the Seabird Group

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Contents

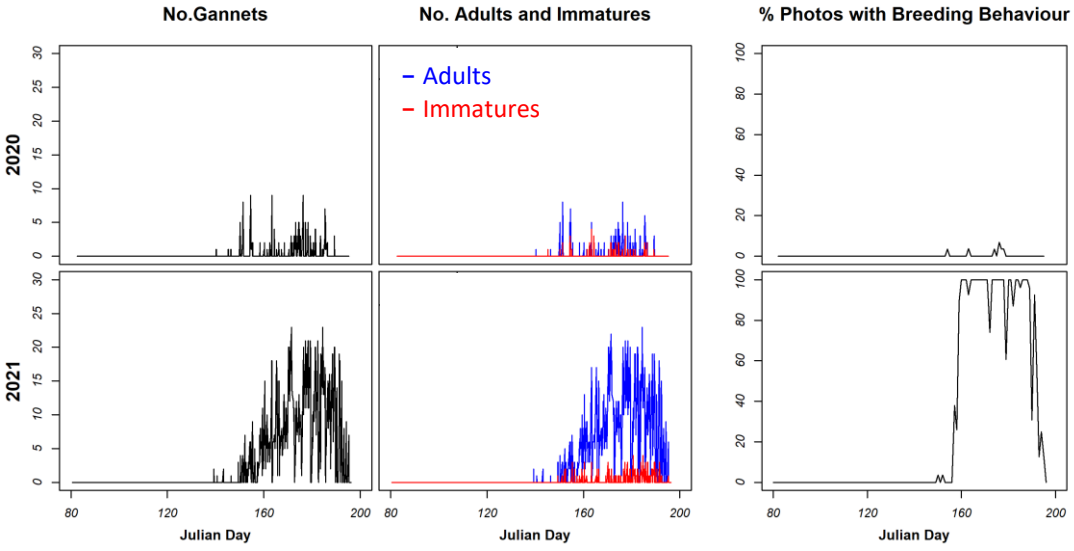
News

A second breeding colony of Gannets in Wales?

James Waggitt, Peter Burk, Emma-Louise Cole, Eleanor Falch, Matthew Murphy, Peter Evans

Northern Gannets (*Morus bassanus*) have been increasing around the British Isles for over a century although the first full national census was not until 1968-70 when The Seabird Group launched Operation Seafarer. At that time, there were 13 Gannet colonies in Britain (plus three in Ireland) with a total of c. 113,000 Apparently Occupied Sites (AOS) in the UK. By 2013-15, the number of colonies had increased to 20 (including Rockall) and the overall number of to just over 293,000 AOS. Average annual rates of increase have differed greatly between colonies with some showing virtually no change (notably St Kilda but also smaller colonies such as Sule Stack and Scar Rocks) whilst some new colonies have shown large increases (e.g. c. 37% p.a. at Sule Skerry and Noup Head in Orkney).

In the Irish Sea, the oldest colony is that of Grassholm in Pembrokeshire, believed to have been founded sometime between 1820 and 1860. In 1969-70, there were 16,128 AOS counted, increasing to 28,545 in 1985-88, 32,095 in 2003-04, stabilising to 36,011 in 2015. This has always been the only known breeding colony in Wales, although elsewhere in the Irish Sea, there are colonies at Ailsa Craig in the outer Firth of Clyde (breeding since at least 1526,



Counts of sitting Gannets in photographs captured at 30-minute intervals by time-lapse cameras on Middle Mouse between middle March and late July in 2020 and 2021.

with 33,206 AOS counted in 2013), and two colonies in Co. Dublin: Ireland's Eye (founded 1989, with 547 AOS in 2013-14) and Lambay Island (founded 2007, with 926 AOS in 2015). Gannets have occasionally been seen at other sites in Wales with adults making breeding attempts at the Great Orme in the early 1940s and actually laying an egg on St Margaret's Island, Pembrokeshire in 2004 after six years of occupation, but neither of these led to a colony forming.

Photographs of birds on Middle Mouse taken on a vessel at-sea (photos: Peter Evans), and examples of relatively large counts of Gannets in 2020 and 2021 taken from time-lapse cameras on the island.

Off the north coast of Anglesey, during cetacean surveys out of Amlwch Port between 2008 and the present, Gannets were seen regularly and in increasing numbers, with some adults also wintering in the area. Popular foraging locations have included Point Lynas and Bull Bay. A few miles to the west lies the rock of Middle Mouse, the most northerly point in Wales. The rock supports over 5,000 breeding **Common Guillemots** (*Uria aalge*) in a colony that has been rapidly increasing. Nearby is Wales's largest and only **Sandwich Tern** (*Thalasseus sandvicensis*) colony at Cemlyn, with fluctuating numbers peaking at 2,650 pairs in 2015. Offshore on the Skerries rocks, breeding **Arctic Terns** (*Sterna paradisaea*) increased to a peak of 3,833 pairs in 2014, becoming Britain's largest colony of this species. Those islands also hold a small but increasing breeding population of **Atlantic Puffins** (*Fratercula arctica*) with 602 Apparently Occupied Burrows (AOB) counted in 2019. Observations on chick-feeding adult auks and terns at these sites indicate strong local availability of sand eels and small clupeids.

On 29th May 2019, Jon Shaw (SeeKat Marine Charters, Amlwch), observed about 20 Gannets on Middle Mouse with a flock which he estimated at c. 150 circling over the rock. We had been on two cetacean surveys in the area earlier that month but seen no Gannets on land. Alerted by Jon's observation we went out the next day and counted five Gannets sitting on land, and a further eight circling overhead. Despite several surveys during previous summer months, we had not recorded them there before, although anecdotal reports from local fishermen suggest there had been some prospecting earlier.

Following these observations, visiting researchers from Bangor and Swansea University quickly and crudely positioned some time-lapse cameras near where Gannets were seen to document this event. Unfortunately, aggressive gulls and inclement weather meant that most photographs captured the skyline rather than the cliffs! However, the presence of flying birds showed that Gannets were present for prolonged periods of time. Armed with robust platforms, researchers returned to Middle Mouse in middle March 2020 and 2021 to redeploy cameras, aiming to capture any developments in the situation. Thankfully, long-life batteries and relaxation of COVID-19 restrictions allowed cameras to be recovered in late July 2020 and 2021, providing ~6,000 photographs at 30-minute resolution over two summers. Occupancy of the entire island cannot be ascertained from these images alone, as they only captured a fraction of the cliffs at the southwestern point of the island. However, the images suggest that Gannets occupied Middle Mouse from late May/early June to middle July in 2020 and 2021, seemingly departing the island around the same time as the Guillemots. Encouragingly though, images suggest that considerably more Gannets settled on Middle Mouse in 2021 than 2020, and that Gannets consistently occupied the island in June and July in 2021. In addition, most photographs in June and July 2021 showed evidence of breeding behaviour, including sky-pointing and nest building, with most Gannets also being classified as adults rather than immatures. Bangor and Swansea University will continue monitoring in summer 2022, which should provide a unique insight into the possible development of a new colony and documenting an event of national significance in Wales.

Cameras were purchased by the Swansea University SEACAMS2 project; a convergence programme for West Wales and the Valleys, part-funded under the European Regional Development Fund (ERDF) by the Welsh European Funding Office (WEFO). Boat charter was funded by the Welsh Government via the Biodiversity and Ecosystem Evidence and Research Needs Programme (BEERN).

