D3.2 Participatory Bird Events in Five European Countries: A Summary Report

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Participatory Bird Events in Five European Countries

A Summary Report

EnviroCitizen Deliverable D3.2

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Summary

This report describes the work carried oud in task 3.2 of EnviroCitizen. The aim of this task was to use the insights from work packages 1 and 2 of the project to develop a diverse series of participatory events that contribute to participants' involvement in birds and birding. By opening up new worlds to participants, these different activities offer diverse routes for people to develop or deepen connectedness with, learning about and love for birds and nature, and ultimately hold the potential to contribute to strengthening their environmental citizenship. The report describes a series of 19 events organized across five countries (Estonia, the Netherlands, Norway, Romania and Spain) which together engaged hundreds of people, from schoolchildren to birders to museum visitors. Most of the activities have already taken place, a few will be carried out in the beginning of 2023.

In the report we make a distinction between three general categories of activities developed in this joint endeavor:

A. **Stakeholder workshops**, which encompassed presentations at, or workshops with, existing stakeholder organisations related to nature and birds, including birding organisations

B. **Public bird activities,** focussed on target groups who are not currently avid birders to stimulate them to encounter the world of birds and birding

C. **Literary events**, a variety of activities that aimed to bring people in contact with birds through the power of arts and literature (e.g. book clubs or literary talks)

For each activity we offer a general description of what the activity entailed, discuss its goals and intended audience, offer some practical information on the where, when and how (including the number of participants), the promotion channels used, and some reflections by the responsible country team on lessons learned from the each activity.

In the concluding section of the report we offer a brief overarching reflection on the diversity of activities developed, ranging from exhibitions and workshops to birding routes and literary events. Based on our experiences in the task, we also offer some general advice to other scholars and partitioners aiming to organise public activities related to their research. Specifically, we highlight how organisers need to think carefully about the alignment between the aims of their public activity and its target audience, and should be prepared to adapt their approach if a mismatch becomes apparent. We also emphasise the importance of engaging relevant partners, preferably at an early stage, to strengthen both the reach and the societal relevance of public activities. Finally, we briefly reflect on the topic of evaluating public activities, and the reasons for and barriers to doing so.

Table of Contents

Summary 3
1. Introduction to task 3.2 5
2. Activity reports 11
2.1 Estonia 11
2.1.1 The European Museum Night '*I dream about flying!*' 11
2.1.2 BirdLife Estonia: '*From a great tit to the sea eagle*' 13
2.1.3 'Researchers' Night: '*Birds, poetry and science*' 15
2.1.4 Exhibition presentation: *'It was the women who wrote about birds'* 17
2.2 The Netherlands 18
2.2.1 De Merelroute (The Blackbird Walk) 18
2.2.2 Book club '*Winged Evenings*' (leesclub 'Avonden met Vleugels') 21
2.2.3 Vlugge Vogelquiz (Quick Bird Quiz) 23
2.2.4 Presentation at Sovon Ornithological Research Netherlands 26
2.3 Norway 27
2.3.1 Stakeholder meeting: On Citizen Science and Birdwatching 27
2.4 Romania 29
2.4.1 Exhibition: The ornithologist Silvia Stein von Spiess from Sibiu and hunters as early citizen scientists in the first part of the 20th century 29
2.4.2 Discussion event with birders: not-only-human spaces 32
2.4.3 Educational program closing event 33
2.5 Spain 34
2.5.1 '*Cambia de sombrero*' (Change your hat) workshop at the European Researchers' Night . 34
2.5.2 Online talk on nineteenth-century women ornithologists 36
2.5.3 Birding apps workshop for students at the Science and Technology Week 38
2.5.4 Talk on nineteenth-century women ornithologists 39
2.5.5 Exhibition '*Invisible Wings'* on women's ornithological citizen science in the nineteenth century 40
2.5.6 Invited online talk on citizen science and women's ornithological writing in the nineteenth century 41
2.5.7 Talk on women naturalists in the nineteenth century for the International Day of Women and Girls in Science 42
3. Conclusions 44

1. Introduction to task 3.2

The central aim of EnviroCitizen is to explore how birding, as a form of environmental citizen science, can be a route towards developing or strengthening environmental citizenship. Environmental citizenship is about more than small and unconnected sustainability initiatives in one's private life (e.g. using public transport); it also concerns norms and values, including one's relationship with nature, and how these inform actions of care in the public or private sphere and at different spatial scales. For an overview of the different dimensions of environmental citizenship, see Figure 1.

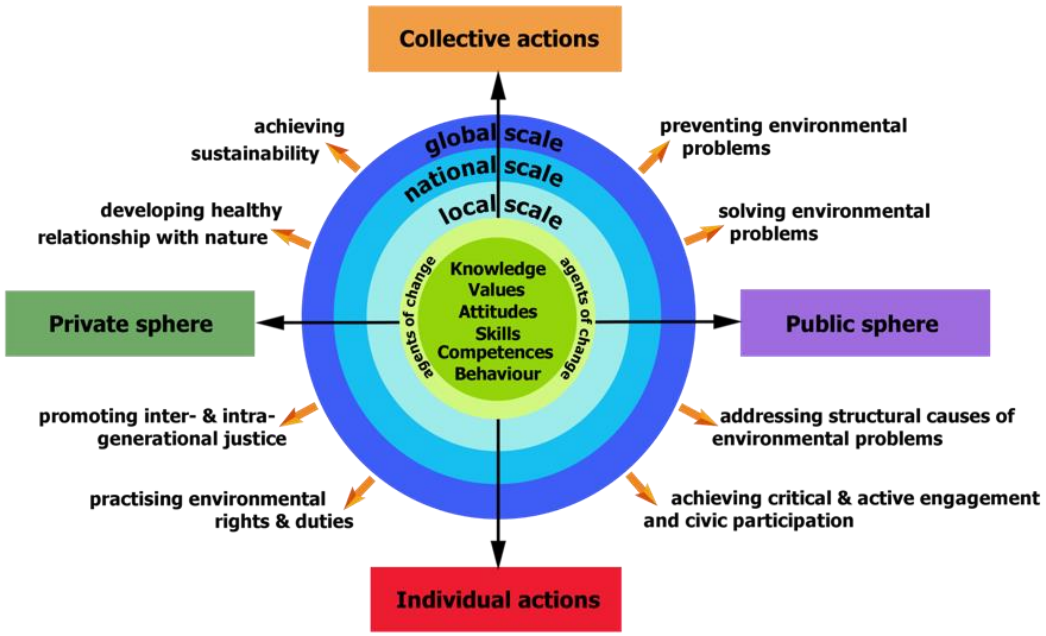


Figure 1: Different dimensions of environmental citizenship. Source: Hadjichambis, A. Ch. & Paraskeva-Hadjichambi D. (2020). Education for Environmental Citizenship: the pedagogical approach. In: A. Ch. Hadjichambis, P. Reis, D. Paraskeva-Hadjichambi et al. (Eds) Conceptualizing environmental citizenship for 21st century education (pp 237-261). Cham, Switzerland: Springer.

The first work package of EnviroCitizen explored how the history of ornithology shaped the cooperation between citizen scientists and scientific institutions and nature conservation[1]. In work package 2, specifically task 2.3, we carried out extensive fieldwork in six European countries to understand how present-day birders engage in birding, how they learn while doing so, and how birding links to caring for and about birds[2]. In work package 3, our aim is to draw on the insights from these two work packages to explore how a larger segment of the population can come in contact with and notice birds, and how through doing so they could possibly also engage with or reflect on dimensions of environmental citizenship.

In task 3.2, we organized a series of 19 public events in five European countries: Estonia, the Netherlands, Norway, Romania and Spain. These countries all participated in the WP2 ethnographic work. These public activities all shared two foci: a link to birding and birds, and to at least one element of environmental citizenship. The types of activities are subsumed under three categories:

A. Stakeholder workshops: these activities involved presentations at, or workshops with, existing stakeholder organisations related to nature and birds; these could include birders and birding organisations (including the ornithological partners of the project), or broader nature organisations. One possible aim of such activities could centre around supporting and enriching existing citizen science activities by more explicitly integrating elements of environmental citizenship, such as more active reflection on relational values like learning and care (a main outcome of WP2).

B. Public bird activities: these activities focussed on targets groups who are not currently avid birders, and stimulated them to encounter the world of birds and birding. These included activities with kids and teens to learn bird names and sounds, and initiatives to engage e.g. families and kids in becoming aware of and observing birds. Several country teams organised activities in the context of the European Researchers' Night or similar initiatives. One way these activities linked to WP1 and WP2 is by paying attention to diversity and inclusion by engaging underrepresented groups.

C. Literary events: these activities involved a variety of activities that aimed to bring people in contact with birds via other routes than birding, and specifically through the power of arts and literature. The goal of these activities was to use bird writings, books or art as focal points to trigger reflection on birds, care or people's relationship to nature. These types of activities could include book clubs or talks and exhibitions about literature.

In this summary report, we describe all the activities organized for task 3.2 in the five participating countries. Section 2 forms the bulk of the report and includes a description of each activity, grouped per country (see Table 1 for an overview). For each activity we offer a description of the activity, some information on its goals and intended audience, practical information, promotion channels and reach, and conclusions and lessons learned. This report ends with a concluding section (Section 3) in which we formulate a few overall observations regarding this task.

[1] See *Laksfoss Cardozo (2021) Report on historical development of bird counting activities in Europe. EnviroCitizen Deliverable D1.2. University of Stavanger,* and *Beckers et al. (2021) A brief history of Dutch amateur birding: Developing a typology of citizens historically involved in ornithological citizen science. EnviroCitizen Deliverable D1.4. Radboud University.*

[2] See *Van den Born et al. (2022) Love, Learning and Care for Birds: Ornithological citizen science as a pathway to environmental citizenship. EnviroCitizen Deliverable D2.4. Radboud University*

Table 1: Overview of the different public activities organised as part of task 3.2, grouped along the three activity categories described above. Numbers in the leftmost column refer to the section heading in this report. For number of participants, 'expected' refers to activities that will take place early 2023. The final column provides an overview of some of the main linkages of each activity with key dimensions from WP1 and WP2

A: Stakeholder workshops					
	Event title	**Country**	**Target audience**	**Number of participants**	**Linkages with WP1 and WP2**
2.1.2	BirdLife Estonia: '*From a great tit to the sea eagle*'	Estonia	Audience already interested in birding, all age groups since primary school (from age 7)	81	WP2: noticing birds, learning about birds, caring about birds, introducing citizen science. WP1 & WP2: awareness of in/exclusion
2.2.4	Presentation at Sovon Ornithological Research Netherlands	The Netherlands	Staff members of ornithological research organisation	20-30 expected	WP2: noticing and learning about birds, caring for and about birds, awareness of in/exclusion
2.3.1	Stakeholder meeting: On Citizen Science and Birdwatching	Norway	General public, schools (teachers and pupils), active birders, individuals interested in bird watching and birding, and members of Naturvernforbundet [Friends of the Earth Norway].	30	WP1: Overview of historical and current practices, awareness of in/exclusion. WP2: Role of technology, on "becoming" environmental citizens, awareness of in/exclusion. Role of literature in noticing /understanding birds and nature.
2.4.2	Discussion event with birders: not-only-human spaces	Romania	Individuals interested in birds and environmental issues	14	WP2: noticing birds, a 'world opening up' and caring for and about birds

