

# **NEWSLETTER 145**

# October 2020

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## News

## Crowdfunding appeal launched for new Fair Isle Bird Observatory

## Paul Riddell, Director, Mantra PR & Platform Shetland Ltd





Architectural visualisations of the new Fair Isle Bird Observatory, courtesy of the Fair Isle Bird Observatory Trust.

People around the world are being asked to contribute to the cost of rebuilding the world-famous Fair Isle Bird Observatory, which was destroyed by fire last year. An international crowdfunding appeal has been launched to raise at least £650,000 towards construction work on the remote Shetland island.

At the heart of the campaign as newly-chosen Patron of the Observatory is the author Ann Cleeves, whose crime novels set in the islands have been turned into the BBC TV drama series *Shetland* starring Dougie Henshall, Alison O'Donnell and Steven Robertson. Ann, who first visited Fair Isle more than 40 years ago to work in the Observatory kitchen, said:

"Even then, I understood how important the Observatory was to the island and the islanders. Fair Isle is a thriving community that keeps alive its traditions while being open-minded and open-hearted to visiting strangers. The loss of the building to fire was a tragedy, given its central role in supporting employment and providing a place where islanders and visitors can meet to share stories and expertise. We now hope to replace it with a building that is even more relevant to the island's future and hope that you can help us in any way you can."

The funds will go towards the £7.4m cost of the new building, which will be the fifth Observatory on the island.

The first was opened in 1948 and the building which burned down in March 2019 was completed in 2010. The building will have improved accommodation – more guest rooms and better fittings – for students, volunteers and young people to progress both educationally and career-wise.

The Observatory is vitally important to the economic and social wellbeing of Fair Isle, so contributions will be an investment in the future viability of the community as well as the provision of significantly enhanced research facilities for world-class ornithological and additional marine biological work. The new Observatory will draw more deeply on (and help to develop) the building and maintenance skills of the islanders and support the creation of a Fair Isle-wide Tourist Action Plan, expanding the scope of ecotourism in the north of Scotland.

President of the Fair Isle Bird Observatory Trust Roy Dennis said:

"I was appalled when I saw the flames destroying our famous bird observatory in March 2019, but I knew then, immediately, that we would build a new one in exactly the same place – like a 'phoenix rising from the ashes'. Our trustees have worked hard, and even with the difficulties of the pandemic, new designs and plans are ready, but we have a very worrying shortfall in funding. We now need the sympathies of last year turned into generous donations, so that Fair Isle Bird Observatory can be rebuilt. Please help."

Donations can be made via the Observatory website www.fairislebirdobs.co.uk

Appeal video can be viewed here: https://vimeo.com/447154598

For further information please contact Paul Riddell on 07739 750543.

# **Update on Seabird Centre appeal**

## Susan Davies, Chief Executive

Conservation and education charity the Scottish Seabird Centre has been saved from imminent threat of closure following a public appeal for funds. Susan Davies, the CEO said "We were delighted with the response to our urgent appeal for funding which has helped us through the immediate financial impacts of the COVID19 crisis. Through a combination of the public, members and charitable giving we met our target of £200k and that's enabled us to lever in additional emergency funding. We are grateful to members of the UK Seabird Group network for their support at this time".

Times are still very uncertain for our charity but we were able to reopen our doors in late July and welcomed over 11,000 visitors in August (40% of our usual footfall). We've been working hard on producing digital resources and will be running some of our 'Meet the Scientist' events online. Plans for new projects are also being developed.

In response to the support received we have launched our new **Friends Scheme** where people can continue to support us through regular giving, at an amount of their choice. Further details of the Friends Scheme can be found at here.

## Prize-winners at the 6th World Seabird Twitter Conference

## Anthony Wetherhill - #WSTC6 organising committee

The organisers of the 6<sup>th</sup> World Seabird Twitter Conference #WSTC6 were pleased to announce the winners of the conference prizes earlier this summer. Four prizes were up for grabs, and these were provided by four wonderful sponsors: 1) the World Seabird Union for a science communication prize, 2) The Seabird Group for an Early Career Researcher (ECR) prize, 3) the Pacific Seabird Group for a Pacific-based prize, and 4) Laurie Jodice (Instagram: @jodicel) for a new-to-WSTC6 SciArt prize. The quality of this year's presentations certainly made the committee's task of selecting winners a difficult one.

The winner of the World Seabird Union Science Communication prize was **Gemma Clucas** (@DrGemClucas), who is a postdoctoral fellow working at the Cornell Lab of Ornithology in New York. Gemma used an entertaining presentation to show a simple way of monitoring seabird diet by collecting faecal samples from seabird colonies. Anyone who has had the pleasure of working in a seabird colony will be familiar with the "white rain" that delightfully decorates your clothes, hats, and gear. Gemma collected fresh poop samples from her clothes during visits to **Common** and **Roseate Tern** (*Sterna hirundo, S. dougallii*) colonies, and used DNA metabarcoding to identify the species of fish that the birds were feasting on. There have been huge changes in marine

ecosystems but monitoring how seabird diets change has so far been a difficult undertaking. Gemma's results tally with video observations of what the terns ate and means that for the first time there is a reliable way to monitor changes in the diet of adult seabirds. It is not easy to condense a whole study down into four tweets, but Gemma's presentation won the prize due to her fantastic graphics, a very well edited video, and very liberal use of the poop emoji!

The winner of the ECR prize sponsored by The Seabird Group was Casey Youngflesh (@CaseyYoungflesh). Casey is a quantitative ecologist and postdoctoral researcher working at the University of California in Los Angeles. Using remote camera footage collected by the Penguin Watch citizen science project of Gentoo Penguin (Pygoscelis papua) colonies on the Antarctic Peninsula, Casey was able to pinpoint the timings of nest failures and attribute these to disturbance events. He and his team found that there was not actually much effect from direct human disturbance events like tourist visits or nearby krill fishing, but that there was a sharp increase in nest failures following extreme weather events. Extreme weather events are becoming more frequent as a result of climate change, and a particular highlight of Casey's presentation was his video showing a time-lapse of a colony next to a graph of chick mortality, where it was very obvious that a heavy snowstorm correlated with a big drop off in chick numbers. This demonstrated the value in collecting high-resolution spatial and temporal data to understand global change effects on seabirds, and it will be exciting to see how this method can be used to understand what causes chick mortality in other seabird colonies around the world.

The Pacific Seabird Group prize winner was Hannah Moon (@SeabirdsEyeView) who gave a wonderful presentation with great graphics on how seabirds see light. Hannah is a PhD student studying at the University of Hawai'i at Mānoa. On the island of Kaua'i there are three seabirds of conservation concern, and it has long been known that artificial lights on coastal settlements are a cause of high mortality in these species. Hannah tested the response of the retinas of these species to different colours and intensities of light and showed that there were differences between the species and at different light wavelengths. Her results add to a growing evidence base that will help to inform coastal artificial light management.

The inaugural SciArt prize was won by Rachel Taylor (@fidhw) for showcasing her beautiful glass art piece entitled "Under the Surface", which combined artistic skill with a powerful environmental message. Rachel is a talented artist working from her Delwedd y Fran studio in Wales, and she also works as a senior research ecologist at the British Trust for Ornithology Cymru. The inspired use of confetti glass to construct the diving Northern Gannet (Morus bassanus) sculpture highlighted the problem of plastic ingestion by seabirds, and really struck a chord with many of the conference followers. Rachel's final tweet of her presentation became one of the most "liked" tweets in the six-year history of the World Seabird Twitter Conference.

Congratulations to each of the prize-winners and a huge thank you to our sponsors for providing prizes and supporting the most successful online seabird conference yet. You can view the winning presentations in a specially curated collection of tweets here.



# **Breeding season reports**

## Fair Isle's seabirds: 2020 summary

## David Parnaby, Warden, Fair Isle Bird Observatory

Although coronavirus restrictions meant that no seabird monitoring was possible early in the season, and seasonal staff were not present on the Isle until the second week of June. A frantic few weeks followed and a reasonable amount of work was done on the Isle's breeding species.

Due to the nature of the season, some of the data may not be directly comparable with previous years (although much will be), so at the moment we're still working through the data before publishing the final results.

In broad summary however, it seems that most monitored species (only **Black Guillemot** (Tystie, *Cepphus grylle*) and **Atlantic Puffin** (*Fratercula arctica*) missed out on at least some form of population monitoring) had a similar population level to the last couple of years, although there was an interesting increase in **Black-legged Kittiwakes** (*Rissa tridactyla*) nesting in the study plot at the Holms and Dog Geo. Sadly, that is the only one of 10 study plots on the Isle that is still utilised by the species, and the Isle total remains over 95% down on the levels of the mid-1980s.

