted Goose wintering haunts in **Britain** found a total of 12,131 in spring 2019, compared with 10,698, reported in the previous season at the same time of year (using the corrected values in this report). The spring 2019 total comprised three reported in England, 25 in Wales, 6,771 on Islay (compared to 5,319 last season) and 5,332 in the rest of Scotland (compared with 5,349 last season, based on the corrected values from last year provided in this report). Coverage in Britain was more or less complete, with all resorts being counted at least once in the season, excluding the Small Isles (where there no longer seem to be regularly wintering geese). Spring counts were missing from the specified count period from seven resorts away from Islay, but all were substituted with counts undertaken very close to the defined international count dates, amounting to 3.3% of the British total.

In **Ireland**, the percentage young among aged flocks after the 2018 breeding season was 6.9% (based on 4,828 aged individuals) compared to the extremely poor 5.3% after summer 2017. Mean brood size among the Irish flocks was 2.80 ($n = 94$) almost exactly the same as last season (2.82). There were 6.9% young among 4,447 aged at Wexford (compared to 5.3% last year), where the mean brood size was 2.92 (compared to 2.90 last season) based on 79 broods. Elsewhere in Ireland, reproductive success was also very low with 6.8% ($n = 381$), and a mean brood size of 2.13 ($n = 15$). The proportion of young in aged samples from **British** wintering geese was again rather low following the 2018 breeding season, but slightly better than in 2017: the average percentage young was 11.5% ($n = 6,424$ aged, compared to 10.7% last season), mean brood size was 2.67 ($n = 227$ broods, compared to 2.63 last season). This included 12.3% on Islay, ($n = 3,551$, better than 9.3% last year) where the mean brood size was 2.80 ($n = 137$ compared to 2.97 last year).

INTRODUCTION

The 2018/2019 survey represents the 37th annual census of Greenland White-fronted Geese co-ordinated in Great Britain by the Greenland White-fronted Goose Study and in Northern Ireland and the Republic of Ireland co-ordinated by the National Parks and Wildlife Service. Table 1 shows the most recent six seasons of total census data available to the present based on the full survey of all known regular winter haunts for this population, broken down by totals for Wexford and the rest of Ireland, and from Islay and the rest of Britain. This report also provides some slight amendments to the totals presented in the annual report for last year, due to the supply of incorrect totals to us for some sites in southwest Scotland. These have been amended in the Table 2 (see next page) and full details are given in the section starting at the foot of this page, continuing overleaf.

Table 1. Spring population census totals for Greenland White-fronted Geese, 2014-2019.

	Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	Spring 2019
Wexford	8110	7984	6421	7047	7637	7436
Rest of Ireland	2512	2282	2172	1912	1950	1899
Islay	5093	3995	5183	6141	5319	6771
Rest of Britain	5082	4593	5103	5456	5379	5360
Population total	20797	18854	18879	20556	20285	21466



Greenland White-fronted Geese at Hillhead Farm, Loch Lomond. Photo: Ian Francis

CORRECTION TO ANNUAL 2017/18 INTERNATIONAL CENSUS

In the presentation of the Scottish count data presented in the last annual report, we regret that some errors crept into the compilation of the totals. Unfortunately, incorrect totals were supplied to us for some of the sites in southwest Scotland which we herewith revise. As a result of the changes made in the following Table 2, we have revised the Scottish and International totals for the winter 2017/18 accordingly, resulting in a reduction of 1.3% in the global population compared to that in the previous spring. We apologise to all for any inconvenience caused by these errors. The new regional totals are substituted in Table 1 for reference. Irish counts remain unchanged.

Table 2. Corrected counts of Greenland White-fronted Geese in Britain 2017/18

Table 3 and 5 show 2018/19 counts

shaded values are estimates for sites where no counts were received – *this table replaces the equivalent table in the 2017/18 report*

SITE NAME	SEP	OCT	NOV	AUTUMN CENSUS	DEC	JAN	FEB	MAR	SPRING CENSUS	APR
ORKNEY										
Loons			60	72	72	51	67	66	66	
Papay										
North Ronaldsay										
CAITHNESS										
Westfield		120	71	150	150	140	82	150	150	150
Loch of Mey			100	138	138	120	160	154	161	161
NE SCOTLAND										
Loch of Strathbeg	0	0	0	0	0	0	0	0	0	0
WESTERN ISLES										
Barvas/Shawbost, Lewis				38			38		38	
Benbecula				23	23	3	1	1	23	
North Uist		10								
Kilpheder/Askernish, South Uist		50	9	8	8	8	8		8	
Loch Bee/Kilaulay, South Uist		21	54	128	128	125		73	125	
Bornish, South Uist		6								
Cleat, Barra							2	2		
INNER HEBRIDES										
Loch Chalium Chille, Skye			9	8	8	8		7	7	
Broadford/Pabay, Skye		19		8					8	
LOCHABER/NORTH ARGYLL										
Muck/Eigg										
Loch Shiel/Claish Moss		31	53	70	70	60	70	64	64	
Lorn: Tralee/Shenaville				59					60	
Lorn: Appin			25	24	24	24		24	24	
Lismore			130	120	117	110	110	140	150	130
Tiree			630	597		901	839	830	830	
Coll		131	98	152		169	104		185	
Fiddon, Mull				32			21		41	
SOUTH ARGYLL										
Colonsay/Oronsay			88	88	62	52		62	102	
Jura: Loch a'Chnuic Bhric			0	23		0			35	
Jura: Lowlandman's Bay			4	4	4	0		4	4	
Danna/Kiells/Ulva	105	211	152	3		85	144		177	
Moine Mhor	0	3	3		3	2	2	2	2	
Rhunahaorine			596				541		860	
Machrihanish			1882				1608		1486	
Clachan		161	60						0	
Gigha			100						28	
Glenbarr			70				67		0	
Isle of Bute	1		140		140	122	135	200	190	
Endrick Mouth, Loch Lomond	56	228	296		226	268	103	92	168	
ISLAY			4877	5351	5351	5077		4422	5319	
DUMFRIES & GALLOWAY										
Loch Ken		58	138	149	108	183	194		148	153
Stranraer		66	112	174	174	205	213	205	205	103
WALES										
Dyfi Estuary			25	25	25	25	25	24	24	24
Cors Ddyga, Llyn Coron, Anglesey			13	15	15					
Warren Farm, Point of Ayr			9	9	9	9	9			
ENGLAND										
Grindon Lough										
Longhirst, Northumberland										
Durridge Pools/Easington, Northumberland										
OTHER IRREGULAR SITES										
England combined	9		9	0	0	6	7	6	6	6
Scotland combined	15		5	1	2	11	0	6	4	1
TOTALS		698	7122	10765	6857	7764	4550	6534	10698	728
Rest of GB less Islay		698	2245	5414	1506	2687	4550	2112	5379	728
Rest of Scotland less Islay				5365					5349	
England				0					6	
Wales				49					24	
Low Countries				20					0	

AUTUMN ARRIVAL PATTERNS IN AUTUMN 2018

Unusually, a single bird was reported at Loch na Reivil, Hougharry, North Uist on 20 and 27 July 2018. The earliest autumn observation was of a bird at Martin Mere WWT on 16 September 2018, which must have been an overshoot that missed Iceland on autumn migration! Another strange record was of a bird that turned up in Holland Haven Country Park, near Clacton-on-Sea in Essex on 25 September, which remained until at least 9 October. First major reports of arrivals followed again from Loch Shiel on 30 September 2018, where Andrew Dacre had flocks of c.70 and c.25 arriving between 16:00 and 17:00, followed by a flock of c.110 seen by Pete Dale which came in from the west at 18:51. Interestingly, a bird turned up at Marshside, Lancashire and the first returning birds at Wexford also arrived at 18:10 the same day, which turned out to be a group of eight adults and a single first winter, including three collared birds X1P, X2P and X7L. These birds were caught at Wexford in March 2013 and were a family group consisting of parents X1P (female) and X2P (male) and offspring X3N and X7L (females) and X4L, X6L and X6N (males). All these individuals were still associating together in winter 2017/18, except X6N which has not been seen at Wexford since 2014/15.

