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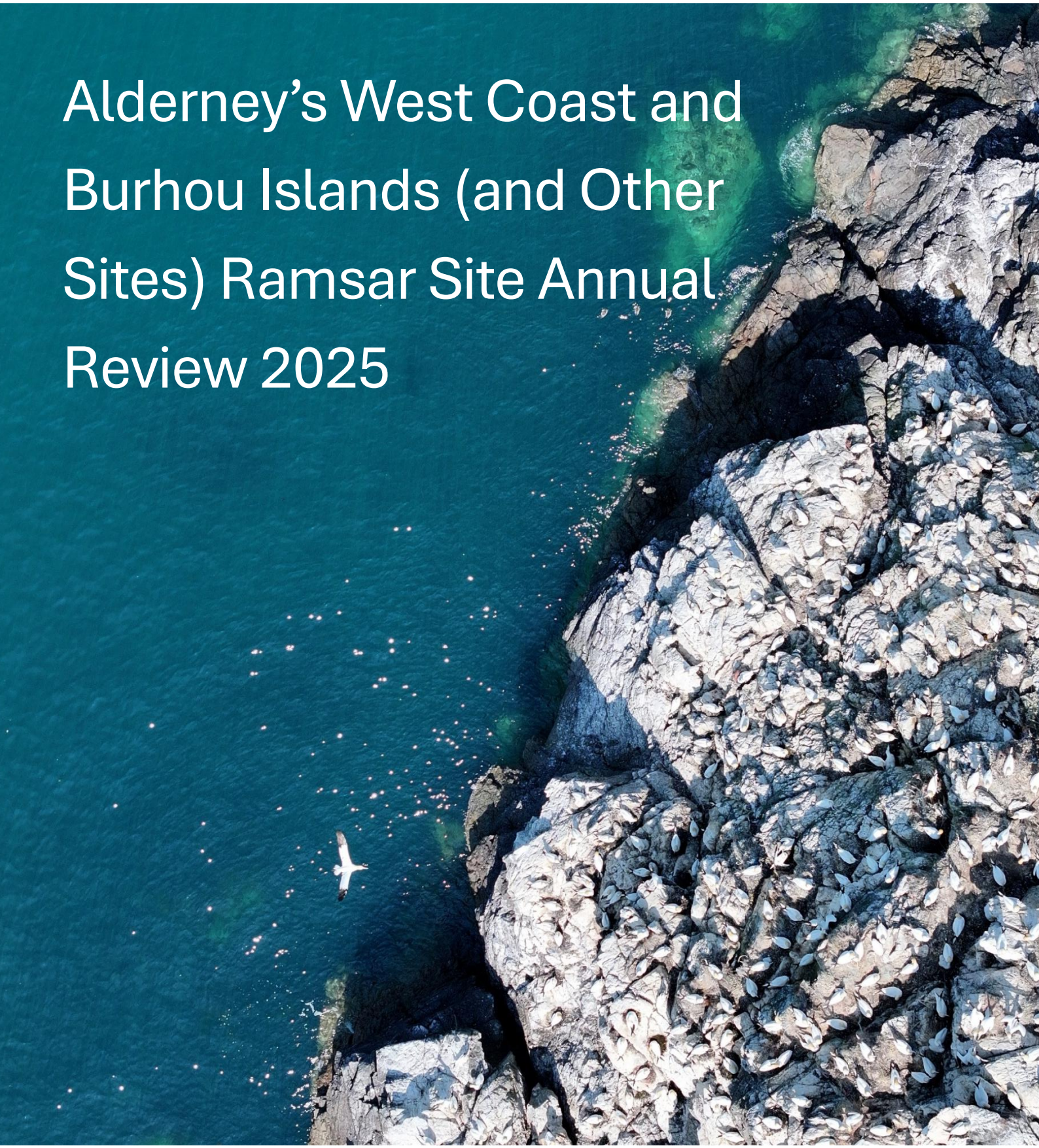
Alderney's West Coast and Burhou Islands (and Other Sites) Ramsar Site Annual Review 2025



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Alderney Animal Welfare Society

CIBRS

Alderney West Coast and Burhou Islands (and Other Sites) Ramsar Site Annual Review 2025

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This review compiles six individual reports which represents the work conducted by four non-governmental organizations. These reports may be cited individually or as part of this document.

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Cover photo: Les Etacs 2025 drone census imagery, Alderney Wildlife Trust

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Preface

Alex Purdie, Alderney Ramsar Secretariat

Alderney's West Coast and Burhou Islands Ramsar Site is a marine wetland of huge local and international significance. Since its designation in 2005, the States of Alderney has supported the work of organisations including the Alderney Wildlife Trust, Alderney Animal Welfare Society, Alderney Bird Observatory and the Channel Islands Ringing Scheme in helping to study and protect this incredible marine area. Since 2019, additional areas of importance for species within the Ramsar Site have also been reported in this review, with the title adapted to include "and other sites".

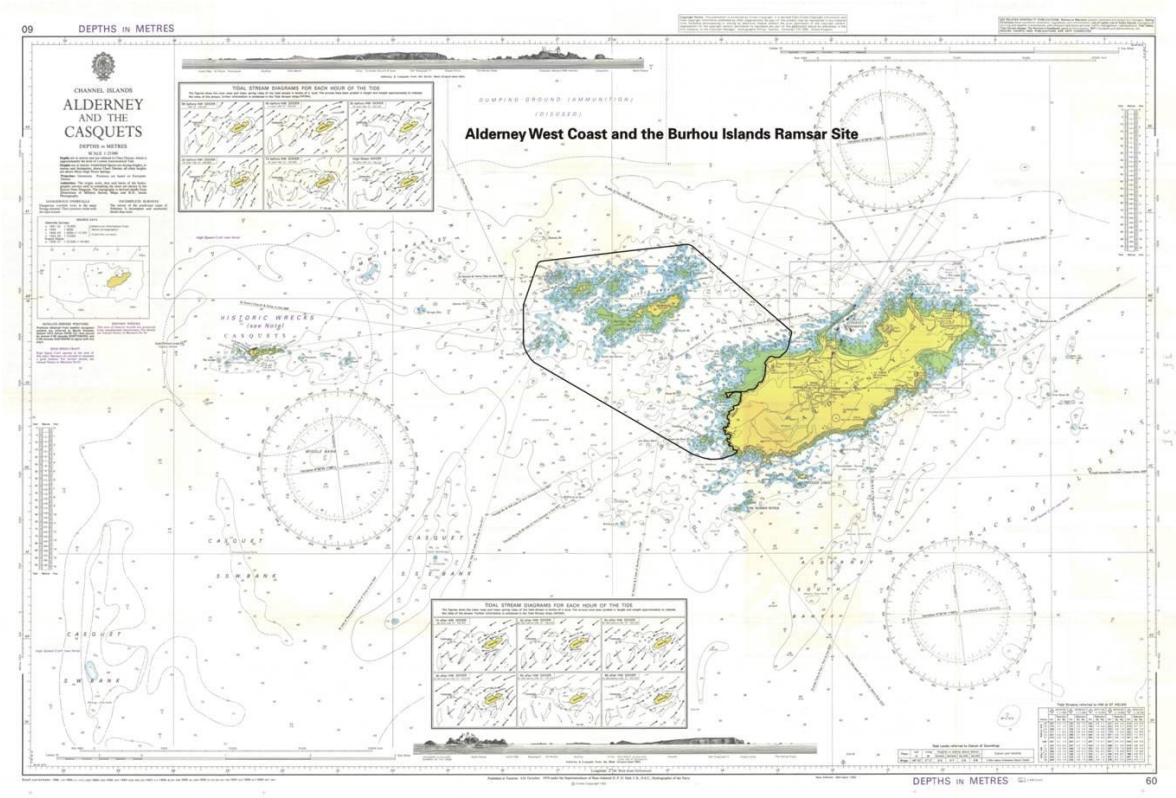

Figure 1. Alderney and its surrounding waters with the Alderney's West Coast and the Burhou Islands Ramsar Site boundary marked with a black line. Plotted on an Admiralty Chart.

The Ramsar Site is highly important for birds, and range of breeding seabirds are present, including >1% of the global breeding population of northern gannet and the largest population of Atlantic puffin remaining in the English Channel. There are globally threatened marine species such as the pink sea fan and green ormer, a huge variety of algae and fish. These include species of both ecological importance (e.g. lesser sand eel) and commercial importance (e.g. European sea bass). There are also sizeable areas of habitat associated with various life stages of fin and shellfish. Key examples are sandbars, kelp forest and intertidal rocky shore, with numerous species using the site

for spawning and as a nursery. The site forms a regionally important breeding area and year-round refuge for grey seal.

More information regarding the sites designation, its key species and habitats, ecosystem services and other information can be found on the Alderney Ramsar Information Sheet which was updated in 2025.

The Alderney's West Coast and Burhou Islands (and Other Sites) Ramsar Site Annual Review 2025 compiles six reports which review the work objectives carried out in 2025 as detailed in the 2025 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 Animal Welfare Society, Alderney Bird Observatory, Alderney Wildlife Trust, and the Channel Islands Bird Ringing Scheme. 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).

This document is the first annual review to be drafted since the publishing of the new Alderney Ramsar Five-Year Strategy (2026-2030). Whilst the work undertaken was planned under the previous strategy, the outcomes will be reported to the GSC against the six goals of the new Alderney Ramsar Strategy. These goals are:

1. *To ensure that the site complies with all supporting legislation and regulations and fulfils the obligations under the Ramsar Convention and other international agreements*.
2. *To continue to improve our knowledge and characterisation of the site's biodiversity, with all (non-sensitive) data being published publicly*.
3. *To monitor the characteristics of the site's flora and fauna to establish whether it is being maintained at a favourable conservation status*.
4. *To manage and promote the sustainable use of the natural resources of the site in a way that is compatible with the maintenance of its ecosystem functions*.
5. *To implement necessary conservation actions to protect and restore natural habitats as far as is reasonably practicable, including responding to emergencies and cooperating internationally regarding transboundary effects*.
6. *To promote and increase international and community awareness, education, and engagement with the Ramsar Site*.

Alderney Ramsar Seabird Population Report 2025

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Summary

This report details the seabird population monitoring and research conducted by the Alderney Wildlife Trust as part of the 2025 Alderney Ramsar programme, as well as reporting on seabird strandings and tissue sampling conducted by the Alderney Animal Welfare Society.

This includes population and productivity data collected on northern gannet, Atlantic puffin, northern fulmar, ringed plover, guillemot and common tern, and population data collected on European shag, great cormorant, oystercatcher herring gull, lesser black-backed gull and great black-backed gull. Additionally, non-breeding waterbirds were monitored through the BTO's Wetland Bird Survey (WeBS), and Manx shearwater activity was recorded with an acoustic detector on Burhou.

Some highlights of this year's work programme included the first full census of the northern gannets since avian flu, and the first productivity data collected on the gannet colony Ortac, done using a drone.

Methodologies are described in Appendix 2., and are generally based on Seabird Monitoring Project standard methodologies.

Citation
McDevitt, N., Lewis, M., Huitson. K., Smith, L., & Cox, T. (2026) Alderney Ramsar Seabird Population Report 2025. Alderney's West Coast and Burhou Islands (and Other Sites) Ramsar Site Annual Review 2025. **01**. Report 01. 10-51. States of Alderney. DOI XXX

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Report 1

1.1 Atlantic puffin

Alderney's Atlantic puffin (*Fratercula arctica*) population is at the southern 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, Alderney's puffin population has suffered 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 and Robinson 2015).

Demographic data, including population size and productivity, as well as predation and kleptoparasitism, were monitored in 2025 using PuffinCam, boat surveys and a post-season visit to Burhou to conduct an AOB census, which was verified using footage recorded from PuffinCam.

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). In total, 184.83 hours of PuffinCam footage was reviewed in 2025. In the early season (April – May), 87.83 hours were reviewed, with an average of 17.57 ± 1.30 hours observed at each of the five productivity plots (Figure 1.1.). In the late season (June-July), 87.5 hours were reviewed, with an average of 17.5 ± 1.46 hours observed at each productivity plot. Footage was reviewed on YouTube at a maximum of 4.5x speed. Watching at this speed allowed for more hours of footage to be reviewed in less time, while still being able to detect puffin activity. When a puffin was seen returning to a burrow, the video was paused and watched back in real time or slower (0.5x speed) to identify fish returns.

Puffin productivity monitoring was particularly difficult in 2025 due to unusual timings of breeding. Very few active burrows were recorded early in the season, with only 15 identified before the first fish return was seen from Sula on the 21st of May (Table 1.1.). The first fish return was used as the cut-off date for identifying active burrows in 2024, however in 2025 most of the puffin population appeared to have bred slightly later, with burrows still receiving fish returns into early August and a lot of active burrows being identified in late May. Between the first fish return being seen on Sula (21/05/2025) and the first fish return being seen on PuffinCam (28/05/2025), an additional eleven active burrows were identified. This suggests that the earliest fish returns in 2025 may have been outliers. To account for this, alternative measures of classifying active burrows have been identified based on different cut-off points, including the first fish return seen from Sula, the first fish return seen on PuffinCam, the end of the 'early season' on the 31st of May, and no cut-off, i.e. all active burrows identified throughout the season.

Using these figures, productivity ranged from 0.2 (± 0.18) to 0.38 (± 0.28) depending on the cut-off date (Table 1.1.).

Figure 1.1 Each puffin AOB survey plots as viewed from PuffinCam in 2025.

Table 1.1 Productivity of Burhou's Atlantic puffin population in 2025, depending on the timing of cut-off dates for identifying apparently occupied burrows (AOBs). Only data from hourly observations are included. Note: Full day observations were trialled in 2025 and picked up fish returns at two additional burrows, but these continuous observations were only carried out at two productivity plots and therefore are not comparable with previous years.

Date of cut-off for identifying AOBs	AOB cut-off definition	Number of AOBs	Number of AOBs still receiving fish returns in late season	Productivity	Standard Deviation
21/05/2025	First fish return seen from Sula	15	3	0.2	0.18
28/05/2025	First fish return seen on PuffinCam	26	10	0.38	0.28

31/05/2025	End of 'early season'	29	10	0.34	0.29
01/08/2025	All active burrows throughout season	47	14	0.3	0.21

Productivity in 2025 was similar to that recorded in 2024 despite low activity during the early season, however, there is very high uncertainty (Table 1.1). If the AOB classification categories of 'first fish return seen from Sula' and 'all active burrows' are excluded (the former because these were likely outliers and the latter because a high proportion of the activity was likely non-breeders (Walsh et al. 1995)), the productivity was between 0.34-0.38. It is proposed that in 2026, these measures should again be used to record active burrows, to allow for comparison to 2025.

Mean productivity since 2024 has been lower than in previous years (Table 1.2.), however there have been high levels of uncertainty due to low sample size and large variations in the proportion of successful burrows between monitoring plots. This uncertainty is so large that it is impossible to determine whether productivity has declined or is stable.

This measure of productivity gives us a general estimate of breeding success in the colony, not precise productivity (which is likely impossible without considerably more effort or significant periods of on island observations which would cause disturbance). This general measure of breeding success is potentially sufficient to monitor the health of the colony, but it still takes a significant amount of effort (ca. 180 hours of footage reviewed in 2025). Therefore, a review of the methods used to monitor the puffin colony should be conducted in 2025 to consider ways to reduce the effort whilst still maintaining a comparable quality of productivity data.

Table 1.2. Productivity of Burhou's Atlantic puffin population from 2005 to 2025 and the methods used. Methods for monitoring productivity changed from in person observations on Burhou to remote observations via PuffinCam from 2018 onwards.

Year	Method	Productivity (± standard deviation)
2005	In person observations on Burhou	0.64
2006	In person observations on Burhou	0.61
2007	In person observations on Burhou	0.63
2008	In person observations on Burhou	0.65
2010	In person observations on Burhou	0.66
2011	In person observations on Burhou	0.66
2014	In person observations on Burhou	0.36 - 0.60
2015	In person observations on Burhou	0.71
2018	In person observations on Burhou and remote observations using PuffinCam	0.53 - 0.94

2019	Remote observations using PuffinCam	0.6 - 0.88
2020	Remote observations using PuffinCam	0.63
2021	Remote observations using PuffinCam	0.65
2022	Remote observations using PuffinCam	0.5 (± 0.132)
2024	Remote observations using PuffinCam	0.333 (± 0.254)
2025	Remote observations using PuffinCam	0.34 (± 0.29) - 0.38 (± 0.28)

Comparison of methods for monitoring fish returns

In 2025, an updated productivity monitoring method using continuous watches to detect fish returns was trialled alongside the existing method of hourly watches. In the existing method (see Appendix 2), the camera viewpoint shifts to a randomly selected plot on an hourly schedule (Purdie et al. 2025). Because the camera does not observe a single area continuously for a long period of time, a high number of watches are required to detect all burrows with fish returns, and furthermore, the camera shifting hourly increases the complexity of the required guard tour, so when the camera resets (e.g. due to a power failure) it is difficult to reset the guard tour. The aim of the trial was to develop a more efficient method of monitoring fish returns, reducing the effort required and thereby increasing the precision and accuracy of productivity estimates.

Two productivity plots were selected (AOB2 and AOB3, see Figure 1.1). Each plot was recorded continuously for a 16-hour period, from dawn to dusk, on two randomly selected days in June. For each plot, the number of active burrows identified in the early season that received fish returns during both methods are shown in Table 1.3. All active burrows that received fish returns during hourly observations were also identified by the continuous watches, with an additional two active burrows receiving fish returns during the continuous watches at plot AOB3.

Table 1.3. The number of AOBs that received fish returns during two methods of productivity monitoring in 2025. The hourly observation method is the existing method used in previous years, and the continuous watch method was newly trialled in 2025.

Burrow plot	**No. of active burrows in early season (31st May cut-off)**	**Hourly watch method**		**Continuous watch method**	
		AOBs with fish returns	**Footage reviewed (hrs)**	**AOBs with fish returns**	**Footage reviewed (hrs)**
AOB2	3	2	17.5	2	32
AOB3	12	4	20	6	32

In 2025, the full day continuous watches yielded similar results to the existing hourly survey methods and were slightly more effective at detecting fish returns for the two survey areas (Table 1.3.). The continuous method took more time than the hourly survey

(Table 1.3), however ecologists in 2025 found it easier to process continuous surveys compared to hourly because they did not have to keep changing videos. There is potential that the continuous watches could be reduced to just include the peak-activity periods (e.g. early morning, later afternoon/early evening).

It is proposed that going forward, both sets of data should still be collected but only the continuous survey data processed. This is because the survey was slightly more effective at detecting fish returns and ecologists found it to be easier to conduct than the hourly watches. Hourly data should still be collected to allow for comparison to continuous watches if there are resources available to process these data.

The continuous watches should be carried out between mid-June and mid-July, to account for burrows that may have hatched later and therefore would receive fish returns later, particularly because in 2025, burrows were still receiving fish returns into the first week of August. The earliest fish return in 2025 was seen on 21st May and the last fish return was seen on 3rd August, so by doing continuous watches between mid-June to mid-July, most fish returns should be captured.

Recommendations

1. Continue to identify active burrows in the early season using hourly watches.
2. Conduct two full day continuous watches at all selected productivity plots between mid-June and mid-July to monitor for fish returns.
3. Continue to record hourly watches of all plots in the late season, but only process these data if there are excess resources. This will allow comparison of full-day to hourly watches if necessary in future.
4. Consider conducting full or peak-activity-windows (e.g. early morning, and late afternoon) watches during the early season instead of or alongside hourly early season activity surveys.
5. If resources allow, review puffin productivity methods to maximise their efficacy and efficiency.

1.1.2 Population assessment through raft count and AOB survey

Raft counts

In 2025, 19 early season (March to May) raft counts were conducted using PuffinCam and in-person observations from Sula of Braye, with a maximum count of 195 individuals recorded on 21/05/2025. This is an increase from a maximum count of 175 individuals recorded in 2024. Early season raft counts give an indication of the size of the breeding population as during this time, one partner of the pair will be inside the burrow incubating whilst the other will be rafting at sea (Wieckowski and Ferrar 2016).

Six late season (June to July) raft counts were carried out, with a maximum of 108 individuals counted from Sula of Braye on 16/06/2025. This count is much lower than in previous years (220 in 2024, 176 in 2023, 184 in 2022 and 207 in 2021). This may indicate that recruitment to the colony was low this year, however as only six late season raft counts were carried out, some larger raft counts may have been missed. It is

important that more late season raft counts are carried out in 2026, to give a more accurate representation of any trend in recruitment to the colony.

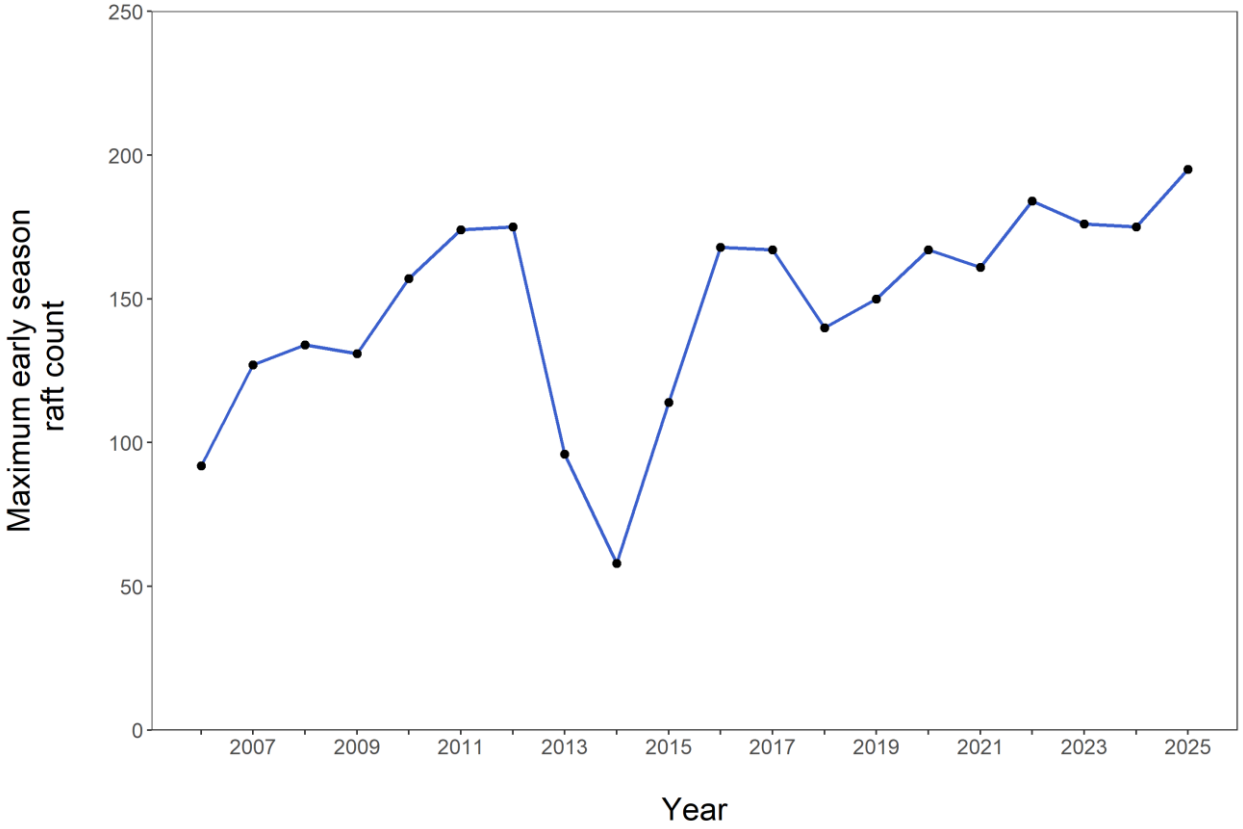


Figure 1.2. Atlantic puffin population data from maximum early season raft count surveys within the Puffin Friendly Zone on Burhou. Raft counts were recorded using live and recorded footage from PuffinCam and from boat trips on Sula of Braye.

Validation of AOB survey

The 2025 post-season AOB (apparently occupied burrow) survey was conducted on 06/08/2025 by four surveyors. Following methods agreed in the action plan, PuffinCam was observed for eight hours of continuous recording prior to the survey, and no puffins were observed, therefore, ecologists were confident there was a low risk of disturbance to nesting puffins. An Alderney Animal Welfare Society (AAWS) Registered Veterinary Nurse was not available to accompany the team on the survey date due to staffing requirements. The AAWS also provided advice on procedures and equipment in the case that the survey team found injured wildlife on Burhou that needed to be transported to the AAWS. No injured or ill wildlife were found during the survey.

The ability of the post-season AOB survey to detect all active burrows (recall) and to correctly identify active burrows, e.g. not falsely mark inactive burrows as active (precision) was assessed 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. For full methods see Appendix 2.

Table 1.3. A matrix of the number of burrows identified as active by the Puffin Cam and by the potential- and confident-post-season AOB surveys.

		Post-season AOB survey method			
		Confident		**Potential**	
		Active	Inactive	Active	Inactive
Puffin Cam	Active	17	15	28	4
	Inactive	3	13	13	3

Table 1.4. Results from the confusion matrix of the post-season AOB survey methods. Accuracy measures the total number of correct classifications divided by the total number of cases. Recall/Sensitivity measures the total number of true positives divided by the total number of actual positives. Precision measures the total number of true positives divided by the total number of predicted positives. Specificity measures the total number of true negatives divided by the total number of actual negatives. The F1 score is a combined score based on accuracy recall and precision.

	Confident	**Potential**
Accuracy	0.625	0.645833
Recall	0.53125	0.875
Precision	0.85	0.682927
Specificity	0.8125	0.8125
F1 Score	**0.6538462**	**0.767123**

The confident burrow survey was effective at correctly identifying active burrows, with a precision of 0.85 (Table 1.4.), and only falsely identifying three burrows as active which were not marked as active by the camera (Table 1.3.). The potential survey was less precise (precision = 0.68, Table 1.4). However, the confident burrow survey was less sensitive (recall = 0.53, Table 1.4.), meaning it did not identify a number of active burrows (15, Table 1.3.), whilst the potential burrow survey had very few active burrows which were not identified (4, recall = 0.88, Table 1.3, Table 1.4).

In 2025, the post-season AOB survey recorded 188 confident burrows (with two or more signs of occupation) and an additional 401 potential burrows (with one sign of occupation), (Figure 1.3). In interpreting the results of the AOB validation, we would advise considering the confident burrows as representative of a minimum population size, with the potential burrows as a theoretical maximum population size, with the true

population size likely falling between these two parameters. This would also line up with the early season raft counts (195 pairs, Figure 1.2.).]

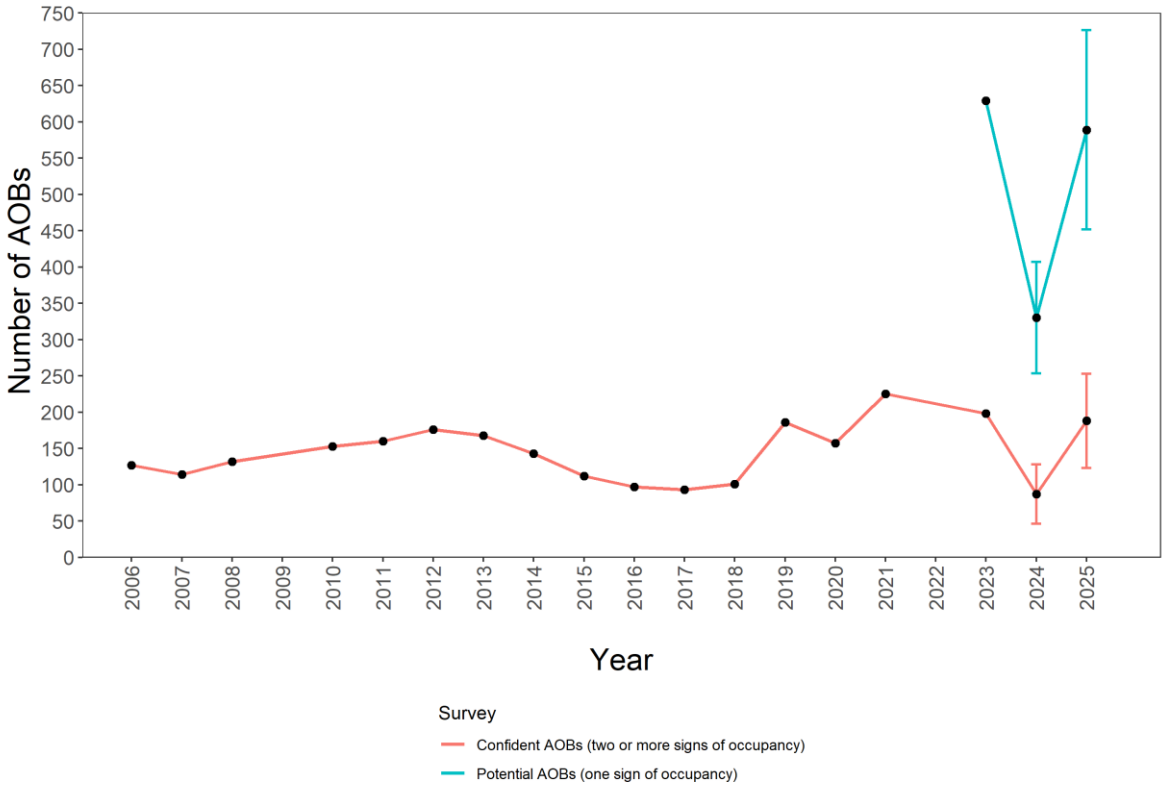


Figure 1.3. The number of confident and potential puffin AOBs on Burhou between 2006 and 2025. The error bars for 2024 and 2025 represent 1 minus the F-1 score. Confident burrows (red) were identified as burrows with two or more signs of occupancy. Potential burrows (blue) were identified as burrows with only one sign of occupancy. Only confident burrows were recorded prior to 2023 with no standard limit on the number of signs required to mark a burrow as active.

The reliability of the post-season AOB survey may depend on external factors, including weather, burrow densities, vegetation growth and observer bias, and as a result there may be interannual variability in the burrows scored as potentially active or confidently active. It should also be noted that by only using footage from one area to validate the AOB survey, results from different areas of the island may be different due to the environmental factors listed above. Therefore, collecting burrow activity data using cameras in different areas of the puffin colony would significantly reduce uncertainty around the puffin AOB survey. This should be considered for 2026, with the placement of an additional camera on Burhou overlooking the north-west area of the island proposed, to determine burrow activity outside the main colony area typically monitored.

