



# NBN Scotland

Better Biodiversity Data

Dàta Bith-iomadachd nas Fheàrr



# MAKING DATA WORK FOR NATURE

2022 – 2027

The National Biodiversity Network Trust's Strategy

**NBN Trust**

Making data work for nature





### **AMBITION 1**

The NBN Atlas is the 'go to' place for sharing, finding and accessing UK biodiversity data.



### **AMBITION 2**

Biodiversity data is providing the evidence needed for nature's recovery.



### **AMBITION 3**

Citizen science is valued, supported and expanded as a major source of biodiversity data.



### **AMBITION 4**

The National Biodiversity Network is a well-connected and highly collaborative community with a united voice on key issues.



EXPLORE YOUR AREA

Find out about the wildlife in your area



SEARCH FOR SPECIES

Search the NBN Atlas



EDUCATION & ACADEMIA

Is your institution using the NBN Atlas?



SHARE DATA

How to record wildlife and share data



# THE NBN ATLAS SCOTLAND

The NBN Atlas Scotland is a portal of the NBN Atlas, a collaborative project that aggregates biodiversity data from multiple sources and makes it available and usable online. It is the country's largest collection of freely available biodiversity data.

**36,573,919**

Occurrences

**28,108**

Species

**628**

Datasets

**122**

Data partners



explore the NBN Atlas Scotland

# A Review of the Biological Recording Infrastructure in Scotland

By the  
Scottish Biodiversity Information Forum



Enabling Scotland to be a  
global leader for biodiversity

## SBIF RECOMMENDATIONS



**TRANSFORMED DATA FLOWS** with clear data links to the NBN Atlas Scotland, with easy data submission and feedback channels.



**TRANSFORMED SERVICE PROVISION** with full coverage across Scotland designed for added value, accessibility and inclusivity.



**TRANSFORMED FUNDING** with long-term funding secured for coordinating body, keystone organisations, and wider recording community.



**TRANSFORMED STRUCTURE AND CULTURE** with a lead coordinating body, working in partnership with a network of Regional Hubs and Local Service Providers.



**TRANSITION BY 2030** with a shared implementation plan to maintain the momentum of the SBIF recommendations.



# Tackling the nature emergency

## Consultation on Scotland's Strategic Framework for Biodiversity



We are in the midst of a biodiversity crisis. It is beyond doubt: nature is declining fast. It is clear that millions of species across the world are at threat. Here in Scotland, nearly half of our species are in abundance and 11 per cent are under threat. Nature has an intrinsic value, but its complete abundance of life is also central to our survival. Our economy, jobs, health and wellbeing depend on it. Restoring biodiversity is crucial in tackling the climate crisis and tackling the climate crisis will be essential for restoring biodiversity. World, ocean and land ecosystems remove about 50 per cent of the emissions that are produced by us each year.

The Scottish Government is committed to restoring Scotland's nature and supporting thriving communities and wildlife alike. In December 2021 we published our draft Scottish Biodiversity Strategy, setting out our clear ambition for Scotland to be Nature Positive by 2030 and to have restored and regenerated biodiversity by 2045. The Strategy was published in draft form to allow us to incorporate the outcomes from COP15 and meet our international obligations.

September 2023



Code	Develop effective species recovery, reintroduction and reinforcement programmes
U	<ul style="list-style-type: none"> <li>Develop effective species recovery, reintroduction and reinforcement programmes drawing on partnership work on Species at Risk prioritisation, Species on the Edge programme, and evaluation of drivers. For example, continue to support and build upon existing strategies and schemes to protect and expand populations of species such as capercaillie, red squirrel, sea eagle, golden eagle and Eurasian beaver.</li> </ul>
U	<ul style="list-style-type: none"> <li>Develop and implement national plans for conserving species groups for which Scotland holds internationally important populations such as lichens, bryophytes, freshwater pearl mussels, and wetland waders.</li> </ul>
U	<ul style="list-style-type: none"> <li>Undertake measures to reduce human pressures to give habitats and species (especially specialists; arctic/alpine) more chance of surviving and improve the status of red listed species in Scotland.</li> </ul>
U	<ul style="list-style-type: none"> <li>Map genetic diversity risks across Scotland and ensure mitigating genetic diversity risks across Protected Areas and OECMs are included within Biodiversity Action Plans to reduce risks in protected areas by 2030.</li> </ul>
U	<ul style="list-style-type: none"> <li>Raise public awareness of science and practice around conservation translocations through public engagement by 2030.</li> </ul>
U	<ul style="list-style-type: none"> <li>The Better Biodiversity Data project will develop and build upon the first steps in a strategic approach to the collection, collation and sharing of biological data across Scotland; use of citizen science for monitoring key species will increase.</li> </ul>
U	<ul style="list-style-type: none"> <li>Support surveillance and monitoring to manage pathogens and disease risks.</li> </ul>



➤ **BBD project – 2023-2025**

Will support the ambitions of the Scottish Biodiversity Strategy, by securing access to the data needed to set targets and measure progress.