A lone Greenland White-fronted Goose turned up at the Ythan Estuary on 4 October, and another at Loch of Skene, also Aberdeenshire on 1 October, where numbers subsequently built to 10 on 24 October, with nine next day and a single persisting until at least 23 January. Brian Henderson had his first family of two adults and five young return to West Freugh, Stranraer on 4 October, where they remained alone until 26 October, when numbers jumped to 62, and almost the full complement (maximum count 180) were back on 28 October, when he counted 176. John Bowler reported a major arrival on Tiree on 5 October, when the first 87 were seen to have arrived and the first advance party of five arrived at Loch Lomond on 6 October. Arthur Thirlwell saw a party of 10 (including families of two and three goslings) touchdown on 10 October just across the river from Threave Castle, Loch Ken, where numbers subsequently built slowly to 15 on 25 October, reaching 85 by 1 November (Larry Griffin).

Sinclair Manson had 15 White-fronted Geese crossing Thurso Bay heading into Dunnet Bay on the morning of 11 October 2018, his first in Caithness, when six were also counted on the WeBS count at Rhunahaorine, Kintyre. Nineteen were also counted during a WeBS count on 15 October at Loch Riaghain (Tiree) and one on the Strand, Colonsay on 17 October. The first birds were heard back at Lorn on 19 October, but there were few reports from Islay until 20 October, although numbers rose there very rapidly in the following days. Five geese were counted during the WeBS count at Loch Calder (Caithness) on 21 October, while next day, four were seen flying south over the sea at Camasmor, Borneskitaig, Skye plus six more which moved east inland and 15 were seen migrating over Kilmory, on the northern tip of Rum. Next day, 42 passed north over Scullamus, Skye, possibly disoriented by low mist & cloud and the same day 50 passed over Kilmory, Rum. Andy Knight saw his first 54 geese on Colonsay on 24 October. Two skeins of 33 and 29 White-fronted Geese passed through Broadford, Isle of Skye on 25 October and two large skeins of unidentified geese seen from MV Shearwater near Point of Sleat were probably also of this species (Bob McMillan Skye Birds). Singletons turned up at Balgavies Loch, Angus from 22 October-1 November, Loch Leven, Kinross on 25 October and Findhorn, Moray on 26 October, while 13 were reported from Spurn Observatory on 25 October; the first 57 geese seen back on Lismore did not appear until 26 October (Catriona White). Two Greenland White-fronted Geese were seen at Sancreed, Cornwall on 27 October, followed by a flush of observations around the Fleet and Abbotsbury (2 at Cogden 28 October, eight at Abbotsbury Swannery on 26/27 October and a flock of 21 reported on 26 October) suggest more birds blown off course at this time. Russell Jones reported the return of 11 on the Dyfi Estuary on 27 October. On 29 October, two birds turned up in Foryd Bay, Gwynedd, when flocks of 28 were seen at Anglers Country Park, Wakefield (west Yorkshire) and of seven in the unlikely vicinity of Hawes in North Yorkshire which stayed in the area for at least two days.

After the first arrivals at Wexford (above) on 30 September, numbers had risen to 23 on 8 October, after which poor weather hampered any further arrivals. There was an arrival overnight the 17/18 October, with a count of 465 on the North Slob next morning and 30 at Lough Swilly the same day. Wexford numbers had built to 700 geese by 21 October. There was a dramatic arrival over the night of the 25 to 26 October, when numbers increased from 758 on the whole North Slob to 2500 in just two fields!

SPRING 2019 DEPARTURE PATTERNS

Of five birds fitted with loggers at Lough Iron, County Westmeath, one (collar AJ) arrived in Iceland on 24 March, so some of the birds there had clearly left while leaving others behind. This bird left Lough Iron on the evening of 21 March, flew around the coast of Northern Ireland before apparently choosing to roost on an upland lough in the middle of the night in the Antrim Hills NW of Glenarm. It set off around 0600 next day and flew to Lough Foyle where it arrived around 0730, fed for a couple of hours and then looped round over Lough Swilly before flying out and ultimately NE before swinging N to travel directly to Loch Bee on South Uist. It arrived there early afternoon on 22 March, fed there and overnighted before leaving around 1300 heading straight for Iceland, where it arrived in the SE corner (near Höfn) before 0800 on 24 March (see Figure 1 below).



Figure 1. Route followed by the Greenland White-fronted Goose with neck collar AJ caught at Lough Iron, County Westmeath, which departed the wintering grounds on the evening of 21 March 2019, arriving in SE Iceland early morning on 24 March.

The Western Isles experienced one of its busiest spring migration periods in many years, but presumably because inclement weather resulted in more migrating geese being grounded and reorienting themselves there than under normal circumstances. Paul Boyer reported neck-collared V5X on 23 March amongst 19 geese which stopped off at Loch Mor on Benbecula. It was a first winter female caught at Loch Ken, where it also wintered in 2017/18, but it was reported at Lough Iron, County Westmeath by Triona Finnen, the local Irish National Parks and Wildlife Service Ranger in October 2018, where it spent the rest of the winter. Brian Rabbitts witnessed 20 at Balranald, North Uist on 24 March, which came in from the NE, briefly landed at Loch a' Roe and then took off and flew out of sight further over on the headland in very blustery weather. The WeBS count at Loch Bee located only 80 Greenland White-fronted Geese on 25 March, when two were seen flying north during a sea-watch the same day. On the morning of 26 March, under drizzly conditions and SW winds (Beaufort 5-6), Mike Bell saw 7, 25 and 50 flying S-SSW over South Ford and reported 167 at Loch Bee (both South Uist) around midday, while others reported two at Eoligarry (Barra), five flew north off Rubha Ardvule and 85 and 98 flew east over Askernish (all South Uist). Mike Bell also reported 291 from Loch Mor (Benbecula, and saw 52 and 55 departing north later) which included Wexford wintering collared birds T1D, X3Y, X5Y and X9Z. Forty-nine were also reported from Baleshare (North Uist) and three at Loch Stiapavat (Lewis) the same day. Next day, 44 were watched flying N past South Glendale (South Uist), seven were reported at Oban Trumisgarra, 51 at Loch nam Feithan and three at Udal (all North Uist), while 60 were present on the machair at Lional and Habost (Lewis). On 28 March, Mike Bell saw flocks of 105, 54 and 34 come in towards him at his vantage point at the north end of Berneray from the Sound of Harris and continue SW-WSW between 10:15 and 11:55 hr, 17 were present at Loch Busda (Berneray) but at 10:15 105 flew WSW and later 54 and 34 flew low into East Beach there from the NE; 16 were at Loch na Reivil (North Uist), 19 were present at Scotvein (Grimsay) and two at Kilpheder (South Uist).

