NBN Scotland
Better Biodiversity Data
Dàta Bith-iomadachd nas Fheàr

Project Ambition

The Scottish Biodiversity Strategy sets out the Scottish Government's plans to halt biodiversity loss by 2030, and to restore and regenerate biodiversity across the country by 2045. The Better Biodiversity Data (BBD) project will make a vital contribution to the delivery of the Scottish Biodiversity Strategy by securing access to the data needed to set targets and measure progress. The BBD project is led by the National Biodiversity Network Trust's Scottish team, known as NBN Scotland, in partnership with NatureScot and the Scottish Biodiversity Information Forum (SBIF).

Our Ambitions:

- Open biodiversity data available to all sectors and decision makers.

- A fit-for-purpose biodiversity data infrastructure providing complete coverage of data services across Scotland.

- Sustainable financial model for that infrastructure to facilitate Open Data.

- Volunteer-led, cross sectoral network that links those who collect the data to those who use it to harness value.

Your support

Get in touch to discuss the BBD project, or to get involved in shaping the future of Scotland's biodiversity data infrastructure.

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Transforming the biodiversity data infrastructure in Scotland

Through the BBD project, NBN Scotland will initiate the transformation of the national infrastructure for sharing and accessing Scotland's biodiversity data by:

RESPONDING to recommendations generated by stakeholders in the award-winning SBIF review[1]. The review proposed how the infrastructure could be transformed to deliver Scotland's critical biodiversity data needs.

ENGAGING with partners across Scotland to co-create solutions that are fit-for-purpose and deliver best value. This will build on the SBIF Review, which proposed a model featuring service provision, in-country governance, sustainable financing, and community funding. This is a ready blueprint for ensuring better biodiversity data flows are achieved in Scotland.

TRANSFORMING Scotland's biodiversity data infrastructure. A new structure will be established that will enhance local, regional, national biodiversity data services. This requires the creation of a consortium of Regional Hubs and local service providers, facilitated by a National Hub, providing support and value-added services to sustain an Open Data business model.

CREATING a shared Data Management and Digital Services System, available to all service providers. This will enhance revenue streams based on sectors gaining value from biodiversity or causing environmental harms.

NBN Scotland will provide national coordination. This will provide nationwide support, leadership in the development of tools for enhanced biodiversity data collation and access, and the creation of community funds to scale up expertise, activity, and outreach across Scotland.

[1] Wilson, E., Edwards, L., Judge, J., Johnston, C., Stroud, R., McLeod, C. and Bamforth, L. (2018) A Review of the Biological Recording Infrastructure in Scotland by the Scottish Biodiversity Information Forum: Enabling Scotland to be a global leader for biodiversity. Scottish Biodiversity Information Forum Commissioned Report No. 1

Better Biodiversity Data project objectives

By April 2025 the BBD project will achieve three key objectives, becoming the foundations on which to successfully build the recommendations emerging from the SBIF and 2022 Scottish Marine Biodiversity Data (SMBD)[2] reviews.

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 well-connected and functional biodiversity data community and infrastructure in Scotland, following FAIR and Open Data principles, across all sectors.

[2] Sinclair, R. and Dargie, J. 2022. Scottish Marine Biodiversity Data Review: Stakeholder analysis to inform the marine species and habitats data infrastructure and management requirements for improved availability, accessibility and use in Scotland. NatureScot Research Report 1304

Better Biodiversity Data project partners

The BBD project is working with a wide community of partners to deliver on the SBIF recommendations and project objectives. The BBD Project Group includes:

- National Biodiversity Network (NBN) Trust
- Scottish Biodiversity Information Forum (SBIF)
- Scottish Local Environmental Records Centres (LERCs)
- Association of Local Environmental Record Centres (ALERC)
- Local Biological Recording Groups
- Scottish Statutory Nature Conservation Bodies
- Conservation and Biodiversity NGOs
- Biological Records Centre (BRC) / UK Centre for Ecology & Hydrology (UKCEH)
- Biological Recording in Scotland (BRISC)
- Museum and Herbaria Collections in Scotland
- Scottish National Parks

Critical biodiversity data needs in Scotland
Nature conservation strategies and legislation

- **Scottish Biodiversity Strategy**
- **Environment Strategy for Scotland**
- **Land Use Strategy**
- **Nature Conservation (Scotland) Act**
- **Marine (Scotland) Act**
- **National Planning Framework 4**
- **National Marine Plan 2**
- **Agriculture and Rural Communities Bill**
- **Environment Bill**

- **Biodiversity Net Gain**
- **Ethical Natural Capital Investments**
- **Scottish Rural Development Programme**
- **National Performance Framework**
- **Natural Capital Asset Index**
- **State of Nature Reporting**
- **Open Data and Digital Transformation**
- **2030 Global Biodiversity Framework**
- **UN Sustainable Development Goals**

Scottish Biodiversity Strategy

In December 2022, the Scottish Government with NatureScot published the draft Scottish Biodiversity Strategy. This sets the course for Scotland to become Nature Positive by 2030, having restored and regenerated biodiversity by 2045, and deliver on the outcomes from COP15. The Strategy will also be supported by a Natural Environment Bill which will set out the framework for statutory targets for nature restoration. These targets will demonstrate whether delivery actions have been effective and will hold the Scottish Government to account.

