# Colour-ringed Mediterranean Gulls in Scotland

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# Introduction

No other European gull has shown such a dramatic and rapid change of distribution in the last decades as the Mediterranean Gull *Larus melanocephalus*. Whereas in the 1940s breeding locations were restricted to coastal areas of the Black Sea in the Ukraine, Mediterranean Gulls can now be found nesting in many places scattered over Europe, in locations as near to Scotland as the Netherlands and the south of England (Hagemeijer & Blair 1997). It is a migratory bird, and the wintering areas of the Mediterranean Gull have similarly expanded, and for at least some regions in Scotland, it is nowadays regarded a regular winter visitor.

This recent expansion has attracted an increasing interest from ornithologists. To find out more about this fascinating population change, a large number of Mediterranean Gulls were marked with colour-rings in a bid to uncover their expansion, migration and wintering behaviour. Colour-rings (also called 'Darvic' rings) with alphanumeric inscriptions uniquely identify a bird and can be read from a relatively large distance with the help of a telescope, and hence are a good tool to gather a series of data and to follow the migration patterns of individual birds.

The first colour-ringed Mediterranean Gulls for Scotland were recorded in 1997. In this survey I give a detailed overview of all sightings recorded up to the end of 2004. It is an update of a previous publication (Bos 2004b) that focussed mainly on recoveries in the Lothian area.

## Method

Thanks to the World Wide Web and electronic mail it is nowadays relatively easy to get your hands on data that is distributed over many sources. The excellent web site of Dirk Raes (www.cr-birding.be) provides an overview of almost all colour-ringing schemes that are used in Europe, including e-mail contacts of project coordinators. There are many colour-ringing activities devoted to Mediterranean Gulls, but luckily most countries have a national coordinator, so that gathering information of many different projects is fairly straightforward.

In August 2004, I e-mailed all of the known ringing coordinators, asking them to provide me with information about colour-ringed Mediterranean Gulls seen in Scotland. All of them reacted, most of them promptly, a few slightly delayed and after a reminding email. I got replies from coordinators of the Netherlands, Belgium, France, Germany, Britain and Ireland, Poland, Hungary, Italy, Czech Republic, Norway, Greece, Turkey, Ukraine, Slovakia and Serbia-Montenegro.

In addition, I asked around among local birders, and in particular contacted the known gull specialists in Scotland. I set up a simple web site with all records gathered so far to allow people to check whether their sightings were listed in the database. This resulted in several new observations, and also to a number of corrections in the data, which I forwarded to the respective ringing coordinators.

#### Results

The inquiry resulted in Scottish records of ten different Mediterranean Gulls. These birds were ringed in Belgium (5), the Netherlands (2), Poland (1), Hungary (1), and Norway (1). Seven of them were ringed as chicks (four Belgians, the two Dutch, and the Hungarian), and two were ringed as adults on the breeding site (the Polish one and the other Belgian). The Norwegian Mediterranean Gull was ringed as a first-winter bird.

PLATE 58. Colour-ringed Mediterranean Gull FP8. Port Seton Burn, April 11, 2005.



An overview of all observations can be seen in the following tables, one for each uniquely identified bird. They are ordered chronologically with respect to the first sighting in Scotland. Each table contains the date, location and observer of each observation. Sightings over longer periods of subsequent days are summarised in single rows.

Some of the observations are not confirmed, i.e. the ring inscription could not be read with enough confidence, although the bird in question was likely to be the same one of earlier or later observations. These unconfirmed observations are indicated by an asterix. Observers are listed with initials (see the acknowledgements at the end of this article for full names).

# **Observations**

The first ever colour-ringed Mediterranean Gull seen in Scotland was H814, ringed in Hungary as nestling and observed on only one occasion in Fife in its first winter in 1997. It was seen again in the north of France in August/September 1998, October 1999, August/September/October 2000, July 2001 and Dec 2002. It was sighted in Belgium in April 2000, April 2001 and April 2002, suggesting that it is breeding in Belgium and wintering in northern France.

Red H814 (left): ringed as chick 18/06/1997, Hungary			
Date	Location	Observer	
06/12/1997	Methil, Fife	KS	

Another Mediterranean Gull observed in Fife was 88J, a Dutch bird seen on two subsequent days in its fifth winter. Before it was spotted in Scotland, it appeared in Durham/England in the autumn of 1994 and in two different breeding colonies in the south of the Netherlands in May 1997 and April 1998. No follow-up sightings after the two Scottish observations are known from this gull.

