NBN Trust

Making data work for nature

NBN Atlas Accelerator 2 Project Report 2025-2026



Banded demoiselle © David Kilbey

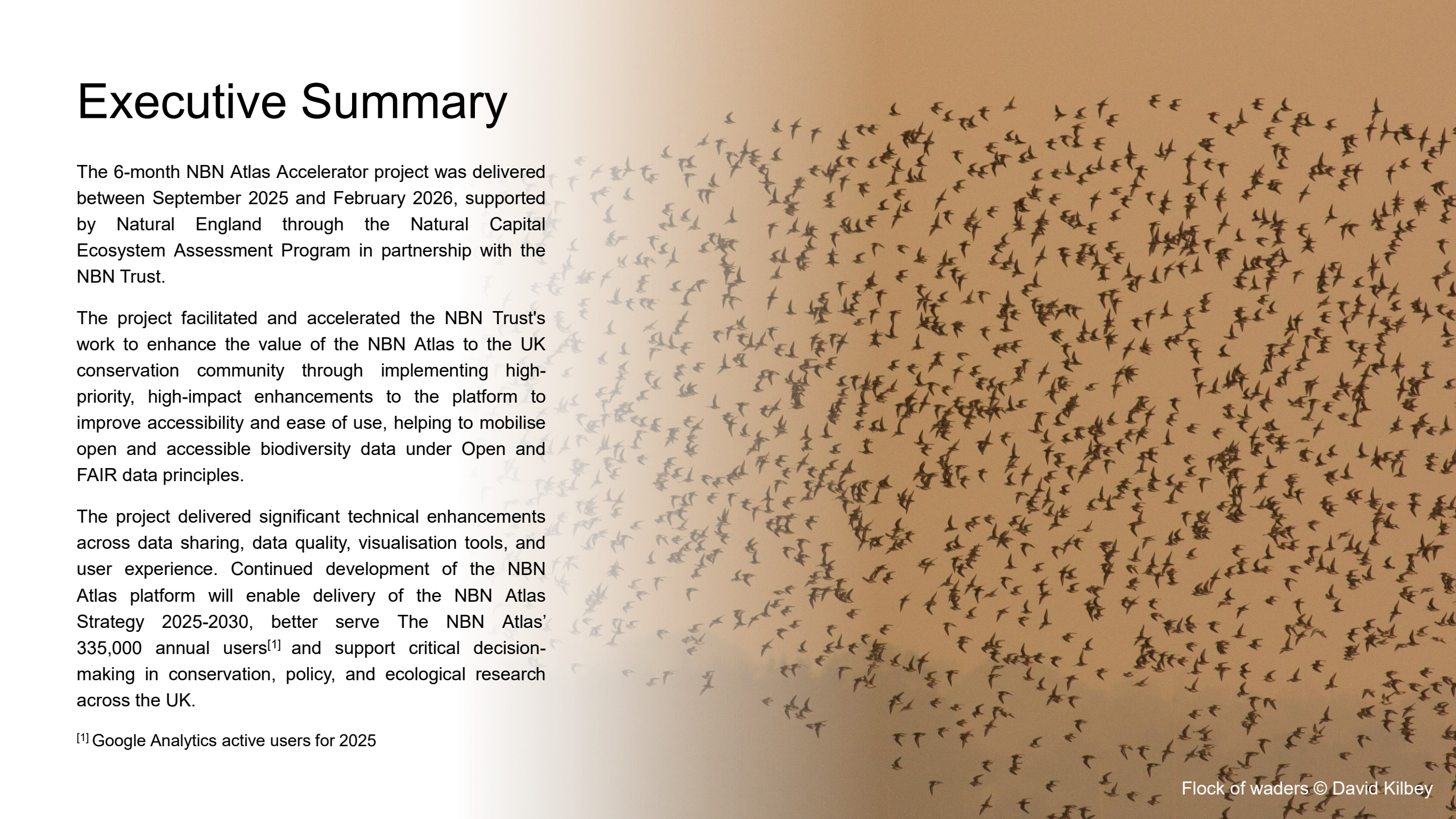
Executive Summary

The 6-month NBN Atlas Accelerator project was delivered between September 2025 and February 2026, supported by Natural England through the Natural Capital Ecosystem Assessment Program in partnership with the NBN Trust.

