



Alderney's West Coast and Burhou Islands Ramsar Site (and Other Sites) Annual Review 2024

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Executive Summary

1. The Alderney's West Coast and Burhou Islands Ramsar Site (and Other Sites) Annual Review 2024 document reviews the work carried out in 2024. This document is a summary of this information and is not a full documentation of all the works which were carried out by the activity organisations which are the Alderney Animal Welfare Society (AAWS) and Alderney Wildlife Trust (AWT).
2. The Ramsar seabird monitoring programme carried out by AWT with assistance from AAWS revealed upward trends in populations of Atlantic puffin, although productivity was lower than in previous years.
3. Northern gannet productivity was in line with previous years at 0.47 +/- 0.054. A total of 12 gannet entanglements were recorded on Les Etacs in 2024, lower than in 2023 when 28 were recorded. A drone census was completed, however, data from this is still being processed by Oxford Brooks University.
4. The population of northern fulmar shows a positive trend since 2007. Productivity was 0.37, which is slightly higher than in 2023, but it has remained stable since 2017 when detailed recording began.
5. Common tern successfully nested for the first time since 2022, on Fort Houmet Herbe. Detailed monitoring could not be conducted, but in total nine AOTs were recorded, of which two failed at egg stage, two at chick stage and two fledged a total of three chicks. Rodent control was conducted by the SoA's Public Works.
6. Seven pairs of ringed plover nested on Alderney in 2024, the same as in 2023. Of 14 nesting attempts, two successfully fledged chicks. Detailed monitoring found that herring gulls, humans and crows were the most common causes of disturbance.
7. Other seabirds: The number of European shags nesting decreased dramatically by 70% in 2024, potentially as a result of storms, whilst great cormorant numbers remained stable. Fewer herring gulls nested in 2024, however this does not constitute a significant decline since 2019. There was a significant decline in lesser black-backed gulls, whilst great black-backed gull numbers remained stable. Guillemot numbers remained stable, whilst razorbills could not be monitored due to resources.
8. Wetland bird surveys (WeBs) found that the most observed species in Clonque and Platte Saline were oystercatcher, herring gull, ringed plover, and black headed gull. Peak counts for these species were between November, February, October, and September respectively. A trial census of oystercatcher in Clonque found 16 pairs. A review of Manx Shearwater

monitoring methods proposes passive acoustic monitoring for this elusive seabird on Burhou in 2025.

9. There was one live stranding of an oiled guillemot in 2024, which was treated and released successfully by AAWS. No seabirds tested positive for avian influenza in 2024.
10. Seabird ringing work was carried out, but the ABO and CIBRS have elected to remove themselves from the Alderney Ramsar Process and have not provided any information for this review.
11. Biosecurity monitoring took place on Burhou and Coque Lihou by AWT, and no rodent incursions were detected on either island. Rodent control took place on Houmet Herbe using toxic bait by SoA public works.
12. Bat surveys on Burhou carried out by AWT detected three species of bat (grey long-eared bat, common pipistrelle and Kuhl's pipistrelle). No recordings of invertebrates or small mammals were detected.
13. The AWT's marine programme was very successful. Highlights included phase I surveys on Clonque bay, green ormer surveys with 148 individual ormer recorded, and 14 recaptures, coastal erosion surveys, intertidal crab surveys with 277 crabs of nine species recorded, Seasearch dive surveys and Shoresearch surveys with 131 species recorded. Marine invasive and non-native species (INNS) surveys, education, and management were also conducted.
14. Grey seal surveys were conducted by AWT with assistance from AAWS. Two surveys were conducted with 35 and 64 recorded in May and October respectively. Two land-based cetacean surveys were also conducted on Alderney's south coast. One healthy grey seal pup was monitored until it left on Longis Beach by AAWS British Divers Marine Life Rescue (BDMLR) medics.
15. Ten Marine Conservation Society beach cleans were conducted by AWT and volunteers in 2024. Clonque bay comprised of the highest number of litter items (544), and the heaviest (91.5 kg) compared with other areas within the Ramsar Site.
16. The education and outreach programme featured a number of community events including beach cleans, marine life rescue talks with AAWS and AWT, seashore foraging waks and marine tank sessions. A number of citizen science activities were run by AWT including ormer, crab, coastal erosion and shoresearch surveys. These events have helped to educate members of the public about the Ramsar site marine life and have been successful in engaging young people.

17. Final drafts of new Ramsar information signage was presented to Stakeholders in 2024. In addition, the Harbour Office produced a new sign for Burhou, and sensitive wildlife signage was deployed at nesting areas.
18. Puffincam and Gannetcam streamed to the public in 2024. Highlights included recording of Grey Seals on Burhou in spring of 2024. Over 150,000 people viewed the social media accounts which host the webcams.
19. Boat tours were provided to the public in 2024. This included free educational tours for Year 6 students of St Anne's School.
20. The Puffin Friendly Zone was added to admiralty charts in 2024, increasing recognition for this important protected area. In addition to this, the code of conduct for Burhou was updated. This is provided to individuals which visit the island
21. The Alderney Ramsar Advisory Group provided a report to the SoA's GSC responding to complaints regarding management of Alderney's Ramsar Site raised by the ABO and CIBRS. The GSC accepted this report, which is published on the States of Alderney Website. In addition to this, the Alderney Ramsar Secretariat updated the Alderney Ramsar Information sheet with the UK Government and provided input to the UK's national reporting on Ramsar. Alderney Ramsar documentation is now available on the SoA's website as well as the Channel Islands Ramsar Website.
22. Links with other Channel Islands were maintained by the Alderney Ramsar Secretariat through attendance of conferences and regular meetings with the managers of Ramsar Sites in Jersey and Guernsey.
23. An Alderney Ramsar Stakeholder forum was hosted in 2024, convened by the Harbour Master and attended by a wide range of stakeholders including representatives from the Alderney Society, Alderney Wildlife Trust, Alderney Bird Observatory, and Alderney Animal Welfare Society among others.

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List of Acronyms and Abbreviations

AAWS – Alderney Animal Welfare Society
ABO – Alderney Bird Observatory
AOB – Apparently Occupied Burrow
AON – Apparently Occupied Nest
AOS – Apparently Occupied Site
AOT – Apparently Occupied Territory
ARAG – Alderney Ramsar Advisory Group
ARS4 – Fourth Alderney Ramsar Strategy
AVPN – Advanced Practitioner (small mammal and herpetology)
AWT – Alderney Wildlife Trust
BDCC – Building and Development Control Committee
BDMLR – British Divers Marine Life Rescue
CIBRS – Channel Islands Bird Ringing Scheme
DEFRA – Department for Environment, Food and Rural Affairs
GLM – Generalised Linear Model
GSC – General Services Committee
HPAI – Highly Pathogenic Avian Influenza
IIEP – Inter-Islands Environment Meeting
INNS – Invasive Non-Native Species
JNCC – Joint Nature Conservation Commission
MCS – Marine Conservation Society
PMNHS – Porcupine Marine Natural History Society
RSPB – Royal Society for the Protection of Birds
RSWT – Royal Society of Wildlife Trusts
RVN – Registered Veterinary Nurse
SoA – States of Alderney
SWD – States Works Department
TAG – Track-a-Gannet
WeBs – Wetland Bird Survey

Introduction

The document reviews the work objectives carried out in 2024 as detailed in the 2024 Ramsar Action Plan.

Information has been provided by the activity organisations which carry out the work on the Alderney West Coast and Burhou Islands Ramsar Site. This includes Alderney Wildlife Trust (AWT) and the Alderney Animal Welfare Society (AAWS). This document has been compiled by the Alderney Ramsar Secretariat, on behalf of the States of Alderney (SoA)). The Ramsar programme is overseen by the SoA, and is reviewed annually by their General Services Committee (GSC).

Background

Description

On 25th August 2005, the Alderney West Coast and Burhou Islands Ramsar Site was designated and gained global recognition as a wetland of international importance under the [Ramsar Convention](#) (*Ramsar Convention*, 1971) being the first of its kind within the Bailiwick of Guernsey. The site covers over 1,500 hectares of land and sea (Figure 1.).

The Ramsar Site comprises the western coast of Alderney and adjacent shallow waters and islets in the strongly tidal, high-energy system of the northern Channel Islands. It contains diverse and inter-related ecosystems, notably rocky shore, sea cliffs and islets, tide swept habitats, kelp forest and coastal grassland.

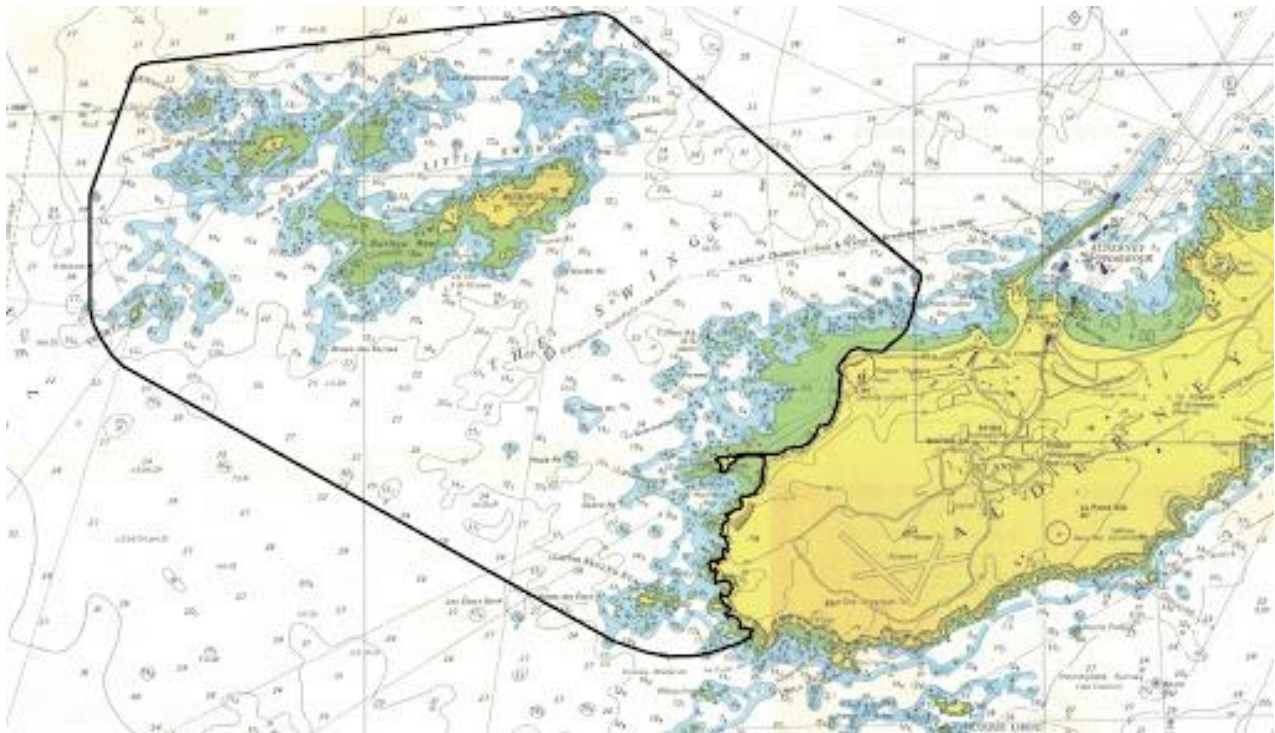


Figure 1. A map of the Alderney West Coast and Burhou Islands Ramsar Site.

Designation

The site was originally designated under five criteria which highlight its international importance. These included: 1, 3, 4, 6, 7. An additional three criteria are included in the 2024 updated Ramsar Information Sheet (Criteria 2, 5, 8). The criteria include:

- (Criterion 1) Representative, rare, or unique natural or near-natural wetland types
- (Criterion 2) Rare species and threatened ecological communities
- (Criterion 3) Biological Diversity
- (Criterion 4) Support for species at critical stages of their life cycles and during adverse conditions
- (Criterion 5) Over 20,000 waterbirds
- (Criterion 6) Supports 1% of the individuals in a population of a species of waterbird
- (Criterion 7) Significant and representative fish
- (Criterion 8) Fish spawning and nursery grounds

In 2019, the GSC approved the updating of the current 2017-2021 Ramsar Management Strategy's title to include 'and other sites.' enabling the site's five-year and annual management plans and review documents to include specific habitats and species which may occur outside of the defined Ramsar Site but have a degree of interdependence with the site.

It also has also ensured that monitoring and conservation measures are properly documented and reviewed by the SoA and ensures a wider view is taken of species information and conservation measures which protect species and habitats within the Ramsar site. Locations will be clearly detailed within the annual action plans and reports to ensure it is clear if a work item occurs inside or outside of the defined Ramsar site.

Examples of these include ringed plover, which breed both within the Ramsar Site, such as at Clonque or the west of Platte Saline, and outside of the site such as at Saye bay. Other examples include European shag, in which a portion of the population breeds outside of the Ramsar site.

Management Process

The Alderney Ramsar Site is managed through multi-year strategies with annual reviews and action plans.

Work on the site is carried out by The Activity Organisations

They carry out work set out in annual action plans. They may draw on funding to cover cost of work - not staff time. They submit reports and proposals to the Alderney Ramsar Secretariat.

Administration is carried out by the Alderney Ramsar Secretariat

As a pro-bono role under the States of Alderney they compile reports into Annual Reviews, and proposals into annual Action Plans for the States of Alderney, and provides administrative support for the site and the States of Alderney.

Scientific Advice and Review is carried out by The Alderney Ramsar Advisory Group

They review proposals for new work and provide feedback on the Annual Reviews. The ARAG is made from scientific experts who are independent from the site's stakeholders.

Feedback and suggestions are given at the Alderney Ramsar Stakeholder Forum

Groups and individuals who interact with the site, both commercially such as charter boats, and non-commercially such as local sea anglers.

Funding is provided through a recovery of costs budget overseen by the SoA

This budget can be accessed by organisations carrying out activities described in the action plans. They can only recover costs and not staff time. Funding breakdowns are provided in Appendix 2.

Final decisions are made by the States of Alderney's General Services Committee.

They review final reports, proposals and action plans, and approve use of the recovery of cost budget and licences where required for work.

4. Review of 2024 Activities

4.1 Seabirds and Waterbirds

4.1.1 Atlantic Puffin Monitoring

Contributors – Alderney Wildlife Trust and Alderney Animal Welfare Society

Inside Ramsar Site

Alderney’s Atlantic puffin (*Fratercula arctica*) population is at the edge of the species’ breeding range and is the largest colony remaining in the Channel Islands, making it an ecologically important population. Over the years, disturbance, oil spills, disease outbreaks, habitat destruction, predation and potentially poor prey availability have caused dramatic declines from a historic estimated population of 50,000 pairs in the 1940s (Sanders, 2007) to just 127 apparently occupied burrows (AOB) recorded in 2006. Alderney’s puffin population went through a further decline between 2014-2017, to just 93 AOB, caused by seabird wrecks in 2014 (Copping, 2018). Despite these declines, productivity has been in line with UK averages (Horswill & Robinson, 2015).

Demographic data, including population size and productivity, as well as predation and kleptoparasitism, were monitored in 2024 using PuffinCam, boat surveys and a post-season visit to Burhou to conduct an AOB census, which was verified using footage recorded from PuffinCam.

4.1.1.1 Productivity monitoring through PuffinCam

Productivity was monitored using footage from PuffinCam (Section 4.4.1), following the same method as in previous years (Purdie et al., 2024). 171.25 hours of footage were reviewed covering six areas of Burhou in 2024.

In total, 70 active burrows were recorded on PuffinCam across six burrow plots in the early season (March-May). However, one plot (AOB6, Figure 2.) was too far from the camera to confidently record fish returns in the late season and so this plot was removed from the productivity analysis. This resulted in 42 active burrows being monitored for fish returns across five plots in the late season (May – July).

Fish returns were recorded at 14 of these 42 active burrows. This gives a weighted mean (which accounts for the different number of burrows in each plot) productivity of 0.333 ± 0.254 in 2024 (Table 1.).

Table 1. Productivity of Burhou’s Atlantic puffin population from 2005 to 2024.

Year	2005	2006	2007	2008	2010	2011	2014	2015	2018	2019	2020	2021	2022	2024
Productivity	0.64	0.61	0.63	0.65	0.66	0.66	0.36 - 0.60	0.71	0.53 - 0.94	0.60 - 0.88	0.63	0.65	0.5 ± 0.132	0.333± 0.254



Figure 2. Each puffin AOB survey plot as viewed from PuffinCam in 2024. Burrows in plot AOB6 were excluded from productivity analysis due to being too far from the camera to confidently record fish returns.

Productivity this year is the lowest since 2014 during the seabird wreck. This is concerning, and detailed monitoring should continue to determine whether it is an outlier or a downward trend. It should be noted that there is a high uncertainty in the productivity figure (standard error = 0.256) due to low sample size and large variations in the proportion of successful burrows between plots.

There is concern that the current method of monitoring fish returns is inefficient. In the current method, the camera viewpoint shifts to a randomly selected plot hourly. Because the camera does not observe a single area for a long period of time, a very high number of watches are required to detect all burrows with fish returns. In future, it is suggested that a more efficient method involving continuous long (e.g. 16 hour) watches of each plot is developed and tested alongside the current method. If this method is effective, it may replace the current method in future years. This more efficient method may then enable us to increase the sample size without increasing effort, thereby increasing the precision and accuracy of productivity estimates in future.

If low productivity continues in 2025, conservation action should be considered in 2026 to protect this small but important population.

4.1.1.2 Population Assessment through raft count and AOB survey

Raft counts

In 2024, 21 early season (March-May) raft counts were conducted using the PuffinCam and in person from Sula of Braye, with a maximum of 175 individuals recorded on 01/05/2024 (Figure 3.). These early season raft counts indicate a minimum breeding population estimate of 175 pairs as during this time one partner will be inside the burrow incubating the egg whilst the other will be rafting at sea (Wieckowski and Ferrar 2016).

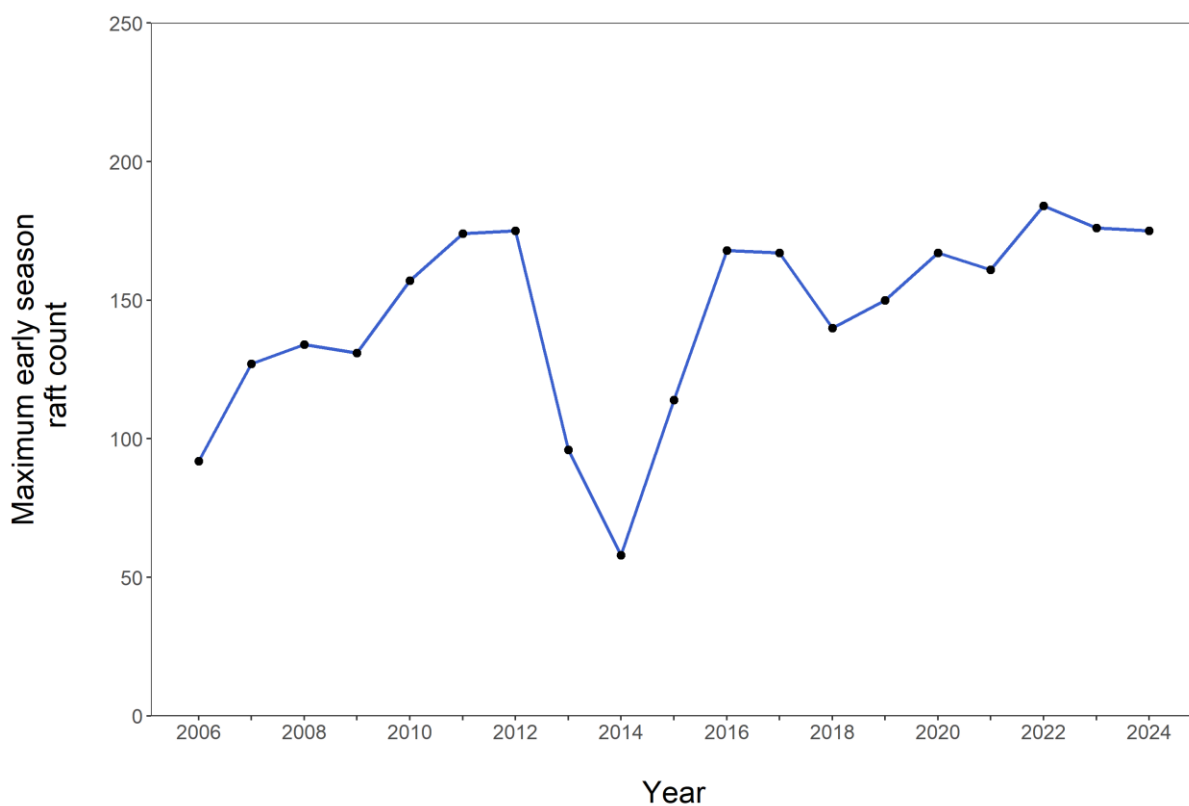


Figure 3. Atlantic puffin population data from maximum early season raft count surveys on within the Puffin Friendly Zone on Burhou. Raft counts were recorded using live and recorded footage from PuffinCam and from boat trips on Sula.

During the late season (June-July), three raft counts were conducted from Sula only. A maximum count of 220 individuals was recorded on 12/07/2024. This maximum count is slightly higher than in 2023 (176), 2022 (184) and 2021 (207). A minimum of ten late-season raft counts should be aimed for in 2025 to give a more accurate representation of any trend in recruitment.

Validation of AOB Survey

The 2024 post-season AOB (apparently occupied burrow) survey was conducted on 01/08/2024. Prior to the survey, PuffinCam was observed for 12 hours of continuous recording and no puffins were observed. AWT ecologists were accompanied to Burhou by an Alderney Animal Welfare Society Registered Veterinary Nurse to ensure high standards of animal welfare were always maintained.

In 2024, the recall and precision of the survey were validated by comparing the burrows known to be active through monitoring with PuffinCam with those identified as confidently active (two or more signs of occupation), and potentially active (one sign of occupation) in person on Burhou. The reliability of the AOB survey was estimated by calculating the F-1 score (the harmonic mean of precision and recall), giving the reliability of the AOB survey to correctly identify all active AOBs. F-1 scores range from 0 to 1, with higher values indicating increased reliability.

Using only confident AOBs, the survey had an F-1 score of 0.531, whilst using potential AOBs gave an F-1 score of 0.767. The confident survey recorded 87 AOBs, and the potential survey recorded 330 AOBs. This maximum total of 330 is shown on Figure 3. because the F-1 score for the AOB survey shows that using one sign of occupation gave a more reliable representation of the actual number of AOBs for the survey in 2024.

AOB Survey Results

Using only burrows confidently marked as active would imply there has been a decline in the number of AOBs, however, the validation shows that the potential AOB survey was more reliable at detecting occupied burrows (F-1 score = 0.767 compared to 0.531 for confident AOB survey), and the potential AOB survey gives an increased puffin population (Poisson GLM, Number of AOBs ~ Year, $X^2 = 102.22$, $P < 0.001$, Figure 4.).

During the survey, the AAWS RVN present recorded one deceased puffling found in the entrance to a burrow, and one found on open ground in the southern burrow area which was euthanized due to poor welfare. This was reported to the States Veterinary Officer at the time.

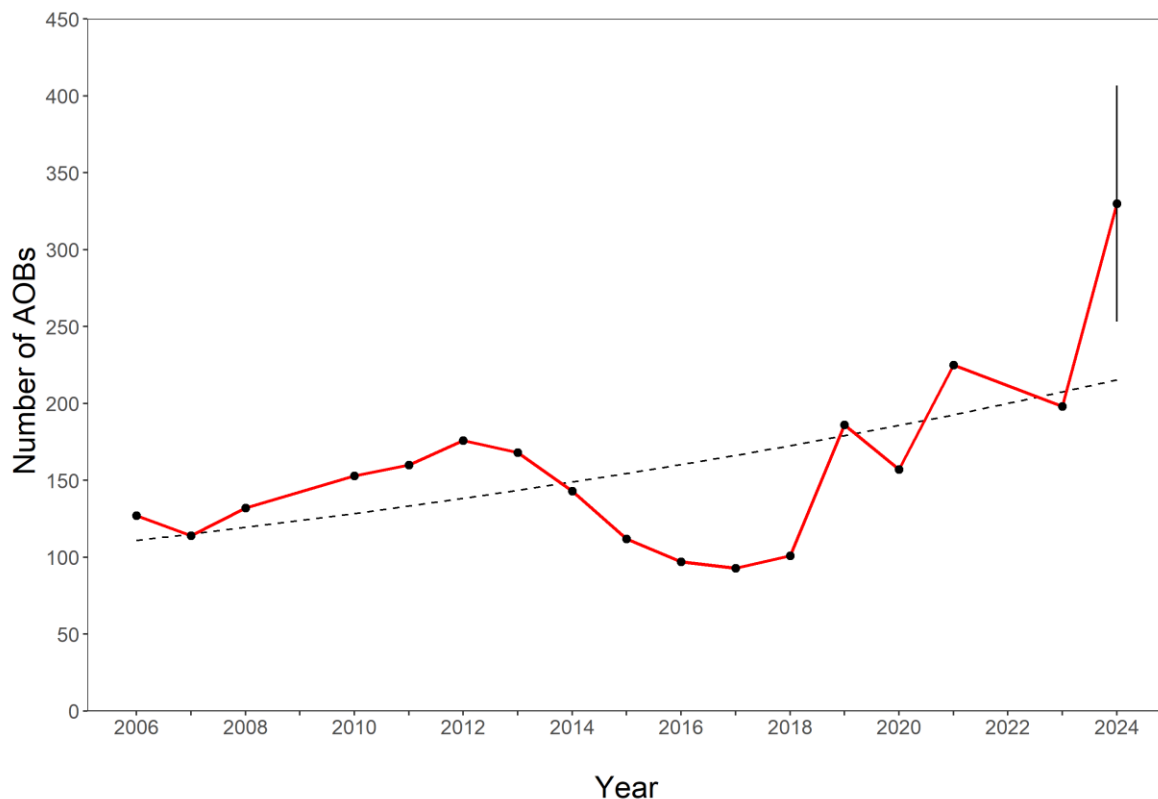


Figure 4. The number of Atlantic puffin AOBs recorded on Burhou since 2006. Dashed trendline shows Poisson GLM (Number of AOBs ~ Year, $X^2 = 102.22$, $P < 0.05 \times 10^{-15}$). NB two signs of occupation were required to mark a burrow as active in 2023, and prior to this there was no standard limit on the number of signs required to mark a burrow as active.

