

Scotland's Biodiversity

A Route Map to 2020

Third Progress Report - 2017/19



Report contents

Summary.....	2
Update on targets	2
Progress summary.....	4
Highlights for 17/19	6
Where do we need to get back on track?	8
Annex 1 – Monitoring and reporting	9
Annex 2 – Assessment of progress.....	10
Priority Project 1: Restoration of peatlands	11
Priority Project 2: Restoration of native woodland	13
Priority Project 3: Restoration of freshwaters.....	16
Priority Project 4: Securing economic and social benefits from, and investment in, natural capital	19
Priority Project 5: More people experiencing and enjoying nature	21
Priority Project 6: Taking Learning Outdoors.....	25
Priority Project 7: Developing Scotland’s natural health service.....	27
Priority Project 8: Protected Areas in good condition.....	29
Priority Project 9: Conservation of priority species.....	31
Priority Project 10: Improving ecological connection.....	38
Priority Project 11: Sustainable land management.....	40
Priority Project 12: Increase environmental status of our seas.....	44
Supporting work	46
Annex 3 – Organisations contributing to the Route Map	50
Annex 4 – Abbreviations and acronyms.....	51

Acknowledgments

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Reporting on progress involved feedback from a number of ‘lead contacts’ representing a wide cross section of organisations throughout Scotland. We are indebted to them for helping summarise often complex projects.

Summary

This is the third progress report for the [Scottish Biodiversity Strategy: a Route Map to 2020](#) (the Route Map) and its ambitious programme of action to make Scotland a better place for biodiversity and people by 2020. This third report provides an overview of progress to March 2019 on the 12 Priority Projects and associated 14 targets and 79 underpinning actions in the Route Map.

Each Priority Project consists of at least one target and a number of relevant actions. The progress of actions and targets taken together give an indication on progress towards delivering the Priority Projects.

Since the second report in 2017 it is encouraging to see that the number of completed actions has steadily increased. Many on-going actions are 'on track' with most predicted to be completed either by 2020 or shortly thereafter. There are a few actions which are either progressing slowly or are unlikely to be achieved, often due to a lack of funding or unforeseen factors. For example, action to control *Rhododendron* failed to secure funding, and the last few mink in the Western Isles are incredibly hard to detect and remove.

The actions within the Route Map are large scale collaborative actions and do not represent all the work undertaken to deliver the [Scottish Biodiversity Strategy: 2020 Challenge for Scotland's Biodiversity](#). The state of wider biodiversity in Scotland is detailed in other reports.

Three Targets achieved by 2017 ✓

- Over 80% of notified features of protected sites were in favourable condition by 2016. The most recent assessment is that the proportion in favourable condition is 79.6%.
- Over 10% of Scotland's seas are now incorporated into conservation Marine Protected Areas.
- Greenspace quality has been improved in the grounds of NHS hospitals across mainland Scotland.

Nine Targets on track to 2020

- Ambitious peatland restoration programme underway, contributing to the EU 15% degraded ecosystem restoration target.
- 3,000 to 5,000 ha new native woodland created per year.
- Achieve agreed ecological water quality objectives under the Water Framework Directive of river and lake bodies, and contribute to meeting conservation objectives (including Natura 2000 sites) through scoping improvements to physical modifications.
- Businesses are more aware of their reliance on Scotland's natural capital, and more investment is made in building natural capital.
- Increase regular visits and active travel in greenspace through improved infrastructure, information, campaigns, and provision of activities and events.

- 100 schools in the 20% most disadvantaged areas across Scotland have access to quality greenspace for outdoor learning.
- Six wildlife projects developed in 2015 with a further suite to be taken forward.
- Improve connectivity between habitats and ecosystems.
- Promotion of measures to support biodiversity under CAP: sites demonstrating good practice aimed at supporting wildlife.

Two Targets showing insufficient progress to 2020



- Increase the amount of native woodland in good condition (upwards of 46% as identified in the Native Woodland Survey of Scotland).
- Restore approximately 10,000 ha of native woodland into satisfactory condition in partnership with private woodland owners through deer management plans.

Progress summary

The number of actions completed continues to increase as 2020 approaches. The majority of actions are either making some progress, on track, or exceeding their original aims. Some actions will continue beyond 2020 such as those to achieve the red squirrel population restoration target, which is scheduled to end in 2022. Other actions will be continued beyond 2020 through legacy projects such as the excellent greenspace projects within NHS properties.

Only two actions are making no significant progress namely; Atlantic woodland management through Rhododendron control, and support for landscape-scale agri-environment management under the proposed SRDP Environmental Cooperation Action Fund. The first action was reliant upon LIFE funding which was not successfully obtained. The second is as a result of withdrawal of the ECAF scheme. Since alternative means of funding Rhododendron control are underway, and some work has progressed regarding cooperative agricultural action, both of these actions have been categorised as having insufficient progress.

No actions were recorded as moving away from target.

Table 1 Prediction of action status at 2020 provided by organisation leads

Will the action be achieved by 2020	Status reported in March 2019
Achieved	18
Yes	33
Ongoing	20
No	7
Unclear at this stage	1
Total	79

Interpreting the results requires care, as completion is assessed against the exact wording of the action. In some cases the objectives of the action have been modified making year-on-year assessments challenging.

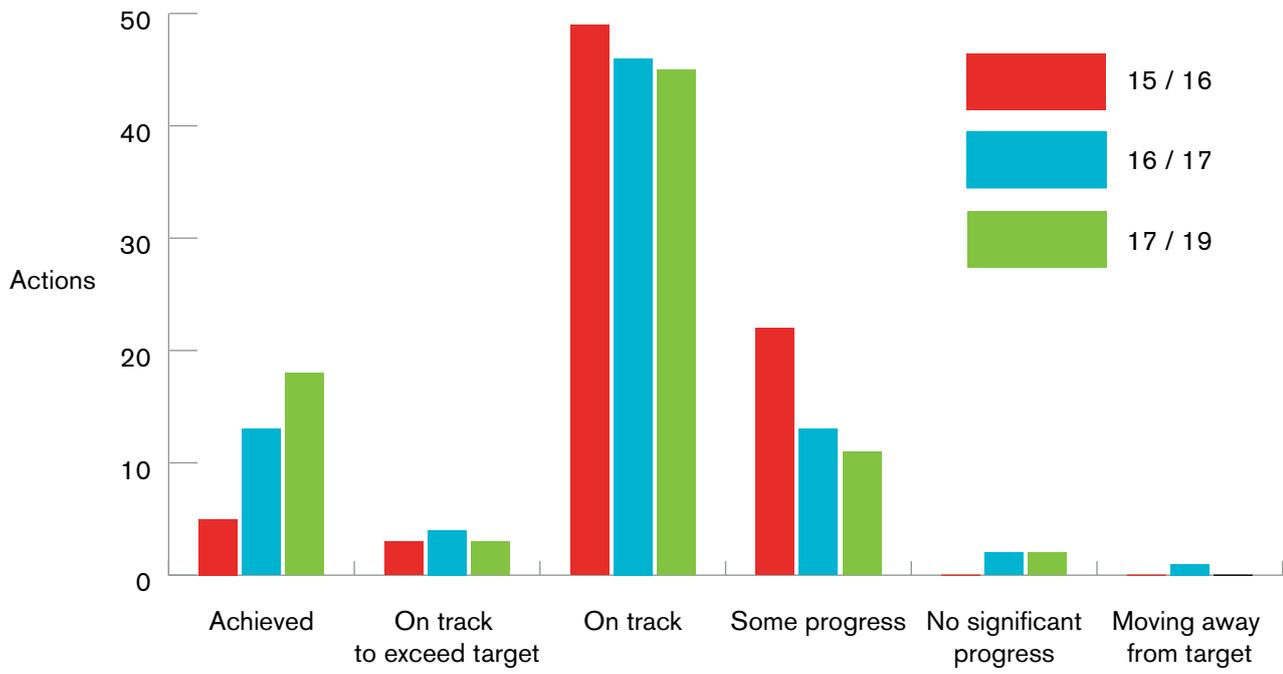
There are 51 (of 79) actions predicted to be completed by 2020, including eighteen actions which have already been achieved.

Seven actions are predicted as not likely to be achieved by 2020. This is slightly more than stated in last year's Route Map report, but reflects clarity on reporting metrics.

Twenty actions are likely to be ongoing after 2020. For example, SNH has secured a further phase of the Green Infrastructure in central Scotland project to 2023. Several of the species based actions relate to population restoration which will require a longer timeframe to achieve the required results. An assessment of the success of restoration will also depend upon the baseline being used.

Further detail regarding each action is within Annex 2.

Action progress - comparison between years



A detailed assessment for each of the Priority Projects, Targets and underpinning actions is presented in Annex 2.

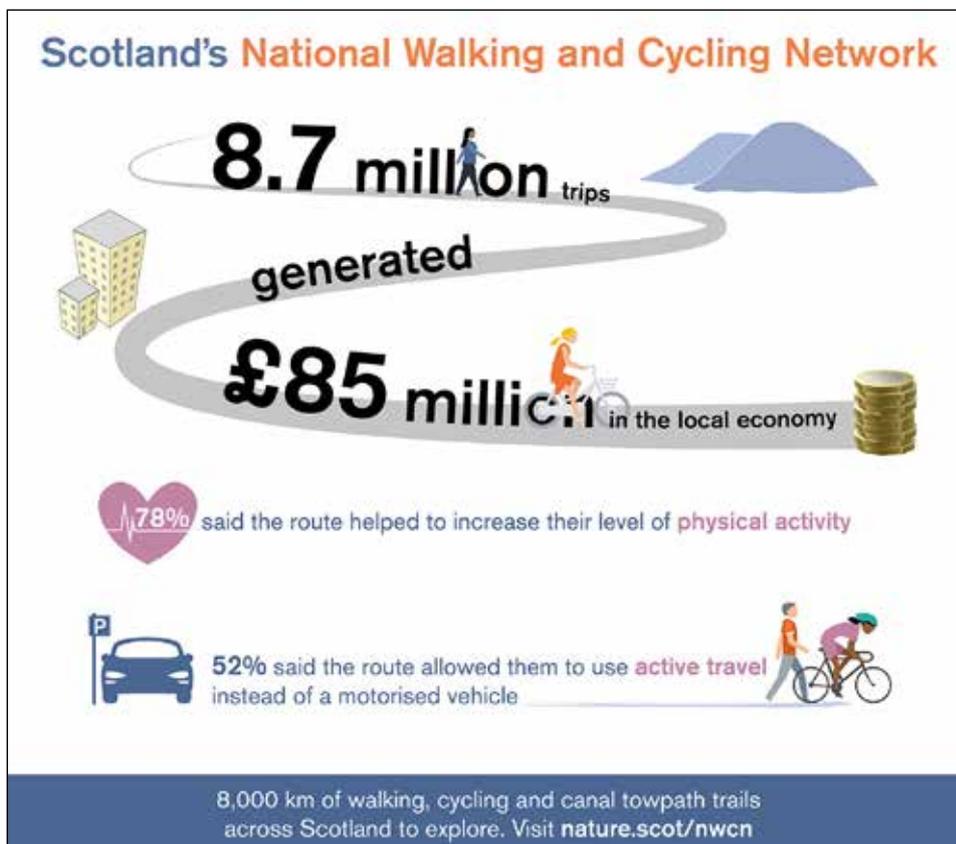
Highlights for 17/19

- The ambitious peatland restoration programme (Peatland Action), contributing to the European Union (EU) 15% degraded ecosystems restoration target, has exceeded the original target by almost threefold. Further funding from the Scottish Government has ensured over 15,000 ha of peatland is currently under restoration.
- Following extensive monitoring last year it has been confirmed that the Shiant Islands are now rat-free, improving the chances of breeding success of the shearwater and petrel populations.



