

## Europeana Learning Scenario

### Title

Biodiversity Explorers

Natural treasure in National Park "Pelister" and Balkan Peninsula

### Author(s)

Silvana Ristevska

### Summary

In this lesson, biodiversity is introduced by having students identify and talk about what they know about the various species around them, including the amazing variety of life. Using online resources, they identify the basic components necessary for biodiversity, benefits of their existence, as well as the serious danger of reducing their populations.

An important goal of this lesson is for students to understand that biodiversity is necessary for life and the species preservation is important to all of us. Every species is linked with a multitude of others in an ecosystem. All animals are part of food chain that include plants and animals of other species.

With the help of Europeana resources, students will be interested in exploring, researching and getting to know the different natural life in Europe and beyond. This lesson will also be realized in front of our students-guest from Sweden in May and we hope for positive collaboration and sharing of national, and cultural values between students from both countries in order to raise awareness for taking care about the world we live in.

### Table of summary

Subject	<i>Biology, ICT, Art, Ecology, Natural Sciences</i>
Topic	<i>Biodiversity</i>
Age of students	<i>13-14</i>
Preparation time	<i>60'</i>



Teaching time	2x40'
Online teaching material	<p>1. How to make Coloring book  <a href="https://www.instructables.com/id/How-to-Make-a-Coloring-Book">https://www.instructables.com/id/How-to-Make-a-Coloring-Book</a>  <a href="http://www.pixlr.com">www.pixlr.com</a></p> <p>2. web tool how to make online quiz: Kahoot (<a href="http://www.kahoot.com">www.kahoot.com</a>)  <a href="http://www.worldwildlife.org">World Wildlife Fund</a>  <a href="http://www.worldwildlife.org">http://www.worldwildlife.org</a></p> <p>National Park Pelister  <a href="http://park-pelister.com">http://park-pelister.com</a>  <a href="https://www.youtube.com/watch?v=H9QRV8wcASU">https://www.youtube.com/watch?v=H9QRV8wcASU</a></p>
Offline teaching material	Pictures, Paper, Drawing and writing accessories, PPT;
Europeana resources used	<p>1. Introduction and exploring Europeana blog:  <a href="http://blog.europeana.eu/">http://blog.europeana.eu/</a></p> <p>2. Charles Darwin Europeana resources:  <a href="https://www.europeana.eu/portal/en/collections/natural-history?page=5&amp;q=%22charles+darwin%22+OR+%22darwin%2C+charles%22&amp;view=grid">https://www.europeana.eu/portal/en/collections/natural-history?page=5&amp;q=%22charles+darwin%22+OR+%22darwin%2C+charles%22&amp;view=grid</a></p> <p>3. Europeana Maps collection:  <a href="https://www.europeana.eu/portal/en/collections/maps#">https://www.europeana.eu/portal/en/collections/maps#</a></p> <p>4. Endemic species - Europeana resources  <a href="https://www.europeana.eu/portal/en/collections/natural-history?q=endemic+animal+species&amp;view=grid">https://www.europeana.eu/portal/en/collections/natural-history?q=endemic+animal+species&amp;view=grid</a>  <a href="https://www.europeana.eu/portal/en/collections/natural-history?view=grid&amp;q=endemic+plant+species">https://www.europeana.eu/portal/en/collections/natural-history?view=grid&amp;q=endemic+plant+species</a></p>

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## Integration into the curriculum

Biology – Understands biological diversity of life.

Art- Using the visual elements, Creating and designing.

Natural Science- Understands the nature of scientific knowledge.

Technology (ICT): Understands the relationships among science, technology, and the individual.

## Aim of the lesson

- To introduce students to the amazing variety of life around them.
- To understand and apply the term endemic to animal and plant life.

## Trends

Collaborative Learning: a strong focus on group work.

Assessment: the focus of assessments is shifting from "what you know" to "what you can do."