Recommendations

1. Continue to conduct raft counts (early season and late season, at minimum 20 for each).

2. Continue to conduct raft counts opportunistically by boat, providing additional data at no extra resource cost.
3. Repeat validation of post-season AOB survey as in 2025, review in 2027 (after three years from 2024 as recommended in 2025 Action Plan).
4. Consider deploying an additional camera on Burhou, overlooking the north-west of the island, to ascertain burrow activity in this area outside the main colony area that is typically monitored by the current PuffinCam.
5. Improve ability to fix remote cameras through acquisition of strategic spares and seeking approval for fixing the camera prior to the survey season.

1.1.3 Kleptoparasitism, Avian Interactions and Predation Monitoring Through PuffinCam

In 2025, nine interactions between puffins and gulls were observed on PuffinCam throughout the season. These interactions were recorded during observations to locate active burrows and record fish returns, and it is likely that there have been more interactions outside of the observation windows that were not seen.

All interactions recorded this year were by the same great black-backed gull pair that successfully nested and raised one chick within the burrow areas, nesting within burrow plot AOB4 (Figure 1.1.). Six of these interactions resulted in unsuccessful attempts at predation, involving one great black-backed gull either approaching puffins exiting burrow entrances, with the puffins quickly retreating to the safety of the burrow before the gull could reach them, or clearly attempting to attack puffins returning to the burrow areas. The final three interactions resulted in successful predations, with a great black-backed gull predating three adult puffins within the vicinity of their nest between the 17th and 27th June 2025. During one of the predation events, a lesser black-backed gull landed and tried to attack the same puffin alongside the great black-backed gull but was swiftly chased off. The great black-backed gull pair are not colour ringed and do not have any distinguishing features, so it is impossible to tell if the attacks are being carried out by one member of the pair, or if both partners are responsible.

The great black-backed gull pair did not nest in the same place in 2024, so it is unknown whether it is a new pair or a pair that has previously been nesting in another area on Burhou. Gull presence had noticeably increased in 2025 compared to 2024. The burrow area in which the gulls nested this year had fewer active burrows than in 2024, dropping from five active burrows to three. In 2024, three of the five active burrows in burrow plot AOB4 received fish returns, whereas none of the three active burrows recorded in 2025 received any fish returns in the same area.

The level of disturbance and predation caused by the gull may become significant if it continues to occur. Gull presence and interactions should be more intensively monitored during PuffinCam observations in 2026 (e.g. additional hours of observation in areas around the gull nest). If the great black-backed gulls continue to nest and cause disturbance to the puffin colony within the burrow areas, measures to deter the gulls from nesting in the same place, such as nest destruction, should be considered for

2027. A thorough review of this should be conducted as early as possible following the breeding season in 2026, to ensure that satisfactory justification, methods and all licenses are in place. The number of predation events and interactions has increased from 2024 to 2025, if this upward trend continues in 2026, urgent action may be required in 2026 (e.g. nest destruction) to protect the puffin colony. However, this should only be conducted with all licences in place following a thorough review of the evidence by ARAG and the activity organisations, and agreement by GSC.

Recommendations

1. Continue to conduct remote observations to record kleptoparasitism and predation events in 2026, with additional hours of observation in areas around the great black-backed gull nest if resources allow.
2. If the levels of disturbance and predation by the great black-backed gull pair continue, a thorough review of measures to deter the gulls from nesting in the same place, such as nest destruction, should be conducted as early as possible following the breeding season in 2026, to ensure that satisfactory justification, methods and all licenses are in place before considering action for 2027.

1.2 Northern gannet

The northern gannet (*Morus bassanus*) colonies of Les Etacs and Ortac are internationally important, located at the southern edge of the species' range, with only a single colony (Rouzic, France) further south. Alderney's gannet population was a designating feature for the Ramsar site, making up over 1% of the world's northern gannet population (Purdie et al. 2022).

In 2022, northern gannet colonies across their global range were devastated by the effects of HPAI (highly pathogenic avian influenza) (Lane et al. 2023). On Alderney, the gannet population declined by 29% between 2021 and 2023, with Ortac more severely affected than Les Etacs (Purdie et al. 2023). Prior to the HPAI outbreak, the size of the gannet population had plateaued between 2015 and 2021, suggesting that both Les Etacs and Ortac had reached carrying capacity (Purdie et al. 2022). The stagnation in population growth also corresponds with consistently low productivity between 2018 and 2021 (Purdie et al. 2022). This is comparable with other colonies located at the southern range of the species, where low population growth rates are linked to low prey abundance caused by climate change and changes in fisheries practices (d'Entremont et al. 2021).

1.2.1 Overall Productivity Monitoring

Les Etacs productivity

Gannet productivity on Les Etacs was assessed following methods used in previous years and outlined by Walsh et al., (1995). In 2025, 349 apparently occupied sites (AOS) were monitored for breeding success throughout the season across six colony areas. An adult bird was sporadically present at an additional site on North Stack High throughout

the season however no clear nest building was attempted and so the site was deemed inactive and removed from the productivity analysis.

Nests were observed weekly from mid-March until the final chicks fledged at the end of October. The nests were monitored from a vantage point located at the Guns adjacent to the colony, with nest contents recorded by in-person observations using a telescope or by reviewing photographs taken with a telephoto lens. Productivity was then calculated as the number of chicks fledged divided by the number of active nests observed within each colony area.

Of the 349 active AONs monitored on Les Etacs,196 chicks fledged, giving an overall productivity of 0.56 ± 0.036. This is an increase from 2024 (0.47 ± 0.054) (Figure 1.4). The increase in productivity this year compared to 2024 is possibly due to the mild, dry spring weather providing favourable nesting conditions, meaning more pairs incubated and hatched their first egg-laying attempt rather re-laying. When adjusted for non-layers (n = 25), productivity was 0.60 ± 0.059 which is in line with the UK national average of 0.60 reported in 2023 (Harris et al. 2024).

Productivity in each sub-colony area except for Pyramid increased in 2025 (Figure 1.5). Pyramid had a slight decline from 0.56 in 2024 to 0.54 in 2025. West Rock West had the highest productivity of all the sub-colony areas (0.62).

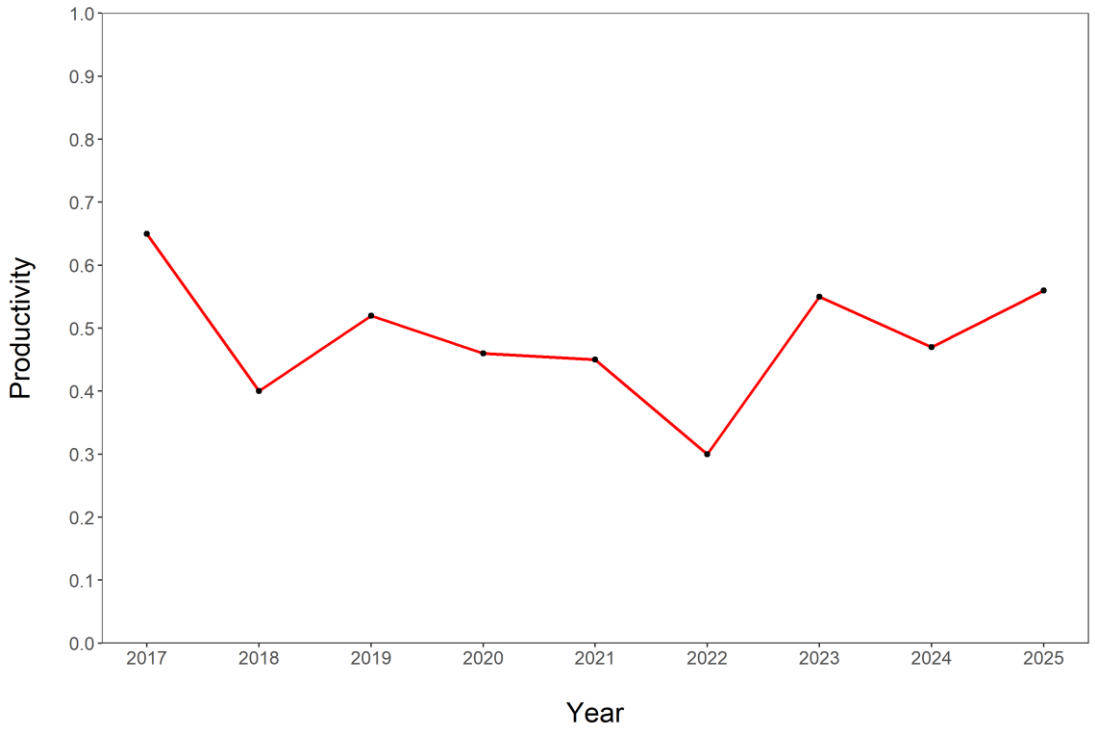
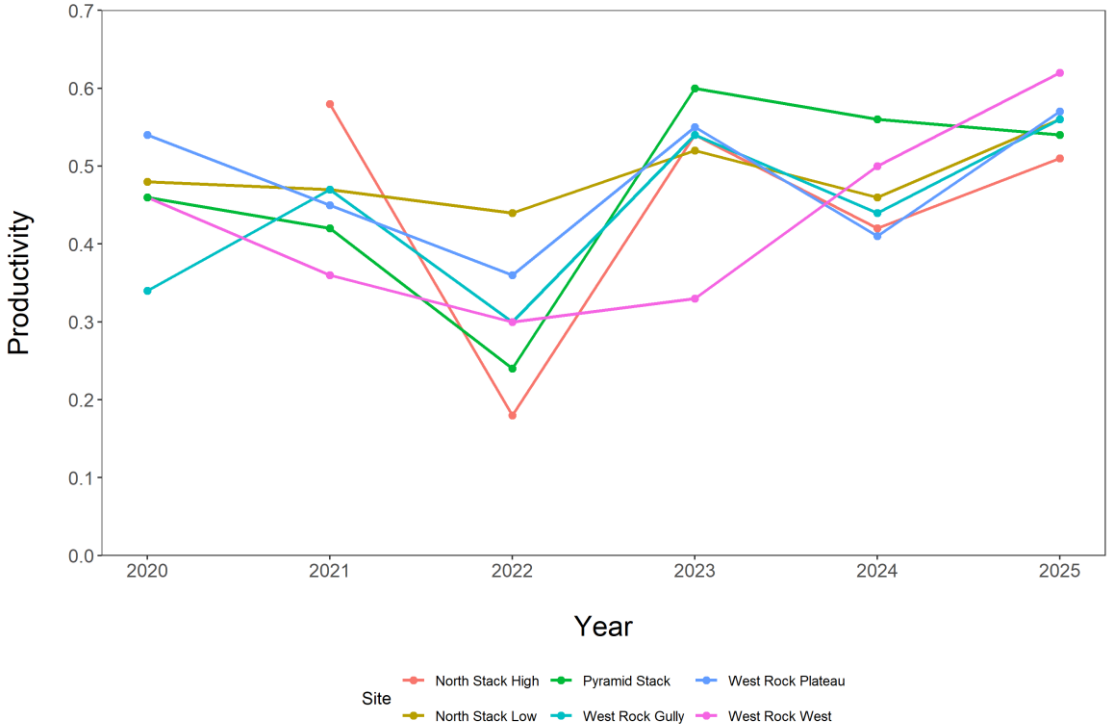


Figure 1.4. Overall productivity of northern gannet on Les Etacs between 2017 and 2025.

Figure 1.5. Productivity of northern gannet on Les Etacs across the different sub-colony areas between 2020 and 2025. Site differentiated by colour, see key at bottom of figure.

1.2.2 Repeat Productivity Monitoring



Between 2019 and 2024, the same 100 AONs were monitored annually on the Pyramid stack of Les Etacs to assess the demographic changes at individual AOSs over time (Purdie et al. 2025). In the 2024 Annual Ramsar Review, it was recommended that a review of all demographic data gathered for Pyramid stack, including assessments on trends in productivity, breeding timing, causes of nest success and failure, and variations in nest site usage across years, should be carried out to assess the benefits of continuing this study. This was not carried out in 2025 due to limited resources. It is therefore recommended that this review occurs in 2026.

1.2.3 Ortac Productivity Monitoring

Trial drone surveys to monitor gannet productivity on Ortac were conducted monthly between April and October. Additional surveys were undertaken in April, July, and September.

A simulation-based power analysis was used to estimate the number of apparently occupied nests (AONs) required for annual monitoring to detect a 10% change in productivity over a ten-year period. Baseline productivity was set to 0.53, based on the mean productivity recorded at Les Etacs between 2013 and 2021. For each candidate sample size (100–800 nests per year, in increments of 10), 10,000 datasets were simulated. Each dataset comprised binary breeding outcomes (success/failure) generated from a binomial distribution, with probabilities reflecting the expected annual change in productivity. Logistic regression models were fitted to each simulated dataset to test for a significant temporal trend ($\alpha = 0.05$). Statistical power was calculated as the proportion of simulations in which the model detected a significant positive slope. The

resulting power curve described the relationship between sample size and power, indicating that approximately 230 AONs must be monitored annually to achieve 80% power to detect the specified change (Figure 1.6.).

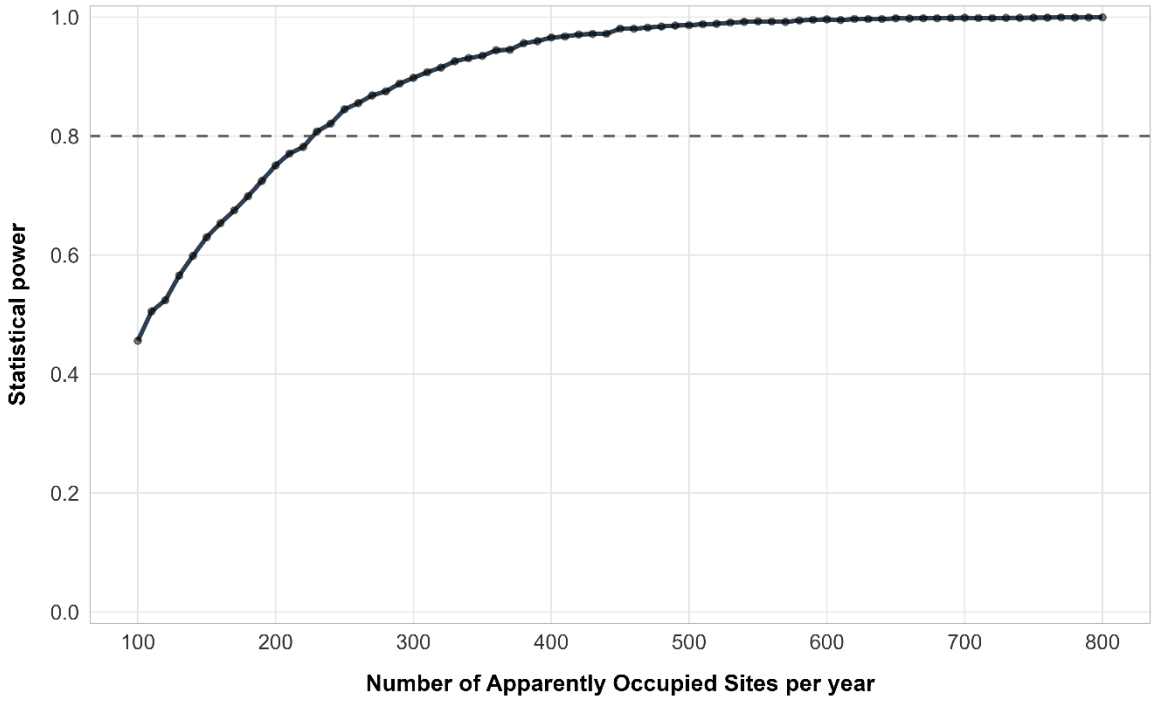


Figure 1.6. Power analysis for detecting 10% change in productivity over 10 years. Each point represents the estimated power from 10,000 simulated datasets. The dashed line indicates the 80% power threshold.

All AONs were marked on the first orthomosaic of the season, and a subset of 230 AONs was randomly selected across five plots (see Appendix 2 for image of plots). For each selected AON, the breeding outcome was categorised as fledged, failed, or no chick. A chick was classed as fledged if it disappeared between surveys and could have reached 12 weeks during that period. It is possible that chicks may have failed rather than fledged during this interval and should be considered, however, this is uncommon with 4/350 sites monitored for productivity on Les Etacs in 2025 failing between 8-11 weeks old. Any chick that disappeared before this age (≤ 7 weeks, given the ~4-week survey interval) was classed as failed. Remaining sites were classed as no chick, where it wasn't possible to confirm whether as site didn't lay, were incubating and failed, a chick hatched and failed between surveys or the chick was obscured by a parent and subsequently failed.

Productivity was calculated as the number of AONs that fledged a chick divided by the total number of monitored AONs.

In 2025, overall productivity across 230 sites on Ortac was 0.504 (95% CI: 44.0–56.8%), with a mean productivity of 0.51 ± 0.059 across the five plots (see table 1.5. for productivity in each plot).

Table 1.5. Northern gannet nesting outcomes and productivity across five plots on Ortac.

Plot ID	Fledged	Failed	No chick	Total sites	Productivity
Ortac plateau	37	1	32	70	0.53
North slope	24	5	31	60	0.40
North ledge	21	2	7	20	0.55
East ledge	34	2	24	60	0.57
South slope	10	1	9	20	0.50

Recommendations

1. Integrate Ortac drone-assisted productivity surveys into the annual survey programme.
2. If resources allow, increase survey frequency from monthly to bi-monthly from August onwards, as chicks begin entering the 10+ week age range.

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

In 2025, the SoA and AWT received representation from EDF - Renewable Energy regarding the latest round of French Offshore Wind (OWF) to be developed in the Channel. These new sites are within 120km of Alderney and well within the range of many of the island's key populations, especially the internationally recognised northern gannet populations. These new sites, totalling a potential 2.5GW, will add to 5 new OWF sites developed or developing within the English Channel within a 5 year period (4C Offshore, 2023). The speed and scale of this development, and the lack of consultation by both French and UK developers with Alderney over developments which may well have significant cumulative impact on key ecological receptors which make up Alderney's sites designating criteria, is very concerning. This impact by third parties may also have a long-term impact on Alderney's own ability to develop offshore renewable energies if they put the island's ecology under additional stress.

The Convention on Environmental Impact Assessment in a Transboundary Context (ESPOO) recognises Ramsar designations and states:

"1. In considering proposed activities to which Article 2, paragraph 5, applies, the concerned Parties may consider whether the activity is likely to have a significant

adverse transboundary impact in particular by virtue of one or more of the following criteria:

b. *Location*: proposed activities which are located in or close to an area of special environmental sensitivity or importance (such as wetlands designated under the Ramsar Convention, national parks, nature reserves, sites of special scientific interest, or sites of archaeological, cultural or historical importance); also, proposed activities in locations where the characteristics of proposed development would be likely to have significant effects on the population."

Whilst the AWT and SoA are working to secure agreements from the relevant governments and developers to ensure adequate consideration is given to the impacts of their developments, ideally reducing impact through design mitigation or compensation, it is crucial that Alderney's evidence base to support this process is developed as a priority.

It is recommended that a strategy for the monitoring of foraging activities of northern gannets should be developed, with the Alderney Bird Observatory, and be put to ARAG before, if timing allows being implemented, in 2026. This will build on baseline work undertaken between 2011 and 2017 by the AWT and other parties (Warwick-Evans et al., 2015; Warwick-Evans et al., 2016, 2017). The AWT hopes to work with the SoA to secure funding from developers to support this work, but it may be necessary for the SoA to find additional funding for this effort or allow use of any unallocated Ramsar funding to enable this work. Any programme will need to be developed and agreed by all relevant stakeholders.

4.1.2.5 Monitor the impact of anthropogenic materials

Entanglements

A total of 21 northern gannet entanglements were recorded on Les Etacs in 2025, including 19 adults and two chicks, all of which resulted in death. One fatally entangled adult and two fatally entangled chicks were recorded on Ortac in 2025.

The number of entanglements recorded in 2025 is higher than in 2024 but is more in line with previous years (Table 1.6.). In 2025, entanglements were recorded during weekly land-based vantage point observations that were mainly focused within the productivity plots. At the end of the season, a thorough search of Les Etacs using drone imagery taken after the gannets had left, was also carried out. An additional seven deceased gannets (three adults and four chicks) were recorded from the drone imagery; however it was not clear in the images whether these mortalities had been caused by entanglements and not by other means (for example, no netting or rope was visible, or the position of the deceased gannet did not imply entanglement).

Of the 21 confirmed gannet entanglements recorded on Les Etacs this year, twelve adults and two chicks were identified during the in-person weekly observations, and seven adults were identified by the drone search. Searching for entanglements using a telescope when the colony is fully occupied can often be challenging and it can be difficult to spot dead gannets among busy nests. Taking drone images of the empty stacks once the season ends makes it easier to spot dead gannets that may have previously been missed. Using the drone also allows for searches of areas not visible from the vantage point.

The number of entanglements should continue to be recorded in 2026, to improve our understanding of the impact of anthropogenic materials on the gannets of Les Etacs. The removal of plastics and other anthropogenic material on Les Etacs is a potential conservation action that could be taken in the future.

It is recommended that a more intensive in-person search of the colony using a telescope is carried out during weekly productivity observations, particularly outside of the productivity plot areas, and the use of the drone to search at the end of the season to pick up any missed dead gannets is continued in 2026.

Table 1.6. 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
2025	19	2

1.2.6 Gannet Census - using aircraft and drone surveys

In June 2025, a full census of Les Etacs and Ortac was carried out using aerial and drone photography, following methodology used in previous years (Purdie et al. 2024, 2025). Aerial photographs were taken on 16/06/2025 and drone images were taken on 17/06/25. In previous years, the census counts were undertaken by five experienced counters with previous knowledge of the sites, however in 2025, the counts were undertaken by four experienced counters, due to limited resources.

For the drone survey, gannet AOSs and AONs were counted on Les Etacs and Ortac using a 3D model created using drone imagery on the 3D modelling software Blender. Due to a lack of clarity in some of the aerial photographs taken from the manned aircraft, it was not possible to accurately identify gannet AOSs across the whole of Les

Etacs. As such, subsections with the highest quality imagery were selected and counted for comparison with drone counts of the same subsections on the 3D model.

AOS counts from both survey methods were compared using a mixed effects Poisson linear model using the lme4 package in R (Posit Team 2024). In the maximal model, the number of AOS was predicted by the interaction between the section of the colony counted and the survey method, with a random intercept for the observer. This model corresponded to the hypothesis that the number of AOS differed between areas of the colonies, and that the survey method had differed in its ability to count the AOS in these areas. All subset models of this model were retrieved using the function 'dredge' from the package 'MuMIn', and compared with AICc. Two models had high Akaike weights, corresponding to the hypothesis that there were differences between sections of the colony (relative weight 67.6%), and differences between sections of the colony and the survey methods (weight 31.1%). We then compared the predictions from the site-only model with the site and survey method model, as well as the averaged model. The average percent difference between the site only model and the site and survey method model was 0.452%, and between the site only model and the averaged model only 0.116%. Given this negligible difference in the counts, we believe that the drone count can be fairly compared to the manned aircraft counts from previous years. Therefore, AOS counts from the drone survey are reported as the census counts for 2025.

In 2025, the total number of gannet AOS recorded across Les Etacs and Ortac was 6696 (± 217.7), an 11% increase from 6036 (± 481.7) in 2023 (Table 1.7, Figure 1.7.). The population on Ortac increased by 34%, while the population on Les Etacs increased by 3.5% (Table 1.7., Figure 1.7.). There has been a slight increase in the gannet population since 2023, however there has still been an overall significant decline in the two populations since 2011 (Les Etacs: Poisson GLM, Population ~ Year, estimate = -0.015, z value = -13.08, $P < 0.001$; Ortac: Poisson GLM, Population ~ Year, estimate = -0.017, z value = -9.598, $P < 0.001$, Figure 1.7.).

Alderney's gannet population is still well below the peak count of 2015, however the population is showing some signs of recovery following the impacts of HPAI in 2022 (Figure 1.7, (Purdie et al. 2022)). Ortac saw a greater increase in population size between 2023 and 2025 compared to Les Etacs, likely due to having more available nesting space following a 45% decline in 2022.

The results from the comparison between census survey methods in 2025 showed that using drone imagery is comparable to counts using aerial photographs taken from a manned aircraft. Both methods should continue to be used in parallel to allow for several years of comparisons, however it is hopeful that in the future, drone surveys will allow for more frequent, accurate surveys of Les Etacs and Ortac, and will be more in line with gannet surveys carried out elsewhere in the UK. Furthermore, the need to

continue to closely monitor Alderney's gannet population is of particular importance now due to increased pressures from offshore wind developments which may impact the growth of the population in the future.

Table 1.7. Mean number of northern gannet AOSs across sites in 2023 and 2025, and the percentage change in AOSs between years (highlighted in red). The mean number of AONs in 2025 are also reported (highlighted in blue). SD = standard deviation. Data have been rounded to four significant figures.

	Aircraft count		**Drone count**				
Location	**2023 AOS**		**2025 AOS**		**2025 AON**		**Percentage change in AOS**
	Mean (n=5)	SD	Mean (n=4)	SD	Mean (n=4)	SD	
Les Etacs (Total)	4585	323.4	4746	241.3	4370	293.1	+ 3.5%
Les Etacs - Pyramid/Turtle Rock	*743.4*	*54.41*	*725.3*	*30.30*	*666.8*	*58.63*	*- 2.4%*
Les Etacs - North Stack	*828.0*	*90.50*	*880.5*	*56.63*	*776.3*	*69.65*	*+ 6.3%*
Les Etacs - West Rock	*3014*	*264.7*	*3140*	*160.9*	*2927*	*180.7*	*+ 4.2%*
Ortac	1451	173.2	1950	102.2	1604	34.22	+ 34%
Grand Total	**6036**	**481.7**	**6696**	**217.7**	**5973**	**324.4**	**+ 11%**

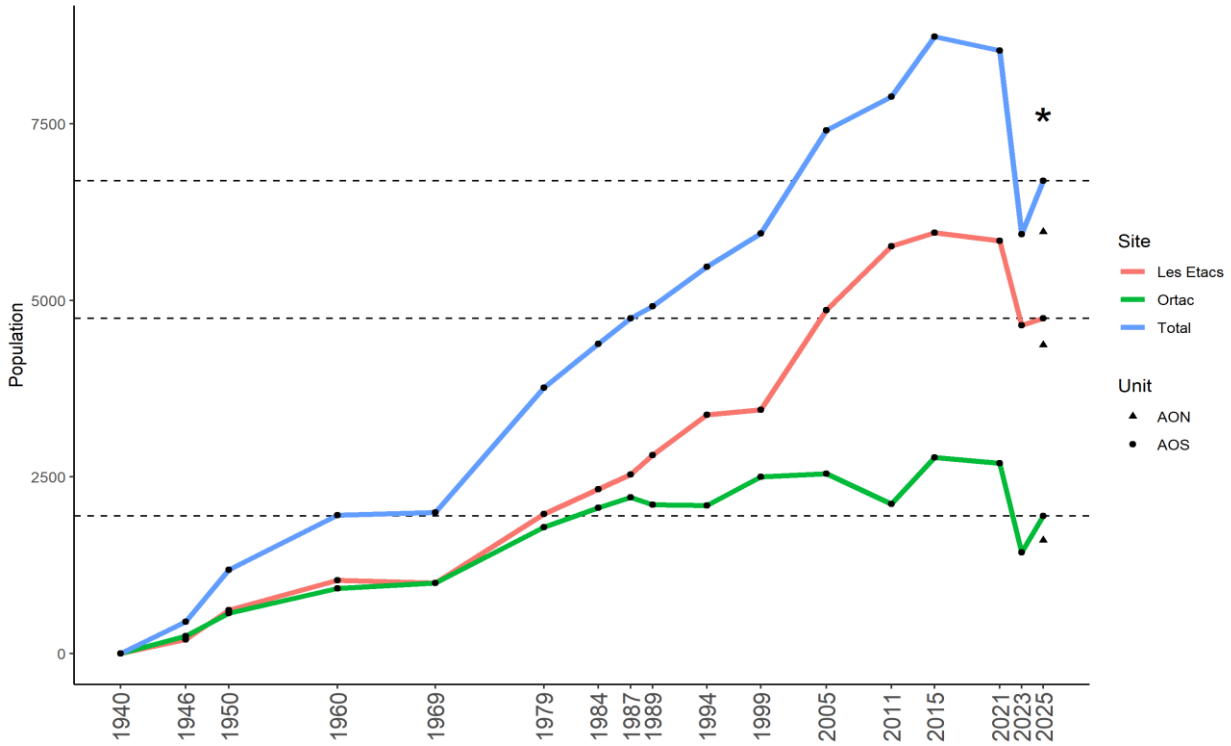


Figure 1.7. The number of AOS recorded on Les Etacs and Ortac between 1940 and 2025 (circles). The dashed line represents the number of AOS recorded in 2025. The number of AONs

*recorded on Les Etacs and Ortac in 2025 have been reported with triangles. *AOS and AON counts from 2025 were carried out using a 3D model created from drone imagery. All previous AOS counts were carried out using aerial photography from a manned aircraft.*

1.2.7 Gannet Tissue Sampling

If deceased gannets are discovered, AAWS Veterinary Nurses may conduct sampling of tissue suspicious of avian flu including swab or histology. No gannet tissue samples were taken in 2025.

Recommendations

1. Continue to monitor productivity on Les Etacs
2. Continue to take photographs of the 100 AONs on Pyramid stack weekly but do not process data. Review data collected from this survey since 2019.
3. Conduct the next census of the colonies in 2027, on a two-yearly cycle using aerial and drone surveys, resource dependent.
4. Continue to monitor anthropogenic material entanglements using in-person observations and an end-of-season drone survey
5. Continue to conduct monthly drone surveys of Ortac to monitor productivity. If resources allow, increase drone surveys to fortnightly from mid-August to improve accuracy of fledging assessments.
6. Consult with the ABO and CIBRS regarding recovery of geolocators on Ortac.
7. Continue to sample gannet tissue where there is suspicion of avian flu.

1.3 Northern fulmar

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).