Manx Shearwater ©Laurie Campbell/SNH

- The three lead partners of the National Walking and Cycling Network have invested £5M during 17/18, delivering approximately 324 km of route improvements. The NWCN Baseline Monitoring Report shows that the NWCN is delivering on the three outcomes outlined in the Project Plan.



- The Greater Easterhouse Green Infrastructure project will create new and improved open space through an integrated green and blue network in two focus areas – Cranhill/Ruchazie and Blairtumnock - which will create green finger connections to the 7 Lochs Wetland Area. The project will transform over 29ha of land within an area identified as one of Scotland’s most socially and economically deprived.
- The Ecological Connectivity (EcoCo) LIFE project, addressing habitat fragmentation and improving habitat connectivity, has been extended to 2019. Exchange rate gain has resulted in additional funding at no extra cost for on-site interventions over and above the initial targets.
- Launched last year, the Natural Capital Protocol has been trialled on two tenant farms and on an estate belonging to Crown Estates Scotland. This is the first of its kind, not only in Scotland but globally, yielding a wealth of information that will be used to encourage more land managers to adopt a natural capital approach to land management.
- The Young Person’s Advisory Panel ‘ReRoute’ completed their recommendation report on engaging young people with nature. Through a co-design process and in collaboration with SNH, ReRoute’s 46 recommendations apply across the whole environment sector and will help the sector to be more effective at engaging and inclusive of young people’s opinions and voices. It will also ensure that young people are at the heart of decision making and influencing policy across the environmental sector.



ReRoute on beach at St Abbs © Young Scot.

Where do we need to get back on track?

Targets

The two targets where progress is insufficient to meet 2020 deadline are:

- Increase the amount of native woodland in good condition (upwards from 46% as identified by the Native Woodland Survey of Scotland).
- The restoration of approximately 10,000 ha of native woodland through deer management plans.

Over the last year woodland SSSI features in favourable condition have dropped by 1.6% to 66.5%. Restoration of native woodland through actions identified in a suite of 48 deer management plans has made some progress, but is currently behind target and unlikely to be completed by 2020.

Actions

Over 80% of the actions in the Route Map are making good progress towards 2020. The total number of actions achieved has increased from 13 – 18 in the last year.

Table 2 Progress of Scottish Biodiversity Strategy: a Route Map to 2020 Actions

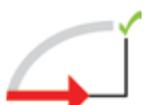
Number of actions	Percentage of total actions in 2017/19
18 actions have been achieved	22.8%
3 actions are on track to exceed target/ ahead of target	3.8%
45 actions are on track	57%
11 actions have insufficient progress	13.9%
2 actions have no significant progress	2.5%

Annex 1

Monitoring and Reporting

The 12 Priority Projects and 14 targets are underpinned by 79 actions. Monitoring and assessment is made by each lead organisation. The targets are either numerical or narrative in nature, both requiring judgement on the degree of progress.

Figure 1 - The Global Biodiversity Outlook five-point scoring system

				
On track to exceed target (we expect to achieve this before its deadline)	On track to achieve target (if we continue on our current trajectory we expect to achieve the target by 2020)	Progress towards target but insufficient (unless we increase our efforts the target will not be met by its deadline)	No significant overall progress (overall, we are neither moving towards the target nor moving away from it)	Moving away from target (things are getting worse rather than better)
5	4	3	2	1

In addition, actions and/or targets which have been achieved are identified separately using the following symbol: 

Annex 2

Assessment of progress



Priority Project 1: Restoration of peatlands

Aim: Restore peatland condition and function in order to generate benefits through ecosystem services; carbon sequestration, carbon storage, water quality, flood management and more abundant nature.



Target 1: Ambitious peatland restoration programme underway, contributing to the EU 15% degraded ecosystem restoration target.



Gathering sphagnum moss for transplanting ©Lorne Gill/SNH

Achievements

The goal of restoring 5,100 ha of peatland has been achieved and with further funding from the Scottish Government over 15,000 ha peatland has been restored.

Status of Actions

	Current Progress	Action complete by 2020
	<p>Three actions have been recorded as achieved.</p> <ul style="list-style-type: none"> – Restore peatland and sequester carbon through 107 management agreements covering 5,100 ha. The area subject to restoration management now exceeds 15,000 ha. – National Peatland Plan published in 2015 and implementation begun. The Scottish Peatland Plan was published in 2015. A Project Co-ordinator has been appointed to progress the proposed World Heritage Site in the Caithness and Sutherland Peatlands. – Peatland demonstration with 15 events held by Peatland Action. In addition to the demonstration events there have been four 2-day events targeted at contractors and consultants. 	
	<p>One action is on track</p> <ul style="list-style-type: none"> – Flow country restoration – establish an international benchmark for good practice. Work has continued at a similar scale to the previous year, including tree removal and subsequent brush removal, drain and furrow blocking in forested areas on deep peat. Contractors have also been undertaking work on areas where forestry was cleared over ten years ago, smoothing out the areas and blocking the furrows to improve the hydrology and make the area more attractive to peatland waders. All this restoration work is ongoing and will continue through the next year, with a short break for the bird breeding season. A programme of community and schools events is ongoing and a touring exhibition has been visiting various venues across Scotland in the past year. Advisory work with land managers across the Flow Country is ongoing to promote restoration. 	<p>Ongoing</p>

Further Activity Required

Restoration work has continued in the Flow Country, led by RSBP and partners. The proposal to designate the Flow Country as a new World Heritage Site is being developed by the Flow Country World Heritage Group, facilitated by the Project Co-ordinator recently recruited by Highland Council. Submission of the Technical Evaluation of the site to the Department of Digital, Culture, Media & Sport (DCMS) is planned for autumn 2019.

Priority Project 2:

Restoration of native woodland

Aim: Improve the condition and extent of existing native woodlands and further increase new woodland planting.

This Priority Project has 3 targets.



Target 2: Increase the amount of native woodland in good condition (upwards from 46% as identified by the Native Woodland Survey of Scotland).

Achievements

Through the Delivering Favourable Condition Delivery Working Group, FCS and SNH are working together targeting woodland features currently in unfavourable condition. The percentage of woodland features in favourable or recovering condition at April 2019 is 62.5% a drop from 68.1% in 2017 of 5.6% over the last 18 months.

FCS continues to work with Trees for Life to support their Caledonian Pinewood Restoration project and is also supporting the Woodland Trust Scotland Ancient woodland restoration project.



Target 3: 3,000 to 5,000 ha new native woodland creation per year.

Achievements

In the period from April 2017 – March 2018 2,299 ha of new native woodland were created with grant support plus 741 ha created on the National Forest Estate, giving a total of 3,040 ha nationally for 2017-18 .

In the following year April 2018 – March 2019 4,143 ha of new native woodland were created with grant support plus an additional 50 ha of new native woodland without grant support. Rounding up the figures for 2018-19 , a total of 4,194 ha of native woodland were created out with the National Forest Estate. On the National Forest Estate an additional 1006 ha of new native woodland were created including 763 ha created by converting existing non-native woodland into native woodland through restocking. Combining the totals, approximately 5,200 ha of new native woodland were created in Scotland.



Target 4: Restore approximately 10,000 ha of native woodland into satisfactory condition in partnership with private woodland owners through Deer Management Plans.

Achievements

The development of 48 upland Deer Management Plans to manage deer numbers to retain existing native woodland cover and improve woodland condition. This incorporates work to bring designated native woodland into favourable condition.

Work is being taken forward by SNH and FCS to quantify the extent of woodland being brought in to satisfactory condition through the plans.



