

# Gulls on the wing

**What a difference a year (or two) makes!** The last time our GPS-tagged Lesser Black-backed Gulls featured in *BTO News*, the project had been running for a year and we were thrilled with the migration data we had collected from five individuals. As this project draws to a close, we now know a whole lot more, but there is still plenty more information to analyse and interpret. Viola Ross-Smith explains.



## SUPER GULLS

Our Lesser Black-backed Gull GPS tagging project has exceeded all our expectations. Four summers and 25 birds since we started in 2010, our marvellous gulls, breeding at Orford Ness on the Suffolk coast, have challenged what we thought we knew about this species. Our mission now is to extract the signal from the noise – we have so much information, it is hard to know where to start with making sense of it all! A few findings have leapt out, however.

## TO MIGRATE OR NOT TO MIGRATE?

After the first winter, our gulls had given us a relatively neat story – all had migrated as far as Morocco and, although there was variation in the routes and timings, we thought we had a good idea of what to expect in the following winters. How wrong we were! We now know our tagged gulls were a migratory mixed bag. At the extremes, we had a bird that did not leave East Anglia during two consecutive winters, which was in sharp contrast to another individual that travelled all the way to Mauritania! This variation was beautifully illustrated by our project's only tagged pair. The male of this pair spent winter 2011/12 in Dorset and Hampshire, while his mate chose to sun herself in Lisbon.

We now have enough data to compare journeys not only between different individuals, but also of the same gull in consecutive years. Most individuals seem to choose similar migratory routes and timings, but there are still intriguing variations between years. For example, one bird went to Morocco in winters 2010/11 and 2012/13, but stayed north of the Strait of Gibraltar in 2011/12 (Fig 1). We are hoping that the reasons underpinning these patterns (for example, weather on the wintering grounds) will become apparent as we get our teeth into the data.

## BREEDING BEHAVIOUR

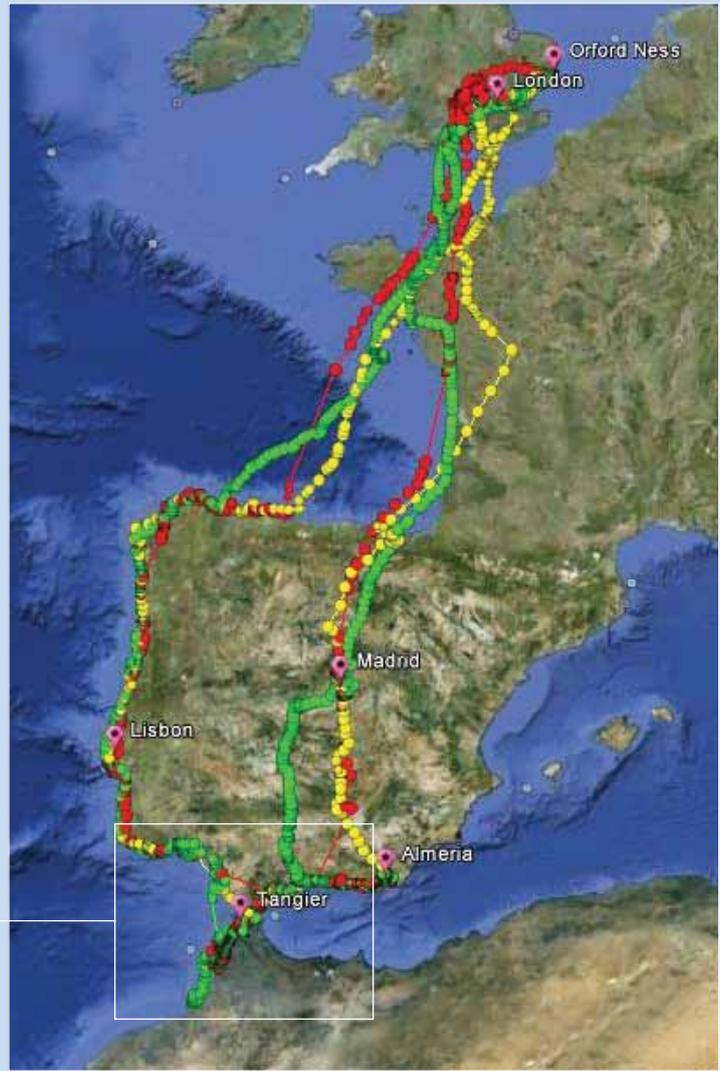
Although migratory movements are eye-catching, the behaviour of our tagged birds during the breeding season has been no less fascinating. Again we see a large degree of individual variation in the places our gulls visited outside the breeding colony, suggesting individual dietary specialisations, as many trips away from the nest will be for foraging. Some gulls mostly flew out to sea, whilst others remained inland. Some visited pig fields, while others preferred to venture to urban sites, and there were big differences in the distances travelled on birds' daily trips. There were also changes throughout the breeding season, which were again exemplified

