Dumfries and Galloway

Local Biodiversity Action Plan

2026 to **2036**

DRAFT

Dumfries and Galloway Council

Who is this Plan for?

This Plan is for anyone who lives in, works with or cares about Dumfries and Galloway's natural environment.

The Plan provides a shared framework for nature recovery, supporting action at all levels – from strategic decision-making to practical work on the ground.

Different people will use the Plan in different ways. It provides a framework for delivering the Scottish Biodiversity Strategy at a local level, helping to guide land management, shape local projects, support funding applications, inform planning and investment decisions, and encourage collaboration across sectors and communities. It also supports Dumfries and Galloway Council in meeting its biodiversity duties, while aligning action with wider priorities such as climate change, land use and community wellbeing.

- → Land managers
- → Communities
- → Public sector
- → Businesses
- → Individuals

Photo credit, Mark Pollitt

Vision

Dumfries and Galloway is a place where nature is recovering, connected and resilient.

Healthy ecosystems support wildlife, food and fibre production, communities and livelihoods, and people work together to care for land and water for today and future generations.

No single organisation can deliver the scale of change required. Progress depends on strong partnerships between public bodies, land managers, communities, NGOs, businesses and individuals.

The Plan helps align activity, **target effort** and make the most of the **knowledge**, **skills** and **resources** already present in the region. It recognises the value of local knowledge, lived experience and long-standing relationships with the land and sea, alongside scientific evidence and professional expertise.

By providing a shared direction, the Plan helps ensure that **individual actions contribute to positive outcomes for nature**, **climate** and **communities**. It also recognises that rivers, coasts, habitats and species extend beyond administrative boundaries. As climate change accelerates environmental change, connected and resilient landscapes will become increasingly important. Working with neighbouring regions and partners will help deliver more coordinated and effective action for nature recovery at a landscape scale.

Supporting nature is not a trade-off, but an essential part of building resilient communities, a strong economy and a healthy environment.

Contents

This plan has been prepared by Southern Upland Partnership (Services) Ltd on behalf of Dumfries and Galloway Council.

This document can also be views online at **https://www.dumfriesandgalloway.gov.uk/council-elections/have-your-say/consultations-engagements/local-biodiversity-action-plan-engagement**

Photo credit, front cover left to right, Malcolm Haddow, Mark Pollitt x 2 and image on this page.

Dumfries and Galloway Council

Dumfries and Galloway's connected ecosystems

We are all part of an interconnected living system that sustains biodiversity, livelihoods and wellbeing.

Actions in one place can affect outcomes elsewhere, making a joined-up approach to nature recovery essential.

River catchments, farmland, woodlands, wetlands and the Solway coast, **these places are linked by water**, **soils**, **species** and **interdependent natural processes** -

What happens in one part of the landscape affects what happens elsewhere.

UPLAND LOWLAND URBAN COASTAL




Rain flows through hills to sea

Nutrients and animals move through the landscape

Seeds, pollen and spores disperse

People are part of the system

Changes have wide reaching effects

Water flows through peatlands, burns and rivers into lowlands, estuaries and the sea.

Along the way, it carries water, sediments and nutrients, influencing water quality, flood risk and coastal environments.

The condition of soils and peat affects how water is stored and released, while woodland and vegetation influence shelter, shade and temperature.

While water largely moves from the hills to the sea, **wildlife** and **ecological processes connect the landscape in multiple directions**.

Fish migrate upstream from the sea to spawn, while birds, bats, insects and other animals move between habitats, helping to transport nutrients, seeds and other resources.

Nature is constantly changing. Species and **habitats respond over time** to changes in the environment. As the climate changes, protecting and restoring resilient habitats will become increasingly important, providing places where species can survive, adapt and, where conditions allow, move into new areas.

Plants, fungi and **soil organisms** also **move** and **spread**. **Seeds**, **pollen** and **spores** are **dispersed by wind**, **water** and **wildlife**, helping to connect habitats across the region over time.

The region's dark skies also support ecological connectivity, providing important conditions for bats, moths and other nocturnal species whose movements and behaviour depend on natural patterns of light and darkness.

People are part of this system.

How land is farmed, forested, managed and developed influences how water moves, soil quality, how habitats function and how ecosystems respond to change.

Evolving natural processes underpin connections. Rivers change course, floodplains store water, coastlines shift and soils develop over time. When these processes are altered – for example through drainage, channel modification, land use change, pollution or artificial lighting – the effects are often felt beyond the immediate area.

Photo credits left to right, Malcolm Haddow, Christine Dudgeon x 2, Mark Pollitt

Extraordinary nature on our doorstep

A selection of species, habitats and places chosen for their strong cultural connections, outstanding ecological value or for which Dumfries and Galloway is an international stronghold.

Sites in Dumfries and Galloway of national and international environmental recognition

Galloway and Southern Ayrshire UNESCO Biosphere	
International Dark Sky Park	
Geological Conservation Review Sites	

Designated Areas;

13	**Special Areas of Conservation**
5	**Special Protection Areas**
4	**Ramsar Sites**
c.100	**Sites of Special Scientific Interest**
2	**National Nature Reserves**
3	**National Scenic Areas**
2	**Local Nature Reserves**
1	**Marine Protected Area**

See appendix 3, pages 52 - 58

FISH

Sparling

Long associated with the Solway, sparling connect rivers, estuaries and the sea, reflecting the region's ecological and cultural connections.

Vendace

Britain's rarest freshwater fish, the vendace is a living reminder of the Ice Age landscapes that shaped Dumfries and Galloway.

PLANTS and FUNGI

Sphagnum Moss

Remarkable and transformative, by building and maintaining peatlands, Sphagnum helps store carbon, regulate water and support specialised wildlife.

Waxcaps

These colourful fungi reveal the hidden richness of ancient grasslands, healthy soils and long ecological continuity.

BIRDS

Black Grouse

A species of woodland edges, moorland and rough grazing, the Black Grouse illustrates the importance of connected landscapes where farming, forestry and nature recovery work together.

Curlew

The haunting call of the curlew is one of the defining sounds of Dumfries and Galloway's farms, wetlands and uplands.

Nightjar

A bird of twilight and dark skies, the nightjar is closely associated with the forests and heathlands of Galloway.

Wintering Geese

Each winter, thousands of migratory geese arrive from the Arctic, making the Solway one of the UK's most important habitat for wintering birds.

Willow Tit

One of our most threatened woodland birds, it's closely associated with wet woodland, scrub and regenerating habitat, where standing deadwood provides essential nesting sites.

INSECTS

Northern Brown Argus

Closely linked to species-rich grasslands and healthy wildflower communities, the Northern Brown Argus butterfly underlines the intricate relationships between plants, insects and the wider landscape.

MAMMALS

Red Squirrel

One of Scotland's most loved mammals, the red squirrel is closely associated with the region's native woodlands and forests, reflecting the value of resilient woodland networks and long-term habitat management.

Bats

Dumfries and Galloway supports all of Scotland's resident breeding bat species. The diverse habitats and dark skies support rare species such as Leisler's Bat and Whiskered Bat, making the region nationally important for bat conservation.

HABITATS

Lochs

Hundreds of lochs and lochans, connected by rivers and burns help shape the landscape, supporting unique wildlife and reflecting the region's glacial past.

Native Woodland

From ancient and long-established woodlands to Atlantic rainforest, coastal woods and montane woodland, native woodlands are among Dumfries and Galloway's richest habitats. These diverse woodlands support a wealth of wildlife, store carbon, protect soils and water, and provide a living link between the region's natural history and its future ecological resilience.

Peatlands

From upland blanket bogs to lowland peatlands, these habitats help shape the region's water, climate and biodiversity. From upland blanket bogs to lowland peatlands, these habitats shape the region's water, climate and biodiversity, and lock away vast stores of carbon.

Native Oyster Beds

Native oysters are ecosystem engineers that filter water and create habitat for a wealth of marine life. Loch Ryan supports one of Europe's largest disease free native oyster beds and associated sustainable fishery

Saltmarsh (merse)

Dumfries and Galloway has 25% of Scotlands saltmarsh. Shaped by tides and sediment, saltmarshes support wildlife, store carbon and help protect the coast.

Seagrass Meadows

Beneath coastal waters, seagrass meadows provide nursery grounds for fish, improve water quality and store carbon.

Species-rich Grasslands

Among the most colourful and wildlife-rich habitats in Dumfries and Galloway, supporting pollinators, fungi and wildflowers.

Wood Pasture

A landscape of veteran trees, grazing animals and rich biodiversity, where nature and land management have evolved together.

AMPHIBIANS and REPTILES

Natterjack Toad

Dependent on dynamic dunes, pools and saltmarsh (merse), the natterjack represents some of the Solway coast's most distinctive wildlife.

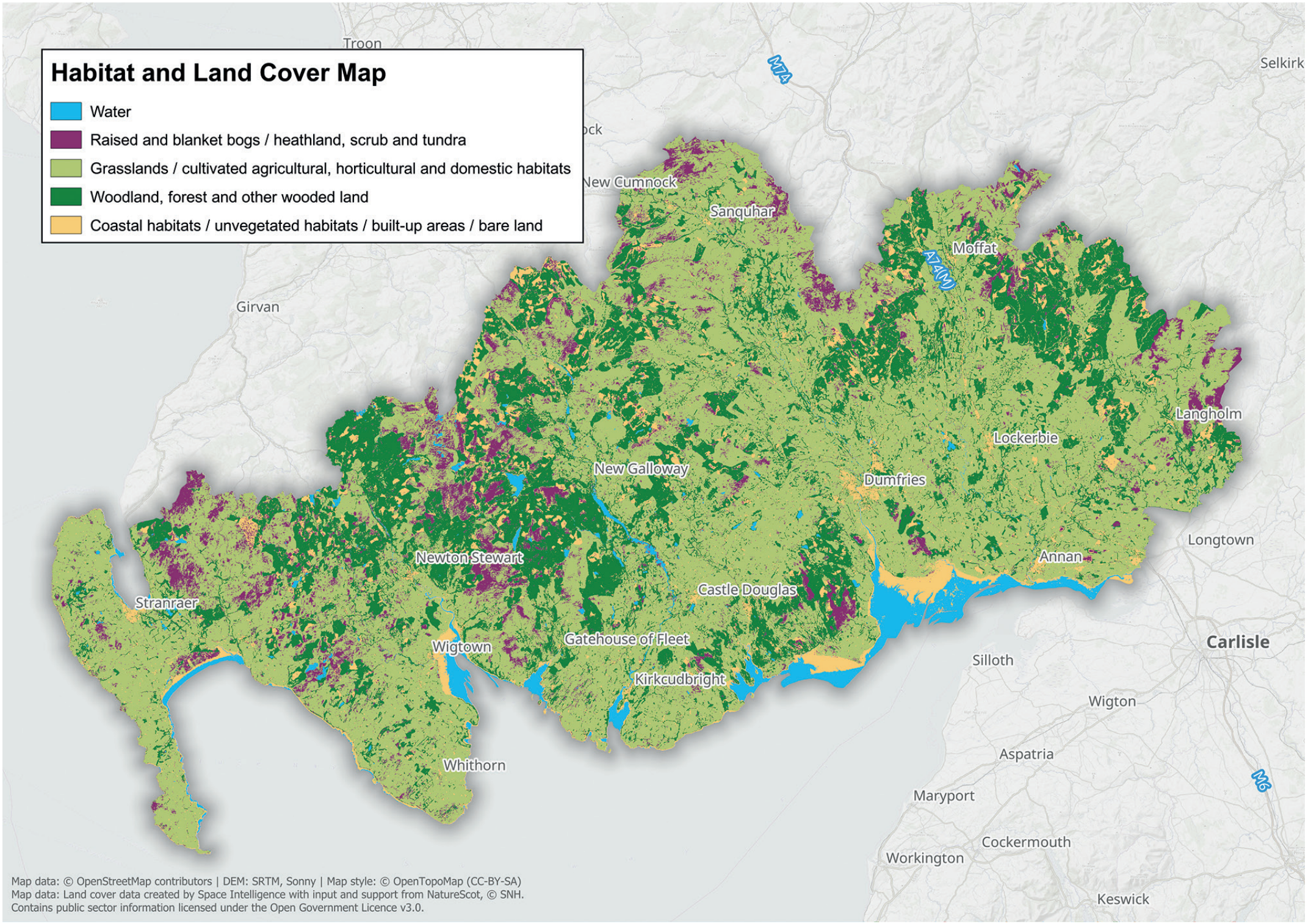
Adder

Adders are a distinctive and important part of the region's biodiversity, and their presence is an indicator of healthy heathland, rough grassland and woodland-edge habitats

CRUSTACEANS

Tadpole Shrimp

A remarkable survivor from prehistoric times, the tadpole shrimp (only found in one other place in the UK) depends on temporary pools and seasonally flooded wetlands, highlighting the importance of dynamic freshwater habitats and natural ecological processes.


Habitat and Land Cover Map
Water
Raised and blanket bogs / heathland, scrub and tundra
Grasslands / cultivated agricultural, horticultural and domestic habitats
Woodland, forest and other wooded land
Coastal habitats / unvegetated habitats / built-up areas / bare land
Troon
Girvan
New Cumnock
Sanquhar
Moffat
Selkirk
Langholm
Lockerbie
Dumfries
New Galloway
Newton Stewart
Stranraer
Wigtown
Gatehouse of Fleet
Castle Douglas
Kirkcudbright
Annan
Longtown
Carlisle
Silloth
Wigton
Aspatria
Maryport
Cockermouth
Workington
Keswick
Whithorn
M74
A74(M)
M6
Map data: © OpenStreetMap contributors | DEM: SRTM, Sonny | Map style: © OpenTopoMap (CC-BY-SA)
Map data: Land cover data created by Space Intelligence with input and support from NatureScot, © SNH.
Contains public sector information licensed under the Open Government Licence v3.0.

National Exemplars: Landscape-Scale Nature Recovery

Two large-scale nature restoration projects have been recognised as national exemplars within Scotland's landscape-scale approach to biodiversity restoration: Solway Coast and Marine Project - Landscape Connections (**SCAMP**) and **Flowing Forward** – Restoring Galloway's Rivers. Together they represent a unique "source to sea" approach, connecting upland catchments, rivers, estuaries and coastal habitats.

https://www.dumfriesandgalloway.gov.uk/news/2026/two-large-scale-dumfries-galloway-nature-restoration-projects-named-together-national-exemplars-scottish-government

SCAMP Landscape Connections

SCAMP Landscape Connections is a ten-year programme spanning 210 miles of the Solway coast and inshore waters bringing together a partnership of organisations to deliver landscape-scale restoration across coastal and marine environments. The project includes work to restore and enhance habitats such as seagrass meadows, native oyster reefs, saltmarsh (merse), sand dunes, coastal woodland and burns, while also supporting community engagement, education and skills development. Through its integrated approach, SCAMP seeks to demonstrate how nature restoration can deliver benefits for biodiversity, climate resilience, local communities and the wider economy.

Flowing Forward

Restoring Galloway's Rivers: Led by the Galloway Rivers Trust, Flowing Forward is a landscape-scale river restoration programme focused on improving river health and restoring aquatic biodiversity across Galloway's river catchments. Through collaborative working with land managers, communities and partner organisations, the project aims to restore natural processes, strengthen climate resilience and improve habitats for fish and wildlife. The programme forms a key part of a wider catchment-based approach to nature recovery across the region.

The recognition of both projects as national exemplars reflects their scale, ambition, innovation and collaborative design. It also highlights the role of Dumfries and Galloway as a place where new approaches to landscape and seascape restoration are being developed and tested, helping to inform nature recovery efforts across Scotland.

Photo credit, SCAMP

Nature matters

Nature has intrinsic value and is more than a resource for human use.

Increasingly, people are recognising this, as well as the many benefits on which our health, wellbeing and prosperity depend. Around the world, organisations, communities and governments are exploring approaches such as **Rights of Nature** and other ways of giving greater consideration to nature in decision-making, reflecting a growing understanding that people are part of a wider web of life.

Healthy, connected ecosystems also underpin resilient communities, economic activity and climate adaptation. By protecting and restoring nature, this Plan aims to support both biodiversity and the wellbeing of current and future generations.

Healthy ecosystems

Resilient Communities

Access to nature

Health and wellbeing

Sense of place

Thriving Economy

Food, timber and fibre production

Natural resilience

Nature based livelihoods

Climate Resilience

Carbon storage

Food and drought regulation

Climate adaptation

Photo credit, Mark Pollitt

Much of what we rely on every day comes from nature. Plants produce the oxygen we breathe. Fungi and bacteria break down organic matter and recycle nutrients, while invertebrates help create and maintain the healthy soils on which food production depends.

Biodiversity provides food, fibres, timber, fuel and many of the materials used in everyday life. Many medicines also have their origins in nature, highlighting how much our lives are intertwined with natural resources.

Annual savings to the NHS in Scotland due to nature-related recreation activities is estimated at £870 million Scottish Government

Natural capital

Natural capital is another way of describing the natural assets that provide benefits for people and the economy;

- **rivers**
- **soils**
- **peatlands**
- **woodlands**
- **wetlands**
- **farmland**
- **coasts and seas**

Taking this approach helps **support land management** that delivers multiple outcomes for **nature**, **communities** and the **economy**.

As part of the **South of Scotland's Natural Capital Innovation Zone** (NCIZ), **Dumfries and Galloway is helping develop practical nature-based solutions** and **encourage responsible investment** and **strengthening long-term stewardship** of the region's natural assets.

Ways to be involved:

- Volunteer with local nature recovery and food growing projects.
- Record wildlife and contribute to citizen science.
- Share knowledge, skills and experience.
- Support nature-friendly land and water management.
- Help prevent the spread of invasive non-native species.
- Reduce pollution, waste and disturbance to wildlife.
- Learn about and celebrate the natural heritage of Dumfries and Galloway.

Photo credit, Mark Pollitt

Goals of this Plan

Healthy and Connected Ecosystems

Healthy soils, **rivers**, **wetlands**, **woodlands**, **grasslands**, estuaries and coastlines function as connected, living systems that support wildlife, clean water, sustainable food, timber and fibre production, and thriving communities across Dumfries and Galloway.

Nature-Based Climate Adaptation

Nature-based approaches to managing land and water help reduce flooding, drought impacts, erosion, river warming and wildfire risk while improving water quality, storing carbon and strengthening ecosystem health.