Melting the barriers in polar research

Dr Huw Griffiths is a Marine Biologist with the British Antarctic Survey and has spent over 20 years working on the unique seafloor biodiversity of the polar regions and participated in several expeditions to Antarctica and the Arctic, studying everything from the beaches to the deep sea. He is a passionate believer in science communication and making science more accessible to the public, policy makers and government, and in 2020 he won the SCAR Medal for Education and Communication.

Photo: Mona Lütjens

You would be forgiven for asking "why is a benthic biologist writing an article for The Seabird Group newsletter?", especially one who regularly uses the term "seagull" to avoid learning seabird species names. However, I have been asked to write a piece about ongoing efforts to make polar research more inclusive. The polar regions are defined by their remote locations, extreme weather, and even more extreme seasonality. Being so far from the major centres of human population, Antarctica and the Arctic are represented in popular culture by stereotypes dominated by white, European men from the 'heroic age of Antarctic exploration'.

Using my own employer, the British Antarctic Survey (BAS), as a proxy for the wider UK polar science community it is clear that the polar research community does not represent the demographics of the wider UK society that funds its work and relies on its outputs in times of global climate change. Anyone who is a member of a minority in UK society will feel that amplified in the polar workplace. It wasn't until 1983 that the first British woman scientist worked inside the Antarctic circle and the first women overwintered in 1993 (only seven years before I started working for BAS). Today almost 40% of the workforce is made up of women and four out of five of our directors are female. Whilst roles and the visibility of women in polar science have evolved considerably over my 20 years at BAS, changes for other minority groups have been far slower, if they have occurred at all.

A desire for meaningful change led to my involvement in the UK Foreign, Commonwealth and Development Office, Polar Regions Department funded Diversity in UK Polar Science Initiative (DiPSI). DiPSI exists to celebrate existing diversity and enhance further polar science opportunities for historically excluded and underrepresented groups such as women, Black, Asian and minority ethnic people, the LGBTQ+ community, disabled people, or those from lower-socioeconomic backgrounds. Whilst the numbers of women working in polar research have increased over recent years to 75% of what you would expect to find if the sector was truly representative of UK society (39% of BAS versus 51% of UK society), other minority groups languish behind at between 10 and 40% of expected numbers. For example, Black, Asian and minority ethnic people make up 16% of the UK population yet only make up around 3% of polar researchers. As a gay man I have never had visible role models even within the global polar science community. As far as I know, being gay has not held me back in my career as a polar marine biologist. However, my largely positive experiences as a white, British, gay man are not representative of those of colleagues both in the UK and around the world, who aren't in my privileged position.

As the UK's DiPSI committee enters its third year and the Scientific Committee on Antarctic Research (the interdisciplinary body of the International Science Council that coordinates international scientific research efforts in Antarctica) prepares to launch its EDI Action Group, diversity, equity, and inclusion have never been higher up the polar agenda. Community driven networks, such as Women in Polar Science, Minorities in Polar Research, Pride in Polar Research and, the recently formed, Accessibility in Polar Research, have raised the profile and issues facing polar researchers from underrepresented backgrounds.

Far too often the burden of trying to fix systemic problems is placed upon the shoulders of already negatively impacted minority employees. Organisations and communities need to move beyond words of support to invest in actions that create a more inclusive workplace. BAS and partners from DiPSI and UK universities recently created Polar Horizons, a programme designed to inspire STEM early career researchers from a diverse range of backgrounds to take up a career in polar research by pairing them with established polar researchers from their field of study and through cohort based activities, workshops and guest speakers. Initiatives such as Polar Horizons are needed if we are going to create a feeling of belonging and confidence in a new generation of polar researchers who do not see the poles as solely the domain of long-dead historic heroes.

Giant Petrel in the English Channel

Donald M. Broom

On 1st October 2021 I was on the ferry from Calais to Dover. It was raining quite heavily, and the wind was about Force 4. I had been scanning the sea from a covered outside deck with Leica 10x42 binoculars for about 20 minutes since leaving the harbour area when I saw a large, very dark petrel or albatross flying in the same direction as the ship at a distance of 400 to 800 m. I watched it for about four minutes gliding and banking close to the surface of the sea and, repeatedly after 15-20 seconds, rising steeply to about 50 m above the surface before flying down to near the surface again where it was sometimes out of sight behind a wave. I then saw a **Gannet** in the same field of view. The wings of the petrel were longer and straighter, and the wingspan was much greater than the Gannet, about one third more. The bill was less elongated than the Gannet's and the tail shorter and less pointed. I saw the bird on three further occasions for a total of five minutes making about nine minutes of observation in total. The location was about 10-12 miles from the French and British coasts.

All of the head, tail, rump, back, nape, neck, breast, belly and upper and lower surfaces of the wings was dark brown or black except that the front third of the upper surface of the inner part of the wings was very slightly paler than the very dark primaries and secondaries. My first thought was that the bird was a **Sooty** (*Phoebetria fusca*) or **Light-mantled Albatross** (*P. palpebrata*). However, the tail was much more rounded than that of a Gannet or of these albatrosses and there was no sign of any white around the eye or grey on the nape or back. The bill was substantial, but not long and pointed like a Gannet, and appeared dark, I did not see any colour on it. However, it was raining, and I never saw the bird closer than about 400 m. The flight was somewhat like albatrosses that I have seen but more like a giant petrel which I have seen on many occasions in New Zealand. Most of the giant petrels that I have seen were **Southern Giant Petrels** (*Macronectes giganteus*), often pale morphs or dark birds with pale facial areas. The flight is similar to an albatross but with less smooth changes in direction and height. The bird seen in the English Channel was so dark, with no paleness on the head, that I concluded that it was an immature **Northern Giant Petrel** (*Macronectes halli*).

I have done a lot of sea-watching and was a founder member of The Seabird Group. However, all of the giant petrels that I have identified with certainty were Southern Giant Petrels so I should be interested to hear the opinion of those familiar with the Northern Giant Petrel species. I have sea-watched from English Channel ferries on many occasions but have never seen anything more exciting than **Mediterranean Gulls** (*Larus melanocephalus*) or **Little Gulls** (*Hydrocoloeus minutus*) in the past.

Breeding season report

Isle of May 2021 breeding season

Mark Newell, Mike Harris, Carrie Gunn, Ella Benninghaus, Sarah Burthe, Marine Quintin, Sarah Wanless and Francis Daunt, UK Centre for Ecology & Hydrology

Despite the continued impact of COVID-19 in 2021, fieldwork on the Isle of May was able to commence at the normal time and long-term monitoring was carried out following usual protocols. A cold snap in early April with strong easterlies appeared to cause a delay in the breeding season for **European Shag** (*Gulosus aristotelis*), **Common Guillemot**, **Razorbill** (*Alca torda)* and **Atlantic Puffin**.

Guillemot on the Isle of May. Photo: Mark Newell.

The 2021 season proved a fairly productive year amongst the main study species. With UKCEH researchers present on the island continuously for three and a half months, the cliff-nesting seabirds could be monitored on a daily basis allowing the exact timing of any failures and effects of extreme weather to be recorded. Light winds dominated the season and there was no excessive rainfall to hamper breeding attempts.