B. Public bird activities					
	Event title	**Country**	**Target audience**		**Linkages with WP1 and WP2**
2.1.1	The European Museum Night '*I dream about flying*!'	Estonia	Families; children and adults without a specific passion for birding	30-60	WP2: noticing and learning about birds, caring about birds, introducing citizen science. WP2: role of literature and art in inspiring caring about and for birds. WP1 & WP2: inclusion
2.1.3	Researchers' Night: '*Birds, poetry and science'*	Estonia	School students (from age 10) and teachers; all possibly interested parties, without a specific passion for birding; birders	60 (+ 400 views of recording)	WP2: noticing and learning about birds, caring about birds, introducing citizen science. WP2: role of literature and art in inspiring caring about and for birds WP1: historical research, birding baselines WP1 & WP2: inclusion
2.2.1	The Blackbird Walk	The Netherlands	Families with primary-school aged kids (ages 4 to 12)	3500 maps were available across distribution points	WP2: noticing birds, learning about birds, caring about birds. Possible links to caring for birds WP1 & WP2: inclusion
2.2.3	Quick Bird Quiz	The Netherlands	University Open Day visitors, mostly families with (grand)kids	130	WP2: learning about birds
2.4.1	Exhibition: The ornithologist Silvia Stein von Spiess from Sibiu and hunters as early citizen scientists in	Romania	Individuals interested in birding history and European Researcher's Night visitors (mostly elementary school students)	20-30	WP1: Historical birding practices WP2: discussions about the role of hunting in environmental issues and gender inclusion

	the first part of the 20th century				
2.4.3	Educational program closing event	Romania	Families with children aged 10-14	30 expected	WP2: learning about birds
2.5.1	'*Cambia de sombrero' (Change your hat*). Workshop at the European Researchers' Night	Spain	Children and teenagers interested in science	30-40	WP1: history of ornithological citizen science WP2: establishing connections between learning, care, and current environmental challenges
2.5.3	Birding apps workshop for students at the Science and Technology Week	Spain	Sixteen-year-old high school students of IES Al-Qázeres (Cáceres)	16	WP2: learning to use tools for learning about birds; understanding the connection between sharing data and caring for nature
C. Literary events					
2.1.4	Exhibition presentation: '*It was the women who wrote about birds'*	Estonia	(Mainly) academic audience interested in the history of feminism and literature	40	WP1: historical research, birding baselines, awareness of in/exclusion WP2: role of history and literature in inspiring caring about and for birds
2.2.2	Book club '*Winged Evenings'*	The Netherlands	Adult booklovers without a specific passion for birding, also non-academic	20	WP2: role of literature in inspiring caring about and for birds
2.5.2	Online talk on nineteenth-century women ornithologists	Spain	Sixteen-year-old high school students of IES Puente Ajuda (Badajoz)	25	WP1: history of ornithological citizen science, awareness of in/exclusion WP2: establishing connections between learning, care, and current

					environmental challenges
2.5.4	Talk on nineteenth-century women ornithologists	Spain	Sixteen-year-old high school students of IES Bárbara de Braganza (Badajoz)	20 expected	WP1: history of ornithological citizen science, awareness of in/exclusion WP2: establishing connections between learning, care, and current environmental challenges
2.5.5	Exhibition '*Invisible Wing'* on women's ornithological citizen science in the nineteenth century	Spain	High school students of IES Al-Qázeres (Cáceres)	100 views expected	WP1: history of ornithological citizen science, awareness of in/exclusion
2.5.6	Invited online talk on citizen science and women's ornithological writing in the nineteenth century	Spain	Third-year university students of Universitat des les Illes Balears (Spain)	20	WP1: history of ornithological citizen science, awareness of in/exclusion WP2: establishing connections between learning, care, and current environmental challenges
2.5.7	Talk on women naturalists in the nineteenth century for the International Day of Women and Girls in Science	Spain	Teenagers attending activities for the International Day of Women and Girls in Science in Cáceres	25-30 expected	WP1: history of ornithological citizen science, awareness of in/exclusion WP2: paying attention to gender factors in birding activities and ornithological science, inclusion/exclusion

2. Activity reports

2.1 Estonia

2.1.1 The European Museum Night '*I dream about flying!*'

Description

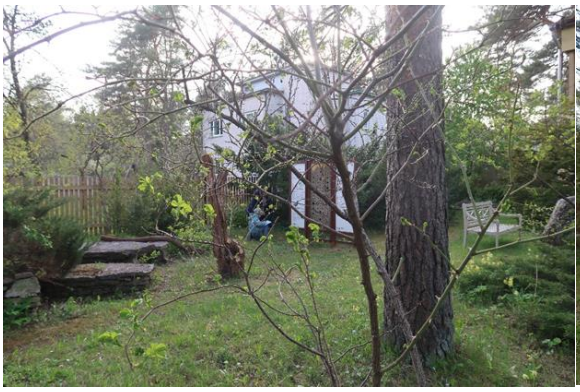
The 'Under and Tuglas Literature Centre of the Estonian Academy of Sciences' (UTKK) has a Museum Department which administrates the legacy of the writer and Member of Academy Friedebert Tuglas and other collections as a house museum. The European Museum Night has been a popular annual event with many guests interested in museum heritage. In 2022, we linked the Museum Night events to the EnviroCitizen project in collaboration with BirdLife Estonia. BirdLife Estonia nominates a bird species each year, both in terms of research and protection. The year 2022 is the Year of the Woodcock, and the organisation organises several activities related to this species, including citizen science projects. In the context of the Year of the Woodcock, we invited the ornithologist Jaanus Elts, one of the leaders of the Woodcock project, to give a talk to introduce the Bird of the Year and the citizen science projects to estimate its abundance. The talk was contextualised with a presentation about the museum collections and exhibitions stressing the importance of nature and birds in our culture from historical perspective. This presentation was based on a virtual exhibition '*Birds in the Archive and Museum*' about the representations of birds in art and museum collections, hosted on the UTKK's website. In addition, the Museum Night program included a game for children about nature and birds of the museum garden.

Goals

The program was targeting several audiences. The presentations were meant for families (the main target group of the Museum Nights) and museum enthusiasts not particularly interested in birds in advance. The audience consisted of people from all age groups, including schoolchildren. Still, there were also some birders present. In general, the audience seemed to be new to this topic, although eager to learn. We intended to create connections between birds' representation in cultural heritage as a part of our daily lives (as the museums' collections demonstrate) and the question how we can help birds today.

Presentation about the Bird of the Year

The children's program was meant for primary-school aged kids (ages 4 to 8). Parents value the opportunity to have free time to look around in the museum, so children's programs have proved popular. The program was a playful form of learning about seven common bird species (Eurasian Blackbird; Great Spotted Woodpecker; Common Redstart; Eurasian Treecreeper; European Greenfinch; Eurasian Blue Tit; Northern Goshawk). It included listening to a story about the animals and birds living in the museum garden, watching pictures of birds, animals and plants, and a lively game in the garden where children had to search answers hidden in the garden. The participants could keep the cards with the pictures and information about these species.



Participants in the children's program

Practical information

The European Museum Night took place in the museum of Under and Tuglas Literature Centre of the Estonian Academy of Sciences on 21 May 2022, 18:00-24:00.

The number of participants of listening to the presentations was ~30, but the virtual exhibition was accessible throughout the Museum Night and in total 60 persons visited the museum that evening. Seven kids (years 3-8) took part in the children's program. It was a collaborative event with BirdLife Estonia.

The event was free.

Promotion

UTKK used mostly Internet for promotion: the special web page of the European Museum Night in Estonia, the web page of UTKK, BirdLife Estonia's the page of Bird of the Year and the Facebook communities of both the UTKK and BirdLife Estonia. In addition, information and invitations were sent via e-mail (UTKK's mailing list including around 200 contacts, and BirdLife Estonia targets several lists). The virtual exhibition 'Birds in the Archive and Museum' is available on the UTKK website.

Conclusions and lessons learned

The event showed that it is possible to talk about birds and environmental citizenship in places where audiences would not normally expect such presentations or topics. The debate after the

presentations was lively: the museum's cosy atmosphere encouraged all kinds of questions to the presenters. The virtual exhibition has been used as a tool while presenting about the EnviroCitizen project, aiming to create interest and connections about the importance of birds in our daily lives and in culture.

As a result of these positive experiences during the activity, at UTKK we have started experimenting with adding a small ornithological lesson to the museum tours we host.

2.1.2 BirdLife Estonia: '*From a great tit to the sea eagle*'

Description

The annual summer meeting of BirdLife Estonia provided us with an opportunity to present to the members of the ornithological society (academic and non-academic) and those interested in the society's activities. The summer meeting is open to all potential birdwatchers, including their families and children. The presentation told about the EnviroCitizen project and especially the interviews conducted in WP2, i.e. how interest in birds once started and how and to what it has developed (also from 'caring about' to 'caring for'). The presentation was titled '*From a great tit to the sea eagle, or how citizen science is expanding the world*'. BirdLife Estonia's annual meeting is held every summer as an open-air weekend camp to learn, watch, and study birds, and to attract new birders to join. The program is therefore compiled to be as varied as possible so that it offers something for beginners, advanced learners and experienced birder. There is usually a designated program especially for children. The program includes presentations, workshops, field trips, contests, and cultural entertainment (museum excursion etc). The meeting was organised by BirdLife Estonia.

Goals

We wanted to give feedback about the rich material our project had gathered during WP2, as several birders who are members of BirdLife Estonia were interviewed for our project or we took part in their events and projects, also as a form of expressing gratitude to the informants. Our conclusions allowed us to speak about the importance of participating in citizen science projects as a way towards environmental citizenship. This led to a debate after the presentation about the term 'citizen science' in Estonian: the direct translation does not work here, but 'harrastusteadus' translates as 'hobby science' and does not cover all relevant aspects of the term. So, there was a possibility to turn

Elle-Mari Talivee presenting about the project and WP2 fieldwork. Photo: Veljo Runnel

to the model of environmental citizenship and the aspects of caring for, as a 'citizen of the world'.

BirdLife Estonia was interested to invite us for a talk as the society is looking for ways to attract new stakeholders, and to involve them in citizen science projects.

Practical information

The meeting took place on the weekend of 25-26 June in North Estonia, Ravila. There were 81 participants during the weekend. Presentations were held on 25 June and the panel consisted of three talks: one by us about the EnviroCitizen fieldwork, and two other talks by professional ornithologists.

The event had a participation fee for adults (two days; €15.- for members, €25.- for non-members, €10.- for students and pensioners who are members, €20.- for students and pensioners who are not members). In addition, one had to pay for accommodation and meals if so desired. Tents were free.

Promotion

The activity was promoted via all information channels of BirdLife Estonia (web page, mailing lists, Facebook community).

Conclusions and lessons learned

We learned that reflecting upon motivations to care for birds is important to strengthen these drivers and this topic fits well in presentations about birds' wellbeing, related to biology and ecology. It can also encourage those who are not professionally involved in science, or newcomers.