Brian Rabbitts subsequently was at Balranald near Loch nam Feithean, where he located 108 Greenland White-fronts feeding on 29 March. Returning later he found 228 feeding together as well as some 230 unidentified geese (but very likely all Greenland White-fronts) which passed to the E of the loch. Amongst these he found four collared birds and two fitted with GPS logger collars, one of which was likely one with the code AX, an adult female that had set off from Wexford heading NNE around 13:30 on 26 March, but seemed to be increasingly blown off course, making heavy weather before reaching a point just north of Perth in Central Scotland around midnight that night. Its changed direction flying in a more westerly direction, following the south coast of Mull next morning around 09:30, landing and flying around Iona before finally settling to feed at Potty Croft in SW Mull on the in-bye there, and roosting that night on Loch an Dreaghain just to the east of the farm. This area is close to Loch Poit na h-I which is the roost of the Fidden flock of White-fronted Geese on Mull, which also use Potty Farm. It set off around 05:10 next morning passing near Lunga to arrive on Benbecula around 09:30 where it remained subsequently, later to be seen by Brian. Also on 29 March, 48 Greenland White-fronted Geese flew north at Frobost (South Uist), 32 flew in to Clachan Sands from the east at 09:45 (Mike Bell), with 58 reported there later, with 122 seen flying north at Baleshare at 15:10 (all North Uist), while two were seen at Loch Stiapavat (Lewis). On 30 March, Paul Boyer reported another neck collar at Benbecula Airport, this time V2J, an adult male caught on the Dyfi Estuary, central Wales by Carl Mitchell in December 2016, which wintered on the Dyfi that winter and was seen at Hemla in Austur Landeyjar, southern Iceland on 13 April 2017 by Rachel Stroud and Niall Tierney in a flock of 57 with four other collared geese from that same catch. Eight of the collared birds returned to the Dyfi in 2017/18 (and another was seen in Iceland in autumn 2017) but V2J was not amongst them and we received no reports of it that winter nor during winter 2018/19, which begs the question as to where it has wintered the last two years? There were also 19 at Clachan Sands, 148 at Loch Scolpaig, 50 at Loch nam Fiethean and five at Loch Mor (all North Uist) and 104+ at Balivanich and 76 at Loch Mor (both Benbecula) on 30 March. Next day, 52 flew NW over Berneray (09:50 hr), 65 flew N past Grimsay, 92 flew N past North Uist and nine flew N past Rubha Ardvule that morning.

Elsewhere, 29 Greenland White-fronted Geese were reported heading north over Neist Point, Skye on 25 March, numbers at Stranraer fell to 145 on 27 March, with the last report of 37 on 30 March (including several collared birds present all winter, which were not seen subsequently) and another 30 seen later in the day at West Freugh which Brian Henderson considered possibly Wexford birds dropping in because they were extremely flighty and quickly headed off NNW. A group of 33 Greenland White-fronted Geese were also reported from Loch Scridain, Mull on 31 March.

Despite all of this departure activity, Sinclair Manson still had 65 at Westfield, Caithness, late afternoon on 1 April, when there were also nine at Clachan Sands and 35 at the St Kilda viewpoint, both North Uist. There were also 50 at Loch nam Feithan (Balranald, North Uist) and five at Coot Loch, Benbecula on 2 April, when Brian Rabbitts had nine come in from the north at Carinish and appeared to land at Aird Mhor at 07:30 hrs. After the gales of 3 April, 47 were watched moving north over Askernish township on South Uist early morning 4 April, when 23 flew NW over Brevig, on Barra. Brian Rabbitts had 13 flew north at Aird an Runair, Balranald, North Uist at 09:52 on 6 April and another two were reported there the same day. The last observations of any size were of two flocks of Greenland White-fronted Geese moving north at Rubha Aird na Machrach (at the northern extremity of South Uist) on the morning of 8 April with frequent skeins of Barnacle Geese, of which 27 landed at the north end of the machair. On Islay, although 30 persisted at Easter Ellister, 40 at Loch na Cachle and 100 at Leorin until 6 April, most had gone in the following days. Seventeen Greenland White-fronted Geese were still on the Dyfi on 5 April, 72 on Lismore on 7 April and 15 on Tiree until 10 April. There were still four at Loch nam Feithean, North Uist on 11 April and two on Coll until 18 April. Late single birds persisted well off course at Auchlossan on 13 April, Cullerlie East 13-23 April and Dalmadilly (28 April, all inland Aberdeenshire), Burscough Bridge, Lancashire and at Marshside (Merseyside) until at least 26 April.

In Ireland, Val Swan reported his neighbour's account of 170 Greenland White-fronted Geese flying high north over a farm on the Nurney/Kindangan border about 8 km south west of Kildare town at 17.10 on 23 March and Greenland White-fronted Geese were starting to depart Wexford North Slob around midday on 24 March (Ann Wilson).

First arrivals in Iceland were 40 reported at Hvanneyri on the morning of 26 March (Jón Einar Jónsson), with large numbers flying over that evening (Ragnhildur Helga Jónsdóttir).

COUNTS IN BRITAIN 2018/19

In winter 2018/19, we again benefitted enormously from the amazing labours of our outstanding count team in the field and we are deeply indebted to everyone for their efforts in achieving excellent coverage. In addition, for the first time ever, we have also been able to access information from two sets of vital data held and managed by the British Trust for Ornithology. This winter, we were able to access all records of Greenland White-fronted Geese entered on the BirdTrack database (organised by BTO with project partners Royal Society for the Protection of Birds, BirdWatch Ireland, Scottish Ornithologists' Club, Welsh Ornithologists' Society and BirdLife International) as well as observations submitted via the Wetland Bird Survey (WeBS, organised by BTO with project partners RSPB and JNCC in association with WWT). Although these sources of data do not add large numbers to our regular basic monitoring, the contribution of observations and counts at non-regular sites and during migration periods has been invaluable and we are extremely grateful to all concerned for their records and to the good offices of the BTO and especially Neil Calbrade and Stephen McAvoy for kindly arranging the supply of the data.

As usual, maximum monthly counts from the regular wintering sites, together with the census period totals, are presented in Table 3, with a more detailed explanation of the contributions which came from the irregular sites in Scotland and England in Table 4, and longer-term trends in autumn and spring counts since 1982/83 in Britain are shown in Figure 2. Note that no birds were reported remaining this winter in the Low Countries and the lack of reports of long staying birds from Norway confirms that it is unlikely that we are missing very many wintering Greenland White-fronted Geese outside of the normal range.

As ever, we tend to place most credence on the spring count from each spring because our experience is that this is the period when the geese are most easily counted at all the resorts. Hence the following discussion relates predominantly to spring 2019 counts. Milder autumn weather in Iceland has resulted in geese remaining very late in Iceland in some recent years and has led to delayed straggling arrivals to the winter quarters, which are always complicated by geese resorting to traditional remote peatland habitats in the early season, reducing our ability to count them. Nevertheless, given the harshness of the Icelandic winter we remain confident that no birds are remaining there throughout the winter.