Productivity monitoring showed that it was overall a good breeding season. It wasn't possible to monitor any of the auks (although the feed watches suggested it was an ok season for Common Guillemots (*Uria aalge*), but Puffins and Guillemots seemed to be bringing in decent amounts of sandeels and clupeids respectively. Two species recorded almost exactly the same productivity as 2019; with Gannets at around 0.6 chicks per pair (having generally been in the region of over 0.8 until 2019 when it was a similar level to this year) and Northern Fulmar (*Fulmarus glacialis*) productivity remaining just under 0.5 chicks per monitored nest.

Although some breeding attempts that failed at an earlier stage may have been missed, therefore inflating the productivity numbers, all other monitored species appeared to have much improved seasons. The 27 Arctic Skua (Stercorarius parasiticus) territories produced almost a chick each, potentially the best breeding season since the early 1990s. Although Great Skua/Bonxies (S. skua) again didn't fare well, about 20% of the 430 occupied territories produced a chick so it was at least better than 2019. Arctic Terns (Sterna paradisaea) and Kittiwakes showed increases in the region of 60-80% in productivity, whilst European Shags (Phalacrocorax aristotelis) produced over 1.7 chicks per monitored nesting attempt, the second-best year since 2002 (although this species is perhaps the one for which most early failed attempts are likely to have been missed). Herring,



Colour-ringed ringed Bonxie. Photo: David Parnaby

Lesser Black-backed and Common Gulls (Larus argentatus, L. fuscus and L. canus) also had a much better season compared to 2019, although the numbers of many of the species actually nesting on the Isle are now much reduced, there are some definite signs of hope.

We weren't able to have researchers visit the Isle at all this year, so the European Storm Petrel (Hydrobates pelagicus) project has been largely paused, although a few night visits to the cliffs were undertaken revealing birds presumed to be breeding in a couple of new locations. We have also continued with our Bonxie Darvic ringing project which has seen a number of birds return to the Isle for the first time this year, whilst a few new foreign sightings include our first ever movement of a Bonxie to Canada, with one photographed from a boat just off Newfoundland. Another interesting sighting was Arctic Skua 'AHJ' which was loafing on the Fair Isle airstrip in July; it was the only chick to fledge from 30 territories on the Isle in 2017, so we're delighted it's survived to return 'home' and hope it is back and breeding next year.

## Isle of May 2020 seabird breeding season

## Mark Newell, Isle of May Field Manager



Efforts to resight colour ringed shags are continuing. Please send any sightings to shags@ceh.ac.uk

It is no understatement to say that life in spring and summer 2020 was unprecedented for everyone and seabird research on the Isle of May was no different. The Covid-19 pandemic resulted in the island being totally unoccupied until June in what is thought to be the first spring without any human presence for at least 500 years. It was mid-June before UKCEH was cleared to send out a very small team to undertake seabird fieldwork. As a result, some areas of long-term monitoring could not be conducted while all other aspects were affected to varying degrees in comparison to the standardised methods employed over the last 35 years. We were grateful to be able to get to the island at all, and thank NatureScot, the landowners, for making that happen.

As a result of the delayed return to the island it is unwise to formally compare estimates with previous years without more detailed analysis, but it is possible to ascertain the general impression of the performance of each species.

Shag: even accounting for any early season losses that may have occurred prior to our arrival, breeding success was high and above average; continuing the trend for more than a decade. Diet was dominated by sandeel and butterfish.

Kittiwake: plot checks were later than normal but the number of completed nests was significantly higher than 2019 indicating few early failures. The resultant breeding success was very high and well above average. Return rates of colour marked individuals was above average while diet was dominated by 0-group (first year) sandeels.

**Guillemot**: a much reduced number of sites were followed with the aid of cameras with breeding success appearing lower than normal.

Razorbill (Alca torda): a much reduced number of sites were monitored with the aid of cameras with breeding success appearing normal.

**Fulmar**: initial productivity plot checks were conducted over a week later than normal but it still appeared to be an above average breeding season for this species.

Puffin: due to the late start to fieldwork it was not possible to monitor breeding success. Return rate of colour marked individuals appeared normal. Diet was dominated by sandeels.

For more information check out our website and Twitter: @UKCEHseabirds, @ShagMigration

## **Bardsey Island**

## Sam Prettyman, Assistant Warden, Bardsey Island

Bardsey is a small island roughly 2 miles off the tip of the Llyn peninsular, 1 mile long and 0.7 miles wide. It has a small mountain reaching 167 metres high. The mountain has a steep eastern slope which provides nesting habitat for Razorbills, Guillemots, Puffins, Shags, Fulmars, Kittiwakes, Herring, Lesser and Great Black-backed Gulls (Larus marinus). The island is also home the fourth largest Manx Shearwater (Puffinus puffinus) colony in the world, and this year, a breeding population census took place in the north-west corner of the island and the west side of the mountain.

Starting with some unfortunate news: Razorbill productivity plummeted this year due to the strong south-westerly winds that swept through the Irish Sea in late-May. This could barely have come at a worse time, as this was when many of the adults either had well-developed eggs or small chicks. On Bardsey, practically the entire population of Razorbills nest low to the sea in the boulder scree, and any waves over five or so metres are able reach most of the colony and wash away eggs and chicks. The total number of eggs and young was a meagre 111, a 67.83% decrease compared to last year (311 eggs and young) and 61.03% lower than the ten-year mean (284.80 ± s.d.78.30).

Guillemots did better than Razorbills in 2020, with the breeding population experiencing only a slight decline of Adults on Ledges (AOLs). This year, 1,232 were counted during a boat-based survey, which is 12.80% less than the count in 2019. However, last year was one of the highest on record, second only to 2017 when 1,574 AOLs were present. The upward trend that has been experienced since the late 1990s is still clear to see. Productivity in the sample plot of 50 AOL was 0.44, 22.81% lower than in 2019, but 32.13% higher than the ten-year mean  $(0.33 \pm \text{s.e.}0.04)$ .

The Puffin colony continued to grow on Bardsey. The count of AOBs increased to 164, 21 more than last year and 103.73% above the ten-year mean ( $80.50 \pm s.d.53.33$ ). Productivity was not calculated for this species.

The only other species that nests on the sheer cliffs of Bardsey is Kittiwake. The population of Kittiwakes on Bardsey in the last 20 years has been highly variable. In 2005 the population reached a peak of 365 pairs before plummeting in 2008 down to 212. This rapid decline continued until 2013 by which point the population had dropped to 62 pairs. Since this low count, the population has been steadily increasing and this year was at 143 pairs, which is 18.2% more than last year (121 pairs). Across these 143 nests, 119 juveniles were counted giving a productivity of 0.83, very similar to last year (0.86) and 40.00% higher than the ten-year mean  $(0.59 \pm s.e.0.09)$ .

This year, only Shag counts and productivity could be taken from Bardsey, rather than Bardsey/Gwylan Islands. The Gwylan Islands are home to a large Shag colony, but a trip was not possible this year. Therefore, only 16 darvics were fitted to Shag chicks this year, far fewer than 2019 (101 fitted). Forty-one chicks fledged from 39 nests (13.33% fewer nests than in 2019), giving a productivity of 1.10, which was 38.38% below the ten-year mean (1.79  $\pm$  s.e.0.14).

The largest Herring Gull colony was at the North End, as is usual. In addition to Shags, we were colour ringing Herring Gulls this year, and 43 chicks were fitted with darvic rings. In total, 423 nests were counted; 22.6% more than the 345 counted in 2019, although 2019 was a low count as the ten-year mean is  $380.80 \pm s.d.35.60$ . This year therefore represented an increase of 11.10% compared to the ten-year mean. Productivity at the North End Colony was 0.54 (109 nests, 59 juveniles fledged), 16.3% less than the ten-year mean ( $0.65 \pm s.e.0.04$ ).

Lesser Black-backed Gulls are less easy to monitor as they nest in the long grass at the top of the East Side slopes. Regardless, 169 AONs (Apparently Occupied Nests) were counted. This was 3.05% more than last year but 12.98% below the ten-year mean ( $194.20 \pm s.d.45.90$ ). From a sample of 36 nests, 18 juveniles fledged giving a productivity of 0.50, which was 32.74% higher than the ten-year mean ( $0.38\pm s.e.0.06$ ).

The vast majority of Great Black-backed Gulls nest on the Gwylan Islands. Bardsey itself only had two pairs this year which is 55.56% below the ten-year mean  $(4.50 \pm \text{s.d.}1.90)$ , but equal to 2019. Two juveniles were counted on the East Side in June giving a minimum productivity of 1.00, 24.53% above the ten-year mean  $(0.80 \pm \text{s.e.}0.15)$ .

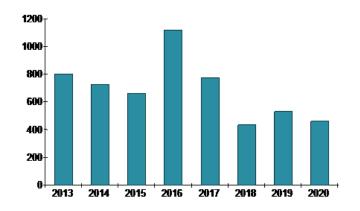
Sixteen pairs of Fulmars nested this year, which was 11.60% lower than the ten-year mean (18.10±s.d.5.70) but two pairs more than in both 2018 and 2019. Productivity is not often calculated for this species on Bardsey, but this year in mid/late August two trips spaced a week apart were undertaken to count Fulmar chicks and yielded a total of four, giving a productivity of 0.25.