Based on the comments and feedback, it was apparent that for current birders it is important to have their motivations for participating in ornithological citizen science projects acknowledged. As one illustration of such a response, the free quarterly journal Tiirutaja of BirdLife Estonia, which targets a wider audience to raise awareness of birds, their ecology, and promoting events, published an essay by a birder who participated. She wrote that "Elle-Mari Talivee explored the background to birdwatching and caring about birds and nature, based on interviews with amateur birdwatchers. Reading the extracts from the interviews on the slides gave me a feeling of recognition, as if I had been one of the interviewees myself." One of the reasons why BirdLife Estonia appreciated a talk on this topic was that, for birders already doing citizen science, seeing their motivations acknowledged could also be a way to increase their motivation to continue contributing to citizen science.

2.1.3 'Researchers' Night: '*Birds, poetry and science*'

Description

UTKK's main stakeholder event was organised in the context of a rather popular festival in Estonia and probably all over Europe: European Researchers' Night. It had a thorough 2,5-hour program. It was organised in cooperation with the Estonian Academy of Sciences, the Environmental Education Centre of the Tallinn Zoo, and the Eagle Club. The Environmental Education Centre of the Tallinn Zoo offers environmental education also in ornithology to primary school students (7-14). The Eagle Club pays significant attention to outreach in addition to its work on protection and research. In addition, we aimed to talk about literature and folklore.

Goals

While compiling the program, the aim was to address the audience not so much already involved in birding but to make an introduction to a world worth discovering, emphasising that everyone regardless of specialisation might find something interesting in birding or participating in citizen science, and as a result, contribute something to the wellbeing of birds ('It does not require education in natural sciences; I can contribute with my own strengths!'). The target audience was primarily school students and teachers, but the event was advertised quite widely to include all possibly interested parties. As a result, about half of the audience were teachers and students; the rest of the audience also included some birders.

The 2-hour program of the researchers' night included:

1) A talk about the EnviroCitizen project and citizen science as a tool of raising environmental awareness and activism by Elle-Mari Talivee. The presentation called for active participation in winter garden birdwatch as the first step of environmental citizenship, touching upon the results of WP2 and the growth of interest towards environment after getting involved in birdwatching – a pathway to environmental citizenship.

2) A short talk about the history of ornithological circles for children and young adults in Estonia – the importance of the inclusion of youth by Urmas Talivee, the Environmental *Education Centre* of the *Tallinn Zoo*.

3) A poetical interlude of folklore: the poet Veronika Kivisilla talked about birdsong in Estonian folklore and imitated several species (birds in culture and folklore).

4) Finally, the ornithologist Aarne Tuule presented about Estonian eagles and the activities of the Eagle Club protecting them, describing the technical side of researching the eagles: the innovative technologies, web cams and GPS-senders.

Between the presentations short film clips about birds were shown, and the evening ended with a guided tour in the building of the academy (formerly a Baltic German palace).

Practical information

Researchers' Night was held on 30 Sept 2022 at 18:00 in the building of the Estonian Academy of Sciences, there was pre-registration. The event was free.

Promotion

The Researchers' Night unfortunately did not have nationwide organisational support this year as it usually has (because of funding problems – usually there is a web page covering the program across Estonia), so the promotion had to be planned by each institution independently.

The event was promoted through the websites of the Estonian Academy of Sciences, UTKK, and via Facebook for approximately two weeks, in addition via Instagram, several mailing lists including the one of BirdLife Estonia, and the mailing lists of the Department of Education of Tallinn. The Academy has established good contacts with several schools in Tallinn and the students and schoolteachers get the information from there. The Academy also sent information to the Facebook groups of several Tallinn districts.

Around 60 people were present, and the event was broadcast via YouTube and Facebook. The recordings became available some days after the event and Facebook and YouTube had around 400 views.

Conclusions and lessons learned

Feedback from the audience and some e-mails and phone calls afterwards thanking for the event were rather cordial; the oral feedback right after the event showed that people are interested in nature from different angles and therefore interested in a diverse, multi-perspective program (there were bird-lovers and poetry-lovers present, for instance). It seemed that the variety of the program had also attracted a rather diverse audience. The students seemed to be interested in the modern technology ornithology is using nowadays as well.

When working with several partners, it was sometimes complicated to communicate. We made one serious miscalculation: The organisers from the Academy wanted to close registration as soon as the number of seats (90) in the hall of the building were full, and shortly before the event let the audience know that there will also be the broadcast. As the event was fully booked 10 days before the event, they closed the registration. This was too early (people might change their mind, fall ill, decide for Zoom, etc): as a result, there were about 60 people present while we had received several e-mails regretting that they had been late with registration.

Initially, a small workshop was planned in addition, but it was not possible in the rooms available. It would have added a practical element to the event and allowed for personal contact with visitors.

Photos of the event were made by Val Rajasaar.

2.1.4 Exhibition presentation: *'It was the women who wrote about birds'*

Description

We got the possibility to give a short talk as a conference interlude at the conference about Estonian women writers held at the Estonian Literary Museum: we talked about the 19th-century and early 20th century women ornithologists as educators, nature writers, and environmental activists, introducing the Europeana exhibition 'Women writing birds' which was curated by Clara Contreras Ameduri, the Spanish EnviroCitizen partner.

Photo: Alar Madisson, the Estonian Literary Museum

Goals

Initially, Estonian literary studies have paid little attention to nature literature. To contribute to redressing this gap, The Europeana exhibition was a good opportunity to point out to scholars of women's literature (and the conference guests) that women played a role in the emergence of environmental movements both in the world and in Estonia.

Promotion

The conference organizers promoted the event, sharing the program on web pages, the literary museum newsletter, mailing lists and FB pages. The topic also gained some attention: since February 2023, a special issue of the Estonian research journal based on the conference will be edited, and we were also asked to write a short article about the exhibition and its parallels in Estonia.

The link to the exhibition was later published together with an overview about the conference in Estonian cultural weekly Sirp.

Practical information

The conference was held in the Estonian Literary Museum on 12 Oct 2022. The talk consisted of two parts: Elle-Mari presenting the exhibition, comparing it to the Estonian material, and Kadri Tüür speaking about a woman nature writer. The event was free and attended by about 40 people.

Conclusions and lessons learned

We learned that it was productive to combine research materials of project partners; in this case presentation on a local exhibition and an online Europeana exhibition made by the Spanish project partner.

2.2 The Netherlands

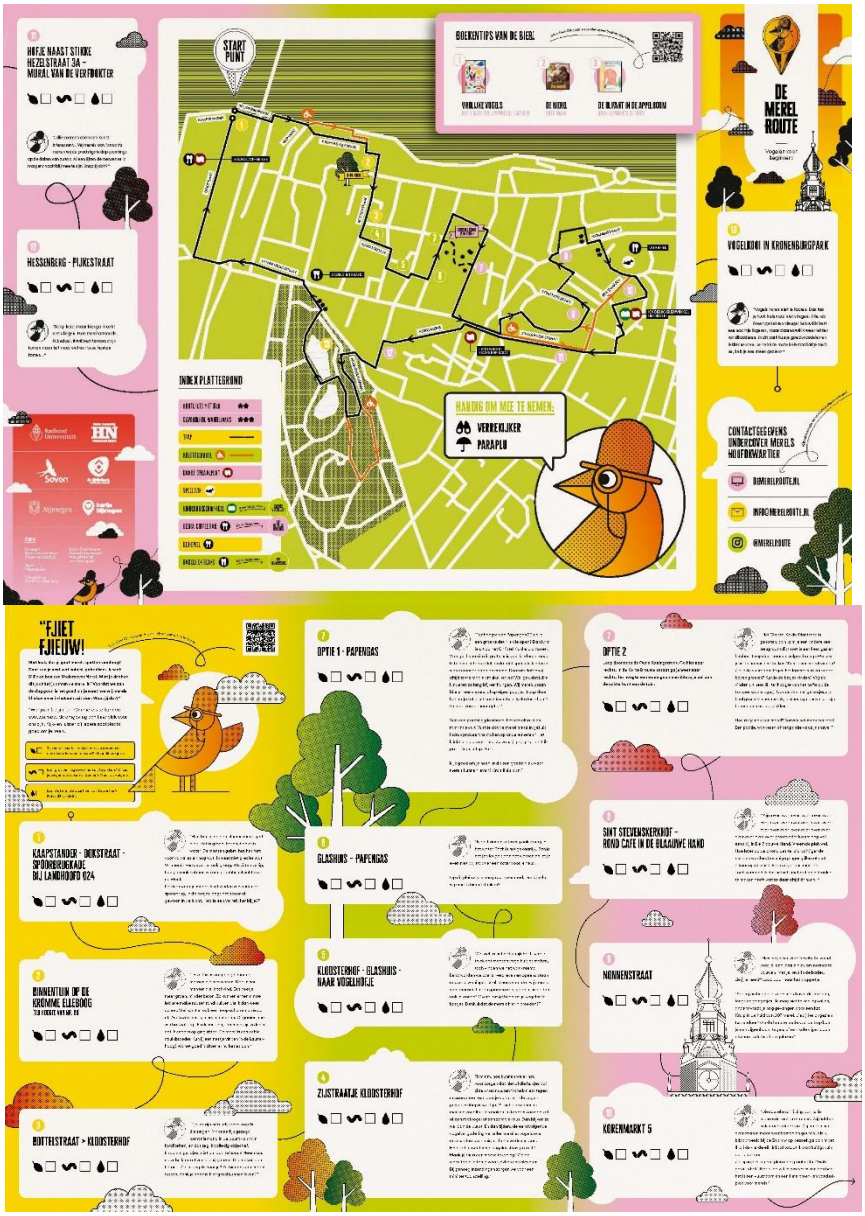
2.2.1 De Merelroute (The Blackbird Walk)

Description

Sovon Vogelonderzoek Nederland (Sovon Ornithological Research Netherlands, hereafter Sovon) is the Dutch knowledge centre for ornithological research. Together with Vogelbescherming Nederland (Dutch Society for the Protection of Birds, hereafter VBN) they nominate a bird species each year that requires a bit more attention, both in terms of research and protection. The year 2022 was designated as the Year of the Blackbird, and as such both organisations organise several activities related to the blackbird. For Sovon this concerns several monitoring projects, for instance related to food sources in gardens and mapping nesting sites, while VBN offers advice on how to help blackbirds in your own garden (e.g. by planning shrubs rich in berries or that offer nesting spots).

In the context of the Year of the Blackbird, together with Sovon we designed a blackbird walking route (Merelroute) in the inner city of Nijmegen. Participants can obtain a colourful map with the route on it (for free), which tells the story through Billie, an undercover blackbird guiding families through the city. The map highlights a series of locations to read a short story and learn what each location signifies to a blackbird, sometimes combined with a small challenge or assignment. The walk lasts for about an hour, though participants are also invited to visit local bars or restaurants to make it into a longer trip. These entrepreneurs also paid attention to the blackbird in their bars or shops. Children could for instance get a colouring plate of the blackbird.

