

## **Item: 14**

**Policy and Resources Committee: 3 December 2020.**

**Biodiversity Duty.**

**Report by Executive Director of Development and Infrastructure.**

### **1. Purpose of Report**

To present the Biodiversity Duty Report for 2018-2020.

### **2. Recommendations**

The Committee is invited to note:

#### **2.1.**

That the Biodiversity Duty Report, attached as Appendix 1 to this report, which covers the period 1 January 2018 to 31 December 2020, summarises the actions undertaken by the Council during this period to fulfil its biodiversity duty.

#### **2.2.**

That the Biodiversity Duty Report requires to be submitted to the Scottish Government by 1 January 2021.

**It is recommended:**

#### **2.3.**

That the Biodiversity Duty Report 2018 to 2020, attached as Appendix 1 to this report, be approved for submission to the Scottish Government.

### **3. Background**

#### **3.1.**

The Nature Conservation (Scotland) Act 2004 places a duty on all public bodies, including Orkney Islands Council, to “further the conservation of biodiversity” while carrying out their responsibilities. This is commonly known as the ‘Biodiversity Duty’.

#### **3.2.**

The Wildlife and Natural Environment (Scotland) Act 2011 places a further obligation on public bodies to provide a publicly available report, every three years, on the actions undertaken to comply with the Biodiversity Duty.

### **3.3.**

This is the third Biodiversity Duty report which has been compiled by Orkney Islands Council. Reports submitted in 2014 and 2017 may be accessed on the Council's website at <https://www.orkney.gov.uk/Service-Directory/B/Biodiversity.htm> from the 'Related Downloads' section.

## **4. Orkney Islands Council Biodiversity Duty Report 2018-20**

### **4.1.**

The draft report, attached as Appendix 1, has been compiled using information provided by officers from a range of Council services, as well as external organisations, and requires to be submitted to the Scottish Government by 1 January 2021.

### **4.2.**

The report comprises the following sections:

- Introduction.
- Mainstreaming.
- Actions taken to improve biodiversity conservation.
- Partnership working and biodiversity communications.
- Biodiversity highlights and challenges.
- Monitoring.
- Forthcoming developments in biodiversity conservation.
- Contribution to the *2020 Challenge for Scotland's Biodiversity* national targets.

### **4.3.**

The draft Biodiversity Duty report will be updated to take account of any responses provided by the Elected Members, if required, prior to submission to the Scottish Government by the deadline of 1 January 2021.

## **5. Corporate Governance**

This report relates to the Council complying with governance and scrutiny and therefore does not directly support and contribute to improved outcomes for communities as outlined in the Council Plan and the Local Outcomes Improvement Plan.

## **6. Financial Implications**

There are no financial implications arising directly as a result of the recommendations of this report.

## **7. Legal Aspects**

Preparation and submission of the Biodiversity Duty Report fulfils the Council's obligations under Part 1 of the Nature Conservation (Scotland) Act 2004 and Part 5 of the Wildlife and Natural Environment (Scotland) Act 2011.

## **8. Contact Officers**

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## **9. Appendix**

Appendix 1: Orkney Islands Council Biodiversity Duty Report 2018-2020.

# Orkney Islands Council

## Biodiversity Duty Report 2018-2020



**Images on cover: Orkney vole © Alastair Skene; Short-eared owl © Ian Francis;  
Puffballs © Sydney Gault; Common carder bumblebee © Sydney Gault**

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## Introduction

Biological diversity, or biodiversity, is a term used to describe the variety of life on Earth. The Convention on Biological Diversity<sup>1</sup> refers to:

- The wide range of living organisms present on land and in water – animals, plants, fungi, bacteria and other simple microorganisms;
- Genetic variation within species;
- The variety of habitats and ecosystems – the different places where organisms live and how they interact with one another and their surrounding environment.

Scotland's rich and varied landscapes are made up of a complex mosaic of habitats that support approximately 90,000 animal, plant and microbe species. However, pressures such as pollution, habitat degradation and climate change have caused a decline in biodiversity across the world, including here in Scotland.

The Scottish Government has developed a biodiversity strategy which sets out the key steps needed to address this decline. The original strategy, Scotland's Biodiversity: It's in Your Hands<sup>2</sup>, was published in 2004. In 2013, it was supplemented by the 2020 Challenge for Scotland's Biodiversity<sup>3</sup> which sets out the major steps needed to improve the state of nature in Scotland. The two documents together now constitute the Scottish Biodiversity Strategy. The Scottish Government has also produced Scotland's Biodiversity: A Route Map to 2020<sup>4</sup> to help direct priorities for action.

### The Biodiversity Duty

The Nature Conservation (Scotland) Act 2004 places a duty on all public bodies, including local authorities, to "further the conservation of biodiversity" while carrying out their responsibilities. This is commonly known as the 'Biodiversity Duty'. In complying with the Biodiversity Duty, public bodies in Scotland must have regard to the Scottish Biodiversity Strategy.

The Wildlife and Natural Environment (Scotland) Act 2011 places a further obligation on public bodies to provide a publicly available report, every three years, on the actions undertaken to comply with the Biodiversity Duty.

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<sup>1</sup> Convention on Biological Diversity, United Nations. 1992 <https://www.cbd.int/convention/>

<sup>2</sup> Biodiversity – It's in Your Hands, Scottish Government. 2004  
<https://www.gov.scot/publications/scotlands-biodiversity---its-in-your-hands/>

<sup>3</sup> 2020 Challenge for Scotland's Biodiversity, Scottish Government. 2013  
<https://www.gov.scot/publications/2020-challenge-scotlands-biodiversity-strategy-conservation-enhancement-biodiversity-scotland/>

<sup>4</sup> Scotland's Biodiversity: A Route Map to 2020, Scottish Government 2015  
<https://www.gov.scot/publications/scotlands-biodiversity-route-map-2020/>

Local authorities are well placed to deliver biodiversity conservation; as land managers and planning authorities they can have a significant positive impact on biodiversity protection, as well as identifying opportunities for enhancement.

This is the third Biodiversity Duty report to be prepared by Orkney Islands Council and it summarises the Council's delivery of the Duty during the period 1 January 2018 to 31 December 2020. It addresses the following themes:

- Mainstreaming.
- Actions taken to improve biodiversity conservation.
- Partnership working and biodiversity communications.
- Biodiversity highlights and challenges.
- Contribution to national targets.

The report may be accessed from the Council's website at [www.orkney.gov.uk](http://www.orkney.gov.uk) and a paper copy will also be available to view at Customer Services, Council Offices, School Place, Kirkwall, KW15 1NY.

### **Orkney's natural environment – a brief summary**

Orkney is an archipelago, a cluster of around 90 islands and smaller skerries, surrounded by clear, relatively shallow water. Located at approximately 59 degrees north, between the North Atlantic and the North Sea, the area is exposed to frequent gales and high energy wave conditions. Orkney's climate is relatively mild due to the warming effect of the North Atlantic Drift which flows northward past its western coasts. The county has a land area of approximately 990 km<sup>2</sup> and a coastline of over 980 km. Only 19 islands are inhabited with the highest number of people living on the largest island, mainland. In 2019 the mid-year population estimate was 22,270<sup>5</sup>.

The Orkney Islands are particularly valued for the abundance and variety of their wildlife. Towering cliffs provide nesting sites for seabirds; moorland hills support many more bird species, including breeding hen harrier, short-eared owl and red-throated diver and rough grasslands provide habitat for the Orkney vole, a small mammal which is unique to the Orkney Islands. The seas surrounding the islands support benthic habitats such as maerl beds, horse mussel beds, flame shell beds and seagrass meadows, as well as a range of mobile species including harbour and grey seal, sea trout and several cetacean species.

A number of areas are designated for conservation under national and/or international legislation:

- 36 Sites of Special Scientific Interest.
- 13 Special Protection Areas (SPA).

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<sup>5</sup> National Records of Scotland <https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/orkney-islands-council-profile.html>



- 2 proposed Special Protection Areas (pSPA).
- 6 Special Areas of Conservation (SAC).
- 1 Ramsar site.
- 3 Natural Heritage Marine Protected Areas (NC MPA).
- 2 Local Nature Reserves (LNR).

It is important to be aware however, that there is a significant degree of overlap, e.g. SSSIs may also be designated as SPAs, SACs and/or Ramsar sites.