The Manx Shearwater burrow census produced the most interesting change in any of the seabird populations. During May and June, roughly a third of the island's area was covered, and each burrow in the area had a dual sex recording played at the entrance for 25 seconds, followed by 25 seconds of silence for delayed responses. The last time a census was conducted in this area was in 2016, when 4,937 Apparently Occupied Burrows (AOBs) were counted. This year, 7,969 AOBs were counted, an increase of 61.41%. A total of 2,496 responses were recorded, giving a call-back rate of 31.32%. With a correction factor of 2.39 applied to this total of call-backs, the calculated number of pairs was 5,965.

## Kittiwakes, Seaford, East Sussex

## **David H Howey, Sussex Ornithological Society**

At the beginning of February some 80 Kittiwakes had returned to the cliffs at Splash Point, Seaford in East Sussex. However, by the end of February after Storms Ciara and Dennis had struck the colony was deserted. The coronavirus lockdown and restrictions curtailed further visits and it was not until 2<sup>nd</sup> July that I was able to undertake the annual boat-based survey. This showed 461 Apparently Occupied Nests (AON) which is down on the 2019 figure of 528 AON. A further survey at the end of July showed productivity to be 0.78. Unfortunately, there is currently no sign of the numbers returning to the 2016 level of 1120 AON.



Plot of Kittiwake AON at Seaford, East Sussex from 2013 to 2020.

## **Shiants and Fladaigh Chuain 2019**

## Carole Davis and David Steventon, Shiants Auk Ringing Group

#### **SHIANTS**

The annual visit of the Shiants Auk Ringing Group to the Shiant Isles (Garbh Eileen, Garbh an Taighe and Eilean Mhuire) took place from 23<sup>rd</sup> June to 7<sup>th</sup> July 2019. The trip also included a brief visit to Eilean Trodday on the way out from Uig on 23<sup>rd</sup> June and two trips to Fladaigh Chuain, one on 23<sup>rd</sup> June and also on the return to Uig on 7<sup>th</sup> July.

During these two weeks on the Shiants, 41 species of bird were observed with 2,644 birds of 14 species ringed and 993 birds of eight species retrapped/controlled. The Razorbill and Puffin RAS sessions were completed and counts of the four sample colonies of Guillemot and Razorbill undertaken (one on Garbh Eilean, one on Eilean an Taighe and two on Eilean Mhuire).

**Guillemot:** counts in the sample colonies have shown a steady increase over the last decade (totals for years during which all sections were counted). There has been a noticeable expansion of the breeding area in the boulder scree at Carnach Mhòr on Garbh Eilean and a substantial increase in numbers in new boulder scree on the east side of Eilean an Taighe following a recent rock fall.

**Razorbill:** counts in the sample colonies have shown a slight decline over the last decade (totals for years during which all sections were counted). Retrap rate at the RAS site at Carnach Mhòr on Garbh Eilean has levelled off just short of 30%. The first departure of chicks was noted on 28<sup>th</sup> June.

**Puffin:** the group continues to retrap 30+ year old birds in the RAS site at Airighean a' Bhàigh on Garbh Eilean, where the retrap rate has levelled off at about 40%. A 37-year-old bird caught in 2016 held the record for the oldest Puffin for a while, with between one and four birds older than 30 retrapped in each of the last five years.

Year	2010	2011	2013	2014	2018	2019
Guillemot	2555	2816	2162	2770	2877	2985
Razorbill	216	225	186	205	157	195

**Shag:** following a very poor breeding season in 2018, 319 pulli were ringed in 2019, the highest total in any year of the current series of visits:

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Shag pulli	137	139	179	144	11	122	190	177	115	10	319

**Passerines:** the increased abundance of passerines, notably Rock Pipit and Wheatear, is evidence of the benefit of the Black Rat eradication undertaken during the winter of 2015-2016.

#### FLADAIGH CHUAIN

Fladaigh Chuain, a group of islands in the Minch to the north-west of Rubha Hunish (Skye), is visited annually by the Shiants Auk Ringing Group. The group takes the opportunity, weather permitting, to stop off on the journeys between Uig on Skye and the Shiants to monitor the breeding seabirds on the islands. These visits are always time and tide limited due to the need to get either to Shiants or back to Uig. Two visits were undertaken in 2019, on 23<sup>rd</sup> June and 7<sup>th</sup> July.

Arctic Tern: a primary objective has been to find the Arctic Tern colony, count the nests and ring the chicks. 2019 was a bumper year with 209 pulli ringed from 334 nests, the highest total since 250 chicks were ringed in 2011. As a five-year comparison, zero were ringed in 2015, 95 in 2016, five in 2017 and zero in 2018. The group is mindful of disturbance to the colony and the coverage was by no means complete in the time allowed. The colony moves from year to year, with a handful of sites being used on a regular basis.



The Arctic Ternery on the Fladaigh Chuain main island, looking north-west across the Minch to Harris and Lewis. Photo: Ian Buxton

**Storm Petrel**: we have used a playback technique to discover whether Storm Petrels are breeding. We had positive responses in 2015, 2017 and again on 23<sup>rd</sup> June 2019 from the walls of a ruined building on the main island.

**Black Guillemot**: there is a small islet on the north-east of the main island that is cut off at high water. There is normally a small group of up to 40 Black Guillemots in the water around it and breeding was proved in 2013. About 20 were seen there on 7<sup>th</sup> July 2019 but previous known nesting sites were not investigated, to avoid disturbance to nesting Shags.

Shag: there are several accessible geos where Shags breed. Eleven pulli from six broods were ringed on 23<sup>rd</sup> June along with a count of 150 loafing off the southern tip of the main island. Shags were present but not counted on the small islet on the northeast coast of the main island on 7<sup>th</sup> July. The overall impression was of a much better and earlier breeding season than in 2018.

**Common Gull**: a total of 38 adults counted in the air above the colony at one time on 23<sup>rd</sup> June. Eleven chicks were ringed from eight broods and a further two dead chicks found on 23<sup>rd</sup> June.

## **Grant reports**

# Study and Conservation of breeding Seabirds in Rabo-de-junco Islet Sal Island, Cape Verde

# Albert Taxonera & Marcos Hernández, Associação Projeto Biodiversidade (Project Biodiversity)

Cabo Verde (Cape Verde) is a volcanic archipelago of 10 islands and several islets included in the Macaronesia region, over 570 km off the coast of West Africa. The Island of Sal is in the northeast of the archipelago (Figure 1). It is fairly flat with an area of 216 km<sup>2</sup> and its highest point culminates at 408 m. The southern part of the island, where sandy beaches extend, concentrates most of the touristic development, which is the main economic driver of the country, contributing to 25% of the national GDP.

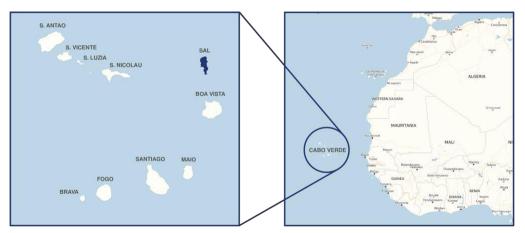


Figure 1: Location of the Cabo Verde archipelago and Sal island as one of its 10 islands.

#### SEABIRD SPECIES OF SAL

Cabo Verde's archipelago is an important nesting site for eight different species of seabirds. From those, three are endemic species from the archipelago, the Cape Verde Petrel (Pterodroma feae), the Cape Verde Shearwater (Calonectris edwardsii) and the Cape Verde Storm-Petrel (Hydrobates jabejabe). There are also two endemic subspecies, the Cape Verde Little Shearwater (Puffinus Iherminieri boydi) and the White-faced Storm-Petrel (Pelagodroma marina eadesorum). The remaining three species, the Redbilled Tropicbird (Phaethon aethereus), Bulwer's Petrel (Bulweria bulwerii) and Brown Booby (Sula leucogaster), have a larger global distribution. Unfortunately, the Frigate Bird (Fregata magnificens) was declared extinct in the country some years ago.

Until recently, practically nothing was known about where and which seabird species nested in the Island of Sal. For this reason, in 2017 Project Biodiversity started a wide survey along the island's coast, partnering with the seabird's ecology group from the University of Barcelona, led by Dr Jacob González-Solís.

Early surveys confirmed the presence of four different breeding species, the Red-billed Tropicbird, the Bulwer's Petrel and the endemic Cape Verde Shearwater and Cape Verde Little Shearwater. Although we found signs of possible breeding activity of the Cabo Verde Storm-Petrel, no nests were ever discovered.

