



The Isles of Scilly Wildlife Trust

Seabird Monitoring & Research Project Isles of Scilly 2020



Manx shearwater chick, Troytown St Agnes 8th Sept 2020

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Summary of Seabird Monitoring and Research 2020

With the unprecedented impact of COVID-19 severely restricting fieldwork options in 2020, only the second half of the planned field season monitoring work was completed. As a result, the main count window for most species was missed and only storm petrel breeding surveys were possible as well as observations of Manx shearwater fledging.

Storm Petrel play-back surveys and breeding success

- Playback survey of the study sites on St Agnes and Gugh recorded 3 and 11 Apparently Occupied Sites respectively (2 & 11 in 2019)
- Playback survey of Burnt Island recorded 20 Apparently Occupied Sites in the boulder beach
- Successful breeding recorded on Gugh - 9 chicks heard cheeping from AOSs (7 in 2019)
- Cat predation was again recorded on St Agnes at the Troytown with 12+ wings found and no playback survey responses or chicks heard at that site
- A Zopnor 'cat repeller' was employed with limited success
- storm petrel nest boxes in St. Agnes dry stone walling checked, no uptake, one removed due to cracking and collapse of the plastic chamber

Manx shearwater fledging records

- Stargazing chicks recorded on St Agnes (no evidence of cat predation at Troytown) and Gugh, 10 and 21 respectively
- Peak fledging period coincided with a full moon and clear skies resulting in a reduced count
- no fledging recorded at sub-colonies with rat presence on Bryher or Peninnis

Other observations and notes from across the archipelago

- Herring gulls: Hugh Town, St. Mary's
 - 19 large chicks recorded from 10 confirmed nests
- Kittiwakes: all sub-colonies
 - 15 fully built nests the east side of Gugh – already failed by first week July
 - Report of 2 pairs on Menawethan – no nests found mid-July
- Common terns: all sub-colonies
 - Reports of common terns (≤ 10 birds) settling on Rosevean – 2 birds seen but no sign of nests or food carrying mid-July
- Lesser black-backed gulls
 - Successful breeding recorded at the Gugh sub-colony with 100+ chicks mid-July
- Puffins
 - Large counts of rafting birds recorded in mid-July (pre-departure gatherings coincided with calm weather and lots of locals boating)
- Greater black-backed gulls
 - A number of potential botulism deaths were recorded on St Mary's in June & July

Population monitoring work on Annet

- Due to logistical/safety concerns, there was no count of seabirds on Annet in 2020

Introduction

The full Special Protection Area (SPA) count conducted in 2015/16 confirmed Scilly as supporting a greater diversity of seabirds than any other site in England, with over 8,000 pairs of 13 species of regularly breeding seabird. The breeding records for Scilly's seabirds comprise one of the best long-term environmental data sets we have for the islands; with regular all-island counts completed since 1970 as well as annual records for breeding numbers on Annet since 2006 and for St Agnes and Gugh since 2012.

Unfortunately, COVID-19 severely restricted the fieldwork it was possible to do in 2020 and there will be an unavoidable gap in the count data for this season. In particular the main breeding survey window was missed for all species other than storm petrel. Also, it was felt that with the extra logistics involved in reaching Annet to conduct surveys, it was not safe to attempt this in the current circumstances. This report then presents the results of a reduced programme of seabird monitoring conducted between July and October 2020, with data collected using standard methods as set out in *The Seabird Monitoring Handbook* (Walsh *et al.* 1995). The work was funded by the Isles of Scilly Wildlife Trust through the Area of Outstanding Natural Beauty programme.

Results

Storm Petrel

(Total Scilly breeding population 2015/16: 1335 prs – 778 of these on Annet)

Playback Survey St Agnes and Gugh

Since the storm petrels' return as a breeding bird to St Agnes & Gugh in 2015 following rat removal, numbers have been increasing, with up to 20 apparently occupied sites estimated from diurnal playback on St Agnes and Gugh. Due to the large amount of suitable breeding habitat over the two islands (including boulder beach and drystone walls, but also cracks and cervices between rocks, earth and vegetation) a sample area was identified in 2016 (see below) and this has been monitored each year subsequently.

