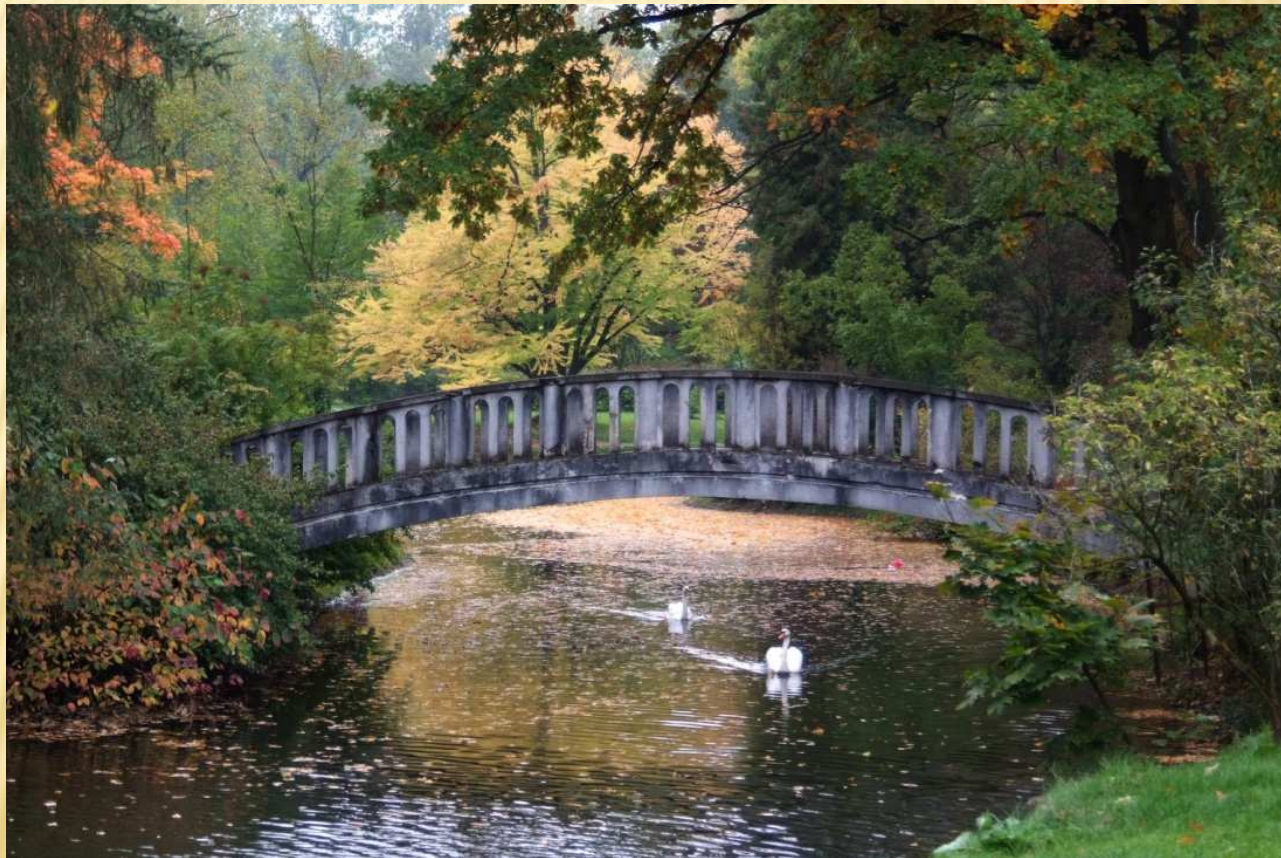




# Science communication

in Kaunas Botanical Garden of Vytautas Magnus University, Lithuania

*Vida Mildaziene*



BGCI's 9th International Congress on Education in Botanic Gardens, April 26–May 1, St. Louis, Missouri  
Session: Engaging the Public: Science Communication Initiatives in Botanic Gardens

# KAUNAS BOTANICAL GARDEN, VMU

62,5 ha green territory maintaining historical spirit of the former estate and picturesque park in the very center of Kaunas city