This project was a collaboration not just with Sovon and VBN, but also the municipality and the local libraries. The municipality was also a co-funder of the route. For designing and marketing the project we collaborated with a communications expert, a



The Blackbird Walk map with texts and small activities

children's book writer (for matching the story to the intended audience) and a design bureau for graphic design.

Goals

The walk is mainly targeted towards families with primary-school aged kids (ages 4 to 12), and aimed to offer a playful and low-threshold way to learn about how birds live in the city of Nijmegen. By seeing their city through the eyes of a blackbird, the goal was for participants to both learn more about birds (especially blackbirds) and also increase empathy and care. Many of the small stories and assignments were related to ways in which cities and gardens can be more or less supportive of urban birds (e.g. finding food, water and nesting sites), so by completing the route the aim was for participants to also have gained inspiration about how we can support urban birds ourselves, and to evaluate their own neighbourhood in a new way. Blackbirds are very appropriate as a focus species because they are a very common urban bird, while at the same time having decreased in numbers significantly in the Netherlands over the past few years.

We thus focused on several elements of caring about birds (becoming aware of their presence, their needs and what living in the old city centre might be like for them), while subtly also giving some inspiration for how we can all help urban birds, possibly inspiring some actions of caring for birds. To support this further, one of the entrepreneurs collaborating in the project (a children's bookstore) handed out free suet balls to participants. In addition, since the activity was actively promoted as being part of the Year of the Blackbird, there is potential for some participants to join one of the aforementioned citizen science projects organised by Sovon as a result of taking part in the blackbird walk.

We also paid specific attention to accessibility and inclusion, for instance by indicating difficulty levels on the map (e.g. for steep stairs) and making sure that the route was accessible to people in wheelchairs or pushing strollers, by indicating clear alternative routes for them where stairs had to be taken. We also contacted an organisation that organises activities for people in Nijmegen with very little money.

Enthusiastic participants on their way during the Blackbird Walk

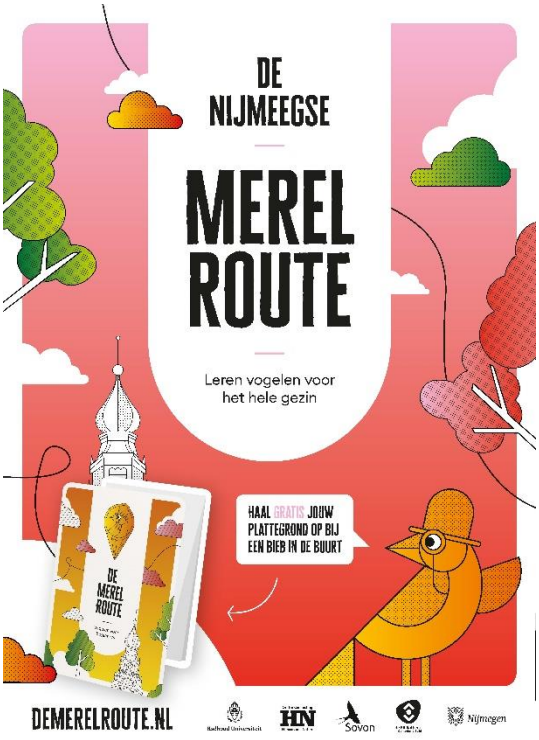
Practical information

The route officially started on the 22nd of October (to coincide with the autumn school holiday) and the event runs until the 31st of December (signifying the end of the Year of the Blackbird. Families can visit any of the pick-up locations to get a map and walk the route when convenient.

We involved several partners in the project, as mentioned earlier and under 'promotion' below.

Promotion

We created a project website and associated Instagram page to increase the reach of the project. A press statement was sent to relevant media outlets and organisations, including both regional newspapers and platforms aimed at families, for instance the Nijmegen page of the popular national platform Kidsproof which lists all kinds of activities suitable for children. In December alone the project website was visited by more than 300 unique visitors.



Blackbird Walk poster

A total of almost 5000 maps were printed. We also made stickers to attach to lampposts and other spots along the route. In addition, we distributed 500 stickers of the Year of the Blackbird provided by Sovon, for instance at some of the businesses participating in the project. Posters were designed and distributed across the city, in for instance cafes and restaurants. We also made a small promo message that we could spread through all of our networks, and we asked several schools (including those involved in the task 3.1 school project) to include promotion material in their newsletters. The Radboud University also contributed to promotion of the activity through their faculty newsletter. A large banner about the project was installed at the week-long Schemerlicht festival in Nijmegen, an artistic festival about the human-nature relationship, which drew in around 10.000 participants.

In terms of our partners in this project, the library of the Nijmegen region consists of seven libraries in different parts of the city region. Each library was a location where families could collect the map, and had posters advertising the walk. The joint libraries also created a separate webpage with information about the project. In turn, the map and library webpage gave some suggestions for bird-related children's books to connect to the yearly Children's Book Week (*Kinderboekenweek*) which immediately preceded the Blackbird Walk and happened to have a nature focus this year.

In addition, the municipality offered additional funding for the project, tied to using the project to support local businesses. As such, several local restaurants, stores and bars enlisted to become a pick-up spot for the map and offer a bird-related product or activity, for instance a bird-related dish, activity for kids or product to sell or hand out (as in the aforementioned suet balls). This benefits both parties by promoting the businesses and simultaneously enlarging the reach of the project.

Conclusions and lessons learned

From the start we envisioned the blackbird walk as an ambitious project that would be the biggest initiative of the Dutch team in WP3. In our conversations with colleagues of Sovon and the marketing specialist we involved in the project, the idea in fact expanded even further, turning into a large-scale and diverse marketing campaign and a collaboration with the libraries, municipality and businesses throughout the city centre. One important lesson we learned through this project is that, if you aim to approach a project like this at an ambitious scale, it is crucial to involve collaborators with relevant skills and expertise. Since our aim was to reach families throughout Nijmegen, especially also those who don't normally partake in bird-related activities, using only our own communication channels would have not had the desired reach. As such, involving a marketing professional was an important decision to professionalise our approach. Similarly, since the texts on the map had to align with the perspective of children in the age range 8-12, and the maps had to be visually appealing to them, we collaborated with writers and designers that had the necessary expertise. The collaboration with Sovon was also a crucial component of developing the route, as their knowledge of the blackbird and the needs of urban birds was vital for ensuring a realistic and coherent narrative of Billie the blackbird.

Inclusion was in important criterion in developing the route, for example by making sure that the route would be accessible for people in a wheelchair or pushing a stroller. We succeeded in achieving this aim, but this did require explicit consideration because making an inner-city walk in Nijmegen accessible to wheelchairs required developing alternatives at several points on the walk. The benefits in terms of inclusion, however, far outweighed the efforts involved.

One consequence of having such an ambitious approach and involving so many partners is that delays are practically inevitable and have a tendency to cascade. We initially planned for the walk to launch near the end of September, but due to several complications we eventually launched a few weeks later, at the start of the autumn school holidays. Collaborating with many entrepreneurs also requires extensive personal contact (and as such, time), which can increase the risk of delays. None of these factors were detrimental to the success of the project, but similar initiatives should take such complications into account.

Ultimately we were delighted with the realisation of this idea and how much reach it achieved. Since we received some interested reactions from other cities, and since the idea of a walk can be easily translated to other birds or other urban species, we aim to bundle some of our materials to make it available to Dutch parties that may benefit from our experiences generated through EnviroCitizen.

2.2.2 Book club '*Winged Evenings*' (leesclub 'Avonden met Vleugels')

Description

As a second public event we organised a book club in the city of Nijmegen. The focus of the book club was on Dutch-language novels in which birds play a role. Each participants read the book before the meeting, and during the meeting we jointly discussed the book and the role birds play in it. Dr. Susan Boonman-Berson, an expert in human-animal relationships, took on the role of facilitator, and for each meeting we invited a researcher or other expert related to the book topic to offer a stimulating introduction on their experience with the book.

Goals

The role of books as an inspiration and route into birding was mentioned several times in our interviews for work package 2 of the project.. Therefore, We wanted to explore to what degree literature, specifically novels, could be a route into care for and about birds for book lovers not yet involved in birding. Each of the four selected books involved birds in a prominent role (in some as central characters, for others more in the background), and we sorted them somewhat in order of difficulty of reading.

It would have likely been easy to find many enthusiastic participants among existing birders, but out explicit aim was to explore the potential of literature to stimulate care among people not yet dedicated to birds. As such, our main target audience was people who love to read but don't have a specific passion for birds or bird-related books. We also wanted to reach individuals beyond our own network, since it was not intended as an academic book club. Furthermore, we focussed on adults (16 years or older) since children's literature is a very specific genre that would ask for a very different approach.

Practical information

Each of the meetings was on a Thursday evening from 19:00 to 20:45; we went for evenings to allow students and employed individuals to join, and avoided weekends to make it more accessible for parents. The evenings were organised as physical meetings with a maximum of 15 participants to keep the discussion manageable. The meetings were all planned as physical get-togethers. Meetings were free to join, participants only had to buy the book or borrow it at the library. We did ask participants to enrol (also for catering purposes).

We organised the book club sessions in the Lindenberg, a cultural centre in the city centre of Nijmegen. We wanted a public location in the city rather than organise it on campus, as doing so made it more accessible for non-academics. Each meeting around 10 participants took part, most of whom visited multiple meetings, making for an estimated 20 unique visitors in total.

Poster for the Book Club

Promotion

To reach our intended audience, we pursued a large number of promotion opportunities. Posters and flyers were distributed in most faculties of the university and in local bookstores and the central library. QR codes on the poster directed to a dedicated webpage with more information. The meetings were listed on the website of De Brug, a local newspaper, and the local library sent information about the book club to all members of their literature mailing list. We also used the other EnviroCitizen activities, including the Bird Quiz, Blackbird Walk and the task 3.1 school project to promote the book club. We posted several messages about each meeting on our @RU_CCHN twitter page and personal

social media, and we contributed to the 'Radboud Reads' campaign of the university to promote one of the meetings via Instagram and TikTok. We also contacted organisations focussed on literature or nature volunteering to distribute a flyer. Finally, we made use of our personal networks as much as possible, and asked people in our network to also promote it among their own networks by forwarding the flyer.

Conclusions and lessons learned

The book club meetings were very enjoyable as a forum for joint reflection on the listed books. As we expected, novels offer rich material for discussion, and it was interesting to notice how different people experience characters or events in different ways. Our decision to involve an expert for each session to offer an introduction was an effective way to deepen the discussion further. The experts came from different fields and organisations (ecological research organisation NIOO, Radboud University, Dutch Society for the Protection of Birds, and a local raptor ringing group) and all had expertise that matched the topics of the book they read; for example, the researcher from NIOO was doing her PhD research on behaviour of the great tit, which is a key element of the first book, *het Vogelhuis*. We would also like to highlight the important role that the facilitator plays to lead such a discussion; we were very happy to have invited a highly experienced discussion leader to do so, which contributed to a well-functioning series of meetings.

