





Alderney West Coast and Burhou Islands Ramsar Site Annual Review: 2018

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1. Introduction

In 2018 the Alderney West Coast and Burhou Islands Ramsar Site entered into the second year of its third five-year Management Strategy.

This document outlines works carried out in 2018 as outlined in the Annual Action Plan, approved by the General Services Committee of the States of Alderney.

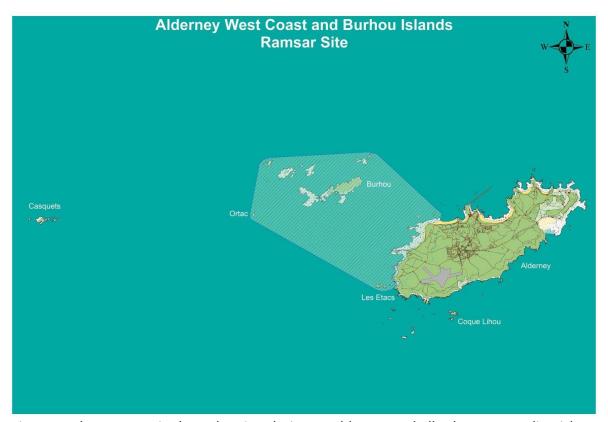


Figure 1: The Ramsar site boundary in relation to Alderney and all other surrounding islets

2. Objectives

To meet with the objectives of the 2017- 2021 Ramsar Site Management Strategy, the following areas of work were set out by the 2018 Annual Action Plan and approved by the States of Alderney as objectives to be completed in 2018.*

*Please note that by approving this Action Plan the SoA is agreeing to all the proposed work therein. Similarly, the AWT commits to the delivery of the work described (accepting the availability of resources necessary and favourable weather conditions) and accepts the Committee's requirement to inform the appointed SoA representative if any aspect of the work requires significant alteration from the parameters contained within the Action Plan, or if any new element of work not described in the Action Plan is found to be required, prior to altering the details of the Action Plan.

2.1 Seabirds

- Continuation of all seabird monitoring on Alderney, Burhou and other islets.
- Re-installation and maintenance of the Puffin monitoring cameras and equipment on Burhou, to coincide with LIVE: Teaching Through Nature.
- Work with Marine Management Forum to introduce a marine exclusion zone around rafting Puffins during their breeding season, through liaison with stakeholders.
- Seabird monitoring of South cliffs from Sula of Braye (or other suitable vessel).

- Population counts of Seabirds on Coque Lihou during ringing effort with the Alderney Bird Observatory (ABO).
- Continuation of 'Track A Gannet' (TAG) programme.
- Organisation of local Wetland Bird Surveys (WeBS), submitting monthly data to the British Trust for Ornithology (BTO) and AWT Ramsar databases.

2.2 Terrestrial

- Creation of a simple coastal path network on Burhou to reduce potential damaging of puffin and storm petrel burrows.
- Deployment of small mammal monitoring stations and subsequent live traps on Burhou to determine presence (or absence) using chew sticks and Longworth traps.
- Work with the Public Services Department of the SoA to implement a rat control programme at Bibette Head and Houmet des Pies.
- The continued control of bracken and the invasive species Hottentot Fig on Burhou.

2.3 Marine

- Eelgrass surveys at selected sites within the Ramsar Site using snorkel and video techniques.
- Phase I biotope surveys of intertidal habitats within the Ramsar Site.
- Phase II monitoring species surveys at Hanaine Bay.
- Strandline surveys at Clonque Bay, Hanaine Bay and Platte Saline Bay.
- Green Ormer population assessment at Clonque Bay.
- Invasive species assessment at Clonque Bay and Hanaine Bay.
- Capturing our Coast citizen science project at Clonque Bay to promote marine life within the Ramsar Site.
- Intertidal habitat survey of selected South Cliffs caves and investigation of the coastline to establish the presence of any additional caves within the Ramsar site.
- Benthic desk-based review of surveys conducted within the Ramsar site.
- Continue to liaise with and support Seasearch groups in undertaking marine ecological surveys.
- Conduct a fish/shellfish survey at selected areas within the Ramsar Site, subject to feasibility following desk-based review and project proposal.
- Pelagic desk-based review of surveys and activities within the Ramsar Site.
- Monthly sea water quality testing of Clonque Bay, Hanaine Bay and others around Alderney.
- Marine mammal desk-based review of surveys conducted within the Ramsar Site.
- Grey seal population dynamics study.
- Grey seal photographic ID catalogue.
- Support the local British Marine Life Rescue Divers group on Alderney.
- Support marine management activities and the community led Marine Management Forum where required.
- Support and lead marine based academic projects within the Ramsar site.

2.4 Events

- Continuation of boat tours on Sula of Braye to increase public awareness of the Ramsar site while contributing to costs of boat operation by the AWT.**
- Continuation of LIVE: Teaching through nature programme
- Community engagement and public awareness of the Ramsar Site through rock-pooling and beach cleaning events.

2.5 Advisory and Legislative

- Signpost placement alerting the public to the closed season on Burhou, at four main landing points on Burhou.
- Maintain communication links and collaboration with Channel Islands Ramsar Steering Committee.

^{**} The AWT maintains a 10m coded Cat 2 (MCA Coded) vessel to undertake all its works within the marine environment of the Ramsar site. This work is charged at base costs back to the Ramsar budget and the AWT must then charter or operate scheduled services to cover all other costs of operating the vessel in order to maintain it in operation.

 Review Bird Protection Law (BPL) – liaise with ABO and Conservation Officer to include legal implications for disturbance to breeding sites.

3. Review

3.1 Seabirds

Much of the seabird work was carried out as a collaborative effort between the AWT and ABO. The contribution of the ABO is recognised here as including but not limited to: seabird and shorebird monitoring, seabird and shorebird ringing, consultation on rat control work relating to seabirds, field work on seabird population surveys and fieldwork on rat control and monitoring. All data was added to the AWT seabird data sheet at the end of the season. Refer to Appendix 5.1 for full population and productivity data (Table 5).

3.1.1 Monitoring

3.1.1.1 Atlantic Puffin (Fratercula arctica)

Atlantic Puffin population on Burhou is monitored by raft counts during the season and an apparently occupied burrow (AOB) survey at the close season. The crucial raft count of breeding puffins is carried out in April – mid May with the highest count during that period recorded at 140 on the 5th of May from Burhou. Other counts made in the early season were 100 on the 7th of April performed from the AWT boat Sula and 70 on the 21st of March from Burhou. Later in the season, raft counts were performed using the Pan, Tilt, Zoom (PTZ) camera installed on Burhou and recorded so that multiple checks were possible. The highest count during June – July following the arrival of non-breeding birds was recorded at 203. This figure is higher than previous years.

AOB: The AOB survey of burrow was carried out on the 27th of July by 3 observers, in which 101 burrows were deemed to have been occupied. *Figure 2* shows the trends of both AOBs and raft counts from 2005 to present.

