EXPBIO

Interreg North Sea

Co-funded by the European Union

Report: Identification of Relevant Biodiversity Communication Campaigns Work Package 4

Flanders State of the Art

VLAAMSE LAND MAATSCHAPPIJ

Hjørring Kommune

BOTANISKA GÖTEBORGS BOTANISKA TRÄDGÅRD

provincie Gelderland

Carl von Ossietzky Universität Oldenburg

Trollhättans Stad

Meise Botanic Garden

Table of contents

Summary

Urbanisation has led to an increasing disconnect between humans and nature, with over half of the global population now living in urban areas. This shift has contributed to a decrease in direct interactions with nature, occurring alongside urgent global challenges such as biodiversity loss and climate change. In the North Sea Region (NSR), human activities are putting significant pressure on plant ecosystems. This environmental decline is further exacerbated by the growing issue of plant blindness, a lack of awareness regarding the importance of plants.

The EXPBIO project, through Work Package 4, aims to raise awareness of native plants and local biodiversity by effective communicational efforts and integrating a citizen science approach into educational programs. This innovative approach will engage diverse target groups, in efforts to reduce plant blindness. Partners collaborated to identify best practices for communication and education about native wildflowers and biodiversity and developed a joint action plan for the next stage of the project. This preliminary report outlines the outcomes of this phase and the planned steps ahead.

Introduction

Urbanisation has led to a growing disconnect between humans and nature. Currently, over half of the world's population lives in urban areas (UN, 2018), resulting in people becoming more disconnected from the natural world. This is happening at a time when there is an urgent need to address critical global challenges such as biodiversity loss and climate change. As cities expand and more people live in densely populated environments, direct interactions with nature have decreased.

In the North Sea Region (NSR), plant ecosystems and other living organisms are increasingly under pressure from human activities. Out of all flowering species in the world, 45% are threatened. (State of the worlds plants and Fungi 2023) and meadows are among the most endangered habitats in Europe (Kajzer-Bonk & Nowicki, 2023). Since the 20th century, the area of semi-natural grassland has decreased by more than 80 % (Joyce, 2014). The adoption of new legislation, such as the Nature Restoration Law, which aims to restore at least 20% of the EU's land and sea areas by 2030 and all ecosystems in need of restoration by 2050, highlights the EU's commitment to environmental restoration.

Plant blindness recently reframed as 'lack of plant awareness' or 'plant awareness disparity', has gained a lot of attention over the past two decades (Amprazis & Papadopoulou, u.å.). The term refers to humans' inability to recognise or appreciate the importance of plants in the environment. A recent review shows that the most common characteristics of plant awareness disparity were a deficit of knowledge or identification skills. This was followed by a preference for animals, a lower interest in plants and decreasing experience of nature in urbanised societies appeared to be the cause (Stagg & Dillon, 2022).

Plant education has emerged as a significant research area, with a growing need to develop effective strategies for fostering plant awareness (Amprazis & Papadopoulou, u.å.). The lack of plant awareness creates obstacles to recognising the crucial role plants play in ecosystems, with significant implications for biodiversity conservation and sustainable land use.

To address some of these challenges EXPBIO will within Work Package 4 create a Transnational Action plan with the goal is to raise awareness of the importance and role of native plants and biodiversity. The innovative aspect is the integration of a citizen science approach into the NSR educational program on plant biodiversity. Target groups will be selected based on the needs identified by partners. EXPBIO aims to engage among others: students, teachers across all educational levels, and the public, providing tools to help reduce plant blindness.

To achieve this goal, the partners within EXPBIO have during this initial phase taken a collaborative approach to compile several best practices for communication and education on the importance of native wildflowers for different stakeholders. Each partner presented these initiatives, and together developed a plan to focus on the most suitable initiatives for joint development throughout the project. The outcomes of this initial phase and the associated work plan will be outlined in the Progress and Achievements section in this preliminary report.

Objectives and goals

As part of EXPBIO's Work Package 4, partners have compiled a collection of best practices for communicating biodiversity to various stakeholders. The goal was to analyse European and national campaigns, including NSR projects, focusing on plant biodiversity and its role in supporting wild pollinators. This analysis identifies effective communication strategies, collaboration opportunities, and ensures alignment with existing initiatives, supporting both the project's external communications and action plan.

The review highlights successful strategies and collaboration potential, strengthening EXPBIO’s connection to ongoing initiatives. Additionally, a methodology for integrating citizen science into EXPBIO’s communication and education activities will enhance these results. These methods will be tailoured to different target groups by project partners.

Challenges

A significant challenge identified in biodiversity conservation is "plant blindness,". Addressing this requires integrating plant-focused education into school curricula and community programs and fostering early appreciation for native species. Citizen science initiatives, where community members actively engage in plant identification and monitoring, provide an effective means to raise public awareness. Furthermore, public campaigns and events, alongside collaborations with local governments and NGOs, are crucial for promoting plant biodiversity and offering accessible resources to the public.