## 21<sup>st</sup> century skills

*Add here how the learning scenario corresponds to 21<sup>st</sup> century skills. To find out more:*

<http://www.p21.org/our-work/p21-framework>

Collaboration and teamwork

Creativity and imagination

Critical thinking



Flexibility and adaptability

Global and cultural awareness

Technology literacy

## Activities

Name of activity	Procedure	Time
<b>Preparation</b>	A few days before the lesson, students had a homework to learn how to create a Coloring Book using the online application Pixlr. The teacher will give them a simple tutorial to teach how to turn any picture into black and white outlines that can be print out.	
<b>Introduction</b>	<p>Review with the students what they know about the terms biodiversity and endemic species.</p> <p>What does biodiversity mean?</p> <p>Why is biodiversity important?</p> <p>What are some of the benefits of biodiversity? Can you list some endemic species in your country?</p> <p>The teacher introduces the students to the goals of the lesson and starts a discussion by asking questions:</p> <p>Have you ever visited one of the three national parks in N.Macedonia or in Balkan Peninsula?</p> <p>-Can they be found on the map?</p> <p>-Why are they important?</p> <p>Students will watch the presentation about the National Park “Pelister” prepared by teacher and after that students will write down the names of all endemic plants and animals species.</p>	
<b>Activity 1</b>	<p>Students will work in four groups of 4-5. Primarily each of these 4 groups will have the task of searching and saving images and text for endemic species of plants and animals in Europe through the Europeana portal.</p> <p>At Europeana portal the students will have opportunity to see how does look a herbarium picture and how scientifically species are presented trough out a picture.</p>	
<b>Activity 2</b>	<p>Secondary, the groups will have following assignments:</p> <p>Group 1: searching pictures of endemic plant species in NP “Pelister”</p> <p>Group 2: searching pictures of endemic animal species in NP “Pelister”</p> <p>Group 3: searching pictures of endemic plant species in Balkan Peninsula</p>	

	<p>Group 4: searching pictures of endemic animal species in Balkan Peninsula</p> <p>Every group will collect 4-5 pictures of endemic species which will be used later in another activity.</p>
<b>Activity 3</b>	All groups will compare the results from previous two activities and will make an outcome with the results
<b>Activity 4</b>	Students have the task of creating a Coloring Book Story of the collected pictures in Activity 2. To create a Coloring Book Story they will use the online application Pixlr ( <a href="http://www.pixlr.com">www.pixlr.com</a> ). After they have made the Coloring Book, they will print it and share it with their peers from a different group to color the pages.

### Assessment

The students will develop a quiz using the application Kahoot and collected resources in order to foster the knowledge gained from activities mentioned above.

\*\*\*\*\* AFTER IMPLEMENTATION \*\*\*\*\*

### Student feedback

The teacher conducts an online survey with Google Forms in order to receive student's feedback on the impact of the Europeana portal for learning new information and the benefits of the portal as a European project.

The students had opportunity to get to know each other, to get knowledge and awareness about Europeana and the Balkan biodiversity as well as National Park Pelister near Bitola, North Macedonia.

### Teacher's remarks

In cooperation with Swedish teachers and students was developed a questionnaire in Google Forms with the following activities:

- monitoring the entire activity of the students whether the goals are realized
- engagement,
- interest,
- creativity,
- evaluation.

The students from N. Macedonia and from Sweden have worked together on the questionnaire and they have gained the feeling of inclusion and belonging to a greater European community with vast cultural heritage (Europeana). With this cooperation, they have enhanced their internationalization and their language competencies and together have developed awareness about Balkan biodiversity. With this activity the interest and the creativity of the students was engaged to a high level and their cooperation resulted in a very good social and scientific output.

This output was evaluated by the teachers from both countries and the teachers have gained precious experience and have shared best practices on evaluation skills.

### About the Europeana DSI-4 project

[Europeana](#) is Europe's digital platform for cultural heritage, providing free online access to over 53 million digitised items drawn from Europe's museums, archives, libraries and galleries. The Europeana DSI-4 project continues the work of the previous three Europeana Digital Service Infrastructures (DSIs). It is the fourth iteration with a proven record of accomplishment in creating access, interoperability, visibility and use of European cultural heritage in the five target markets outlined: European Citizens, Education, Research, Creative Industries and Cultural Heritage Institutions.

[European Schoolnet](#) (EUN) is the network of 34 European Ministries of Education, based in Brussels. As a not-for-profit organisation, EUN aims to bring innovation in teaching and learning to its key stakeholders: Ministries of Education, schools, teachers, researchers, and industry partners. European Schoolnet's task in the Europeana DSI-4 project is to continue and expand the Europeana Education Community.