Life 100% for nature

A model for success

LAYPERSON'S REPORT

PUBLISHED AUGUST 2025

LIFE18 NAT/UK/000838

LIFE 100% FOR NATURE PROJECT

About LIFE 100% for Nature

The LIFE 100% for Nature project aimed to improve habitats at risk and help threatened species on eleven RSPB reserves in Scotland by trialling innovative techniques and using new technology.

Project period: **late 2019 to Spring 2025**

Total budget: **2.457.601,00 € (£2,048,000.00)**
with EU LIFE contributing 60%

Project goals

- Enable favourable condition of habitats and species of European importance on RSPB Scotland nature reserves
- Implement best-practice and novel management solutions
- Encourage practices that can be replicated on other landholdings with habitats and species of European importance

We've set ourselves the hugely ambitious but achievable goal of halting the loss of nature in Scotland over the next five years. This is not an optional target, a 'nice to have', it's a critical part of ensuring Scotland is resilient and thrives, has amazing nature, benefits from all aspects of its natural capital, and remains an attractive place to live and visit. The success of LIFE 100% For Nature shows what can be achieved.

Dr Alasdair Allan
Acting Minister for Climate Action, Dr Alasdair Allan
LIFE 100% for Nature conference, 2 October 2024

Thank you to all our funders who have supported this project, including the LIFE programme of the European Union, NatureScot, the Endangered Landscapes and Seascapes Programme, The Famous Grouse, and many others.

Contents

List of abbreviations

SPA – Special Protection Area as defined in the European Union's Birds Directive
SAC – Special Area of Conservation as defined in the European Union's Habitats Directive
RSPB – the Royal Society for the Protection of Birds

Introduction and Background

The State of Nature

Nature is in trouble. We are facing a global biodiversity crisis, with one million species (one in nine species in Scotland) at risk of extinction, many within the next few decades.

In Europe, 81% of habitats and 63% of species are classified as in poor or bad condition.[1]

The 2023 UK State of Nature report[2] revealed that since the 1990s, populations of over 400 monitored species in Scotland have declined on average by 15%.

The Scottish Government has acknowledged that halting and reversing this decline in biodiversity is critical to our future environment[3]. To do this, we must act urgently – and at scale – to restore nature across our landscapes[4].

This was reiterated by Dr Allan, Acting Minister for Climate Action, in his speech at the LIFE 100% for Nature conference in Aviemore in October 2024: *increasing the resilience of nature and ensuring it can adapt is not just essential for nature but for all of Scotland's people. Scotland's natural capital, underpinned by biodiversity, reduces flood risk, stores carbon and provides many other vital ecosystem services essential to our lives.*

Meanwhile the European Commission's Nature Restoration Regulation, a key element of the EU Biodiversity Strategy, highlights that *restoring* [habitats] *and the species they host will help*

- ***increase biodiversity***
- ***secure the things nature does for free, like cleaning our water and air, pollinating crops, and protecting us from floods***
- ***limit global warming to 1.5°C***
- ***build up Europe's resilience and strategic autonomy, preventing natural disasters and reducing risks to food security***

▼ **Ancient oak woodland, Inversnaid.**

Protected areas

RSPB Scotland manages 72,000 hectares of land in Scotland to give wildlife a refuge and people a place to connect with nature. **Most of the RSPB's nature reserves in Scotland are on designated sites, areas protected because of their importance for rare, threatened, and vulnerable species and habitats. Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) are collectively referred to as European sites in recognition that these areas protect species and habitats that are important across Europe.**

These areas account for a significant portion of protected area features in Scotland. Over 95% of designated features under RSPB Scotland ownership/management are in favourable condition.

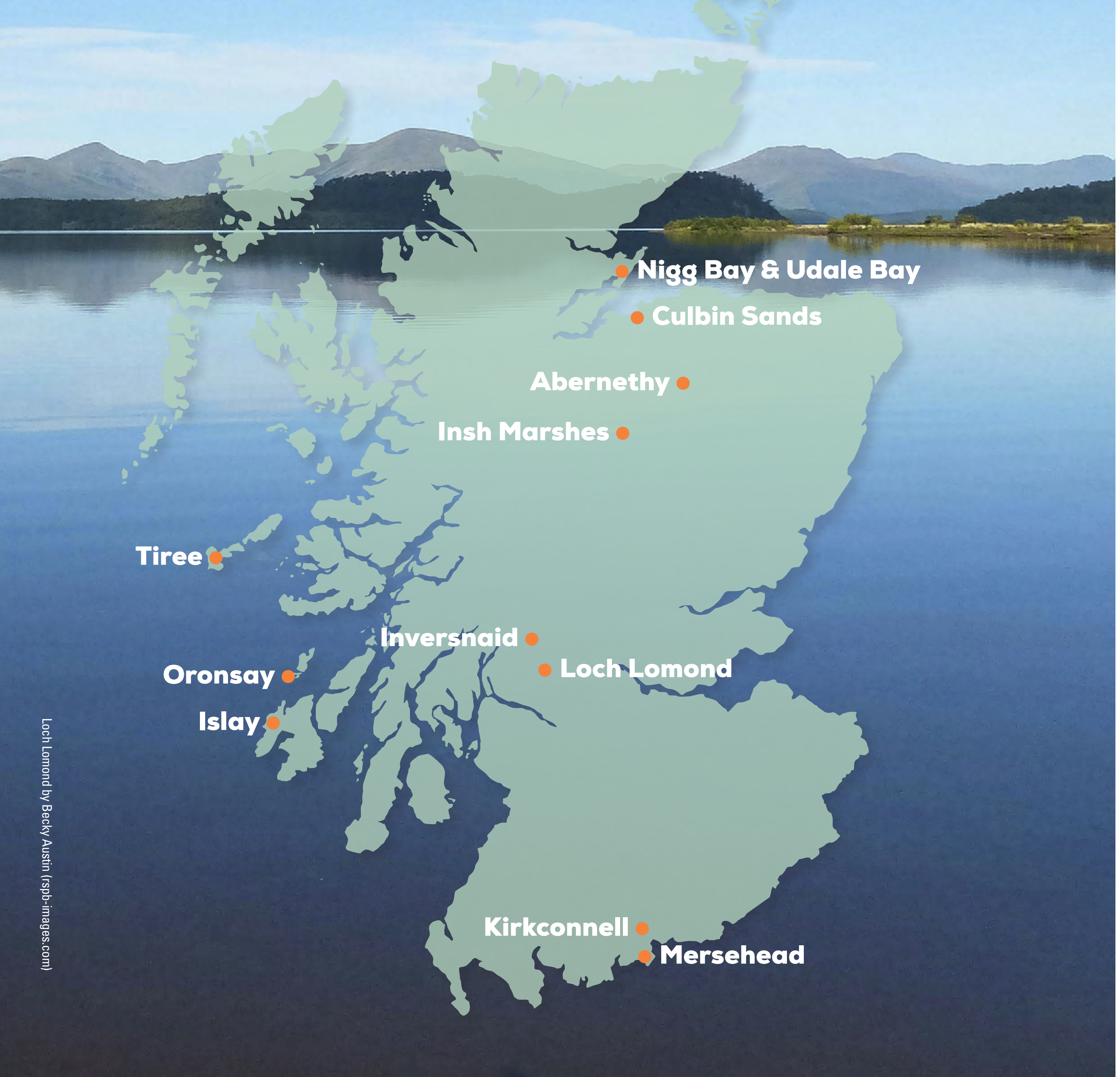
In Scotland, the effectiveness of protected areas is measured by looking at the condition of their designated features – the specific species, habitats and geology that makes each site special and justifies its protected status. When features are doing well within a protected area they are said to be in "favourable condition". There has been progress in improving the condition of protected areas across Scotland, but more must be done to ensure that Scotland's amazing nature sites are thriving and in the best possible condition, and that Scotland can meet its duties in respect of biodiversity targets.