1.3.1 Productivity and Population Monitoring

2025 population

A review of historic fulmar data was carried out in 2025. Prior to 2019, all population counts reported in the Annual Reviews were from the West Cliffs survey area, where majority of the fulmar population is located. From 2019 onwards, round island surveys were carried out allowing fulmar perch points from around the entire island to be reported, with AOS counts reported from the West Cliffs area only. The data from 2024 was incorrectly reported as AOS rather than perch points in the 2024 Ramsar Review and incorrectly showed that there was a significant increase in the number of fulmar nesting around Alderney. Perch points are not necessarily AOS and are often just occupied briefly by resting fulmars. This has been corrected in this review (Figure 1.8.).

The West Cliff survey area AOS count gives a more reliable measure of breeding population from year to year, but the full island count allows us to track shifts in where the fulmar population may be breeding, overall population size, number of non-breeders and any other trends across the whole of Alderney.

In 2025, a maximum of 68 fulmar perch points were recorded during three round island surveys between 23/05-09/06/2025, with supplementary data provided from land-based counts (Figure 1.8.). The majority of these were located within the West Cliffs survey area, with 45 perch points recorded there on 26/05/2025 (Figure 1.8.). This is an increase from a total of 60 perch points in 2024. The number of perch points around Alderney has not significantly changed since 2019 (Poisson GLM, Count ~ Year, z value = 0.048, P > 0.05, Figure 1.8.) Thirty-three AOS were recorded in the West Cliff area (see 2025 Productivity section below).

Preliminary data suggests that the fulmar population may be shifting to other areas on Alderney. This should be investigated going forward by georeferencing all perch points from land-based and round-island surveys.

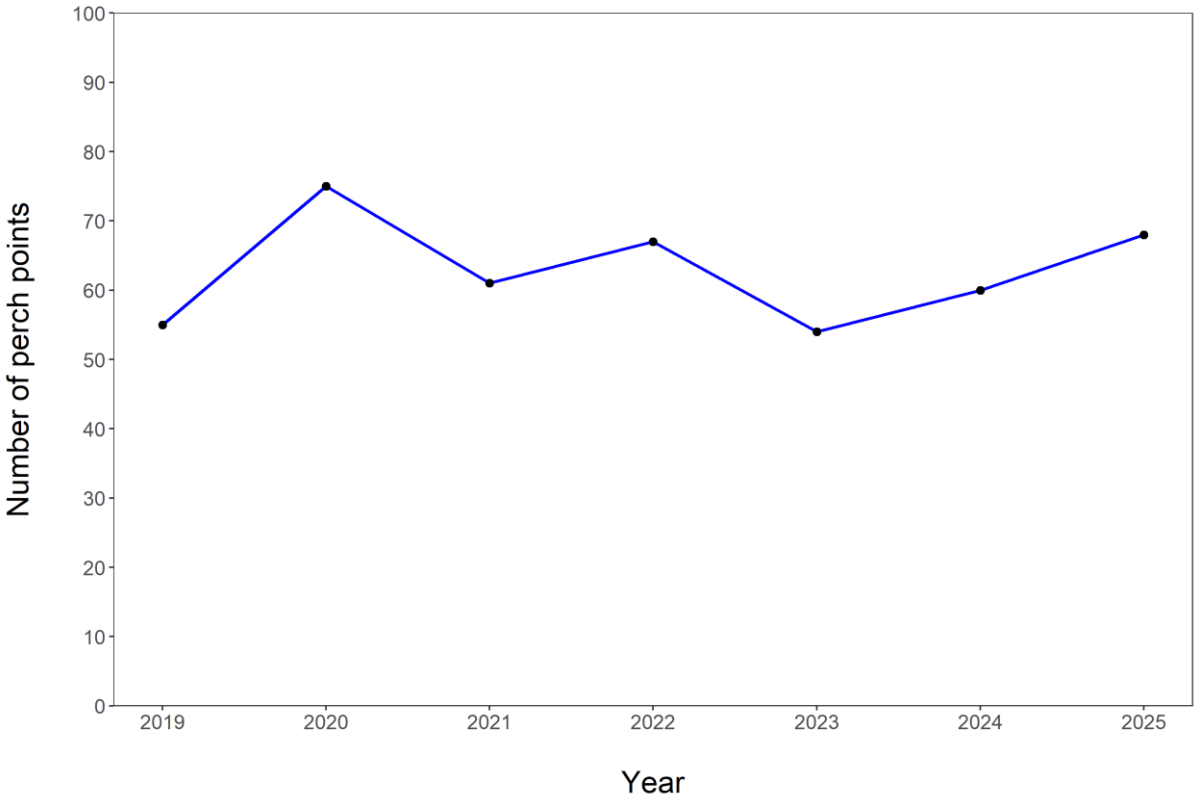


Figure 1.8. The total number of fulmar perch points recorded around Alderney between 2019 and 2025. Perch point counts include the West Cliffs survey area.

2025 productivity

Within the West Cliffs survey area, 33 AOS were recorded from an initial 45 perch points from three vantage points in 2025 (see Appendix 2). This is a slight increase from 27 AOS

in 2024 (Purdie et al. 2025). There has been no significant change in the number of fulmar AOS recorded within the West Cliffs survey rea since 2007 (Poisson GLM, Count ~ Year, z value = -0.214, P > 0.05, Figure 1.9.).

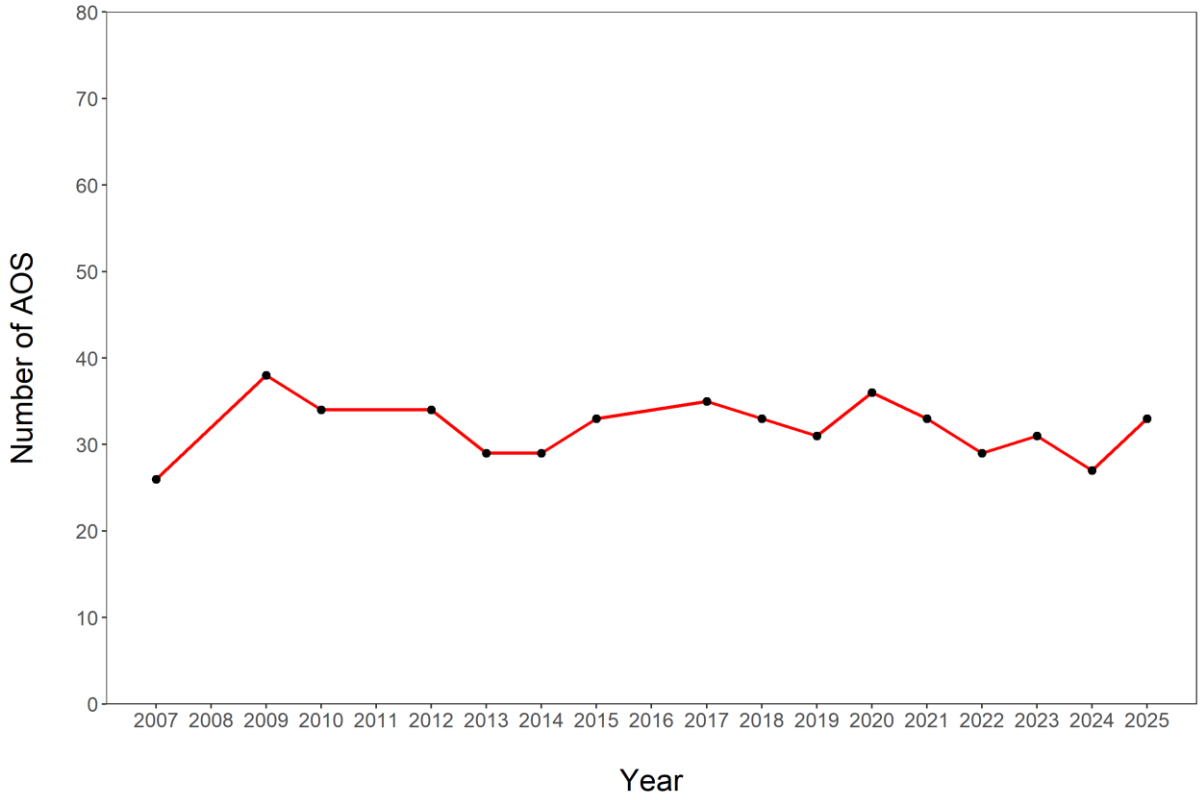


Figure 1.9. The number of fulmar AOS recorded within the West Cliffs Survey Area between 2007 and 2025. Data from 2016 is non-comparable and is excluded.

Seventeen chicks fledged from 33 AOS in 2025, compared to 10 out of 27 observable attempts in 2024. This gives a productivity of 0.52, the highest since 2019. Although this is a considerable increase from 2024 (0.37), statistically there has been no significant change in fulmar productivity since 2017 (Binomial GLM, Productivity ~ Year, $X^2 = 0.215$, P > 0.05, Figure 1.10.).

The northern fulmar population on Alderney continues to remain stable, with an increase in both population size and productivity in 2025. Although the population is showing a positive trend, monitoring should continue to allow for early identification of any declines in the population.

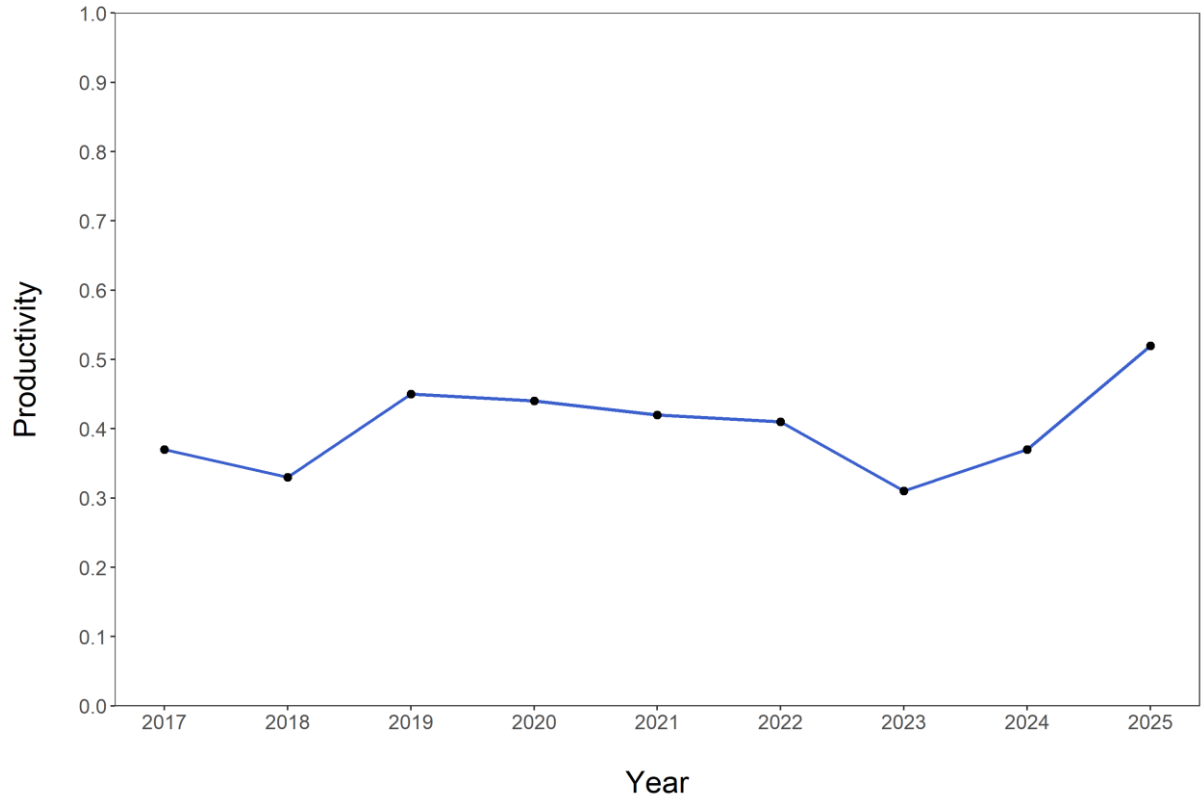


Figure 1.10. Productivity of northern fulmar on Alderney from 2017 to 2025.

Recommendations

1. Continue to monitor number of AOSs and their productivity on the West Cliffs survey area
2. Continue to census the population using round island boat surveys
3. Georeference fulmar population perch point data to understand where the population may be breeding outside of the West Cliffs survey area
4. Consider conducting a population viability analysis to inform thresholds for a stable population

1.4 Common tern

1.4.1 Productivity and Population Monitoring

In 2025, common terns were observed prospecting at Fort Houmet Herbé on two dates in May (20/05/2025 and 31/05/2025). However, the terns did not successfully nest at Fort Houmet Herbé and were not recorded at any of the other nesting locations used in previous years.

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 and Simmons 1983, O'Connell and Beck 2003, Amaral et al. 2010). Although unsuccessful this year, common terns may potentially return to Alderney in the future, and so careful monitoring should continue from May to July 2026 at potential sites, with

the ability to deploy signage and rodent control prior to the breeding season maintained.

1.4. Protection against disturbance and predation

Signage was placed at the entrance to Fort Houmet Herbé on 30/04/2025 to alert the public to the possible presence of terns on the fort and to prevent disturbance if they were to attempt nesting. The signage remained in place throughout the potential breeding season of the terns and was removed on 18/08/2025. Temporary signage was not placed along the coastline adjacent to Fort Houmet Herbé as the terns did not nest at this site (or any other sites) in 2025.

No rodent bait was deployed on common tern breeding sites in 2025 (see Report 05 Alderney Ramsar Community Report 2025 "Biosecurity on Common Tern Nesting Sites" section). It is recommended that rodents are controlled on common tern nesting sites prior to the breeding season in 2026, following methods outlined in the 2026 Ramsar Action Plan.

Recommendations

1. Continue to monitor sites for common tern activity in May-July 2026.
2. 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.
3. Maintain a stock of rodent control equipment and supplies and consider deploying this on sites or land adjacent to sites if new ones are colonised.

1.5 Ringed plover

Ringed plover (*Charadrius hiaticula*) is a species of local conservation concern and is listed on the UK Red List due in part to the 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 of a maximum of seven pairs.

1.5.1 Productivity and Population Monitoring

In 2025, six pairs of ringed plovers bred on Alderney, one fewer than in 2023 and 2024: three at Clonque and three at Platte Saline. The pair usually seen at Saye did not attempt to nest this year. Overall, eleven nesting attempts were observed with only one attempt successfully fledging chicks. Of the ten failed nesting attempts, seven failed at egg stage and three failed after hatching (Table 1.8.).

In total, three chicks fledged from one nest on Clonque, giving an island-wide mean of 0.5 chicks fledged per pair in 2025 (Table 1.9). Although this is a slight increase in productivity from 2024, the number of breeding pairs decreased by one in 2025, and there was one fewer chick fledged (Table 1.9).

In 2025, survival of both clutches and chicks were calculated following the same method as in 2024 (Purdie et al. 2025).

Table 1.8. Outcomes of ringed plover nesting attempts in 2025.

Site	Nest Code	Cordon	Nest Outcome
Clonque	CL_25_2	Outside	Failed
Platte Saline	PS_25_1	Outside	Failed
Platte Saline	PS_25_2	Outside	Failed
Platte Saline	PS_25_3	Outside	Failed
Platte Saline	PS_25_4	Outside	Failed
Platte Saline	PS_25_5	Outside	Failed
Platte Saline	PS_25_6	Outside	Failed
Clonque	CL_25_1	Outside	Hatched (4 chicks)
Clonque	CL_25_3	Outside	Hatched (3 chicks)
Platte Saline	PS_25_7	Inside (cordon moved to surround nest)	Hatched (2 chicks)
Clonque	CL_25_4	Outside	Fledged (3 chicks)

*Table 1.9. 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
2025	6	11	12+	3	0.5		
Mean (all years)	5.56	10.89	12.89	4.56	0.89	27.7 †30.4	28.6

Disturbance

Detailed monitoring of the causes of disturbance to ringed plover nests was not carried out in 2025 following recommendations in the 2024 Annual Ramsar Review (Purdie et al. 2025). Results from the intensive disturbance monitoring conducted in 2024 found that none of the top three causes of disturbance (herring gulls, humans walking along the beach and crows) could be directly linked to nest failure (Purdie et al. 2025). Given the high effort involved, it was recommended that intensive monitoring be paused and causes of nest failure be recorded opportunistically (Purdie et al. 2025).

In 2025, there were no direct causes of disturbance recorded during nest monitoring. Additionally, camera traps were placed on nests where the cameras could be properly

secured and wouldn't bring attention to the nest. Imagery and footage from the cameras did not record any direct causes of nest failure.

Beach Cordons and Signage

Cordons were placed in similar locations as previous years on Platte Saline on 26th March 2025 and removed after the breeding season had concluded. 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. One cordon was moved to include a nesting attempt that was located just outside the cordon boundary (PS_25_7, Table RP1.). This resulted in the hatching of chicks; however, these chicks did not survive to fledging age.

Signage was deployed alongside the cordons to alert the public to the presence of breeding ringed plover on Platte Saline. Signage was placed directly next to the cordons as well as at access points to the beach.

No cordons or signage were placed on Saye this year as the regular Saye pair did not attempt to nest in the area.

Recommendations

1. Continue monitoring the number of breeding ringed plover pairs and productivity across the island. If resources are limited, consider focusing effort on Platte Saline and Clonque as activity is highest and most consistent in these areas.
2. Deploy the cordons as in previous years ats they offer some benefit to ringed plover at egg stage
3. Where appropriate, deploy trail cameras around nest sites to both better identify causes of nest failure at egg stage and lower the time-burden of monitoring hatching success in person.

1.6 Other seabird monitoring

1.6.1 Round Island Surveys

The AWT conducts three annual boat-based round island surveys of Alderney's coastline and offshore islets between late May and early June. All apparently occupied nests (AONs) and apparently occupied territories (AOTs) of each species are recorded based on species specific observations as outlined in the Seabird Monitoring Handbook (Walsh et al. 1995). The maximum count of nest sites is reported as primary count for all species.

European shags

In 2025, 104 European shag AONs were recorded around the coastline of Alderney. This is positive news following a 70% decline from 155 AONs in 2023 to just 46 AONs in 2024. It is thought that the low number of shags nesting in 2024 was caused by disturbance following a series of severe storms in the winter of 2023. As shags over-winter close to their breeding areas, they are especially vulnerable to disturbance from prolonged

stormy weather, which can cause periods of lower prey availability and inhibited foraging (Frederiksen et al., 2008). This can lead to a decrease in breeding success the following season or even increased mortalities (Frederiksen et al., 2008). Following a much milder winter in 2024, Alderney's shags have returned to similar numbers recorded between 2018 and 2021 (Figure 1.11.), however this is still lower than the peak count in 2023. There has been no significant change in the number of shag AONs recorded around Alderney (excluding Burhou) since 2018 (Poisson GLM, Population size (AON) ~ Year, $X^2 = 0.0950$, $P > 0.05$).

Continued monitoring of the shag population in 2026 is important to understand the current trend of the shag population, and to determine whether the population is still recovering from the poor breeding season in 2024 or if there are other factors contributing to the lower number of AONs recorded around the island. Resources did not allow for a count of non-breeding shags to provide a baseline for the non-breeding population in 2025. It is recommended that this be carried out in 2026 to provide an estimate for the size of the overall population.

An additional 21 shag AONs were recorded on Burhou during the AWT's lesser black-backed gull census trip at the end of May. This is consistent with the number of shag AONs recorded during the previous lesser black-backed gull census in 2021 (22 AONs).

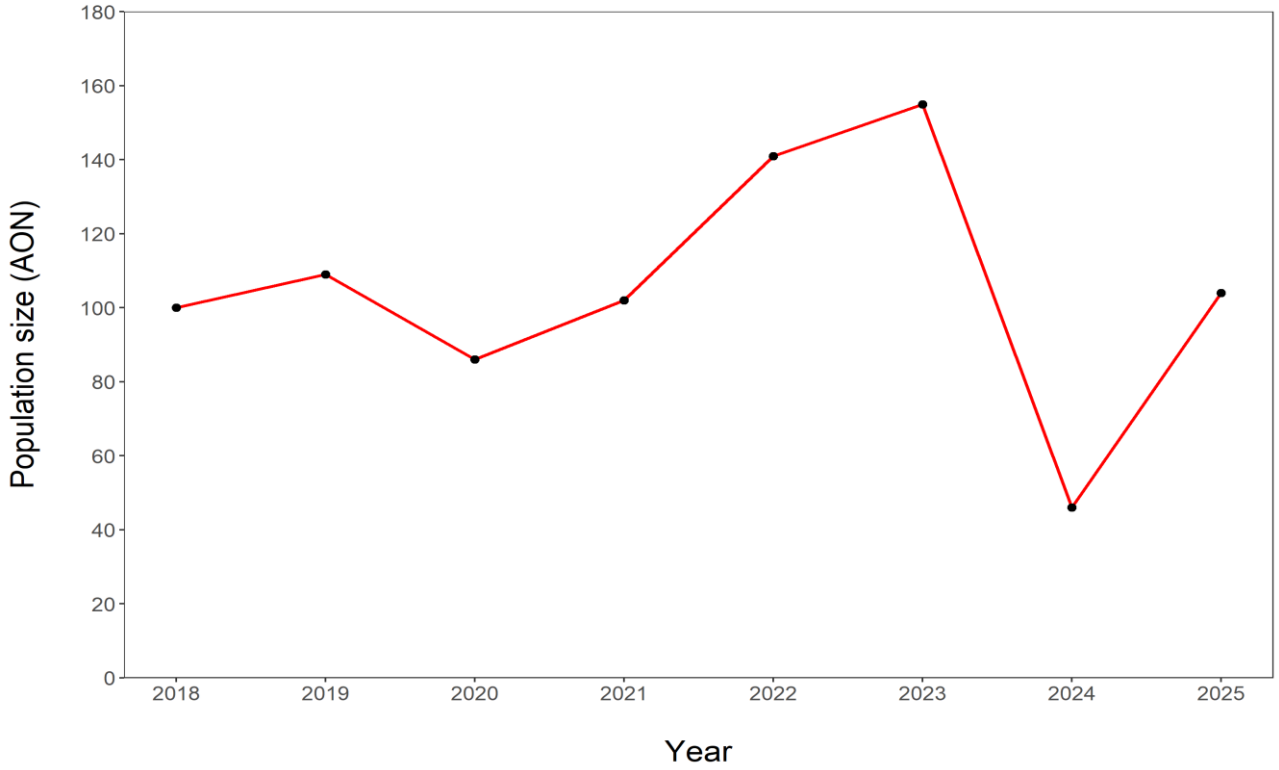


Figure 1.11. Population size (AON) of European shag on Alderney (excluding Burhou) between 2018 and 2025.

Great cormorants

Alderney's great cormorant (*Phalacrocorax carbo*) population breeds exclusively on Little Burhou. In 2025, eleven cormorant AONs were recorded in total. On the 1st of May, the AWT recorded ten nests from a boat-based survey around the outer islets. An eleventh nest was then confirmed by the ABO during their annual ringing trip to Little Burhou. This is an increase of one AON from 2024. The cormorant population on Little Burhou has remained consistent over the past eight years, with no significant change in the number of AONs since 2018 (Poisson GLM, Population size (AON) ~ Year, $X^2 = 0.757$, $P > 0.05$, Figure 1.12).

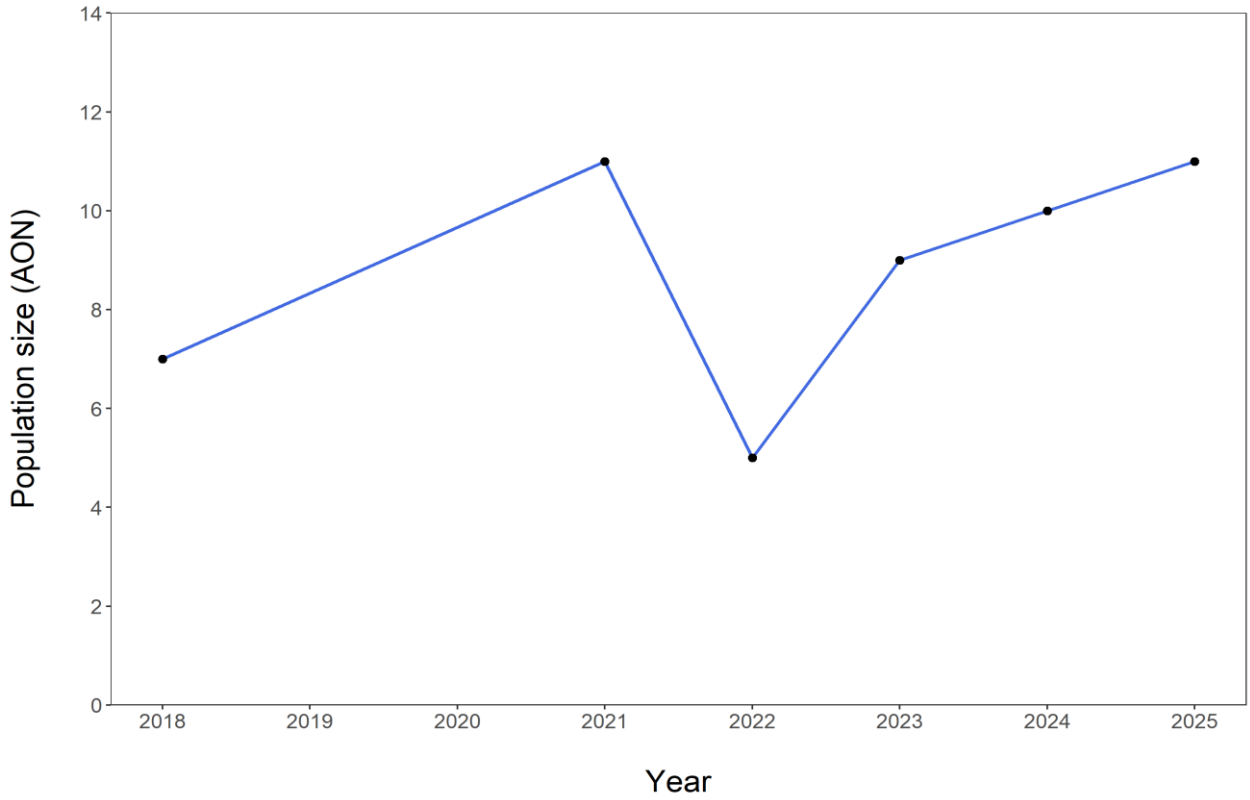


Figure 1.12. Population size (AON) of great cormorant on Little Burhou between 2018 and 2025.

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 monthly during WeBS counts (see Section 1.6.5). 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 latter being listed as green as recently as 2002 (Stanbury et al. 2024). These species have suffered serious declines across the UK due to threats such as reduced food sources from the closure of landfill sites, climate change and poor weather conditions, and increased mortalities caused by HPAI (Dias et al. 2019, Burnell et al. 2023a, Tremlett et al. 2024).

The number of AONs of each of Alderney's breeding gull species are recorded during 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. 1995). It should be noted that the round island survey counts of herring gulls and lesser black-backed gulls are likely to be minimum estimates, with some nests being missed in areas that are not visible from the boat or shore.

Herring gulls

One-hundred and twelve herring gull AONs (and an additional five AOTs) were recorded around Alderney in 2025. This is an increase from 79 AONs recorded in 2024 (Figure 1.13.). Although fewer AONs were recorded in 2024, the maximum number of herring gull AOTs in 2024 recorded was 122, suggesting that fewer birds were still attempting to nest during the survey period, but there were relatively similar numbers of adult birds compared with other years. The number of herring gull AONs recorded in 2025 is in line with counts from 2023 (120) and 2019 (119). Although the herring gull population on mainland Alderney has fluctuated over the years, there has been a slight significant increase in the number of AONs recorded since 2019 (Poisson GLM, Number of AONs ~ Year, $X^2 = 4.181$, $P < 0.041$).

Great black-backed gull

Seven great black-backed gull AONs were recorded in 2025, which is two more than recorded in 2024. 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, $X^2 = 1.539$, $P > 0.05$, Figure 1.13.).

An additional five great black-backed gull AONs were recorded on Burhou during the lesser black-backed gull census at the end of May 2025, an increase of one AON from the last census in 2021 (4 AONs, Purdie et al., 2022).

Lesser black- backed gull

Forty-nine lesser black-backed gull AONs were recorded around Alderney in 2025. This is the highest count since before 2019, marking a notable recovery from the low counts recorded in 2024 (Figure 1.13.). Although there has been a clear increase in the number of AONs in 2025, the change in the population since 2019 is not significant (Poisson GLM, Number of AONs ~ Year, $X^2 = 0.056$, $P > 0.05$, Figure 1.13.). The low number of AONs recorded in 2024 was accompanied by a higher than usual number of AOTs, suggesting that the population size had remained stable, but fewer birds had nested that year (Purdie et al. 2025). This is similar to the trend seen in the herring gulls and is possibly a knock-on effect from the poor winter weather and stormy conditions at the end of 2023 causing lower breeding success in 2024.

It is important to continue to monitor the lesser black-backed gulls nesting around Alderney to understand the trend in the population. Although the number of lesser

black-backed gulls around Alderney has increased this year, the number nesting on Burhou has declined dramatically in the last ten years (see Section 1.6.2.).