One challenge we encountered throughout the project was related to recruitment. Specifically, we could have chosen to invite birding groups and likely would have gotten a fair few participants that way, but we explicitly did not want to reach people who are already passionate birders, since that would not align with our aims for the activity. One consequence of this choice was that, despite extensive promotion activities as described earlier, we struggled to enrol participants beyond our research centre. One possible explanation is that book clubs are not the easiest sell to people; many people are not avid readers, those who are might not care for joint book discussions, and the subset of people who would enjoy such a meeting might not care for bird-related novels. In addition, after two autumns and winters in rather strict lockdown, the autumn and winter of 2022 were chockfull of activities in the Netherlands, which might mean that people were simply overwhelmed with potential things to do. We do think this is a shame, since the people that did join seemed to have a great time, and (based on a few informal responses during the meetings) novels do in fact hold a potential to enrich the way we look at the birds around us.

2.2.3 Vlugge Vogelquiz (Quick Bird Quiz)

Description

This activity took part in the context of the 65th anniversary of the Radboud Faculty of Science, and linked to the Weekend of Science, a Dutch imitative to give the public an opportunity to get a behind-the-scenes look at science. At the faculty's 'open day', family members of staff, local residents and other interested people of all ages are invited to visit the faculty. The programme for this year included lectures for adults and kids (on e.g. space, DNA, climate change and probability), guided tours (e.g. at the greenhouses and laboratories), and several experiments and experiences (e.g. virtual reality, working with materials and exploring the planetarium).

As one of the activities, we organised a birding quiz. After taking a seat, groups of participants saw a series of 12 pictures of birds, and each participant individually tried to write down each bird's name. After completing the quiz the group was shown the correct answers, and we ended the activity by quickly giving some tips for people to continue exploring birds, especially the other task 3.2 activities: the Blackbird Route and the reading group. The activity was in Dutch.

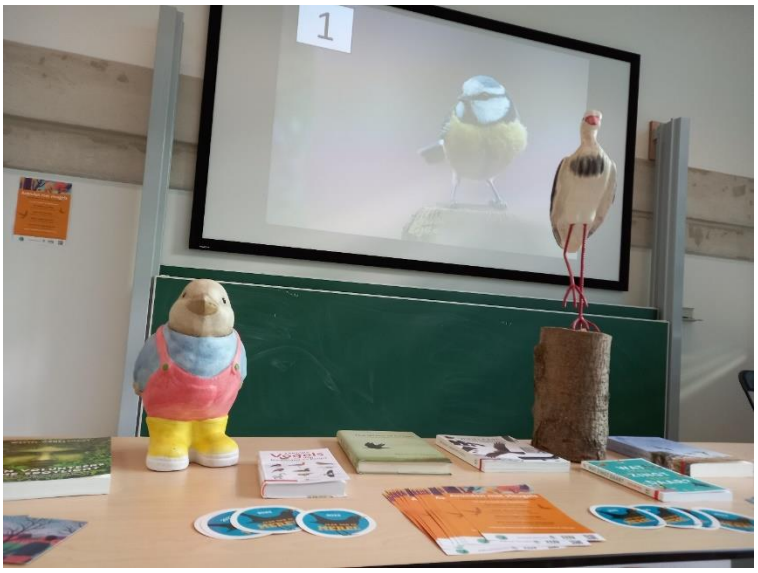
Open Day logo

Goals

Like all the activities at the open day, the quiz was intended to be fun for all the family, and had to be quick to join and finish. Our main goal and intended audience was to stimulate people with little bird knowledge or interest to think about birds living in their neighbourhood, and as a way for them to get to know some of these birds. Aside from the names we also shared some facts about each bird's life, linked to insights from WP2 about how bird names become a point of entry to recognising a bird and learning more about it. To keep it low-threshold we included several very common and characteristic birds (robin, blue tit) along with a few tougher ones (crested grebe, jackdaw).

Practical information

The open day took place on Saturday the 1st of October, and the quiz was carried out continuously between 11:00 and 16:00. The marketing & communication team of the faculty were responsible for coordination of the day's programme. All activities took place on campus, with no specific Covid-19 measures in place. Around 220 colleagues and students worked on an activity.



Snapshot of the quiz

An estimated 3000 people visited the Open Day. Around 130 people participated in the bird quiz, mostly families with young kids, some elderly people and a few teens. In terms of bird knowledge most ranged from complete novice to having some basic bird knowledge, though a few participants demonstrated impressive recognition skill.

The activity was not organised with specific partners aside from Radboud University, though we also promoted our other WP3 activities after the quiz, including the Blackbird Route in which we collaborate with Sovon. In addition, the format of the quiz built on research conducted by dr. Michiel Hooykaas (Naturalis Biodiversity Center) who shared pictures for use in the quiz.

Promotion

A brief announcement for the activity was posted on the website for the open day (https://www.ru.nl/openhuis). Registration for participants was not required.

The Open Day was heavily promoted by the faculty's PR team; this included press releases to local media, flyers to all nearby residents, PR through regional primary and secondary schools, posters in the city, a large social media campaign and internal mailings and newsletters. Also the websites of the Dutch Weekend of Science and the municipality of Nijmegen were used.

Conclusions and lessons learned

Overall we were very happy with how the activity went, especially the number of people reached; initial estimate was to engage around 50-80 people, so having over 130 participants greatly surpassed our expectations. In terms of our aims we for sure managed to trigger thought and recognition regarding common birds among the participants, and for the bird enthusiasts a nice exercise to test their recognition. We did not collect feedback in an organised format, but informal feedback from participants was very positive, and several people took flyers for the other EnviroCitizen activities.

One aspects that we had to change was that in its original conception, the quiz would be followed by a mini-lecture about connectedness, shifting baselines and worlds opening up, to link the quiz more strongly to our work in WP1 and WP2. We quickly realised that the audience of the Open Day was looking for quick activities and ones that allowed for active participation, so any sort of mini-lecture would not work in that setting. In addition, focussing just on the quiz allowed for a quicker shift from one group to the next, ensuring optimal numbers of participants.

In summary, the activity was a large success in terms of number of people engaged and was a good exercise in bird knowledge, but the format of the Open Day left little room for explicitly connecting with other aspects of environmental citizenship.

2.2.4 Presentation at Sovon Ornithological Research Netherlands

Description

Sovon, the Dutch ornithological partner in EnviroCitizen, organises regular lunch seminars where members of staff or outside guests share recent projects or research with the Sovon staff. These talks are intended as a forum of discussion and sharing of insights, and also a way to connect and hear about relevant work taking place on birds and birders. In February 2023, the Dutch EnviroCitizen team will present our research at one of these lunch seminars.

Our presentation will build on material we have presented at other occasions, e.g. several scientific conference presentations. In addition, for linking to the practical activities of Sovon we can draw on a Dutch summary we developed of the task 2.3 fieldwork, which is aimed at (amongst others) organisers of ornithological citizen science projects.

Goals

We took the initiative to visit Sovon and present our fieldwork from Work Package two. The aim for this is threefold. Firstly, we want to share the insights we developed during this work package, and receive feedback on our findings based on Sovon employees' experience with ornithology and citizen science projects. Secondly, we also want to share the results with them as a way of expressing gratitude for their support during the fieldwork, as they helped inform us on relevant events and reaching a potential interviewee. Finally, we also hope to initiate a discussion and joint reflection with Sovon staff about the implications that our results may have for their work in organising ornithological citizen science projects.

Practical information

The lunch seminar is planned for the 9th of Februari, and will last for about half an hour. We will visit Sovon at their office located at the Nature Plaza, a facility near the Radboud science faculty that hosts several Dutch nature organisations. The session will have a hybrid nature: most participants join in the meeting room while others join in online. We expect to engage with around 20-30 participants in total.

Promotion

Since this activity is aimed at Sovon staff, we did not do any promotion ourselves; the seminar organiser sent around a title and abstract to all members of staff to announce the event.

2.3 Norway

2.3.1 Stakeholder meeting: On Citizen Science and Birdwatching

Description

This stakeholder meeting took place in November 2022, and was organized by the University of Stavanger (UiS) and the Friends of the Earth Norway (Naturvernforbundet) Rogland chapter.

The stakeholder meeting was divided into three main sections lasting 1 hour in total. In the first section of the program, we gave a general introduction to the Envirocitizen project and birding as citizen science. Findings from WP 1 and 2 were introduced and the outline of the school-based activities in WP 3 as well as their potential for fostering environmental citizenship were discussed. In the event`s second section, Ph.D. student at UiS, Endre Harvold Kvangraven, presented his doctoral research on birds in new Nordic literature. Kvangraven`s presentation was richly illustrated through photographs as well as images and quotes from the literary fiction from his research. Two such examples were Fuglane [the Birds] by Tarjei Vesaas and Nå hogger de [They are Felling Now] by Agnar Lirhus. Through these, and many other examples, Kvangraven deliberated on the question if contemporary literary fiction has the potential to challenge conventional anthropocentric conceptions of nature. In the event´s third and final section we were joined by citizen scientist and ornithologist Øyvind Gjerde for a conversation on the potential for fostering environmental citizenship through birding. The discussion drew on Gjerde`s own experience with birding and how birding offered him, from early childhood on, a unique access to nature. Through the discussion, the audience was introduced to the way bird watching can facilitate encounters with nature that has the potential to create more environmentally aware citizens. By referring to concrete examples from Gjerde`s own birding activities through the years, the discussion outlined the relationship between culture and nature that happens through birding. For example, how his observations of and interest in urban birds resulted in frequent publications on the topic in the local newspaper. Or how his interest in birding and desire to engage people in bird watching, motivated him to become a skilled storyteller.

Goals

The main ambition of the activity was on the one hand to present the Envirocitizen project to the public, members and volunteers of the Friends of the Earth Norway, active birders and bird watchers, potential citizen scientists, educators, and children in schools. On the other hand, the activity sought to bring awareness of the social and environmental potential of bird watching activities. As such, the event was not only organized as a “show and tell” from the Envirocitizen project, but actively utilized research and “on the ground” experience of bird related topics to show how birding not only generate citizen science data but is a social and cultural activity as well. A main goal of the activity was to discuss how birding activities as a particular form of Citizen Science, can promote environmental citizenship.

Presentations during the meeting: birds in new Nordic literature (left, by Endre Harvold Kvangraven) and school-based activities and the potential for promoting environmental scitizenship through bird counting (right, by Ann Elisabeth Laksfoss Cardozo)

Practical information

The stakeholders meeting took place on November 10th from 19.00 – 20.00 o`clock, at the Friends of the Earth Norway`s visiting centre at Mostun in Stavanger. Around 30 people turned up to the event. Among them were members of the public, birders, researchers, and individuals with an interest in birding or environmental issues.

The event was free and open to all. It took place on a popular walking area, and there were torches and signs in the park marking that the event was open and welcoming to passersby.

Promotion

The stakeholder meeting was organized as an open event hosted and communicated through the Friends of the Earth Norway Rogaland chapter`s website, social media and through the distribution of flyers. The UiS Envirocitizen team circulated information about the event through email, social media and orally at university events. The event was hosted within the Friends of the Earth Norway Rogaland chapter`s program “Nature on a Thursday” [Natur på torsdag], the organisation`s discursive platform. A blog post about the event will also be published on the Envirocitizen blog during the first week of December 2022.