The BBD project is a key part of the delivery framework for the Scottish Biodiversity Strategy, providing valuable assistance in effective species recovery, reintroduction, and reinforcement programmes.

Economic benefits

The SBIF Review estimated a tangible economic benefit underpinned by a fully transformed biological recording infrastructure of ~£7 billion per annum for Scotland. Wider intangible benefits were assessed, potentially offering a further £12 billion worth of value per annum. Investment in the biological recording infrastructure offers an impressive benefit : cost ratio. For every £1 invested, between £10 and £23.50 of economic value is underpinned (based on the most conservative estimate), or between £1,087 and £2,450 (based on the least conservative estimate).

Recommendations for improving Scottish biodiversity data infrastructure

The 2018 SBIF review, and recent 2022 SMBD review, proposed how a transformed infrastructure could deliver critical biodiversity data needs, forming a roadmap for ensuring better biodiversity data flows are achieved across Scotland's land, seas, and freshwater.

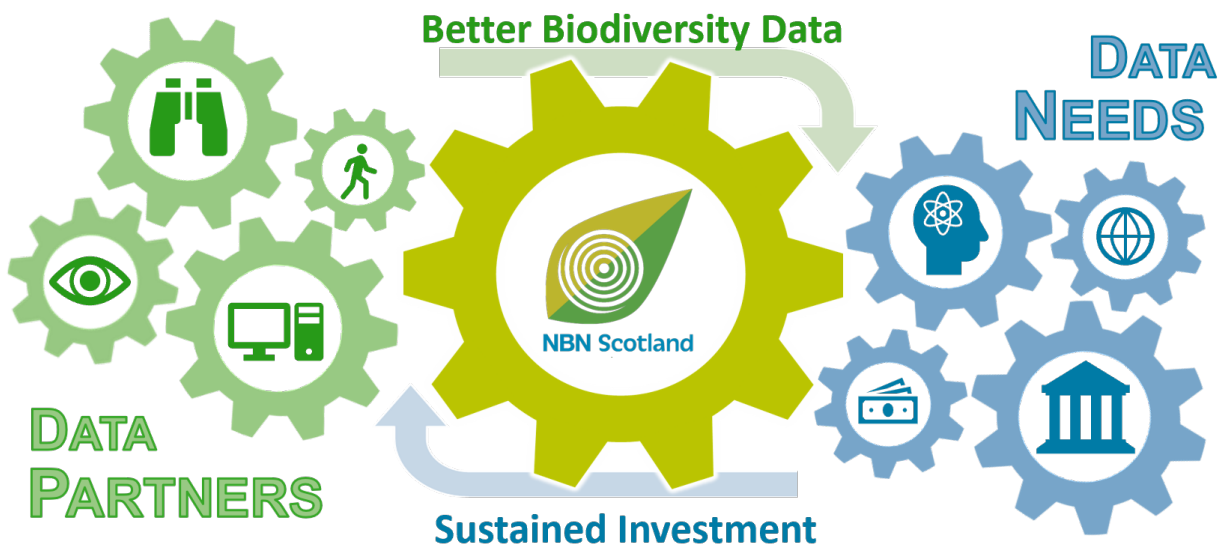The broad recommendations to improve the data infrastructure include:

- Improved data flows, with clear data links to the NBN Atlas Scotland, national data centres, and international networks, with easy data submission and feedback channels.

- Enhanced service provision with full coverage across Scotland designed for added-value, accessibility, and inclusivity under FAIR and Open Data principles.

- Sustained funding secured for a coordinating body and keystone organisations, that recognises and invests in the skills of the wider recording community.

- Supported structure and culture, working in partnership with a network of data custodians, that proactively engages with stakeholders to ensure the future governance and safety of biodiversity data.

- Well managed transition by 2030, with a shared equitable implementation plan to maintain the momentum of the SBIF and SMBD recommendations.

Biodiversity Services Cooperative initiative

The BBD project will work to secure a Biodiversity Services Cooperative, supporting the nationwide operational framework of Local Environmental Record Centres (LERCs) and recording groups in Scotland, with respect to the delivery of biodiversity data and services. The cooperative will acknowledge the local identity and integrity of collaborating organisations, and the local services and agreements they undertake, whilst promoting the enhancement of biodiversity data flows across Scotland.

The BBD project will engage with the following through this initiative:

- Argyll Biological Records Centre (ABReC)

- Fife Nature Records Centre

- Glasgow Museums Biological Records Centre (GMBRC)

- Highland Biological Recording Group (HBRG)

- North East Scotland Biological Records Centre (NESBReC)

- Orkney Wildlife Recording Group (OWRG)

- Outer Hebrides Biological Recording (OHBR)

- Shetland Biological Records Centre (SBRC)

- South West Scotland Environmental Information Centre (SWSEIC)

- The Wildlife Information Centre (TWIC)

Acknowledgements