A Toolkit for Community Wildlife Recording

Project Report
21/03/2025

Produced by
West Wales Biodiversity Information Centre

Report Authors: Yusef Samari, Carys May, Laura Moss

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Contents

1. Summary

This document reports on the project "A Toolkit for Community Wildlife Recording", funded by the Local Nature Partnerships of Ceredigion and Carmarthenshire, from August 2023 – March 2025, through the Welsh Government 'Local Places for Nature' funding scheme.

The project brought together existing resources on biological recording and species identification, alongside new resources created by WWBIC, into one accessible 'Wildlife Recording Toolkit', hosted on the WWBIC website, to help individuals and communities get started in monitoring and recording their local wildlife. This was accompanied by a series of 20 training events throughout the two counties, that gave training in both species identification and biological recording, as well as having outdoor practical elements.

Core outputs from the project include:

1. A new 'Wildlife Recording Toolkit' section of the WWBIC website, that brings together a wide variety information on biological recording, monitoring schemes and species identification, for a variety of different taxonomic groups.

2. A growing collection of new ID resources created by WWBIC, tailored to West Wales, that can be used for future training. Most of these are in downloadable, printable pdf format, including a beginners guide to mosses, a guide to common species growing with plants, (e.g. galls, fungi), a guide to moths and a beginners ID sheet for plants.

3. A 76-page 'Wild Plants in West Wales' booklet, featuring 120 common species, that can be used for future training events. A print run of 60 copies was first produced by WWBIC to be used in field testing on the training events for this project. A run of 1000 printed copies of a revised edition has been funded by Carmarthenshire Nature Partnership.

4. New methods for WWBIC to produce target 'hitlists' of species to try to find and record in their local area, including species that are easily identifiable to the beginner, species of conservation importance and species for which recent records from the area are lacking.

5. 20 training and engagement events run during the project period, working with 12 different groups at 10 different locations throughout the two counties. Over 120 individuals were engaged over the project period and feedback from the events was 100% positive.

6. Over 1000 new records submitted to WWBIC by participants throughout the project and over 10 new keen, regular, ongoing biological recorders. The project also led to one participant submitting an existing dataset of 600+ records to WWBIC.

WWBIC will use the resources, skills and links developed in this project as a platform to further engage, support and grow the wildlife recording community in West Wales, and ensure their efforts are best used to support local wildlife conservation.

2. Introduction

West Wales Biodiversity Information Centre (WWBIC) is the Local Environmental Record Centre (LERC) for the west Wales region, covering the three counties of Ceredigion, Pembrokeshire and Carmarthenshire (excluding Bannau Brychiniog National Park), one of four LERCs in Wales that work together under the umbrella organisation LERC Wales.

WWBIC's core function is to provide evidence to support biodiversity in local decision making, primarily through our growing database of over 4 million biological records – each capturing an encounter between a person and a wild organism, at a particular time and place. Each biological record (often called a 'wildlife record', or just a 'record', further in this report), contains four basic pieces of information: **What** species was seen, **Who** saw it, **Where** it was seen and **When**. We work closely with our partners in local authorities, conservation organisations, national statutory bodies and others, making sure the best available wildlife data is visible and used for decision-making.

The UK has a rich biological recording community and heritage. At a local scale, WWBIC has always worked with a core network of expert volunteer recorders, including the network of Vice-County Recorders, established by the various recording schemes and societies for different taxonomic groups. Their skill and dedication underpins all of WWBIC's work, providing a huge source of incoming records, as well as verification of records, to ensure the database is of high quality.

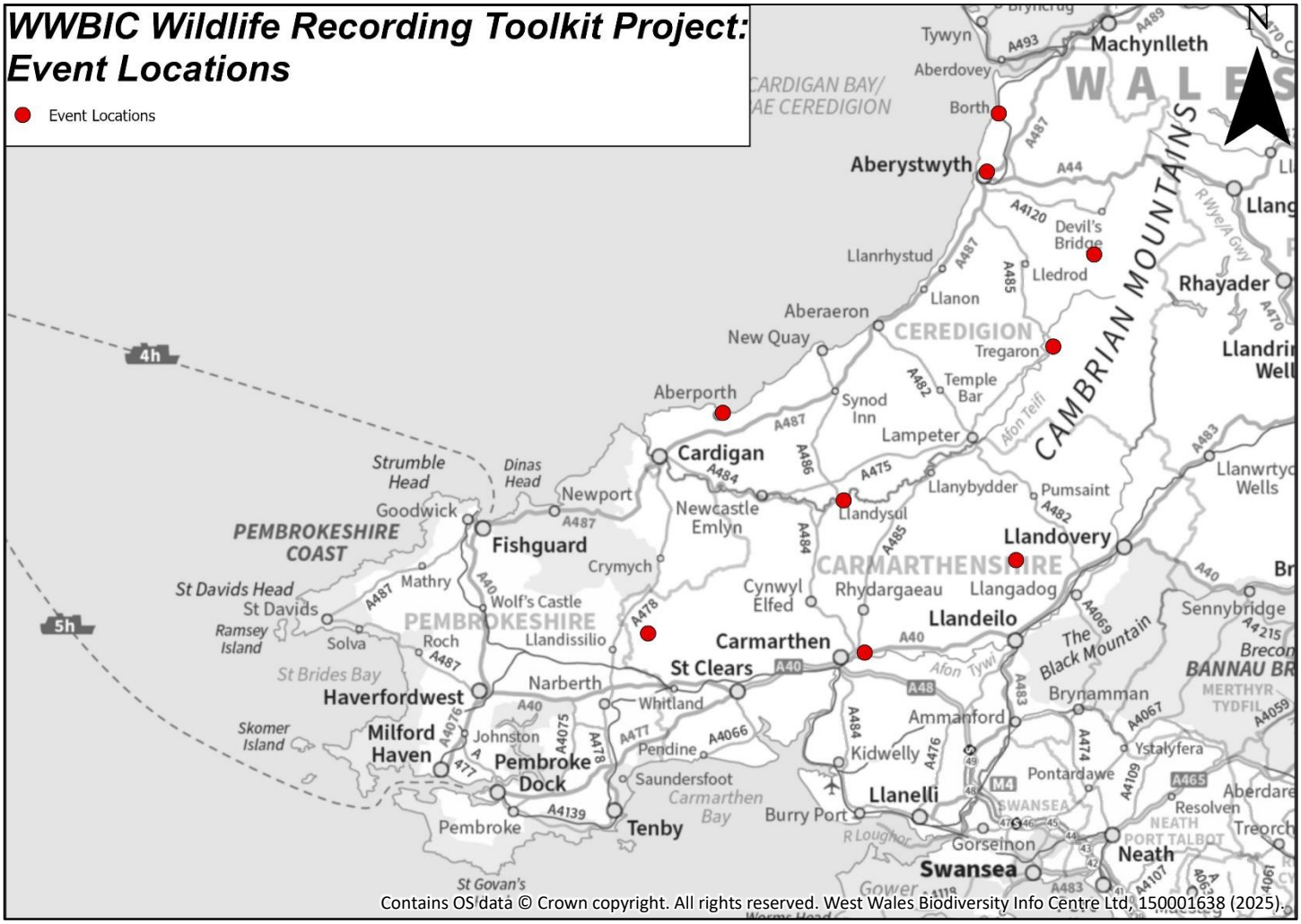
It is broadly recognised that taxonomic, species identification and field skills are in decline, both within the biodiversity sector and the wider public as a whole. As WWBIC depends on these skills we need to act to ensure they are maintained in the community and in the next generation of wildlife recorders. For this reason, one of WWBIC's four Key Priorities in our Strategic Plan for 2024-29 is to "support, inspire and grow the recording community".