Species Recovery

Better connected habitats and **healthy ecosystems support the recovery of priority species**, including pollinators, migratory fish, waders, farmland birds, coastal birds and other species of conservation concern.

Evidence, Monitoring and Shared Learning

A strong culture of monitoring, **research**, **local knowledge** and **citizen science** provides a shared evidence base for understanding change, measuring progress and informing decision-making. This supports adaptive management, accountability and continuous learning.

Sustainable Stewardship

Farmers, **foresters**, **estates**, **fisheries interests**, **communities**, **land managers** and **public bodies work together** in the long-term stewardship of land, water and nature, including reducing the impacts of invasive non-native species and increasing nature friendly land management practices.

Photo credit, Mark Pollitt

Nature-Positive Development

New development, **infrastructure**, **woodland creation** and **land-use change contribute positively to nature recovery** through biodiversity enhancement, ecological connectivity, sensitive design and long-term habitat management.

Dark Skies

Dark skies and low-light environments are **protected and enhanced** through sensitive lighting design, benefiting wildlife, landscape character, cultural heritage, energy efficiency and people's experience of nature.

Skills, Learning and Environmental Leadership

People of all ages have opportunities to develop practical skills, **ecological knowledge** and **environmental leadership** through education, knowledge sharing networks, research, volunteering, apprenticeships, outdoor learning and participation in nature recovery.

Health, Wellbeing and Connection to Nature

Responsible access to nature-rich places, **green spaces**, **rivers and coastlines**, and other **high-quality outdoor environments** supports physical health, mental wellbeing, social connection, cultural identity and spiritual connections to place for communities and visitors alike.

A Nature-Based Economy and Thriving Communities

Nature recovery supports a fair transition to a thriving green economy, **creating community benefits**, **high-quality local jobs**, **supporting local businesses** and **livelihoods**, **attracting investment** and **retaining wealth locally**. By creating employment, developing skills, supporting local enterprise and increasing opportunities for community involvement, nature recovery helps sustain vibrant rural communities, retain people and skills locally, and support long-term community resilience.

Photo credit, Peter Norman

How will we know the plan is working?

The following indicators will help us understand if nature is recovering across Dumfries and Galloway;

Habitat health and diversity

Soil health

Water quality and hydrological function

Species abundance and diversity

Nature connection, participation and stewardship

Habitat extent and connectivity

Photo credits above left to right from the top, stock x 3, Mark Pollitt x 2, stock
Right, Mark Pollitt

Threats and pressures

Nature is affected by a range of interacting pressures. Many are long standing, while others are increasing because of climate change and changing patterns of land use and development.

> “What happens next is up to all of us.”
>
> David Attenborough

Key Pressures on Nature

Climate change

More extreme weather, including hotter, drier summers, wildfires, wetter winters and heavier rainfall; rising sea levels and increased coastal erosion.

Changes to water

Altered water levels and natural water flows; drainage of wetlands and peatlands; raised water temperatures

Pollution

Pollution **affecting water**, **soil** and **air quality**, including **waste**, **litter**, **chemicals**, **excess nutrients**, **sediment**, **noise** and **artificial light**, can damage habitats and impact wildlife.

Habitat loss and fragmentation

Loss, **damage** and **fragmentation of habitats** can reduce connectivity, making it harder for wildlife to move, feed, breed and adapt to change. Development and infrastructure can add to these pressures where habitats become isolated or disturbed.

Land management pressures

Land use change and **land management practices** that can affect habitat extent and condition

Grazing and browsing pressures

Levels of grazing or **browsing** that prevent habitats from thriving or regenerating naturally.

Invasive non-native species

The spread of species that outcompete native wildlife and alter habitats.

Disturbance

Pressures associated with recreation, **development**, **infrastructure** and **human activity** in sensitive locations.

Upland

The uplands of Dumfries and Galloway form the backbone of the region's natural systems, stretching across the Southern Uplands and shaping the lowlands below. These are **working landscapes**, where **farming**, **forestry**, **water management** and **energy production** sit in and alongside habitats such as **peatlands**, **heathland** and **upland grassland**.

Upland ecosystems play a critical role in storing carbon, **regulating water** and **supporting species adapting to challenging conditions**.

The condition of these areas directly influences rivers, **farmland** and **coastal environments downstream**. Water moves through peat, soils, woodland and farmland, linking habitats and carrying nutrients and sediments. The condition of headwaters influences rivers downstream, and ultimately the health of estuaries and coastal environments.

People live and work in the uplands, and **their management of land and water is central** to how these systems function. Supporting sustainable food and fibre production alongside nature recovery is essential to the long-term resilience of these landscapes.

Photo credit, Mark Pollitt

Upland Outcomes

Healthy wetlands, including peatlands and headwaters, are managed at the scale of whole catchments and hydrological systems, helping to store water and carbon, reduce downstream flooding, improve water quality and support wildlife including salmon, trout and aquatic invertebrates.

- **Upland wetlands host specialised wildlife** such as plants and insects, and help keep upland landscapes wetter and more resilient during dry periods.
- **Protected and restored upland habitats** allow Curlew, Black Grouse, Golden Plover, pollinators and other priority upland species to flourish.
- **Sensitive grazing and habitat management** help maintain and restore healthy upland moorlands, upland scrub habitats, grasslands and heaths, including through forest restructuring where appropriate.
- **Native woodland**, **montane scrub and riparian trees** expand in suitable upland locations through natural regeneration and sensitive planting, avoiding priority grasslands and sensitive sites.
- **Commercial forests contain a wider mix of species**, **age classes and woodland structures**, helping support biodiversity and increase resilience to pests, disease, wildfire and climate change.
- **Sensitive forestry management reduces impacts on peat**, watercourses and important open habitats.
- **Browsing pressure is managed** to support habitat recovery

Photo credit, Peter Norman

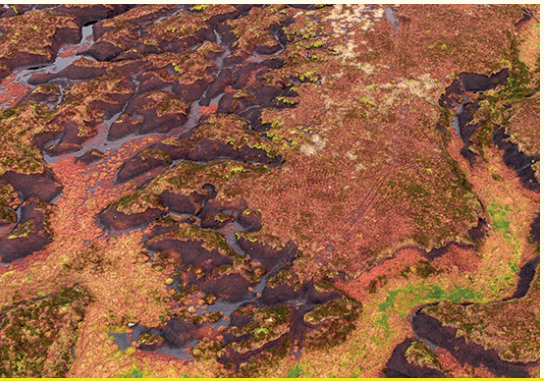
Opportunities for Action

- Bring damaged peatlands and wetlands back into good condition.
- Create space for native woodland, scrub and riverside trees to return.
- Help springs, burns and upland rivers stay cool, clean and full of life.
- Use sustainable grazing to support healthy habitats, wildlife and natural regeneration.
- Restore species-rich grasslands, heathlands and other open habitats.
- Manage forests for wildlife and resilience as well as timber.
- Tackle invasive non-native species before they become established.

Photo credits clockwise from left, Mark Pollitt, Malcolm Haddow, Mark Pollitt, Peter Norman

Indicators of progress

- Peatland extent and condition
- Soil health
- Population trends of key upland species
- Freshwater habitat condition
- Heathland and grassland extent and condition
- Native woodland and scrub extent and condition



CASE STUDIES

Glaisters Bridge Community Woodland: Partnership working for nature and community benefit

Glaisters Bridge Community Woodland demonstrates how partnership working can create opportunities for nature recovery, community access and local engagement. Through a pioneering 20-year lease agreement between the landowner and the Upper Urr Environment Trust, the local community has secured a meaningful role in shaping the future of part of a wider woodland creation project. Supported by Dumfries and Galloway Woodlands, forestry partners and local funders, the site is being developed as a publicly accessible community woodland alongside riparian habitat enhancement and native broadleaf tree planting. New paths, wildlife features, volunteer planting days, cultural activities and educational opportunities are helping to reconnect people with the landscape, demonstrating how woodland creation can deliver environmental, social and cultural benefits when communities are involved from the outset.

https://www.uuet.co.uk

Photo credit, Dumfries and Galloway Woodlands

Tarras Valley: community owned nature reserve

Tarras Valley Nature Reserve demonstrates how community ownership can support nature recovery, climate action and local regeneration at a landscape scale. Following two successful community buyouts in 2021 and 2022, the people of Langholm secured 10,500 acres of upland moorland, peatland, woodland and river valley, creating one of the largest community-owned nature reserves in the UK. Led by The Langholm Initiative and supported by a wide range of partners, funders, volunteers and local residents, the reserve is restoring peatlands, expanding native woodland, enhancing wetlands and supporting species such as hen harrier and pine marten. Alongside habitat restoration, the project is creating opportunities for volunteering, learning, employment and nature-based tourism, demonstrating how community-led stewardship can deliver lasting benefits for both people and nature.

https://www.tarrasvalleynaturereserve.org/

Photo credits, top left John Wright, all others, Langholm Initiative

Lowland

Lowland areas in Dumfries and Galloway are predominantly farmed and increasingly forested environments. **They support food**, **timber** and **fibre production**, **rural livelihoods** and a **wide range of habitats**.

They form a patchwork of fields, grasslands, hedgerows, woodlands, wetlands and watercourses. **Together**, **these features support biodiversity alongside productive land use**, and play an important role in connecting habitats across the wider region.

Lowland systems also **provide** other **essential benefits including habitat for pollinators**, **water regulation** and **access to nature for people**. **How these areas are managed will be central to achieving nature recovery** while maintaining viable and resilient farming systems.

Photo credit, Christine Dudgeon

Key lowland outcomes

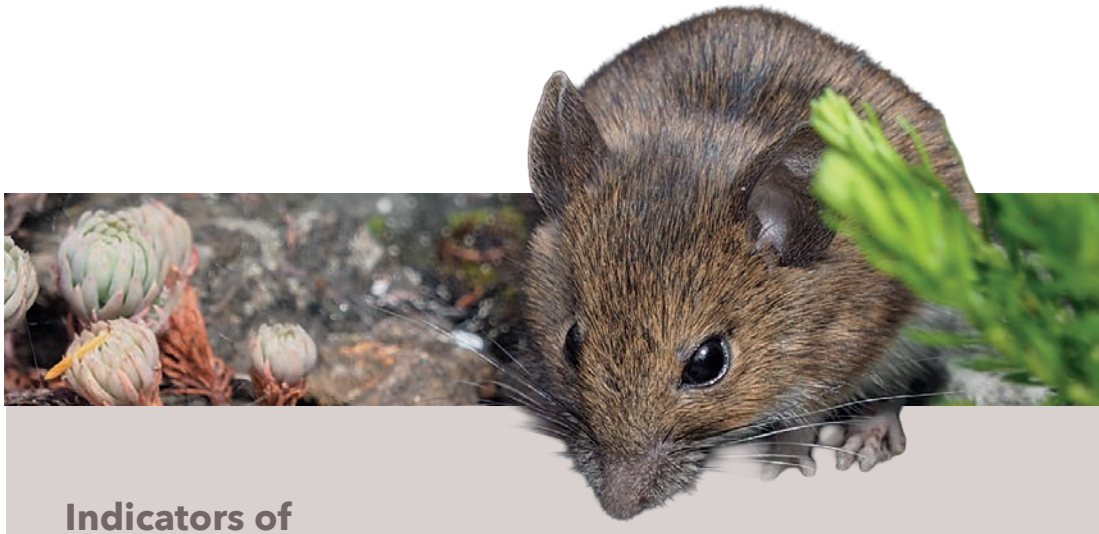
- **Floodplains**, **wetlands**, **lowland raised bogs** and **riverside habitats** are **restored** and **reconnected**, helping rivers function more naturally and reducing flood impacts downstream.
- **Ponds**, **marshes**, **wet grasslands** support breeding waders, dragonflies, amphibians and freshwater biodiversity across lowland landscapes.
- **Rivers** and **burns** support more natural processes, seasonal flooding and healthy riparian vegetation.
- **Healthy soils** retain more water and carbon, support productive farming and forestry and improve resilience to drought, flooding and biodiversity loss.
- **Species-rich meadows**, **traditional hay meadows**, **wetlands**, **hedgerows** and **field margins** support pollinators, farmland birds, amphibians and other priority species.
- **Road verges**, **arable margins** and **traditional field boundaries** provide connected habitat for wildflowers, pollinators and small mammals.
- **Post-industrial land**, **quarries**, **vacant sites** and **disturbed ground can provide opportunities for biodiversity** enhancement alongside regeneration and other land uses.
- **Commercial woodlands**, **shelterbelts**, **wood pasture**, **agroforestry** and **orchards** support productive landscapes while delivering greater biodiversity value, habitat connectivity and structural diversity.
- **Native woodland** expansion and management improves water course health, flood resilience, biodiversity and habitat connectivity.

Photo credit, Christine Dudgeon

Opportunities for Action

- Restore and maintain hedgerows, field margins and other boundary features that provide shelter, food and movement routes for wildlife.
- Protect and enhance species-rich grasslands, meadows and other flower-rich habitats.
- Improve soil health, structure and water retention to support productive and resilient farmland.
- Bring water back into the landscape through ponds, wetlands, floodplains and small wetland habitats.
- Create healthier riversides for wildlife, people and water.
- Deliver biodiversity alongside food, timber and other natural products through nature-friendly land management.
- Support pollinators, natural pest control and other ecosystem services that benefit both nature and farming.
- Protect and restore ancient woodland, farm woodland, shelterbelts and veteran trees.
- Strengthen habitat connections across farmland, woodland and the wider countryside.

Photo credits above, Peter Norman
Right, Jon Noad



Indicators of progress

- Species-rich grassland extent and condition
- Hedgerow extent and condition
- Soil health
- Farmland bird and pollinator trends
- Wetland and freshwater habitat condition

CASE STUDIES

Balmangan Farm: Integrating Farming, Tourism and Nature

Balmangan Farm on the Solway Coast combines farming, tourism and habitat enhancement across a diverse coastal landscape. Alongside livestock production, the farm is managing wetlands, woodlands, rough grazing and coastal habitats to support wildlife and strengthen ecological connections across the holding. Habitat improvements including pond creation, hedgerow restoration and changes to grazing management are helping to increase habitat diversity and provide resources for birds, pollinators and other wildlife. Located within a nationally important coastal landscape, the farm also welcomes visitors, creating opportunities for people to experience and learn about the area's natural heritage. Balmangan offers an example of how working farms can contribute to biodiversity while supporting rural livelihoods and sustainable land use.

https://www.balmanganfarm.co.uk

Photo credits: Patricia, Archie and Neil Picken

Kilsture Forest Community Group: Citizen Science and Outdoor Education

Kilsture Forest demonstrates how communities can play an active role in woodland stewardship through partnership, learning and ecological monitoring. Following a successful campaign to keep the forest in public ownership, the Kilsture Forest Community Group developed a Memorandum of Understanding with Forestry and Land Scotland, giving the community a formal role in discussions about the forest's long-term management. Alongside path maintenance and volunteer activities, the group has established an ambitious citizen science programme, working with partners to record wildlife, map habitats and build a detailed understanding of the forest ecosystem. A developing Forest School programme is helping local children connect with nature through outdoor learning, while community events, surveys and species recording are creating a stronger evidence base for biodiversity-focused woodland management. Together, these activities show how local knowledge and participation can help shape a more resilient future for both people and nature.

https://www.kilstureforest.org

Photo credit: KFCG

Coast and Marine

The Solway Firth and its **coastline** are **shaped by the constant movement of water** and **sediments between rivers** and the **sea**, carrying nutrients that support life. Everything is connected – what happens upstream affects the coast, while tides and the sea influence rivers, estuaries and the land alongside them. This continual exchange creates one of Scotland's most distinctive coastal environments.

The area is home to a rich variety of habitats, from **saltmarsh** (merse), **mudflats** and **estuaries** to **sandy shores**, **dunes**, **rocky coasts**, **cliffs** and **shallow inshore waters**. Together, these habitats support an abundance of wildlife and provide vital links between freshwater, coastal and marine environments.

Below the surface, **seabed habitats support fish**, **shellfish**, **marine mammals** and the many **invertebrates** that underpin healthy seas. These ecosystems provide nursery areas for young fish, help store carbon, recycle nutrients and help coastal ecosystems adapt to a changing climate.

The Solway is internationally important for its extensive intertidal habitats, especially for the **large populations** of **wintering** and **migratory birds** they support. Together, its coasts, estuaries and inshore waters sustain wildlife, fisheries, recreation, local livelihoods and a strong sense of regional identity.

Photo credit, Peter Norman

Key coastal outcomes

- **Saltmarsh (merse)**, **dunes**, and **coastal woodlands** support wildlife, store carbon and help buffer coastal flooding. These habitats are allowed to move with sea level rise.
- **Healthy estuaries** and **coastal waters** support migratory fish, waders, seabirds and important marine species.
- **Reduced nutrient enrichment**, **pollution** and **sediment pressures** improve water quality and strengthen marine and estuarine ecosystems.
- **Seagrass meadows**, **oyster beds** and **shallow marine habitats** recover, expand and support biodiversity, fisheries and coastal resilience.
- **Honeycomb worm reefs**, **intertidal scar grounds** and **coastal seabed** habitats improve in condition and ecological resilience.
- **Shingle beaches**, **strandlines** and **rocky shore systems** continue to support specialised coastal plants and invertebrates.
- **Coastal grasslands**, **dunes** and **saltmarsh (merse)** support pollinators, breeding birds and long-term carbon storage.
- **Coastal grazing systems** help maintain species-rich maritime habitats and landscape character.
- **Coastal heath** and **cliff habitats** are protected, restored and managed to maintain and enhance biodiversity
- **Coastal woodlands** provide shelter, habitat connectivity and resilience to coastal exposure and climate change, while avoiding impacts on species-rich grasslands and other priority open habitats.
- **Tourism**, **recreation** and **coastal access support local communities** while encouraging greater understanding of coastal wildlife, responsible access and the protection of sensitive habitats.

Photo credit, Christine Dudgeon

Opportunities for Action

- Help keep rivers, estuaries and coastal waters clean by reducing pollution, nutrient runoff and sediment inputs.
- Support projects that restore seagrass meadows, native oyster beds and other underwater habitats.
- Manage coastal grasslands, dunes and saltmarsh (merse) in ways that support wildlife and natural coastal processes.
- Use appropriate grazing methods to maintain species-rich coastal habitats and landscape character.
- Protect and improve habitats used by migratory fish, wading birds and other coastal wildlife.
- Allow space for dunes, beaches and saltmarsh (merse) to move and adapt naturally as coastlines change.
- Create space for coastal woodlands and scrub where appropriate, while protecting species-rich grasslands, dunes and other important open habitats.
- Promote responsible access to the coast while helping to protect sensitive habitats and species.
- Reduce marine litter and support efforts to keep beaches, estuaries and coastal waters clean.
- Help tackle invasive non-native species and prevent their spread.