Figure 1. Location of confirmed storm petrel breeding and sample areas



In 2020 during playback survey of the sample areas, 1 and 3 replies were recorded from St Agnes and Gugh respectively. Applying the correction factor of 2.86 to account for incubating birds that did not reply this gives an estimated total of 14 Apparently Occupied Sites – the same as recorded in 2019 – see Table 1.

Table 1. Storm petrel breeding numbers St Agnes & Gugh playback survey sample areas

	2000	2006	2013	Rat Removal	2014	2015	2016	2017	2018	2019	2020
St Agnes	0	0	0		0	6	9	11	8	2	3
Gugh	0	0	0		0	2	4	5	11	11	11
Total	0	0	0		0	8	13	16	19	14	14

Cat Predation

Through July and August 2019, the remains of up to 40 predated storm petrel adults were found at a discrete site near the Troytown maze on St Agnes. Subsequent camera trap footage recorded a tabby cat without a collar actively hunting and eating the birds. On my first two visits to the site in early July 2020 I found more dismembered wings (representing minimum 6 birds) and local Seabird Volunteer John Peacock reported wings were also recorded on two occasions in June. A camera was deployed at the site as well as a 'Zopnor cat scarer'



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This item is solar powered and, when the infrared sensor is triggered, it emits an irregular ultrasonic frequency, 19.5 – 24.5 KHZ designed to repel cats (and other mammalian predators). Unfortunately, this did not seem to have a significant effect on the cat and it was recorded hunting again at the site on the nights of 11th & 12th July and 8th August, with the scarer in place and working. No wings were found after 16th July, but it is likely that all the birds had been eaten by this point and no replies were elicited during playback survey of the site in 2020.

I also found 3 wings out at Burnt Island and recorded a minimum of 20 Apparently Occupied Sites here using playback in early July 2020. This island is connected by a rocky causeway to St Agnes at low tide and I was concerned that this further sub-colony site could be within the hunting cat's range. Although research suggests that a cautious cat may only venture 10 metres from their cat flap, the average roaming distance in urban areas is 40-200 metres from home. Farm cats can travel up to a kilometre

away to hunt, with males sometimes roaming three times further (www.purina.co.uk), so a camera was deployed on Burnt Island from 9th July to 18th September. Happily, no cat hunting or further wings were recorded. In fact, on the 24th August, footage of an early storm petrel fledgling taking its first tentative flight was recorded (see below).

Breeding success

Storm petrel chicks do not stargaze like shearwater fledglings, but they do call noisily from their burrows towards the end of their fledgling period, allowing confirmation of successful breeding. Fledglings have been heard cheeping and whistling from beneath the rocks on calm dark nights each year in late August and through September since 2015, and in 2020 a total of 9 chicks were heard (all on Gugh).

Table 2. Storm petrel chicks heard cheeping St Agnes & Gugh

	2013	Rat Removal	2014	2015	2016	2017	2018	2019	2020
St Agnes	0		0	2	2	2	2	2	0
Gugh	0		0	2	4	3	2	5	9
Total	0		0	4	6	5	4	7	9



Storm petrel chick recorded on Burnt Island remote camera 24th August 2020

Manx Shearwater

(Total Scilly breeding population 2015: 523 prs – 229 of these on Annet)

Fledging Records St Agnes & Gugh

With fieldwork not starting until after the peak of incubation and recommended playback survey dates for Manx shearwaters (late May to early June), it was not possible to get an estimate of the number of Apparently Occupied Burrows at any breeding sites in 2020. It was still possible though to record the number of 'stargazing' chicks encountered later in the season to get an indication of breeding success.

In 2020, evening checks between August and late-September recorded 31 'star-gazing chicks' across St Agnes and Gugh. This is significantly lower than in previous years – see Table 3 below. On initial investigation this looks like a worrying result. However, on closer inspection it would appear to be a result of a limitation in the current method of inferring fledging success from the number of chicks found on the surface at night.