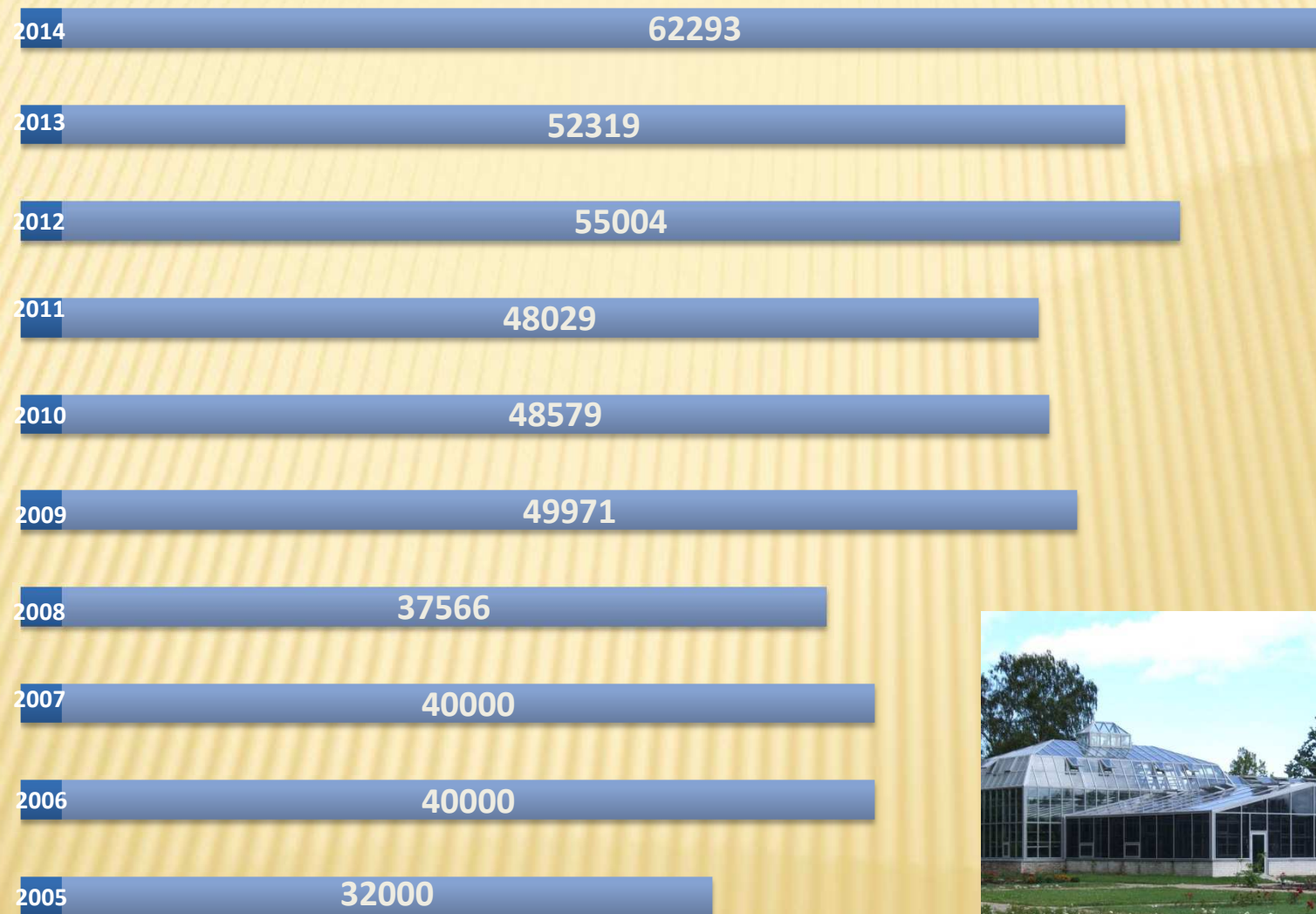
|                                       | 2014 |
|---------------------------------------|------|
| Administration                        | 2    |
| Department of Plants Pathology        | 4    |
| Department of Dendrology              | 9    |
| Department of Floriculture            | 20   |
| Department of Medicinal plants        | 6    |
| Department of Pomology                | 6    |
| Department of service and innovations | 5    |
| Seasonal staff                        | 10   |
| TOTAL including:                      | 62   |
| PhD                                   | 9    |
| Msc                                   | 2    |

4 botanical sectors: Dendrology, Floriculture (including Green house), Medicinal plants, Pomology (horticulture).

Total No. of collection examples (taxa, culta, populations and unidentified examples): **9641**



## Number of visitors





# KAUNAS BOTANICAL GARDEN – MULTIFUNCTIONAL UNIVERSITY BOTANICAL GARDEN

➤ The most open for the society department of the university is the best place for science communication;

➤ Rich plant collections:  
for biodiversity  
conservation, research,  
studies and education;

➤ Diverse programme of  
cultural events in the  
peaceful green area;

➤ Traditional excursions  
are no longer popular.



➤ There is a clear need to develop different approach for attracting visitors;

➤ The problem: lack of science communication skills.



# OUTLINE OF SCIENCE COMMUNICATION PROJECTS IN KBG:



- ✓ KBG is a partner of the Lithuanian Academy of Science in the project VP1-3.2-ŠMM-02-V-02-003 “Development of a National Science Communication System in Lithuania”. 2011-2014; extended for the period 2015-2020.



- ✓ KBG regularly participates in the national science festival „Erdvėlaivis Zeme“ (Spacecraft Earth) organized by the other partner of this project.

