# **EXAMPLE TRAIL Greece 1**

Name of the trail:	National Garden (Εθνικός Κήπος)
How to find it on Discovery Trail:	https://keskkonnaharidus.avastusrada.ee/admin/map/10
Screenshot:	Charle benches Anuborec Toolaktec Botavitkó Máyació   Charle benches Charle benches Charle benches   Charle benches Charle benches<
Developer:	Loukas Katikas (Researcher) and Evdokia Florou (Primary school teacher)
Addressed age group:	Grades 4–6
Addressed dimensions of biodiversity:	Biodiversity in Greece, urban biodiversity, protecting animals
Relevant topics:	Types of ecosystems, invasive species, animals of Greece
General	Guiding Questions: In this module, students can
overview and	The intention is to explore the animals of Greece, urban parks, and why the
aim:	National Garden is important
	They will learn about invasive and domestic species in Greece, different types of ecotopes, and species under threat of extinction.
Framework	Time: 2–2.5 hours
conditions:	Equipment needed: Mobile phones or tablets What prior knowledge is expected from the students: The difference between invasive and domestic species, definitions of the types of different ecotopes, examples of different ecotopes in Greece, and definition of species under threat of extinction. Motivational frame (narrative, context): This trail is linked to the Environmental Education Programme (EEP) of primary schools (Grade 4) under the subject 'Learning about the animals and ecotopes of Greece'. It's a non-formal activity in line with the EEP of Greece, regarding the learning objectives, and through this trail, students may explore more engagingly different concepts related to biodiversity.

#### Flowchart

# Animals of the lake

Activity 1.1: Observe and record the animals that live in the lake

Activity 1.2: Could the animals in the lake live in saltwater? Why not?

Activity 1.3: Exploration of the invasive species of the lake (turtles, koi)

Modules of the trail

# Freshwater and saltwater turtles

Activity 2.1: Did you know that there are turtles that live in the sea? What differences do you think they have?

#### Activity 2.2:

Do we have sea turtles in Greece? If so, do you know what they are called and where they live?

# Domestic animals

Activity 3.1: Explore and write down below the animals you see at the zoo. Is it a zoo?

#### Activity 3.2:

Write down the birds you see. What colours are they? The story of the green parrots in Athens

Content 1 – Ecotopes related to water & invasive species		
Activity 1.1 – Animals of the lake		
Site conditions	Artificial lake inside the National Garden of Athens hosting swans, ducks, turtles	
	(abandoned by their owners), and koi fishes (abandoned by their owners)	
Duration	15–20 minutes	
Description of	Explore the ecosystem of an artificial lake, and discuss with the students if they	
the activity	see something weird, i.e., American turtles and Koi fishes which are not native	
	species of Greece.	
Content 1 – Ecotopes related to water & invasive species		
Activity 1.2 – Fres	hwater and saltwater turtles	
Site conditions	Artificial lake inside the National Garden of Athens hosting swans, ducks, turtles	
	(abandoned by their owners), and koi fishes (abandoned by their owners)	
Duration	15–20 minutes	
Description of	Discuss on the difference between sea and lake turtles and sea turtle species we	
the activity	have in Greece (either under threat of extinction or not)	
Content 2 – Explor	ring the animals of Greece	
Activity 2.1 – Dom	estic animals	
Site conditions	The National Garden's Zoo, inside the National Garden on the eastern side.	
Duration	30–45 minutes	
Description of	A walk around the National Garden's Zoo, where endangered species and/or	
the activity	wounded or abandoned animals are kept. The students may explore ducks, geese,	
	chickens, rabbits, and the Greek kri-kri (Cretan goat).	