Conclusions and lessons learned

It was difficult to stipulate the number of participants at the event beforehand. We considered the number of participants a success and were pleased to see that so many people from outside the birding community came. Several people who showed up were in some way or another involved or interested in environmental issues, but it was a pleasure to see that birding and bird watching as an activity engaged so many. We hoped for a greater turnout of teachers and pupils from our partnering schools, but we concluded that it must be difficult to plan and execute school activities outside of

ordinary working hours, and perhaps even more difficult to motivate teachers and student to spend their personal time on extracurricular activities.

We consider the comments and questions from the audience fruitful outcomes of the event. For instance, one participant pointed out the importance of birding as citizen science and environmental citizenship because it is an activity that teaches people to pay attention to environmental processes. Other discussion topics included inclusion/ exclusion in birding and citizen science and the age gap in bird watching activities, as well as the potential for mobilizing a new generation through school-based activities. These topics resonate well with the outcomes of our fieldwork.

2.4 Romania

2.4.1 Exhibition: The ornithologist Silvia Stein von Spiess from Sibiu and hunters as early citizen scientists in the first part of the 20th century

Description

The exhibition was organised by New Europe College, Bucharest and the Library of the 'Lucian Blaga' University of Sibiu and curated by Agota Abran, Phd.

It consists of nine boards of A0 size with text and pictures. Three boards describe the work of the female ornithologist Silvia Stein von Spiess in the early 20th century with a special emphasis on her writings in the Romanian hunting journal „Carpații" in which, next to writing popular articles about birds, especially the migration of birds and sharing the findings of ornithology and how bird science works, she also urges hunters to observe birds, share their observations, especially if finding/shooting ringed birds. Two boards describe the hunting journal with emphasis on the writings of ornithologists in the journal (their urging of hunters to help the science of ornithology) as well as the sharing of observations of birds by other

Overview of the exhibition

hunters. There is one board with an article from 1941 about how to care for birds in winter and put-up bird feeders by the then recently established Romanian Ornithology Centre (still in charge of ringing in Romania). And one board with an interesting article from 1935 from the Carpatii journal by an ornithologist, again emphasising the importance of the help of hunters for ornithology. The last two boards are a description of the Envirocitizen project and what citizen science means and how it can open a whole world up of other species co-existing with us.

The exhibition is accompanied by a Catalogue with an introduction written by us and a selection of articles relevant to the topic of the exhibition from the Carpatii journal from the 1930s.

The opening of the exhibition was timed for the European Researcher's Night at the Library of the 'Lucian Blaga' University of Sibiu with the addition of a bird-photography exhibition borrowed from the Natural History Museum of Sibiu (photographs taken by an amateur birdwatcher from Sibiu who died recently in a car accident) for the entire duration the exhibition will be at the Library. The opening ran parallel with other events at the Library aimed at students from elementary schools many with topics such as nature conservation and sustainable living.

The opening of the exhibition consisted of a description of the Envirocitizen project and that of the exhibition with a discussion with staff from the Romanian Ornithology Society and amateur birdwatchers from Sibiu about what birdwatching means, how it helps ornithologists, and how it opens the world up for people.

Goals

The aim of the activity was on one hand to bring the work of Silvia Stein von Spiess, a female ornithologist in the early 20th century to the forefront with her aim to bring in the larger public, in her case, hunters, into being more knowledgeable about birds and helping the work of scientists. On the other hand, it wanted to showcase what citizen science is through a historical example that was not necessarily called as citizen science, a term that sounds foreign and awkward to Romanian ears. It also connected citizen science to becoming more environmentally conscious, i.e. to a world opening up. By inviting amateur birdwatchers taking part in citizen science activities and staff from the Romanian Ornithology Society who organize and analyse citizen science activities and data, we also wanted to show to a larger public (many students) what such activities entail.

This linked closely up with our discussions throughout the project about female ornithologists and interview discussions about the role of hunting in birding as well as our finding of how a 'world opens up' for many birdwatchers (something that early 20th century hunters often talked about too).

Practical information

The exhibition opening was on the 30th of September 2022, 17:00, at the library of the 'Lucian Blaga' University of Sibiu (our partner institution). There were about 20-30 participants during the discussion: some birders, some interested adults, mainly elementary and high-school students. Covid19 did not have an impact on the activity. The exhibition visiting period was between 30th of September and 30th of November 2022.

The exhibition items are viewable online here: http://digital-library.ulbsibiu.ro/jspui/handle/123456789/3333

The exhibition will be itinerated to the Natural Sciences Museum of Galați between January and April 2023.

Promotion

The exhibition was promoted on the Facebook page of the Romanian Ornithology Society (55.000 followers), as well as on some of their internal Facebook groups and mailing list (about 50 people). Many birders on these forums viewed the exhibition online.

It was also promoted in local digital and printed newspapers and was in the local television channel on the day of the opening.

Conclusions and lessons learned

There was a greater than expected interest in the exhibition both at the local (i.e. from Sibiu) and at the birdwatchers' level, especially in Silvia Stein von Spiess as a female ornithologist. At the discussions with the birdwatchers, it was mentioned that some of them heard about her but they welcomed getting to know more about her work. It was mentioned in an excited way that many of the findings of ornithologists then, match perfectly with findings now; this shows how historical stories can trigger reflection among contemporary birders about the development of citizen science and diversity here in, especially the contribution of women to the history of ornithology. The exhibition also triggered attention from other parties interested to showcase it; the Romanian team was approached by a local journalist to write about Silvia Stein von Spiess in their newspaper (and had the pleasant experience of getting to know and chat to her daughter who was visiting from Germany), and we had interested museums (such as the 'Grigore Antipa' National Natural History Museum, who actually hold some of Silvia von Spiess's and her father's mounted birds in their collection) ask to send them the catalogue of the exhibition. We sent the exhibition to the "Răsvan Angheluță" Natural History Museum of Galați where it will be shown between January and March 2023.

The birdwatchers, both those present at the opening and who knew about the exhibition online as well as the staff form the Romanian Ornithology Society were very excited and thankful for the existence of the exhibition. They felt that birdwatching is not very visible or appraised positively by the general public and thought this was a good way to showcase their work. There was also some discussion about the changing role of hunting and its relation to nature protection, a theme that was present in some of the countries' fieldwork in work package 2 as well.

We hoped for a bigger turnout for the discussion part of the exhibition, although the participating birdwatchers thought it was a good turnout. We had a couple of interested people who started discussions with the local birdwatchers. In hindsight maybe we should have chosen a different date for the opening, because there were so many things happening at that time that not everyone had time to be present at the discussion, although there were plenty who viewed the exhibition later.

It was a great idea to partner up with a local institution, it eased our work in organising and promoting the event. Working with the Romanian Ornithology Society also turned out extremely well.

2.4.2 Discussion event with birders: not-only-human spaces

Description

In the fieldwork for task 2.3, several interviewees mentioned a 'world opening up' to them after becoming interested in birds. This often meant that the spaces they walked through and frequented such as their walk to/from work or their visits to a park, changed drastically as they became aware of the many birds inhabiting their city. Following these interview snippets the Romanian team asked birdwatchers from Bucharest to draw maps of the city or of the country through the eyes of their birdwatching experience, getting seven wonderful and very different maps from these birdwatchers.

Together with the New Europe College and the Bucharest group of the Romanian Ornithology Society we organised a discussion for those interested in birding about how the meaning of places change from the moment one starts being interested in birding. We showcased the maps and some interview quotes during the discussion.

Goals

The aim of this activity was to have birdwatchers think about the importance of what they do from a larger perspective of how it can impact society and nature protection not just in terms of environmental activism but also from the possibility of changing the way we think about and see places. Through birdwatching we can look at places, even urban places, not only as inhabited and made by people but as places co-habited between people and so many other species of animals and plants.

The target audience of the event were people interested in birding, and was fully organised around what came out of the interviews and fieldwork activity during work package 2 of the project. It targeted environmental citizenship from the point of view of thinking about environments as co-creations between humans and non-humans and what kind of new perspectives this would open up to us.

Practical information

The discussion took place on the 9th of December, 17:00, at New Europe College in Bucharest. Including invited members of the Romanian Ornithology Society, we involved 14 participants. The meeting was also recorded and the recording will be available online.

Promotion

The activity was promoted through the channels of the Romanian Ornithology Society, and an online event page was created. An article after the activity about the discussions will be put up on the site of the Romanian Ornithology Society.

Conclusions and lessons learned:

There was a great, lively and creative discussion between those interested in the social sciences and amateur birdwatchers going deep into topics such as what it means to be part of nature, what we could do to care for urban birds, how much amateur birdwatchers can influence the sciences and so on. We also reflected on the importance of attentiveness to birds, and what the Romanian Ornithology Society is doing to reach a broader audience.

2.4.3 Educational program closing event

Description

This activity will be organised as a closing event of the educational program implemented by three rural schools (from the villages of Romuli, Telciu and Salva in Bistrița-Năsăud County). It will showcase the work of the participating students. With the professors we are going to work on a new brochure that they could use for future activities with children.

Goals

The aim of this activity is to both get feedback from children on how the educational program went and have them be able to show off their birding activities. The target audience is the children who took part in the educational program and their parents, as well as us as researchers. It targets the pedagogical approach of environmental citizenship, being able to improve on it with the help of teachers and professors working with children.

Practical information

The activity will take place mid-February at the Elementary School of Romuli, Bistrita-Nasaud County (the partner for this activity). The estimated number of participants is about 30 (both children and their family members).

In case of lockdowns or restrictions Covid19 might force us to create an online version of this activity, possibly in the form of an online exhibition created by the children.

Promotion

The activity will be locally promoted by the school.

2.5 Spain

2.5.1 '*Cambia de sombrero*' (Change your hat) workshop at the European Researchers' Night

Description:

We organized a workshop which combined a short sketch on nineteenth-century women activists for birds and an arts-and- crafts-activity related to the contents of that performance. This took place on September 30th to present EnviroCitizen at the European Researchers' Night, where science is made accessible for children through interactive activities.

Our presentation consisted of a sketch inspired by WP1 research on women ornithologists and citizen science, followed by a do-it-yourself hat workshop. By staging a dialogue between a nineteenth-century bird protection activist and a Victorian lady wearing a feathered hat, we described the relationship between citizen science and environmental citizenship, showing how birdwatching in the past led to early forms of environmental awareness and conservation activism. Given the prominence of gender in our sketch, we also reflected on the pioneering role of women as scientists. Children were encouraged to become active in citizen science and apply these notions to everyday life, reflecting on how learning about nature is linked to environmental awareness, a topic which is also present in WP2. Together, we reflected on useful ways to become environmental citizens, an essential aspect of WP3, encouraging children to participate by writing down proposals to care for the environment on post-it notes. The event ended with a workshop in which participants could make and decorate their own hats as a souvenir of what they had just learned about citizen science, environmental citizenship, and action against the plumage trade. The participants also got a small badge with the EnviroCitizen logo. This was used as an instrument of dissemination of the project since we thought it would be easier for them to remember its name and trigger memories of their experience while participating in the workshop.