Numbers at the Loons on Orkney were consistently around 50-54 birds, down on 60-70 last year. A group of 22-23 birds was seen a couple of times near Loch of Harray, a former regular resort of the geese, but despite attempts by Alan Leitch, he failed to find them at the same time as the 50 odd in the main flock, forcing him to conclude this was the same group, merely split between the two resorts. After encouraging numbers in excess of 300 last winter, Caithness numbers fell to just over 250, with most counts below this total number. As elsewhere, the geese proved difficult to locate this winter, confirming the recent trend to fragment more, making assessment of true numbers here and at many resorts difficult. There was good news from the small Lewis flock which was up again on the previous year (from 38 to 45) and to our relief an increase at Kilpheder/Askernish (from a perilously low eight to 11 geese, despite no arrival of goslings this year). The largish flock at Loch Bee also held its own at around 130 birds, but the two groups on Skye give cause for concern; although geese were seen on migration at Broadford, this flock was not located during 2018/19 and the little flock out at Kilmuir remained at just seven individuals again this winter. At Loch Shiel, after a very large and early arrival, numbers held up at 86 in the early winter with at least 71 persisting later in the season, while the combined numbers at Appin and Lorn continue to give some cause for concern as they continue to decline (discussed in the last report), although numbers on the adjacent island of Lismore were not so dissimilar to recent winters. Coll, Tiree, Colonsay/Oronsay and Kiells/Danna/Ulva numbers all remained more or less unchanged, as did the small numbers on Mull, but after our enthusiastic treatment of the four geese at Lowlandman's Bay on Jura last winter, none were seen there in 2018/19. As in 2017/18, 2-3 Greenland White-fronted Geese continued to resort at Moine Mhor, but it is very difficult to see how much longer these last stragglers can remain and it is now hard to believe that back in the good old days this flock numbered 50-80 birds in the 1980s (and up to 132 in 1987/88). Combined numbers on the Mull of Kintyre were down by around 100 birds (a decline of only 4%), but while Isle of Bute numbers fell from 190 to 130, the Loch Lomond flock bounced back from 168 last winter to 200 this.

After the very low numbers counted on Islay in spring last year, the total had been adjusted upwards to account for potentially missed geese, given consistently greater numbers during the other monthly counts that winter. Even in spite of this, this year's total of 6,771 was very much up on the substituted count of 5,319 from last season and marks a welcome recovery of numbers on the island, which always makes such a contribution to the British totals overall. Combined numbers from Dumfries and Galloway flocks at Loch Ken and Stranraer were similar to the preceding year, Loch Ken gaining 20 odd birds to balance a similar loss between winters at the other resort. Numbers on the Dyfi Estuary in mid-Wales continue to give considerable cause for concern as well, as their regular counts fell from 24-25 in 2017/18 to 17 at maximum in 2018/19. There were no reports from Grindon Lough again in Northumberland and our expert correspondent in the area, Tim Dean, says that we should assume the one apparently regular flock of Greenland White-fronted Geese reported from England appears to have finally abandoned the area.

As usual, in a few cases, we struggled to obtain counts of geese at all resorts during the spring count window, and we were forced to substitute missing counts for some flocks by numbers obtained in adjacent months of the same season, mostly from January or February in the case of the spring counts. This resulted in six substitutions to the autumn 2018 count totalling 334 geese (3.1% of that total) and seven in spring 2019 amounting to 398 geese (3.3%), all shown shaded in grey in Table 3.

Despite the different patterns of losses and gains across the various winter resorts, the net result was a 13.4% increase in numbers of Greenland White-fronted Geese wintering in Britain on the previous winter to a grand total of 12,131. This was largely due to the dramatic difference between the spring counts of 2018 and 2019 on Islay (5,319 versus 6,771 respectively, an increase of 27.3%), whereas overall numbers remained almost unchanged at the combined resorts elsewhere in Britain. Unfortunately, such an increase was not shared with Ireland, as discussed in the next section.

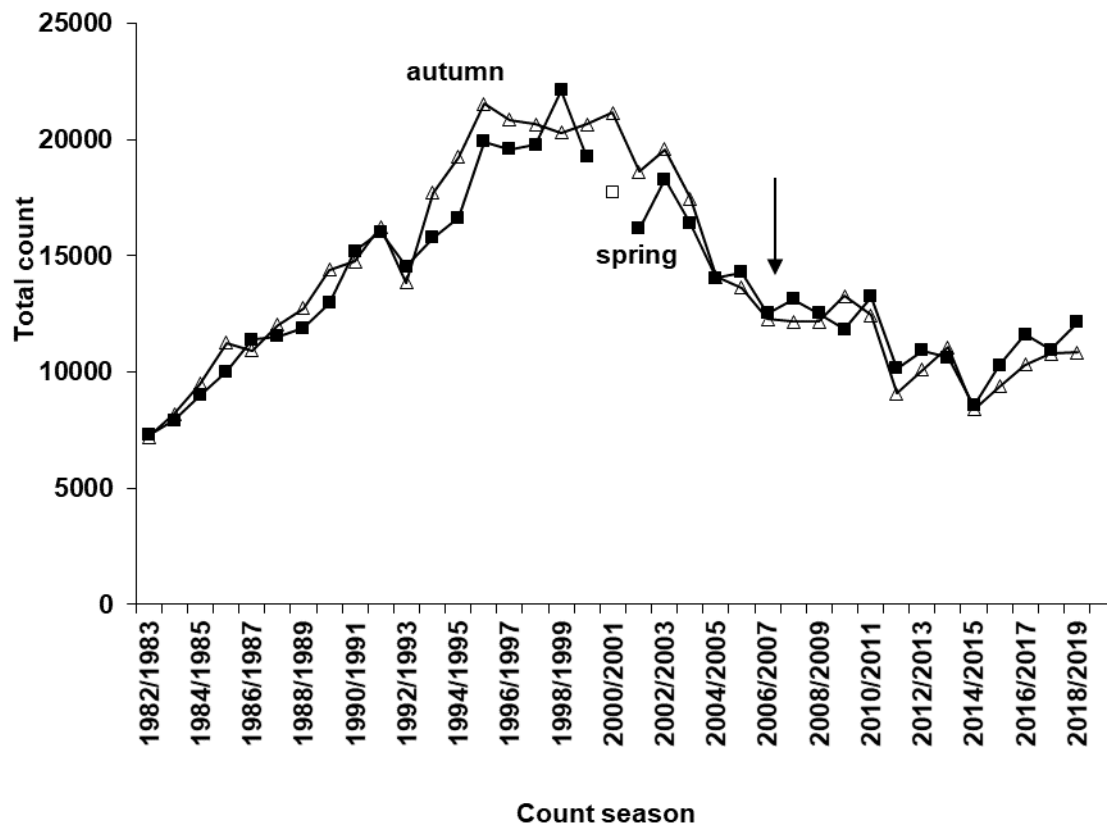


Figure 2. Counts of Greenland White-fronted Geese in Britain, 1982/83-2018/19, showing autumn (open triangles) and spring (filled squares) census results for each season. The value for spring 2001 (unfilled square) was missing as a result of the outbreak of Foot and Mouth Disease that year and was therefore estimated from previous counts. Vertical arrow indicates the start of the hunting ban in Iceland in autumn 2006.



