

# **Alderney's West Coast and Burhou Islands Ramsar Site and Other Sites Action Plan 2022**

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## Executive Summary

1. The 2021 *Alderney's West Coast and Burhou Islands Ramsar Site and Other Sites* annual action plan describes work to be undertaken in 2022. This action plan incorporates the objectives outlined in the 2017 – 2021 Ramsar Management Strategy and the recommendations made in the 2021 Ramsar Review. It was developed and reviewed in consultation with the Alderney Ramsar Advisory Group.
2. To achieve the strategic aims of the five-year strategy, a series of objectives are set out for 2022. These encompass the long-term monitoring of Alderney's seabird population, the management of invasive species, rodent control, marine surveys, various outreach events and support for advisory and legislative activities. Some elements of work that were not completed in 2021 as a consequence of the COVID-19 pandemic have been rescheduled for 2022.
3. The seabird work will include a) monitoring productivity of Puffins, Gannets, Fulmar, Common Terns and Ringed Plover; b) census of the breeding populations of Puffins, Fulmar, Cormorants, Shags, Common Terns, Guillemots, Razorbills, gulls (excepting Lesser Black-Backed Gulls) and Ringed Plover; c) continuation of the TAG project, specifically the attempted recovery of geolocators deployed in 2017 and 2020; d) monitoring the impact of plastic marine debris on Gannets; e) monthly WeBS surveys; f) a programme of seabird ringing including Gannet chicks on Ortac, gull chicks and storm petrels on Burhou, Cormorant chicks on Little Burhou and, if feasible, auks and Shags on Coqué Lihou.
4. The terrestrial work will include a) the on-going programme of rat control on Burhou, Houmet de Pies, east Saye Bay, Fort Houmet Herbé and the south coast islets assisted by SoA and; b) continuation of monitoring bats on Burhou as part of the Balliwick Bat Survey.
5. The marine work will include a) Phase 1 intertidal habitat mapping of Hanaine Bay; b) the assessment of Green Ormer and crab populations; c) the assessment of invasive species and climate change indicators; d) Seasearch surveys; e) Pink Sea Fan monitoring f) Baited Remote Underwater Video surveys; g) Plankton surveys; h) Support for the 'Fish Intel' acoustic monitoring of cetaceans and commercially important fish species project ; f) marine mammal work including a programme of Grey Seal surveys, the maintenance of a photographic ID catalogue and continued reporting of opportunistic cetacean sightings; g) support and lead for academic projects.
6. The natural history of the Ramsar site will be shared through various outreach projects including a) the live streaming of wildlife webcams from seabird colonies with reinstallation of 'PuffinCam' on Burhou and 'GannetCam' overlooking Les Etacs; b) an expanded programme of educational boat tours including free tours for students at St Anne's School and all residents of Alderney under the age of 16 and; c) a wide programme of public engagement events year round including rock-pooling, beach cleans and a number of events in Wildlife Week.
7. Support and lead for advisory and legislative activities will include a) drafting the next five-year Ramsar management strategy (ARS4) on behalf of, and in collaboration with, the States of Alderney; b) continued support of the 'Puffin Friendly Zone' off Burhou with a protocol to deal with vessels which purposefully enter the zone reviewed; d) updating Ramsar signage and information boards; e) developing new signage for sensitive wildlife and; f) maintaining the network of other Channel Island Ramsar sites, including maintenance of the Channel Island Ramsar website and a pan Channel Island's Ramsar sites meeting.

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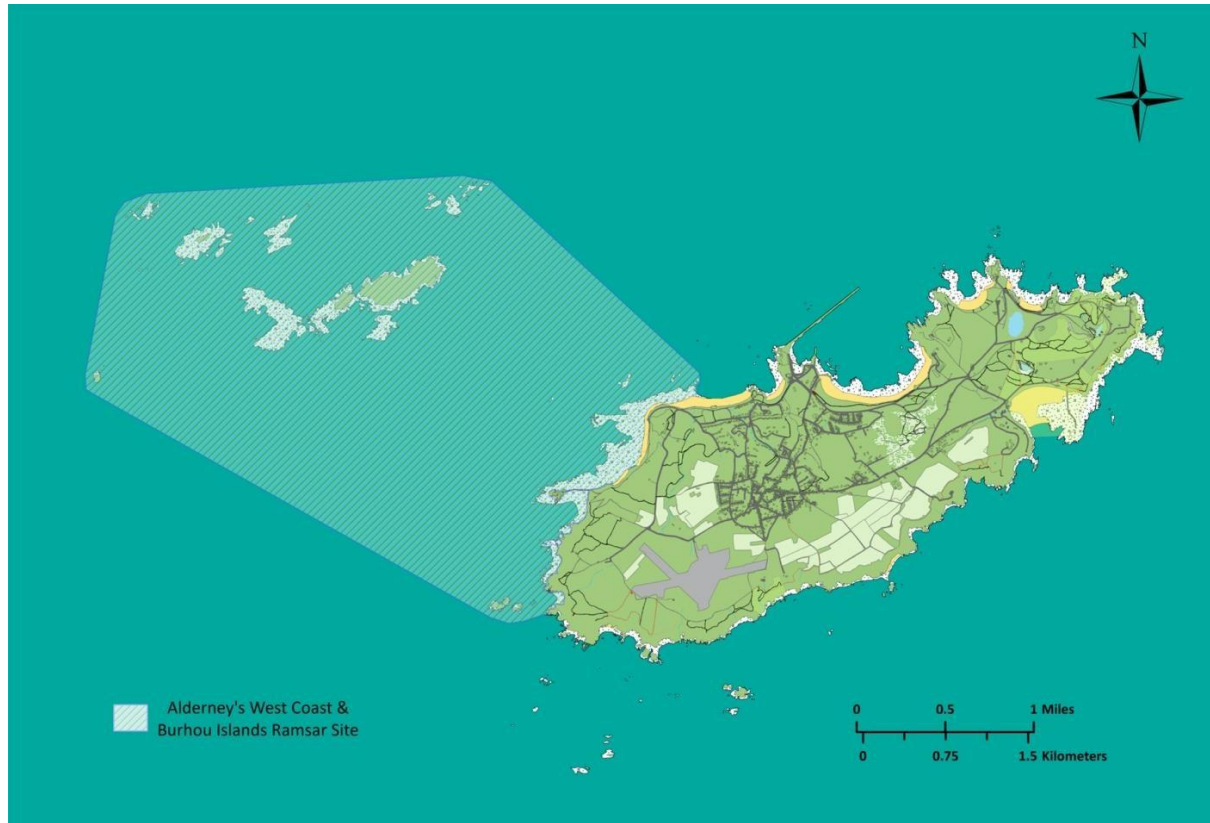
## 1. Introduction