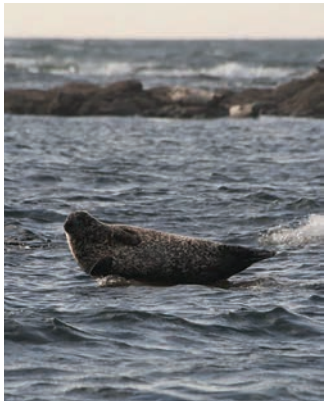


Photo credits above, Mark Pollitt
Right, Galloway Rivers Trust

Indicators of progress

- Coastal habitat extent and condition
- Marine habitat extent and condition
- Coastal and estuarine water quality
- Seabird and waterbird trends
- Migratory fish and key marine species trends

CASE STUDIES

Link Caerlaverock: Connecting Habitats in a Farmed Landscape

Link Caerlaverock is helping to build a more resilient future for nature within a working farmed landscape. Caerlaverock Estate is working alongside local farmers and neighbouring conservation partners, including the Wildfowl and Wetlands Trust and NatureScot, to create, restore and connect habitats across the Solway Coast. The project is creating new wetlands, ponds, species-rich meadows and wildlife corridors that link existing protected sites and provide space for wildlife to adapt to changing environmental conditions. Located beside internationally important saltmarsh (merse) and wetlands, these new habitats will benefit wading birds, wildfowl, natterjack toads, pollinators and other species while helping to store carbon and manage water. Built around a farming with nature approach, the project integrates habitat restoration into a working agricultural landscape, creating space for wildlife while maintaining productive farmland and supporting the wider community.

https://caerlaverock.com/nature/nature-restoration/

Photo credit, Caerlaverock Estate

Urban

Towns, **villages** and **dispersed settlements** are an **important part** of **Dumfries and Galloway's natural system**. From larger towns to small hamlets and individual properties, these places offer opportunities to provide habitats for nature.

In a largely rural region, **settlements are often closely connected to surrounding farmland**, **woodlands** and **watercourses**. Gardens, greenspaces, verges and built features all contribute to a network of habitats that can support wildlife and improve connectivity.

These environments also play an **important role in health and wellbeing**, providing accessible spaces for recreation, learning and community activity. Enhancing biodiversity in and around where people live can deliver benefits for both nature and communities.

Photo credit, Christine Dudgeon

Key urban outcomes

- **Nature-based solutions help towns** and **villages adapt** to flooding, hotter summers and changing weather patterns.
- **Urban rivers**, **burns** and **wetlands** provide cleaner water, habitat for wildlife and accessible places for people to experience nature.
- **Industrial areas**, **ports** and **harbours** increasingly provide biodiversity enhancements.
- **Sustainable Urban Drainage Systems** (SuDS) support wildlife as well as flood management.
- **Reservoirs** support biodiversity, breeding birds and public enjoyment through sensitive management.
- **Water-based recreation** is managed to reduce disturbance to sensitive wildlife and habitats.
- **Parks**, **public and private gardens**, **cemeteries** and other **greenspaces** support pollinators, birds, bats and other urban wildlife through wildlife-friendly planting, permeable landscaping and lower-intensity management.
- **Healthy soils support vegetation**, absorb and store water, and help cool urban areas, reducing heat stress
- **Brownfield sites**, and **vacant** and **derelict land**, can contribute positively to nature recovery through sensitive management and habitat creation alongside appropriate redevelopment.
- The **impact of invasive non-native species** in **urban environments is reduced** through prevention, early detection, coordinated control and public awareness.
- **Road verges** are managed more widely for wildflowers and pollinators where safe to do so.
- **Managed recreational** and **tourism spaces** support biodiversity through sensitive management, wildlife-friendly planting and habitat creation
- **Composting by households**, **businesses** and **community initiatives** helps build healthier soils and support local biodiversity
- **Street trees**, **orchards** and **urban woodland** increase shade, shelter, biodiversity and community wellbeing.
- **Bird** and **bat boxes** are increasingly integrated into new developments and building renovations.
- **Walls**, **bridges**, **tunnels** and **older buildings** continue to provide important habitat for bats, birds and other urban wildlife.
- **Roads**, **railways** and **transport corridors** are designed and managed to improve wildlife movement and reduce habitat fragmentation where safe and appropriate.
- **Urban greenspaces**, **wetlands**, **street trees** and **brownfield habitats** become better connected across towns and settlements.

Photo credit, Peter Norman

Opportunities for Action

- Make more space for nature in parks, greenspaces, school grounds, cemeteries and other public spaces.
- Create more community growing spaces and allotments
- Improve rivers, burns, ponds and wetlands for wildlife, cleaner water and people's enjoyment of nature.
- Design, manage and monitor new development so that it contributes positively to nature and ecological connectivity.
- Plant and care for street trees, orchards and urban woodland that provide shade, shelter and habitat.
- Manage road verges, parks and other greenspaces to support wildflowers, pollinators and wildlife where appropriate.
- Bring wildlife-friendly features into buildings and infrastructure, including nesting and roosting opportunities for birds and bats.
- Identify opportunities to protect and enhance biodiversity on brownfield sites and vacant land as part of site management, restoration and redevelopment
- Improve the way roads, railways and other transport corridors work for wildlife movement, where safe and practical.

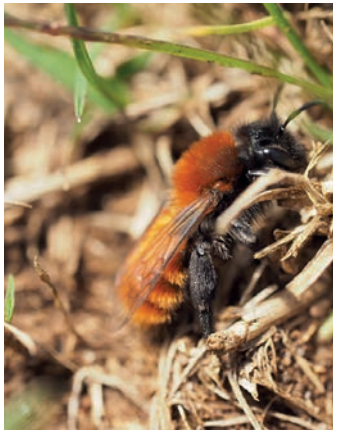


Photo credits above, clockwise from left, Christine Dudgeon, Mark Pollitt x 2
Right, Jean Robson

Indicators of progress

- Urban greenspace extent and condition
- Urban tree canopy cover and condition
- Urban freshwater and wetland habitat condition
- Pollinator, bird and bat trends
- Extent and quality of nature-positive development and green infrastructure
- Participation in local nature recovery
- Availability of opportunities for nature education and outdoor learning

CASE STUDIES

NANA (Nature and Nurture Areas): Community Gardening for Nature and Wellbeing

NANA is a community-led initiative in Lochside, Dumfries, supporting both nature recovery and community wellbeing through local action. Developed through collaboration between LIFT Dumfries and Galloway and local residents, the project has transformed local spaces into welcoming community gardens where people can grow food, learn new skills and connect with nature. Through orchards, vegetable beds, wildflower planting and wildlife-friendly management, NANA is helping to increase biodiversity while improving access to green space in one of the region's most disadvantaged communities. Regular gardening sessions, creative workshops, outdoor learning with local schools and intergenerational activities bring people together, reducing isolation and building confidence, skills and resilience.

https://www.liftdumfries.com/n-a-n-a-project

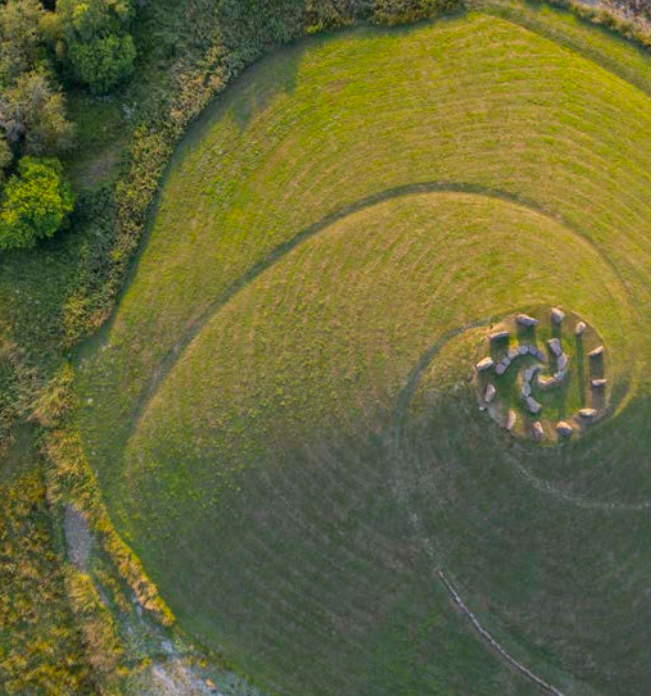
Photo credit: LIFT staff

Branching Out: Connecting Health and Nature

Branching Out demonstrates how regular access to nature can support health, wellbeing and stronger connections with the natural environment. Delivered by Dumfries and Galloway Outdoor Learning Group (DGOWL), supported by Scottish Forestry and currently funded by DGOWL, TSDG and The National Lottery Community Fund, the programme works in partnership with NHS services and community organisations across Dumfries and Galloway. The programme provides adults experiencing mental health challenges, social isolation or long-term health conditions with opportunities to spend time outdoors in local woodlands. Through activities such as nature connection, conservation tasks, environmental art, bushcraft and gentle physical activity, participants develop confidence, skills and social connections while gaining a greater appreciation and understanding of local biodiversity and woodland habitats. Local evaluation has shown improvements in wellbeing, happiness and social connectedness.

https://dgowl.co.uk/branchingout/

Photo credit: Branching Out/DGOWL



Crawick Multiverse: Nature, culture and regeneration on a former opencast site

Created on the site of a former opencast coal mine near Sanquhar, Crawick Multiverse is an example of how post-industrial landscapes can support both people and nature. The 55-acre site combines land restoration, public access and habitat development within a unique cultural landscape designed by Charles Jencks. Over time, a mosaic of grassland, wetland, scrub and woodland habitats has become established across the site, creating opportunities for wildlife alongside recreation and learning.

Botanical surveys have recorded a diverse range of plant species, illustrating the ecological value that can develop on restored brownfield land. The extensive grasslands provide opportunities for habitat enhancement through sensitive management, supporting biodiversity while maintaining the site's value as a community and visitor destination. Crawick Multiverse is also a Galloway and Southern Ayrshire UNESCO Biosphere Certified Business, recognising its commitment to sustainability and the connection between people and nature.

https://www.crawickmultiverse.co.uk

Photo credits, Mike Bolam

Mountainhall Greenspace: 11-acre urban site for nature, people and learning

Mountainhall Greenspace is an example of how partnership working can help unlock the potential of urban green spaces for both nature and communities. Centred on an 11-acre semi-wild NHS site adjacent to the Mountainhall Treatment Centre in Dumfries, the project is bringing together local residents, community organisations and public sector partners to develop a shared vision for the future of the site. Through community engagement, citizen science, creative activities and ecological exploration, the project is building understanding of the site's wildlife, habitats and social value. Plans for the greenspace focus on improving access while retaining its rich natural character, creating opportunities for nature connection, outdoor learning, wellbeing and community participation.

https://www.propagate.org.uk/mountainhall-greenspace

Photo credits, top Emily Tough, bottom Andy Brooke

Red squirrels

Dumfries and Galloway is one of Scotland's most important strongholds for the red squirrel, supporting populations across its forests, woodlands and upland landscapes. Their continued presence is the result of long-term collaboration between communities, volunteers, landowners, Forestry and Land Scotland, conservation organisations and local red squirrel groups working across the region. Through coordinated monitoring, public reporting, habitat management and efforts to reduce the spread of invasive grey squirrels, partners are helping to safeguard and strengthen red squirrel populations across connected woodland networks. Community involvement plays a vital role, with local groups contributing sightings, surveys, awareness raising and practical conservation action.

Photo credit, stock image

Supporting nature in development and land use change

Development and land use change can create valuable opportunities to support nature recovery in line with the ambitions of National Planning Framework 4 (NPF4). Biodiversity can be incorporated into projects in many ways, from creating and restoring habitats to integrating wildlife features into buildings, green infrastructure and Sustainable Drainage Systems (SuDS). Examples include swift bricks, bat roosting features, native planting, wildflower areas, ponds, wetlands, swales and rain gardens.

Considering biodiversity from the outset can help identify opportunities to deliver lasting benefits. Where biodiversity measures are included, clear plans for their management, monitoring and evaluation can demonstrate their effectiveness, share knowledge and help ensure that positive outcomes are maintained over time.

The Dumfries and Galloway Swift Network provides one example of how practical action can support nature recovery. The network has worked with communities and organisations across Dumfries and Galloway to raise awareness of swift conservation and promote measures such as the installation of swift boxes and swift bricks. Working with HMP Dumfries, the network also supported the creation of 28 swift nest boxes.

Nature networks

Nature Networks connect habitats across the region, allowing species to move, adapt and thrive. Rather than focusing only on individual sites, they link existing habitats through corridors, stepping stones and wider habitat improvements.

This connectivity is essential for maintaining resilient ecosystems, supporting biodiversity and enabling species to respond to climate change.

In Dumfries and Galloway, opportunities include linking rivers, woodlands, wetlands, farmland habitats and settlements into a more joined-up network.

Reintroductions and translocations

Reintroductions and translocations may help restore ecological processes and support species recovery in some areas. However, they require careful planning, long-term management and close collaboration with land managers, communities and stakeholders.

A phased, evidence-led approach will help ensure that any proposals are practical, deliver clear benefits and are supported locally.

Invasive Non-Native Species

Invasive non-native species (INNS) are a significant and growing pressure on biodiversity in Dumfries and Galloway. They can out compete native species, alter habitats and disrupt ecosystem processes.

Across the region, a number of species are already having clear impacts. Along rivers, wetlands and coastal areas, plants such as Himalayan balsam, Japanese knotweed and giant hogweed can dominate riverbanks, increasing erosion risk and reducing habitat quality. In freshwater systems, species such as American mink and signal crayfish can have severe impacts on native wildlife.

In terrestrial habitats, non-native plants can suppress native vegetation, while some species used in forestry can spread beyond planting areas and affect open habitats if not carefully managed. Grey squirrels are a threat to native red squirrels in our woodlands.

Coastal and marine habitats are affected by a range of invasive non-native species, including cord-grass, wireweed, wakame, Pacific oyster and several marine invertebrates. These species can spread rapidly, outcompete native wildlife and alter habitats.

There is also a continuing risk of new invasive species arriving here through natural spread and human activities.

Prevention, early detection and coordinated management are essential, particularly at catchment and landscape scales. Non-governmental organisations have already played a significant role in tackling invasive non-native species across Dumfries and Galloway, leading control programmes, engaging communities and delivering long-term management and monitoring. Addressing INNS will require continued collaboration across land and marine managers, public bodies, NGOs and communities, and is critical to maintaining healthy, resilient ecosystems across Dumfries and Galloway.

See appendix pages 46 - 51

Monitoring and evaluation

Monitoring and evaluation are essential to understanding environmental change, measuring progress and guiding action over time. Effective nature recovery depends on good information about habitats, species and ecosystem condition, and on using this information to adapt and improve delivery.

Across Dumfries and Galloway, a network of volunteer recorders, specialist recording groups, conservation organisations and citizen scientists contributes biological records that help build a detailed picture of the region's biodiversity.

Local environment records centres such as SWSEIC (South West Scotland Environment Information Centre) play a key role in supporting this work by collating, managing and sharing biological records from across the region. These records inform conservation action, land management, planning decisions and biodiversity monitoring.

SWSEIC's wildlife recording maps help identify patterns in recording effort and highlight areas where information is lacking. Through initiatives such as the Missing Squares Project, recorders are encouraged to visit under-recorded areas and contribute new observations, helping to fill gaps in knowledge and improve understanding of species distribution across the region.

Alongside volunteer recording, valuable biodiversity data is generated by ecological consultants, public bodies, land managers, environmental NGOs, academic institutions and private sector organisations.

Continued collaboration and increased sharing of biological records can help strengthen the regional evidence base, reduce duplication of effort and ensure that biodiversity information is available to support conservation, planning and nature recovery initiatives, while also helping to identify emerging priorities and trends over time.

CASE STUDY

Nature Connections project

The Nature Connections project, delivered by the South-West Scotland Environmental Information Centre (SWSEIC) and the Southern Uplands Partnership (SUP), aims to bring people and wildlife together through a programme of community-based activities and events.

Working with communities across the region, the project encourages people to connect with nature close to home, explore local wildlife and green spaces, and develop the skills and confidence to observe and record biodiversity. Activities include guided walks, wildlife recording events, talks, workshops and opportunities to participate in citizen science.

The project recognises that nature recovery depends not only on habitat restoration and species conservation, but also on people's relationship with the natural world. By helping people spend more time outdoors, discover local wildlife and contribute their own observations, Nature Connections supports both individual wellbeing and a stronger culture of environmental stewardship.

As well as promoting access to nature, the project helps build local capacity for wildlife recording, contributing valuable biodiversity information that can support future conservation and nature recovery efforts across the region.

Photo credits above, Southern Upland Partnership

People

Nature supports health, wellbeing, livelihoods and learning across Dumfries and Galloway. Access to green and blue spaces can improve physical and mental health, while also supporting community activity and connection to place.

Nature also underpins the economy, from farming and forestry to tourism and recreation. Strengthening these connections can support more resilient communities while contributing to nature recovery.

Access to nature and its benefits is not experienced equally. Barriers such as location, transport, awareness and access to land can affect how people engage with the natural environment. This Plan aims to support a more equitable approach by improving access to nature, enhancing local environments and creating opportunities for people to take part in decisions and action.

Supporting people to access, understand and care for nature is fundamental to the delivery of this plan

Nature recovery should benefit everyone, supporting fair access to a healthy environment for current and future communities.

Photo credits from top, M Schofield, Mike Bolam
Right from top, Mark Pollitt, James Chapelard

Learning and awareness

Education and awareness are essential to long-term nature recovery. This includes learning in schools, colleges and life-long learning in communities, as well as informal opportunities to connect with nature through volunteering, events and everyday experiences.

Improving understanding of local habitats, species and land use can help people feel more confident in taking action and supporting biodiversity.

Skills and jobs

Delivering this Plan will require a wide range of skills, from land management and habitat restoration to ecological monitoring and data collection. Many of these skills already exist across the region, but there are opportunities to strengthen and expand local capacity.