The breeding success of **Northern Fulmars** (*Fulmarus glacialis*), **Shags**, **Black-legged Kittiwakes** (*Rissa tridactyla*) and Puffins was above the long-term average, whereas Guillemots were average and Razorbills had a below-average breeding season. Return rates were above the long-term average for Shags, Kittiwakes, Puffin and Razorbills while Guillemots were below average. Sandeels

(*Ammodytes sp.*) remained the main food of Puffins and Kittiwakes. Chick diet of Guillemots was dominated by clupeids while Shags had a varied diet. The main species-specific results were:

- **Fulmar** breeding success (0.49 chicks per incubating pair) was above average.
- **Shag** had a successful season with the joint second highest breeding success on record (2.04 chicks per pair). Adult return rate at 94.2% was the highest recorded.
- **Kittiwake** had a successful season with the second highest breeding success on record (1.34 chicks per completed nest). Adult return rate (84.3%) was above average.
- **Guillemots** had an average breeding season (0.74 chicks leaving per pair laying). Return rate of adults (86.8%) was significantly lower than the long-term average. Adults fed their chicks mainly Clupeidae (89% by number).
- **Razorbills** had a slightly below average breeding season (0.55 chicks leaving per pair laying) but the adult return rate (90%) was above average. Chick diet was fairly evenly split between sandeels (present in 54% of loads) and Clupeidae (present in 47% of loads).
- **Puffins** had a successful season with above average breeding success (0.80 chicks per pair laying) while the return rate for adults (91.3%) was among the highest recorded. Chicks were fed mainly sandeels (78% by number) with rockling and Clupeidae (including sprats) contributing 14% and 7%, respectively.

During the winter we are delighted to receive sightings of any colour ringed Shags along the east coast. Please send sightings to shags@ceh.ac.uk

For more information check out: www.ceh.ac.uk/our-science/projects/isle-may-long-term-study

Twitter: @CEHseabirds

Research grant report

Habitat use of Shags at an operational marine renewable energy site during the non-breeding season

Natalie Isaksson, Environmental Research Institute

Shag with GPS logger attached to lower back. Photo: Elizabeth Masden.

Countries around the globe are increasingly turning to renewable energy technologies to meet their electricity production demands and greenhouse gas emissions reduction targets. However, there are concerns about the negative effects of these technologies on in many cases already struggling wildlife. Seabird breeding numbers in the UK, for instance, have decreased by 9% since 2000, with seabirds contending with decreases in forage fish and more frequent severe storms in addition to being at risk of collision and displacement from offshore renewable energy developments. The UK has a large renewable energy resource in the form of wind, waves, and tides, and is already harnessing these in projects such as Nova Innovation's tidal turbine array at Bluemull Sound, a channel between the islands of Yell and Unst, Shetland. This channel is also used by a declining and vulnerable seabird, the **European Shag**. Shags are particularly vulnerable to negative interactions with underwater tidal turbines because they can dive up to 61 m (and therefore within range of tidal energy devices) while foraging and do so in places with strong tidal currents.

Apart from knowing that Shags use Bluemull Sound, it is unclear how important the channel is to Shag foraging in the area and whether this translates to real, measurable, overlap with the turbine array. Bird-borne biologgers can give very high-resolution information about Shag locations (via GPS) and their dive depths (via in-built pressure sensors), however where nests are

inaccessible, such as is the case at Bluemull Sound, tracking studies have not been possible. Fortunately, daytime roosts along and near the channel are more accessible and present a unique opportunity to gain rare insights on how Shags of all post-fledging ages use the area outside of the breeding season. A team of researchers and ringers was therefore assembled to test the feasibility of catching and deploying biologgers on roosting Shags at the site. While fieldwork was originally planned for September 2020, the COVID-19 pandemic pushed the project back a year.

Over the course of two weeks in mid-September 2021, both single and double panel mist nets (12 m long; mesh size of 60 x 60 mm), and a 7.5 x 3.5 m whoosh net were used to catch and deploy 12 GPS-GSM biologgers on four adult, three sub-adult and five juvenile Shags at Bluemull Sound. The 30 g transmitters (for details: https://www.ornitela.com/30g-transmitter) were attached using the glue mount method to trimmed lower back feathers. Not only were the catching methods trialled a success, the data provided by these 12 individuals will now help to assess what level of risk Nova's turbines pose to the Shags, and fill knowledge gaps surrounding how post-fledging Shags use tidal channels and their surrounding habitat outside of the breeding season. Preliminary visualization of the tracking data suggests that Shags are variable in their use of the channel, that this may be age-dependant, and that they explore areas beyond their breeding season foraging range (Figure 1). This has implications for future tidal energy developments in Shetland and beyond as well as for Shag non-breeding ecology.

This research is part of a Bryden Centre-funded University of the Highlands and Islands PhD project started in 2018 that investigates how seabirds use strong tidal current environments and the potential for interactions with tidal energy devices.

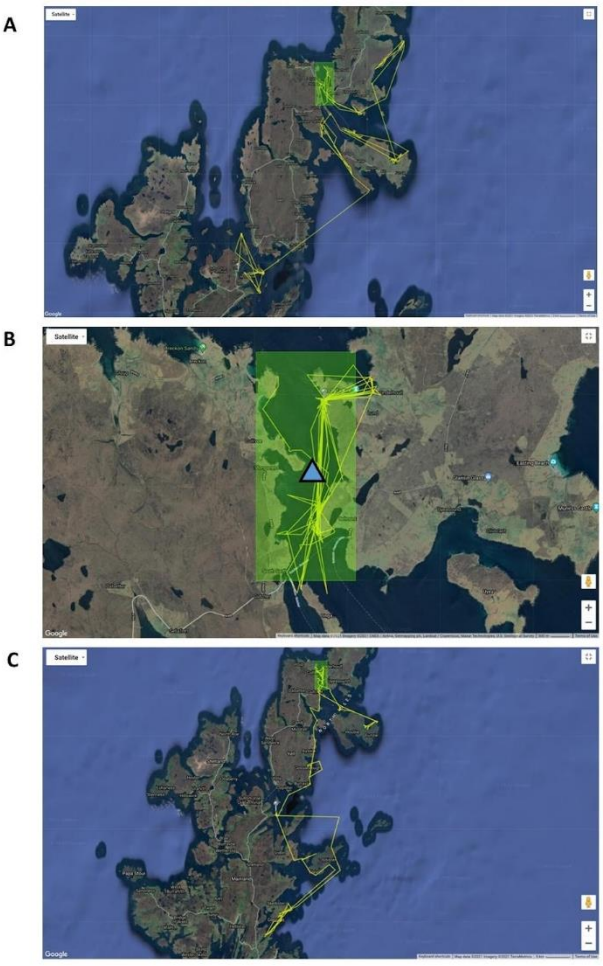


Figure 1. Illustrative GPS tracks from a) juvenile, b) 2nd year, and c) adult Shag over ca. 2 weeks in September 2021, with Bluemull Sound marked as green rectangle and approximate tidal turbine site marked with blue triangle in b).

Census grant reports

Seabird Monitoring Programme findings in Inverclyde and Bute

Rafe Dewar, SMP volunteer

A view of the Greenock rooftops and Clyde Estuary with typical large warehouse on left. Photo: Rafe Dewar.