In 2022, Alderney's West Coast and Burhou Islands Ramsar Site and Other Sites was scheduled to begin the new, 2022– 2026 Alderney Ramsar Management Strategy. However, due to difficulties in the receipt of stakeholder feedback to Alderney Wildlife Trust (AWT), this plan has been delayed. As agreed by the States of Alderney (SoA), a new 2023-2027 Alderney Ramsar Management Strategy (ARS4) will be developed, to coincide with the SoA's Island Plan. Until this plan is developed it has been agreed that ARS3 will be rolled forward into 2022, with any required changes appended.

This document sets out the work objectives for 2022. This work aims to fulfil the objectives set out in ARS3 and includes recommendations made in the 2021 Annual Review of the Ramsar Site (Purdie et al., 2022, not yet published).

## 2. Background

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



*Figure 1.* Island of Alderney with the West Coast and Burhou Islands Ramsar Site highlighted.

In 2006, on behalf of the SoA the GSC requested the support of the Alderney Wildlife Trust (AWT) in the preparation of a management strategy, as required under the commitments of the Ramsar Convention, and registered the AWT as the Alderney Ramsar administrators with the International Ramsar Secretariat in Geneva. The Alderney Ramsar site strategy outlines the need to monitor seabird and other marine life population trends, threats to these and to continue the management of the populations where necessary. The objectives of the strategy are assessed annually through various research projects and conservation management techniques.

Since 2007, the Ramsar site has been managed using Five-Year Management Strategies, with annual Action Plan and Review documents, prepared by the AWT on behalf of the SoA (all available online at (<https://www.alderneywildlife.org/conservation-projects/ramsar>)).

All Ramsar reports are developed and reviewed in consultation with the ARAG. Established in 2006 as the Alderney Ramsar Steering Group; updated to ARAG in 2021, to offer technical advice the ARAG. Established in 2006 as the Alderney Ramsar Steering Group; updated to ARAG in 2021 when GSC issued a Terms of Reference for members, to offer technical advice in regards the management of the site to the States of Alderney and the AWT as site administrators. ARAG assess proposals before their presentation to the SoA in the effort to create robust and vetted management strategies. The group is made from experts (included individuals who work for the RSPB, BTO and States of Jersey). The ARAG are involved in reviewing all five-year management strategies, annual action

plans and annual review reports as well as meeting annually (prior to the COVID-19 pandemic) to discuss the work.

While the Ramsar site has a clearly defined boundary (Figure 1), the site's five-year and annual management plans and review documents may include specific habitats and species which may occur outside of this defined area but have a degree of interdependence with the site. This has occurred to ensure that monitoring and conservation measures (often including projects and species which occur within the Ramsar site) are properly documented and reviewed by the States of Alderney. This ensures a wider view is taken of species information (particularly important for those which are mobile and travel into the Ramsar Site) and conservation measures which protect species and habitats within the Ramsar site. Locations are clearly detailed within the report to ensure it is clear if a work item has occurred inside or outside of the defined Ramsar site. In April 2019, the GSC approved the updating of the current 2017-2021 Ramsar Management Strategy's title to include 'and other sites.' In 2021, the Alderney West Coast and Burhou Islands Ramsar site enters the fifth and final year of the 2017-2021 Management Strategy (Ferrar and Wieckowski, 2016).

All activities within Alderney's Ramsar site should be fully risk assessed and covered by the Activity Organisation's insurance and States of Alderney issued licences where applicable.

In early 2020, the SoA CEO's office outlined a process to create a new Terms of Reference (ToR) for parties involved in the Ramsar site. The SoA GSC has ratified the existing position of the AWT as administrators of the site on behalf of the SoA and requested AWT to support the development of Alderney's Ramsar Strategy 2022-2026 (ARS4). In early 2021 the SoA's GSC informed AWT that the new ToR were delayed. Since this no further updates have been received and AWT is waiting further information from the GSC.