White 88J (left): ringed as chick 07/06/1994, Netherlands			
Date Location Ob		Observer	
13/08/1998	Methil/Leven, Forth Estuary, Fife	KS, JS	
14/08/1998	Methil/Leven, Forth Estuary, Fife	KS, JS	

73W was ringed as an adult on 12/6/1999 in Belgium, and in the weeks after, it was seen in a breeding colony not far from where it was ringed. It was seen in Troon/Ayrshire in five subsequent winters on many occasions. However it was never seen again in the breeding colony where it was ringed in 1999.

White 73W (right): ringed as >3cy 12/06/1999, Belgium		
Date	Location	Observer
02/11/1999	Barassie, Troon, Ayrshire	AM
30/11/1999	Barassie, Troon, Ayrshire	AM
05/12/2000	Barassie, Troon, Ayrshire	AM
02/02/2001	Barassie, Troon, Ayrshire	AM
14/02/2001	Barassie, Troon, Ayrshire	AM
24/08/2001	Barassie, Troon, Ayrshire	AM
06/01/2002	Barassie, Troon, Ayrshire	JM
29/01/2002	Barassie, Troon, Ayrshire	AM
27/02/2002	Barassie, Troon, Ayrshire	AM
28/10/2002	Barassie, Troon, Ayrshire	AM
01/12/2002	Barassie, Troon, Ayrshire	AM
22/01/2003	Barassie, Troon, Ayrshire	AM
07/11/2003	Barassie, Troon, Ayrshire	AM
02/12/2003	Barassie, Troon, Ayrshire	AM
02/01/2004	Barassie, Troon, Ayrshire	AM

The first record of a colour-ringed Mediterranean Gull in Lothian was 7FH. This gull was also seen in South Yorkshire in March 2000, and in April and May 2002 in a breeding colony in Belgium, where it was identified as a female. It is interesting to see that it was seen on a relatively large number of different locations in Lothian.

White 7FH (left): ringed as chick 03/06/1999, the Netherlands		
Date Location Obser		
09/09/2000	Musselburgh, Lothian	JB
03/03/2001	Figgate Park, Northfield, Lothian	JB
31/01/2003	Eastfield, Lothian	DA
09/02/2003*	Musselburgh, Lothian	PB
16/02/2003	Musselburgh, Lothian	CS
16/09/2003	Cramond, Lothian	KG

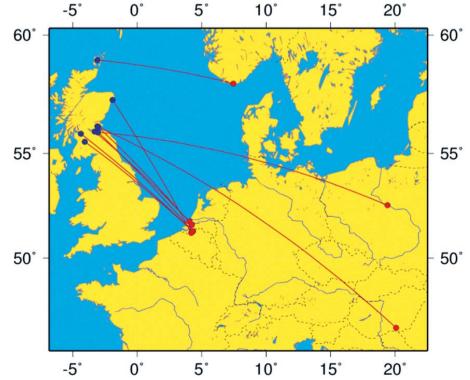
The impressive J519 was ringed in Norway as a first-year bird in the winter of 2002 and then seen numerous times at Finstown at Orkney in the same winter. This is remarkable for two reasons. Firstly, it is the only colour-ringed Mediterranean Gull ever ringed in Norway. And secondly, it is probably the most northerly colour-ringed Mediterranean Gull sighting ever. Note that Mediterranean Gulls, with only a handful observations every year, are still regarded as a rarity in Norway.

White J519: ringed as 1cy 27/10/2002, Norway			
Date	Location	Observer	
24-30/11/2002	Finstown, Orkney	ID	
01-31/12/2002	Finstown, Orkney	ID	
01-07/01/2003	Finstown, Orkney	ID	
20/01/2003	Finstown, Orkney	ID	
30/01/2003	Finstown, Orkney	ID	

Another Lothian record is for 3LE3, a bird that was also seen in France in September and November 2003, in Kent/England in January 2004, and again in France in January and February 2004. No other records are known from this Mediterranean Gull, so we don't have any indications as to where it is breeding. Note that the table shows a number of unconfirmed records, which were observations of a green colour-ringed Mediterranean Gull that couldn't be completely identified, but fitted the description of the reading of 14 March 2003.

Green 3LE3 (left): r	inged as chick 26/05/2002, Belgium	
Date	Location	Observer
07/12/2002*	Musselburgh, Lothian	KG
24-25/12/2002*	Musselburgh, Lothian	CS, KG
31/12/2002*	Musselburgh, Lothian	KG
01/01/2003*	Musselburgh, Lothian	CS, KG
25-26/01/2003*	Musselburgh, Lothian	CS, KG
14/03/2003	Musselburgh, Lothian	DA





95P was ringed as nestling in Belgium on 9/6/2002, and was seen three times in Glasgow in its second winter. No other re-sightings are known from this bird.