Effective communication and collaboration are fundamental to overcoming these challenges. Ensuring public acceptance and motivating stakeholders are key drivers for the successful implementation of biodiversity projects. It is essential for EXPBIO to align future efforts with the broader goal of enhancing biodiversity through informed, collaborative, and regionally tailoured approaches. In addition, targeting the demand side, the action plan will focus on developing and implementing initiatives that activate, educate, and involve stakeholders.

Methodology

A collaborative approach was used to gather information during the WP4 workshops, these included several meetings and presentations online using Teams followed by workshops during the partner meeting in Gelderland, the Netherlands, September 2024.

Firstly, all initiatives were compiled together on an excel sheet. **Appendix 1**

Secondly all partners presented these initiatives during online presentations. Expressing the ties to EXPBIO, the suitability for the project and the target groups. **Appendix 2**

Thirdly, all partners prepared to present the initiatives they agreed were most appropriate for their target groups and aligned with EXPBIO´s goals and objectives. These presentations took place in Gelderland, the Netherlands.

Gelderland, partner meeting.

WP4 Workshop 1 began with each partner preparing a short presentation (10 minutes) focused on citizen science, education, and communication initiatives they had encountered. These presentations addressed:

- The most interesting initiatives for their organisation and stakeholders, and how these could be implemented.
- The methods and timing for implementing these initiatives (e.g., through events, webinars, websites, schools, etc.).
- The materials (e.g., teacher training manuals, brochures, guides, films) they would need or like to collaborate on with other partners to start these initiatives.
- For partners not primarily involved in WP4, their interest in and needs for materials for their own initiatives were also discussed.
- Additionally, partners brought physical materials such as brochures, teaching manuals, guides, or short films that could serve as inspiration, or which could be adapted or redesigned for the EXPBIO project.

Partners also considered a timeline for implementing initiatives, which helped plan the production of materials and assisted in the development of the partner plan.

WP4 Workshop 2 involved a discussion following the presentations, covering:

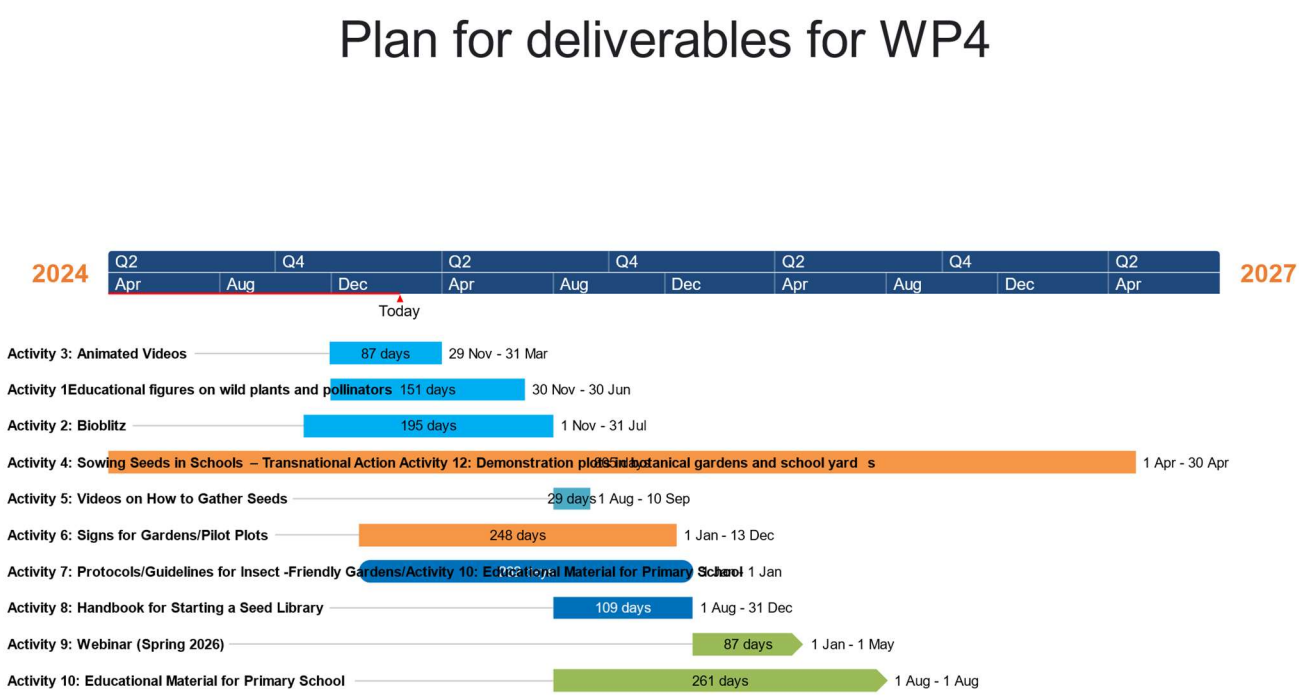
- Common areas or initiatives of interest among partners.
- Opportunities for collaboration in producing materials and dividing work effectively.
- Expanding the scope of stakeholders.
- Compiling a partner plan for 2025 and beyond, which is a living document on SharePoint, to be updated as needed.