The most recent assessment of the state of Scotland's protected areas, our very best places for nature, revealed that while 75.6% of natural features were in favourable or recovering condition, the remaining quarter were unfavourable. This represents a 4.8% decrease in the proportion of features in favourable condition since 2016 when it peaked at 80.4%[5].

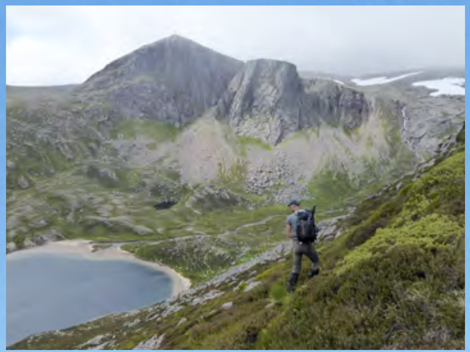
What we set out to do

The aim of the LIFE 100% for Nature project was to pave the way for all of the protected features for which RSPB Scotland is responsible to be brought into favourable condition. The project aimed to address a diverse range of features – some already in favourable condition but at risk, and others in unfavourable condition – and demonstrate that, with specific intervention at scale, favourable condition is achievable. In doing so, we wanted to demonstrate to stakeholders across Europe that this ambitious goal is possible. The aim was to not only improve the RSPB's own reserves, but to be able to offer, tested, evidence-based approaches that other landowners and organisations can implement.

▼ **Culbin Sands stretches along part of the Culbin Bar Special Area of Conservation.**



Loch Lomond by Becky Austin (rspb-images.com)



▲ **RSPB Abernethy nature reserve is the RSPB's second-largest reserve and has many designations.**

Where we worked

Some of RSPB's most valuable designated sites were selected for the LIFE 100% for Nature project due to their international importance for wildlife. We worked in 11 reserves across Scotland, from the dune systems at Culbin Sands and the Solway Firth to the ancient oak woodland at Inversnaid and machair grassland on Tiree.

The people behind the project

LIFE 100% for Nature was a largely technical project but its success is due to the people involved bringing together a wide range of skills, commitment, enthusiasm, and a willingness to embrace the new and work together.

For over five years people have been working hard to improve habitats for wildlife. In collaboration, they have trialled techniques and new technology and shared their experience and knowledge. They have shown what can be achieved if we work together.

On the ground

The make-up of our on-site teams varied according to the needs of each habitat and the work being carried out in any given year, but overall they included:

- RSPB nature reserve staff
- Ecologists
- Project officers and stock persons
- Monitoring officers
- Rural surveyors
- Volunteers

In partnership with:

- Graziers
- Specialist contractors
- Farmers, landowners and land managers
- Cairngorms Connect
- Research Institutes
- Deer stalkers

Central coordination

The project was managed by a project executive and senior project manager, alongside a project board with oversight of finance, project development, delivery and area management. A communications steering group drawn from both RSPB and partners guided dissemination and engagement.

► **Together, volunteers and staff at Culbin Sands walked 1,242 km in the last year.**

Specialist support

The project drew on expertise from across the RSPB – from ecologists, reserve staff, policy officers, advisory staff and data specialists to colleagues in project finance, communications, human resources and IT. We also consulted with external Greenland White-fronted Goose experts for the guidance document.

Partners

We worked with our funders and a range of local partners in the project areas, particularly around grazing, communications, engagement and cross-project research. They included NatureScot, Cairngorms Connect ELSP (Endangered Landscapes and Seascapes Programme), Moredun Institute (with Elanco, Liverpool University, Islay Vets), and Forestry Land Scotland.