#### FIFID WORK

The surveys showed that one of the hotspots of seabirds in Sal was an islet called Ilhéu Rabo- de-Junco (from Portuguese Red-billed Tropicbird Islet), a small (2.22 ha), unoccupied islet located 270 m offshore from the westernmost point of Sal Island (Figure 2). It reaches a maximum height of 18 m and is practically devoid of vegetation.

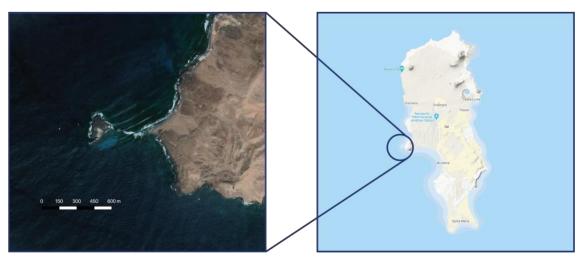


Figure 2 – Close satellite look at Rabo-de-Junco islet (left) and location within Sal Island (right).

Three species were found to breed in the islet, the Red-billed Tropicbird, the Cape Verde Shearwater and Bulwer's Petrel- and we suspected that the Cape Verde Storm-Petrel was also present.

In 2019, with the support of The Seabird Group, a thorough survey started on the Rabo-de- Junco islet, aiming to improve the knowledge of the seabird colonies and their management.

Field work was carried from February to August. It started with occasional visits during the first months and regular visits in the summer period, when the peak of breeding occurs and the weather conditions facilitate the access to the islet. The majority of the visits were made during the day, lasting 4-5 hours approximately. However, in two occasions the visits were made overnight.

During the daytime visits, the Red-billed Tropicbird and the Cape Verde Shearwater nests were revisited, and an exhaustive census of the islet was made to confirm the presence of other species. GPS coordinate positions of new nests and ring numbers from recaptured adults were collected. All the new adults and chicks found were ringed.

Two two-day expeditions were organized to perform night work and target two nocturnal species: the Cape Verde Shearwater and the Bulwer's Petrel. During the first expedition we searched for Bulwer's adults using a call playback method. Due to the islet's geography, it is not feasible to count the number of nests, as in most cases it is difficult to determinate the exact position of nests between the rocks. When the adult birds answered the playback calls, we were able to find and ring them, and in this way we

could estimate the population's size without knowing the total number of nests. During the second expedition we used mist nets to capture and ring adults from both nocturnal species.

#### **RESULTS**

Throughout the months of work in Rabo-de-Junco islet, we worked with the three previously identified species (Red-billed Tropicbird, Bulwer's Petrel and Cape Verde Shearwater), confirmed the presence of the Cape Verde Storm-Petrel and discovered the presence of the Cape Verde Little Shearwater. With these new discoveries, the islet becomes the biggest seabird biodiversity hotspot in Sal Island, and one of the largest in the archipelago. In addition to the five seabird species, the islet also hosts a breeding pair of Osprey (Pandion haliaetus).

During the census, a total of 16 active Cape Verde Shearwater nests were registered. Six adults and eight chicks were ringed at their nests, in addition to 14 adults caught using the mist net during their arrival to and departure from the nest during the night. Another 18 adults were recaptured. A total of six active Red-billed Tropicbird nests of were found, with six new adults and five chicks ringed and two recaptures. One nest of Cape Verde Little Shearwater was recorded on the islet. With only records of half a dozen nests in the north of Sal, finding a breeding pair in the islet was an unexpected result. Only the chick was ringed as the adults had already left the nest. During the surveys we were able to identify five Cape Verde Storm-Petrel nests. Seven adults and one chick were ringed on their nests and using the mist net. A total of 146 adult Bulwer's Petrels were found and ringed using their response to playback and the mist net. Only six adults were recaptured with old rings.

**Project Biodiversity** is a Cabo Verdean organization, based on Sal Island, committed to conserving and restoring the island's unique ecosystems by implementing community-based initiatives. Visit www.projectbiodiversity.org to know more about our initiatives.



## Modelling seabird behaviour

## Virginia Morera-Pujol, Postdoctoral researcher, University of Barcelona

Seabirds have long been used as sentinels for the health of the marine environments since their distributions reflect the distribution of marine resources<sup>1</sup>. In recent years, movements of marine top predators have been used in conservation and management, either for aiding the establishment and delimitation of Marine Protected Areas in regions of biological importance<sup>2</sup>, or to evaluate and manage the impacts of large offshore installations such as windfarms<sup>3</sup> on the marine environment. However, in order to correctly interpret the ways in which marine top predators relate to their environment, we need to understand the environmental and behavioural drivers of their distributions.

Environmental drivers such as sea surface temperature or productivity, and geographical drivers such as distance from the coast or bathymetry are



Cory's Shearwater breeding in the colony of Veneguera (Gran Canaria, Canary Islands). Photo: Raül Ramos.

commonly used to understand seabird distributions. However, behaviours such as transfer of information among individuals can also have an effect on their distribution at sea. When this information is transferred at sea (local enhancement<sup>4</sup>) temporal aggregations of birds occur, regardless of colony of origin and, often, species. If the transfer of information occurs at the colony or roost, as it has been shown for some short-ranging seabird species<sup>5,6,7</sup>, the effects on the at-sea distribution will be colony-specific.

<sup>&</sup>lt;sup>1</sup> Hazen, E. L., B. Abrahms, S. Brodie et al., 2019. Marine top predators as climate and ecosystem sentinels. Frontiers in Ecology and the Environment 17:565–574.

<sup>&</sup>lt;sup>2</sup> Hindell, M. A., R. R. Reisinger, Y. Ropert-Coudert, et al., 2020. Tracking of marine predators to protect Southern Ocean ecosystems. Nature 580:87–92.

<sup>&</sup>lt;sup>3</sup> Lieber, L., W. A. M. Nimmo-Smith, J. J. Waggitt, and L. Kregting. 2019. Localised anthropogenic wake generates a predictable foraging hotspot for top predators. Communications Biology 2:123.

<sup>&</sup>lt;sup>4</sup>Thiebault, A., R. H. E. E. Mullers, P. A. Pistorius, and Y. Tremblay. 2014. Local enhancement in a seabird: reaction distances and foraging consequence of predator aggregations. Behavioral Ecology 25:1302–1310.

<sup>&</sup>lt;sup>5</sup> Weimerskirch, H., S. Bertrand, J. Silva, J. C. et al., 2010. Use of social information in seabirds: Compass rafts indicate the heading of food patches. PLoS ONE

<sup>&</sup>lt;sup>6</sup> Wakefield, E. D., T. W. Bodey, S. Bearhop, J. Blackburn, et al., 2013. Space partitioning without territoriality in gannets. Science 341:68–70.

<sup>&</sup>lt;sup>7</sup> Jones, T. B., S. C. Patrick, J. P. Y. Arnould, et al., 2018. Evidence of sociality in the timing and location of foraging in a colonial seabird. Biology Letters 14:20180214.

The most commonly used method to understand drivers of seabird at-sea distribution are species distributions models (SDMs). Through SDMs, seabird at-sea positions (obtained from tracking data) or counts (obtained from surveys) are aggregated in cells, and then each cell value is related to a set of environmental variables. This method is not appropriate to model relationships between individual birds since it aggregates individual positions as cell counts. It is also not useful to detect behavioural drivers such as information transfer, since these behaviours cannot be expressed as a model predictor.

Spatial point process models aim to analyse the spatial structure in the pattern formed by points in space (in this case the spatial locations of seabirds obtained from tracking data). Since the locations of individuals in space and time are driven by ecological processes, the point pattern may reflect the underlying ecological processes<sup>8</sup>, such as the transfer of information between individuals. However, point process modelling is not a common tool in spatial ecology, in part due to its complexity and its computational cost. The relatively recent development of the Stochastic Partial Differential Equation (SPDE) approach<sup>9</sup> within the Integrated Nested Laplace Approximation<sup>10</sup> (INLA) framework has allowed the efficient fitting of point process models in a computationally efficient and accessible way through the R packages R-INLA<sup>11</sup> and the associated package inlabru<sup>12</sup>.

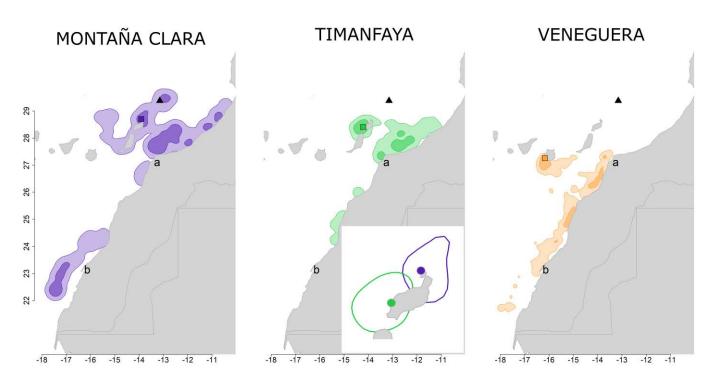


Figure 1: Segregation among the foraging distributions of Cory's shearwaters from three neighbouring colonies. Birds from Montaña Clara (purple) and Timanfaya (green) foraged mainly to the north of the colonies and the Canary Current, while birds from the Veneguera colony (tan) foraged mainly to the south. This segregation was more intense than what would be expected at random. Core areas (darker colours) and home ranges (lighter colours) from the foraging positions of birds breeding in Montaña Clara, Timanfaya and Veneguera. Darker circles mark the location of the corresponding colony. The black triangle marks the location of the Concepcion Seamount. Also shown are the locations of Cape Juby (a) and the Dakhla Penninsula (b). The inset in the middle plot shows a zoom of the overlap between the adjacent core areas of the Montaña Clara and Timanfaya colonies.