Supporting training, apprenticeships and career pathways in nature-based work can help create jobs, retain skills locally and support a more resilient, sustainable economy.

Nature based tourism

Nature-based, community-led tourism can play an important role in supporting biodiversity recovery. By developing opportunities that celebrate and interpret Dumfries and Galloway's places, wildlife and cultural heritage, communities and businesses can create sustainable visitor experiences that encourage greater connection with nature and support local livelihoods. When carefully planned and managed, nature-based tourism can help generate investment in conservation, increase awareness of the value of biodiversity, and provide incentives for the protection and enhancement of habitats and species, ensuring that both communities and nature benefit from a thriving visitor economy.

Arts and culture

The region has a strong community of artists and creative practitioners whose work engages with nature. Through visual art, performance, writing, music and other creative practices, artists help people explore and deepen their relationship with the environment. This includes work created for audiences, participatory and co-creative projects, and creative approaches rooted in nature and local places. Artists also work with communities, scientists and organisations to share knowledge, explore environmental change and develop new ways of understanding and thinking.

Examples include the integration of artistic practice within organisations such as the Crichton Carbon Centre, the SCAMP Eco Art Strand's work exploring artist involvement in coastal and marine restoration, and organisations and initiatives such as EcoArt Charity.

Photo credit, Kirstin McEwan

Bellybought Hill Peatland Restoration

An 85-hectare area of degraded peatland at Bellybought Hill was restored in 2024 as part of Buccleuch Group's long-term programme to improve peatland condition across its Scottish estates.

The project was supported through the Peatland ACTION programme, funded by the Scottish Government and delivered through NatureScot.

Restoration focused on raising the water table and restoring natural hydrology on heavily drained peatland.

The Buccleuch Group, building on the previous phase of work undertaken with the Crichton Carbon Centre on the same landholding, received Peatland ACTION funding for a bare peat mentoring scheme aimed at those seeking hands-on experience. Eight participants learned a range of common techniques used to stabilise areas of complex erosion, inaccessible to machinery. This work helped the participants better understand how peatland systems can change over time and the need to adapt to often challenging conditions. It also highlighted the importance of effective designs that can withstand and respond to these environmental changes.

The project demonstrates how peatland restoration can deliver multiple benefits: improving biodiversity and ecosystem resilience while helping develop the skilled workforce needed to scale up nature restoration across Scotland.

Photo credits this page, Crichton Carbon Centre.

Looking ahead

Nature recovery in Dumfries and Galloway will take time, collaboration and sustained effort. This Plan provides a shared framework to guide that work, while remaining flexible to respond to new knowledge and changing conditions.

Everyone has a role to play in restoring and caring for nature across the region.

Photo credit, Mark Pollitt

Appendix 1

Policy

The Dumfries and Galloway Local Biodiversity Action Plan (LBAP) sits within a wider framework of international agreements, national legislation and regional strategies that shape how biodiversity is protected, restored and managed. Current policy context has significantly strengthened expectations for biodiversity recovery.

The new LBAP has been developed with reference to current international commitments, Scottish Government legislation and policy, and regional strategies affecting land use and economic development. Together, these frameworks help ensure that local biodiversity action in Dumfries and Galloway contributes to wider national and global nature recovery goals while responding to the distinctive landscapes, habitats and communities of the region. The LBAP therefore acts as a bridge between national policy and local delivery, translating national ambitions for nature recovery into practical actions, partnerships and monitoring across Dumfries and Galloway

International context

A number of international agreements shape biodiversity policy in Scotland and therefore influence the development of the Dumfries and Galloway LBAP.

International agreements, including the **Convention on Biological Diversity and the Kunming–Montreal Global Biodiversity Framework**, establish global targets for biodiversity recovery. These commitments influence national policy in Scotland, including the ambition to conserve and effectively manage at least 30% of land and sea by 2030 **('30x30')**.

International climate agreements also influence biodiversity policy. The **Paris Agreement** under the United Nations Framework Convention on Climate Change recognises the role of nature based solutions in addressing climate change. Restoring and protecting habitats such as peatlands, woodlands, wetlands and coastal ecosystems contributes to both climate mitigation and climate adaptation.

For marine environments, the **OSPAR Convention** provides an international framework for protecting the marine environment of the North-East Atlantic. It promotes cooperation between countries to address pressures on marine ecosystems and supports the development of networks of **Marine Protected Areas**.

In advance of COP15, the Scottish Government led the Edinburgh Process, which sought to strengthen the role of cities, regions and local governments in delivering biodiversity action. One outcome was the **Edinburgh Declaration**, a global commitment by subnational governments to support the goals of the **Convention on Biological Diversity and the Global Biodiversity Framework**. Agreements at COP15 (on biodiversity) and COP28 (on climate change), have reinforced global commitments to nature recovery and climate action.

Together, these international agreements establish the overall direction for biodiversity policy and shape the legislation and strategies that guide biodiversity action at national and local levels.

Biodiversity loss is increasingly recognised as a systemic risk affecting food security, climate resilience, economic stability and national security. Recent **Defra (UK Government)** analysis highlights the degradation of ecosystems as a potential threat to long-term societal stability, reinforcing the importance of nature recovery as a strategic priority alongside climate action.

National context (Scotland)

Scottish biodiversity policy has developed significantly in recent years, with increasing emphasis on statutory targets, spatial planning and measurable delivery.

The **Scottish Biodiversity Strategy to 2045** sets the national ambition for Scotland to become Nature Positive by 2030 and to restore biodiversity by 2045. The strategy is supported by the **Scottish Biodiversity Delivery Plan** (2024–2030), which sets out priority actions and milestones for the period to 2030. The plan provides the operational framework for achieving Scotland's nature recovery ambitions and identifies areas where public bodies, land managers and partners are expected to contribute to measurable biodiversity outcomes.

The **Natural Environment (Scotland) Act 2026** introduces statutory targets for nature restoration, strengthening the legal framework for biodiversity recovery across Scotland.

The introduction of statutory nature restoration targets also increases expectations for public bodies, including local authorities, to contribute to biodiversity recovery through planning, land management and partnership working.

Planning policy also plays a central role. **National Planning Framework 4 (NPF4)** embeds biodiversity enhancement and the creation of Nature Networks within Scotland's planning system, ensuring that development and land-use decisions contribute to nature recovery.

The **Nature Networks Framework (2024)** provides national guidance for establishing and expanding ecological networks across Scotland. Nature networks aim to improve habitat connectivity, restore natural processes and enable species movement across landscapes. Local Biodiversity Action Plans can support delivery of this work by identifying priority habitats, restoration opportunities and potential ecological corridors.

Scotland's Green Infrastructure Strategy and Action Plan promote the integration of nature within towns, cities and infrastructure networks. Green and blue infrastructure such as urban woodlands, wetlands, rivers, parks and green corridors can support biodiversity while also delivering benefits for climate adaptation, flood management and community wellbeing.

Scotland's Fourth Land Use Strategy (2026–2031) sets out a national framework for integrated land use, supporting action on biodiversity loss, climate change, sustainable land management and community wellbeing. The strategy promotes a more joined-up approach to managing land, water and natural resources, with an emphasis on nature recovery, climate resilience, regional land use planning and long-term stewardship.

Other legislation and national strategies also influence how biodiversity is managed and restored in Scotland. The **Nature Conservation (Scotland) Act 2004** places a duty on public bodies to further the conservation of biodiversity when carrying out their functions. The **Wildlife and Countryside Act 1981** and the **Habitats Regulations** provide the legal framework for protecting species and designated sites across the UK and Scotland.

Land management policies also play an important role. **Scotland's Forestry Strategy (2019–2029)** sets the long-term vision for woodland expansion, sustainable forest management and the restoration of native woodland habitats. The **Agriculture and Rural Communities (Scotland) Act 2024** provides the framework for future agricultural support in Scotland, with increasing emphasis on sustainable land management, climate mitigation and biodiversity outcomes.

Future agricultural support mechanisms are expected to increasingly reward land management practices that contribute to biodiversity recovery, climate mitigation and ecosystem resilience.

Freshwater ecosystems are guided by **River Basin Management Plans (2021–2027)**, which set objectives for improving water quality, restoring river habitats and managing catchments in an integrated way. **Scotland's Wild Salmon Strategy (2022)** provides a national framework for the protection and recovery of Atlantic salmon populations. The strategy highlights the importance of healthy rivers, estuaries and marine environments and promotes action to address pressures such as habitat degradation, barriers to migration, climate change and

marine survival. The strategy is supported by an **Implementation Plan (2023–2028)** and provides an important policy context for catchment-scale habitat restoration and river connectivity initiatives.

Wildlife management also plays a role in ecosystem recovery. Scotland's national deer management strategy, **Scotland's Wild Deer: A National Approach**, sets out the policy framework for sustainable deer management and highlights the need to balance ecological health, land use and community interests.

Marine and coastal environments are supported through the **Marine (Scotland) Act 2010** and the **Scottish Marine and Coastal Restoration Plan 2025**, which guide marine planning, fisheries management and the protection of marine habitats and species.

Flood risk policy in Scotland also promotes the use of natural flood management approaches. Under the **Flood Risk Management (Scotland) Act 2009** and **Scotland's National Flood Risk Management Strategy**, restoring natural processes within catchments – such as reconnecting rivers with their floodplains, restoring wetlands and increasing woodland cover – can help reduce flood risk while also delivering benefits for biodiversity, water quality and ecosystem resilience.

Scotland's National Peatland Plan establishes a strategic approach to protecting and restoring peatlands, recognising their importance for biodiversity, carbon storage and water regulation. The **Peatland ACTION** programme supports practical restoration work to improve degraded peatlands and restore ecosystem function.

The **Scottish Soil Framework (2009)** recognises soils as a vital natural asset supporting biodiversity, food production, water regulation and carbon storage. Protecting soil health, including carbon-rich soils such as peatlands, is therefore an important part of sustainable land management and nature recovery.

The **Pollinator Strategy for Scotland (2017–2027)** provides a national framework for protecting and supporting wild pollinators and managed bees. The strategy promotes habitat creation and improved land management across urban areas, farmland and public greenspace, recognising the important role of pollinators in maintaining healthy ecosystems and food production.

Scotland's Climate Change Plan (2026–2040) sets out national pathways for reducing greenhouse gas emissions across sectors including forestry, peatland restoration and land use. Many of the measures identified within the plan also support biodiversity recovery by restoring habitats and strengthening ecosystem resilience.

Scotland's National Adaptation Plan (2024-2029) complements this work by focusing on how landscapes and communities can adapt to the impacts of climate change. Healthy ecosystems such as wetlands, woodlands, peatlands and coastal habitats can help regulate water flows, reduce flood risk and provide natural buffers against climate-related pressures.

Scotland's network of protected areas also forms a key foundation for biodiversity conservation. **Sites of Special Scientific Interest (SSSIs)**, **Special Areas of Conservation (SACs)**, and **Special Protection Areas (SPAs)** provide statutory protection for important habitats and species.

The **Land Reform Act (2025)** and associated policies influence the wider context for biodiversity delivery in Scotland by increasing transparency in land ownership and encouraging land management that delivers public interest outcomes including nature recovery. The **Land Rights and Responsibilities Statement** reinforces these principles by emphasising responsible stewardship and community engagement in land management decisions.

Scotland's approach to climate and nature recovery is also shaped by the principle of a **Just Transition**. This seeks to ensure that the move towards a low carbon and nature positive economy is fair and inclusive, supporting communities, workers and rural economies while delivering environmental outcomes.

Economic policy is also relevant. The **National Strategy for Economic Transformation (2022)** recognises the importance of natural capital, green jobs and sustainable land use in supporting Scotland's long-term economic resilience.

The **Community Wealth Building (Scotland) Bill (2026)** provides a statutory framework to support local wealth retention and inclusive economic development. In parallel, the **Community Empowerment (Scotland) Act 2015** gives communities greater opportunities to influence local decision-making and participate in land and environmental management initiatives.

Biodiversity recovery is increasingly recognised as a crosscutting objective that intersects with land use, climate policy, economic development and community wellbeing. Effective action therefore depends on coordination between environmental policy, land management, planning and community development.

Environmental legislation in neighbouring jurisdictions may also influence land management and development decisions near the border. The **UK Environment Act 2021** introduced new environmental governance arrangements and biodiversity policies in England, including a requirement for Biodiversity Net Gain within the planning system. While this legislation does not apply directly in Scotland, it may influence cross-border environmental management and development pressures in areas such as the Solway region.

Regional and local context

At the local level, the **Dumfries and Galloway Local Development Plan (2)**, along with associate supplementary guidance, provides the statutory planning framework for land use within the region and plays an important role in guiding development decisions that affect biodiversity, green infrastructure and nature networks.

Local Place Plans, introduced through the **Planning (Scotland) Act 2019**, allow communities to set out their own priorities for the future development and use of land in their areas. These plans can identify opportunities for enhancing local green space, restoring habitats and strengthening nature networks within towns and villages. As Local Place Plans emerge across Dumfries and Galloway, they may provide valuable opportunities to align community-led priorities with biodiversity restoration and nature-based solutions.

Within Dumfries and Galloway and the wider South of Scotland, several regional strategies influence how land, nature and economic development are managed.

The **South of Scotland Regional Land Use Partnership (RLUP)** has been established to explore new approaches to integrated land use planning. The partnership brings together public bodies, land managers, communities and environmental organisations to consider how biodiversity recovery, climate mitigation, food production and community interests can be balanced across the region.

Linked to this work is the **South of Scotland Regional Land Use Framework (RLUF)**, which could guide strategic spatial planning for land use across Dumfries and Galloway and the Scottish Borders. The framework helps identify opportunities for nature recovery, climate mitigation and sustainable land management.

Economic development across the region is guided by the **South of Scotland Regional Economic Strategy (2021–2031)**. Biodiversity restoration and sustainable land management can contribute to these objectives through green jobs, nature based tourism and resilient rural economies.

The forthcoming **South of Scotland State of Nature** report will strengthen the regional evidence base for biodiversity by providing updated assessments of species and habitats across the region.

Peatland restoration is also a significant regional priority due to the importance of upland peatlands in Dumfries and Galloway for biodiversity, carbon storage and water regulation. A **Peatland Action Plan** for South of Scotland has been developed to support coordinated restoration and management of peatland habitats across the region.

Crossboundary ecological context

The 2009 LBAP recognised the importance of linking local action to national and international biodiversity frameworks, but cross-boundary ecological collaboration was not a major structural component of the plan. Since then, biodiversity policy has increasingly emphasised landscape-scale conservation and ecological connectivity across administrative borders. Initiatives such as river basin management planning, regional biosphere partnerships and nature network development highlight the need for coordinated action between Dumfries and Galloway, neighbouring Scottish regions and northern England, particularly in shared catchments, coastal ecosystems and species recovery programmes. Updating the LBAP therefore provides an opportunity to strengthen cross-border collaboration to support resilient ecological networks.

Solway marine and crossborder context

Dumfries and Galloway's coastline forms the northern edge of the Solway Firth, one of the largest estuaries in the United Kingdom and a shared ecosystem between Scotland and England.

The Solway supports internationally important habitats including mudflats, sandbanks and saltmarsh (merse) which provide feeding and roosting areas for large populations of migratory and overwintering birds. The estuary is designated as a Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar site, reflecting its global importance for biodiversity.

The Solway ecosystem functions as a single ecological system across the national border, with rivers from both Scotland and England flowing into the estuary and supporting migratory fish and wetland habitats across the wider catchment.

Because of this shared ecology, effective conservation of the Solway depends on collaboration between organisations in Scotland and England. Partnerships such as the Solway Firth Partnership support crossborder cooperation on habitat restoration, sustainable fisheries management and environmental monitoring.

For the Dumfries and Galloway LBAP, the Solway therefore represents a key area where biodiversity recovery, marine management and crossborder cooperation intersect.