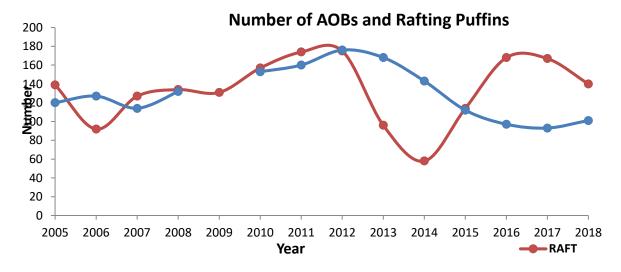


Figure 2: The annual number of Puffins observed in early season raft counts and apparently occupied burrows (AOBs) since contiguous monitoring began in 2005. No data was recorded for AOBs in 2009.

Productivity monitoring began in early May with 3 visits to Burhou to carry out monitoring from 2 vantage points. However, during the third visit (lasting 2 hours), a nesting shag was displaced due to the proximity of the vantage point to the nest. From that point, an agreement was made with the Ramsar steering committee to cease on island observations of puffin burrows due to the sensitivity and vulnerability of Burhou's nesting shags. The remainder of the puffin productivity surveys was carried out remotely, using the Pan, Tilt, Zoom (PTZ) camera already installed on Burhou overlooking the main colony closest to the hut. Observations could not be continued on the other sites slightly further east from the hut.

This provided an opportunity to trial a camera-based monitoring method to minimise disturbance by human observers. Hour-long watches were carried out to determine which burrows were still being used during the latter half of the season. Several lessons were learnt from this exercise:

A new numbering system of the burrow pegs was made due to the positioning of the pegs being suited to the onisland vantage points instead of the camera, rendering them difficult to read. Due to the different numbering system required for the camera, the actual puffin peg numbers were matched to the new numbers during the puffin on island AOB survey in the close season. Also some of the pegs were faded with illegible numbers, meaning they couldn't be matched to the PTZ camera numbering system.

The results of the survey observed 32 burrows used early in the season at the main hut colony site, with at least 17 of which still used late in the season, producing a minimum productivity value of this sample of burrows at 0.53. A maximum productivity value of the sample size was also calculated at 0.94 based on the assumption that all of the unidentifiable pegs at the end of the season may have been active burrows. Atlantic puffin productivity range is therefore 0.53 - 0.94 on Burhou this summer. The maximum value is very optimistic based on the data, and in reality is unlikely to be so high. The average productivity from 2005 to 2015 (with 7 recorded years) was 0.63 with a range of 0.48 to 0.71.

Recommendations:

Due to the difficulties encountered from change in survey methods from on land observations to remote camera chobservations, and the faded pegs, lessons can be learnt to improve the accuracy of results next season. First, it is recommended to install new pegs painted white and the numbers painted black to last longer than permanent markers (used this year). Furthermore, there were a number of burrows in use that did not have a peg nearby and required extra description to keep track of which can reduce accuracy of burrow identification especially if different observers are used. This highlights the need to create and place more pegs at the unmarked burrow entrances. Second, remote observations should continue, and must be carried out both at the start of the survey period (April – May) as well as the end (mid-June – end July) so that data (burrow peg numbering system) is continuous and accuracy can be improved.

3.1.1.2 Northern Gannet (*Morus bassanus*)

Productivity surveys carried out this summer observed 5 plots of nests on Les Etacs from the cliff using a telescope at 50x magnification. The plots were drawn out on photographs of the colony with each containing between 20 and 40 confirmed nests which were monitored throughout the summer. The photographs were taken and plots set up on the 25th of April, identifying nesting attempts. Observations continued in June as per recommendations in ARS3 when eggs were beginning to hatch. However, observations should have begun slightly earlier to record potential abandoned nests earlier in the incubation phase. Productivity surveys are completed, and despite the late commencement of the survey, a maximum productivity value can still be calculated based on active nests and failures from the time recorded, which wouldn't include potential earlier failures.

This year, gannet productivity has been recorded at 0.40. This is lower than past data from 2007 to 2018 which saw ranges of 0.52 to 0.88 in productivity rates. An interesting observation from one of the 5 plots observed just 2 chicks reaching fledging age after 9 were observed earlier in the season. This area of the colony may have been populated with less experienced breeding birds being located on some of the lower areas occupied by breeding birds. Another 2 of the 5 plots were located on lower parts of the colony, with no plots observing the top of the main rock due to the difficulty viewing and distinguishing nests in that section. After the gannets left Les Etacs on October 4th, 6 chicks were observed on the 6th of October to be abandoned on the rocks (5 of which appeared entangled).

3.1.1.3 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. Following the rat control programme, as recommended from last

year's Annual Review, undertaken prior to the Common Tern breeding season on Houmet de Pies (reported on further in section **3.2.3**), an improvement of breeding success from 0 in the past 3 years was made. The tern monitoring and productivity improvement effort this year was a collaborative one between the AWT, ABO and the SoA Public Services department.

The terns were first seen on May 15th with 8 birds recorded over the nesting site. Presence was sporadic thereafter until the end of May when 40 birds were present and nesting began. The first visit to Houmet de Pies to inspect nests was on the 22nd of June yielding a count of 21 nests. Most had eggs but there was 1 chick estimated to be up to 5 days old and another 2 estimated to be between 5 and 10 days old.

A second inspection was made 10 days later on the 4th of July with 7 chicks recorded and ringed and 11 nests found still with eggs. A third inspection was made another 10 days later on July 14th when just 2 chicks were found and ringed (although more were present - as seen from afar but were too hard to find in the limited time) and 8 nests were still with eggs (with one seen to be hatching). Observations made thereafter during the ABO daily census indicated at least 3 broods (maximum 6) fledged successfully up until the 31st July; resulting in an improved productivity of 0.14-0.29.

Note: On July 26th a Great black-backed gull was seen searching the colony, heavily mobbed by terns, which may have accounted for the loss of some eggs and chicks. However, terns were still seen brooding or bringing food to the colony until July 31st when a storm struck and the site was suddenly abandoned completely.

Year	2012	2013	2014	2015	2016	2017	2018
AON	5	14	25	32	-	4	21
Individuals	24	43	28	-	53	48	40
Productivity	-	0.57	0.44	0	0	0	0.14-0.29

Table 1: Common tern population and productivity at Houmet de Pies

Recommendations:

Monitoring to continue in collaboration with ABO. See section 3.2.3 for rat control management recommendations.

3.1.1.4 Northern Fulmar (Fulmarus glacialis)

The Northen Fulmars are monitored from an observation point on the western edge of the south cliffs of Alderney opposite Les Etacs. The number of apparently occupied nests (AON) recorded was 33 this year, with a productivity of 0.33. These were similar values to last year of 35 AONs and 0.37 productivity value. The values of the last 6 years are shown in figure 3.

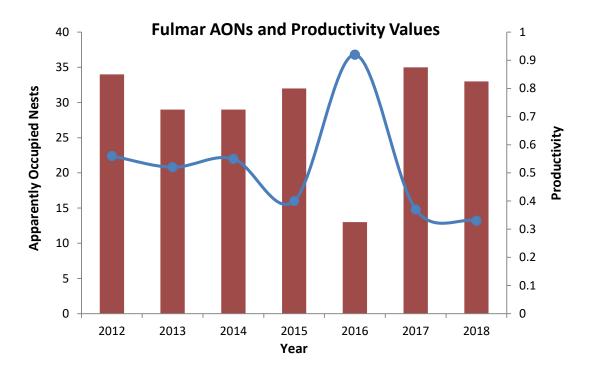


Figure 3: Fulmar AON (red) and Productivity (blue), from 2012 to 2018

Following an anomaly year of AON and productivity data in 2016, the reasons for which cannot be confirmed, this year has seen the figures return to a similar trend to those observed previously.

