

Alderney West Coast and Burhou Islands Ramsar Site Annual Review: 2017

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Executive Summary

This 2017 Annual Review of activities within Alderney's Ramsar site details the works carried out and priority actions for 2018, for the main areas of work; seabirds, the marine and terrestrial environments, events, legislation and pending activities. A full list of work is outlined in **Table 4, Section 7.1**.

Seabird monitoring activities showed Gannets and Ringed plover had successful years in terms of productivity, however Puffins and Common terns followed trends shown in previous years with declines in breeding populations (**Section 3.1.1**). Proposed strategies to mitigate these declines are outlined in **Section 5**. Three puffin cams were installed on Burhou and received over 40,000 views (**Section 3.1.2**). Signposts outlining the presence of breeding Ringed Plovers were placed at Clonque, Platte Saline and Saye beaches (**Section 3.14**) which allowed the Ringed plover to be highly successful, hatching 11 chicks.

Terrestrial work within the Ramsar site included monitoring invasive species on Burhou, which showed no increases in presence compared to previous years (**Section 3.2.2**). However, other planned terrestrial works (small mammal monitoring on Burhou, **Section 3.2.1**, and path network creation on Burhou, **Section 3.2.3**) were not undertaken due to timing issues, therefore are priorities for 2018.

A series marine surveys and reviews were carried out, these included: intertidal habitat surveys of Hannaine bay and a subsequent review of all of those within the Ramsar site, phase II species surveys on Burhou, strandline surveys, ormer population assessments, marine mammal surveys and seawater monitoring (**Sections 3.3.1 to 3.3.10**). Support was given to the Alderney Marine Forum by the attendance of an AWT representative at meetings (**Section 3.3.12**) and support was given to an MSc project investigating intertidal strandlines (**Section 3.3.13**). A number of sessions for the citizen science project Capturing Our Coast were held and a course proved popular with 8 attendees (**Section 3.3.6**).

Events within the Ramsar site were a continuation of those in 2016; Boat tours of the Ramsar site were extremely popular with a 22% increase in the number of tours compared to 2016 (**Section 3.4.1**). The LIVE: Teaching Through Nature website received over 80,000 views, thought to be due to publicity in the main Wildlife Trust magazine, an article about Alderney's blonde hedgehogs by BBC Springwatch and a short piece on the Gannets and TAG on Radio 4 (**Section 3.4.2**). The TAG project recorded data from 6 Gannets and 10 geolocators were deployed and will be retrieved in 2018 (**Section 3.4.3**).

One of the key objectives of 2017 was to organise and establish a Channel Islands Ramsar Steering Group meeting; this was successfully carried out with positive steps taken to work together with the other islands to increase communications regarding Ramsar and to share data and resources (**Section 3.5.3**).

1. Introduction

In 2017 the Alderney West Coast and Burhou Islands Ramsar Site entered into the first year of its third five-year Management Strategy.

This document outlines works carried out in 2017 as outlined in the Annual Action Programme, approved by the General Services Committee of the States of Alderney.

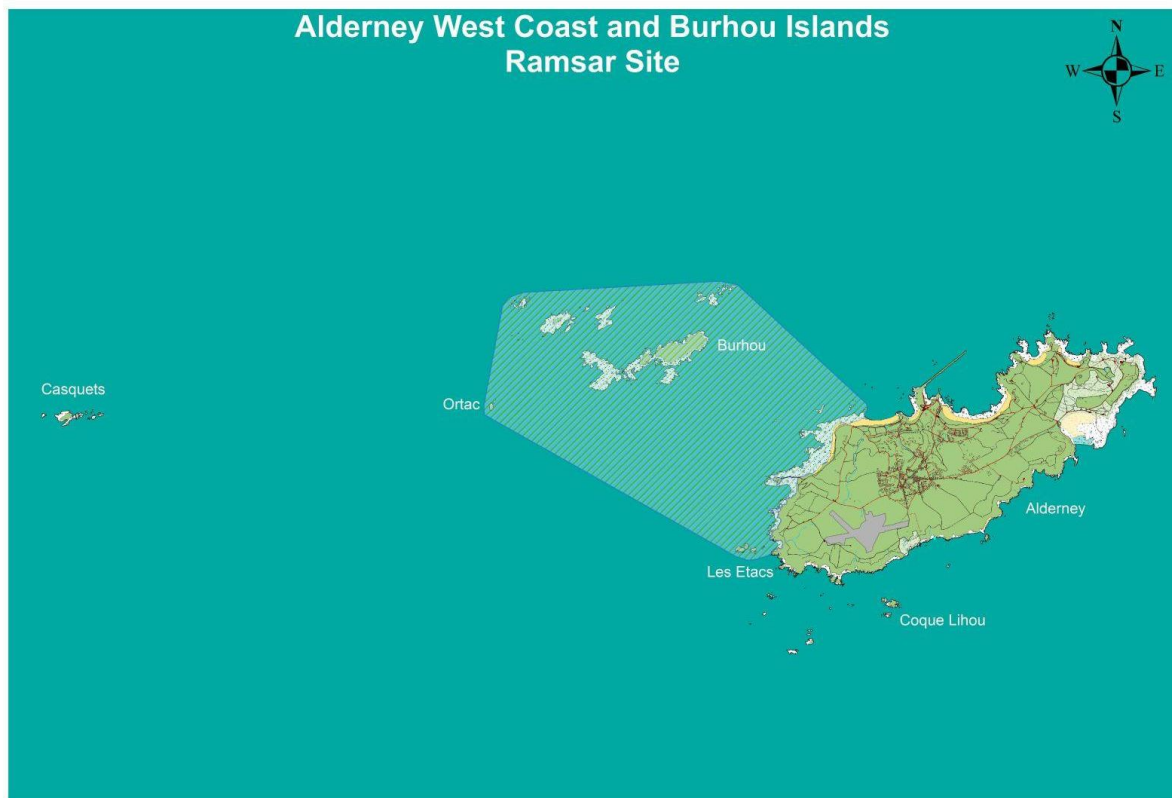


Figure 1 The Ramsar site boundary in relation to Alderney and all other surrounding islets

2. Objectives

The objectives of the 2017 Annual Action Programme, set to meet the objectives of the sites [5 year management plan](#) were as follows and are listed in Appendix I showing the status of work completed;

2.1. Seabirds:

- Continuation of all seabird monitoring on Burhou, Alderney and other islets.
- Re-installation of Puffin Cam on Burhou to coincide with the LIVE: Teaching Through Nature programme.
- Continuation of Storm-Petrel ringing with the Alderney Bird Observatory.
- Continuation of Gull ringing on Burhou, inclusive of Herring, Great Black-backed and Lesser Black-backed Gulls.
- Continuation of Gannet ringing on Ortac and Les Etacs, focussing on immature birds.
- Signpost and exclusion zone placement for public awareness of nesting Ringed Plovers at Platte Saline, Clonque and Saye, with regular monitoring of the three sites.
- Population count of all seabirds on Coque Lihou.
- Review the possibilities of non-human methods of monitoring Burhou's surrounding islets
- Monthly WeBS figures submitted to the BTO and to the AWT Ramsar databases.
- Population data for all seabirds to be added to the annual data sheet.

2.2. Terrestrial:

- Small mammal trapping on Burhou and Houmet de Pies using Longworth traps and chew sticks to understand what, if anything is present
- Monitoring and managing of the invasive Hottentot-fig and bracken continued on Burhou.
- Path network to be created and subsequently maintained allowing access from landing points to hut and main fishing locations to prevent disturbance.

2.3. Marine:

- Desk-based review of all intertidal survey methods, results and activity within the Ramsar Site.
- Intertidal habitat mapping of Hanaine Bay.
- Phase 2 species monitoring survey of Burhou using Fixed Quadrat Photography.
- Intertidal standline surveys of Platte Saline, Clonque and Hannaine Bays of dead, live and litter content.
- Green ormer population assessment at Clonque Bay.
- Citizen science project, Capturing our Coast, at Clonque Bay to promote marine life within the Ramsar site.
- Eelgrass survey at selected sites within the Ramsar Site using snorkel and video techniques.
- Liaise with and support regional Seasearch groups to conduct potential marine ecological surveys.
- Sampling of key seawater parameters at Platte Saline, Clonque and Hannaine Bays.
- Review all marine mammals survey methods, results and activities within the Ramsar site.
- Continuation of marine mammal species surveys and general recordings of.
- Support the local British Marine Life Rescue Divers on Alderney.
- Support the community led Marine Management group and management plan.
- Support two potential MSc academic research projects:
 - a.i.1. Investigating the ecology of macrofauna within Alderney's intertidal sediments.
 - a.i.2. Investigating the ecology of kelp habitats on Alderney.

2.4. Events:

- Continuation of boat tours on Sula of Braye to increase public awareness of the Ramsar site while contributing to costs.
- Continuation of LIVE: Teaching Through Nature programme and Track-A-Gannet (TAG).

- Continuation of other annual events, such as rock-pooling and walks within the Ramsar Site.

2.5. Legislation:

- Signpost placement for public awareness of nesting Common Terns at Bibette Head.
- Signpost placement alerting the public to the closed season on Burhou, at four main landing points on Burhou.
- Organise and establish the first Channel Islands Steering Group meeting to ensure standardisation and thus comparable data between Islands.

2.6. Pending:

- Any marine renewables work that may be contracted within Alderney's territorial waters.

3. Review

3.1 Seabirds

3.1.1 Monitoring

This year's seabird monitoring methodologies continued on from the revised methods in 2016 following the consultation with several seabird experts and NGOs in the UK and across Europe. This was to allow the best use of resources and guarantee high quality consistent data during future monitoring. All seabirds across the West Coast of Alderney and the surrounding islands (Burhou, Coque Lihou, Ortac and Les Etacs) were monitored throughout the breeding season in accordance with the JNCC Seabird Monitoring Handbook. All data was added to the AWT seabird data sheet at the end of the season. Refer to Appendix I for full population and productivity data (Table 4).

3.1.1.1 Atlantic Puffin (*Fratercula arctica*)

Counts of rafting Puffin appear high once again following the seabird wreck in 2014; the highest number of individuals observed in an early season count before non-breeding Puffin arrived was 167 (Figure 2) on the 18th of May. The number of individuals recorded rafting was 176 on the 16th of July, a few weeks before the puffins left. Conversely, the number of apparently occupied burrows (AOBs) has been decreasing since 2012; between the period of 2012 and 2015 the sharpest declines in AOB numbers occurred, whilst 2017 data shows similar number to 2016; 93 and 97 respectively.