The reliability of the AOB survey may depend on external factors including weather, vegetation growth and observer bias, as a result, there may be interannual variability in the reliability of the survey and the burrows scored as potentially active or confidently active. For example, in 2023, the number of burrows identified as potentially active (one sign of occupation) was, at the time, deemed a likely overestimate (629 AOBs) due to environmental conditions (e.g. dry weather) resulting in many burrows having no vegetation around the entrance, and the confident AOB count was recorded as the official AOB count. Without validation from 2023, it is impossible to be sure if this was the case. To accurately represent the number of AOBs on Burhou going forward, this validation should be replicated annually as part of the AOB survey. It is recommended that this should be reviewed after three years (in 2027) in case there is more interannual consistency than expected.

4.1.1.3 Kleptoparasitism, Avian Interactions and Predation monitoring through PuffinCam

Over 171.25 hours of footage review, only five interactions between puffins and gulls were observed. Lesser black-backed gulls were recorded attacking puffins entering and exiting two burrows in the early season on two occasions, once in April and once in May. Neither of these burrows were successful.

In 2024, great black-backed gulls were recorded kleptoparasitising fish from puffins returning to two burrows on two occasions in June. One successful predation event was recorded on PuffinCam on 08/06/2024 during which a great black-backed gull attacked and killed a puffin at the entrance of a burrow. Later in the year, fish returns were seen at the same burrow, so it was marked as successful. It is possible that the predated puffin was not from that burrow, or the burrow entrance contained more than one pair.

A great black-backed gull was also recorded foraging a dead puffin on the rocks inside the Puffin Friendly Zone during a boat trip on Sula.

Despite the low number of predator interactions recorded, any predation event is still of importance given the small size of the puffin population on Burhou.

Recommendations

1. *Continue to conduct remote observations to record:*
 - a. *Productivity*
2. *Kleptoparasitism and predation*
 - a. *Raft counts (early season and late season, at minimum 20 for each)*
3. *Continue to conduct raft counts opportunistically by boat, providing additional data at no extra resource cost.*
4. *Trial an additional method of monitoring fish returns by using PuffinCam to observe selected productivity plots continuously for two 16-hour periods (dawn to dusk) in the late season. Do this alongside the current method to compare results.*
5. *Improve ability to fix remote cameras through acquisition of strategic spares and seeking approval for fixing the camera prior to the survey season.*
6. *Repeat validation of post-season AOB survey as in 2024, review after three years (in 2027).*

4.1.2 Northern Gannet Monitoring

Contributors – Alderney Wildlife Trust

Inside Ramsar Site

The northern gannet (*Morus bassanus*) colonies of Les Etacs and Ortac were designating features for the Ramsar site, making up around 2% of the world's northern gannet population (Purdie et al., 2022). However, there is increasing pressure on this species from threats such as declining prey abundance (Bot et al., 2019; d'Entremont et al., 2021), offshore wind development (Peschko et al. 2021), plastic pollution (Purdie et al., 2022, 2023), bycatch (Calado et al., 2021), changes in fisheries practices (Votier et al., 2013) and acute threats such as oil pollution events (Champoux et al., 2020; Haney et al., 2014) and disease outbreaks (Lane et al., 2023). The few years before the decline in 2022 due to Highly Pathogenic Avian Influenza (HPAI) saw consistently low productivity on Les Etacs compared to UK averages (Horswill & Robinson, 2015; Purdie et al., 2023), and a corresponding plateau in population size (Purdie et al., 2022).

4.1.2.1 Overall Productivity Monitoring

In 2024, overall productivity on Les Etacs was 0.47 ± 0.054 . When adjusted for non-layers ($n = 54$), productivity was 0.55 ± 0.042 . This is a decrease from 2023 but remains in line with productivity prior to

HPAI in 2021. North Stack High had the highest productivity at 0.56, while West Rock Plateau had the lowest productivity at 0.41 (Figure 5.). West Rock West productivity has increased to 0.5, after having had consistently low productivity since 2021 (Figure GA1.).

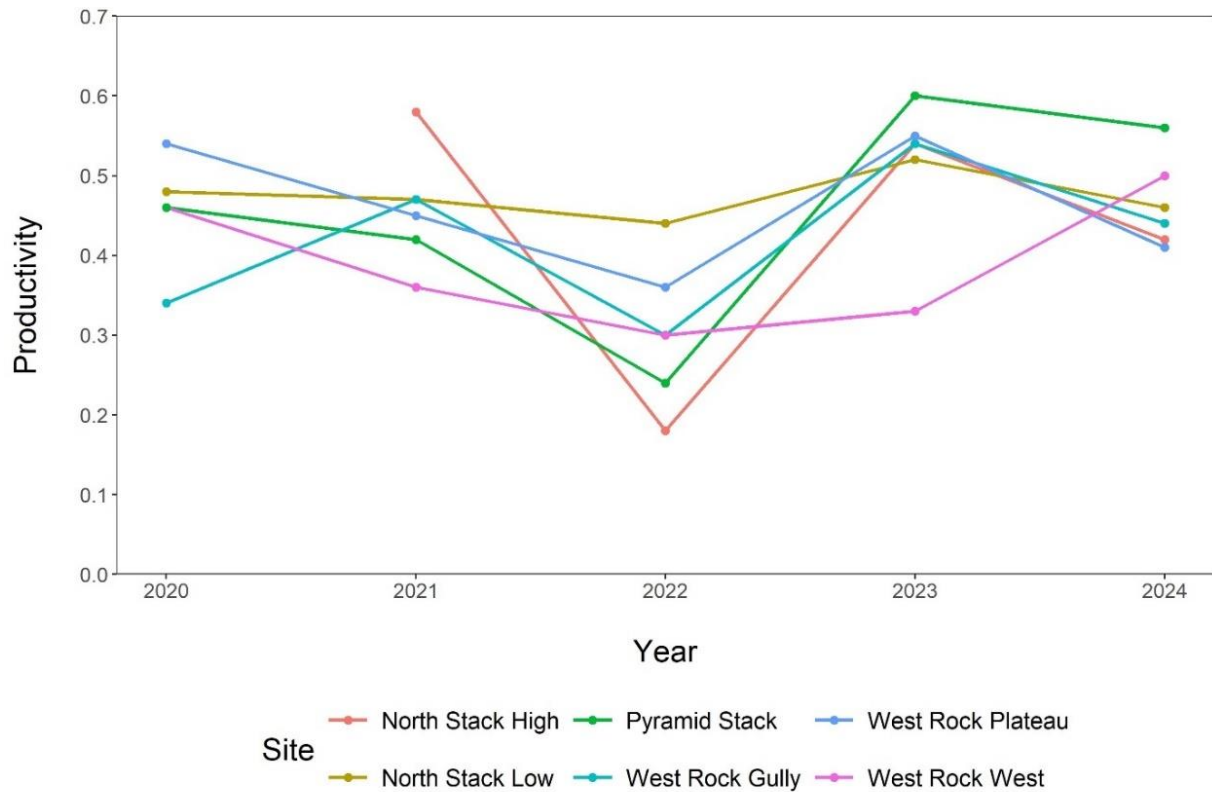


Figure 5. Productivity of northern gannet on Les Etacs across the different sub-colony areas between 2020 and 2024. Site differentiated by colour, see key at bottom of figure.

Whilst northern gannet productivity on Les Etacs has recovered to pre-HPAI levels, it is still below the UK average of 0.6 in 2023 (Harris et al., 2024). This aligns with other gannetries that also lie at the southern edge of the species' range, including Rouzic in France and Cape St. Mary's in North America (d'Entremont et al., 2021; Grémillet et al., 2020; Montevecchi et al., 2021), which have seen lower-than-average productivity in recent years linked to low prey abundance caused by overfishing and changes in climate (d'Entremont et al., 2021).

4.1.2.2 Repeat Productivity Monitoring

Since 2019 the same 100 AONs have been monitored year-on-year (Table 2.). In 2024, 93 of these AONs were occupied – the same amount as 2023. There was an overall productivity of 0.55, slightly lower than 0.65 recorded in 2023. Although overall productivity for 2024 was slightly higher than before HPAI in 2021 (0.45), it was not significantly so (Binomial GLM, Productivity ~ Year, estimate = 0.811, $P < 0.01$). When non-layers ($n=8$) were removed from the sample, productivity was 0.60.

Table 2. The number of AONs monitored and their productivity on Pyramid stack and across the whole of Les Etacs (including Pyramid Stack)

Year	Pyramid		Les Etacs	
	n	productivity	n	productivity
2019	86	0.66	330	0.59
2020	100	0.52	300	0.51
2021	99	0.45	415	0.50
2022	99	0.25	350	0.33
2023	93	0.65	350	0.51
2024	93	0.55	350	0.47

The average lay date was 23/04/2024, four days later than the average lay date in 2023 and one day earlier than laying date pre-HPAI (24/04/2021). As in 2023, successful nests tended to have later lay dates compared to sites where an egg was laid but did not successfully fledge a chick (mean dates of 26/04/23 & 18/04/23, respectively).

Many of the nest sites that were successful in 2023 were also successful in 2024 (66% of sites), and approximately half of the sites that failed in 2023 also failed in 2024 (52% of sites), (Table 3.). However, between 2021 and 2024 there is no correlation between nest site and likelihood of successful fledging (Binomial GLM, Success(Yes/No) ~ Site + Year, $P > 0.1$).

Table 3. Comparison matrix of the outcomes of individual AONs in 2023 and 2024 from the Pyramid stack 100.

		2024			
		Successful	Failed	Non-layer	Absent
2023	Successful	40	17	2	1
	Failed	8	14	4	1
	Non-layer	1	2	2	1
	Absent	2	1	0	4

This study began in 2019 with the aim of assessing demographic changes at individual apparently occupied sites over time. However, as more time passes, the chance of repeated occupancy by the same pair decreases, and the value of this dataset continuing in addition to the random site productivity may decrease accordingly. Therefore, it is recommended that a review of all demographic data gathered for Pyramid stack should be conducted in 2025. This review should include assessments on trends in productivity, breeding timing, causes of nest success and failure (e.g. poor weather conditions), and variations in nest site usage across years. Based on the findings, recommendations should be made regarding the long-term continuation of the study. As resources are limited, weekly in-person

observations should be paused during the review period. However, photographic monitoring of the Pyramid stack should continue from March until the gannets' departure, ensuring sufficient data is available for any retrospective demographic analyses if needed.

4.1.2.3 Ortac Productivity Monitoring

Initial photo surveys were carried out from Sula in April, May, and June. However, productivity on Ortac could not be recorded in 2024. This was due to a shift in distribution of northern gannet nests on Ortac, which moved to the top plateau of the stack in 2023, potentially as a result of the loss of adults from the plateau during HPAI (Purdie et al., 2024). As a result, many nests are no longer visible during boat surveys. To address this issue, drone surveys should be trialled in 2025 to monitor productivity on Ortac, as they can capture footage of the plateau and provide images of breeding birds. This could involve conducting monthly drone photo surveys of Ortac to compare nest counts in the early season (March-May) with the number of chicks fledged in the late season (August-October), allowing productivity to be calculated.

4.1.2.4 The 'Track-a-Gannet' (TAG) project – Review and Potentially Retrieve Geolocators

In 2024, resources did not allow for geolocators deployed on Ortac in 2017 and 2020 to be recovered. It is recommended that other relevant stakeholders are consulted to identify if recovery of geolocators is possible in 2025.

There is increasing interest in offshore wind development within Channel Islands waters and in French and English territorial waters where Alderney's northern gannets forage (4C Offshore, 2023; Warwick-Evans et al., 2017). Without good evidence of where Alderney's northern gannets forage and where they may cross over with offshore development, the environmental impact assessments for these developments may not fully consider Alderney's northern gannet population.

The existing datasets on northern gannet movement from Alderney (Warwick-Evans, Atkinson, et al., 2016; Warwick-Evans et al., 2017; Warwick-Evans, Green, et al., 2016) should be updated, in part because gannet foraging ranges vary annually, and the shock of HPAI may have also affected their foraging distribution (Purdie et al., 2024; Warwick-Evans et al., 2017).

In the next five-year strategy, reviewing and updating these datasets should be of high importance, alongside continuing to collect high quality demographic data.

4.1.2.5 Monitor the impact of anthropogenic materials

The frequency of use of plastics as nesting material and consequent entanglement of the Gannets of Les Etacs were monitored for the 6th year in a row. Overall, the Les Etacs gannets were observed returning 1,719 pieces of nest material across ten hours of observation in 2024 (Table 4). Of these, the vast majority (99.5%) were natural, with eight returns of plastics, the same number as in 2023 (Table 5; Figure 6). On two separate occasions, gannets were observed to fight over plastic netting, with one instance of a large piece of netting causing a four-way squabble. This behaviour has been recorded before in this study, but has not been observed for seaweed returns.

Table 4. Field observations of material brought to the Gannetry on Les Etacs in 2024, ordered by date of observation. *indicates a cuttlefish bone was returned

Observations			Nest Material				
Date	Start Time	End Time	Seaweed	Other Natural	Netting	Rope	Other Anthropogenic
06/03/2024	08:15	09:15	88	1*	0	0	0
08/03/2024	09:50	10:50	357	0	0	2	0
11/03/2024	08:54	09:54	447	0	2	0	0
13/03/2024	08:27	09:27	262	0	1	0	0
08/04/2024	09:16	10:16	308	0	0	0	0
20/04/2024	09:50	10:50	27	0	1	0	0
22/04/2024	09:30	10:30	16	0	1	0	0
24/04/2024	09:10	10:10	68	0	1	0	0
03/05/2024	08:07	09:07	44	0	0	0	0
04/05/2024	10:22	11:22	93	0	0	0	0
Total			1710	1	6	2	0

Table 5. The proportion of anthropogenic material brought to Les Etacs as nest material by Gannets for each year of observation. The table is ordered by year. s.d. = standard deviation. All figures given to 1d.p.

Year	Number of Observations	Mean Return of Nesting Material per Hour (± s.d.)				Total Proportion of Anthropogenic Material (%)
		Natural		Anthropogenic		
2019	16	116.6	± 82.1	0.3	± 0.6	0.2
2020	10	101.9	± 53.4	0.3	± 0.5	0.3
2021	10	225.5	± 85.7	3.5	± 3.1	1.6
2022	10	274.3	± 131.2	0.7	± 0.8	0.3
2023	10	128.1	± 86.7	0.8	± 1.3	0.6

2024	10	171.1	± 157.1	0.8	± 0.8	0.5
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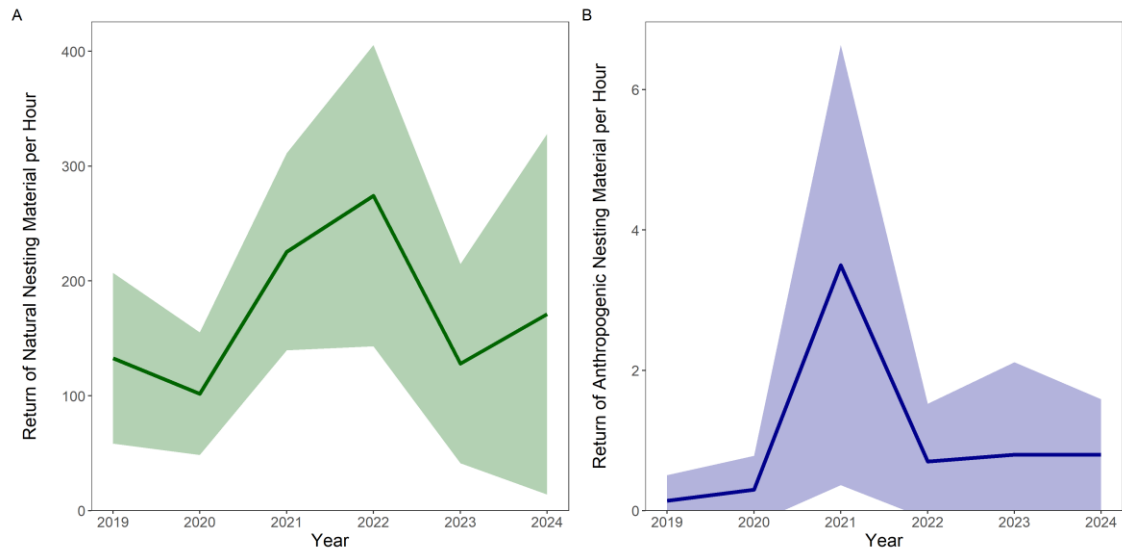


Figure 6. The return of natural (A) and anthropogenic (B) nesting material by Les Etacs gannets per year from 2019 to 2024. The lines indicate the mean value, with the ribbon around each line showing the standard deviation.

In 2024, there was an increase in the mean rate of return of natural nesting material compared to 2023, but no change in the rate of return of plastics. Fitting a binomial generalised linear model predicting the proportion of plastic returns by year, there is no evidence that plastic returns have increased with time (binomial GLM, $\chi^2 = 0.289$, $df = 1$, $p = 0.591$).

The 2023 Ramsar review recommended that a power analysis be conducted to investigate the potential of this survey detecting change over time. To do this, the number of observations needed per year to detect a 50% change in the return rate of plastics over a ten-year period was estimated using a simulation-based power analysis. A binomial logistic regression model was fitted to simulated data, with observations of total returns generated using a Poisson distribution, and observations of plastic returns generated using a negative binomial distribution, parameterised by the empirical data observed to date. Plastic returns were then modelled to increase by 50% over a ten-year period. The power of the analysis was estimated by running 10,000 simulations for sampling regimes from 10 to 100 samples (hours of observation) per year and calculating the proportion of cases where the trend was significant at the $\alpha = 0.05$ level. Results indicated that over 80 hours of observation per year would be required to achieve 80% power (Fig. 7).

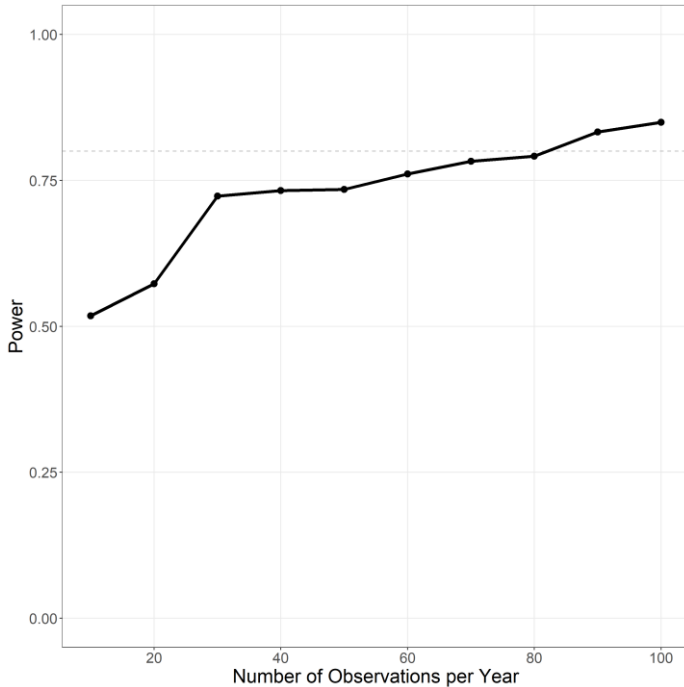


Figure 7. The power of different sampling regimes (number of hours of observation per year) needed to detect a 50% change in the return rate of plastics to the Les Etacs gannetry over a ten year period.

Given the requisite eight-times increase to the sampling regime needed to generate even extreme trends (50% increase in ten years), it is recommended that this survey is discontinued. Further, even if trends could be generated, they would measure exposure to a threat (plastics) rather than the impact of this threat (which is measured by counting entangled gannets seen each year). It therefore is unlikely in itself to drive conservation action, and may not be the most efficient use of resources. The results to date nonetheless represent an interesting snapshot into the rate of return of plastics to the gannetry, and future work could consider revisiting this survey if the amount of environmental plastic available for nesting could be quantified, as with this additional context, the rate of return could give an interesting measure of gannet preference for plastics over seaweed.

Recommendations

7. *Discontinue the anthropogenic material survey in 2025 and beyond as resourcing it to a sufficient level to determine trends over time would be prohibitively difficult*

Entanglements

A total of 12 northern gannet entanglements were recorded on Les Etacs in 2024, including nine adults and three chicks, all of which resulted in death. This is lower than the number of entanglements recorded on Les Etacs in 2023, where 28 entanglements were observed, all of which also resulted in death (Table 6.). In 2024, the proportion of breeding pairs in which one adult was fatally entangled was 0.3%, compared to 0.7% in 2023. A further two fatal entanglements of adult northern gannets were recorded on Ortac in 2024.

In previous years, the highest number of entanglements were recorded in April. This supported anecdotal observations that prospecting birds are potentially most at risk of being lethally entangled rather than established breeders (Purdie et al., 2022). However, in 2024, the highest number of entanglements was recorded in September.

Table 6. The number of adults and chicks seen killed each year on Les Etacs due to entanglement in netting or rope used as nest lining material.

Year	Adults	Chicks
2019	20	2
2020	16	4
2021	23	7
2022	14	2
2023	24	4
2024	9	3

Despite the low number of entanglements this year, they should continue to be recorded in 2025, to improve our understanding of the impact of anthropogenic materials on the northern gannets on Les Etacs. This is in part because removal of these materials is a potential conservation action that could be taken in the future.

4.1.2.6 Northern Gannet Census - using aircraft and drone surveys

Between 2021 and 2023, Alderney's northern gannet population declined from 8539.2 to 6035.8 AOSs due to HPAI, a reduction of 29% (Purdie et al., 2024). In 2024, a complete count of AOSs on Les Etacs and Ortac using aerial photographs from a manned aircraft could not be carried out due to failures in two separate aircrafts scheduled for surveys in June and July. However, a drone census of Les Etacs and Ortac was conducted in July by visiting researchers from Oxford Brookes University.

The count data from this census is still being processed by the team from Oxford Brookes University as of 19/12/2024, and when available will be published and presented to the Alderney Ramsar Advisory Group, Alderney Ramsar Stakeholders Forum, and the General Services Committee.

In 2025, drone and aerial censuses of the northern gannet colonies should be conducted to allow counts from these methods to be compared.

Recommendations

8. *Continue to monitor productivity on Les Etacs.*
9. *Take photographs of the 100 AONs on Pyramid stack weekly but do not process data. Review data collected from this survey since 2019.*
10. *Census the colonies in 2025 using aerial and drone surveys, resource dependent.*
11. *Continue to monitor anthropogenic material entanglements.*

12. Conduct photo surveys of Ortac in April and July, and potentially during monthly seal surveys, to enable productivity estimates.
13. Trial the use of monthly drone surveys to monitor productivity on Ortac.
14. Consult with the ABO and CIBRS regarding recovery of geolocators on Ortac.

4.1.3 Northern Fulmar monitoring

Contributors – Alderney Wildlife Trust

Inside and Outside Ramsar Site

Northern fulmars (*Fulmarus glacialis*), henceforth referred to as fulmars, are pelagic scavengers that nest on cliffs and islands. Across the UK, fulmar productivity varies dramatically between populations, ranging from 0.160 to 0.740, with a generally low average productivity of 0.419 ± 0.127 (Horswill and Robinson 2015). Some fulmar populations are also showing signs of decline, such as in the Northwest Atlantic (Mallory et al., 2020). Fulmars are vulnerable to several threats, including bycatch, plastic ingestion (Charlton-Howard et al., 2023; Franeker et al., 2011; Puskic et al., 2020), offshore renewables (Brignon et al., 2022) and predation by rodents which occupy most of their breeding sites on Alderney. Changes in fisheries practices may also have detrimental effects on fulmar populations due to reductions in discards from boats, a food source that this scavenging seabird relies upon (Bicknell et al., 2013).

4.1.3.1 Productivity and Population Monitoring

2024 Population

Sixty fulmar AOS were located around Alderney's coast in 2024. Of these, 27 AOS of an initial 40 perch points were recorded from three vantage points within West Cliffs survey area of the Ramsar Site. The fulmar population has increased significantly since 2007 (Poisson GLM, Population size (AOS) ~ Year, $X^2 = 30.454$, $P < 0.001$, Figure 8.).

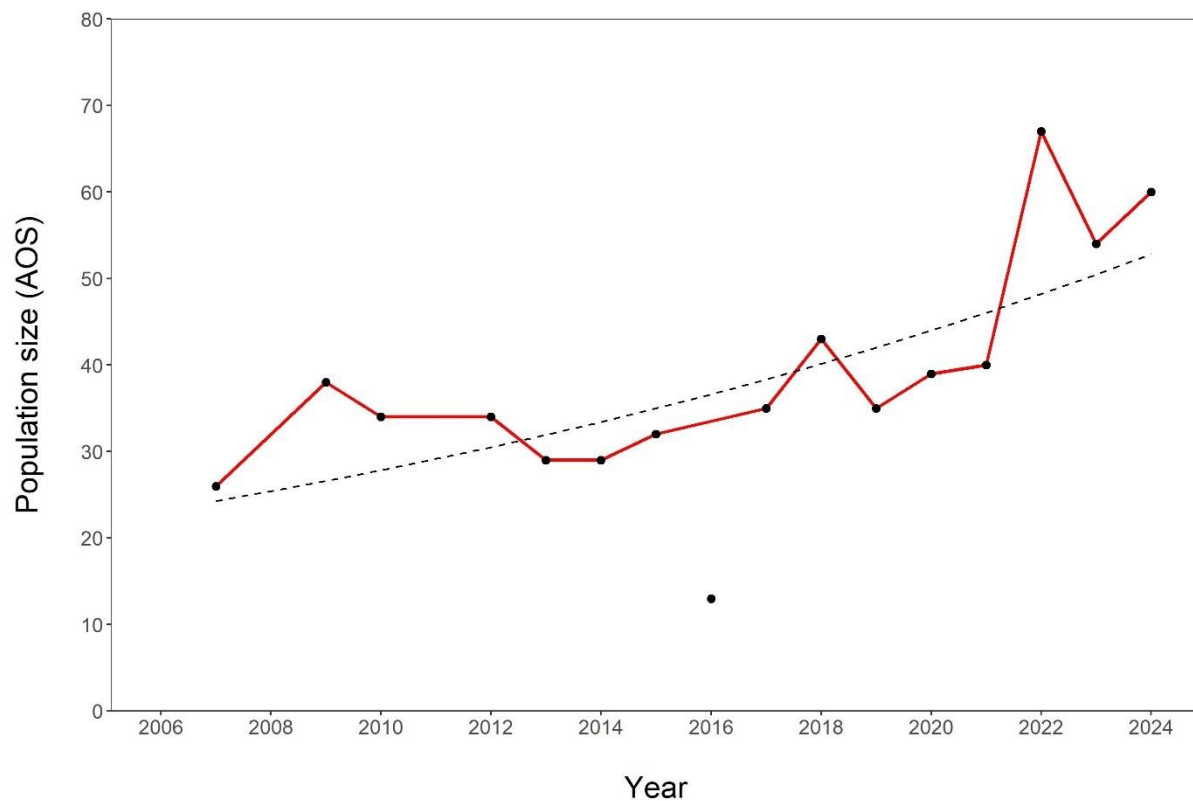


Figure 8. Population size (AOS) of northern fulmar on Alderney from 2007 to 2024. Dashed trendline shows Poisson GLM (Population Size (AOS) ~ Year, $X^2 = 30.454$, $P < 0.001$).