Greenland White-fronted Geese being cryptic at Loch of Mey, Caithness. Photo: Ian Francis

Table 3. Summary counts of Greenland White-fronted Geese at regular resorts in Britain 2018/19.

shaded values are estimates for sites where no counts were received for the precise period of the international census periods

SITE NAME	SEP	OCT	NOV	AUTUMN CENSUS	DEC	JAN	FEB	MAR	SPRING CENSUS	APR
ORKNEY										
Loons			50	50	48		54	21	54	
Papa Westray			4							
Dale of Corrigall, Harray			22		23					
CAITHNESS										
Westfield				67	67	63	124	89	124	
Loch of Mey		69	63	117	100	117	101	124	131	
NE SCOTLAND										
Loch of Strathbeg		2		1		2	1		6	
WESTERN ISLES										
Barvas/Shawbost, Lewis			45	45					45	
Benbecula								291		
North Uist					1			1	1	
Kilpheder/Askernish, South Uist			11	11				11	11	
Loch Bee/Kilaulay, South Uist				130		130		80	130	
Bornish, South Uist			4							
INNER HEBRIDES										
Loch Chalium Chille, Skye				7	7	7			7	
Broadford/Pabay, Skye										
LOCHABER/NORTH ARGYLL										
Muck/Eigg										
Loch Shiel/Claish Moss	205	80	86	86	78	86	71	71	71	
Lorn: Tralee/Shenaville				30			30		30	
Lorn: Appin			17	17	17	17	17	17	17	
Lismore		57	87	120		120	120	118	118	72
Tiree			812	672		765	867		854	
Coll			80	154		109	153		172	
Ardfinaig, Mull			15	25		15	29		30	
SOUTH ARGYLL										
Colonsay/Oronsay		54	93	79	85	20	101	37	101	
Jura: Loch a'Chnuic Bhric				29					0	
Jura: Lowlandman's Bay				0					0	
Danna/Kiells/Ulva			148	195		163	183		234	
Moine Mhor			2	2	3	3			3	
Rhunahaorine				727					498	
Machrihanish				1709					1907	
Clachan				0					113	
Gigha				0					0	
Glenbarr				12					0	
Isle of Bute			110	120	120	126	130	130	130	
Endrick Mouth, Loch Lomond		190	200	240	240	226	201	200	200	
ISLAY			6696	5847	5847	6801		6846	6771	
DUMFRIES & GALLOWAY										
Loch Ken		28	120	132	132	136	131	161	161	13
Stranraer		176	180	180	180	180	173	180	180	
WALES										
Dyfi Estuary		11	15	13	13	13	17	17	17	17
Cors Ddyga, Llyn Coron, Anglesey		2	2	7	7	8			8	
OTHER IRREGULAR SITES										
England combined		41	8	8	11	5	15	8	3	1
Scotland combined		4	3	1	3	4	1	5	4	3
Wales combined		10	28	0	0	1	0	6	0	0
TOTALS		724	8901	10833	6982	9117	2519	8413	12131	106
Rest of GB less Islay		724	2205	4986	1135	2316	2519	1567	5360	106
Rest of Scotland less Islay				4958					5332	
England				8					3	
Wales				20					25	

Table 4. Summary counts of Greenland White-fronted Geese at irregular sites in Britain 2018/19

	SEP	OCT	NOV	AUTUMN CENSUS	DEC	JAN	FEB	MAR	SPRING CENSUS	APR
OTHER IRREGULAR SITES										
Scotland										
Golspie/Culmailty, Sutherland					1	1		1	1	
Findhorn, Moray		1								
Various inland Aberdeenshire										3
Loch of Skene, Aberdeenshire		1	1	1	2	1				
Ythan Estuary, Aberdeenshire		1								
Balgavies Loch, Angus		1	1							
Saline, Fife								1	1	
Blairbowie, Ayrshire			1							
Martnaham Loch, Ayrshire								1		
Fail Loch, Ayrshire						1		1	1	
South Alloa/Kincardine, Falkirk						1	1			
Carstairs Junction, South Lanarkshire								1	1	
England										
Saltcoates, Cumbria							1			
River Eden, Carlisle, Cumbria							1			
Cresswell/Druridge area, Northumberland		1	1	1	1	1				
Fylde/Marton Mere/Morecambe Bay			1	1	1	1	4	2		
Wheaton, East Yorkshire		3								
Hawes, North Yorkshire		7								
Carthorp Mires, North Yorkshire				2	2	2	1			
Anglers Country Park, West Yorkshire		28								
Ribble, Lancashire		1	2	3	3	1	4	2	2	1
Atcham, Shropshire							1	1	1	
Eye Brook Reservoir, Leicestershire			1							
Kenchester Pools, Hereford							3			
Severn/Avon Valleys Glos/Worcs			1	1	1					
Holkham, Norfolk					2					
Burwell Fen, Cambs			1							
Carlton Marshes, Suffolk								1		
Thorpe-le-Soken, Essex			1							
Old Felixstowe, Essex					1					
Pulborough Brooks, Sussex								2		
Sancreed, Cornwall		1								
Wales										
Gwbirt, Ceredigion						1				
Marloes/Dale, Pembrokeshire		10	7							
Trefin, Pembrokeshire			14							
Dryslwyn, Tywi Valley			1							
Gwent Levels/Goldcliff Marshes, S Wales			6					6		
TOTALS										
Scotland		4	3	1	3	4	1	5	4	3
England		41	8	8	11	5	15	8	3	1
Wales		10	28	0	0	1	0	6	0	0

COUNTS FROM IRELAND

Thanks as ever to the magnificent count team in Ireland for achieving good coverage in 2018/19, again with counts made every month at many of the most important sites (Table 5). During the period from around the mid-2000s, Greenland White-fronted Geese in both Ireland and Scotland have begun to be far more difficult to locate, with many observers reporting more fragmented flocks and more dispersed wintering patterns, making accurate local flock assessment more difficult than in previous years. So it was again in 2018/19, when many of the flocks proved elusive in mid-winter and especially during the period of the spring count. This does mean that we have had to estimate numbers at 10 resorts for which spring counts in the designated periods were missing. However, most of these are based on counts in January or February 2019 and together they only account for 7.7% of the final Irish total.

Once again, the fortunes of the various flocks varied greatly between resorts, with numbers at Loughs Foyle and Swilly remaining at last years' level just breaking 600 geese, as was the case at Pettigo (45 versus 47 this year) but other Donegal flocks showing modest reductions (Dunfanaghy and Sheskinmore, where there had been encouraging increases in spring 2017 over the previous spring count). Numbers were largely unchanged at Lough Macnean, Lurgangreen, Lough Conn and Bog of Erris (although no counts were received from the Mullet peninsula for 2018/19). At Errif and Derrycraff, numbers were up by nine birds on last year's counts, but we received no counts from Connemara in 2018/19, where it is thought no birds have wintered in recent years. Survey of the formerly occupied Connemara sites remains a priority and a challenge, given the wide dispersal of feeding sites and the likely small numbers of geese involved.

Rostaff and Killower suffered a modest decline of nine birds on the count last spring. The flock at Lough Corrib continues to persist, although the total of 20 in spring 2019 was five down on the numbers in the previous season. Rahasane Turlough continues to maintain 60-70 birds, pretty much unchanged on the previous year. After the heartening increase at Tullagher from 18 (spring 2017) to 23 (in spring 2018), it was disappointing to see this group slip back to a consistent nine individuals through the 2018/19 winter, but numbers in North County Clare crept up from 37 last spring to 43 this year.

In the upper Shannon catchment, Lough Gara numbers were slightly up (134 compared to 120 in the previous spring), but lower down in the Shannon Floodplain, after the optimistic return of up to 67 Greenland White-fronted Geese at North Lough Ree in winter 2017/18, there were no records from 2018/19, so we have substituted the spring 2018 count of 21 in estimating national totals. Numbers on the Rivers Suck and Little Brosna were relatively unchanged, with a modest 17% increase in the spring 2018 count over the previous year. Numbers at the Midlands Lakes complex, however, slipped back from 268 in spring 2018 to 185 in 2019.