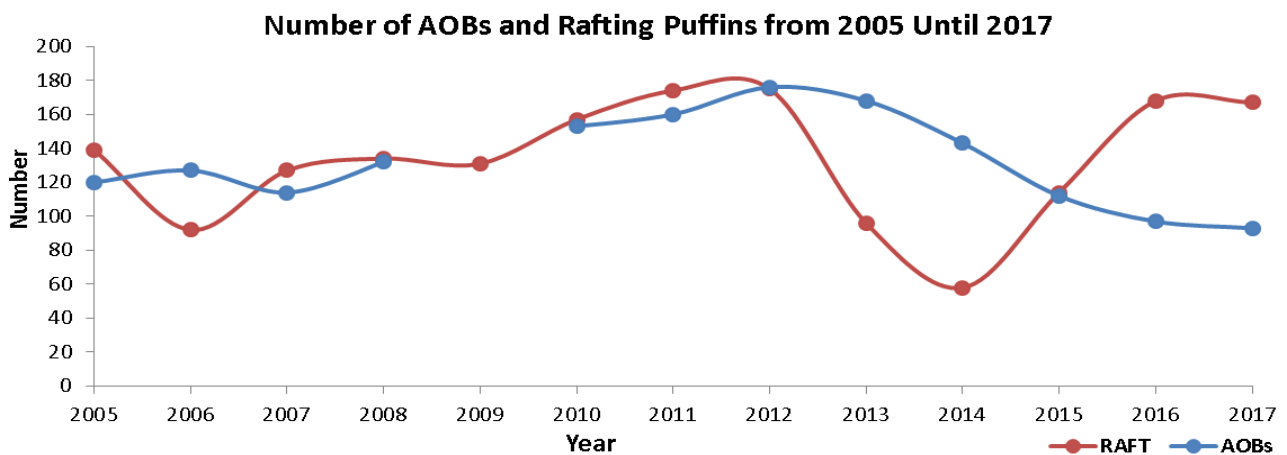


Figure 2 The annual number of Puffins observed in early season raft counts and apparently occupied burrows (AOBs) since contiguous monitoring began in 2005. No data was recorded for AOBs in 2009.

The trend for Alderney's puffin population appears to be declining, which is in line with the global puffin population trend (BirdLife International, 2017). This is similar to other puffin colonies within the Channel Islands; it is reported that Jersey's puffin colony has faced severe declines of more than 50% over 20 years (Young *et al.*, 2011). Every effort should be made to minimise declines in population; one of the most effective ways would be to try and stop anthropogenic disturbance. A number of incidences of disturbance to Alderney's colony have been recorded this year; mainly boats getting too close to rafting puffin. During one monitoring session 140 individuals were observed rafting until a private boat entered the bay, causing all birds to leave the area (Figure 3). See section 5.1 for proposed works for 2018 on how to monitor and minimise disturbance to puffin.



Figure 3 A French yacht in the bay with rafting Puffins.

3.1.1.2 Common Terns (*Sterna hirundo*)

Although the Common Terns do not nest within the Ramsar site, this species is considered of special interest and only breed in one location on Alderney, Houmet de Pies.

Unfortunately, this year no Common Tern chicks survived long enough to fledge due to predation by rats and by the 23rd July, there were no adult Terns present on Houmet de Pies. At the peak of the breeding season (2nd of July) 48 adults were observed flying around

Houmet de Pies, 1 nest containing 2 eggs was recorded and 7 chicks were counted and ringed by the ABO, 2 weeks later, 3 new nests with eggs were observed. The number of adults observed flying over Houmet de Pies was down by 5 from last year, but higher than previous years (Table 1). Unfortunately, no chicks fledged this year despite those being rung, they appeared to have been subsequently predated by rats; 21 eggs and 15 dead chicks (2nd July) were also found in 3 caches (Figure 4), despite the rat control methods deployed on Houmet de Pies. Throughout the season remote camera trap recorded rat presence on the islet (Figure 5). Proposed measures to deal with the rat predation problem on Houmet de Pies appear in Section 5.2.

Tern monitoring in 2018 should be carried out in the same way as previous years; three visits should be made to the nesting grounds throughout the breeding season to keep disturbance to a minimum, noting the number of adults, nests, chicks and description of activity as suggested by the JNCC Seabird Monitoring Handbook (Walsh *et. al.*, 1995).

Table 1 Apparently occupied nests, number of individuals observed and productivity figures for Common Tern between 2012 and 2017.

Measure	2012	2013	2014	2015	2016	2017
AON	5	14	25	32	-	4
Individuals	24	43	28	-	53	48
Productivity	-	0.57	0.44	0	0	0



Figure 4 One of the caches used by rats. This contained a number of Tern eggs and chicks.



Figure 5 Evidence of rat presence on Houmet de Pies caught by a remote camera trap.

3.1.1.3 Northern Fulmar (*Fulmarus glacialis*)

This year's apparently occupied nest (AON) count and productivity values for Fulmar don't appear to deviate far from the values recorded in the ARS2 period of 2012-2016 (Figure 6) showing the Fulmar population in Alderney to be relatively stable. 35 AONs were recorded in 2017 with a productivity value of 0.37, compared to the mean AON count of 27 and mean productivity of 0.59 during ARS2. However, during the 2016 monitoring period AONs were considerably lower (13) and productivity was the highest recorded at 0.92. These figures for 2016 were far higher than previous years and don't stick to the current trend. It is unclear whether this data is accurate and correct or if the figures show this due to a different monitoring methodology or an error. One potential theory is that the birds suffered a seasonal collapse as a result of previous stress full breeding seasons in either 2015 or even possibly 2014 and that 2017 was a recovery year. There is no mechanism that we are aware of which can be used to show how this discontinuity has occurred.

Monitoring for this species follows guidelines in the JNCC Seabird Monitoring Handbook (Walsh *et. al.*, 1995) and methods appear consistent over the years (possibly with the exception of 2016), with good comparable data collected each year. Because of this and the ease of monitoring this species, current methodologies should be followed in future seasons.

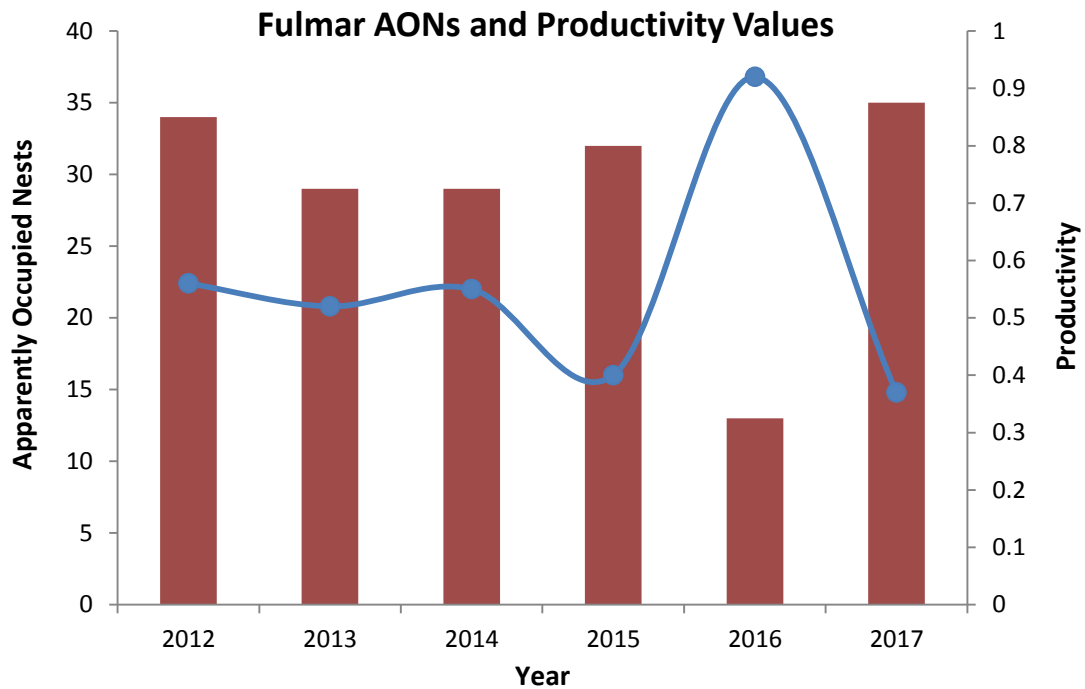


Figure 6 Apparently occupied nests and productivity figures for Northern Fulmars between 2012 and 2017

3.1.1.4 Northern Gannet (*Morus bassanus*)

2017 has been another successful year for the Gannets; productivity was calculated at 0.65. Therefore 65% of those monitored produced offspring that successfully fledged, this figure is lower than last year (0.69) and lower than the annual average since monitoring began (0.68) this can be seen in figure 7. Whilst productivity has slightly decreased since monitoring began, population has continued to increase; this is inline with the current global trend for northern gannets (BirdLife International, 2016). This could be due to the area monitored during productivity counts being the outer and lower edges of the rocks, showing only a fraction of the colony. Most of the breeding adults are on top of the rock and not visible during productivity counts which may skew the data. The last fledgling left Les Etacs in mid-October. This year ringing and tagging activities again occurred on Les Etacs and Ortac, see sections 3.1.3.3 and 3.4.3 for more details.

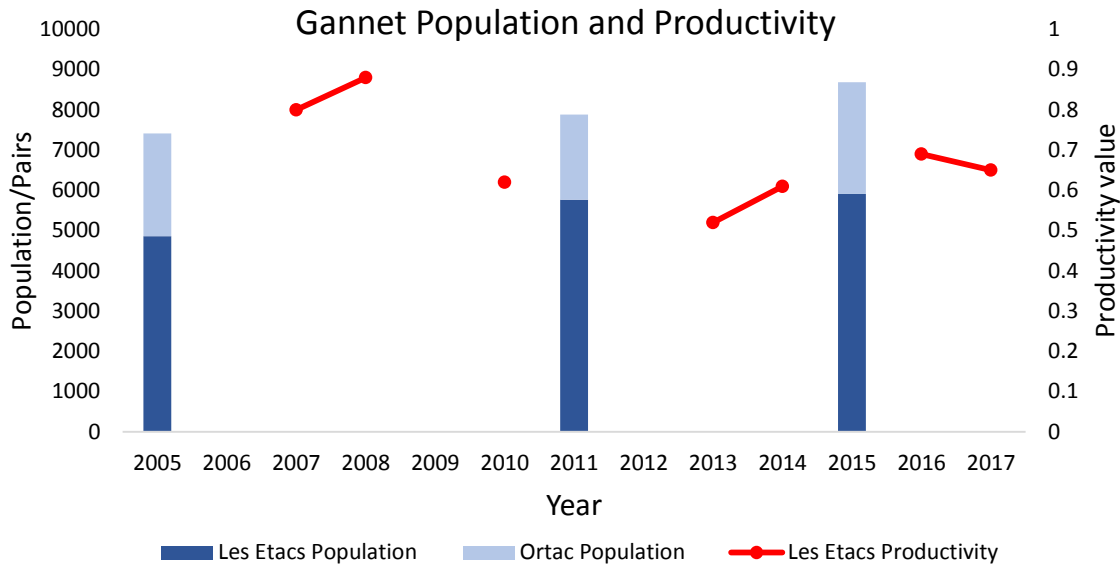


Figure 7 Population and productivity data for Gannets. Population data is for Les Etacs and Ortac and only available for 3 years (2005, 2011 & 2015). Productivity data is available for 5 years but still has years with no data available.

3.1.1.5 Ringed Plover (*Charadrius hiaticula*)

In total 5 pairs of Ringed Plover were observed this year (Table 2); 2 pairs were monitored on Clonque; 1 at the west end of the beach where 4 chicks fledged successfully and were ringed by the ABO, and another pair at the east end under Fort Tourgis, where another 4 chicks successfully fledged and were ringed by the ABO. Another pair was observed on Saye beach with 3 chicks at the start of June, this pair tried for a second brood at the end of July however all eggs in this nest appeared to have been predated. The 4th pair was observed on Crabby but this nest proved unsuccessful as high tides destroyed the nest. The final pair was observed on Platte Saline and had no success all season despite 4 nesting attempts; a variety of reasons caused the failed nests; high tides, disturbance (assumed to be from people or dogs) and predation.

Table 2 Apparently occupied nests, number of individuals observed and productivity figures for Ringed Plover between 2012 and 2017.

