Student Ambassador Programme

WORKSHOP 2
BIODIVERSITY BASELINES

30th JANUARY 2026 / 10am GMT

NATURE POSITIVE UNIVERSITIES

NATURE POSITIVE BY 2030
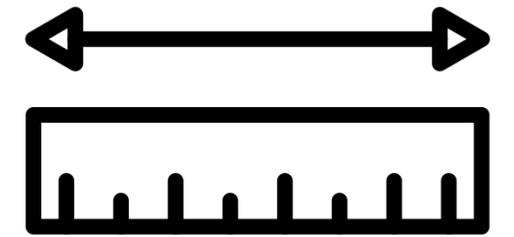
Housekeeping

- Please turn on your camera if you feel able to, introduce yourself in the chat and ask questions as we go along – we'd love to make this as interactive as possible

- Simultaneous translation – French and Spanish – please use the globe icon: 🌐

- We'll be using Mentimeter again in this workshop

- The workshop is being recorded and the recording will be made available to watch back afterwards

- We'll be looking to reach out to several of you to invite you to speak briefly in future sessions, based on the information you provided in your applications

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Agenda:

5 min Welcome from NPU team

15 min What is a biodiversity baseline? (including Mentimeter poll)

5 min This month's suggested actions: iNaturalist & photos

30 min Student experiences: Janya, Prerana, Carlos and Q&A

5 min Summary of next steps – workshop quiz, toolkit and next workshop

Who are the NPU Student Ambassadors team?

Emily Stott
NPU Coordinator
University of Oxford

Favour Eragbie
Student Ambassador Coordinator
Youth for Environmental Conservation

Avani Jyani
Student Ambassador Coordinator
Familial Forestry India

Hollie Thompson
NPU Project Assistant
University of Oxford

Contact: Please use email (not WhatsApp) if you need to contact us!
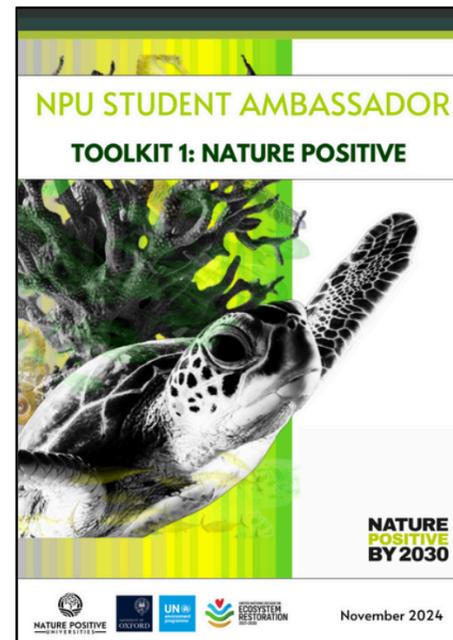
emily.stott@biology.ox.ac.uk

hollie.thompson@biology.ox.ac.uk
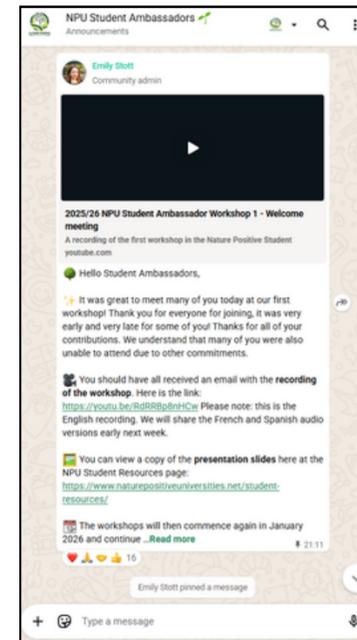
naturepositiveuniversities@gmail.com

Recap: Ambassador programme resources
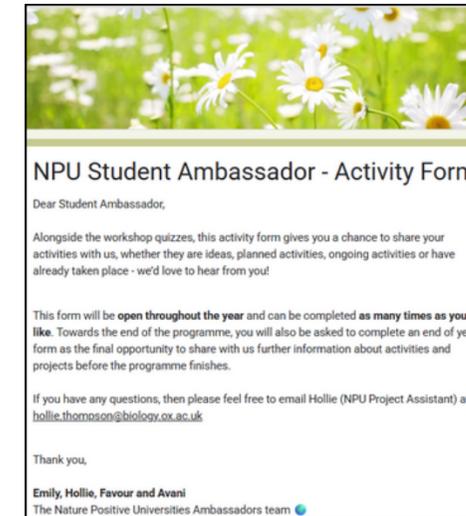

Green Skills workshops

Action Toolkits

WhatsApp chat

Workshop quizzes

Activity form

Student resources webpage

Recap: what are the global pressures on nature?