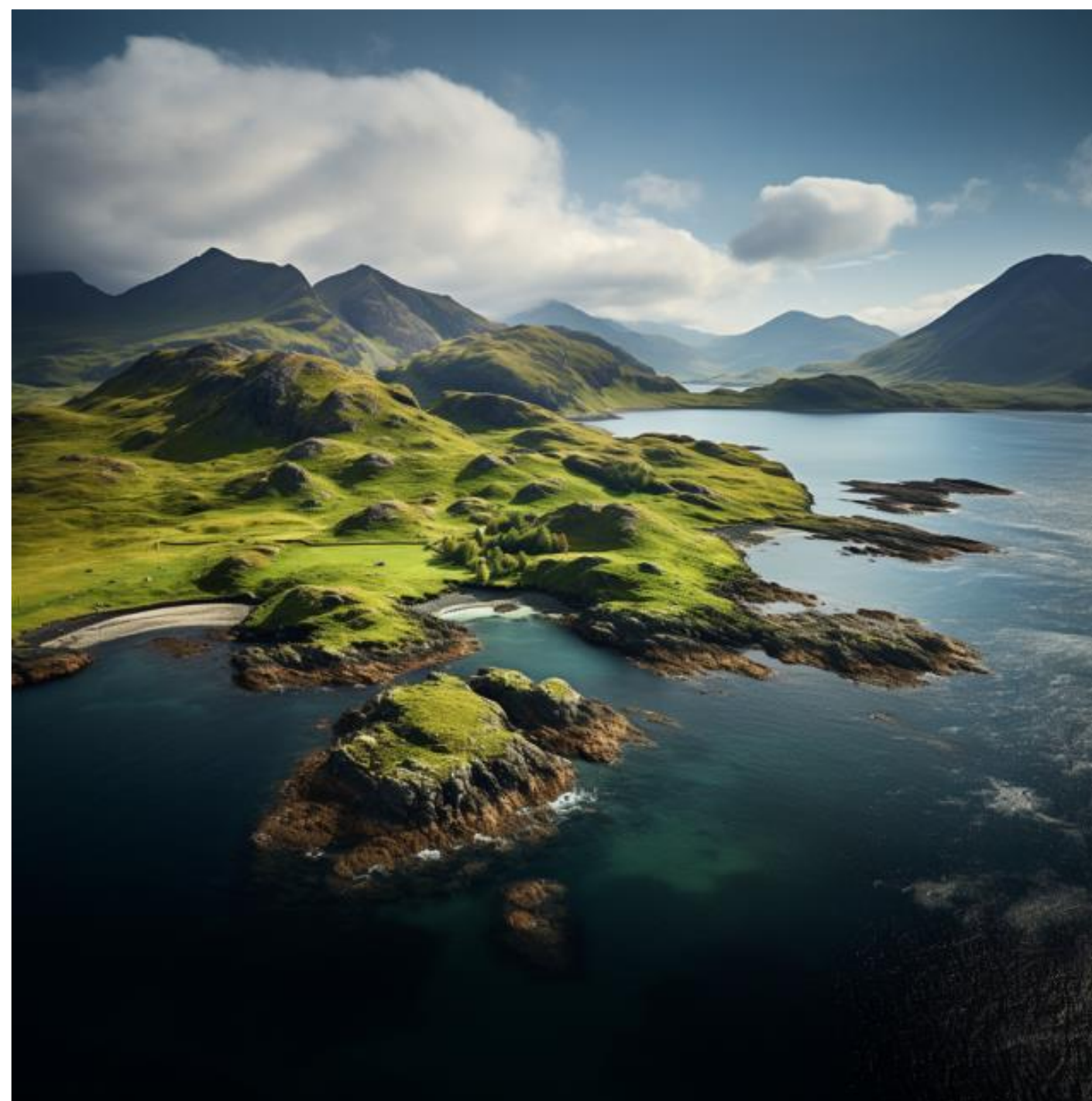
➤ **BBD is led by the NBN Trust**

in partnership with NatureScot, the Scottish Government, and the Scottish Biodiversity Information Forum Advisory Group (SBIF-AG).