From March to June (2018) I used the Seabird Group grant to support a visit to Prof. Janine Illian at CREEM (the Centre for the Research into Ecological and Environmental Modelling) at the University of Saint Andrews (Scotland). There, I learned to develop spatial point process models to model the distribution of Cory's Shearwaters (Calonectris borealis) breeding at three different colonies in the Canary Islands (NW Africa). Data were obtained through GPS tags deployed simultaneously at the three colonies during the 2015 chick rearing season.

<sup>&</sup>lt;sup>8</sup> Illian, J. B., and D. F. R. P. Burslem. 2017. Improving the usability of spatial point process methodology: an interdisciplinary dialogue between statistics and ecology. AStA Advances in Statistical Analysis 101:1–26.

<sup>9</sup> Simpson, D. P., J. B. Illian, F. K. Lindgren et al., 2011. Going off grid: Computationally efficient inference for log-Gaussian Cox processes. Biometrika:1–26.

<sup>&</sup>lt;sup>10</sup> Rue, H., S. Martino, and N. Chopin. 2009. Approximate Bayesian inference for latent Gaussian models by using integrated nested Laplace approximations. Journal of the Royal Statistical Society. Series B: Statistical Methodology 71:319–392.

<sup>&</sup>lt;sup>11</sup> Lindgren, F., and H. Rue. 2015. Bayesian Spatial Modelling with R - INLA. Journal of Statistical Software 63.

<sup>&</sup>lt;sup>12</sup> Bachl, F. E., F. Lindgren, D. L. Borchers, and J. B. Illian. 2019. inlabru: an R package for Bayesian spatial modelling from ecological survey data. Methods in Ecology and Evolution 10:760–766.

We detected more spatial segregation than expected by chance between the foraging distributions of birds of the three colonies (i.e. birds did not use some of the areas that were accessible to them, thus avoiding overlap with birds from different colonies, Figure 1). When we modelled their at-sea foraging locations using Bayesian point pattern models, we found that there were at sea hotspots that could not be explained by the environmental covariates, suggesting that birds form foraging aggregations driven by at-sea transfer of information (local enhancement). In addition, INLA models allowed us to detect a spatial structure in the seabird locations that was different for each colony and was not caused by environmental variables or local enhancement. We propose that this spatial structure is caused by transfer of information happening at the colony as well, which would provide foraging birds with colony-exclusive information on foraging areas, thus generating different spatial structures for each.

To date, only one study has studied information transfer events in long-ranging species such as Procellariiforms, with complex foraging behaviours<sup>13</sup>, using individual based models based on a subset of one-day foraging trips, to detect local enhancement. We hope our study will open a new avenue for studying behavioural drivers of at-sea seabird distribution, not by attempting to replicate the complicated foraging patterns, but studying instead their consequence, i.e. the at-sea distributions of foraging birds.

## Tales from the field in 2020

# Tern colony 'pegged' back on the Skerries

## Viv Booth, Seabird Ecologist, Royal Society for the Protection of Birds

The effects of Covid-19 were felt very strongly on the Skerries, are a group of rocky islets off the coast of Anglesey, north Wales. The islands are managed by the Royal Society for the Protection of Birds (RSPB) working in partnership with Trinity House Lighthouse Service and Natural Resources Wales.

The islands were recolonised by terns in 1980 following historic fluctuations in numbers from 10,000 pairs of Arctic Terns recorded in 1908, to their absence between 1961 and 1979. Since the 1980's the population of Arctic Terns steadily increased until 2016 when an apparent botulism outbreak caused the death of 477 adult and 355 fledgling Arctic and Common Terns. Following this there was a dip in numbers in 2017 but the colony returned to around 3,000 pairs of Arctic Terns and 300 pairs of Common Terns in 2018 and 2019. The island has been recently recolonised by a small number of Roseate Terns and supports about 500 pairs of Puffin, around 900 pairs of Herring Gulls, approximately 200 pairs of Lesser Black-backed Gulls and 25-30 pairs of Great Black-backed Gulls.

Since 1988 RSPB Wardens have arrived on the island in April and stayed until August to protect and monitor the colony, however in 2020 under Covid-19 restrictions the islands were not wardened. It was possible to make only four visits to the site during the breeding season: on 26<sup>th</sup> May the colony appeared close to full strength but on returning on 8<sup>th</sup> June the tern colony was found to be completely abandoned. The most likely explanation would seem to be the arrival of two Peregrines (*Falco peregrinus*) seen perched on the lighthouse. Both appeared to be juveniles, and a search of the island and lighthouse buildings found no evidence of breeding. Although there is some Peregrine activity on the island most years, the birds do not usually roost on



Skerries Lighthouse surrounded by terns. Photo: Viv Booth.

the islands, something which may have changed in the absence of wardens. Numbers of large gulls and Puffins were not monitored but appeared normal.

Beginning in 2013 BTO volunteers supported by RSPB have been colour-marking a small percentage of the nesting terns on the Skerries as part of a Retrapping Adults for Survival (RAS) project, maintaining a population of around 100 colour-flagged Arctic Terns and 50 Common Terns. The leg flags used are orange with a black code for Arctic Terns and yellow with a black code for Common Terns and can be read with binoculars or a telescope. Following a press release and contact with other tern colony managers, news of colour-flagged birds and increased populations at other colonies began to trickle in.

<sup>&</sup>lt;sup>13</sup> Bastos, R., B. Martins, J. A. Cabral et al., 2020. Oceans of stimuli: an individual-based model to assess the role of olfactory cues and local enhancement in seabirds' foraging behaviour. Animal Cognition 23:629–642.

Many of the birds appear to have stayed within North Wales with increases of around 1,000 pairs of terns across a number of sites including Cemlyn Lagoon Nature Reserve, managed by the North Wales Wildlife Trust where at least 17 Skerries-flagged birds have been sighted. A flagged Common Tern from the Skerries has also been seen breeding at RSPB Hodbarrow on the Cumbria coast, while on Dalkey Island in Ireland (managed by BirdWatch Ireland and Dún Laoghaire-Rathdown County Council) a flagged Arctic Tern was recorded by wardens on a trail camera. Although there were no significant increases in numbers at the last two sites this provides evidence that as we might expect, the terns breeding around the Irish Sea are one metapopulation.

Ian Sims, RSPB Cymru North Wales Wetlands Warden, said: 'It was devastating to see the desertion of the Skerries this year, so it's really heartening to know that a large proportion of the terns have been able to use the network of well-managed colonies around the Irish Sea to give themselves a second chance of raising young this season.'

Dr Rachel Taylor, Senior Ecologist for BTO Cymru and one of the bird ringers in charge of the tern colour-marking project, said: "Terns are long-lived, and a single catastrophic year won't be the end of the Skerries story. But a colony is made up of individuals, each making decisions for themselves: these colour-marked birds could give us a real insight into how those individual choices add together into colony behaviour. Where they go this year, and whether they survive to return and breed on the Skerries, are fascinating questions; the answers could help conservation managers keep the UK's tern colonies resilient through future environmental change".

Should you see a colour-ringed or flagged Arctic Tern please contact the BTO project coordinator sg.dodd@yahoo.com or www.ring.ac

## Studying Back-legged Kittiwake adult survival on the East Yorkshire Coast

#### **Imogen Lloyd and David Aitken**

The Flamborough and Filey Coast SPA (F&FC SPA) supports a globally important Kittiwake population with over 50,000 breeding pairs, representing over 1% of the biogeographical population. To monitor the health of this colony, the RSPB's F&FC SPA Seabird Monitoring Programme was established in 2009 using a combination of productivity monitoring, whole colony censusing and study-plot counts. As a red-listed species, Kittiwakes are of primary conservation concern at this site, therefore in addition to the core aims of the monitoring programme, the RSPB set up a colour ringing project at North Landing, Flamborough in 2018 with the aim of establishing a Retrapping Adults for Survival (RAS) project in the future.



Colour ringed adult Kittiwake at the nest. Photo: Imogen Lloyd

A sample size of just over 100 colour-ringed individuals was achieved over the course of the 2018 and 2019 breeding seasons, with each adult bird fitted with a metal BTO ring, a single plain colour ring indicating the year of capture and an alpha or alphanumeric yellow Darvic.