2024 Productivity

Ten fulmars successfully fledged chicks from 27 observable nesting attempts in 2024, compared to 9 out of 29 observable attempts in 2023. This gives a productivity of 0.37. This is a slight increase from 2023 (0.31), however there has been no significant change in fulmar productivity since 2007 (Binomial GLM, Productivity ~ Year, $X^2 = 0.215$, $P > 0.05$, Figure 9.). One further obscured AOS located within the survey area fledged a chick but was not included in the productivity analysis due to not being consistently seen during weekly observations.

The productivity of Alderney's fulmar population has been slightly lower than the UK national average (0.419) for several years (Horswill & Robinson, 2015). This may be due to the pressures faced by fulmar populations, such as low natural prey availability, invasive predators, pressures from offshore developments or plastic pollution. Fulmars are long-lived seabirds that may be able to maintain a stable population with low productivity. To assess this on Alderney, a population viability analysis should be considered and if the population were to begin to decline, additional surveys (e.g. geolocation, diet assessment, predator monitoring) should be considered.

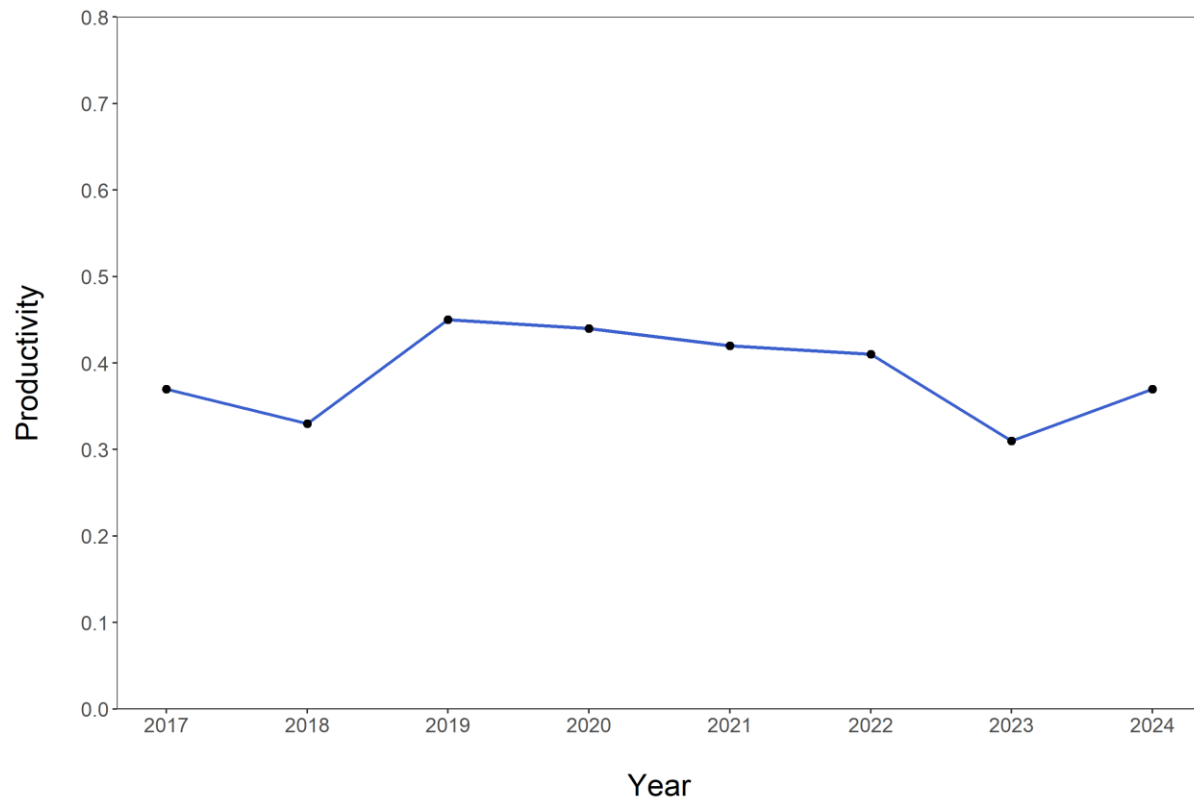


Figure 9. Productivity of Northern fulmar on Alderney from 2017 to 2024.

Recommendations

The northern fulmar population on Alderney continues to remain stable, although there is low productivity. Monitoring should continue to allow early identification of any declines in population.

15. Continue to monitor number of AOSs and their productivity on the West-Cliffs survey area
16. Continue to census the population using round island boat surveys
17. Consider conducting a population viability analysis to inform thresholds for a stable population

4.1.4 Common Tern monitoring

Outside Ramsar Site

Contributors – Alderney Wildlife Trust

Common terns (*Sterna hirundo*) are ground-nesting seabirds that create small scrapes in areas with scattered, low-growing vegetation that offer cover for their chicks. Compared to other seabird species, common terns are not especially site-faithful, and colonies are known to shift breeding locations both within and between years. Such movements are often a response to heavy predation and/or high levels of disturbance (Cramp & Simmons, 1983; O'Connell & Beck, 2003; Amaral et al., 2010), but can also

result from habitat loss, extreme weather events and disease outbreaks (Palestis & Hines, 2015; Burke et al., 2024).

4.1.4.1 Productivity and Population Monitoring

This year, the common terns were first observed prospecting at Fort Houmet Herbé between May 4th and May 25th. On June 3rd, prospecting shifted to Houmet des Pies, where the number of apparently occupied territories (AOTs) reached nine by June 14th. However, by June 20th, the AOTs at Houmet des Pies were abandoned, and the prospecting birds returned to Fort Houmet Herbé. In total, nine AOTs were recorded at Fort Houmet Herbé, of which two failed at egg stage, two failed at chick stage and two were observed to have fledged a total of three chicks.

Given that not all areas of the fort are visible from the foreshore, and vegetation can obscure chicks, it is possible that some breeding activity went undetected. Monitoring of the nesting site was also reduced in July following the lack of observed breeding activity in June, which may have led to additional breeding attempts being missed. As a result, the number of nesting attempts and fledglings may be underestimated, and a total measure of productivity was not calculated.

4.1.4.2 Protection against disturbance and predation

Contributors – Alderney Wildlife Trust, States Public Works

See sections 4.2.1.2 and 4.5.5.1.

Recommendations

18. *Continue to monitor sites for common tern activity in May-July 2025.*
19. *Maintain stock of signage and deploy if common terns colonise a new or existing site(s). Consider updating signage and expanding outreach to ensure it is effective in reducing disturbance.*
20. *Maintain stock of rodent control equipment and supplies and consider deploying this on sites or land adjacent to sites if new ones are colonised.*

4.1.5 Ringed Plover monitoring

Inside and Outside Ramsar Site

Contributors – Alderney Wildlife Trust

Ringed plover (*Charadrius hiaticula*) are beach nesting shorebirds. They are a species of local conservation concern and are listed on the UK Red List due in part to their population more than halving between 1984 and 2007 (Conway et al., 2019). Alderney has the last regularly breeding population of ringed plover in the Channel Islands (Young et al., 2022), comprising only seven pairs. Due to the fragility of this population, an evidence-based conservation action of protecting nests from disturbance with physical barriers (nest cordons) has been in place since 2022 (see Williams et al., (2013) for evidence of

effectiveness), and monitoring of nesting pairs and productivity was conducted following the methods outlined in Appendix 1.

2024 population and productivity

In 2024, seven pairs of ringed plovers bred on Alderney, the same number that bred in 2023: three at Clonque, three at Platte Saline and one at Saye. Overall, we observed fourteen nesting attempts, with two attempts successfully fledging chicks (one on Clonque fledging two chicks, and one on Platte Saline fledging one chick) (Table 7.). Of the twelve failed nesting attempts, eight failed at egg stage and four failed after hatching.

In total, three chicks fledged, giving an island-wide mean of 0.43 chicks fledged per pair, the lowest since 2020 (Table 8.).

This year, we altered the way we calculated survival of both clutches and chicks in 2024 to standardise the calculation between years and better account for the exposure days between the finding of a nest and it hatching or fledging. This has caused some small changes to the probabilities of survival, particularly in 2020 where a high number of nests were found post-hatching (so lowering the calculated clutch survival as these nests are not included in the analysis of survival to hatching), and in 2023, where chick survival was calculated for a clutch of chicks rather than individual chicks (so increasing the probability of survival compared to that previously reported, but now comparable between years). We recalculated survival in this way for all years where data are available, namely 2017-2024 for clutch survival, and 2019-2024 for chick survival.

In 2024, clutch survival to hatching was 29.5%, lower than the series average (2017-2024, excluding 2020) of 31.1% (Table 8.), and much lower than the 40.3% recorded in 2023. Part of this may be due to fewer ringed plover pairs nesting within cordoned areas ($N_{24}=0$ compared to $N_{23}=3$, all of which hatched). Hopefully more pairs will nest within cordoned sites in 2025, as the evidence from previous years does suggest that this boosts survival to hatching (Purdie et al., 2024). Chick survival decreased further, amounting to only an 11.7% chance of surviving to fledge, compared to 21.5% in 2023, and an average of 30.9% for the series.

Table 7. Causes of ringed plover nest loss in 2024. Predation events by kestrels were observed for two nesting attempts (PS_24_6, and PS_24_5), with a further nesting attempt on Crabby also likely being due to Kestrel predation.

Site	Nest ID	Cordon	Nest Outcome	Cause of Loss	Notes
Clonque	CL_24_1	Outside	Failed	Unknown	
Platte Saline	PS_24_1	Outside	Failed	Unknown	
Platte Saline	PS_24_2	Outside	Failed	Flooded	
Platte Saline	PS_24_3	Outside	Failed	Unknown	
Platte Saline	PS_24_4	Outside	Failed	Unknown	
Clonque	CL_24_4	Outside	Failed	Unknown	

Platte Saline Clonque	PS_24_7 CL_24_5	Outside Outside	Failed Failed	Unknown Flooded	
Clonque Saye Platte Saline Crabby	CL_24_3 SY_24_1 PS_24_6 CR_24_1	Outside Outside Outside Outside	Hatched Hatched Hatched Hatched	Predation – Unknown Predation – Unknown Predation - Kestrel Predation – likely Kestrel	
Clonque Platte Saline	CL_24_2 PS_24_5	Outside Outside	Part fledged Part fledged	Partial predation – Unknown Partial predation – Kestrel	One chick predated, two fledged Two chicks predated, one fledged

Table 8. The breeding population, productivity, and clutch and chick survival probabilities of ringed plover since detailed monitoring began. *n.c.* = not calculated due to lack of data to allow reasonable estimates.

** in 2020, a high proportion of successful nests were found post hatching, meaning their number of exposure days is unknown and they are excluded from this calculation, leading to a low survival probability. † mean clutch survival excluding 2020.*

Year	No. of pairs	No. of nesting attempts	No. of chicks hatched	No. of chicks fledged	Productivity (chicks per pair)	Survival %	
						Clutch	Chicks
2017	5	9	11	4	0.80	27.5	n.c.
2018	4	9	8	6	1.50	22.9	n.c.
2019	4	8	17	6	1.50	47.1	42.3
2020	6	9	14	1	0.17	*5.8	9.0
2021	5	12	9	5	1.00	18.6	53.0
2022	6	15	15	9	1.50	32.0	47.8
2023	7	11	18	4	0.57	40.3	21.5
2024	7	14	12	3	0.43	29.5	11.8
Mean (all years)	5.50	10.88	13	4.63	0.93	28.0 †31.1	30.9

In 2024, camera traps were not deployed to monitor ringed plover nests due to delays in approval of the 2024 Action Plan by GSC. We recommend that the methods outlined in the 2024 action plan for the use of camera traps are carried forward to 2025 to identify causes of nest failure at egg stage and lessen the time-burden of monitoring hatching success in person, and allowing survival to be partitioned into pre- and post-hatching.

Disturbance monitoring

In 2024, detailed monitoring of disturbance was carried out on ringed plover nests with incubating adults. Nests were monitored from vantage points for one-hour observation periods during the first three hours of dawn, when avian predators are most active. All disturbance events and interactions were recorded, including the species causing disturbance and their behaviour, ringed plover defensive responses and time spent off the nest if flushed. Ringed plover defensive responses included flattening on the nest, flushing off the nest, alarm calling, defensive flight and defensive brooding.

In total, 67 hours of disturbance observations were carried out, with an average of 4.786 hours spent observing each nest. 96 disturbance interactions were recorded (Table 9.). Herring gulls, humans (walking along the beach) and crows were the top three causes of disturbance, however none of these were directly linked with nest failure. It was previously suggested in the 2023 Ramsar Action Plan (Purdie, 2023) that ringed plover chick survival could be improved by oiling carrion crow eggs to limit predation. Although crows were the third most frequently reported cause of disturbance in 2024, none were observed causing nest failure at either egg or chick stage. In 2024, of the six nesting attempts that hatched chicks, two nests were predated by kestrels (Table 7.). Predation events occurred on a further four nests, however the predator was unknown in these instances, and in two of these, not all of the chicks were predated (Table 7.).

Table 9. The number of disturbance events recorded for each species, including whether the nesting ringed plover was at egg stage or chick stage. Wader spp. includes interactions with a common sandpiper and one other unidentified wader species. *Unknown cause includes instances where an adult left the nest but there was no clear cause of disturbance (i.e. no predators nearby or people walking on the beach).

		Number of disturbance events	
		Nest stage	
Species	Total	Egg	Chick
Herring gull	32	14	18
Human	11	4	7
Crow	10	6	4
Oystercatcher	9	4	5
Ringed plover	8	7	1
Unknown cause*	6	5	1
Lesser black-backed gull	5	1	4
Great black-backed gull	4	4	0
Whimbrel	4	3	1
Kestrel	3	0	3
Wader spp.	2	0	2
Dog	1	1	0
Wheatear	1	0	1

Even with the high intensity monitoring of ringed plover nests in 2024, predation could only definitively be linked to the failure of a small number of nests, and for most nests, the cause of failure was unknown. Given the high effort involved, we recommend pausing the continuation of this dataset, but will continue to monitor the population and productivity as outlined in the 2025 action plan, with causes of nest failure recorded opportunistically.

4.1.5.2 Beach Cordons and Signage

In March 2024, temporary cordons and signs alerting the public to the presence of breeding ringed plovers were set up along the upper shore of Platte Saline. Permission has previously been granted under a Building and Development Control Committee (BDCC) planning application for these cordons and the States of Alderney Planning Department have advised that they view this permission as extant. No cordons or signs were erected on Saye in 2024 due to no ringed plovers nesting on the shore - one pair nested on the islet to the east of the beach which was not regularly accessed by the public.

4.1.5.3 Develop a Colour Ringing Scheme

The 2024 Action Plan recommended that a request be made that the CIBRS consider the colour ringing of nesting ringed plover and their chicks to aid monitoring and improve understanding of their demography. This was not carried out in 2024 due to delays in approval of the Action Plan by GSC. The colour ringing of ringed plover adults would be a useful aid for confirming pair ID, particularly for less successful pairs that may move between territories. However, several years of high intensity monitoring of Alderney's ringed plover have confirmed that pairs generally exhibit a high site fidelity. Given this, and the small total population, it would be difficult to partition differences in breeding success resulting from differences between pairs and differences between territories, meaning that confirming pair ID may give little useful additional information. As a result, we do not think there is sufficient current justification to maintain this activity (which has never yet been carried out), but if there are additional benefits identified by other activity organisations then a future action plan could consider it as an activity.

Recommendations

21. *Continue monitoring the number of breeding ringed plover pairs and productivity across the island*
22. *Deploy the cordons as in previous years as they offer some benefit to ringed plover nests at egg stage*
23. *Where appropriate deploy trail cameras around nest sites to both better identify causes of nest failure at the egg stage and lower the time-burden of monitoring hatching success in person.*

4.1.6 Other seabird monitoring

Inside and Outside Ramsar Site

4.1.6.1 Round Island Surveys

European shags and great cormorants

European shags

Between 2018 and 2023, the number of European shags (*Gulosus aristotelis*; henceforth referred to as shags) breeding on Alderney (excluding Burhou) was increasing (Purdie et al., 2024). Concerningly, in 2024 there was a 70% decline in the number of AONs recorded, from 155 AONs in 2023 to 46 AONs in 2024 (Figure 10.). This change represents an outlier, with the number of AONs across the series from 2018 to 2024 not being related to year (Poisson GLM, Population size (AON) ~ Year, $X^2 = 0.0761$, $P = 0.78$). Currently, it is not clear if this is a one-off event or the beginning of a downward trend in the population.

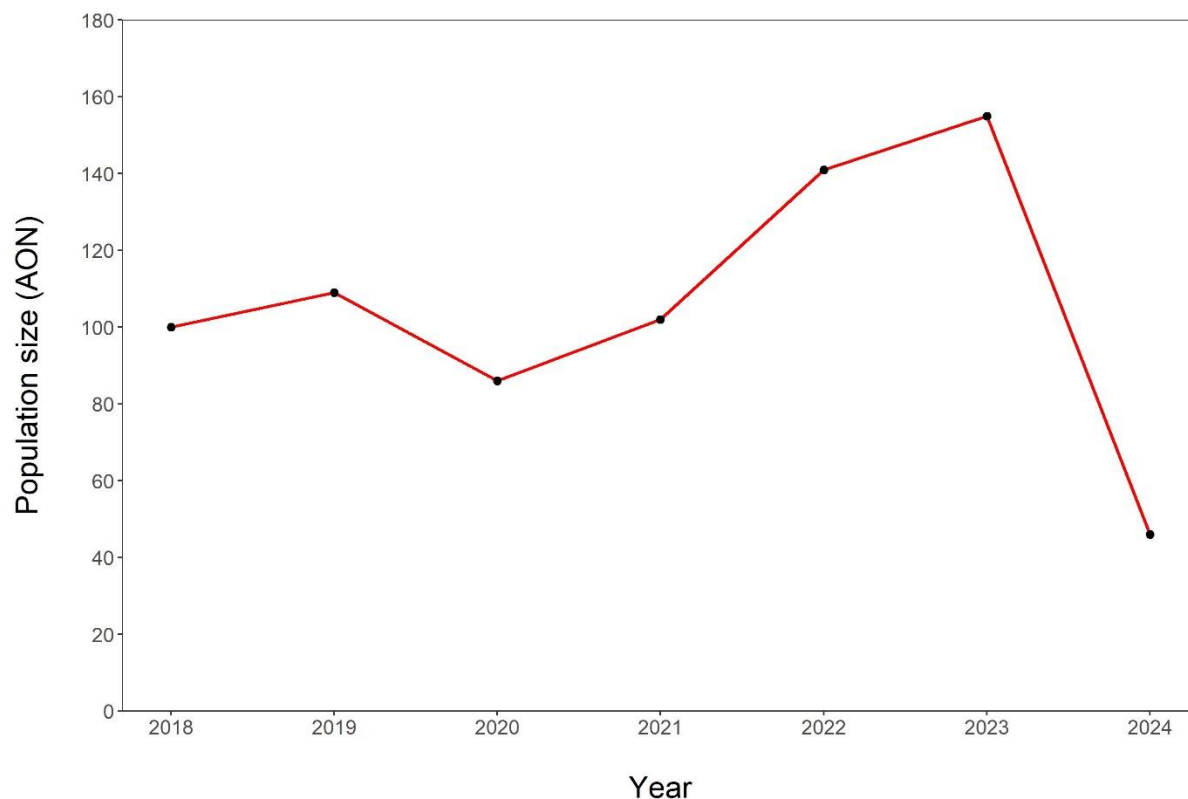


Figure 10. Population size (AON) of European shag on Alderney and the outer islands between 2018 and 2024.

Shags over-winter close to their breeding areas and are vulnerable to winter storms which can cause reduced water clarity and prey availability, leading to increased energy expenditure and inhibited foraging (Frederiksen et al., 2008). This can affect the timings and success of the following breeding season and can result in an increased number of adult mortalities (Frederiksen et al., 2008). From October 2023 to February 2024, the UK and Channel Islands saw several major storms which caused rough seas that lasted for weeks. These storms may have influenced the number of shags breeding on Alderney in 2024, but it is not yet clear whether there have been increased mortalities. Therefore, it is especially important

to continue to monitor the shag population on Alderney in 2025, utilising new and more efficient survey methods such as drones as well as existing methodologies. If resources allow, counts of non-breeding shags should also be considered to provide a baseline for the non-breeding population. If the population continues to decline, recommendations for conservation action should be included in the 2025 Annual Review.

Great cormorants

Great cormorant (*Phalacrocorax carbo*) breed on Little Burhou. In 2024, ten AONs were recorded from Sula of Braye during an outer islet boat survey in April. This is an increase of one AON from 2023. The cormorant population on Little Burhou has been consistent over the past seven years, with no significant change in the number of AONs since 2018 (Poisson GLM, Population size (AON) ~ Year, $X^2 = 0.267$, $P > 0.05$, Figure 11.).

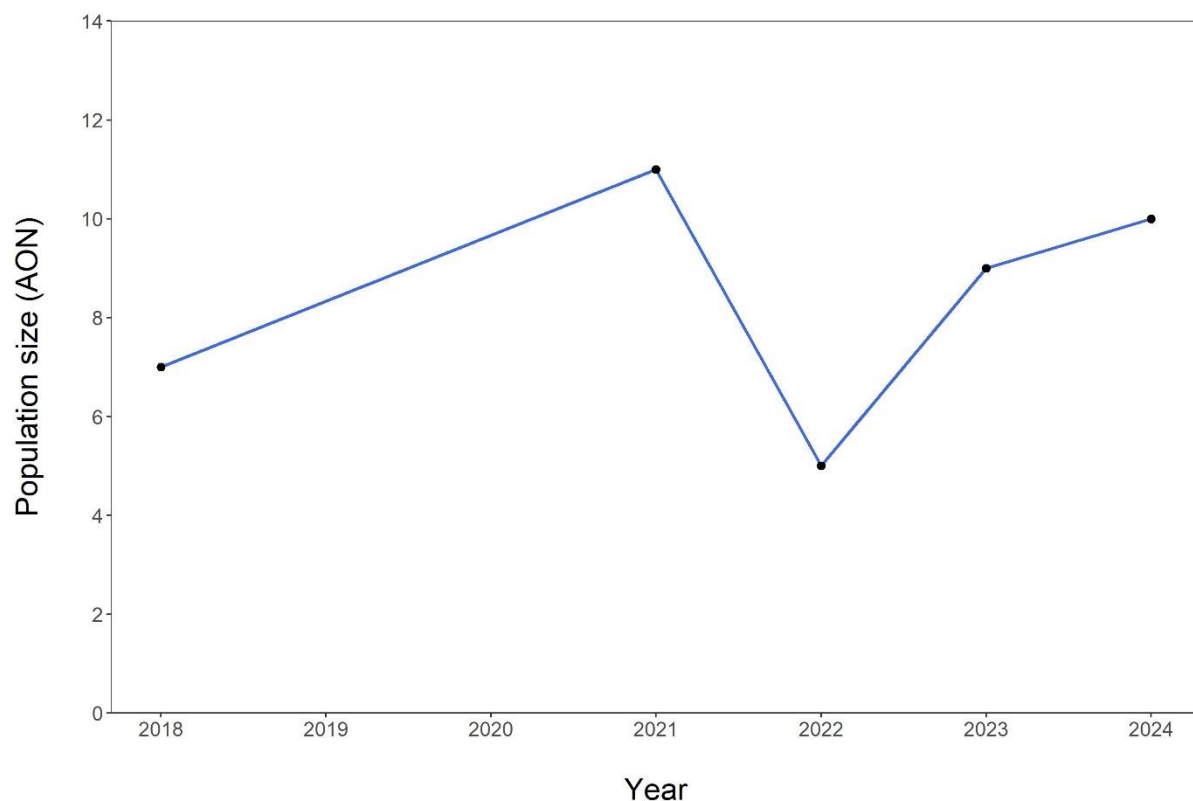


Figure 11. Population size (AON) of great cormorant on Alderney and the outer islands between 2018 and 2024.

Recommendations

24. Continue to census the shag and cormorant populations around Alderney
25. Continue to collect nest observation data during ringing trips where possible, see section 4.1.7 of 2025 Action Plan
26. Consider the use of drones to carry out surveys of shag AONs and counts of the non-breeding adult population

Breeding gulls

Three species of gull breed within the Ramsar site and around Alderney: herring gull (*Larus argentatus*), great black-backed gull (*Larus marinus*) and lesser black-backed gull (*Larus fuscus*). Several other species of gull use the site outside of the breeding season and are recorded during monthly WeBS counts. Lesser black-backed gulls are listed as amber on the UK Birds of Conservation Concern whilst herring gulls and great black-backed gulls were listed as red in the 2024 update, despite the fact that the latter was listed as green as recently as 2002 (Stanbury et al., 2024).

The gull census on Burhou proposed for late May - early June 2024 was not carried out due to delays in approval of the 2024 Ramsar Action Plan by GSC. Gull populations on Burhou have not been censused since 2021 to limit disturbance following a decline in the lesser black-backed gull population (Purdie et al., 2022). Updating these data should be a priority for 2025.

The number of AONs of each of the three gull species that breed on Alderney were recorded during round island surveys conducted from Sula of Braye. Seventy-nine herring gull AONs were recorded in 2024. This does not represent a significant change in AONs since 2019 (Poisson GLM, Number of AONs ~ Year, $X^2 = 3.588$, $P > 0.05$, Figure 12.), and is similar to the population estimates from 2019 (81 AONs) and 2020 (71 AONs), but represents a contraction from 2023, 2022 and 2021 (120, 142, and 119 AONs respectively), (Figure 12.).