3.1.1.5 Ringed Plover (*Charadrius hiaticula*)

Four pairs of Ringed Plovers made nine nesting attempts this year; 2 pairs in Clonque bay (1 pair near Fort Clonque, the other near Fort Tourgis), 1 pair on Platte Saline and 1 pair on the eastern end of Saye beach. In total, across the sites, at least 6 chicks successfully reaching fledging age, resulting in a productivity value of 0.66. Observations were made, and reported on by ABO assistant warden, Justin Hart.

The pair on Platte Saline were probably successful, raising 2 chicks (both ringed by the ABO) to near fledging (when last seen on 16th July). However, they had previously laid 3 clutches, one reported early, on April 11th (clutch size unknown), with subsequent follow up attempts recorded on the 13th of May (4 eggs), and 27th of May (4 eggs) before egg loss. The reason for the losses is not known but rats and hedgehogs do venture on to the beach and the site is regularly used by walkers with or without dogs. The final clutch that hatched successfully was not found.

The pair on Saye Beach were late breeding and unsuccessful. Only a single nesting attempt was recorded, a clutch of 4 eggs seen on the 3rd of June. This was lost by June 25th and no further nesting attempt was found.

The pair in Clonque bay that nested near Fort Tourgis was probably successful and possibly fledged at least 1 chick (seen taking flight on the 3rd of August). They had made one previous nesting attempt, a 3-egg clutch seen on May 20th but washed away after heavy rain around the 7th of June. Their second clutch (of 4 eggs) hatched on the 10th of July when 3 recently hatched chicks were recorded. One chick was caught and ringed.

The pair in Clonque bay that nested nearer Fort Clonque was also successful and probably fledged 3 chicks. They, however, lost their first attempt too. The first clutch of 3 eggs was first recorded on May 14th but around the time of hatching (June 11th) no eggs or chicks could be found indicating possible predation of either. The second clutch of 4 eggs hatched on the 15th of July (3 chicks hatched with the 4th still hatching) and 3 chicks were seen up until the 5th of August. All 3 were caught and ringed by the ABO. Table 2 shows the data collected on Ringed plovers from 2012 to 2018.

Measure	2012	2013	2014	2015	2016	2017	2018
AON	-	-	-	-	-	9	9
Individual	2	2	6	3	1	10	8
Productivi	0	1.5	1	-	1	0.33	0.66

Table 2: Ringed plover population and productivity table

Recommendations:

Monitoring to continue in collaboration with the ABO and public awareness signs to be displayed at key sites prior to the breeding season.

3.1.1.6 Cormorants (*Phalacrocorax carbo*)

A ringing trip of Cormorants on Little Burhou was carried out on the 28th of April coordinated by the ABO. Seven nests were recorded on the island. Two nests were not approached due to the presence of brooding adults at greater risk from disturbance. Of the 5 approached, 4 had chicks large enough to ring, containing 2, 2, 2, and 1 chicks successfully ringed. The 5th nest contained 2 chicks too small to ring.

3.1.1.7 Other ringing

Other annual ringing events such as for Storm petrels, Gulls and Gannets could not take place this year.

3.1.2 Cameras and Equipment for Burhou

The re-installation of Puffin cameras on Burhou was carried out as in previous years to provide up to date and live images to the public and act as a source for educational content produced for the ongoing LIVE: Teaching Through Nature programme. The Pan, Tilt, Zoom (PTZ) camera was used in puffin monitoring surveys.

Recommendations:

The LIVE: Teaching Through Nature programme is going through a change in format. Coupled with this the circumstances reported in 3.1.1.1 mean that it is important to consider the role of cameras (5.1.1) on Burhou in order to:

- Support The LIVE programme and its educational reach in 2019
- Reduced disturbance to carry out the existing monitoring work
- Explore potential new monitoring mechanisms during the 2019 season using the PTZ camera located at the main Puffin colony on Burhou
- Ensure that the LIVE webcam website continues to attract the viewing numbers (over 28,000 unique IPs in 2019) it has since it was established in 2009 (3.4.2).

It is recommended that the existing burrow webcams should continue as these were replaced in early 2018, however, a new PTZ camera with:

- Increased optical zoom, ideally 30X
- Improved settings which will allow the camera to undertake remote surveys and to watch for boats accessing the Puffin Exclusion Zone (3.1.3).

3.1.3 Puffin Rafting Exclusion Zone

Within the framework of the Alderney Marine Management Forum, work was completed to introduce an exclusion zone to marine traffic in an area surrounding the main Puffin colony rafting locations. Consultation was undertaken through the Alderney Harbour Office with local stakeholders and agreement has been issued by the GSC that the area was delineated as a voluntary exclusion zone named the "Puffin Friendly Zone". A poster was created and displayed at key areas round Alderney and sent to yacht clubs in the Channel Islands as well as advertised in local media. *Figure*

4 shows a map of the area which was agreed by stakeholders to voluntary abide by the attached code of conduct for the site which was attached literature to the posters and press releases published.

Appendix 5.1.2 shows the briefing note prepared for the plan to create the zone early in the year, as well as the code of conduct associated with the area. Despite the information released, there were still 2 observed instances of marine users acting contrary to the guidelines of the code of conduct. The first instance proved to be a non-local tourist vessel that was simply unaware of the zone and responsible practices near it, but was informed of them upon arrival at Braye by the Harbour Office. The second instance was a local tour operator who was aware of the zone and practices yet acted contrary to them anyway. This highlights the need to increase awareness of the zone next year through media releases and published literature. The creation of a full exclusion zone backed by legal implications was not achieved this year. However, the progress made and support gained within the Alderney Marine Forum and SoA will serve as a foundation to progress the voluntary zone into a protected one. This could be done as initially suggested in the briefing note (5.1.2) through a *Notice to Mariners* with the support of Alderney's harbour office.



Figure 4: The agreed "Puffin Friendly Zone" at Burhou

3.1.4 South Cliff Monitoring

In accordance with the Ramsar 5-year Management Strategy's rotational seabird work plan, the South Cliffs were monitored for seabirds by conducting population counts this year as a joint effort between the ABO and AWT. Sula of Braye was deployed for the survey and 2 counts on the 28th and 31st of May were conducted whilst providing a wildlife tourism venture by allowing keen birders a chance to accompany the bird monitors. The survey used the maximum number of apparently occupied sites (AOS) on the South Cliffs from Hanaine Bay to Longis Bay. Counts were led by ABO assistant warden Justin Hart and supported by the Ramsar Officer and former Ramsar Officer Josh Copping. The results of the survey are shown in Table 3. This survey is part of a 5-yearly rotation of seabird census work that will next be conducted in 2023.

Seabird Species	AOS count	Raft count
Shag	100	N/A
Fulmar	43	N/A
Gull sp.	27	N/A
Great Black-backed gull	9	N/A
Lesser Black-backed gull	21	N/A
Herring gull	16	N/A
Razorbill	8	49
Guillemot	3	22

Table 3: Seabird census of AOS on the South Cliffs of Alderney

3.1.5 Coque Lihou Seabird Census

This trip was not carried out due to a lack of qualified and capable ringers available at the optimal time of survey and adverse weather conditions on alternate dates. This 5-yearly rotational work should be considered a priority for 2019 as it has now been delayed for 2 years.