Scenes from the short sketch

The beautiful hat worn during the skit, and the commemorative badges

Goals:

The main goal of this activity was to teach children about early forms of citizen science and environmental citizenship through the work of nineteenth-century ornithologists and nature writers. By doing so, we intend to highlight the relevance of citizen science initiatives in the development of environmental values, demonstrating how contemporary reactions to the current loss of biodiversity (WP2) are the result of historical connections between birdwatching and environmental citizenship (WP1). Furthermore, we wish to emphasize and celebrate the role of women in ornithological citizen science, paying attention to the obstacles female birders encountered in the patriarchal society of nineteenth-century Britain and America. Most notably, this workshop draws links between past and present forms of citizen science and environmental citizenship, emphasizing the importance of notions such as learning and care in environmental activism.

Practical information:

The activity took place between 17:30 and 21:00 at the former Teachers' Training College in Cáceres, which was the venue for the European Researchers' Night. This time frame was divided into several shifts of half an hour, during which we repeated the workshop for different groups. The audience of each shift included between 5 and 10 children (total participants between 30 and 40), aged between 10 and 14. It was a safe activity in terms of Covid19, since it took place in the venue's gardens.

Promotion:

The activity was promoted through the European Researchers' Night programme and social media profiles. We also promoted it through our personal Twitter accounts, as well as through personal contacts and the University's Scientific Dissemination Service.

Conclusions and lessons learned:

The intended audience was children between ages 10 and 14, but eventually we had a younger crowd accompanied by their parents. It is very likely that the kids were more attracted by our costumes and the do-it-yourself hat workshop than by the contents of the activity. We noticed that, except for one kid who was very much into birds, children found it difficult to absorb every detail of the sketch while teenagers found it too childish at times. We think that, in order to engage older participants, we have to skip the workshop and substitute the sketch by a more formal, although highly participatory, event where they can learn about the role women have played in ornithological citizen science.

Many of the children who attended the activity seemed more interested in the practical side of making a hat, rather than in the sketch, which contained many historical references. Although the theatrical part definitely caught their attention, due to the props used, there may have been an excess of new information during a brief period of time, since they needed to understand concepts such as citizen science, environmental citizenship, conservation activism, biodiversity crisis, or the role of gender in science. Therefore, it may be useful to reduce the number of theoretical notions and focus more on practical tasks in future applications of this activity. We also distributed badges with the logo of EnviroCitizen which added to the hat made the experience more memorable to the kids, hence the importance of accompanying the events with some inexpensive tokens that can be taken home as a reminder of what they learned or experienced that day. Finally, it must be said that the preparation leading to the workshop was rather time-consuming and that being improvised actors as well as arts and crafts instructors for one full evening was a challenging but fulfilling experience.

2.5.2 Online talk on nineteenth-century women ornithologists

Description:

On 7 November 2022 we held an online talk on nineteenth-century women ornithologists at a rural high-school, IES Puente Ajuda, in Olivenza (Badajoz). Due to Olivenza's distant location from Cáceres, this event took place online via Meet. The main goal was to introduce thirteen and sixteen-year-old teenagers to the work of pioneering women ornithologists and nature writers, showing how their birding activities constituted early forms of citizen science which facilitated the participation of women in natural history and conservation activism.

Goals:

This activity aimed to introduce high school students to the research we do in EnviroCitizen, using nineteenth-century women's nature writing to explain the notions of citizen science and environmental citizenship. By becoming familiar with women's ornithological literature within the context of Victorian natural science, students were meant to perceive how these texts constitute clear examples of the relationship between citizen science and environmental citizenship, since these self-taught ornithologists used their scientific observations as arguments for bird protection. This talk also engaged with the gender politics of science by highlighting women's contributions to the development of natural science, and connected nineteenth-century conservation activism to current environmental

challenges, thus emphasizing the relevance of Victorian ornithological literature to understand and face present-day concerns.

Practical information:

The activity took place on November 7th, between 12:40 and 13:30 via Google Meet due to Olivenza's distant location from Cáceres. In total 25 students took part. The virtual format constituted an obstacle in the interaction between speaker and audience, since it was not possible to share the PowerPoint screen and see the students at the same time. Therefore, it was difficult to evaluate their reaction to the activity.

Setting up the online talk

Promotion:

This activity was organized and promoted by the "Ciencia Circular" (Circular Science) programme as part of the European Researchers' Night in Extremadura.

Conclusions and lessons learned:

Due to time management issues, there was not enough time to engage in questions and debate with the students after the talk. For this reason, it was difficult to know whether this activity was successful in terms of dissemination and raising interest in EnviroCitizen's research results.

2.5.3 Birding apps workshop for students at the Science and Technology Week

Description:

We held a birding apps workshop for sixteen-year-old students at Al-Qázeres high-school as part of the Science and Technology Week in Cáceres. Students were introduced to the concepts of citizen science and environmental citizenship through the world of birding apps. After an introduction to EnviroCitizen and its goals, they were taught about how bird identification methods have evolved to facilitate a respectful and accessible approach to wildlife. We also described several examples of birding apps and their function, such as eBird, Avefy, Aves de España, BirdNET, Avizor, Urban Birding, or Merlin Bird ID. Participants then worked in teams to download eBird and learn to create bird lists on this app. We also began to play a birdsong identification game on Avefy, a birdsong app sponsored by the Spanish Ornithological Society (SEO).

Students listening during the workshop

Goals:

The main goal was to awaken students' curiosity regarding birding apps, as well as to understand their function as tools of communication between citizen scientists and professional ornithologists. It aimed to show the relevance of technology in today's ornithological citizen science, demonstrating how apps can contribute to the democratization of knowledge on avifauna. Activities like exchanging information, sharing lists or collecting data through birding apps without the need of having a background in ornithological training reveal important links between learning about birds and caring for nature, as well as information on birder profiles and collective learning. Students were also meant to appreciate the wide range of birding apps which are available for citizen scientists nowadays, observing their different functions and noting how birdwatching can be approached in diverse and entertaining ways.

Practical information:

This activity took place at the biology laboratory of the urban high-school Al-Qázeres, in Cáceres, on November 8^{th,} between 11:45 and 12:35. A group of 16 students took part in the activity.

Promotion:

The activity was organized and promoted by the Science and Technology Week of Extremadura. This year's theme was particularly apt, as it focuses on the role of science in environmental action against climate change.

Conclusions and lessons learned:

It remains unclear whether this activity was very successful in terms of dissemination, as neither the students nor their teacher reacted to the workshop in very expressive ways. Most of the students did not seem very motivated by the activity and had trouble downloading the apps due to the weak Wifi network in the building. This apparent lack of interest may be due to problems in time management, since students had to assimilate a great deal of new and complex information in a brief period of time. Moreover, we did not have enough time to complete the last game on Avefy, so they were given instructions to finish playing at home. Since this activity was designed and promoted as a workshop, one way to improve it would be to focus more on the practical side of using birding apps, which is more likely to hold the attention of teenagers, instead of dedicating so much time to the theoretical side of citizen science and environmental citizenship.

2.5.4 Talk on nineteenth-century women ornithologists

Description:

We will hold an in-person talk on nineteenth-century women ornithologists at a high school with a long educational tradition, IES Bárbara de Braganza, in Badajoz, which is interested in working on gender issues. This talk has been designed to interest teenagers in the history of women's citizen science, emphasizing the crucial role of bird observation in the transition of female activity from the private to the public sphere.

Goals:

This activity has not taken place yet, but we intend to pay special attention to the reception of themes such as citizen science, environmental citizenship, and women's historical contributions to natural science. The main goal is to make visible how women's study of avifauna triggered the development of environmental education, bird protection advocacy, environmental activism, and citizen science. We are also thinking of productive ways to engage with teenagers and encourage them to participate in the debate prompted by this intervention.

Practical information:

The talk is addressed to sixteen-year-old students and will take place at the Bárbara de Braganza high school in Badajoz. In contrast with IES Puente Ajuda (see activity 2.5.2), this high school is located in Extremadura's main urban hub, and thus we expect to have an audience less familiar with the outdoors, but possibly more interested in knowing about the role female scientist have played throughout history. We estimate to engage about 20 participants.

Promotion:

This activity is part of (and will be promoted) by the “Ciencia Circular” (Circular Science) programme as part of the European Researchers’ Night in Extremadura.

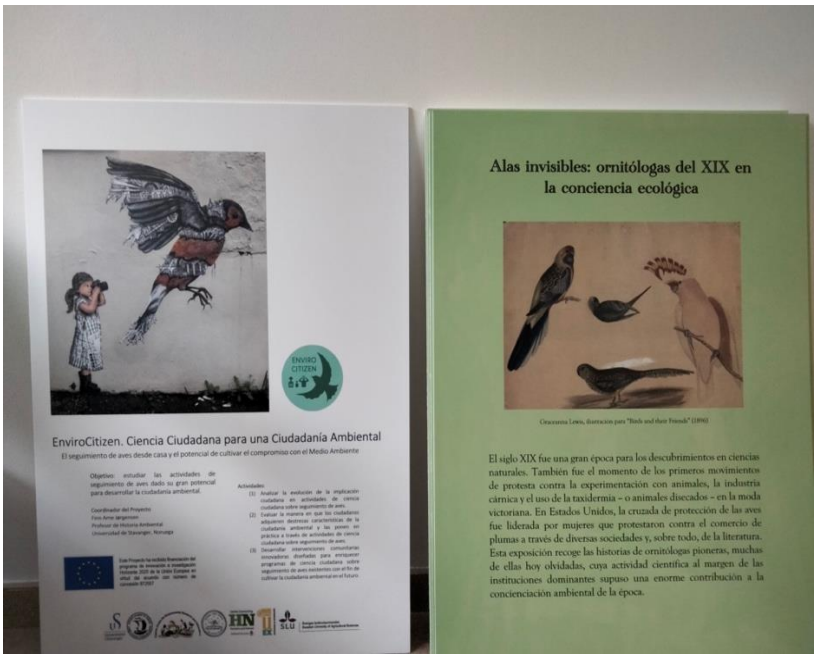
2.5.5 Exhibition ‘*Invisible Wings’* on women’s ornithological citizen science in the nineteenth century

Description:

This activity concerns an exhibition called ‘*Invisible Wings*’ on women’s ornithological citizen science in the nineteenth century at Al-Qázeres high school in Cáceres. The exhibition consists of a series of posters printed in A1 format, with portraits of five different female nature writers and their book covers against a colourful background. The activity will take place within the school’s equality programme (‘Plan de Igualdad’), established by the local government of Extremadura to promote gender equality by raising awareness about the historical and contemporary role of women in all spheres of learning.

Goals:

As mentioned before, an important aim of the activity is to emphasize the relevance of gender factors and women’s history in relation to ornithological citizen science and environmental citizenship. We specifically aim to draw children, teenagers, and teachers’ attention to the role of women in the origins of citizen science, natural history, and bird protection activism. To achieve these aims, the posters were designed to be visually appealing to young people, and the description texts are written in the first person so as to achieve an effect of closeness, so that students are addressed by the ornithologists themselves, each of them telling her own story.