Eleven lesser black-backed gull AONs were recorded in 2024. This represents a significant decline since 2019 (Poisson GLM, Number of AONs ~ Year, $X^2 = 6.124$, $P < 0.05$, Figure 12.). Five great black-backed gull AONs were recorded in 2024, which is one less than recorded in 2023. There has been no significant change in the number of great black-backed gull AONs recorded since 2019, and the population has remained relatively stable (Poisson GLM, Number of AONs ~ Year, $X^2 = 1.917$, $P > 0.05$, Figure 12.).

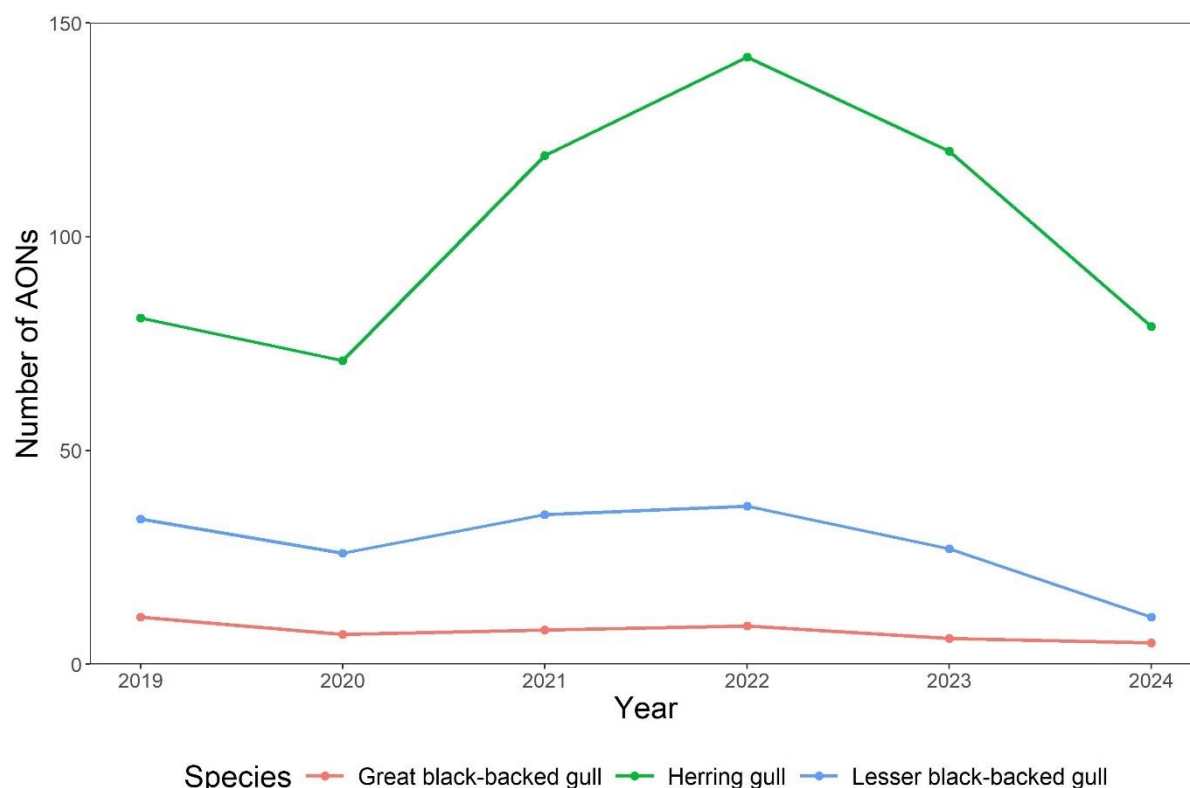


Figure 12. Population size of herring gull, lesser black-backed gull and great black-backed gull on Alderney and the outer islands from 2019 to 2024. These data do not include populations on Burhou (which were not recorded in 2024).

It should be noted that although there were declines in the number of AONs recorded for both herring gulls and lesser black-backed gulls in 2024, the maximum number of AOTs (apparently occupied territories) recorded for herring gulls was 122 and lesser black-backed gulls was 24. These counts are higher than in 2023, when a maximum 55 herring gull AOTs and a maximum six lesser black-backed gull AOTs were recorded. During the round island surveys, AOTs are recorded when individuals are present but not clearly incubating or on nests, in line with the Seabird Monitoring Handbook guidelines for gull censusing (Walsh et al., 1995a). The higher number of AOTs recorded this year suggests that the interannual declines in populations of herring gulls and lesser black-backed gulls may be stable, but it is possible that fewer pairs successfully nested in 2024. It is important that detailed monitoring continues to determine whether the low number of AONs recorded this year was an outlier or the continuation of a downward trend since 2022. Further, it is important that the gull population on Burhou can be censused in 2025, to give a complete picture of gull populations on Alderney.

Recommendations

27. Continue to census gull populations on Alderney and islets excluding Burhou using round island surveys.
28. Census gull populations on Burhou during 2025, coordinating with ringing surveys where possible to minimise disturbance.

4.1.6.2 Round Island Surveys Using Drones

The use of drone surveys alongside boat-based round island surveys was not carried out in 2024 due to limited resources. However, resources were secured thanks to Dr Tom Hart and his team from Oxford Brookes University which included the provision of training and a drone to create an on-island knowledge base and resources. In 2025, these drone surveys should be trialed (with sufficiently experienced and licensed operators, and methodology reviewed by ARAG). If successful, in the long term, drones may substitute some boat surveys, reducing cost and potentially improving accuracy of counts. Drone surveys may also allow for distribution to be more precisely mapped. Boat-based round island surveys will not be replaced by drone surveys in certain conditions e.g. if weather conditions are not suitable for flying a drone..

4.1.6.3 Gull Census on Burhou

The gull census on Burhou proposed for late May - early June was not carried out in 2024 due to delays in approval of the 2024 Ramsar Action Plan by GSC. The gull populations on Burhou have not been censused since 2021 to limit disturbance following a decline in the lesser black-backed gull population (Purdie et al., 2022). Updating these data should be a priority for 2025.

4.1.6.4 Guillemot and Razorbill Population and Productivity Monitoring

An estimated 105 guillemots nested around Alderney, in line with 2023 (105 guillemot). Mean guillemot productivity across all sites was 0.35 but highly skewed between sites, with no successful attempts on intertidal sites. Razorbill were not intensively monitored in 2024, due to insufficient staff time and resources.

Both razorbill and guillemot are predated by avian predators, and rodents are likely to also have a negative impact where the populations cross over.

Recommendations

29. *Continue to monitor guillemot populations on Alderney*

30. *Monitor razorbill population as part of round island surveys in 2025*

4.1.6.5 Wetland Bird Survey Core Counts

The Wetland Bird Survey (WeBS) is the principal British Trust for Ornithology (BTO) scheme for monitoring the UK's waterbird populations. Data collected during WeBS provides essential information on waterbird population sizes, distribution, and trends, and serves as an indicator of wetland health.

In 2024, monthly counts recorded a total of 2,040 individual waterbirds representing 20 species across Clonque Bay and Platte Saline. The four most frequently observed species were the Eurasian oystercatcher, herring gull, common ringed plover, and black-headed gull, respectively.

Peak counts for each species were 261 oystercatchers in November, 70 herring gulls in February, 52 ringed plovers in October and 32 black-headed gulls in September (see Figure 13. for monthly counts). As a proportion of the total island count for these species (seven additional sites were surveyed), Clonque Bay and Platte Saline held 33% of oystercatchers, 31% of herring gulls, 48% of ringed plovers, and 84% of black-headed gulls.

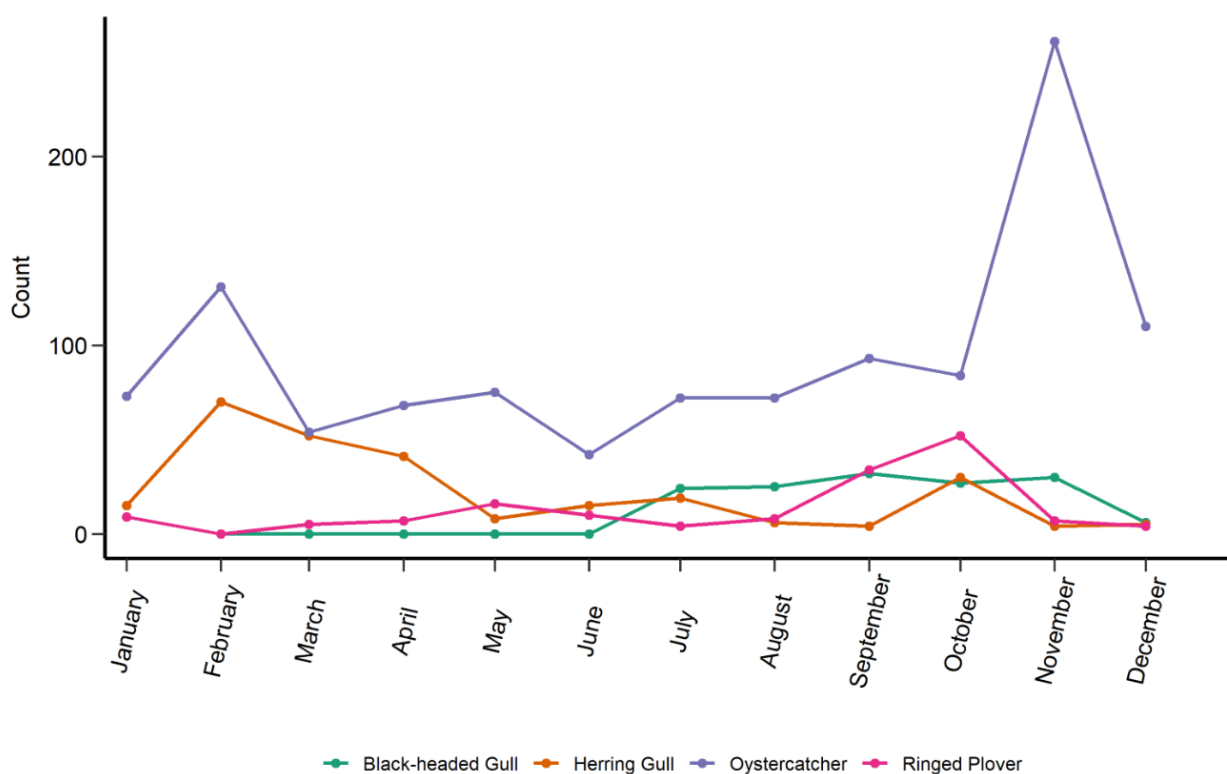


Figure 13. Monthly counts for the four most frequently recorded species (black-headed gull, herring gull, oystercatcher and ringed plover) during the Wetland Bird Survey Core Counts in 2024.

Recommendations

1. Continue WeBs surveys within the Ramsar Site in 2025.

4.1.6.6 Eurasian Oystercatcher Trial Census

A census of Eurasian oystercatcher (*Haematopus ostralegus*) breeding on the mainland between Hannaine Stack and Fort Tourgis was conducted in 2024 following the methods outlined in the Ramsar 2024 Action Plan Appendix 2. The site was visited on three days between early April and late June (19/04/2024, 27/05/2024 and 27/06/2024). The first two visits of the survey were conducted following the methods as proposed, however for the third visit we took the additional precaution of only completing observations from cliff top vantage points (and not walking along the shore) to minimise any potential impact on chicks.

The estimated maximum number of breeding pairs of oystercatchers at this site was 16, with 11 pairs showing chick rearing behaviours on the final survey visit. This gives a productivity index of 0.688. This is an increase in the number of pairs identified in 2022, where 12 pairs were recorded on the mainland coastline within the Ramsar site, following nest recording methods (Purdie et al., 2023). The censusing methods are less detailed and resource heavy than nest recording, meaning this may represent a non-

genuine change in population, but future surveys will follow the census methods ensuring the change in population can be assessed in future years.

As agreed in the 2024 Action Plan, oystercatchers will be surveyed on a repeat cycle of every three years to allow for regular standardised monitoring of how the population is changing. Therefore, the next oystercatcher survey at this site will be conducted in 2027. If any changes in the population are detected at this point or through monthly WeBS surveys, monitoring frequency, extent or intensity may be increased where appropriate and if resources allow.

Recommendations

31. *Continue to monitor the oystercatcher population breeding on the mainland between Hannaine Stack and Fort Tourgis on a three-year cycle, with the next survey to be conducted in 2027.*
32. *Continue to record oystercatcher numbers within the Ramsar Site in 2025 as part of monthly Wetland Bird Surveys (WeBS).*

4.1.6.6 Manx Shearwater Monitoring

Contributor: Alderney Wildlife Trust

The Alderney Ramsar Action Plan 2024 recommended that a review be undertaken of potential methods to test for the presence of breeding Manx shearwater (*Puffinus puffinus*) on sites around Alderney, particularly Burhou (Purdie, 2024). There is some evidence of Manx shearwater using the site, with calls heard at night on at least one occasion, but conclusive evidence of breeding is lacking. To fulfil this objective, we have reviewed the methods outlined in the Seabird Monitoring Handbook (Walsh et al., 1995b), those used in the most recent national census (Burnell et al., 2023), and adapted a review of monitoring methods for a recent JNCC report (Baker et al., 2022) to Alderney's context. In brief, the methods reviewed are visual inspection of burrows, tape playback of calls, and passive acoustic monitoring.

In Alderney's context, visual inspection of burrows to assess apparently occupied sites (similar to the puffin apparently occupied burrow survey), is not suitable. This is because Burhou, if it has nesting Manx shearwater, would be a mixed colony with puffins, and conclusive visual evidence of Manx shearwater presence would be hard to obtain given the prevalence of puffins (Walsh et al., 1995b).

Tape playback is a proven and popular method at other sites to estimate population density, wherein recordings of Manx shearwater are played back at the entrance of burrows to elicit returned calls. For the Seabirds Count 2015-2021 census (Burnell et al., 2023), 43 datasets (63%) used playback calls in full or in part for their estimates. There are nonetheless issues with playback-based methods, with a high degree of uncertainty in estimating response rate and extrapolating across a colony, with estimates differing between sites and years, and depending on whether male, female, or mixed calls are played, and whether they are played by day or at night (Baker et al., 2022). The greatest response rate has been found to occur following dual playback calls at night. To conduct a playback-based estimate of population size on Burhou, observers would need to playback calls on a subset of burrows in the middle of the closed season (late May to early June), and ideally using dual calls at night. Due to the necessary close proximity to the puffin colony and the fact that the survey would have to occur in season, there would be a risk of

disturbance to nesting birds from conducting this survey, for potentially no return if Manx shearwater are not found to breed on the island. Given this, we do not recommend that a playback survey is conducted in 2025, although this could be revisited to estimate population density if evidence is found that Manx shearwater are regularly present.

Passive acoustic monitoring is a useful potential tool for monitoring presence, with acoustic activity correlating with flight paths rather than nesting density (Arneill et al., 2020). On Burhou, one or more recorders could be deployed through the closed season to record acoustic activity, with these data subsequently used to extract the number of Manx shearwater calls. Frequent repetitive calling would indicate regular flyovers of the site, which would be a useful piece of evidence in showing regular use of the site during the breeding season, and suggesting possible breeding activity. This could then be followed up with higher disturbance playback work in future years to assess population density. For their study, Arneil et al. (2020) used Wildlife Acoustic SongMeter recorders deployed for six-day intervals and recording between 23:00 and 04:00 between early June and late August to capture activity over the breeding cycle to fledging. On Burhou, regular access to change batteries and SD cards of detectors would be limited to minimise disturbance, but recorders could be configured to sleep until the requisite date and then commence recording. New Lithium-ion battery powered recorders would have the requisite battery to easily record multiple hours of audio per night for the June-August period.

Recommendations

33. *Deploy SongMeter Mini acoustic recorder(s) on Burhou prior to the arrival of puffins (e.g. when PuffinCam is deployed), configured to record for 5 hours per night between June and August. Analyse data using automated call recognition software (e.g. BirdNET (Kahl et al., 2021)) with manual verification of calls.*

4.1.7 Seabird Strandings

Inside and Outside Ramsar Site

There was a live seabird stranding of an oiled guillemot at Clonque on 15/01/2024. This was treated, rehabbed and released successfully by AAWS.

No seabirds tested positive for HPAI in 2024.

Recommendations

34. *Continue to report stranded seabirds to AAWS in 2025 and collaborate to rehab injured seabirds*

4.1.8 Seabird Ringing

Inside and Outside Ramsar Site

Seabird ringing was carried out in 2024 by the Alderney Bird Observatory and Channel Islands Bird Ringing Scheme. However, these organisations have declined to provide data or other input for this review. As of January 2025, they have indicated that they wish to no longer be associated with the Ramsar Site.

Recommendations

35. *Work with stakeholders, the ARAG, and licenced individuals to ensure there is an appropriate, scientific, and useful ringing programme in place for the Alderney Ramsar Site.*

4.2 Terrestrial

4.2.1 Rat control

Inside and Outside Ramsar Site

4.2.1.1 Biosecurity monitoring on Burhou and Coque Lihou

In 2024 rodent presence was again monitored on islands of Burhou and, in partnership with Orsted, Coque Lihou and La Nache. Non-toxic wax chew blocks in tamper proof bait stations and camera traps were used. Should a rodent incursion have occurred, rodent control could rapidly be deployed protecting nesting seabirds and other native wildlife. These bait stations were deployed at 25 m intervals across the whole of Coque Lihou and La Nache, and across a 75 x 100 m grid around the hut on Burhou in addition to two stations at the east and west ends of the island. Bait stations are checked monthly when sites are accessible. No rodents were detected on Burhou or Coque Lihou in 2024. Black rats were detected on La Nache, as in 2023.

In addition to this, the States Public Works department deployed toxic bait (wax bait with 0.005% bromadiolone deployed in tamper proof bait boxes) on the common tern nest site of Fort Houmet Herbé.

Two small patches of sour fig (around 1m² each) were also removed from Burhou in October and were taken to mainland Alderney for disposal.

Recommendations

- 36. *Continue to deploy biosecurity monitoring on Burhou, Coque Lihou and La Nache.*
- 37. *Develop the biosecurity plans for Burhou and Coque Lihou to help ensure any incursions by rodents are treated effectively and in a timely manner. This may include remote monitoring e.g. through audio recording or camera trapping with remote access and should include an eradication plan and public education.*

4.2.1.2 Protections against predation for common tern (if they return to a nesting site)

After common terns were seen prospecting at Fort Houmet Herbé, AWT liaised with the States Public Works department who then deployed toxic bait in tamper proof boxes along the coastline adjacent to the fort.

Recommendations

- 38. *Maintain stock of signage and deploy if common terns colonise a new or existing site(s). Consider updating signage and expanding outreach to ensure it is effective in reducing disturbance.*
- 39. *Maintain stock of rodent control equipment and supplies and consider deploying this on sites or land adjacent to sites if new ones are colonised.*

Monitoring predation on razorbill and guillemot sites

Camera traps were deployed, in partnership with Orsted, on Coque Lihou and La Nache to monitor guillemot sites for rodent presence. Camera traps were placed facing sites where guillemots had been seen nest guarding previously or at sites where guillemots were frequently present. No rodents were

recorded on Coque Lihou, while black rats (*Rattus rattus*) were recorded on La Nache. Guillemots nested successfully on Coque Lihou, but not on La Nache.

4.2.2 Bat Surveys

Inside Ramsar Site

Contributor: Alderney Wildlife Trust

In 2024, two bat detectors were on Burhou for 6 days in late September to early October. Specifically, ultrasonic bat detectors (SongMeter Mini Bat 2) were placed at the top of 2-m long poles pushed approximately 20 cm into the ground, as close to the centre of 500-m grid cells within the Ramsar site. The detectors were configured as per the Bailiwick Bat Survey methods, namely, to record from 30 minutes before sunset to 30 minutes after sunrise with a sample rate of 256 kHz and a high pass filter of 12 kHz (Newson et al., 2024). Recording was set to continue until no trigger was detected for two seconds up to a maximum of five seconds of recording. Detectors were placed at least 1.5 m from any obstacles to minimize any ultrasonic echoes. Detectors were deployed for four nights in two separate periods in April to mid-July and mid-July to October. Recordings from the detectors were passed through the BTO's Acoustic Pipeline, a machine learning classifier that functions for the UK, Channel Islands, and Europe, and which achieves a true positive rate of 93-100%. This classifier identifies ultrasonic and social bat calls, small terrestrial mammals, and bush crickets, with results undergoing manual verification by experts as part of the Bailiwick Bat Survey every year.

Across the six nights of recording, only four passes of three bat species were detected, and no recordings of bush-crickets, acoustic moths, or small mammals (Table 10). This result may in part be due to the time of year of recording (late September), which was due to weather and time constraints limiting access for deployment and retrieval of the detectors during the open season (post-August). It nonetheless was substantially quieter for bat activity than mainland Alderney during the same period, suggesting that Burhou is used primarily for bats commuting only, with little importance for foraging or roosting bats compared to mainland Alderney.

Table 10. The species detected by ultrasonic recordings at Fort Clonque and the total number of recordings of that species after manual verification. The table is ordered by species group, and then by number of recordings.

Scientific Name	Common Name	Number of Recordings
Bats		
<i>Pipistrellus kuhlii</i>	Kuhl's pipistrelle	2
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	1
<i>Plecotus austriacus</i>	Grey Long-eared Bat	1

Reports can be accessed at <https://bats.org.gg>.

The Bailiwick Bat Survey ended in 2024, and there is no equivalent survey for 2025. Given the limited use of Burhou by bat species, we do not recommend a further bat survey in 2025, although future activities could include deploying bat detectors at alternative times of year (for instance detectors placed with long battery lives before the open season) to establish activity at other times of year.

Recommendations

40. Do not continue with bat surveys on Burhou in 2025 as the Bailiwick Bat Survey has ended.

4.3 Marine

This review summarises marine survey workstream objectives, as detailed within the ‘*Alderney’s West Coast and Burhou Islands Ramsar Site (and Other Sites) Annual Action Plan 2024*’ which **were** completed in the Alderney Ramsar Site in 2024. This comprised of 10 marine surveys, including:

- Phase I intertidal survey
- Shoresearch
- Climate change driver assessment
- Green ormer survey
- Intertidal crab survey
- Marine invasive non-native species assessments
- Seasearch
- Marine mammal surveying
- Marine mammal strandings
- Marine Conservation Society beach cleans

Information related to each survey is provided below, including general recommendations for 2025.

4.3.1 Phase I intertidal survey

Inside Ramsar Site

4.3.1.1 Phase I intertidal habitat biotope survey: Les Etacs and Ortac

A phase I marine intertidal habitat biotope survey of Les Etacs and Clonque Bay was planned for 2024 using visual mapping survey techniques. The Les Etacs survey was planned to be carried out via boat, with the Clonque Bay survey via foot.

Unfortunately, due to poor weather, high wave action and tidal patterns across the survey time-period (April – October), the Les Etacs survey was not undertaken in 2024. The field-based aspect of the intertidal habitat biotope survey of Clonque Bay was completed successfully. The results are to be digitised (e.g. presence, location, extent and conservation importance variables via GIS techniques) early spring 2025.

Recommendations:

41. To re-schedule the phase I marine habitat biotope survey of Les Etacs for 2025.

4.3.2 Shoresearch

Inside and Outside Ramsar Site

4.3.2.1 Shoresearch quadrat survey

For 2024, Shoresearch: quadrat surveys were recommended to be completed within the intertidal zones across the Ramsar Site and also other sites on Alderney (such as Longis Bay and Braye Bay). This survey has been developed as a citizen science survey by the Royal Society of Wildlife Trusts (RSWT) for local Wildlife Trust branches to record the presence, location and abundance of intertidal species across

rocky shores. During 2024, a trial run of the survey method was undertaken at Longis Bay. This trial identified a small number of issues, such as lack of interest by island citizen scientists and complexity of the method for citizen scientists to adopt. As such, it was deemed not appropriate to undertake this survey at this current time.

4.3.2.2 Shoresearch walkover survey

A total number of nine Shoresearch surveys were undertaken on Alderney, with three surveys completed within the Ramsar Site (Clonque Bay), during 2024. These surveys are completed with members of the public as an outreach citizen science project initiated by the Royal Society of Wildlife Trusts (UK). Combined, the three surveys completed at Clonque Bay recorded a total number of 131 intertidal rocky-shore species within interested members of the public (see Figure 14.). This included a variety of marine algae, crustaceans and molluscs, including four marine algae species which are considered marine invasive non-natives to Alderney, such as harpoon weed (*Asparagopsis armata*).



Figure 14. A green ormer (*H. tuberculata*) found during a Shoresearch walkover survey at Clonque Bay, 2024. Photo taken by Lou Collings.

Recommendations

- 42. To continue to implement Shoresearch walkover surveys within the Ramsar Site for 2025 but not adopt the quadrat method.*

4.3.3 Climate change driver assessment

Inside and Outside Ramsar Site

4.3.3.1 Coastal erosion survey

During 2024, coastal erosion was measured at selected sites across Alderney's coastlines. This comprised of re-visiting a series of monitoring station transects which were originally setup in 2023 at Braye Bay, Clonque Bay and Corblets Bay. The aim was to measure the length of erosion of cliff/path edges at graduated distances away along the monitoring station transects, across selected coastlines. Within the Ramsar Site, Clonque Bay, three monitoring station transects were setup in 2023, primarily along the road/path leading from Fort Tourgis carpark to Fort Clonque. A new monitoring station transect was setup in 2024, further round from the Fort Tourgis carpark/Platte Saline Bay area. Two of the monitoring station transects located in the central path, leading to Fort Clonque showed little or no erosion. One of the monitoring transects located near the bench adjacent to Fort Tourgis showed considerable erosion. The original monitoring station/stake area was gone, with approximately 0.86 metres of the edge lost since 2023 (see Figure 15).

Recommendations

- 43. To continue to undertake coastal erosion monitoring assessment annually at selected monitoring stations within Clonque Bay for 2025.*
- 44. To inform SWD of any significant coastal erosion, which may need associated works.*



Figure 15. Location of the monitoring station transect and individual stations (edge, A and B stakes/stations) with observed coastal erosion at Clonque Bay. Edge monitoring station in 2023 was lost, with a new edge station added in 2024. Aerial photograph provided by Digimap Ltd. Coordinate system: Guernsey Grid.