### 3. Objectives

To meet the objectives of the ARS3, and new recommendations following the 2021 Ramsar Review, the following objectives are to be completed in 2022\*.

*\*Please note that by approving this plan, the General Services Committee of the States of Alderney agrees to all proposed work therein to be undertaken by the activity organisations. Similarly, the activity organisations commit to the delivery of the work described (accepting the availability of resources and favourable weather conditions). The activity organisations understand the requirement to inform the appointed SoA representative if any aspect of the work requires significant alteration from the parameters contained within this Action Plan, prior to altering the details of the Action Plan.*

#### 3.1 Seabirds and Shorebirds

- Monitor the seabirds and shorebirds breeding on Alderney, Burhou and other islets including a census of their population sizes and estimates of productivity for a) Puffins; b) Gannets; c) Fulmar; d) Common Terns and; e) Ringed Plover.
- Develop the use of ‘citizen science’ to allow timelier analysis of a greater proportion of remotely recorded productivity surveys.
- Evaluate the validity of the Puffin ‘end of season AOB count’ alongside the ARAG and consider using video data from PuffinCam to validate the AOB data.
- Investigate Gannet productivity at Ortac as well as Les Etacs.
- Facilitate more frequent censusing of the Gannetries and explore the option of using drones instead of piloted aircraft.
- Investigate the impact of anthropogenic materials on Northern Gannets including a) recording instances of entanglement and mortality; b) observations of material returned to the nest site and; c) opportunistic seabird necropsies (in collaboration with AAWS).
- Resume the TAG project where it was left off in 2020. Principally, visit Ortac to retrieve the geolocators that still need to be recovered and collect re-sightings of colour-ringed birds. Consider setting up a PhD project to carry forward TAG.
- Census the Lesser Black-Backed Gulls on Burhou next during ARS4 but maintain oversight and consider doing additional counts if drastic reduction in numbers is apparent in the interim period.
- Include rooftop nesting Herring Gulls in future censuses of the species.
- Obtain counts of other breeding seabirds species (not listed above) from around Alderney’s coast and the south coast islets.
- Seabird ringing (undertaken by the Alderney Bird Observatory) including a) Gannets; b) gulls; c) Storm Petrels; d) auks; e) Shag;
- Monthly WeBS surveys.
- Implement mitigation measures to improve Ringed Plover breeding success.
- Reviewing contact with Groupe Ornithologique Nomand (GONm)
- Encourage CIBRS/ABO ringers to collect more useful data on the Cormorants nesting on Little Burhou as well as the Shags and auks nesting on Coque Lihou.
- To request the collection of any additional data on Cormorants nesting on Little Burhou and Shags and auks on Coque Lihou before ringing activities are undertaken.
- Request the CIBRS consider authorising colour ringing of nesting adult Ringed Plover and their chicks to aid monitoring and improve understanding of their demography and request ABO carry out this work.

#### 3.2 Terrestrial

- Rat control in collaboration with the SoA Public Works Department including maintenance of the bait stations on Burhou, Rousset, L’Etac de la Quoiré, Twin Sisters, Coque Lihou,



Hanaine Bay stack, Houmet de Pies, Houmet de Agneaux and Fort Houmet Herbé. The programme will be expanded to include any other accessible sites where historical records indicate previous use by nesting seabirds (e.g. Le Puits Jervais).

- Deploy remote cameras at known auk nesting sites to investigate the potential impact of rats and other predators on their breeding performance.
- Introduce and test an additional alternative trapping method that is immediately lethal, humane and non-toxic (e.g. Good Nature™ A24 traps).
- Devise a bio-security plan for Burhou and Coque Lihou.
- Continue monitoring bats on Burhou as part of the Bailiwick Bat Survey.

### 3.3 Marine

- To complement the Burhou Intertidal habitat Biotope Survey 2021, conduct a sub-littoral biotope survey and a quantitative intertidal species assessment within the survey area.
- Conduct a Phase I habitat survey of Hannaine bay.
- Continue Green Ormer population assessment with updated methodology.
- Continue monitoring crab populations with updated methodology.
- Create a photo-bank of crabs to monitor possible diseases.
- Continue invasive species assessments.
- Continue monitoring possible climate change indicators.
- Continue marine mammal monitoring
- Promote more Seasearch surveys within the Ramsar site and the training of more people on Alderney.
- Monitor presence of Pink Sea-Fan through repeat dives.
- Continue Baited Remote Underwater Video surveys.
- Continue support for the new inshore plankton monitoring project
- Support the new Fish-Intel project
- Continue support for seawater quality testing.
- Support more academic projects within the Ramsar site.