Out-with the statutorily designated sites, a suite of Local Nature Conservation Sites is identified in the Orkney Local Development Plan. These are areas of land and water that are recognised as having high biodiversity value and therefore worthy of protection, albeit at a lower level than that afforded to national and international sites. They contain valuable habitats which support a wide range of Orkney's wildlife and include areas of heath, wetland, coast, native woodland, unimproved grassland, freshwater lochs and burns. They also provide 'stepping-stones' allowing species to move more freely through the countryside.



**Female hen harrier © RSPB; Heath spotted orchid © Sydney Gauld; and Great yellow bumblebee on red clover © John Crossley**

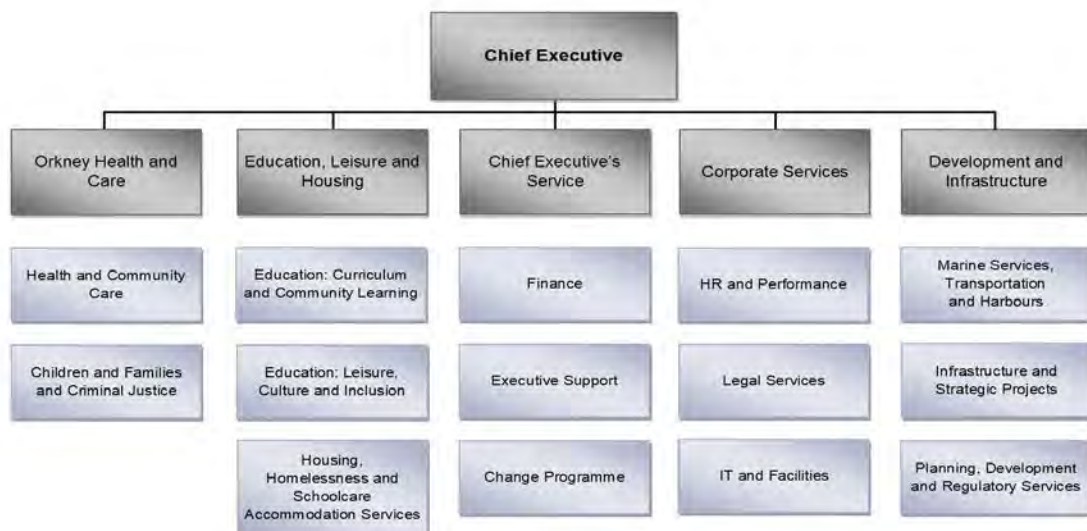
## Mainstreaming

Orkney Islands Council is made up of twenty-one elected Councillors representing six multi-member wards. The Council operates through a system of committees and sub-committees with officers reporting to these on relevant matters. The Council has five main services:

- Chief Executive's Service.
- Corporate Services.
- Development and Infrastructure.
- Education, Leisure and Housing.
- Orkney Health and Care.

The full service structure is illustrated in Figure 1 below.

**Figure 1: Orkney Islands Council organisational chart (2020)**



## Guiding principles and outcomes

The Council's vision and aspirations for Orkney are outlined within the **Orkney Community Plan** which incorporates **Orkney's Local Outcomes Improvement Plan (LOIP) for 2018-2021**<sup>6</sup>. Under the Community Empowerment (Scotland) Act 2015, each community planning partnership must prepare and publish a LOIP. This

<sup>6</sup> Orkney Community Plan and Local Outcomes Improvement Plan. Orkney Islands Council <https://www.orkney.gov.uk/Council/C/council-partners.htm>

replaces the former Single Outcome Agreement. The Plan and LOIP are produced by the Orkney Partnership and describe what the member organisations aim to achieve over the three-year period and beyond, as the Partnership's contribution to both Orkney's local priorities and the ambition of the Scottish Government for the whole of Scotland.

The shared mission of the Orkney Partnership is "Working together for a better Orkney" and it is guided by six key values:

- Resilience.
- Enterprise.
- Equality.
- Fairness.
- Leadership.
- Sustainability.

The Community Plan's vision is that:

"By 2030, Orkney will be a first-choice location for people to live and work. Orkney will have nationally significant training and investment opportunities. Orkney will attract visitors from around the world to admire its natural environment, heritage and cutting-edge business and industrial facilities. Above all, Orkney will be the place to enjoy an exceptional quality of life, a fulfilling career and a sustainable lifestyle."

The Council's **Corporate Strategic Plan 2018-2023**<sup>7</sup> shares the key values of the Community Plan and outlines how the Council is working to deliver this vision.

### **Plans, policies and strategies**

Biodiversity can only be delivered effectively across the Council if it is incorporated into relevant plans, policies and strategies. Council plans, policies and strategies which are particularly key to furthering the conservation of biodiversity include the following:

The **Orkney Local Development Plan 2017 (LDP)**<sup>8</sup> shares the vision of the Community Plan and highlights the role of the natural environment in underpinning many sectors of the county's economy, as well as its importance in supporting a high quality of life in the islands. It includes policies which seek to protect Orkney's environment from the detrimental effects of development, in particular Policy 9 Natural Heritage and Landscape and Policy 12 Coastal Development. Additional guidance on conserving biodiversity, as well as options for biodiversity

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<sup>7</sup>Orkney Islands Council Corporate Strategic Plan 2018-2023  
<https://www.orkney.gov.uk/Council/C/corporate-strategic-plan-2018-2023.htm>

<sup>8</sup> Orkney Local Development Plan 2017-2022, Orkney Islands Council  
<https://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm>

enhancement, are provided in Supplementary Guidance: Natural Environment and Supplementary Guidance: Aquaculture<sup>9</sup>.

The **Pilot Pentland Firth and Orkney Waters Marine Spatial Plan**<sup>10</sup> was developed jointly by Marine Scotland, Orkney Islands Council and Highland Council and sets out an integrated planning policy framework to guide marine development, activities and management decisions, whilst ensuring the quality of the marine environment is protected. Its vision is that the Pentland Firth and Orkney waters will be a clean, healthy, safe, attractive and productive marine environment that is rich in biodiversity and managed sustainably to support thriving and resilient local communities.

The next stage in marine planning will be the preparation of a **Regional Marine Plan for Orkney**. Following understandable delays due to the COVID19 pandemic, progress has been made recently by Scottish Ministers to continue the process to delegate powers to Orkney Islands Council. These powers will allow OIC to undertake preparation of a statutory regional marine plan and associated functions.

A public announcement went out on the 3rd of September in the *Orcadian* and the Marine Scotland website; the closing date for representations the 1st of October. As no comments were received, Marine Scotland have moved onto the next stage of the process and seek to confirm the final direction with Ministers. Part of that process includes updating the draft direction dates. After this, the next step is to send a submission to the Minister to approve and sign, then hopefully issue, the final Direction to Orkney Islands Council.

In the meantime, work has continued to prepare background documents to ensure that, once the Direction is in place, OIC can progress quickly with the plan-making process. Key tasks will include setting up the Advisory Group, which will provide expert input and guidance, preparation of the Statement of Public Participation (SPP) and commencing the Strategic Environmental Assessment process, as well as scoping the marine plan.

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<sup>9</sup> Orkney Local Development Plan 2017-2022 Supplementary Guidance. Orkney Islands Council. <https://www.orkney.gov.uk/Service-Directory/D/guidance-for-the-plan-2.htm>

<sup>10</sup> Pilot Pentland Firth and Orkney Waters Marine Spatial Plan, Scottish Government 2016. <https://www.gov.scot/publications/pilot-pentland-firth-orkney-waters-marine-spatial-plan/>



**Bloody Henry starfish © Jenni Kakkonen**

As the plan-making process is an iterative one, new data and information will be welcome and used to inform the plan, as well as the many associated documents required. There will be various formal opportunities for stakeholders to feed into the plan, as outlined in the SPP.

The **Orkney Open Space Strategy**<sup>11</sup> identifies open space as a key resource which contributes to the quality of the natural environment, biodiversity, visual amenity, personal health and wellbeing. It includes guidance on how natural and semi-natural greenspaces can be enhanced for biodiversity.

Initially published in 2014, the **Orkney Outdoor Access Strategy**<sup>12</sup> was reviewed and updated in 2016-17. Key aims of the Strategy include the provision of a range of access opportunities suitable for different user groups and people of all abilities which are safe, welcoming and enjoyable; and the promotion of responsible behaviour in the countryside through education and information.