Appendix 2 LOCAL PRIORITY SPECIES Currently under revision

Slime moulds and Fungi

Species Name	Latin Name
A slime mould	Craterium muscorum
A slime mould	Diderma ochraceum
Willow Gloves	Hypocreopsis lichenoides
Slender Navel	Fayodia bisphaerigera (gracilipes)
Dung Bird's-nest	Cyathus stercoreus
A fungus	Inocybe calospora
A fungus	Galerina stylifera
Golden Bootleg	Phaeolepiota aurea
Veined Mossear	Rimbachia bryophila
Pink Disco	Aleurodiscus wakefieldiae
Zoned Tooth Fungus	Hydnellum concrescens
Tan Pinkgill	Rhodocybe gemina
Scarlet Elf Cup	Sarcoscypha coccinea
Oak Polypore	Buglossoporus quercinus
Beeswax Bracket	Ganoderma pfeifferi

Lichen

Species Name	Latin Name
Sap-groove Lichen	Bellicidia incompta
A lichen	Biatoridium monasteriense
Churchyard Lecanactis	Paralecanographa grumulosa
Orange-fruited Elm Lichen	Cerothallia luteoalba
A lichen	Haloplaca britannica
A lichen	Gabura fascicularis
A lichen	Pectenia ligulata
A lichen	Nevesia sampaiana
A lichen	Hypotrachyna sinuosa
A lichen	Hypotrachyna taylorensis
A lichen	Lecanographa amylacea
A lichen	Lecanora albella
A lichen	Synalissina intricata

(Lichen continued)

A lichen	Leptogium britannicum
A lichen	Leptogium burgessii
A lichen	Leptogium cyanescens
Tree Lungwort Lichen	Lobaria pulmonaria
A lichen	Ricasolia amplissima
A lichen	Lobarina scrobiculata
A lichen	Ricasolia virens
A lichen	Menegazzia terebrata
A lichen	Micarea stipitata
A lichen	Pannaria conoplea
A lichen	Pannaria rubiginosa
A lichen	Parmeliella parvula
A lichen	Parmeliella testacea
A lichen	Parmeliella triptophylla
A lichen	Peltigera collina
A lichen	Porina hibernica
Norwegian Specklebelly	Pseudocyphellaria norvegica
A lichen	Ramalina fraxinea
Speckled Script Lichen	Schismatomma ricasolii
A lichen	Sporodophoron cretaceum
A lichen	Stenocybe septata
A lichen	Sticta fuliginosa
A lichen	Sticta canariensis
A lichen	Sticta sylvatica
A lichen	Sticta limbata
A lichen	Synalissa ramulosa
A lichen	Usnea ceratina
A lichen	Usnea florida
A lichen	Gyalidea roseola
A lichen	Cladonia peziziformis

Algae and Mosses

Species Name	Latin Name
A red seaweed	Drachiella heterocarpa
A red seaweed	Spyridia filamentosa
Cernuous Bryum	Bryum uliginosum
Don's Thread-moss	Bryum donianum
Many-seasoned Thread-moss	Bryum intermedium
Silky Swan-neck Moss	Campylopus setifolius
Spruce's Bristle-moss	Orthotrichum sprucei
Rugged Collar-moss	Splachnum vasculosum
Bent-moss	Campylostelium saxicola
Yellowish Fork-moss	Dichodontium flavescens
Whip Fork-moss	Dicranum flagellare
Hasselquist's Hyssop	Entosthodon fascicularis
Varnished Hook-moss (Slender-green Feather Moss)	Hamatocaulis vernicosus
Flood-moss	Myrinia pulvinata
Long-leaved Fork-moss	Paraleucobryum longifolium
Oval-leaved Pottia	Pterygoneurum ovatum
Megapolitan Feather-moss	Rhynchostegium megapolitanum
Water Grimmia	Schistidium agassizii
Compact Grimmia	Schistidium confertum
Tufted Feather-moss	Scleropodium cespitans
Glass-wort Feather-moss	Scleropodium tourettii
Baltic Bog-moss	Sphagnum balticum

Vascular plants and ferns

Species Name	Latin Name
Shady Horsetail	Equisetum pratense
Wilson's Filmy-fern	Hymenophyllum wilsonii
Royal Fern	Osmunda regalis
Marsh Fern	Thelypteris palustris
Holly-fern	Polystichum lonchitis

(Vascular plans and ferns continued)

Hay-scented Buckler Fern	Dryopteris aemula
Oblong Woodsia	Woodsia ilvensis
Pillwort	Pilularia globulifera
Juniper	Juniperus communis
Hairy Buttercup	Ranunculus sardous
Greater Celandine	Chelidonium majus
Globeflower	Trollius europaeus
Least Water-lily	Nuphar pumila
Prickly Poppy	Papaver argemone
Purple Ramping-fumitory	Fumaria purpurea
White Ramping-fumitory	Fumaria capreolata
Wild Cabbage	Brassica oleracea
White Mustard	Sinapis alba
Charlock	Sinapis arvensis
Swine-cress	Coronopus squamatus
Field Pepperwort	Lepidium campestre
Early Dog-violet	Viola reichenbachiana
Wild Pansy	Viola tricolour
Imperforate St John's-wort	Hypericum maculatum subsp. Maculatum
Mistletoe	Viscum album
Sticky Catchfly	Lychnis viscaria
Isle of Man Cabbage	Coincya monensis subsp. Monensis
Alpine Mouse-ear	Cerastium alpinum
Shepherd's Cress	Teesdalia nudicaulis
Annual Knawel	Scleranthus annuus
Good-King-Henry	Chenopodium bonus-henricus
Prickly Saltwort	Salsola kali
Long-stalked Orache	Atriplex longipes
Early Orache	Atriplex praecox
Perennial Flax	Linum perenne
Sea Stork's-bill	Erodium maritimum
Long-stalked Crane's-bill	Geranium columbinum
Spiny Restharrow	Ononis spinosa
Small Restharrow	Ononis reclinata
Purple Oxytropis	Oxytropis halleri
Wood Bitter-vetch	Vicia orobus
Bithynian Vetch	Vicia bithynica
Yellow-vetch	Vicia lutea
Sea Pea	Lathyrus japonicus
Narrow-leaved Everlasting-pea	Lathyrus sylvestris
Strawberry Clover	Trifolium fragiferum
Slender Trefoil	Trifolium micranthum
Harsh Downy-rose	Rosa tomentosa
Dewberry	Rubus caesius
Hoary Cinquefoil	Potentilla argentea
Mossy Saxifrage	Saxifraga hypnoides
Blunt-fruited Water-starwort	Callitriche obtusangula
Sea-holly	Eryngium maritimum
Wild Celery	Apium graveolens
Whorled Carraway	Carum verticillatum
Tubular Water-dropwort	Oenanthe fistulosa
Rock Samphire	Crithmum maritimum
Spignel	Meum athamanticum
Sun Spurge	Euphorbia helioscopia
Cornfield Knotgrass	Polygonum rurivagum
Black-bindweed	Fallopia convolvulus
Black-poplar	Populus nigra
Downy Willow	Salix lapponum
Whortle-leaved Willow	Salix myrsinites
Bog Rosemary	Andromeda polifolia
Intermediate Wintergreen	Pyrola media
Rock Sea Lavender	Limonium recurvum ssp. Humile
Scarlet Pimpernell	Anagallis arvensis
Lesser Centaury	Centaurium pulchellum
Common Gromwell	Lithospermum officinale
Oysterplant	Mertensia maritima
Henbane	Hyoscyamus niger
An eyebright	Euphrasia officinalis subsp. monticola
An eyebright	Euphrasia officinalis subsp. anglica
An eyebright	Euphrasia frigida
Yellow Bartsia	Parentucellia viscosa
Ivy Broomrape	Orobanche hederae
Greater Broomrape	Orobanche rapum-genistae
Large-flowered Hemp-nettle	Galeopsis speciosa
Field Woundwort	Stachys arvensis
Hoary Plantain	Plantago media
Clustered Bellflower	Campanula glomerata
Rampion Bellflower	Campanula rapunculus
Ivy-leaved Bellflower	Wahlenbergia hederacea
Field Madder	Sherardia arvensis
Dwarf Elder	Sambucus ebulus
Golden-samphire	Inula crithmoides
Common Cudweed	Filago vulgaris
Heath Cudweed	Gnaphalium sylvaticum
Milk Thistle	Silybum marianum
Cornflower	Cenaurea cyanus
Saw-wort	Serratula tinctoria
Chicory	Cichorium intybus
Smooth Cat's-ear	Hypochaeris glabra
Hawkweed Oxtongue	Picris hieracioides
Northern Hawk's-beard	Crepis mollis
Esthwaite Waterweed	Hydrilla verticillata
Shinning Pondweed	Potamogeton lucens
Slender Naiad	Najas flexilis
Bluebell	Hyacinthoides non-scripta
Field Garlic	Allium oleraceum
Bog Orchid	Hammarbya paludosa
Common White Orchid	Pseudorchis albida
Lesser Butterfly-orchid	Platanthera bifolia
Greater Butterfly-orchid	Platanthera chlorantha
Round-fruited Rush	Juncus compressus
Alpine Rush	Juncus alpinoarticulatus
Elongated Sedge	Carex elongata
Sheathed Sedge	Carex vaginata
Dotted Sedge	Carex punctata
Hair Sedge	Carex capillaris
Black Alpine Sedge	Carex atrata
Tufted-Sedge	Carex elata
Confused Fescue	Festuca lemanii
Holy-grass	Hierochloe odorata
Soft Brome	Bromus hordeaceus subsp. Thominei
Rye Brome	Bromus secalinus
Alpine Foxtail	Alopecurus borealis

Invertebrates

Species Name	Latin Name
Wine-glass Hydroid	Obelia bidentata
A pond snail	Lymnaea burnetti
Medicinal Leech	Hirundo medicinalis
Lilljeborg's Whorl Snail	Vertigo lilljeborgi
Narrow-mouthed Whorl Snail	Vertigo angustior
Freshwater Pearl Mussel	Margaritifera margaritifera
Native (Flat) Oyster	Ostrea edulis
Swan mussel	Anodonta cygnea
A bivalve mollusc	Pisidium henslowanum
A woodlouse	Armadillidium album
Tadpole Shrimp	Triops cancriformis
A money spider	Mecopisthes peusi
A money spider	Gongylidiellum murcidum
A money spider	Erigone welchi
A money spider	Maro lepidus
A money spider	Centromerus levitarsis
A money spider	Neriene radiata
A mesh-web spider	Argenna patula
A running foliage spider	Agraecina striata
A foliage spider	Clubiona norvegica
A jumping spider	Talavera petrensis
A jumping spider	Sitticus floricola
Azure Hawker	Aeshna caerulea
Hairy Dragonfly	Brachytron pratense
Variable Damselfly	Coenagrion pulchellum
Speckled Bush Cricket	Leptophyes punctatissima
Bog Bush Cricket	Metrioptera brachyptera
A ground beetle	Blethisa multipunctata
A ground beetle	Dyschirius angustatus
A ground beetle	Dyschirius nitidus
A ground beetle	Perileptus areolatus
A ground beetle	Aepus robini
A ground beetle	Thlalassophilus longicornis
A ground beetle	Bembidion nigricorne
A ground beetle	Bembidion testaceum
A ground beetle	Pterostichus anthracinus
A ground beetle	Lebia chlorocephala
A crawling water beetle	Haliplus apicalis
A whirligig beetle	Gyrinus distinctus
Smaller Noterus	Noterus crassicornis
A diving beetle	Copelatus haemorrhoidalis
A diving beetle	Bidessus minutissimus
A diving beetle	Hygrotus versicolor
A diving beetle	Hydroporus elongatulus
A diving beetle	Hydroporus longulus
A diving beetle	Hydroporus rufifrons
A diving beetle Porhydrus lineatus	Porhydrus lineatus
A diving beetle Agabus conspersus	Agabus conspersus
A diving beetle Agabus uliginosus (SBL)	Agabus uliginosus
A diving beetle	Ilybius fenestratus
A diving beetle	Ilybius subaeneus
A diving	Rhantus suturalis
A water beetle	Hydraena pulchella
A small water beetle	Hydraena pygmaea
A small water beetle	Hydraena testacea
A small water beetle	Ochthebius auriculatus
A water beetle	Helophorus alternans
A water beetle	Helophorus fulgidicollis
A water beetle	Helophorus tuberculatus
A water beetle	Hydrochus angustatus
A water beetle	Hydrochus brevis
A water beetle	Anacaena limbata
A water beetle	Laccobius atratus
A water beetle	Helochares punctatus
A water beetle	Enochrus testaceus
A water beetle	Cercyon convexiusculus
A water beetle	Cercyon depressus
A water beetle	Cercyon melanocephalus
A water beetle	Cercyon quisquilius
A water beetle	Megasternum obscurum
A water beetle	Sphaeridium scarabaeoides
A rove beetle	Carpelimus schneideri
A rove beetle	Omalium rugulipenne
A click beetle	Negastrius sabulicola
A marsh beetle	Elodes pseudominuta
A water beetle	Cyphon kongsbergensis
A water beetle	Cyphon ochraceus
A water beetle	Cyphon punctipennis
A water beetle	Cyphon pubescens
A water beetle	Scirtes hemisphaericus
A long-toed water beetle	Dryops nitidulus
A long-toed water beetle	Dryops similaris
A water beetle	Heterocerus fossor
A water beetle	Augyles (Heterocerus) maritimus
A water beetle	Plateumaris rustica
A flower beetle	Oedemera virescens
A darkling beetle	Eledona agricola
Musk Beetle	Aromia moschata
Water-Lily Reed Beetle	Donacia crassipes
A reed beetle	Donacia impressa
A reed beetle	Donacia marginata
A reed beetle	Donacia obscura
A reed beetle	Donacia thalassina
Six-spotted Pot Beetle	Cryptocephalus sexpunctatus
A leaf beetle	Macroplea appendiculata
A weevil	Notaris bimaculatus
A weevil	Poophagus sisymbrii
Water Plantain Weevil	Bagous alismatis
A weevil	Thryogenes nereis
A weevil	Melanapion minimum
A weevil	Procas granulicollis
A weevil	Trachodes hispidus
Sphagnum Bug	Hebrus ruficeps
River Skater	Aquarius najas
A pond skater	Gerris gibbifer
An aquatic bug	Plea minutissima
A micro moth	Scrobipalpa clintoni
Red-tipped Clearwing	Synanthedon formicaeformis
Forester	Adscita statices
Narrow-bordered Bee Hawk-moth	Hemaris Tityus
Barred Tooth-stripe	Trichopteryx polycommata
Bilberry Pug	Chloroclystis debiliata

(Invertebrates continued)

Argent and Sable Moth	Rheumaptera hastata
Square-spotted Clay	Xestia rhomboidea
Broad-bordered White Underwing	Anarta melanopa
Sword-grass	Xylena exsoleta
Dingy Skipper	Erynnis tages tages
Northern Brown Argus	Articia artaxerxes
Pearl-bordered Fritillary	Boloria euphrosyne
Small Pearl-bordered Fritillary	Boloria selene
A caddisfly	Phacopteryx brevipennis
A cranefly	Tipula hortorum
A cranefly	Lipsothrix errans
A cranefly	Prionocera pubescens
A cranefly	Nephrotoma scurra
A cranefly	Nigrotipula nigra
A cranefly	Limonia magnicauda
A fungus gnat	Urytalpa macrocera
A horsefly	Haematopota bigoti
Black Deerfly	Chrysops sepulchralis
Northern Silver Stilleto-fly	Spiriverpa (Thereva) lunulata
A dolichopodid fly	Dolichopus latipennis
A flat-footed fly	Callomyia elegans
A hoverfly	Anasimyia lunulata
A hoverfly	Cheilosia latifrons
A hoverfly	Parhelophilus consimilis
A hoverfly	Pipizella maculipennis
A hoverfly	Platycheirus europaeus
A hoverfly	Platycheirus immarginatus
A fly	Acanthocnema glaucescens
A mayfly	Kageronia (Heptagenia) fuscogrisea
A ruby-tailed wasp	Chrysura hirsuta
Hairy Wood Ant	Formica lugubris
Negro Ant	Formica fusca
A spider-hunting wasp	Evagetes crassicornis
Red-banded Sand Wasp	Ammophila sabulosa
A digger wasp	Crabro peltarius
Common Spiny Digger Wasp	Oxybelus uniglumis
Northern Colletes Bee	Colletes floralis
A mining bee	Colletes fodiens
Short Horned Yellow-Face Bee	Hylaeus brevicornis
A mining bee	Lasioglossum fulvicorne
A mining bee	Lasioglossum villosulum
A cuckoo bee	Sphecodes gibbus
A cuckoo bee	Stelis punctulatissima
Wool-Carder Bee	Anthidium manicatum
Wall Mason Bee	Osmia parietina
A cuckoo bee	Epeolus variegatus
A cuckoo bee	Nomada roberjeotiana
A cuckoo bee	Nomada leucophthalma
A cuckoo bee	Nomada obtusifrons
Shrill Carder Bee	Bombus sylvarum
Sea Lamprey	Petromyzon marinus

Fish

Species Name	Latin Name
River Lamprey	Lampetra fluviatilis
Brook Lamprey	Lampetra planeri
Basking Shark	Cetorhinus maximus
Tope	Galeorhinus galeus
Spurdog	Squalus acanthias
Common Skate	Dipturus batis
European Eel	Anguilla anguilla
Twaite Shad	Alosa fallax
Allis Shad	Alosa alosa
Smelt (Sparling)	Osmerus eperlanus
Vendace	Coregonus albula
Atlantic Salmon	Salmo salar
Lesser Sand-eel	Ammodytes tobianus
Plaice	Pleuronectes platessa

Birds

Species Name	Latin Name
Black-throated Diver	Gavia arctica
Whooper Swan	Cygnus cygnus
White-fronted Goose (Greenland race)	Anser albifrons
Barnacle Goose (Svalbard race)	Branta leucopsis
Scaup	Aythya marila
Common Scoter	Melanitta nigra
Osprey	Pandion haliaetus
Golden Eagle	Aquila chrysaetos
Red Kite	Milvus milvus
Marsh Harrier	Circus aeruginosus
Merlin	Falco columbarius
Peregrine Falcon	Falco peregrinus
Common Kestrel	Falco tinnunculus
Hen Harrier	Circus cyaneus
Black Grouse	Tetrao tetrix
Grey Partridge	Perdix perdix
Lapwing	Vanellus vanellus
Golden Plover	Pluvialis apricaria
Dotterel	Charadrius morinellus
Dunlin	Calidris alpina
Bar-tailed Godwit	Limosa lapponica
Black-tailed Godwit	Limosa limosa
Curlew	Numenius arquata
Woodcock	Scolopax rusticola
Herring Gull	Larus argentatus
Black-headed Gull	Larus ridibundus
Little Tern	Sterna albifrons
Common Tern	Sterna hirundo
Arctic Tern	Sterna paradisaea
Sandwich Tern	Sterna sandvicensis
Nightjar	Caprimulgus europaeus
Short-eared Owl	Asio flammeus
Barn Owl	Tyto alba
Kingfisher	Alcedo atthis
Swift	Apus apus
Skylark	Alauda arvensis
Reed Warbler	Acrocephalus scirpaceus
Song Thrush	Turdus philomelos
Ring Ouzel	Turdus torquatus
Wood Warbler	Phylloscopus sibilatrix
Spotted Flycatcher	Muscicapa striata
Willow Tit	Poecile montanus

Chough	Pyrrhocorax pyrrhocorax
Common Starling	Sturnus vulgaris
House Sparrow	Passer domesticus
Tree Sparrow	Passer montanus
Twite	Carduelis flavirostris
Linnet	Carduelis cannabina
Siskin	Carduelis spinus
Bullfinch	Pyrrhula pyrrhula
Yellowhammer	Emberiza citrinella
Reed Bunting	Emberiza schoeniclus
Corn Bunting	Miliaria calandra

Reptiles, Amphibians and Mammals

Species Name	Latin Name
Adder	Vipera berus
Leatherback Turtle	Dermochelys coriacea
Great Crested Newt	Triturus cristatus
Natterjack Toad	Epidalea calamita
Water Vole	Arvicola terrestris
Brown Hare	Lepus europaeus
Mountain Hare	Lepus timidus
Otter	Lutra lutra
Common Pipistrelle	Pipistrellus pipistrellus
Soprano Pipistrelle	Pipistrellus pygmaeus

Brown Long-eared Bat	Plecotus auritus
Daubenton's Bat	Myotis daubentonii
Whiskered Bat	Myotis mystacinus
Natterer's Bat	Myotis nattereri
Noctule Bat	Nyctalus noctula
Leisler's Bat	Nyctalus leisleri
Red Squirrel	Sciurus vulgaris
Bottle-nosed Dolphin	Tursiops truncatus
Common Dolphin	Delphinus delphis
Harbour Porpoise	Phocoena phocoena
Killer Whale	Orcinus orca
Minke Whale	Balaenoptera acutorostrata