### 3.4 Education and Outreach

- Install and maintain seabird monitoring cameras including ‘PuffinCam’ and ‘GannetCam’.
- Investigate the replacement of the aging cameras and hardware on Burhou.
- Review the placement of PuffinCam cameras.
- Consider using time-lapse photography, in a project with the ‘Zooniverse’ team alongside PuffinCam to monitor productivity.
- Continue providing educational boat tours on ‘Sula of Braye’ (March – October).
- Provide free educational boat tours for students at St Anne’s School and offer a free boat tour of the Ramsar to everyone under the age of 16 on Alderney.
- Continue public engagement and community awareness for the Ramsar site year-round

### 3.5 Advisory and Legislative

- Roll ARS3 forward into 2022, with minor updates from contributors.
- Draft the 2023-2027 five-year Ramsar management strategy for formal consultation.
- Work with the Alderney Harbour Office and stakeholders to continue supporting the Puffin Friendly Zone (PFZ) off Burhou.
- Reinstall signage and raise awareness for the PFZ.
- Work with the Alderney Harbour Office and States of Alderney to form a protocol to deal with vessels which purposefully enter the PFZ during the Puffin breeding season.
- Reinstall temporary signage to alert public to sensitive wildlife such as breeding birds.
- Maintain links and collaboration with other Channel Island Ramsar Sites.
- Continue to host and maintain the Channel Island Ramsar Website.



- Support marine management activities and the community led Marine Management Forum.

## 4. Further Details

### 4.1 Seabirds

Seabird monitoring will continue in accordance with the JNCC Seabird Monitoring Handbook (Walsh *et al.*, 1995), RSPB guidelines and the 2017 – 2021 Ramsar Management Strategy (ARS3; Wieckowski & Ferrar, 2016) with adaptations as detailed and approved in the 2021 Ramsar Action Plan (Bush, Broadhurst-Allen & Hart, 2021), unless otherwise stated. Data will be shared with the JNCC's national Seabird Monitoring Program (SMP).

All activities involving the handling of wildlife will be covered by an appropriate licence from the States of Alderney, the local licensing authority. Detailed risk assessments to include mitigation measures for disturbance however caused, as well as issues of biosecurity, will be collated prior to accessing seabird colonies.

#### 4.1.1 Atlantic Puffins

The Puffins will be monitored from March to August using a variety of survey methodology. Productivity, as well as the establishment of key dates in the Puffin breeding timeline, will be assessed by remote observation of video recorded at the colony via 'PuffinCam'. The use of time-lapse cameras to monitor productivity will be explored. The Puffin population size will be assessed from early season raft counts (via boat-based surveys and 'PuffinCam'), and the on-island apparently occupied burrow (AOB) survey. The AOB survey will also inform breeding distribution.

Instances of kleptoparasitism and predation will be monitored from recorded video and by controlling the cameras remotely in real time.

##### 4.1.1.1 Productivity

Productivity will be assessed by reviewing video recorded remotely via 'PuffinCam', following the same protocol used in the past two years (AWT, 2020). The feasibility of training citizen scientists to help review the video footage will also be explored so that a greater duration of video, including night-time recording, can be examined through the season. Furthermore, the effectiveness of using time-lapse photography to monitor productivity will be tested.

##### 4.1.1.2 Population Assessment

The size of Burhou's Puffin population will be estimated using data from two surveys; early season raft counts and an apparently occupied burrow (AOB) survey.

The maximum early season raft count, obtained from counts undertaken through April to mid-May, can be used as an approximation of the number of breeding pairs. This is because during this time, each puffin pair will be incubating their egg with one member of the pair within its burrow and the other at sea. Therefore, the maximum number of puffins seen 'rafting' on the water near the colony in this period likely represents the best approximation of the total number of pairs present. Only the raft counts made early in the season can be used as later both members of the pair may be absent from the colony searching for food to feed their hatched chick and non-breeding birds arrive boosting the number of birds present. The raft counts can be recorded via 'PuffinCam', or during boat-based operations.

To avoid any disturbance to the breeding puffins the AOB survey will be undertaken in late July or early August, as soon as it can be established that the last puffling has likely fledged and the breeding season is over. Surveyors will check all burrows for recent signs of occupation in areas known to be occupied across the island, following the same methodology as in previous years. AOB counts for each area surveyed will be compared with previous estimates. This survey will be validated by

comparing how many of the AOBs identified by PuffinCam were successfully identified during the AOB survey. Furthermore, its use in the future will be reviewed alongside the Alderney Ramsar Advisory Group (ARAG).

Chance encounters with Storm Petrels still nesting within any examined burrows will be recorded, and where possible the nest contents examined to note the presence of any young. If an appropriately licensed handler is present, the adult may also be temporarily extracted to look for the presence of a ring.

#### 4.1.2 Northern Gannets

Gannets will be monitored from their arrival until their departure. Work scheduled for 2022 includes recording the timing of breeding, quantifying productivity, the collection of the geolocators from the TAG project to collect data on migratory behaviour, and the ongoing investigation into the impact of anthropogenic materials.

##### 4.1.2.1 Productivity

Gannet productivity will be assessed on Les Etacs by observing a representative sample of nests from a vantage point on the adjacent Alderney coastline. The proportion of nests fledged from the sample will be used as a proxy for the productivity of the colony as a whole. Observations will be conducted following JNCC guidelines. They will be conducted weekly and commence early enough in the season so that sufficient data can be collected to ensure outcomes are not misinterpreted or lost. In particular, sufficient observations should be made to identify non-layers so that the proportion of nonbreeders can be established and retracted from the final productivity estimate.

In addition, a sample of 100 nests monitored since 2020 will be observed again, to investigate a) if some apparently occupied nests/ breeding pairs are consistently successful or not at raising chicks; b) if the breeding pairs from these nest sites consistently begin to nest at the same time of year and c) if the incidence of non-breeding occurs more often at some nest sites than others.