Overall, with relatively low reproductive success among many of the flocks, including birds at Wexford, it was not so surprising that numbers of geese down country were less than those counted in the spring of 2018. Numbers wintering away from Wexford dropped from 1,950 geese in 2018 to 1,899 in 2019 (a decline of 2.6%). Numbers of geese registered in the Wexford area in spring 2019 were also not able to compensate for declines elsewhere, as numbers there fell from 7,637 in spring 2018 (after an increase of 8.4% over the previous spring) to 7,436 in 2019 (also a decline of 2.6% over the previous season).

Table 5. Summary counts of Greenland White-fronted Geese in Ireland 2018/19

shaded values are estimates for sites where no counts were received for the precise period of the international census periods

	OCT	NOV	AUTUMN CENSUS	DEC	JAN	FEB	MAR	SPRING CENSUS	APR
DONEGAL									
Loughs Foyle & Swilly		610	594	594	598	834	604	604	
Dunfanaghy		63	63	35	129		70	129	
Sheskinmore lough		17	17	17		16	18	18	
Pettigo		48	48	34	50		47	47	
NORTH CENTRAL									
Lough Macnean		73	83	83	83	83	83	83	
Lough Oughter	0	0	0	0	0	0	0	0	0
Lurgangreen		25	25	25	30	26	20	20	
MAYO									
Lough Conn		21	22	22		0	3	21	
Bog of Erris									
a. Mullet									
b. Carrowmore			7	7	0			20	
c. Owenduff		0	48	0	48	0	0	48	
MAYO/GALWAY UPLANDS									
Errif & Derrycraff	16		50	50	34	61		61	
Connemara									
GALWAY LOWLANDS									
Rostaff & Killower		52	81	52	52	31	83	83	
Lower Lough Corrib			20	0	0	20	20	20	
Rahasane turlough	22	66	66	54	69	0	0	69	
CLARE/LIMERICK									
Tullagher		9	9	9	9	9	9	9	
North County Clare		36	38	38	43	43	43	43	
SHANNON HEADWATERS									
Lough Gara		90	118	118	134		37	134	
MIDDLE & LOWER SHANNON									
North Lough Ree			21					21	
River Suck		101	115	115	131	56	109	109	
Little Brosna		120	118	118	175			175	
MIDLANDS									
Midland lakes		212	217	217	195	193	185	185	164
SOUTH EAST									
Wexford North Slob	2600	7111	6947	6947	7048	6898	7106	7106	
Wexford South Slob		0	7	7	0	0	250	250	
Tacumshin		0	0	0	0	0	0	0	
Cahore		72	0	0	8	0	80	80	
COUNT TOTALS									
Ireland without Wexford	2638	8726	8714	8542	8836	8270	8767	9335	164
Wexford			1760					1899	
			6954					7436	

INTERNATIONAL TOTALS

Despite the declines in wintering numbers at Wexford in spring 2019 compared with the preceding year, and similar losses elsewhere in Ireland, combining the 7,436 counted at Wexford and the 1,899 geese counted elsewhere in the rest of Ireland, increases within Britain (especially on Islay) contributed to a global total of 21,466 Greenland White-fronted Geese in spring 2019, an overall increase of 5.8% on the amended 20,285 counted in spring 2018 (reported here), happily the highest counts since spring 2013 (Figure 3).

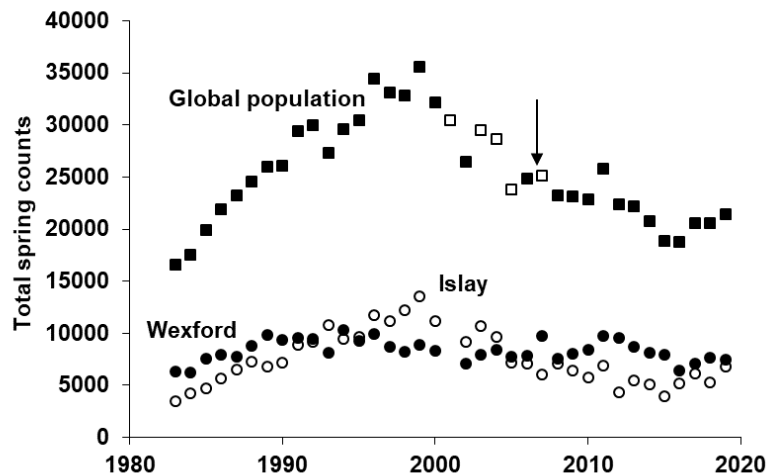


Figure 3. Spring counts of Greenland White-fronted Geese from Wexford Slobs and Islay and the global population count, 1983-2019. Values for the total population size are missing in some years when complete coverage could not be achieved (open squares, for which estimated counts based on previous counts have been substituted). Values for spring 2001 were missing as a result of the outbreak of Foot and Mouth Disease that year and were therefore also estimated from previous counts. The arrow marks the point at which autumn hunting in Iceland was stopped in 2006.

AGE RATIOS IN BRITAIN

Thanks again to our loyal counters for managing to derive age ratios and brood size data from so many of the British wintering Greenland White-fronted Goose flocks. This is so vital to us to help understand the population processes that are driving change in the abundance of wintering flocks. The annual contribution of young birds to the population makes a considerable difference to overall numbers that return to the wintering grounds, although of course local wintering numbers are also affected by the processes of mortality, immigration and emigration. Thanks to you all, we again achieved a very high proportion of assessments in winter 2018/19 (Table 6) and once again, our thanks to everyone who has contributed.

Table 6. Summary of age ratio determinations and brood sizes for Greenland White-fronted Geese wintering in Britain 2018/19.

SITE NAME	% YOUNG	SAMPLE AGED	MEAN BROOD SIZE	FAMILIES SAMPLED
Loch of Mey, Caithness	19.64	56	1.83	6
Westfield, Caithness	8.87	124	1.83	6
Loch of Strathbeg	33.33	6		
Barvas, Lewis	17.78	45		
Kilpheder, South Uist	0	11		
Kilmuir, Skye	14.29	7		
Tiree	7.62	643	2.04	24
Coll	34.58	107		
Lorn, Appin	0	17		
Lismore	8.33	24		
Mull, Fidden	16.00	25		
Moine Mhor	0	2		
Colonsay	18.99	79		
Clachan¹	14.88	121	3.00	6
Glenbarr¹	0	36		
Rhunahaorine, Kintyre¹	12.60	365	3.00	20
Machrihanish, Kintyre¹	5.06	553	2.31	13
Islay¹	12.28	3551	2.80	137
Bute	10.83	120	4.00	2
Loch Ken	8.33	120	2.00	5
Stranraer	18.89	180	3.13	8
Endrick Mouth	6.89	215		
Dyfi Estuary	0	17		
Britain, excluding Islay	10.58	2873	2.47	90
OVERALL	11.52	6424	2.67	227

¹Details from Jura, Islay and Kintyre courtesy of Dr Malcolm Ogilvie

The reproductive success of Greenland White-fronted Geese following the 2018 summer was undistinguished continuing recent trends of falling between 10% and 12%. The overall average was 11.5% young, slightly above that after the 2017 season, but below long term averages (see Figure 4). The percentage exceeded 10% at 12 out of 23 sites from which data were available (Table 6), comprising 12.3% among the excellent sample of 3,551 birds aged on Islay (below the long term average back to 1962) compared to 10.6% among 2,873 sampled elsewhere. There is no long term trend in reproductive success on Islay back to 1962, although the period of below average production in the early 2000s is evident (see Figure 4). Mean brood size was 2.67 overall based on 227 families sampled from many sites, almost identical with the previous year, including a mean of 2.80 on Islay (n = 137) compared to 2.47 elsewhere (n = 90).