▲ Being able to follow the same individual bird for several years has greatly increased our knowledge of the behaviour of Lesser Black-backed Gulls breeding in England.

**FIG 1. BIRD '395' AND ITS MOVEMENTS OVER THREE YEARS**

Each of our tagged gulls has revealed fascinating information. One gull, ringed as '395', has been followed for three consecutive winters (green = 2010/11, yellow = 2011/12, red = 2012/13). Each year the bird left Orford Ness and began to make its way south and, in every year, after crossing north-western France it has headed out directly over the Bay of Biscay to the north coast of Spain, before following the Atlantic coast south to winter around Tarifa/Gibraltar in southern Spain.

'395' then returned via a different route although, again, choosing a very similar route each year, moving east along the coast before crossing inland Spain and following the French coast northwards towards the UK. At first glance the similarity between years is striking but, when you examine the wintering area in more detail, it becomes obvious that '395' has chosen to winter in slightly different areas, crossing to Africa in two years (directly in one winter, and after visiting Gibraltar in the other) and remaining in Spain in the third winter.



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by our tagged pair. Throughout the 2011 breeding season the female foraged at the same sites in west Suffolk and east Cambridgeshire. Her mate, meanwhile, stayed very close to Orford Ness early in the season, visiting neighbouring pig farms to feed. Once the chicks hatched, however, his behaviour completely changed and he began to forage far out into the North Sea, suggesting his movements were driven by the dietary needs of his young. Birds also showed differences across the breeding season, with trips away from the colony becoming longer in distance and duration as chicks grew older.

### **DECLINING COLONY**

Another interesting aspect of Lesser Black-backed Gull ecology that our tagging project has allowed us to document, is bird's decisions in the face of colony collapse. The breeding colony at Orford Ness has declined catastrophically; there were around 20,000 breeding pairs counted in 1999, but numbers now stand at approximately 400 pairs. There are many reasons for this decrease, but a contributory factor is emigration of adults to other colonies after several consecutive years of breeding failure at Orford Ness. Our tagged gulls have not been immune to this failure, and we have therefore seen several birds colonising

neighbouring Havergate Island, while others chose more eclectic sites such as the roof of Sizewell nuclear power station! The male of our tagged pair moved in 2012 to an industrial area of Felixstowe, while his mate remained at Orford Ness, in an apparent case of Lesser Black-backed Gull divorce. Unfortunately, one of the other reasons for colony decline at Orford Ness is predation by foxes. In 2013 we have lost two of our tagged birds to fox predation, which has been widespread in the colony.

Tag wear and tear and predation mean our Orford Ness Lesser Black-backed Gull project is now drawing to a close. However, it seems certain that these birds will continue to give up their secrets in the months ahead as we analyse the valuable data they have provided to us.

### **FIND OUT MORE**

To find out more about the project visit [www.bto.org/gull-tracking](http://www.bto.org/gull-tracking).

### **ACKNOWLEDGEMENTS**

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