Measure	2012	2013	2014	2015	2016	2017
AON	-	-	-	-	-	9
Individuals	2	2	6	3	1	10
Productivity	0	1.5	1	-	1	0.33

This year more plover nests (9 in total) and individuals were observed than in previous years, however the productivity value is lower. This could be due to an increased effort from both the Ramsar officer and the ABO in monitoring breeding adults, therefore highlighting more nests than previous years, but also more failed nest attempts. This monitoring effort should be kept up for the 2018 breeding now it is known the number and location of Plover nests. In order to minimise disturbance to breeding Plover, signage highlighting Tern presence on each of the beaches should be used again. Another method last used in 2015, was the use of temporary fencing i.e. 4 stakes and brightly coloured rope marking the nesting area (Figure 8). This would be particularly effective on Platte Saline beach as disturbance by humans regularly occurs. Although this also highlights where the nesting birds are, therefore drawing more attention to them, if the exclusion area is large enough i.e. 5m² this may still minimise disturbance and would stop accidental trampling. This type of designated area for breeding birds is used on Lihou island, Guernsey; the ropes are up between April and August and protect the breeding gull populations. They have proved successful with walkers acknowledging the no access and allowing the gulls to successfully breed. Shown here: <http://guernseygulls.blogspot.co.uk/2015/07/how-effective-are-ropes-in-protecting.html?m=0>



Figure 8 Temporary fencing erected on Platte Saline during the 2015 Ringed Plover breeding season.

3.1.2 Cameras

Three cameras were set up on Burhou; Puffin Cam, Close-up Cam and Colony Cam. The external streaming host contracted in 2016 was used again and made the live-stream more reliable than in previous years with no major problems. This will continue in future years.

The Main Puffin Cam and Close-up Cam were installed on Burhou on the 27th of March, followed by the Colony Cam, which was installed on the 19th April. The cameras were uninstalled after the Puffins had left Burhou on the 23rd of August; however, Colony Cam was removed early (31st July) due to issues with its performance.

The cameras proved highly successful throughout the season and were streamed in the AWT shop on Victoria Street, periodically in the Alderney Tourism Centre, as well as on the AWT [LIVE: Teaching Through Nature](#) website (see Figure 9 for daily page views throughout the season). During the period the cameras were active, the Main Cam had a total of 29,344 views, accounting for 39.16% of the LIVE website traffic. Of the total views, 22,632 were unique, and this proved to be the most popular cam. Second was the Close-up Cam with 11,348 unique views followed by the Colony Cam with 3,016 unique views throughout the season.

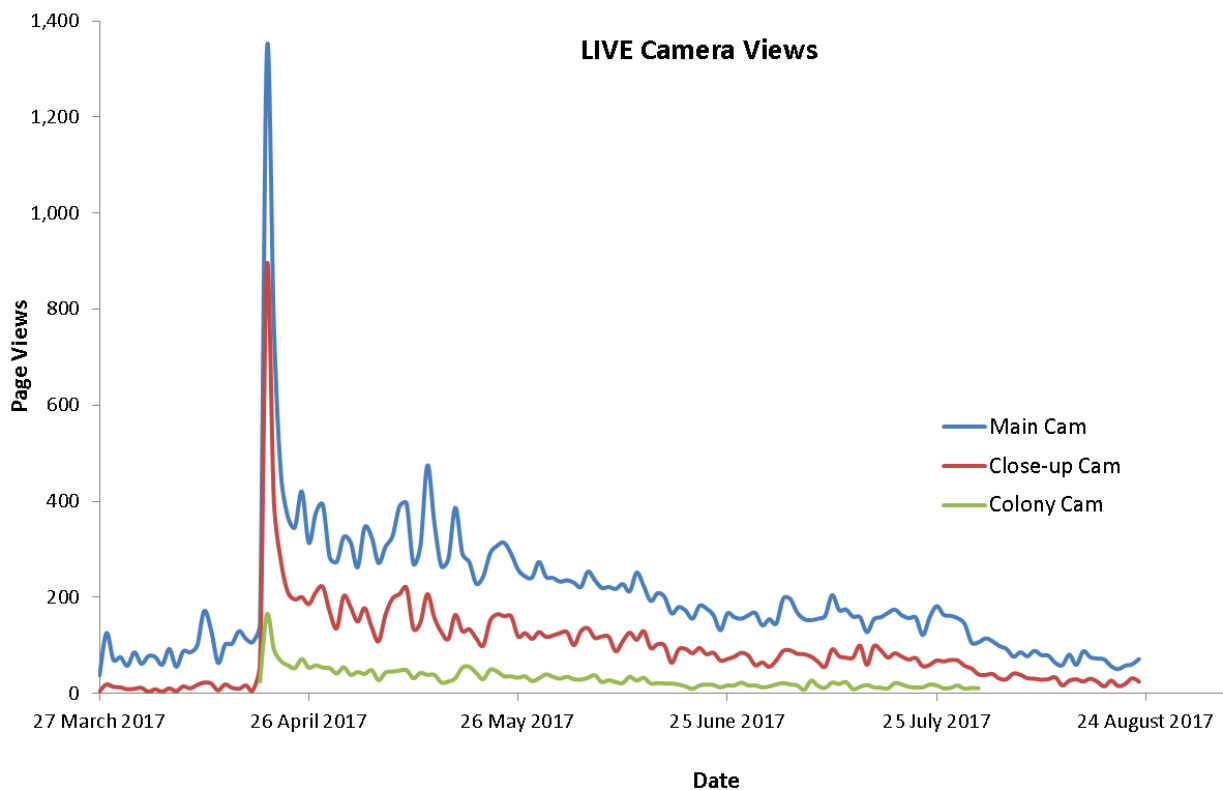


Figure 9 Number of daily page views on the LIVE website for the Main Cam, Close-up Cam and Colony Cam from the date they were installed to their removal.

3.1.3 Ringing

The ringing effort within the Ramsar Site was coordinated with the help of the Alderney Bird Observatory (ABO). It is intended that ongoing ringing effort will be delivered through the ABO with the Ramsar Officer co-ordinating workload. The three-main species ringed within the Ramsar site in 2017 were Storm-Petrels, Gannets and Lesser Black-backed Gulls.

3.1.3.1 Storm-Petrels

Two weekends were set aside for ringing the Storm-Petrel colony on Burhou, however due to a period of highly unstable weather conditions, landing the boat on Burhou was not possible and all ringing attempts were abandoned. At the end of July, the ABO opened nets by Houmet Herbe to catch Storm-Petrels and managed to successfully ring 47 in one night over a three-hour period. These included three French and one UK Control (birds not originally ringed in the Channel Isles). Also, two local re-traps from previous years efforts both originally ringed on Burhou island (Alderney) in July 2014.

In 2018, weather conditions permitting, ringing attempts will follow those planned this year: 5 nets will be located at the west of the island and 6 nets will be located at the east. GPS locations of these nets will be recorded for consistency of net placement in future years following British Trust of Ornithology (BTO) guidance. The ringing data accumulated from previous ringing visits over a three-year period has estimated a breeding population of 3,000 individuals. The below extract from [La Societe Guernesiaise](#) transactions explains where this figure is derived:

“The population estimate of 3,000 individual breeding birds is based on ringing data over a three-year period (2014, 2015 and 2016) albeit that care should be taken with comparing this figure with the count in 2000 as different sites were utilised for capturing storm petrels on the island of Burhou. The recapture rate is similar of 21 – 24% compared between 2000 - 2008 and 2014 – 2016. Survival is lower (2000 – 2008: 80%, 2014 – 2016: c.61%). This gives an average population estimate of 2,800 individual birds in 2000 – 2008 and 2,500 individual birds in 2004 – 2008. Between 2000 and 2008 the population was fairly static or declining slightly. In 2014 – 2016 there is evidence that the initial population size was lower than the previous period but that the population was undergoing a large increase over these three years of 40% a year. This figure should be treated with caution, particularly for such a long-lived bird. The most likely answer is that the data is skewed due to differing levels of ringing effort. Therefore, a precautionary approach has been adopted based on capturing ¼ or 1/5 of birds present on the island. (Analysis kindly provided by Prof. P Atkinson). Future ringing efforts on Burhou, coordinated by the Alderney Bird Observatory will focus on ensuring the same level of effort is maintained each year to ensure comparable data.”

During the 2016 Storm petrel ringing activities, Manx shearwaters were recorded flying overhead. It was hoped during the 2017 Petrel ringing trip, evidence could be gathered of the Shearwaters using Burhou. It is thought they were prospecting the island as a possible site for breeding due to suitable habitat, lack of predators and minimal human disturbance. During the 2018 Petrel ringing activities, the presence of Manx shearwaters should be investigated.

3.1.3.2 Gulls

A team of 7 spent a single day on Burhou ringing Lesser Black-backed Gull chicks around their nests. This ringing activity was carried out during a single visit to Burhou to minimise disturbance. Herring Gull and Great Black-backed Gull chicks were also ringed opportunistically when encountered.

On Burhou 115 Lesser Black-backed Gulls were ringed, 5 Great Black-backed and 3 Herring Gull chicks were ringed. In previous years, it was noted that on return trips, a high proportion of juvenile gulls observed hadn't been rung. Therefore, this year it was proposed that during the Storm-Petrel ringing weekends, juvenile gulls would be ringed opportunistically in the day to increase the overall number ringed. Unfortunately, as the Storm-Petrel trips didn't go ahead, this didn't happen. This method should be carried out during the 2018 season. Gull ringing data highlights from 2017 included:

Herring Gull which was originally metal ringed on Burhou as a chick in July 1991, a colour ring was added to the bird when it was re-caught in Guernsey at Chouet landfill site in May 2012 and then the colour ring was recorded in the field in Wiltshire at Lower Compton Landfill in November 2017:

<http://birdrings.digimap.gg/SightingReport.aspx?ColourRing=W2FA2>

Lesser Black-backed Gull initially colour ringed on Burhou in 2016 as a chick which was re-sighted in October 2017 at Chablais de Cudrefin in Switzerland. This is a truly remarkable report with exceptionally unusual behaviour:

<http://birdrings.digimap.gg/SightingReport.aspx?ColourRing=B5FK7>

The Lesser Black-backed Gull colony appears to behave as a "natural" colony with birds primarily feeding on natural food sources (rather than organic waste from landfill, urban waste etc). This may explain why the colony has been observed to experience very poor breeding productivity in a number of years in the last decade.

3.1.3.3 Gannets

In total, the Gannet Colonies were entered 3 times in 2017, once on Les Etacs where 310 juvenile Gannets were ringed and twice on Ortac where 14 tags and 10 geolocators were deployed, and 148 juvenile Gannets were ringed. Unfortunately, due to adverse weather conditions during the first TAG trip to Ortac, the second trip planned for ringing had to accommodate for the tag and geocator deployment. Therefore, the total number of Gannets ringed on Ortac was fewer than previous years.

Both standard metal rings and plastic colour rings were used in the two colonies. The colour rings will enable gannets to be re-sighted in future years without the need to enter the colony to gather data.

A French film crew accompanied the ringing team on the second visit to Ortac but concerns have been raised by the ABO regarding the benefits of this considering the additional disturbance they caused and on this occasion lack of consideration for the birds well-being. It is recommended that generalist film crews should not be included in future visits as the risks to the birds welfare outweigh the benefits unless they are ornithologists or experienced wildlife photographers.