Means of assessing Gannet productivity on Ortac year-on-year will also be investigated. The Ortac colony lies over three miles from mainland Alderney so observations will need to be carried out using the AWT's work boat, Sula of Braye, and on-board photography. Any productivity estimate, if it can be reliably attained, will have particular value. This is because it could be integrated with other data also obtained from Ortac such as chick ringing, adult colour ringing and the TAG project.

##### 4.1.2.2 The 'Track-a-Gannet' (TAG) project

The primary objective for the TAG project this year will be the recovery of the geolocators deployed on Ortac in 2017 and 2020. The data obtained from the geolocators recovered in 2019 and 2020 provided a glimpse of how Alderney's gannets spend their time in the non-breeding season but the recovery of more data will be required to better assess our gannet's movements in the winter.

The loci of the birds fitted with geolocators on Ortac in 2017 and 2020 has been kept on record so that the potential sighting and re-capture of these birds to retrieve their geolocators can be undertaken more easily and with minimal disturbance to the colony. Geolocator retrieval will be undertaken by a small team with an appropriately licensed ringer and will follow procedures set out in previous years to minimise the impact on the birds. Some adults may also be colour-ringed if opportunity allows.

If sufficient geolocators can be recovered, their data and the migratory behaviour revealed, will be compared with what has been established from conventional ringing so far as well as other geolocation studies from gannetries elsewhere in the species range. The feasibility of a PhD project will also be considered to carry forward the GSM GPS tagging aspect of TAG project. This could provide current data on the birds movements in the breeding season to help inform on-going marine spatial planning in the English Channel. It could also reveal aspects of the birds' foraging behaviour that could be causing declines in productivity.

#### 4.1.2.3 The impact of anthropogenic materials

The impact of anthropogenic materials on Gannets will be monitored as in previous years to maintain oversight of the problem. This includes the recording of instances of entanglement and observations of material brought to the nest site.

Seabird necropsies will be undertaken opportunistically in collaboration with the Alderney Animal Welfare Society (AAWS).

#### 4.1.2.4 Use of Drone Footage

The use of drones to census the gannetries will be investigated so that they can be monitored more closely with more frequent counts that could detect changes in numbers more rapidly. This could be important as our Gannet population has stopped growing for the first time since records began and has low breeding success. Gannetries nearby such as at Rouzic along the north French coast are also suffering poor productivity and population decline due to deteriorating foraging conditions in the English Channel that may be affecting our birds too.

#### 4.1.3 Northern Fulmar monitoring

The number of sites occupied by breeding pairs of Fulmar around Alderney's coastline and inshore islets will be assessed by observing apparently occupied sites from the sea cliffs and during boat-based surveys. Productivity will be assessed by recording the contents and outcome of these sites. Recording protocols will follow JNCC guidelines.

The locations and outcome of nest sites will be compared with previous records of the same sites to help us understand if some sites are more successful than others.

#### 4.1.4 Common Tern monitoring

Estimates of Common Tern productivity and colony size will be monitored from vantage points on shore with additional data provided by the ABO from any ringing undertaken.

Adequate protection from rat predation will be implemented wherever possible, noting that the terns are not especially site faithful and locations previously used to nest and currently protected with rat control measures may not be used every year. Importantly, as soon as the terns occupy an unprotected site, new rat control measures will be imposed to minimise potential nest loss.

Permission to deploy temporary signage warning the people of the presence of the tern colony will also be sought from the States of Alderney (SoA) or other landowners whenever the birds choose to occupy sites accessible to the public (see section 4.5.5).

#### 4.1.5 Ringed Plover monitoring

The number of nesting pairs and their productivity will be monitored on Alderney's beaches throughout the breeding season. Following an investigation into the causes of nest loss undertaken in 2021, permission to implement new protection measures for Ringed Plover will be sought from the State's Public works department.

To limit disturbance to nests by the public and dogs these measures will entail the deployment of temporary cordons and signs set up around Ringed Plover nests on Platte Saline and in Saye Bay.

Evidence from studies elsewhere suggests the cordons should increase the birds' productivity by reducing the risk of predation or trampling, and increasing the time available for adults and chicks to forage. Cordons will be placed where they do not inhibit public access to commonly used paths or the beaches in general, just specific areas surrounding nest sites.

Permission to erect other temporary signage warning the public of other sensitive breeding birds may also be sought from the States of Alderney where disturbance may occur (see section 4.5.5), using a SoA approved format.

Permission to erect other temporary signage using SoA approved formats warning the public of other sensitive breeding birds may also be sought from the States of Alderney where disturbance may occur (see section 4.5.5).

The signage will inform people of the birds' presence, encourage them to avoid the vicinity and keep their dogs under control. The signage will be removed once the birds have finished nesting.

A request will be made that the CIBRS consider authorising colour ringing of nesting adult Ringed Plover and their chicks to aid monitoring and improve understanding of their demography. A request will be made that the ABO carry out this work.

#### 4.1.6 Other seabird monitoring

Boat based round-island surveys in combination with vantage point counts will be used to estimate the numbers of cormorant, shag, gulls, and auks nesting around the coast of Alderney and its other islets. The surveys will be scheduled to take into account the breeding ecology for each species, and will take place between late April and mid-June. Additional surveys will be scheduled if necessary.