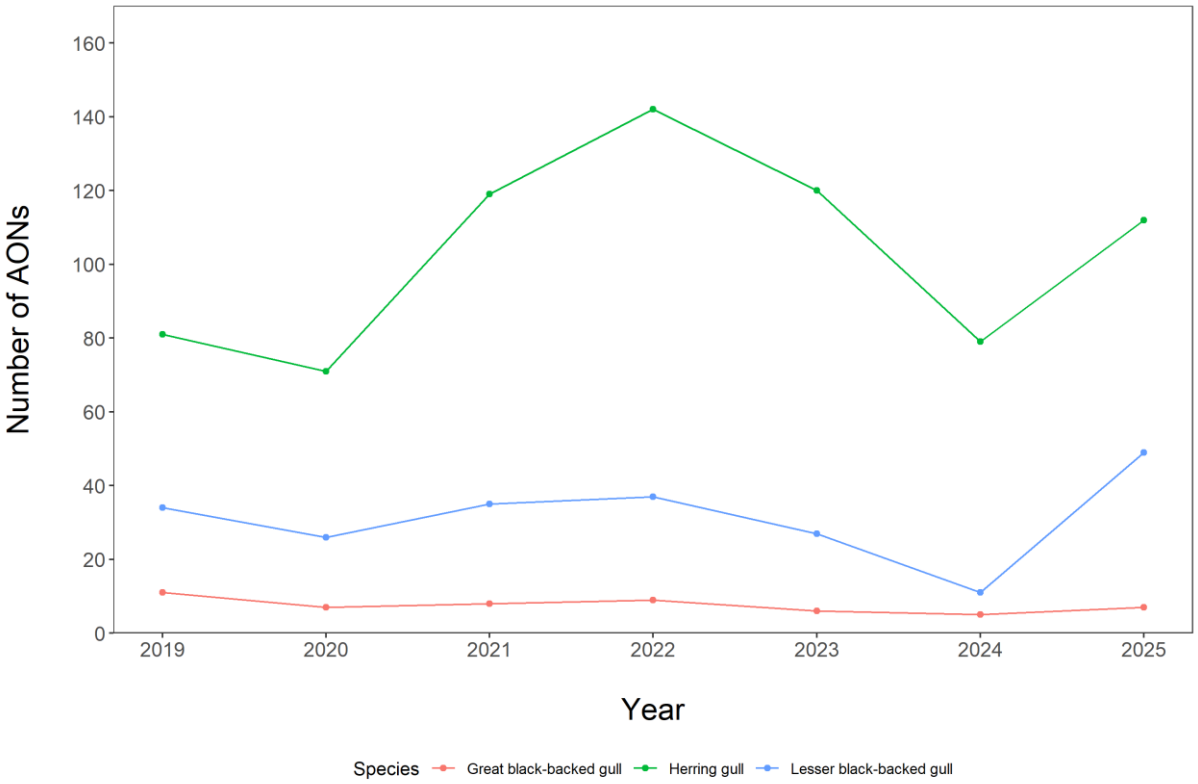


Figure 1.13. Population size of herring gull, lesser black-backed gull and great black-backed gull on Alderney and the nearshore islets from 2019 to 2025. These data do not include populations on Burhou.

Recommendations

1. Continue to census gull populations on Alderney and islets excluding Burhou using round island surveys.

1.6.3 Round Island Surveys Using Drones

A trial survey was conducted on the 2nd of June using a pre-planned drone transect parallel to the South cliffs (adjacent to the Wildlife Bunker). Three independent surveyors flew the transect and each undertook an assessment of seabird nesting activity, producing AOS counts for each species present, that were compared with one another and with totals from the standard round-island boat survey conducted three days earlier.

Drone-based counts were consistently lower than those from the boat survey. The main limitation was difficulty detecting birds on the cliff face, where rock topography and shadowing of sites reduced detectability. As the trial did not improve the accuracy or efficiency of existing round-island boat-based methods, continuation of this survey approach is not recommended at present. Nonetheless, future advances in imaging

technology, such as automated detection of birds, may justify re-evaluation of the survey.

1.6.2 Gull Census on Burhou

In 2025, the lesser black-backed gull census on Burhou that was carried out in late May. This was proposed to be conducted in 2024, however it was pushed back to 2025 due to delays in approval from GSC in early 2024.

The lesser black-backed gull colony on Burhou was censused using a walkover transect count as described by Walsh, et al. (1995). The census was undertaken on 23/05/2025 when most pairs were still incubating eggs, following the same method as the previous census in 2021 (Purdie et al. 2022). The method is outlined in Appendix 2.

A coordinated team of five counters, including a registered veterinary nurse from AAWS, moved carefully through the colony on Burhou, starting with the southwest of the island, through the western side, across the north and finishing at the northeast. Areas with dense puffin burrows were not walked on, however, there was no evidence of gulls nesting within these areas (e.g. no birds seen within them). All counted gull AONs were marked with a pasta shell and tallied using a clicker. Disruption to the colony only occurred in the immediate vicinity of the counters, with birds returning to nests quickly.

The survey began at 14:15 and ended at 17:25. Counters covered the area as quickly as possible; however bracken growth was considerably taller in the gull nesting areas than in previous years, reaching almost chest height in some places.

The height of the bracken increased the effort required to find nests, and in turn increased the length of time spent in the colony by the survey team. A larger number of counters should be considered for the next census, ideally a minimum of eight people. A larger team would decrease the amount of time spent within the colony as less area would have to be covered by each counter while zigzagging through the bracken.

During the census, lesser black-backed gull and herring gull nests were not actively distinguished as it is difficult to tell the two species' nests apart whenever the adults are not present, however it was estimated that less than 5% of the nests recorded were herring gull. Most of the gulls were nesting in the south-western area of the island like in previous years, however it was noted that in 2025, more gulls were nesting in the north-eastern area than in the last census in 2021 (Purdie et al., 2022; Figure 1.14., Table 1.10).

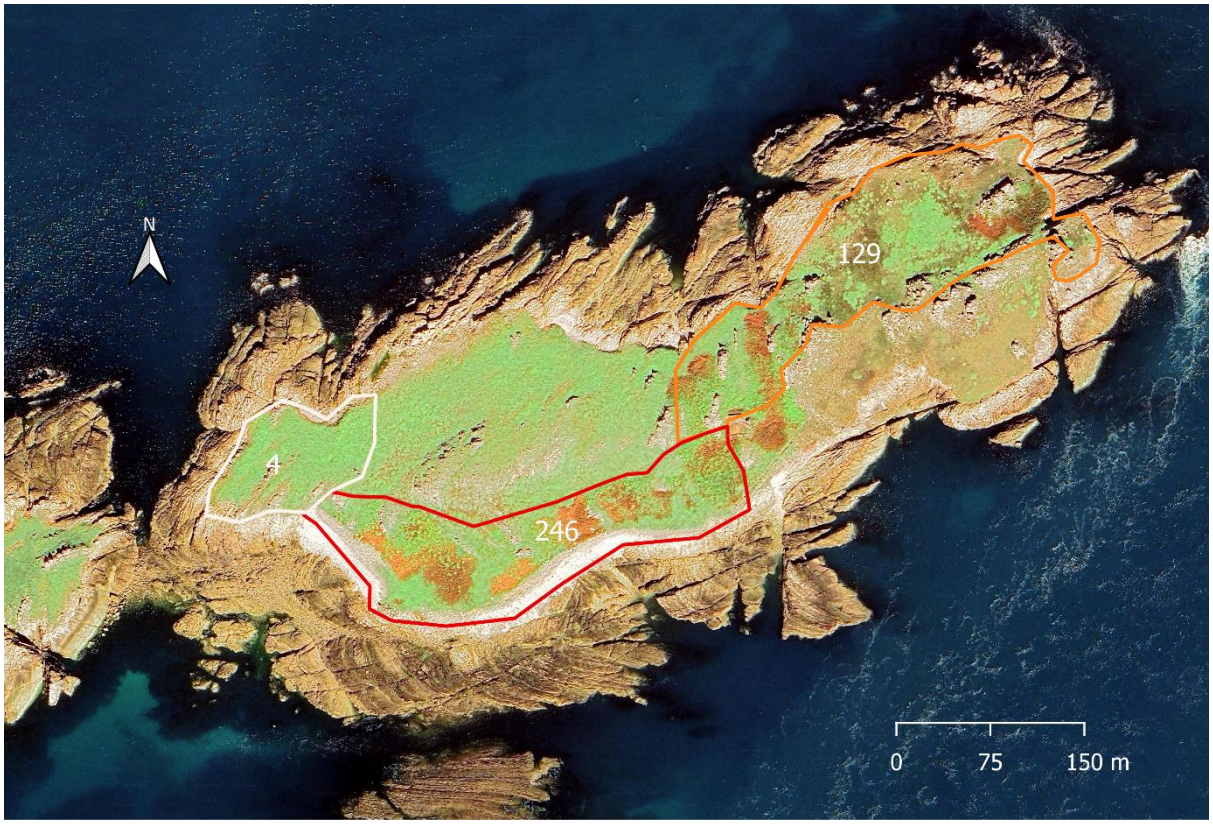


Figure 1.14. The extent of the lesser black-backed gull colony on Burhou in 2025. The census areas are outlined with the number of gull (herring gull and lesser black-backed gull) apparently occupied nests (AONs) recorded shown in each. In total, 379 AONs were recorded across Burhou. Red = south-western area, 246 AONs; orange = north-eastern area, 129 AONs; and white = western area, 4 AONS. (Note: <5% of all AONs recorded were estimated to be herring gull nests).

Table 1.10. The number of gull AONs (excluding great black-backed gull), the ratio of lesser black-backed gull (LBBG) and herring gull (HG) and the number of LBBG and HG AONs detected on Burhou in 2025.

Total number of HG and LBBG gull AONs	**Estimated Ratio of HG and LBBG AONS**	**Estimated number of HG AONs**	**Estimated number of LBBG AONs**
379	5% HG 95% LBBG *Based on observations of the number of individuals.*	19	360

Overall, the team recorded 379 AONs across Burhou in 2025 , of which 360 were estimated to be lesser black-backed gulls (Table LB1.). This represents a 49.7% decline in lesser black-backed gulls from the last census in 2021 (716 AONs, Purdie et al.,

2022). Since 2014, the colony has seen a significant decline of 74.1% (Poisson GLM, Number of AONs ~ Year, $X^2 = 763.3$, $P < 0.001$, Figure 1.15.).

The dramatic continued decline of the lesser black-backed gull colony on Burhou is in line with trends seen elsewhere in the UK. Gull populations are suffering declines nationally due to pressures including changes in food availability (from the closure of landfill sites and reductions in fisheries discards), disease (including HPAI), predation and disturbance (Burnell et al. 2023a, Stanbury et al. 2024). Due to these pressures, some gull populations are moving to more urban areas, where food is more available and nesting sites are safer (Burnell et al. 2023a, Stanbury et al. 2024).

It is possible that the lesser black-backed gulls on Burhou are relocating elsewhere due to the closure of landfill sites in France and Guernsey. It is highly important that the colony continues to be monitored, with the next census taking place in 2028 and continued annual colour ringing of lesser black-backed gull chicks by the ABO, to give insights into the colony's movements and mortality rates. A review of the impacts causing the Burhou colony's declines should be carried out as early as possible in 2026, to inform any conservation actions that should be undertaken. If conservation actions are identified, a proposal to carry these out should be submitted for the Ramsar review process.

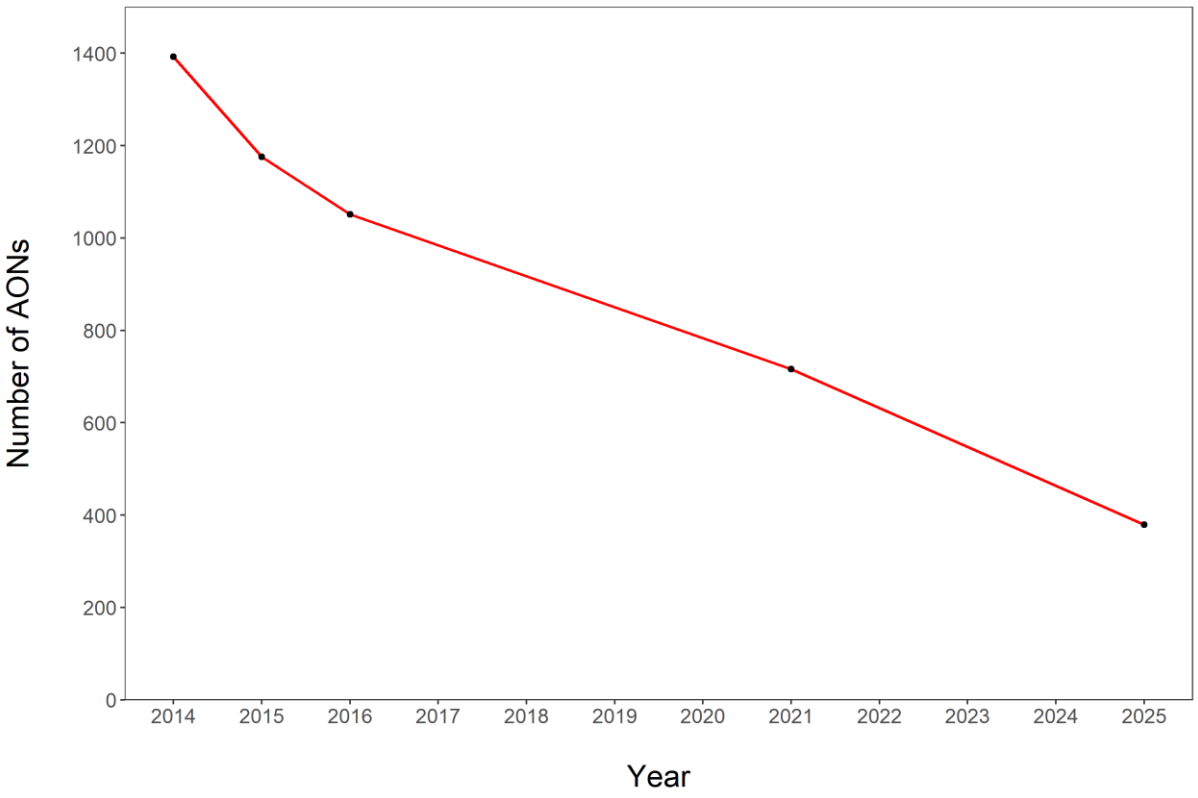


Figure 1.15. The number of lesser black-backed gull AONs recorded on Burhou from 2014 to 2025.

Recommendations

1. Census the lesser black-backed gull population on Burhou in 2028, coordinating with ringing surveys where possible to minimise disturbance.
2. Conduct a review of the impacts causing declines in the Burhou colony population as early as possible in 2026 to inform conservation actions that should be undertaken.

1.6.4 Guillemot and Razorbill Population and Productivity Monitoring

Productivity was only estimated for one site this year, North Stack High on Les Etacs. The colony on Les Etacs was monitored following methods outlined in the Seabird Monitoring Handbook (Walsh et al. 1995). In total, 48 active sites and seven regular sites were identified early in the season. These were monitored intensively throughout May and June. 26 guillemot chicks fledged in 2025, giving a productivity range of between 0.47 (active sites only) and 0.54 (active and regular sites combined). Data were collected for guillemot nesting on other sites around Alderney, however these have not been processed due to a lack of resources.

Additionally, during the 2025 season, six adult guillemots were fatally entangled by plastic nesting material used in neighbouring gannet nests.

Razorbills were not intensively monitored in 2026, due to insufficient resources.

Recommendations

1. Continue to monitor the guillemot population on Alderney if there are sufficient resources.
2. Monitor the guillemot and razorbill population as part of round island surveys in 2026.

1.6.5 Wetland Bird Survey (WeBS)

In 2025, monthly Wetland Bird Survey (WeBS) counts in Clonque Bay recorded a total of 1,740 individual waterbirds representing 15 species. The most frequently recorded species were oystercatcher, herring gull, black-headed gull and curlew, which collectively accounted for 77% of the total waterbirds counted at the site.

Peak counts for the four most abundant species were 206 oystercatchers in October, 215 herring gulls in September, 71 black-headed gulls in August, and 27 curlews in October (see Figure 1.16). For comparison, the mean timing of peak counts over the preceding four years (2021–2024) was November for both oystercatcher and black-headed gull, August for herring gull, and February for curlew. While some differences in the timing of peaks are apparent, these may reflect normal year-to-year variation in site use. Anglers were also recorded in the bay during February, March, and April, which could have contributed to temporary displacement of birds during this period.

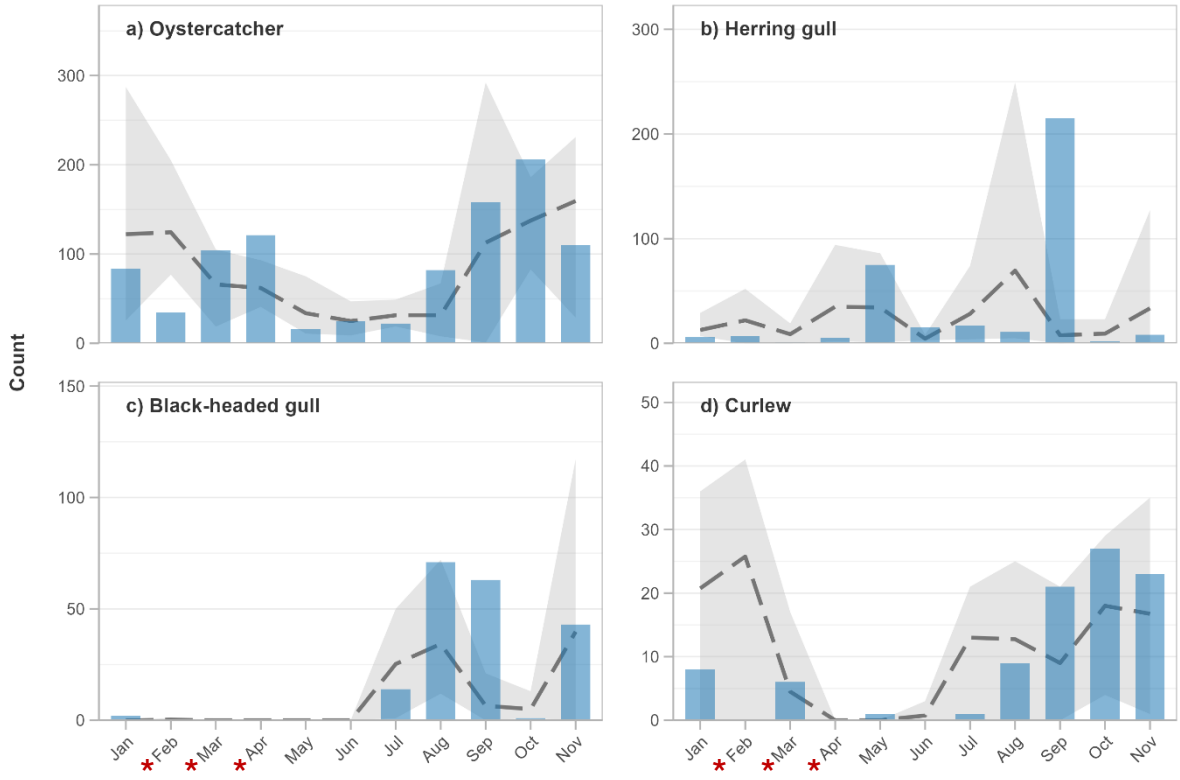


*Figure 1.16. Monthly counts of the four most abundant waterbird species at Clonque Bay during 2025 WeBS surveys: a) oystercatcher, b) herring gull, c) black-headed gull, and d) curlew. Blue bars represent 2025 counts, shown against 2021–2024 (grey shaded area = range; dashed line = mean; * = presence of anglers).*

Clonque Bay supported a high percentage of island-wide counts across all twelve surveyed sites in 2025, accounting for 44% of oystercatchers, 33% of herring gulls, 31% of black-headed gulls, and 53% of curlews (Figure 1.17).

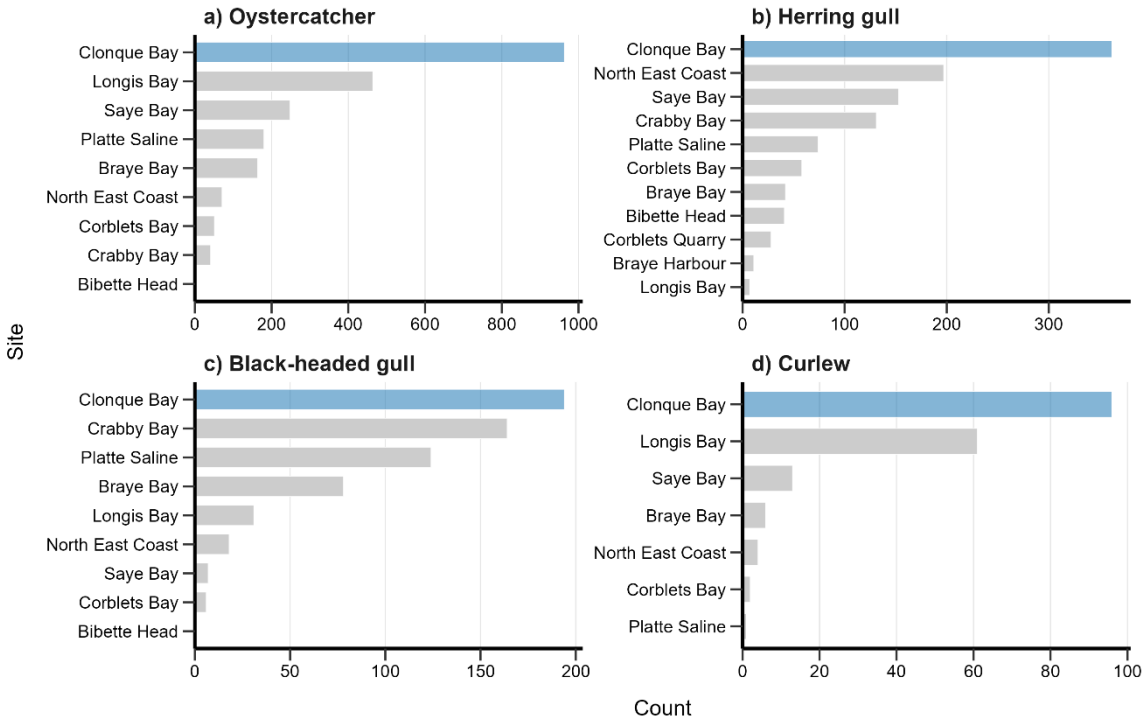


Figure 1.17. Total counts of the four most abundant waterbird species across all surveyed sites on Alderney during 2025: a) oystercatcher, b) herring gull, c) black-headed gull, and d) curlew. Blue bars highlight Clonque Bay; grey bars show counts from other sites. Sites are ranked from highest to lowest total count within each species.

Recommendations

1. Continue WeBS surveys within the Ramsar Site in 2026.

1.6.6 Eurasian Oystercatcher Trial Census

The next oystercatcher census is planned for 2027 therefore no monitoring was carried out for this species in 2025. Monthly counts of oystercatchers around the island were carried out during WeBS surveys (see Section 1.6.5).

1.6.7 Manx Shearwater Monitoring

Following the 2025 Action Plan, a new survey aiming to assess the consistency of Manx Shearwater (*Puffinus puffinus*) calling over Burhou during the breeding season was trialed. Specifically, a passive acoustic recorder (Song Meter Mini Bat 2 fitted with an acoustic microphone (Wildlife Acoustics 2025)) was deployed on Burhou on the 14th of March 2025 at a height of 1.8 m above the ground. The recorder was set to record every day from 23:00 to 04:00 from the 1st of June 2025, recording in 60-minute intervals, with a 48 kHz sample rate and 24 dB gain (based on advice from S. Newson, pers. comm., 2025). The recorder was sited at 49.73123, -2.25052, outside of the Puffin breeding areas to minimise damage to burrows (Figure 1.18.). Based on studies on other procellariforms, it is likely to have been capable of recording Manx Shearwater within

around 50 m of the recorder (Buxton and Jones 2012, Arneill et al. 2020). The recorder was retrieved on the 1st of October 2025, and had been successfully recording until around the 10th of August 2025, around which time the microphone cover was lost from the microphone and recordings thereafter were unintelligible.

Figure 1.18. The location of the Song Meter Mini recorder on Burhou (black dot), with the approximate range of detection shown (purple circle).

Recordings were first processed with an acoustic classifier from the BTO's Acoustic Pipeline (http://bto.org/pipeline) for Manx Shearwater and Storm Petrel (*Hydrobates pelagicus*). The Acoustic Pipeline uses machine learning to classify each sound recording, assigning a probability that corresponds to the false positive rate of the classifier (i.e. of it assigning an incorrect species identification to the recording, such that a probability of 0.8 equates to a 20% chance of incorrect classification). This classifier is still in development, and we therefore manually verified all recordings with a probability of 0.5 or greater of being either species. Recordings with a lower probability were not assessed as part of this analysis but could be revisited to ensure that no detections were missed.

Manx Shearwater calls were present in 131 three-second clips across the recording period, alongside an additional 40 recordings of Storm Petrel (Figure 1.19). The distribution of these calls was quite variable, with 24 nights containing at least one Manx Shearwater call (34%), mostly within the month of June. By contrast, only 11 nights contained at least one Storm Petrel call (16%), but these were more evenly spread throughout the recording period.

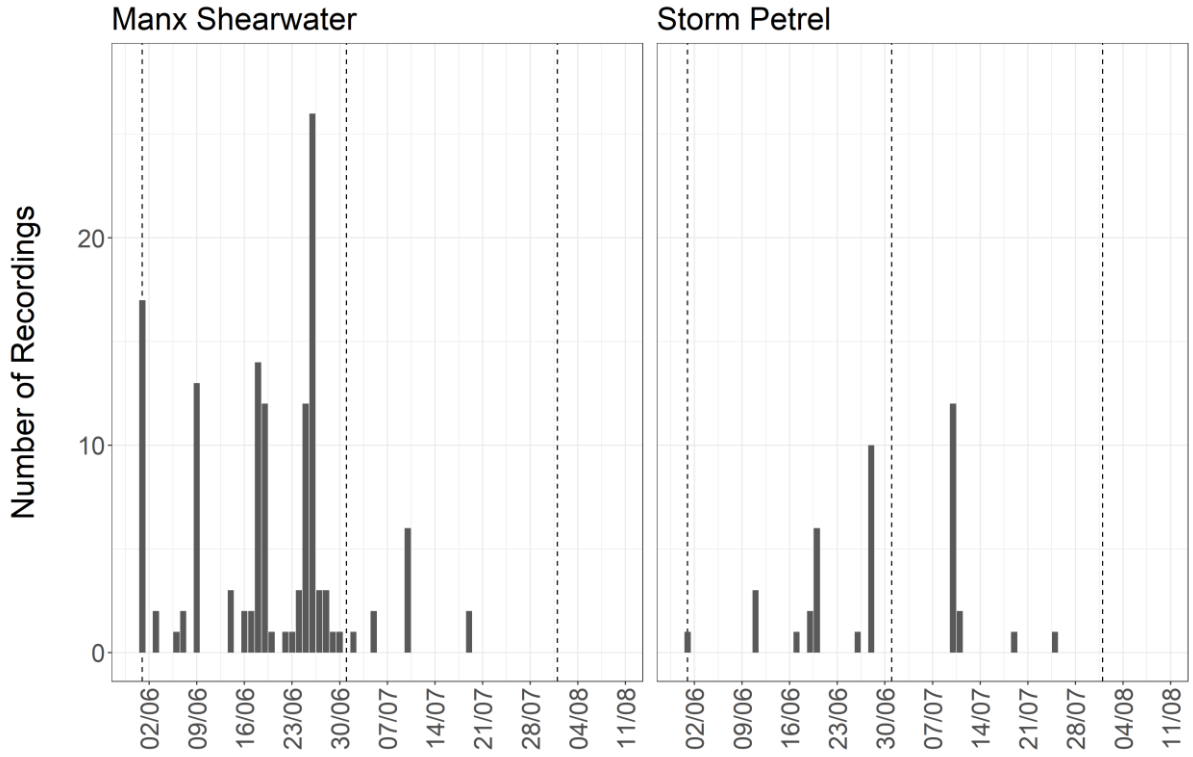


Figure 1.19. The number of verified recordings of Manx Shearwater (Puffinus puffinus) and Storm Petrel (Hydrobates pelagicus) per night of the active recording period (1st of June 2025 to 10th of August 2025).

For Storm Petrel, this low capture rate is not surprising, as although the Burhou population is estimated to be around 1500 pairs (Burnell et al. 2023b), the detection range for the species is likely to be lower, a maximum of around 30-m (Bennett et al. 2025), with only a subset of calls near to nesting locations likely to have been detected. As the breeding season for Storm Petrel extended throughout the recording period, capturing calls in both months is also unsurprising.

By contrast, Manx Shearwater are a highly vocal species with both males and females calling frequently (Brooke 1990). Previous work has established that immature birds visit colonies mostly in June and July, and are the most vocal birds during this time, with females making up most of the aerial calls, and males making up most ground calls (Brooke 1990). Given this, the large number of calls recorded in June is suggestive of prospecting activity, which seems to be heavily reduced in July. As most calls are likely from non-breeders, these results are not likely to be indicative (in either direction) of breeding activity, although the drop-off in prospecting activity is intriguing.

Future work could deploy acoustic recorders earlier in the year to capture vocalisations in March and April that may be more indicative of breeding individuals returning to the colony, with fewer non-breeding birds present at this time (Brooke 1990). Ideally this approach would involve a network of acoustic devices to cover more or all suitable

habitat on Burhou, although this would be resource dependent. This would allow for the approximate location of potential burrows to be identified, allowing for the potential for future work to conduct targeted playback surveys for burrow occupancy in season.

Recommendations

1. Deploy one or more acoustic recorders on Burhou configured to record from late February (deployment dependent) until late September. Reproduce the 2025 analysis, assessing the consistency of vocal activity across the breeding season, and especially in the early season.

1.7 Seabird Strandings

1.4.1 Recovery of live stranded seabirds by AAWS

No live stranded seabirds were discovered in the Ramsar Site in 2025. XXX live gannets were discovered outside of the site, including one juvenile gannet which were moved to safe locations around Alderney's shoreline in collaboration with AAWS and AWT, and one ca. eight-week-old gannet chick which was recovered and underwent treatment at a local rehabilitation centre.

1.4.2 Testing of suitable dead stranded seabirds by AAWS

Stranded birds identified as risk cases for avian flu (e.g. above an agreed Bailiwick of Guernsey threshold such as multiple individuals recovered during a short period of time without other clear causes of mortality). Testing at AAWS would then be forwarded to the appropriate lab via histology or swab. No samples were collected in 2025.

Alderney Ramsar Seabird Ringing Report 2025

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Summary

This report details the seabird ringing programme conducted by the Alderney Bird Observatory licensed ringers from the Channel Islands Bird Ringing Scheme and visiting British Trust for Ornithology ringers as part of the 2025 Alderney Ramsar programme.

Seabird ringing expeditions conducted in 2025 include trips to Little Burhou to colour ring great cormorant, Coque Lihou to ring guillemot and razorbill, Ortac to ring northern gannet and Burhou to colour ring lesser black-backed gulls and ring European storm petrel. In addition to this, several species were ringed on mainland Alderney, including European storm petrel, ringed plover and oystercatcher, and colour rings were applied to herring, lesser-black backed and great black-backed gulls.

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2.1 Little Burhou, 2nd May 2025.