3.1.4 Public Awareness Signs

The signs produced in 2016 to inform the public of the vulnerability of Ringed Plover and Common Tern were again installed around important breeding areas for this species; (Platte Saline, Clonque Bay and Saye). 10 signs were put out altogether and inform the public breeding birds were in the area and informed them to minimise disturbance. Response from the public was on the whole positive and there were three successful nesting attempts by Ringed Plover on Clonque and Saye. Sign placement should continue in future years as this is a good tool to inform the public of these important areas.

3.1.5 Population Count of Seabirds on Coque Lihou

This action was not completed in 2017 and therefore should be a priority in 2018 and could be carried out whilst on the islet ringing. A team from the ABO did spent a day ringing on Coque Lihou; ringing totals for this were 20 Shag, 3 Guillemot and 2 Razorbill. Whilst on the island it was noted there had been a number of predation events; at least 12 auk bodies (mostly Razorbill, but also some Guillemot) were found. It is suspected a peregrine predated these birds; whilst peregrine are regularly observed predated Gulls, Storm-Petrels and even Puffin on Burhou, this is the first time it has been recorded on Coque Lihou. However, this

may be in part due to the lack of visits to Coque Lihou in the past. But in 2018 whilst carrying out a population count of seabirds, evidence of predation activity may be worth recording.

3.1.6 Review of Non-Human Monitoring Methods

A review on non-human seabird monitoring methods was proposed for 2017 however unfortunately due to time constraints this has not been completed. However, there were a number of informal discussions on the merits of implementing non-human monitoring methods, primarily using the existing camera set up to record puffin activity. This could then be used to investigate the number of puffins per burrow to give a more accurate AOB count. Another use could be to review what fish species the puffins are returning from foraging trips with to work out the calorific value and estimate whether they are feeding chicks. This data could also be used as a basic assessment of fish availability within Alderneys waters. The problem with both of these methods are they are extremely time intensive. One way around this is to make it a citizen science project such as those found on the [Zooniverse](#) website. One such project was [Seabird Watch](#) which has received a lot of national publicity, this could be a good way of exposing the public to Alderney's puffins and act as good publicity to the trust along with the primary objective of using non-human monitoring and citizen science to gather good data. The viability of such non-human monitoring methods and the techniques mentioned above should be investigated at the start of 2018 with the aim to implement monitoring during the 2018 breeding season.

3.1.7 WeBS

The Wetland Bird Survey (WeBS) monitors non-breeding wetland birds in the UK. The principal aims of WeBS are to identify population sizes, determine trends in numbers and distribution, and identify important sites for wetland birds. WeBS counts are carried out on a regular monthly basis at the same sites on a priority date. This degree of consistency over many years distinguishes WeBS counts from casual counts, and ultimately allows the monitoring of changes in wetland birds numbers and distribution with the added confidence of knowing that these reflect true changes rather than simply different areas being counted.

In the Ramsar site WeBS counts are carried out in Clonque and Platte Saline. Data is regularly submitted to WeBS and kept for our records. This is an ongoing project with core counts carried out monthly, this should continue into 2018.

3.1.7 Update Population Data for All Seabirds

Due to the failure to carry out a full population count of seabirds on Coque Lihou this year, population data for all seabirds could not be updated. Nonetheless, population and productivity data for seabirds monitored this year has been updated in internal AWT monitoring forms (Table 5 for information on those monitored this year)

3.2 Terrestrial

3.2.1 Small Mammal Trapping

Unfortunately, due to planning issues, the small mammal trapping activities on Burhou and Houmet de Pies didn't happen in 2017. This action was planned to primarily check whether rats were present in these areas using Longworth traps and chew sticks. The Longworth traps would be rented from The Mammal Society at a rate of £100 for 30 traps, over 3 days.

During the final Puffin AOB count on Burhou, bite marks were observed on camera wires and casings, however these were thought to be from rabbits. This action should be a priority for early in the 2018 season due to the evidence of rats present on Houmet de Pies (Section 3.1.1.2) and to check whether there are rats present on Burhou enabling action to be taken in controlling this species.

3.2.2 Invasive Species Management

Similarly, to previous years, Hottentot-fig has not been recorded on Burhou this year, therefore no management was needed. The extent of Bracken was again monitored this year and compared to cover in previous years using GIS (Figure 10). No management occurred as during the monitoring stage, the Bracken seemed under control and had not aggressively spread further on the island.

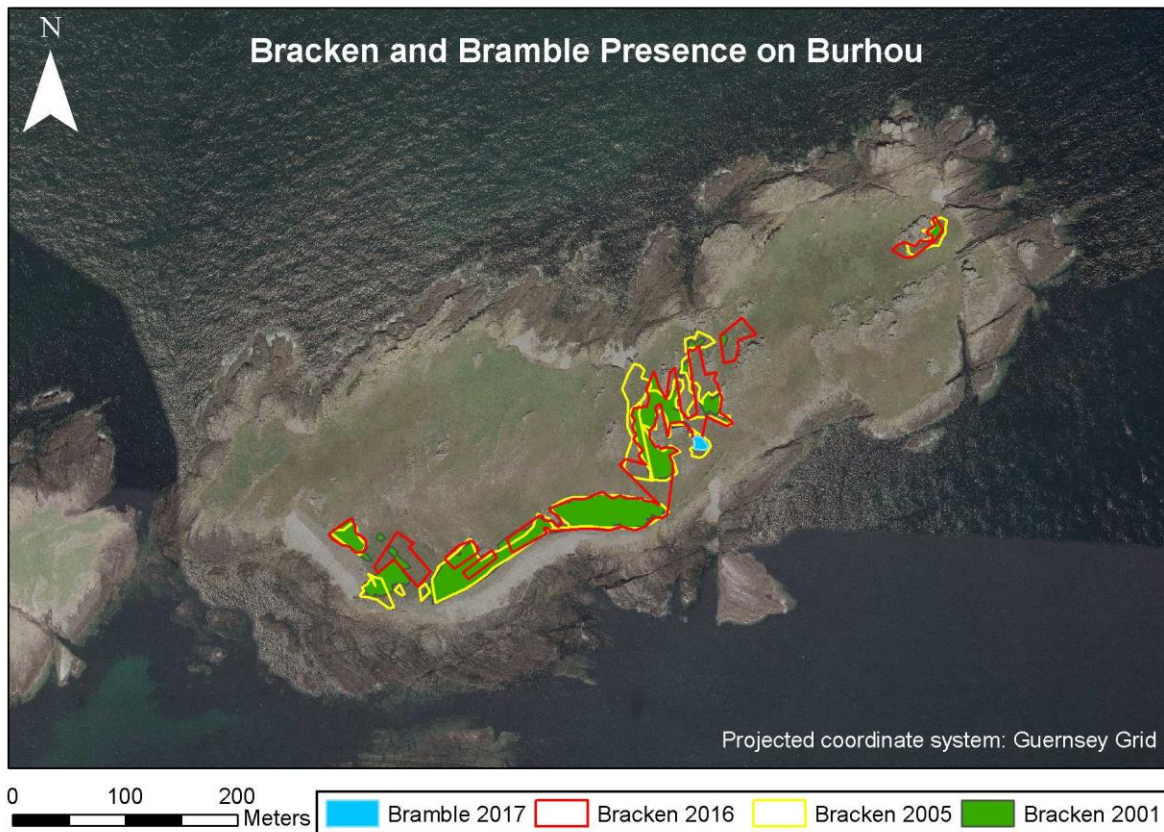


Figure 10 Bracken and Bramble presence on Burhou, with data collected in 2001, 2005, 2016 and 2017.

3.2.3 Path Network Creation

There were plans for a path network to be created and maintained on Burhou, improving access to hut and main fishing locations from the landing points and subsequently minimise disturbance to the seabirds. However due to time constraints this year, this has not happened. This should be a focus for Q1 of 2018 ensuring all work performed will have no impact on breeding birds arriving on Burhou in early April.

3.3 Marine

3.3.1 Desk Based Review of Intertidal Habitats

In July 2017, a desk based review of the intertidal habitats within the Ramsar site was carried out (Intertidal Habitats Desk-based Review: Alderney Ramsar Site Marine Series 1: Report 4). The report reviews all intertidal survey methods, results and activity within the Ramsar Site.

The report shows there were two habitat biotopes of special interest; LR.HLR.FT.FserTX (*Fucus serratus* with sponges, ascidians and red seaweeds on tide-swept lower eulittoral mixed substrata) and (LR.HLR.FT.FserT) *Fucus serratus*, sponges and ascidians on tide-swept lower eulittoral rock. Both habitats fall under a number of designations and conventions; Habitats Directive Annex 1 (Reefs); Habitat of Conservation Importance; Habitat of Principal Importance; UK BAP (Tide-swept channels); Locally Rare. Because of this, the review recommends phase II surveys of these habitats be carried out, to increase knowledge of these important habitats to allow effective conservation and management.

There were a number of other recommendations outlined in the review;

- Areas within the Ramsar site that have not had phase I biotope surveys carried out should be surveyed as soon as possible due to the presence of the important habitats. Such areas include the section between Hannaine Bay and the southwestern Ramsar boundary and the islets around Burhou.
- The JNCC (Davis *et al.*, 2001) recommend that intertidal habitat biotope surveys should be repeated every five years, therefore, it is recommended that surveys are carried out in the following years; Burhou in 2021, Clonque in 2019 and Hannaine Bay in 2022. This leaves time during 2018 and 2020 to survey the areas previously un-surveyed.
- Due to Alderney's geographical location and the physical, biological and geological conditions, the JNCC intertidal habitat biotope classification system may not fully describe the habitats recorded on Alderney. Future surveys could utilise a more appropriate classification, such as the European Nature Information System (EUNIS). This classification could help to identify habitat biotopes on Alderney more accurately and link survey results across the other Channel Islands and Europe (i.e. across the gulf Norman-Breton region). Therefore, it is recommended for future intertidal habitat surveys that the EUNIS classification system is used in conjunction with the JNCC classification system (EEA, 2017). Although this is a new format/classification guideline, it won't take much more effort to use this system: There are a number of conversion charts for classification changes and the guidelines could be printed and reviewed whilst surveying an area. At first a small section should be surveyed to initially check the effectiveness of the EUNIS classification before carrying out a larger survey and adopting these classification guide altogether.

3.3.2 Intertidal Habitat Map of Hannaine Bay

Hannaine Bay had a phase I habitat biotope survey performed in early 2017, a vital update to AWT records as the last phase I biotope survey of Hannaine bay was carried out 5 years ago in 2012. This survey identified 25 habitat biotopes in Hannaine Bay (Figure 11), the majority of which are well adapted to high exposure and wave action experienced in the bay. No habitats of special importance as described in the desk based review of intertidal habitats in the Ramsar site were observed in Hannaine Bay during this survey.