A more complete census of the breeding Herring Gull population will be attempted by including those birds nesting on roof tops.

Also, to limit disturbance, the next census of nesting Lesser Black-Backed Gulls nesting on Burhou will be scheduled for 2024. Oversight will be maintained and the AWT will consider doing another count in the interim period if drastic changes in numbers become apparent.

Core counts of all waterbirds present in Clonque Bay and on Platte Saline will be carried out each month for the national BTO Wetland Bird Survey (WeBS), (<https://www.bto.org/our-science/projects/wetland-bird-survey/taking-part/core-counts>). Counts will be carried following the standard WeBS protocols. Additional counts at other designated sites may also be conducted where time and personnel allow. All data will be submitted online in a timely manner.

#### 4.1.7 Seabird Ringing

A traditional programme of seabird ringing using conventional metal rings supplied by the Channel Island Bird Ringing Scheme (CIBRS) will be carried out by Alderney Bird Observatory Trust Ltd (ABO). All data, including ringing totals, recoveries and controls will be reported in a timely manner for the annual review.

As per the schedule outlined in ARS3, the seabird ringing campaign will include the ringing of chicks (pulli) from the following species; Gannets, Cormorant, Shag, Great Black-backed Gull, Herring gull, and Lesser black-backed gull Common Tern plus adult or immature Storm petrels caught by mist net. It may also include the capture by hand of full-grown and young Razorbill and Guillemot. Other species chanced upon incidentally such as Peregrine Falcon, Fulmar, Oystercatcher and Rock Pipits may also be ringed during seabird ringing operations at the discretion of the ringer in charge. All seabird ringing trips will be carefully planned to balance the need for data acquisition against likely disturbance.

CIBRS/ABO ringers will provide a count of the apparently occupied Cormorant nests on Little Burhou recorded during their annual ringing trip. They will record nest data including, when feasible, the number of nests present and the brood or clutch sizes so that estimates of productivity can be made and compared between years. A boat based count scheduled by the AWT will also be undertaken in case a ringing trip cannot occur for any reason.

## 4.2 Terrestrial

### 4.2.1 Rat control

The programme of permanent rat control to protect nesting seabirds from predation will continue in collaboration with the SoA Public Works Department, resources and weather permitting. The bait stations to be maintained through 2022 are currently located on Burhou, the islets of Rousset and L'Etac de la Quoire, the Twin Sisters stacks, Coque Lihou, the Hanaine Bay islet, Houmet de Pies, Fort Houmet Herbé and the east side of Saye Bay. Furthermore, any other accessible sites, such where historical records indicate they had once been used by nesting seabirds but are now vacant will be included in the control programme, such as Le Puits Jervais. The maintenance of all permanent bait stations will be subject to review following periodic environmental risk assessments.

As in 2021, a close watching brief will be maintained on any species sensitive to rat predation with particular attention paid to the whereabouts of the nesting Common Terns. Deployment of new bait stations may be required at short notice should the terns select a site not under the current control plan.

Remote cameras will be deployed on known Guillemot and/or Razorbill nesting sites to investigate the potential impact of rats and/or other predators on their breeding performance.

Locations of any/all cameras will be shared with the CIBRS/ABO ringers in advance of any seabird ringing activity where the bird ringers may come into contact with any deployed cameras.

To help counter the threat of summer incursions by rats, an additional alternative trapping method will be trialled. These will be Good Nature™ A24 traps which are reputedly highly attractive to rats and immediately lethal whilst also being humane and environmentally safe to leave in place between checking dates.

A bio-security plan for Burhou and Coque Lihou will be devised to help ensure any incursion by rodents is treated effectively and in a timely manner. This will include eradication and public outreach plans.

### 4.2.2 Bat surveys on Burhou

Presence of bats on Burhou will continue to be monitored by the deployment of acoustic bat detectors as part of the Bailiwick Bat Survey.

## 4.3 Marine

### 4.3.1 Rocky intertidal surveying

#### 4.3.1.1 Phase I intertidal Hannaine Bay

Phase I intertidal habitat mapping will be carried out for Hannaine bays intertidal zone. Surveying will follow JNCC Procedural Guideline 1-1 Intertidal Resource Mapping using Aerial Photographs (Davies *et al.*, 2001). Work will be undertaken during low spring tides and will likely occur during April or May 2022.

#### 4.3.1.2 Quantitative intertidal species assessment of Burhou

A species survey will be conducted on Burhou. This will involve continued monitoring of established sites to allow for year-on-year comparisons. Work will be undertaken post the sensitive seabird breeding season during low spring tides and will likely occur during September 2022.

#### 4.3.1.3 Sub-littoral biotope survey of Burhou

To complement the biotope survey of Burhou's intertidal zone, conduct a sub-littoral biotope survey of areas which were not accurately identified in that survey.

#### 4.3.1.4 Green Ormer population assessment

Green Ormers will be surveyed and tagged during dedicated surveys but also opportunistically during other survey work. The programme of Ormer tagging is undertaken in conjunction with La Société Guernesiaise. During each survey any Ormers found will be measured, quality assessed and fitted with a small plastic numbered tag for future identification. An updated methodology which involves repeat surveys in designated survey areas will be used to increase the quality and usefulness of data collected.