4.3.4 Green ormer (*Haliotis tuberculata*) survey Inside Ramsar Site

4.3.4.1 Green ormer tagging and abundance surveys

In 2024, twenty green ormer (*H. tuberculata*) species surveys were completed across Alderney's intertidal rocky-shore bays. Eight of these surveys were completed within the Ramsar Site (Clonque Bay) across spring (February, April), late autumn/winter (September, November) seasons. These were run as citizen science surveys, to enable members of the public to participate in recording this iconic Channel Islands species (see Figure 16).



Figure 16. Photograph of volunteer citizen scientist surveyors searching for green ormers at Clonque Bay, 2024. Photograph by Lou Collings.

A total number of 148 green ormer individuals were recorded within Clonque Bay by volunteer citizen scientists. This is significantly higher than the number of green ormers recorded in 2023 within this bay (2023 $n = 91$). Comparative to 2023, surveyors recorded the largest number of individuals during the late autumn/winter seasons in Clonque Bay (2024 = 50; 2023 $n = 45$). Across the Clonque Bay surveys, the smallest green ormer individual was measured as 12 x 9 mm, with the largest measured at 116 x 69 mm. A total number of 46 individuals were tagged to assess their movements. In addition, surveyors found 22 tagged green ormers at Clonque Bay. Of the 22 re-found tagged individuals, one was originally tagged in 2022, 12 in 2023 and nine in 2024. An example is A931, which was originally tagged in April 2024 and then subsequently re-found, twice in September and November 2024 (see Figure 17).

Recommendations

45. *To continue to undertake green ormer surveys for 2025.*
46. *To review data in 2025*



Figure 17. Photograph of tagged green ormers re-found in 2024. Photograph taken by Lou Collings.

4.3.5 Crab surveying

Inside Ramsar Site

Two surveys were implemented for 2024; intertidal crab abundance and population dynamics surveys and an intertidal crab photo bank.

4.3.5.1 Intertidal crab abundance and population dynamic surveys.

In 2024, 16 intertidal crab abundance and population dynamics surveys were completed across several rocky-shore bays on Alderney. Within the Ramsar Site, four surveys were completed at Clonque Bay in January, April, July and October. All surveys were undertaken by volunteer citizen scientists.

A total number of 848 intertidal crabs were recorded across all bays during 2024. For Clonque Bay, a total number of 277 intertidal crabs were found by the volunteer citizen scientists. This comprised of nine species: chancre crab (*Cancer pagurus*), montagu/furrowed crab (*Xantho* species), Rissos' crab (*Xantho pilipes*) green shore crab (*Carcinus maenas*), velvet swimming crab (*Necora puber*), broad-clawed porcelain crab (*Porcellana platycheles*), long-clawed porcelain crab (*Pisidia longicornis*) species, an unidentified squat lobster and an unidentified hermit crab. Surveyors recorded the highest number of

crabs in January (n = 127), compared to the other survey months (April n = 33; July = 64; October = 53). Similar to 2023, the long clawed porcelain crab species accounted for a large proportion of the recorded crab individuals (2024 = 100; 2023 = 204).

Three priority crab species selected for further study during these surveys included the 'local/native' species, the chancre (*C. pagurus*), green shore crab (*C. maenas*) and the 'new/ climate change indicator' species, the furrowed/montagus (*Xantho* species). For 2024, 22 chancre crab individuals were recorded, primarily males, with carapace widths measuring from 12–74 mm. Only a small number of green shore crabs were recorded at Clonque Bay, with limited size/sex information recorded. A total number of 86 furrowed/montagus crab individuals were recorded. Sex ratios for this particular species were highly similar, with carapace widths from 10 – 54 mm.

4.3.5.2 Intertidal crab photo bank

During the intertidal crab abundance and population dynamics surveys (4.3.5.1.) photographs of a small number of the recorded crabs were taken. The aim was to develop a photo bank of crabs that showed visible disease or general poor quality shell condition. During the 2024 surveys, several crabs were observed showing poor shell quality, such as disease or with other attached species present (see Figure 18).

Recommendations

47. To continue intertidal crab abundance and population dynamics surveys for 2025.
48. To continue intertidal crab photo bank for 2025.
49. To review data in 2025



Figure 18. Example of a furrowed/Montagus crab with calcified worms present on shell. Photograph taken by Lou Collings.

4.3.6 Marine invasive non-native species assessments

Inside Ramsar Site

A number of works related to marine invasive non-native species (marine INNS) was carried out by the AWT, via the Living Seas Programme. For 2024, this included:

4.3.6.1 Marine INNS monitoring.

During 2024, a marine invasive non-native species (marine INNS) plan for the AWT Living Seas Programme was developed. One of the plan's objectives is to 'survey and monitor', which comprises of implementing several field-based surveys which aim to record the presence, location, abundance and habitat preference of both 'established' and 'under-recorded/new' marine INNS, across Alderney's marine environment.

Specific marine INNS surveys undertaken within the Ramsar Site focused on recording the presence of the marine INNS, devil's tongue weed (*Grateloupia turuturu*), within Clonque Bay. An intertidal walkover survey in 2024 identified this marine algae species to occur within the mid-lower central rocky-shore section of Clonque Bay (see Figure 19.). This marine INNS was found to occur in one large patch attached to coarse, mixed sediment substrate within fast-flowing, shallow water conditions. In addition to this survey, marine INNS within this bay (and other locations across Alderney) were also recorded during other AWT field-based surveys, such as the Shoresearch walkover surveys (see Shoresearch section 4.3.2).



Figure 19. Devil's tongue (*Grateloupia turuturu*) marine algae presence, location and extent within Clonque Bay, 2024. Aerial photograph provided by Digimap Ltd. Coordinate system: Guernsey Grid.

4.3.6.2 Marine INNS Outreach and Education.

The AWT Living Seas Programme's marine INNS plan includes an 'outreach' objective, which aims to increase public awareness of marine INNS and how to potentially reduce the risk of marine INNS spread within Alderney's territorial waters. For 2024, AWT workstreams linked to this objective comprised of providing public marine INNS identification workshops and citizen science field-based surveys. A range of outreach/engagement tools were also implemented by the AWT, such as general marine INNS social media posts/PR on marine INNS.

4.3.6.3 Management of Marine INNS.

A third objective of the AWT Living Seas Programme's marine INNS plan is to consider the potential management options of marine INNS, such as species eradication or use (e.g. as a food source or fuel). Such management options should be implemented based on sound evidence, stakeholder and public engagement, local government guidance and required licences/permissions. For 2024, no pro-active management options for marine INNS were recommended by the AWT. This is due to further marine INNS evidence required to develop appropriate management options.

Recommendations

50. *To continue to implement marine INNS surveys, specifically devil's tongue surveys, within the Ramsar Site in 2025.*

51. *To support public marine INNS outreach and education activities where possible, for 2025.*

52. *To support marine INNS management options where possible, for 2025.*

4.3.7 Seasearch

Inside and Outside Ramsar Site

4.3.7.1 Promote Seasearch snorkels and dives within the Ramsar Site

In 2024, a minimum of 12 Seasearch surveys were completed by Seasearch trained volunteer scuba divers/snorkellers within the shallow sublittoral environment of Alderney's territorial waters. This includes surveys completed by the AWT Seasearch snorkel group members (see Figure 20.) and visiting Seasearch volunteers during an expedition by members of the Porcupine Marine Natural History Society (PMNHS). At this present time the number of surveys completed within the Ramsar Site is unknown. The survey results are currently being verified by Seasearch and will be added to the national biodiversity network (see here: <https://nbn.org.uk/>) in due course.



Figure 20. AWT Seasearch snorkel group recording marine life at Maggie's Bay, 2024. Photograph taken by Lou Collings.

Recommendations

53. *To encourage and support Seasearch surveys to be completed within the Ramsar Site by trained volunteers in 2025.*

4.3.8 BRUV

Inside Ramsar Site

4.3.8.1 BRUV surveys within Hannaine Bay

A baited underwater video survey (BRUV) was recommended to be undertaken within Hannaine Bay, with the aim to record fish/shellfish presence and abundance. Unfortunately, due to strong winds, wave action and tides, the survey was not undertaken.

Recommendations

54. To consider undertaking BRUV surveys in Hannaine Bay in 2025

4.3.9 Seawater Quality Testing

4.3.9.1 Test Physical Parameters of Seawater

From June (2024), the AWT began regular inshore seawater testing across a small number of intertidal bays on Alderney, as part of a citizen science project. Due to time constraints, poor weather conditions and available AWT staff resources, sampling within the Ramsar Site was not completed in 2024.

Recommendations

55. To begin seawater parameter testing within the inshore bays of Clonque and Hannaine Bays for 2025.

4.3.10 Marine mammal surveying

Inside and Outside Ramsar Site

Marine mammal species, such as the grey seal (*Haliochoerus grypus*) are considered a priority species across the Channel Islands, UK and Europe. As a result, several survey methods are adopted by the AWT to help quantify their presence, abundance and population structure within the Ramsar Site and throughout Alderney's territorial waters. Surveys for 2024 included:

4.3.10.1 Effort (boat) based grey seal surveys

A total number of two boat-based surveys were completed in 2024, with the aim to record grey seal abundance and population structure (e.g. sex and age) within the Ramsar Site. These two surveys recorded a total number of 99 grey seal observations, with 35 sightings recorded during the first survey during May and 64 sightings in the second survey in October. The majority of these individuals were recorded as adults, with slightly more individuals identified as females than males and a large proportion of individuals un-identified.

4.3.10.2 Grey seal identification

Photographs derived from the two boat-based surveys and other opportunistic photographs of seals (e.g. donated by the public) were used to update the AWT grey seal photographic identification catalogue. This catalogue was developed to identify specific grey seal individuals, to help assess the overall population structure of seals habituating within Alderney's Ramsar Site. Presently, 63 seal individuals are included within this catalogue (initiated in 2014).

4.3.10.3 Cetaceans

Two land-based observation surveys (following the Sea Watch Foundation land watch survey method) were completed at sites along the South Cliffs during 2024, with the aim to record the presence of marine

mammals. General environmental information was recorded (e.g. wave height, swell etc.,) with no cetaceans recorded present.

Recommendations

- 56. *To continue effort (boat) based surveys for 2025.*
- 57. *To continue to develop the grey seal photographic identification catalogue for 2025.*
- 58. *To continue to implement land-based observation surveys for 2025.*

4.3.11 Marine mammal strandings

Inside and Outside Ramsar Site

Contributors: AAWS, AWT

This objective comprises of supporting on-island British Divers Marine Life Rescue (BDMLR) volunteers and subsequent action plans related to managing marine mammal strandings (both alive and dead marine mammal individuals). For 2024, a total number of five marine mammal species strandings occurred on Alderney, all of which were recorded outside of the Ramsar Site. The strandings comprised of three dead common dolphins (*Delphinus delphis*), a live grey seal and a also a rare sighting (unknown status) of a loggerhead turtle (*Caretta caretta*). Works relating to marine mammal strandings for 2024 are detailed below.

4.3.11.1 Support BDMLR response to marine mammal strandings

BDMLR volunteers primarily respond to manage live strandings of marine mammal species, such as cetaceans and seals. During 2024, one live, healthy juvenile grey seal individual was found beached at Longis Bay in March. On-island BDMLR volunteers with the support of the AWT monitored this individual until it left of its own accord.

4.3.11.2 Review marine mammal stranding action plan

Two policies which set out guidelines related to the management of both live and dead marine mammal strandings were updated by the AWT, AAWS and SoA in 2024.

4.3.11.3 Train volunteers to respond to marine mammal strandings

For 2024, the AWT and AAWS provided a joint public talk, with the aim to increase the number of volunteers to help with marine mammal strandings on Alderney. Following the success of the talk, a small volunteer marine life rescue group was setup to assist trained BDMLR volunteers with strandings, where appropriate. In addition, a BDMLR course for interested members of the public may be scheduled for 2025.

Recommendations

- 59. *To continue to support the BDMLR with marine mammal strandings for 2025.*
- 60. *To help review marine mammal stranding action plan for 2025.*
- 61. *To help support activities related to training volunteers on how to respond to marine mammal strandings for 2025.*

4.3.12. Marine Conservation Society beach cleans

Inside Ramsar Site

4.3.12.1 Beach cleans at Clonque, Hannaine and Platte Saline

During 2024, a total number of 10 public Marine Conservation Society (MCS) beach cleans were undertaken on Alderney, with five completed within the Ramsar Site. This comprised of beach cleans at Burhou, Clonque Bay (x 2) and Platte Saline Bay (x 2). A beach clean was not undertaken on Hannaine Bay this year. Alongside these beach clean events, members of the public also helped record the number and type of litter found, following the MCS beach clean survey method. Clonque Bay comprised of the highest number of litter items (n = 544) and also the heaviest (91.5 kg), compared to the other bays within the Ramsar Site. The collected items of rubbish were primarily made of plastic/polystyrene and rubber, such as rubber bands from fishing pots and foamed polystyrene fragments.

Recommendations

62. *To implement MCS beach clean surveys within the Ramsar Site in 2025.*

4.4 Education and Community Outreach

4.4.1 Wildlife Webcams

Contributors – Alderney Wildlife Trust

4.4.1.1 Live Streaming Wildlife Webcams

Both PuffinCam and GannetCam were fully operational throughout 2024. The livestream from PuffinCam was available on both the AWT website and the AWT Staff Facebook page, while the livestream from GannetCam was available on the AWT website and the Living Islands Facebook page. Livestreams were also linked to a TV in the AWT Information Centre where the camera could be controlled by the public. In 2024, all streaming outages were corrected and fixed remotely from Alderney so no in-season access to Burhou was required for the cameras.

During the puffin breeding season, PuffinCam was set up to record surveys during specific hours in the mornings and afternoons but was free to move around outside these times using controls in the AWT Information Centre, giving visitors the opportunity to explore Burhou and see puffins and other wildlife. A highlight included the recording of grey seals on PuffinCam. After the end of the puffin breeding season, the Information Centre livestreamed GannetCam to allow visitors to view the northern gannets and fledging chicks on Les Etacs.

4.4.1.2 New Potential Webcams

In 2024, a new webcam, SealCam, was trialled early in the season. This camera was fixed facing an area to the north of Burhou where grey seals have been seen hauled out on some occasions, however seal distribution was not consistent enough to justify the resources required to maintain a video stream.

4.4.1.3 Review Webcams Community Impact

Social Media Insights – Living Islands

The Living Islands Facebook page was the main hub for streaming GannetCam in 2024. A summary of the Facebook insights for the Living Islands page is shown in Table 11. The peak reach (the number of unique individuals that viewed social media content) was 296 on 13th September 2024. The mean daily reach throughout the season was 45 individuals per day, with the busiest months for GannetCam being August and September.

Table 11. Summary of Living Islands Facebook insights between 1 Feb and 31 Oct 2024. This includes total number of views (as well as the percentage of views from followers and non-followers), as well as the number of unique individuals that viewed content (reach). Interactions are the total number of likes, comments and shares on content posted to the page. A total of two days and six hours of video were viewed. Proportion of viewership is not available for interactions and watch time (NR).

	Total	Proportion of viewership	
		Followers	Non-followers
Views	13,306	22%	78%
Reach (number of unique individuals that viewed social media content)	155,887	7%	93%
Interactions	317	NR	NR
Watch time	2d 6h	NR	NR

Overall, GannetCam watch time on the Living Islands Facebook page in 2024 was down by 63.9% compared to 2023. In 2025, reasons for the drop in engagement with the Living Islands Facebook page, as well as the promotion of GannetCam, should be reviewed.

Social Media Insights - PuffinCam

In 2024, restrictions from Facebook meant that PuffinCam could not be streamed alongside GannetCam on the Living Islands Facebook page. Instead, PuffinCam was streamed publicly on the AWT website and on the private AWT Staff Facebook page. The top post from the AWT Staff Facebook page in 2024 was “Spot the first puffins returning home with fish and win a free boat trip!” published on the 29th May. This post had a reach of 336 with 23 interactions.

Additionally, PuffinCam was promoted on Instagram with the caption “Tune in to watch puffins on Burhou! You can watch wildlife on Burhou through our PuffinCam at bit.ly/awtpuffincam” linking followers to the webcam streams on the AWT website. This post was published on the 2nd May and had a reach of 723 with 128 interactions.

AWT Information Centre

In 2024, the AWT Information Centre had over 9,600 visitors, with many of these people engaging with the cameras or asking for more information about the puffins and gannets. The wildlife webcams remain vital tools in engaging with visitors and the local community, as well as promoting Alderney's wildlife and Ramsar site internationally

4.4.1.4 Activate PuffinCam

PuffinCam was reactivated on Burhou on 11 March 2024 using the same equipment and procedures as in 2023. All works were carried out before the island closed for the breeding season to minimise disturbance to the seabird colonies. The camera was located outside of the puffin colony.

4.4.1.5 Investigate Further Uses for PuffinCam

In 2023, it was suggested that PuffinCam could be used for other work, however no other works were requested in 2024. The use of the cameras for other work, when not required for Atlantic puffin observations, should remain offered in 2025 and can be arranged on request.

4.4.1.6 Activate GannetCam

GannetCam was reactivated in 2024 and the transmitter array was kept in place on Burhou until the end of the northern gannet breeding season to maintain the data link between Burhou and Alderney.

Recommendations

63. *Reactivate 'PuffinCam' and 'GannetCam' in 2025.*
64. *Review the best way of promoting this footage online, ensuring it meets the objectives of Outreach & Education.*
65. *Consider other uses for the spare webcam previously used as "SealCam".*

4.4.2 Boat tours

Contributors – Alderney Wildlife Trust

4.4.2.1 Boat Tours on Sula of Braye

In 2024, AWT delivered boat tours between March and October, enabling 435 residents and visitors to access the Ramsar site via the water, with professional ecologists as tour guides.

AWT tours are conducted on Sula of Braye. For two trips, the Lady Maris II was chartered when Sula was unavailable, with the skipper providing a high-quality trip alongside an AWT ecologist as a guide. The boat trips provide passengers with an immersive experience to get closer to our seabird colonies within the Ramsar site, whilst keeping disturbance to a minimum.

Recommendations

66. *Continue providing boat tours in 2025.*

4.4.2.2 Free educational boat tours for Year 6 students at St Anne's School

Contributors – Alderney Wildlife Trust

In 2024, the free educational boat tours for Year 6 students were arranged with St Anne's School and went ahead in July. These had a positive response from all those that were present.

Furthermore, we have identified the homeschooled children on the island that may not have accessed this provision, therefore in 2025, the offer of free educational boat tours will be extended to include all children aged eleven and twelve. This will be reviewed as part of the AWT's Wilder Learning Project.

Recommendations

67. *Continue to provide free educational boat tours to Year 6 students at St Anne's School as well as external homeschooled students on the island.*

68. *Gather feedback regarding outcomes and impact from these tours to highlight the benefits of running free tours.*

4.4.3 Community Engagement and Public Awareness Events

4.4.3.1 Public Engagement Events

In 2024, the AWT ran a variety of public events within the Ramsar site or associated with the site's species and habitats. These were promoted island wide via social media, Visit Alderney and the AWT website. Residents and tourists took part in a variety of educational activities. Community events have been summarised below:

- Two beach cleans at Clonque, including the Big Channel Island Beach Clean (10th March) in which 17 volunteers gathered 58kg of rubbish in two hours (in collaboration with The Clean Earth Trust, Littlefleet Environmental, British Divers Marine Life Rescue (BDMLR) and Plastic Free Jersey)
- Marine life rescue talk (16th April) - An educational talk on marine life rescue in collaboration with Alderney Animal Welfare Society, helping to raise awareness of minimising disturbance to marine life around the island, both within and outside the Ramsar site, as well as recruit BDMLR volunteers. This was one of two educational talks provided by a collaboration between AWT and AAWS.
- Seashore foraging walk and cook at Clonque (31st May during Wildlife Week)
- Marine tank sessions (August) which took place at the Moorings with marine species collected from Clonque and had an average attendance of 20-30 young people and families.

In addition, the Youth Commission provided funding for a staff member to attend Wilder Beach training in the UK with a neighbouring Wildlife Trust. This was completed in June 2024 and will provide opportunity for the AWT to expand on the annual public events that take place within the Ramsar site.

4.4.3.2 Citizen Science

The AWT ran a number of citizen science activities within the Ramsar site in 2024, including crab surveys, ormer surveys and shoresearch surveys in 2024. These have helped to educate members of the public about the Ramsar site marine life and have been successful in engaging young people.

In the 2024 Action Plan, a five-step community engagement plan was proposed for 2024 (Purdie, 2024). The development of a survey to be completed by users of the Ramsar site is still in development, with an evaluation form and QR code to be created for 2025. The Memory Lane project was paused in 2024 and will be reviewed in 2025 as part of the Team Wilder Project. In October, the AWT was invited to support

the Landmark Trust with sour fig removal at Fort Clonque, positively developing the relationship between the two Trusts and working towards developing a way to capture insights from Fort Clonque visitors. Additionally, the new Ramsar signage (see section 4.5.4.1) will incorporate a QR code that will be further developed in 2025.

Recommendations

- 69. *Continue to provide public engagement and community awareness events and activities for the Ramsar site year-round.*
- 70. *Review AWT event plan for 2025 with AWT Outreach and Education Officer.*
- 71. *Continue to provide public citizen science surveys in 2025.*

4.5.4 Ramsar signage

4.5.4.1 Present updates of Ramsar Information Boards to Stakeholders

Three final drafts of the Ramsar Information Boards were presented to stakeholders in November 2024 (Figure R1.). Pending approval by BDCC where required, the signs should be produced and deployed in 2025. The Burhou sign (Figure 21. (b)) may also be replicated and positioned at Fort Clonque as suggested in the 2024 Action Plan.

Alderney's West Coast and Burhou Islands Ramsar Site

About the site

This internationaly important wetland contains a diverse array of marine habitats, including rocky sea cliffs and banks and rich seascapes. The site is managed through research, conservation and education work undertaken by Alderney Wildlife Trust, Alderney Bird Observatory, Alderney Animal Welfare Society and the Channel Islands Bird ringing Society.

Along with a wide range of other coastal habitats, the site is home to a large colony of lesser black-backed gulls on Alderney's north coast, with huge rook pools. Here you can find a diverse array of life, including over 100 species of seaweed, and the beautiful green sponges, a biologically important habitat found in the Channel Islands. To the north is the Burhou, an ancient shipwreck, which supports a nationally important grey seal population. The coastal grassland on Burhou provides the perfect habitat for our native bird species, supporting the typical population of 20,000 gulls and 10,000 terns in the Channel Islands.

Other coastal areas are steep sea cliffs and the sites of sea stacks and reefs. These are important sites of local biodiversity, including the Burhou, the Burhou, an ancient shipwreck, which supports a nationally important grey seal population. The coastal grassland on Burhou provides the perfect habitat for our native bird species, supporting the typical population of 20,000 gulls and 10,000 terns in the Channel Islands.

Rich human history

There are many ancient sites, including the Burhou, an ancient shipwreck, which supports a nationally important grey seal population. The coastal grassland on Burhou provides the perfect habitat for our native bird species, supporting the typical population of 20,000 gulls and 10,000 terns in the Channel Islands.

Ramsar Convention

The Ramsar Convention designates wetlands of international importance as wetlands of international importance. It is a treaty that provides a framework for the conservation and wise use of wetlands and their resources. It is a treaty that provides a framework for the conservation and wise use of wetlands and their resources.

Forest of Kelp

At the edge of the rocky sea cliffs, there are large areas of kelp. This is a forest of kelp, which is a type of seaweed. It is a forest of kelp, which is a type of seaweed.

Look out for

Amazing Seabirds

Alderney is a great place to see seabirds. There are many species of seabirds, including gulls, terns, and seals. It is a great place to see seabirds, including gulls, terns, and seals.

Work is carried out by these organisations:

States of Alderney

For more information and protection, contact:

For more information and protection, contact:

For more information and protection, contact:

(a)

Alderney's West Coast and Burhou Islands Ramsar Site

Burhou and the Outer Islands

Burhou

Lying two miles northwest of Alderney, the island of Burhou is a wildlife haven, rich in both natural and human history. Despite only being around 30 acres in size, Burhou is a sanctuary for breeding birds, supporting the largest breeding population of Atlantic puffins and the only confirmed breeding population of storm petrels in the Channel Islands. There is also a regionally important colony of lesser black-backed gulls. The outer birds to the north of the island are also home to a regionally important breeding population of grey seals. Although uninhabited in more recent times, Burhou has been a refuge for fishermen for hundreds of years, and there is evidence that occupation of the island was much older, with the discovery of flint flakes and scarring stones on the island. To get a closer look at Burhou's puffins and other wildlife, check out the webcam on the island's Burhou Puffin Cam, Alderney, or go to Visit Alderney to book a boat tour.

Atlantic puffins (*Puffinus puffinus*)

Sometimes known as 'downs of the sea', puffins are instantly recognisable by their brightly coloured beaks, which they use to attract their life-long mates. They spend the winter out at sea and return to land in mid-July to breed in burrows. Each puffin pair raises a single chick, known as a puffling.

European storm petrels (*Puffinus puffinus*)

Small seabirds, the European storm petrel is a small seabird, the European storm petrel is a small seabird, the European storm petrel is a small seabird.

Warden's Hut

In 1870, a hut was built on the island as a shelter for fishermen and sailors, however this was destroyed during the German occupation of the Channel Islands in WWII. A replacement hut was built in 1953 and it is maintained by the Burhou warden, a hereditary position on Alderney. Many people visit the island and stay in the hut in the open season.

Puffin Friendly Zone

Burhou can be enjoyed from the sea by boat throughout the year, however landing on the island and entering the Puffin Friendly Zone (purple circle on map) is restricted between March 15th to August 1st to protect the puffin breeding on Burhou. The Puffin Friendly Zone, provides a safe area for visitors to visit without disturbance from boats.

Look out for

Ferry seals (*Phoca phoca*)

Grey seals have recently returned to the Channel Islands, having been thought to be extinct. They have been seen on Burhou, using their sense of smell to find the 'huts' and 'downs' of the island.

Work is carried out by these organisations:

States of Alderney

For more information and protection, contact:

For more information and protection, contact:

For more information and protection, contact:

(b)

Alderney's West Coast and Burhou Islands Ramsar Site

West Coast and Les Etacs

Breeding sites of gannets

Northern gannets mainly breed in colonies on cliffs and offshore islands, known as 'gannetries'. Alderney's colonies are some of the furthest south in the world (see map below). These colonies are noisy and smelly, with birds leaving as much as 100g of droppings per bird per day. Gannets are noisy and smelly, with birds leaving as much as 100g of droppings per bird per day. Gannets are noisy and smelly, with birds leaving as much as 100g of droppings per bird per day.