Interest in biodiversity has been steadily growing in recent years and WWBIC have noticed an increasing frequency of information requests from individuals or groups who have started a biodiversity project of some kind in their local area and want to monitor the results, but do not know where to start. We felt it would be useful to be able to direct these requests to one location, that brought together information on what recording is, why it is important and how to get started, alongside information on species identification and monitoring schemes to help communities get started in recording and understanding their local wildlife – a 'toolkit for community wildlife recording'. We also felt that offering direct training events to these groups would be an excellent opportunity to engage with potential new recorders, develop new training resources and better understand how to grow the wildlife recording community.

The initial project proposal placed a strong emphasis on producing 'recording plans', based on statistical exercises that identified whether an area was 'well-recorded' for a particular taxonomic group. After consultation among the WWBIC team, and initial working with groups of new recorders, we took a more open approach, in part because of the limited amount of time allotted to project development, but also because of the diverse needs and interests of the different groups we were working with. This led to the production of resources that we felt matched the level and interests of the groups we were working with. Resources created for this project are summarised in Appendix 1 of this report and are hosted on the WWBIC website.

3. Training Events

This section summarises the training events carried out for this project, the outcomes and feedback from them. A forthcoming, expanded version of this report will include case studies on selected groups and lessons learned from them on engaging people with recording.



Map 1: Location map of events run for the project

3.1 Events Summary

All events were led by WWBIC staff – Yusef Samari (YS), Carys May (CM) and Laura Moss (LM), working as a group or individually. Over the project period, we ran 20 events, including 11 in Ceredigion and 9 in Carmarthenshire, working with 12 different groups at 11 different locations, shown in map 1 above. A wide variety of groups were engaged, including university students, smallholder groups, groups with an interest in a local biodiversity project, conservation volunteers and others. We also held three events that targeted an area rather than a particular group, for example 'Introduction to Wildlife Recording: Aberporth', for which any member of the public could book on. Some events were one-off, run only once in a particular location or with a particular group, while some groups had up to three events in a series.

The specific content of each event varied depending on the group being engaged. Events usually consisted of a mixture of an indoor and outdoor sessions. Indoor components usually involved a presentation, covering topics such as what biological recording is, why it is important, how to do it, different ways to submit records, the role of LERCs, outlining the different recording activities/ schemes and how to get involved with them, where to get ID advice and other topics depending on the group.

Outdoor elements involved practical recording, making use of both the LERC Wales app and notebooks, and species identification. The taxonomic focus varied, depending on the needs of the group being trained and the skills and interests of the trainers. Many groups focused on plants, some on invertebrates (e.g. moths) and some a combination, focusing also on insects and fungi associated with plants. Some events had a broad focus, giving attention to all taxon groups that we encountered on the day. At all the events, some time was devoted to exploring the wider ecological context of the species we were recording, for example their lifestyles, habitats, ecosystem role and relationships with other species, alongside learning how to identify them.

Most of the events made use of the various ID and recording resources we designed for this project, described in detail in section 5. The 'open' sessions, based on a geographical area, introduced the 'hitlists' of target species to look out for, based on Community boundaries. These were very popular, and we had several requests to create new ones from participants who had come from neighbouring communities. Feedback from the events helped refine the resources.

Participants using the 'Get To Know Plants' sheet to identify plants on a bank in Aberporth, Ceredigion.

3.2 Groups

Training events worked with the following groups / localities:

- **Dolau Bach, Borth**
  A community project in Borth aiming to transform a small area of neglected grassland into a traditionally managed hay meadow.

- **Talley and Cwmdu Smallholders Club**
  A group of small landowners centred around the villages of Talley and Cwmdu, interested in managing their land for biodiversity.

- **Aberystwyth University**
  Three training sessions were run for different groups of Aberystwyth University students: 1. Students on the Biodiversity and Conservation Management MSc course; 2. Students on the field course of the Biology BSc; 3. Students in the Aberystwyth Conservation Society.

- **Ceredigion Meadows Group**
  A recently formed group of landowners or other stakeholders with an interest in managing meadows for biodiversity in Ceredigion.

- **Coed Y Bont**
  A community woodland and nature reserve edge of the village of Pontrhydfendigaid, near Tregaron, with a strong volunteer contingent.

- **Cilymaenllwyd Footpath Restoration Project**
  A community project aiming to restore a footpath in this rural community around Login, Carmarthenshire, in an ecologically sensitive way.

- **Bishop's Park, Abergwili**
  A country palace and visitor attraction near Abergwili, Carmarthenshire, with a regular volunteering contingent.

- **Aberporth**
  An 'Introduction to Wildlife Recording' event, open to all.

- **Llandysul**
  An 'Introduction to Wildlife Recording' event, open to all.

- **Llanddewi Brefi**
  An 'Introduction to Wildlife Recording' event, open to all.

3.3 Participant Feedback

Feedback was collected through a mixture of paper forms handed out and returned on the day, or emails sent to participants after the event. In total, we had 51 responses, which were almost all from groups who we handed paper forms to – this will be the method of choice for feedback forms in the

future. Of the 51 responses, 50 were extremely positive. The specific feedback questions varied based on the sessions and the trainers. 41 participants were asked to rate their enjoyment of the day on a scale of 1 to 5; 33 marked '5', 7 marked '4', and one person marked '1'.
This last person stated:

> "I would have preferred to have more time and training to use the ap.Maybe better would have been to learn about the ap, exactly how to use it and then to go out for a walk and develop the skill of actually recording with the ap. cause of the weather we walked first which was just how the weather dictated the day."