INVASIVE NON-NATIVE SPECIES

Alga

Group	Common name	Scientific name
alga	a red alga	Antithamnionella spirographidis
alga	a red alga	Antithamnionella ternifolia
alga	a red alga	Dasysiphonia japonica
alga	a red alga	Grateloupia doryphora
alga	a red alga	Grateloupia filicina
alga	a red alga	Grateloupia turuturu
alga	a red alga	Pikea californica
alga	a red alga	Solieria chordalis
alga	Agargh's Red Weed	Agardhiella subulata
alga	Bonnemaison's Hook Weed	Bonnemaisonia hamifera
alga	Green Sea Fingers	Codium fragile subsp. tomentosoides
alga	Harpoon Weed	Asparagopsis armata
alga	Harvey's Siphon Weed	Polysiphonia harveyi

Amphibian

Group	Common name	Scientific name
amphibian	Alpine Newt	Ichthyosaura alpestris
amphibian	American Bull Frog	Lithobates catesbeianus

Annelid

Group	Common name	Scientific name
annelid	a fanworm	Ficopomatus enigmaticus
annelid	a polychaete worm	Goniadella gracilis
annelid	a polychaete worm	Hydroides dianthus
annelid	a polychaete worm	Hydroides elegans
annelid	a polychaete worm	Hydroides ezoensis
annelid	a polychaete worm	Marenzelleria viridis
annelid	a polychaete worm	Neodexiospira brasiliensis
annelid	a polychaete worm	Pileolaria berkeleyana
annelid	Bamboo Worm	Clymenella torquata

Bird

Group	Common name	Scientific name
bird	African Sacred Ibis	Threskiornis aethiopicus
bird	Alexandrine Parakeet	Psittacula eupatria
bird	Common Myna	Acridotheres tristis
bird	Egyptian Goose	Alopochen aegyptiaca
bird	House Crow	Corvus splendens
bird	Mandarin	Aix galericulata
bird	Ring-necked Parakeet	Psittacula krameri
bird	Ruddy Duck	Oxyura jamaicensis

Bony fish

Group	Common name	Scientific name
bony fish (Actinopterygii)	American Brook Trout	Salvelinus fontinalis
bony fish (Actinopterygii)	Amur Sleeper	Perccottus glenii
bony fish (Actinopterygii)	Belica	Leucaspius delineatus
bony fish (Actinopterygii)	Bitterling	Rhodeus amarus
bony fish (Actinopterygii)	Black Bullhead	Ameiurus melas
bony fish (Actinopterygii)	Bullhead	Cottus gobio
bony fish (Actinopterygii)	Carp	Cyprinus carpio
bony fish (Actinopterygii)	Catfish	Silurus glanis
bony fish (Actinopterygii)	Chinese Grass Carp	Ctenopharyngodon idella
bony fish (Actinopterygii)	Coho Salmon	Oncorhynchus kisutch
bony fish (Actinopterygii)	Crucian Carp	Carassius carassius
bony fish (Actinopterygii)	Fathead Minnow	Pimephales promelas
bony fish (Actinopterygii)	Goldfish	Carassius auratus
bony fish (Actinopterygii)	Goldfish x Crucian Carp	Carassius auratus x Carassius carassius
bony fish (Actinopterygii)	Humpback Salmon	Oncorhynchus gorbuscha
bony fish (Actinopterygii)	Ide	Leuciscus idus
bony fish (Actinopterygii)	Largemouth Bass	Micropterus salmoides
bony fish (Actinopterygii)	Mango Tilapia	Tilapia galilaea
bony fish (Actinopterygii)	Minnow	Phoxinus phoxinus
bony fish (Actinopterygii)	Pikeperch	Sander lucioperca
bony fish (Actinopterygii)	Pond-Perch	Lepomis gibbosus
bony fish (Actinopterygii)	Pope	Gymnocephalus cernuus
bony fish (Actinopterygii)	Prussian Carp	Carassius gibelio
bony fish (Actinopterygii)	Rainbow Trout	Oncorhynchus mykiss
bony fish (Actinopterygii)	Redbelly Tilapia	Tilapia zillii
bony fish (Actinopterygii)	Round Goby	Neogobius melanostomus
bony fish (Actinopterygii)	Spotted Tilapia	Tilapia mariae
bony fish (Actinopterygii)	Striped Eel Catfish	Plotosus lineatus
bony fish (Actinopterygii)	Topmouth Gudgeon	Pseudorasbora parva
bony fish (Actinopterygii)	Walleye	Sander vitreus

Bryozoan

Group	Common name	Scientific name
bryozoan	a bryozoan	Bugula neritina
bryozoan	a bryozoan	Bugulina fulva
bryozoan	a bryozoan	Bugulina simplex
bryozoan	a bryozoan	Fenestrulina delicia
bryozoan	a bryozoan	Schizoporella japonica
bryozoan	a bryozoan	Tricellaria inopinata
bryozoan	Red-ripple Bryozoan	Watersipora subatra

Chromist

Group	Common name	Scientific name
chromist	Japanese Wireweed	Sargassum muticum
chromist	Oyster Thief	Colpomenia peregrina
chromist	Wakame	Undaria pinnatifida

Coelenterate

Group	Common name	Scientific name
coelenterate (=cnidarian)	Brackish Sea Fir	Clavopsella navis
coelenterate (=cnidarian)	Clinging Jellyfish	Gonionemus vertens
coelenterate (=cnidarian)	Orange-striped anemone	Diadumene lineata

Comb jelly

Group	Common name	Scientific name
comb jelly (Ctenophora)	Sea Walnut	Mnemiopsis leidyi

Crustacean

Group	Common name	Scientific name
crustacean	a copepod	Acartia (Acanthacartia) tonsa
crustacean	a crab	Brachynotus sexdentatus
crustacean	a crab	Pilumnoides inglei
crustacean	a mud crab	Dyspanopeus sayi
crustacean	a shrimp	Chelicorophium curvispinum
crustacean	a shrimp	Dikerogammarus bispinosus
crustacean	American Lobster	Homarus americanus
crustacean	American Signal Crayfish	Pacifastacus leniusculus
crustacean	an amphipod	Echinogammarus ischnus
crustacean	an amphipod	Echinogammarus trichiatus
crustacean	an amphipod	Monocorophium sextonae
crustacean	an ostracod	Eusarsiella zostericola

crustacean	Asian Shore Crab	Hemigrapsus sanguineus
crustacean	Bay Barnacle	Amphibalanus improvisus
crustacean	Bloody-red Shrimp	Hemimysis anomala
crustacean	Blue Crab	Callinectes sapidus
crustacean	Brush-clawed Crab	Hemigrapsus takanoi
crustacean	Calico Crayfish	Orconectes immunis
crustacean	Chinese Mitten Crab	Eriocheir sinensis
crustacean	Demon Shrimp	Dikerogammarus haemobaphes
crustacean	Fishhook Waterflea	Cercopagis pengoi
crustacean	Japanese Skeleton Shrimp	Caprella mutica
crustacean	Karuma Shrimp	Penaeus japonicus
crustacean	Killer Shrimp	Dikerogammarus villosus
crustacean	Landhopper	Arcitalitrus dorrieni
crustacean	Marbled Crayfish	Procambarus fallax f. virginalis
crustacean	Modest Barnacle	Austrominius modestus
crustacean	Noble Crayfish	Astacus astacus
crustacean	Red King Crab	Paralithodes camtschaticus
crustacean	Red Swamp Crayfish	Procambarus clarkii
crustacean	Spiny-cheek Crayfish	Orconectes limosus
crustacean	Striped Barnacle	Amphibalanus amphitrite
crustacean	Turkish Crayfish	Astacus leptodactylus
crustacean	Virile Crayfish	Orconectes virilis
crustacean	White-tipped Mud Crab	Rhithropanopeus harrisii

Diatom

Group	Common name	Scientific name
diatom	a diatom	Coscinodiscus wailesii
diatom	a diatom	Ethmodiscus punctiger
diatom	a diatom	Pleurosigma simonsenii
diatom	a diatom	Thalassiosira tealata
diatom	a marine diatom	Biddulphia sinensis

Fern

Group	Common name	Scientific name
fern	Giant Salvinia	Salvinia molesta
fern	Japanese Climbing Fern	Lygodium japonicum
fern	Water Fern	Azolla filiculoides

Flatworm

Group	Common name	Scientific name
flatworm (Turbellaria)	a flatworm	Kontikia andersoni
flatworm (Turbellaria)	a flatworm	Kontikia ventrolineata
flatworm (Turbellaria)	Australian Flatworm	Australoplana sanguinea
flatworm (Turbellaria)	New Guinea Flatworm	Platydemus manokwari
flatworm (Turbellaria)	New Zealand Flatworm	Arthurdendyus triangulata
flatworm (Turbellaria)	Obama Flatworm	Obama nungara

Flowering plant

Group	Common name	Scientific name
flowering plant	a montbretia	Crocosmia aurea
flowering plant	a montbretia	Crocosmia masoniorum x pottsii x aurea
flowering plant	Alligator Weed	Alternanthera philoxeroides
flowering plant	American Needle-grass	Nassella neesiana
flowering plant	American Skunk-cabbage	Lysichiton americanus
flowering plant	Asian Skunk-Cabbage	Lysichiton camtschatcensis
flowering plant	Asiatic Tearthumb	Persicaria perfoliata
flowering plant	Aunt-Eliza	Crocosmia paniculata
flowering plant	Balloon Vine	Cardiospermum grandiflorum
flowering plant	Bohemian Knotweed	Fallopia x bohemica
flowering plant	Boston Ivy	Parthenocissus tricuspidata
flowering plant	Brazilian Giant Rhubarb	Gunnera manicata
flowering plant	Broad-Leaved Everlasting-Pea	Lathyrus latifolius
flowering plant	Broomsedge Bluestem	Andropogon virginicus
flowering plant	Buddleia	Buddleja davidii
flowering plant	Butterfly-Bush	Buddleja davidii x globosa = B. x weyeriana
flowering plant	Canadian Pondweed	Elodea canadensis
flowering plant	Nuttall's Waterweed	Elodea nutallii
flowering plant	Carolina Water Shield	Cabomba caroliniana
flowering plant	Cherry Laurel	Prunus laurocerasus
flowering plant	Chinese Bushclover	Lespedeza cuneata
flowering plant	Chinese Tallow	Triadica sebifera
flowering plant	Common Cord-grass	Spartina anglica
flowering plant	Common Milkweed	Asclepias syriaca
flowering plant	Creeping Cotoneaster	Cotoneaster adpressus

(flowering plant continued)

flowering plant	Curly Waterweed	Lagarosiphon major
flowering plant	Duck Potato	Sagittaria latifolia
flowering plant	Entire-leaved Cotoneaster	Cotoneaster integrifolius
flowering plant	Esthwaite Water-Weed	Elodea nuttallii
flowering plant	False Virginia-Creeper	Parthenocissus inserta
flowering plant	Few-Flowered Garlic	Allium paradoxum
flowering plant	Five-leaf Akebia	Akebia quinata
flowering plant	Floating Pennywort	Hydrocotyle ranunculoides
flowering plant	Franchet's Cotoneaster	Cotoneaster franchetii
flowering plant	Fringed Water-lily	Nymphoides peltata
flowering plant	Garden Bluebell	Hyacinthoides hispanica
flowering plant	Giant Hogweed	Heracleum mantegazzianum
flowering plant	Giant Knotweed	Fallopia sachalinensis
flowering plant	Giant Montbretia	Crocosmia masoniorum
flowering plant	Giant Reed	Arundo donax
flowering plant	Giant Rhubarb	Gunnera tinctoria
flowering plant	Golden Wreath Wattle	Acacia saligna
flowering plant	Greater Periwinkle	Vinca major
flowering plant	Grey-budded Maple	Acer rufinerve
flowering plant	Himalayan Balsam	Impatiens glandulifera
flowering plant	Himalayan Cotoneaster	Cotoneaster simonsii
flowering plant	Himalayan Knotweed	Persicaria wallichii
flowering plant	Hollyberry Cotoneaster	Cotoneaster bullatus
flowering plant	Hottentot-fig	Carpobrotus edulis
flowering plant	Hybrid Bluebell	Hyacinthoides hispanica x non-scripta
flowering plant	Intermediate Periwinkle	Vinca difformis
flowering plant	Japanese Eelgrass	Zostera japonica
flowering plant	Japanese Honeysuckle	Lonicera japonica
flowering plant	Japanese Hop	Humulus scandens
flowering plant	Japanese Knotweed	Fallopia japonica
flowering plant	Japanese Rose	Rosa rugosa
flowering plant	Japanese Stiltgrass	Microstegium vimineum
flowering plant	Large-flowered Waterweed	Egeria densa
flowering plant	Lesser Knotweed	Persicaria campanulata
flowering plant	Lesser Periwinkle	Vinca minor
flowering plant	Low Juneberry	Amelanchier spicata
flowering plant	Mesquite	Prosopis juliflora
flowering plant	Montbretia	Crocosmia aurea x pottsii = C. x crocosmiiflora
flowering plant	New Zealand Pigmyweed	Crassula helmsii
flowering plant	Parrot's Feather	Myriophyllum aquaticum
flowering plant	Perennial Veldtgrass	Ehrharta calycina
flowering plant	Pick-a-back Plant	Tolmiea menziesii
flowering plant	Pirri-Pirri-Bur	Acaena anserinifolia x inermis
flowering plant	Pitcher Plant	Sarracenia purpurea
flowering plant	Pott's Monbretia	Crocosmia pottsii
flowering plant	Purple Dewplant	Disphyma crassifolium
flowering plant	Purple Pampas Grass	Cortaderia jubata
flowering plant	Railway-yard Knotweed	Fallopia baldschuanica x japonica = F. x conollyana
flowering plant	Rhododendron	Rhododendron ponticum
flowering plant	Russian Vine	Fallopia baldschuanica
flowering plant	Santa-Maria	Parthenium hysterophorus
flowering plant	Senegal Tea Plant	Gymnocoronis spilanthoides
flowering plant	Small Balsam	Impatiens parviflora
flowering plant	Small-leaved Cotoneaster	Cotoneaster microphyllus
flowering plant	Sosnowsky's Hogweed	Heracleum sosnowskyi
flowering plant	Spreading Cotoneaster	Cotoneaster divaricatus
flowering plant	Three-cornered Garlic	Allium triquetrum
flowering plant	Tibetan Cotoneaster	Cotoneaster conspicuus
flowering plant	Tree Groundsel	Baccharis halimifolia
flowering plant	Tree-of-heaven	Ailanthus altissima
flowering plant	Various-leaved Water-milfoil	Myriophyllum heterophyllum
flowering plant	Virginia-Creeper	Parthenocissus quinquefolia
flowering plant	Wall Cotoneaster	Cotoneaster horizontalis
flowering plant	Water Primrose	Ludwigia grandiflora
flowering plant	Water-hyacinth	Eichhornia crassipes
flowering plant	Water-lettuce	Pistia stratiotes
flowering plant	Water-soldier	Stratiotes aloides
flowering plant	Yellow Archangel	Lamiastrum galeobdolon subsp. argentatum
flowering plant	Yellow Archangel	Lamiastrum galeobdolon subsp. montanum var. variegatum
flowering plant	Yellow Azalea	Rhododendron luteum

Insects

Group	Common name	Scientific name
insect - beetle (Coleoptera)	Asian Longhorn Beetle	Anoplophora glabripennis
insect - beetle (Coleoptera)	Citrus Longhorn Beetle	Anoplophora chinensis
insect - beetle (Coleoptera)	Colorado Beetle	Leptinotarsa decemlineata
insect - beetle (Coleoptera)	Eight-toothed Spruce Bark Beetle	Ips typographus
insect - beetle (Coleoptera)	Emerald Ash Borer	Agrilus planipennis
insect - beetle (Coleoptera)	Harlequin Ladybird	Harmonia axyridis
insect - beetle (Coleoptera)	Tansey Beetle	Chrysolina graminis
insect - booklouse (Psocoptera)	a barkfly	Chilenocaecilius ornatipennis
insect - cockroach (Blattodea)	Mediterranean Termite	Reticulitermes grassei
insect - hymenopteran	African Big-headed Ant	Pheidole megacephala
insect - hymenopteran	an ant	Crematogaster scutellaris
insect - hymenopteran	an ant	Hypoponera ergatandria
insect - hymenopteran	an ant	Hypoponera punctatissima
insect - hymenopteran	an ant	Lasius neglectus
insect - hymenopteran	an ant	Tapinoma subboreale
insect - hymenopteran	Argentine ant	Linepithema humile
insect - hymenopteran	Asian Hornet	Vespa velutina
insect - hymenopteran	Chestnut Gall Wasp	Dryocosmus kuriphilus
insect - hymenopteran	Erratic Ant	Tapinoma erraticum
insect - hymenopteran	Ghost Ant	Tapinoma melanocephalum
insect - hymenopteran	Longhorn Crazy Ant	Paratrechina longicornis
insect - hymenopteran	Pharaoh Ant	Monomorium pharaonis
insect - hymenopteran	Zigzag Elm Fusehorn	Aproceros leucopoda
insect - moth	Oak Processionary	Thaumetopoea processionea
insect - moth	Pine Processionary	Thaumetopoea pityocampa
insect - true bug (Hemiptera)	Brown Marmorated Stink Bug	Halyomorpha halys
insect - true bug (Hemiptera)	Plane Lace Bug	Corythucha ciliata

Mollusc

Group	Common name	Scientific name
mollusc	a freshwater clam	Corbicula fluminalis
mollusc	Acute Bladder Snail	Physella acuta
mollusc	American hard-shelled clam	Mercenaria mercenaria
mollusc	American Piddock	Petricolaria pholadiformis
mollusc	American Slipper Limpet	Crepidula fornicata
mollusc	American Sting Winkle	Urosalpinx cinerea
mollusc	an oyster	Crassostrea brasiliensis
mollusc	Asian Clam	Corbicula fluminea
mollusc	Asian Mussel	Arcuatula senhousia
mollusc	Atlantic Razor Clam	Ensis directus
mollusc	Chilean Oyster	Ostrea chilensis
mollusc	Chinese Mystery Snail	Cipangopaludina chinensis
mollusc	Eastern Oyster	Crassostrea virginica
mollusc	Ghost Slug	Selenochlamys ysbryda
mollusc	Japanese Oyster Drill	Ocinebrellus inornatus
mollusc	Jenkins' Spire Snail	Potamopyrgus antipodarum
mollusc	Lusitanian Slug	Arion (Arion) vulgaris
mollusc	Magellan Mussel	Aulacomya ater
mollusc	Manila Clam	Ruditapes philippinarum
mollusc	Pacific Oyster	Crassostrea gigas
mollusc	Quagga Mussel	Dreissena rostriformis
mollusc	Sand Gaper	Mya arenaria
mollusc	Veined Rapa Whelk	Rapana venosa
mollusc	White Snail	Theba pisana
mollusc	Zebra Mussel	Dreissena polymorpha