Content 3 – The animal kingdom of birds	
Activity 3.1	
Site conditions	On the back side of the zoo, where many different huge cages are located with
	different types of birds (i.e. parrots, pheasants, parakeets, peacocks)
Duration	15 minutes
Description of	The students write down the different types of birds they see; they can record
the activity	birds' tweeting and they try to identify which bird species might be invasive.
Materials and	Environmental Education Programme (Grade 3):
resources for	(Section 4): <u>Source 1</u> ; <u>Source 2</u>
teachers	Alternate resources: Here
Suggestions for	Possible connections to the curriculum:
embedding the	Environmental Education Programme – Section 4 (Grade 3) ( <u>Here</u> )
trail into	Environmental Education Programme – Section 3 (Grade 4) ( <u>Here</u> )
classroom	Environmental Education Programme – Section 3 (Grade 5) ( <u>Here</u> )
teaching	
Further reading	Analytical info about the National Garden of Athens (here)

# **EXAMPLE TRAIL Greece 2**

Name of the trail:	Exploring the biodiversity of my school and Nature-based Solutions (NbS)
How to find it on Discovery Trail:	https://keskkonnaharidus.avastusrada.ee/admin/map/11
Screenshot	BAC BAC BAC Tae Kwr 2 to Rakking Back Back Back Back Back Back Back Back
Developer:	Loukas Katikas (Researcher) and Olympia Mpefa (Secondary school principal)
Addressed age group:	Grades 7–8
Addressed dimensions of biodiversity:	Biodiversity monitoring, nature-based solutions (NbS)
Relevant topics:	Local biodiversity monitoring, enhancing and protecting biodiversity using nature-based solutions (NbS)
General overview and aim:	The intention is to explore biodiversity at the school of Ellinogermaniki Agogi. Students learn about potential measures for increasing biodiversity at the school by implementing nature-based solutions. They are trying to envision how their school would look like with NbS concepts
Framework conditions:	Time: 1–1.5 hours Equipment needed: Mobile phones or tablets What prior knowledge is expected from the students: The definition of NbS and why biodiversity enhancement is important for urban areas Motivational frame (narrative, context): Teaching biodiversity topics in a different, more engaging, and creative manner through NbS
Flowchart	

## Monitoring biodiversity

Activity 1.1: How many plants can you spot within a radius of 5 metres?

#### Activity 1.2: Take a photo within the

5–10-metre radius

#### Activity 1.3: Identifying different

categories of plants

# Enhancing biodiversity through NbS

Activity 2.1: Have you ever heard of how we can enhance biodiversity in our cities and schools?

# Activity 2.2:

Now that we have seen one way to enhance biodiversity, let's go find some more. Do you have any ideas?

# Envisioning the future

### Activity 3.1:

Make a change: Does anything seem odd to you at this point?

#### Activity 3.2:

If you were an architect or environmental engineer for a while, what changes would you suggest to the wider area of point 3?

### Modules of the trail

Content 1 – Monitoring biodiversity		
Activity 1.1 – Identifying different biodiversity patterns in my school		
Site conditions	Green area inside the school with lot of trees, shrubs, and birds' nests	
Duration	15–20 minutes	
Description of	Explore biodiversity within a specific radius (i.e. 1 metre or 5 metres)	
the activity		
Content 1 – Monitoring biodiversity		
Activity 1.2 – Freshwater and saltwater turtles		
Site conditions	Green area inside the school with lot of trees, shrubs, and birds' nests	
Duration	15–20 minutes	
Description of	Discuss the difference between plants and trees	
the activity		
Content 2 – Enhancing biodiversity through NbS		
Activity 2.1 – Introduction to urban sustainability		
Site conditions	Parts of the schoolyard with no green areas	
Duration	30 – 45 minutes	
Description of	Students are trying to identify NbS concepts already implemented in the school	
the activity	(i.e. birds' nests, pocket parks and green areas, SUDs, etc.)	
Content 3 – Envisioning the future		
Activity 3.1		
Site conditions	Parts of the schoolyard with no green areas that can be renovated (i.e. parking	
	areas)	
Duration	15 minutes	

Description of the activity	Students are trying to envision and write down different ideas on how to make their school greener with different NbS concepts (i.e. green roofs, green facades, school garden expansion, etc.)
Materials and	Environmental Education Programme (Grade 7):
resources for	(Section 4): <u>Source 1</u> ; <u>Source 2</u>
teachers	Alternate resources: <u>Here</u>
Suggestions for	Possible connections to the curriculum (Environmental Education, Geography,
embedding the	and/or Technology lessons):
trail into	Environmental Education Programme – Section 4 (Grade 7) ( <u>Here</u> )
classroom	Environmental Education Programme – Section 3 (Grade 8) ( <u>Here</u> )
teaching	Environmental Education Programme – Section 3 (Grade 9) ( <u>Here</u> )
Further reading	Educational resources for NbS (lesson plans, experiments, projects, etc.)
	https://nbseduworld.eu/resources
References	https://nbseduworld.eu/nbs-eduhub