Woodland trail on Inchcailloch NNR ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>Six actions are on track</p> <ul style="list-style-type: none"> - Provision of grants, information, promotional events and training. Cairngorms National Park Authority has identified priority areas for native woodland expansion. Higher payment rate applies to creation of Scots pine, upland birch, mixed broadleaves (including low density planting). Additionally Forestry Commission continues to promote a higher rate payment for new native woodland options located within 'Highland Native Woodland target area.' - Conservation management on the National Forest Estate (NFE). Targeted work on Protected Areas means 92.5% of woodland features on the NFE are in favourable condition. Ancient and Semi Natural woodlands are all being monitored to develop a comprehensive work programme for increasing condition. FES has undertaken initial control to tackle rhododendron on over 51% of the gross area on the NFE where it has been recorded. Work will continue to monitor and apply follow-up treatments on the areas treated. 	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>

	<ul style="list-style-type: none"> - Development of deer management plans with public interest targets to contribute to the overall aim of the native woodland restoration. Forty eight upland deer management plans (covering over 3,000,000 ha) have been produced which have included consideration of native woodland restoration. The Native Woodland Survey of Scotland data has provided the basis for the analysis in most of these plans. The Forest Grant Scheme is the primary incentive-based mechanism for delivery of native woodland restoration and requires Deer Management Plans to be produced as a condition of grant. SNH is undertaking a further round of deer management group assessments to assess progress on delivery of actions within these plans. - Implement Scotland's Wild Deer: A National Approach. Actions to help restore native woodlands continue to be delivered through Scotland's Wild Deer: A National Approach. These include providing grants and facilitation to develop Deer Management Plans that are fit for purpose, and running a session on restoring native woodlands for Deer Management Groups. - Establish further mechanisms for lowland deer management. The Lowland Deer Panel report on the review of deer management in the Lowlands has been submitted to SNH. Phase 1 of the Lowland Pilot is complete and looked at understanding the range and extent of public interests delivered through current management actions. Phase 2 is on track to report by June 2019 and is looking at the current models of deer management and the final phase, in planning, will assess the merits or otherwise of these models. - Atlantic hazelwood conservation and management (LIFE funding bid in progress). The Atlantic Woodland Alliance, led by Woodland Trust Scotland, has almost completed the first draft of its ambitious Saving Scotland's Rainforests Action Plan. The action plan will be implemented beyond 2020. <p>SNH and FES planted 4,000 hazel trees and 400 oak trees to create a future Atlantic hazelwood at the Faery Isles, Knapdale, West Argyll.</p> <p>The Croft Woodlands Partnership Project, led by Woodland Trust Scotland, is in its fourth year and has planted 97 woodlands covering 319ha (by end of July 2018). It expects to have planted 500 ha of new woodland by mid-2020. Many of these woods are Atlantic and contain a hazel component. WTS have also worked with FCS to ensure hazel woods can be funded through the forestry grant scheme.</p>	<p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">✓</p> <p style="text-align: right;">Ongoing</p>
	<p>One action has made no significant progress</p> <ul style="list-style-type: none"> - Atlantic oakwood restoration - through rhododendron removal and conservation management (LIFE funding bid in progress). The 2016 funding bid did not progress. The Atlantic Woodland Alliance has held 4 meetings in 2018 to explore bottom up partnerships. 	<p style="text-align: right;">X</p>

Further Activity Required

The Atlantic Woodland Alliance will develop a shared vision and identify projects that will help deliver progress. Funding for Atlantic woodland restoration is the key limiting factor.

Priority Project 3:

Restoration of freshwaters

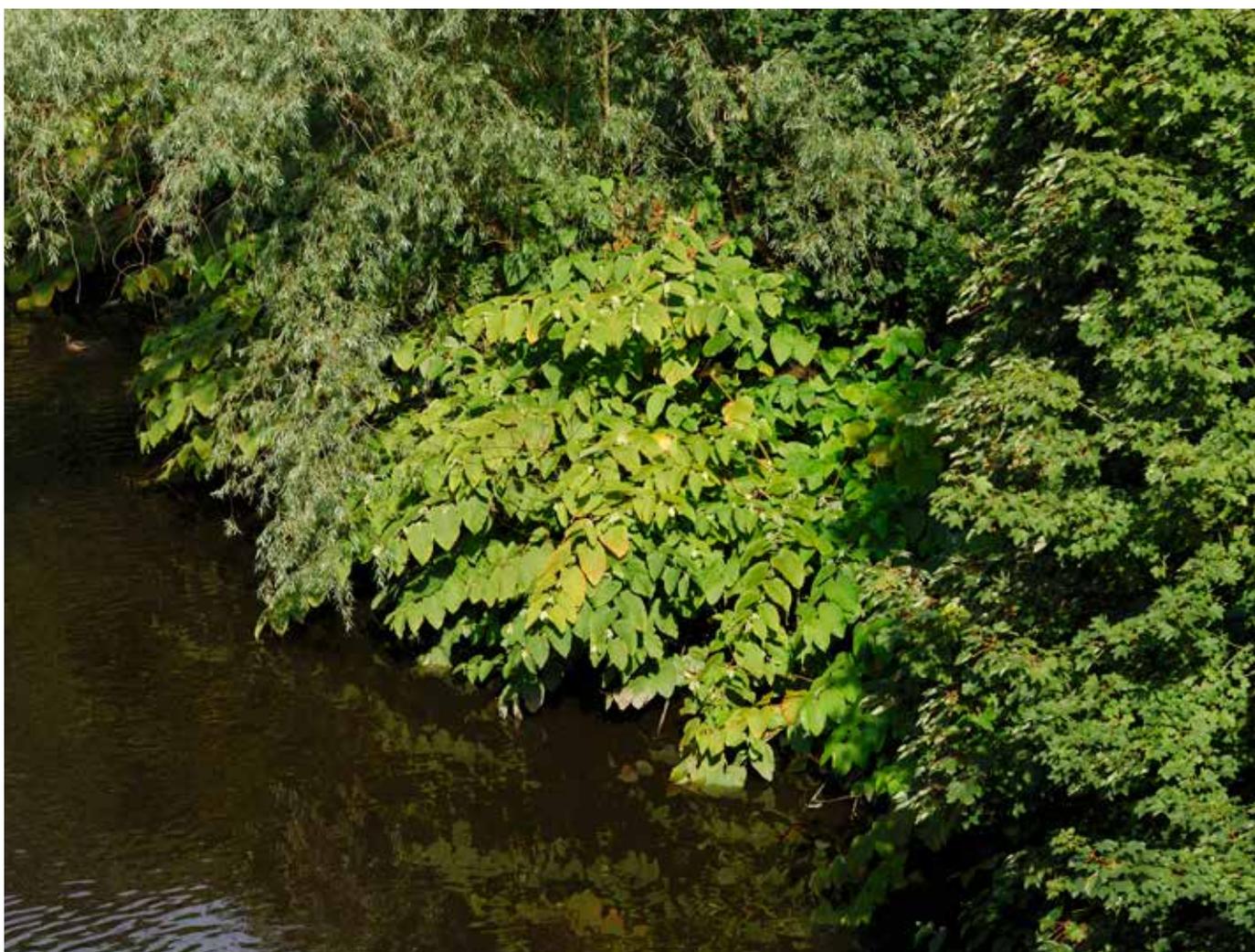
Aim: To secure good ecological status for more rivers and lakes in Scotland and thereby secure biodiversity gains and a range of ecosystem services; through addressing diffuse pollution, invasive non-native species, physical modifications as well as riparian and wider-catchment land management issues.



Target 5: Achieve agreed ecological water quality objectives under the Water Framework Directive of river and lake water bodies and to contribute to meeting conservation objectives (including Natura 2000 sites) through scoping improvements to physical modifications.

Achievements

The 2015 classification data can be found on Scotland's Environment Web – water body classification page. Please note that if a water body has changed classification it may not necessarily change an objective set in the River Basin Management Plan (RBMP). Information about water body condition, plans and objectives can be found on the [Water Environment Hub](#).



Japanese Knotweed growing on the banks of the River Kelvin, Glasgow ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>Two actions have been recorded as achieved.</p> <ul style="list-style-type: none"> – Physical restoration of rivers in priority catchments as part of the “Pearls in Peril” LIFE Project to deliver substantial biodiversity benefits and restore river function. The project has been completed. – Phase 2 of the IUCN river restoration and biodiversity project has been completed. The project is now in its third phase focusing on establishing a network of sites across UK and the Republic of Ireland where pre and post restoration monitoring can take place and thereby show the benefits of restoration for biodiversity. As a result of this work the steering group has decided to draft an IUCN resolution on river restoration. 	
	<p>Three actions are on track</p> <ul style="list-style-type: none"> – Development and implementation of two river basin management plans for the 2nd cycle (2015-2021) – delivering Water Framework Directive objectives and associated biodiversity benefits. SEPA remains on track to remove 40+ fish barriers opening up over 800km of river to migratory fish and to restore the physical condition of 11 water bodies by 2021. Current funding levels will not enable a number of ongoing projects to continue through to completion as originally planned. These projects will be paused at an appropriate stage and reviewed in the light of overall RBMP priorities, funding availability and timing. – Develop a community-based, riparian invasive non-native species (INNS) project over approximately 29,500 square km of Northern Scotland. Development of catchment scale long-term control with a focus on freshwaters will reduce the economic, social and environmental impacts of INNS in the long term. Funding of £1.59M towards the total project fund of £3.34M was approved by Heritage Lottery Fund (HLF) in 2017. The project has made good progress including the appointment of staff and the launching of both a social media presence and a dedicated website. There has been substantial action with volunteers to remove invasive and the trialling of new techniques. (www.invasivespecies.scot) <p>Work is continuing on mink control across North of Scotland (Tayside to West Sutherland) largely manned by volunteers. Giant hogweed, Japanese knotweed and Himalayan balsam control is underway using contractor and volunteer effort. (Contractors on – Spey, Findhorn, Nairn and Lossie and Angus.) During the period April - December 2018, the equivalent of eleven years FTE volunteer time was recorded between mink and plant control activities. Significant ongoing volunteer recruitment, training and awareness raising of invasive species issues has taken place and is ongoing.</p> <ul style="list-style-type: none"> – Focused measures on priority catchments for diffuse pollution with associated biodiversity benefits. The work included 3,321 farm visits, revisits to non-compliant farms and the introduction of fixed monetary penalties for farms that remained non-compliant at the third revisit. This huge piece of work has shown great success with 84% of farms compliant at their first revisit. RBMP2 will see an expanded programme of works with another 43 priority catchments due to be added to the original 14. 	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>✓</p>



One action has insufficient progress

- **Physical restoration of 4 pilot catchments with associated biodiversity benefits.** The delivery of the action has evolved from work on only four pilot catchments to the identification of priorities across Scotland with River Basin Management Plans (RBMPs).

The RBMPs set out an ambitious programme for the removal of fish barriers and restoration of rivers across Scotland. This was based on assumptions about the availability of resources and funding over the period of 2015 to 2021. Current funding levels have meant that SEPA has had to prioritise the amount of environmental improvement each project will deliver. This includes the length of accessible river opened up to fish from removal of barriers to migration, and the achievement of good ecological condition in historically modified rivers.

Ongoing

Further Activity Required

SEPA is working with partners to continue to actively explore other mechanisms or sources of funding for improving rivers and removing barriers to fish. Information on the individual rivers that are prioritised can be found on the Water Environment Hub.

Priority Project 4: Securing economic and social benefits from, and investment in, natural capital

Aim: Economic and social benefits from improving Scotland's natural capital are demonstrated, and investment secured through new or existing instruments.



Target 6: Businesses are more aware of their reliance on Scotland's natural capital, and more investment is being made in building natural capital.