The project facilitated and accelerated the NBN Trust's work to enhance the value of the NBN Atlas to the UK conservation community through implementing high-priority, high-impact enhancements to the platform to improve accessibility and ease of use, helping to mobilise open and accessible biodiversity data under Open and FAIR data principles.

The project delivered significant technical enhancements across data sharing, data quality, visualisation tools, and user experience. Continued development of the NBN Atlas platform will enable delivery of the NBN Atlas Strategy 2025-2030, better serve The NBN Atlas' 335,000 annual users[1] and support critical decision-making in conservation, policy, and ecological research across the UK.

[1] Google Analytics active users for 2025



Flock of waders © David Kilbey

Background

The NBN Atlas Context

The NBN Atlas is the national biodiversity data infrastructure for the United Kingdom. Launched in 2017, it is the UK's largest publicly accessible source of biodiversity data, bringing together data from over 200 organisations into a single portal. This creates access to information that would otherwise be difficult and costly to locate and utilise. The NBN Atlas is visited by more than 335,000 users a year seeking data to inform policy and development decisions, conservation strategies and interventions, and ecological research. As such, it delivers great value for the UK nature conservation community.

The Challenge

The NBN Atlas is a central component of the UK's species data pathway. However, it has been a long way from realising its full potential. The NBN Atlas was built by customising the Atlas of Living Australia, yet there has been insufficient investment in its ongoing development. The NBN Trust has had limited resources to maintain and enhance the NBN Atlas, leading to a lack of strategic and long-term planning. With a growing data volume and an ageing technology, the platform became unstable. By 2021, the NBN Atlas was failing to provide a reliable service. The need for further investment and development became critical.

The Response: Fit for the Future & Pipeline and Accelerator Projects

The NBN Atlas Fit for the Future Project commenced in 2022 and delivered a root-and-branch upgrade of the platform architecture and code, bringing all components up to date. In late 2023, we embarked on the Pipeline project, the final stage of upgrades to bring the NBN Atlas back in line with the Atlas of Living Australia. This upgrade to enhance the efficiency of data processing was completed in December 2025.

Alongside the Pipeline project the NBN Atlas Accelerator project was delivered between December 2023 and June 2025. It delivered a suite of high-priority, high-impact enhancements to meet the needs of our stakeholders, including implementing Access Controls and enabled the development of the NBN Atlas Strategy 2025-2030 to guide future development building on these major infrastructure upgrades. In September 2025, Accelerator 2 commenced, to further the progress made in the first phase of the Accelerator project.



Atlantic Puffin © eddieg_photog (Instagram)



Stoat © Steve Deeley

Project Governance and Funding

Project Structure

The NBN Atlas is supported by both the Data Team and the Development Team. To maintain the team capacity required to deliver significant enhancements to the NBN Atlas platform, Accelerator 2 continued to fund the NBN Biodiversity Data Manager and an NBN Accelerator Developer roles. The funding also contributed to the Lead Developer, NBN Atlas Support Officer and NBN Biodiversity Data Officer roles.

Governance

These positions, together with senior responsible officers from Natural England, formed the Project Steering Group that met monthly. The Steering Group assisted the team with the prioritisation and additional scoping needed for key deliverables, monitored and strategically assessed progress against project goals, and identified, managed and reported significant risks associated with development.

Project Objectives and Deliverables

Working in partnership with Natural England and utilising the work completed in the NBN Atlas Accelerator project 2024-25, Accelerator 2 built on this strong foundation to increase the performance and utility of the NBN Atlas as a primary tool to query and report on high-quality biodiversity data.

The NBN Atlas Accelerator 2 project focused on the following objectives:

1. To enhance the NBN Atlas platform by implementing high-priority, high-impact features and functionality.
2. To deliver on the NBN Atlas Strategy 2025-2030.

Enhancements implemented through Accelerator 2 were designed to increase data mobilisation, provide improved tools for data validation and verification and upgrade the interface, specifically addressing maps and spatial query. These developments maintained compatibility with existing Living Atlas architecture and Open and FAIR data principles.

Alongside the programme of platform enhancements, work during Accelerator 2 examined key data pathways for the NBN Atlas and included evaluation of knowledge and tools from the wider UK and global biodiversity data communities.

Working with the NBN Atlas Stakeholder Advisory Group, the NBN Trust team engaged in consultation on the priorities for NBN Atlas Strategy delivery. This group also contributed feedback on NBN Atlas enhancements..

