

A photograph of a forest with large, moss-covered trees in the foreground and a body of water in the background. The trees have thick, gnarled trunks and dense green foliage. The water is visible in the middle ground, and the sky is a pale blue. The overall scene is a natural, somewhat overgrown forest environment.

The Drava wetland forests

OŠ Ivana Kukuljevića, Belišće



Belišće-a city on the Drava

- On the right bank of the Drava River
- Part of the Pridrav lowland
- Drava - the border with Baranja
- Hydrological GLOBE station



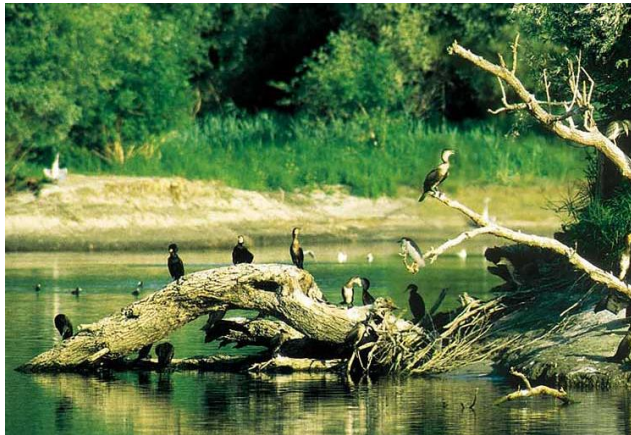
GOAL OF THE WORK

- Land cover research
- Wetland forest
- "walking forests"
- white willow forest
- black and white poplar forest
- endangerment of these areas



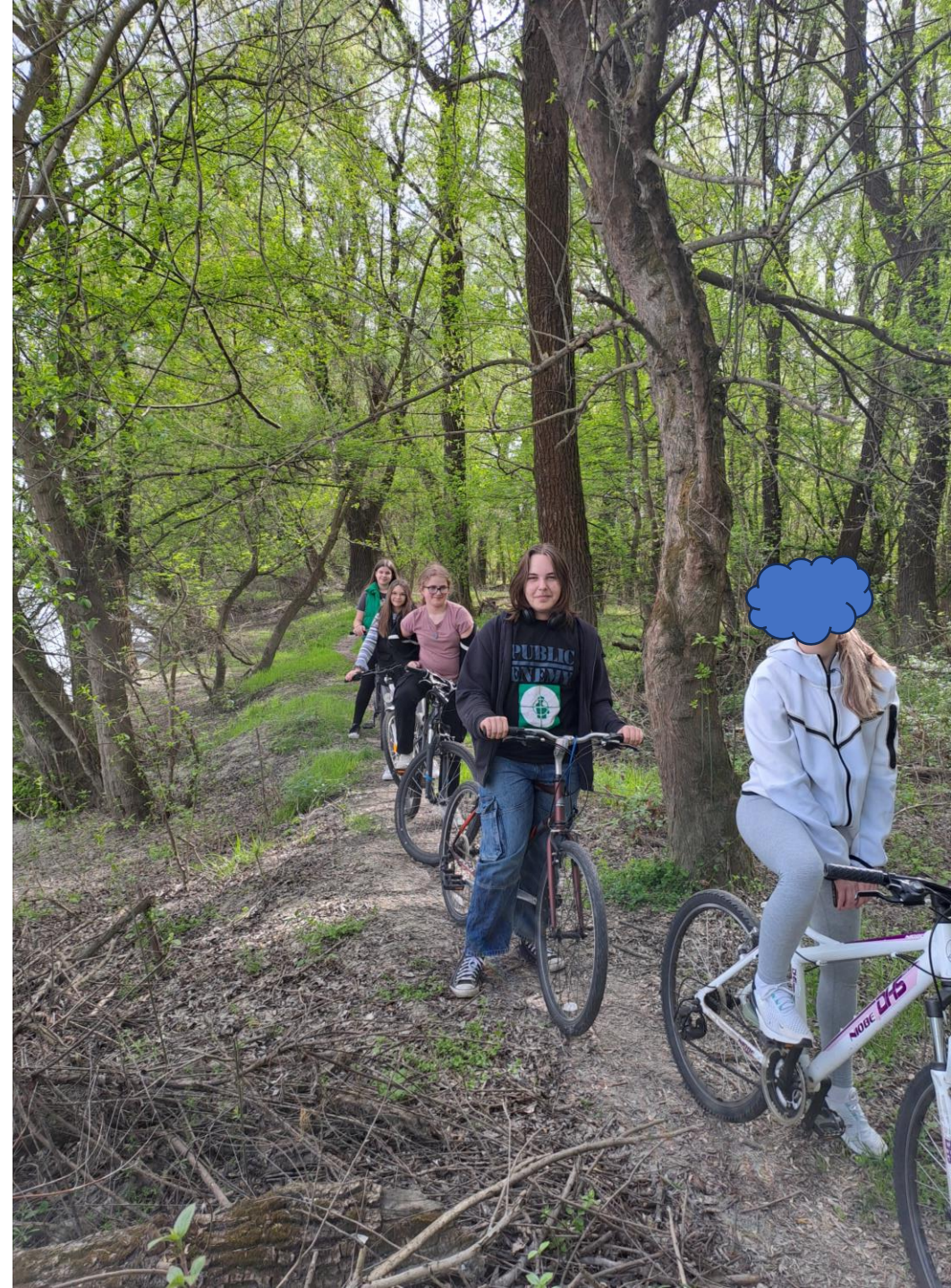
The importance of wetlands, wetlands and floodplain forests