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<sup>11</sup> Orkney Open Space Strategy, Orkney Islands Council 2014.

<sup>12</sup> Orkney Outdoor Access Strategy, Orkney Islands Council 2017.  
<https://www.orkney.gov.uk/Service-Directory/O/Outdoor-Access.htm>

The **Orkney Core Paths Plan**<sup>13</sup> was reviewed and updated in 2018 and includes a suite of maps showing the core paths for each area or island. Many of these paths provide public access to high quality natural heritage sites. Examples include the linear path WM26 which follows the coast through the Stromness Heaths and Coast SAC; path R6 which offers a circular route on Faraclett Head, part of the Rousay SPA; and path W1 which takes in the West Westray SPA.

In the Council's current **Procurement Strategy**<sup>14</sup> sustainability is one of the key priority areas where targets are identified for reporting. Consideration is to be given to the elimination of single use / disposable plastic items used by the Council where possible, and support others to do likewise.

Within Orkney Islands Council, the Development and Infrastructure Service takes a lead role in delivering the Biodiversity Duty. The Environment Officer post within Development and Marine Planning has a specific remit to further the conservation of biodiversity through the **Orkney Local Biodiversity Action Plan (LBAP)**<sup>15</sup>. The current LBAP covers the period 2018-2023 and is the third in a series of focused revisions of the original Orkney LBAP 2002. It addresses biodiversity action planning through a set of four themes: Greenspace, Farmland, Peatland and the Marine Environment. Under each theme a range of objectives, targets and actions is identified which will seek to bring benefit to biodiversity in Orkney during the lifetime of the Plan.

### **Procedures and processes**

Specific procedures and processes are adopted by certain Council Services to ensure that they routinely assess the effects of their activities on biodiversity, adhere to environmental law and adopt good practice. Strategic Environmental Assessment (SEA) is one of these and guidance is provided on the IT portal for the benefit of Council officers. The Orkney Local Development Plan, as well as the Supplementary Guidance documents for the Natural Environment and Aquaculture all underwent the full SEA process. A Habitats Regulations Assessment was also undertaken of the LDP.

Other procedures used to assess and mitigate adverse effects on biodiversity include:

- Consultation with the Environment Officer or similar expert.
- Use of ecological consultants.
- Environmental Impact Assessment.

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<sup>13</sup> Orkney Core Paths Plan, Orkney Islands Council 2018. <https://www.orkney.gov.uk/Service-Directory/C/Core-Paths.htm>

<sup>14</sup> Procurement Strategy 2019-2021 Orkney Islands Council <https://www.orkney.gov.uk/Service-Directory/P/procurement-strategy-2019-to-2021.htm>

<sup>15</sup> Orkney Local Biodiversity Action Plan <https://www.orkney.gov.uk/Service-Directory/L/Local-Biodiversity-Plan.htm>

- Pre-works ecological surveys.

## Actions taken to improve biodiversity conservation

Biodiversity action within OIC services is detailed below.

### Planning Service

Planning is a key service in the delivery of biodiversity conservation through the preparation and implementation of land use policies to enable protection of Orkney's natural heritage.

The Development and Marine Planning team covers a range of responsibilities associated with policy and project development for the use, and development, of land. Its core remit is the preparation and review of the Orkney Local Development Plan and associated policy documents. In carrying this out, individual members of the team have responsibility for addressing a wide range of issues including biodiversity, archaeology, conservation, access and design. The team also plays a leading role in the Council's regeneration projects.

The current national planning policy framework supports the conservation and, where appropriate, enhancement of protected natural heritage sites, protected species and biodiversity in the wider landscape. The Local Development Plan and planning guidelines reflect these overarching aims and translate them into planning policies for the local context.

The Development Management team implements the policies of the Local Development Plan through the determination of planning applications. The Council's Environment Officer is routinely consulted for advice on planning applications which have potential to impact on biodiversity.

### Marine planning

The Pilot Pentland Firth and Orkney Waters Marine Spatial Plan developed jointly by Marine Scotland, Orkney Islands Council and Highland Council sets out an integrated planning policy framework to guide marine development, activities and management decisions, whilst ensuring the quality of the marine environment is protected. It will establish a useful basis for the preparation of the two separate regional marine plans for Orkney and the North Coast Scottish Marine Regions.

Orkney Islands Council has adopted the Plan as non-statutory planning guidance, acknowledging its status as a material consideration in the determination of relevant planning applications. The Council has also approved the Plan as a material consideration in the determination of works licence applications.

The Council aims to take a lead role in the future Orkney Islands Marine Planning Partnership, supported by an Advisory Group of stakeholders representing local economic, environmental, community and recreational interests. A diverse range of stakeholder groups have been involved, including fisheries, aquaculture, renewable energy, ports and harbours, diving, marine tourism and environmental protection.

Following understandable delays due to the COVID-19 pandemic, progress has been made recently by Scottish Ministers to continue the process to delegate the powers to Orkney Islands Council. These powers will allow OIC to undertake preparation of a statutory regional marine plan and associated functions.

A public announcement went out on the 3rd of September in the *Orcadian* and the Marine Scotland website; the closing date for representations the 1st of October. Marine Scotland have now moved onto the next stage of the process and seek to confirm the final direction with Ministers. Part of that process includes updating the draft direction dates. After this, the next step is to send a submission to the Minister to approve and sign, then hopefully issue, the final Direction to Orkney Islands Council.

In the meantime, work has continued to prepare background documents to ensure that, once the Direction is in place, OIC can progress quickly with the plan-making process. Key tasks will include setting up the Advisory Group, which will provide expert input and guidance, preparation of the Statement of Public Participation (SPP) and commencing the Strategic Environmental Assessment process, as well as scoping the marine plan.

During 2019-2020 the Council's Development and Marine Planning team commenced the preparation of a 'State of the Environment' assessment of the seas around the islands out to 12 nautical miles. This project is being undertaken in collaboration with a range of stakeholders, with the overall aim of gathering information and sharing knowledge of the marine environment.

### **Biological Recording**

The Orkney Wildlife and Information and Records Centre (OWIARC) is part of the planning service, where an extensive database of species records is managed and available to inform the assessment of effects of proposed developments. The Centre is based in the Orkney Library and Archive, where it is staffed on a part-time basis. Currently, around 449,452 species records are held on two recording systems: Recorder 6 and Mapmate.

### **Marine Services**

During 1974, alongside development of the Flotta Oil Terminal, a programme was established to monitor and assess the impact of terminal operations on the marine intertidal environment of Orkney, in particular Scapa Flow. Initially developed and led by a team from Dundee University, the programme was taken over in 1990 by the Council's Marine Environmental Unit.

The long-term monitoring of the Orkney sandy shores was continued during the reporting period, with benthic macroinvertebrate and sediment particle size samples routinely collected from 13 locations around the coast of Scapa Flow. In 2018 samples were collected from Mainland sites only, as sampling on the island of Hoy was cancelled due to a winter storm named 'The Beast from the East' A review of the sandy beach sampling was completed in late 2019 and the number of sites visited annually was reduced to four, with eleven more sites visited every three



years. These changes were prompted by the findings of a PhD thesis published by the Unit's Biologist. Therefore, in 2020, sandy shore samples were collected from three sites with the fourth not being sampled due to restrictions in place for the coronavirus pandemic. Each year the macroinvertebrate samples were hand sorted and identified in-house at the Environmental Unit, with sediment samples being sent to a specialist laboratory for granulometry analysis.