37 were asked whether they learned something new about nature that day. 35 responded with 'yes', including the only individual who stated that they did not enjoy the day, quoted above. As this one negative response was apparently largely due to the weather, and feedback of all participants to trainers on the day was positive, it seems reasonable to describe the immediate, on-the-day response of participants to the sessions as universally positive.

41 participants were asked whether they planned to continue recording. Of these, 37 responded with 'yes' and 4 responded with 'maybe'. Three months after each event, participants were sent a follow-up email to ask what progress they were making with recording, and whether they could identify any barriers to them recording further. Only 6 individuals responded to these emails, which is too small a sample to draw any conclusions from. Of this 6, 4 had become regular recorders, and 2 responded that they had not yet recorded anything – their reasons given were 'forget' and 'no time'.

Many of the attendees gave feedback that cannot be easily captured by numbers or reporting: how the events opened up their eyes to a new world, how it made them notice more day-to-day, or gave them a deeper appreciation of their local environment, as exemplified by this new recorder from the Cwmdu and Talley Smallholders Group:

"The whole process has been a real insight for me. I've always wanted to know what is around me and thought I had a reasonable grasp. It would appear that every day is a school day! 😁 It's been a thoroughly enjoyable and educational experience and one that has proved to be the start of a journey that I'm really enjoying. And I want the world out there to know what is around them in nature and just what a symbiotic relationship it is that we have with nature. It was really rewarding the other day to receive communication from the BSBI to say that a species that I'd submitted was very rare in Carmarthenshire and requested an 8 figure grid reference! Thanks for enriching my life a little bit more. 🙏"

4. Generating New Records and Recorders: Evaluation

4.1 Introduction and methodology

In October 2024, a small study was undertaken to better understand how effective the events were at generating new records and most importantly, new recorders. This exercise was not intended to provide a basis to draw statistically robust conclusions, but is useful as a starting point for thinking about effectively growing the recording community. Here we focus on total number of records only, while recognising that there are other important dimensions of recording not captured by this.

In particular, we were interested in the following questions:

1. What proportion of attendees go on to submit records, and what proportion go on to become regular recorders?

2. Did recording activity noticeably decline with time after the initial training event?

3. How variable was the recording output among attendees?

8 'Recording Toolkit' events were randomly chosen, and the recording efforts of all 76 attendees from these events were counted, by viewing the number of records coming in through accounts associated with their email addresses to the WWBIC Online recording system. This would include all records submitted through WWBIC Online itself, the LERC Wales app, the iRecord website or app, or the iNaturalist app. The 8 events used are shown in the table below. Where are a group had more than one training event, the first training event was used.

Group	Number of Attendees
Aberporth Open Event	13
Aberystwyth MSc Students	9
Bishop's Park, Abergwili	8
Ceredigion Meadows Group	7
Dolau Bach, Borth	2
Llandysul Open Event	11
Cilymaenllwyd Footpath Restoration Project	16
Talley and Cwmdu Smallholders	10

We then calculated how many attendees had made at least 1 record, and how many had made at least 10 records, for each of three time periods: up to 4 weeks after the date of the first training session (including the session itself); 4-8 weeks after the training session and more than 8 weeks after the training session. The date of the first training session varied depending on the group, so for some groups the third time period would be longer than others.

We also calculated the total number of records for each of the three time periods described above, per individual recorder, and the total across all recorders. Results are displayed below.

4.2 Results: What proportion of attendees go on to submit records, and what proportion go on to become regular recorders?

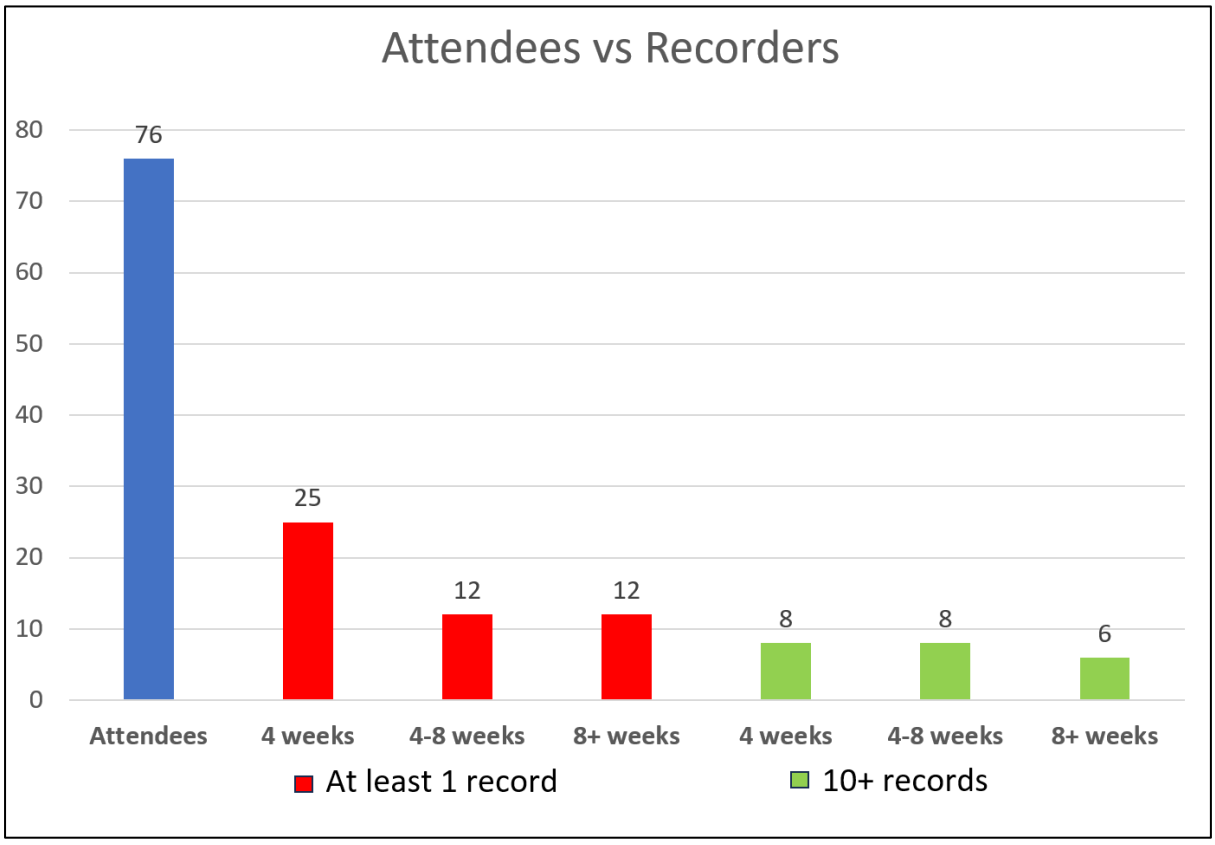


Figure 1: Total attendees from the 8 events sampled (blue); Number of attendees who submitted at least 1 record (red) and at least 10 records (green), within 4 weeks of the first training event, 4-8 weeks, and after 8 weeks.