Barbara Seel (RSPB)

Project Actions and Outcomes

▲ **Collecting seed from remaining, isolated, plants.**

This was a very practical project delivering conservation actions at a diverse range of locations in Scotland. Some focussed on improving the condition of European sites, both for specific species and their intrinsic ecological value; others aimed to improve the condition for specific designated species in decline at the sites (although their management will also have a wider biodiversity benefit). The following examples show the variety of actions carried out and the benefits they have had.

Loch A'an

As part of a wider project addressing herbivore impacts, we aimed to produce Montane Willow (Sub-arctic *Salix*) saplings at Abernethy for planting in the Cairngorms SAC to enable regeneration and restoration of this rare habitat.

We extended the existing small tree nursery which now produces healthy saplings from seeds and cuttings of the scarce Downy Willow (*Salix lapponum*) and Whortle-leaved Willow (*Salix myrsinites*).

▲ **Since the project started, over 13,000 saplings have been planted out at higher elevations around the Loch A'an basin, Abernethy, to augment the existing isolated remnant populations that were too far apart to cross-pollinate and regenerate naturally.**

Working in partnership with neighbouring landowners to reduce herbivore pressure allowed the saplings to be planted out three years ahead of schedule. The continuation of this collaborative approach has enabled the plants to thrive and the Montane Willow scrub feature has already been reassessed as Favourable by NatureScot.

We have also collaborated with neighbouring landowners in the wider Cairngorms to obtain cuttings from other locations to propagate at the tree nursery for use on the reserve. This collaborative work is now being extended to providing other landowners with seedlings grown in the nursery for planting out on their land.

This project was led by the Cairngorms Connect Partnership with support for the tree nursery extension and the monitoring provided by LIFE 100% for Nature.

Networking and collaboration for effective conservation

To mitigate the climate and nature crises, we need to scale up conservation efforts, and fast. We also need to ensure that our protected areas are integrated within wider landscapes that are also managed to support nature. We can only do this if we work together and pool our knowledge.

Without improvements to the sustainability of wider land use practices, protected areas become the 'last islands of biodiversity' in an otherwise nature-deprived landscape[6]

Collaboration with neighbouring landowners and volunteers has been crucial to the project's achievements. Combining resources enabled intervention at scale and was an important factor in achieving (and exceeding) the project's goals.

▲ **Staff and volunteers remove invasive scrub at Culbin Sands and learn new skills.**

The results are almost all due to volunteers.

David Tompkins, Culbin Project Officer

Culbin Sands

At Culbin Sands we wanted to significantly improve the embryonic shifting dune habitat of the Culbin Bar SAC by removing invasive scrub and trees from the dunes and shingle bar to restore the natural dynamism to the dunes.

Engagement with volunteers provided the dedication and people power required to carry out this work in an area only accessible on foot. Since the project began they have removed 11.78 ha of scrub from an estimated 21.85 ha allowing species like Kidney Vetch (*Anthyllis vulneraria*) to emerge, in turn benefitting the rare Small Blue (*Cupido minimus*) and Dingy Skipper (*Erynnis tages*) butterflies that need these plants as food sources.

Working with Forestry and Land Scotland (FLS) enabled tools to be stored close to the site and provided suitable access for the scrub removal at Culbin Sands. As a result of that collaboration discussions are ongoing with a view to expand the project actions and remove the scrub on FLS's part of the designated dunes.

Inversnaid

To enable the natural regeneration of the ancient oak woodland in the Loch Lomond Woods SAC at Inversnaid, we needed to control herbivore pressure to allow seedlings to thrive and mature into established trees.

We used specialist contractors to install 2.4 km of fencing in exceptionally difficult terrain to exclude herbivores from key areas and allow new tree growth to establish. We also monitored herbivore numbers using state of the art technology and worked with neighbouring landowners to reduce herbivore pressure.

With grazing removed from these fenced areas significant regeneration, especially of Hawthorn and Rowan has appeared.

As a result of the enhanced herbivore control, we are also seeing signs of natural regeneration outside the exclosures.

► **A small Rowan tree coming through the vegetation in the exclosure.**

►► **Fencing protects saplings from herbivores.**

▲ **Spartina flowers and seedheads are removed to stop the invasive plants spreading further.**

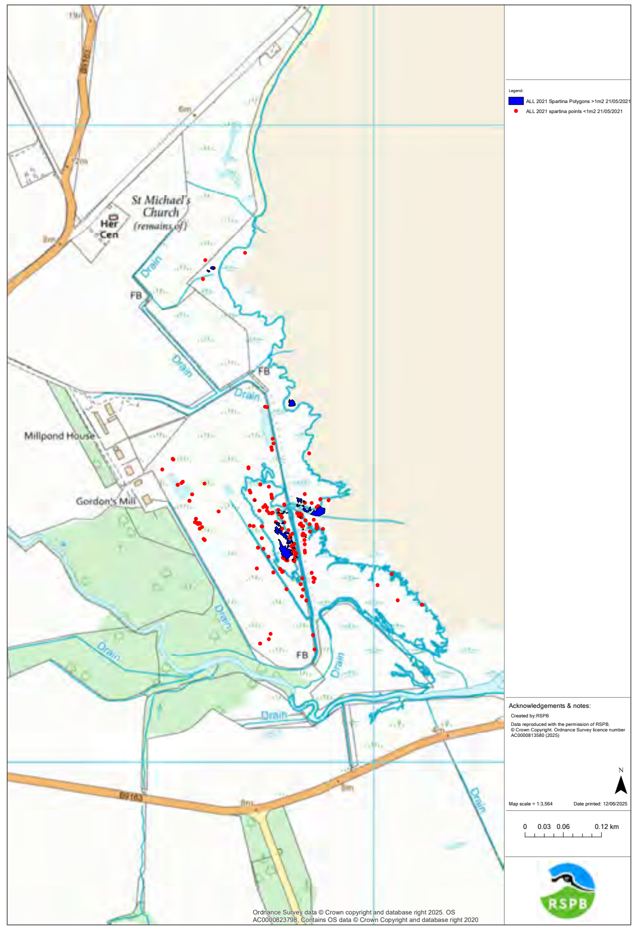
Nigg and Udale

To reverse the spread of the invasive Common Cord-grass (*Spartina anglica*) at Nigg Bay and Udale Bay in the Cromarty Firth SPA, we established a management plan using three main methods in an integrative approach: herbicide treatment, covering plants with sheeting and flower stripping. We also removed Gorse (*Ulex)* which was encroaching on the upper saltmarsh. By doing this, we aim to reverse the loss in foraging and roosting areas for Bar-tailed Godwits and the wider wintering waterbird assemblage, both features of the SPA.