Note: The initial July 2025 start date for the project was delayed until September 2025 and some re-scoping work took place to enable delivery over the shorter project period. In addition, the NBN Accelerator Developer role was extended until the end of March 2026.


Fly agaric © Steve Deeley

Data Sharing and Access Improvements

Access Controls

The Accelerator project rolled out the first iteration of Access controls on the NBN Atlas, enabling data partners to share their full resolution data, but stipulate a generalised public resolution. Users who request access from the data partner and receive the appropriate permission can download the detailed site location and coordinate information.

Further iterations of work to improve Access Controls functionality were identified and Accelerator 2 has developed solutions for viewing full resolution data in NBN Atlas maps and filtering records by licence type and Local Environmental Record Centre (LERC) boundaries to enable data partners to customise permissions. In addition, improvements to the way record resolution is tagged in downloads have been implemented, introducing the 'Generalisation status' field into the downloads.

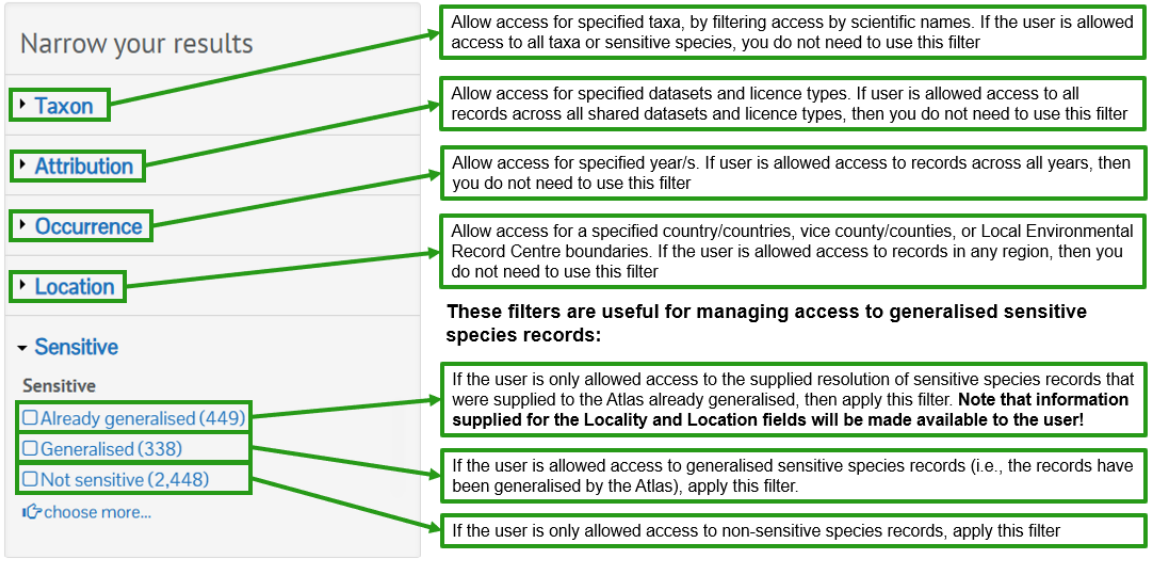
Data partner metadata editor role

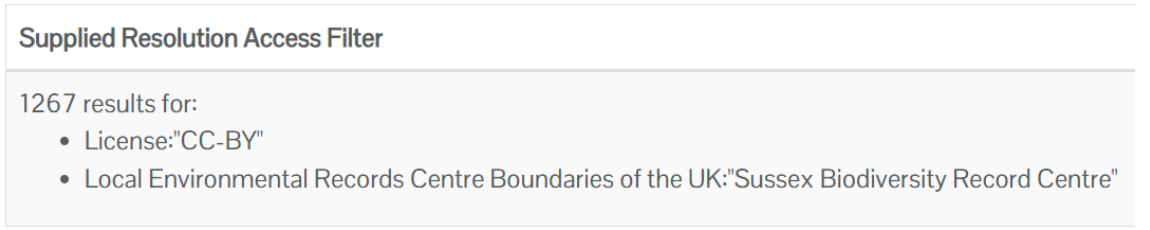
A user role has been implemented which can be assigned to data partners to edit metadata on their data partner and resource pages. This allows data partners to take ownership over their metadata and remove any delays in updating the metadata.