3.1.6 Track A Gannet (TAG)

The TAG programme did not continue due to circumstances beyond our control. It is recommended to continue next year.

3.1.7 Wetland Bird Survey (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.

Within the Ramsar site WeBS counts are carried out in Clonque and Platte Saline. Data is regularly submitted to WeBS and kept for our own records. This is an ongoing project with core counts carried out monthly, and this should continue into 2019.

3.2 Terrestrial

3.2.1 Burhou Path Network

Using a handheld roller, a simple coastal path was planned to be created on Burhou before the breeding season. The footpath would help reduce disturbance to Puffin burrows, and other nests on the island while reducing tripping hazards for visitors to the island. However, following consultation with the Harbour Office and regular visitors to the island, a path network has been deemed inappropriate due to the small number of visitors to Burhou and the desire to retain a natural aesthetic. Instead, a map will be produced highlighting the particularly sensitive areas to avoid and why it is important to reduce disturbance to these areas. Maps will be given to visitors to the island and displayed inside the hut on Burhou.

3.2.2 Small Mammal Trapping (presence/absence monitoring)

On Burhou an effort to determine small mammal presence on the island was planned to be made by deploying Longworth traps and/or chewsticks/wax blocks, potentially in conjunction with camera traps. Through this monitoring effort and seabird nest checks, future recommendations can be made as to the potential need for invasive species control measures on Burhou. This work was planned for early November but was unable to take place due to essential boat maintenance and bad weather. It is recommended that the monitoring take place before the puffin breeding season in 2019.

On stacks/islets associated with the Ramsar site through seabird breeding habitats along the South cliffs, monitoring for rat and other mammal presence has been carried out. Untreated wax blocks were deployed and collected from 4 sites along the coast: Sister rocks (eastern), Le Quoire, Hanaine bay stack, and Rousset. The data gathered from these surveys will inform decisions in the future as to the viability of rat control measures to be taken in any of these locations.

Islet/stack	Rat evidence (presence/absence)
Rousset	Absent
Le Quoire	Present
Sister rocks (eastern)	Present
Hanaine	Present

Table 4: Evidence of rat presence and absence on South Cliffs stacks

The results of the South Cliffs rat presence survey are shown in *Table 4*. Evidence of rat presence was found on all stacks apart from Rousset near Longis bay. Evidence was in the form of wax blocks being completely consumed, faeces present, and images captured from 2 camera traps placed on Hanaine bay stack and Le Quoire (appendix 5.2).

Recommendations:

Monitoring on Burhou should take place before the breeding season using untreated wax blocks and camera traps. The evidence found on the south Cliff stacks should lead to a proposal of implementing rat control measures prior to next year's seabird breeding season. Due to the success of the rat control programme implemented this year at Houmet de Pies (section 3.2.3), similar methods could be applied to the off-shore stacks on the South Cliffs. Liaison with the SoA Public Services will be necessary to carry out rat control on the stacks. Rousset stack should be assessed again for presence prior to the seabird breeding season. Where possible, population assessments of seabirds should be made throughout the breeding season at the sites where rats are present.

3.2.3 Rat Control Programme

Although not situated in the Ramsar Site, Houmet de Pies hosts the only nesting site for Common Terns in Alderney. The nesting area is accessible at low tides and therefore vulnerable to predation by rats that are known to be present on Bibette head. Following recommendation from last year's Annual Review, a rat control strategy was developed with the Public Services department of the SoA, the ABO Assistant Warden and with consultation from Karen Varnham of the RSPB. The goal was to target rats using poisoned bait blocks just before the Common terns returned to Houmet de Pies for the breeding season to improve fledging success from 0 in the past 3 years.

Upon the first visit to the nesting site on the 21st of April a camera trap was placed on the island. On the second visit on the 26th of April, a rat den was identified and a local presence confirmed by images captured from the camera trap,

meaning rats were fully established at the site. Three bait boxes were placed strategically at the nesting site, at well-used rat-runs and at the entrance to the den. The boxes contained one 225g block of rodent-specific poison each, handled by a Public Services department worker. Four days later the site was visited again and boxes checked. All poison blocks showed signs of bait taken by rats, with one block having been completely consumed and replaced with new bait.

The next visit to check on bait was on the 2nd of May; one box exhibited no change from the last inspection, whereas the other two (including freshly baited box) showed signs of further take. A final visit was made on the 11th of May, 4 days before the arrival of the terns. Checks found that one bait box showed slightly more take, but not enough to warrant the replacement or addition of bait.

During the first nesting count of terns on the 22nd of June (further explained in section 3.1.1.3) the boxes were checked again and all remained unchanged from previous checks, suggesting that there was no activity of rats on Houmet de Pies in over a month from the arrival of the terns to their eggs hatching. The programme proved successful with an improved rate of productivity for the Common terns in fledging success from 0 during the previous 3 years to between 0.14 and 0.29 this year. This figure may have been higher if it weren't for a severe storm event at the end of July, which caused the tern colony to abandon the site.

Recommendations:

Due to the effectiveness of the programme, it is recommended:

- that rat monitoring and potential baiting be continued next year to determine whether rats have re-colonised Houmet de Pies before the tern breeding season and to thwart the threat posed by the rats to the terns.
- to expand the rat monitoring and control, resources allowing to other key 4.3.1 South Cliffs.

Work should be carried out in collaboration between the AWT/ABO team with the SoA Public Services Department who can provide the bait and equipment, knowledge and expertise, as well as carry appropriate licences to deploy poison.

3.2.4 Invasive Species Management

On Burhou, no threat of habitat from invasive Hottentot fig has been recorded this year. However, during the puffin apparently occupied burrow survey, bracken cover was observed to have extended toward the location of puffin burrows. The extent of bracken will need to be managed effectively at the earliest viable date. This sChecked to this pointhould be done following consultation with the SoA Public Services Department.

3.3 Marine

3.3.1 Eelgrass Survey

Aerial photographs were used to identify two potential locations of eelgrass within the Ramsar Site, opposite Les Etacs. The use of snorkelling as a method to conduct within the Ramsar Site was deemed too high a health and safety risk to surveyors within this area (i.e. due to strong tides and distance from shore). Qualitative drop down video and drone photography techniques were used to survey the two areas instead. Results from these surveys identified no eelgrass present. Following this, it is recommended no future eelgrass surveys are completed within the Ramsar Site.

3.3.2. Phase I Biotope Surveys

On recommendation of the 2017 Ramsar Site Annual Review, the Phase I surveys of the area between Hannaine Bay and the south-western Ramsar boundary will result in the complete habitat mapping of the entire Ramsar Site. The surveys follow JNCC Procedural Guideline 1-1 Intertidal Resource Mapping using Aerial photographs.

The survey focused on recording habitats on Les Etacs and Ortac offshore rock stacks. A total number of 4 habitats were recorded at the stacks, primarily dominated by barnacle, lichen and fucoid species, which are associated with high wave exposure and strong tidal conditions.