➤ **BBD will develop a fit-for-purpose infrastructure**

facilitating biodiversity data services across Scotland.





## Objective one

A nationwide partnership providing biodiversity data services on behalf of Scotland.

## Objective two

A fit-for-purpose Data Management and Digital Services System, providing financially sustainable value-added services to users.

## Objective three

A connected functional biodiversity data community and infrastructure, following FAIR and Open Data principles, across all sectors.



# LERCs and Recording Groups



**TWIC**

The Wildlife Information Centre



Outer  
Hebrides  
Biological  
Recording



**Glasgowlife  
Museums**

# Wider partner engagement



Scottish Government  
Riaghaltas na h-Alba  
gov.scot



NatureScot  
Scotland's Nature Agency  
Buidheann Nàdair na h-Alba



RSPB

NBN Trust  
Making data work for nature



Scottish Wildlife Trust

SBIF  
Scottish Biodiversity Information Forum

BRISC



BIOLOGICAL RECORDING IN SCOTLAND

Recorder 6

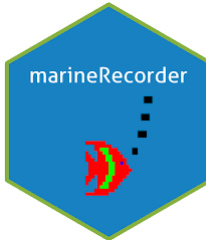


ALERC

Association of Local Environmental Records Centres



Chartered Institute of Ecology and Environmental Management



marineRecorder

iNaturalist



Joint Nature Conservation Committee

iRecord



Biological Records Centre



UK Centre for Ecology & Hydrology

Tayside Biodiversity Partnership



LOCH LOMOND & THE TROSSACHS NATIONAL PARK

Dundee City Council  
CHANGING FOR THE FUTURE



Butterfly Conservation  
Saving butterflies, moths and our environment



Botanical Society of Britain & Ireland



Royal Botanic Garden Edinburgh



Cairngorms National Park  
Pàirc Nàiseanta a' Mhonaidh Ruaidh



Orkney Native Wildlife Project



Dundee Botanic Garden  
University of Dundee



Angus Council  
Comhairle Aonghais



PERTH & KINROSS COUNCIL



The James Hutton Institute



National Museums Scotland



HERIOT WATT UNIVERSITY



SPECIES on the EDGE



aquatera  
environmental services and products





## OBJECTIVE

### OBJECTIVE ONE

A nationwide partnership providing biodiversity data services on behalf of Scotland.



## SOLUTION

**CREATION** of a body of National, Regional and Local biodiversity data service providers.



## OUTCOME

### NEW CONSORTIUM

Co-operative of members providing biodiversity services under National and Local Service Agreements.



## Objective one

A nationwide partnership providing biodiversity data services on behalf of Scotland.

 **Scottish Enterprise**  
**co+operative**  
**development**  
**scotland**

**FREETHS**

**ALERC**  
Association of Local Environmental  
Records Centres



**Suzanne Orchard**  
Scottish Enterprise/CDS



**Aaron Hirstenstein**  
CDS Practitioner



**Jaye Martine**  
CDS Practitioner



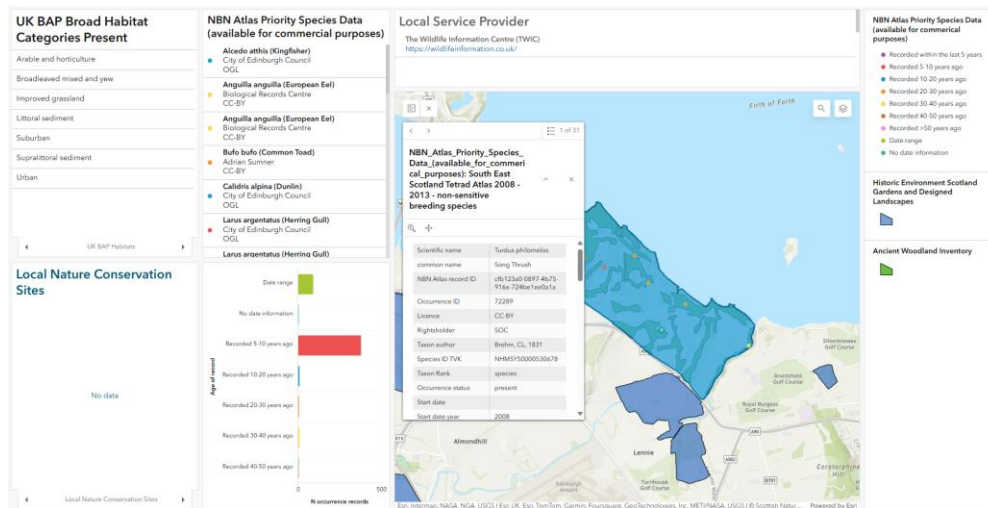
**Kristen Roberts**  
Freeths



**Deb Muscat**  
Association of Local Environmental Records Centres



- NBN Atlas data visualised through a **GIS Dashboard** with spatial data in an interactive map.