Over the last three years I have been conducting counts for the Seabird Monitoring Programme (SMP), covering Inverclyde and Renfrewshire, and the Clyde Islands of Bute, Arran and Great Cumbrae, thanks to the support of a Seabird Group census grant, which has supported my travels.

These locations were very varied – from the windswept sandy bays and moors of the Clyde Islands, to a wet Sunday afternoon spent counting gulls in an industrial estate in Paisley. This does of course show the variety of habitats that seabirds can occupy and provide an insight of how humans can be a help, or hindrance in different circumstances.

The results, in comparison with the previous counts carried out for the Seabird 2000 census were noteworthy, and here I provide a brief summary for contrasting areas – the industrial and urban locations around Inverclyde, and the more remote 'natural' sites on the Isle of Bute.

Across Inverclyde a total of 23 sites were resurveyed in 2019 and 2021, mainly urban, although a few more natural loch and reservoir sites were also covered. **Herring Gull** (*Larus argentatus*) and **Lesser Black-backed Gull** (*Larus fuscus*) were the two predominant species, taking advantage of warehouse rooftops and other industrial environments to nest and acquire food, although **Common Gull** (*Larus canus*) were also present in smaller numbers. Separate **Black Guillemot** (*Cepphus grylle*) surveys also took place in 2018 along the quaysides of the post-industrial Clyde foreshore.

Results from the 2019 and 2021 gull surveys showed an overall decline in Apparently Occupied Nests (AON) and Apparently Occupied Territories (AOT) for Herring Gull: from 102 to 45 AON/AOT (-56%); and for Lesser Black-backed Gull from 190 to 61 AON/AOT (-68%). Further investigation into Herring Gull numbers does however show that excluding the large Loch Thom reservoir in the Muirshiel Hills where 62 AON were recorded for Seabird 2000, but only 3 AON in 2021, urban Herring Gull numbers were similar between censuses (40 AON in 1999-2001 and 42 AON/AOT in 2019-21). For Lesser Black-backed Gulls, which were found in smaller numbers on Loch Thom in 2000, a clearer reduction in urban numbers was however evident.

The reduction in numbers for both species can be at least partly explained by a similar decline in the total number of sites occupied by either species, from 18 under Seabird 2000 to 11 in 2019 and 2021. In some cases, the reason for this decline was clear – for example the former Cartsdyke Engineering Works site, where both species were present for Seabird 2000 counts, has been redeveloped into housing, and no longer provides suitable nesting habitat. This is a trend common across Inverclyde where the redevelopment of former shipyards and warehouses has taken place during the last few decades. In some cases, warehouses have been replaced by similarly sized buildings forming retail parks or industrial estates, but crucially the design of these buildings do not provide conditions as favoured by gull species. In particular, it seems like the removal of corrugated asbestos roofs, whilst beneficial to humans for obvious reasons, has removed preferred gull habitat, as this roof material accumulates lichen, moss and other vegetation over time, which can provide nest material[1]. Not coincidentally, the largest colony of breeding gulls in Inverclyde in 2019-21 was recorded at Baker Street in Greenock where disused warehouses there have retained their asbestos roofs. Although the now widespread pressed steel roofs are less favoured by gulls, they evidently do still provide some nesting opportunities, for example between roof vents, albeit in lower densities. At other sites it was evident that some of these buildings have netting to prevent gulls nesting, and birds were absent.

The redevelopment of the Clyde waterfront also appears to have affected Black Guillemot numbers, for example at the Ladyburn site in Greenock where 15 individuals were present at the time of Seabird 2000, but none were present in 2018 due to the subsequent change in land use to housing and greenspace. Overall, there was a reduction in Black Guillemot numbers from 86 to 77 individuals (-11%) with the most noticeable difference at Inverkip power station (from 38 to 5 individuals) although this may be due to increased difficulties in accessing the now defunct power station site, and so results there should be treated with caution.

Although the reduction in urban gull numbers can sometimes be easily explained, this is not necessarily the case for seabirds at natural sites. At Loch Thom in 2021 Herring Gull numbers were much lower than during Seabird 2000, and **Great Black-backed Gulls** (*Larus marinus*) were absent, although encouragingly Common Gulls showed an increase from 5 to 21 AON.

On Bute, which is a relatively remote and undisturbed island, the Seabird 2000 counts recorded Common Gull, Herring Gull, Lesser Black-backed Gull and **Fulmar** across eight sites. Notable records were a large gull colony on Scoutag Moor where there were 350 and 300 AON for Herring Gull and Lesser Black-backed Gull respectively; and 200 and 150 AON Herring Gull and Lesser Black-backed Gull at St Ninian's Bay. Repeat visits in 2019 however found that not only was the Scoutag Moor colony deserted at the time of survey, but most other gull and Fulmar nest sites were unoccupied, with only one Common Gull nest recorded across all sites. Whether this situation is due to local influences or representative of wider pressures on nesting and foraging birds will become clearer after the national SMP data have been analysed. What is apparent however is that gulls, and other seabirds, can face a range of challenges, depending on their chosen environment.

[1] Rock, P. 2005. Urban Gulls: problems and solutions. *British Birds* 98: 338-355.

The Final Countdown - Royal Air Force Ornithological Society (RAFOS) expedition to north Mainland Shetland, June 2021

Keith Cowieson, RAFOS Field Activities Liaison Officer

As a follow up to RAFOS' successful 2019 Shetland outing in support of JNCC's Seabirds Count[2], Daisy Burnell, the overall JNCC Seabirds Count coordinator, and Will Miles, the Regional Coordinator for the Shetland Isles and The Seabird Group's Seabird Census member, requested we reprise our efforts in 2021, with the aim of visiting as many of the unsurveyed grid squares in the parishes of Delting, Lunnasting, Nesting, & Northmavine in north Mainland Shetland as possible.

This year we deployed a 12-strong joint RAFOS, Royal Navy Bird Watching Society (RNBWS) and Army Ornithological Society team to carry out the survey, arriving in Lerwick from Aberdeen in mid-June, suitably jabbed, masked, booted and spurred. Our task in this last season of the Seabirds Count, to mop up uncovered inland grid squares.

RESULTS

The priority for our Seabirds Count work on Mainland Shetland remained focussed on skua and inland gull colonies, as some of these species are those giving rise to great conservation concern[3]. The findings of our aggregated 2019 & 2021 observations are summarised in Table 1 below, alongside Seabird 2000 counts.

Table 1: Changes in inland breeding seabird populations on north Mainland Shetland (from 347 Grid Squares surveyed), 2000 vs 2019 & 2021*. Source: Seabird Monitoring Programme On-line Database https://app.bto.org/seabirds/public/index.jsp. *Caution advised – figures not yet checked by JNCC.

Species	Seabird 2000	Seabirds Count (2019 & 2021)	% Change
Arctic Skua	47 AOT	28 AOT	-40
Great Skua	116 AOT	196 AOT	+69
Great Black-backed Gull	61 AOT	93 AON/AOT	+52
Lesser Black-backed Gull	0	2 AOT	N/A
Herring Gull	6 AOT	50 AOT	+733
Common Gull	95 AOT	295 AON/AOT	+211
Black-headed Gull	21 AOT	34 AON/AOT	+62
Arctic Tern	0	632 AON/AOT	N/A

Inland breeding gulls on north Mainland Shetland appear to be doing well. Although relatively thin on the ground on the peatlands, many higher, drier, ridges boasted at least one pair of **Great Black-backed Gulls**, often several in loose groupings – and they were the only gulls found close to breeding **Great Skua** (*Catharacta skua*), being quite capable of holding their own with such aggressive, predatory neighbours. Meanwhile **Common Gulls** appear to be doing particularly well, certainly living up to their name in north Mainland Shetland, more than doubling in number since Seabird 2000, with many lochs, dubh-lochans and pools hosting small colonies.