Northern gannet (*Morus bassonius*)

Northern gannets are the largest seabirds in the northern hemisphere, recognised by their yellowish heads and their six foot long black-tipped wings. They are exceptional divers, plunging from heights of up to 60 mph with their wings folded to catch fish using their dagger-like bills. To help cushion the impact, gannets have an extensive network of air sacs between their muscles and skin.

The sketch above depicts five seabirds which breed here.

Fulmars are long-lived birds in the same family as albatross, with some individuals living beyond 20 years old. Razorbill and gull-cormorant are diving seabirds in the same family as puffins, but unlike their burrowing cousins they nest on sea cliffs here. Shags and cormorants can be seen all year round in Alderney and are easy to spot when they are drying their feathers out after hunting for fish at sea. Shags are smaller than cormorants and breed in slightly different areas, allowing the two similar species to coexist.

Work is carried out by these organisations:

States of Alderney

For more information and protection, contact:

For more information and protection, contact:

For more information and protection, contact:

(c)

Figure 21. Draft Ramsar information signs presented to Alderney Ramsar Stakeholders group and to be deployed at several locations adjacent to the Ramsar Site pending permission from BDCC. (a) Introduction sign for Tourgis Car park, (b) Burhou sign for Fort Tourgis and Clonque car park, and, (c) Seabirds sign for the Guns.

4.5.4.2 Burhou Signage

An information sign showing sensitive areas on Burhou was commissioned by the Alderney Harbour Office in 2024, with input from Alderney Wildlife Trust (Figure 22.). This has now been deployed on Burhou and includes updated code of conduct information for Burhou.



Figure 22. The new sign which has been deployed on Burhou by the Alderney Harbour Office. The sign displays areas sensitive to puffins and grey seals, and provides a code of conduct relating to all seabird species and seals. The sign is placed just to the north of the Burhou Hut at the normal route onto the island.

4.5.4.3 Sensitive wildlife signage

Temporary signage alerting the public to common tern nesting areas was deployed along the coastline adjacent to Fort Houmet Herbé after common terns were seen prospecting at the site. However, public

reports suggest the onshore signage was not fully effective, as members of the public were seen entering the fort during the breeding period.

We suggest that the signs are redeployed onshore if common terns return to the same nesting site in 2025. Should the common terns return to nest at a different site, the AWT will work with the States Public Works department and landowners to deploy temporary signage at these sites.

Given the reports that of members of the public nonetheless entering the fort, we further recommend placing temporary signage at the main entrance to Fort Houmet Herbé prior to the nesting season to increase public awareness of common tern breeding activity at the site.

In March 2024, temporary signage was also erected alongside ringed plover cordons along the upper shore of Platte Saline, alerting the public to the presence of breeding ringed plovers. Cordons and signage were not deployed on Saye this year as the ringed plovers nested on an area of the bay generally not accessed by the public. These signs will be redeployed on all beaches as appropriate in 2025.

The SoA has given notice that it is appropriate that permission to deploy interim signs where there is an urgent need to prevent harm to breeding wildlife may be actioned through Richard Phelan, the SoA's Manager of Estates, Infrastructure and Environment, who has standing permission from the SoA to erect signage necessary for the operations of the States.

Recommendations

- 72. Seek permission from landowners and work with the States Public Works Department to deploy signage at the entrance of Fort Houmet Herbé, ensuring that members of the public who might overlook onshore signage are informed about the presence of breeding common terns at the fort.*
- 73. Continue to work with the States Public Works department to redeploy onshore signage around common tern (if they return to a nesting site on Alderney) and ringed plover nests, as well as ringed plover cordons. Consider updating common tern signage and expanding outreach to ensure it is effective in reducing disturbance.*

4.5 Administration and Miscellaneous

4.5.1 Management Strategies

4.5.1.1 Deliver Alderney Ramsar Strategy 2026-2030

The Alderney Ramsar Strategy 2026-2030 (ARS4) is currently in development and should be submitted to GSC in the first quarter of 2025. Pending approval from GSC, this should go through another round of stakeholder and public consultation, before being published in 2025. 2025 will be the year-0 of this plan, with the plan covering 2026-2030. This timing aligns with the management strategies for Jersey's Ramsar Sites.

In development of ARS4, stakeholders will be consulted regarding potential areas where the Ramsar Site may be extended or new designations should be applied for, to cover areas of important breeding grounds or wetland habitat such as eelgrass beds.

Recommendations

74. Deliver ARS4 in 2025

75. Review additional areas of important wetland habitat (e.g. dune slack, eelgrass) which may qualify for Ramsar status.

4.5.2 Scientific Advisory – The Alderney Ramsar Advisory Group (ARAG)

4.5.2.2 ARAG Reporting

In 2024 the ARAG provided feedback to the GSC on a concerns raised by the Alderney Bird Observatory (ABO), and the Channel Islands Bird Ringing Scheme (CIBRS) regarding the management of the Ramsar Site. The 2024 Alderney Ramsar Action Plan was delayed pending the findings of this report. The ARAG's report was completed in June 2024 and has been published on the States of Alderney's Website [here](#), in their [Ramsar Site Page](#). In July 2024 the GSC resolved to agree with the conclusions set out in the ARAG's report and instructed all Ramsar works to go ahead.

The ARAG is a voluntary group and providing this detailed reporting took a significant amount of effort from the group. They produced a number of recommendations in their review to help improve the management of the Ramsar Site. They can be read in the [ARAG's review here](#). The GSC resolved to agree these in July 2024, and they should be considered and included in development of the next Alderney Ramsar Strategy, and in all activities. Direct actions and recommendations for the next strategy are detailed in the 2025 Action Plan. In 2024, the ARAG met in person at the ILEM (see section 4.5.6.1).

4.5.2.2 ARAG Membership

The ARAG membership currently consists of;

- Dr Phil Atkinson (ARAG Chair*)
- Paul Buckley (On behalf of the RSPB)
- David Chamberlain (States Veterinary Officer for the Bailiwick of Guernsey)
- Francis Binney (Head of Marine Resources and Management, Jersey Marine Resources)

** The ARAG Chair is elected by members. They act as a focal point to help the ARAG coordinate responses to the SoA and stakeholders. The ARAG Chair has no additional voting power compared to other ARAG members.*

This membership covers considerable expertise in ornithology, veterinary science, marine biology and fisheries, as well as the management of protected areas.

There was intent for the ARAG membership to be expanded to include a lay person, potentially with experience in community engagement, in 2024. Unfortunately, given the significant requirements on the ARAG in 2024, this has not been completed to date. Sadly, in 2024 a member of the ARAG, Professor Charles Michele passed away. Charles provided invaluable expertise and experience to the ARAG and his contributions to conservation on Alderney cannot be understated.

These events have resulted in a depleted four member ARAG committee in 2025. Increasing membership, including through the recruitment of a lay person, should be a priority for 2025.

4.5.2.3 Standardised Reporting Forms

As requested in the 2024 Alderney Ramsar Action Plan, and by the Alderney Ramsar Stakeholder's forum, a number of standardised templates have been produced for reporting. These include:

- Methodology template
- Proposal template
- Funding templates*

**two forms, one for reviewing funding and one for anticipated funding requirements.*

These forms were developed with input from the ARAG and SoA treasury by the Alderney Ramsar Secretariat. They were approved by the SoA. In 2024, Activity Organisations were asked to complete these forms as part of the annual review and action planning process.

Recommendations

76. Continue to support the ARAG and action their recommendations from their review published in June 2024.

77. Increase ARAG membership

78. Review effectiveness of standardised reporting forms following their implementation in 2025

4.5.3 The Puffin Friendly Zone

4.5.3.1 Support and Advertise the Puffin Friendly Zone

The Puffin Friendly Zone was developed by a collaboration of marine users including the Harbour Office and local fishers. It provides an area of water where boats do not enter to provide protection to the Puffins breeding in Alderney's Ramsar Site

The GSC approved plans to include the zone in official Admiralty Charts developed by the Alderney Harbour Office with assistance from Alderney Ramsar Secretariat and the Alderney Wildlife Trust in early 2024.

The zone has now been officially recognised by the UK Hydrographic Office for inclusion in Admiralty Charts (Figure 23.).

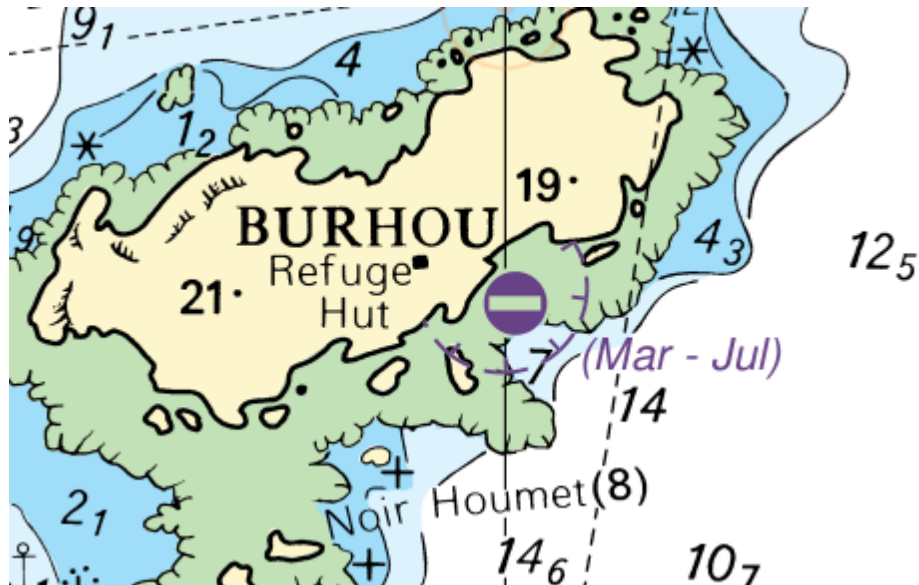


Figure 23. The Puffin Friendly Zone as displayed on official UK Admiralty Charts.

This official recognition will help to improve awareness of the zone, especially with visiting mariners who may not be aware of local regulations and customs. In turn, this will give Alderney's puffins better protection.

Steve Roberts, States of Alderney Member for Environment said, "I welcome a voluntary code of conduct on the very sensitive areas of Burhou and the rare wealth of its bird life. All responsible boat owners please observe this area of outstanding beauty and ecological importance, in turn preserving the birds protected habitats, for the present and the future, with consideration to dwindling numbers of some species. It is their world, of which we need to recognise and preserve."

In addition to this, the Puffin Friendly Zone has been recognised in new signage place on Burhou (see section 4.5.4 Ramsar signage).

Recommendations

79. *Continue to support the Puffin Friendly Zone and ask all marine users to report incursions to the Alderney Harbour Office.*

4.5.4 Ramsar signage

Information relating to this section has been moved to section 4.5.4 Ramsar Signage, to improve structure of this document.

4.5.6 Networking with other Channel Island Ramsar Sites

4.5.6.1 Attend the IEM

The Alderney Ramsar Secretariat attended the IEM in 2025, based in Jersey, and presented on Alderney's Seabirds. The talk can be seen here: [IEM 2024 – Alderney's Seabirds](#).

The IEM was a hugely successful collaboration between conservation organisations, government and scientists, with representatives from Alderney, Guernsey, Sark, Jersey, the Isle of Man, and several French governmental and non-governmental organisations. In addition to this, the IEM provided a platform for the ARAG to meet in person and discuss the Alderney Ramsar Site.

4.5.6.2 Meet with Managers of Channel Island Ramsar Sites

Monthly meetings were held with the managers of the Jersey and Guernsey Ramsar Sites. These have helped to strengthen links between the islands and to share examples for good practice. The Jersey Ramsar Site network has now modelled aspects of its management from Alderney's management, in particular, they have created a Jersey Ramsar Advisory Group (JRAG), modelled after Alderney's ARAG.

4.5.6.3 Maintain Links with International Community

Links with international organisations were maintained and improved in 2024. In particular, the Alderney Wildlife Trust has now been included as a stakeholder a French marine protected area.

Other examples of international links include the continued pan-Channel Islands and Normandy grey seal project, a new Risso's dolphin monitoring project hosted in France, and the development of Balearic Shearwater monitoring with a French project. The latter two projects do not directly link to Alderney's Ramsar Site but are likely to cross over in future should they progress.

Recommendations

- 80. Continue to attend the IEM and represent Alderney's Ramsar Site and its management on an international stage*
- 81. Continue to meet monthly with the managers of the Channel Island's Ramsar Sites*
- 82. Continue to maintain links and shared work with the international community*

4.5.7 Websites

4.5.7.1 Maintain Channel Island Ramsar Website

The Alderney Ramsar Secretariat maintained the Channel Island Ramsar Website in 2024. New additions to the website included news sections and upgrading its security ticket from http to https.

4.5.7.2 Upload Alderney Ramsar Documentation to SoA Website

In 2024, the States of Alderney published the Alderney Ramsar Management Strategies, Annual Reviews and Action Plans on their website. This can be found at: [Ramsar Site - States of Alderney](#).

Recommendations

- 83. Continue to maintain the Channel Islands Ramsar Website*
- 84. Investigate opportunities for other Channel Islands to support the management of the Channel Islands Ramsar Website*

85. *Continue to upload Ramsar documents to the SoA Website*

4.5.8 RIS Update

4.5.8.1 Upload RIS Sheet

In 2024, the Alderney Ramsar Information Sheet (RIS) was updated by the Alderney Ramsar Secretariat with support from the UK's Joint Nature Conservation Commission (JNCC). The JNCC have now submitted the RIS to the UK Government's Department for Environment, Food and Rural Affairs (DEFRA), who will in turn submit it to the International Ramsar Secretariat, alongside other updated UK and Channel Island RISs.

Recommendations

86. *Publicise the updated RIS sheet when it is formally published by DEFRA/ The International Ramsar Secretariat*

4.5.9 Ramsar Stakeholder Forum

4.5.9.1 Support Two Ramsar Stakeholder Forums in 2024

In 2024, one Alderney Ramsar Stakeholder Forums was hosted with the Harbour Master charring. This was on the 22/11/2024. Attendees included:

- Management
 - o The States of Alderney operations
 - o The Alderney Ramsar Secretariat
 - o The Burhou Warden
- The Activity Organisations
 - o Alderney Animal Welfare Society
 - o Alderney Bird Observatory
 - o Alderney Wildlife Trust
 - o The Channel Islands Bird Ringing Scheme
- Stakeholders
 - o Alderney Sea Angling Club
 - o The Alderney Society
 - o Seasearch

Key topics included a proposal for marine mammal medic training in Alderney to be supported by the States of Alderney's Ramsar Budget. It was proposed that AAWS could apply for this funding.

Concerns were raised by sea anglers regarding declining fish stocks and potential links to increasing grey seal numbers. It was agreed that any actions would need to be clearly supported by evidence, and sea anglers volunteered to provide historic fishing data to assist with this.

Updated Ramsar Signs were presented to the Stakeholder Group (see section 4.5.4.1). Additionally, it was proposed that a new Terms of Reference be produced for the Alderney Ramsar Site, and that during

the next five-year strategy new areas which might qualify for Ramsar Status should be presented and discussed by Stakeholders.

The next meeting will be held in April 2025.

Recommendations

87. Continue to support the Alderney Ramsar Stakeholders Forum, and the recommendations from their meetings.

4.5.10 Burhou

4.5.10.1 Repairs to Burhou Warden's Hut

In 2024, the Burhou Warden carried out maintenance on the Wardens Hut, and access points to Burhou.

Funding is still available from the SoA's Ramsar Budget to support works if required and requested.

4.5.10.2 Path Cutting

Path cutting was not conducted in 2024. A plan for cutting should be developed during the closed season of 2025, which can then be deployed in summer 2025 if agreed.

4.5.10.3 Code of Conduct

In 2024, the Burhou code of conduct was updated by the Alderney Harbour Master with input from the Alderney Wildlife Trust. This is provided to individuals which visit the island, and sections are displayed on signage on Burhou.

Recommendations

88. Support the Burhou Warden in work to maintain the island including the hut and through path cutting

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Appendix 1: Methodologies

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Seabirds

Method/ Action title
Atlantic puffin post-season apparently occupied burrow survey
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.1.2
Aim(s) and intended outcome(s)
Census of the number of apparently occupied Atlantic puffin burrows (AOB) on Burhou to give an estimation of the size of the breeding population. The accuracy of the post-season AOB census method will be validated by comparing the number of AOBs on recorded Burhou with the number of active burrows recorded in the early season via PuffinCam.
Methodology
Species: Atlantic puffin Location: Burhou Date and time range: Early August. The survey will require a team of AWT ecologists to land on Burhou for around six hours. Methods: 1. Known puffin burrow areas on Burhou are mapped to identify survey area. Any areas which are deemed inaccessible, or too sensitive to survey (decision by survey team, or at advice of ARAG), e.g. due to very fragile ground, are marked off limits. 2. AAWS RVN will be invited to join survey (see additional information). 3. Before landing, monitor for signs of Atlantic puffin activity using PuffinCam and boat obs. At minimum 8 hours of observation. 4. On Burhou, surveyors walk around breeding areas, taking care not to damage burrows, looking at every potential burrow for signs of occupation, including: puffin eggshell, discarded fish, down or feathers, guano streaked at burrow entrance, the presence of a strong smell of ammonia, and the lack of rabbit droppings. 5. Burrows showing more than two signs of occupation are tallied as “confident” AOBs, burrows with just one sign are tallied as “potential” AOBs. 6. Any burrow that has been reviewed has a pasta shell places at the entrance to avoid double counting. 7. Burrows which are identified as confident within the productivity plots previously mapped using PuffinCam in the early season (see Atlantic puffin productivity methodology) are

marked with a flag, and the areas are photographed from the viewpoint of PuffinCam. Repeat for burrows identified as potential if time allows. Protocol and timeline for analysis of data: August-November - The accuracy and precision of the post-season AOB survey is validated by comparing the number of AOBs known to be active through monitoring with PuffinCam with those identified as confident and potentially active in person on Burhou. - A confusion matrix is constructed from these data, and the F-1 score of the AOB survey is calculated, giving the accuracy of the AOB survey in correctly identifying all active AOBs (https://medium.com/analytics-vidhya/confusion-matrix-accuracy-precision-recall-f1-score-ade299cf63cd) Data archiving and public access protocols: - Submit AOB count with the best F-1 score to Seabird Monitoring Programme (SMP) database. Consider submitting both counts as upper and lower estimates. - Report in Ramsar review, giving upper (“potential”) and lower (“confident”) AOB estimates.
Additional information The validation using a confusion matrix should be reviewed in 2027. Notes on grass growth, weather leading up to the survey, observers etc, may also be useful. <i>NOTE FROM AAWS</i> On receipt of notice of a planned excursion, AAW will arrange an RVN who can volunteer to accompany the organisation and assist with all activities undertaken as well as make considerations specific to the welfare of the all species and populations in the area. This assistance is given on a voluntary basis and is subject to sufficient staffing levels and caseload or emergencies occurring at the clinic which must take priority for RVNs on duty or under sole charge conditions. During the monitoring or assessment activities if any such urgent issue should arise where the RVN feels they must give advice or intervene with unnecessary or excessive disturbance activities, relocate or treat an animal due to injury, or suggest a change in protocol of the activity, they will discuss with the relevant organisation who have organised the activity, colleagues and peers potentially including veterinary surgeons such as States Veterinary Officer. In all cases RVNs will endeavour to appreciate the scope and parameters of monitoring activities before the task is undertaken, so that any suggestions or concerns can be raised in ample time. If after the event during discussion any unforeseen concerns arise these will be discussed with the organisers immediately.
References Confusion matrix and F-1 score methods: https://medium.com/analytics-vidhya/confusion-matrix-accuracy-precision-recall-f1-score-ade299cf63cd

Method/ Action title
Atlantic puffin raft counts
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.1.2

Aim(s) and intended outcome(s)
Census & late season potential recruitment counts. Early season raft counts within the Puffin Friendly Zone through April and May when puffins are likely to be incubating eggs to give an estimate of the number of pairs. Late season raft counts to give an estimation of recruitment to the colony.
Methodology
Species: Atlantic puffin Location: Puffin Friendly Zone of Burhou Date and time range: Early season raft counts in April and May, late season raft counts in June and July Methods: 1. Counts of Atlantic puffin rafting within the Puffin Friendly Zone are conducted ca. every two days through the early season, using either PuffinCam or by boat. 2. Sea state, visibility, weather conditions, count method (e.g. camera live, camera recorded, boat) and other species present are recorded. 3. Counts are continued where possible in the late season, to estimate the number of non-breeding birds which visit the colony in comparison to other years. Protocol and timeline for analysis of data: August 4. Calculate maximum and mean number of individuals recorded in early and late seasons. Data archiving and public access protocols: 5. Submit maximum raft count to Seabird Monitoring Programme (SMP) database 6. Report in Ramsar review, giving maximum and average number of individuals recorded in early and in late seasons.
Additional information
References

Method/ Action title
Atlantic puffin mapped burrows with remote camera observations
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.1.1
Aim(s) and intended outcome(s)
Map active burrows and record fish returns to estimate Atlantic puffin productivity
Methodology
Species: Atlantic puffin Location: Burhou via PuffinCam Date and time range: April – July PuffinCam recording, April – August footage review, September – November data analysis Methods: 1. Select productivity plots and set PuffinCam to track between each plot ca. hourly. 2. Several watches are made during the early season (April – May), ca. 5 hours per plot minimum. Label AOBs which are used on two separate days as active. 3. Monitor through the late season (June-July), any active burrows that have at least one fish return are marked as successful. 4. Also record any predation or kleptoparasitism events and link to a burrow if possible.

Protocol and timeline for analysis of data: September - November - Calculate the weighted mean productivity (accounting for the different number of burrows in each productivity plot). Data archiving and public access protocols: - Submit weighted mean productivity to Seabird Monitoring Programme (SMP) database. - Report in Ramsar review, giving total number of active burrows, successful burrows and weight mean productivity.
Additional information In 2025, an additional method of monitoring for fish returns using PuffinCam will be trialed alongside the current methods. In summary, two productivity plots will be selected and each plot will be recorded continuously for a 16-hour period, from dawn to dusk, on two separate days in the late season. The number of active burrows marked as successful using this additional method will be compared to the number of successful burrows recorded in these productivity plots using the current method. This aims to develop a more efficient method of monitoring fish returns, reducing the effort required and thereby increasing the precision and accuracy of productivity estimates in future.
References

Method/ Action title
Northern gannet aerial census
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.2.6
Aim(s) and intended outcome(s)
Full colony census of Les Etacs and Ortac using counts of AOTs from aerial photographs
Methodology
Species: Northern gannet Location: Les Etacs and Ortac Date and time range: June or July photographs, August – November data analysis Methods: - Aerial photographs are taken in June or July Protocol and timeline for analysis of data: August - November - Plots are marked out on these photographs, and they are distributed to counters (n = ca. 5) - The unit to count is apparently occupied site (AOS), i.e. a site occupied by one or two adults irrespective of whether nest material is visible/present – if a site is suitable for breeding it is counted - Birds occupying “club” sites are not counted. Where non-breeders and immatures are mixed with breeders, particularly on the lower slopes, the presence of nest material or the “suitability of the site for nesting” is used to determine an AOS from a site occupied by a non-breeder. Non-suitable sites include sites located on sheer faces, inadequate ledges or positions too close to the high-water mark and splash zone. - To avoid bias, each counter works individually and does not see any other counter’s count. - The final assessments are based on the mean of the counts (with standard deviation).

Data archiving and public access protocols:
7. Submit full census counts for Les Etacs and Ortac combined to Seabird Monitoring Programme (SMP) database.
8. Report in Ramsar review, giving total counts of AOTs for both sites individually and for entire colony.
Additional information
1. It is advised that apparently occupied nests (AONs) are identified where possible as well as mapping all AOTs.
2. In 2025, drone surveys will be carried out to census Les Etacs and Ortac alongside the aerial census. Counts using both methods will be compared.
References

Method/ Action title
Northern gannet drone census
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.2.6
Aim(s) and intended outcome(s)
Full colony census of Les Etacs and Ortac using a drone
Methodology
Species: Northern gannet Location: Les Etacs and Ortac Date and time range: June or July Methods: 1. A Guernsey Aerial Work Permit (issued by the Channel Islands Director of Civil Aviation [DCA]) and permission from Alderney Air Traffic control are obtained prior to the census. All drone pilots must also have a minimum of the A2 Certificate of Competency qualification. 2. Weather forecasts for flight location are checked at least 24 hours before planned flight and monitored until and during deployment to ensure safe drone operation and usable imagery. 3. Pre-deployment checks are carried out, including checks for any hazards in the vicinity of the flight area. 4. Conduct two separate drone censuses, one of Les Etacs another of Ortac. Launch both censuses from land at 'The Guns' using flight paths that aim to overlap by at least 70%–80% forward/backward overlap and 60% sideways overlap to ensure orthomosaic imagery can be stitched (Edney et al., 2023). 5. Deploy the drone and approach both colonies at a minimum distance of 200m, maintaining a distance of at least 50m, but not exceeding a height of 122m, throughout the flight (Edney et al. 2023). 6. Throughout the surveys, two observers equipped with scopes/binoculars and experienced in detecting alert behaviour in gannets are situated on cliff vantage points to monitor the surrounding area for safety hazards and potential disturbance to the colony. Observers maintain constant communication with the drone pilot, relaying information and instructions by telephone.

Protocol and timeline for analysis of data: August - November 7. Automated counts of gannets are conducted using orthomosaic images and AI software. Data archiving and public access protocols: 8. Submit full census counts for Les Etacs and Ortac combined to Seabird Monitoring Programme (SMP) database. 9. Report in Ramsar review, giving total counts of AOSs for both sites individually and for entire colony.
Additional information
Review practice after the first flight of each project, each season, to check whether adjustments are needed to avoid disturbance etc.
References
Edney, A., Hart, T., Jessopp, M., Banks, A., Clarke, L., Cugniere, L., Elliot, K., Juarez Martinez, I., Kilcoyne, A., Murphy, M., Nager, R., Ratcliffe, N., Thompson, D., Ward, R., & Wood, M. (2023). Best practices for using drones in seabird monitoring and research. <i>Marine Ornithology</i> , 51(2), 265–280.