A team of 3 CIBRS ringers departed from Alderney harbour at 1630 and landed on Little Burhou at 1705. The sea conditions were very calm on approach, a light westerly breeze, the temperature was 15° Celsius. Seen from the sea there were eighteen adult Cormorant in the colony, plus seven chicks of suitable size to ring on the nest site. On-site, there were a total of eleven nests forming the colony, two nests contained three eggs, one nest contained three tiny chicks and one egg. No dead chicks seen in the colony. Also in close proximity of the colony, one Great Black-back Gull nest with three eggs and a Shag nest with three eggs.

A total of seven Cormorant chicks were metal and colour ringed and no 'incidental' ringing encounters.

The team were within the colony for approx. fifteen minutes.

2.2 Coque Lihou, 15th June 2025

On 15th June 2025 a team of four CIBRS ringers set off from Alderney harbour at 1700 and landed on Coque Lihou at 1800, departing from Coque Lihou at 1930. The weather was clear and sunny with a south westerly breeze, the temperature was 15°C.

Nest count:

Rock Pipit – minimum 3 pairs but no nests seen.

Great Black-back Gull – 1 nest but no chicks seen.

Lesser Black-back Gull – 2 pairs, 1 small chick seen.

Guillemot – raft of c.70. Minimum of 4 adults under the AWT monitored boulder, one chick seen that was too small to ring.

Razorbill – no adults or nests found, raft of c.20.

Oystercatcher – 2 pairs using distract display, no nests seen (and not searched for).

European Shag – 28 nests seen. 5 nests were empty. 6 nests were inaccessible. 3 nests the pulli were too small/young to ring, 2 nests the pulli were too large/mobile. 12 nests with pulli ringed.

On these 28 observed nests there were 35 European Shag pulli present, 5 chicks to small/young, 4 chicks too large/mobile, 7 chicks inaccessible. Nineteen European Shag of a suitable size were metal ringed.

European Storm Petrel were heard singing from a crevice under a boulder, on the lower level of the eastern aspect of the islet.

2.3 Ortac, 23rd July 2025

The ringing expedition to Ortac took place on Wednesday 23rd July consisting of 4 CIBRS and BTO ringers, landing on Ortac at 0940, departing at 1140. It was calm and sunny with NNW 5-8mph wind, the temperature was 17°C.

Due to the focus being on ringing while on Ortac it was not possible to accurately gauge productivity numbers, however there was a good density of chicks present. Also present were 6 Guillemot chicks and at least 4 adults.

182 pulli and 7 adult Gannet were metal ringed (189).

2 metal rings read, which were both local birds ringed as pulli 20 years previously.

1 colour ring read, metal and colour ringed as an adult in 2016 on Ortac.

No "incidental" ringing encounters.

Entangled birds released, 15 Gannet pulli, 1 Guillemot pulli. There were other birds entangled but were too high risk to approach on the ledges.

Entangled deceased birds encountered, 3 adult Gannet, 3 adult Guillemot (there would have been more away from the areas we were ringing in).

2.4 Burhou, 23rd - 26th July 2025

Due to the phase of the moon the expedition to Burhou was slightly later in the month for this year. The weather conditions during the spring had been favourable for the gulls to commence their breeding season promptly and the juveniles were very well advanced at the time of our visit.

A team of 6 CIBRS and BTO ringers landed on Burhou at noon on Wednesday 23rd July 2025, departed on Saturday 26th July 2025 at noon.

The locations used historically for catching Petrels were nominated in an order as per optimal conditions based on wind speed and direction, using weather forecasting models from Meteoblue. Equipment was located at a ringing base and nets were "set". The designated Storm Petrel ringing zone was surveyed for other seabirds for ringing.

23.08.25

South

Afternoon, 1400-1845, wind NNW 10 - 12 mph, sunny, 18-19°C

Petrels, open 23.08.25 at 2200, closed at 0400 on 24.08.25

NW-N 14-16 mph, 14°C. Clear with some cloud cover.

24.08.25

North

Day session, 1100-1500 N-NW 8-10 mph, 19°C sunny with partial cloud

Petrels, open 24.08.25 at 2230, closed at 0400 on 25.08.25. Cloud cover.

NNW 6-10 mph, 16°C clear, cloud cover at times.

25.08.25

Mid-island

Day session, Little Burhou 1200-1430 NW 11-14 mph 20°C sunny

Afternoon 1800-2100 W 12-14 mph 18°C sunny

Petrels, open 25.08.25 at 2230, closed at 0400 on 26.08.25. Clear with cloud cover at times.

W 8-14 mph, 18°C, clear with cloud cover at times.

Ringing totals during the expedition, new birds only;

700 European Storm Petrel metal

4 Herring Gull metal & colour ring

63 Lesser Black-back Gull metal & 60 colour ring

1 Great Black-back Gull metal & colour ring

34 European Shag metal ring

2 Oystercatcher metal ring

1 Manx Shearwater metal ring

5 Rock Pipit metal ring

350 subsequent encounters with locally ringed Storm petrel, plus 34 encounters with foreign controls.

40 colour ring reads for gulls in the field.

Population observations;

20 pr Great Black-back Gull, 10 juveniles, 10 nests.

260 pr Lesser Black-back Gull, 295 juvenile

20 pr Herring Gull, only a few Juveniles seen but due to the timing of visit most had probably fledged and dispersed.

70 adult European Shag, 110 juvenile and 75 nests.

50 Rock Pipit, mixed age group.

250 Oystercatcher, mixed age group.

Deceased birds, that had been predated;

1 Puffin

50 Lesser Black-back Gull juveniles

3 Shag juveniles

5 Petrel

2 Oystercatcher

Deceased birds, not freshly dead or with obvious cause of death;

1 Great Black-back Gull

17 Lesser Black-back Gull

1 Oystercatcher

2.5 Alderney coast ringing report 2025

The weather conditions during the spring had been favourable for the Oystercatcher and gulls to commence their breeding season promptly. Unfortunately, due to this early start a lot of the gulls had fledged when a team was available to ring them. The Ringed Plover failed to nest on Saye this year and only one pair were observed to reared chicks at Clonque.

Alderney, from 30.05.25 to 27.07.25

2 Ringed Plover pulli, metal

13 Oystercatcher pulli, metal

105 adult European Storm Petrel, metal

8 Herring Gull pulli, metal & colour ring

1 Great Black-back Gull pulli metal & colour ring

3 Lesser Black-back Gull pulli metal & colour ring

All ringing data submitted to CIBRS, colour ring data submitted to the colour ring co-ordinator.

Recommendations

1. Continue to conduct seabird metal and colour ringing targeting the same sites and species to;
    a. increase the marked (metal ringed) population of seabirds to generate more local and international recoveries
    b. improve knowledge of population estimates, survival and movements
    c. monitor dispersal from breeding colonies from colour ring resightings and long-term survival from ring recoveries
    d. provide an opportunity to train people to ring and monitor seabirds which will improve the number of ringers available to continue seabird studies into the long-term future.
2. Review accessibility of Les Etacs for ringing
3. Review options for colour ringing ringed plover and oystercatcher

Alderney Ramsar Terrestrial Report 2025

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Summary

This report details the terrestrial monitoring, research and conservation action conducted by the Alderney Wildlife Trust as part of the 2025 Alderney Ramsar programme.

The primary focus of the terrestrial work programme in 2025 was biosecurity on offshore islands. This includes long running programmes such as rodent biosecurity on Burhou, which is rodent-free, and novel monitoring such as using a thermal drone to monitor Les Etacs for rodents. In addition to rodent biosecurity, the invasive plant, sour fig, is controlled on Burhou.

Citation
McDevitt, N., Lewis, M., Cox, T. (2026) Alderney Ramsar Terrestrial Report 2025. Alderney's West Coast and Burhou Islands (and Other Sites) Ramsar Site Annual Review 2025. **01**. Report 03. 59-62. States of Alderney. DOI XXX

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Report 3

3.1 Biosecurity

3.1.1 Biosecurity on Burhou

In 2025, no rodents were detected on Burhou and Coque Lihou using non-toxic wax chew blocks in tamper proof bait stations. Full methodology is outlined in Appendix 2. Should a rodent incursion occur on these islands, rodent control will rapidly be deployed protecting nesting seabirds and other native wildlife.

The acoustic recorder deployed on Burhou (see Manx shearwater section 4.1.6.6) was not within the frequency range to detect the calls of rodents.

Biz Bell, managing director of Wildlife Management International Ltd rodent biosecurity specialists was consulted in November 2025 as to the design of Burhou's biosecurity programme. AWT is still awaiting full feedback from this consultation, however this is unlikely to constitute significant changes to the biosecurity monitoring plan currently in place.

Recommendations

1. Continue to deploy biosecurity monitoring on Burhou and Coque Lihou.
2. Develop the biosecurity plans for Burhou and Coque Lihou to help ensure any incursions by rodents are treated effectively and in a timely manner.

3.1.2 Biosecurity on Common Tern Nesting Sites

In 2025, rodent bait was not deployed as the common terns did not attempt to nest on any of the usual sites (see Section 4.1.4). In 2026, a pulse baiting schedule should be carried out on primary (and secondary, if necessary) common tern nesting sites four weeks before the terns are expected to arrive, with the aim to suppress rodent presence on the sites and promote breeding success.

Recommendations

1. To promote common tern breeding success, rodent control should commence before the terns begin prospecting to suppress the presence of rodents at the usual breeding sites.

3.1.3 Biosecurity on Les Etacs

In partnership with Orsted, thermal drone surveys of Les Etacs were carried out on six nights in January and three nights May to search for rodent presence. The surveys were carried out in the winter, when no gannets were present on the stacks, and in summer, when gannets were present on nests. No rodents were detected on Les Etacs in 2025. There is currently no intention to continue this survey in 2026 because it was deemed highly unlikely that rodents are present on Les Etacs.

3.1.4 Monitoring Predation on Guillemot Nesting Sites

Camera traps were deployed on La Nache and Coque Lihou in 2025, however due to limited resources this data has not been analysed.

3.1.5 Invasive plant control management on Burhou

During rodent checks of Burhou on 01/10/2025, a full island walkover was carried out to search for sour fig. Sensitive puffin burrow areas were searched using binoculars to limit disturbance. No sour fig was found inside the puffin burrow areas. Across the island, four patches of sour fig, totalling an area of 5m^2, were removed and bagged at the site of removal to prevent the spread of fragments. The bags were then taken to mainland Alderney for disposal (see Figure 3.1.).

Figure 3.1. Locations of sour fig patches (red) removed from Burhou during rodent checks in October 2025. Four patches, totalling 5m^2, were removed and bagged at the site of removal

Alderney Ramsar Marine Report 2025

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Summary

This review summarises the marine survey workstream objectives, as detailed within the '*Alderney's West Coast and Burhou Islands Ramsar Site (and Other Sites) Annual Action Plan 2025'* which **were** completed within the Alderney Ramsar Site for 2025. This comprised of 14 marine surveys, including:

Phase I intertidal survey: additional works; Phase II intertidal survey; Shoresearch; Climate change driver assessment: coastal erosion; Green ormer (*Haliotis tuberculata*) survey; Crab surveying; Marine invasive non-native species assessments; Inshore plankton; Fish-Intel Project; Seawater quality testing; Marine mammal surveying; Marine mammal strandings; Marine Conservation Society beach cleans; European eel survey.

Information related to each survey is provided, including general recommendations for 2026.

Citation
Broadhurst-Allen, M. (2026) Alderney Ramsar Marine Report 2025. Alderney's West Coast and Burhou Islands (and Other Sites) Ramsar Site Annual Review 2025. **01**. Report 04. 63-80. States of Alderney. DOI XXX

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Report 4

4.1 Phase I intertidal survey: additional works

4.1.1. Phase I intertidal habitat biotope survey: Les Etacs and Clonque Bay

A phase I intertidal habitat biotope survey of Les Etacs and also sections of Clonque Bay was undertaken in 2025. Both locations were originally planned to be surveyed in 2024, but due to poor weather and tide conditions were not completed. For 2025, both locations were surveyed using drone aerial photography survey techniques. The drone survey method enabled inaccessible areas within the two locations to be surveyed. The results for both locations will be digitised (e.g. presence, location, extent and conservation importance variables via GIS techniques) early spring 2026.

Recommendations:

1. To consider the use of drone aerial photography survey method as an additional survey technique for future Phase I intertidal habitat biotope surveys. This includes sites that are inaccessible, such as offshore rocks.

4.2 Phase II intertidal monitoring survey

4.2.2. Phase II intertidal monitoring survey of Clonque Bay

Following the Phase I intertidal habitat biotope survey of Clonque Bay in 2024, a Phase II intertidal species monitoring survey was undertaken (at Clonque Bay), during 2025. The survey method comprised of quantitatively recording intertidal (macroalgae and fauna) species biodiversity estimates and composition/structure within four selected marine habitats using a 1 m^2 quadrat frame (see Figure 4.1.). This survey had been completed within the same selected intertidal habitats previously in 2020 and 2015, respectively. A survey report will be completed by the end of January 2026.

Figure 4.1. Photograph example of a 1m^2 quadrat (square frame) used to record intertidal (macroalgae and fauna) species within the selected marine habitat: Fucus vesiculosus on moderately exposed to sheltered mid eulittoral rock, Clonque Bay, 2025. Photograph taken by Mel Broadhurst-Allen.

Recommendations

1. To continue to adopt the Phase II intertidal species monitoring survey technique following a Phase I intertidal habitat biotope survey (every five years).

4.3 Shoresearch

4.3.2. Shoresearch walkover survey

A total number of nine Shoresearch surveys were undertaken on Alderney, with two surveys completed within the Ramsar Site (Clonque Bay and Platte Saline Bay; see Figure 4.2), during 2025. The survey method was developed by the Royal Society of Wildlife Trusts (UK) with the aim to record intertidal species presence with volunteer citizen scientists. Both surveys were completed outside of the breeding bird season to reduce any potential human disturbance. The two surveys recorded a range of intertidal marine algae and invertebrates (crustaceans, molluscs and sea anemones), with 24 species recorded at Clonque Bay and 32 species at Platte Saline Bay. This included

recording several marine invasive non-native species, such as Pacific oyster (*Magallana gigas*).

Figure 4.2. Location of Shoresearch survey at Clonque Bay, 2025. Photograph taken by Mel Broadhurst-Allen.

Recommendations

1. To continue to implement Shoresearch walkover surveys within the Ramsar Site for 2026.

4.3 Climate change driver assessment

4.3.1. Coastal erosion survey

In 2025, 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 originally 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, with an additional two transects setup in 2025, near to the bench over-looking Fort Clonque. Similar to 2024,

two of the monitoring station transects located in the central path, leading to Fort Clonque showed little or no erosion in 2025. One of the monitoring transects (number 1) located near the bench adjacent to Fort Tourgis showed considerable erosion. The original monitoring station/stake area was gone, with approximately 1.06 metres of the edge lost since 2023 (see Figure 4.3). The second monitoring transect, further along the path has lost 0.5 m since 2023.

Recommendations

1. To continue to undertake coastal erosion monitoring assessment annually at selected monitoring stations within Clonque Bay for 2026.
2. To inform SWD of any significant coastal erosion, which may need associated works.
3. To potentially consider additional survey techniques to help record coastal erosion along inaccessible locations, such as the use of drones/aerial photography.

Figure 4.3. Location of the monitoring station transect (number 1) and individual stations (edge, A and B stakes/stations) with observed coastal erosion at Clonque Bay, 2025. The original edge monitoring station was lost in 2023, with a new edge station added in 2024. Aerial photograph provided by Digimap Ltd. Coordinate system: Guernsey Grid.

4.4. Green ormer (*Haliotis tuberculata*) survey

4.4.1. Green ormer tagging and abundance surveys

During 2025, 16 green ormer (*H. tuberculata*) species surveys were completed across Alderney's intertidal rocky-shore bays, with six undertaken within the Ramsar Site (Clonque Bay). Four surveys were undertaken in the spring (February - April), with two surveys completed in the autumn (September - November). The surveys were run as citizen science surveys, to enable members of the public and AWT volunteers to participate in recording this important Channel Islands species on Alderney.

A total number of 166 green ormer individuals were recorded within Clonque Bay during 2025. These sightings are higher than 2024 (n = 148) and 2023 (n = 91), respectively. This observed increase in the number of green ormers found within Clonque Bay by AWT volunteers could potentially be an indication of the population increasing or a result of sampling efficiency (e.g. volunteers now more experienced to find green ormers within selected rocky-shore locations/habitats).

The smallest green ormer individual (shell size measurements) recorded within Clonque Bay was measured at 9 x 9 mm, with the largest at 119 x 84 mm. A total number of 45 individuals were tagged during the 2025 Clonque Bay surveys to assess their movement patterns. A total number of 29 previously tagged green ormers were also 're-found' during these surveys. Of particular interest were the green ormer individuals with the tagged reference numbers: A882 and A885. Both green ormer individuals were originally found and tagged in September 2023 (within Clonque Bay). A882 has since been 're-found' five times by the AWT volunteer citizen scientists, in the same survey location, during both spring and autumn surveys in 2024 and 2025. This individual's shell size was originally measured as 69 x 48 mm (September 2023) and was recently measured as 98 x 70 mm (November 2025). In addition, in 2023, this individual had a markedly broken shell (see Figure 4.4.), which has since grown back. A885 has been 're-found' three times, again in the same general location of Clonque Bay, during spring/autumn surveys of 2024 and 2025. This individual's shell size was originally measured as 62 x 42 mm (September 2023) and was recently measured as 90 x 60 mm (February 2025).

Recommendations

1. To continue to undertake green ormer surveys for 2026.

a)  b) 

Figure 4.4. Photograph of the tagged green ormer A882 in a) September 2023 and b) November 2025, Clonque Bay. Photograph taken by Lou Collings.

4.5. Crab surveying

Two surveys were implemented for 2025; intertidal crab abundance and population dynamics surveys and an intertidal crab photo bank:

4.5.1. Intertidal crab abundance and population dynamic surveys.

During 2025, 11 intertidal crab abundance and population dynamics surveys were completed across three rocky-shore bays on Alderney (Braye Bay, Clonque Bay and Longis Bay). Within the Ramsar Site (Clonque Bay survey area), two surveys were completed in January and August months, for this year. These surveys were completed with volunteer AWT citizen scientists.

A total number of 680 intertidal crab individuals were recorded across all bays on Alderney for 2025. The results from the two surveys completed within Clonque Bay, showed a total number of 232 intertidal crabs recorded by the volunteer citizen scientists. This comprised of five species including; chancre crab (*Cancer pagurus*), montagu/furrowed crab (*Xantho* species), rissos' crab (*Xantho pilipes*), broad-clawed porclain crab (*Porcellana platycheles*), long-clawed porclain crab (*Pisidia longicornis*) and also an unidentified crab species. Surveyors recorded the largest number of crabs in January (n = 170), compared to the survey completed in August (n = 62). In

comparison to crab surveys completed in 2023 and 2024, the long-clawed porclain crab species accounted for the largest proportion of crab species observed (total number of long clawed porclain crabs within Clonque Bay: 2025 = 152; 2024 = 100; 2023 = 204).

Three priority crab species selected for further study included the 'local/native' species, the chancre (*C. pagurus*) and green shore crab (*C. maenas*) and, the 'new/ climate change indicator' species, the montagu/furrowed crab (*Xantho* species). For 2025, 11 chancre crab individuals were recorded within Clonque Bay, primarily males, with carapace widths measuring from 10 – 98 mm. No green shore crabs were recorded at Clonque Bay this year. A total number of 43 montagu/furrowed crab individuals were recorded within the bay. The volunteer citizen scientists recorded more female montagu/furrowed crabs than males this year (females = 25; males = 13), with carapace widths ranging from 0.4 – 53 mm. The number of female montagu/furrowed crab s that were berried/with eggs was not recorded this year due to the surveys undertaken outside of the breeding season.

4.5.2. Intertidal crab photo bank.

During the intertidal crab abundance and population dynamics surveys (4.3.5.1.) photographs of crabs that showed visible disease or poor-quality shell condition were taken to develop a crab photo bank.

During the 2025 surveys carried out at Clonque Bay, only a small number of crabs were observed showing poor shell quality, disease or with parasites (see Figure 4.5.). It must be noted that this may be due to the small number of crab surveys completed within Clonque Bay this year, not the overall condition of crab species within the bay.

Recommendations

1. To continue intertidal crab abundance and population dynamics surveys for 2026.
2. To continue to further develop the intertidal crab photo bank for 2026.

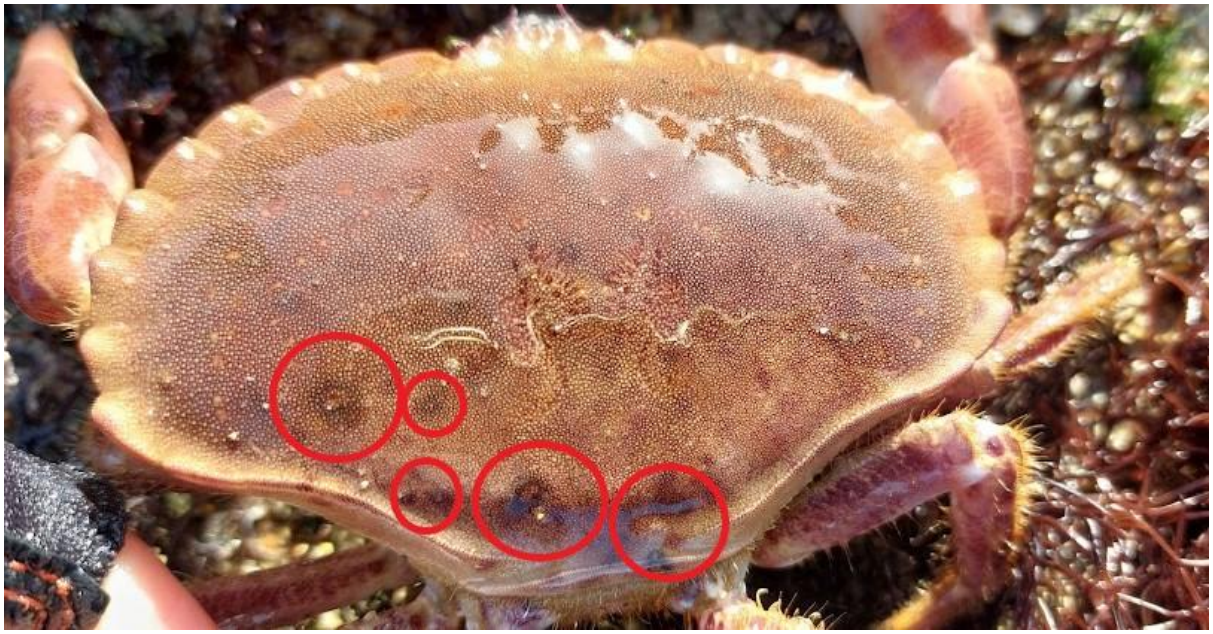

Figure 4.5. Example of a chancre crab (C. pagurus) with a black spot disease present on shell, indicated by red circles, Clonque Bay, 2025. Photograph taken by Lou Collings.

4.6. Marine invasive non-native species assessments

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 2025, this included:

4.6.1. Marine INNS monitoring.

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

For 2025, a marine INNS survey was undertaken within the Ramsar Site (Clonque Bay) to record the presence, location and extent of the marine INNS, devil's tongue weed (*Grateloupia turuturu*). This marine INNS macroalgae was originally surveyed within a small section of Clonque Bay in 2024, primarily within the mid-low rocky shore area, which comprised of mixed, coarse substrate within fast-flowing, shallow conditions. The 2025 survey identified that *G. turuturu* was still present within the original area only, but that the extent of this marine INNS had increased substantially (see Figure 4.6.). In addition, the survey also recorded that despite the extent of the devil's tongue

macroalgae had increased, the overall density within the area had declined (e.g. more patchy/less prevalent than 2024).

In addition to this survey method, Shoresearch surveys were completed within the Ramsar Site which also record the presence of marine INNS. The results are detailed in section 4.3.

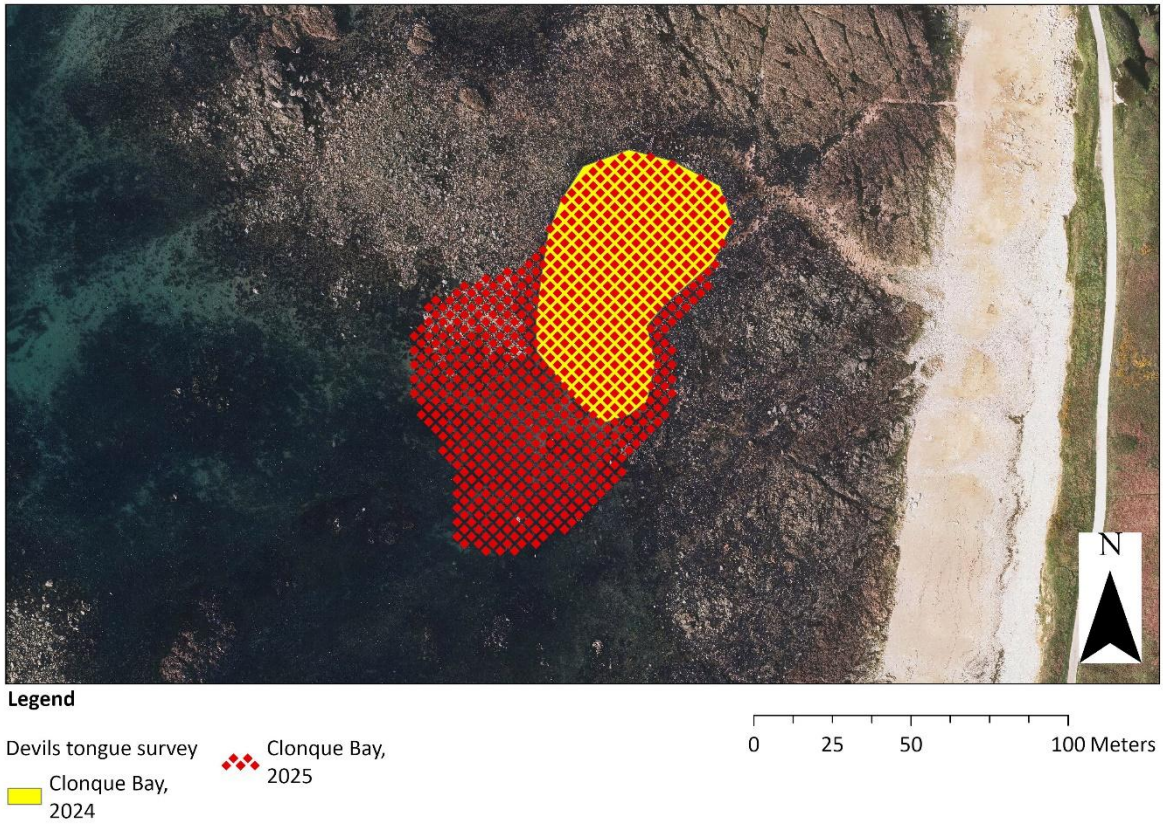

Figure 4.6. Marine INNS devil's tongue (Grateloupia turuturu) macroalgae presence, location and extent surveyed within Clonque Bay in 2024 and 2025. Aerial photograph provided by Digimap Ltd. Coordinate system: Guernsey Grid.

4.6.2. 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 2025, this included producing a marine INNS leaflet and poster, with the information displayed around the Alderney harbour area for resident and visiting marine users.

4.6.3. 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 2025, initial plans were being developed to remove the presence of Pacific oysters (*Magallana gigas*) on Alderney for 2026, currently this does not include areas within the Ramsar Site.

Recommendations

1. To continue to implement marine INNS surveys, specifically devil's tongue surveys, within the Ramsar Site in 2026.
2. To support public marine INNS outreach and education activities where possible, for 2026.
3. To support marine INNS management options where possible, for 2026.

4.6.3. Promote Seasearch snorkels and dives within the Ramsar Site

Seasearch surveys, carried out by trained volunteers (both on island or visiting), within the general site was recommended for 2025. Unfortunately due to strong winds, wave action and tides, surveys were not undertaken.

Recommendations

1. To encourage and support Seasearch (snorkel/ scuba dive) surveys to be completed within the Ramsar Site and other sites by trained Seasearch volunteers in 2026.

4.7 BRUV surveys

4.7.1. BRUV surveys within Hanaine Bay

A baited underwater video survey (BRUV) was recommended to be undertaken within Hanaine 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

1. To consider undertaking this survey in 2026.

4.8 Inshore plankton

4.8.1 Planktoscope surveys in Clonque Bay

For 2025, a total number of four inshore plankton surveys were completed across Alderney, using the Planktoscope equipment donated by the National Oceanographic Centre, University of Southampton. Two of these surveys were undertaken within the Ramsar Site, Clonque Bay and Platte Saline Bay. The Planktoscope equipment extracts photographs of plankton individuals (this includes diatoms, zooplankton, detritus etc.) from samples of seawater (see Figure 4.7 as an example). The extracted photographs are then uploaded to the online photograph database, Ecotaxa (website link: https://ecotaxa.obs-vlfr.fr/gui/index), for taxonomic group identification, using AI applications. Extracted plankton photographs from the four surveys completed this year have been uploaded to the Ecotaxa website for future taxonomic group verification.

Figure 4.7. Example of an extracted photograph of a plankton individual (taxonomic group unverified) using the Planktoscope equipment, from the Clonque Bay inshore plankton survey, 2025.

Recommendations

1. To continue to implement Planktoscope surveys within the Ramsar Site in 2026.

4.9 Fish-Intel Project

4.9.1 Support for Fish-Intel Project

The Fish-Intel project was initiated across the Channel Islands in 2022, managed by the State of Jersey's Marine Resources team and the University of Plymouth, as part of the EU Interreg France (Channel) program (see here: https://www.plymouth.ac.uk/research/marine-conservation-research-group/fish-intel-interreg). The project comprised of a network of acoustic monitoring equipment deployed across the Channel Islands (in addition to equipment deployed across the UK and Europe). The aim of the project was to record the distribution, movement patterns and habitat preferences of commercially important fish species, cetaceans and also monitor sea surface temperature in-situ.

On Alderney, two mooring buoys with acoustic monitoring receivers were deployed within Hanaine Bay and Longis Bay, from 2022-2024, supported locally by the AWT and SoA. For 2025, the project was extended and funded by the AWT, following a public fundraising event held in 2023. The Interreg project has since ended, with results supporting the delivery of research papers (as an example, see here:

https://besjournals.onlinelibrary.wiley.com/doi/full/10.1002/2688-8319.70148). Channel Islands results/general reporting is due in 2026 (fish and cetacean information).

