## **Donaufest 2024**

Friday, July 12, 2024

# Workshop 2:

# **Shaping the Environment Using Citizen Science as an Example**

Moderator: Dr. Nadezda Hrapkova (Comenius University of Bratislava, Slovakia),

University of the Third Age, Bratislava

Focussing on Environmental Education, supported by the Erasmus Program of the European Commission

Dr. Hrapkova is a long-standing friend of ILEU and Carmen.

There were 26 participants, three (instead of four) speakers.

## **Contributing Speeches:**

Ms **Petra Siegele**, Agency for Education and Internationalization (OEAD), Vienna: "Supporting child- and youth friendly landscapes through participative analysis of urban green spaces"

U3green projects designed to bring together researchers and scientists as well as young people, pupils from all types of school. They want to collect and evaluate information by internships, camps, workshops wit pupils working at eyelevel with researchers.

"Sparkling science" in Austria is for research as well as education, involving pupils. If you want to know what they need – ask them! Define urban green spaces.

Goal: implement an app to collect and evaluate information. How: by internships, camps, workshops, collecting data; and then analyze these data. Important is that the pupils are working at eye level with researchers, are respected, learn methods and later evaluate their findings.

How to involve pupils? They are nominated by their schools, motivated by workshops taking place in class, free time allocated for that, requiring pre-scientific work in Austria. Age: 14 - 19 years. An amount of  $\le 350,000$  for 5 years goes to research organizations, paying these costs, funded by the ministry.

Ask schools about methods, requirements – and publish the results afterwards. Schools and research organizations are thus brought together for five years.

Benefit for researchers: they get new results from the data collected by the pupils, are confronted with new ways of thinking and findings from the more than 200 pupils. The projects are supervised by other scientists.

**Dr Harald Kutzenberger** / Johanna Loicht High School BIOZ Vienna, Danube Landscapes

Task Force: "On the sustainable development of Danube landscapes at macroregional and local level"

Unfortunately, Dr. Kutzenberger was not available.

**Stefan Brändel**, Citizens Science in the Botanical Garden, University of Ulm: "Botanical Gardens: Hubs of Biodiversity & Environmental Education"

Biologist at the Botanical Gardens of the Ulm University. These gardens exist since 1981, spread over an area of 28 ha with trees, meadows, ponds, green houses. A hub for environment and biodiversity, a tool to interest people in biology. Today, he works with schools, kids and visitors.

Since 1997, there is a green classroom visited by many groups. It was established by his predecessor to teach the value of biodiversity, conduct experiments and discover biodiversity. He uses the US American tool **iNaturalist** shared by biologists and interested amateurs all over the world. Up to today, more than 6,000 observations were made and recorded, more than 1,100 different species described, all in different areas.

Whenever people ask, that is recorded, and all that is required is a cell phone and access to the internet. iNaturalist will record for any observation data on who, where, which species, when and proof thereof. It uses AI and swarm intelligence as well as peer review to process information.

Any users can use their phone, upload a picture of a plant or animal and other people can react to the observation. Thus people can train themselves and show live demonstrations<: show projects etc. The entire Ulm botanical garden is an area.

Today, he is engaged in the Danube region project "Life on the Danube". He is working together with other users to identify the organisms shown. Anybody can learn how to make and record observations. Some examples: mosquitoes in the Ukraine or turtles in Europe, e.g. snapping turtles.

To use iNaturalist, set up an account, use your smart phone to take pictures and upload them. After having been checked for accuracy, they will be available for all users. Sometimes they will be blurred to protect a certain species.

Lesya Loyko, Environmental organization FORZA, Uschhorod, Ukraine:

"Protecting urban green through citizen power"

FORZA Uschhorod is a Ukrainian NGO based in the West Ukraine and founded by her to protect trees in cities. Municipal workers lack knowledge and skills when treating trees. The trees suffer, people suffer since due to the climate change trees are important for the climate in cities.

#### Her solutions:

"iTree Eco" to demonstrate the high value of trees – ecologic, but also monetary value. Process: volunteers collect data, provided with simple tools and instructed about methodology. The results are then communicated to the municipality and citizens by tags recommending trees. That is spread to other communities also.

Platanus alleys: sycamore (plane) trees were treated very unprofessionally by workers, which outraged people. She then appealed to the mayor and collected 1217 signatures against that in one week only. The result was that the alleys were given the status "protected area". University professor assisted her, parliament voted to support her.

Conclusion: a) civil society can be the driver of changes at grass-root level, b) people are inspired, c) keep making changes, d) community empowerment is important. There are about 5 to 6 people basically, after some "media noise" there will be more for a project.

https://forza.org.ua/ is the organization's website. Today, there is the longed sycamore alley in Europe, blooming in spring, even many palm trees. Biologists are fascinated that local species are thriving.