Our skua observations from the 347 grid squares surveyed again mirrored the recent Seabird Monitoring Programme (SMP) trends, if not the modest scale of the national Great Skua increase. **Arctic Skua** (*Stercorarius parasiticus*) numbers were down 60% over the period from 47 to 28 AOT, while Great Skua numbers had increased by an impressive 69% from 116 to 196 AOT.

Where Great Skuas bred in the greatest density, Arctic Skuas were absent, and although no 'top down' intra-guild predation by Great Skua of Arctic Skuas, eggs or chicks was observed, the 'top down' pressure of the burgeoning population of competing/predatory Great Skua does conform to the 'combined bottom-up / top-down pressures' effect judged to have led to catastrophic Arctic Skua declines in Scotland[4]. Additionally, the timing of our survey in 2021 was such that most skuas pairs had

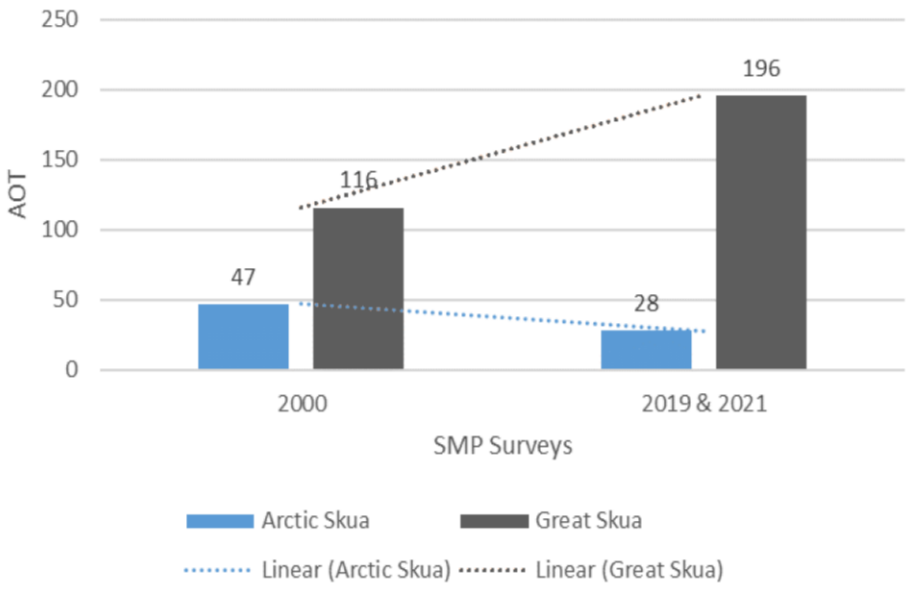
[2] Cowieson K. R. (2019) '*Expedition Simmer Dim 2019 – Royal Air Force Ornithological Society (RAFOS) expedition to Mainland Shetland, June 2019. Seabirds Count Year 2''*. Seabird Group Newsletter 142: 2-6.

[3] JNCC (2021) *'Seabird Population Trends and Causes of Change: 1986–2019 Report'* [Online] Available at https://jncc.gov.uk/our-work/smp-report-1986-2019 (Accessed 7 January 2022).

[4] Perkins, A., Ratcliffe, N., Suddaby, D., Ribbands, B., Smith, C., Ellis, P., Meek, E., Bolton, M., 2018. Combined bottom-up and top-down pressures drive catastrophic population declines of Arctic skuas in Scotland. *Journal of Animal Ecology* 87, 1573–1586.

either just hatched or were on the cusp of hatching, so we did not witness any of the distressing high level of Bonxie chick and adult mortality, possibly from an unidentified strain of bird flu, reported later in the season elsewhere in Shetland[5].

This year, many of our designated grid squares were on ridges paralleling the numerous voes[6] that cut into the heavily indented northern coastline. On the peatlands atop these ridges, pairs of Great Skua were spaced every 500 – 900 m, and not below in the boggy flats and valleys that held the occasional pair of Arctic Skua. On one particular western morainic flat in more glaciated terrain, a small colony of five pairs of Bonxies were found within a 300 m^2 area, with a nesting pair of Arctic Skua within 250 m, located typically in a boggy area by a run-off burn. This was the densest concentration of breeding skua encountered.



Changes in skua populations (AOT) on north Mainland Shetland (347 squares).

LESSONS IDENTIFIED

Three years of breeding seabird surveying, concentrating on priority breeding skuas, inland nesting gulls and terns, have reinforced lessons identified on Orkney and Shetland in previous years, namely that in order to most comprehensively and best survey such species, transect walking and flush counting, respectively, are the two most accurate and effective methods[7, 8].

Sadly, Arctic Skua territories were few and far between and, as witnessed in 2019, easily overlooked, as the birds are relatively undemonstrative, unless surveyors were heading directly towards nest, eggs or chicks. This reinforces our impression that Arctic Skua numbers in such habitat are highly likely to be under-recorded, despite the best efforts of surveyors. Breeding Arctic Skua pairs often only became obvious when surveyors were bearing down on them, often within 30 m or so, despite having scoped or glassed the area at regular intervals on the approach.

In stark contrast, the behaviour of their larger Great Skua cousins was much more obvious with off-the-nest birds flying out to inspect approaching surveyors at ranges of 2 - 300 m, often revealing previously unnoticed birds and territories. In this respect our findings mirror those of previous years; transect walking is the only sure way of surveying the bulk of breeding skua territories in rolling peatland landscapes, and even then a proportion of Arctic Skua pairs is inevitably going to be overlooked. In north Mainland Shetland, the peat hag-dominated landscape essentially rendered any attempt at accurately surveying skuas from vantage points redundant, due to the significant areas of 'dead ground' hidden by folds and dips in the undulating landscape.

TOP TIPS FOR SURVEYORS

Aggressive nest defence by skuas, gulls and terns is intimidating for experienced and novice breeding seabird surveyors alike. Although unusual to be physically struck, some recommend not only wearing stout headgear but also holding a walking pole or suchlike above head-height, as birds invariably attack the highest point of the intruder. My recommendations is to face attacking

[5] Pennington, M. (2021) *'Even Bonxies Aren't Indestructible: Unst, Shetland, 23rd July to 4th August 2021'* [Online] Available at https://whenigrowupiwillgothere.wordpress.com/2021/08/04/unst-shetland-23rd-july-to-4th-august-2021/ (Accessed 19 August 2021).

[6] Voe is the local name for an inlet in the Shetland Isles.

[7] Walsh, P.M., Halley, D.J., Harris, M.P., del Nevo, A., Sim, I.M.W., & Tasker, M.L. (1995). *'Seabird monitoring handbook for Britain and Ireland'*. JNCC / RSPB / ITE / Seabird Group, Peterborough.