- Ability to **QUERY DATA** and **ACCESS META-DATA**.
- **SIGNPOST** to other data sources and data providers.
- **Adaptable** for local service delivery.



## OBJECTIVE

### OBJECTIVE TWO

Data Management and Digital Services System, providing financially sustainable value-added services to users.



## SOLUTION

**ASSESS** existing management tools for biodiversity data, and work with the user community to inform a new secure online System that serves their



## OUTCOME

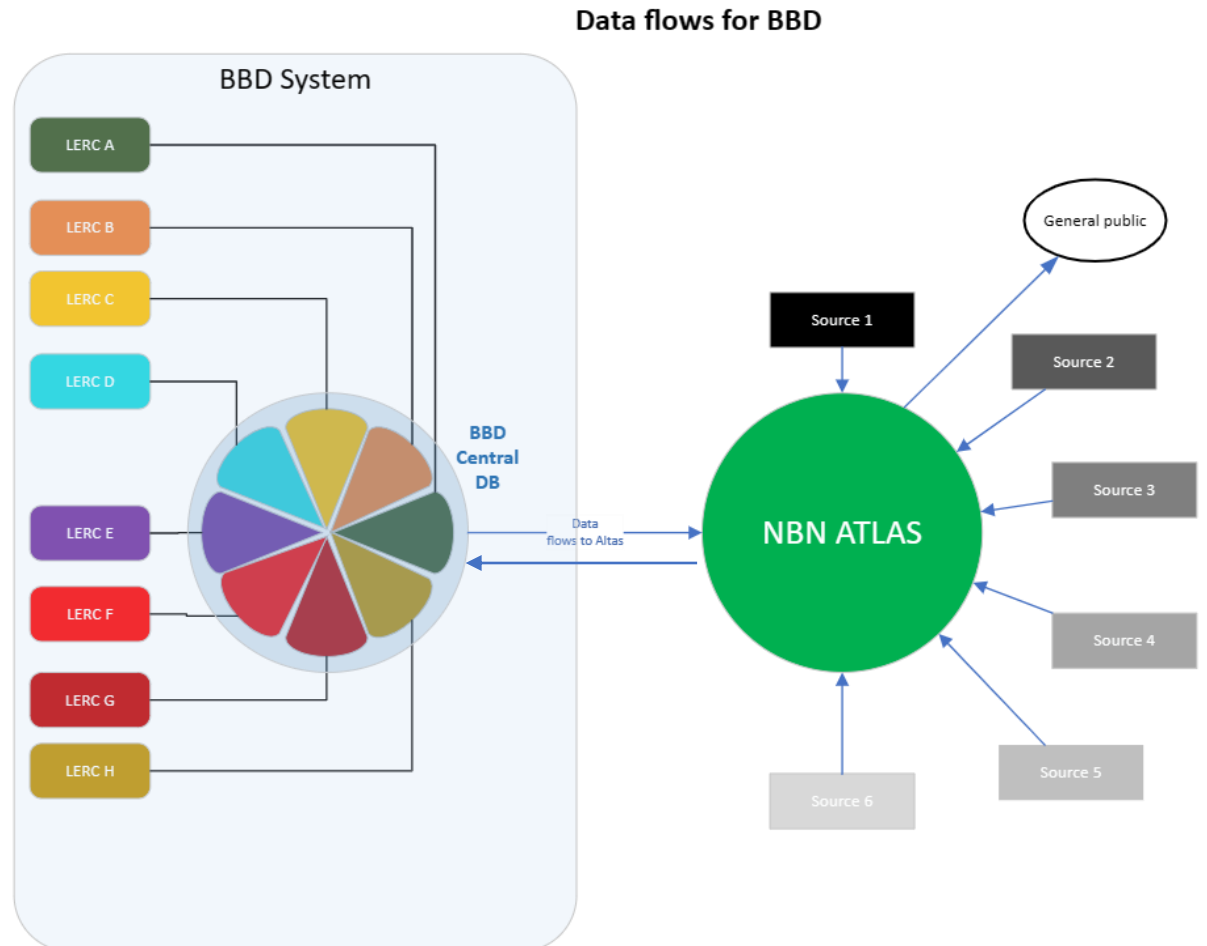
**MULTI-TENANT DATABASE** in the Cloud, with up-to-date User-Interface and access to open community Service Facilities.