- ❖ They control floods.
- ❖ They retain and deposit sediments.
- ❖ They neutralize various toxins.
- ❖ Sponges that, depending on the amount of groundwater and surface water, release or retain water.
- ❖ Natural water purifiers, as they collect polluted water from surrounding areas for marsh plants, such as reeds, to process and purify (removing phosphates and nitrogen compounds, which are the basic components of artificial fertilizers in agriculture).
- ❖ They are centers of biodiversity for plants and animals and are often compared to tropical rainforests.
- ❖ They mitigate the effects of floods and droughts.
- ❖ They prevent coastal erosion.
- ❖ They are habitats for a large number of species of birds, mammals, reptiles, amphibians, fish, and invertebrates.
- ❖ They are increasingly being used for tourism, specifically ecotourism.



RESEARCH QUESTION AND HYPOTHESIS

- **RESEARCH QUESTION**
- Are the GLOBE protocols for biometrics precise enough to determine the existence of characteristic wetland forests?
- **HYPOTHESIS**
- By applying the GLOBE protocols for biometrics, it is possible to determine the existence of characteristic wetland forests.

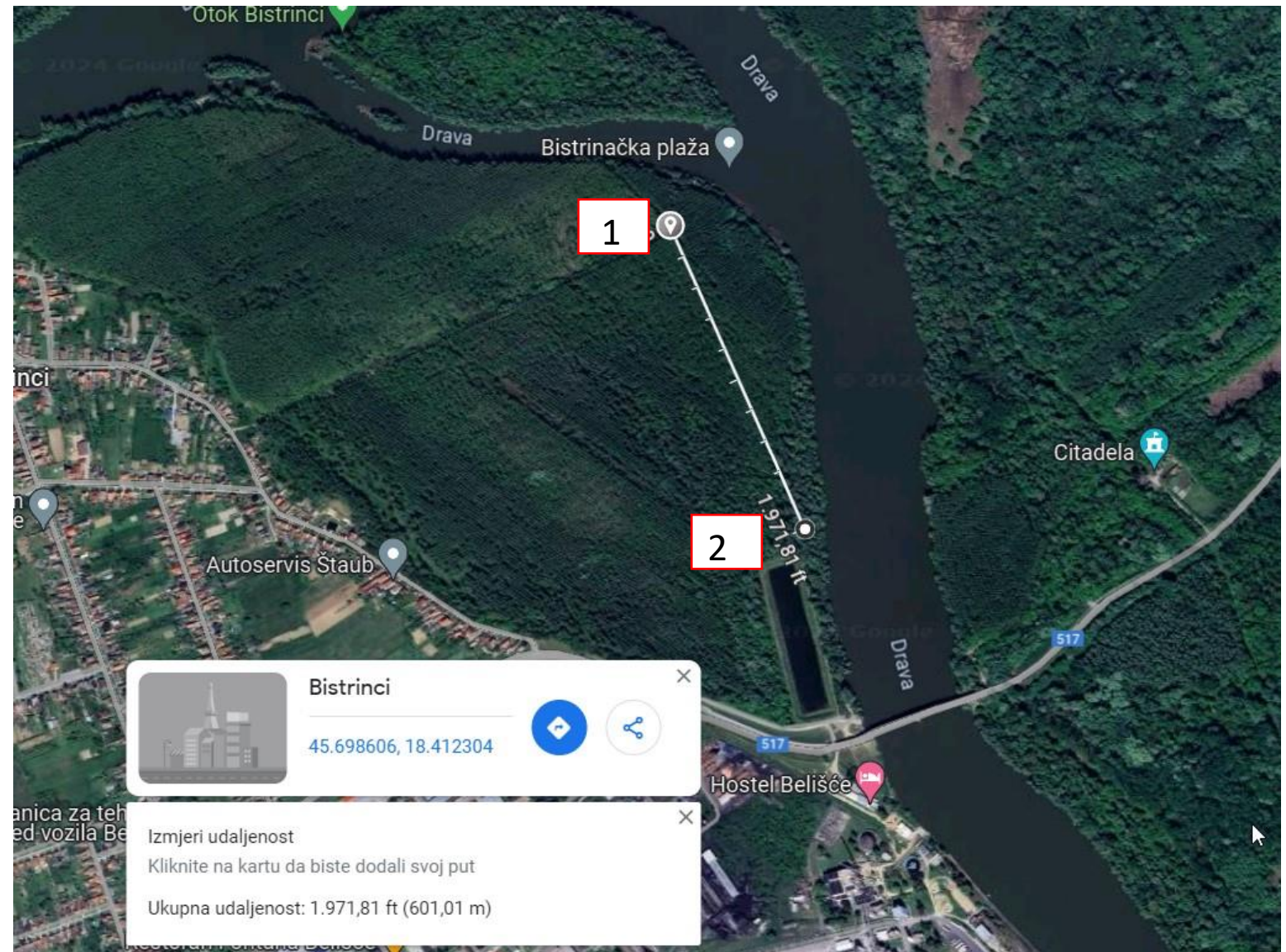


Research Methods

- ❖ GLOBE protocol for biometrics
- ❖ Two research plots
- ❖ PlantNet application
- ❖ Key for species identification