The Covid-19 pandemic meant that many important seabird fieldwork projects were cancelled this season, which was a huge disappointment to those involved. However, living close to the colony and a two-person catching team from the same household put us in the incredibly fortunate position to undertake this fieldwork once restrictions eased, and we were able to complete the third and crucial year of this project. The project was formally registered as a RAS in the spring of this year and missing this year's field season would have meant that the 2018 and 2019 data would not have contributed to the RAS project, which would have been a big blow. It was fantastic to be able to get out and deliver the resighting and colour ringing effort, and a welcome bit of seabird relief from everything that had happened in the last few months. The circumstances in 2020 meant that all the resighting effort was undertaken in the egg incubation and chick-rearing period including during the catching sessions, which was later than in previous years, and resulted in 83% of the total colour-ringed population being resighted.

Catching sessions at our RAS site are restricted to low tides as it can only be accessed by walking out under the cliffs when the reef is exposed, as well as anti-social times of day as North Landing is a popular destination for holiday makers; because of this fieldwork is only undertaken on weekday evenings or mornings. Catching Kittiwakes with a 12 m sectional noose pole up a vertical cliff takes a particular set of skills (as well as the appropriate licenses and endorsements) including balance, precision and most

importantly patience. Fortunately, having worked this part of the colony for a couple of years we had already gained the necessary experience and were able to catch an additional 19 birds over four visits.

The objective is for this long-term project to continue for a minimum of five years, enabling reliable survival estimates to be calculated. It is hoped that with the addition of three more years of resighting effort and additional colour ringing we will start to see the results from all the effort put in so far.

It has been a privilege to support this project over the last three years, gathering important data for Kittiwake conservation. There is nothing more special than being under the cliffs surrounded with the sounds and smells of seabirds, and the addition of beautiful sunsets and auks jumping and landing right next to us has made it even more magical.

We would like to give special thanks to our RSPB Conservation Science colleagues, Lucy Wright and Saskia Wischnewski, the Yorkshire Wildlife Trust, Natural England and Flamborough Bird Observatory, without whom this project would not be possible.

# Rescuing gull GPS data from the Isle of May

#### Gary Clewley, Research Ecologist, British Trust for Ornithology Scotland

During the 2019 breeding season, the BTO began a GPS tracking project on large gulls breeding in the Firth of Forth to better understand how they may interact with proposed offshore wind farm areas. As part of this, we visited the Isle of May to fit 25 Lesser Black-backed Gulls with University of Amsterdam GPS loggers to follow their movements and behaviour over several years.

These devices can provide incredibly detailed information on not only on the precise locations of birds but also on their flight height. However, as they can only transmit the data over a short range to a radio receiver, back in February we were eagerly planning to return to the colony to get the base station system back in place. However, due to the unfolding situation with Covid-19 and lockdown restrictions, we postponed all our fieldwork and were unable to set up the necessary equipment leading to a very uncertain start to the season.

Fortunately, by the middle of June and with close liaison between the BTO's health and safety officers and support from Nature Scot and UK Centre for Ecology & Hydrology seabird team it was possible to safely head out for a short trip to join the reduced number of wardens present. The need to maintain social distancing also led to the usual but more luxurious situation of private charter on a RIB and sole occupancy of the Low Light building thanks to the Isle of May Bird Observatory Trust.

While on the island the feeling was far from summer with heavy fog for most of the time, nevertheless it was with a great sigh of relief when we were able to set up the equipment and begin retrieving the backlog of data being collected from these birds from when they left the colony the previous autumn as well recording the return rate and productivity of birds in the study.



Setting up the base station system on the Isle of May. Photo: Gary Clewley.

The data collected will be primarily used to complete analyses on behalf of the Department for Business, Energy and Industrial Strategy to inform strategic considerations regarding the offshore renewables as well as the consenting process. But the results will also be available for wider topics, especially around human-gull conflicts where it will be interesting to see if the changes in human behaviour during 2020 will have knock on effects to the species which also use human environments.

## A field site recce after lockdown

#### Daniel Johnston, Research Ecologist, British Trust for Ornithology Scotland

Black Guillemots don't exist for me. I am in my car navigating into the bowels of a ferry and meeting the depths agoraphobia which has been swelling for months. Lock-down had finally eased, and the first thing I do is step out of my flat, into my car, and drive to the ferry to Northern Ireland. GPS tagging of Black Guillemots planned for 2020 was cancelled at the start of lockdown, but there is just enough time before the breeding season ends to find some nests and visualise a plan for next year. We intend to



Back in action on Lighthouse Island. Photo: Wesley Smyth.

use tracking data collected as part of the Marine Protected Areas Management and Monitoring (MarPAMM) project, to better understand Black Guillemot habitat use, and inform proposed Marine Protected Areas around Northern Ireland. Although currently I am not thinking about Black Guillemot, there are people everywhere to evade. I find a quiet spot on the deck, close my eyes, and wish I was back home. Living inland in Scotland means my recent seabird sightings had included Cormorants beelining purposefully to the River Forth, or watchful gulls overhead contemplating the streets. But a delight I and many ornithologists missed this summer was watching an auk bringing fish to the nest. On the Stenaline deck, my eyes closed, over the din of the rumbling engines, comes the bawl of a Guillemot fledgling to its father. The risk assessments, logistics, emails, anxious waits, and the rush to the ferry had overshadowed the fact that I was actually at sea. There were seabirds here. Bins bolt to my face. Gannets never looked so giant; Guillemots never sounded so sweet. "Shearwater!" I exclaim to another passenger; they blink and increase their social distance. And there bobbing in Belfast harbour, a Black Guillemot. Finally. From the ferry I head straight to Bangor Marina, a complex of four sea walls containing a colony intently cultivated by the late Julian Greenwood. I interview the harbour master and work my way around the walls looking for the many numbered nest-boxes and drainpipes. Guano and heads peeping from

entrances are the most I can see to find out if someone's home. Through the harbour mouth comes a fluttering parent, something dangles from their beak. "Gadoid!" I exclaim to an evening promenader; they stroll faster. I've found a knack for social distancing.

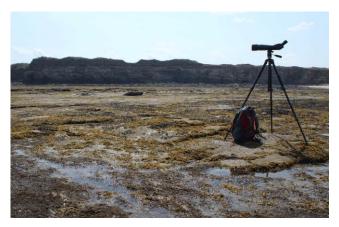
The next morning, I meet the Copeland Island Bird Observatory members and head to Lighthouse Island. I am privileged to get a spot on the boat as the captain now takes fewer passengers to keep us social distanced. Lighthouse Island has an impressive number of nest boxes, and I shadow the members as they ring chicks. I feel under some suspect boulders myself and find that familiar scrambling body and hot guano splash. Even for only the day, it is good to be back. Black Guillemots constantly fly-in with thick butterfish, flatfish, and rich red sculpins. I realise, pleasantly, that while I've been peering out the windows of my flat, the birds have been getting on living. I want to find out where they caught those fish, and I look forward to next year.

Thanks to Liz Humphreys, Katherine Booth Jones, Sam Massimino, David Galbraith, Wesley Smyth and the Copeland Bird Observatory for helping make the recce possible.

This work is part of the MarPAMM project, coordinated by the Agri-Food and Biosciences Institute (AFBI). This project has been supported by the EU's INTERREG VA Programme, managed by the Special EU Programmes Body.

## **Checking the Fulmars**

#### **Daniel Turner**



Coves Haven, Holy Island. Photo: Daniel Turner.

To me the darkest period of the coronavirus lockdown, here at home on Tyneside, was a difficult time. I would be rooted to the radio each day for the (depressing, but magnetic) broadcasts about the latest numbers of those who had died and who were affected by the pandemic. It was good we were given a lifeline, to be able to go out each day for an hour or so, though only really within walking distance of our homes. For many, even this freedom was denied and such people were requested to isolate and not go out at all. Living alone as I do, I found it a lonely experience which engendered low mood. Real liberation returned to my life from the middle of May when we were allowed to stay outside longer and travel further, within reason. Thank goodness! I had earlier written to my MP to ask if it may be possible for me to carry out my normal bird surveys during lockdown, since these may be performed alone.

There was no reply. My MP probably had more pressing matters for attention.

One strand to my surveys was that of the nesting Fulmar at certain locations within the previous border of the county of Northumberland which included North Tyneside. It was so good to be able to return to their habitat at the coast and to search the cliffs for their presence. My main objectives were to discover how many nest sites were occupied and how many nestlings became well developed on their way to fledging. At the time of writing these brief notes (23<sup>th</sup> August 2020) the young will leave the nest over the next fortnight, going out to sea to learn to fend for themselves. Currently I check ten different nesting locations between Tynemouth and Holy Island and most of these surveys are carried out at low tide from the lower shore which is often rocky. It is important not to slip and fall!