Intertidal Habitat Map of Hannaine Bay

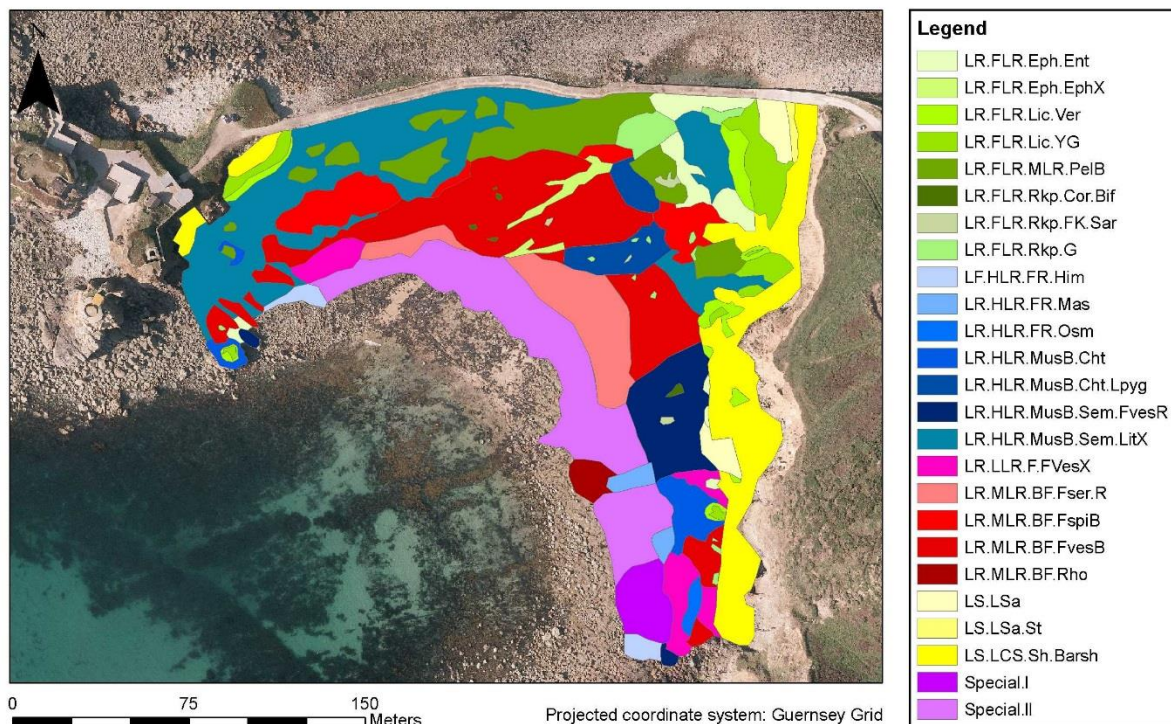


Figure 11 Habitat biotope map of Hannaine Bay, surveyed in early 2017.

3.3.3 Phase 2 Species Survey of Burhou

A phase II species survey of Burhou was completed in October 2017. The survey assessed substrate type, seaweed and faunal species' presence and abundance, within selected important intertidal habitats. Three important intertidal habitats were selected on Burhou, recommended by an intertidal habitat map survey completed by the AWT in 2016. Initial results show the three important habitats comprise of a mixture of substrates and dominated by Furoid seaweeds and limpets. A full report of the survey will be completed by January 2018.

3.3.4 Intertidal Strandline Surveys

For 2017, Intertidal strandline surveys within the Ramsar Site (Clonque Bay, Platte Saline Bay and Hannaine Bay) were completed as part of an MSc research project (see: 3.3.13 Support MSc Academic Research Projects). The surveys comprised of quantifying the composition of strandlines and comparing with 2016 information. Results show that strandlines within the Ramsar Site were similar between each other and between years (Hoppit, 2017). Strandlines primarily consisted of algae debris, flies and sand-hoppers.

3.3.5 Green Ormer Population Assessment

A population assessment of the mollusc, the Green Ormer (*Haliotis tuberculata*) is carried out twice a year (spring and autumn/winter), within the Ramsar Site and also Longis Bay. These surveys coincide with the equinox and low tides, to give as much time on the lower shore as possible. During both surveys, no Green Ormers were found in Clonque Bay. During rock-pooling events a number of larger Ormer were observed in the mid-shore at Longis Bay.

3.3.6 Capturing our Coast

Capturing our Coast (CoCoast) is a citizen science project that aims to gather information on the range and distribution of species around the UK and what can be done to protect them. By training the public and using them to collect data, considerably more information has been gathered than if purely using qualified scientists. After signing up and attending a training session, the public are free to go and assess the coastlines in their areas.

In Alderney, Ian Carter (AWT President and Chairman of the Board) is the CoCoast co-ordinator, organising training sessions and used as contact for those wishing to join the project. A number of sessions have been held; most recently the 22nd of August where 8 people turned up to try the methods. A recording session in Clonque bay has been scheduled for the 7th October where people signed up in Alderney are invited to attend and survey the intertidal areas. Data collected from these sessions gets directly entered into the capturing our coast website and will eventually be used for research purposes/academic papers to identify trends across the UK, to help understand a range of issues such as climate change and distribution of invasive species.

As the project is a citizen science project, the AWT does not own the data, the AWT only provides training. However, as similar to other recording schemes (i.e. WeBS, bat conservation trust bat surveys) Alderney's data can be requested whenever it is needed. As

recommended by Dr. Mel Broadhurst, at the end of the summer 2018, data should be requested and reviewed for inclusion within the 2018 Ramsar annual review.

3.3.7 Eelgrass Survey

An eelgrass (*Zostera marina*) survey was planned for 2017, with the aim of recording the presence, location and distribution of eelgrass within the Ramsar Site. Unfortunately, due to weather conditions a survey was not completed in 2017, and is re-scheduled for 2018.

3.3.8 Seasearch Surveys

Discussions have been underway for Seasearch to return to Alderney and survey a number of areas around the Island, including in the Ramsar site. Seasearch will either carry out surveys with the AWT or independently and provide us with the data. No date has been set as to when Seasearch plan on carrying out surveys; however, this will most probably be in 2018 due to unfavourable diving conditions in winter.

On the 23rd and 24th of September, Charlotte Bolton, the head of Seasearch gave the snorkel observer course to members of the AWT and the snorkel group. The aim was to carry out regular snorkel sessions recording specific marine life around Alderney.

3.3.9 Seawater monitoring

In mid-July, the AWT received their seawater monitoring equipment; an Omega CDS107 which is a portable meter used to monitor pH, ORP (oxidation reduction potential), conductivity, TDS (total dissolved solids), salinity and temperature. This monitoring project is being carried out by Carlos Tornero (assistant marine and reserves officer) in each bay around the island to give a greater understanding of the abiotic conditions and subsequent health of Alderney's inshore waters. Table 3 shows the parameters measured within the Ramsar site. This monitoring effort should be kept up and seawater analysed once per quarter to provide greater knowledge on the seas around Alderney and how they change temporally and spatially. Along with these abiotic factors, it could be of use to monitor nitrates, phosphates and bacteria to give an indication of the cleanliness of the seawater.

Table 3 Seawater parameters for the 3 bays within the Ramsar sites and typical seawater values for this time of year (CWT, 2004).

Location	Date	Weather	TidalState	SST (°C)	pH	Conduct. (mS/cm)	TDS (ppt)
Clonque	23/08/2017	Sunny Intervals	High	17.5	8.035	47.45	31.25
			Low	19.8	8.505	49.6	32.7
Hannaine	10/09/2017	Cloud & Strong Wind	High	17	8.015	47.4	31.25
			Low	16.7	7.975	46.95	30.95
Platte Saline	10/09/2017	Cloud & Strong Wind	High	17.3	7.94	46.95	31
			Low	17.2	7.91	47.55	31.35
Typical Seawater	-	-	-	16	7.5 - 8.5	55	32

3.3.10 Marine Mammals

A number of marine mammal species surveys were completed across the Ramsar Site. These included: grey seal population dynamics assessment, grey seal photographic ID catalogue, effort based land/boat surveys and collation of sighting records from marine users and the public. These surveys follow guidance from the Sea Watch Foundation and the Cornwall Seal Group, for recording marine mammal species, both quantitatively and qualitatively.

Monthly land-based marine mammal observation surveys were conducted from April – October at locations across Alderney; Cambridge Battery at Fort Tourgis is the observation spot within the Ramsar site giving views over Clonque, the Swinge and Platte Saline.

A range of marine mammal sightings from local marine users (i.e. commercial shipping companies) and the public were recorded this year. Within the Ramsar site there have been a number of sightings of bottlenose dolphin, *Tursiops truncatus*; the first sighting was in July with a pod of over 20 bottlenose dolphin which were spotted off Clonque and Platte Saline. These sightings continued throughout the summer with members of the public regularly observing similar sized pods around Les Etacs, in the Swinge and Clonque bay.

No Grey seal (*Halichoerus grypus*) or Common seal (*Phoca vitulina*) sightings have occurred within the Ramsar site in 2017; all sightings tend to be at the Eastern end of Alderney around Longis, Corblets and Saye bays. Following the initial Grey Seal population survey carried out in August 2016, the 2017 surveys have been carried out later in the year (end of September and mid-October) following JNCC guidelines. These surveys were performed on Sula of Braye to assess the presence and abundance of adults and pups on the Nannals and surrounding offshore rocks located behind Burhou. In total 14 seals were identified on the first trip (Figures 12 and 13 show thirteen of the seals observed with the final seal spotted in

the water without being photographed. 12 individuals were spotted on the second trip and potentially 2-3 of these were known as weaners (post weaning pups).

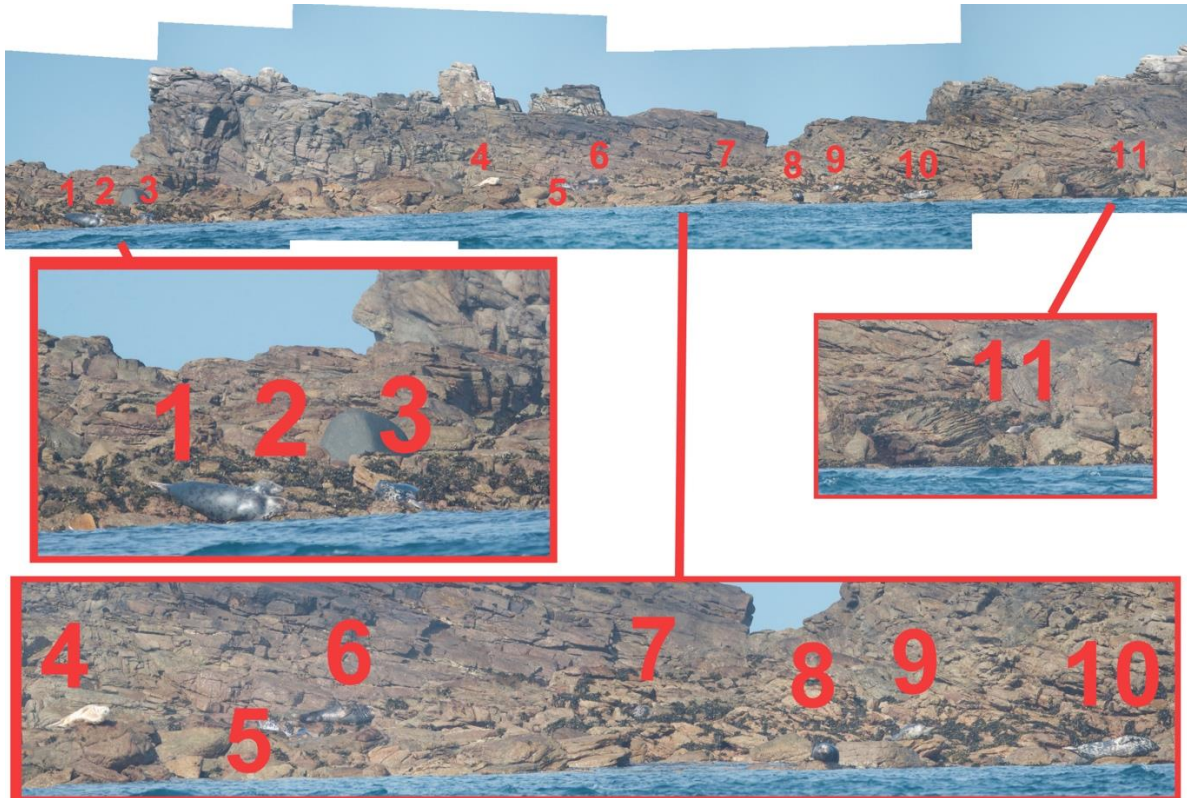


Figure 12 The main colony of seals on the Renoquet rocks behind Burhou. In total 13 were spotted here. Eleven are in this panoramic photo.