# Developing Business Options and Requirements A new Biodiversity Data Management and Digital Services System

- **First rounds of Core Partner (LERCs, RGs) requirements consultations:**
  - *Round 1 – September to November 2023*
  - *Round 2 – December to February 2024*
  - *Round 3 – May 2024*
- **Business Case Options Report for the development approach of the system**
  - *Development of a new system using the Recorder 6 data model*
- **System development and testing (October 2024 – March 2025)**





## OBJECTIVE

### OBJECTIVE THREE

A biodiversity data community and infrastructure, following FAIR and Open Data principles, across all sectors.



## SOLUTION

**MAP THE DATA FLOW** pathways and practices in Scotland (and beyond) to understand bottlenecks and barriers across sectors.



## OUTCOME

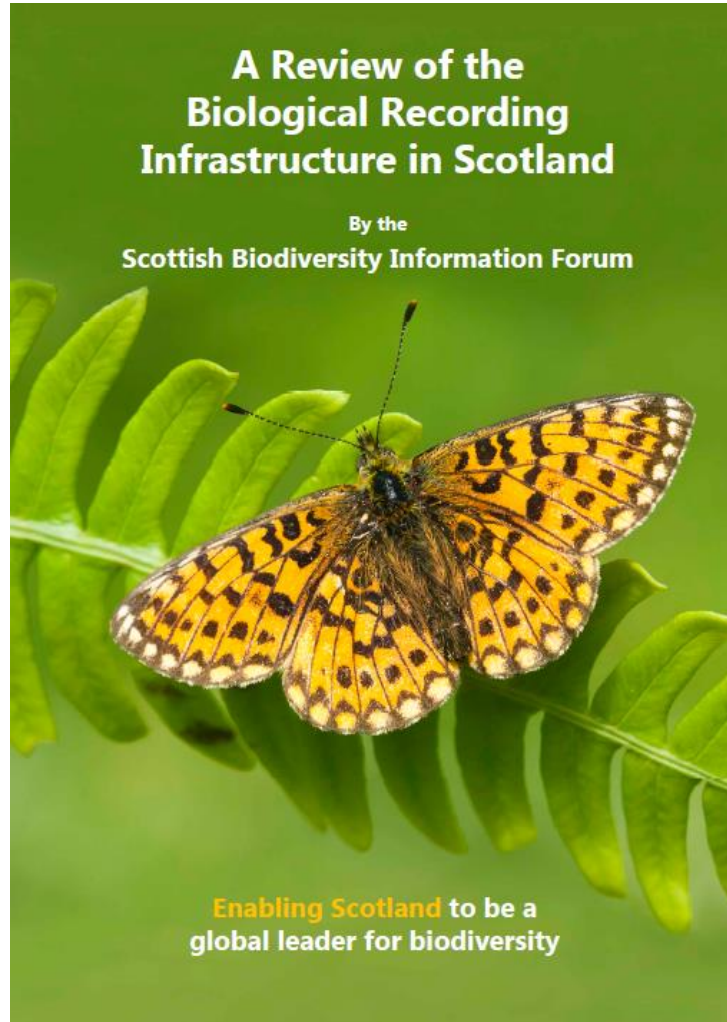
**SYSTEMATIC DEPICTION** of data collectors, aggregators and users, and updated picture of actions needed to continue to tackle SBIF Recommendations.







# BBD Supports the SBIF Advisory Group Updating the 2018 SBIF Recommendations and aligning with future policy implementation



## *Review of progress:*

- NBN Trust & BBD
- SBIF-AG
- NatureScot
- Scottish Government



- **2024 update** on reworded SBIF Recommendations
- Highlight the transformative work of the **BBD project**
- Alignment with the **Scottish Biodiversity Strategy** Delivery Frameworks
- Advocate for the actions needed **across sectors** to support the delivery of SBIF Recommendations



**BBD Exhibition Event - Holyrood**  
**Sept 17-19, 2024**  
**Arianne Burgess MSP**  
**(Green Party)**



Focus on Biodiversity  
Data Stories (incl. Display  
Materials and Online  
StoryMaps)

Meeting with Acting  
Cabinet Secretary on the  
2030 Vision



Stories featured at the exhibition include:

[Project Puffin and the 'Puffarazzi'](#)

[Species on the Edge](#)

[Saving Scotland's Red Squirrels](#)

[Deer Vehicle Collision project](#)

[Restoration Forth](#)



# Many Thanks Mòran Taing

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Scottish Government  
Riaghaltas na h-Alba  
gov.scot



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