Examples of the exhibition posters

This event will be a good opportunity to evaluate whether the exhibition format is effective in the dissemination of knowledge to teenagers, who might prefer more interactive or digital tools.

Practical information:

The exhibition will take place at Al-Qázeres high school in Cáceres in February, as part of the activities organized for the International Day of Women and Girls in Science. The content is based on the research done by the postdoctoral researcher Clara Contreras Ameduri for creating the Europeana exhibit "Women Writing Birds: Pioneering American Ornithologists of the 19th Century". The exhibition will be set in the hall of the high school, allowing us to reach students beyond participants in a specifical classroom activity.

Promotion:

This activity is organized and promoted by the "Ciencia Circular" (Circular Science) programme as part of the European Researchers' Night in Extremadura.

2.5.6 Invited online talk on citizen science and women's ornithological writing in the nineteenth century

Description:

We gave the invited talk "Citizen Science, Environmental Citizenship, and Women's Ornithological Writing in the Nineteenth Century" on the 15th of December at the Universitat des les Illes Balears (University of the Balearic Islands), Spain. The teacher who has proposed this activity is a researcher in the environmental humanities project "Cinema and Environment: Affective Ecologies in the Anthropocene", funded by the Spanish Ministry for Science and Innovation, where she focuses on representations of animals and landscapes in films by women directors. For this reason, she has shown great interest in the UEx postdoc's research on women ornithologists, and this common ground was bound to lead to interesting exchanges during this event.

Goals:

The talk aimed to contextualize female ornithological citizen science against the backdrop of larger sociocultural transformations in Victorian culture, such as the development of natural science, shifting views on animal protection, and women's position in the public sphere. The goal was also to observe how women's writing about birds altered representations of avifauna in Victorian literature and art, fomenting more positive and empowering connections between femininity and avifauna through citizen science.

This event also intended to introduce undergraduate students to the research being done in EnviroCitizen and to how ornithological citizen science relates to academic concepts such as environmental humanities, ecocriticism and ecofeminism.

Practical information:

Due to the long distance between Cáceres and the Balearic Islands, this event took place via Zoom on the 15th of December. The intended audience of this activity consisted of third-year university students, as it was part of a Victorian literature course which places great focus on women's writing about nature. There were 20 participants in this event.

Promotion:

This talk was promoted by the teacher who proposed the activity, who had designed a poster and circulated the necessary information among her students and colleagues. We also disseminated information about the event through email lists including members of associations of English and American studies in Spain and Europe more broadly (AEDEAN, SAAS and EASLCE).

Conclusions and lessons learned:

This activity was followed by questions and a debate chaired by the organizer of the event. The audience expressed significant interest in the theme of the talk and asked several pertinent and engaging questions. This enthusiasm and curiosity regarding the role of Victorian women in ornithological citizen science confirms the success of the activity. However, on reflection it perhaps would have been more productive to have an in-person event, since most of the students were quite shy and reluctant to participate. Those who did participate asked questions through the Zoom chat and didn't turn on their cameras.

2.5.7 Talk on women naturalists in the nineteenth century for the International Day of Women and Girls in Science

Description:

We will give a talk on nineteenth-century women ornithologists and nature writers for the International Day of Women and Girls in Science, in Cáceres. This activity is organized by a social work teacher and feminist studies specialist who is applying an equality plan ('Plan de Igualdad') at Al-Qázeres high school in order to recover women's forgotten or less known contributions to several spheres of knowledge.

Goals:

This event aims to teach teenagers about the relevance of ornithological citizen science in the beginning of women's participation in scientific research, animal protection activism, and other achievements in the public sphere. Due to the theme of the International Day of Women and Girls in Science, this talk pays special attention to gender factors in women's scientific activities throughout history, such as their exclusion from academic institutions and other patriarchal obstacles in their scientific careers. This activity allows for a reflection on women's current role in science today and

intends to celebrate the achievements of female naturalists whose efforts helped make this field of knowledge more inclusive. Moreover, it hopes to highlight significant intersections between women's leadership and environmental protection from an ecofeminist perspective.

We hope to observe the extent to which teenagers understand and appreciate the relevance of ornithological citizen science in the history of women in natural science, as well as the intersections between female-led ornithological activities, animal welfare advocacy, nature conservation, and the development of women's rights from the nineteenth century to today.

Practical information:

The activity will take place on the 11th of February 2023; time and location are yet to be confirmed. We expect to engage between 25 and 30 participants in this activity.

Promotion:

This event will be promoted as part of the programme designed for the International Day of Women and Girls in Science.

3. Conclusions

This summary report describes a host of public events organised by the EnviroCitizen team in five countries: Estonia, the Netherlands, Norway, Romania and Spain. These activities all aimed to use the knowledge generated in the first two work packages of the project to design public events that would tie birds and birding to dimensions of environmental citizenship. These public activities all shared two foci: a link to birding and birds, and to at least one element of environmental citizenship.

Considering the diversity of dimensions encompassing the term environmental citizenship (see Figure 1) it is no surprise that the activities developed in this task are incredibly diverse, both in their area of focus in terms of environmental citizenship, their link to birds and birding, their target audience and their practical approaches (as shown in Table 1). In Table 1 we grouped the activities carried out in three categories:

- **Stakeholder workshops:** Four out of the five countries organised a talk, workshop or other forum for sharing the EnviroCitizen insights with existing birders, birding organisations or nature groups. Through these activities the research teams could feed the rich findings from the fieldwork in task 2.3 back to current birders, as well as the organisations in charge of coordinating prominent ornithological citizen science campaigns and activities in our countries. In doing so the activities offered a venue to reflect with these stakeholders on how prominent themes arising from EnviroCitizen (care, connectedness, inclusion, etc.) can enrich our understanding and organisation of current birding practice.
- **Public bird activities:** One important dimension of study in our WP2 fieldwork concerned routes into birding: the way people first encounter birds and the birding world, and the role of supportive individuals to discover this new world. As such, four out of the five country teams organised activities to engage people who might not know about the world of birds and birding to encounter it for the first time. Notably, in each country the focus of these types of activities was on children or teens, whether through workshops at school, city walks, activities during European Researcher's Night or bird quizzes. These activities could also contribute to diversity and inclusion, by allowing people who might otherwise not be familiar with the birding world to take a first step.
- **Literary events**: Perhaps unsurprisingly for a project with a foundation in the environmental humanities, three out of the five countries also developed activities mobilising the power of literature. These activities aimed to use writing related to birds, both contemporary and historical, to stimulate participants to think about how birding has changed through time, how we talk about and describe our connection to birds, and how some voices may be underrepresented in how we talk about birding and ornithology. In doing so these activities link to several elements of WP1 and WP2, including aspects of diversity and inclusion.

In the preceding section of this report, each country team already offered a few concluding reflections on their activities (with the exception of activities that will take place in the near future). These reflections might be of help for fellow scholars or practitioners planning to organise a similar event. In this section, we offer a few concluding considerations.

Firstly, it is important for any activity to think carefully about the aims of the activity; is it to make people more familiar with birds, to think differently about our connection to nature, or to motivate people to take part in citizen science for instance? These aims should be directly linked to the target audience, and if aims or audience changes during the planning process, the other should be critically examined and adapted where necessary. Furthermore, the aim and intended audience are then crucial factors to shape the practical format of the activities. As some of the partners already reflected on in section 2, sometimes the amount of content, or the difficulty of the information, might have to be adapted if mismatches with the target audience are encountered, or even may have to be adapted during an activity if the actual participants differ from the imagined audience.

Related to this first consideration, several partners encountered some challenges in reaching and enthusing their intended audience. One advice is to offer a broad selection of different activities, and to reach out to existing target groups (e.g. students, birding groups). However, especially if the aim is to reach new target groups unfamiliar with the topic, engaging them may require significant investments (in time and money) in activity promotion and marketing. Collaborating with a wide variety of societal or entrepreneurial partners, and making use of broader initiatives like the European Researchers' Night, are ways to facilitate reaching a broader audience.

Secondly, and related to the abovementioned point of collaborating with partners, many of the activities described in this report were indeed developed in collaboration with a wide variety of partners: birding organisations, schools, local governments, museums, artists and many others. We strongly recommended others planning similar activities to explore opportunities to involve different partners; not only will they have useful input on the aims and opportunities, they will also be able to play an important role in terms of outreach by mobilising their own networks, greatly expanding the potential reach of an activity. In addition, collaborating with partner organisations challenges researchers to make sure their ideas are useful and valuable to societal partners, improving the societal relevance of the work. However, initiators also need to be aware that collaboration also requires a genuine willingness to adapt ideas and formats to partners' needs and restrictions. Furthermore, when planning collaborations it is vital to engage partners as early in the process as possible, to ensure that ideas are still open enough to allow for them to be adapted to everyone's needs and priorities. Aside from drawing on the strengths of different societal partners, in consortia like the EnviroCitizen team opportunities also lie in making linkages between each other's efforts. For example, the Europeana exhibition "Women Writing Birds: Pioneering American Ornithologists of the 19th Century"[3] developed by Clara Contreras Ameduri of the Spanish team was also used by some of the other teams in their activities. Finding such linkages in project consortia helps to make the most of partners' efforts.

Finally, of course any organiser will be interested to know what the effect of their activity has been. There are some simple metrics that can be easily gathered, and that are reported here (e.g. the number of visitors or participants). However, such simple indicators of course say little about how the activities were perceived and what sort of effect they had on people. Each country team tried to get an idea of how activities were experienced, for instance through informal feedback from participants. However, these are of course no representative assessments of the impact of public activities, and to a degree that question will remain open. We could have opted for more formal assessments, e.g. handing out surveys among participants or interviewing them after an event. However, while that may offer more data, it comes with important downsides, not just in terms of the efforts required by the researcher but more importantly in terms of the required effort from and

[3] Which can be found at https://www.europeana.eu/en/exhibitions/women-writing-birds

the comfort of the participants. As such, any researcher planning a public engagement activity should think carefully about whether they would like to assess the impact of their activity, what the aim of doing so would be, and how they could approach this in a way that would not unduly inconvenience their participants[4].

Despite these and other points of attention, and the undeniable hard work that goes into planning and carrying out public activities, we want to end this report by emphasising that organising these activities and seeing participants enjoy them is highly rewarding. As we saw in work package 2 of this project, birders' love, learning and connectedness with birds and nature can lead to the gradual development of a broader environmental citizenship over time. In this third work package we applied these lessons in developing activities ranging from exhibitions and workshops to birding routes and literary events. The activities aimed to reach a wide and varied public, open up new worlds to them and strengthen their connectedness with, love for and learning about birds and nature. We hope that through this approach, participants' experiences in these activities will also contribute to their environmental citizenship and action for nature.

We invite anyone reading this report to explore opportunities for organising public events, and hope the activities described herein will offer them inspiration.

[4] Researchers aiming to measure the impact of public events can also draw on resources and best practices already out there. For example, the Dutch research project IMPACTLAB, a collaboration between Utrecht University, Leiden University and the Dutch National Research Agenda (NWA), developed several freely available English-language resources for evaluating public activities and measuring their impact, including a decision tree and an extensive toolbox. There resources can be found at https://impactlab.sites.uu.nl/en/tools/