3.3.3 Phase II Monitoring Species Survey

A Phase II monitoring species survey took place at Hannaine Bay in April to increase knowledge of the area following last year's intertidal habitat mapping of the bay. The survey followed JNCC Procedural Guideline 3-11 Littoral Monitoring using Fixed Quadrat Photography.

The Phase II survey identified a range of intertidal substrates, macroalgae and faunal species across three shoreline height regions within Hannaine Bay, Alderney. Macroalgae and faunal species composition was similar to a previous survey completed in 2012

3.3.4 Strandline Surveys

Strandline Surveys have taken place at Clonque Bay, Hannaine Bay and Platte Saline Bay in spring and summer. These assess strandline presence, size, and composition (dead, live, and litter content).

Results show that strandlines within these three bays predominately comprise of dead marine algae and surprisingly little litter.

3.3.5 Green Ormer Survey

At the time of writing, Green ormer (*Haliotis tuberculata*) population assessments have taken place at Clonque Bay during the spring and will be repeated in the autumn. This includes assessing Green ormer presence, shell size, and quality. During the spring surveys, no Green Ormers were found in Clonque Bay. However, during a rock-pooling event on the 28th of May a large Ormer and 2 smaller individuals were observed in the mid-low shore at Clonque Bay. In October a public ormer event and survey took place at Clonque bay with ormer tags used and attached to 6 individuals.

3.3.6 Invasive Species Assessment

An invasive species assessment was carried out at Clonque Bay and Hannaine Bay during spring and will be repeated in autumn. This is conducted using ShoreSearch timed species survey methods to record the presence and location of species such as the Pacific oyster and American Slipper limpet. No pacific oysters or American Slipper limpets were recorded within the Ramsar Site this year. However, at other sites across Alderney, the Asian shore crab, (*Hemigrapsus sanguineus*) was recorded present for the first time on Alderney. Invasive species monitoring will be ongoing, with any new species recorded.

3.3.7 Capturing our Coast

The citizen science project Capturing our Coast (CoCoast) has continued this year to provide the public with training to conduct the intertidal surveys of species and invasive species. CoCoast aims to gather information on the range and distribution of species around the UK and what can be done to protect them. By training members of the public 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 contact for those wishing to join the project. A training session took place on the 28th of August with the surveys carried out at Clonque Bay. 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. It is recommended to request CoCoast data every two years, to update intertidal species information for Alderney.

3.3.8 Cave Surveys

The locations of caves across Alderney were first mapped, with three caves selected within the Ramsar Site selected for physical (cave height/length, substrate type etc.) and ecological (habitat and species presence) assessment (following basic survey guidelines from JNCC standards).

Results show that these caves comprised of several substrate types, habitats and species (such as lichen, encrusting algae and sponges), associated with strong tidal/wave exposure/barren conditions. One bat pass was recorded in one of the caves. This project has the potential to evolve out of the scope of Ramsar management with dedicated funding streams to be explored.

Recommendations:

Intertidal cave habitats should continue to be surveyed to provide baseline data for unique marine habitats in the Ramsar site and associated areas (such as the south cliffs) which provide important nesting areas for seabirds.

3.3.9 Benthic Desk-based Review

This work was completed in October. The review examines and describes the benthic environment of Alderney's Ramsar site and surrounding territorial waters. Data sources identified the Ramsar Site to comprise of shallow water depths, with a mixture of rock substrata and coarse sediments supporting a number of marine benthic habitats and communities. The marine habitats identified are associated with the high exposure of the site and are also recognised as important marine habitats within Europe. A number of recommendations are proposed to increase current knowledge of the Alderney Ramsar Site's benthic environment. These include updating the review every two years, supporting new research within the site and engaging with relevant marine users.

3.3.10 Support of SeaSearch surveys

Throughout the course of the year, continued support will be offered to SeaSearch surveying groups conducting marine ecological research around Alderney. A SeaSearch snorkel skills course took place on the 18th of September run by Charlotte Bolton for members of the public or other interested parties.

3.3.11 Fish and Shellfish Survey

Marine fauna surveys carried out in the Ramsar site using baited remote underwater video (BRUV) techniques at Clonque and Hanaine bays. This project involves the deployment of a video camera attached to baited frame to film for 1-2 hours (battery and tide permitting) at the sea floor at various depths. Nine surveys have been conducted in the Ramsar site with some video footage yet to be analysed. Pollack and various Wrasses have been the most common recordings.

Recommendations:

This project should continue with renovated BRUV frames and methodology in conjunction with PhD candidate Sam Blampied in Jersey. It should continue using 2 or 3 BRUV units and potentially expand beyond the Ramsar site utilising the opportunity to increase public involvement by inviting paying tourists on survey boats. Further information is detailed in the BRUV methodology in-house publication.

3.3.12 Pelagic Desk-based Review

The review was completed in November which examines and describes the pelagic environment of the Ramsar site and surrounding territorial waters. The physical parameter data sources show that the pelagic environment within the Ramsar Site is extremely exposed and undergoes strong tidal and weather conditions. Seawater conductivity, pH, total dissolved solids and temperature measured within the Ramsar Site are comparable to other locations around Alderney. Plankton information provided by the Sir Alister Hardy Foundation for Ocean Science (SAHFOS) shows that key phytoplankton and zooplankton annual abundances fluctuated from 1997 to 2014. Monthly phytoplankton and zooplankton abundances generally increased during the months of March and April. A total number of 17 fish species were identified within the Ramsar Site, with 3 species acknowledged as being of UK and International conservation importance.

A number of recommendations are proposed to increase current knowledge of the pelagic environment within the Ramsar Site. This includes updating the review every two years, supporting new research within the site and engaging with relevant marine users.

3.3.13 Monthly Water Quality Testing

Monthly sampling of water quality at low and high tides of the bays in the Ramsar site and around Alderney have taken place this year beginning in March. Key seawater parameters (temperature, pH, conductivity and total dissolved solids) will continue to be measured until October. This is part of a long term data set to be continued in future years. An opportunity to collaborate with the States of Alderney to encourage the sampling of bacteria so that we can determine the cleanliness of each beach and Alderney can potentially achieve UK accepted designation of clean bathing beaches. This would be beneficial to the island in terms of good publicity and exposure for tourism.

3.3.14 Marine Mammal Desk-based Review

The marine mammal desk-based review was completed in April. The review identified a variety of marine mammals present within Alderney's territorial waters, from 1980 – 2016. Primary and secondary sources of marine mammal sightings showed most occurred outside of the Ramsar Site. Records indicate that the most commonly recorded species included Bottlenose dolphin, Common dolphin and Grey seal species.

3.3.15 Grey Seal Survey

This work started in October with 1 seal survey trip taking place, however to complete the survey the minimum required number of trips is 2 (following JNCC grey seal population assessment methodology). On the trip, however, 8 seals were recorded including one weaner (year 1 young).

The second seal survey trip did not take place due to bad weather and essential boat maintenance work. The annual survey is recommended to be carried out as planned next October with 2 or 3 visits to the colony.

One limitation on when surveys can be completed is the need for a volunteer camera person with a suitable DSLR camera and adequate lenses for long range photography at sea. This year that role was fulfilled by two volunteers, one resident and one regular visitor, however their availability restricted flexibility.

Recommendations:

Purchase a suitable camera for use on all aspects of the Ramsar site, to be available on loan where necessary for the Visit Alderney team, provided it does not impact on availability for the seal surveys.