Nature Positive Universities

The direct drivers of change in nature with the largest global impact

from IPBES #GlobalAssessment

1. changes in land and sea use

2. direct exploitation of organisms

3. climate change

4. pollution

5. invasion of alien species

Habitat conversion
Land cleared for farms, roads, cities or drained wetlands

Over-exploitation
Unsustainable harvest of fish, timber, wildlife and natural resources

Climate Change
Shift in temperatures and weather patterns, rising sea levels, ecosystem shifts
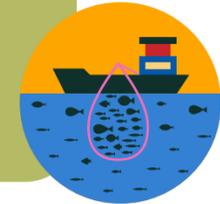
Invasive species
Non-native species displacing local ecosystems and altering food chains

Pollution
Nutrients, plastics, pesticides and toxic waste entering land and water

IPBES: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
https://www.ipbes.net/models-drivers-biodiversity-ecosystem-change

Recap: shifting baseline syndrome
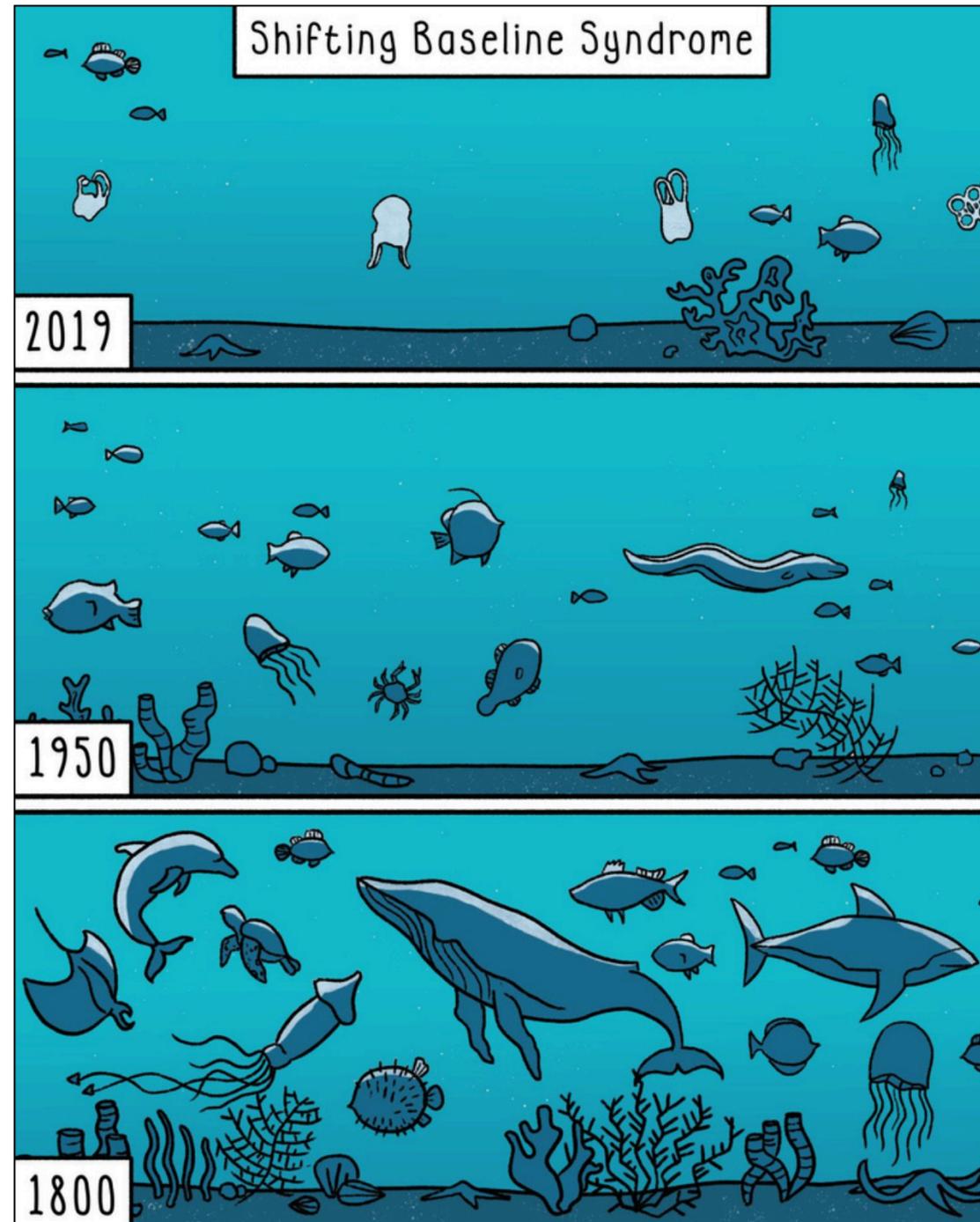
Pauly, Daniel (1995) "Anecdotes and the shifting baseline syndrome of fisheries." Trends in Ecology and Evolution, 10(10):430