# **ADDITIONAL EXAMPLE TRAILS Greece**

## Exploring the animals of Greece (Primary school: Grade 4)

Checkpoint 1b: Animals of the lake

Observe and record the animals that live in the lake. (Open-ended question)

Could the animals in the lake live in saltwater? Why not? (Open-ended question)

Checkpoint 2a: Freshwater and saltwater turtles

Did you know that there are turtles that live in the sea? What differences do you think they have?

Hint: An invasive species is an animal or plant that does not belong to the natural ecosystem of a region. Unfortunately, the turtles you see are bought from shops that sell animals and when they get bored, they leave them in the National Garden. As they are invasive species, we cannot release them in the wild, so they are kept here.

Checkpoint 2b: Turtles, goats, and rabbits of Greece

Do we have sea turtles in Greece? If so, do you know what they are called and where they live? Discuss it with your groups!

Checkpoint 3: Domestic animals

Here, you will need to walk a bit more.

Write below the animals you see at the zoo!

<u>Checkpoint 4:</u> If you see the structure below, you are at the last point of the walk.

Welcome to the kingdom of birds!

Write down the birds you see. What colours are they?



Figure 1: National Garden of Athens and the Discovery Trail focusing on the urban biodiversity and animals of Greece, map view

#### Biodiversity and Nature-based Solutions (NbS) in my school (Secondary school: Grades 7–9)

<u>Checkpoint 1a:</u> How many plants can you spot within a radius of 5 metres? Can you name at least five species?

<u>Checkpoint 1b:</u> Take a photo that includes all the species within a 5–10-metre radius.

<u>Checkpoint 1c:</u> Categories of plants

How many categories can you divide the species you identified into?

Hint: If you get the spot right, in 12 hours, you could see the stars.

Checkpoint 2a: Enhancing biodiversity

Have you ever heard of how we can enhance biodiversity in our cities and schools?

<u>Checkpoint 2b</u>: Around point 2, there is a wooden structure that could help to enhance biodiversity. Take a picture if you have spotted the structure.

Checkpoint 2c: Nature-Based Solutions (NbS)

Now that we have seen one way to enhance biodiversity, let's go find some more. Do you have any ideas?

Hint: The photo in the question can help us (photo of trees newly planted at school)

Checkpoint 3a: We are going to suggest some changes...

Does anything seem odd to you at this point?

<u>Checkpoint 3b:</u> If you were an architect or environmental engineer for a while, what changes would you suggest to the wider area of point 3?

Please list at least 3 ideas.

Checkpoint 3c: But why these ideas and how NbS support sustainability?



TBME 4. SCHOOL DISCOVERY Han Incusing on Disourceasty at the action and Mature based Solutions (MDS), agrenite view

#### Discovering the story of Myrtis in Ancient Greece (Primary school: Grade 3)

This trail describes a teaching scenario for a history lesson of grade 4 students. The main objective of the teaching scenario is to familiarise students with the historical dimension of the pandemic phenomenon to develop critical thinking about it in the context of strengthening mental resilience, and to develop a critical appraisal of the pandemic to develop their understanding thereof.

The central historical character is Myrtis, and the title of the teaching scenario is 'Myrtis takes us on a journey from the plague of Athens to the pandemic of today'. The fact that Myrtis was an 11-year-old girl, a victim of the Athens plague, and not a war hero or an important political figure, helps students to focus not only on the war history, but also on the everyday life of women and children, on education, food, slaves, and the Athenian life in general. Hence, through this trail, the pupils travel with Myrtis to the plague of Athens in the Classical period and, passing through the pandemics of different historical periods of mankind (e.g. the black plague, smallpox, cholera), arrive at the way they themselves experience the pandemic today.



Figure 3: The Myrtis Discovery Trail focusing on the plague of ancient Athens and the story of Myrtis, satellite view