Progress and Achievements

The compilation of relevant biodiversity communication and education campaigns has been successfully completed. This process resulted in over sixteen detailed suggestions, covering a variety of topics, and designed for a diverse range of stakeholders. These ideas, concepts, and materials were discussed collaboratively during workshops to identify the most effective approaches. The goal was to select education and communication methods and concepts that would be adaptable to the needs of different stakeholders and align with the overall objectives of EXPBIO.

From this wide range of initiatives, eleven activities were collaboratively chosen to develop and initiate during the project of which ten are highlighted in the figure below. The eleven activities are then outlined in the text below in the expected work plan.

Timeline



Expected Work Plan

Activity 1: Educational figures on wild plants and pollinators

Activity 2: Bioblitz

Activity 3: Animated Videos

Activity 4: Sowing Seeds in Schools – Transnational Action

Activity 5: Videos on How to Gather Seeds

Activity 6: Signs for Gardens/Pilot Plots

Activity 7: Protocols/Guidelines for Insect-Friendly Gardens

Activity 8: Handbook for Starting a Seed Library

Activity 9: Webinar (Spring 2026)

Activity 10: Educational Material for Primary School

Activity 11: Lesson Plans for Schools

Activity 12: Demonstration plots in botanical gardens and school yards where visitors can observe plant diversity and learn about different species.

The communication and education initiatives on plants and biodiversity include focused efforts to promote awareness, encourage stakeholder collaboration, and educate diverse groups about wildflowers and biodiversity. These initiatives tackle pressing concerns such as biodiversity loss, ecosystem restoration, and the growing concern of “plant blindness”—a lack of recognition of plants' ecological importance.

Key themes

1. **Raising awareness about wildflowers and biodiversity**: Many initiatives focus on the importance of native plant species and their role in maintaining ecological balance.

2. **Stakeholder Involvement**: Initiatives place a strong emphasis on engaging stakeholders across various sectors, including public authorities, the farming community, NGOs, botanical gardens, schools, and local communities.

3. **Educational materials and programs**: Tailoured educational initiatives aim to reduce plant blindness by enhancing knowledge of local flora among students, teachers, and the public. These include citizen science projects where participants actively contribute to biodiversity monitoring and data collection.

Notable outputs

1. **Citizen Science Initiatives**: Several projects involve citizen participation in monitoring biodiversity through data collection and reporting.

2. **Events**: These events bring together schools, the public, academics, to celebrate and learn about biodiversity, participate in hands-on activities and reduce plant blindness.

3. **Educational Toolkits and Resources**: Comprehensive educational materials, including toolkits and activity guides, will be developed to support teachers in delivering biodiversity-related content in schools and preschools.

4. **Demonstration Plots**: Botanical gardens and school yards serve as live educational platforms where visitors can observe plant diversity and learn about different species.

Key insights for WP4 and next steps

1. **Stakeholder Engagement Metrics**: It is important for partners to document engagement levels during activities such as workshops, events, and citizen science initiatives.

2. **Educational Impact Assessments**: Conducting evaluations of educational programs, including pre- and post - assessments, can offer evidence of progress in reducing plant blindness and increasing biodiversity literacy. This will also aid future program and material development.

Conclusion

The EXPBIO project, through Work Package 4, aims to raise awareness of native wildflowers and local biodiversity across the North Sea Region (NSR). By integrating a citizen science approach into educational programs, the project aims to engage diverse target groups and reduce plant blindness. Through extensive collaboration, partners identified best practices for communicating and educating about native wildflowers, resulting in a comprehensive joint action plan for the next phase of the project.

A successful compilation of relevant biodiversity communication and education campaigns has produced over sixteen detailed suggestions, which were collaboratively refined during workshops. From this, eleven key activities were selected to advance throughout the project, each designed to be adaptable to various stakeholder needs and aligned with EXPBIO's objectives.

Looking ahead to 2025, the project will focus on expanding biodiversity awareness through the development of citizen science methodologies, tailoured educational materials, and pilot initiatives. These initiatives will include programs aimed at creating wildflower areas in schools and organising Bioblitzes, all supported by targeted educational resources. Through continued collaboration and engagement, EXPBIO will enhance its impact, fostering long-term connections to local biodiversity across the region.

Annexes

References

Amprazis, A., & Papadopoulou, P. (u.å.). Plant awareness: At the dawn of a new era. *Journal of Biological Education*, *0*(0), 1–11. https://doi.org/10.1080/00219266.2024.2420018

Joyce, C. B. (2014). Ecological consequences and restoration potential of abandoned wet grasslands. *Ecological Engineering*, *66*, 91–102. https://doi.org/10.1016/j.ecoleng.2013.05.008

Kajzer-Bonk, J., & Nowicki, P. (2023). Vanishing meadows—Quantitative analysis of factors driving population declines of endangered butterflies. *Biological Conservation*, *282*, 110050. https://doi.org/10.1016/j.biocon.2023.110050

Stagg, B. C., & Dillon, J. (2022). Plant awareness is linked to plant relevance: A review of educational and ethnobiological literature (1998–2020). *PLANTS, PEOPLE, PLANET*, *4*(6), 579–592. https://doi.org/10.1002/ppp3.10323