Mapping and recording invasive Common Cord-grass (*Spartina anglica*) using an app developed by the project and data teams has increased efficiency (the teams know where to look) and enabled targeted treatment. Over the course of the project, herbicide use has been reduced by 97% and *Spartina anglica* has been near eradicated from an area of approximately 100 ha. Other reserves are considering using the approach to control other invasive plants, for example Loch Lomond to manage New Zealand Pygmy Weed (*Crassula helmsii*).

Innovation for conservation

By trialling new technology and innovative techniques, project teams have worked out ways to incorporate conservation actions within their day-to-day activities. It has enabled them to carry out actions in areas that are difficult to access and streamline operations through effective tracking and monitoring. In combination this allowed teams to scale up their activities and have a positive impact within the project timeframe.



▲ **Spartina Map, Udale Bay, 2021.**

▲ **Spartina Map, Udale Bay, 2024.**

◄▲ **Maps showing the spread of Spartina before and after management.**

- **Spartina plants greater than 1m²**
- **Spartina plants smaller than 1m²**

Loch Lomond

In the Loch Lomond SPA, a state-of-the-art tractor enabled the team to cut difficult wet ground and rough vegetation to the ideal height to increase the availability of high-quality habitat for wintering Greenland White-fronted Goose (GWF) on on parts of the reserve that were previously difficult to manage.

The team knew what they needed to deliver, but with no comparable vehicle in Scotland, they had to take a leap of faith when deciding to use a low-ground-pressure tractor. One that paid off: with flooding increasingly unpredictable, timeslots arranged with specialist contractors turned out in some years to be unsuitable and, with no further availability, cutting was missed for a year; having a specialist tractor on site provides the flexibility required to ensure regular cutting, crucial to maintaining the ideal sward conditions for GWF Geese.

In addition, operating the tractor in-house provides continuity and experience; the team have not only learnt to use the equipment but also to read the land and know when and where (and where not) to cut for maximum benefit.

Areas managed using the low-ground-pressure tractor are not only benefitting Greenland White-fronted Geese; they are also attracting more Black-tailed Godwit, Dunlin, Greenshank and Teal as well as providing ideal conditions for the rare Tufted Loosestrife (*Lysimachia thyrsiflora*). Having seen the benefits and learnt from the Lomond team, our reserve on Orkney also purchased a low-pressure tractor; other reserves, like Loch Leven and Crook of Baldoon are close enough to borrow it, and the Loch Lomond and Trossachs National Park is considering purchasing one to benefit their habitat management.

▲ **Greenland White-fronted Geese overwinter at Loch Lomond, gathering strength before heading to breeding grounds in Greenland.**

The low-pressure tractor has totally transformed the reserve.

Luke Wake
Warden

▲ **Pink-footed Goose.**

▲ **Mersehead is home to a population of rare Natterjack Toads.**

Mersehead and Kirkconnell

At Mersehead, we first removed invasive Beach Rose (*Rosa rugosa*) and other scrubby plant species from the vegetated dunes in the Solway Firth SAC. Grazing is now preventing scrub from returning and improving botanical diversity.

Virtual fence collars have enabled grazing in this remote habitat with challenging terrain where installing fencing would be difficult, and managing cattle would be time consuming. With the virtual fence collars the team and graziers have the additional benefit of supervising their cattle remotely and moving them as required to avoid under or over grazing or to bring them to safety in advance of high tides or flooding.

The habitat management is already benefitting the Natterjack Toad (*Epidalea calamita)*, the UK's rarest amphibian, with numbers increasing over the course of the project.

We also made infrastructure improvements to allow cattle to graze the Atlantic salt meadow, parts of which had not been grazed for almost 20 years, to benefit the habitat as well as wintering populations of Svalbard Barnacle Goose and Pink-footed Goose.

▲ **Mersehead scrub cover before removal.**

▲ **Mersehead scrub cover after removal.**

Insh Marshes

At Insh Marshes SAC, a herd of Koniks, a breed of Polish ponies well-suited to wetland landscapes, is maintaining the condition of the transition mires and quaking bogs. Their conservation grazing is controlling the spread of Common Reed (*Phragmites australis*) in this nationally important fen and mire habitat, home to an array of rare plants, insects and birds. Grazing the fen has also produced a vegetation structure more suitable for ground-nesting birds such as Curlew and Redshank, and allowed shorter sedges and herbs to proliferate.