Achievements

A trial of the Natural Capital Protocol has been completed on two tenant farms and an estate belonging to Crown Estates Scotland. This trial is the first of its kind not only in Scotland, but globally, and has yielded a wealth of information which will help us to encourage more land managers to adopt a natural capital approach to land management in the future.



Status of Actions

	Current Progress	Action complete by 2020
	<p>Two actions have been recorded as achieved.</p> <ul style="list-style-type: none"> – Develop the Peatland Code as a framework for investing in peatland restoration. Scotland's Peatland Plan with the updated Peatland Code is being used as a framework for peatland restoration. The Peatland Code, launched in 2015 and updated in 2017 is a voluntary standard for investment in UK peatland projects. Significant investment interest from the business community remains unforthcoming. – Develop the Natural Capital Asset Index (NCAI) as a means of assessing Scotland's natural capital and the sustainability of the Scottish economy. In April 2018 the data for the NCAI was updated with a new two page summary and information note available on the SNH website. A feasibility study report was released in Feb. 2019 on developing a marine version of the NCAI. 	
	<p>One action is on track</p> <ul style="list-style-type: none"> – Promote the Woodland Carbon Code to attract investment in woodland creation. Forestry Commission Scotland continues to promote the Woodland Carbon Code with forest managers and landowners. The Code is a voluntary standard for woodland creation projects that measures carbon sequestration. <p>All projects must be placed on the register for validation with a total of 74 projects validated to March 2018 covering almost 3,500 hectares and projected to sequester 1.5 million tonnes of carbon dioxide over their lifetime.</p> <p>A new version of the Code, more comprehensive and simplified was launched in February 2018.</p> <p>The UK Accreditation Service (UKAS) accredited the Soil Association for verification of Woodland Carbon Code projects in 2017.</p>	✓
	<p>One action has insufficient progress</p> <ul style="list-style-type: none"> – Identify opportunities for new investment by business in green infrastructure, especially in the CSGN area - Work ongoing on a Natural Capital Protocol pilot with a large utilities company in the CSGN area with intention of leading to new investment in Green Infrastructure. <p>On behalf of Stirling City Council, the Scottish Wildlife Trust and the Scottish Forum on Natural Capital commissioned a natural capital analysis of the 'City Park' and 'River Project' components of the City Deal which were described in the 2016 Stirling City Deal Masterplan.</p>	✓

Further Activity Required

Although progress has been made regarding the promotion of investment in green infrastructure, this needs to be translated into investment "on the ground".

Priority Project 5: More people experiencing and enjoying nature

Aim: Improve levels of regular participation in outdoor recreation, volunteering and learning by all of Scotland's people.



Target 7: Increase regular visits and active travel in greenspace through improved infrastructure, information, and campaigns, and the provision of activities and events.

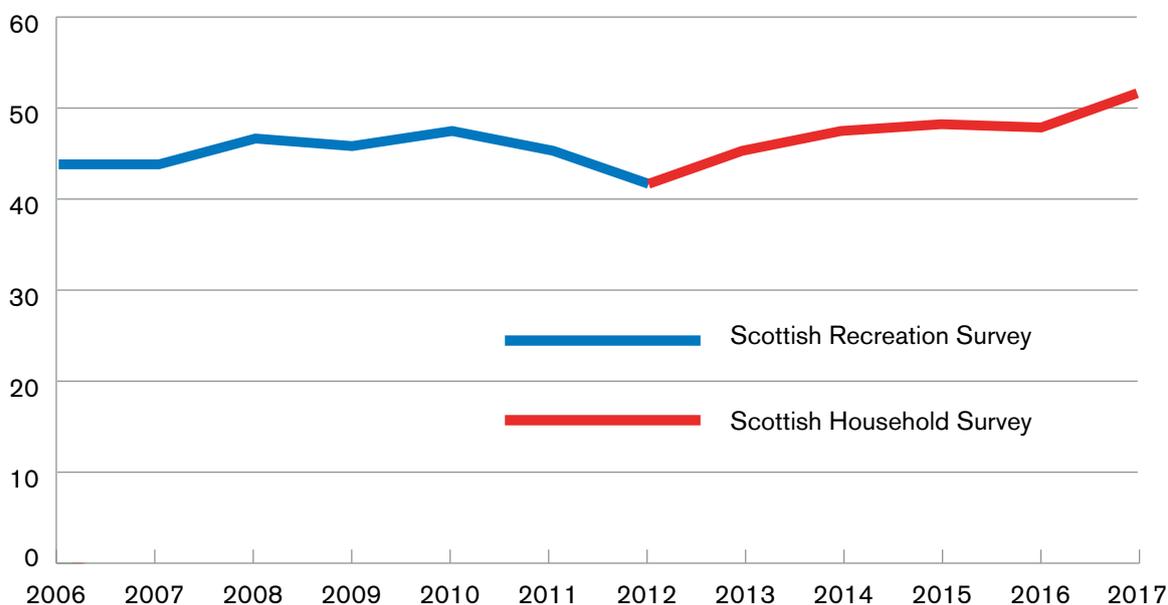
Achievements

Considerable effort has been made in this area with a range of initiatives rolled out across Scotland, targeting all areas and sectors.

There are two National Indicators relevant to this target:

- Visits to the outdoors: proportion of adults making one or more visits to the outdoors per week. In 2016 (latest data available) 48% of adults in Scotland visited the outdoors at least once a week. As there was no significant change in weekly participation between 2015 and 2016, the Scottish Government has reported this in "Scotland Performs" as "performance maintaining".

% Adults making one or more visits to Scotland's outdoors per week



Source: 2006 - 2012 Scottish Recreation Survey; 2013 - 2017 Scottish Household Survey

- Access to green and blue spaces: proportion of adults who live within a 5 minute walk of their local green or blue spaces. In 2016 (latest data available) 65% of adults in Scotland lived within a 5 minute walk of their local green or blue space. As there was no significant change in access between 2015 and 2016, the Scottish Government has reported this in "Scotland Performs" as "performance maintaining".

Other evidence, from the Scottish Household Survey, shows that the proportion of adults visiting local greenspace, increased between 2011 and 2016, both in terms of the proportion visiting at all (up from 70% to 77%) and the proportion visiting on a weekly basis (up from 45% to 49%).

In addition, the Scottish People and Nature Survey shows that the proportion of people walking to the destination of their outdoor visits has increased over up from 50% in 2004 to 69% in 2017/18. Meanwhile the proportion travelling by car has decreased from 43% in 2004 to 23% in 2017/18.



Cycle for Nature tour from Innerleithen to Edinburgh, 2018 ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>Six actions are on track</p> <ul style="list-style-type: none"> - Supporting the better provision and quality of greenspace through development planning and place-making. SNH published a commissioned report on the barriers to delivering better Green Infrastructure in Social Housing. SNH also provided advice to Stirling Council on a River Park as part of the Stirling and Clackmannanshire City Deal proposals. A joint project has started between SNH, Architect and Design Scotland, the Scottish Federation of Housing Associations, and Scottish Government to support and promote better design of Green Infrastructure in Social housing. - Delivering national and local participation campaigns, events and activities and outreach work targeted at under-represented groups. Numerous projects were implemented across Scotland under the banner of Year of Young People 2018 encouraging young people to lead healthier, active lives and celebrating young people's role in making Scotland a greener and more pleasant place to live. Continued promotion of responsible access through the Scottish Outdoor Access Code website and a national dog walkers campaigns to reduce livestock worrying took place during the 2018 and 2019 lambing seasons. The SOAC website was redeveloped in 2018 and supports work to promote responsible outdoor access. <p>SNH has initiated a project with Young Scot and the National Access Forum to co- design new social media resources to promote the Access Code to young people.</p> <ul style="list-style-type: none"> - Develop more opportunities for the public to engage in volunteering and citizen science through Scotland Counts*. The TCV Scotland Counts Citizen Science project supported by SNH, SEPA, SG, FCS and Stirling Council. It continues to organise events such as with BAME groups in local greenspace in Glasgow to increase contact with nature, with primary schools in SIMD areas, with communities to develop flood monitoring systems and to build their flooding resilience and with FCS and the Field Studies Council to design a new Deadwood Survey. - Better provision of information on opportunities to enjoy the outdoors, including the development of a national web portal to the natural environment. Numerous platforms across the public, voluntary and private sectors currently provide some of this information. Recent achievements include the development of a new portal website providing access to information on all 29 of Scotland's Great Trails and a revise ALISS website which includes information on organisations providing outdoor activities. 	<p>✓ and beyond 2020</p> <p>✓</p> <p>Ongoing</p> <p>✓ (plus additional phase to 2023)</p>

	<ul style="list-style-type: none"> - Provision of green infrastructure in central Scotland through Scotland's 2014-2020 Structural Funds Programme (ERDF application in progress). £7m of ERDF funding has been awarded to seven capital projects and 13 community engagement projects. With match-funding, this amounts to an overall investment of £23.5m. Projects are all within disadvantaged communities (lower 15% SIMD) and due to be completed by 2019. The Green Infrastructure project has received additional funding and has been extended to 2023. - Delivering the National Walking and Cycling Network and promoting its use by the public. The three lead partners have invested £5M during 17/18, delivering an estimated 324 km of route improvements. The NWCN Baseline Monitoring Report shows that the NWCN is delivering on the three outcomes outlined in the Project Plan. 	<p style="text-align: right;">✓</p> <p style="text-align: center;">Ongoing and beyond 2020</p>
	<p>One action has insufficient progress</p> <ul style="list-style-type: none"> - Develop more opportunities for the public to engage in volunteering and citizen science through SEWeb*. The 'Get Involved' section of SEWeb includes the 'Project Finder' and is a useful resource of guidance, IT applications, environmental surveys, data tools and links to key stakeholders. It relies on a continuous flow of information from many partners which can be challenging for some of the smaller partners to resource. 	<p style="text-align: right;">✓</p>

*The Route Map bullet point on developing more opportunities for the public to engage in volunteering and citizen science has been divided into two for reporting purposes. Progress regarding Scotland Counts and SEWeb are treated as separate actions.

Further Activity Required

To fully release the potential of the Project Finder the SEWeb citizen science project partners need to promote with stakeholders the benefits of this tool so that they provide a continuous flow of information on citizen science activities.

Priority Project 6: Taking Learning Outdoors

Aim: Increase secondary and primary schools' access to greenspace and nature for outdoor learning as part of the wider "Learning for Sustainability" agenda.