Monogenean

Group	Common name	Scientific name
monogenean	a fluke	Gyrodactylus salaris

Reptile

Group	Common name	Scientific name
reptile	Cumberland Slider	Trachemys scripta subsp. troostii
reptile	Pond Slider	Trachemys scripta
reptile	Yellow-bellied Slider	Trachemys scripta subsp. scripta

Roundworm

Group	Common name	Scientific name
roundworm (Nematoda)	a nematode worm	Anguillicoloides crassus

Sea spider

Group	Common name	Scientific name
sea spider (Pycnogonida)	Hilgendorf's Sea Spider	Ammothea hilgendorfi

Sponge

Group	Common name	Scientific name
sponge (Porifera)	a sponge	Celtodoryx ciocalyptoides

Terrestrial mammal

Group	Common name	Scientific name
terrestrial mammal	American Mink	Mustela vison
terrestrial mammal	Chinese Barking Deer	Muntiacus reevesi
terrestrial mammal	Chinese Water Deer	Hydropotes inermis
terrestrial mammal	Coypu	Myocastor coypus
terrestrial mammal	Domestic Cat	Felis catus
terrestrial mammal	Eastern Chipmunk	Tamias striatus
terrestrial mammal	Eastern Grey Squirrel	Sciurus carolinensis
terrestrial mammal	Fox Squirrel	Sciurus niger
terrestrial mammal	Greater White-toothed Shrew	Crocidura russula
terrestrial mammal	Lesser White-Toothed Shrew	Crocidura suaveolens
terrestrial mammal	Musk Rat	Ondatra zibethicus
terrestrial mammal	Pallas's Squirrel	Callosciurus erythraeus
terrestrial mammal	Raccoon	Procyon lotor
terrestrial mammal	Raccoon Dog	Nyctereutes procyonoides
terrestrial mammal	Siberian Chipmunk	Tamias sibiricus
terrestrial mammal	Sika	Cervus nippon
terrestrial mammal	Small Asian Mongoose	Herpestes javanicus
terrestrial mammal	South American Coati	Nasua nasua
terrestrial mammal	Striped Skunk	Mephitis mephitis
terrestrial mammal	Wild Cat Hybrid	Felis silvestris x catus

Tunicate

Group	Common name	Scientific name
tunicate (Urochordata)	a sea squirt	Aplidium glabrum
tunicate (Urochordata)	a sea squirt	Botrylloides violaceus
tunicate (Urochordata)	Carpet Sea Squirt	Didemnum vexillum
tunicate (Urochordata)	Colonial Sea Squirt	Perophora japonica
tunicate (Urochordata)	Compass Sea Squirt	Asterocarpa humilis
tunicate (Urochordata)	Leathery Sea Squirt	Styela clava
tunicate (Urochordata)	Orange-tipped Sea Squirt	Corella eumyota

Appendix 3 MAPS

National Soil Map of Scotland: Peat and Peaty Soils
- Maps carbon rich soils

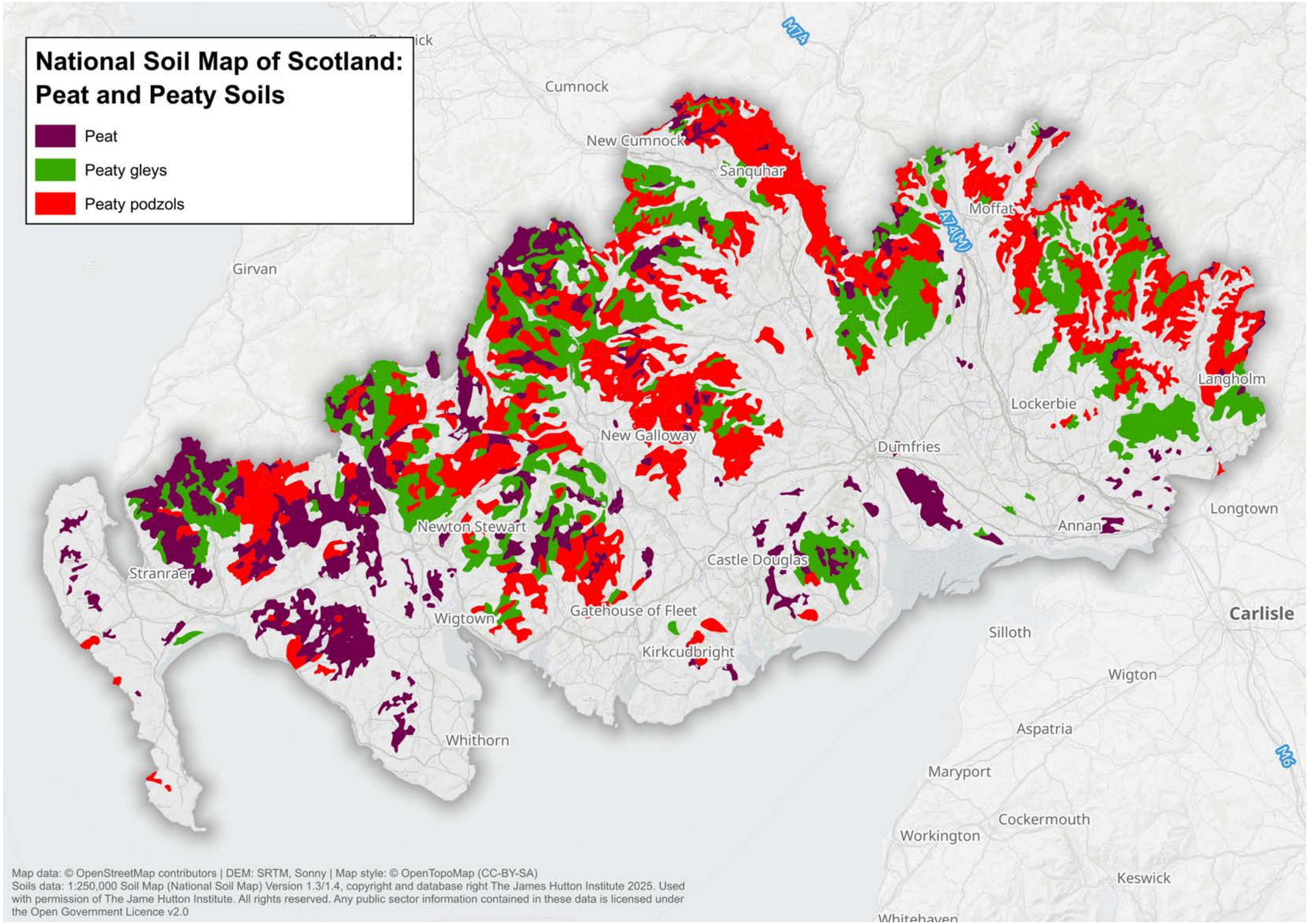
Condition Assessment of Surface and Coastal Waters
- River catchment data

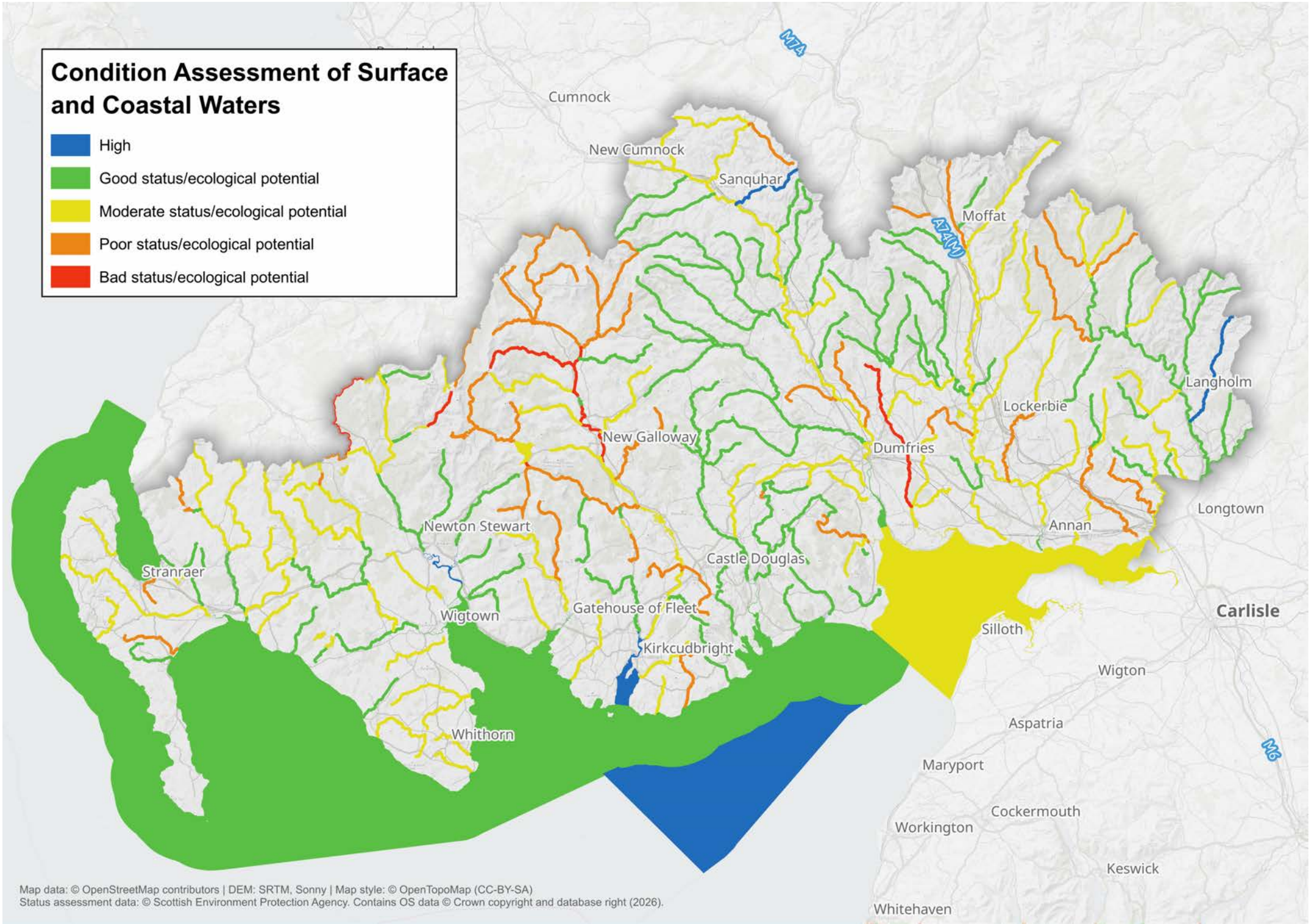
Big Biodiversity Layer
- Maps biodiversity hotspots

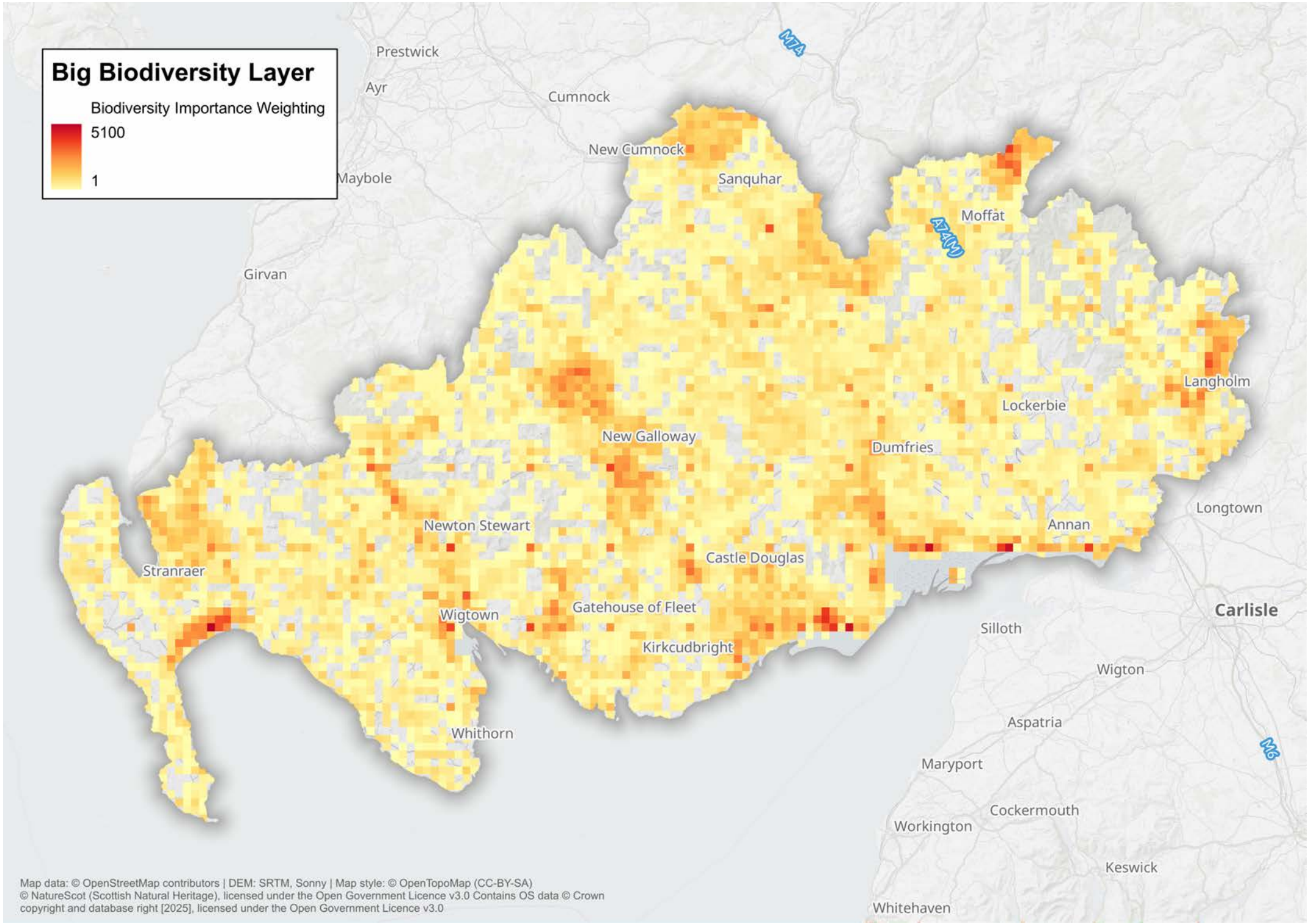
Wildlife recording in Dumfries and Galloway
- Biological records highlight species hotspots

Native Woodland
- Map of existing native woodland

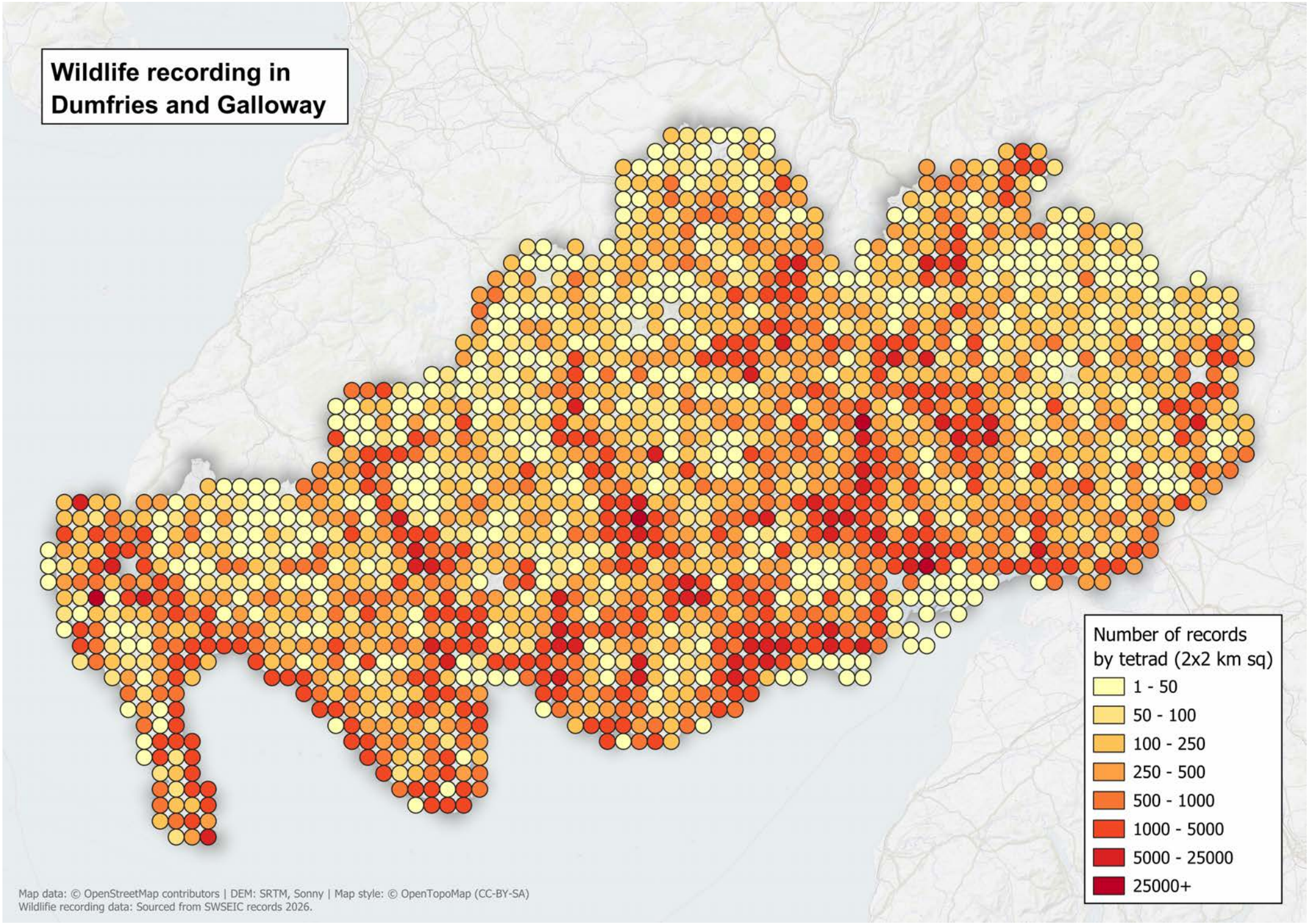
Nature Conservation and Biodiversity Sites
- Conservation, biodiversity and designation areas


