

Progress Report on Colour-ringing Study of Black-headed, Common and Lesser Black-backed Gulls at Lough Mask, County Mayo, Ireland

01/01/2014



Michéal Casey

**Eoin Mc Greal,
NPWS, Aghinish, Ballinrobe, Co. Mayo, Ireland
094 95 42775
eoin.mcgregal@ahg.gov.ie**

Introduction

Since 2006 a colour-ringing study of Black-headed, Common and Lesser Black-backed Gulls has been carried out on Lough Mask, Co. Mayo, co-ordinated by the National Parks & Wildlife Service in conjunction with BTO ringing trainer, Chris Benson.

Lough Mask is a large inland lake (80 km²) designated as a candidate Special Protection Area (SPA 004062) for wild birds under EU Directive 79/409 and breeding gulls are part of the site's qualifying interest. All three species are listed as species of conservation concern due to their unfavourable conservation status in Europe and because their national breeding populations and range have declined significantly over the previous 30 years. Lough Mask holds a significant percentage of the national breeding population for both Black-headed and Common Gulls and for Ireland's inland breeding population of Lesser Black-backed Gulls.

The initial aims of the study were to establish information on longevity, dispersal patterns, site fidelity, survival rates, etc. and to act as a mechanism for monitoring overall population trends. The colour-ringing component of the study commenced for both Black-headed and Common Gulls in 2006 and ceased in 2010 while that for Lesser Black-backed Gulls commenced in 2013. The major focus of the study is to closely monitor fluctuations in breeding numbers, productivity, diet, time budgets and the recruitment of colour-ringed birds back to the breeding colonies. The study also functions as part of the overall monitoring of the site's SPA designation.

Methods

The study was confined to the ringing of pulli and was largely carried out on 3 separate island colonies; a low-lying islet off Aghinish (M135665) for Black-headed Gulls, Rams Island (M091599) for Common Gulls and Carrigeendauv (M125685) for Lesser Black-backed Gulls. All ringed pulli were fitted with an engraved plastic ring in an attempt to improve the likelihood of a bird being reported. Each ring was engraved with a unique 4-digit code and each bird can therefore be identified in the field as an individual. These coded yellow rings have been fitted on the left tarsus with a corresponding BTO metal ring attached to the right tarsus.

Colour Codes:

2006:	201A-200A	Black-headed Gull	100
	. 201C-200C	Black-headed Gull	100
	. 201E-200E	Black-headed Gull	100
	. 201X-237X, 241X-250X, 261X-200X	Black-headed Gull	<u>87</u>
			387
	201Z-282Z	Common Gull	82
2007:	238X-240X, 251X-260X	Black-headed Gull	13
	201H-200H	Black-headed Gull	100
	201M-200M	Black-headed Gull	100
	201P-200P	Black-headed Gull	100
	201S-200S	Black-headed Gull	<u>100</u>
			413
	283Z-290Z	Common Gull	8
	201V-200V	Common Gull	<u>100</u>
			108
2008:	201B – 200B	Black-headed Gull	100
	201D – 200D	Black-headed Gull	100
	201F – 271F	Black-headed Gull	<u>71</u>
			271
	201Y – 271Y	Common Gull	71
2009:	272F – 200F	Black-headed Gull	29
	201G – 200G	Black-headed Gull	<u>100</u>
			129
	272Y – 288Y	Common Gull	17
2010:	289Y – 200Y	Common Gull	12
	291Z – 200Z	Common Gull	<u>10</u>
			22
2013:	M:AA - M:CG	Lesser BB Gull	39
Total:		Black-headed Gull	1200
		Common Gull	300
		Lesser BB Gull	39

Discussion:

To date (18/12/2013) 685 re-sightings of 226 post-fledged gulls have been submitted – these were made up of 440 re-sightings of 143 individual Black-headed Gulls, 234 re-sightings of 77 individual Common Gulls and 14 re-sightings of 8 individual Lesser Black-backed Gulls.