Recommendations

1. To support the extension of the deployment of the two buoys to record cetacean presence and sea surface temperature within Alderney's waters (including the Ramsar Site) for 2026.

4.10 Seawater quality testing

4.10.1. Test physical parameters of seawater

In 2023, the AWT won funding from Sea-Changers (a UK based marine charity) to purchase equipment to monitor seawater parameters, as part of a new citizen science survey for Alderney. For 2025, a total number of 29 seawater parameter surveys were completed across seven bays on Alderney. This included two surveys completed within the Ramsar Site (Clonque Bay and Hanaine Bay) in July. The survey method comprises of sampling twice within each bay, per month on a rising/high neap tide sea state. The recorded seawater parameter results for bays both within and outside the Ramsar Site during July are presented in Table 4.1.

Table 4.1. Recorded seawater parameters within the Ramsar Site (Clonque Bay and Hanaine Bay) and outside Ramsar Site (Braye Bay and Longis Bay) during July, 2025.

	Seawater parameters					
Location	**Sea surface temperature (˚C)**	**pH**	**Salinity (g/kg)**	**Dissolved O2 (%)**	**Dissolved O2 (ppm)**	**Total dissolved solids (ppm)**
Inside Ramsar Site						
Clonque Bay	18.05	8.33	32.21	119.85	9.06	24.56
Hanaine Bay	16.8	8.23	27.34	115.2	9.2	20.87
Outside Ramsar Site						
Braye Bay	18.47	8.415	32.73	117.15	8.77	24.925
Longis Bay	17.485	8.33	32.245	121.65	9.25	14.55

Recommendations

1. To continue to implement seawater parameter surveys within the Ramsar Site in 2026.

4.11. Marine mammal surveying

Marine mammal species, such as the grey seal (*Halichoerus 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 2025 included:

4.11.1. Effort (boat) based grey seal surveys.

A total number of four boat-based surveys were completed in 2025, with the aim to record grey seal abundance and population structure (e.g. sex and age) within the Ramsar Site (on offshore rocks/islets behind Burhou). Combined, the four surveys recorded a total number of 220 grey seal observations. Only one individual was identified as a juvenile, with the other individuals as identified as adults. The survey results showed that a large number of the observed grey seal individual's sex was unknown (n = 132), with 20 identified as male and 68 as female.

4.11.2. Grey seal identification.

Photographs derived from the 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 in 2024, to identify specific grey seal individuals, to help assess the overall population structure of seals habituating within Alderney's Ramsar Site. Presently, 64 seal individuals are included within this catalogue for identification purposes.

4.11.3. Cetaceans.

Two land-based observation surveys (following the Sea Watch Foundation land watch survey method) were completed during 2025. These were completed at land-based platforms looking out to sea, with the aim to record marine mammal species presence, abundance, location and behaviour. The selected locations for 2025 were Fort Tourgis (observing into the Swinge/Burhou/Fort Clonque/general Ramsar Site area) and Fort Albert (looking across Braye Bay and Bibette Head). General environmental information was recorded (e.g. wave height, swell etc.,) with no cetaceans recorded present during either survey.

Recommendations

1. To continue effort (boat) based surveys for 2026.
2. To continue to develop the grey seal photographic identification catalogue for 2026.
3. To continue to implement land-based observation surveys for 2026.

4.12. Marine mammal strandings

4.12.1. Support BDMLR response to marine mammal strandings.

This objective comprises of supporting on-island British Divers Marine Life Rescue (BDMLR) volunteers, AWT marine life rescue volunteers and subsequent action plans/protocols related to managing marine mammal strandings. For example, two protocols developed by the Alderney Animal Welfare Society (AAWS), AWT and the SoA aim to manage both live and dead strandings that occur on Alderney.

For 2025, a total number of four marine mammal species strandings occurred on Alderney, with one stranding recorded within the Ramsar Site. The stranding within the Ramsar Site occurred on 09/11/2025 at Hanaine Bay and consisted of a small live grey seal (*Halichoerus grypus*), which left shortly after being found. Strandings recorded outside of the Ramsar Site comprised of a dead Harbour porpoise (*Phocoena phocoena*), a dead common dolphin (*Delphinus delphis*) and a live grey seal.

Recommendations

1. To continue to support on-island marine life rescue volunteers (including both BDMLR/AWT marine life rescue volunteers) with marine mammal strandings for 2026 (including potential engagement activities/training).
2. To maintain and update existing stranding protocols with the AAWS and the SoA in 2026, where appropriate.

4.13. Marine Conservation Society beach cleans

4.13.1 Beach cleans at Clonque, Hanaine and Platte Saline

During 2025, a total number of nine public Marine Conservation Society (MCS) beach cleans were undertaken on Alderney, with three completed within the Ramsar Site. This comprised of beach cleans at Clonque Bay (x 2) and Hanaine Bay (x 1). During the beach clean events, members of the public also helped record the number and type of marine litter found, following the MCS beach clean survey method. Similar to previous years, the marine litter collected on Clonque Bay was one of the highest recorded, compared to other bays across Alderney during 2025. For example, the number of items recorded at Clonque Bay (across both cleans) totalled 342 items, with a total weight of 29 kg. The total number of items recorded at Hanaine Bay was 12, with a weight of 9.5 kgs. Overall, the items of litter were predominately made of plastic/polystyrene and rubber at both bays.

Recommendations

3. To implement MCS beach clean surveys within the Ramsar Site in 2026.

4.14 European eel survey

4.14.1 Investigate presence of European eels in the Ramsar Site

A European eel (*Anguilla anguilla*) survey was undertaken at Clonque Bay in 2025. Surveys were also completed within Longis Bay. The survey method comprised of hand-searches for the glass eel/elver life stage of the European eel. Searches were completed within selected intertidal habitats of the bay that are preferred by European eels, during the summer (habitat preference: upper shore, freshwater presence, mixed substrate type, prior to moving into freshwater habitat types). No European eels were found within the Ramsar Site, with one individual recorded in Longis Bay.

Recommendations

1. To continue European eel surveys within the Ramsar Site for 2026.

Alderney Ramsar Community Report 2025

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Summary

This review summarises the community engagement and education outcomes as detailed within the '*Alderney's West Coast and Burhou Islands Ramsar Site (and Other Sites) Annual Action Plan 2025'*.

In 2025 this included the operation of wildlife webcams covering the Les Etacs gannet colony and the puffin colony on Burhou, boat tours of the Ramsar Site, including educational tours for students of St Anne's school, community engagement events, such as beach cleans and coastal foraging walks, and updated public information signage for the Ramsar Site.

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5.1 Wildlife Webcams

5.1.1 Live Streaming Wildlife Webcams

Both PuffinCam and GannetCam were fully operational throughout 2025. Due to updates in how Facebook stores live videos, the PuffinCam livestream that was originally linked to the AWT Staff Facebook was moved to the AWT YouTube page (@alderneywt). YouTube stores live videos indefinitely, providing a solution for storing and reviewing PuffinCam videos going forward. A link to the AWT YouTube page was posted and pinned to the top of the AWT Staff Facebook page.

Both PuffinCam and GannetCam livestreams were available on the AWT website. Due to technical difficulties, GannetCam was not streamed to the Living Islands Facebook page like in previous years - this issue will be resolved in 2026.

The livestreams continued to be linked to a TV in the AWT Information Centre where the camera could be controlled by the public. During the puffin breeding season, PuffinCam was set up to record surveys of puffin productivity plots during specific hours in the mornings and afternoons but was free to move around outside of these survey times using controls located in the AWT Information Centre. This gave visitors the opportunity to explore Burhou and spot wildlife. Once the puffin breeding season ended, the Information Centre streamed GannetCam to give visitors a view of the gannets and fledging chicks on Les Etacs.

5.1.2 Review Webcams Community Impact

Social media insights – PuffinCam

The PuffinCam livestreams on the AWT YouTube page received a total of 1,145 views in 2025. The most watched PuffinCam livestream was posted on 7th June with 98 views. PuffinCam continued to be promoted on the Alderney Wildlife Trust Facebook page, linking to the YouTube page. Two posts made to the AWT Facebook page in April 2025, highlighting that the puffins had returned and that a Eurasian hoopoe (*Upupa epops*) had been spotted on Burhou via the webcam, received 659 and 1,654 views respectively.

2025 has seen a drop in engagement with PuffinCam, likely due to moving the stream to the YouTube channel that has fewer followers than the AWT Staff Facebook page previously used. In 2026, promotion of PuffinCam will continue, encouraging viewers and followers of the Facebook pages to visit the YouTube channel.

AWT Information Centre

In 2025, the AWT Information Centre had over 10,000 visitors, many of which engaged with the cameras or asked 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.

5.1.3 Activation of PuffinCam

PuffinCam was reactivated on Burhou on 3 March 2025 using the same equipment and procedures as in 2025. To minimise disturbance, works were carried out before Burhou closed for the breeding season and the camera was located outside of the puffin colony.

5.1.4 Investigate Further Uses for PuffinCam

Since 2023, the use of PuffinCam for other works has been suggested each year, however no other works have been requested. The use of the cameras, when not required for Atlantic puffin observations, should remain offered in 2026 and can be arranged on request.

5.1.5 Activate GannetCam

GannetCam was reactivated in 2025, and the transmitter array was kept in place on Burhou until the end of the gannet breeding season to maintain the data link between Burhou and Alderney.

Recommendations

1. Reactivate PuffinCam and GannetCam in 2026
2. Review the way of promoting this footage online, ensuring it meets the objectives of Outreach & Education

5.2 Boat tours

5.2.1 Boat Tours on Sula of Braye

In 2025, AWT delivered boat tours between March and October, enabling 554 residents and visitors to access the Ramsar site from the sea, with professional ecologist as tour guides.

AWT tours are conducted on Sula of Braye. 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

1. Continue providing boat tours in 2026.

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

In 2025, one free educational boat tour for Year 6 students was arranged with St Anne's School and went ahead in July. The trip had a positive response from all those that were

present. The free educational boat tours were also offered to homeschooled pupils aged eleven and twelve on the island to ensure that all children have access to this provision.

Recommendations

1. Continue to provide free education boat tours to Year 6 students at St Anne's School as well as external homeschooled students on the island.
2. Gather feedback regarding outcomes and impact from these tours to highlight the benefits of running free tours

5.3 Community engagement and public awareness events

5.3.1 Public Engagement Events

In 2025, 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:

- Four beach cleans at Clonque Bay and Hanaine Bay (see Section 4.3.14.1), including the Great British Beach Clean on 27th September in which 14 volunteers gathered 7kg of rubbish from Clonque Bay
- Coastal foraging walk from Platte Saline to Clonque (15 participants on 26th July during National Marine Week)
- Wild About Birds Walk which ended at the Guns overlooking the gannets on 15th April as part of the Step Into Spring Programme (9 participants)
- Marine life rescue talk helping to raise awareness of minimising disturbance to marine life around Alderney, both inside and outside the Ramsar site

5.3.2 Citizen Science

The AWT ran four citizen science activities within the Ramsar site in 2025, including crab surveys, ormer surveys, coastal erosion surveys and shoresearch surveys. These activities have helped to educate members of the public about the Ramsar site marine life and have been successful in engaging young people.

The Ramsar site users survey that was in development in 2025 was not completed due to limited resources, however the SoA ran an equivalent consultation on the Ramsar site (see Report 06 "Management Strategies" section).

Recommendations

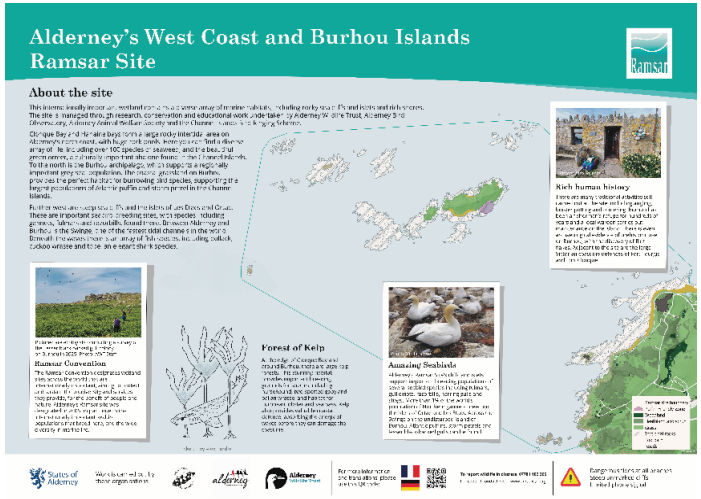
1. Continue to provide public engagement and community awareness events and activities for the Ramsar site year-round.
2. Review AWT event plan for 2026 with AWT Outreach and Education Officer.
3. Continue to provide public citizen science surveys in 2025.

5.4 Ramsar signage

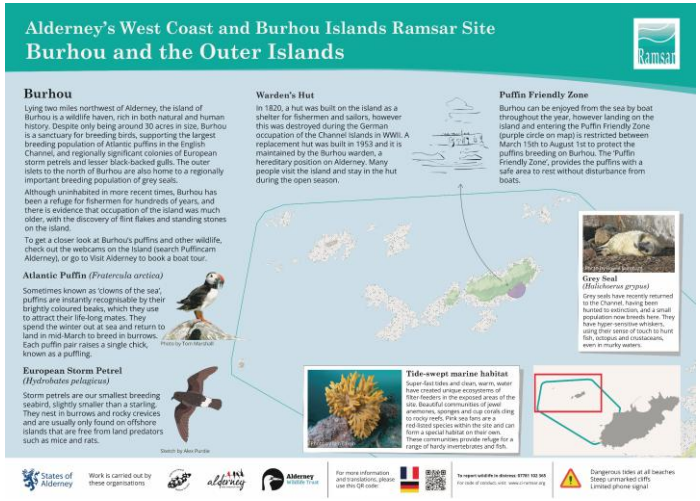
5.4.1 Produce and Relace Ramsar Information Boards

In 2025, three Ramsar Information Boards were produced. Two of these signs were deployed at locations inside the Ramsar site: a Burhou information sign inside Fort Tourgis (Figure 5.1 (b)) and a seabird information sign at the Guns (Figure 5.1 (c)). The final board, an additional Burhou information sign (Figure 5.1 (a)) will be deployed at Tourgis carpark at Clonque in 2026 following Building and Development Control Committee (BDCC) approval.

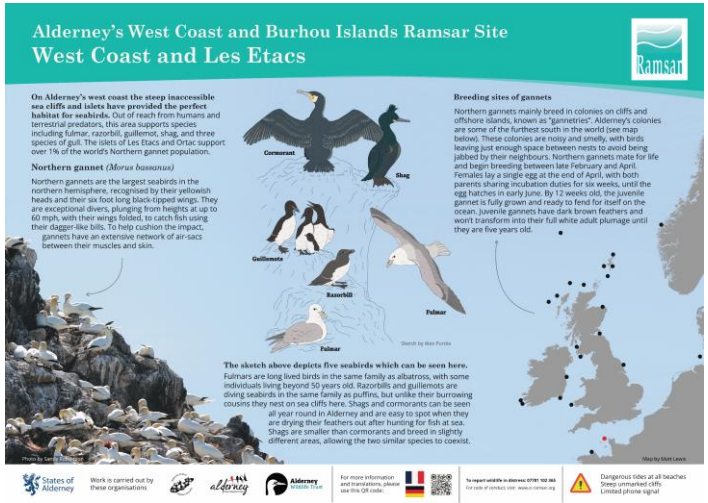
(a)



(b)



(c)



(d)

Figure 5.1. Final Ramsar information signs deployed at several locations within the Ramsar site with permission from BDCC. (a) Introduction sign for Tourgis car park, (b) Burhou information sign for inside Fort Tourgis, (c) seabird information sign for The Guns and (d) the seabird information sign in situ at The Guns.

5.4.2 Sensitive Wildlife Signage

Temporary signage alerting the public to the presence of common tern nesting areas was deployed at the entrance to Fort Houmet Herbé prior to the breeding season in 2025. Additional temporary signage was not deployed along the adjacent coastline as the terns did not nest at the fort (or at any other location) this year. The temporary signage should be redeployed in 2026 should the terns return to nest, with the sign at the entrance to Fort Houmet Herbé being deployed prior to the breeding season. Should the common terns nest at a different site in 2026, the AWT will work with the States Public Works department and landowners to deploy temporary signage at these sites.

In March 2025, temporary signage was 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 again this year as the usual Saye ringed plovers did not attempt to nest. 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

1. Seek permission form landowners and work with the States Public Works Department to deploy signage at the entrance of Fort Houmet Herbé, ensuring members of the public who might overlook onshore signage are informed about the presence of breeding common terns at the fort.
2. 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.

Alderney Ramsar Administrative Report 2025

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Summary

This review summarises the administrative outcomes as detailed within the '*Alderney's West Coast and Burhou Islands Ramsar Site (and Other Sites) Annual Action Plan 2025'*.

In 2025 this included the development of the fourth Alderney Ramsar 5-Year Strategy, working with the Alderney Ramsar Advisory Group, maintenance of the Puffin Friendly Zone, networking with other Channel Islands Ramsar Sites, maintenance of the ci-ramsar website, an update of the Alderney Ramsar Information Sheet and support offered to the harbour office and Burhou warden regarding Burhou, and hosting Ramsar Stakeholder Forums.

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6.1 Management Strategies

6.1.1 Deliver Alderney Ramsar Strategy 2026-2030

The final Alderney Ramsar Five-Year Strategy was approved by GSC in December 2025 has been appended to this submission. The Five-Year Strategy was reviewed by GSC, the ARAG, the Alderney Ramsar Stakeholders Group, the three activity organisations (AAWS, ABO and AWT), and through a public consultation.

Public feedback on the strategy has been overwhelmingly positive, with each goal gaining between 75-89% positive support. Feedback was collected through a public SurveyMonkey questionnaire run through the States of Alderney and publicized through press releases and on social media, from the 14th of October to the 3rd of November 2025, and a public drop-in hosted by the Alderney Harbour Master & Alderney Ramsar Secretariat on the 31st of October 2025.

The five-year strategy will guide the management of the Ramsar Site until 2030. GSC will be presented with annual reports summarising the progress against the six goals. This will enable a more strategic oversight of the Ramsar Site compared to the current reporting, which has a tendency to focus on specific work.

The goals of the Ramsar Strategy are:

2. *To ensure that the site complies with all supporting legislation and regulations and fulfils the obligations under the Ramsar Convention and other international agreements.*
3. *To continue to improve our knowledge and characterisation of the site's biodiversity, with all (non-sensitive) data being published publicly.*
4. *To monitor the characteristics of the site's flora and fauna to establish whether it is being maintained at a favourable conservation status.*
5. *To manage and promote the sustainable use of the natural resources of the site in a way that is compatible with the maintenance of its ecosystem functions.*
6. *To implement necessary conservation actions to protect and restore natural habitats as far as is reasonably practicable, including responding to emergencies and cooperating internationally regarding transboundary effects.*
7. *To promote and increase international and community awareness, education, and engagement with the Ramsar Site.*

Recommendations

1. Report on ARS4 annually through the annual Ramsar Report

6.1.2 Alderney Ramsar Site Terms of Reference

An Alderney Ramsar Site Terms of Reference are being developed by the Alderney Ramsar Secretariat and Alderney Harbour Office.

Recommendations

1. Complete the update of the Alderney Ramsar Site Terms of Reference

6.2 Scientific Advisory

6.2.1 ARAG Reporting

The ARAG providided scientific expert opinion on submissions for Ramsar work in 2025 to GSC. They produced a number of recommendations in their review to help improve the management of the Ramsar Site. ARAG also have provided expert feedback on the 2025 review of work, and the 2026 Action Plan.

6.2.2 Increase 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 and 2025 but this has not been completed. Increasing membership, including through the recruitment of a lay person, should be a priority for 2025.

6.2.3 ARAG Terms of Reference

The ARAG Terms of Reference are being updated alongside the Terms of Reference for the Ramsar Site by the Alderney Ramsar Secretariat and the Alderney Harbour Master.

Recommendations

2. Complete the update of the ARAG Terms of Reference as part of the wider Ramsar Site Terms of Reference

6.2.4 Review Standardised Reporting Forms

Standardised Reporting Forms were updated and used again in 2025.

Recommendations

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

2. Increase ARAG membership
3. Review effectiveness of standardised reporting forms following their implementation in 2025

6.3 The Puffin Friendly Zone

6.3.1 Support and Advertise the Puffin Friendly Zone

Support continued for the Puffin Friendly Zone (Figure 6.1.), which provides critical protection from disturbance for puffins resting off Burhou.

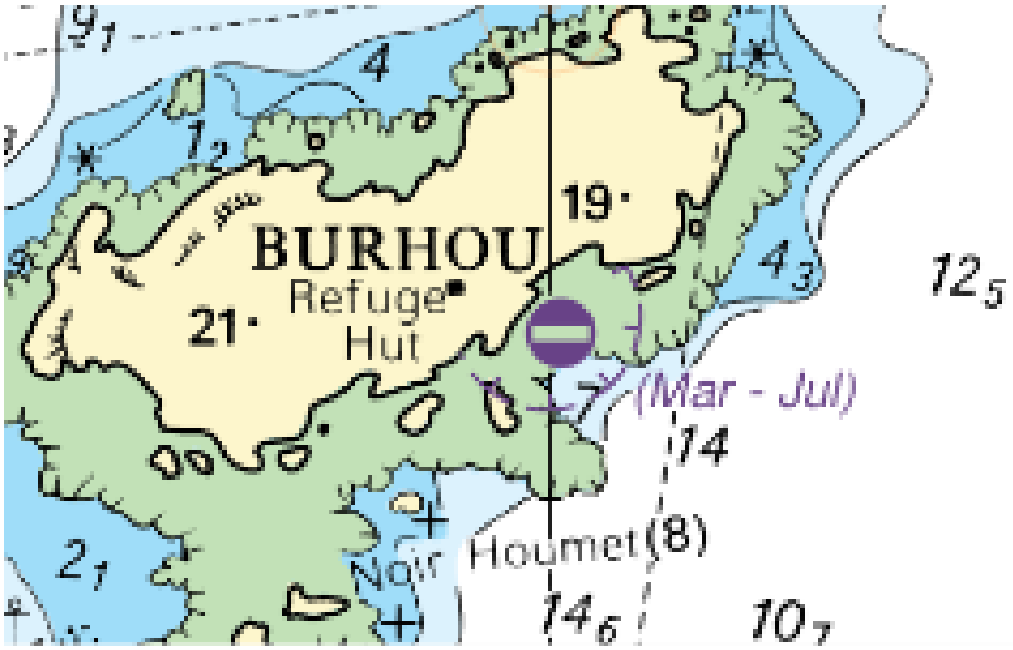

Figure 6.1. The Puffin Friendly Zone as displayed on official UK Admiralty Charts.

Recommendations

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

6.4 Networking with other Channel Island Ramsar Sites

6.4.1 Attend the IIEM

The Alderney Ramsar Secretariat attended the IIEM in 2026, based in the Isle of Man, and presented on crab assemblage surveys, which have been partially conducted within Alderney's Ramsar Site.

6.4.2 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. Aspects of the updated Jersey Management Strategies (in particular

risk matrices for threat assessment) have been adopted for the Alderney Ramsar Five-Year Strategy thanks to these meetings.

6.4.3 Maintain Links with International Community

The States of Alderney were consulted by representatives of EDF potential impacts of windfarm developments in French waters on Alderney's seabirds. The meeting was hosted by the Alderney Harbour Office with support from the Alderney Ramsar Secretariat and AWT ecologists. EDF concluded that there was no significant impact on Alderney's seabirds, however, concerns were raised as to the cumulative impact on seabirds, which are a key designating feature of Alderney's internationally important Ramsar Site.

In addition to this, there are a number of international projects including the Fish-Intel Project, continued pan-Channel Islands and Normandy grey seal project and the regional Balearic Shearwater monitoring*.

**This is not part of the Alderney Ramsar Programme*.

Recommendations

1. Continue to attend the IIEM and represent Alderney's Ramsar Site and its management on an international stage
2. Continue to meet monthly with the managers of the Channel Island's Ramsar Sites
3. Continue to maintain links and shared work with the international community

6.7 Websites

6.7.1 Maintain Channel Island Ramsar Website

The Alderney Ramsar Secretariat maintained the Channel Island Ramsar Website in 2025. Representatives of the Jersey Ramsar Advisory Group (JRAG) were also given access to allow them to update pages relevant to the JRAG. New additions to the website included news sections and upgrading its security ticket from http to https.

6.7.2 Upload Alderney Ramsar Documentation to SoA Website

In 2025, the States of Alderney published the Alderney Ramsar Management Strategies, Annual Reviews and Action Plans on their website. This can be found here.

Recommendations

1. Continue to maintain the Channel Islands Ramsar website
2. Continue to upload Ramsar documents to the SoA Website and Channel Islands Ramsar website

6.8 RIS Update

6.8.1 Upload RIS Sheet

The Alderney Ramsar Information Sheet (RIS) was updated by the Alderney Ramsar Secretariat with support from the UK's Joint Nature Conservation Commission (JNCC), and was submitted to UK Government's Department for Environment, Food and Rural Affairs (DEFRA) in 2024. In 2025, DEFRA approved and pulished the RIS. The final version can be found here.

Recommendations

1. Update the RIS on a three-yearly cycle (next update to be submitted to DEFRA & the JNCC in 2027 for publishing in 2028)

6.9 Ramsar Stakeholder Forum

6.9.1 Support Two Ramsar Stakeholder Forums in 2024

In 2025, two Alderney Ramsar Stakeholder Forums was hosted with the Harbour Master chairing, one in April and one in October. Attendees included:

Management

- The States of Alderney Harbour Office
- The Alderney Ramsar Secretariat
- The Burhou Warden

The Activity Organisations

- Alderney Animal Welfare Society
- Alderney Bird Observatory
- Alderney Wildlife Trust
- The Channel Islands Bird Ringing Scheme

Stakeholders

- Alderney Sea Angling Club
- Commercial fishers
- The Alderney Sailing Club
- Seasearch

The second meeting took a new approach to previous meetings, with activity organisations asked to present to the group, which was successful.

The next meeting will be held in early 2026.

Recommendations

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

6.10 Burhou

6.10.1 Repairs to Burhou Warden's Hut

In 2025, the Burhou Warden continued to carry 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.

6.10.2 Path Cutting

Path cutting was not conducted in 2025.

6.10.3 Code of Conduct

The code of conduct was updated in 2024 and was not altered in 2025.

Recommendations

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

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Appendices

Appendix 1. Document History

Table.1 Document History

Date completed	Version	Title	Amendments	Contributors (initials)
18/01/2026	1.0	Draft 1.0	Compilation of reporting from AWT, ABO & AAWS by Alderney Ramsar Secretariat.	NMD, ML, TC, KH MS, MBA (reporting), AP (compilation and formatting)
23/02/2026	2.0	Draft 2.0	Document reviewed by ARAG and Activity Organisations. Addition of ringing plover data from AWT	TC, KH, MS, GS, LS, FB, PB, PA, DC, AP
27/02/2026	3.0	Final Version for GSC	Feedback incorporated into submission by Alderney Ramsar Secretariat	AP

Appendix 2. Methodologies

Seabirds

Method/ Action title
Atlantic puffin post-season apparently occupied burrow survey
Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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 (The survey will require a team of AWT ecologists to land on Burhou for around six hours) **Date and time range**: Early August data collection, late August – November data analysis **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. Before landing, monitor for signs of Atlantic puffin activity using PuffinCam and boat obs. At minimum 8 hours of observation. 3. 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. 4. Burrows showing more than two signs of occupation are tallied as "confident" AOBs, burrows with just one sign are tallied as "potential" AOBs. 5. Any burrow that has been reviewed has a pasta shell places at the entrance to avoid double counting. 6. 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 7. 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.

8. 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:

9. Submit AOB count with the best F-1 score to Seabird Monitoring Programme (SMP) database. Consider submitting both counts as upper and lower estimates.
10. 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.

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 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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 (via PuffinCam and boat)
Date and time range: Early season raft counts in April and May, late season raft counts in June and July, data analysis August
Methods:

1. Counts of Atlantic puffin rafting within the Puffin Friendly Zone bay 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 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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

5. Calculate the weighted mean productivity (accounting for the different number of burrows in each productivity plot).

Data archiving and public access protocols:

6. Submit weighted mean productivity to Seabird Monitoring Programme (SMP) database.

7. 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 was trialled alongside the current methods. In summary, two productivity plots were selected and each plot was 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 were compared to the number of successful burrows recorded in these productivity plots using the current method. The aim of this was 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

Atlantic puffin productivity – continuous watches

Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.pdf

4.1.1.1

Aim(s) and intended outcome(s)

Record fish returns using continuous dusk-till-dawn observations to estimate 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. Record AOBs using hourly method used for existing productivity survey (see Method Section 4.1.1.1).
2. Select a minimum of two plots with sufficient AOBs to create a sufficient sample (e.g. ~25 AOBs total).
3. Set the guard tour on PuffinCam to record two 16hr watches on each site during June and July (preferably between mid-June and mid-July). These watches should be during good weather conditions (e.g. good visibility, < force 4). Check these have been successfully recorded immediately after each survey and repeat if required.
4. Review footage from full day observations. Record any fish returns, and interactions with predators (noting the type of interaction, predator species, and the associated burrow if applicable)

Protocol and timeline for analysis of data: September – November

1. Calculate the productivity by dividing the number of burrows with fish returns by the number of active burrows.
2. Compare the results of this survey to the hourly observations AOB survey, recording where burrows were marked as successful or unsuccessful in each survey. For example, depending on data, perform a binomial GLM (e.g. Burrow outcome ~ Survey type, method = binomial).
3. Compare ability of the survey to record predator interactions.

Data archiving and public access protocols:

1. Report outcome in Ramsar review.
2. If survey is more effective than existing method, report productivity data to SMP alongside existing survey. This is a publicly accessible database.