Target 8: 100 schools in the 20% most disadvantaged areas across Scotland have access to quality greenspace for outdoor learning.

Achievements

The project now engages with 54 schools with a further 55 schools being identified through a variety of projects supported by the Outdoor Learning in Nature (OLiN) fund. Key project resources are in place including a schools resource pack (Beyond Your Boundary: easy steps to learning in local greenspace) and this will be a key legacy of the project. Some basic resources have been developed to get schools started.

A website is operational and additional communications material is being developed. The first sharing good practice event for teachers was successfully held.



Linnvale Primary School exploring their local greenspace © Carol Guthrie (LPS)

Status of Actions

Two of the four actions in the Route Map have similar wording regarding the improvement of greenspace close to schools therefore been combined for reporting purposes.

	Current Progress	Action complete by 2020
	<p>Three actions are on track</p> <ul style="list-style-type: none"> - Providing outdoor learning information on reserves and the national forest estate - Outdoor Learning Directory updated with partner news, resources and events; supported partner organisations and responded to outdoor learning enquiries. - Supporting teachers through the network of Outdoor and Woodland learning (OWL) - FCS employ an OWL Scotland Manager, who supports and develops local groups in Nature Career Long Professional Learning (CLPL) for teachers. SNH works with Loch Lomond and The Trossachs National Park Authority and Grounds for Learning to deliver Teaching in Nature, prioritising schools serving disadvantaged areas. - Develop and improve greenspace provision close to schools The second round of the Outdoor Learning in Nature (OLIN) fund has now been completed. 'Beyond your Boundary' was completed in summer 2017 and SNH continues to promote it to schools taking part in the 'Learning in Local Greenspace' project. 	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>

Further Activity Required

On track, no further action required.

Priority Project 7: Developing Scotland's natural health service

Aim: NHS Health Boards to promote health benefits from physical outdoors activity and contact with nature, with green exercise routinely prescribed by health professionals as part of the physical pathway.



Target 9: Improve greenspace quality and use on at least one hospital or health care facility in each NHS Health Board in mainland Scotland.

Achievements

The aim of this Priority Project has been broadened to achieve a step change in how nature improves people's health and contributes to health outcomes. The target is achieved and further work is reported here. The Phase 1 NHS Greenspace Demonstration Project report is in preparation, for publication in 2019.



Mairi Gougeon MSP, Minister for Rural Affairs and Natural Environment and Mike Cantlay, Chairman SNH announcing the £1 million pound Green Infrastructure Community Project funding allocation at the Recovery through Green Infrastructure Community Project at the Cyrenian and Apos's Community Garden, Royal Edinburgh Hospital in Edinburgh. October 2018 ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>Two actions have been recorded as achieved.</p> <ul style="list-style-type: none"> - Support better mapping, provision and use of green exercise opportunities as part of three area-based initiatives with health boards and local authorities to increase physical activity levels, improve mental health and tackle health inequalities. The SNH-led Our Natural Health Service action programme has helped to establish four pilot local Green Health Partnerships which are co-ordinating work to upscale and mainstream green exercise opportunities to contribute to health outcomes. - Delivering a NHS Greenspace Demonstration Project: providing quality greenspace for use by patients, visitors and staff for treatment, recovery, recreation and relaxation. The action refers to the first phase of a NHS Greenspace Demonstration Project, completed in 2016 with a report in preparation with publication in 2019. 	
	<p>Two actions are on track to exceed target</p> <ul style="list-style-type: none"> - Develop and promote a green exercise tool-kit for use by the health and environment sectors. Materials aimed at health & environment sectors to encourage greater use of the outdoors for health outcomes are now included within the context of the Our Natural Health Service action programme. Recent examples include short films and further case studies on the NHS Greenspace Demonstration Project , a set of infographics, social media animations developed by and aimed at teenage girls through the 'Freshspace' project and two short public animated films designed to be shown at healthcare/ leisure facilities. - Deliver 2nd phase of the NHS Greenspace Demonstration project to complete mainstreaming of greenspace provision and use on the NHS estate. Four NHS Greenspace for Health Partnerships continue to operate at hospital sites improved through Phase 1 at Gartnavel (Glasgow), University Hospital Ayr, Royal Edinburgh Hospital and New Craigs (Inverness). These 3-year long projects are promoting and facilitating the use of the hospital greenspace for patients, staff, visitors and the community; demonstrating good practice in using the outdoors as a health promoting resource. Case studies have been developed to promote good practice. Further funding has been made available by Scottish Government and NHS National Services Scotland for further greenspace improvement projects to help embed the good practice developed. 	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>

Further Activity Required

All actions are either achieved or on track to exceed their target.

Priority Project 8: Protected Areas in good condition

Aim: Ensure protected areas are under good conservation management.



Target 10: At least 80% of notified features in favourable condition by 2016.

Achievements

The target was met in January 2016 and was reported as achieved.



Upland hay meadow ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>One action has been recorded as achieved.</p> <ul style="list-style-type: none"> – Undertake work to ensure that at least 18% of land and freshwater is under conservation designation - no change since 2016 Interim report - 23% of terrestrial and inland water areas have been brought under site protection. 	
	<p>One action is on track</p> <ul style="list-style-type: none"> – Work towards improving the condition of protected sites in the longer term. The Protected Areas Working Group is developing a Vision and Strategic Objectives for Protected Areas in Scotland. Site Monitoring being re-evaluated to better align with SBS evaluation and delivery. 	✓
	<p>One action has insufficient progress</p> <ul style="list-style-type: none"> – Focus action on those sites that are in most need of effective conservation management - The proportion of features in favourable condition, as measured by the National Indicator peaked at 80.4% at the end of March 2016. Since then there has been a fall in the Indicator to 78.9% (May 2019). The proportion of features in favourable or recovering towards favourable condition, as measured by the national indicator, peaked at 80.4% at the end of March 2016 from a baseline of 76% in 2007. In May 2019 this figure had dropped to 78.9% of features in protected sites. Overall on protected areas, the condition of 47 natural features has improved, whilst 76 have deteriorated in the last year to unfavourable condition out of over 5388 features. 	X

Further Activity Required

To maintain notified features in favourable condition and to address those features which are not in favourable condition through quickly identifying the causes of unfavourable condition and through partnership working ensure appropriate remedial management is put in place. New technologies will be developed which will better target where management intervention is needed to make the best use of the resources which are needed to improve feature condition.

Priority Project 9: Conservation of priority species

Aim: Deliver focussed action for priority species in Scotland.



Target 11: Six wildlife projects in 2015 with a further suite to be developed.

Achievements

Since 2015 five actions relating to this target have been completed, with subsequent work taking place regarding either implementation or additional projects. For example a project investigating freshwater pearl mussel on the River Spey is continuing and the profile of plant health biosecurity has been raised. Of particular note is the declaration this year that rat removal work on the Shiant Islands has been successful resulting in potential improved breeding opportunities for shearwater and storm petrel.

Good progress has been made for alpine blue-sowthistle conservation with RBGE cultivating and then translocating plants to three new locations in 2017.



Corn bunting, Uist ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>Five actions have been recorded as achieved.</p> <ul style="list-style-type: none"> – Freshwater pearl mussel conservation. The Pearls in Peril project was successfully completed in 2017. Further work being developed through a graduate placement with SNH looking at freshwater pearls in the River Spey and building on actions from Pearls in Peril project in other rivers. – Rat removal from the Shiant islands. Artificial nest burrows are in place, shearwater and petrel call playback trials were completed in 2018 following rat removal work over winter 2015/16 with post-eradication ecological surveys completed in 2018 showing no evidence of rats. – Publication of conservation measures for Scottish Biodiversity List species. Land managers can identify which SBL species are on their land using the NBN Atlas Scotland and then obtain summary information about the species (excepting data deficient species). – Publish and implement Pollinator Strategy for Scotland. Since publication of the Pollinator Strategy for Scotland in 2017 many projects are being delivered across Scotland by a wide range of partners. The work of Local Authorities has seen an impressive range of pollinator -friendly practices embedded in their approach to greenspace management. SNH has embedded pollinator - friendly approaches within its Green Infrastructure and Placemaking work. The SNH Battleby pollinator trail has been followed by pollinator trails at some of the most popular NNR's. A graduate placement position at SNH is developing guidance for the Planning and Construction industries. – Publication and implementation of a Plant Health Strategy for Scotland. The Plant Health Strategy for Scotland was published in 2016 and continues to be successfully implemented. Ongoing progress includes: <ul style="list-style-type: none"> – A new virtual Scottish Centre of Expertise for Plant Health was launched in February 2018. – Continued engagement and awareness raising activity of plant health issues across a broad spectrum of interested stakeholders. – Continued promotion of plant health biosecurity messages for example through FCS's 'Keep it Clean' campaign and the UK Plant Health Service 'Don't Risk It' campaigns. – Inspected 100% of imported regulated plants and plant products. – Commissioned a range of plant health research projects. 	



Nine actions are on track

<ul style="list-style-type: none"> - Langholm Moor Demonstration Project. The project is in the final phase of write up with many scientific papers published / accepted. The final report will be produced by spring 2019. 	✓
<ul style="list-style-type: none"> - Under PAWS implement an action plan for hen harriers. Heads Up for Harriers project involved 27 estates across Scotland. Some estates have had successfully breeding harriers for the first time in many years. Work has revealed some cases of natural nest failure which may otherwise have been unexplained or suspicious. Partnerships, information and intelligence sharing have been increased through this project, with multi-agency solutions adopted to prevent wildlife crime. Thirty chicks fledged from eight successful nests (August 2018) Fourteen of these chicks and four nests were on Estates where harriers had not bred for many years. 	X
<ul style="list-style-type: none"> - Saving Scotland's Red Squirrels Project. Work continues to provide a co-ordinated network of red squirrel protection in NE Scotland, in central lowlands, along the Highland Line and in key populations in south Scotland. The web based 'Community Hub' has been launched to support local delivery and volunteer action. The 2018 spring survey shows that red squirrel populations have remained stable in the project areas and increasing in NE Scotland. There is ongoing containment of grey squirrels along the Highland Line and a threat of their expansion in south Scotland. Through volunteers and land managers involvement the programme of public engagement continues to develop. 	Ongoing (2022)
<ul style="list-style-type: none"> - South Scotland golden eagle reinforcement project. The project partnership secured HLF and LEADER funding. The first three golden eagles were released in south Scotland in July/August 2018, with considerable and sustained national and UK-wide publicity. By March 2019 all three birds were faring well, and being satellite tracked. Plans are in hand to take more birds to south Scotland in 2019. 	✓
<ul style="list-style-type: none"> - Restoration of water vole populations. The experimental reintroduction of water voles in the Tarland area of Aberdeenshire has been successful and is now complete. Additional work is proposed to extend the reintroduction area into the nearby Red Moss to the east of Muir of Dinnet NNR. 	Ongoing
<p>The SISI invasive species project is now underway and will reintroduce landscape-scale mink control over much of northern Scotland. Further recovery of water vole populations is anticipated as a result of this, but re-colonisation by mink in some previously cleared areas will need to be addressed first.</p>	
<p>Although the reintroduction to Tarland/Red Moss has been completed, at a landscape scale mink control will not be completed by 2020 as this ongoing work.</p>	



- **Restoration of pearl-bordered fritillary populations.** The scope of this action has been expanded to address additional woodland Lepidoptera. 2018 is the seventh year of monitoring of chequered skipper and pearl-bordered fritillary populations, primarily on the National Forest Estate, to produce a national trend in a partnership between Butterfly Conservation and FCS. Butterfly Conservation is developing forestry Lepidoptera alert/opportunity maps to help ensure woodland owners/agents are aware of the presence of priority species at an early stage in their woodland creation proposals.