3.3.16 Grey Seal Photographic ID Catalogue

A grey seal photographic ID catalogue will be kept up to date throughout the year following the guidance from the Cornwall Seal Group Research Trust. This involves collating photographs of grey seals across the Channel Islands and identifying individuals based on their fur patterns/distinguishing features. At present 37 grey seal individuals have been identified across the Channel Islands. Further publicity of this project is scheduled for late winter, this year.

3.3.17 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. Dr Mel Broadhurst (Living Seas Coordinator) and the staff at Animal Welfare have previously carried out British Divers Marine Life Rescue (BDMLR) training and have equipment ready for any stranding that may occur.

Currently, one dead stranding of a harbour porpoise was recorded within the Ramsar Site this year, with several others recorded along the East coast of Alderney. No live strandings have been rescued this year.

3.3.18 Marine Management

Alderney's Marine Management Forum has been supported this year with a representative from the AWT present at meetings (regularly Dr Mel Broadhurst) providing input and supporting marine management activities as required. This year the forum was consulted and aided in setting up the voluntary "Puffin Friendly Zone" to help protect rafting puffins at Burhou. The forum also completed the island's first marine management plan, which was ratified by the States of Alderney during the summer. Action points from this plan will be designed and implemented during the autumn/winter.

3.3.19 Academic Projects

An MSc student from the University of York was hosted and supported with the research project:

Examining human use and importance of designated Sites on Alderney

Assessment: The project entailed examining the human use and importance of designated Sites, on Alderney. This included developing engagement survey methods (for example: hosting interviews and drop-in questionnaires) to examine how the public and stakeholders currently use and view Alderney's key designated Sites (such as the island's Ramsar Site and local nature reserves). It will also involve comparing results with recent public surveys regarding the island's greenbelt (a terrestrial designated area with restricted building regulations) and general marine environment.

This project is particularly important, as there is currently limited information on how the public and stakeholders (such as fishermen) regard these conservational sites of importance on Alderney. Forty survey samples were collected from locals and visitors to Alderney. Some interesting results found were that: there is overall high awareness of the Ramsar site on Alderney, it is frequently used (over 40% of participants visit the site more than once per week), a large variety of activities take place within the site that are considered to be very important to each participant, there was varying knowledge of the reasons for the site's designation, and 83% of respondents thought the information provided about the site could be improved.

Recommendations:

Based on the suggestions of participants in the study, additional and updated information boards should be considered to be installed on the shoreline near to the site. This could help improve the public's knowledge of the reasons for the designation and the importance of the site. Links from the AWT website to the new Channel Islands Ramsar website should be put in place to make this information more accessible.

3.4 Events

3.4.1 Boat Tours

The AWT boat, Sula of Braye, continued to be used to transport staff to Burhou and for public boat tours to increase public awareness of the Ramsar Site, while also contributing to the costs of the seabird and marine mammal monitoring effort. This is in addition to tours offered by the two other privately operated charter boats Lady Maris and Avante. Boat Tours operated to Burhou and Les Etacs during spring and summer, but changed to round island tours at

the start of Burhou's closed season. Boat trips operate with between 6 and 10 passengers. At the end of the season, boat trips will cease and Sula will be taken out of the water for works over the winter.

3.4.2 LIVE: Teaching Through Nature

LIVE in 2018 - the LIVE teaching through nature project did not go ahead in its usual format, as stated in the Ramsar Action Plan, would undergo a re-structuring. Early in the year we spoke to the newly appointed Biodiversity Education Officer in Guernsey on ways we could link with them to improve environmental education in the Bailiwick. Being their first year in post we did not get anything from them this year, however we have renewed links with Phil Bricegirdle, who runs the See Nature website and is in talks with two large cohorts of schools in the southeast. We hope in 2019 we can also work to make teachers aware of the following in Guernsey.

We have agreed next year to write monthly (and perhaps more frequent) blogs on the seabirds, particularly focusing on the puffin breeding season, for use on the See Nature website, along with the fortnightly nature notes for more general information.

School resources on the LIVE website which are still relevant will be made available to all, for free. This will come at the same point as we switch to our new website, so we expect the teachingthroughnature.co.uk website to go.

The puffin cams ran as normal, with 21,448 unique views across the season on the main cam (almost 50% of all site views) and 7,493 on the secondary cam (April-Aug). This relates to over one thousand more unique views over the same period in 2017 for the main cam (but fewer on the secondary cam), possibly due to better promotion on social media.

Recommendations:

Migrate "puffincams" onto <u>www.alderneywildlife.org</u> and consider how to better enable access through www.visitalderney.org.

3.4.3 Community Engagement

Other community engagement events have taken place throughout the year such as beach cleans and rock-pooling, tours of the Ramsar Site and other events. Events such as these promote environmental awareness to the public and engagement in the Ramsar site.

- Beach Cleans: April 12th, Clonque; April 14th, Platte Saline; January 13th, Platte Saline and Clonque
- Rock-pooling at Clonque: May 28th, June 1st, July 30th
- History of Seabirds presentation
- "Dusk at the Gannets" observations and talk
- Seabird and marine mammal watch and talk
- Special Seabird boat trips
- Ormer population assessment public event

3.5 Advisory and Legislative

3.5.1 Burhou Signposting

New signs have been installed to replace derelict signage on Burhou which establishes the closed season for the island at the 4 regularly used landing areas. The new signs clearly indicate that no public landing on Burhou shall take place during the Puffin breeding season between the 15th of March and 31st of July.

3.5.2 Ramsar Steering Committee

Keep communication links with the Alderney Ramsar Steering Group (ARSG) and attend annual meeting with the other Channel Islands' Ramsar Steering Groups at the Inter-Island Environmental Meeting to be held in Jersey this Autumn. This will be an opportunity for the other islands to share their thoughts and ideas.

Ramsar Steering Committee meeting took place in Jersey on September 19th. With a follow-up meeting including all Channel Islands Ramsar groups on the 20th of September. The major points of discussion addressed during the Steering meeting are addressed in section 4 of this document.

3.5.3 Bird Protection Law (BPL)

Liaise with the ABO and AWT Conservation Officer to review BPL to include legal implications for disturbance to breeding sites.

This work stream is to be carried out and requires consultation with the States of Alderney.

4. Major Points of Discussion:

Points of discussion raised from the Ramsar Steering Committee meeting and recommendations for the future.

4.1. Changes of practice on Burhou

As discussed in section 3.1.1.1, an observation made regarding human presence disturbing local adult shag incubation on Burhou during puffin productivity monitoring has led to a shift in survey method this year. One method explored this year was PTZ camera observations of the puffin colony in response to the initial issue encountered. This included surveys for productivity and raft counts towards the end of the season. The use of camera observations allows for cheaper, more frequent surveys for puffin productivity and raft counts to be carried out with less disturbance The limitation of this method however is that through the use of the camera and observations via a computer monitor, the observer is not immersed in the environment and cannot pick up on events that occur outside of the camera's field of view at a given time. Furthermore, when zoomed in to identify burrows, the camera is unable to view the entire colony, so some puffin activity may be missed. On site observers have a much better field of view and will rarely miss a puffin returning to a burrow. This can be adjusted for, however, by increasing the number of surveys undertaken and length of observations.