Additional information

References

Method/ Action title
Northern gannet aerial census
Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.pdf
4.1.2.6
Aim(s) and intended outcome(s)
Full colony census of Les Etacs and Ortac using counts of AOSs 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:

1. Aerial photographs are taken in June or July

Protocol and timeline for analysis of data: August - November

2. Plots are marked out on these photographs, and they are distributed to counters (n = ca. 5)
3. 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
4. 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. 5. To avoid bias, each counter works individually and does not see any other counter's count. 6. 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 AOSs 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 AOSs. 2. In 2025, drone surveys were carried out to census Les Etacs and Ortac (following the methods outlined in *4.1.2.6: Northern gannet drone census*) alongside the aerial census. Counts using both methods were compared.
References

Method/ Action title
Northern gannet drone census
Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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 data collection, August – November data analysis **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. ALTERNATIVE METHODS WERE USED IN 2025, SEE ADDITIONAL INFORMATION
   (Original text: 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

In 2025, Les Etacs and Ortac were not counted using orthomosaic images and AI software but were counted manually by four independent counters using the 3D modelling software Blender to identify gannet AOSs and AONs. The definition of AOS and AON was taken from the Seabird Monitoring Handbook (Walsh et al. 1995).

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Method/ Action title

Northern gannet drone-assisted survey of Ortac productivity

Action Plan Objective Number from 2026 plan (see page 9-12, Action Plan 2026) Alderney-Ramsar-Action-Plan-2026.pdf

4.1.2.3

Aim(s) and intended outcome(s)

Map and photograph randomly selected nest sites on Ortac from mid-March through to October using a drone to determine the proportion which fledged a chick and therefore estimate productivity.

Methodology

Species: Northern gannet
Location: Ortac
Date and time range: Drone flights monthly between mid-March to June, then biweekly from early August. Data analysis and write up between October to November.
Methods:
Equipment
A DJI Mavic 3 Pro will be used. The device is a quadcopter with a mass of 958g, dimensions of 34.8 x 29.1 x 10.8 cm (L x W x H) and a maximum wind resistance of 12 m/s.

Participants
All participants will undergo briefings and training, including emergency drills (see Additional Information).

Pilot
Role: Pilot the drone and capture images of Ortac.
Requirements: Qualified with A2 C of C and training from Seabird Watch 'Best Practice for Drones in Seabird Monitoring and Research'. Experienced with aircraft and flight plan. Listed on Aerial Work Permit as a Pilot (see Additional Information for current pilots).

Observer
Role: Maintain watch on the drone, act as back-up Pilot in emergencies, relay communications to Air Traffic Control and if required, AWT Office staff (e.g. CEO, or a member of ecology team) and emergency services.
Requirements: Qualified with A2 C of C. Be experienced in detecting alert behaviour in gannets. First aid trained (for surveys where the team are not in an area with phone signal coverage).

Pre-flight
1. Agreement with Air Traffic Control will be sought prior to any flights.

2. The drone should be launched and land from Alderney's coastline near 'the Guns' (Alderney's West Coast), or from the AWT's boat, depending on feedback from the Channel Islands Director of Civil Aviation (CIDCA).
3. The Pilot and Observer should remain in range of contact during the survey so that the Observer can immediately notify the Pilot of any issues. If using a radio to maintain contact, a radio check must be performed on arrival at the site.
4. The Observer must remain in an area with mobile phone coverage so they can immediately contact Air Traffic Control, if necessary.
5. Pilot and Observer to make final call on conditions using the below weather requirements:

- Winds not exceeding 12 m/s (26.8 mph).
- No low cloud (<1000 m) or fog.
- Not below 0°C.
- No heavy precipitation forecast (e.g. above 2 mm per hour).

6. Pilot and Observer to complete pre-flight checklists and the I M S A F E (illness, medication, stress, alcohol, fatigue, eating) checklist (see Additional Information) and confirm they are ready for the survey.
7. The Observer must call local Air Traffic Control number to confirm flight can go ahead and specify Flight Plan (see Additional Information), then confirm with the Pilot that they are permitted to fly.
8. Pilot will turn on the drone and ensure its navigation lights are on.
9. Observer and Pilot to confirm no uninvolved people are too close, and alert anyone nearby.

During flight

1. Throughout the survey, the Observer must be equipped with a scope and/or binoculars to monitor the drone and the surrounding area for safety hazards. The Observer should maintain constant communication with the Pilot, relaying information and instructions by radio, telephone (if both are within an area of mobile phone coverage) or verbally.
2. If any plane, helicopter or other aerial vehicle is detected in the vicinity of the survey area at any time during the flight, the Pilot must immediately return drone to the take-off site, if safe to do so.
3. The drone must approach the colony at a minimum distance of 200 m and maintain a distance of at least 50 m from the colony at all times (Edney et al., 2023).
4. In line with requirements enforced by the CIDCA, the drone will not exceed a height of 120 m throughout the flight.

5. Pilot will fly over the colony in a lawnmower pattern using a route and capture images with at least 80% forward/backward and sideways overlap to ensure an orthomosaic of the colony can be stitched. An additional orbital flight may also be attempted to capture side-on images of the colony.
6. Pilot to end flight when no less than 30% of drone battery remains. Pilot to inform Observer and when returning from survey.
7. Observer must notify Air Traffic Control once the survey is complete.

Protocol and timeline for analysis of data: October - November

10. After each survey an automated approach will be used to stitch the high-resolution aerial photographs into one orthomosaic of Ortac using software, such as Web OpenDroneMap https://opendronemap.org/webodm/, or DroneDeploy https://www.dronedeploy.com/.
11. From the orthomosaic produced after the first survey in March, 230 select AOSs using stratified random sampling from five plots (Figure 1).
12. Record breeding activity at these sites using images from subsequent surveys, where the presence of an adult (single or pair), chick, and chick age should be recorded.
13. Mark sites as successfully fledging a chick if a chick disappeared between surveys and would have reached 12 weeks old during that period, failed if a chick disappeared between surveys but would have not reached 12 weeks, and 'no chick' for remaining sites.
14. Record productivity as the proportion of AOSs that successfully fledged a chick.

Data archiving and public access protocols:

15. Submit Ortac colony overall productivity to Seabird Monitoring Programme (SMP) database.
16. Report in Ramsar review, giving productivity for the colony.

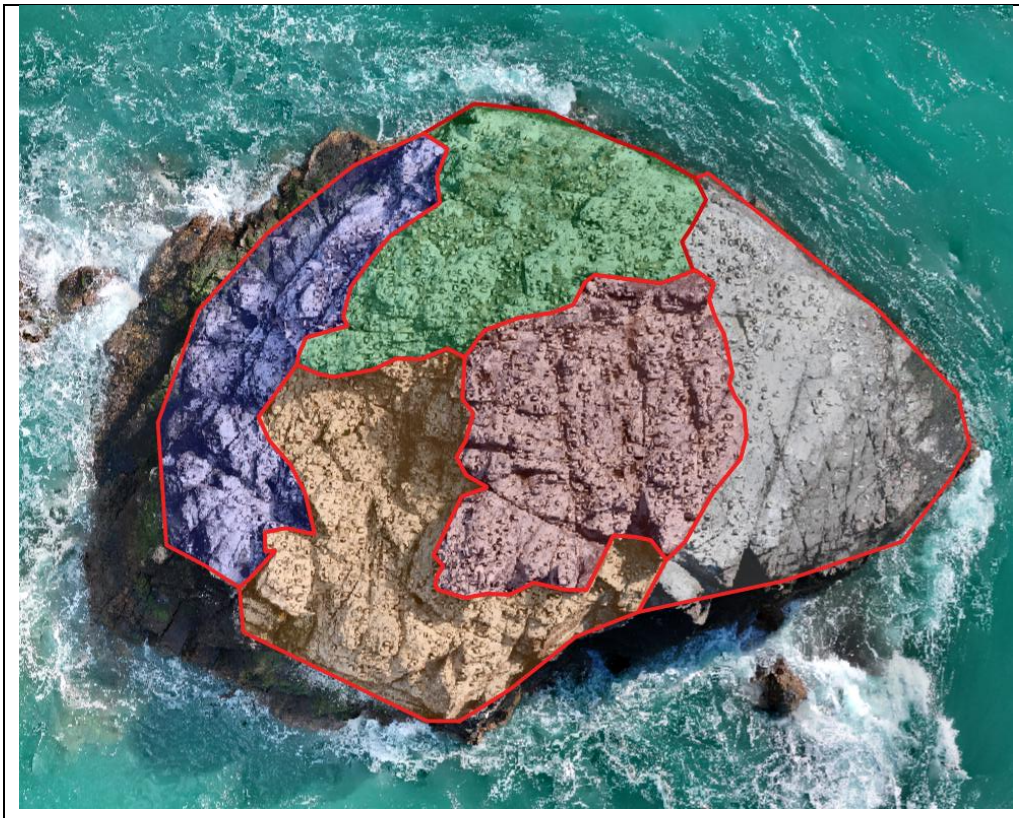

Figure 1. Five productivity plots for Ortac: Ortac plateau (red), North ledge (orange), North slope (blue), East ledge (green) and South slope (grey).

Additional information

Pilots

All Pilots will have gone through Seabird Watch training, 'Best Practice for Drones in Seabird Monitoring and Research', for flying drones to collect ecological data around seabird colonies before piloting the drone. Additionally, all pilots will hold a minimum of A2 C of C and be listed on the AWT's Aerial Work Permit. Current pilots are:

- Dr. Tara Cox
- Alex Purdie

AWT staff who will undergo Pilot training and conduct Ortac productivity surveys:

- AWT Ecologist
- AWT Data Officer
- AWT Conservation Officer

Flight Plan

Review practice after the first flight of each project, each season, to check whether adjustments are needed to avoid disturbance etc.

During work hours, flight plan is completed and is confirmed with Alderney Air Traffic Control and AWT Office. Flight plan to include the following:

- Pilot details (name, qualifications, contact details).
- Drone details (make).
- Location of take-off site and access route to take-off sight.
- Flight description (e.g. flight route, altitude, purpose, photography or videography to be taken).
- Flight schedule (e.g. approximate take off time and landing time).
- Contact numbers.

Emergency Provisions Checklist

1. Flight plan and contact details of survey team to be confirmed with Alderney Air Traffic Control before flight. Observer to ensure they are within mobile signal range and maintain contact with Pilot.
2. Survey team to have:

- Fully charged radios (if needed).
- Fully charged mobile phones with spare battery pack and charger.
- Whistles.
- Warm clothing, including waterproof clothing.
- High visibility jackets.
- Shoes with good quality tread for rocky and muddy conditions (e.g. hiking shoes or boots, work boots). Preferably ankle protecting.
- First aid kit.
- Powder fire extinguisher.
- Copy of the Aerial Work Permit.

IN THE EVENT OF AN EMERGENCY INVOLVING ANOTHER AIRCRAFT OR LOSS OF CONTROL OF THE DRONE, SURVEY TEAM TO IMMEDIATELY NOTIFY THE POLICE ON 999.

Drone Maintenance Checklists

Checks should be performed to ensure the safety and airworthiness of the drone. A record should be kept of all checks. These must be performed routinely as outlined below.

Daily checks (to be done before each flying day/period):

- No panels and body parts have any signs of cracks or looseness.
- Surfaces are dry and no water has not entered the drone.
- Arms hinge smoothly and remain in place securely.
- Gimbal moves freely and is secure.

- Motors rotate by hand, and that they are smooth and silent.
- Propellers are securely attached and in the correct motor position.

Preflight checks (to be done before each individual flight):

- Camera lenses are free from dirt or water.
- Propeller blades are free from dirt, damage or cracks.
- Memory card is fitted and checked to have adequate free space for the planned task.
- When powered and in take-off location; displayed location and heading is correct.
- Flight battery and transmitter battery charge level is adequate to carry out planned flight with suitable margin.
- Weather conditions are within limits (see Methods: Pre-flight).

In the event of any heavy landing or collision, daily checks must be completed before proceeding to fly again, even if it is during the same operational period or day.

Day-end checks (to be completed when daily flying has finished):

- Surfaces free of water, dust or dirt wiped clean from surfaces.
- Motors clear of dirt or dust.
- If no further flying is planned within 10 days:
  - Battery discharged to 40-65% where 3 bars show on the charge indicator.
  - Transmitter and systems powered off for storage.

Other checks and logs:

- Battery charging and flights should be logged.
- Battery endurance during practice flights logged.

Emergency Procedures

Fly away (drone flying away not responding to controls)

1. Call "EMERGENCY – FLYAWAY" to warn the Survey Team and people nearby.
2. Instruct all nearby Survey Team to visually track the drone.
3. If possible, switch to Attitude ('ATTI') Mode (i.e. manual flying mode).
4. If control not recovered, raise transmitter above your head and repeatedly attempt to shut down the drone using Combined Stick Control input (both sticks down to the centre). If possible, switch to ATTI Mode (manual).
5. If the drone continues to fly away, take note of flight path, estimated flying time and notify any relevant local parties, including the most appropriate Air Traffic Control unit and the Police.

Fire (drone or controller catches fire)

1. Call "EMERGENCY – FIRE" to warn Survey Team and people nearby.

2. Execute an emergency landing at the most suitable landing area (visual observer may be able to offer guidance).
3. Use fire suppression equipment to control any ensuing fires. Avoid inhaling any toxic fumes.

Pilot incapacitation (Pilot becomes unable to operate the drone)
In the event that the Pilot is incapacitated and therefore unable to operate the aircraft:

1. The Pilot or Observer should activate the Return To Home (RTH) function and call "FAILSAFE" to warn Survey Team and people nearby.
2. Pilot or Observer (if present) should clear the landing area of any items or equipment and people
3. Monitor the drone as it executes the RTH function.
4. Once the aircraft has landed, disarm the battery, shut it down, and turn off the controller.

Air Incursion (Another aerial vehicle approaches or enters the operating area)
If you or your observer notice an incursion into the flight operations area by another aircraft:

1. The Pilot should be immediately informed by the Observer calling "AIR INCURSION" and pointing or verbalising the location of the incursion.
2. The Pilot will assess the risk of collision and if necessary, take whatever avoiding action most reduces or eliminates this risk. This will generally be to descend the drone as quickly as possible. However, the Pilot must make a judgment based on the situation.
3. Resume operations only once the other aircraft has cleared the area.

Ground incursion (Incursion by an uninvolved person, animal, vehicle etc on the ground)
Should you or your Observer notice an incursion into the flight operations area by a person, animal, vehicle or any other ground-based hazard:

1. The Pilot should be immediately informed by the Observer calling "GROUND INCURSION" and pointing or verbalising the location of the incursion.
2. The Pilot will assess the risk of collision and, if necessary, take action to avoid collision. This may include flying the drone away from the point of incursion and/or descending the drone to land as quickly as possible. However, the Pilot must make a judgment based on the situation.
3. Resume operations only once the incursion has been cleared or has been brought under the control of the Survey Team.
4. Observer may interact with incursion e.g. to move animals from hazardous area or warn people.

Air incursion – wildlife (Incursion on operations area by a bird or bat which is likely to cause a collision)

DO NOT FLY WITHIN 50 M OF RESTING BIRDS. AVIOD TAKING OFF NEAR BIRD AND BAT ACTIVITY.

If a bird or bat enters the operational zone and poses a collision risk:

1. Call HAZARD – BIRD/BAT and note the location of the animal relative to the drone.
2. If required, fly the drone slowly away from the animal and its flight path (preferably either moving up or down). Conduct a rapid flyaway if required.

IF ANIMAL ACTIVELY ATTACKS DRONE

1. Move drone down (if this will not result in a collision) or up, following rapid & erratic movement procedures.
2. Fly the drone away from the aggressive animal. Land if required, and do not resume the survey until the animal has left the area.

Additional Information

More detail is included in this method compared to the original method outlined in the 2025 Action Plan. The only material changed in the method was the number of AONs monitored for productivity (100 AONs increased to 230 AONs following a power analysis).

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. Marine Ornithology, 51(2), 265–280.

Method/ Action title

Northern gannet randomly selected mapped AONs

Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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:

1. 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).
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.
4. 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:

6. Submit Les Etacs colony overall productivity to Seabird Monitoring Programme (SMP) database.
7. 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 anthropogenic material survey – Entanglements

Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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 data collection, October-November data analysis
Methods:

1. Throughout the gannet nesting season (early March – early October), telescopes (x25) are used to search Les Etacs every week 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 is 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

In 2025, additional entanglements were recorded using drone images (and a 3D model created from the images) taken of the colony at the end of the season when the gannets had left. Images were taken on 06/11/2025. The drone was flown following the same methods and pre-flight checks as outlined in the "Northern gannet drone census" methods section (Appendix XXX). A 3D model was created and searched systematically. If a possible dead gannet was identified on the 3D model, drone images of the area were viewed to confirm this and to determine cause of death (i.e. clearly entangled or unknown cause). The location and age of the dead gannet was then recorded.

References

Method/ Action title

Northern fulmar nest site mapping

Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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 data collection, October – November data analysis
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 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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, where possible, razorbills at all potential sites.
Methodology
Species: Guillemot **Location**: Coque Lihou, La Nache, Ortac and North Stack High on Les Etacs **Date and time range**: April – June data collection, July – November data analysis **Methods**: This work was conducted in partnership with Orsted.

1. Conduct three onshore observations of North Stack High, Coque Lihou and La Nache, as well as three boat-based photographic surveys of Ortac, between mid-May to early June (designated 'in season' for guillemots).

2. Counts from camera traps placed on Coque Lihou and La Nache overlooking areas less visible from shore are also included in the final population counts.

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

Data for Coque Lihou and La Nache were collected, however due to a cessation of contract by the partner, the data have not been processed and not all the surveys for Ortac were completed.

References

Method/ Action title

Guillemot productivity

Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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. Monitor breeding activity (e.g. fish returns, attendance) via onshore observations with a scope alongside population counts between mid-May to early June (designated 'in-season' for guillemots).
2. Where trail cameras are deployed overlooking nesting areas, images are also used to count nesting attempts and their outcomes recorded.
3. 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.
4. 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

5. Estimate mean productivity across all sites following Seabird Monitoring Handbook guidelines (Walsh, et al. 1995).

Data archiving and public access protocols:
6. Submit mean productivity across all sites to the Seabird Monitoring Programme (SMP) database. 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 and chick growth and jumping can be directly observed. Data for Coque Lihou and La Nache were collected, however due to a cessation of contract by the partner, the data have not been processed.
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 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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 two 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 have 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 eggshells caused by avian predation). 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 placed in areas with sufficient cover that the camera would not itself draw the attention of people or 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. Calculate egg and chick survival using the Mayfield method. 6. Calculate population size and productivity **Data archiving and public access protocols:** 7. Report in Ramsar review, giving number of breeding pairs, number of nesting attempts, number of hatched chicks, number of fledged chicks, productivity and survival.
Additional information
References

Method/ Action title
Ringed plover nest cordons
Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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
Permission was granted under a Building and Development Control Committee planning application for cordons to be erected on Platte Saline and Saye beaches provided erection commenced prior to March 2025. As the cordons have been erected annually since permission was granted, the planning department of the SoA have advised the AWT that the permission is extant and does not need renewal.
References

Method/ Action title
Round island census
Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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

Round island surveys using drones

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

4.1.6.2

Aim(s) and intended outcome(s)

Aim: To evaluate the feasibility of a drone-assisted round-island seabird census for Alderney by carrying out a pilot survey on a selected subsection of the island, specifically focusing on Alderney's South cliffs.
Outcomes: Proof of concept that the survey method is suitable for being used to census seabirds along mainland Alderney's coastline and be implemented in future years.

Methodology

Species: European shag, herring gull, lesser black-backed gull, great black-backed gull, common tern, northern fulmar, razorbill and common guillemot nesting on Alderney's South cliffs.
Location: Alderney's South cliffs.
Date and time range: Trial drone surveys between Late May-early June and conduct data analysis (census of AONs) and write up results between July-November.
Methods:
Equipment
A DJI Mavic 3 Pro will be used. The device is a quadcopter with a mass of 958g, dimensions of 34.8 x 29.1 x 10.8 cm (L x W x H) and a maximum wind resistance of 12 m/s. Attached to the device is a 20-megapixel camera with a focusing range of 1 m to ∞.
Participants
All participants will undergo briefings and training, including emergency drills (see Additional Information).
Pilot
Role: Pilot the drone and capture images of the coastline.
Requirements: Qualified with A2 Certificate of Competency and training from Seabird Watch 'Best Practice for Drones in Seabird Monitoring and Research'. Experienced with aircraft and flight plan. Listed on Aerial Work Permit as a pilot *(see Additional Information for current pilots)*.
Observer
Role: Maintain watch on the drone, communicate with Liaison Officer, and act as back-up pilot in emergencies.

Requirements: Qualified with Flyer ID (having passed minimum of basic flying test). Be experienced in detecting alert behaviour in birds. First aid trained.

Liaison Officer

Role: Maintain contact with Pilot/Observer and relay communications to Air Traffic Control and if required, AWT Office staff (e.g. CEO, or a member of ecology team) and emergency services. Maintain watch on the drone.

Requirements: First aid trained.

Pre-flight

1. Agreement with Air Traffic Control will be sought prior to any flights.
2. The drone should be launched and land from Alderney's South cliffs.
3. Upon arrival to the south cliffs, a radio check must be performed between the Pilot, Observer and Liaison Officer.
4. The Pilot and Observer will walk to the take-off site and maintain contact with the Liaison Officer, who will remain in an area with phone signal coverage. Should the take-off site be in an area with mobile phone coverage, then the Liaison Officer will join the Pilot and Observer at the take-off site.
5. Pilot and Observer to make final call on conditions using the below weather requirements:
   - Winds not exceeding 12 m/s (26.8 mph).
   - No low cloud (<1000 m) or fog.
   - Not below 0°C.
   - No heavy precipitation forecast (e.g. above 2 mm per hour).
6. Pilot and Observer to complete pre-flight checklists and the I M S A F E (illness, medication, stress, alcohol, fatigue, eating) checklist (*see Additional Information*).
7. Pilot to confirm with Liaison Officer that they are ready to fly.
8. Liaison Officer to call local Air Traffic Control number to confirm flight can go ahead and specify Flight Plan (*see Additional Information*), then advise the Pilot they are permitted to fly.
9. Pilot will turn on drone and ensure its navigation lights are on.
10. Observer and Pilot to confirm no uninvolved people are too close, and alert anyone nearby.

During flight

11. Throughout the survey, the Observer must be equipped with a scope and/or binoculars to monitor the drone and the surrounding area for safety hazards. The Observer should maintain constant communication with the Pilot and Liaison Officer, relaying information and instructions by radio or telephone (if all the survey team is within an area of mobile phone coverage).
12. If any plane, helicopter or other aerial vehicle is detected in the vicinity of the survey area at any time during the flight, Pilot must immediately return drone to the take-off site, if safe to do so.
13. The drone must maintain a distance of at least 50 m from breeding seabirds at all times (Edney et al., 2023).

14. In line with requirements enforced by the CIDCA, the drone will not exceed a height of 120 m throughout the flight.
15. Pilot will fly parallel to the coastline using a route with at least 70%–80% forward/backward overlap and 60% vertical overlap to ensure an orthomosaic image of the colony can be stitched (e.g. Figure 1).
16. Pilot to end flight when no less than 30% of drone battery remains. Pilot to inform Observer and Liaison Officer when returning from survey.
17. Pilot and Observer to confirm with Liaison Officer when the drone has landed, who will notify Air Traffic Control.

Protocol and timeline for analysis of data:

After surveying the area, images of the coastline will be reviewed and any AONs recorded. In recent round island censuses, European shags, herring gulls, lesser black-backed gulls, great black-backed gulls, northern fulmar, razorbill and common guillemot have been recorded nesting on the south cliffs and adjacent stacks.

Data archiving and public access protocols*:*

Results from the trial will be reported alongside results from the boat-based surveys in the upcoming Alderney Ramsar Review.

Additional information

Figure 1. Example of potential flight path for pilot drone survey of nesting seabirds on Alderney's South cliffs. The pre-programmed path runs parallel to the coastline, flying at multiple altitudes to achieve 60% vertical overlap and ensuring birds obscured by overhanging rocks, vegetation or rock formations are visible. The flight pattern will be pre-programmed with autonomous flight planning software, e.g. 'Litchi'.

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. Marine Ornithology, 51(2), 265–280.

Method/ Action title
Wetland Bird Survey Core Counts
Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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. Hanaine Bay, Clonque Bay 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) 4. 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

Method/ Action title
Gull transect census
Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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 90º 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.

Method/ Action title

Manx shearwater passive acoustic monitoring

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

4.1.6.6

Aim(s) and intended outcome(s)

Record presence and timing of occurrence of Manx Shearwater on Burhou during the breeding season

Methodology

Species: Manx Shearwater

Location: Burhou (No in-season access required)

Date and time range: June-August recording

Study design: passive acoustic monitoring

What will be measured: *Calls of Manx Shearwater flying over Burhou*

Samples taken? *No*

Control variables: *N/A*

Requirements to handle wildlife: *No*

Data collection method:

1. *SongMeter Mini 2 Li recorder fitted with acoustic microphone, Lithium batteries and large SD card deployed on Burhou before the breeding season and configured to start recording from early June.*
2. *Recorders active between 23:00 to 04:00 each night from June to August, based on* Arneill et al. (2020).
3. *Retrieve recorders late August.*

Protocol and timeline for analysing data: *September-November*

4. *Analyse calls using BirdNET* (Kahl et al. 2021)
5. *Manx Shearwater calls are manually verified.*
6. *Plot acoustic activity over time to determine how consistent presence is within the breeding season.*

Data archiving and public access protocols:

7. *Report outcome in 2025 Ramsar Review.*

Sample of calls retained for review on request.

Additional information

References

NB – Extracted from original proposal document, so not all references may be referred to in this text.

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Seabird Ringing

Method / Action title
Northern Gannet (*Morus bassanus*) ringing programme on Ortac
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) **Alderney-Ramsar-Action-Plan-2024.pdf**
4.1.6.5.
Aims(s) and intended outcome(s)
The focus of this expedition is to apply a metal ring on the tarsus of Northern Gannet. Other species may also be 'incidentally' ringed during this and any other similar dedicated bird ringing expeditions. To increase the marked (metal ring) population of seabirds to generate more local and international recoveries, to improve the knowledge of population estimates, survival and movements.
- **Methodology:**
- **The species, habitat(s), feature(s), etc, studied/affected** The study species is Northern Gannet (*Morus bassanus*) - **The location(s) date and time range(s)** To visit the nesting colony on Ortac once between 1st and 20th July, subject to tide and suitable weather. The visit will be 13th July 2025 if the tide and weather conditions are suitable.

- **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.**

To apply a metal ring on the tarsus of Northern Gannet.

Birds will be handled and ringed by or under the close supervision of qualified ringers. Participants handling birds have submitted a copy of their ringing permit to The States of Alderney and the Channel Islands Bird Ringing Scheme (CIBRS), via the Alderney Bird Observatory (ABO) Warden, qualifying applications have been reviewed and each applicant individually approved to ring by The States of Alderney and the CIBRS.

- **The protocol and timeline for analysis of data.**

Ringing Data will be submitted to Channel Islands Bird Ringing Scheme (CIBRS) in July.

A report will be submitted to the RAMSAR secretariat following the completion of seabird ringing expeditions, before end of year.

Additional Information

Participants

PERSONAL DATA REDACTED

Copies of ringing permits sent via email to the Harbour Authority.

References

Method / Action title

Great Cormorant (Phalacrocorax carbo) ringing programme

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

Alderney-Ramsar-Action-Plan-2024.pdf
4.1.6.5.
Aims(s) and intended outcome(s)
The focus of this expedition is to apply metal ring and colour ring on the tarsus of Great Cormorant (Phalacrocorax carbo) (other species may also be 'incidentally' ringed during this and any other similar dedicated ringing expeditions). To monitor dispersal and longevity from colour ring re-sighting and ring recoveries. To record nest productivity while in the colony.
- **Methodology** - **The species, habitat(s), feature(s), etc, studied/affected** **The study species is Great Cormorant (Phalacrocorax carbo).** - **The location(s) Date and time range(s)** **To visit the nest colony on Little Burhou once between 25th April and 7th May, subject to tide and suitable weather. The visit will be 25th April 2025 if the weather conditions are suitable.** - **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.** **To apply a metal ring and colour ring on the tarsus of Great Cormorant..** **The birds will be handled and ringed by or under the close supervision of qualified ringers. Participants handling birds have submitted a copy of their ringing permit to The States of Alderney and the Channel Islands Bird Ringing Scheme (CIBRS), via the Alderney Bird Observatory (ABO) Warden, qualifying applications have been reviewed and each applicant individually approved to ring by The States of Alderney and the CIBRS.** **Nest productivity, number of nests and activity, will also be recorded while in the colony.** - **The protocol and timeline for analysis of data.** **Ringing Data will be submitted to Channel Islands Bird Ringing Scheme (CIBRS), colour ringing data will be passed on to the colour ring co-ordinator in May.** **A report detailing nest productivity will be submitted to the RAMSAR secretariat following the completion of seabird ringing expeditions, before end of year.**

Additional Information

Participants

PERSONAL DATA REDACTED

Copies of ringing permits sent via email to the Harbour Authority.

References

Method / Action title

Seabird ringing on Coque Lihou

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

Alderney-Ramsar-Action-Plan-2024.pdf

4.1.6.5.

Aims(s) and intended outcome(s)

The focus of this expedition will be Razorbill (*Alca torda*), Common Guillemot (*Uria aalge*) and European Shag(*Gulosus aristotelis*). Other species may also be 'incidentally' ringed during this and any other similar dedicated bird ringing expeditions.

To increase the marked (metal ring) population of seabirds to generate more local and international recoveries, to improve the knowledge of population estimates, survival and movements.

To record nest productivity while in the colony.

- **Methodology:**

- **The species, habitat(s), feature(s), etc, studied/affected**

The focus of this expedition will be Razorbill (*Alca torda*), Common Guillemot (*Uria aalge*) and European Shag (*Gulosus aristotelis*). Other species may also be 'incidentally' ringed during this and any other similar dedicated bird ringing expeditions.

- **The location(s)**

Coque Lihou island

- **Date and time range(s)**

To visit the nest colony on Coque Lihou once between 15th and 30th June, subject to tide and suitable weather. The visit will be 15th June 2025, if the tide and weather conditions are suitable.

- **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.**

To check and record or fit a metal ring to the tarsus of Razorbill.

To check and record or fit a metal ring to the tarsus of Common Guillemot.

To check and record or fit a metal ring to the tarsus of European Shag.

To check and record or fit a metal ring to the tarsus of 'incidental' species encountered, to include a colour ring for Great Black-back Gull, Lesser Black-back Gull and Herring Gull.