A SNH graduate placement post has been appointed to look at the ecology of the Dark Bordered Beauty to enhance its conservation status in partnership with Butterfly Conservation Scotland. A pheromone lure for Kentish Glory has been successfully trialled resulting in its discovery at several new locations.

- **Restoration of great yellow bumblebee populations.** Three gardening / flower growing workshops in Caithness focussed on propagating wildflowers suitable for great yellow bumblebees. Two basic bumblebee ID training events took place in areas with great yellow bumblebee populations. 2 SRDP-AECS applications on Tiree and 19 applications in Caithness, propose options to benefit great yellow bumblebees.

- **Restoration of populations of alpine blue-sowthistle, tufted saxifrage and marsh saxifrage.** Alpine blue-sowthistle was translocated to three sites in 2017 by RBGE.

Further work on tufted saxifrage is not considered necessary as the main threat to that species appears to be climate change.

A genetic survey of marsh saxifrage sites in Scotland was completed by RBGE. Monitoring is taking place at the Pentland Hills site for marsh saxifrage, where grazing enclosures have been deployed.

Further legacy work, including surveillance of alpine blue-sowthistle and marsh saxifrage will continue after 2020. Further work on tufted saxifrage is not considered necessary as it is most likely to be under threat from macro-scale threats such as climate change.

- **Restoration of rare lichens of the west coast temperate woodlands.** Experimental lichen/bryophyte translocations have been established at two Rhododendron recovered sites in the Loch Lomond and Trossachs National Park; these are oakwood sites managed by FES. Monitoring will continue beyond 2020.

Translocations for *Nephroma* at Glen Creran have been delayed though activities have been redirected to protecting a population of *Pseudocyphellaria intricata*, part of which has been translocated to Benmore Botanic Gardens and is being monitored.

Ongoing

X

✓

Ongoing



Five actions have insufficient progress

- **Eradication of North American mink in the Outer Hebrides.**
Two satellite populations managed to establish themselves in Lewis and Harris over the winter and spring of 17/18 but with additional resources provided, the project is in the position of pushing towards complete eradication throughout the Outer Hebrides. Currently only a few isolated individuals are being caught. The project deadline has been extended beyond June 2020.

Ongoing

- **Wildcat action plan implemented.** Action points on the Scottish Wildcat Conservation Action Plan that relate to the partnership project Scottish Wildcat Action are progressing. The main focus of the conservation work on the ground has been the capturing of wildcats for genetic screening and the fitting of GPS collars to enable monitoring of individual wildcats. The work has focussed in on three of the priority areas, as little evidence of wildcats has been found in the other areas.

✓

Eleven wildcats were captured in the past winter and all show hybridisation but none exceeding the genetic threshold for conservation breeding. In total only 12 wildcats were detected in three areas last year. The project staff and volunteers have invested over 2,500 nights to capture cats for neutering or genetic screening resulting in over 200 cats being trapped, delivering over 110 events and talks reaching around 7,500 people and collecting over 600,000 trail camera images during cat surveys.

The IUCN cat specialist group published their report on the status of the wildcat in Scotland, confirming that the wild population is currently too low to be viable without reinforcement from other sources including the current captive population and wildcats from elsewhere in Europe.

The recommendations of the IUCN cat specialist group have been accepted by the steering group and a new phase of work focusing on reinforcement at prepared site(s) is being prepared building on the actions of the current Scottish Wildcat Action.

- **Restoring populations of curlew.** RSPB is entering the final of a five year recovery programme which includes a trial management project involving two sites in Scotland. The aim is to improve understanding of the habitat management and predator control interventions required to achieve stable/increasing curlew populations. Following three years of interventions differences in curlew numbers and productivity between trial and control areas are not yet detectable. The approach was reviewed with regard to scaling up interventions in 2019, and efforts are being made to extend the projects timeframe to elucidate statistical relationships.

Ongoing

RSPB ran a curlew crisis month in May 2018 to raise awareness and build support for curlew. In addition to sending out blogs on social media (knit a Shetland hat for whaaps received over 15,000 views), RSPB went into partnership with the Shetland Chocolatier Mirrie Dancers to produce chocolate eggs and held a Whaap spree in Shetland.



- **Restoring populations of Corncrake.** This species remains heavily conservation dependent, in particular on dedicated agri-environment schemes. The RSPB has now finalised a new forward strategy for its corncrake work.

In total, 879 calling males were recorded in 2017 within Scotland Core Areas showing a reduction for the third year running. The 2017 survey recorded the lowest number of calling males since 2003. In 2018 898 calling males were recorded from Scotland Core Areas, a very slight increase compared with 2017.

There has been no range expansion since the conservation programme began in the early 1990s. Therefore RSPB intends to focus efforts on core populations. The new RSPB corncrake strategy sets out targets for corncrake populations in each core area. To help deliver this strategy RSPB successfully applied for funding from the National Lottery for the SCALE project. (Saving Corncrakes through Advocacy, Land management and Education) This allows RSPB to develop the project further ahead of submission of a full application at the end of 2019. If successful will provide four years of funding with the focus being on these three key areas.

- **Restoration of corn bunting populations.** RSPB assisted agents and farmers in East Scotland with 17 AECS corn bunting focused applications the outcomes of which will be announced in June 2018. Additional advisory activity included delivering 'Greening & corn buntings' talks at the Soil Association Greening Roadshows in December 2017. Monitoring in 2017 showed a 26% increase in Fife and Angus, where most of the population now has access to key habitats on a landscape scale. In the Western Isles, annual monitoring showed similar numbers found as that recorded in 2017 (c.35 singing males).

Management is carried out through a mix of greening measures, agri-environment schemes and voluntary action. During 2018 approximately 38 farms were surveyed by 17 volunteers and 2 RSPB staff members in East Scotland. SNH contributed £6,000 for 8 bunting trial seed mix plots that also provide habitat for butterflies, along with several control plots. Corn bunting seed mixes and winter supplementary feeding are now also being implemented on Fife Council land and on several golf courses. Early indications suggest 2018 numbers in Fife have increased slightly, but data is still being assessed. However, on one key site in the North East, numbers have significantly declined even though the land is subject to targeted management. Work is currently being carried out to establish what the issues are at that key site.

In the Western Isles work to explore a potential agriculturally based solution has been stopped. The population is now reliant on ripe cut arable silage from an RSPB Reserve at 20 feeding areas.

X

X



Great yellow bumblebee feeding on birds foot trefoil, South Uist ©Lorne Gill/SNH

Further Activity Required

Lessons learnt indicate the need for increased agricultural support for these species to ensure on the ground management and low intensity agriculture.

SNH has awarded RSPB Scotland a grant of £25K in 2018 for curlew work in Scotland. This is a contribution to the trial management project. Although the first phase of the programme will be completed by 2020, RSPB is starting to plan for phase 2 (beyond April 2020).

Eradicating mink from the Western Isles has proved to be difficult due to re-colonisation of mink from an emerging population in the Uists. In 2019, additional staffing resources were put in place to deal with this and currently the project is back in the position of pushing towards complete eradication of mink throughout the Outer Hebrides. Currently only a few isolated individuals are being caught and the test will be to see if juveniles start to disperse in the late summer this year.

Priority Project 10: Improving ecological connection

Aim: Improve habitat and species resilience, contribute to wider ecosystem services (such as improved natural flood management and reducing diffuse pollution) and contribute to the socio-economics of central Scotland.



Target 12: Improve connectivity between habitats and ecosystems.

Achievements

Ten landscape clusters of 40 sites across the CSGN area comprising peatland, wetland, open mosaic and freshwater habitats have benefitted from improved habitat condition and increased connectivity. The project has been extended to 2019 at no extra cost resulting from exchange rate gain, to allow for additional on-site habitat interventions over and above original targets.

SNH has published a [new indicator](#) on ecological connectivity as part of the suite of Ecosystem Health Indicators which will help guide priorities for spatial action.



Installing a green wall at the SNH Battleby Conference Centre ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>One action has been recorded as achieved</p> <ul style="list-style-type: none"> – Develop integrated habitat “opportunity” mapping for Central Scotland and identify delivery mechanisms. Completed. The IHN map and action plan were launched in 2013. A number of projects and activities have used this information to develop and improve connectivity – e.g. EcoCo LIFE, 7 Lochs, and the Glasgow & Clyde Valley SDAs. 	
	<p>One action is on track to exceed target</p> <ul style="list-style-type: none"> – Habitat management to support connections for eight sites within the CSGN area through EcoCo LIFE project. Ten “clusters” are being actively managed and improved to address habitat fragmentation and improve connectivity over the CSGN area: <ul style="list-style-type: none"> – Over 900ha peatlands restored – 100ha wetlands restored/created – 4ha wildflower meadows created – 2 green roofs created <p>The project has been extended to 2019 at no extra cost resulting from exchange rate gain, to allow for additional on-site habitat interventions over and above original targets.</p>	✓
	<p>One action has insufficient progress</p> <ul style="list-style-type: none"> – Develop a national ecological network. Scottish Natural Heritage has developed a draft position statement for the national ecological network. This was shared with stakeholders at a workshop event and is currently being amended. 	Ongoing

Further Activity Required

A position statement on a Scottish national ecological network remains to be published.