As Figure 1 shows, only about a third of all the attendees of these 8 events submitted any records at all, and even less, about 15%, were still submitting records after 4-8, or 8+ weeks after the training. The proportion that were regularly submitting appreciable numbers of records was even smaller, with only 6 of the attendees (around 7% of the total) having submitted more than 10 records 8 weeks or more after the training.

4.3 Results: Did recording activity noticeably decline with time after the initial training event?

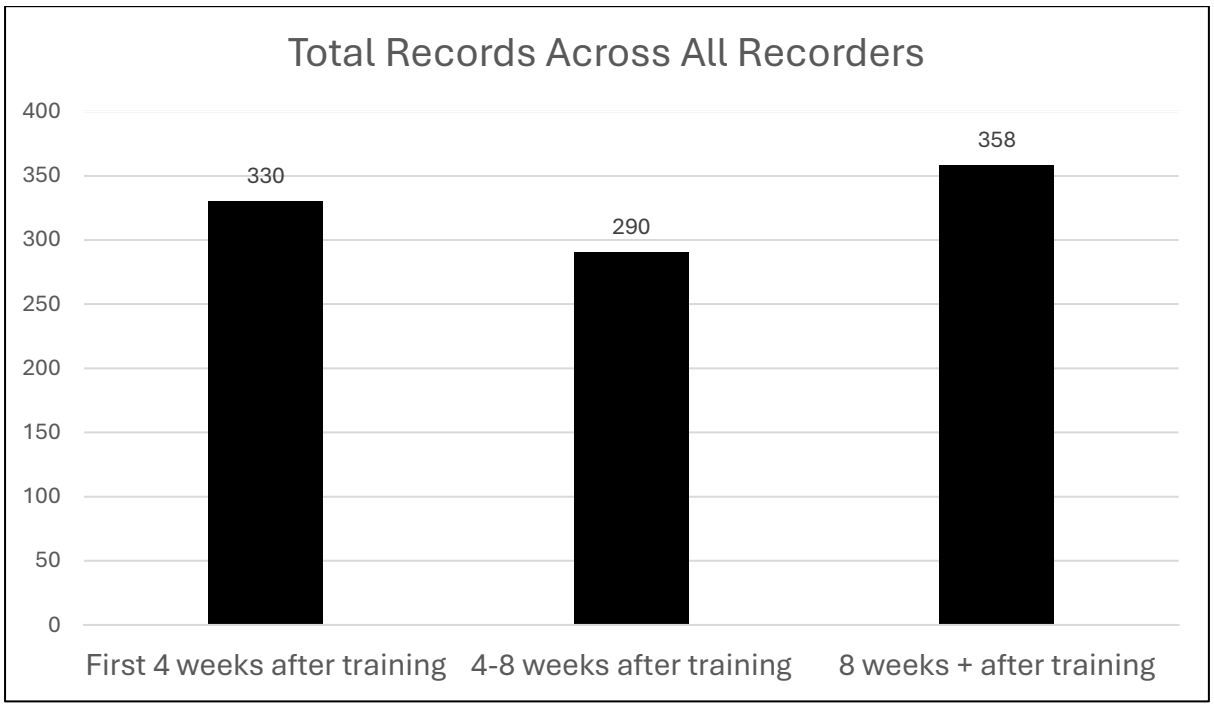


Figure 2: Total records, across all recorders, in the first 4 weeks after the initial training event, 4-8 weeks after, and 8+ weeks after, as of 01/10/2024.

As Figure 2 shows, recording activity, as measured by total records, did not noticeably decline with time after the initial training event, at least up to around 12 weeks. This suggests that the attendees that did go on to regularly record, even though only a small proportion of the total attendees, maintained their interest and have potential to become reliable, long-term recorders.