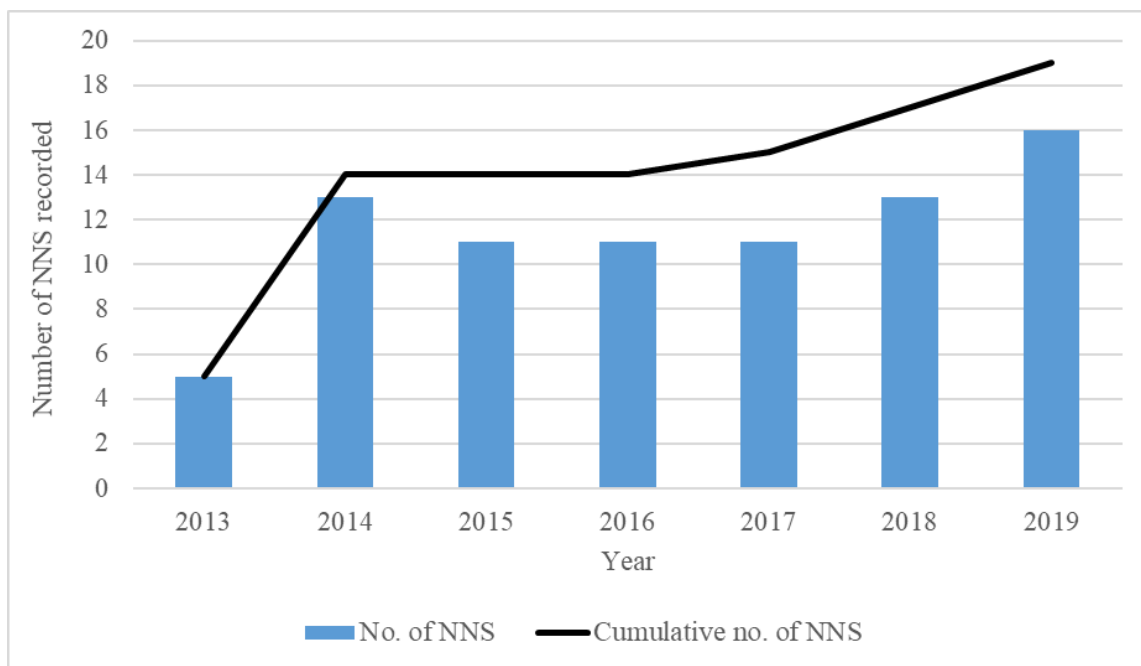
No rocky shore Marine Biodiversity and Climate Change (MarClim) surveys were conducted during the reporting period due to other surveys and work commitments taking priority in 2018 and 2019 and coronavirus restrictions in 2020.

The Council's Ballast Water Management Policy for Scapa Flow allows for the discharge of exchanged and treated (if treatment facilities are fitted to the vessel) ballast from vessels within Scapa Flow, subject to adherence to strict conditions. An important part of the Policy is a monitoring and recording programme for the presence of non-native species which commenced in 2013 with a baseline study. As this is an inherent part of the approved policy, enabling the Council to fulfil its responsibilities under the Wildlife and Natural Environment (Scotland) Act 2011, the monitoring programme will proceed during future years. As an addition to the non-native species monitoring programme, scrape samples are routinely collected from visitor yacht moorings. This sampling provides further distributional data on the presence of marine non-native species in Orkney.



**The Grinds navigation buoy © Jenni Kakkonen**

Marine non-native species monitoring surveys were conducted during the months of June-October each year. The monitoring included: intertidal surveys, scrape sample collections from navigational buoys, phytoplankton and zooplankton sample collection from a pilot boat using plankton nets, benthic grab sample collection from a vessel using a Van Veen grab sampler, visits to all three of Orkney’s marinas, salinity samples and sea water temperature logging. In addition to these surveys, scrape samples were collected from 18 visitor yacht mooring buoys. All samples were sent to a taxonomic laboratory for identification. In 2020, due to coronavirus pandemic restrictions, no samples were collected from Westray marina or visitor yacht moorings and no benthic samples were collected. Figure 1 below illustrates the findings of the non-native species monitoring programme and shows that the number of species recorded increased in 2018 and 2019 compared to previous years’ findings; however, results of the 2020 sampling were not available at the time of writing this report.



**Figure 1. Number and cumulative number of non-native species recorded during the non-native species monitoring programme.**

The monitoring of radioactivity in the marine environment of Orkney began in 1984 and a programme of triennial (every three years) monitoring of radioactivity in periwinkles and kelp from specific locations around the Orkney coast has been running since 1997. In spring 2018 the Marine Environmental Unit team collected 20 samples of winkles and kelp from 10 locations. The samples were sent to the GAU-Radioanalytical National Oceanography Centre, Southampton for processing and analysis for gamma and alpha emitting radionuclides. The report conclusions indicate low levels of radioactivity in the marine biota around Orkney. The levels of radioactive particles have remained the same or decreased since the last survey was undertaken in 2015.

Weekly seawater samples were collected from Scapa Pier and sent to the marine Scotland (Science) Laboratory in Aberdeen. This programme was set up to assist in the understanding of toxic phytoplankton distribution and bloom occurrence and to provide samples for nutrient analysis, as part of the Marine Scotland (Science) Long Term Monitoring Programme.

## **Roads Service**

Maintenance of the county's road verges, ditches and drainage channels is the responsibility of the Council's Roads Service and verge cutting is carried out during the summer months, with the exception of selected verges which are classed as Conservation Verges.

Conservation Verges may contain fine examples of a particular species or alternatively, may support a wide range of species and, for these reasons they are generally left uncut until September to enable the plants to complete their annual growth cycle.

The Community Councils are consulted annually on the Verge Maintenance Plan and invited to provide feedback.

Interest in wildflowers appears to be increasing and, during 2019, various members of the public contacted the Roads Service and/or the Environment Officer to suggest additional verges that might be considered for conservation management. These were surveyed and found to meet the criteria to allow them to be added to the set of Conservation Verges. Throughout the Orkney Islands there are over 1125 miles of roadside verges, amounting to an area of at least 525 ha. During 2020, 90.10 miles of verge were under conservation management.



**Bird's foot trefoil, Dog violet: both images © Sydney Gauld; Eyebright**

## Education

Natural heritage education is provided by the RSPB Field Officer on behalf of Orkney Islands Council. The following topics are offered:

- Bird ID, behaviour and making fat balls.
- The Big Schools Bird Watch.
- Raptors and dissecting owl pellets.
- Nature walk (various locations).
- Sensory walk.
- Nests and nest building.
- Improving school grounds for wildlife.
- Mini-beast hunting and survey techniques (terrestrial and aquatic).
- Marine litter.
- Bird watching trips.
- Sea eagles.
- Transient art.
- Rock pooling.
- Wildflowers and trees.
- Bumblebees.
- Bird friendly farming.
- Orkney Native Wildlife Project.

The Field Officer also helps run the John Muir Award, which is recommended for upper primary pupils and older, mainly focusing on the Discovery award. Participating schools have undertaken project work at places such as Happy Valley, Scapa Beach and RSPB nature reserves such as Brodgar and Hobbister.

## Special education projects

### Little Tern Project

The Little Tern Project alongside No. 4 Barrier progressed well during 2018 and 2019, completing its 3<sup>rd</sup> and 4<sup>th</sup> years. During the first year of the project 11 adults raised eight chicks; however, before the schools became involved, the little terns had failed in their breeding attempts at this site for many years. The project involves erecting temporary fencing where the terns nest and providing protection from disturbance.

Pupils from Burray and St Margaret's Hope primary schools created posters to remind members of the public that the terns would be nesting and how to avoid disturbing them. Children from both schools visited the beach before the terns returned from their migration. They set up the fenced area with decoys and chick shelters and cleaned the beach of litter. During both years the terns experienced increasingly successful breeding seasons:

- During 2018, 31 adults returned and raised 21 chicks.
- During 2019, 27 adults returned and raised 28 chicks.

During 2019 group of secondary pupils on work experience assisted with the removal of the fence after the birds had departed. An MSc student from Heriot Watt University also carried out a study into the provisioning of the colony and disturbance rates.

Restrictions in place to address the coronavirus pandemic meant that the project couldn't go ahead in 2020 and, unfortunately, no little terns are believed to have fledged from the site this year. In view of the success of this project, it is hoped that the schools will be able to be involved again in future years.



Little tern decoy © RSPB

### Egilsay corncrakes

Rousay primary pupils successfully completed their project learning about, carrying out surveys and undertaking conservation work for the endangered corncrake in Egilsay. They learned about the life history of corncrakes, the reason for their decline and how to survey successful breeding habitat. They also created new nettle corridors to provide cover for the birds during the early part of the year.

### White Tailed Eagles

The RSPB warden for Hoy, with support from the Field Officer, worked with Hoy school pupils, engaging them over the white-tailed eagles that have nested in the island in recent years. Pupils learned about the birds' life history and specifically about the Hoy eagles. During 2018 they visited the eagle watch car park where they could see the eagle and their chicks. They also named them: Bakko (Norse for first-born baby) and Craggie (Norse for observation).