National Soil Map of Scotland:
Peat and Peaty Soils
Peat
Peaty gleys
Peaty podzols
Cumnock
New Cumnock
Sanquhar
Moffat
Girvan
Langholm
Lockerbie
New Galloway
Dumfries
Longtown
Annan
Newton Stewart
Castle Douglas
Stranraer
Gatehouse of Fleet
Wigtown
Carlisle
Silloth
Kirkcudbright
Wigton
Aspatria
Whithorn
Maryport
Cockermouth
Workington
Keswick
Whitehaven
M74
A74(M)
M6
Map data: © OpenStreetMap contributors | DEM: SRTM, Sonny | Map style: © OpenTopoMap (CC-BY-SA)
Soils data: 1:250,000 Soil Map (National Soil Map) Version 1.3/1.4, copyright and database right The James Hutton Institute 2025. Used with permission of The Jame Hutton Institute. All rights reserved. Any public sector information contained in these data is licensed under the Open Government Licence v2.0

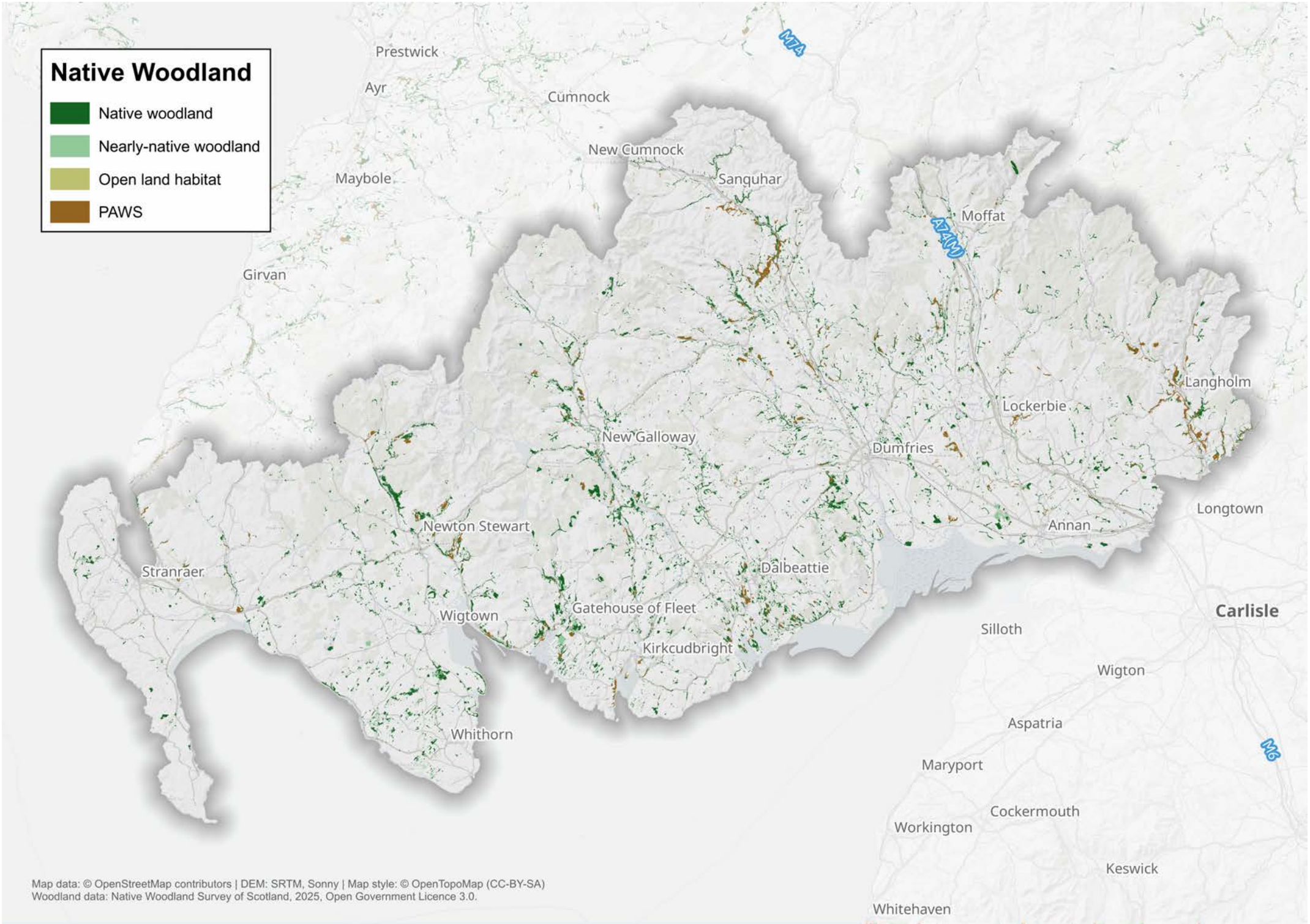

Condition Assessment of Surface and Coastal Waters
High
Good status/ecological potential
Moderate status/ecological potential
Poor status/ecological potential
Bad status/ecological potential
M74
Cumnock
New Cumnock
Sanquhar
Moffat
A74(M)
Langholm
Lockerbie
New Galloway
Dumfries
Longtown
Annan
Newton Stewart
Castle Douglas
Stranraer
Wigtown
Gatehouse of Fleet
Carlisle
Silloth
Kirkcudbright
Wigton
Aspatria
Whithorn
Maryport
M6
Cockermouth
Workington
Keswick
Whitehaven
Map data: © OpenStreetMap contributors | DEM: SRTM, Sonny | Map style: © OpenTopoMap (CC-BY-SA)
Status assessment data: © Scottish Environment Protection Agency. Contains OS data © Crown copyright and database right (2026).

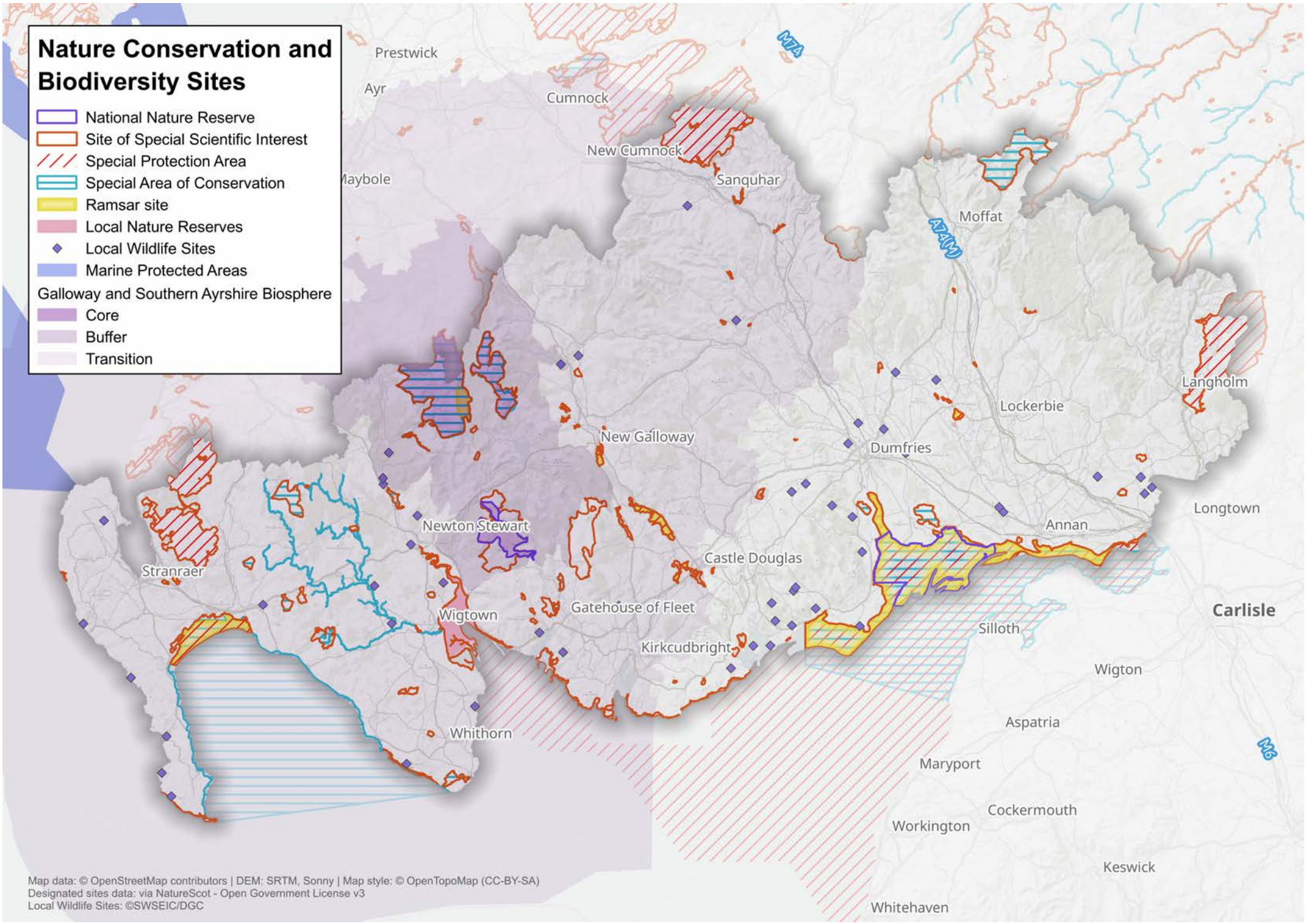

Big Biodiversity Layer
Biodiversity Importance Weighting
5100
1
Prestwick
Ayr
Cumnock
New Cumnock
Maybole
Sanquhar
Moffat
Girvan
Langholm
Lockerbie
New Galloway
Dumfries
Longtown
Newton Stewart
Annan
Castle Douglas
Stranraer
Gatehouse of Fleet
Wigtown
Carlisle
Silloth
Kirkcudbright
Wigton
Aspatria
Whithorn
Maryport
Cockermouth
Workington
Keswick
Whitehaven
M74
A74(M)
M6
Map data: © OpenStreetMap contributors | DEM: SRTM, Sonny | Map style: © OpenTopoMap (CC-BY-SA)
© NatureScot (Scottish Natural Heritage), licensed under the Open Government Licence v3.0 Contains OS data © Crown copyright and database right [2025], licensed under the Open Government Licence v3.0

Wildlife recording in Dumfries and Galloway



Wildlife recording data: Sourced from SWSEIC records 2026.


Native Woodland
Native woodland
Nearly-native woodland
Open land habitat
PAWS
Prestwick
Ayr
Cumnock
New Cumnock
Maybole
Sanquhar
Moffat
Girvan
Langholm
Lockerbie
New Galloway
Dumfries
Longtown
Annan
Newton Stewart
Stranraer
Dalbeattie
Gatehouse of Fleet
Wigtown
Carlisle
Silloth
Kirkcudbright
Wigton
Aspatria
Whithorn
Maryport
Cockermouth
Workington
Keswick
Whitehaven
M74
A74(M)
M6
Map data: © OpenStreetMap contributors | DEM: SRTM, Sonny | Map style: © OpenTopoMap (CC-BY-SA)
Woodland data: Native Woodland Survey of Scotland, 2025, Open Government Licence 3.0.


Nature Conservation and Biodiversity Sites
National Nature Reserve
Site of Special Scientific Interest
Special Protection Area
Special Area of Conservation
Ramsar site
Local Nature Reserves
Local Wildlife Sites
Marine Protected Areas
Galloway and Southern Ayrshire Biosphere
Core
Buffer
Transition
Prestwick
Ayr
Cumnock
New Cumnock
Sanquhar
Moffat
Langholm
Lockerbie
Dumfries
New Galloway
Newton Stewart
Stranraer
Castle Douglas
Annan
Longtown
Gatehouse of Fleet
Wigtown
Kirkcudbright
Carlisle
Silloth
Wigton
Aspatria
Maryport
Cockermouth
Workington
Keswick
Whitehaven
Whithorn
M74
A74(M)
M6
Map data: © OpenStreetMap contributors | DEM: SRTM, Sonny | Map style: © OpenTopoMap (CC-BY-SA)
Designated sites data: via NatureScot - Open Government License v3
Local Wildlife Sites: ©SWSEIC/DGC

Appendix 4

Key Organisations and Partnerships (Signposting)

A wide range of organisations, businesses, partnerships and community groups are involved in protecting, restoring and managing nature across Dumfries and Galloway. Together, they form a strong and diverse network working across habitats, sectors and scales.

Rather than providing an exhaustive list, this section highlights key types of organisations and some of the main partners involved in delivering action for nature across the region.

Public Sector Bodies

These bodies help shape priorities and guidance, and ensure that nature is considered alongside land use, climate and economic objectives:

- Dumfries and Galloway Council
- NatureScot
- Scottish Environment Protection Agency (SEPA)
- Forestry and Land Scotland
- Scottish Forestry
- South of Scotland Enterprise
- NHS Dumfries and Galloway
- Crown Estate Scotland

Environmental NGOs and other delivery organisations

A number of organisations are directly involved in conservation, restoration and engagement work across Dumfries and Galloway:

- Solway Firth Partnership
- Crichton Carbon Centre
- Galloway and Southern Ayrshire UNESCO Biosphere
- Southern Upland Partnership
- Dumfries and Galloway Woodlands
- Crichton Carbon Centre
- Galloway Rivers Trust
- District Salmon Fishery Boards (including Nith, Annan, Dee and Urr)
- Scottish Wildlife Trust
- RSPB Scotland
- National Trust for Scotland
- Scottish Water
- South of Scotland Regional Land Use Partnership
- Woodland Trust
- River and catchment partnerships
- The Conservation Volunteers
- Plantlife
- Butterfly Conservation

Community organisations and local initiatives

Community-led action is a defining feature of the region:

- Development trusts and community groups
- Local environmental groups and volunteers
- Schools and education providers
- Place-based initiatives

These organisations often lead practical action, local engagement and long-term stewardship. Local place plans and community action plans increasingly highlight local nature recovery aspirations.

Cross-cutting themes and ways of working

Many organisations work across traditional boundaries, reflecting the interconnected nature of biodiversity. Key themes include:

- Catchment-scale working, linking land, water and species across river systems
- Nature-based solutions, integrating biodiversity with flood management, carbon storage and land use
- Climate and biodiversity, aligning adaptation, mitigation and nature recovery
- Data sharing and evidence, improving coordination and decision-making
- Community-led approaches, supporting local action and stewardship

Potential Funding Sources for Nature Recovery in Dumfries and Galloway

Agri-Environment Climate Scheme (AECS)
Supports species-rich grasslands, wetlands, wader management, riparian management, hedgerows, traditional management, priority species habitats and water quality measures. Particularly relevant for farmers, crofters, estates and land managers.

Scottish Government Rural Payments and Inspections Division (SGRPID)
Supports agricultural transition, climate and biodiversity measures, habitat management and wider land management support.

Forestry Grant Scheme (FGS)
Supports woodland creation, native woodland expansion, riparian planting, forest restructuring, habitat enhancement, woodland management and agroforestry.

NatureScot Peatland ACTION
Supports peatland restoration, re-wetting, erosion control, hydrological restoration and peatland project development.

Nature Restoration Fund (NRF)
Supports habitat restoration, species recovery, ecological connectivity, community nature projects and landscape-scale restoration.

Dumfries and Galloway Woodlands
Provides woodland advice, project support, grant delivery support and woodland creation facilitation.

South of Scotland Enterprise (SOSE)
Can support green enterprise, rural skills, nature-based businesses, community projects, natural capital development and sustainable tourism.

South of Scotland Natural Capital Innovation Zone (NCIZ)
Supports development of nature-based solutions, natural capital investment, habitat restoration, woodland creation and peatland projects.

National Lottery Heritage Fund
Supports habitat restoration, species recovery, heritage landscapes, volunteering, education, interpretation and community engagement.

National Lottery Community Fund Scotland
Supports community-led nature projects, greenspace improvements, wellbeing initiatives and local resilience projects.

Woodland Trust
Supports community planting, schools, small woodland projects and native tree establishment.

Riverwoods Development Grant Scheme
Supports riparian woodland creation, river restoration, fish habitat improvements and catchment-scale projects.

Fisheries Management Scotland and Fisheries Trust Partnerships
Can support fish passage, invasive species control, river habitat restoration and ecological monitoring.

Woodland Carbon Code
Supports private investment in woodland creation, carbon sequestration and long-term woodland management.

Peatland Code
Supports private investment in peatland restoration, carbon markets and long-term peatland recovery.

NatureScot Species Recovery Programme
Supports species recovery and targeted conservation projects. [clarify]

RSPB Scotland
Can support species recovery, habitat management and landscape-scale conservation initiatives.

Scottish Wildlife Trust
Can support habitat restoration, species recovery and community engagement projects.

Esmée Fairbairn Foundation
Supports nature recovery, community engagement, landscape restoration and environmental innovation.

The Pebble Trust
Supports environmental education, youth engagement and community-based environmental projects.

The Robertson Trust
Supports community development, wellbeing and projects delivering social and environmental benefits.

Third Sector Funding Hub
search tool: **https://www.tsdg.org.uk/funding-support/**

Advice, Support and Networks

- NatureScot
- Farm Advisory Service Scotland
- NFU Scotland
- Scottish Land and Estates
- Nature Friendly Farming Network
- Regenerative Farming Network
- Soil Association
- Confor
- Scottish Forestry
- South of Scotland Enterprise
- DandG Sustainable Food Partnership
- DandG Climate Hub
- Regional Adaptation Partnership
- Nature Recovery Network
- SWSEIC
- Dumfries and Galloway Woodlands
- Bee Positive DG8

Data, evidence and recording

- South-West Scotland Environmental Information Centre (SWSEIC)
- Local biological recording groups (including botany, ornithology, moths and others)
- National biological recording schemes and societies

SWSEIC plays a central role in collating and managing wildlife data for the region and supporting decision-making, research and public engagement.