► **Insh Marshes is only one of two sites in the UK where String Sedge (*Carex chordrrhiza*) is known.**

▼ **Koniks are well-suited to grazing wetland landscapes.**

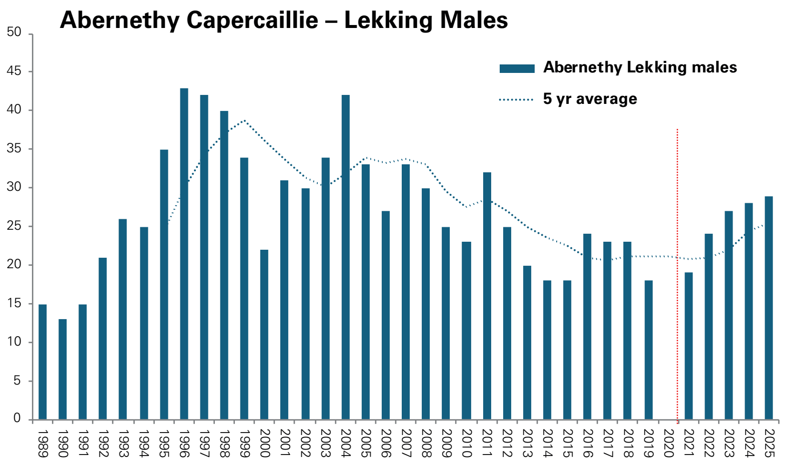
▲ **Scotland is the only place in the UK where Capercaillie can be found.**

Abernethy

In the Caledonian pinewoods of the Abernethy Forest SPA, one of the last remaining strongholds for Capercaillie (*Tetrao urogallus*) in the UK, we trialled two large-scale ground vegetation management methods (cutting and grazing) to stabilise the population of this species at risk of extinction from the UK.

Using a remote-controlled robotic flail mower we are able to remove dominant Heather (*Calluna vulgaris*) in difficult terrain, enabling Blaeberry (*Vaccinium myrtillus*), an important food source for Capercaillie to emerge. We also created open areas where Capercaillie and their chicks can roam unhindered, between the Blaeberry bushes, beneath which they can hide from predators.

Virtual fence collars enabled targeted forest grazing with cattle in previously hard to graze areas where installing fencing would not only be difficult but would also present an additional hazard and barrier for species like the Capercaillie we are trying to support. In addition, the technology allows the team and graziers to supervise their cattle remotely and move them as required to avoid under or over grazing.



▲ **Figure 1. Peak count of male Capercaillie lekking at RSPB Abernethy reserve each year. Red line showing when project interventions commenced. Data available from 1999 onwards. No count took place in 2020 due to covid.**

Collaborating with local farmers and crofters was key to the delivery of conservation grazing at Abernethy, Mersehead and Kirkconnell, and on Tiree. Their willingness to trial new technology and graze their livestock in 'new' or previously abandoned habitats enabled grazing at a scale far greater than would have been possible otherwise.

Originally trialled in parallel, the use of both methods in combination is proving to be most effective: the mower to do the initial hard work opening up the dense overgrown areas of predominantly Heather; the cattle to help maintain the more open and diverse structure of the habitat.

Whereas the habitat management under LIFE 100% for Nature has brought clear benefits, this is being carried out in conjunction with other measures[7] to support the Capercaillie population at Abernethy. Together, these are probably responsible for producing the observed increase.

Across Scotland Capercaillie numbers have been declining significantly in recent years. At RSPB Abernethy they have increased from **18** lekking[8] males at the start of the project to **29** at the end. The largest increase was in the cattle grazing plot (**3** males to **14**).

Networking with other Capercaillie experts in Europe allowed the Abernethy team to view their results in an international context and gain a better understanding of the connection between their habitat management and the results. The knowledge exchange in turn gave their European counterparts the confidence to campaign for and replicate the ground vegetation management implemented at Abernethy in the Black Forest SPA in Germany.

► **A remote controlled robotic flail mower enables removal of dominant Heather in challenging terrain.**

▲ **Virtual fence collars allow cattle to be monitored and managed remotely.**

▲ Chough forage for invertebrates in dung.

▲▼ State-of-the-art weighing equipment helps the team fine-tune livestock medication.

Oronsay and Islay

On Oronsay and Islay, the aim was to enhance breeding conditions for Chough (*Pyrrhocorax pyrrhocorax*) by creating artificial nesting sites and reducing medication in sheep dung to benefit invertebrates like dung beetles.

Sheep and cattle graze grasslands in the SPAs to the optimal levels for Chough to forage for food. At the same time, their dung provides a habitat for invertebrates, a key food source for Chough. Livestock handling equipment helps increase the populations of dung invertebrates by reducing the levels of medication in the livestock, and in turn the dung: scales are used to accurately weigh sheep/cattle while a tag reader provides information on the animal's health and previous treatments. This facilitates precise dosing for parasite (fluke, roundworm) medication according to the individual animal size rather than generic dosing, which leads to unnecessarily large dosages.

Contributing to a knowledge exchange group[9] and looking at environmental impacts of veterinary medication led to the use of the handling equipment in a project trialling dung testing for parasite presence to reduce medication even further[10]. The state-of-the-art testing uses imaging and remote analysis provides results within hours. Livestock is now only treated when required and treated animals are isolated in sacrificial fields, not used by Chough. Five farms on Islay, as well as the RSPB's Islay and Oronsay reserves, have adopted the dung testing regime and significantly reduced the medication load on their livestock and the environment.

Tiree

On the Tiree machair SAC and Tiree wetlands & coast SPA we worked in partnership with grazing tenants to optimise grazing and water levels across some 300 ha of machair, dune grassland and humid dune slack, benefitting a suite of wildfowl and waders, in particular Ringed Plover (Charadrius hiaticula), Greenland White-fronted Goose (*Anser albifrons flavirostris*) and Barnacle Goose (*Branta leucopsis*).

Mobile fencing enabled targeted grazing which has removed dense vegetation and improved biodiversity and opened up the area for breeding waders.

Pools and channels that had vegetated over were cleared and re-opened using a digger, and a new sluice added, to increase the amount of open water which will also benefit breeding waders and wildfowl. Monitoring has revealed healthy numbers of breeding birds, with numbers of all species either stable or higher than in previous years.

Signs and sightings of Otters have also increased in the re-opened wetland areas. The Red-necked Phalarope (*Phalaropus lobatus*) had a bumper breeding season producing a total of six broods of young, whilst there was a record reserve showing of five Northern Marsh-orchids (*Dactylorhiza purpurella*).