Bioacoustics Data Support

Bioacoustics data is an emerging source of records for the NBN Atlas. Through the Accelerator 2 project a pilot data standard has been developed, identifying additional Darwin Core terms and metadata requirements for bioacoustic records.

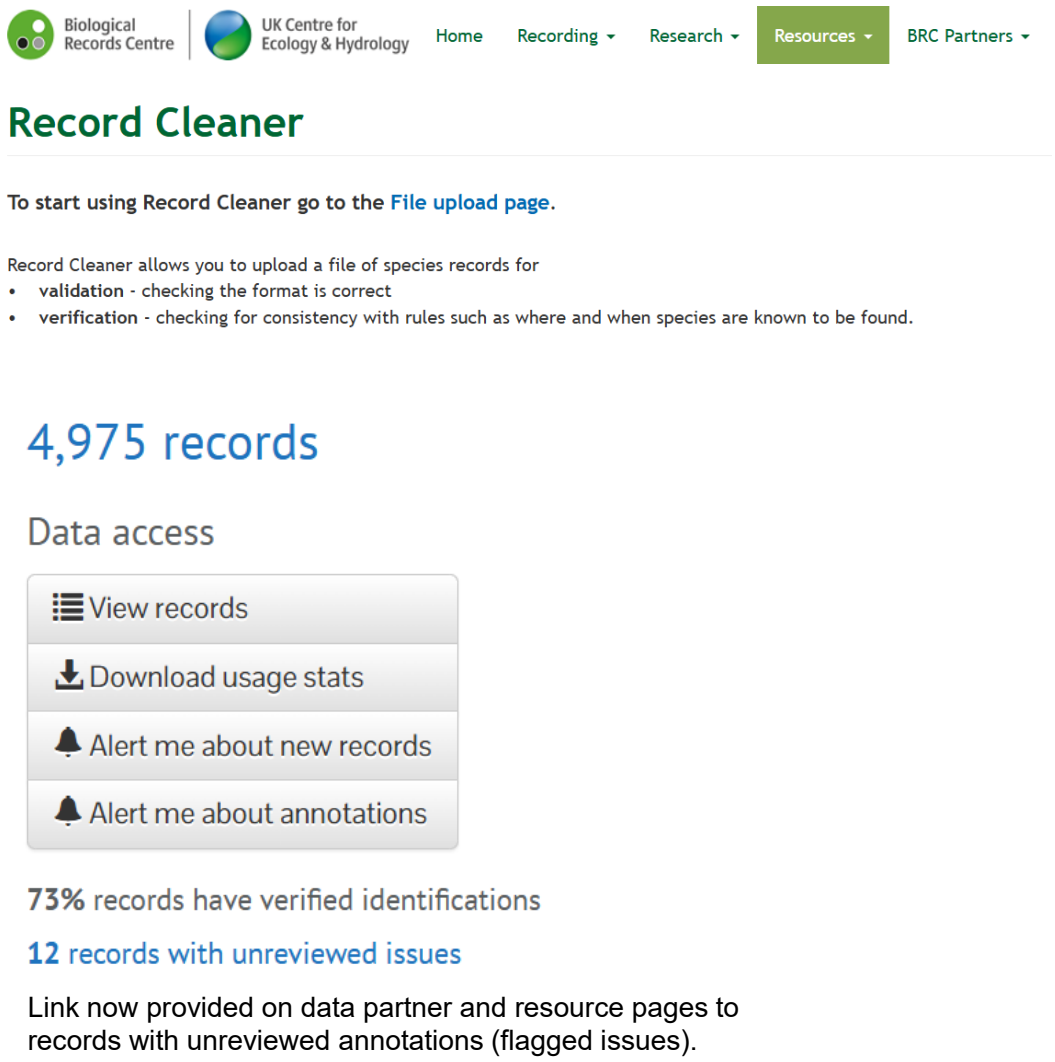
Ongoing engagement with the NBN Atlas Stakeholder Advisory Group, NBN Atlas data partners who currently share bioacoustics data and a JNCC bioacoustics working group is taking place to ensure the NBN Atlas approach to bioacoustics data is aligned with the wider community. A template and guidance for sharing bioacoustics data with the NBN Atlas will be produced after the period of consultation is completed.





Data partners now have an increased range of options to filter records, including by licence type and LERC boundaries.

Data Quality Enhancements



Link now provided on data partner and resource pages to records with unreviewed annotations (flagged issues).