The birds will be handled by or under the close supervision of qualified ringers.

Participants handling birds have submitted a copy of their ringing permit to

The States of Alderney and the Channel Islands Bird Ringing Scheme (CIBRS),

via the Alderney Bird Observatory (ABO) Warden, qualifying applications have

been reviewed and each applicant will be individually approved to ring by The States of

Alderney and the CIBRS. Copies of permits will be submitted to the Harbour Authority as part of the application process.

- **The protocol and timeline for analysis of data.**

Ringing Data will be submitted to Channel Islands Bird Ringing Scheme (CIBRS) and any colour ringing data will be passed on to the colour ring co-ordinator in the week following the expedition.

A report will be submitted to the RAMSAR secretariat following the completion of seabird ringing expeditions, before end of year.

Additional Information

Participants

PERSONAL DATA REDACTED

Copies of ringing permits sent via email to the Harbour Authority.
References

Method / Action title
Seabird ringing expedition, Burhou
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) **Alderney-Ramsar-Action-Plan-2024.pdf**
4.1.6.5.
Aims(s) and intended outcome(s)
The focus of this expedition is the continuation of long term monitoring of Storm Petrel (*Hydrobates pelagicus*) and Lesser Black-back Gull (*Larus fuscus*) to include colour ringing. (Other species may also be 'incidentally' ringed during this and any other similar dedicated ringing expeditions.) To increase the marked (metal ring) population of seabirds to generate more local and international recoveries, to improve the knowledge of population estimates, survival and movements. The aim of the colour ringing project is to monitor dispersal from the breeding colonies in the Channel Islands, from colour ring resightings and long term survival from ring recoveries. To provide an opportunity to train people to ring and monitor seabirds, which will improve the number of ringers available to continue seabird studies into the long term future.
- **Methodology**

- **The species, habitat(s), feature(s), etc, studied/affected**

The focus will be Storm Petrel and Lesser Black-back Gull. Historically during July other incidental species ringed have included, Oystercatcher (*Haematopus ostralegus*), Herring Gull (*Larus argentatus*), Great Black-back Gull (*Larus marinus*), Shag (*Gulosus aristotelis*), Peregrine (*Falco peregrinus*) and Rock Pipit (*Anthus petrosus*).

- **The location(s)**

Burhou island group

- **Date and time range(s)**

Within a window from 19th July to 27th July, currently proposed to take place from 23rd – 26th July to coincide with the new moon, arriving and departing on suitable tides and weather conditions.

- **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.**

To check and record or fit a metal ring to the tarsus of Storm Petrel.

To check and record or fit metal and colour ring to the tarsus of Lesser Black-back Gull.

To check and record or fit metal ring to the tarsus of other species encountered, including colour ring for Great Black-back Gull and Herring Gull.

The birds will be handled by or under the close supervision of qualified ringers.

Participants handling birds have submitted a copy of their ringing permit to

The States of Alderney and the Channel Islands Bird Ringing Scheme (CIBRS),

via the Alderney Bird Observatory (ABO) Warden, qualifying applications have

been reviewed and each applicant will be individually approved to ring by The States of

Alderney and the CIBRS. Copies of permits will be submitted to the Harbour Authority as part of the application process.

- **The protocol and timeline for analysis of data.**

Ringing Data will be submitted to Channel Islands Bird Ringing Scheme (CIBRS), colour ringing data will be passed on to the colour ring co-ordinator following the expedition.

A report will be submitted to the RAMSAR secretariat following the completion of seabird ringing expeditions, before end of year.

Additional Information
Participants PERSONAL DATA REDACTED Copies of ringing permits sent via email to the Harbour Authority.
References

Terrestrial

Method/ Action title
Biosecurity monitoring on Burhou and Coque Lihou
Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.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

Biosecurity: Identifying rodent presence on Les Etacs using a thermal drone

Action Plan Objective Number from 2025 plan (see page 9-12, Action Plan 2025) Alderney-Ramsar-Action-Plan-2025.pdf

4.2.1.3.

Aim(s) and intended outcome(s)

Aim: Record rodent presence on Les Etacs during the seabird breeding season using a thermal drone.
Outcome: Knowledge of rodent presence on Les Etacs which can inform conservation action.

Methodology

Species: Rodents spp., Les Etacs gannet colony
Location: Les Etacs
Date and time range: April – June. Five short drone flights (e.g. 15-20 minutes) after sunset on five separate nights.
Methods:

Equipment
A DJI Mavic 3 Thermal will be used. The device is a quadcopter with a mass of 920 g, dimensions of 34.8 x 28.3 x 10.8 cm (L x W x H) and a maximum wind resistance of 12 m/s. Attached to the device is a 48-megapixel camera with a focusing range of 1 m to ∞ in addition to a 640 x 512 px thermal sensor.

Participants
All participants will undergo briefings and training including emergency drills (see Additional Information).

Pilot
Role: Pilot the drone, record rodents if present.
Requirements: Qualified with A2 Certificate of Competency and training from Seabird Watch 'Best Practice for Drones in Seabird Monitoring and Research'. Experienced with aircraft and flight plan. Listed on Aerial Work Permit as a pilot *(see Additional Information for current pilots)*.

Observer
Role: Maintain watch on the drone, communicate with Liaison Officer, and act as back-up pilot in emergencies.
Requirements: Qualified with Flyer ID having passed minimum of basic flying test. First aid trained.

Liaison Officer
Role: Maintain contact with Pilot/Observer and relay communications to Air Traffic Control and AWT Office staff (e.g. CEO, or member of ecology team, who will remain active on survey evenings), where appropriate, and to the emergency services if required.
Requirements: First aid trained

Travel to and from site

1. Wear high visibility warm and waterproof clothing and carry torches.
2. Drive to nearest appropriate car parking site with phone signal.
3. Pilot and Observer discuss route to take off site with Liaison Officer.
4. Radio check performed between Pilot and Observer, and Liaison Officer.
5. Pilot and Observer make their way to pre-agreed take off site using torches and perform another radio-check with Liaison Officer.
6. Pilot and Observer to conduct surveys as described below.
7. Pilot and Observer may return together to Liaison Officer between surveys, for example to get refreshments or additional clothing.
8. Following completion of surveys, Survey Team to reconvene at vehicle.
9. Survey Team to notify AWT Office of completion of survey via WhatsApp or Text. Survey team drive away from site.

Pre-flight

10. Agreement with Air Traffic Control will be sought prior to any flights. Alderney Air Traffic control has been consulted on this survey and are happy for it to be

conducted. Practice flights will be completed in daylight, and at night prior to the seabird breeding season.

11. The take-off site will be 'The Guns', on Alderney's West Coast.
12. The Pilot and Observer will walk to the take-off site and maintain contact with the Liaison Officer, who will stay in phone signal coverage and, if out of audible range, maintain radio contact with the pilot and observer. The intended take-off point of the Guns generally has mobile phone coverage, so the Liaison Officer may remain with the survey team in this scenario.
13. Pilot and Observer will illuminate the take-off site using torches.
14. Pilot and Observer to make final call on conditions using the below required weather conditions:
    - Winds not exceeding 12 m/s (26.8 mph).
    - No low cloud (<1000 m) or fog.
    - Not below 0°C.
    - No heavy precipitation forecast (e.g. above 2 mm per hour).
15. Pilot and Observer to complete pre-flight checklists and the I M S A F E (illness, medication, stress, alcohol, fatigue, eating) checklist (*see Additional Information)*.
16. Pilot and Observer will confirm with Liaison Officer they are going to begin flight. Liaison Officer to notify AWT Office via WhatsApp or Text.
17. EVEN IF OUTSIDE OF AIRPORT OPERATING HOURS, Survey Team (Liaison Officer) to call local Air Traffic Control number.
18. If the flight is occurring within airport operating hours, Survey Team to confirm flight is ok to go ahead, as well as Flight Plan (*see Additional Information*), with Alderney Air Traffic Control.
19. Survey team to illuminate take off point with torches.
20. Pilot will turn on drone and ensure its navigation lights are on.
21. Observer and Pilot to confirm no uninvolved people are too close, and alert anyone nearby.

During flight

22. If any plane, helicopter or other aerial vehicle is detected in the vicinity of the survey area at any time during the flight, Pilot must immediately return drone to take-off site if safe to do so.
23. Pilot will take off and fly to survey area, using instruments on controller, whilst Observer maintains visual contact with the drone.
24. Pilot must approach the colony at a minimum distance of 200 m, whilst maintaining a distance of at least 50 m from the colony at all times.
25. Pilot to use instruments and viewfinder to conduct survey, whilst Observer maintains visual contact with the drone.
26. In line with requirements of the Office of the Director of Civil Aviation (ODCA) for the Bailiwick of Guernsey, the drone will not exceed a height of 120 m throughout the flight.
27. Pilot will fly over the colony in a lawnmower pattern using an automated route, with the ability to take direct control of the drone and use the camera's zoom

and tilt capabilities to focus on and record potential rodents. See Figure 2. for an example map of the survey plan.

28. Rodents show up significantly more clearly on thermal imagery compared to seabirds (based on previous experience using thermal optics). Pilot will look for bright thermal signatures, which move erratically, and transit across the colony, unlike seabirds which have dimmer signatures and tend to remain in one spot when not flying.
29. Pilot to end flight when no less than 30% of drone battery remains. Pilot to inform Observer when returning from survey.
30. Pilot to land on open ground, turning off drone and replacing battery if required.
31. Pilot and Observer to confirm with Liaison Officer drone has landed. If within airport operating hours, or if Alderney Air Traffic Control was active on take-off, notify Air Traffic control that flight has ended.
32. Repeat steps 15 to 31 for each subsequent survey.

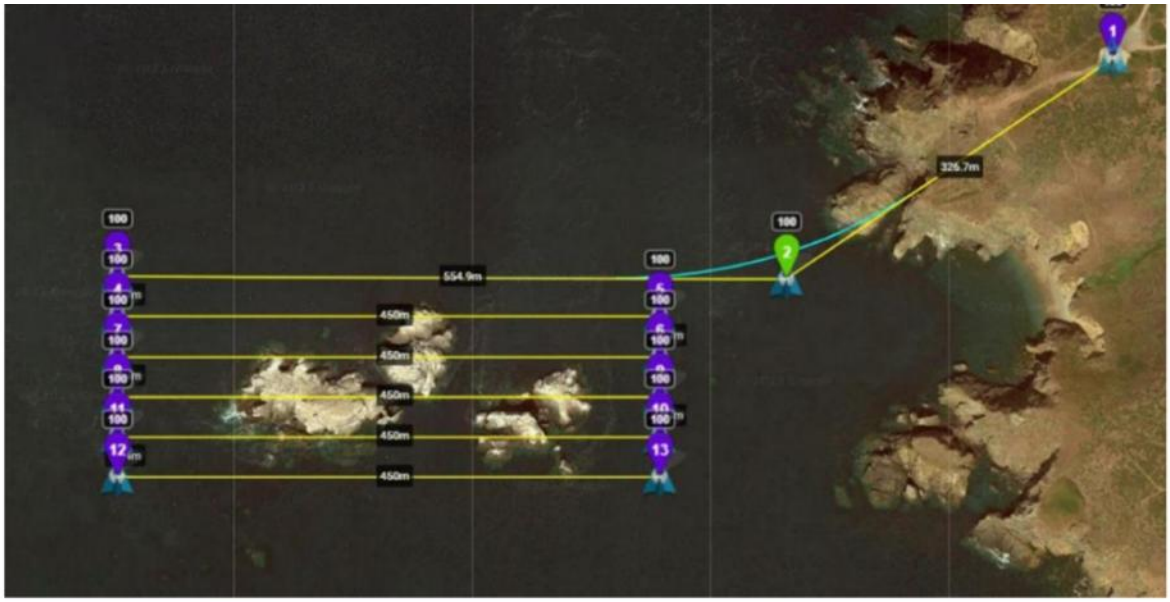

Figure 2. Example of potential flight paths for drone survey of Les Etacs following a lawnmower (grid) flight pattern, with 60% sideways overlap to ensure that no part of the colony is missed. The flight pattern will be pre-programmed with autonomous flight planning software, e.g. 'Litchi'. The pilot will be able to use the cameras viewfinder, and take direct control of the drone, to view suspected rodents.

Protocol and timeline for analysis of data:
Direct observations of rodents will be noted, including their location on Les Etacs (e.g. which stack). Suspected rodent thermal signatures will be recorded and viewed later. A table of rat distribution across the different stacks of Les Etacs will be produced for the Alderney Ramsar Review 2025.

Data archiving and public access protocols:
Rodent presence will be reported in the Alderney Ramsar Review 2025.

Additional information

References
Edney, A., T. Hart, M. Jessopp, A. Banks, L. Clarke, L. Cugnière, K. Elliot, I. Juarez Martinez, A. Kilcoyne, M. Murphy, R. Nager, N. Ratcliffe, D. Thompson, R. Ward, and M. Wood. 2023. Best Practices For Using Drones In Seabird Monitoring And Research. Marine Ornithology 51:265–280.

Marine

Method / Action title
European eel (*Anguilla anguilla*) presence survey
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 record the presence of European eel (glass eel/elver life stage) within Alderney's bays, including sites 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 presence of the European eel glass/elver life stage will be carried out at pre-selected intertidal coastal inlet habitat areas, from May – August (2025). The pre-selected areas are based on known habitat preference of European glass eels/elvers (see La Societe Jersiaise (2024) internal report for full habitat preference description). This includes upper-shore intertidal coastal areas with freshwater outlets and mixed substrata (such as cobbles, pebbles and gravel). Following a preliminary qualitative review of marine intertidal habitat information (completed by AWT) sites for assessment include: Braye Bay, Clonque Bay and Longis Bay. The survey months (May – August) were selected as this is the time period that glass/elver eels are known to approach coastal inlets in search of freshwater habitat for their next life stage (e.g. searching for freshwater for their yellow/adult life stages).

The field-based survey method to assess the presence of European eel glass/elver life stage follows sampling guidance from members of La Société Jersiaise who conduct regular, in-depth surveys of European eels on Jersey (see La Société Jersiaise, 2024). This survey method comprises of hand digging into the selected habitat, searching for hidden glass eel/elver individuals. Once found, individuals are transferred quickly to a tray and/or tube for qualitative assessment e.g. species verification, individual information such as potential length. All individuals will be photographed and released back into the same location shortly after the survey. General metadata will be recorded during each survey e.g. weather, location etc.

Location(s):

European eel surveys are carried out on accessible intertidal rocky-shore bays across Alderney, such as Longis Bay. Bays are selected based on their potential preference by European eels: intertidal habitats associated with shingle/cobble substrate and freshwater (e.g. running streams). 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 between May – August. The survey months (May – August) are selected as this is the time period that glass/elver eels are known to approach coastal inlets in search of freshwater habitat for their next life stage (e.g. searching for freshwater for their yellow/adult life stages).

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions).
- European species presence/absence, abundance, size (length of individuals) and location.
- Associated intertidal habitat/localised area description.

Timeline/data analysis:

All data analysis and subsequent report writing will commence from November – December (2025).

Data archiving:

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

Additional Information

References

NB – Extracted from original proposal document, so not all references may be referred to in this text.

Doble, C., Mowat, S., and Pecorelli, J. 2015. *The River Thames European Eel Monitoring Project Report, 2011-2014*. London: ZSL.

Environment Agency. No date. *Monitoring elver and eel populations. The Eel Manual – GEHO0211BTMY-E-E*. UK: Environment Agency.

Harrison, J.A., Walker, A.M., Pinder, A.C., Briand, C and Aprahamian, M.W. 2014. A review of glass eel migratory behaviour, sampling techniques and abundance estimates in estuaries: implications for assessing recruitment, local production and exploitation. *Rev Fish Biol Fisheries* DOI 10.1007/s11160-014-9356-8.

La Société Jersiaise. 2024. *Methodology Statement to support fieldwork studies on Anguilla anguilla*. Internal document for AWT. Jersey: La Société Jersiaise.

Pike, C., Crook, V. and Gollock, M. 2020. [Online:] *Anguilla anguilla*. The IUCN Red List of Threatened Species 2020: e.T60344A152845178. https://dx.doi.org/10.2305/IUCN.UK.2020 2.RLTS.T60344A152845178.en. [Accessed: 15/05/2024].

Method / Action title

PlanktoScope surveys in Clonque Bay

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

4.3.9.1.

Aims(s) and intended outcome(s)

To record ecological information (species type and potential abundance information) of pelagic species, including plankton and zooplankton taxonomic groups across selected Alderney's shallow, inshore sub-tidal environments/bays. This project is linked to the PlanktoScope project (see here: https://www.planktoscope.org/) and originally The National Oceanography Centre, University of Southampton (NOC).

- **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 pelagic species (plankton and zooplankton groups) presence and potential abundance, both field-based and desk-based (planktoScope equipment use) techniques will be used. The field-based element of this survey across was designed by the AWT. Guidance from NOC and the Yorkshire Wildlife Trust was given on how to use the Planktoscope equipment, through online sessions and survey manuals.

Field-based seawater sampling:

Pelagic species are collected within one seawater sample taken at one pre-selected survey station location, per bay. The location of each survey station is positioned on upper shore beach/bay areas that are easily accessible on foot, by surveyors. The location of each survey station is taken via GPS with complementary metadata (e.g. habitat/substrate type).

At each survey station, a surveyor throws a pelagic net (a fine mesh net with an attached bottle) 1 – 2 times into the water. Once the bottle is filled, the sample is coarsely filtered with additional filters on site. The sample is then taken to the AWT lab be analysed with the PlanktoScope equipment.

PlanktoScope sampling:

The seawater samples are added to the PlanktoScope equipment, which uses a Raspberry Pi computer software linked to a camera to 'take photographs' of pelagic species within each sample. The PlanktoScope equipment runs through a process of:

- Filtering samples pre-analysis
- Running samples through the PlanktoScope (linked to computer Planktoscope software)
- Uploading sample results to EcoTaxa (website: https://ecotaxa.obs-vlfr.fr/).

Location(s).

Surveys to be completed at Clonque Bay and Longis Bay (one station per bay).

Survey time range:
Seawater samples are to be taken in April and July (corresponding with potential natural pelagic species presence/abundance increase), during high/rising tide times, within neap tide cycles.

Parameters measured:
- General survey metadata (e.g. date/time/weather conditions).
- Pelagic species presence.
- Pelagic species relative abundance (per sample).

Timeline/data analysis:
Analysis of the results will be completed from September – December (2025).

Data archiving:
Currently, all information is freely available online on EcoTaxa.

Additional Information

The PlanktoScope equipment needs regular maintenance and unfortunately in 2024 did not work properly (the camera lens was marked). The equipment is currently being fixed (January 2025) with the aim for it to be working by the first sample period (April). If the equipment is still faulty, the AWT will continue to sample but use microscopes to identify pelagic species at a coarse taxonomic level.

References

PlanktoScope. 2025. [Online:] PlanktoScope. [Available at:] https://www.planktoscope.org/. [Accessed: 03/01/2025].

Method / Action title

Test physical parameters of seawater

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

Alderney-Ramsar-Action-Plan-2024.pdf

4.3.11.1

Aims(s) and intended outcome(s)

To collect long-term, open-source seawater parameter evidence across Alderney with interested members of the community and AWT citizen scientists. The survey comprises of three objectives:

a) Initiate seawater parameter survey

b) Utilise survey and results as a new engagement tool

c) Provide new evidence source to assess marine environment

- **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:

Fixed monitoring stations (a site to collect seawater samples) will first be identified at key inshore bays across Alderney. This includes the Ramsar Site (Clonque Bay and Hanaine Bay), Braye Bay, Saye Bay, Arch Bay, Corblets Bay and Longis Bay (local nature reserve). The locations of the fixed monitoring station will be determined during preliminary site visits (e.g., away from freshwater outlets etc.) and assessment of local tide information, with approximately two stations located per bay (for replication effort). In general, surveys will be completed during high neap tide tides, potentially around the same time of day, where possible (for temporal bay comparison).

To assess the seawater parameters (samples taken at the fixed monitoring station), a seawater protocol will be implemented for each visit/fixed monitoring station, which comprises of:

For each bay visit, surveyors/citizen scientists/members of the public will first record general metadata e.g. weather conditions, state of tide etc. At each (pre-determined)

monitoring station, one seawater sample will be taken in-situ using the appropriate seawater sampling equipment (Hanna Instruments HI98194 kit). This comprises of selecting a continuous 'log' setting for 30 samples on the meter, initially named the bay and station number (e.g. Longis S1). The Hanna Instrument will be used to sample sea surface temperature (SST), pH, salinity, total dissolved solids (TDS) and dissolved oxygen (O2). Information will be recorded electronically onto the Hanna Instrument.

It should be noted that the Hanna Instruments meter should be calibrated (quick calibration setting) regularly to ensure accurate results. All calibration/use of the kit should follow the Hanna Instruments instruction manual.

Survey time range:

Once a month (per bay).

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions).
- Monthly seawater parameter values (SST, pH, salinity, dissolved oxygen (O2)) x 2 monitoring stations per bay.

Timeline/data analysis:

Seawater parameter information will be assessed during December 2025 – February 2026.

Data archiving:

Information for this survey is held within the Alderney Biodiversity Centre and is added regularly to the AWT website.

Additional Information

References

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 *et al*., 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 (*Haliotis tuberculata*), 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 States 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 $10m^2$ 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
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 States 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 m^2) 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
Phase I intertidal habitat survey of 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, Les Etacs, Ortac, 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
Phase II intertidal habitat survey of Clonque – Drone Assisted
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) **Alderney-Ramsar-Action-Plan-2024.pdf**
4.3.1.2.
Aims(s) and intended outcome(s)
The aim of this survey is to quantify intertidal species presence and abundance within a subset of priority marine habitats at Clonque Bay. Outputs will include species ecological information for 2025 and comparisons with previous survey time periods (2020 and 2015). Clonque Bay is selected for study, as it is found within the island's designated 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.**
The survey method follows guidance from the JNCC Marine Monitoring Handbook (Davies *et al*., 2001). In 2015, a number of important marine habitat biotopes within Clonque Bay were selected for study based on a previous intertidal habitat biotope survey completed by the AWT in 2014. Selected marine habitats included: - *LR.HLR.MusB.Cht. Description: Chthamalus spp. on exposed upper eulittoral rock*. This habitat biotope was selected as it was one of the most abundant habitat recorded during the 2014 habitat biotope survey. - *LR.HLR.MusB.Sem.LitX. Description: Barnacles and Littorina littorea on unstable eulittoral mixed substrata*. The habitat biotope is regarded as rare across the British Isles and has a moderate importance status due to it being recognised as a UK Biodiversity Action Plan habitat. - *LR.MLR.BF.FvesB. Description: Fucus vesiculosus and barnacle mosaics on moderately exposed mid eulittoral rock*. This habitat biotope was selected as it was one of the most abundant habitat recorded during the 2014 habitat biotope survey. - *LR.HLR.FT.FserTX. Description: Fucus serratus with sponges, ascidians and red seaweeds on tide-swept lower eulittoral mixed substrata*. This habitat biotope was selected as it is regarded as uncommon across the British Isles and has a moderate importance status due to it being recognised as a UK Biodiversity Action Plan habitat.

Within each selected marine habitat, a 1 m^2 quadrat (square frame) will be placed five times within locations randomly selected in 2015 (recorded previously via GPS). Ecological and physical information will be recorded within each quadrat, including:

- Substrate type and percentage cover;
- Macroalgae species type and percentage cover (including cryptic species beneath other dense, dominating macro algae fronds);
- Faunal species type and abundance count (including species beneath dense, dominating macro algae fronds);
- Barnacle and sponge species type and density percentage cover (including species beneath dense, dominating macro algae fronds).

Field-work will be completed on foot at the lowest available mean water mark, beginning approximately two hours before the time of low tide.

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions).
- Intertidal species presence/absence and abundance.
- Associated intertidal habitat/localised area description/ substrate information.
- Temporal ecological comparisons with previous surveys (2020; 2015).

Timeline/data analysis:

All data analysis (species abundance metrics between 2015, 2020 and 2025) and subsequent report writing will commence from November (2025) – February (2026).

Data archiving:

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

Additional Information

Additional aerial photography survey methods may be required to assess other important marine habitats within Clonque Bay that may not be accessible by foot. This may include the use of a drone, during low spring tides in September/October, to identify habitats on offshore rocks within the bay. Drone usage (including licence conditions) and guidance will be with AWT colleagues with appropriate drone licences.

References

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

Conner, D. W., Brazier, D.P., Hill, T.O., and Northen, K.O. 1997. *Marine Conservation Review: marine biotope classification for Britain and Ireland. Vol.1. Littoral biotopes*. Version 97.06. Joint Nature Conservation Committee, Peterborough. Report, No. 229.

Connor, D.W., and Hiscock, K. 1996. *Data collection methods. In: Marine Nature Conservation Review: rationale and methods* (Ed. K. Hiscock), pp. 51-65. Joint Nature Conservation Committee, Peterborough. [Coasts and seas of the United Kingdom, MNCR Series].

Davies, J., Baxter, J., Bradley, M., Connor, D., Khan, J., Murray, E., Sanderson, W., Turnbull, C., and Vincent, M. 2001. *Marine Monitoring Handbook*. 405 pp. Joint Nature Conservation Committee, Peterborough.

Sanderson, W.G. 1996. *Rare Marine Flora and Fauna in Great Britain: the development of criteria for assessment*. Provisional list of Rare and Scarce Marine Species (not red-listed). Joint Nature Conservation Committee. Peterborough.

UKBAP. 2008. *UK Biodiversity Action Plan; Priority Habitat Descriptions.* BRIG (ed. Ant Maddock).

Wentworth, C.K. 1922. A scale of grade and class terms for clastic sediments. *Journal of Geology*, 30: 377 – 39.

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 (*Grateloupia turuturu*) 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 (*Grateloupia turuturu*). 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
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
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
4.3.14.1
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:] *Beach Cleans*. [Available at:] https://www.mcsuk.org/what-you-can-do/join-a-beach-clean/ [Accessed: 19/12/2024].
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 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
4.3.13.1
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 reflotation 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
Marine mammal stranding response – public training course
Action Plan Objective Number from 2024 plan (see page 9-12, Action Plan 2024) Alderney-Ramsar-Action-Plan-2024.pdf
4.3.13.1
Aims(s) and intended outcome(s)
BDMLR training would give greater resource pool should future strandings occur, with high levels of community engagement and education, where moving forward the Medic numbers would be sufficient to intervene should an animal need relocation or treatment. This would ensure a better prognosis for live strandings particularly of grey seals and cetaceans and prevent unnecessary suffering or deaths.
- **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.**
Grey seals originating in Burhou have previously beached at Clonque in October 2023 and been seen in various bays around the island including Clonque, Braye, Saye, Corbletts and Longis. The training should be completed in summer 2025 to prepare the Medics for seal pupping season from October 2025. Cetaceans including porpoises and various dolphin species have increased in frequency of sightings in the local area including several shallow bays.
Additional Information
The training is £150 per person, and requires a minimum of 13 attendees, AAW are willing to self fund at least three of their staff, the funding is to ensure the course can be fully funded to secure booking dates. Attendees may then be sourced from Alderney volunteers as well as the Bailiwick who would assist in the event of a stranding
References

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

BRUV surveys within Hanaine Bay

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

Alderney-Ramsar-Action-Plan-2024.pdf

4.3.8.1.

Aims(s) and intended outcome(s)

To record fish species presence and relative abundance using Baited Remote Underwater Video (BRUV) survey techniques within Alderney's shallow subtidal environments, including sites 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 survey method comprises of deploying a BRUV within several inshore subtidal environments/bays across Alderney, to record fish species presence and abundance, following guidance from Clarke (2023) and Storer (2000). A BRUV is an apparatus which comprises of a video recording element which points at a bait box in which fish interact with (Clarke, 2023a; Clarke, 2023b). The AWT built a BRUV using a GoPro Hero 8 camera mounted on an arm with a mesh box for the bait, with the camera angled to record species attracted to the bait.

Inshore, shallow subtidal marine environments/bays are first selected for study using Chart Datum and aerial photography of Alderney's territorial waters with ARCGIS software. A grid, with 50 x 50 m^2 numbered squares is then generated via the ARCGIS 'generate grid from area' application over the selected site's geographical area. Approximately four - six squares within the grid are randomly selected, using an online random number generator. The coordinates of the centroid of each of the randomly selected squares are used as the deployment locations for the BRUV.

Prior to each deployment, the BRUV will be baited with approximately 1kg of oily fish and the camera battery charged. The BRUV will be deployed from a tender/kayak as close to the selected square's centroid location as possible, with coordinates recorded in-situ with a GPS unit. All deployments will be undertaken during a rising high neap tide, with the camera facing into the open water. The BRUV will be left in-situ for approximately two hours.

After the BRUV has been collected, the recorded videos from the camera will then be assessed. For each deployment, species data will be assessed from five minutes after the BRUV has settled on the seabed. This allows for disturbances left by the tender/kayak to reduce and to let the sediment which may have plumed from the placement of the BRUV to settle. After this interval, every fish species (or other marine species) which enters the video frame will be recorded. The Max-N value will

be calculated: the exact number of individuals which can be seen at any one time of a video. Each fish will also be identified in terms of age and sex, based on size, colour and any other physical characteristics.

Once all species are recorded, each species will be assigned to a functional group, calculated from literature. A functional group encompasses species with similar life history traits and respond to environmental fluctuations in a similar way within a given habitat.

Location(s):

Hanaine Bay and Longis Bay.

Survey timeframe:

Annually, during the survey month of September.

Parameters measured:

- General survey metadata (e.g. date/time/weather conditions).
- Fish species presence/absence, abundance and life stage.
- Associated intertidal habitat/localised area description.

Timeline/data analysis:

Data analysis and subsequent report writing will be undertaken between November (2025) – February (2026).

Data archiving:

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

Additional Information

References

Clarke, M. 2023a. *BRUV project for AWT*. Alderney: Alderney Wildlife Trust.

Clarke, M. 2023b. Investigating the presence of invasive non-native species in Alderney's inter-tidal and biosecurity measures to adopt. Exeter: University of Exeter.

Storer, L. 2000. *Evaluating BRUV methods for key, small-scale biodiversity projects within data-deficient sites*. MSc Project. York: University of York.

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

4.1.8.1
4.1.8.2
4.3.13.1

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.