'Stargazing' behaviour, where in the last 10 days or so before fledging the young chicks venture outside their burrow entrances to stretch their wings and explore for a few hours after darkness falls, is very much dependent on the amount of ambient light (Brooke 1990). Dark nights with thick cloud and/ or fog are ideal and result in the highest counts. Conversely when the moon is bright and skies clear, chicks rarely venture out, as the relative light can be enough to allow nocturnal gull predation. When 'bright' nights coincide with the 'stargazing' and fledging window for the shearwater chicks it appears that they do not spend much time at all outside the burrow and are more likely to leave directly from the burrow to the water (G. Morgan *pers. comm.*)

In the previous few years, although there have been plenty of bright nights during the shearwater fledging period, there have been a good number of dark ones too (with a minimum of 10 'survey nights' completed each season). However, in 2020 the peak fledging period (late August/ early September) coincided with a full moon and a long string of clear skies. As a result, a reduced number of chicks were encountered. This is supported further by discussions with Greg Morgan, Warden on Ramsey Island, who reports in 2020 that although his chick ringing totals were well down on the usual numbers, the shearwater breeding success, recorded from study burrows with direct access, was no lower than average.

Table 3. Totals of 'Stargazing' Manx shearwater chicks St Agnes & Gugh

	2013	Rat Removal	2014	2015	2016	2017	2018	2019	2020
St Agnes	0		3	6	4	10	16	13	10
Gugh	0		7	22	28	33	32	32	21
Total	0		10	28	32	43	48	45	31

Fledging Records St Mary's & Bryher

In 2015/16 the total number of Manx shearwaters breeding across the isles of Scilly was estimated at 523 pairs, with many of these birds attempting to breed at sites with continued rat presence. A number of evening checks were made in August and September 2020 at two such sites; Peninnis, St Marys and Shipman Head Down on Bryher. As in previous years, no fledglings were recorded with a number of nocturnally active rats being sighted in and around the burrows at Shipman Head. At Peninnis too, no star-gazing chicks were recorded and it seems likely that these populations are being maintained at a low level only by immigration either from other rat free islands in Scilly or further afield.

Recommendations

- Inform the AONB Management Plan on the status of seabirds in Scilly & embed seabird conservation in the Plan
- Raise awareness across the islands and further afield of the importance and changing fortunes of Scilly's Seabird Heritage.
 - Technical Reports and Seabird Strategy available online
 - Publish articles in IOSBG Annual Review & Scilly Now and Then
 - Work with IOSWT Communications Team to schedule regular Social Media posts and online presentations
 - Plan a community event/ engagement with St Agnes Seabird Volunteers and wider community
 - Review of economic factors around seabird assemblage in Scilly.
- Annual Seabird Technical Meeting to review progress against Seabird Strategy recommendations – last meeting September 2018
- Review of historical vegetation control and management in Scilly (particularly Samson, St. Helen's, Tean, Norwethel, Eastern Isles and Annet).
- Invasive Mammalian Predator impacts
 - Identify the cat predating storm petrels on St Agnes and work with the owners and the wider community to find a solution
 - Keep up the pressure for rat removal future islands – still the biggest most impactful thing we can do for seabirds in Scilly
 - St. Agnes & Gugh – highest priority vigilance and awareness to guard against re-incursion.
 - Islands currently highest priority but believed to be rat free and unlikely to suffer incursion - Western & Norrard Rocks, Annet and Round Island – maintain vigilance.
- Conduct a Methodology Review to include the use of drones and fixed cameras, ringing, 'stargazer' counts and response rates to playback survey
- Raise awareness and where necessary manage any negative disturbance impacts
 - Raise awareness of the restricted island access system and of the potential impacts of disturbance.
 - Use disturbance reporting mechanisms of Cornwall Marine and Coastal Code Group and encourage marine recreational businesses in Scilly to join Cornwall Outdoor Charter Group and to follow WiSe guidelines.
 - Continuation of IOSWT programme to help direct activity on uninhabited off-islands away from sensitive areas using selective path clearance.
 - Erect disturbance signs (asking people not to linger and to keep dogs on a lead) at the tern nesting site on Samson and also at the main shearwater nesting sites particularly on Gugh.
 - Conduct a sensitivity mapping exercise and questionnaire to help identify where the most sensitive locations are within the islands and their overlap (both temporal and spatial) with local and visitor activities.

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References

Brooke M (1990) The Manx shearwater. Poyser, London.

Walsh PM, Halley DJ, Harris MP, del Nevo A, Sim IMW & Tasker MC (1995) *Seabird monitoring handbook for Britain and Ireland*. JNCC/ RSPB/ ITE/ Seabird Group, Peterborough.