[8] Bibby C. J., Burgess N. D., Hill D. A., Mustoe S. H. (1992) *'Bird Census Techniques, 2nd Edition'*, Academic Press.

seabirds directly, if possible, and look them straight in the eye as you make your way gingerly through ternery, gullery and skua colonies. Turning one's back on the birds can lead to being hit, occasionally – and I have had the odd 'bump' to prove it.

Another observation is that the ferocity of the mobbing attack, and the closeness of the pass, can often be another cue to proximity of nest or chicks. The closer and more frequent the attacks from Bonxie, the 'hotter' the surveyor is. With Arctic Skua, the risk of being hit is much less but a good giveaway to proximity to nest or chicks is the extent to which the 'Skootie Alan[9]' flutter closer and closer around one's head or perform a 'dying duck' distraction display around one's feet. Again, the closer and more frequent, the 'hotter' the surveyor is. The more demonstrative they become, the closer to nest and/or chicks you are. That said, clearly one should not linger in the vicinity when the birds are distressed, only remaining long enough to record the nest or ring the young, particularly if the weather is cold, windy or wet.

Surveyor attracting close Bonxie attention, indicative of nearby nest, eggs or young. Photo: Martin Alabaster.

Finally, vivid patches of well-manured, green plots in otherwise uniform brown peat and heathland-dominated landscapes are another good giveaway for locating Great Skua (and Great Black-backed Gull) territories and nest sites. These invariably indicate historical breeding sites and lookout posts, well-fertilised by guano and the decomposing corpses of prey over the years.

SEABIRD NEST INCORPORATION OF DEBRIS

In 2018, Dr Nina O'Hanlon of the University of the Highlands and Islands requested that surveyors note any seabird nest incorporation of plastic during their work. This innovative and worthy initiative proved successful, spawning a website of its own (Birds and Debris[10]). Researchers have found that such opportunistic data collection of nest incorporation of debris by seabirds is a cost-effective way of detecting changes in the prevalence of debris in the marine environment across a large geographic range[11]. On Mainland Shetland, we found that many shorelines on both survey areas contained varying amounts of plastic and other litter - noticeably worse by fish & shellfish farms - and several **Arctic Tern** nests were discovered this year in wrack and flotsam-littered shingle beaches, containing thread-like plastic, plastic rope, metal wire and other debris. The terns' nests were part of a small colony of 12 pairs, sadly surrounded by, and interspersed with, the detritus of fish farm and other activity.

CONCLUSION

In sum, 198 SMP Grid Squares were surveyed by RAFOS, RNBWS & Army Ornithological Society personnel in 2021 making a total of 347 SMP grid squares covered in two seasons work on north Mainland Shetland. The sites ranged in character from 300 ft vertical cliffs, through tundra-like heather moorland and peat hags & bog, to stretches of sandy and shingle beaches. In 2021, personnel covered between 5-11 miles on foot daily, often over demanding and unforgiving terrain and in all weathers.

The RAFOS Chairman and Committee would like to express their sincere gratitude to both The Seabird Group and RNBWS for their generous grants towards the costs of our 2021 and previous expeditions. All participants have found the experience of tremendous value and benefit and learnt significant new skills in the process.

The full version of this report can be viewed by following this link.

[9] The local Northern Isles name for Arctic Skua.
[10] Birds & Debris website (2021) *'Birds & Debris'* [Online] Available at https://www.birdsanddebris.com/ (Accessed 18 August 2021).
[11] O'Hanlon, N.J., Bond, A.L., Masden, E.A., Lavers, J.L., James, N.A., 2021. Measuring nest incorporation of anthropogenic debris by seabirds: An opportunistic approach increases geographic scope and reduces costs. *Marine Pollution Bulletin* 171, 112706.

Filling in the Gaps: surveying remote and inaccessible seabird colonies on Raasay and Rona for the Seabirds Count 2020

Jack Lucas, SMP volunteer

Seabird colonies in remote and inaccessible areas, such as the west coast of Scotland, require dedicated time and resources in order to safely access to count the seabirds for the Seabird Count census. This is especially true of colonies located on offshore islands, to the point where some sites have gone unrecorded in past censuses leading to gaps in our knowledge.

A discussion with the Seabirds Count Project Coordinator at the JNCC identified specific sites in the Hebridean Islands that had yet to be covered. A survey was subsequently planned to access and survey these sites before the census window closed. This project requested from The Seabird Group a grant of £500 (half of the total survey costs) to support census work on the remote islands of Raasay, Rhona and the surrounding islets and skerries (Figure 1). In order to safely access and survey these sites, a vessel was required. The project itself provided the vessel, crew, food and accommodation. The Seabird Group's kind donation covered the cost of transporting the vessel to Raasay (including ferry costs) and the fuel for the survey work.

METHODS

The survey was carried out on a 5.8 m RHIB, with all sites being surveyed between the 16th – 17th May 2021. The weather throughout was fair, with sea state not exceeding 4 and visibility good. Crew consisted of one driver, one experienced lead surveyor and an additional surveyor in support. Seabirds were counted according to the Seabird monitoring handbook[7]. Binoculars were used to count individuals or nest sites, with photographs taken to confirm species or numbers.

RESULTS

The results from the survey have been compiled and submitted to the Seabirds Count Coordinator and to the Seabird Monitoring Programme for inclusion in the current census. For the purposes of this report, counts from the survey are compared to the counts from the last time the site was surveyed (mostly 2000). Sadly, almost all sites showed a decline in numbers of nesting seabirds since they were last surveyed. Notably absent from all sites were **Fulmars** and **Cormorants** (*Phalacrocorax carbo*), which in the previous census demonstrated significant numbers at certain sites (11 **Shag** AON and 11 Cormorant AON at Manish Point and 38 Fulmar AOS and 27 Shag AON Carn Dearg). This may be reflective of the survey being carried out early in the breeding season, but nearby at Kilt Rock on Skye there were several Fulmars sighted on apparently occupied nests. **Herring Gull** counts were also significantly down, with only 8 AON counted across all sites, compared to 68 in 2000. In the seven sites where Herring Gulls were observed nesting previously, only two of these still contained nests. A few sites did exhibit an increase here and there of a Shag nest, but this was offset by the overall number of Shag nests, which decreased from 38 to 9 AON across Raasay and Rona. The only two species that showed increases across the board were **Great-black Backed Gulls**, which were up by 2 AON since 2000, and **Great Skuas**. The latter wasn't sighted at all in previous surveys, but a single AOT was recorded on the island of Eilean Tigh during this survey.

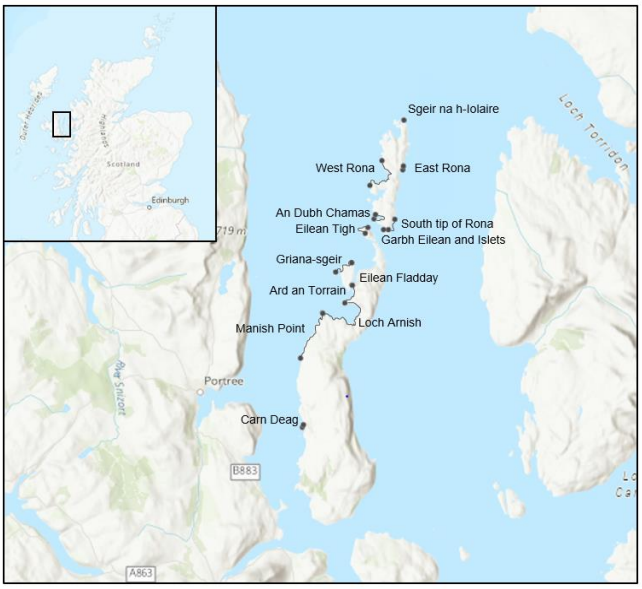


Figure. 1. Survey locations. Map source - Esri.