Overall, this has been a good summer for the Fulmars at the locations where I check and my 2020 surveys have shown a minimum total of 169-170 apparently occupied nests, resulting in 70 nestlings which were well on their way to fledging. This gives a productivity of 0.41 chicks per nest site.

## From around the world

## Results of the Falkland Islands Seabird Monitoring Programme

## Sarah Crofts, Conservation Officer, Falklands Conservation

The Falkland Islands is a seabird hotspot, surrounded by a rich marine environment, it supports 22 breeding species (including five penguins and one albatross) totalling to over several million individual seabirds.

The Falkland Islands Seabird Monitoring Programme (FISMP), now more than 30 years of age, is carried out each year at some 50 colonies, covering eight seabird species with breeding pairs counted during the peak egg-laying period in November and prefledged chick counts during January.

The information gathered as a result of the FISMP has contributed to the identification of local, regional and global conservation priorities and provides information necessary for IUCN Red Listing assessments. The FISMP provides an important long-term data set on population trends and breeding success, which further contributes to other areas of research. In recent years the programme has embraced the use of monitoring with drones, using remote time-lapse cameras as well as investigating the feasibility of using semi-automated counting software.

Gentoo Penguins (*Pygoscelis papua*) at the Falklands account for the largest global concentrations (130,000 pairs or 34% in 2010) of the species. The long-term trend at the Falklands shows significant fluctuations, with Island-wide censuses detecting rise and falls of between 60,000 to 130,000 pairs on roughly decadal scales. From 2016-2019 the population has been in a notably 'dip phase' following a 30% decrease in breeding numbers since 2015. The reduced numbers, linked to probable food shortages during 2016, showed no signs of recovery in 2019. Chick numbers were highly variable between sites and seasons, with the long-term annual average of 0.94 chicks/pair.

**Southern Rockhopper Penguins** (*Eudyptes c. chrysocome*) at the Falklands also account for the largest global concentrations (320,000 pairs in 2010 or 36%) and with an IUCN status of 'Vulnerable' it remains a priority conservation species. There was very little change in breeding pair numbers between 2016—2019 but remained 28% below the 2015 value. The long-term trend of colonies monitored since 1993 show large-scale fluctuations with the trend currently in a 'dip' phase. In 2019 the average breeding success was 0.47 chicks/pair; this value was below the long-term annual average of 0.63 chicks/pair for the fifth consecutive season.



Southern Rockhopper Penguins.
Photo: Viv Booth.

For both the Gentoo and Southern Rockhopper Penguin the FISMP data suggests that significant numbers of breeding and juvenile individuals were permanently lost to the population following a starvation event, during the moult in March 2016, and corresponding to a strong oceanographic variation (a 'super' El Niño Southern Oscillation).



Black-browed Albatross. Photo: Viv Booth

The Falkland Islands support over a million individual Black-browed Albatrosses (Thalassarche melanophris), the largest global site is at Steeple Jason; monitored by the FISMP. Taking into account annual fluctuations, the overall FISMP trend at Steeple Jason suggests a relatively stable to increasing trend from 2005 to 2019. A recent Island-wide census of Black-browed Albatrosses conducted in 2017 (and soon to be published) also indicated a population increase between 2010 and 2017 at many of the other breeding sites in the Falklands. The overall chick success in 2019 at Steeple Jason was 32% and remained below the annual average (53%).

King Penguins (Aptenodytes patagonicus) are monitored at the Falklands' largest breeding site, Volunteer Point, where roughly 95% of the Falklands' breeding population are found. This population has been monitored annually since the onset of the FISMP, with the first independent

counts having been performed since 1980. The breeding cycle of King Penguins extends over a year and consequently is not synchronised to summer breeding as with the other penguin species, and the chosen unit of measure for King Penguin is prefledged chicks that have survived the winter. Although the Falklands only hold a very small portion of the global population, the long-term monitoring at Volunteer Point shows an overall upward trend in the numbers of chicks surviving each winter, with the largest number of chicks per season (824) recorded in November 2019.

The Falklands' breeding population of **Southern Giant Petrels** (*Macronectes giganteus*) account for 43% (21,000 pairs in 2015) of the global population, with colonies monitored at Steeple Jason. Overall, the FIMSP population trend between 2000 and 2019 showed a steady increase despite intermittent fluctuations. However, an apparent long-term decreasing trend in breeding success at Steeple Jason is of concern for this site. In 2004, the mean breeding success was 59.8% and in 2019 this figure had steadily dropped to reach 7.5%.

Magellanic Penguins (Spheniscus magellanicus) are monitored at one key tourist site close to the Capital, Stanley. Currently, the overall Falklands' population trend is relatively unknown due to the difficulties associated with monitoring this burrowing species that is widespread along much of the Falklands' coastlines. Like the other seabird trends following 2016, the number of occupied burrows at the monitored site dropped from 43% in 2015 to 28% in 2019.

Brown Skua (*Catharacta antarctica*) monitoring was initiated on Steeple Jason in 2016 with counts of Apparently Occupied Territories (AOTs) conducted each January. Numbers of AOTs have been relatively stable at around 220 between 2016 and 2019, with an average productivity (the ratio of eggs/chicks per adult territory) of around 1.4. The species is generally understudied at the Falklands, and other surveys suggest lower reproductive success at sites such as New Island and Sea Lion Island<sup>14</sup>.

Imperial Shag (*Phalacrocorax atriceps albiventer*) are monitored at four colonies; considering this species is widespread across the Falklands, with inconsistent breeding activities, unsurprisingly the numbers of adults on nests of Imperial Shags at the monitored sites continued to be hugely variable over sites and seasons.

FIMSP is led by Falklands Conservation and supported by the numerous landowners that give access to seabird colonies, as well as involving a heap of enthusiastic volunteers helping in the field. The FISMP is made possible with financial support of the Falkland Islands Government.

FIMSP reports can be provided upon request (cso@conservation.org.fk) or available to download from the Falklands Conservation website: https://falklandsconservation.com/downloads.

<sup>&</sup>lt;sup>14</sup> Galimberti, F. and Sanvito, S. 2020. Reproductive success of Falkland skua at Sea Lion Island, Falkland Islands. Elephant Seal Research Group. www.eleseal.org.

## **Peter Hope Jones**

#### Mark Tasker, Mike Harris and Sarah Wanless

Peter Hope Jones, a past Committee member of the Seabird Group, has died aged 85. He played an important role in the revival of the Seabird Group in the late 1970s and early 1980s. His gentle, calm approach to applying science to seabird studies helped lay the foundations for work that continues today.

In the 1960s and 1970s, much work on seabirds was driven by the evident effects of the oil industry on seabirds. Most of the response in those days consisted of attempting to rehabilitate oiled birds and counting the corpses. Peter could see the waste of biological material and devised a system for processing oiled birds (particularly auks) to get their age, sex and biometrics to help trace the source of the dead birds. His MSc thesis looked at the precise plumage-colouration of Guillemots and Razorbills using a standardised colour chart. This was done despite Peter being colour-blind! Peter analysed the corpses of birds from the *Amoco Cadiz* (March 1978), *Christos Bitas* (October 1978) and *Hamilton Trader* (May 1979) oil spills. Later he also looked at the auks from the large seabird wreck on the east coast of Britain in March 1983 and helped co-ordinate the post-mortems following the *Braer* spill in January 1993.



Peter Hope Jones counting birds at sea in 1980. Photo: Peter G.H. Evans

Following wildfowl counting in his youth, time in the Camargue and on Bardsey, Peter became the Nature Conservancy warden protecting terns and Montagu's Harriers at Newborough Warren in Anglesey. He moved to Orkney in 1976 where he set up cliff monitoring plots for seabirds, surveyed and censused seaducks and established year-round beached seabird counts. This was in response to the building of a terminal for North Sea oil in Scapa Flow. Many of these surveys and monitoring counts continue today and have proved invaluable in monitoring and understanding changes in seabird numbers in the wider UK and Ireland.

It was thought obvious that seabirds could be affected by the offshore oil industry at sea, but beside areas off colonies, key areas at sea were not known. Despite some early efforts to determine offshore seabird distribution by others, the results were not available for use. As a consequence, Peter was asked to move to Aberdeen in late 1978 and carry out pilot studies to survey at sea. Following a hiatus caused by the May 1979 general election, the Nature Conservancy Council's Seabirds at Sea Team (SAST) was established in November 1979. The remit was to map the distribution of live seabirds in the North Sea, to help inform the possible impact of oil pollution. This was of course before all the new methods of tracking individual seabirds were available. Relying heavily on the goodwill of oil companies and others, SAST went out on ferries, supply boats, fishery protection and research vessels. The results of these surveys showed where birds congregated, and which areas were most vulnerable to oil spills at different times of year. The team also visited oil and gas platforms to determine which birds were at most immediate risk if incidents occurred around them and in 1979 Peter stayed on a platform for five weeks. This last to respond to claims that gas flaring incinerated birds around the platform (he found no evidence of mass damage).