Mentimeter word clouds

Q1. What are a university's impacts on nature?

Mentimeter word clouds

Q2. How could we look to measure these impacts?

1. Assess the baseline

Available in English and Spanish on our YouTube channel: www.youtube.com/@NaturePositiveUni

1. Assess the baseline

Biodiversity Baselines
a short primer:

NATURE POSITIVE PLEDGE

Universities all over the world have committed to action for nature by making a Nature Positive Pledge. This is a framework of four steps which can be applied at any scale. The first step of the pledge is working towards a biodiversity baseline.

WHAT IS A BIODIVERSITY BASELINE?

A biodiversity baseline allows us to measure change and impact by recording the state of nature and activities which could affect it at a particular point in time. Setting a baseline can help inform action now and in the future. There are many ways to go about it, depending on resources and ambition.

WHY IS A BASELINE IMPORTANT?

The principle of measuring a baseline, is to work towards measurable biodiversity uplift, known as net positive outcomes, on our campus land, related to the resources we use, and using our influence as universities within teaching, research and community engagement.

WHAT COMES NEXT?

A baseline is just the first step. It should be followed by agreeing specific time-bound targets for your organisation, working to meet them, monitoring progress and publishing your journey to be accountable and scale your impact.

Case Studies:

1 UNIVERSITY OF MELBOURNE, AUSTRALIA

University of Melbourne set an institutional 'no net loss' target for their campus land and established an online dashboard for their community to see with a range of biodiversity measures, such as tree canopy cover, plantable area and species records.

2 GOVERNMENT DUNGAR COLLEGE BIKANER, INDIA

Government Dungar College embarked upon extensive restoration activities on their campus and beyond through the Familial Forestry initiative. Progress was recorded using before and after photographs detailing the extent of ecosystem change over time, showing the impact of their interventions.

3 UNIVERSITY OF TURKU, FINLAND

University of Turku carried out an extensive city-wide Bioblitz involving staff, students and members of the public to record plants and animals across their campuses, using citizen science platform iNaturalist in collaboration with university species experts.

4 UNIVERSITY OF OXFORD, UK

University of Oxford have carried out a biodiversity footprint of their university activities, including land use, air and water pollution and resource use, associated with activities such as food, energy use, IT equipment and construction materials.

Get started:

WHAT ARE YOUR MOTIVATIONS?

There are many reasons to take action for nature and set a biodiversity baseline. It is important to think what you would like to do with this data, who will collect and maintain it, and more importantly what kinds of targets and actions it might lead to.

WHAT RESOURCES DO YOU HAVE?

Ideally you will work with an ecologist to help assess your site's biodiversity, and plan future interventions. It is worth seeing if there are species or habitat experts in your organisation, or if you could make links with a local environmental NGO to help with this.

CAN YOU MAP THE HABITATS OF YOUR SITE?

You can create a habitat map of your site using an existing site-map, or you could create a new one using google maps. This can help identify the habitats and their condition, and identify opportunities for uplift. Photographs can be a useful way to record the current state of ecosystems.

WHAT DATA ALREADY EXISTS?

You can check which species have already been recorded on your site, either by staff, students or professional surveys, using public records or with citizen science platform such as iNaturalist. This may highlight particular species or ecosystems of concern or interest, and can provide a starting point for future surveys and monitoring.

## Find out more:

WATCH THE FILM:

VISIT OUR WEBSITE:

CONTACT US:

Web: www.naturepositiveuniversities.net

Email: emily.stott@biology.ox.ac.uk

Instagram: NaturePositiveUniversities

There is also an accompanying guidance document, available in English, French and Spanish, which you can find on our website at: www.naturepositiveuniversities.net/resources

1. Assess the baseline

What is a biodiversity baseline?