## Corporate Services

The Procurement team's **Sustainable Procurement Policy**<sup>16</sup> actively promotes the Council's biodiversity duty. It confirms that where appropriate the Council will specify through its procurement processes, requirements which protect and enhance green spaces, habitats, species, sustainable farming practices and biodiversity, both locally and globally. It includes an assurance to protect and enhance priority habitats and species in Orkney.

## Partnership working and biodiversity communications

### The Orkney Local Biodiversity Action plan

The Council is lead partner for the Orkney Local Biodiversity Action Plan Steering Group which includes the Environment Officer, the Marine Services' Biologist and the manager of the OWIARC. The Group also comprises representatives from Scottish Natural Heritage (SNH), Scottish Environment Protection Agency (SEPA), Scottish Government Rural Payments and Inspections Directorate (SGRPID), Heriot Watt University, Royal Society for the Protection of Birds (RSPB), the Scottish Agricultural College (SAC Consulting) and the Orkney Field Club. The Steering Group is responsible for the preparation and delivery of the Orkney LBAP.

The originally LBAP was published in 2002 and includes 59 Habitat Action Plans for nationally and locally important habitat types that are found in Orkney. The current revision of the LBAP covers the period 2018-2022 and focuses on four themes:

- Greenspace.
- Farmland.
- Peatland.
- The Marine Environment.

LBAP actions completed by the Council during the last three years include:

- Ensuring the provision of good path access to natural and semi-natural environments around settlements.
- Areas for biodiversity enhancement have been identified through the Kirkwall Urban Design Framework. These include the area now known as Arcadia Park as well as the Papdale Play Park.
- A number of paths have been identified which would benefit from improved shelter, through planting trees and shrubs that are appropriate to the location and are beneficial for biodiversity. These include some paths in the vicinity of Papdale Play park.

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<sup>16</sup> <https://www.orkney.gov.uk/Service-Directory/P/sustainable-procurement.htm>

- A list of nature-friendly plant species has been prepared and uploaded to the Council's website. Entitled *Pollinator friendly plants for Orkney gardens*, the list can be accessed at <https://www.orkney.gov.uk/Service-Directory/L/outputs-from-the-orkney-lbap-2018-2022.htm>

## **Climate Emergency**

On 14 May 2019 Orkney Islands Council was among the first local authorities in Scotland to declare a climate emergency. At its meeting on 28 May 2019 the Orkney Partnership Board agreed to develop a collective approach to climate change and the climate emergency.

As a first step, information was collated on what partners were collectively doing across Orkney in terms of a climate change response and carbon reduction targets. This information was presented to the Board on 18 September 2019. The Board discussed aspects of the specific threats and potential opportunities that the climate emergency and climate change impacts have, in relation to achieving the specific aims of the Local Outcomes Improvement Plan (LOIP). It was agreed to:

- Create a framework for aggregated climate change actions and targets amongst partners and, when opportunities arise, increase joint working to assist delivery.
- Consider the addition of the climate emergency as one of the Partnership's cross-cutting challenges.

The Board agreed to establish a Short-Life Working Group to take forward this work by creating a framework and identifying key actions, following which it would make recommendations to the Board.

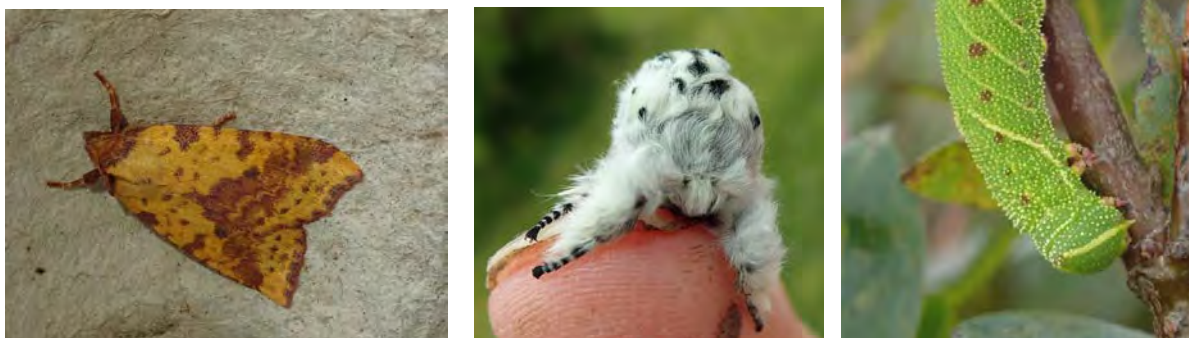
The Climate Change Short-Life Working Group aims to champion and promote existing activity on low carbon issues and further embed our collective response to the challenge of responding and adapting to, and protecting Orkney's citizens, businesses, habitats and wildlife from the devastating effects of climate change. It will also consider how best the Orkney Partnership, in the context of community planning requirements, and the opportunities under Strategic Objectives 8 (Environmental Wellbeing and Biosecurity) and 9 (Climate Change and Energy) of the National Islands Plan will enable Orkney to work towards achieving net zero carbon emissions by 2045.

## **Courses and events**

Each year a range of publicly available courses and events are organised by the Orkney Wildlife Information Advice and Records Centre (OWIARC). During 2018-2020 these were:

- Native woodland course 16 June 2018 (eight participants).
- Leaf miners course 8 September 2018 (seven participants).
- Liverworts identification course 4 May 2019 (seven participants).
- Moth trapping at Mull Head Visitor Centre 17 August 2019 (open day).

A further course on Orkney's geology was planned for 2020 but could not go ahead due to COVID-19 restrictions.



**Pink Barred Sallow, Puss Moth and Poplar Hawkmoth Caterpillar: all images © Sydney Gauld**

### **The Orkney Woodland Project**

The Orkney Woodland Project continues to operate, and 2018 saw the appointment of Jane Rawle as local agent for The Woodland Trust (Scotland). Jane is available to provide advice on all aspects of tree planting and woodland management, as well as information on available grants. The Council's Environment Officer and the County Archaeologist are routinely consulted on new woodland proposals to ensure that these don't result in any unintentional impact on existing habitats and species, or archaeological interests.

### **The North Isles Landscape Partnership Scheme**

The North Isles Partnership Scheme has two umbrella projects that include work to conserve biodiversity through habitat restoration and the recording / monitoring of wildlife in Orkney's North Isles.

#### Habitat Survey and Restoration Project

This project will see habitat enhancement works undertaken at selected sites within the North Isles. The focus is on areas that lie outside of designated sites and are currently not included within agri-environment schemes.

During 2019 and 2020 surveys to identify potential sites for inclusion in the project were carried out by community members in six of the North Isles (Papa Westray, Westray, North Ronaldsay, Eday, Stronsay and Sanday). Approximately 30 sites were identified where there was some potential for improvement to the habitat and where landowners had shown interest in the possibility of work being undertaken.

The second stage of the project has been to make detailed assessments of the sites and conduct further consultation with landowners. Progress has been made on four sites in Papa Westray and land management agreements for proposed works are



close to completion as of October 2020. Sites in North Ronaldsay are also in the process of detailed evaluation. Sites identified in other Isles will be assessed during 2021.

During 2019 and 2020 the Scheme has funded two tranches of work at the RSPB Onziebust reserve in Egilsay. This work has focused on restoration of wet grassland for wading birds and has included the use of specialist Softrak cutting machinery to reduce rank and tussocky areas of vegetation in wet fields, and the creation of additional pools and scrapes. This work will continue over the duration of the NILPS.

A programme of training activities was planned for 2020 and these included workshops to encourage the collection of native wildflower seeds and propagation of plug plants. Covid-19 restrictions have led to the postponement of these activities; however, an alternative means of delivery for some events has been sought. Funding has been granted to the Sanday Gardening Club to set up a small nursery that could produce plug plants and seed for use within the habitat restoration project. Discussions with members of the North Ronaldsay community to fund a similar project are also underway.

### Community Wildlife Recording

This project aims to encourage and facilitate community members to record wildlife and to send sightings to the Orkney Wildlife Information Advice and Records Centre. Some specific research and recording projects are also included, focusing on selected priority species and important groups, such as the great yellow bumblebee, otter, flapper skate. Wading birds and marine wildlife

A community snorkel training event took place in Wyre during 2019. Similar events across the North Isles were postponed in 2020 but are now due to go ahead in 2021. These will be combined with talks and marine wildlife recording activities.