4.4 Results: How variable was the recording output among attendees?

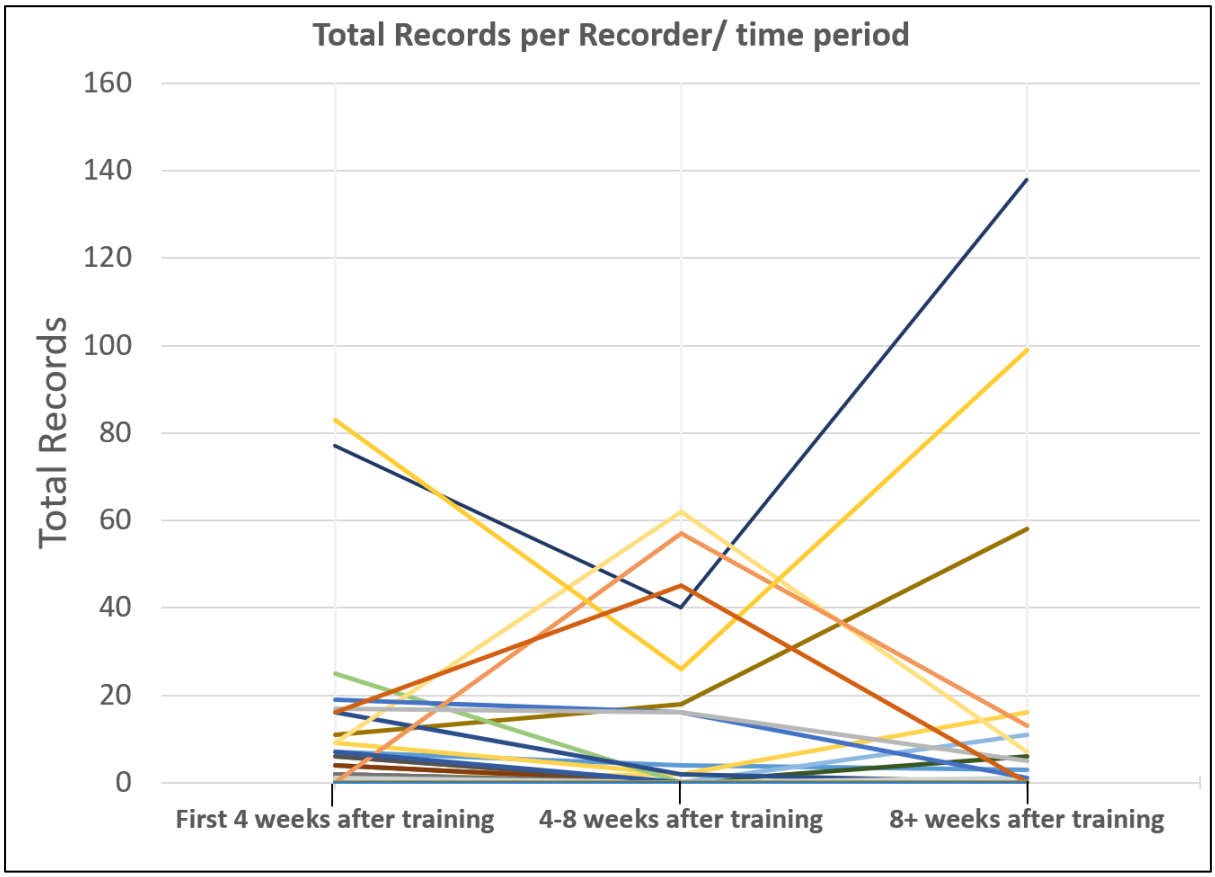


Figure 3: Total records submitted by each of the 76 attendees tracked, in the first 4 weeks after initial training event, 4-8 weeks after, and 8+ weeks after, as of 01/10/2024. Each line in the figure above represents an individual attendee.

The results shown in Figure 3 are consistent with the results of the previous two figures, with most records coming from a small number of recorders. Figure 3 highlights the very high variability in recording output among recorders. There appears no 'average trajectory', for example, record output tending to increase or decrease with time, among the 76 attendees sampled.

4.5 Discussion

The results of this record-tracking exercise can be viewed in different ways. On the one hand, it could be viewed as discouraging that only a third of all attendees submitted any records at all, and an even smaller proportion did so in any appreciable number, or with any appreciable regularity. On the other hand, it is promising that the events did generate a decent contingent of regular recorders, who did not appear to be dropping off in their recording output. It is likely that the number of participants who go on to become regular recorders is largely out of the hands of those running the workshops, determined largely by the interest and available time of the attendees. However, almost all of those asked whether they planned to continue recording indicated 'yes', with a few 'maybe's and no negative answers. The feedback from events was also near-universally positive. In light of these factors, the gap between total attendees and the regular recorders could be viewed promisingly, as it could indicate at least some amount of untapped potential to grow the recording community.

5. Reflections

Through working on this project with a broad variety of groups, while testing out a variety of different resources and engagement methods, the WWBIC team have had much opportunity to discuss and reflect on engaging new recorders and the process of growing the wildlife recording community. Some of these are outlined below.

An enthusiasm resource

There is a very large amount of enthusiasm for engaging more with biological recording, and with natural history in general, among the general public.

Diversity of recorders

What makes a recorder? There are all kinds of different potential wildlife recorders, each with different motivations. We targeted a wide range of different groups, using a wide range of approaches. Although only a small proportion all attendees became regular recorders, each event did produce, on average, at least one keen, regular recorder. This highlights the importance of targeting a diverse audience, using a diversity of approaches, to build a resilient recording community.

The wider ecosystem

Incorporating information on how the species' you are learning to identify fit into the wider ecosystem, into recording and identification training, makes the process more engaging.

Feedback

When learning any new skill or activity, feedback from others more experienced than you is a key factor in making progress. Fortunately for us, during the process of running this project, the three members of staff running events for this project (YS, LM, CM) all became verifiers for plant records on the iRecord system for Ceredigion and Carmarthenshire, supporting and supported by the BSBI Vice-County Recorders. This has enabled us to have a direct line of communication with participants from the training events, many of whom have been recording plants, providing a rapid way to confirm records, point out misidentifications and provide advice. Feedback from participants has highlighted this as a key confidence booster and motivator.

Structure

Giving people even a very light, optional structure or goal – providing a task that they can fulfil if interested – is often more effective than introducing them to a completely open-ended task.

Sociality

Being part of a community that bonds around a shared interest is a key motivation. It also helps with learning itself, providing feedback, interaction, and a reason to keep going when individual discipline may be flagging!

Regularity

Regularly practicing an activity is the only way to really improve at it. Regular opportunities to identify and record wildlife, and to put the results in context, are relatively sparse, compared with other activities such as sports. Increasing these opportunities would be a large help in growing the wildlife recording community. Most of the regular recorders that emerged from this project were from groups that were engaged with more than one event.

Local connection

People often have a natural interest and connection with their local patch and want to find out more about it. Many of the regular recorders that emerged from this project had attended events that were linked to a particular piece of land or biodiversity project.

Outcomes

If people can be shown tangible outcomes from their recording efforts, that they can see can make a difference for local conservation, this could be an excellent motivator. There are many examples of how this could be achieved, and it could start with something as simple as showing maps that highlight locally important sites. 30x30 targets could potentially play a role here. There are a large number of community biodiversity projects, and land owned by sympathetic small landowners, that potentially could add up to a large area of land managed for biodiversity.

Benefits beyond recording

Recording wildlife is one of many ways to be out in nature, which is good for human wellbeing in all sorts of ways. This should be embraced and can be utilised to enhance interest in recording as an activity. Many participants mentioned how the getting involved with wildlife recording had made them notice much more of the natural world around them. The possibility that this could lead to behaviour change and an increased willingness to act to protect biodiversity is worth exploring.

Potential

There remains a lot of untapped potential to grow the biological recording community and to use recording as a tool to increase interest in local biodiversity conservation. Through this project, we have created a platform to further explore this potential in the future.

6. Appendix 1: Resources created for this project

6.1 Recording Toolkit Website

All resources outline below can be found on the 'Wildlife Recording Toolkit' section of the WWBIC website, developed as part of this project - https://www.wwbic.org.uk/wildlife-recording/start_recording/. This website brings both information on identification, why, how and what to record, alongside different monitoring schemes and societies, for all major taxonomic groups, in one accessible location. As of 14/03/2025 the website section is still under development and is likely to be subject to change in the initial months. It will continue to be built upon and updated over time.