- A snapshot in time, enabling us to measure change and impact by recording the state of nature and activities.

- This can help inform action now and in the future.

- There are many ways to go about it depending on resources and ambition.

- This could be contributing to a university baseline or on a personal level for yourself or your group to measure progress.

- The principle is to work towards MEASURABLE biodiversity uplift or environmental change, known as NET POSITIVE outcomes.
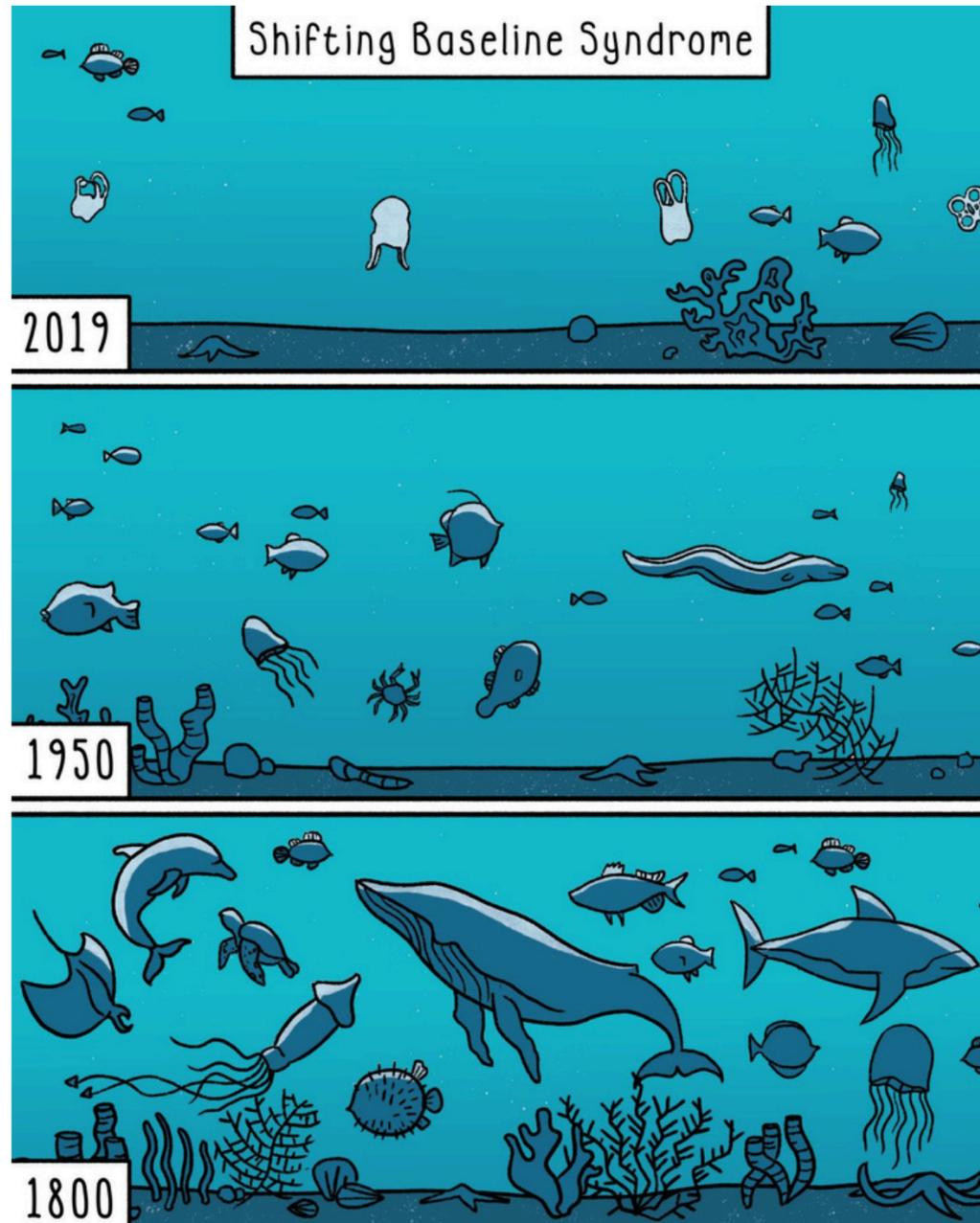
1. Assess the baseline

Many approaches:

- Mapping habitats
- Recording species
- Ecological surveys
- Citizen science
- Canopy cover
- Plantable area
- Before / after photos
- Also 'pressures' on nature (or footprint)

Figure 1- Example land cover map of Wolfson College

More baseline case studies in toolkit:

NATURE POSITIVE UNIVERSITIES

Panel 1

1. Assess the baseline

Case Study: 1000 species in 1000 days at Dawson College, Canada

Students from Dawson College in Canada ran a 1,000 Species in 1,000 Days initiative. Students, faculty and staff all contributed their talents and curiosity to get as many species identified on campus as possible with the count after one year being 820 species, with 3,916 total observations and 279 people contributing to the project. The goal of the initiative is to highlight biodiversity in an urban setting.

Case Study: Predator Monitoring and Management, University of Canterbury, New Zealand

Predator monitoring investigations were carried out in June 2022 to understand current predator presence. A predator trapping line was setup in July 2022 along one waterway to reduce predator numbers based on the results of the monitoring. Rat/mice traps, mustelid traps, and possum traps were all implemented on this line. This predator work was done with the support and input from the student body EnviroSOC, who helped with monitoring and installation of the line, and then continued support of clearing and maintaining the line. Since the beginning of the programme, 18 hedgehogs, 48 mice, 18 possums and 115 rats have been caught.

Panel 2

1. Assess the baseline

Case Study: University of Melbourne biodiversity baseline data project

University of Melbourne established an online dashboard for their university community tracking their progress towards their "No Net Loss" target for campus biodiversity. They record a range of biodiversity measures such as:

- Tree canopy cover area (m2)
- Plantable area (m2)
- No. plant species
- No. trees and tree species inventory
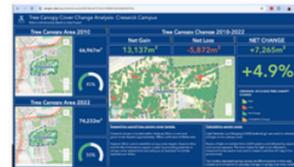- No. fauna and fungi species
- No. of 'areas of significance'

Figure 5- Example land cover map of Wolfson College

CATEGORY	COLOUR
Water	Blue
Mowed lawn	Brown
Meadow and uncut grass	Yellow
Wetlands and water meadows	Red
Herbaceous borders and flowerbeds	Pink
Hedges, shrubs, and trees	Green

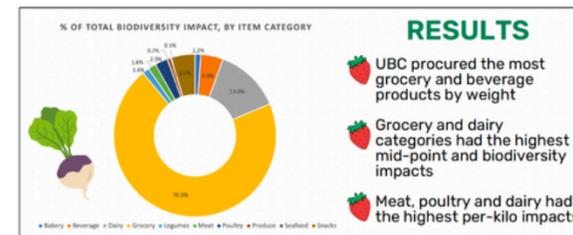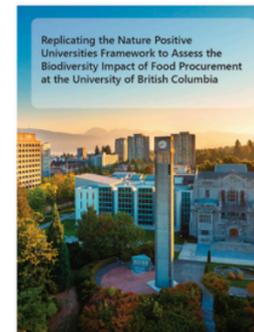**Case Study:** Campus habitat map, Conference of Colleges, University of Oxford

The Conference of Colleges Sustainability Working Group at the University of Oxford conducted a college biodiversity audit, which included a land cover audit. Staff used Land Cover maps and Google Earth images to record landcover types using a colour-coded key.

Panel 3

1. Assess the baseline

1b) Calculating the university's biodiversity footprint

Case Study: University of British Colombia (Canada)

Research students at UBC assessed the environmental impacts of their food procurement using Oxford's conceptual framework, looking specifically at the GHG emissions, land and water use, air and water pollution of food procured by UBC Food Services (UBCFS) outlets (including dining halls, restaurants, retail and catering) between January and December 2022. They used the impacts to estimate the extent of biodiversity loss associated with food procurement and identify areas for reduction of negative impacts.