BRC Record Cleaner

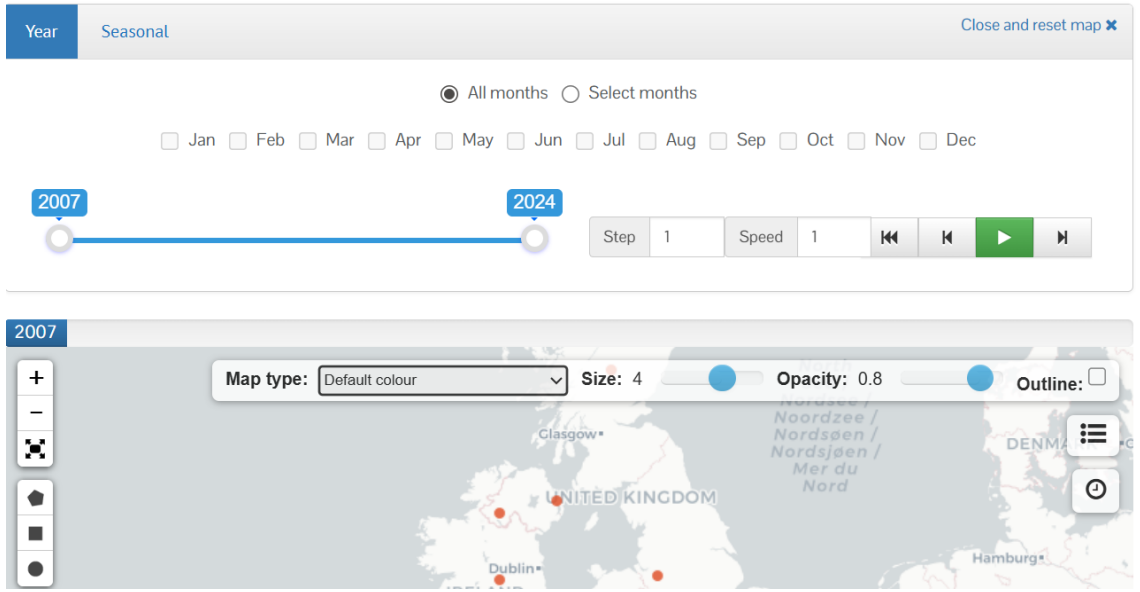
During Accelerator 2 an assessment of the potential for integrating the BRC Record Cleaner online tool into NBN Atlas workflows was undertaken. This tool runs biological records through a series of validation and verification checks and can be used by data partners prior to sharing data to the NBN Atlas platform.

A technical assessment of the BRC Record Cleaner and a Darwin Core data processing trial was completed. Recommendations that will enable Record Cleaner to support Darwin Core data were shared with BRC. Information signposting the BRC Record Cleaner tool has also been updated on the NBN Trust website.