6.2 'Wild Plants in West Wales' booklet

The most substantial identification resource produced alongside this project, which developed into its own project far beyond the extent of the initial 'Recording Toolkit' project. The 2nd edition, refined after feedback from participants in training events, contains species accounts and identification details for 129 species, loosely based on the top 100 most widely recorded plant species from the WWBIC database, with some additional common and/ or notable species also included. It provides an initial brief introduction to what plants are, and highlights further resources to take your interest further.

6.3 'Get to Know Plants' sheet

A double-sided A4 sheet that aims to very quickly introduce the basics of what plants are, plant form, outline 16 common species and how to identify them, while also including the basics of recording and where to go to take your interest further. Aimed at the complete beginner, this sheet is designed to be cheap to print and able to be given away freely, to immediately capture interest with accessible and achievable tasks.

6.4 'Moth Species and their Larval Food Plants'

Provides an introduction to common moth species frequently encountered in West Wales, while highlighting link between insects and plants by showing the plant species that are foodplants for the larvae of each moth species. Also provides links to resources to take your interest in moths further.

6.5 'Species Associated with Common Plants'

Provides an introduction to the many species that grow in association with plants, from a variety of taxonomic groups, including galls and fungi.

6.6 'Plant ID Tips'

A short document that outlines quick tips of key features to take note of when trying to identify various plant groups.

6.7 10 Common Mosses

Provides identifying details on 10 common moss species and information on where to go to take your interest further.

6.8 'Recording Hitlists'

A custom sheet of target species to record for a given area, covering many different taxonomic groups, including a selection of species that are not too difficult to identify for the beginner, including many easy ones, include priority species and include species not recently recorded in the area. Can be produced by WWBIC for any given area.

6.9 'Monitoring Scheme Calendar'

Shows the different times of year that different citizen science schemes run for different taxonomic groups, with direct links to the schemes themselves for further information.

7. Appendix 2: Case Studies

7.1 Case Study: Bishop's Park Volunteers, Abergwili, Carmarthen

Bishop's Park is an historic park and garden surrounding the Old Bishop's Palace with a team of volunteers helping with the day to day running of the buildings, land and gardens.

A meeting took place on site on 23rd November 2023 with the head gardener, the Tywi Gateway Trust Manager and the Walled Garden Project Engagement Officers to see if the toolkit project may fit in with their objectives. The proposal proved very timely and fitted in well with the objectives of the walled garden project as the team were keen to learn more about the biodiversity of the walled garden before any infrastructure changes were planned.

On 29th May 2024 a moth and wildflower focused event was hosted in the walled garden. Battery moth traps were set up the preceding evening and the moths were potted up in the morning and displayed on a table with their larval food plants. Twelve people attended the 3 hour event. The morning started with a demonstration of the caught moth species and discussion about their food plants.

Photos by Cliff Day: **Left:** Potted moths next to their larval foodplants; **Right:** Getting to know the ecosystem on a common nettle.

We then walked round the walled garden grounds stopping to look at wild flowers and their associated species. Each attendee was given a hand lens and shown how to use it so that they could appreciate the finer details of the species we encountered. For most attendees this was their first experience of using a hand lens and there was a sense of wonderment.

On 3rd July 2024 we had a two hour wildflower ID session in the Bishop's Park meadow area. Attendees were given a copy of the draft WWBIC 'Wild Plants in West Wales' booklet and asked to provide feedback on layout and usability. We used hand lenses again and referred to several Recording Toolkit printed resources including 'An Introduction to Species Associated with Common Plants' and 'An Introduction to Moths and Their Larval Foodplants'. A highlight was finding a patch of

Whorled Caraway, the county plant for Carmarthenshire, which most of the group had not seen before.
On 22nd July 2024 the final session comprised an indoor Powerpoint presentation and discussion on biological recording and recording schemes. One volunteer was already undertaking bird surveys at the park and it was hoped that surveys for other taxon groups maybe added in due course.
One couple, who attended all 3 events, borrowed a WWBIC moth trap. They found the experience fascinating and have gone on to buy their own trap, make records and get their grandchildren involved. This was relatively late in the season but they have already submitted a dataset of 145 moth records.

7.2 Case Study: Talley and Cwmdu Smallholders Group

We wanted to invite a community group responsible for managing their own land into the project, to see if this would be a productive avenue to engage new recorders.

The Talley and Cwmdu Smallholders Group was contacted via Facebook and members invited to attend an introductory session to hear about the project. The initial meeting was held on 8th March 2024 in the local community pub, the Cwmdu Inn. Six people attended the initial meeting representing 4 smallholdings and covering 160 acres. All the attendees were very keen to learn more about their land and the species it hosts. A WhatsApp group was set up to facilitate group communication and event arrangements and proved very effective.

Map 2: Locations and acreage of the land holdings of the Talley and Cwmdu Smallholders Group

On 10th April a PowerPoint presentation was given to the wider smallholders group members at their monthly get together at the Cwmdu Inn. This covered the ‘what, where, when and how’ of biological recording and demonstrated the current knowledge of their area based on records held by WWBIC as well as outlining the toolkit project proposal.

We met at one of the group's smallholdings on 24th April 2024 for a 3 hour session. Eight people attended from 5 different smallholdings. We walked through the varied habitats and concentrated on building wildflower ID skills and raising awareness of plants and their associated species. Each attendee was encouraged to use a hand lens to examine and appreciate the smaller scale details of plants. We used a number of books and resources during the walk to demonstrate features and build confidence. After the walk a range of identification books for various taxon groups were displayed and the pros and cons of each were discussed. A feedback form was distributed after the event and participants were encouraged to add comments so that future events could be tailored and improved appropriately.

A second field meeting was held on 14th June 2024 at a different smallholder's property. This followed a similar format with an exploration of the varied habitats on site.
The final group event was a moth trap event on 6th August 2024. Three battery moth traps were set up the preceding night on land in and around the Cwmdu Inn. The group met in the morning to see what species had been caught. Rather than rattling off a list of species names of the specimens in collection pots, the moths were put alongside their larval foodplants. The visual display of moths and associated plants really helped the group to see a broader picture of how species interact and to appreciate the importance of often overlooked common plants. A collection of moth photographs were collated into an A4 sheet and laminated for display in the pub.