Due to the difficulties encountered from change in survey methods from on land observations to remote camera observations, and the faded pegs, lessons can be learnt to improve the accuracy of results next season. First, it is recommended to completely replace the pegs and paint them white with black paint numbering to last longer than permanent markers (used this year). Furthermore, there were a number of burrows in use that did not have a peg nearby and required extra description to keep track of which can reduce accuracy of burrow identification especially if different observers are used. This highlights the need to create and place more pegs at the unmarked burrow entrances. Second, remote observations should continue to keep human disturbance to a minimum, this must be carried out both at the start of the survey period (April – May) as well as the end (mid-June – end July) so that data (burrow peg numbering system) is continuous and accuracy can be improved. Furthermore, the possibility of relocating the PTZ camera to a higher vantage point should be explored to improve the view of some burrows which are on a slope.

Recommendations:

- retain fixed Puffin cams for LIVE project
- Through use of current PTZ and full season of remote camera monitoring for puffin productivity, further uses can be explored for the camera and review the potential of replacing it with another or more PTZ cameras capable of remote streaming and automatic recording of boat activity nearby.

4.2. Legislative issues surrounding seabird work

4.2.1 Seabirds issue of absent work

In June the AWT was issued an instruction by the CIBRS to suspend all seabird ringing work undertaken by the AWT in Alderney, unless undertaken specifically by, or under the supervision of the ABO Warden. This resulted from the AWT Manager issuing a suspension on all offshore ringing efforts in late June until an issue between the ABO Warden and AWT staff/Volunteers was resolved. Resolution was complicated by the timing of the issue and the transition of the ABO Warden's employment to the SoA.

Pending a formal meeting to resolve the issue, and in support of the existing programme the SoA issued an instruction to the AWT to continue all ringing work under the provisions of the Protection of Wild Birds 2002 (Alderney) Ordinance. However, given the sensitivity of the situation and the potential damage to individual ringers' reputations the AWT made the decision not to continue work until a resolution could be reached.

In July representatives of the AWT, John Horton and the States of Alderney's CEO reached an agreement in regards a continued working relationship. The CIBRS was subsequently informed but has not yet lifted its 'ban', rather they have issued a notice that they will review the situation in early 2019. In September the General Services Committee received a report from the Law Officers on the validity of the current legislation and their position going forwards:

Key issues arising:

- The weakness of the existing Alderney Bird Ordinance as a regulatory mechanism for the licensing or ringing and the potential for contradictions between existing animal welfare legislation. The SoA has subsequently sort and received advice on this and its General Services Committee (GSC) minuted the following resolution in its September 2018 meeting (minuted resolution to be provided).
- The challenge by members of the CIBRS that animal welfare and scientific standards may have been breached. This led to a meeting with the Chief Veterinary Officer (Guernsey and Alderney) David Chamberlain. Mr Chamberlain agreed he was happy with the current ARSG review process and would seek clarification on the legal position for licencing. The AWT agreed to provide all support possible.
- The CIBRS currently lacks a constitution which adequately describes its powers and privileges. This is crucial in the absence of statutory mechanism for the licensing for wild animal handling, specifically the ringing of wild birds.

Recommendations:

- To ensure that a ringing license is secured for the Ramsar work, following the terms of the GSC resolution, be in place by March 2019 at the latest.
- Based on the resolution of the GSC of the SoA and discussions with the David Chamberlain it is recommended
 that over the rest of the lifetime of the current Ramsar Strategy, the AWT support the SoA and its officers in
 the development of appropriate legislation in regards the monitoring of wildlife to enable the Ramsar Strategy
 programme.

4.2.2. Change of Ramsar Management Strategy title

Justifications to the jurisdiction of Ramsar Strategy for certain areas of works need to be made. Due to the expansion of work programmes to include associated areas of work (ie. Houmet de Pies and South Cliffs stacks) in previous years, it should be taken under consideration to amend the title of the Ramsar management strategy. If referred to as the "Alderney West Coast and Burhou Islands Ramsar Site and Other Sites Strategy" it would better define the scope of work undertaken by the AWT. Without requesting to expand the site area itself, the work carried out in relation to the

site (yet outside its defined area) should be recorded and reported on fully within a management strategy (of which Ramsar is the most relevant). Areas particularly relating to the monitoring of seabirds by the AWT and ABO should be accounted for under a clearer heading within the formal reporting process of the Ramsar Management Strategies and Reviews.

Recommendation:

Change the title of the current strategy to Alderney West Coast and Burhou Islands Ramsar Site and Other Sites Strategy

4.3 Rat monitoring and control

4.3.1 South Cliffs

Following recent monitoring surveys undertaken by the AWT/ABO, which established rat presence on the Hannaine Bay Puffin Stack, the Sister Rocks and the Quoire Stacks. it is recommended that a follow-up survey be carried out in January/February 2019 (weather permitting) to identify the extent of rat presence on the South Cliffs stacks at different times of year. This will inform decisions on whether control measures are necessary throughout the year, or should be targeted to just before and during the seabird breeding season. A consultation process with the RSPB representative Karen Varnham should occur to support the proposal to carry out rat control on the South Cliff stacks similar to the method applied at Houmet de Pies this year.

Recommendation:

- AWT/ABO/SoA to agree resources and prioritise sites to undertake control with the Hannaine Bay stack prioritised to focus on re-establishing a mainland Puffin colony.
- Seabird monitoring of the stacks should take place in conjunction with any rat control strategy.
- Evaluation of the 2019 effort to establish to long term sustainability of this type of control

4.4 Channel Islands Ramsar Group

Following recommendations from previous years, collaboration between Channel Islands Ramsar site managers has progressed this year with new collective objectives to achieve. The Channel Island Ramsar site representatives met during the Inter Islands Environmental Meeting in Jersey and agreed on two goals: To develop a Channel Islands Ramsar site general Code of Conduct (alongside site specific codes of conduct); which would be hosted on a joint website.

A joint code of conduct would provide the following advantages across the islands:

- Simplicity for users one set of guidelines core for all sites in the region
- Strengthening of individual sites through mutual principles
- Regular, updated and centralised information
- Promotion of the Ramsar sites as a collective group
- Providing a strong example of inter-island collaboration

Regular contact and meetings between the Ramsar groups will be necessary for the development of this project.

Recommendation:

Jersey will draw up the first draft of the website and content while the AWT provides domain name running costs from 2019 to 2021, set against the budget costs in the 2017-21 Ramsar Strategy for pan channel island ramsar co-operation.

5. Appendices

5.1 Seabirds

Species	Method	2012	2013	2014	2015	2016	2017	2018
Atlantic Puffin	AOB	176	168	143	112	97	93	101
	Raft	175	96	58	114	168	176	140
	Productivity	-	-	0.36 - 0.60	0.71	-	-	0.53 - 0.94
Common Tern	AON	5	14	25	32	-	-	21
	Individuals	24	43	28	-	53	48	40
	Productivity	-	0.57	0.44	0	0	0	0.14-0.29
Northern Fulmar	AON	34	29	29	32	13	35	33
	Individuals	-	_	-	-	-	_	-
	Productivity	0.56	0.52	0.55	0.4	0.92	0.37	0.33
Northern Gannet	AON	-	-	-	5909	-	_	-
	Individuals	-	-	-	2777	-	_	-
	Productivity	-	0.52	0.61	-	0.69	0.65	0.4
Ringed Plover	AON	-	-	-	-	_	9	9
	Individuals	2	2	6	3	1	10	8
	Productivity	0	1.5	1	-	1	0.33	0.66

Table 5: Apparently occupied nests/burrows, number of individuals observed and productivity figures for all birds monitored during 2018 (Atlantic Puffin, Common Tern, Norther Fulmar, Northern Gannet and Ringed Plover). The table also shows data from the ARS2 period 2012 -2016, and data collected in 2017.