Method/ Action title
Northern gannet randomly selected mapped AONs
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.2.1
Aim(s) and intended outcome(s)
Map and observe randomly selected nest sites on Les Etacs from mid-March through to October to determine the proportion which fledged a chick and therefore estimate productivity.
Methodology
Species: Northern gannet Location: Les Etacs Date and time range: Mid-March to October data collection, October – November data analysis Methods: 350 nests in total are selected. 50 nests are selected at random from within five plots (Pyramid, West-Rock Gully, West-Rock West-End, North-Stack High and North-Stack Low) and 100 nests from West-Rock Plateau (Purdie et al. 2023). - Nest sites are observed weekly noting behaviour, number of adults present, the presence and age of any chicks or eggs, any dead birds, or other species occupying the site. - Nest sites are marked as successful if a chick reaches 11 weeks and is absent the following week. - Non-layers and the stage of failure (e.g. egg, chick) are identified. Protocol and timeline for analysis of data: October - November 5. Calculate productivity for each plot and overall Les Etacs colony. Data archiving and public access protocols: - Submit Les Etacs colony overall productivity to Seabird Monitoring Programme (SMP) database. - Report in Ramsar review, giving productivity for each plot and for the colony as a whole.
Additional information

References
Purdie, A., Broadhurst-Allen, M., Whitelegg, D., Lewis, M., & Horton, J. (2023). Alderney's West Coast and Burhou Islands Ramsar Site and Other Sites Annual Ramsar Review 2022 (Annual Ramsar Review, p. 118). Alderney Wildlife Trust.

Method/ Action title
Northern gannet annually repeated mapped AONs
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.2.2
Aim(s) and intended outcome(s)
Map and observe pre-selected nest sites on Les Etacs from mid-March through to October to determine the proportion which fledged a chick and therefore estimate productivity.
Methodology
Species: Northern gannet Location: Pyramid stack on Les Etacs Date and time range: Mid-March to October Methods: 1. 100 pe-selected AONs are monitored on Pyramid stack through the season. 2. Nest sites are observed weekly noting behaviour, number of adults present, the presence and age of any chicks or eggs, any dead birds, or other species occupying the site. 3. Nest sites are marked as successful if a chick reaches 11 weeks and is absent the following week. Protocol and timeline for analysis of data: 4. Laying date, non-layers and the stage of failure (e.g. egg, chick) are identified. 5. Calculate overall productivity of Pyramid stack. Data archiving and public access protocols: 6. Report in Ramsar review, giving overall productivity for Pyramid stack, average laying date and comparison matrix of outcome of nests
Additional information
1. For AON map see 2022 Ramsar review (Purdie et al. 2023)
References
Purdie, A., Broadhurst-Allen, M., Whitelegg, D., Lewis, M., & Horton, J. (2023). Alderney's West Coast and Burhou Islands Ramsar Site and Other Sites Annual Ramsar Review 2022 (Annual Ramsar Review, p. 118). Alderney Wildlife Trust.

Method/ Action title

Northern gannet anthropogenic material survey – Material returns
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.2.5
Aim(s) and intended outcome(s)
Record nest material brought back to Les Etacs by northern gannets during the early nesting season.
Methodology
Species: Northern gannet Location: Les Etacs Date and time range: Early March – mid April Methods: 1. During peak nesting season for the gannets (ideally early March to mid-April), all nest material brought back to the colony is recorded and categorised as either anthropogenic if it is clearly man-made (e.g. plastic rope, netting, or other material), or natural (e.g. seaweeds). 2. The colony is observed from the viewpoint at The Guns Low, from which about 70% of the occupied part of the colony is visible, where Gannets can be seen arriving from both northerly and southerly directions (Purdie et al., 2023). 3. Observations are made for one hour at ten points during mornings within the peak nesting season and are conducted by one observer using sufficient optical magnification to discern the identity of nesting material (generally 8x magnification binoculars are sufficient, but occasionally a 25x telescope will be used to discern small pieces of material). 4. Observations are not conducted in conditions that limited visibility (i.e. rain, wind above Beaufort Force 6, low fog), with weather conditions recorded for the period of observation (temperature, wind speed, wind direction, cloud cover, percent of rain in observation window, estimated visibility (km)). Protocol and timeline for analysis of data: May - November 5. Calculate the total number of returns during observations, the mean number of natural and anthropogenic returns, and the proportion of anthropogenic material brought to Les Etacs as nest material. Data archiving and public access protocols: 6. Report in Ramsar review, giving field observations of nest material brought to Les Etacs, the proportion of anthropogenic material brought to Les Etacs and the mean number of natural and anthropogenic returns.
Additional information
References
Purdie, A., Broadhurst-Allen, M., Whitelegg, D., Lewis, M., & Horton, J. (2023). Alderney's West Coast and Burhou Islands Ramsar Site and Other Sites Annual Ramsar Review 2022 (Annual Ramsar Review, p. 118). Alderney Wildlife Trust.

Method/ Action title
Northern gannet anthropogenic material survey – Entanglements
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.2.5
Aim(s) and intended outcome(s)

Record the number of entanglements of adult gannets and chicks on Les Etacs
Methodology
Species: Northern gannet Location: Les Etacs Date and time range: Early March - October Methods: 1. Throughout the gannet nesting season (early March – early October), telescopes (x25) are used to search Les Etacs every seven days for entangled birds. 2. The colony is observed from The Guns North vantage point, from which about 70% of the occupied part of the colony is visible. 3. Observations are made for approximately 15 minutes, which was enough time to slowly scan the whole colony. 4. The date the entanglement is observed, the region of Les Etacs the individual is entangled in, age of the individual entangled (adult/chick) and whether the individual is alive, or dead will be recorded. 5. Observations are not conducted in conditions that limited visibility (i.e. rain, wind above Beaufort Force 6, low fog), with weather conditions recorded for the period of observation (temperature, wind speed, wind direction, cloud cover, percent of rain in observation window, estimated visibility (km)). Protocol and timeline for analysis of data: October - November 6. Calculate total number of entanglements recorded for adults and chicks, the number of entanglements recorded each month, and the proportion of pairs in which one individual suffered lethal entanglement. Data archiving and public access protocols: 7. Report in Ramsar review, giving total number of entanglements recorded for adults and chicks, the number of entanglements recorded each month, and the proportion of pairs in which one individual suffered lethal entanglement.
Additional information
References

Method/ Action title
Northern fulmar nest site mapping
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.3.1
Aim(s) and intended outcome(s)
Productivity and partial census of northern fulmar. Perch points are mapped from vantage points and consistently occupied nests are identified and observed through the breeding season to estimate productivity.
Methodology
Species: Northern fulmar Location: West cliffs Date and time range: May – September Methods:

1. From vantage points, map northern fulmar occupying sites. Visit every two days for ca. 10 days, map those consistently occupied as AONs. 2. Monitor AONs weekly, recording if adults or chicks are present and their behaviour, e.g. brooding posture or standing 3. Mark chicks as fledged if they are observed with full, or near full, plumage and are absent the following week. Protocol and timeline for analysis of data: September - November 4. Calculate productivity as the number of AONs that successfully fledged chicks divided by the number of consistently occupied nests. Data archiving and public access protocols: 5. Submit the total number of fulmar AONs located around Alderney (including those recorded during round island seabird censuses) and the productivity of AONs located within the West Cliffs survey area to the Seabird Monitoring Programme (SMP) database. 6. Report in Ramsar review, giving an estimate of total number of fulmar AONs located around Alderney's coast (including those recorded during round island seabird censuses), the number of AONs located inside survey area and productivity.
Additional information
Additional northern fulmar AONs are recorded during round island seabird censuses.
References

Method/ Action title
Common tern census and productivity
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.4.1
Aim(s) and intended outcome(s)
Census and monitor common tern nest sites to determine the proportion of nests which fledged chicks and therefore estimate productivity.
Methodology
Species: Common tern Location: Houmet Herbe, Houmet des Pies and Houmet de Agneaux Date and time range: Mid-May – August data collection, September – November data analysis Methods: 1. Begin with periodic onshore vantage point observations of all historic nesting sites (Fort Houmet Herbé, Houmet des Pies and Houmet de Agneaux [the east Saye bay promontory]) until the birds have settled. 2. Continue with weekly onshore vantage point observations of apparently occupied site(s). Record the location of each site, behaviour (e.g. incubating, fish return), and if possible, the number and age of chicks, predator activity and whether chicks successfully fledged. 3. During weekly observations, also record the total number of terns observed at the site (i.e. standing and flying, as well as nesting). Use the maximum count of total birds observed for year-on-year comparison. 4. Continue weekly observations until breeding has finished and no terns remain at the nesting site. Protocol and timeline for analysis of data: September - November

5. Estimate productivity as proportion of nests which fledged chicks
Data archiving and public access protocols:
6. Submit maximum count of total individuals, number of AONs and productivity to the Seabird Monitoring Programme (SMP) database.
7. Report in Ramsar review, giving maximum count of total individuals, number of AONs and productivity for each site.
Additional information
References

Method/ Action title
Guillemot population size
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.5
Aim(s) and intended outcome(s)
Estimate population size of guillemots and razorbills at all potential sites.
Methodology
Species: Guillemot Location: Coque Lihou, La Nache and North Stack High on Les Etacs Date and time range: April – June data collection, July – November data analysis Methods: 1. Conduct onshore observations to estimate ‘pre-season’ (April) and ‘peak’ counts of guillemots at all potential sites. 2. Counts undertaken between 10th May and 3rd June (the earliest date of chick departure) are designated ‘in-season’ for guillemots. Protocol and timeline for analysis of data: July – November 3. Estimate population size for both species across all sites Data archiving and public access protocols: 4. Submit maximum counts across all potential sites to the Seabird Monitoring Programme (SMP) database. 5. Report in Ramsar review, giving maximum counts across all potential sites.
Additional information
North-Stack High is observed differently because a large sample of guillemot AOS are clearly visible from the shore.
References

Method/ Action title
Guillemot productivity
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.5
Aim(s) and intended outcome(s)

Record the success of observable guillemot AOSs through vantage point observations and camera trap observations to estimate productivity.
Methodology
Species: Guillemot Location: Coque Lihou, La Nache and North Stack High on Les Etacs Date and time range: April – June data collection, July – November data analysis Methods: 1. Count the number of nests or nesting attempts following intensive monitoring at each potential nesting site. 2. Monitor breeding activity every few days (e.g. fish returns, attendance) via onshore observations with a scope alongside population counts. 3. Where trail cameras are deployed overlooking nesting areas, images are also used to count nesting attempts and their outcomes recorded. 4. Any signs of previous nesting activity, such as broken eggshells found at new loci during the post-season site visits, are also added to the counts posthumously. 5. On North-Stack High, observe guillemot AOS every 1-2 days from the day the first chick is observed, and monitor all active sites through to jumping. Protocol and timeline for analysis of data: July – November 6. Estimate mean productivity across all sites following Seabird Monitoring Handbook guidelines (Walsh, et al. 1995). Data archiving and public access protocols: 7. Submit mean productivity across all sites to the Seabird Monitoring Programme (SMP) database. 8. Report in Ramsar review, giving mean productivity across all sites.
Additional information
North-Stack High is observed differently because a large sample of guillemot AOS are clearly visible from the shore.
References
Walsh, P., A. de Nevo, D. J. Halley, I. W. M. Sim, and M. P. Harris. 1995. Seabird monitoring handbook for Britain. Joint Nature Conservation Committee, Peterborough.

Method/ Action title
Ringed plover population size and productivity
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.5.1
Aim(s) and intended outcome(s)
Monitor number and success of ringed plover nests to determine population size and productivity
Methodology
Species: Ringed plover Location: Platte Saline, Clonque and Saye Date and time range: Mid-March – July data collection, August – November data analysis Methods: 1. Nests on Platte Saline, Clonque and Saye are located as soon as possible once laying has begun through a combination of beach walkovers followed by retreat and observation of alarm calling ringed plover adults, and vantage point observations of potential sites. Each beach is checked twice a week in the breeding season for new nests.

2. Located nests are then checked regularly by vantage-point observation (using a telescope) at least three times a week. BTO behaviour status codes are used to classify adult (and where relevant) pulli behaviour, and observations last the minimum of the amount of time to determine the nest status and the number of chicks. When nests failed, attempt to identify cause of failure based on observed predator interactions, and any remaining physical evidence at a nest inspection (e.g. punctures in egg shells caused by avian predation). Egg and chick survival is calculated using the Mayfield method. 3. Where possible, located nests are placed under 24-hour observation using trail cameras to better identify causes of nest failure and reduce the number of in person observations required. Specifically, placing Ltl Acorn trail cameras with wide angle and close focus capabilities (or equivalent) two to three metres from each nest and camouflaging them using nearby flotsam (e.g. seaweeds) to minimise disturbance to the birds. Cameras are only be placed in areas with sufficient cover that the camera would not itself draw the attention of people or intelligent predators (e.g. crows) to the nest. Protocol and timeline for analysis of data: August – November 4. Review footage to identify causes of nest failure at egg stage and record any predator interactions. 5. Estimate population size and productivity Data archiving and public access protocols: 6. Report in Ramsar review, giving number of breeding pairs, number of nesting attempts, number of hatched chicks, number of fledged chicks and productivity.
Additional information
References

Method/ Action title
Ringed plover nest cordons
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.5.2
Aim(s) and intended outcome(s)
Installation of rope cordons to protect ringed plover nests and improve clutch survival
Methodology
Species: Ringed plover Location: Platte Saline and Saye Date and time range: Mid-March to July Methods: 1. Identify probable nest sites ahead of the breeding season from locations that had been previously occupied, and which are located above the high-water mark and in suitable habitat. 2. Place rope cordons around these probable areas on Platte Saline, creating relatively large cordoned areas, unless an existing barrier (such as the wall to the East of the sand works) already limits potential disturbance. 3. Construct and install these cordons in mid-March by siting metal rebar poles at four-metre intervals to create a rectangle with a shortest side of approximately 20 m down the shoreline. Then attach two lines of manila rope to the top and middle of the poles. These heights allow birds underneath the rope while still acting as a deterrent to people and dogs entering.

4. Public information signs are displayed alongside the cordons. Once a nest at Saye is identified, place another rope cordon around this nest as well.
5. Remove cordons in July once ringed plovers have finished breeding.
Additional information
References

Method/ Action title
Ringed plover disturbance monitoring and causes of nest failure
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.5.1
Aim(s) and intended outcome(s)
Monitor disturbance and potential causes of nest failure to ringed plover nests using camera traps and vantage point observations
Methodology
Species: Ringed plover Location: Platte Saline, Clonque and Saye Date and time range: Mid-March to July data collection, August – November data analysis Methods: 1. Where it is possible to, deploy trail cameras on incubating nests. 2. In cases where this is not possible (e.g. camera would attract attention to nest), conduct observations for one hour per nest twice per week in the early morning (within three hours of dawn) when avian predators are most active. Observations may include ringed plover responses to humans, dogs, or natural predators (e.g. crows, kestrels), the estimated distance at which this response was triggered, and the duration of any defensive response (e.g. flushing from a nest, chicks ‘freezing’). 3. For hatched nests, follow this procedure to better understand potential causes of nest loss at the chick stage. Protocol and timeline for analysis of data: August - November 4. Review footage from trail cameras, recording disturbance and any potential causes of nest failure at egg stage. Data archiving and public access protocols: 5. Report in Ramsar review, giving causes of disturbance at egg stage and chick stage, ringed plover defensive responses and causes of nest failure where possible.
Additional information
References

Method/ Action title
Round island seabird census
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf

4.1.6.1
Aim(s) and intended outcome(s)
Census of breeding birds around Alderney to estimate breeding population sizes
Methodology
Species: European shag, great cormorant, herring gull, lesser black-backed gull, great black-backed gull, common tern, northern fulmar Location: Around the Ramsar site and Alderney Date and time range: Late May – early June data collection, July – November data analysis Methods: 1. Three boat-based surveys conducted between late May and early June. 2. AONs recorded based on species specific observations (see Walsh et al. 1995). AOTs or other lower designations may also be stipulated. 3. Maximum count of nest sites recorded as primary count. Protocol and timeline for analysis of data: July - November 4. Calculate total number of AONs and AOTs for each species on each survey day. Data archiving and public access protocols: 5. Submit the maximum counts for AONs and AOTs for each species to the Seabird Monitoring Programme (SMP) database. 6. Report in Ramsar review, giving the maximum counts (across the three survey days) for AONs and AOTs for each species.
Additional information
References
Walsh, P., A. de Nevo, D. J. Halley, I. W. M. Sim, and M. P. Harris. 1995. Seabird monitoring handbook for Britain. Joint Nature Conservation Committee, Peterborough.

Method/ Action title
WeBS – Wetland Bird Survey
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.6.5
Aim(s) and intended outcome(s)
Monthly standardised counts of waterbirds using bays within the Ramsar site
Methodology
Species: Waterbirds Location: Bays within the Ramsar site (Clonque Bay and Platte Saline) Date and time range: Once per month January to December Methods: 1. WeBS core counts are conducted monthly, ideally at high tide when most wetland birds are least dispersed and easiest to count, and ideally two hours before or after high tide. Clonque and Platte Saline are monitored within the Ramsar Site. 2. All birds using (e.g. not simply transiting through) the bays are recorded. Data archiving and public access protocols: 3. Submit counts to the BTO (British Trust for Ornithology) WeBS Report in Ramsar review, giving total number of species recorded, total number of individuals for each species, and the monthly peak counts for the four most frequently recorded species.
Additional information

References
BTO WeBS data submission: https://www.bto.org/our-science/projects/wetland-bird-survey/data/submit-data-request
Gull transect census
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.1.6.3
Aim(s) and intended outcome(s)
Census of breeding gulls and other birds (which are not burrow nesting) on Burhou using transect counts.
Methodology
Species: Gulls and other birds (not burrow nesting) Location: Burhou Date and time range: Late May-early June Methods: SMP methodologies will be followed. The following is adapted from the Seabird Monitoring Handbook: (Walsh et al. 1995) 1. The counting unit is the active nest (equivalent to an AON), defined as a fully constructed nest containing eggs and/or chicks (in or near the nest), or empty but judged capable of holding a clutch (i.e. well-constructed). 2. Complete the count in the last week of May if possible. 3. Small colonies can be dealt with as a whole; large colonies should be divided into a number of areas along unambiguous landscape features (or if necessary rope boundary markers). Divide the colony or area into strips and station counters no more than 10 m apart. 4. Observers should zigzag across the strips so as to cover all the area. 5. Count and note contents of every complete (active) nest. 6. Mark each active nest as it is encountered. This is usually done by spraying a little paint on the side of the nest (avoid red paint or spraying the eggs), or by marking nests with bamboo canes. If the latter are used, count the canes before you start and subtract canes left over at the end to arrive at your transect totals. 7. At the end of the count, one or more observers (or better, someone who had not taken part in the count) should recount a sample of the area to determine the proportion of active nests that had been marked. This is best done by walking back and forth across the area at 90° to the route taken during the original count. 8. Repeat the above procedure for each transect. 9. The number of active nests in each area is recorded as: (no. active nests marked) x (total no. of active nests on recount / no. of marked nests on recount) Protocol and timeline for analysis of data: 10. Calculate total population as the sum of active nests in each area. Data archiving and public access protocols: 11. Submit population count to the Seabird Monitoring Programme (SMP) database. 12. Report in Ramsar review, giving census count for Burhou
Additional information
References

Walsh, P., A. de Nevo, D. J. Halley, I. W. M. Sim, and M. P. Harris. 1995. Seabird monitoring handbook for Britain. Joint Nature Conservation Committee, Peterborough.

Responding to callouts and collection and treatment of injured or stranded animals within the Ramsar site

Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf

4.1.6.3

Aim(s) and intended outcome(s)

To receive call outs from members of the public or AWT and give appropriate advice, information, triage and either advise the animal to be brought to the clinic, or collect animals which require medical intervention where moving or handling may endanger either the animal or the handler. To care for any wildlife found in such a manner as to ensure its eventual rehabilitation and release, where possible to the area it was found or an appropriate alternative

Methodology

All mammals, birds and marine life species covered within and outside the Ramsar site across Alderney. Calls during daytime via the clinic landline number, and during OOH to be fielded via the 24/7 on call phone manned by RVNs.

Details to be taken by the caller of location and condition of the animal, if possible with the use of photographs and/or "what 3 words". If safe to do so, and required then the animal to be brought to the clinic, otherwise AAW staff to collect the animal where safe to do so, or to monitor until capture is possible without endangering either the animal or the handler.

Animals in the clinic to have detailed records of weight, injury or illnesses and triage assessment completed, before diagnosis made by the veterinary surgeon and treatment provided and regular reassessments at least daily. Ongoing medication and treatment always must consider the long term welfare of the animal including post-release as the priority.

1. Any unsuccessful treatments or decline in condition to be discussed with the veterinary surgeon, and records to be kept on file for a minimum of six years

Additional information

Only species and cases originating or located within the Ramsar site will be reported within the Ramsar reports, other detailed reports of island-wide wildlife cases will be maintained at the clinic in the same manner.

References

Walsh, P., A. de Nevo, D. J. Halley, I. W. M. Sim, and M. P. Harris. 1995. Seabird monitoring handbook for Britain. Joint Nature Conservation Committee, Peterborough.

Terrestrial

Method/ Action title

Biosecurity monitoring on Burhou and Coque Lihou

Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf

4.2.1.1

Aim(s) and intended outcome(s)

Monitor for presence of rodents on islands Burhou and Coque Lihou, where they are not currently present

Methodology

Species: Rodents spp.

Location: Burhou and Coque Lihou

Date and time range: February-March, August-November

Methods:

1. Non-toxic wax chew blocks in tamper proof bait stations are deployed in;
 - a. Burhou across a 75 x 100 m grid around the hut in addition to two stations at the east and west ends of the island.
 - b. Coque Lihou at 25 m intervals across the whole of the islet
 2. Trail cameras are deployed on both sites set on PIR mode.
 3. Bait stations and trail cameras are checked monthly outside of the seabird breeding seasons for each site*
- *Burhou bait stations checked in August when the island is opened to the public, storm petrel breeding season still ongoing at this point.
4. Should a rodent incursion be detected, rodent control will be rapidly deployed by AWT and in collaboration with the States Public Works. This will protect nesting seabirds and other native wildlife.
 - a. If required, this control may include; bromadiolone bait stations, A24 humane traps, other methods at the discretion of States Public Works.
 - b. Campaign for Responsible Rodenticide Use (CRRU) code of conduct will be followed and it will be managed by qualified individuals, e.g. with Principles of Rodent Control qualification.

Additional information

Acoustic monitoring equipment, if deployed, may also be used to detect rodents on these sites.

References

CRRU Code of Conduct: <https://www.thinkwildlife.org/code-of-best-practice/crru-code/>

Rodent control certificate: <https://training.killgerm.com/open-awards-level-2-award-in-the-principles-of-rodent-control/>

Method/ Action title

Bat detector deployment for Bailiwick Bat Survey

Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf

4.2.2

Aim(s) and intended outcome(s)

Deployment of bat detector on Burhou as part of the Bailiwick Bat Survey to identify bat species present on Burhou

Methodology

Species: Bats, birds, small mammals, insects

Location: Burhou

Date and time range: 1 August – 31 October

Methods:

1. Ensure bat detectors (Wildlife Acoustics Song Meter Mini Bat) are configured as per Bailiwick Bat Survey methods, to record when each detector is triggered by an ultrasonic call between half an hour before sunset and half an hour after sunrise. The detectors are configured with a sample rate of 256 kHz and a high pass filter of 12 kHz. Recording is set to continue until no trigger is detected for a 2 second period up to a maximum of 5 seconds.

2. Deploy bat detector(s) on Burhou attached to the top of 2-m long poles pushing approx. 20cm into ground, at least 1.5 m away from any obstacles, avoiding sensitive areas on Burhou (e.g. puffin burrow areas, active seabird nesting areas and grey seal haul-out areas) 3. Retrieve bat detector(s) after a minimum of four nights of recording Protocol and timeline for analysis of data: August - October 4. Upload recordings to the BTO's Acoustic Pipeline where they are classified by machine learning. At the end of the year, recordings are manually verified by the BTO. Data archiving and public access protocols: 5. Report in Ramsar review, giving each species detected on Burhou and the number and type of calls recorded for each.
Additional information
References
BTO Acoustic Pipeline – https://www.bto.org/our-science/products-and-technologies/bto-acoustic-pipelineithology Bailiwick Bat Survey - https://bats.org.gg/bailiwick-bat-survey/

Marine

Method / Action title
Phase I intertidal habitat survey of Clonque and Les Etacs
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.3.1.1.
Aims(s) and intended outcome(s)
To record marine intertidal habitat presence, location, distribution, frequency and extent within selected intertidal bays across Alderney, including within the Ramsar Site.
- Method(s) including: - The species, habitat(s), feature(s), etc, studied/affected - The location(s) - Date and time range(s) - The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc. - The protocol and timeline for analysis of data. - Data archiving and public access protocols.

Method:

The Phase I intertidal habitat survey method follows the ‘Procedural Guideline 1-1 Intertidal Resource Mapping Using Aerial Photographs’ methodology from JNCC’s Marine Monitoring Handbook (Davis *et al.*, 2001). The method comprises of identifying intertidal habitats using high resolution aerial photographs during ground-truthing fieldwork (either on foot or boat-based).

Intertidal habitats are classified following The Marine Habitat Classification for Britain and Ireland Version 04.05 (revised by JNCC, Connor *et al.*, 2004). This classification is fully compatible with the European EUNIS habitat classification system.

Location(s):

Phase I intertidal habitat surveys are carried out across accessible intertidal rocky-shore bays across Alderney, such as Longis Bay. Within the Ramsar Site, Clonque Bay, Hanaine Bay and Burhou are key sites to survey.

Survey time range:

In general, this survey method is repeated every five years, per bay/site.

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions).
- Intertidal habitat presence, location, (spatial) distribution, frequency and extent.

Data archiving:

Information for this survey is held within the Alderney Biodiversity Centre.

Additional Information

N/A

References

Connor, D.W., Allen, J.H., Golding, N., Howell, K.L., Lieberknecht, L.M., Northen, K.O., & Reker, J.B. 2004. *The Marine Habitat Classification for Britain and Ireland Version 04.05*. Peterborough: Joint Nature Conservation Committee.

Davies, J., Baxter, J., Bradley, M., Connor, D., Khan, J., Murray, E., Sanderson, W., Turnbull, C., & Vincent, M. 2001. *Marine Monitoring Handbook*. Peterborough: Joint Nature Conservation Committee.

Method / Action title

Shoresearch walkover survey

Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024)

[Alderney-Ramsar-Action-Plan-2024.pdf](#)

4.3.2.2.