Figure 13 Two more seals about 50m west of the main area with eleven seals on the rock.

Luckily as of the 19th of December 2017, there has only been one marine mammal stranding recorded; a common dolphin (*Delphinus delphis*) carcass washed up at Saye bay earlier this month. However, at the time of writing this report, the weather is becoming more severe with a number of storms forecast, thus increasing the chances of strandings, particularly with the Grey Seal pupping season due to begin.

A desk based review of all marine mammal methods, results and activities within the Ramsar site is being carried out by Amy Balding; one of the 2016 University of York MSc students. This report forms part of the Alderney Ramsar Site Marine Series as report 3.

3.3.11 Support British Marine Life Rescue Divers

Continued support for the British Marine Life Rescue Divers (BMLRD) will be provided by the AWT and animal welfare nurses should a marine mammal stranding occur. Mel Broadhurst (Living Seas Officer) and the staff at Animal Welfare have previously carried out BDMLR training and have equipment ready for any stranding that may occur.

3.3.12 Support Alderney Marine Forum

The States of Alderney aspires to manage Alderney's marine area to ensure the long-term sustainability of its marine environment and the communities and businesses that rely upon it. This is particularly important and timely given the proposal to extend Alderney's Territorial Sea to 12 nautical miles, which, if successful, will generate both enhanced opportunities but also increased marine management responsibilities. Because of this, the Alderney Marine Forum was founded by parties interested in developing a sustainable marine management plan for the island; namely representatives from the fishing industry including the Alderney Fisherman's Association and Alderney Angling, Harbour Office, Sailing Club, Alderney Wildlife Trust, Alderney Renewable Energy, Chamber of Commerce, Alderney Maritime Trust, RNLI and Visit Alderney. This group meets regularly to discuss matters concerning the marine environment relating to these key stakeholders. Dr. Mel Broadhurst is the AWT representative at these meetings. More information available at <http://www.alderneymarineforum.com/>

3.3.13 Support MSc Academic Research Projects

Two projects were put forward for MSc students at the University of York;

- a) Investigating the ecology of kelp habitats on Alderney.

b) Investigating the ecology of macrofauna within Alderney's intertidal sediments.

One student; George Hoppit initially set out to undertake the kelp habitats project, however due to a number of circumstances he could not complete this project. Instead he focused on two smaller projects; a desk based review of kelp data within Alderney and a project studying Alderney's strandlines. George's project is outlined below:

Title: A Shore Thing: The kelp habitats and tidal strandlines of Alderney

Abstract: Coastal environments boarder oceanic and terrestrial regions, housing diverse assemblages of ecosystems and environmental processes. These are among the most recognisable habitats on Earth but their ecology is often under appreciated. Alderney has a diverse coastline, however two prominent features; kelp habitats and tidal strandlines have received little attention from ecological investigation. This study had two objectives; compiling subtidal surveying records to build a picture of Alderney's kelp habitats, and examining tidal strandlines around the island. In total 7 species of kelp were found, existing in x different permutations, including one of wider conservation significance. Surveys in the summers of 2016 and 2017 found 26 strandlines. ANOSIM analysis found significant similarities in their biological composition between survey years. This information can aid future management decisions and better direct any conservation activities around Alderney.

The second project (Investigating the ecology of macrofauna within Alderney's intertidal sediments) was not selected by any University of York student therefore Carlos (assistant marine and reserves officer) paired this project with his seawater project. At the time of writing this report only Longis Bay has been sampled for macrofauna.

3.4 Events

3.4.1 Boat Tours

At the start of the season Sula underwent her 5-year survey and MCA ticketing work to prepare her for use this season. This included removing the bow thruster and improvements to the engine bay. She returned to the water on the 17th March 2017. No major problems have occurred during this season; however, Sula was taken out of the water for a few hours in mid-July to remove algae from the hull and reapply anti-foul paint.

In total 71 scheduled boat trips have run with 664 passengers. This is higher than last year (58) despite a period of bad weather meaning trips had to be cancelled. This year the boats Avante and Lady Maris were also doing competing trips. Sula was also privately chartered for 3 trips. And Sula has been used 14 times for work within the Ramsar site i.e. ringing trips to Burhou, Les Etacs and Ortac.

3.4.2 LIVE: Teaching Through Nature

LIVE 2017 has had a successful year, particularly in Guernsey with 15 schools taking part. However, this year the response from Jersey was much poorer, with only 8 schools signing up. In total 27 schools signed up, including multiple home schooling groups across the islands, this figure is lower than 2016 with 32 schools signing up but this may be attributed to the poor responses from Jersey. The amount of schools engaging directly with blogs and video conferencing also decreased to just two schools from the five in 2016. This could relate to the new curriculum in Guernsey which incorporates a greater degree of environmental and outdoor education. The LIVE blogs went well in 2017 with the exception of the history module, as the contributor pulled out at the last minute. The next year of LIVE will need a thorough review of the programme to ensure AWT are working with schools to engage primary students with nature and wildlife in the best way.

Despite directly receiving less funding than last year, funding was carried over from the 2016 HSBC grant and a further £500 was received from the CIIC Environment Awards towards the cost of streaming the cameras.

Between the 1st of January and 6th of September the LIVE: Teaching Through Nature website (<http://www.teachingthroughnature.co.uk/>) had received a total of 81,412 page views, of which, 61,462 were from unique devices. The average time spent on a page was 1 minute 48 seconds; however, this increases to a couple of minutes on the puffin cam and TAG pages. This is up by 18% for the same period in 2016 where the LIVE site had 52,861 unique page views and the average time spent on page was only 56 seconds. Since the AWT started using Google Analytics to record page information at the start of 2016, the LIVE website has had a total of 170,136 views of which 117,177 were unique. Interestingly, the majority of page views to the LIVE website came from the UK with 51% of total views, followed by Guernsey with 26%. After the UK and Guernsey, the views per country decline drastically, with the United States having only 6% of total views, Jersey with 4% and France with 2%. Perhaps if there was a higher response from Jersey schools taking part in LIVE, the percentage of LIVE page views in Jersey would be higher.

The number of page views coming from the UK could be in part due to the national coverage the AWT has received a number of times; Simon Barnes (ABO Patron and friend of the AWT), journalist for the Sunday Times and Sunday Mail wrote pieces on Hedgehogs, Gannets and Moths. We also had a piece in the main Wildlife Trust magazine, BBC Springwatch published an article about [Alderney's blonde hedgehogs](#) and directed people to the AWT website and a short piece on Alderney's Gannets and the TAG project on BBC Radio 4's Today Programme in September.

3.4.3 T.A.G (Track A Gannet)

2017 was the third year for the TAG project; it was not as successful as previous years due to issues with the weather and with the tags themselves. During the first trip to Ortac on the 3rd of July, 4 tags were deployed before it began to rain, preventing the tags from sticking to the Gannets, thus this trip was abandoned. The remaining 10 tags and the 10 geolocators were then deployed on the 13th of July during the scheduled Gannet ringing activity on Ortac. Of the 14 tags deployed only 6 worked and recorded the foraging activities of the gannets (Figure 14) and only 4 worked for more than a few days. By the 7th of July 2 tags had stopped working, and the last ping received was on the 16th of August, despite more tags than previous years, more than 50% stopped working which is a lower success rate than previous years. 5 of the tags were thought to of been damaged during shipping to Alderney, so they are being replaced free of charge for use during the project in 2018. The 10 additional geolocators were deployed with no issues and these will be collected from the birds in 2018; these are attached to the colour rings on the birds' legs, therefore should be easy to locate again. This is an important project and should continue in previous years should the funding be available. It is essential to gain an understanding of the distribution, movements and life cycles of this charismatic species.

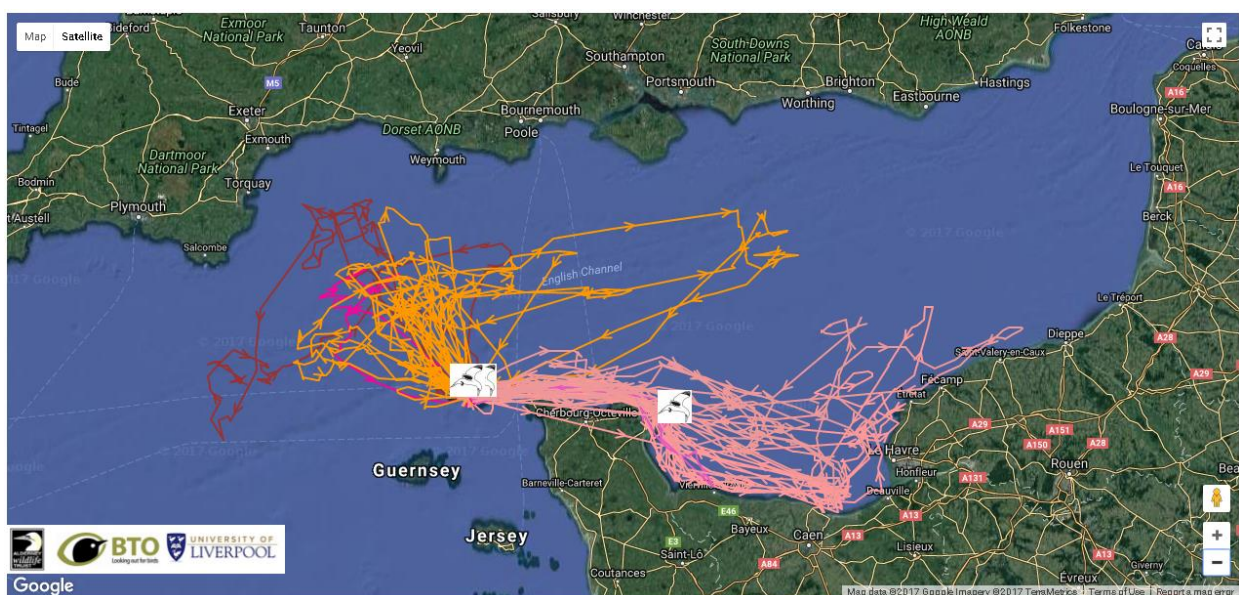


Figure 14 Foraging activity performed by the 6 tagged gannets in 2017

Due to the unsuccessfulness of the TAG project this year, advertisement and promotion of the project has been less than previous years; with only 1,036 views and only 897 of those were unique views to the TAG page on the Teaching Through Nature website. This

accounted for only 1.55% of total page views on the site, which is extremely low when compared to the 39.17% received on the Puffin Main Cam page. Page views peaked before tags were deployed and have been declining since the tag deployment in 2016 due to no advertisement on social media. If tag deployment is successful in 2018, the project needs more promotion and advertisement to the public, to keep them informed of one of the major projects the AWT carries out.

