

Seabird Group Census Grant Report - Lewis and Harris Tern Census 2018

Introduction

As part of 'Seabirds Count', the fourth seabird census across Britain and Ireland, the RSPB sought to prioritise tern and gull colony counts in 2018. It was seen as important that a complete or near complete survey was undertaken in 2018 due to the tendency for tern numbers to fluctuate between years and move between sites. There are a large number of known tern breeding sites occupied by arctic, common and little terns on the Outer Hebrides. However, many of these sites are difficult to access as most colonies are located on widely dispersed offshore islands. Surveying of these sites necessitates the hire of commercial charter boats with appropriate skippering crew, boat coding and H&S equipment. The RSPB and SNH provided staff resource for counts and a grant was sought from the Seabird Group for £1,800 to cover the boat hire costs for the survey. The RSPB is grateful to the Seabird Group for this grant support which enabled the survey to go ahead.

Methodology

A search of Seabird Monitoring Programme data, historical RSPB data and ad hoc RSPB and SNH records was undertaken to identify sites to for tern counts and these were split into sites that could be surveyed from land and those requiring boat work. The areas identified requiring boat survey were Loch Roag in West Lewis, Loch Erisort in South East Lewis and the Sound of Harris.

The methodology for counting followed Seabirds Count census instructions with a single flush count undertaken for terns in early June where possible. The preferred method of three repeat counts mid May – early June would not have been possible due to limitations in staff availability, budget for boats, weather constraints and local boat operator availability.

Tern and gull counts were prioritised and at most sites these were the only species present but where other seabird species were present they were also counted for entry into the Seabird Monitoring Programme database using standard Seabirds Count census methods.

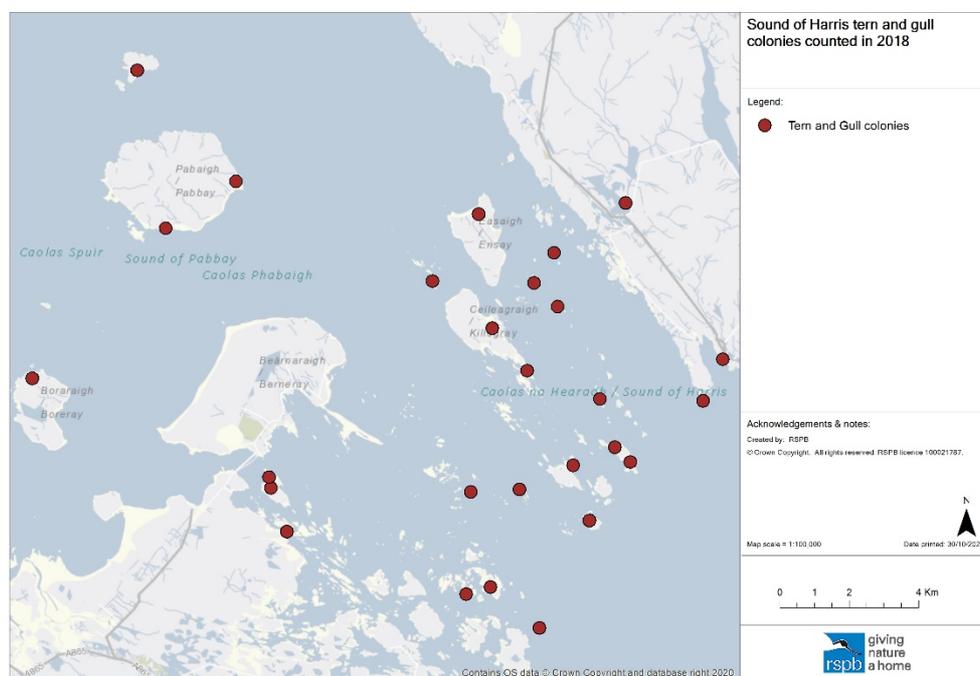
Image 1. Overlooking Shillay arctic tern colony in the Sound of Harris with Pabbay in the distance.



Results and Discussion

A total of 71 tern and gull colonies were visited and counted on Lewis by RSPB and SNH staff between 26/05/18 and 21/06/2018. This included 23 sites where terns and gulls had not been counted in earlier national seabird surveys. Thirty-eight sites required boat access which was funded through the Seabird Group Census Grant. The majority of the sites requiring boat access were in the Sound of Harris (see Map 1). The number of terns and gulls present ranged from zero to a colony of 400 arctic terns near Ness in North Lewis. Breeding tern species present included little, arctic and common terns and gull species included herring, common, black-headed, great black-backed, lesser black-backed gulls and kittiwake. Other seabird species counted where present included fulmar, shag, cormorant, arctic skua and great skua.

Map 1. The location of tern and gull colonies visited in the Sound of Harris, a complex group of islands where shallow water and strong tidal currents can make access challenging.



Analysis of SMP data is required to establish trends in the numbers of terns and gulls breeding on Lewis and Harris and it is likely that annual counts at a sample of colonies would also be required to provide robust data due to the tendency for tern numbers in particular to fluctuate between years and sites. However, it is of note and encouraging that in 2018 breeding terns and gulls were located at 23 sites where counts were not undertaken in any of the previous three national seabird surveys. Some of these colonies may have been present but not known about during earlier national seabird surveys. However, it is likely that a number of the 'new sites' have become established since Seabird 2000 as it is unlikely that this number of sites would have been overlooked in earlier surveys.

One possible explanation for the increase in the number of sites is the reduction in American mink population on the islands as a result of systematic trapping by the Hebridean Mink Project. American mink arrived on Lewis in the 1950s when fur farms were established, and feral animals were recorded on Lewis by 1969. Mink spread throughout the Outer Hebrides archipelago, becoming widespread across all main islands by 2001. The Hebridean Mink Project commenced in 2001 with

the aim of eradicating mink from the island group. The first phase started on Uist with trapping commencing across Lewis and Harris in 2006. Whilst this project has not yet achieved eradication, mink numbers have been dramatically reduced and densities have been very low since 2016.

There was evidence of mink predation at several tern colonies in the early 2000s and at that time arctic terns on Lewis were concentrated in a few large colonies including one colony near Stornoway with peak counts of up to 700 arctic terns. However, in 2018 this colony was no longer present, and terns appear to have dispersed with larger number of small colonies located.

It is possible that the concentration into a few large colonies seen in the early 2000s was a behavioural response to the threat of mink predation and that the subsequent dispersal has occurred following the reduction in the mink predation threat and/or as a result of improved breeding success following a reduction in mink numbers. However, terns are known for their tendency to move and fluctuate in numbers between years and sites so there may be other explanations for changes in distribution such as food availability or human disturbance.

Robin Reid

October 2020