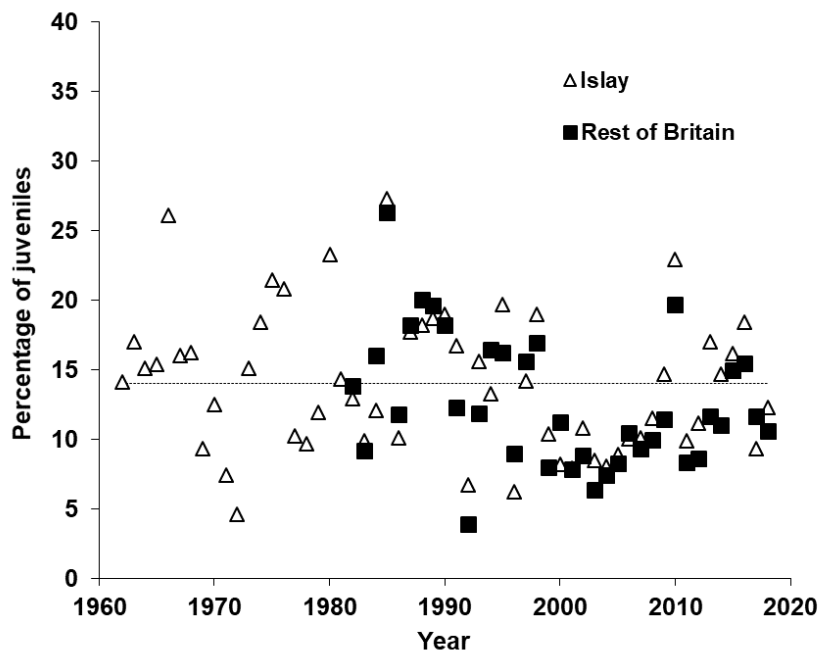


Figure 4. Age ratios sampled among Greenland White-fronted Geese on Islay 1962-2018 (open triangles) and compiled from other sites in Scotland and Wales, 1983-2018 (solid squares). The horizontal dotted line indicates the average percentage young among samples from Islay for 1962-2018, which provides a long-term perspective on changes in the overall productivity of the gees wintering in Great Britain.



Greenland White-fronted Geese, with a few Greylag Geese at Knockglass, Westfield, Caithness, in front of the Baillie wind farm. Photo: Ian Francis

AGE RATIOS FROM IRELAND

Breeding success following the 2018 summer among flocks returning to Ireland was again very low compared to former years, although slightly better than the dreadful 2017 season. Overall breeding success was 6.9% young, comprising 6.8% among the sample from elsewhere in Ireland ($n = 381$, including none among 25 aged at Errif and Derrycraff) but dominated by the 6.9% ($n = 4,447$) reported at Wexford (Table 7). This confirms the long term decline in reproductive success at Wexford and in Ireland in general (Figure 5). Mean brood size was 2.80 overall, comprising 2.92 based on 79 families at Wexford and 2.13 elsewhere ($n = 15$, Table 7).

Table 7. Summary of age ratio determinations and brood sizes for Greenland White-fronted Geese wintering in Ireland 2018/19.

SITE NAME	% YOUNG	SAMPLE AGED	MEAN BROOD SIZE	FAMILIES SAMPLED
Pettigo	4.82	83	2.00	2
Dunfanaghy			2.78	4
Errif & Derrycraff	0	25		
Rostaff & Killower, Galway	3.75	80	1.00	3
Midland Lakes	9.84	193	2.33	6
Wexford	6.86	4447	2.92	79
Ireland, excl. Wexford	6.82	381	2.13	15
OVERALL	6.86	4828	2.80	94

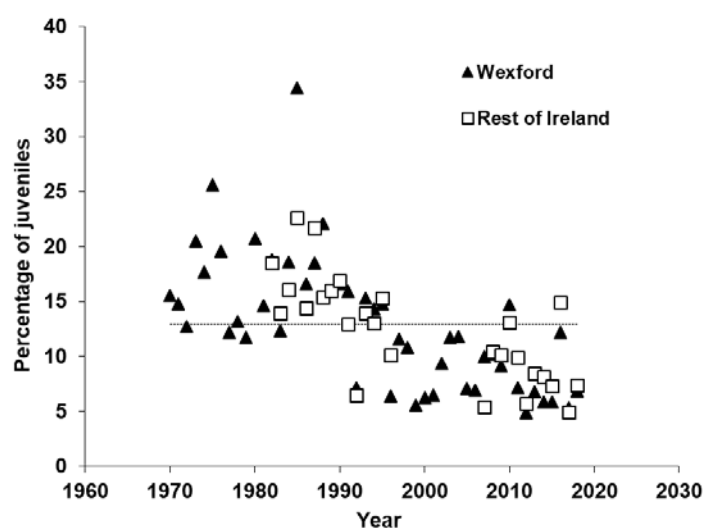


Figure 5. Age ratios sampled among Greenland White-fronted Geese at Wexford 1970-2018 and compiled from other sites elsewhere in Ireland for years in which there exist sufficient data. The horizontal dotted line indicates the average percentage young among samples from Wexford for 1970-2018.

OBITUARIES

Patrick O'Sullivan



Paddy O'Sullivan in action with the cannon-netting team at the end of a hard earned catch to attach satellite transmitters to Greenland White-fronted Geese on the Wexford North Slob in March 1997. Back row: Ben Phelan, Paddy O'Sullivan, John Wilson, Chris Wilson. Front row: Alyn Walsh, Christian Glahder, Tony Fox.

It is with deep regret that we announce the recent death of Patrick O'Sullivan (March 1946 - January 2019). Paddy was born in Wexford in March 1946 and educated locally; He always held a deep passion for conservation of species and habitats. He served in the RAF for a period of fifteen months and joined the *An Fórsa Cosanta Áitiúil*, (FCÁ or Local Defence Force) in 1962. He attained the rank of Captain and finally retired in 2000. Indeed, Paddy also had a deep interest in military history and that was fundamental in his search for the grave of his grandfather Mortimer O'Sullivan who was killed in action in the Great War somewhere in Northern France on 22 December 1914. In October 1972 Paddy married Peggy Doyle, a native of Thomastown in Co. Kilkenny and they had three children Mark, Richard and Louise.

Paddy joined the National Parks and Wildlife Service in February 1980 as part of the first ever contingent of Conservation Rangers to be employed by the State. He was responsible for an area stretching from Wexford Town north to Enniscorthy and northwest to Mount Leinster. This area encompassed the important flock of Greenland White-fronted Geese that wintered on the North Sloblands.

His early service coincided with a Government decision to fully investigate the status of the Greenland White-fronted Goose in relation to the continuation of hunting in Ireland. In particular, this had direct relevance to Paddy's remit of responsibility for the largest flock in Ireland wintering on the Wexford Sloblands. This is where our paths crossed as AJW had just transferred from a project in Co. Carlow to the Wexford Wildfowl Reserve. The deployment of cannon-netting in Ireland at that time had not been possible due to the political situation of the time, which made it extremely difficult to engage in such activities. However, by 1984 there was a significant change in policy and the first Irish cannon-

netting team was formed with the objective of capturing and marking Greenland White-fronted Geese at selected locations.