In 2019 the NILPS funded the Orkney Skate Trust to record the presence of flapper skate and other marine animals with the use of baited video cameras. The filming took place in various locations across the North Isles in the summer of 2019. The films will form part of community events that are due to take place in 2021.

During autumn 2019 and winter 2020 work to survey the North Isles otter population began. Eday and North Ronaldsay were both surveyed and mapped for presence and distribution of otters, and trail cameras were used to provide additional information about individual animals and behaviour. A community talk about the project was delivered in Eday. During autumn 2020 and winter 2021 surveys will be undertaken in Sanday and Stronsay, with further work in Eday and North Ronaldsay.

As a result of Covid-19, many community training and recording events planned for summer 2020 could not go ahead. However, the NILPS website is being updated with information and resources about biological recording and the priority species that the project will focus on. This will provide some means and encouragement for people to get involved autonomously, until events and group activities can commence / resume.



**Grey seal and pup**

### **Happy Valley LNR Access Project**

During 2019 a project was completed to improve access through the Happy Valley Local Nature Reserve. An informal route through a wet meadow was upgraded, opening a wider area for visitors to enjoy all year round and reducing pressure on existing woodland paths. A boardwalk path was installed, connecting with a set of steps leading down to the mature woodland and creating a circular route. The steps had previously been commissioned by the Friends of Happy Valley, a local volunteer group which has been involved in the maintenance of Happy Valley since 2005. To take account of the wet ground conditions, the boardwalk was constructed using recycled plastic materials.

Two new seating areas were also created, using locally sourced stone: one in the wet meadow, overlooking the pond, and the other in a sheltered part of the 'young tree field' During the early months of 2020 the Friends of Happy Valley planted additional trees alongside the pond. Over time these will grow and provide shelter to the new seating area.



**One of the new stone seats at Happy Valley © LEADER Orkney Programme**



**Boardwalk path at Happy Valley © LEADER Orkney Programme**

The project was funded by the Scottish Government and the European Community Orkney LEADER 2014-2020 Programme; the Scottish Landfill Communities Fund and the Friends of Happy Valley.

## Arcadia Park

During 2019 the Council was successful in sourcing funding from Sustrans, to install new paths and landscape an area of open space in Kirkwall known as Arcadia Park. Between 2019 and spring 2020, the tarmac paths were laid, 125 trees and over 2,500 woody shrubs were planted, and sheltered seating was installed.

Although the land is owned by the Council, during 2017 management of the park was undertaken by the Orkney Alcohol Counselling and Advice Service (OACAS). It is now looked after by Voluntary Action Orkney (VAO). The aim is to create a place where people of all ages can walk, cycle and spend time outdoors, experiencing the peaceful surroundings of the park and the wildlife it supports.

## Other biodiversity actions

**Bag the Bruck** is a voluntary clean-up of rubbish which is undertaken each spring on over 50 sites throughout the Orkney Islands, mostly on the islands' many beaches. This initiative aims to address the serious threat that marine litter presents to both wildlife and people. Until 2014 Bag the Bruck was organised by a local group, Environmental Concern Orkney; however, it has now been taken over by members of the Outdoor Orkney group. Orkney Islands Council has supported Bag the Bruck for many years through the provision of gloves and bags and also by collecting and disposing of the waste collected. Bag the Bruck 2020 had to be cancelled due to restrictions to address the Covid-19 pandemic.



A Bag the Bruck event in Stronsay © Stronsay School

A similar scheme, **Pick up Three Pieces**, was established by staff and pupils at Glaitness Primary School and encourages people to remove and dispose of 3 pieces of waste when they visit certain local beaches. PU3P has been adopted by other areas within Scotland and is now the shore-based element of KIMO Scotland's "Fishing for Litter" initiative, making it a national campaign.

The Council's Environment Officer took part in Family Day at the **Orkney International Science Festival** in 2018 and 2019 with stands containing information and activities to raise awareness of the importance of a range of wildflowers and ornamental plants for bumblebees and other insect pollinators. On 30 August 2018 she also helped deliver a seed collection event on wildflower propagation in Egilsay.

During 2019 she provided locally sourced wildflower seed and helped children at Shapinsay Community School to grow plug plants and create a small area of wildflower meadow within the school grounds. On 25 October 2019 she delivered a wildflower presentation at a meeting of the Orkney Field Club and just before lockdown on 3 March 2020 she gave a similar presentation to the Stromness Garden Club.

## **Biodiversity highlights and challenges**

### **Highlights**

#### **Mull Head LNR Access and Interpretation Project**

During 2019 and 2020 the Council embarked on a project to enhance the visitor experience at the Mull Head Local Nature Reserve.

Lengths of recycled plastic boardwalk were installed in particularly wet areas, along with finger-post way markers to encourage visitors to adhere to recognised routes, avoiding causing damage to sensitive habitats and disturbance to breeding birds. Hazard signs were also installed to warn visitors of proximity to high cliffs.

A GPS Tour Guide app was created which provides a range of natural and cultural heritage information at 20 locations around the reserve. The app is available on smart phones and may also be accessed remotely online, allowing potential visitors to sample what the reserve has to offer. New interpretation panels are also planned for the car park.

New gates have been erected and fencing repaired with the aim of establishing a programme of conservation grazing by sheep on part of the reserve where the vegetation has become rank and overgrown.

The Mull Head leaflet has been updated and reprinted and additional signage installed to guide the way to the Visitor Centre. A group of young people from the local Connect Project also spent a day at the reserve, helping restore a pathway through the wetland area in front of the Visitor Centre.

The project was funded by the National Lottery Heritage Fund, the Scottish Government and the European Community Orkney LEADER 2014-2020 Programme.

#### **Little Green Holm**

During October 2020 Councillors agreed to take ownership of the island of Little Green Holm, as an investment towards the ongoing conservation of part of Orkney's biodiversity. The Crown had offered the island to Orkney Islands Council at no cost, other than the administration costs associated with the transaction itself.

Lying 4km north of Shapinsay and 2km south-west of Eday, Little Green Holm is vegetated, with a coastline made up of rocks and boulders. Together with the neighbouring island of Muckle Green Holm, the low-lying island is part of a Site of

Special Scientific Interest which supports a nationally significant population of grey seals.

The site was last monitored in 2014 when the seal colony was found to be in favourable condition. A pup survey undertaken in 2010 estimated that 900 pups were born on the Holms; at the time, this figure represented around 2% of grey seal pups born within the UK.

The Council's acquisition of Little Green Holm will provide the Authority with an opportunity to ensure that the island can continue as a haul-put and breeding site for grey seals.

## **Challenges**

### **Orkney Community Wind Farm Project**

Through 'Orkney's Community Wind Farm Project', the Council's Strategic Projects team is investigating three sites for potential community wind farms in the county – at Wee Fea in Hoy, Faray in the North Isles and at Quanterness in St Ola.

All three developments are extensive and present a number of environmental challenges, not least their effects on biodiversity.

The site of the proposed Hoy wind farm is located within a Local Nature Conservation site and is adjacent to an area of Hoy that is designated as a Site of Special Scientific Interest, Special Protection Area and Special Area for Conservation.

The Faray site forms part of the Faray and Holm of Faray Special Area for Conservation and Site of Special Scientific Interest, which is designated for its importance as a grey seal haulout and breeding site.

The Quanterness site is located on farmland but is close to several designated natural heritage sites.

A planning application to develop five turbines at Quanterness was submitted by Orkney Islands Council to the Scottish Government in January 2020; and a further application for a six-turbine wind farm at Wee Fea was submitted in October 2020. During October 2020 the Council launched a public consultation on revised plans for a six-turbine development on Faray, in advance of a planning application being submitted early in 2021.

### **Orkney Native Wildlife Project**

In June 2018, Orkney Islands Council joined RSPB and NatureScot (formerly Scottish Natural Heritage) as a partner in the Orkney Native Wildlife Project.

The Project aims to safeguard the unique and internationally important native wildlife of Orkney by addressing the threat it faces from invasive non-native stoats.