Peter also took an interest in the results of seawatching – the counting of birds as they passed headlands on the coast. There was (and still is) a great deal of data generated by observers of this passage, but little had been done with this at a widescale level (despite the early years of the Seabird Group having a particular focus on this). Peter devised a relatively simple questionnaire that was sent to as many seawatchers as could be found and the resulting publication remains the only UK and Ireland wide summary of seasonal seabird passage.

Peter was not a deep academic and had a wide range of interests, many focussed on his native Wales, particularly Anglesey and Bardsey. He did not seek the limelight but his diligent and thorough studies laid solid foundations for much of the work on British seabirds that continues today.

# **Seabird Group Notices**

## Research and Census Grants - open call

The Seabird Group's October call for research grants is now open! We will fund grants of up to £500 each for seabird research. The deadline to apply is 31st October. Details about the grants and the application process can be found on the webpage.

Additionally, grants to support seabird census projects for *Seabirds Count*, the UK national seabird census currently underway, are still available from the Seabird Group's census legacy fund. The census grant application form is available from the Seabird Group website and from the Seabird Group secretary (secretary@seabirdgroup.org.uk). So far, successful census grant applications have ranged in amounts from £500 to £2700, although higher amounts may be considered. Census grant applications can be made at any time, there is no time deadline, but please apply as soon as possible, ready for 2021 (the final year of census surveying!). If you have any questions or need information about setting up a seabird census project for Seabirds Count, then please contact the Seabirds Count national coordinator, Daisy Burnell (seabirdscountcoordinator@jncc.gov.uk), or the Seabird Group's national census representative, Will Miles (seabirdcensus@seabirdgroup.org.uk).

## **Update on Seabird 32**

## Viola Ross-Smith, Editor of Seabird

Seabird, the Seabird Group's journal, is a completely free and open access peer-reviewed journal with no subscription fees and no article processing fees, run by volunteers. Our next issue, Seabird 32, has been severely delayed by Covid-19 but authors are currently busy correcting the final proofs of their papers before printing, so expect your copy soon. We apologise for the delays but hope you will enjoy reading the issue. We have also recently established a Working Group, drawn from supporters with a diverse range of backgrounds and experience, who are sharing their ideas on how to effectively steer the journal going forward. Submissions are well under way for *Seabird* 33, so please do consider sending your research manuscripts and short notes to our journal, which we hope will soon emerge stronger and better than ever.

## The Seabird Group Equality, Diversity and Inclusion Statement

The Seabird Group is opposed to all prejudice and is committed to diversity in marine ornithology including, but not limited to, nationality, gender, age, ethnicity, religion, disability, LGBTQIA+ and socio-economic status. We strongly believe diversity is essential for a thriving and innovative scientific community and to advance the science and conservation of seabirds.

We also recognize that discrimination and bias at the individual and institutional levels affect many of our colleagues worldwide. We will seek to use our platforms to support and amplify the science, experiences, and voices of our underrepresented colleagues.

Through our Equality and Diversity Working Group, we will work to actively support and promote the inclusion of under-represented groups in seabird study and conservation. We are working on ways of increasing equality, diversity and inclusion across all our activities.

Suggestions and guidance for the Seabird Group in developing this inclusiveness and accessibility are very welcome. We can be contacted at: secretary@seabirdgroup.org.uk

This statement and these proposed actions were unanimously approved by the Executive Committee of the Seabird Group, 25.07.2020 and will be subject to ongoing review.

## Missing emails?

Please be aware that some emails from the Seabird Group have been going missing in the 'spam' box of some members email accounts. If you are expecting correspondence from us, please check your spam.

## **Seabird Annual General Meeting**

The Seabird Group AGM will occur online this year on the online meeting platform Zoom on Saturday 28<sup>th</sup> November, 1pm (GMT). Instructions about how to join the meeting will be emailed to all members one week before the AGM. You do not have to hold a Zoom account in order to be able to participate in the meeting. We are hoping that having the AGM online will also allow more members to join the meeting.

## UPCOMING POSITIONS ON THE EXECUTIVE COMMITTEE

We have 2 positions opening on the Executive Committee:

- Ordinary member (Social Media Manager)
- Ordinary member (Newsletter Support & Social Media Support)

We are now accepting nominations for these positions, elections will be held during the AGM. If you are at all interested in helping the Seabird Group continue to fulfil its aims, we would be happy to have you on the committee! Nominations will close on 14<sup>th</sup> November 2020.

#### DOCUMENTS FOR THE AGM

All members will be emailed the following documents one week prior to the AGM: the 55<sup>th</sup> Annual Report, the 2019-2020 Accounts & Treasurer's Report, the list of proposed amendments to the constitution, the minutes of the previous AGM, and the nominations to the two positions described above. These documents will also be shared at the beginning of the online AGM via Dropbox.

Please direct any enquiries and nominations to either the Secretary (Annette Fayet, secretary@seabirdgroup.org.uk) or the Chair (Liz Humphreys, chair@seabirdgroup.org.uk). We look forward to seeing you online!

## AGM AGENDA

- Present/Apologies
- 2. Minutes of the 53rd AGM\*
- 3. Matters arising from the minutes
- Proposed amendments to the constitution\*
  - The Executive Committee are proposing to amend the constitution to update and clarify the roles of the ordinary members (Social Media Manager, Newsletter Support & Social Media Support, Early-Career Representative, Census representative) whose roles have changed since the constitution was last amended (2013), and to amend the duration of some of their terms.
  - We also propose to make a small change to the section relating to the membership to reflect our recent move to a new online membership platform.
  - Wording relating to the responsibilities of Executive Committee members being Trustees of the charity also needs to be included.
- 5. The 55th Annual Report\*
  - Research & Census grants summary
  - SEABIRD Journal
  - Newsletter
  - Membership summary
  - Membership payment platform
  - Diversity and Equality working group
  - Teesmill merchandise

- Upcoming website updates
- World Seabird Union Updates
- Progress on the National Seabird Census (SEABIRDS COUNT)
- 6. 2019-20 Accounts and Treasurers Report\*
- 7. Nominations to the Executive Committee
  - Ordinary Member (Social Media Manager) (nominations close 14<sup>th</sup> Nov)
  - Ordinary Member (Newsletter Support & Social Media Support) (nominations close 14<sup>th</sup> Nov)
  - Early-Career Representative (co-opted: Zoe Deakin replacing Beth Clark)
- 8. Discussion about online voting options for members
- 9. AOB

## The 49th Annual Meeting of the Pacific Seabird Group goes virtual, 23-27th February, 2021!

# 2021 Scientific Program Chair: Roberta Swift (programchair@pacificseabirdgroup.org)

Join us from your favourite chair, your happy place, or anywhere in the world! We're excited to bring the online version of the sessions and events you have grown to love over the years:

- 15 contributed sessions
- Special sessions and symposia (TBD! Please submit to programchair@pacificseabirdgroup.org)
- Student mentor mixer (~50 students, 25 mentors)
- Early-career scientist panel (five panellists)
- 12 PSG leadership and species-specific technical committee meetings
- Five working groups, workshops, and agency updates

Scientific Program Chair Roberta Swift is working up another stellar scientific program, with worldwide representation of seabird research innovations, failures, surprises, and challenges across more than 20 countries. Take flight with over 300 colleagues as we share our diverse voices and experiences in the study and conservation of Pacific seabirds. The virtual format provides an exciting opportunity to welcome colleagues who may have been restricted by time and travel costs associated with in-person meetings. We hope you will extend a wing around new colleagues and friends in the PSG flock.



<sup>\*</sup> to be emailed one week before the AGM



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**

Current retirement dates (at AGM) are shown in brackets:

Chairman Liz Humphreys (2023) chair@seabirdgroup.org.uk

Secretary Annette Fayet (2023) secretary@seabirdgroup.org.uk

Treasurer Ian Cleasby (2022) Ian.Cleasby@rspb.org.uk

Membership Secretary Danni Thompson (2022) membership@seabirdgroup.org.uk

Seabird Editor Viola Ross-Smith (2023) journal@seabirdgroup.org.uk

Newsletter Editor Katherine Booth Jones (2022) newsletter@seabirdgroup.org.uk

Website Officer Jeff Stratford (2021) jeff.stratford@pms.ac.uk

**Ordinary Members:** 

Assistant Newsletter Editor Vivienne Booth (2020) Vivienne.Booth@rspb.org.uk

Assistant Membership Sec Zoe Deakin (2022) DeakinZ@cardiff.ac.uk

Seabird Census Will Miles (2023) willtsmiles@hotmail.com

ECR Representative Beth Clark (2022) B.L.Clark@exeter.ac.uk

Social Media Manager - -

Current membership rates						
Standing Order	£20					
Concession	£15					
Institution	£35					
International:	£21					
Life	£300					

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: 15<sup>th</sup> January (February edition); 15<sup>th</sup> May (June edition); and, 15<sup>th</sup> 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.