Green 95P: r	Green 95P: ringed as chick 09/06/2002, Belgium		
Date	Location	Observer	
30/11/2003	Great Western Retail Park, Glasgow	MC	
04/12/2003	Great Western Retail Park, Glasgow	MC	
02/01/2004	Great Western Retail Park, Glasgow	MC	

3PJ4 was ringed as nestling in Belgium and seen in its second and third winter in Northeast Scotland.

Green 3PJ4: ringed as chick 01/06/2002, Belgium			
Date	Location	Observer	
31/07/2003	Cotehill Loch, Collieston	CG	
06/08/2003	Cotehill Loch, Collieston	CG	
11/07/2004	Ythan estuary	PB	

The third Lothian record is 7P8. This bird was ringed in Poland in 2004 and only seen again in Scotland so far (see also Fig. 1):

Red 7P8 (right): ringed as adult (>3cy) 16/05/2004, Poland		
Date Location Obser		
25/07/2004	Musselburgh, Lothian	CS
06/08/2004	Port Seton Burn, Lothian	BD
07/08/2004	Musselburgh, Lothian	JB, IJA
05/09/2004	Port Seton Burn, Lothian	BD
06/03/2005	Port Seton Burn, Lothian	BD

A recent record (and not listed in Bos 2004b) is 3CT6, metal-ringed in Belgium in 2000, then retrapped in May 2002 in a Belgian breeding colony and fitted with a colour-ring. The Scottish record is the only one recorded after that.

Green 3CT6 (right): ringed as chick 27/05/2000, Belgium		
Date	Location	Observer
11/12/2004	Musselburgh, Lothian	DA

The map in Figure 2 summarises the movements of all ten Mediterranean Gulls observed in Scotland. It is interesting to observe the consistency of the information in this map: all movements between ringing and observation locations are in a north-west direction. The majority (70%) of the ringing locations are from one area situated in the south-west of the Netherlands and northern Belgium.

# Discussion

It is amazing how observations of only ten colour-ringed birds over the last years has given us such a wealth of information. The best source of bird movements published to date is Wernham *et al.* (2002). Even though this is a very recent publication, it is already outdated if one considers the Mediterranean Gull: 29 recoveries of Mediterranean Gulls ringed or recovered in Britain and Ireland are presented in Wernham *et al.* (2002), but none of these were recovered in Scotland. The overview in this article therefore updates our knowledge of Mediterranean Gulls in Scotland considerably.

Of the ten recorded Mediterranean Gulls in Scotland (1997–2004), seven originated from the Netherlands and Belgium, two from Eastern Europe, and one from Norway (Fig. 2). Seven of these birds were only seen in one winter, three of them returned in more than one winter (73W, 7FH, 3PJ4).

For four individuals we have indications where they are breeding due to re-sightings in the breeding period. Three of these are probably breeding in northern Belgium, and one in the south-west of the Netherlands. Note that even H814, a bird ringed in Hungary, is found to be breeding in Belgium.

From eight birds the exact age on the date of ringing is known. Three of these were seen in their first winter. The oldest individuals were in their fifth winter. The average age of wintering Mediterranean Gulls in Scotland yields 2.8, including the winters of gulls that were seen in more than one winter (n=11: 3x first-winter, 3x second-winter, 1x third-winter, 1x fourth-winter, 3x fifth-winter).

This gives us an interesting insight in the origin of our wintering Mediterranean Gulls, but how reliable are colour-rings as a source to draw general conclusions? This depends of course on the amount of information: more is always better. But it also depends on the (colour-) ringing activities in Europe. For Black-headed Gulls wintering in Edinburgh, I have shown that solely relying on colour-rings can yield a biased picture, compared to an approach aimed at getting information from reading metal rings (Bos, 2004a). It goes beyond the scope of this article to assess the distribution of colour-ringing projects for Mediterranean Gulls, and to estimate the percentage of ringed individuals related to breeding locations. Nevertheless, given the high number of bird studies on Mediterranean Gulls and the many colour-ringing initiatives, I believe that the picture we have obtained for Scotland so far is fairly accurate. All in all, movements undertaken by Mediterranean Gulls remain difficult to interpret. This is due to the dynamic behaviour of this bird and its recent breeding range expansion. The sightings show that some Mediterranean Gulls are less loyal to wintering sites than for instance Black-headed Gulls (Bos, 2004a). It is also well known that individuals may breed at widely separated sites in successive years (Wernham *et al.* 2002). The puzzle of the Mediterranean Gull is far from being solved. Hopefully the future will bring us more observations of colour-ringed birds to contribute to a better understanding of the movements of this magnificent and fascinating species of gull.

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