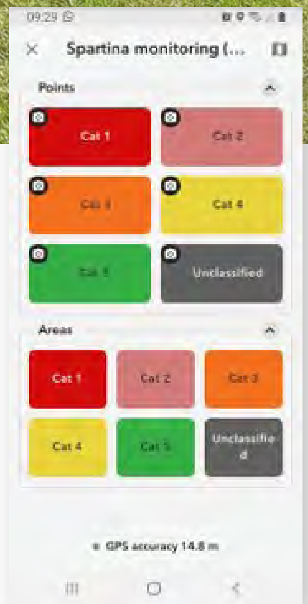
▲ Grazing is controlled using mobile fencing, avoiding both over- and under-grazing.

The most innovative of the work on Tiree is providing alternative nesting sites for Ringed Plover (*Charadrius hiaticula*): traditionally nesting on beaches, these rare birds face ever increasing threats from disturbance by humans, dogs and flooding. By ploughing overgrown gravel on a remote disused airfield to remove vegetation, we have provided safe nesting habitat for this species. This year (2025) 10 Ringed Plover pairs are breeding on these areas, as well as 13 pairs of threatened Little Tern (*Sternula albifrons*).

▲ Vegetation-free gravel patches provide safer nesting opportunities.

▼ Northern Marsh-orchids (*Dactylorhiza purpurella*).

▼Ringed Plover (*Charadrius hiaticula*), like to nest on shingle or pebble beaches.



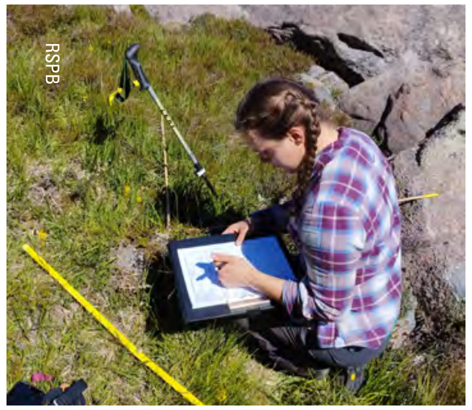
▲ A mobile app developed in-house enables findings to be recorded in the field.

Measuring for success

Robust and regular monitoring and assessment has been a critical tool for measuring the project's achievements and ensuring its goals are met. The data also allowed us to assess the impact of our actions from year to year, ensure they weren't having a negative impact, and gauge whether adjustments were required.

Our teams, supported by dedicated volunteers, carried out an extensive programme of monitoring tailored to the individual sites. Here are just a few examples:

▲ Staff and volunteers mark and rate Spartina plants in the Cromarty Firth, mapping their findings as they go.



▲ The health of willow saplings planted out is monitored each year.

In the Cairngorms many staff and volunteers were utilised to carry the willow saplings into to remote areas for planting, and to then monitor the survival and health of these willows. The data is not only important for measuring the project's achievements, it also helps the team decide where to plant future saplings to give them the best possible start.

The Abernethy team monitor Capercaillie activity at both managed and unmanaged trial plots. Staff and volunteers count the lekking males by listening from a safe distance. Hen and chick numbers are assessed using camera traps. The information allows them to compare the success of various methods and adjust their management accordingly.

▲ Camera traps allow Capercaillie activity to be monitored without disturbing the birds.

Engagement and communications

A communication plan was built into the LIFE 100% for Nature project from the outset, underpinned by a significant budget allocation to ensure its delivery. To reach as many people and as diverse an audience as possible we used a variety of communication methods:

- A dedicated website and blog provided information and updates on the project.
- Project films explained the project actions and celebrated the work carried out on the ground. These were shared publicly via the RSPB's and partners' social media channels.
- Articles in RSPB and partners' member newsletters, popular publications, and national and international newspapers raised awareness of the project.
- Information boards at the project sites describe what we are doing, and why.

Whilst Covid rules restricted our ability to hold in-person events at the beginning of the project, the development of new technology opened up opportunities for wider engagement through online events. Throughout the project, site teams delivered a varied programme of in-person and virtual engagement and demonstration events, reaching people locally, nationally, and even internationally.

▲ Information boards provide details on the project on site.

LIFE 100% for Nature Engagement
Autumn 2020 to Spring 2025

250	attendees of in-person demonstration events
500	attendees of networking events
29,500	views of project films
180,000	reached through project information boards
1,000s	reached through social media and newsletters

▲ Farm Walk & Talk, Kinnabus Farm, Islay. RSPB and Moredun institute demonstrate targeted control of fluke, and conservation grazing using virtual fencing.

▲ Members of the public learn about the ponies at Insh Marshes.

▲ Knowledge exchange between the LIFE 100% for Nature team and Austrian experts.

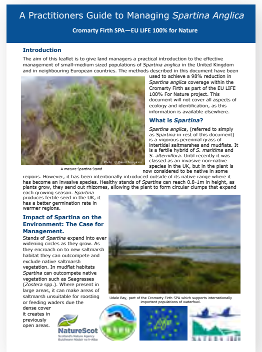
▲ Conference attendees learn about the work at Abernethy.

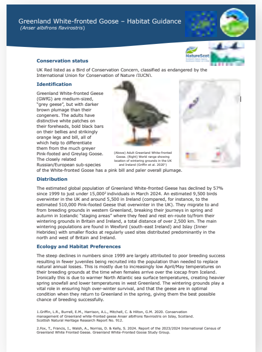
LIFE 100% for Nature Conference

The two-day conference held on 2 and 3 October 2024 in Aviemore, brought together almost 100 stakeholders from the UK including landowners and managers, conservation professionals and students, policy advisors, and council officers - for talks, discussions and demonstrations on the key aspects of habitat conservation and its importance in reversing biodiversity decline. Recording the event enabled us to share the talks and discussions internationally as well as with local stakeholders unable to make the date.