3.4.3 Other Annual Events

A number of other annual events have taken place within the Ramsar site with the public, the school and the watch group;

- Ramsar talk in the office during World Wetlands Day (February 2nd)
- Walk around the Ramsar site (4th and 5th of February)
- Regular beach cleans on Platte Saline with the school
- A number of seabird walks with the watch group
- Public seabird walk during Wildlife Week (29th May -3rd of June)
- Rockpooling events during Wildlife Week and again in mid-August
- Public marine mammal watches frequently from Fort Tourgis

3.5 Legislation

3.5.1 Signpost Placement for Public Awareness

A number of signs were placed at the important breeding sites for Ringed Plover and Common Terns; these were to inform the public breeding birds were in the area and to make an effort not to disturb them. Signs were placed

3.5.2 Signpost Placement for Burhou Closed Season

This action is planned for October. 4 new signs will be placed on the main landing points on Burhou to inform those about the bird colonies present and informing them of the restrictions during the breeding season.

3.5.3 Establishment of a Channel Islands Steering Group

Each of the Channel Islands have at least one Ramsar site. After the Inter Islands Meeting in September 2016, the Ramsar Officer contacted the people known to coordinate the Ramsar sites about the potential of organising annual Channel Island Ramsar meetings. During the IEM 2017, a meeting was held with all the relevant representatives from Guernsey, Jersey and Sark's Ramsar site. The following section is the outcome of the meeting:

3.5.3.1 Discussion/Island Overviews

- Guernsey - 2 Ramsar sites; Lihou Island and l'Erée Headland; and Herm, Jethou and The Humps. The Lihou Island and l'Erée Headland site is a series of smaller nature reserves. There is no overarching management plan for the whole Ramsar site, but instead a series of plans for the smaller reserves within the site i.e. the Colin Best Nature Reserve. The Herm, Jethou and The Humps Ramsar site is more recently designated and again has no management plan due to the lack of marine data available because there are no marine ecologists to carry out the data collection. Within Guernsey there is a Ramsar management steering committee which consists of the States of Guernsey and La Société Guernesaise.
- Jersey - 4 Ramsar sites; Les Pierres de Leq; Les Écrehous & Les Dirouilles; South East Coast of Jersey; and Les Minquiers. Management plans for all sites were written in 2011 but will be updated in 2017/2018 and be circulated amongst relevant contacts working with the other Channel Islands Ramsar sites. Current management will be trying to pull the Ramsar aspect of the protected sites back in with one central management and data collection aspect, whereas now sites are currently run and studied by the States of Jersey, the Société Jersiaise and Seasearch. Relevant stakeholders are being targeted for their views on the Ramsar sites and targeted to inform them of the code of conduct within the sites.
- Sark – 1 Ramsar site; the Gouliot Caves and Headland. There is currently no management plan for the site, and the Societe Serquaise currently tend to “leave the site alone” as management. The site is owned by the Barclay brothers and the Societe Serquaise worry about future management, access issues and degradation of the site through misuse within the site. The Societe Serquaise wants to carry out Phase I biotope monitoring within the Ramsar site but lack experts within the field therefore need help and guidance.

3.5.3.2 Outcomes of the Discussion

During the meeting, representatives from Alderney, Guernsey, Jersey and Sark agreed the following points should be worked on by those involved in each islands Ramsar sites:

- Increased communication, collaboration and pooling of resources should be a priority. This is primarily to compare methodologies and effort used during a number of studies carried out on all islands i.e. seabird counts and biotope mapping and to share knowledge, equipment and data i.e. to help the Societe Serquaise with biotope mapping.
- Citizen science data should also be shared and used i.e. from Seasearch, WeBS and CoCoast.
- The need for common standards in terms of monitoring to directly compare data between islands. This would be particularly useful for seabird population and productivity counts.
- Increase public awareness and educate the public on Ramsar in terms of what our sites are, why're they're special and what the Ramsar designation means.

3.5.3.3 Proposed actions

To achieve the discussed points, there are a number of actions that were mentioned for each island and nominated parties to carry out:

- Publicise records/data for other islands to access.
- Monitor invasive species across the Channel Islands and share data. Species are yet to be decided but would most likely include Hottentot Fig, Slipper Limpet, Pacific Oyster, Asian Shore Crab and the Asian Hornet to name a few.
- Education; produce small reports/executive summaries/leaflet on Ramsar sites annually. Try and get environment into school curriculum - Jersey Bat Group proposal for bats in syllabus was accepted. Seasearch have a framework for data collection and information being placed in science curriculum.
- The Ramsar meeting should be an annual event held during the IIEM every year, with supplementary informal skype meetings held twice a year to keep each islands Ramsar representative up to date with work going on in each island.
- Create a traffic light system highlighting state each of the Ramsar in terms of bird numbers or invasives etc as an easy and engaging way for the public to understand.

- Google drive should be used as a way to share data.
- Overall all actions need to be kept simple.

3.5.3.4 Contact information

Below are the email addresses of interested parties/Ramsar representatives for each island, wishing to keep informed and be part of the communication and collaboration between islands.

Name	Organisation	Email Address
Charlotte Bolton	Seasearch	charlotte.bolton@mcsuk.org
Mike Pienkowski	UK Overseas Territories Conservation Forum	m@pienkowski.org
Vic Froome	La Societe Guernesiaise	vjfroome@cqgsy.net
Vanessa Crispini	States of Guernsey	vcrispini@cwgsy.net
Alex Herschel	Guernsey Electricity	alexherschel@suremail.gg
Kevin Mcllwee	Seasearch Jersey	kevin@jerseymarineconservation.org
John Pinel	States of Jersey	j.pinel@gov.je
Shakira Isobel	Societe Serquaise	shakiraisobel@hotmail.com
Francis Binney	States of Jersey	f.binney@gov.je
Lisa Duggan	States of Guernsey	lisa.duggan@gov.gg
Laura Bampton	La Societe Guernesiaise	laurabampton555@gmail.com
Bob Tompkins	Societe Jersiase	bob.tompkins@live.co.uk
Jo Birch	Societe Serquaise	jo.birch@cwgsy.net
Andrew Casebow	States of Guernsey	andrew@cwgsy.net
Andrew McCutcheon	States of Guernsey	andrew.mccutcheon@gov.gg
Paul Chambers	States of Jersey	p.chambers@gov.je

3.5.3.5 Way forward

1. Email those who provided contact information to check they still want to be kept in contact and make joint decisions etc. decide on when first Skype session should be.
2. Create inter islands Ramsar Google drive and invite those wishing to stay part of the agreement.
3. Email Francis Biney and Paul Chambers to check they are still ok to create traffic light system and data matrix for all islands.

3.6 Pending

3.6.1 Responding to Marine Renewable Work

In 2016 marine renewable work primarily involved engagement activities with Agence des aires marines protegees. This involved initial discussions of developing potential marine ecological surveys within a future marine renewable tidal wave test site, located within the Raz Blanchard. Presently, there has been no formal discussion for such works, due to insufficient information regarding the tidal wave test site. A watching brief has been continued on this project with dialogue maintained between AWT and French Authorities. Neither ACRE or ARE have informed the AWT about any further developments on the proposed 'Alderney Race Tidal Farm' which was due to commence planning applications this year based on a schedule passed to AWT in 2015.

4. ARS3

This is the first year into the third Ramsar Site strategy (ARS3). It was written in 2016 and became effective as of January 2017. The strategy has a focus on community and stakeholder engagement and aims to promote the Ramsar Site as something for Alderney to take pride in.

5. Proposed Works

5.1 Atlantic Puffin

The Atlantic Puffin is globally threatened and has faced severe (at least 50%) decline in UK breeding population over last 25 years. The European population is estimated to be 4,770,000 - 5,780,000 pairs, which equates to 9,550,000 - 11,600,000 mature individuals (BirdLife International 2015). The population size in Europe is estimated and projected to decrease by 50-79% during 2000-2065 (three generations) (BirdLife International 2015). Europe holds >90% of the global population, so the projected declines in Europe are globally significant. This species is highly susceptible to the impacts of climate change, such as sea temperature rise, shifts in prey distribution and abundance and anthropogenic disturbance (Durant et al. 2003, Sandvik et al. 2005). Throughout Europe there are a number of methods being employed to counter population decline; mainly identification of important sites for this species, particularly in offshore regions and designation as marine protected areas and using methods to directly reduce disturbance i.e. exclusion zones for people and limits as to how close they can get. One such example is the use of marker buoys within a bay to act as an exclusion zone for boat based traffic, therefore minimising anthropogenic disturbance to species within that area. This has proved successful around Hilbre Island in the Dee Estuary by keeping boat traffic within certain areas to minimise disturbance to raft birds and waders (Hanik *et al.*, 2015).

A potential issue with puffin monitoring on Burhou could be inconsistency of data collected. This could be caused by varying skills and abilities of previous Ramsar officers monitoring the Puffins. Although the same methodology has been used throughout the time puffins have been monitored, a number of methods could be clearer and required data for productivity and assessing puffin population size should be thought out. One such method could be to monitor puffins returning from foraging trips noting type of fish and how many fish they have caught, however this is highly time intensive and the use of a camera and high-powered lens would be needed.

5.1.1 Proposed Methodology

To directly minimise disturbance to the Burhou puffin colony, marker buoys should be placed in the bay the puffins use to raft, limiting boat access to the bay only outside the puffin breeding season (April - August). This would be done on the authorisation of the General Services Committee and Alderney Harbour Authority, with the support of the Alderney Marine Users forum. Ideally the deployment would be actively supported by the fishing community and tour boat operators who, would help to police the no-go area (see Herm, States of Guernsey). It proved successful in Hilbre Island, reducing anthropogenic

impacts on seabirds and would reduce the impact around Burhou. In conjunction with the Buoy placement, signs should be produced and placed in the harbour office to alert people of these new rules and why. An Alternative to marker buoys could be a marker system on marine navigation devices, marking the bay as no-entry area. This could be a viable alternative due to the cost associated with deploying the buoys and the potential for their disturbance due to the strong currents experienced within the swinge.

In order to effectively monitor puffins in the upcoming 2018 season, the next Ramsar officer should have a clear outline of what data they need to collect and the most effective way of doing this. Early season raft counts appear to be the most effective way of recording the number of breeding adults within the population. This should be carried out around April and early May before non-breeding birds arrive. A raft count should again be carried out in June - July to gain the total number of individuals within that population. One of the problems encountered during end of season burrow counts on Burhou is locating the burrows; the Puffins use rabbit warrens to nest in, however it is unclear as to how many nests share the same entrance, making an accurate estimate of productivity hard. For the 2018 burrow marking post numbers should be renewed and marked in a way that they won't rub off, allowing for clear identification of burrows. Once this has been done, the use of webcams and playback of footage could be used to review burrow activity. This would allow a vastly greater monitoring effort than observations from Burhou. With this method, a small proportion i.e. the main colony to the east of the hut could be monitored in detail giving a better estimation of population dynamics.

5.2 Common Tern

Due to the unsuccessful breeding attempts of Common Terns on Houmet de Pies over the past 3 years, it is recommended that action is taken to manage the rat population on the islet thus increasing chances of breeding success for this species.

Predation by rats is common amongst seabirds nesting in accessible areas; however, there are a number of methods which can be employed to control and manage such issues. There have been many successful attempts of increasing Tern breeding success through eradication and relocation; Amaral *et al.*, (2010) successfully managed to eradicate the Black Rat (*Rattus rattus*) on Feno islet (1.6 ha) in the Azores. This was achieved through a mass trapping programme over 3 weeks before the terns arrive to breed. Through the deployment of 140 Sherman traps (XLF15 – Extra Large Folding 15”; 4 x 4 x 15”) which were baited with cheese and checked and replaced daily, rats were successfully eradicated from Feno and the Roseate Tern (*Sterna dougallii*) and Common Tern (*Sterna hirundo*) populations recovered in subsequent years. Due to the proximity of Feno to the main island of Terceira, Amaral *et al.*, recommend the establishment of a regular monitoring and response system to ensure any recolonisation by rats is detected.