There were also two areas where Shags were observed to be nesting outside of the census sites; one nest at Meall Acairseid (NG 6289 5738) and three at Umachan (NG 6131 5040). These sites were passed on to the census for potential inclusion in future monitoring work. Numerous seabird species were also observed to be using the area but were not seen to be occupying breeding sites, including most auk species, **Gannets**, **Kittiwakes** and terns. Three White-tailed Eagle (*Haliaeetus albicilla*) nests were recorded throughout the survey, and these details have been passed on to local recorders.

The crew were lucky enough to encounter multiple White-tailed Eagles over the survey. Photo: Jack Lucas.

The severe declines observed in the number of seabirds nesting in the census sites on Raasay and Rona, at least superficially, appears to be representative of much broader pessimistic trends in seabird abundance across Scotland and further afield. In terms of explaining the potential causes of these declines, one must look at the myriad of anthropogenic threats that seabirds face globally. Climate change can affect the abundance and distribution of prey species, which together with potential overfishing can lead to reduced fitness and reproductive success. Added to this can be the reliance on discards from fishing boats. Habitat loss, through human development, sea level rise and increased frequency and severity of storms, can result in seabirds abandoning historically favoured breeding sites. Disturbance, bioaccumulation of pollutants, ingestion or entanglement of litter and discard fishing gear and collision with renewable energy devices are also known to impact seabird populations. Additionally, anecdotal evidence from some locals on the west coast suggests that there may be some instances of terrestrial egg predation (e.g. minke, rats), even in such remote islands. Finally, it should be noted that COVID-related travel restrictions and availability of the crew and boat dictated the date of the survey (which was postponed from 2021). The survey dates are slightly earlier in the breeding season than planned, but should have still been sufficient to capture the relevant species nesting in this area.

Seabirder Spotlight

Seabirder Spotlight aims to illuminate the variety of career paths and roles available to aspiring seabirders. Contributors are asked a range of standard questions about their careers, for example on what their current job involves, what aspects they love about their work and what skills have been important to cultivate on their journey. In particular, we hope that the contributions from members of the seabird community will inspire and motivate people in their early careers to work with seabirds.

Derren Fox - Zoological Field Assistant at British Antarctic Survey & Senior Research Assistant at RSPB

If you've come here looking for career advice, I'm afraid you've come to wrong place; I still have no idea what I want to do with my life, let alone my career! I am, however, sitting in a lab on Signy Island in the South Orkneys, working as a Zoological Field Assistant for the British Antarctic Survey and about to head out monitoring **Adelie** (*Pygoscelis adeliae*) and **Chinstrap Penguins** (*P. antarcticus*), so I must have done something right along the way. So maybe see this as encouragement that there are some fantastic opportunities out there and not to lose hope that you'll get the job you want one day. No day is ever the same at work, which is something that I love, although some of the work is by necessity repetitive as I work on the long-term monitoring program here on several penguin, petrel and seal species.

I did start off in vaguely the right direction with a BSc in Environmental Science, knowing that I wanted to work outdoors and in conservation but that was as far as it went at that point. I was lucky enough to find the RSPB voluntary wardening scheme at the time, trying to get some experience to go with the qualifications to make me more employable. It's still upsetting to see how much unpaid work we all have to do to get our foot in the doors of what are unfortunately poorly paid roles; hopefully that is slowly changing.

I volunteered on a few Scottish islands, from Fetlar to Islay, and through a lot of perseverance got on the bottom rung of the wardening ladder, working with some incredibly passionate and dedicated people along the way. It was in Orkney that I found my love of seabirds, watching **Fulmars** soaring effortlessly on the winter storms tugged at something in my soul and the rest is history.

I've spent most of my working life on small islands, which has been a great help with many jobs, giving me great understanding of working with and in small communities and teams, one of the most important skills for anyone in these kinds of places I feel. It has also taught me a fair bit about logistics and planning for field seasons. Getting the equipment you forgot or parts to repair field kit isn't an option when there is only one or two boats in a year!

From a career point of view, one of the best pieces of advice I've ever been given was not to get promoted out of the work you want to do. That's easier said than done when you must take whatever work is available or do without, but it's worth considering where you want to go with your career. I confess, I still have no idea! I have been lucky enough to have worked with some incredible species and on some spectacular places, including Gough, Bird Island and many Scottish islands, but the future is still an exciting (and scary) unknown of projects and possibilities.

Learning is still an ongoing process for me, I try to take every opportunity I can get to work with new people and on projects and species when I can, learning new skills and the intricacies that every species seems to have. Having grown up moving constantly as a child it has helped shape my perspectives on having a home. I now spend the summer in the UK, usually working on conservation-based RSPB tracking and monitoring projects that combine my climbing and seabird interests, and the winter months in the South Atlantic studying the long-term trends of some very threatened species.

I've been lucky enough to work with some amazing people over the years. A wee note of thanks to them all, especially Mike Peacock, Andy Knight and Ellie Owen at RSPB who helped and inspired me immensely in my early career.

I don't think there's any golden ticket to a career in seabird research and conservation I'm afraid, but echoing Ellie's words from her piece in this slot, be a sponge and absorb information from everyone one you work with, from whatever background. There's often a better way of doing things, or a clearer way to explain it, or just checking that someone else hasn't already solved the issues you're dealing with. One of the skills I have found most useful over the years, outside of the ordinary, has been my climbing background. Having climbed for over thirty years and become a qualified instructor it's helped open doors to opportunities along the way, so never be afraid to promote your other skills as you go and keep thinking outside the box.

As to career goals for the future and where I see myself going, they are the same as they have always been: vague! But I'm keeping my eyes open and looking for exciting projects. I'm currently experimenting with Raspberry Pi and its huge potential, and looking at buying a boat, as both a home and to access some seabird colonies for work and play!

Seabird Group Notices

Could you help shape our journal, *Seabird?*

The Seabird Group is seeking Editorial Board members for our journal, *Seabird*, which contains papers and short communications on seabird biology, conservation, identification and status, primarily from the Atlantic Ocean and adjacent seas. We produce one volume of *Seabird* per year, which is printed and sent to our members. It is free to publish in, and all papers are freely available on our website at www.seabirdgroup.org.uk/publications.

We are looking for new Editorial Board members, with experience in seabird biology/ecology/conservation and in publishing and reviewing peer-reviewed papers. Editorial Board members will do a two-year stint in the first instance, with the option of remaining on the Board for one extra year. They would be responsible for handling around two manuscripts per year, including finding reviewers and overseeing resubmission and revisions in a timely manner, and making recommendations to the main Editor. As well as established academics, we are keen to support early career and amateur researchers in publishing their work in our journal.

The geographical focus of *Seabird* is the Atlantic Ocean and adjacent seas. Knowledge of those regions would therefore be desirable but not essential. In line with The Seabird Group's aims, we would particularly welcome applications from people who identify as part of a marginalised community or who are otherwise under-represented in ornithological academia, and also from people who are early in their careers. Membership of The Seabird Group is also desirable but not essential.