Replicating the Nature Positive Universities Framework to Assess the Biodiversity Impact of Food Procurement at the University of British Columbia

% OF TOTAL BIODIVERSITY IMPACT, BY ITEM CATEGORY

RESULTS

- UBC procured the most grocery and beverage products by weight
- Grocery and dairy categories had the highest mid-point and biodiversity impacts
- Meat, poultry and dairy had the highest per-kilo impacts

Final report available here:
https://www.naturepositiveuniversities.net/wpcontent/uploads/2024/04/NPU_UBC_FinalReport.pdf

Panel 4

1. Assess the baseline

1b) Calculating the university's biodiversity footprint

Biodiversity impacts of a university by aspect
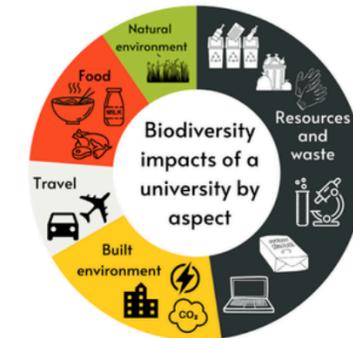
Natural environment	These include impacts to existing biodiversity present on site, grounds and facilities management relating to green spaces, including loss of habitat for new construction projects or biodiversity uplift activities such as creation of new habitats or nature areas.
Built environment	These include fuel, electricity and water use in university-owned and managed buildings and mining and transport of resources involved in construction and infrastructure.
Food	These include impacts related to growing and transporting all food consumed on site, eg in university canteens, cafeterias and departmental catering and conferences.
Resources and waste	These include impacts related to procurement of goods and services used in all university activities, such as IT equipment, server space, paper, laboratory equipment and supplies and furniture, at all stages from production to disposal.
Travel	These include impacts related to staff and student travel including commuting between home and work, conference and business travel.

Toolkit preview

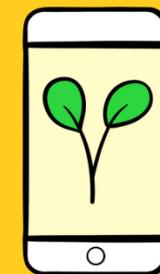# Workshop 2 Suggested Actions:

1. **iNaturalist:**

   a. Register on iNaturalist and start recording wildlife

   b. Join the iNaturalist Student Ambassador group

   c. Speak to your university about joining the NPU-Campus Biodiversity Network

   (you will need a campus map or outline)

2. **Photos:** Think of an area that could be improved for nature and take 'before' photos

3. **Bioblitz:** Plan or participate in a Bioblitz for your campus or nearby area. Consider taking part in the City (& Campus) Nature Challenge, 24-27th April 2026.

Ambassador Actions:

As part of this second Toolkit on the theme of "Biodiversity Baselines" we've included a range of suggested actions.

Workshop 2 Actions:

1. iNaturalist:
   a. Register on iNaturalist and start recording wildlife
   b. Join the iNaturalist Student Ambassador group
   c. Speak to your university about joining the NPU-Campus Biodiversity Network (you will need a campus map)

2. Photos: Think of an area that could be improved for nature, take 'before' photos and think about how you could make improvements

3. Bioblitz: Plan or participate in a Bioblitz for your campus or nearby area. Consider taking part in the City/Campus Nature Challenge - 24 - 27th April 2026.

1a Register on iNaturalist and start recording wildlife

iNaturalist is a free app and website that allows you to identify and record species you see around you, using pictures taken on your phone or camera. Once uploaded, they are identified by the app and verified by members of the community. This approach is known as citizen science.

How to use iNaturalist to make observations:

An observation records an encounter with an individual organism at a particular time and location. This includes encounters with signs of organisms like tracks, nests, or things that just died. When you make an observation, you'll record:

Who you are
You'll need to make an **iNaturalist account** and please only post your own personal observations

Where you saw it
Record both the coordinates of the encounter as well as their accuracy. You can obscure the location from the public
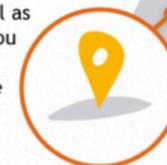
What you saw
Choose a group of organisms like **butterflies** or better yet a specific organism like the **Monarch butterfly**. If you provide evidence you can leave this blank and the **community can help**

When you saw it
Record the date of your encounter, not the date you post it to iNaturalist

Evidence of what you saw
By including evidence like a **photo or sound**, the community can help add, improve, or confirm the identification of the organism you encountered. Help the community by taking clear well framed photos, by including multiple photos from different angles

Your observations don't need to include all of these parts, but they do in order to become research quality observations for science. Remember, you should make separate observations for each separate organism you encounter. If you observed something that is not wild, like a garden plant or a lion in the zoo, make sure to mark it as captive/cultivated to prevent it from becoming research quality.

©iNaturalist

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Toolkit preview

![iNaturalist logo]

iNaturalist

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@iNaturalist

1b Join the NPU Student Ambassador group

### Join the Student Ambassadors' iNaturalist group

Join the group by visiting the Student Ambassadors' iNaturalist group page:
https://www.inaturalist.org/projects/nature-positive-student-ambassadors

You can record wild flora and fauna anywhere you are for this group- it does not only have to be on campus! You will be able to see the observations of members of our community from all over the world.