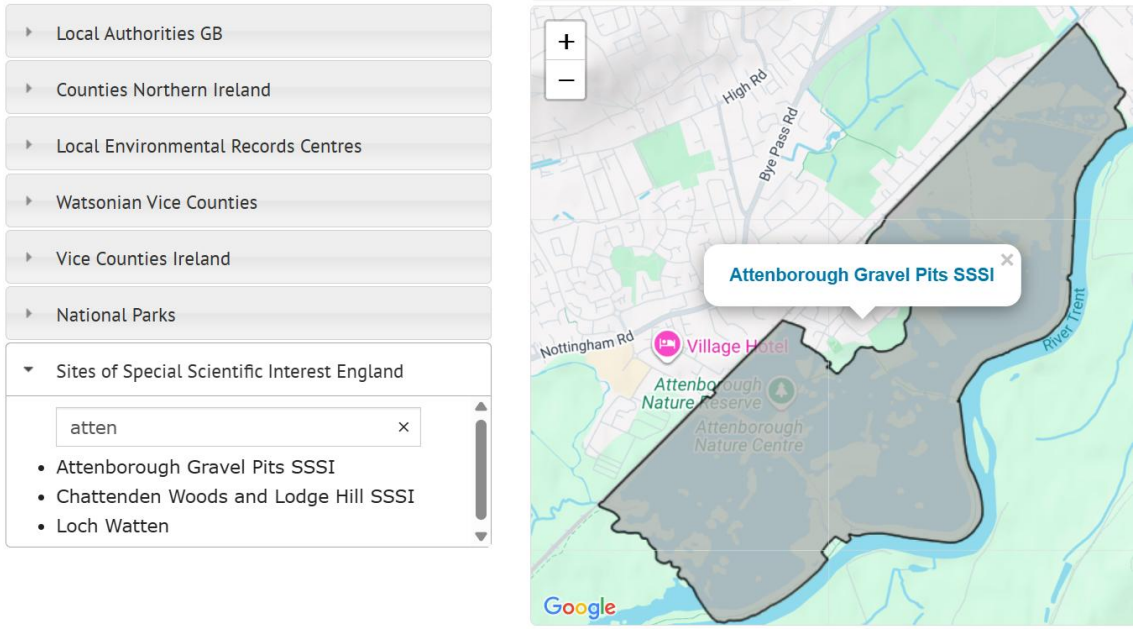
Annotation system improvements

NBN Atlas user annotations enable registered users to comment and query the veracity of records on the NBN Atlas, but simple access to these flagged issues for data partners has been limited to date. A solution to display and provide a link to unreviewed annotations on data partner and data resource pages has been implemented through Accelerator 2 to improve the navigation.

An additional challenge to managing user annotations on the NBN Atlas is the proportion of data resources that can be defined as ‘orphaned’, or those with no active management. To understand the magnitude of this issue, an orphaned data audit has been completed, and the NBN Atlas Stakeholder Advisory Group has been engaged in a consultation to inform a new NBN Atlas Orphan Data Policy. The outcome of this consultation will inform the next steps required to further improve the overall management of user annotations on the NBN Atlas.



The new temporal map tool, allowing users to easily visualise and explore records over time.



The updated Regions portal with SSSI site options and autocomplete search function.

iNaturalistUK data flow review

There are delays and barriers in the iNaturalistUK-to-iRecord-to-NBN Atlas data flow. During Accelerator 2, a review of this data pathway was undertaken for a set of project-based, theme-based (invasive species), and taxonomic group records to identify barriers and potential solutions to their data flow. Recommendations were produced and will be used to inform future improvements to the data flow from iNaturalist to the NBN Atlas.

The NBN Trust team also engaged with BRC and Masters researcher Joss Carr to integrate findings from their study on non-marine invertebrate iNaturalistUK data flows into the review.

Data Visualisation Enhancements

Map download upgrades

A significant improvement to customisable map downloads has been implemented, including a consistent data licence check for commercial downloads across the platform.

Temporal map tool

Addressing recommendations from the Accelerator project mapping workshop, a new temporal tool has been implemented on the NBN Atlas interactive map. This allows users to explore records over time and can be customised across years and seasons.

Record selection by designated sites

The NBN Atlas Regions portal has been upgraded to include SSSI designated sites and a user-friendly auto-complete search function.

NBN Atlas dashboard

To improve the summary of data across the platform, the ALA Dashboard model has been deployed on our NBN Atlas testing environment.



Orange tip butterfly © Christine Tansey

Summary

The NBN Atlas Accelerator 2 project has successfully delivered significant enhancements to the UK's national biodiversity data infrastructure. It has continued to strengthen the platform to better serve the conservation community.

Through the ongoing development of access controls, work on bioacoustics data support, improved signposting of tools and record issues, enhanced mapping and dashboard capabilities, we have sustained progress in mobilising biodiversity data in accordance with FAIR and Open Data principles.

The NBN Trust has continued engagement with the NBN Atlas Stakeholder Advisory Group, established during the first phase of the NBN Atlas Accelerator project. Through this group and consultation on the priorities for delivering the NBN Atlas Strategy 2025-2030, the governance structures for future development of the NBN Atlas are now firmly embedded.

This project demonstrates an ongoing commitment to partnership working with Natural England and the wider community of stakeholders and has enabled the NBN Trust to maximise resources and expertise. The NBN Atlas will continue to meet the evolving needs of its 335,000 annual users and to support critical decision-making in conservation, policy development, and ecological research across the United Kingdom.

Acknowledgements

We gratefully acknowledge the funding and support provided by Natural England through the Natural Capital Ecosystem Assessment Program. We also thank the members of the NBN Atlas Stakeholder Advisory Group for their expert guidance, the wider NBN community for their continued engagement and feedback, and the dedicated NBN Trust project team who delivered this ambitious programme of work.



Grey seal © Steve Deeley