Priority Project 11: Sustainable land management

Aim: Support sustainable land management under the Common Agricultural Policy (CAP) and establish a network of demonstration sites in which ecosystem health is improved alongside agricultural production.



Target 13: Promotion of measures to support biodiversity under CAP: sites demonstrating good practice aimed at supporting wildlife.

Achievements

A total of £167 million has been committed since 2015 to fund a range of agri-environment and organic activities that help to maintain and enhance our rich and varied natural environment. About 770 applications were approved in 2018, and a new round of applications is closing in April 2019. Uncertainties following Brexit may slow activity. Early closure of the scheme presents a high risk of a long hiatus which would halt progress with this target.

The Research Institutes, JHI and SRUC, are engaged in a programme of demonstration activities on their Research Farms. The Soil Association and others are raising awareness of environmental issues through demonstration events and field labs. The Farm Advisory Service has updated their website to include conservation advice.



Skerray ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>Seven actions are on track</p> <ul style="list-style-type: none"> - Demonstration Farms plus research and teaching farms. SRUC's Kirkton & Auchtertyre upland research farms entered an AECS agreement in 2016. Examples of the work underway include: <ul style="list-style-type: none"> - Partner led demonstration events and workshops, on the themes of biodiversity management and woodland creation on hill farms were delivered. - Kirkton & Auchtertyre became a LEAF Innovation Centre in 2017. - The James Hutton Institute has an extensive programme of demonstration activities supported by its Research Farms. - The LEAF Open Farm Sunday event introduced 200+ visitors to farming and agricultural science at the Hutton's upland research farm, Glensaugh. - Food industry, agri-tech representatives and overseas visitors attended demonstration events at the Centre of Sustainable Cropping Balruddery Research Farm. - Hutton's Research Farms are exploring options to demonstrate sustainability at the whole farm scale. Annual 'demonstration days' that were previously written into RESAS strategic Research Programme work did not continue after 2016/17. - Support for biodiversity on arable farms through the Ecological Focus Area (EFA) CAP greening requirement, and increased protection for hedgerows and watercourses under cross compliance. The introduction of a compulsory ban on "Plant Protection Products", and two new options regarding hedges and agro-forestry have been introduced in 2018. The rules have now been embedded and greening is helping to deliver benefits through EFA's. - Expand network of demonstration farms. The James Hutton Glensaugh and Hartwood Farms joined Balruddery as of the LEAF Innovation Centre. By working with farmers to deliver its research JHI is creating networks for the support of the creation and dissemination of knowledge. The Sustainable Catchment programme established in 2017 links farmers in the area with the work of the Balruddery Research Farm. Work is underway through the 'Farm Lab' concept to link commercial farms to the existing demonstration farm networks. <p>In addition, work through projects like DIVERSify and TRUE has been looking at more biodiverse and sustainable crop production systems. These have been developing networks of trial sites, some of which are being used for outreach to other farms, in effect expanding the network of demonstration platforms being used.</p> <p>Sustainable farming has been shared through an SGP event, a demonstration event at Knock Farm EcoAgri Tech and the GWCT European partnership project called PARTRIDGE.</p> <p>SRUC is exploring links between agri-environmental interventions and key ecosystem services. This will integrate sustainable, positive environmental management where the business case can be presented to farmers.</p>	<p>Ongoing</p> <p>✓</p> <p>Ongoing</p>

	<ul style="list-style-type: none"> - Promotion of agri-environment and sustainable farming practices through the SRDP Farm Advisory Service and Scottish Rural Network. Significant step up in delivery and engagement of the Farm Advisory Service over the last year through workshops, events, discussion groups and Soil & Nutrient network farm meetings. There is a significant level of advice and communication activity as part of the SRDP which is now helping promote environmental messages. The Farm Advisory Service website has been updated to include conservation advice on a number of topics and soil is being recognised as a high priority. Rural Matters produced a toolkit promoting AECS to peatlands / hill farmers and general communications activity to promote AECS during the application period. 	✓
	<ul style="list-style-type: none"> - Seeking EC approval to implement CAP greening through a certification scheme from 2016. Nutrient efficiency measure remains part of Greening and Farm Advisory Service (FAS) promoting good soil management. The introduction of a compulsory ban on Plant Protection Products for some Ecological Focus Areas (EFAs) will improve benefits. Changes to greening have potential to benefit pollinators. - The Wildlife Estates Scotland (WES) Initiative. Significant progress has been made with the new Project Officer meeting owners and managers of land-holdings, which are due for accreditation renewal, as well as meeting with many land managers who aim to achieve level 2 accreditation. There are now 165 level 1 supporters and 57 level 2 accredited landholdings. A new vision of what WES should be has been agreed and the evolution of WES includes: reviewing the application form and accreditation levels, creating an online portal to help streamline the application process and planning for a suite of Walk and Talk events, WES Estate open days and education seminars. - Targeted support for sustainable land management practices under SRDP Agri- Environment Climate andn Forestry Grant Schemes. Highlights include a total of £167 million committed since 2015 to fund a range of Agri-environmental and organic activities that help to maintain and enhance our rich and varied natural environment. About 770 new applications were approved in 2018 and a new round is closing in April 2019. Uncertainties following Brexit may slow activity. While overall progress to March 2019 has been reasonably good regarding AECS there is a downward trend in the level of demand. There are signs that uncertainties over the level of commitments to maintain the budget for AECS could halt progress with this target. 	<p>✓</p> <p>✓</p> <p>?</p>
	<p>One action has made no significant progress</p> <ul style="list-style-type: none"> - Support for landscape-scale agri-environment management under the new SRDP Environmental Cooperation Action Fund (ECAAF). The decision to withdraw the ECAF Scheme has led to a lack of progress on this target. As a mitigation measure some minor changes were made to AECS (an enhanced plan payment for coordinated applications) and, more recently the development of Working for Waders , a collaborative project involving different organisations. 	X

Further Activity Required

Although overall progress is being maintained/achieved the uncertainty from Brexit is already delaying and introducing a number of risks. Decisions over the next few months are critical to enable maintaining progress.

Refinements to the existing programme of Monitor Farms could include greater emphasis on the challenges of climate change, sustainable management of soils, water and the environment. Initial plans to pilot outcome based approaches to agri - environment management are under discussion, which could provide a basis for a new focus.

Priority Project 12: Increase environmental status of our seas

Aim: Establish effective protection and management of nature in Marine Protected Areas and safeguard Priority Marine Features.



Target 14: 10% of Scotland's seas to be incorporated in nature conservation Marine Protected Areas.

Achievements

Achieved in 2014. Subsequent progress is on target with 17.6% of Scotland's seas designated as Marine Protected Areas for nature conservation.



Flame shell, Loch Fyne ©Ben James/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>Three actions are on track</p> <ul style="list-style-type: none"> - Complete the suite of Marine Protected Areas (including the additional Natura sites) and agree and deliver measures for their effective management. It is expected that all designations and management will be in place by end of 2020. - Put in place Regional Marine Plans that incorporate provision for decision making that promotes ecological coherence between protected areas and safeguards priority marine features. Regional plans are in development by the two established Marine Planning Partnerships. It is proposed to establish a third Marine Planning Partnership - in Orkney during 2019. - Develop the evidence base through setting and delivering surveillance and monitoring strategy that will allow authoritative reporting of state and progress. A significant contribution was made to the OSPAR assessment of the status of the NE Atlantic in 2017. Currently finalising the UK assessment of progress towards good environmental status. Scottish MPA monitoring strategy in place. Work on Scotland's next Marine Atlas is underway, with publication expected in 2020. 	<p style="text-align: center;">✓</p> <p style="text-align: center;">Ongoing</p> <p style="text-align: center;">✓</p>

Further Activity Required

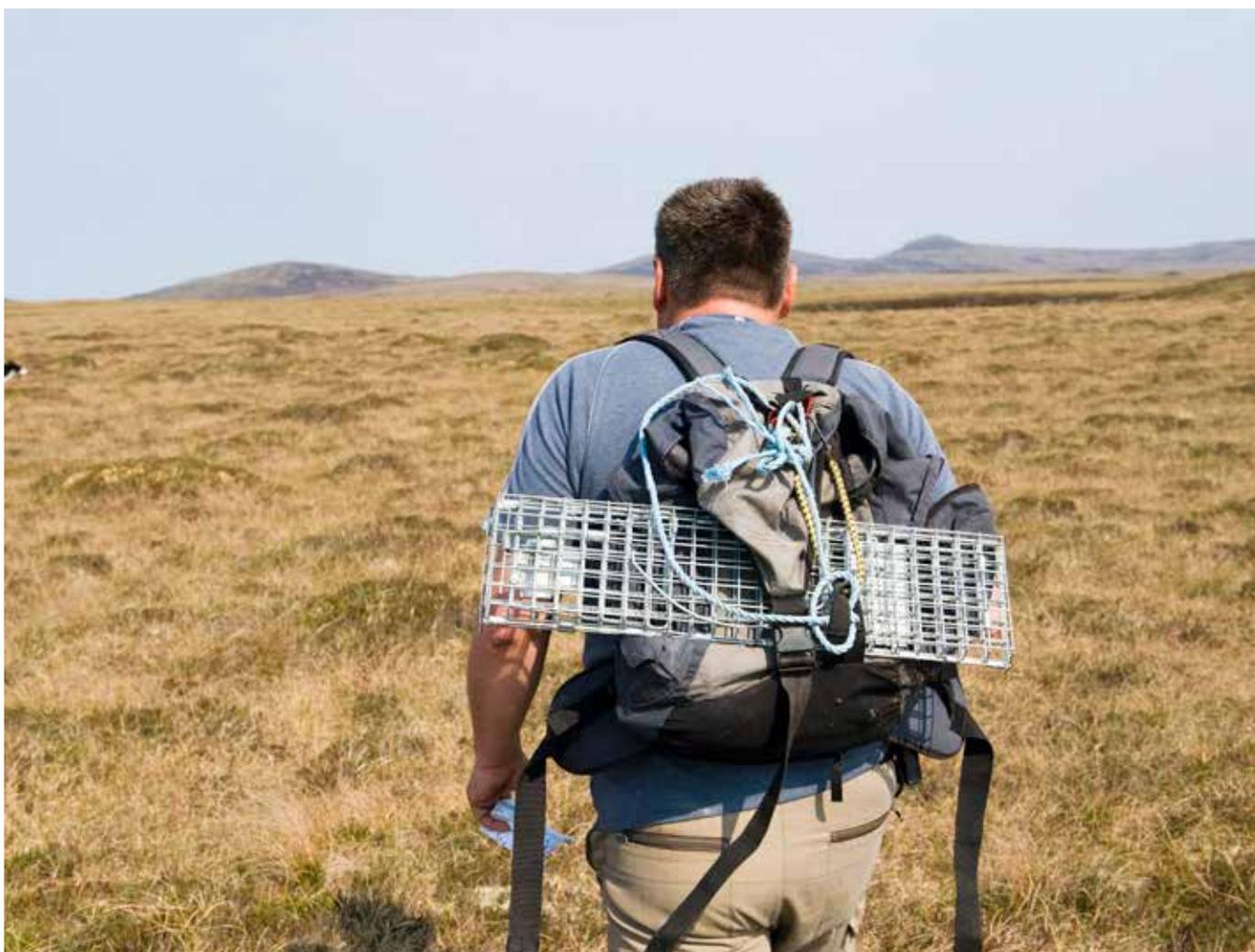
The target has been achieved. All subsequent ongoing work associated with actions is on track.