1-Bistrinci Beach

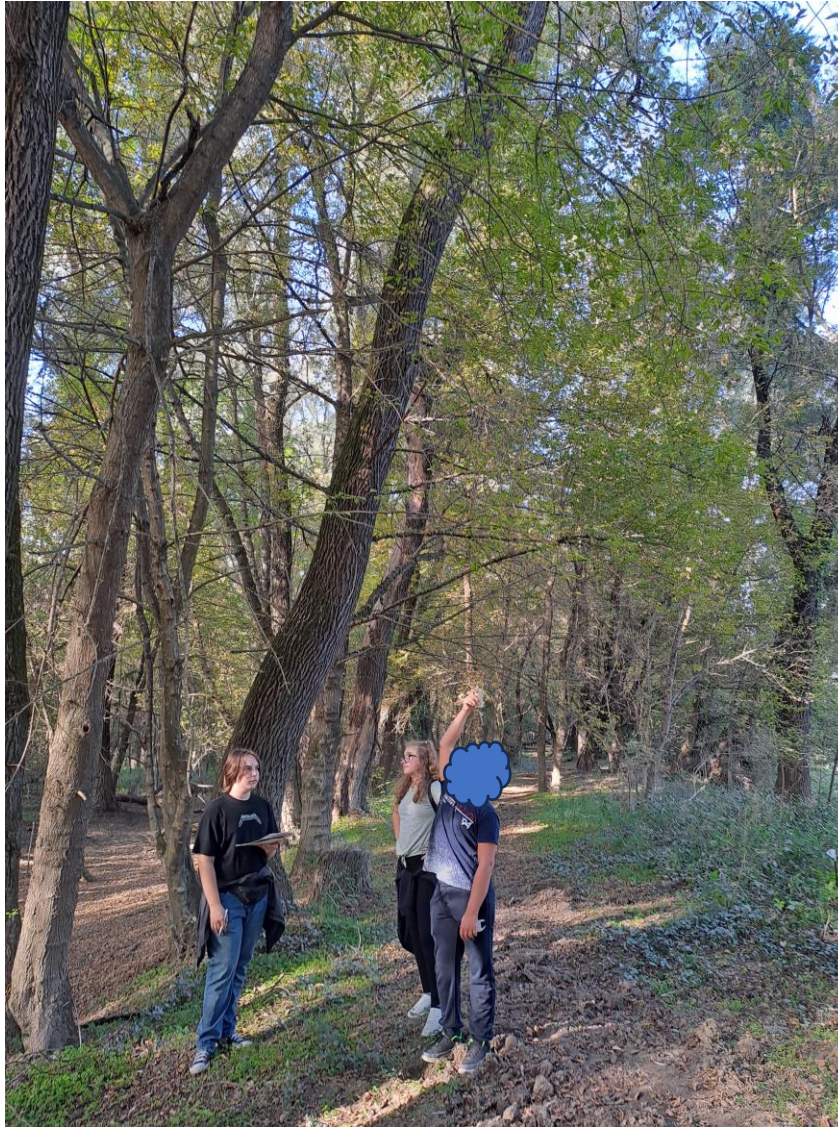
2 - Vrbik



Poplar Forest - Bistrinci Beach



White Willow Forest - Vrbik



We determined:

- MUC category
- Canopy and ground cover
- Dominant and co-dominant species
- Tree height and circumference
- Plant species

Presentation and Data Analysis

Data for Plot 1 - Bistrinci Beach

MUC KOD- 1231, Deciduous forest without evergreen trees

School: OS Ivana Kukuljevica 

Site: DRŠ- bistrinačka plaža

Measurements | Data Counts | School

 Biosphere

Land Cover

Data Date Range: 2023-12-31 to 2023-12-31

Measurement:

Land Cover Id: 63049
Data Source: GLOBE Data Entry Site
Definition
Measured At: 2023-12-31 16:55:41.51313
MUC Code: 1231
MUC Description: **Woodland, Mainly Deciduous, Cold-Deciduous without Evergreen Trees, Broad-Leaved**
Mv Updated At: 2023-12-31 17:00:04.659629+00
Elevation: 89.30 m

Dominantna vrsta drveća Populus × canadensis Moench.	Visina stabla (m)	Opseg stabla (cm)
1. stablo	41,5	100
2. stablo	40,3	95
3. stablo	39,5	91
4. stablo	38,7	87
5. stablo	33,9	87

Shrub Layer - Amorpha (false indigo), dogwood, and hawthorn

Ground Cover - Grasses (GD) and broad-leaved herbaceous plants (FB)

Presentation and Data Analysis

MUC KOD- 1231, Deciduous forest without evergreen trees

- **Data for Plot 2 - Vrbik near the artificial lake**

School: OS Ivana Kukuljevica
Site: DRŠ- vrbik

Measurements | Data Counts | Sched

Biosphere

Land Cover

Data Date Range: 2023-12-31 to 2023-12-31

Measurement: 1

Land Cover Id: 63051
Data Source: GLOBE Data Entry Site
Definition
Measured At: 2023-12-31 18:23:26.679968
MUC Code: 1231
MUC Description: Woodland, Mainly Deciduous, Cold-Deciduous without Evergreen Trees, Broad-Leaved
Mv Updated At: 2023-12-31 18:25:09.74118+00
Elevation: 90.90 m

Shrub Layer - Blueberry bramble (Rubus), wild vine

Ground Cover - Broad-leaved herbaceous plants (FB) and dwarf shrubs (DS); the rest consists of grasses and other green vegetation