387 re-sightings of 118 Black-headed Gulls away from the breeding colony have occurred over a broader front and at greater distances than Common Gulls but are still biased towards a mainly southerly dispersal pattern. This represents 9.8 % of Black-headed Gull pulli colour-ringed at the site and is considerably lower than that received for Common Gulls. This may imply that a significant proportion of Black-headed Gulls are dispersed in areas that are at present under recorded or that their behaviour or habitat preferences make them more difficult to scope. It may also indicate greater mortality during the immediate post-fledging period.

Away from the breeding colonies all 148 re-sightings of 59 Common Gulls received to date have occurred between Killala Bay and Cork harbour, predominantly along the Clare and South Galway coastline. This indicates a strong dispersal bias towards the south/southwest and represents 19.7% of all Common Gull pulli colour-ringed at the site.

Both Black-headed and Common Gulls are known to be generally faithful to their natal colonies and do not mature until their 2nd or 3rd year respectively. To date 41 Black-headed Gulls and 32 adult Common Gulls ringed as pulli have been recorded back at Lough Mask as breeding adults. This represents 3.4% and 10.7% respectively of Black-headed and Common Gull pulli colour-ringed at the site. The disparity in these figures may indicate that Common Gulls are experiencing higher post-fledging survival rates or that they are displaying a greater fidelity towards their natal site. The high vegetation and low outline of the Black-headed Gull colony also makes observance of colour-ringed birds much more difficult at this site. The observance of two Black-headed Gulls at the breeding colony that were previously re-sighted in NW Spain indicates that a proportion of this population are capable of dispersing long distances from their natal colony before returning as breeding adults.

The colour-ringing component of the project was concluded for both Black-headed and Common Gulls in 2010 whilst that for Lesser Black-backed Gulls commenced during the 2013 breeding season. It is hoped that further re-sightings of individually marked birds over the coming years will allow sufficient data to be collated in a final report. Individuals from both Black-headed and Common Gulls have shown strong fidelity to wintering sites in consecutive years. Some adult Common Gulls have returned to breeding sub-sites on Lough Mask other than their natal colonies. The apparent disparity in survival rates between the two species is not yet readily explainable. To date there have been re-sightings of individual Lesser Black-backed Gulls in NW Spain (3), Southern Portugal (2) and Southern Morocco (3).

Acknowledgments:

Special thanks are extended to everybody listed below who has contributed in some way to this project since its commencement in 2006, in particular to NPWS regional management who have provided both staff and financial resources, to those who have helped with the actual ringing and, in particular, to those who have submitted re-sighting records;

Suzanne Belshaw, Christoph Bock, Alekandra Borawska, Mark Breaks, Dermot Breen, Kane Brides, Juan Cabeza, Sue Callaghan, Pdraig Canny, Micheál Casey, Tom Chadwick, Kathie Claydon, Antonio Fernandez Cordeiro, Michéal Cowming, Pierre Crouzier Tom Cuffe, Michael Davis, Hugh Delaney, Joseph Devlin, Michael Doolan, Nuno Dos Santos, Martin Enright, Alastair Feather, Sèamus Feeney, Manuel Figueiras, Joe Geraty, Seán Geraty, Carlos Gutierrez, Iain Hill, Stewart Holohan, Rob Holloway, Geoff Hunt, Jackie Hunt, Harry Hussey, Aiden Kelly, Niall Keogh, James Kilroy, Bernard King, Seán Kingston, James Knight, Thomas Kuppel, Keith Langdon, Stephen Lawlor, Ruth-Ann Leak, Larry Leneghan, Gosia Lipska, Pat Lonergan, Nils Helge Lorentzen, Pauline Majury, Gabriel Martin, Joe McBride, Dermot McCabe, Adam McClure, Grahame McElwaine, Stephen McEvoy, Derek McLoughlin, Dave McNamara, Richard Mills, Dominic Mitchell, Cameron Moore, Jorge Mourinho, Rick Mundy, John Murphy, Tony Murray, Steven Newton, Irene O'Brien, Michael O'Connell, David O'Connor, Aonghùs Ó'Donaill, Barry O'Mahony, Ger O'Donnell, Art Ó'Suilleabhán, KT Pedersen, Chris Peppiat, Brendan Power, Ken Preston, Graham Prole, Dirk Raes, Nicola Reddy, Pete Rock, Encarna Gonzalez Rodino, Juan M. Ruiz, Tono Salazar, LJ Salaverri Leiras, Robin Sandham, John Small, Paul Smith, Moray Souter, Jon Stace, Willi Stani, Wendy Stringer, Melinda Swann, Piotr Tadeusz, Simon Taylor, Marianne Ten Cate, Tom Tarpey, Niall Tierney, Paul Troake, Paul Veron, Alyn Walsh, Ciaran Walsh, Paul Walsh, Dermot Ward, Neil Warnock, Todd Watkins, Daniel Weldon, John Wells.