Similarly to the rat eradication on Feno, there have been a number of other eradication efforts to protect seabird colonies; most notably on Scilly through the EU LIFE funded [Seabird Recovery Project](#). The aim was to reverse recent declines in seabird populations on the Isles of Scilly through removal of rats from the islands of St Agnes and Gugh, and maintain the uninhabited islands' rat-free status (Heaney *et al.*, 2008). This was successfully carried out and there have been no sign of rats since December 2013 with the first Manx shearwater chicks recorded on the islands in living memory (10 were recorded) in September 2014 (Heaney, 2015). Another large project was carried out in the Falklands and South Georgia, where Tussacbirds (*Cinclodes antarcticus*), South Georgia pipits (*Anthus antarcticus*), white-chinned petrel (*Procellaria aequinoctialis*) and sooty shearwater (*Puffinus griseus*) populations have recovered from predation through an extensive rat trapping programme (Poncet *et al.*, 2011). Another example is the Canna Seabird Recovery Programme, based on the Islands of Canna and Sanday in North West Scotland. The aim of this project was to halt the decline in the internationally important seabird populations breeding on the islands and to facilitate their recovery and long-term protection through the removal of Brown Rats (*Rattus norvegicus*). This was achieved by using a grid of bait stations containing 10 blocks of Ditrac™, a first-generation rodenticide, lethal to rats but not to birds and domestic livestock, were placed in each station. Bait stations were placed in a 50m grid over the whole island. This method took little over a year to kill all rats and for the island to be confirmed rat free (Bell *et al.*, 2005). Furthermore, it is essential that the situation is intensively monitored following the poisoning stage to ensure any rats which managed to escape poisoning either through their lack of entry into bait stations or resistance to bait are targeted and killed.

Following the poisoning phase, it is essential to monitor the situation intensively for a further eight weeks. This is to ensure that any rats which may have escaped poisoning either because they were resistant to bait, or were unwilling to enter bait stations, are targeted. For an area to be declared rat free, a minimum of three rat breeding seasons are required between the eradication attempt and the assessment of the success of the eradication.

Secondary to the rat eradication are long-term options to increase potential for breeding success, these include relocation projects to rat free inaccessible areas, however these take a number of years and need to work alongside rat eradication projects. Another option to increase the success of breeding Terns is to introduce Tern Specific nesting boxes such as those used in Coquet by the Roseate Tern LIFE Project.

5.2.1 Proposed Methodology

To manage the problem of rats on Houmet de Pies, the most cost and time effective method would be setting up an eradication programme. Current rat bait boxes are being used as a

nest by rats (Figure 15), therefore these should be removed at the start of the eradication regime.



Figure 15 photograph of rat trap bait box being used by rats as a nest

There are no guidelines in current literature regarding a standardised density of rat bait boxes for eradication programmes and numbers vary from one every 20m to one every 100m, depending on the size of the area the programme is being carried out and available funds. Given that Houmet de Pies is <1ha and the scale of predation to the Terns this year, bait boxes containing a readily available and effective poison should be spread every 20m or 50m depending upon funding. This grid is shown in Figure 16. Not only should the boxes be placed on the Houmet de Pies but the connecting part of the mainland to stop the rats before getting to the Island. This perhaps could be at a lower density of bait boxes; 20m grid on Houmet de Pies and 50m grid on Bibette Head. Bait boxes should be placed as soon as possible before the Tern breeding season, with regular checks and top ups to the bait (once or twice a week). The majority of eradication effort should be carried out in advance of the Tern breeding season and carry on throughout the year. However once Terns arrive, checking bait boxes should be kept to a minimum as they are highly susceptible to disturbance. This should be performed at the same time the three productivity/population counts are performed throughout the breeding season. After the last Tern has left Houmet de Pies live traps (Longworth or Sherman) should be used along with chew sticks placed on the island to assess whether there is still a rat presence. If live rats are caught they should be destroyed and the intense eradication will continue. If no evidence of rats is found, then the eradication methods can be minimised. For the island to be declared rat free, three rat breeding seasons (roughly 2-3 months) should pass before making a decision on the status of the island.

Following the successful eradication of rats on Houmet de Pies, options to increase the chances of fledging success should be investigated, mainly looking into the use of Tern nest boxes. Nest boxes have had successful results in a number of Tern colonies, namely on Coquet in Northumberland where since the introduction of the boxes, the Roseate Tern population doubled in five years.

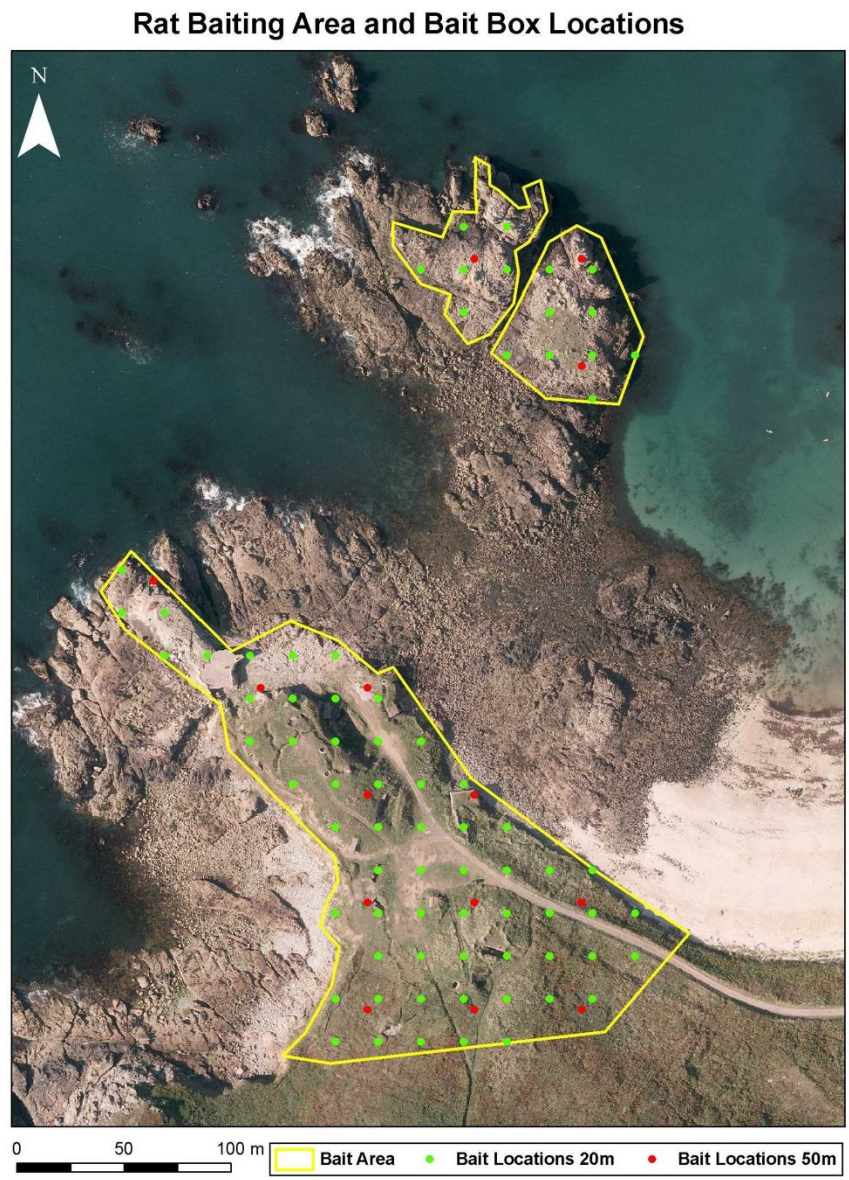


Figure 16 map of area rat eradication measures should be carried out around Houmet de Pies. Points indicate baited trap locations; green points indicate locations using a 20m grid; red points indicate locations using a 50m grid.

6. References

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7. Appendices

7.1 Appendix I - Planned work for 2017

Table 4 List of all planned actions from the 2017 Annual Action Plan and whether they were completed this year, are ongoing or a priority for 2018.

Area	Activity	Completed	Ongoing	Not Undertaken	Priority	Notes
Seabirds	Continuation of all seabird monitoring	X				
	Re-install Puffin Cam	X				
	Storm Petrel ringing	X				
	Gull ringing	X				
	Gannet ringing	X				
	Public awareness sign placement	X				
	Coque Lighthouse population counts			X	X	This didn't happen, should be carried out whilst ringing on Coque Lighthouse in 2018
	Review non-human monitoring methods			X	X	Should be carried out over winter before the 2018 breeding season
WebS counts		X			This is an ongoing project	
Update all seabird data			X	X	Only 3 species were monitored, all should be monitored in 2018	
Terrestrial	Small mammal trapping on Burhou			X	X	This should happen before the 2018 breeding season
	Invasive species monitoring on Burhou	X				
	Path network creation			X	X	Should be carried out over winter before the 2018 breeding season
Marine	Desk based review of intertidal data	X				
	Hannaine Bay intertidal habitat map	X				
	Phase 2 intertidal monitoring on Burhou	X				
	Intertidal strandline surveys	X				
	Green Heron population assessment		X			This is planned for December 2017
	Capuring our Coast	X				
	Eelgrass surveys			X	X	Didn't happen, high priority, should carry out when weather and tides allow
	Liase with research	X				
	Seawater sampling		X			This is an ongoing project
	Marine mammal monitoring and review	X				
	Support British Marine Life Rescue Divers	X				
Support Marine Management Group	X					
Support MSc projects	X					
Events	Continue boat tours	X				
	Continue Teaching Through Nature	X				
	Continue TAG Track (Gannet)	X				
	Continue other annual events	X				
Legislation	Breeding seabird signpost placement	X				
	Burhou signpost placement			X	X	This should be done before the 2018 breeding season
	Channel Islands Ramsar steering group meeting	X				

7.2 Appendix II - Seabird Population and Productivity

Table 5 Apparently occupied nests/burrows, number of individuals observed and productivity figures for all birds monitored during 2017 (Atlantic Puffin, Common Tern, Northern Fulmar, Northern Gannet and Ringed Plover). The table shows data from the ARS2 period 2012 -2016, and data collected in 2017.

Species	Method	2012	2013	2014	2015	2016	2017
Atlantic Puffin	AOB	176	168	143	112	97	93
	Raft	175	96	58	114	168	176
	Productivity	-	-	0.36 – 0.60	0.71	-	-
Common Tern	AON	5	14	25	32	-	-
	Individuals	24	43	28	-	53	48
	Productivity	-	0.57	0.44	0	0	0
Northern Fulmar	AON	34	29	29	32	13	35
	Individuals	-	-	-	-	-	-
	Productivity	0.56	0.52	0.55	0.4	0.92	0.37
Northern Gannet	AON	-	-	-	5909	-	-
	Individuals	-	-	-	2777	-	-
	Productivity	-	0.52	0.61	-	0.69	0.65
Ringed Plover	AON	-	-	-	-	-	9
	Individuals	2	2	6	3	1	10
	Productivity	0	1.5	1	-	1	0.33