Dominantna vrsta drveća Salix alba L.	Visina stabla (m)	Opseg stabla (cm)
1. stablo	37,2	188
2. stablo	36,0	221
3. stablo	34,8	179
4. stablo	31,5	203
5. stablo	27,6	183
Kodominantna vrsta drveća Acer negundo L.	Visina stabla (m)	Opseg stabla (cm)
1. stablo	28,5	180
2. stablo	25,8	104

Conclusions and Discussion

- We confirmed the hypothesis – using the GLOBE protocols, we can accurately determine the existence of floodplain forests (canopy cover and identification of dominant tree species).
- We classified forest communities at a more detailed level compared to the MUC classification, which only recognizes deciduous forests without evergreen elements.
- We highlighted the importance of preserving these natural habitats – through a presentation to the local community and an educational brochure.



THANK YOU FOR YOUR ATTENTION!



Media Release Form

NASA Media Release Form for Parent or Guardian of Minor
(continued)

Name of Minor (First and Last):
KATJA ZLOJIC

Name of Parent / Legal Guardian / Legal Representative of Minor (First and Last):
TIHANA LOURENCIC

Signature of Parent / Legal Guardian / Legal Representative of Minor:
Tihana Lourencic

Relationship to Minor: Kći

Today's Date: 04.03.2025

Contact information for Parent / Legal Guardian / Legal Representative of Minor:
Address: PARK A. HOFMANN 2C
31551 BEUŠĆE
Telephone: 099 67 25 981
Email Address: tlourencic02@gmail.com

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NASA Media Release Form for Parent or Guardian of Minor
(continued)

Name of Minor (First and Last):
DOROTEJA SUŠIĆ

Name of Parent / Legal Guardian / Legal Representative of Minor (First and Last):
TIHOMIR SUŠIĆ

Signature of Parent / Legal Guardian / Legal Representative of Minor:
Tihomir Sušić

Relationship to Minor: FATHER

Today's Date: 04.03.2025

Contact information for Parent / Legal Guardian / Legal Representative of Minor:
Address: PETRA ERINSKOJE 79
31551 BEUŠĆE
Telephone: +385 098 9452881
Email Address: tihomir.susic@gmail.com

2 of 2

NASA Media Release Form for Parent or Guardian of Minor
(continued)

Name of Minor (First and Last):
EVA VINKOVIĆ

Name of Parent / Legal Guardian / Legal Representative of Minor (First and Last):
JELENA VINKOVIĆ

Signature of Parent / Legal Guardian / Legal Representative of Minor:
Jelena Vinković

Relationship to Minor: MAJKA

Today's Date: 4.3.2025

Contact information for Parent / Legal Guardian / Legal Representative of Minor:
Address: STROSSMYERLA 40, BEUŠĆE
Telephone: 0952673544
Email Address: jelena.vinkovic@gmail.com

NASA Media Release Form for Parent or Guardian of Minor
(continued)

Name of Minor (First and Last):
VIO ŠOVAŠOVIĆ

Name of Parent / Legal Guardian / Legal Representative of Minor (First and Last):
SENKA ŠOVAŠOVIĆ

Signature of Parent / Legal Guardian / Legal Representative of Minor:
Senka Šovašović

Relationship to Minor: majka - ću

Today's Date: 04.03.2025

Contact information for Parent / Legal Guardian / Legal Representative of Minor:
Address: PETRA ERINSKOJE 112, BEUŠĆE
Telephone: 091 786 0468
Email Address: ssovagov@gmail.com

NASA Media Release Form for Parent or Guardian of Minor
(continued)

Name of Minor (First and Last):
ANJA PREBEŠ

Name of Parent / Legal Guardian / Legal Representative of Minor (First and Last):
IVANA PREBEŠ

Signature of Parent / Legal Guardian / Legal Representative of Minor:
Ivana Prebeš

Relationship to Minor: MAJKA

Today's Date: 04.03.2025

Contact information for Parent / Legal Guardian / Legal Representative of Minor:
Address: BISTRINCI, JUVOLITA GAJA 29
31551 BEUŠĆE
Telephone: 091 933 4532
Email Address:

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