Please don't include observations of pets or humans, and make sure to take a few photos from different angles.
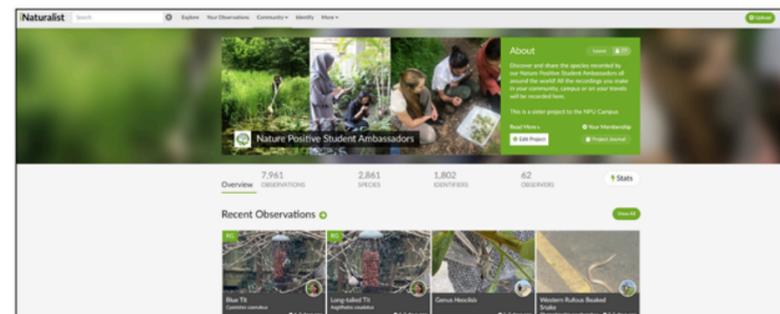
1c Speak to your university about joining the NPU-Campus Biodiversity Network

Founded by Vanier College in Montréal, Québec, and launched in 2022, the Campus Biodiversity Network aims to promote campus greenspace observation and protection by using iNaturalist, eBird and eButterfly.

The Campus Biodiversity Network has now partnered with NPU and encourages students, staff, and faculty at educational institutions in Montreal and beyond to champion their institutions' green spaces and connect with others through citizen-science observations.

By creating a project for your university under the Campus Biodiversity Network, all the species recorded within your campus boundaries will be collated together, allowing you (and the rest of the world) to see what biodiversity is found on your campus. This can show us the kind of nature that exists on your campus, as one type of baseline for your university's campus biodiversity.

![Nature Positive Universities logo] ![campus biodiversity network logo]

Watch this NPU Student Ambassador workshop from 2023 to find out more!

Toolkit preview

A biodiversity baseline doesn't have to be complicated or involve specialist ecological knowledge. As featured in our short film with the example of Government Dungar College, India, taking before and after photos is a really powerful way to document the state of the environment and specific habitats at a point in time, and to record progress and changes visually.

We would like you to take 'before' photos of a green or natural area of your campus grounds (even if polluted or degraded) that could be improved for nature. If you do not have much green space, you could focus on areas of buildings that could be enhanced for wildlife, or natural areas close to your university. You might choose to focus on degraded areas and think about how these could be enhanced for people and nature. If possible, you could then work to improve this area as part of your role as a Student Ambassador and take 'after' photos, when the work is complete.

You can record your observations and ideas in the Activity form and upload your photos!

BEFORE
Non-native planting at University of Konstanz, Germany

AFTER
Mix of native flowers and shrubs to attract pollinators and provide variety of habitats

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Case Study: Government Dungar College, Bikaner (India)

Government Dungar College embarked upon extensive restoration activities on their campus and beyond through the Familial Forestry initiative. Progress was recorded using before and after photographs detailing the extent of ecosystem change over time, showing the impact of their interventions.

Screenshot from the NPU Biodiversity Baselines animated film, accessible here: https://youtu.be/7S5je8PwbZ4

Student Ambassador Avani Jyani participating in restoration activities with her family and community through Familial Forestry.

Before and after pictures of public land degraded by illegal mining, and restored by the Familial Forestry initiative.

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Toolkit preview

③ Plan or participate in a Bioblitz on your campus or nearby site

A BioBlitz is an event in which a group of individuals aim to record as many species of plants, animals and fungi as possible in a location, over a defined time period (usually 24 hours). It's an informal and fun way to create a snapshot of the biodiversity that can be found on your campus.

As well as providing a good idea of species richness on campus grounds, a BioBlitz is a great opportunity for participants to learn together and share their expertise and enthusiasm for nature. It usually involves a group of scientists, students, naturalists and members of the public working together. This is a great way of breaking down barriers to engagement with science and raising awareness of the role of biological recording, and gives the public an opportunity to contribute to a genuine scientific survey.

③ Participate in the City Nature Challenge on your campus or nearby site

The City Nature Challenge (CNC) is a four-day Bioblitz style competition where cities across the world compete to see who can make the most observations of nature, find the most species and engage the most people. This year, the CNC is taking place from April 24th – 27th, with over 700 cities and areas projected to be participating.

The challenge started in 2016 as a competition between Los Angeles and San Francisco, and has since grown into an international event, motivating people around the world to find and document wildlife in their own cities.