Stoats are native to the UK mainland but not to Orkney, where they were first recorded in 2010. Since then, the stoat population has increased and spread

throughout Mainland Orkney and the Linked Isles including Burray and South Ronaldsay. The animals have no natural predators in Orkney and pose a very serious threat to the county's wildlife, particularly the Orkney vole, hen harrier, short-eared owl and other ground nesting birds for which the islands are internationally important and which draw many visitors to Orkney.

By working with local communities, schools, tourism groups and landowners, the Project will remove stoats from Orkney and put measures in place to prevent them re-invading. This is key to preventing loss of biodiversity in Orkney and protecting it as a stronghold for internationally rare and threatened species, as well as protecting the local economy.

The primary goal of the Project is to eradicate stoats from Orkney. It will also provide a legacy by:

- Putting in place biosecurity plans across the Mainland and other islands to ensure no incursions of stoats are repeated.
- Developing a science programme that will continue as part of long-term native wildlife monitoring after the Project has ended.
- Engaging communities and visitors with local wildlife and raising awareness of the islands' importance for wildlife with tourism providers, to ensure it continues to provide lasting benefits for the local economy.
- Engaging Orkney's younger generations with local wildlife through an education programme in schools and opportunities to be Young Ambassadors and involved with the project's monitoring plan.

The Project is the first stoat eradication conducted in the northern hemisphere, the largest stoat eradication programme to date and the first of its size on a fully inhabited island.

While the Project was being developed and funding sought, it was essential to prevent stoats spreading. Stoats are good swimmers and have been known to swim up to 3km. Therefore, in late 2017 a coastal biosecurity trap network was deployed in five areas of Mainland Orkney identified as potential 'jumping off' points.

Following this, in 2018, a conservation detection dog was brought over from New Zealand (the first of its kind in the UK) and spent three months checking for signs of stoats on islands within swimming distance of the Mainland and Linked Isles. No stoat presence was confirmed on the islands.

In late 2018 funding was acquired, thanks to generous support from the National Lottery Heritage Fund and EU LIFE, for a five-year project which began in early 2019.

The team quickly began identifying and obtaining land access to lay eradication traps across the Orkney Mainland and Linked Isles. Lethal, humane traps known as DOC200s are used. These are housed in specially designed boxes which ensure they operate humanely, and to minimise the risk of catching animals other than stoats. Approximately 80% of trap boxes contain two traps and the remainder a single trap.

By the end of 2019, 500 trap boxes were deployed and being actively checked in South Ronaldsay and Burray and the biosecurity trap network had been expanded to include trap lines in eight high-risk islands. By the end of March 2020, traps were also deployed in protected areas in the West Mainland and more than 1,000 were deployed in the East Mainland.

Currently, thanks to the support of more than 750 landowners, the Project has over 5,000 trap boxes deployed. This includes 1,653 active traps in the East Mainland and Linked Isles networks and just over 400 traps in the combined Mainland and island biosecurity network which are being checked on an approximate three-week cycle. There are currently over 2,500 traps deployed in the West Mainland which will be opened once the entire network has been deployed. The Project is aiming to have the entire network deployed and active by early 2021 and is making a final effort to obtain the land access needed to achieve this.

To date, the Project has caught 591 stoats in the East Mainland and Linked Isles and in the West Mainland biosecurity network.

In addition to maintaining biosecurity trap networks and initiating incursion responses to investigate potential sightings, the Project's biosecurity officer has been developing ties with island communities, establishing a biosecurity working group and developing biosecurity plans. Three stoat detection dogs will be joining the Project team towards the end of 2020 and checks will be conducted on all high-risk islands as soon as possible. To date, no stoat sightings have been confirmed on these islands and no stoats caught.

In 2019, the Project's monitoring programme conducted a baseline study. Important bird species such as hen harrier and voles will continue to be monitored each summer over the course of the Project and a full analysis will be conducted in the final year. The Project is grateful to the Orkney Raptor Study Group and RSPB Scotland for the invaluable information provided, as well as all the short-eared owl sightings submitted through the *Short-eared owls in Orkney* Facebook page.

The Project's volunteer trapping and monitoring programmes were also started during 2019 with members of the public joining the Project team for wildlife surveys and volunteering to host traps in their gardens.

Finally, the Project started delivering educational sessions. From May 2019 to March 2020 the Project visited 11 schools and gave 90 wildlife lessons covering a range of topics to 1,379 children.

The Covid-19 pandemic has had a huge effect on the Project. All activities were put on hold at the end of March 2020 and, while the Project was able to resume trapping operations in June 2020, other activities remain seriously curtailed. As a result, the Project requested and received a one-year extension to late 2024.



## Monitoring

A set of indicators has been identified, to monitor the effects of implementing the Orkney Local Development Plan and associated Supplementary Guidance documents. These indicators are monitored annually over the lifetime of the Plan.

The Environmental Unit team at Marine Services continues to implement a range of marine monitoring programmes, as described above under the section 'Actions taken to improve biodiversity conservation'.

## Forthcoming developments in biodiversity conservation

The United Nations is due to organise the 15<sup>th</sup> meeting of the Conference of the Parties (COP 15) to the Convention on Biological Diversity (CBD) in Kunming, China in May 2021, where a post-2020 global biodiversity framework and renewed Plan of Action will be adopted. This meeting will be complementary to the COP 26 Climate Summit which is planned to be held in Glasgow during November 2021.

The post-2020 framework is to implement broad-based action in support of a 2050 vision, '*Living in harmony with nature*'. A 'net zero' draft framework has been produced with four long-term goals for 2050, eight milestones to assess progress in 2030 and 20 action-oriented 2030 targets.

At COP 15 the draft framework will be subject to negotiation by CBD Parties, including the UK Government, and it will involve setting dedicated 2030 and 2050 targets for increasing natural ecosystems and reducing the number of threatened species.

Nature-based Solutions (NbS), their potential in climate change mitigation and adaptation and restoring biodiversity is a priority theme of the UK COP 26 Presidency.

NbS are actions that work with and enhance nature, to help address societal challenges. Biodiversity supports and is at the core of holistic, Nature-based Solutions. There are clear synergies between biodiversity enhancement, NbS and overarching goals to achieve net-zero carbon emissions.

An example of how the NbS concept has already been adopted locally is the establishment of areas of wildflower meadow and tree planting within the surface water management scheme for Foreland Road, Kirkwall.

## Contribution to the 2020 Challenge for Scotland's Biodiversity national targets

Targets / key steps from Chapter 1 (Healthy ecosystems).	Contribution to key step?	Justification.
1.1 Encourage and support ecosystem restoration and management, especially in catchments that have experienced the greatest degradation.	Yes.	The Orkney LBAP 2018-2022 includes actions to raise awareness of farming for biodiversity through the education system. ' <i>Develop an awareness of environmental good practice</i> ' is one of the modules delivered by the Orkney College. Key environmental issues addressed by the module include biodiversity depletion, pollution, climate change, resource depletion and damage to ecosystems.
1.2 Use assessments of ecosystem health at a catchment level to determine what needs to be done.	N/A.	N/A.
1.3 Government and public bodies, including SNH, SEPA and FCS, will work together towards a shared agenda for action to restore ecosystem health at a catchment-scale across Scotland.	N/A.	N/A.
1.4 Establish plans and decisions about land use, based on an understanding of ecosystems. Take full account of land use impacts on the ecosystems services that underpin social, economic and environmental health.	Yes.	Orkney Local Development Plan Policies 9 Natural Heritage and Landscape and 12 Coastal Development seek to protect ecosystem services that underpin social, economic and environmental health. Further guidance on how this can be achieved is provided in Supplementary Guidance: Natural Environment.

<b>Targets / key steps from Chapter 2 (Natural capital).</b>	<b>Contribution to key step?</b>	<b>Justification.</b>
2.1 Encourage wide acceptance and use of the Natural Capital Index (2012) including a comparable measure for the marine environment.	N/A.	N/A.
2.2 Use this index to influence decision-making and market-based approaches, so that the wider monetary and non-monetary values for ecosystem services are recognised and accounted for.	N/A.	N/A.
2.3 Undertake a major programme of peatland conservation, management and restoration.	Yes.	The Orkney LBAP includes actions to undertake a project to restore an area of degraded bog peatland and deliver peatland restoration advisory events. During 2019 RSPB established a pilot restoration project on an area of land at Nutland in the parish of Rendall.