All further re-sightings will be gratefully received and may be submitted to either Eoin Mc Greal (eoin.mcgreal@ahg.gov.ie) or Chris Benson (illaune@eircom.net).

Selected Recaptures

Black-headed Gull

Ring Number		Age/ Capture Type	Date	Init	Details
EL75555	N	1	31/05/06	DMC	Lough Mask (unnamed) island
(255A)	S	2 Sighted	07/11/11	MD	Galway Docks (44 km, SSE, 160 days)
	0	2 Sighted	28/05/12	EM	Lough Mask (unnamed) island (5 yr 363 days)
	S	2 Sighted	19/12/13	NIT	Boosterstown Strand (210 km, E 7 yrs 202 days)

EW25652	N	1		10/06/07	IO	Lough Mask (unnamed) island, Mayo
(252M)	S	5	Sighted (R)	10/02/09	JM	Limerick City (118 km, SSE, 1 yr 245 days)
	S	5	Sighted (R)	10/02/09	GH	Limerick City (118 km, SSE, 1 yr 269 days)
	S	5	Sighted (R)	10/02/09	PT	Limerick City (118 km, SSE, 2 yr 203 days)
	S	5	Sighted (R)	10/02/09	PT	Limerick City (118 km, SSE, 2 yr 223 days)
	S	5	Sighted (R)	10/02/09	TT	Limerick City (118 km, SSE, 3 yr 169 days)
	S	5	Sighted (R)	10/02/09	GH	Limerick City (118 km, SSE, 4 yr 231 days)
	S	5	Sighted (R)	10/02/09	GH	Limerick City (118 km, SSE, 5 yr 257 days)

EL75795	N	1		04/06/07	EM	Lough mask (unnamed) island, Mayo
(255X)	S	3	Sighted	12/10/07	RM	The Lough, Cork (201 km, SSE, 130 days)
	S	3	Sighted	25/11/07	RM	The Lough, Cork (201 km, SSE, 174 days)
	S	3	Sighted	01/12/07	RM	The Lough, Cork (201 km, SSE, 180 days)
	S	5	Sighted	20/02/08	MK	The Lough, Cork (201 km, SSE, 261 days)
	S	5	Sighted	30/03/08	HH	The Lough, Cork (201 km, SSE, 290 days)
	S	2	Sighted	28/05/09	EM	Lough mask (unnamed) island, Mayo
	S	2	Sighted	26/01/10	KP	The Lough, Cork
	S	2	Sighted	08/03/10	KP	The Lough, Cork