The CNC is a great opportunity to plan a Bioblitz on your campus for these same days, and help count towards your city's efforts recording biodiversity. It could also be a chance to coordinate with others in your city to invite participation and wider community engagement with your event.

Campus Nature Challenge

This year, to align with the CNC, our partners at the Campus Biodiversity Network will be holding a second Campus Nature Challenge focusing on campus wildlife at the same time as the City Nature Challenge so this is even more reason to get involved!

Toolkit preview

Any Questions?

Next steps:

Complete the **workshop quiz** - link will follow by email and in WhatsApp.
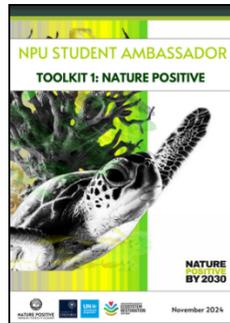
We will email with a link to download **the slides**, **recording of this session, Toolkit 2: Biodiversity Baselines**. These will also be be added to the **Student Resources page**.
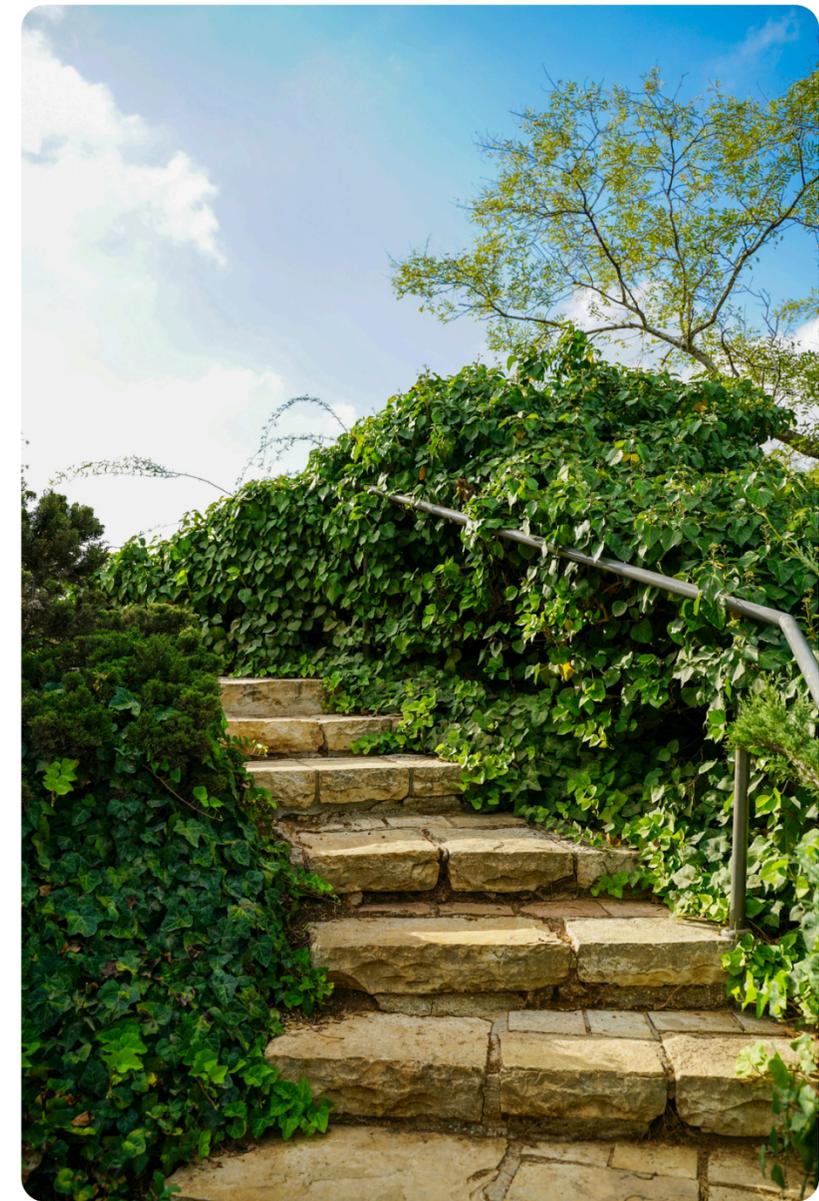
Continue to check WhatsApp group: share your ideas and progress on iNaturalist and baselines!

Next workshop date and topic:
- **February 27th**: Biodiversity actions on campus

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#GenerationRestoration