<b>Targets / key steps from Chapter 3 (Biodiversity, health and quality of life).</b>	<b>Contribution to key step?</b>	<b>Justification.</b>
3.1 Provide opportunities for everyone to experience and enjoy nature regularly, with a particular focus on disadvantaged groups.	Yes.	Key aims of the Orkney Outdoor Access Strategy are to “provide a range of access opportunities suitable for different user groups and people of all abilities which are safe, welcoming and enjoyable; and “promote responsible behaviour in the countryside through education and information”.  Orkney’s Core Path Plan includes a number of paths which provide public access to high quality natural heritage

Targets / key steps from Chapter 3 (Biodiversity, health and quality of life).	Contribution to key step?	Justification.
		sites. Examples include the linear path WM26 which follows the coast through the Stromness Heaths and Coast SAC; and path R6 which offers a circular route on Faraclett Head, part of the Rousay SPA.
3.2 Support local authorities and communities to improve local environments and enhance biodiversity using green space and green networks, allowing nature to flourish, and so enhancing the quality of life for people who live there.	N/A.	N/A.
3.3 Build on good practice being developed by the National Health Service (NHS) and others to help encourage greenspace, green exercise and social prescribing initiatives that will improve health and wellbeing through connecting people with nature.	Yes.	<p>During 2018 Council officers worked closely with the Orkney Alcohol Counselling and Advisory Service and NHS Orkney to secure funding for biodiversity enhancement and installation of new paths and seating within an existing area of green space, opposite the new Balfour Hospital in Kirkwall. Now named Arcadia Park, this space is accessible for people with reduced mobility and offers a safe and inspiring area for gentle exercise and quiet contemplation.</p> <p>In 2019 Council officers joined forces with the Papdale East Play Park Association (PEPPA) to both develop plans and source funding to enable improvements to an existing play area alongside The Meadows in Kirkwall. Again, this project will include enhancements for biodiversity.</p>
3.4 Increase access to nature within schools, and	Yes.	Outdoor education for schools is delivered by the RSPB Field Officer on

<b>Targets / key steps from Chapter 3 (Biodiversity, health and quality of life).</b>	<b>Contribution to key step?</b>	<b>Justification.</b>
support teachers in developing the role of outdoor learning across the Curriculum for Excellence.		behalf of the Council.
3.5 Encourage public organisations and businesses to review their responsibilities and action for biodiversity and recognise that increasing their positive contribution to nature and landscapes can help meet their corporate priorities and performance.	N/A.	N/A.

<b>Targets / key steps from Chapter 4 (Wildlife, habitats and protected spaces).</b>	<b>Contribution to key step?</b>	<b>Justification.</b>
4.1 Ensure that the management of protected places for nature also provides wider public benefits.		The Council manages both the Mull Head and Happy Valley Local Nature Reserves. Projects were undertaken in 2019 and 2020 to upgrade access at both sites, and to provide enhanced interpretation at the Mull Head reserve.
4.2 Align habitat restoration on protected areas with national goals for improving ecosystem health, with local priorities determined at the catchment or landscape scales.	N/A.	N/A.
4.3 Integrate protected areas policy with action for wider habitats to combat fragmentation and restore	Yes.	Orkney Local Development Plan Policy 9 Natural heritage and landscape seeks to ensure that all development proposals avoid further fragmentation

<b>Targets / key steps from Chapter 4 (Wildlife, habitats and protected spaces).</b>	<b>Contribution to key step?</b>	<b>Justification.</b>
key habitats.		or isolation of habitats and, where possible, incorporate new benefits for biodiversity.
4.4 Develop a wildlife management framework to address the key priorities for sustainable species management, conservation and conflict issues, including reintroductions and invasive non-native species.	Yes.	Along with RSPB and SNH, the Council is a partner in the Orkney Native Wildlife Project. The project aims to safeguard the unique and internationally important native wildlife of Orkney by addressing the threat it faces from an invasive non-native predator, the stoat.
4.5 Involve many more people than at present in this work and improve understanding of the poorly known elements of nature.	Yes.	The Orkney LBAP seeks to improve public knowledge and understanding of the natural environment.  The Orkney Wildlife Information and Advice Centre provides courses which focus on a range of species, not simply those that are more familiar.

<b>Targets / key steps from Chapter 5 (Land and freshwater management).</b>	<b>Contribution to key step?</b>	<b>Justification.</b>
5.1 Promote an ecosystem approach to land management that fosters sustainable use of natural resources and puts biodiversity at the heart of land-use planning and decision making.	Yes.	Orkney Local Development Plan Policy 9 Natural Heritage and Landscape and Policy 12 Coastal Development seek to protect ecosystem services that underpin social, economic and environmental health.
5.2 Ensure that measures taken forward under the Common Agricultural Policy encourage land managers to develop and	Yes.	The Orkney LBAP 2013-2016 promoted a number of habitat types as Local Priorities for Agri-Environment Climate Scheme land management projects through the Scottish Rural

Targets / key steps from Chapter 5 (Land and freshwater management).	Contribution to key step?	Justification.
retain the diversity of wildlife habitats and landscape features.		Development Programme (SRDP). Many of these projects remain underway and will continue to be financially supported through the SRDP until 2021.
5.3 Support 'High Nature Value' farming and forestry.	N/A.	N/A.
5.4 Put in place the management necessary to bring Scotland's protected areas into favourable condition and improve the ecological status of water bodies.	N/A.	N/A.
5.5 Ensure that biodiversity and ecosystems objectives are fully integrated into flood risk management plans and restore wetland habitats and woodlands to provide sustainable flood risk management.	Yes.	The Local Flood Risk Management Plan for Orkney takes account of the county's internationally and nationally designated natural heritage sites. The environmental effects of the plan were identified and reported during screening for Strategic Environmental Assessment and a Habitats Regulations Appraisal.
5.6 Restore and extend natural habitats as a means of building reserves of carbon and to help mitigate climate change.	N/A.	N/A.
5.7 Provide clear advice to land and water managers on best practice.	N/A.	N/A.

Targets / key steps from Chapter 6 (Marine and Coastal).	Contribution to key step?	Justification.
6.1 Adopt a Scottish Marine Plan and develop regional marine plans to aid balanced decision making in the marine environment.	Yes.	Orkney Islands Council will take a lead role in the future Orkney Islands Marine Planning Partnership, supported by an Advisory Group of stakeholders representing local economic, environmental, community and recreational interests.
6.2 Establish a coherent network of Marine Protected Areas, promoting sustainable use and conservation.	Yes.	There are two Nature Conservation Marine Protected Areas in Orkney's inshore waters. These are the Wyre and Rousay Sounds MPA and Papa Westray MPA. Both are protected through the policies of the Orkney Local Development Plan and the pilot Pentland Firth and Orkney Waters Marine Spatial Plan.
6.3 Collate information on the location and sensitivity of priority marine features and make this information available to support their protection.	Yes.	<p>Actions identified under the Marine Environment theme of the Orkney LBAP 2018-2022 seek to build on current knowledge of the distribution and abundance of the following PMFs in local inshore waters:</p> <ul style="list-style-type: none"> <li>• Flame shell beds</li> <li>• Maerl beds</li> <li>• Seagrass meadows</li> <li>• Flapper skate</li> <li>• Sea trout</li> </ul>
6.4 Achieve good environmental status for Scottish seas.	Yes.	<p>Implementation of the Orkney Local Development Plan and the pilot Pentland Firth and Orkney Waters Marine Spatial Plan contributes towards this target.</p> <p>The Council supports Bag the Bruck and Pick Up Three Pieces, two schemes which encourage people to clean up local beaches.</p>



<b>Targets / key steps from Chapter 6 (Marine and Coastal).</b>	<b>Contribution to key step?</b>	<b>Justification.</b>
6.5 Bring Common Fisheries Policy fish stocks to levels consistent with Maximum Sustainable Yield wherever possible and take account of biodiversity in managing inshore fisheries.	N/A.	N/A.
6.6 Implement a rapid-response framework to prevent colonisation of new invasive species in Scotland's seas and islands.	N/A.	N/A.
6.7 Improve the monitoring of the marine environment to identify changes and guide progress towards the above outcomes.	Yes.	The Council's Ballast Water Management Policy for Scapa Flow includes a monitoring and recording programme for the presence of non-native species. Scrape samples are also routinely collected from visitor yacht moorings. Together, these sampling programmes provide distributional data on the presence of marine non-native species in Orkney.