Moth photograph collection on display at the Cwmdu Community Inn

7.3 Case Study: Cilymaenllwyd Footpath Restoration Project

Introduction

In the rural area of Cilymaenllwyd, the community recognised the importance of maintaining both access to nature and the conservation of local wildlife. The restoration of a closed footpath was initiated not only to reconnect residents with the landscape but also to monitor the area's wildlife by running community training programs. This case study outlines the project background and outcomes.

The footpath from Login to Efailwen along the valley of the Afon Wenallt had fallen into disrepair and become impassable, with vegetation reclaiming the path and limiting access to the surrounding valley. Local community leaders decided to restore the footpath with funding from the lottery, while prioritising the documentation and protection of wildlife living in the area. This project sought to empower community members through training in wildlife recording techniques, making them active participants in conservation efforts.

The training took place in Login at the Cardi Bach heritage centre where a collection of memorabilia of the old Cardi Bach railway is on display. Two sessions were delivered with the first session focused on recording wild plants along the open section of the footpath. The second session focused on waxcap fungi in the chapel graveyard and how to use equipment available for recording e.g. camera traps, moth traps, microscopes and bat detectors.

Clockwise from top left: 1: CM Delivering a presentation on biological recording; 2: Getting to know plants in a verge; 3: Flyer to advertise wildlife recording training event; 4: Looking for waxcaps in a local churchyard.

Objectives
The primary objectives of the Cilymaenllwyd footpath restoration project were:

1. To restore the footpath for public access while ensuring minimal ecological disruption.
2. To engage the community in wildlife recording and monitoring to encourage awareness and appreciation of local biodiversity.
3. To provide training sessions that enable residents to actively participate in wildlife conservation and recording.

Methodology
1. Community Engagement and Training Workshop: The initial workshop was organized to introduce participants to recording, emphasizing the roles that local wildlife plays in the ecosystem. Participants received training on species identification and data collection methods.

2. Wildlife Monitoring Techniques: Trainees were then taught various methods for recording wildlife, including:
- Setting up camera traps to document nocturnal wildlife activity.
- Conducting grassland fungal surveys to establish local, regional and nationally important sites.
- Using the LERC Wales App for real-time data entry and observation sharing.

Results
The restoration of the footpath in Cilymaenllwyd was met with great enthusiasm, transforming a previously inaccessible area into an inviting space for walkers and nature lovers. The training sessions proved to be valuable, with many residents becoming skilled in wildlife monitoring techniques. Over 200 sightings of various species, particularly fungi and plants, were recorded in the project area during and after the training sessions, adding valuable information to the database.

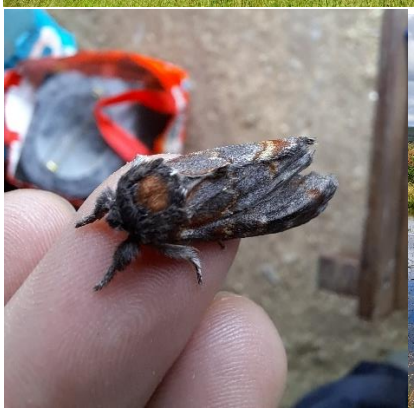
Conclusion
The footpath restoration project in Cilymaenllwyd demonstrates the successful integration of community involvement in nature conservation. By equipping residents and visitors with the skills to monitor and record wildlife, the project not only revived an important public resource but also encouraged a sense of stewardship towards the local environment. The ongoing commitment to protecting and recording wildlife sets a precedent for future projects and encourages sustainable practices that benefit both people and nature.

7.4 Case Study: Ceredigion Meadows Group

Introduction

A different method was taken to engage people with these events. The Ceredigion Meadow Group was approached via a Facebook group to gauge interest in attending wildlife recording training. The interested members of the group were made up of several small-holding owners in the Tregaron area who wanted to manage their land for the benefit of wildlife. The meeting also coincided with the council's biodiversity officers project to re-vitalise the Ceredigion Meadows Group as a constituted group. In contrast to the Login group these sessions were focused on the monitoring of wildlife on the individuals land holdings with less emphasis on engaging the wider public.

Two members of the group offered their smallholdings to host the training sessions. Each of the farms offered different habitats to observe a diversity of plants, particularly grasses on improved and un-improved land and a wide variety of moth species. On the improved land we focused on using quadrat sampling techniques to monitor changes in species richness over time after an adjustment in the management of the site. On the other farm we set up 3 moth traps, 2 battery powered traps in the scrub and near the stream and one mains powered trap near the barns and garden and a camera trap near the pond.



Objectives

The primary objectives of the Ceredigion Meadows Group project were:

1. To engage the group of landowners with wildlife recording.

2. To provide training sessions to enable members to actively participate in wildlife conservation and recording.

3. To set up moth and camera traps and record moths and other nocturnal wildlife

Methodology

1. Training Workshop 1: The initial workshop was organized to introduce participants to recording, focusing on grasslands and the various methods available for monitoring their land. Participants received training on species identification and data collection methods particularly using the LERC Wales App for real-time data entry and observation sharing.

2. Training Workshop 2: the second workshop focused on how to set up moth traps and camera traps to identify and document nocturnal wildlife activity.

Results

The sessions were successful in engaging landowners with wildlife recording, and the feedback we received was positive. Some members would have liked to focus more on the management as well as the species identification. A few of the participants went on to continue to record using the methods covered and others who had already been recording shared their records with us, resulting in over 600 species records added to the database.

Conclusion

It was more difficult to recruit people to attend these sessions, possibly due to the remote nature of the area, a generally low population and the absence of an active group in the area. However, those who attended engaged well with the workshops and gave us constructive feedback on our resources. Members of the group continue to engage with our ongoing training events, and we hope to see them develop into confident recorders going forward.

7.5 Case Study: 'Wildlife Recording Training – Aberporth': open session

On the 24/02/2024, WWBIC ran a free, open event called 'Introduction to Wildlife Recording: Aberporth', running from 10am – 1pm, in a village hall in Aberporth, Ceredigion. The event was publicised widely, including placing physical fliers in local shops and posting the event details on local Facebook groups. A total of 15 attendees joined the event, of a variety of different ages, backgrounds and levels of engagement with natural history and biological recording. Some of the group were already using some recording apps, such as iNaturalist, but many had never heard of biological recording. The event was open to all but pitched at the level of the absolute beginner, assuming no previous experience in identification or recording. The whole event took an informal approach, with tea and biscuits provided and a table displaying an array of identification guides and resources. Participants were provided with free WWBIC recording notebooks and pencils to take away. We also used this as an opportunity to trial the approach of providing a 'hitlist' of target species to record. Double-sided A4 sheets were printed, containing selected species, that were easy to identify by the beginner, including many priority species and from a variety of taxon groups, that had either not been recorded within the Aberporth Community boundary for the past 5 years, or not at all.