Looking back to those early days and long winter nights setting nets, we remember our first net sets with trainer Andrew St. Joseph on 8 February 1984. That initial training period, lasting ten days was a really hard task. It was cold, occasionally wet but we never forget the mud and the constant setting and resetting of nets in various fields. We surmised that if we survived that week any future situations would be a "piece of cake". Thankfully, Paddy stuck with the team and continued to help set over one hundred and twenty nets over a twenty-six year period - resulting in thousands of geese being caught and marked - not just in Wexford but also in Lough Iron Co. Westmeath and Sheskinmore Co. Donegal, until his retirement from the NPWS in 2010.

Paddy became an integral part of the cannon-netting team where the marking of individual geese was central to the investigation. His enthusiasm, dedication and reliability were the hallmarks of his commitment to a project where teamwork was critical, and a project that continued with his help from the 1980s to today. He was there 'day or night, hail, rain or shine' always with a smile on his face. Paddy's commitment and contribution will always be remembered by those he came in contact with and we would be in a lesser place today without it - a mighty man indeed.

May we, on behalf of his many colleagues in the National Parks and Wildlife Service, the Greenland White-fronted Goose Study and even greater number of friends offer his wife Peggy and his entire family our deepest condolences.

Alyn Walsh and John Wilson

Mike Peacock



Mike Peacock hugging a well-earned Canada Goose in Isunngua, west Greenland during the summer 1997 catching expedition.

It is with great regret that we also report more tragic news that our good friend and long-time Greenland White-fronted Goose fanatic, Mike Peacock, has passed away.

We first became acquainted with Mike Peacock when he became warden and later site manager for the RSPB Reserve at Loch Gruinart on Islay in 1988. A passionate conservationist, Mike was also the most wonderfully personable of characters and quickly integrated into the local community, despite tensions at that time between the farming community and geese in particular, but with the conservation community in general. He was quickly embroiled in playing rugby and engaging in community affairs and together with his wife Val, a nurse on the island, gained the deep respect and admiration of local folk. Although the reserve was renowned for its wintering geese, Mike had a knack for seeing endless additional opportunities, and with his extraordinary talent for just adding water and stirring a little, transformed the reserve into a haven for a variety of Hebridean specialities, especially for breeding waders, Hen Harriers, Choughs, Spotted Crakes and Corncrakes, whilst still attracting spectacular numbers of wintering geese.

Mike was a huge fan of the Greenland White-fronted Goose and lavished considerable professional and private interest in looking after their well-being, contributing enormously to gaining the respect of the farming community on Islay and promoting the conservation of geese in the face of conflict. Mike also selflessly took part in the 1997 expedition to west Greenland, where his experience of Red-necked Phalaropes during his previous RSPB employment on Shetland (where they are naturally very rare) came in extremely handy on their arctic breeding areas (where they can be spectacularly abundant).

As well as being an incredibly strong and reliable workhorse during long hours back-packing catching gear across the tundra, Mike also proved his skills with arctic rugby, prune stone projecting, sack races and always turned a mean wrist with a Frisbee. Mike had a good humoured and phlegmatic approach to life – strong assets on any expedition, but particularly in 1997 when moulting geese – always thinly scattered – were unusually distributed, and with July weather that was significantly wetter than usual. At that time, Canada Geese were seriously starting to establish themselves in our study area. With their slightly different behavioural responses to round-ups, this really began to stretch our collective capabilities. However, no doubt drawing on rugby tactical thinking, Mike ensured that we were always one step ahead and for the first time significant numbers (129) of Canada Geese were ringed, as well as a good haul of Greenland White-fronted Geese (50) in that catching season. Mike's robust good humour always shone through. A memorable highpoint was – after two days of rain – assembling all 12 of the team in a two-person tent to play "Whose foot is it anyway?" Where a random body part had to be identified to source in what was an ultimate game of 'twister': good memories with Mike typically at the centre of the action.

Always a strong team player and huge source of inspiration and encouragement, he was a tough and determined advocate of nature conservation and always great company. Mike and Val moved to Oronsay in 2000, not so very far from Islay as the Chough flies, also with its own resident wintering Greenland White-fronted Goose flock. He retired from the RSPB in 2015 and moved back to Islay, where his retirement was cruelly cut short by illness. Nevertheless, Mike continued to be a loyal contributor to the annual Greenland White-fronted Goose census to end of his life and we remain eternally grateful to this remarkable man for his long term dedication to the geese.

Mike Peacock's legacy is enshrined in the network of outstanding nature reserves which he shaped for the RSPB and the coming generations, drawing on his deep vision, insight, understanding of nature and sheer hard work. He will also be very fondly remembered for the difference he made to generations of professional conservationists and volunteers and members of often sceptical local communities whom he influenced through his kindness, encouragement and wisdom. We all know how privileged we were to have known him. He will be sorely missed and our thoughts go out especially to his beloved Val, his family and his many friends at this terribly sad time.

Tony Fox and David Stroud

ACKNOWLEDGEMENTS

Our thanks as ever go out to the very many folk who annually enable the effective monitoring of this extraordinary group of birds. Without your fieldwork and great suffering to gather counts, family sizes, age ratios and read collars, absolutely none of this would be possible! We are so reliant on you all for your contributions and genuinely hope we do not mistreat your good nature. Be sure to let us know if we can be more effective and helpful in enabling you to continue to collect data on our behalf.

Thanks as ever to each of you, with our sincere apologies if inadvertently we have missed you off the list. In Britain, those people who have kindly contributed data and information during 2018/19 include: Paula Baker, Dave and Pat Batty, Richard Boddington, John Bowler, Jack Brown, Ed Burrell, Francois Chazel, George Christie, Sue Clare, Bob Coenen, Robert Coleman, Andrew Dacre, Pete Dale, Steve Duffield, John Dye, Alan and Anthony Fraser, Ian Fulton, Julia Gallagher, Steven Gorman, Larry Griffin, Robin Harvey, Kath Hamper, Ian Hawkins, Brian Henderson, Aimee Hood, Ian Hopkins, James How, Simon Hugheston-Roberts, Lachlan Hutchinson, Iain Jamieson, David Jardine, Tracey Johnston, Ben Jones, Dave Jones, Russell Jones, John Kemp, Alan Kerr, Amy Kirkbright, Tom Kistruck, Andy Knight, Morven Laurie, Mary Legg, Alan Leitch, Alison Leonard, Steve Littlewood, Stephen Longster, Sinclair Manson, Emma Martinelli, Paul Massey, Irene McCulloch, Clive McKay, Rae McKenzie, Bob McMillan, Peter Miller, Carl Mitchell, Karen Munro, Brian Neath, Bill Neill, Alex Nichol, Alison and Donald Omand, Malcolm and Carol Ogilvie, Matt Oliver, Peter Page, Nicky Penford, Stan Phillips, Dave Pickett, Felicity Pollard, Brian Rabbitts, Bryan Rains, Alan Reid, Robin Reid, Brian Ribbands, Nicola Richie, RSPB staff on Anglesey, Alison Searl, Jean and Bob Shand, Peter Skinner, Julian Smith, Andrew Stevenson, David and Judy Stroud, Arthur Thirlwell, Niall and Rachel Tierney, Gareth Thomas, Terry Ward, Colin Wells, Sarah West, Catriona White, Emily Wilkins and Barbara Wolff.

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Please be aware that the international census periods to count Greenland White-fronted Geese in the coming season are: **14-18 December 2019 and 14-18 March 2020**, but we welcome all counts from any dates, but the other monthly counts especially during the period: **23-27 November 2019, 18-22 January 2020 and 22-26 February 2020**.