#### 4.3.1.5 Invasive species assessment

Invasive species assessments will be carried out throughout the year alongside other intertidal survey work. The presence, location and extent of invasive species will be assessed across the island's shoreline using 'Shore search' methodology.

#### 4.3.1.6 Climate change indicator assessment

The assessment of climate change indicators will be undertaken annually, following the same methodologies as reported in the Phase II habitat report in the 2020 Ramsar Review. Work includes the Natural History Museum Seaweed search and the repeated survey of Cor.Bif habitats (i.e. *Bifucaria bufucata* habitats), as in the 2020 Clonque Bay Phase II report.

#### 4.3.1.7 Crab surveying

Monthly crab surveys will continue throughout the year following States of Jersey survey methods. The methodology has been updated in 2022 which allows for repeated transects at the same locations to increase quality and usefulness of data collected. Furthermore, a photo-bank of crabs will be created to monitor potential diseases.

### 4.3.2 Benthic ecology and topography

#### 4.3.2.1 Seasearch

Liaise with and support the regional Seasearch group, Alderney's Seasearch snorkel group and local scuba divers in a programme sub-tidal marine life surveys (resource dependent). Ensure completed survey forms are submitted to the local Seasearch co-ordinator and the list of species encountered are input to the local record centre and national biodiversity network. Advocate for further Seasearch dives within the Ramsar site and training for residents of Alderney to increase data collection.



#### 4.3.2.2 Pink Sea Fan Monitoring

The presence and condition of the IUCN red-listed of Pink Sea Fan, *Eunicella verrucosa*, will be monitored in 2022.

#### 4.3.2.3 BRUV

Baited Remote Underwater Video (BRUV) surveys will continue in 2022. Video data will be analysed to record species presence. Data will be maintained by the AWT and submitted to the local records centre to inform species presence and abundance.

### 4.3.3 Pelagic surveying

#### 4.3.3.1 Plankton

A new programme of inshore plankton surveying is being developed by The Wildlife Trusts as a collaboration with Southampton University and may be implemented during the year (resource dependent, methodology TBC).

#### 4.3.3.2 Fish-Intel

The new Fish-Intel project is a three-year project starting in 2022 which will see a Channel Island wide network of acoustic monitoring of commercially important fish species and cetaceans.

On Alderney this will include two survey sites where acoustic receivers, which monitor tagged fish, will be deployed together with F-pods, which monitor the acoustic communications of cetaceans. The two deployment sites will be off Burhou and off Longis Bay. Deployment is scheduled to occur in early 2022.

This project will be run by Jersey's Marine Resources team and Plymouth University, and AWT will offer support if required.

### 4.3.4 Marine Mammal surveying

Marine mammal data are collected from dedicated surveys and from casual sightings. Records will be maintained for both cetaceans and pinnipeds, and submitted to the SeaWatch foundation and local records centre.

#### 4.3.4.1 Effort based grey seal surveying

The surveying of grey seals across the Channel Islands and the adjacent French coastline is coordinated by Marie Francou of Groupe Mammalogique Nomand (GMN) and undertaken locally by the AWT. Surveys are undertaken on dates agreed by the network and occur during the lowest spring tides of each phase of the grey seal reproductive cycle. Findings are collated regionally to inform population trends.

#### 4.3.4.2 Grey seal population dynamics

A population dynamics study will be completed in parallel with the effort based grey seal surveys following JNCC grey seal methods (August – November), (Davies *et al.*, 2001).

#### 4.3.4.3 Grey Seal ID

All individuals seen during the surveys will be photographed whenever possible to obtain high resolution images. Images of individuals with distinguishing fur patterns and other features will be collated and added to a local ID catalogue. The ID catalogue can then be used to quantify re-sightings of individuals and generate population estimates.

#### 4.3.4.4 Cetaceans

Opportunistic recording of cetaceans should continue in 2022 with photographic records obtained where possible. This includes those taken during boat-based activities, and from public sightings data.



Furthermore, two F-pods, which monitor the acoustic communications of dolphin, will be deployed in 2022 as part of the Fish Intel project (see section 4.3.3.2).

#### 4.3.4.5 British Marine Life Rescue Divers

Support will be given to local British Marine Life Rescue Divers (BMLRD) if a marine mammal stranding occurs. The management of marine mammals on our shores (those subject to human disturbance) will be coordinated through BMLRD trained staff.

#### 4.3.5 Academic projects

Support and lead for academic projects will be continued in 2022, including development and support from interested universities as necessary.

### 4.4 Events and outreach

#### 4.4.1 LIVE: Teaching Through Nature.

Live streaming of wildlife webcams will continue in 2021. ‘PuffinCam’ and ‘GannetCam’ will be re-installed.

The video feeds will continue to be used to assist the seabird monitoring programme outlined in section 4.1. allowing ‘live viewing’ or real-time observation of both Puffin and Gannet colonies as well as the opportunity to review recorded video for later analyses.

The livestream will be available through the ‘LIVE: Teaching Through Nature’ website. The AWT will also maintain a live stream from the cameras at its wildlife information centre on Victoria Street, St Anne. From here it will be possible to remotely control the camera and expand the view available for set periods during the day i.e. when the cameras position does not need to be fixed for survey purposes. Continued interest in the cameras will be maintained through ongoing outreach.