▲▼ Demonstration events help share experience of new technology.

▲ Project Conference, 2 October 2024, Aviemore.





▲ Project findings have informed practical guidance documents which can be downloaded from the project website.

Wider Outcomes

The benefits of the LIFE 100% for Nature project go beyond the species and habitats we focused on and improving biodiversity. The project outcomes also show that by protecting nature we are supporting a just transition, aiding health and wellbeing, and supporting policy.

Socio economic – supporting a just transition

The benefits of protecting European sites in Scotland have been estimated at more than seven times the annual costs of their management, based on recreational values alone.[11] Meanwhile volunteers in Scotland contribute more to the Scottish Economy in terms of their time and higher wellbeing, than the gross value of the arts, entertainment and recreation sector combined.[12]

The benefits LIFE 100% for Nature has brought to local communities are tangible and demonstrate that investing in conservation supports a just transition by growing the green economy, creating jobs, and providing opportunities for businesses.

Investing in nature = investing in communities

The combined project investment of £2m has:

- supported 20 graziers providing viable, good quality, and secure grazing at Abernethy, Mersehead and Kirkconnell, and on Tiree
- Created four full and one part-time job, most in rural areas with one commuted to a permanent post
- Provided over 30 volunteers and staff provided with skills to access green jobs (four have successfully secured jobs in conservation)
- Provided work for local businesses to a combined value of £204,000

The Project Officer responsible for volunteer coordination at Culbin gained experience and skills to subsequently secure a job on the Species Volunteer Network project, recruiting, managing and training volunteers for species recovery projects across Scotland.

In turn one of the Culbin volunteers was sufficiently trained and skilled up, such that they were able to backfill the Project Officer post for the remainder of the LIFE project and subsequently secure a seasonal ranger post.

The project also enabled two Project Managers to transition from other sectors and provided them with skills that allowed one to secure a permanent post in the conservation sector and will open the door for the other to future conservation work.

Skills and experience gained on the project enabled the Monitoring Officer to secure employment with the James Hutton Institute, a world-leading independent research organisation.

Demonstrating LIFE 100% for Nature's successes has generated follow on funding to secure the continuation of the work. This has, for example, allowed the assistant warden at Abernethy, now an expert in virtual fence cattle grazing, to be employed permanently.

Socio economic - supporting agriculture

Sharing expertise gained throughout the project has provided land and livestock managers with a shortcut to new technology and the assurance that conservation actions can support and benefit their operation. Virtual fence collars, for example, were not available when the project commenced. After working with local farmers to trial them, and demonstrating the benefits to other land managers, the collars are now a common sight on cattle throughout Scotland and the UK.

▲ Virtual fence collars are now a common sight across Scotland.

▼ Pool work on Tiree improved the habitat and provided work for local business.

▲ Forest grazing, Abernethy.

> Wacking out trees together – maybe it's quite good for working out family arguments.
> *Alice, volunteer*

▲ Volunteers, Culbin.

> In a world where we can feel a lack of power to make a difference, being able to contribute as part of a volunteer team working alongside an excellent leader brings a sense of satisfaction and achievement and inspires us to want to do more.
> *Culbin volunteers*

The reinstatement of traditional agricultural practices to land where it had recently been abandoned was introduced primarily for conservation benefit but has provided economic benefits for local farmers and crofters. Facing ever growing pressures, many have been forced to reduce livestock numbers. In contrast, the main grazier working with the Abernethy team has been able to increase his cattle herd since they began grazing in the forest, demonstrating that livestock farming and conservation are not only compatible but mutually supportive. Two more local farmers are now also benefitting from grazing their cattle on the reserve as well as increasing the conservation efforts.

On Islay and Oronsay sheep weighing equipment has helped farmers reduce medication use and costs and increased food sources for Chough.

Health and wellbeing

Making the transition to a Wellbeing Economy, one that is fair, green and growing, is a top priority for the Scottish Government, a founding member of the Wellbeing Economy Governments (WEGo) Group.[13]

According to Volunteer Scotland's Technical Report published in March 2025 *there is a higher mean mental wellbeing score among volunteers compared to non-volunteers*. In a time of heightened eco-anxiety, it is all the more important that people have the opportunity to be part of a safe and positive community and play a part in nature's recovery. LIFE 100% for Nature and its volunteers have benefitted from each other.

Volunteers across the project, whether helping in the tree nursery, marching for miles to remove scrub from the dunes at Culbin, or trekking over the Cairngorms carrying saplings, note a sense of belonging, that they feel connected and supported.

At Insh Marshes the ponies have increased community interest and engagement and made the community more aware of the team's conservation work and its benefits for nature. They also provide direct health benefits with one resident with anxiety issues feeling calmer around the ponies.

> Seeing the ponies at Tromie meadows, I wanted to connect with them straight away. I felt really relaxed standing among them, maybe even that we had something in common. I wanted to protect and look after them, to be a part of helping them to be there.
>
> I loved how instead of humans mowing the grass, they were mowing the grass by eating it, helping nature and humans, hand in hoof! I also loved how they didn't need to communicate by speaking, but make themselves understood in their body language. They possess a wild beauty.
> ***Niah Morgan**, age 11 of Kingussie*

It is not just human health that has benefitted from the project. The lessons learnt from managing feral ponies at Insh are informing the revision of the RSPB's code of practice for livestock management to ensure non-domesticated animals are managed appropriately. They are also being used to advocate for the inclusion of conservation grazing ponies in the Scottish Government's code of practice for equine welfare.

Supporting and informing policy

Helping to meet national and international commitments

The Natural Environment (Scotland) Bill, introduced to Parliament in February 2025, proposes actions to tackle the twin nature and climate crisis. Central to this is the introduction of nature recovery targets which will be legally-binding (statutory) on the Scottish Government.

This will require Scottish Ministers to set targets covering the topics of habitat condition or extent, the status of threatened species, and the environmental conditions for nature regeneration.