If you are interested, please contact journal@seabirdgroup.org.uk with a short statement of interest and summary of your relevant experience and scientific area of expertise (no more than 200 words) by **15th February 2022**.

The Seabird Group is also seeking volunteer copyeditors for *Seabird*, to assist the Editor with checking manuscripts for both general mistakes and deviations from the journal's house style prior to publication. If you have an eye for detail, an excellent command of written English and would be interesting in helping out, please also get in touch via journal@seabirdgroup.org.uk by **15th February 2022.**

New training grant available from The Seabird Group

The Seabird Group are happy to announce that we are launching a new training grant. The training grant provides up to £250 for individuals to use towards travel, accommodation and subsistence in order to undertake an unpaid voluntary activity focussing on seabirds. Seabird fieldwork is often unpaid and can be expensive, but field skills are highly sought after and can be key for future career opportunities. We hope that this grant will enable people to undertake such activities who may not otherwise be able to afford it.

If you would like to apply for a training grant, please fill out an application form. No previous seabird experience is required, just a passion for seabirds! You are required to organise the activity, and this must be arranged and agreed with the individual or organisation before submitting this application. We have listed some suggestions of activities on the application form. Paper forms are available on request. For a paper form or any other enquiries, please email Lila Buckingham on edi@seabirdgroup.org.uk.

Deadline: **13th March 2022**. Outcomes will be received 2-3 weeks following the deadline.

HELP US DIVERSIFY THE SEABIRD SPACE – TAKE OUR SURVEY

The Seabird Group is committed to promoting equality, diversity and inclusion within the seabirding community. We would greatly appreciate you taking the time to fill out our online diversity and inclusion questionnaire. Summary statistics on these data will be used to monitor our progress on increasing diversity within The Seabird Group's membership, as well as help us identify areas where we can do more to promote inclusion within The Seabird Group and the seabirding community. All results are anonymous and we have no way of linking answers to individuals. Responses will only be visible to The Seabird Group's Equality, Diversity & Inclusion Office (Lila Buckingham). For any questions or feedback, please email Lila Buckingham on edi@seabirdgroup.org.uk.

The Seabird Group - the name stays!

Liz Humphreys, Chair of The Seabird Group

After the last newsletter, a few of you reached out to express your concerns about the possibility of any change to the group's name. These issues were further discussed at the AGM with the members (minutes can be provided upon request). Given the significant administrative burden that would come with a name change, not least with the charity commissions and all our communication, there were no real advantages identified.

It did however prompt some useful discussion over our geographic range in terms of grants, meaning moving forward we will rethink how we award funding in terms of reducing air mileage given concerns over climate change impacts on seabirds. We will also continue to work more closely with our counterparts such as the Pacific Seabird Group in terms of collaborating over Early Career and Equality, Diversity and Inclusion initiatives. Thanks to all of you who engaged with these discussions.

Seabird Group membership benefits

Zoe Deakin and Kirsty Franklin, Seabird Group ExCom

We're pleased to offer additional benefits for The Seabird Group members on Pelagic Publishing, Poyser Monographs, Cotswold Outdoor, the Scottish Seabird Centre and Mooncip. Details and codes for these can be found on our members only page online. Please contact The Seabird Group Executive Committee member **Zoe Deakin** (deakinz@cardiff.ac.uk) if you have any problems using the discount codes or if you have suggestions for additional member benefits.

Events

Pacific Seabird Group Annual Meeting

The Pacific Seabird Group is pleased to announce the 49th Annual Meeting which will be held completely online from **23rd – 25th February 2022**.

The scientific program is jam packed with cutting edge technology and research that pushes the boundaries. The last day to register for the full meeting is 23rd February. They encourage participants to stay connected by following and including the meeting hashtag (**#PSG2022**) in social media posts. Head to the website for more details and to register.

The 8th World Seabird Twitter Conference

WSTC Organising Committee

For the 8th year in a row, the World Seabird Twitter Conference **#WSTC8** will be returning to your screens! The conference will be taking place **3rd – 5th May 2022** with abstract submission open **15th February - 4th March**. As always, this is a great way to promote your seabird research to a global audience and every year the conference gets bigger and bigger. Keep an eye on the World Seabird Union Twitter (@Seabirders) and Facebook (@World.Seabird.Union) pages for updates, and find more information and submit an abstract via the website.

Scottish Seabird Centre events

Our friends over at the Scottish Seabird Centre host a variety of online and in-person events. Coming up in March, they have a coastal wildlife walk where you can join their Conservation Officer for a relaxing 1.5-hour wildlife walk along the coast to find out more about the seabirds, shorebirds, and cetaceans that can be spotted around Scotland. They also run a range of group events, such as social beach cleans, to help to clean up the coastline. Their programme of Meet the Scientist talks will also be starting again very soon. Details of all these events and how you can join in can be found on the events section of their website.

15th International Seabird Group Conference

The Seabird Group would like to welcome you to the 15th International Seabird Group Conference on the **22nd – 25th August at University College Cork, Ireland**, featuring plenary talks from Prof Emily Shepard, Dr Annette Fayet and Dr Alex Bond.

The **call for abstracts is now open**, with a deadline of **28th February**.

15TH INTERNATIONAL
Seabird Group Conference
CORK, IRELAND

Registration will open on 1st May, with the following rates: early bird €185, Seabird Group members €150, standard rates (from 31st July) €295.

Corrections

On page 3 of the SGN 148 we referred to the "Indian Ocean Seabird Group" in the title of the article, which should have read "Indian Seabird Group". You can find the Indian Seabird Group here, and the contact for the Indian Ocean Seabird Group is Matthieu LeCorre, lecorre@univ-reunion.fr. Thanks to an eagle-eyed reader who spotted this for us.

Website: **www.seabirdgroup.org.uk**

Facebook:

www.facebook.com/pages/TheSeabirdGroup/

Twitter: **www.twitter.com/TheSeabirdGroup (@TheSeabirdGroup)**

Registered charity No. 260907

The Seabird Group promotes and helps co-ordinate the study and conservation of seabirds. Members also receive the journal *Seabird*. The Group organises regular conferences and provides small grants towards research.

CURRENT SEABIRD GROUP COMMITTEE

Chair	Liz Humphreys (2023)	chair@seabirdgroup.org.uk
Secretary	Annette Fayet (2023)	secretary@seabirdgroup.org.uk
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Current membership rates	
Ordinary	£30
Concession	£15
Institution	£50
Individual Life	£300
Institution Life	£500

The Newsletter is published three times a year. The Editor welcomes articles from both members and non-members on issues relating to seabird research and conservation. We aim to provide a forum for readers' views so that those provided in the Newsletter are not necessarily those of the Editor or Seabird Group.

Submissions for the newsletter should be emailed to the newsletter editor: newsletter@seabirdgroup.org.uk. We recommend a maximum of 1500 words and ask that photographs and figures are sent as separate files and with full credits, where appropriate. **Deadlines are: 15th January (February edition); 15th May (June edition); and, 15th September (October edition).** Every effort is made to check the content of the material that we publish. It is not, however, always possible to check thoroughly every piece of information back to its original source as well as keeping news timely. If you have any concerns about any of the information or contacts provided, please contact the Newsletter Editor.