Supporting Work

Achievements

Publication of Ecosystem Health Indicators in 2017 will help Scotland report progress regarding the condition of Scotland's biodiversity. Bryophytes are sometimes overlooked as a species group in favour of more "charismatic" species. The ongoing development of an additional Ecosystem Health Indicator which focuses upon bryophytes is welcome. Scotland continues to be a World leader in its use of the concept of Natural Capital, targeting businesses to improve their understanding of Natural Capital.

Although it will never be possible to prevent all introductions of non-native species, Scotland has a good track record at identifying introductions at an early stage and controlling any subsequent spread. This is to a large extent a consequence of there being a well-established and active body of citizen scientists and specialist societies within Scotland.



Checking mink traps, North Uist ©Lorne Gill/SNH

Status of Actions

	Current Progress	Action complete by 2020
	<p>Two actions have been recorded as achieved.</p> <ul style="list-style-type: none"> – Ecosystem Health Indicators published on SEWeb to inform local decision making and help set targets and priorities for action. All 13 of the original EHI were published on SEWeb in October 2017. An additional 14th indicator has been successfully developed, including peer review and is scheduled to go onto the SEWeb in mid 2019. – Carbon rich soil map published in 2015 to help inform decision making - Completed. The map has been released as an online resource under Scotland Soil website at http://soils.environment.gov.scot/maps/carbon-and-peatland-2016-map/ Acting on users feedback and as part of regular review of Scotland’s soil website, the accessibility to the map on website viewer has been improved. 	
	<p>Five actions are on track</p> <ul style="list-style-type: none"> – Natural Capital Asset Index (NCAI) used to inform decision making. The NCAI has been included in the Scottish Government National Performance Framework as an environmental and economic indicator. Work is ongoing this year to improve usefulness and ensure that the NCAI is used by policy and decision makers, including the completion of a new StoryMap. ✓ – A new habitat map of Scotland based on pan-European EUNIS- Annex 1 classification by 2019. The completed parts of the Habitat Map of Scotland are available to download and to view on Scotland’s environment web where it is consistently the most viewed set of data on the site. ✓ <p>Good progress has been made across many habitats. However further detailed mapping of the uplands is required. An innovative technique the HabMoS Upland Mapping SCIR (Stereo Colour Infra-red) Method has been developed by SNH. This is being used for a limited number of sites in Western Scotland and Ireland.</p> <ul style="list-style-type: none"> – Citizen science- continue work to increase the number of people providing data and information on the state of nature and raise awareness of the benefits nature provides. Technological developments continue to increase opportunities for citizen data collection. Recognition is increasing of the contribution made by citizen science to state of nature reporting, and therefore to post-2020 planning. Examples of this include the new volunteer-based National Plant Monitoring Scheme which aims to monitor plants at small scales, and novel analysis of data collected through the National Moth Recording Scheme to generate species - level trends and multi species indicators for moths in Scotland. Ongoing – Raising awareness amongst businesses through the Scottish Forum on Natural Capital and exploring new opportunities for investment. Over sixty businesses, advisors and member bodies engaged through Scottish Forum events. ✓ <p>Two films have been produced as communication tools and which are being used to introduce businesses to the concept of natural capital and its benefits to business operations.</p>	

	<ul style="list-style-type: none"> - With Young Scot explore opportunities to engage young people in delivery of the 2020 challenge. The Young Person's Advisory Panel 'ReRoute' delivered all their key outputs including a series of interventions for the Year of Young People (YoYP). The outputs comprise: <ul style="list-style-type: none"> - the design and implementation of a challenge fund "Future Routes" by young people for young people, - a draft young person's version of the Route Map to 2020 - 20 things for 2020 - completion of their recommendations report for SNH, setting out 46 recommendations on engaging young people in nature. <p>A new group of young people, ReRoute 2 has formed to help implement the recommendations and are funded until October 2019.</p> 	✓
	<p>One action has insufficient progress</p> <ul style="list-style-type: none"> - INNS prevention - preventing the introduction and spread of INNS by improving biosecurity and surveillance and responding quickly to control new outbreaks. Absolute prevention is not achievable, but it is possible to reduce the likelihood of introduction and to control the subsequent spread of a non-native species. For example six sacred ibis, which escaped when heavy snow damaged their aviary, were re-captured by zoo keepers. <p>Citizen scientists, e.g. through BSBI, have agreed to report sightings of invasive plants of EU concern to help coordinate future action to eradicate them or limiting their spread.</p> <p>RSBP has secured EU LIFE funding to improve INNS biosecurity for the some of the UK's most important seabird islands.</p> <p>SNH and RSPB have submitted funding bids for the Orkney Native Wildlife Project. The aim is to remove non-native stoats from Orkney.</p>	Ongoing

Further Activity Required

Significant further effort is required to complete mapping in mid-altitude upland areas covering 2.7 million hectares where pressures from renewable developments and woodland expansion are greatest, and where we require necessary data to underpin work on Deer and Grouse Moor management.



Bird ringing workshop at Westmuir Community Woodland ©George Logan/SNH

Annex 3

Organisations Contributing to the Route Map

We are grateful to everyone who contributed to the production of this report and to the many more involved in delivering biodiversity action on the ground

The contribution of a wide range of partners is critical to achieving the Route Map targets, including

- Aberdeen University
- Atlantic Woodland Alliance
- Bumblebee Conservation Trust
- Butterfly Conservation Scotland
- Cairngorm National Park Authority
- ENFOR
- Forestry Commission Scotland
- Forest Enterprise
- Game and Wildlife Conservation Trust
- IUCN Peatland Campaign
- James Hutton Institute
- Local Authorities
- National Health Scotland
- Partnership for Action against Wildlife Crime Scotland
- Plantlife
- Royal Botanic Garden Edinburgh
- Royal Society for the Protection of Birds
- Scottish Forum on Natural Capital
- Scottish Land & Estates
- Scottish Environment Protection Agency
- Scottish Government – Environment, Farming & Forestry
- Marine Scotland
- Scottish Natural Heritage
- Scotland's Rural College
- Scottish Wildlife Trust
- The Conservation Volunteers
- Wildlife Estates Scotland

Annex 4

Abbreviations and acronyms

AECS	Agricultural Environment Climate Scheme	NWSS	Native Woodland Survey of Scotland
CAP	Common Agricultural Policy	OLIN	Outdoor Learning in Nature
CSGN	Central Scotland Green Network	OWL	Outdoor and Woodland Learning
EC	European Community	PAWS	Partnership Against Wildlife Crime Scotland
ECAF	Environmental Co-operation Action Fund	PP	Priority Project
ECoCo	Ecological Connectivity	SRUC	Scotland's Rural College
EFA	Ecological Focus Area	SWT	Scottish Wildlife Trust
ENFOR	Environment & Forestry Directorate	RAFTS	Rivers and Fisheries Trusts of Scotland
ERDF	European Regional Development Fund	RBGE	Royal Botanic Garden Edinburgh
EU	European Union	RBMP	River Basin Management Plans
EUNIS	European Nature Information System	RESAS	Rural Affairs and Environment Strategic Research
FE	Forest Enterprise	RPID	Rural Payments and Inspections Directorate
FCS	Forestry Commission Scotland	RSPB	The Royal Society for the Protection of Birds
FTE	Full Time Equivalent	SAC	Special Area of Conservation
GEP	Green Exercise Partnership	SBS	Scottish Biodiversity Strategy
GIS	Geographic Information System	SCM	Site Condition Monitoring
GWCT	Game & Wildlife Conservation Trust	SEPA	Scottish Environment Protection Agency
HLF	Heritage Lottery Fund	SEWeb	Scotland's Environment Web
HS	Historic Scotland	SFNC	Scottish Forum on Natural Capital
INNS	Invasive Non-Native Species	SG	Scottish Government
IUCN	International Union for Conservation and Nature	SG AFRC	Scottish Government – Agriculture, Food and Rural Communities Directorate
JHI	James Hutton Institute	SIMD	Scottish Index of Multiple Deprivation
JMT	John Muir Trust	SISI	Scottish Invasive Species Initiative
LA	Local Authority	SLE	Scottish Land & Estates
LEAF	Linking Environment and Farming	SNH	Scottish Natural Heritage
LIFE	Financial Instrument for the Environment	SPA	Special Protection Area
LNR	Local Nature Reserve	SPANS	Scotland's People and Nature Survey
MPA	Marine Protected Area	SRDP	Scottish Rural Development Programme
MS	Marine Scotland	SRUC	Scotland's Rural College
NCAI	Natural Capital Asset Index	SSSI	Site of Special Scientific Interest
NEN	National Ecological Network	TCV	The Conservation Volunteers
NFUS	National Farmers' Union Scotland	WES	Wildlife Estates Scotland
NGO	Non-governmental organisation	WFD	Water Framework Directive
NHS	National Health Service		
NNR	National Nature Reserve		
NPF	National Performance Framework		
NTS	National Trust for Scotland		



The Culbin Bar on the Moray Firth ©P&A Macdonald/SNH

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