If it's ambitious enough, the Natural Environment Bill will drive progress towards the goals of the Scottish Biodiversity Strategy: halting biodiversity loss by 2030 and restoring and regenerating biodiversity by 2045. At the heart of the Strategy is Scotland's international commitment to protect at least 30% of land and seas for nature by 2030 (30 by 30)[14].

Currently, approximately 18% of Scotland's land is protected for nature (made up of European and non-European designations). European sites on their own cover 15% of Scotland's land, meaning that Scotland provides the largest part of the UK's contribution to the European sites network (the UK figure is 8.5%[15]).

To achieve the 30 by 30 target and to deliver on its domestic and international commitments, Scotland's protected area network must be substantially expanded.

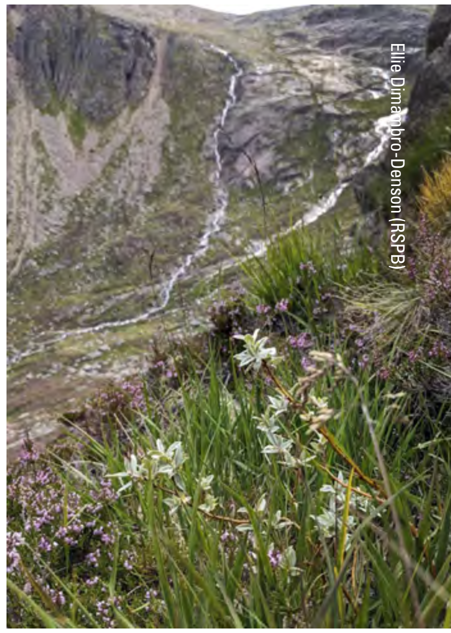
However, the Global Biodiversity Framework[16] is clear that achieving the 30 by 30 target requires "effective protection", meaning that work must also be done to improve the condition of sites which are already protected. As discussed earlier in this report, the most recent assessment of the state of Scotland's protected areas revealed that around 25% of features are in neither favourable nor recovering condition.

> Data from the LIFE 100% project at Abernethy informed the **Capercaillie Emergency Plan**[17] which prioritises immediate and targeted actions to restore the threatened birds' habitat.

Habitat conservation is a long-term undertaking, but LIFE 100% for Nature has shown that by collaborating with others we can work at scale and make a positive impact sooner. The mountain willow scrub feature in the Cairngorms, for example, has already been assessed as favourable (from unfavourable at the beginning of the project), exceeding our own expectations of what could be achieved within the project's timeframe.

The funding of start-up costs for technology through the project grant was key to the conservation actions becoming business as usual, highlighting the need for longer-term financial support and incentives to enable other landowners and farmers to adopt the techniques and technology. Through work funded by LIFE 100% for Nature and other agricultural trials, Scottish Government recognised the potential of virtual fencing to help improve the environmental performance of wider agricultural business in terms of the benefits to climate change and biodiversity. As a result, previously unavailable funding for virtual fencing collars has been available to farmers and crofters through the Scottish Government pilot Future Farming Investment Scheme in 2025. It is hoped that this option is incorporated into future government support.

The project demonstrates that, with the right interventions, Scotland can meet its duties in respect of biodiversity commitments and offers practical guidance on the actions required to achieve them.



▲ Planted willow, Stag Rocks, Loch A'an, Cairngorms.

▲ **Cattle graze the dunes at Mersehead.**

To find out more about the project or download the guidance documents, visit our website:

rspb.org.uk/helping-nature/what-we-do/protecting-species-and-habitats/life-for-nature

To find out more about the techniques and technology used, or request a demonstration, email the project team: **LIFE100Favourable@rspb.org.uk**

To get involved as a volunteer, visit the volunteer hub:
rspb.org.uk/helping-nature/volunteering or email **SHQvolunteers@rspb.org.uk**

Endnotes

1 European Environment Agency **Habitats and species: latest status and trends**, modified 04 Apr 2023

2 **https://stateofnature.org.uk/wp-content/uploads/2023/09/TP25999-State-of-Nature-_main-report_2023_FULL-DOC-v12.pdf**

3 Scottish Government's Programme for Government, published September 2024

4 Executive Summary, Scottish Biodiversity Strategy to 2045.

5 NatureScot, 2024, The Proportion of Scotland's Protected Sites in Favourable Condition 2024 | NatureScot, accessed 21/10/2022

6 **Protecting 30% of Scotland's land and sea for nature** – making '30 by 30' meaningful, Scottish Environment Link Report, November 2022, Isobel Mercer et al

7 These include predator diversionary feeding to improve chick productivity, woodland restructuring and reducing disturbance.

8 Congregating and putting on a display in the hope of attracting females.

9 chaired by the Moredun Research Institute

10 Islay Fluke testing trial working with Species on the Edge, Moredun Institute, Elanco, Liverpool Uni, Islay Vets and 5 Islay farms. **https://www.youtube.com/watch?v=CqukiAltKAk&list=PL8DdHOvRK_JnlD_6bBH97sdR819BEqFhl&index=3**

11 Scottish Executive, 2004, An Economics Assessment of the Costs and Benefits of Natura 2000 Sites in Scotland, Environment Group Research Report.

12 **The social value of volunteering in Scotland, Technical Report, March 2025**

13 **https://www.gov.scot/groups/wellbeing-economy-governments-wego/**

14 **https://www.nature.scot/doc/30-30-framework#what-is-30-by-30**

15 **https://www.gov.scot/policies/biodiversity/natura-2000/**

16 **https://www.cbd.int/gbf/targets/3**

17 developed by the Cairngorms National Park Authority and NatureScot with support from over 100 stakeholders

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The Royal Society for the Protection of Birds (RSPB) is a registered charity: England and Wales no. 207076, Scotland no. SC037654