EW25730	N	1		16/06/07	EM	Lough mask (unnamed) island, Mayo
(230P)	S	2	Sighted (R)	19/11/07	AC	Pontevedra, Spain (1263 km, S, 156 days)
	S	2	Sighted (R)	01/12/07	AC	Pontevedra, Spain (1263 km, S, 168 days)
	S	2	Sighted (R)	20/04/08	AC	Pontevedra, Spain (1263 km, S, 308 days)
	S	2	Sighted (R)	06/10/08	JM	Ennis, Co. Clare (98 km, S, 473 days)
	S	2	Sighted (R)	10/11/08	JOM	Pontevedra, Spain (1263 km, S, 508 days)
	S	2	Sighted (R)	24/01/09	AC	Pontevedra, Spain (1263 km, S, 584 days)

EW25844	N	1		21/06/07	EM	Lough mask (unnamed) island, Mayo
(244S)	S	5	Sighted	26/03/09	AW	North Slob, Wexford (238 km, SE, 272 days)
	S	2	Sighted	02/06/09	EM	Lough mask (unnamed) island, Mayo
	S	2	Sighted	28/06/10	EM	Lough mask (unnamed) island, Mayo

EW67052	N	1		06/06/08	EM	Lough mask (unnamed) island, Mayo
(252B)	S	2	Sighted	05/01/10	ST	Swanpool Lake, Falmouth, Cornwall

Common Gull

EL75722	N	1		03/06/06	EM	Rams Island, Mayo
(222Z)	0	2	Sighted	30/04/09	EM	Rams Island, Mayo (2 yr 331 days)
	0	2	Sighted	16/05/10	EM	Rams Island, Mayo (3 yr 347 days)
	0	2	Sighted	28/05/12	EM	Rams Island, Mayo (5 yr 360 days)
	0	2	Sighted	17/06/12	EM	Rams Island, Mayo (6 yr 14 days)
	S	2	Sighted	04/10/12	HD	Inishmore (55 km, SSE, 6 yr 123 days)

EW25932	N	1		10/06/07	EM	Rams Island, Mayo
(232V)	S	5	Sighted	01/03/08	DMN	Liscannor, Clare (72 km, S, 265 days)
	S	5	Sighted	16/07/08	DMN	Quilty, Clare (83 km, S, 1 yr 36 days)
	S	2	Sighted	05/08/09	DMN	Quilty, Clare (83 km, S, 2 yr 56 days)
	0	2	Sighted	08/04/10	EM	Rams Island, Mayo (2 yr 302 days)
	0	2	Sighted	21/05/12	EM	Rams Island, Mayo (4 yr 346 days)
	0	2	Sighted	28/05/13	EM	Rams Island, Mayo (5 yr 352 days)
EW25955	N	1		16/06/07	EM	Rams Island, Mayo
(255V)	S	3	Sighted	11/08/07	PL	Rusheen, Galway (38 km, SSE, 56 days)
	S	3	Sighted	13/10/07	MD	Quilty, Clare (83 km, S, 119 days)
	S	2	Sighted	15/07/09	AOD	Rusheen, Galway (38 km, SSE, 56 days)
EW25991	N	1		24/06/07	AB	Rams Island, Mayo
(291V)	S	5	Sighted	16/07/08	DMN	Quilty, Clare (83 km, S, 1 yr 22days)
	S	2	Sighted	13/06/09	EM	Rams Island, Mayo
	S	2	Sighted	26/06/09	EM	Dooghmakeown, SW Mayo

Lesser Black-backed Gull

GA17769	N	1		13/06/13	EM	Carrigeendauv, Lough Mask, Mayo
(M:AL)	S	3	Sighted	13/10/13	MF	Larino, Spain (1209 km, S, 122 days)
GA17758	N	1		13/06/13	DMN	Carrigeendauv, Lough Mask, Mayo
(M:AX)	S	3	Sighted	01/11/13	NOS	Faro, Portugal (1838 km, S, 141 days)
GA17766	N	1		13/06/13	EM	Carrigeendauv, Lough Mask, Mayo
(M:AG)	S	3	Sighted	07/12/13	PV	Anza, Morocco (579 km, S, 177 days)