Collaboration will continue with VisitAlderney to maximise the value of the cameras for tourism and marketing purposes for the island.

The GDPR risk assessment for all cameras will be updated prior to installation in 2022.

##### 4.4.1.1 PuffinCam

‘PuffinCam’ will be reinstalled on Burhou in 2022 using the same equipment and procedures as in previous years. Placement of one of the cameras will be reviewed with the aim of getting views from below the burrows facing up toward them. It is hoped this will increase the ability to spot food returns. To minimise disturbance to the seabird colony on Burhou, installation will be made before Puffins make landfall in early April. The cameras will be uninstalled and removed at the end of the Puffin breeding season.

There is a possibility of using time lapse photography in tandem with PuffinCam. Resource dependant, an assessment of the viability of time lapse photography to monitor Puffin breeding success will be conducted. If successful, this could help reduce the workload required to review video footage.

Any trips required for maintenance will be coordinated by the ARSG and States Veterinary Officers.

The PuffinCam hardware is becoming outdated and a review into replacement of these cameras should be conducted.

##### 4.4.1.2 GannetCam

‘GannetCam’ will be activated again in 2022. The solar panels will be moved slightly higher to prevent shading which was significantly impacting their performance. As the data link from Burhou to Alderney will be used to relay the ‘GannetCam’ feed from the west cliffs of Alderney, the transmitter array will be kept in place on Burhou until the end of the Gannet breeding season.

#### 4.4.2 Boat tours

The AWT operate an MCA Category 2 coded vessel named ‘Sula of Braye’ (hereafter “Sula”) to assist the Ramsar management strategy by providing an ‘on sea’ platform for marine research as well as access to the offshore islets and boat tours.

#### 4.4.3 Free educational boat tours for Year 6 students at St Anne’s School

Free educational boat tours will be offered to students at St Anne’s School. Furthermore, all residents under the age of 16 will be offered a free educational boat tour. In time, it is hoped that all children growing up on Alderney should have accessed the Ramsar site from the water.

#### 4.4.4 Community engagement and public awareness events

At least one public engagement event will be undertaken in the Ramsar site for World Wetlands day, Wildlife Week, Alderney Week and the Wildlife Festival, drawing attention to the site’s species and habitats. Additional events such as rock-pooling and special boat trips, such as ‘pelagic trips’ to observe marine life at sea, will also be scheduled wherever possible. Fundraising events will continue to support the work involved in this programme.

## 4.5 Advisory and Legislative

### 4.5.1 ARS4

The five-year Alderney Ramsar Strategy (2017-2021) (ARS3) has come to a close. Development of the 2022-2026 Alderney Ramsar Strategy (ARS4) is pending on responses from the first ever Ramsar Stakeholder Forum. A stakeholder engagement letter was issued in September 2021 but a copy of the stakeholder's responses has not been received by AWT. As such, it is not possible to deliver ARS4 on the previously agreed deadline of July (Gauvain 2021).

Following this delay, and taking into account the new Island Plan, the GSC ratified that the process be delayed till 2022, so that it may coincide with the Island Plan and allow for stakeholder responses to take the Island Plan into consideration to inform ARS4 further.

Pending ARS4 the GSC also decided that the programme of works approved in 2021 under ARS3 should be rolled forwards into 2022, with an invitation to any existing contributors to offer minor updates within the strategic aims of ARS3 (GSC, December 7th).

### 4.5.2 Scientific Advisory

All activities, as well as the annual action plan and report, are currently reviewed in consultation with Alderney's Ramsar Advisory Group (ARAG). The ARAG was established in 2021 to offer technical and expert advice on work proposals and outcomes on behalf of the States of Alderney.

### 4.5.3 The Puffin Friendly Zone

Support for the Puffin Friendly Zone via the Alderney Harbour Office and stakeholders will continue in 2022. The advertisement of the zone to water users will be developed through signage and media engagement as well as through publication with pilotage information for Alderney.

The implementation of a protocol to deal with vessels that purposely enter the PFZ will be reviewed. It is recommended that the avoidance of the zone potentially including a condition for commercial vessel licenses issued by the Alderney Harbour Office.

### 4.5.4 Ramsar signage

Signage around Alderney's Ramsar site will be reviewed and maintained with updates made where appropriate.

### 4.5.5 Sensitive wildlife signage

As in 2021, temporary signage alerting the public to sensitive wildlife throughout Alderney (for example breeding waders on Platte Saline) will be deployed. The development and subsequent deployment of signage will be coordinated alongside the States Veterinary Officers.

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

The installation of signage for the protection of wildlife requires careful consideration which should be made on a case-by-case basis and will target only those who may inadvertently cause harm to wildlife. Installation will be subject to a documented assessment of the risks/ benefits.

### 4.5.6 Networking with other Channel Island Ramsar Sites

The maintenance of links and collaboration with other Channel Island Ramsar Sites will continue in 2022. Alderney will host the Inter-Islands meeting in 2022, at which a pan Channel Island's Ramsar meeting will be held.

Alderney will continue to maintain the Channel Island Ramsar Website.

#### 4.5.7 Marine Management Forum

Support for the governmental/ community led Marine Management Forum and other marine management activities will continue with support for mechanisms of re-establishing the forum if necessary.

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