Aims(s) and intended outcome(s)

To record intertidal rocky-shore species presence within selected intertidal habitats/areas on Alderney (including those within the Ramsar Site), with interested members of the public, through citizen science.

- Method(s) including:
- The species, habitat(s), feature(s), etc, studied/affected
- The location(s)
- Date and time range(s)
- The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc.
- The protocol and timeline for analysis of data.
- Data archiving and public access protocols.

Method:

The Shoresearch walkover survey method follows the survey technique developed by the Royal Society of Wildlife Trusts (RSWT). This method first comprises of selecting an intertidal habitat/area within a rocky-shore bay. The boundary of the selected intertidal habitat/area is recorded by GPS. Interested members of the public then help identify and record all intertidal species (e.g. species presence) within the selected area.

Location(s):

Shoresearch walkover surveys are carried out on accessible intertidal rocky-shore bays across Alderney, such as Braye Bay and Longis Bay. Within the Ramsar Site, Clonque Bay is a key site for this survey.

Survey time range:

In general, three-four times a year, per selected rocky-shore bay.

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions).
- Intertidal habitat/selected area description and spatial location.
- Intertidal species presence.

Data archiving:

Information for this survey is held within the Alderney Biodiversity Centre. The results are submitted to the RSWT Shoresearch national database.

Additional Information

N/A

References

The Wildlife Trusts. 2024. [Online:] Shoresearch. [Available at:] <https://surveys.wildlifetrusts.org/> [Accessed: 1912/2024].

Method / Action title
Coastal erosion survey
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.3.3.1
Aims(s) and intended outcome(s)
As part of a AWT (Alderney Wildlife Trust) climate change assessment, the aim of this survey is to identify and measure coastal erosion at key areas across Alderney's coastlines (including coastal areas within the Ramsar Site).
- Method(s) including: - The species, habitat(s), feature(s), etc, studied/affected - The location(s) - Date and time range(s) - The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc. - The protocol and timeline for analysis of data. - Data archiving and public access protocols.
Method: The coastal erosion survey method follows the stake site technique as described in Buzard <i>et al.</i>, 2019. The method comprises of selecting a series of monitoring transects across coastal areas to identify sites prone to coastal erosion. A monitoring transect consists of three monitoring stations, with the first station located at the edge of a cliff/path. Further monitoring stations are then setup at graduated distances away, (approximately 15 m intervals) along the transect. The distance (m) between each monitoring station is then measured over time to identify coastal erosion (e.g. land lost over time). Location(s): For Alderney, this includes the coastal areas of: Braye Bay (East end), Clonque Bay (coastal path from Fort Tourgis carpark leading to Fort Clonque) and Corblets Bay (along grassy area adjacent to carpark). Survey time range: Annually. Parameters measured:

- General survey metadata (e.g. date/time/weather conditions). - Distance between monitoring stations (m). Data archiving: Information for this survey is held within the Alderney Biodiversity Centre. The results will be included within a Climate Change Assessment report, due to be completed by the end of 2025 (as a AWT Living Seas Programme objective).
Additional Information
N/A
References
Buzard, R.M., Overbeck, J.R., and Maio, C.V., 2019, Community-based methods for monitoring coastal erosion: Alaska Division of Geological & Geophysical Surveys Information Circular 84, 35 p. http://doi.org/10.14509/30182

Method / Action title
Green ormer tagging and abundance survey
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.3.4.1
Aims(s) and intended outcome(s)
To record the presence, abundance, location, shell condition and movement patterns of green ormer (<i>Haliotis tuberculata</i>), within selected rocky-shore bays across Alderney (including bays within the Ramsar Site).
- Method(s) including: - The species, habitat(s), feature(s), etc, studied/affected - The location(s) - Date and time range(s) - The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc. - The protocol and timeline for analysis of data. - Data archiving and public access protocols.

Method:

The green ormer survey method was developed by the AWT, following initial guidance from the Government of Jersey, Société Jersiaise and the La Société Guernesiaise in 2013. This survey method was then updated in 2022 by the AWT to increase the opportunity to record previously tagged individuals.

The survey is undertaken within selected mid-lower rocky-shore bays across Alderney, including sites within the Ramsar Site. Within each bay, two 10m² survey squares are established. General metadata (e.g., substrate type, weather conditions) and the GPS coordinates of each survey square's corner are taken. Within each survey square, surveyors stand in a line and walk in the same direction, turning rocks by hand, searching for green ormer individuals. If a green ormer individual is found, metadata (e.g., size, shell quality etc.) and photographs of the individual are taken. For large/adult individuals, a numbered yellow fish-tag is then attached with superglue to the topside of the shell (to assess movement patterns). Once the first survey square has been searched, surveyors will then establish the second survey square; adjacent to the first. The survey is then repeated within 72 hours, e.g. the 3rd day.

Location(s):

Green ormer surveys are carried out on accessible intertidal rocky-shore bays across Alderney, such as Braye Bay and Longis Bay. Within the Ramsar Site, Clonque Bay is a key site for this survey.

Survey time range:

During early spring and autumn only (two surveys within 72 hour period), to avoid key green ormer breeding period in the summer.

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions).
- Green ormer species presence, abundance, location and shell condition.
- Green ormer tagging information (movement patterns).

Data archiving:

Information for this survey is held within the Alderney Biodiversity Centre.

Additional Information

N/A

References**Method / Action title**

Intertidal crab abundance and population dynamics survey, and, intertidal crab photo bank

Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024)

[Alderney-Ramsar-Action-Plan-2024.pdf](#)

4.3.5.1

4.3.5.2

Aims(s) and intended outcome(s)

To record the presence, abundance, size, sex and shell condition of crab species, within selected intertidal rocky-shore bays across Alderney.

- Method(s) including:
- The species, habitat(s), feature(s), etc, studied/affected
- The location(s)
- Date and time range(s)
- The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc.
- The protocol and timeline for analysis of data.
- Data archiving and public access protocols.

Method:

The intertidal crab abundance and population dynamics survey method and the intertidal crab photo bank was developed by the AWT. Initial assistance on the recorded parameters: size and shell morphometric measurements was provided by the Government of Jersey.

The surveys are undertaken within selected mid-lower sections of intertidal rocky-shore bays across Alderney, including sites within the Ramsar Site.

Surveys are completed within intertidal rocky-shore sub-habitats/areas (e.g. sub-survey sites with approximately area of 30 m²) with volunteer citizen scientists. Surveyors first lay down a 20 m transect line and record latitude and longitude at start and end of the transect. Surveyors record general metadata of the site e.g. weather conditions, habitat type etc. Beginning at the two m mark, surveyors then turn over the nearest rock. Under each selected rock, the species type and abundance of each crab individual is recorded. For larger sized priority species such as the Chancre (*Cancer pagurus*), the sex, size and shell condition of each crab is recorded. A photograph of these crab individuals that show disease, poor shell condition or attached species (such as calcified worm species) is taken (for the photo bank). All crab individuals and rocks are returned to their original location.

This method is then repeated every two m intervals (totalling ten rocks) along the transect line. A second transect line is then set down, adjacent to the first transect line, approximately 10 m away, with the survey method repeated again.

Location(s):

The intertidal crab abundance and population dynamics survey and, the intertidal crab photo bank are carried out on accessible intertidal rocky-shore bays across Alderney, such as Braye Bay and Longis Bay. Within the Ramsar Site, Clonque Bay is a key site for this survey.

Survey time range:

Four times a year (e.g. seasonal time-periods), per bay.

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions). - Intertidal crab species presence, abundance, sex, size and shell condition. - Intertidal crab species' shell disease/poor condition. Data archiving: Information for this survey is held within the Alderney Biodiversity Centre.
Additional Information
N/A
References

Method / Action title
Marine INNS: Devil's tongue survey
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.3.6.1
Aims(s) and intended outcome(s)
To record the marine invasive non-native species (marine INNS), devil's tongue (<i>Grateloupia turuturu</i>) presence, location, extent and habitat preference within selected rocky-shore bays across Alderney.
- Method(s) including: - The species, habitat(s), feature(s), etc, studied/affected - The location(s) - Date and time range(s) - The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc. - The protocol and timeline for analysis of data. - Data archiving and public access protocols.

Method: The marine INNS devils tongue survey method was developed by the AWT, for the AWT Living Seas Programme’s marine INNS plan (2024). This field-based method comprises of surveyors walking along intertidal rocky-shore bays searching for the presence of the marine algae, devil’s tongue (<i>Grateloupia turuturu</i>). Once the marine algae species is found, the extent/distribution of this species and localised habitat type present is recorded. Location(s): Marine INNS devils tongue surveys are carried out on accessible intertidal rocky-shore bays across Alderney, such as Braye Bay and Longis Bay. Within the Ramsar Site, Clonque Bay is a key site for this survey. Survey time range: In general, once a year, per bay/survey site. Parameters measured: - General survey metadata (e.g. date/time/weather conditions). - Devils tongue species presence, location and extent/distribution. - Associated intertidal habitat/localised area description. Data archiving: Information for this survey is held within the Alderney Biodiversity Centre.
Additional Information
N/A
References

Method / Action title
Promote Seasearch snorkels and dives within the Ramsar Site
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.3.7.1
Aims(s) and intended outcome(s)
To record marine subtidal habitats and species through citizen science, with volunteer scuba divers and snorkellers across Alderney’s territorial waters.
- Method(s) including: - The species, habitat(s), feature(s), etc, studied/affected - The location(s) - Date and time range(s)

- The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc. - The protocol and timeline for analysis of data. - Data archiving and public access protocols.
Method: Seasearch is a citizen science project led by the Marine Conservation Society (MCS) to record marine habitats and species with volunteer scuba divers and snorkellers (see here: https://www.seasearch.org.uk/). Trained volunteers record key environmental conditions, marine habitat type, species presence and their relative abundance (using a SACFOR scale), during recreational scuba dives/snorkels. Location(s): Seasearch surveys are carried out within shallow, inshore sublittoral environments throughout Alderney's territorial waters, including the Ramsar Site. Survey time range: In general, from early summer (May) – autumn (October). Surveys are dependent upon weather/tide conditions and seawater visibility. Parameters measured: - General survey metadata (e.g. date/time/location). - General dive/snorkel/environmental conditions. - Subtidal habitat type(s)/selected area description. - Subtidal species presence and abundance (using a SACFOR scale). Data archiving: Seasearch volunteers submit their survey records to their local Seasearch coordinator and/or the AWT (which are the local coordinators for Alderney). Information for this survey is held within the Alderney Biodiversity Centre. The results are submitted to Seasearch and the JNCC Marine Recorder by the AWT, which are then subsequently added to the national biodiversity network (once survey results are verified etc.,).
Additional Information
N/A
References
Seasearch. 2024. [Online:] Seasearch. [Available at:] https://www.seasearch.org.uk/ [Accessed: 19/12/2024].

Method / Action title

Marine mammal surveying

Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024)

[Alderney-Ramsar-Action-Plan-2024.pdf](#)

4.3.12.1

4.3.12.2

4.3.12.3

And also:

4.3.13.1

Aims(s) and intended outcome(s)

To record marine mammal species presence, location, abundance, population structure and behaviour across Alderney's territorial waters, including the Ramsar Site. This includes recording stranded marine mammal individuals.

Note from AAWS

To assist and accompany any and all activities and organisations who request assistance with monitoring marine mammal populations including grey seals, or to visit previously active breeding sites to assess for any signs of ill health, any disturbance activities which may impact the populations and make any applicable suggestions to changes in protocol or procedure which may be supportive.

- **Method(s) including:**
- **The species, habitat(s), feature(s), etc, studied/affected**
- **The location(s)**
- **Date and time range(s)**
- **The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc.**
- **The protocol and timeline for analysis of data.**
- **Data archiving and public access protocols.**

Method:

To assess marine mammal species presence, location, abundance, population structure and behaviour across Alderney's territorial waters, a series of survey methods have been adopted by the AWT. This includes: grey seal effort (boat) based surveys, photographic identification catalogue development, land-based effort surveys and general collation of marine mammal sightings, including stranded (alive/dead) individuals.

The grey seal effort (boat) based surveys follow a survey method developed by Groupe Mammalogique Normand (GMN). This method comprises of regular boat-based surveys which transit to known offshore grey seal haul out sites around Alderney. Experienced surveyors (a minimum of two) spot and record grey seal presence (abundance counts), location (sub survey site) and population information such as age (adult, juvenile/weaner, pup or unknown), sex (male, female or unknown), behavioural information of each seal individual (e.g. hauled out, swimming, feeding, bottling, disturbance (looked at boat, entered water, stampede)) during the survey. Photographs are taken of each individual seal (where possible) for the photographic identification catalogue.

The photographic identification catalogue comprises of high-resolution photographs of grey seal individuals (head, neck and body, either hauled out on rocks or in water). This

information can help complement grey seal abundance surveys, through accurately identifying grey seal group dynamics/structure and distribution/movements. The on-going development of this catalogue comprises of the AWT collating photographs during surveys (e.g. boat-based surveys) or those donated by members of the public and updating/matching photographs with known/easily identifiable seal individuals within the catalogue.

The land-based survey method follows the Sea Watch Foundation (SWF) survey technique. This survey comprises of experienced surveyors recording general metadata, environment conditions and the presence, abundance, movement and behavioural patterns of marine mammals every 15 minutes from a fixed high position, such as a cliff-face.

General marine mammal sighting collation by the AWT includes collecting sightings of species (such as grey seals) from the public, stakeholders and groups, opportunistically. This includes collating sightings via the AWT sightings book (within the AWT Information Centre), AWT website, AWT social media platforms and irecord (online recording platform). For opportunistic sightings of stranded marine mammal individuals (alive or dead), the species type, status and condition of the individual is recorded, where appropriate (either by AWT staff, AAWS, marine life rescue volunteers, SoA personnel and members of the public).

Location(s):

Grey seal effort (boat) based survey: throughout the offshore islets within the Ramsar Site e.g. Ortac, Nannals etc.

Land-based effort survey: cliff-based locations across Alderney.

Survey time range:

Grey seal effort (boat) based survey: monthly, where possible (based on weather/tide conditions/ volunteer time).

Photographic identification catalogue development: all year round.

Land-based effort survey: once a year, where appropriate.

General collation of marine mammal sightings/stranding information: all year round.

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions).
- Marine mammal species presence, location, abundance, population structure and behaviour.
- General species sighting records (including stranded individuals). This includes species type, location, date/time spotted, size, population information etc. For stranded individuals this may also be status (alive/dead), sex, age, condition and individual body size.

Data archiving:

Information for these surveys are held within the Alderney Biodiversity Centre. Grey seal effort (boat) based survey information is submitted to GMN. Land-based effort survey information is submitted to the SWF. Dead stranded marine mammal information is submitted to the UK Cetacean Strandings Investigation Programme (CSIP).

Additional Information

For the management and also the recording of marine mammal strandings, two internal policies are adopted (live/dead) which are developed and implemented by AWT, AAWS and SoA. See Ramsar Objective 4.3.13 for further details.

NOTE FROM AAWS

On receipt of notice of a planned excursion, AAW will arrange an RVN who can volunteer to accompany the organisation and assist with all activities undertaken as well as make considerations specific to the welfare of the all species and populations in the area.

This assistance is given on a voluntary basis and is subject to sufficient staffing levels and caseload or emergencies occurring at the clinic which must take priority for RVNs on duty or under sole charge conditions.

During the monitoring or assessment activities if any such urgent issue should arise where the RVN feels they must give advice or intervene with unnecessary or excessive disturbance activities, relocate or treat an animal due to injury, or suggest a change in protocol of the activity, they will discuss with the relevant organisation who have organised the activity, colleagues and peers potentially including veterinary surgeons such as States Veterinary Officer.

In all cases RVNs will endeavour to appreciate the scope and parameters of monitoring activities before the task is undertaken, so that any suggestions or concerns can be raised in ample time. If after the event during discussion any unforeseen concerns arise these will be discussed with the organisers immediately.

References

Method / Action title

Marine mammal stranding response - training and response during strandings

Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024)
[Alderney-Ramsar-Action-Plan-2024.pdf](#)

4.3.13

Aims(s) and intended outcome(s)

Qualified British Divers Marine Life Rescue (BDMLR) Marine Life Medics KK and KH will keep their training up to date, and assist more to complete their initial and refresher training as required. Liaising with the BDMLR Channel Islands Coordinator Donna Gicquel de Gruchy during active strandings and the organisation of suitable new training courses.

Maintain the volunteer roster to assist with monitoring live strandings, and coordinating any appropriate intervention, relocation or rehabilitation of live stranded animals.

Successfully assess, treat, rehabilitate or relocate any marine mammals who strand and require intervention, as well as providing timely and appropriate euthanasia if required

- **Method(s) including:**
- **The species, habitat(s), feature(s), etc, studied/affected**
- **The location(s)**
- **Date and time range(s)**
- **The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc.**
- **The protocol and timeline for analysis of data.**
- **Data archiving and public access protocols.**

After a call out from member of public or AWT regarding a current live stranding of marine mammals AAW will endeavour to send one of their BDMLR Medics to the scene to assess and discuss with the Area coordinator and veterinary surgeon on duty. Once advice or assessment has been completed the animal will either be monitored, treated, relocated for treatment or euthanased. At this stage a volunteer roster will be coordinated to ensure the animal is left undisturbed but changes to the environment or animal can be noted. Volunteers and Medics will use provided information and logging sheets to record details of changes during a stranding, and Medics will regularly (at least once daily) discuss with area coordinator and/or veterinary surgeon the continuation or change of current actions and animal status. If at any stage the animal either in the natural habitat or in rehabilitation facilities is deemed of significantly poor welfare and unsuitable for release the decision may be made to euthanise. Social media and advertisement of an active stranding should be minimised for as long as possible to reduce traffic and disturbance activities, though very local signage can be useful to deter foot traffic and assist with volunteers monitoring an animal safely.

This method applies to grey seals as described, and the likely outcomes of a cetacean stranding include refloating or humane euthanasia.

Additional Information

The AAW will support and assist those who wish to become Marine Life Medics through the BDMLR either by arranging courses, notifying interested parties of training available, encouraging refresher courses to be completed in a timely fashion and providing appropriate engagement activities in the community.

References

The AAW will support and assist those who wish to become Marine Life Medics through the BDMLR either by arranging courses, notifying interested parties of training available, encouraging refresher courses to be completed in a timely fashion and providing appropriate engagement activities in the community.

Method / Action title

[Beach cleans at Clonque, Hanaine and Platte Saline](#)

Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024)

[Alderney-Ramsar-Action-Plan-2024.pdf](#)

4.3.15.1

Aims(s) and intended outcome(s)

To undertake public beach clean events and record collected litter waste, following the Marine Conservation Society's (MCS) beach clean survey method.

- **Method(s) including:**
- **The species, habitat(s), feature(s), etc, studied/affected**
- **The location(s)**
- **Date and time range(s)**

- The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc. - The protocol and timeline for analysis of data. - Data archiving and public access protocols.
Method: The beach clean survey method follows the MCS beach litter survey technique (see here: https://www.mcsuk.org/what-you-can-do/join-a-beach-clean/). The method comprises of recording collated litter (type and abundance) along a 100 m section of a beach with members of the public, alongside a general beach clean event. Location(s): Beach cleans are carried out across accessible bays on Alderney, such as Longis Bay. Within the Ramsar Site, beaches such as Clonque Bay, Platte Saline and Hanaine Bay are cleaned and surveyed. Survey time range: In general, one-two times per bay/beach annually. Parameters measured: - General survey metadata (e.g. date/time/weather conditions). - Litter type and abundance. - Overall number and weight of bagged litter. Data archiving: Information for this survey is held within the Alderney Biodiversity Centre. The results are submitted to the MCS beach clean national database.
Additional Information
N/A
References
MCS. 2024. [Online:] <i>Beach Cleans</i> . [Available at:] https://www.mcsuk.org/what-you-can-do/join-a-beach-clean/ [Accessed: 19/12/2024].

Method / Action title
Puffin Equipment Repair During Closed Season Methodology
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.4.1.1
Aims(s) and intended outcome(s)

The puffin cam is essential for the ecological monitoring required to assess productivity, kleptoparasitism/predation, and population size of Burhou's Puffin population, and it has enabled a dramatic reduction in the traditional level of disturbance required to carry out monitoring in the breeding season which historically required multiple visits during the season. Should the PuffinCam equipment on Burhou fail, it will be necessary to land on the island to repair or replace the broken equipment. This can be done with very little disturbance following the method detailed below.

- **Method(s) including:**
- **The species, habitat(s), feature(s), etc, studied/affected**
- **The location(s)**
- **Date and time range(s)**
- **The study or action design, including (where relevant) what will be measured, whether samples are taken, any control variables measured, treatments, requirement to handle wildlife, data collection method, etc.**
- **The protocol and timeline for analysis of data.**
- **Data archiving and public access protocols.**

Method:

The trip will be coordinated by the ARAG, with the Harbour Office, SoA and Activity Organisations notified. Several precautions will be taken to minimise disturbance on the Breeding seabirds, the procedure is as follows:

1. A team of two will be landed on the south side of Burhou (away from the Puffin and Gull breeding area) by tender from Sula of Braye, which will then sit away from the Puffin Friendly Zone.
2. The team will walk directly to the warden's hut (shed) carrying replacement equipment with them. This will include spares to minimise the need for a revisit in case of failure during the visit.
3. The fault will be troubleshooted from the hut, out of view of the seabirds.
4. If any repairs need to be undertaken outside of the hut, the team will not walk across the Puffin or Gull breeding areas. The camera equipment is not located within a breeding area.
5. When complete, the team will radio for pickup, and walk directly from the hut to the pickup point on the south of Burhou

Location(s):

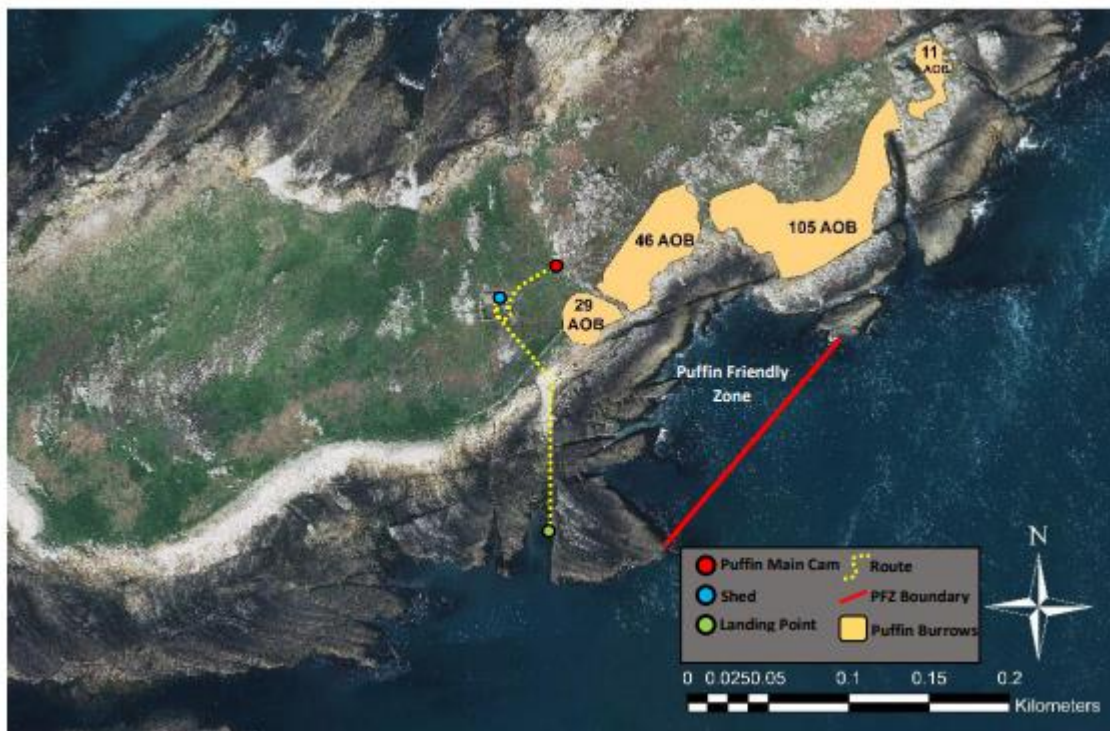


Figure 1. The breeding areas of the puffins, the landing point, shed and PuffinCam, as well as the intended route a team would take if required to replace parts directly attached to the camera

Additional Information

N/A

References

Appendix 2: Funding Summaries

See funding summaries for work in 2024 here: <http://www.ci-ramsar.com/wp-content/uploads/2025/03/Alderney-Ramsar-work-programme-funding-review-sheet-2024.pdf>

Appendix 3: Data

All Alderney Ramsar data licensed: [CC BY-NC](#),

Copyright rests with States of Alderney and contributing parties, queries for commercial use should be sent to ramsar@alderneywildlife.org

Using this dataset:

You will ensure that the citation is included in full in the reference list of any reports or publications that describe any research in which the Data have been used.

This site is in development, publications from other Channel Islands Ramsar sites will be added soon.

In addition to data supplied in this review (Alderney Ramsar Review 2024):

Historic Seabird data: <http://www.ci-ramsar.com/wp-content/uploads/2025/03/Historic-seabird-data-updated-2024.xlsx>

Marine Ramsar data: <http://www.ci-ramsar.com/wp-content/uploads/2025/03/Marine-surveys-Ramsar-review-2024-Data.xlsx>

Appendix 4: Feedback

Alderney Ramsar Advisory Group (ARAG) feedback available here: <http://www.ci-ramsar.com/wp-content/uploads/2025/03/Alderney-Ramsar-Advisory-Group-Feedback-2024-2025.pdf>

Appendix 5: Document History

Version	Date	Contributors (bold), Reviewers (standard font)	Notes
1	27/11/2024	A Purdie.	Basic formatting and introduction sections. Request submitted for submissions from activity organisations (AAWS, ABO, AWT, CIBRS)
2	10/01/2025	M Broadhurst-Allen, A D Castella, T Cox, K Huitson, K Kissock, N McDevitt, M Lewis	Feedback received from activity organisations (AAWS, AWT)
3	10/02/2025	A Purdie , P Atkinson, F Binney, M Broadhurst-Allen, P Buckley, A D Castella, D Chamberlain, T Cox, K Huitson, K Kissock, N McDevitt, M Lewis, A Rose.	Compiled version reviewed by activity organisations (AAWS, AWT), ARAG and SoA Harbour Master.
4	03/03/2025	A Purdie.	Final version compiled by A Purdie
5	14/03/2025	General Services Committee	Noted by GSC.