5.1.1 Methodology for camera-based Puffin monitoring

Controlling a Pan, Tilt, Zoom (PTZ) camera to view puffin colony for AOB monitoring

Time: April to mid-May, and June through July.

Duration: Watches of the colony should last 1 or 2 hours and each session should be recorded for future reference and checking (the program used linked to the Samsung PTZ allows up to 2 hours of uninterrupted recording).

Method: Print out maps/imagery of pegs/burrow entrances for reference and label (this allows fast referencing and if peg numbers are not visible)

Due to the zoom required to identify which burrows are entered, the field of view many not cover the entire colony. While recording and observing the colony for the survey, it may need to be sectioned into multiple sections of focus/field of view of the camera. Each field of view should be observed for equal time during a survey. For example, if separated into 4 sections, each should be observed for 30 minutes during a 2-hour survey.

At the start of the survey, time and weather conditions are noted. Throughout the survey, type of burrow activity is noted (in/out) by time, if fish were carried, whether harassment by gulls was observed, and any other notes. The same survey recording forms and basic methodology is used as from on-land AOB surveys.

Raft counts can also be performed using the PTZ by panning the extent of the puffin raft while recording. The recording can then be played back and paused for accurate counting.

5.1.2 Puffin Exclusion Zone

Briefing note: Notice to Mariners 'puffin exclusion zone'

Date: 10/02/2018

Author(s): Mel Broadhurst-Allen, James Spilsbury and Grant Le Marchant

Background

The Alderney Wildlife Trust (AWT) completes a number of seabird monitoring surveys within Alderney West Coast and Burhou Islands Ramsar Site as recommend by the 5 year Ramsar Management Strategy (2017-2021), on behalf of the States of Alderney (SoA). This includes annually monitoring Atlantic puffin species (*Fratercula arctica*), which breed only on Burhou (an islet adjacent to Alderney, within the Ramsar Site). Puffin monitoring activities generally includes identifying the number of breeding pairs and total number of individuals rafting, during their breeding season (approximately April-August). At present, the public is prohibited by the SoA to visit Burhou during the puffin's breeding season with an aim to reduce human disturbance to the colony. A number of cameras have also been setup on Burhou for the public and education purposes to watch the puffin colony.

Notice to mariners

A *Notice to Mariners* advises mariners on important navigational information, such as: prior warning of exclusion zones, changes in buoyage and chart updates. Mariners are regularly updated on such by official nautical authorities, such as the local harbour authorities and UK Hydrographic Office.

The process of getting an exclusion zone could be through a 'notice to mariners'. This is under the control of the UK Hydrographic Office. They publish nautical charts and other publications concerned with the safe navigation of mariners, such as pilotage. To get a chart updated, a 'notice to mariners' is sent out by the UK Hydrographic Office, this is done weekly and can take the form of a hard paper copy posted to recipients, an e-mail or a download from their website. A lot of charts are now electronic and can be updated automatically via e-mail or memory stick. For those still using paper charts they can be updated by hand, and then when the next chart is published the up to date information would then be included.

Puffin exclusion zone: the need

Since 2014, the AWT has identified that the breeding effort by the puffins of Burhou showing signs of decline (see Figure 1).

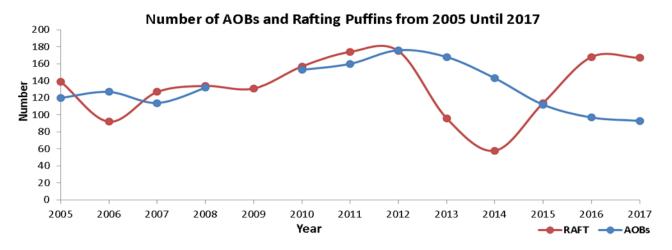


Figure 1. The annual number of Puffins observed in early season raft counts and apparently occupied burrows (AOBs) since contiguous monitoring began in 2005. No data was recorded for AOBs in 2009.

In addition, the IUCN has classified the species as **Vulnerable**, as puffins have experienced rapid declines across most of their European range. This is thought to be due to puffins being highly susceptible to the impacts of climate change, such as sea temperature rise, shifts in prey distribution and abundance and human disturbance (Durant et al. 2003, Sandvik et al. 2005).

During 2017, AWT video footage (from cameras setup on Burhou) identified a number of visiting yachts disturbing puffins which were rafting adjacent to their breeding grounds (see Figure 2). Such disturbance can potentially reduce the fitness and physical effort of seabirds.



Figure 2. A French yacht in the bay with rafting Puffins.

This is of great concern to the AWT, given the puffins of Burhou are considered one of the few remaining colonies within the Channel Islands and currently undergoing a population decline. Although we are unaware of the drivers

behind their decline, providing a rapid response, such as implementing a small puffin exclusion zone can significantly help these important breeding birds.

Puffin exclusion zone: the aim

The aim of an exclusion zone (via a notice to mariners) would allow a puffin 'breather/resting' zone for puffins to raft without being disturbed by visiting boats.

The exclusion/breather zone would **only** be in place during the puffin's **breeding season** (**April – August**). This would link with the annual prohibition of the public not being allowed to visit Burhou by the SoA.

The exclusion zone area would cover either a 75 or 100 metre radii distance from the coordinates: **49° 43′ 50.433N, 002° 14′ 58.297W.** Figure 3 shows the location and extents of the potential puffin exclusion zone.



Figure 3. Potential Burhou puffin exclusion zone location, with 75 and 100 metre area distances.

Puffin exclusion zone: the way forward

Following recommendations from the AWT, Alderney Harbour Authority and the Alderney Marine Forum, the way forward is to first publicise the potential exclusion zone to the public, via an informal consultation. This would include information on the AWT website, local press and hold potential stakeholder/public workshops, where necessary. The consultation process would run during February/early March, to give the public the chance to respond to the exclusion zone and the two potential extents (i.e. 75/100 m).

Once the informal consultation process is over (with responses taken under consideration) the application for a notice to mariners for the puffin exclusion zone will be undertaken.

To complement these works, a puffin information leaflet created by the AWT, will be included within Visit Alderney's 'Visiting Yachtmans Guides' over the next coming months. In addition, relevant posters and information will be displayed around the Harbour area.

Once the notice to mariner/puffin exclusion zone has been accepted/designated, publicity and information to local and regional sailing clubs/harbours will be created.

Code of conduct displayed on posters:

We kindly ask that all mariners please:

- DO NOT cross the white line
- KEEP your speed under **10 knots** when coming close to the island.
- TRY drifting by in the tide, keeping noise to a minimum and the birds will come out to visit you.
- DO NOT force the birds to fly.

5.2 Terrestrial



Figure 5: Evidence of rats on Hanaine bay stackcaptured by camera trap