The event started with a roughly 20 minute presentation giving an introduction to WWBIC, biological recording in general, the purpose, the benefits, identification and how to record, followed by a period of questions. After this, we headed out into nearby amenity grassland for a supported identification and recording session, based around the WWBIC 'Get To Know Plants' sheet created for the Wildlife Recording Toolkit project. Hand-lenses, notebooks and pencils were provided by WWBIC. Participants recorded their findings using the LERC Wales app, or with notebooks. WWBIC staff were on hand to assist with any queries. The focus of this session was as much on getting to grips with the basics of plant identification, ecology, and getting out looking at plants, as it was about recording. Perennial plants were focused on as we knew that the selection of plants on the sheet could be found and identified in that area at that time of year. After about an hour outside we went back inside for more tea and biscuits and to share our findings, including any samples of plant material, before going through the process of recording the species found on the WWBIC Online recording website together.

Participants getting to know plants on a grassy bank

From an engagement perspective, the event was very successful. All participants noted on the day how much they enjoyed the event and how much they learned. Only 5 participants filled and out and returned the digital feedback forms, but these were universally positive. All 5 reported that they intended to carry on recording. From the point of view of generating records and recorders, the picture is more mixed. Only 6 of the attendees submitted records on the event and only 2 of the attendees went on to make more records in the future. However, one of these went on to become a keen, regular recorder who submitted from a wide variety of taxonomic groups, throughout 2024, and is interested in being involved in future projects. The 'hitlist' of key species to look out for in the Aberporth area was very popular, with all attendees taking a copy. The one attendee who went on to become a regular recorder noted that the hitlist played an important motivating role for them in getting started with recording.

The outcomes from this event give a good illustration of the benefits and challenges of one-off, open events in general. Participants may be very engaged on the day, but are then largely left to continue on their own, and without follow-up events and support, interest and engagement can wane. Unlike events that target existing groups or projects, attendees at open events are generally not linked around a particular community project or shared location of interest, and as such may have less of a clear focus or goal to motivate them to continued recording. Nonetheless, carrying out some number of open community events per year is still a worthwhile activity, as it raises the profile of recording in general, engages communities with their local nature, and can often unearth at least one keen individual who becomes a regular recorder, as it did in this case.

7.6 Case Study: Aberystwyth University Students

Over the course of the Recording Toolkit project, WWBIC organised or took part in three separate events with Aberystwyth University students that either focused on, or included an element of biological recording:

Biological Recording Training session, 19/04/2024: MSc Bioidiversity Management – Ecological Monitoring module
3 hour session with students on Ecological Monitoring module of the MSc in Biodiversity and Conservation Management. 11 students attended the session, which was all the students registered on the module. The session consisted of a roughly 30 minute presentation, including a period of discussion, covering the basics of biological recording, and local and national recording infrastructure and projects. This was followed by a roughly 2 hour recording and identification session in the field, targeting multiple taxon groups, with a focus on recording as many species as possible from a 100m square on campus. Most of the field session was spent on identification. All of the students were starting from a relatively low level in field identification and some had no prior experience at all. The students were encouraged to record with the LERC Wales app or with a notebook and pencil. Only one chose the app, while the others used notebooks.

4 records were made on the day by the student who was recording with the app. Record input from these students were tracked until around October 2024, but no additional records were submitted in that time. WWBIC staff also made ad-hoc records on the day, which resulted in the second Ceredigion record of Juniper Shieldbug by LM *Cyphostethus tristriatus*.

Biology BSc Field Course, 16/09/2024:
WWBIC staff joined in one day of a 5 day field course, based around Aberystwyth, to introduce the students on this course to biological recording. The day started with a brief introduction to recording and LERC Wales app. The field day lasted 6 or so hours, visiting 3 different habitats, including a break for lunch. At the end of the day, a more detailed lecture on biological recording was given from 6-7pm.

The students had a predetermined schedule to adhere to with a lot of ecological material to fit in. As such, there was not time to devote a section of the field time to recording. Emails of the student attendees were not collected and recording input was not tracked.

Biological Recording Training session, 30/10/2024: **Aberystwyth Conservation Volunteers**
This group is a student society at Aberystwyth University that run an annual programme of weekly events, usually practical conservation tasks across a range of sites throughout Ceredigion. The aim of the training was to encourage the group to also record the wildlife they encountered on their travels around the county.

The session was run in Penglais woodland, a site easily accessible from the University and one managed with the help of the group. The session took place over about 3 hours and had 12 attendees. It started with a short outdoor introduction to WWBIC and the importance of recording, followed by a walk in the woodland. The group was encouraged to choose an ID guide and try to identify species encountered on the walk. This session evolved into more of a guided walk with some participants contributing to the discovery of species, while others were less engaged.

Left and right: Students on a recording walk through Penglais Woods. **Middle:**

44 records were submitted from the group walk on the day, mostly from the group as a whole, submitted by WWBIC staff. 2 attendees each submitted 1 and 2 records themselves on the day. One attendee, who had started recording earlier in 2024, developed into a regular recorder, who to date, in less than one year has submitted over 280 records, of 213 species in 30 different taxon groups.

Reflections on engaging university students with biological recording

These events were successful in making a large cohort of university students aware of biological recording and giving them experience in field identification that is extremely scarce in their curricula. Feedback from all students on the dates was positive, with many commenting that they intended to take up recording, or enquiring about monitoring schemes they could get involved with. Despite this, with one exception, the enthusiasm of the students did not translate into regular records.

There are several challenges in engaging university students with biological recording. First, students have many demands on their time and attention. Continuing biological recording generally does not count toward course credits and would be a low priority during busy times when they are focusing on projects or exams. Also, many of them are transient, moving away from the area after their studies, which in some cases may limit the ability to engage and build skills in the long-term.

Despite these challenges, the potential for further engaging university students with recording remains high. They are a large, enthusiastic group, usually of a younger age than average in the recording community, often pursuing careers in the biodiversity sector and keen to develop ecological skills. There is therefore much that the student community can offer the recording community and vice versa. Biological recording develops many essential skills for work in the biodiversity sector. With more planning and collaboration, there is potential to embed biological recording into the curriculum itself, link it to topics being studied and provide credits for recording efforts. It is also worth exploring whether offering more focused projects, alongside ad-hoc recording, may lead to greater uptake.