- ✓ VP3-1.4-AM-09-K-02-001 School of Green Ideas (Žaliasis Aleksotas): closely involves local community (2011-2014).



- ✓ Since 2012 KBG is the national coordinator of Fascination of Plants Day. The event takes place in 8 cities, involves ~ 30 partners and receives over 8,000 visitors.



- ✓ Project funded by the Dept. of Environment of Kaunas Municipality „The campaign against Heracleum Sosnowskyi“ (2014-2015).

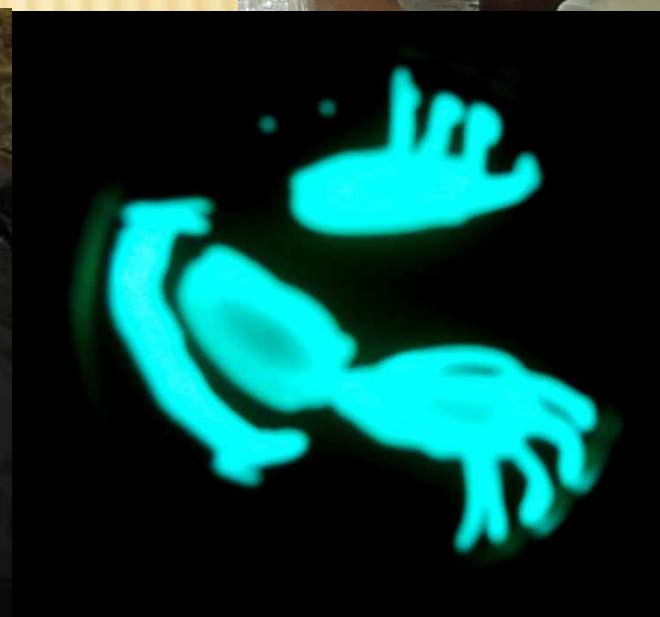


- ✓ KBG participates in the national Young exporters projects.

## “DEVELOPMENT OF A NATIONAL SCIENCE COMMUNICATION SYSTEM IN LITHUANIA”.

### ACTIVITIES:

- ✗ “NSO laboratorija”: program of science laboratory classes for children at KBG;
- ✗ Summer field expedition camps for schoolchildren;
- ✗ a mobile program of science demonstrations performed in other Botanic Gardens (6 per year).





# NSO LABORATORY



  
**VDU Kauno botanikos sodas**  
 Adresas: Ž.E Žiliberio 6, Kaunas.  
 Telefonas: +370-37-390033  
 Tinklapis: <http://botanika.vdu.lt>

  
  
 LIETUVOS UNIVERSITETŲ  
 BOTANIKOS SODŲ ASOCIACIJA



**KVIEČIA Į NSO LABORATORIJĄ!**  
**Naturales Scientiae Omnibus – Gamtos mokslai visiems**

**NSO LABORATORIJOJE** rasime atsakymą, kodėl kaktusai spygliuoti, atskleisime chameleono spalvų kaitos paslaptį, susipažinsime su augalų reklamine kampanija, tyrinėsime vandens lašo gyventojus, nersime į muilo burbulų pasaulį, klaidžiosime stebuklingų medžių giraitė, šifruosime medžių lieves ir kalbėsime akmenis, atversime duris į kvapų karalystę, tikrinsime augalų kantrybę, gaminsime karštą ledą, virsime alchemikais ir dar daug daugiau! Junkis prie mūsų ir pasaulis taps spalvingesnis, keistesnis ir įdomesnis!

Atsakyti į šiuos klausimus ir atlikti bandymus padės įvairių gamtos mokslų sričių specialistai, mokslininkai, studentai ir patys **MOKSLEIVIAI!** Visus norinčius kviečiame registruotis **NSO LABORATORIJOS** programai, siunčiant laišką adresu: [j.dabrilaitė@bs.vdu.lt](mailto:j.dabrilaitė@bs.vdu.lt).

**NSO LABORATORIJA** plačiai atveria duris visiems norintiems sužinoti daugiau! **NSO laboratorijos** programa skirta dviem jaunųjų tyrėjų grupėms: jaunesnio (6-12 metų) ir vyresnio (12-18 metų) mokyklinio amžiaus. Kartą per mėnesį žinomi mokslininkai jums skaitys įdomią paskaitą. Kartą per savaitę vyks interaktyvūs užsiėmimai NSO laboratorijoje, dalis iš jų bus ir botanikos sodo parke ar oranžerijoje. Nuolatiniais NSO laboratorijos jauniesiems tyrėjams užsiėmimai nemokami.






# ADDITIONAL VALUE:

- ✗ Programme is adopted for interactive classes for primary and secondary schools;
- ✗ Birthday of the young scientist;
- ✗ Presentations on experiments for kids on:

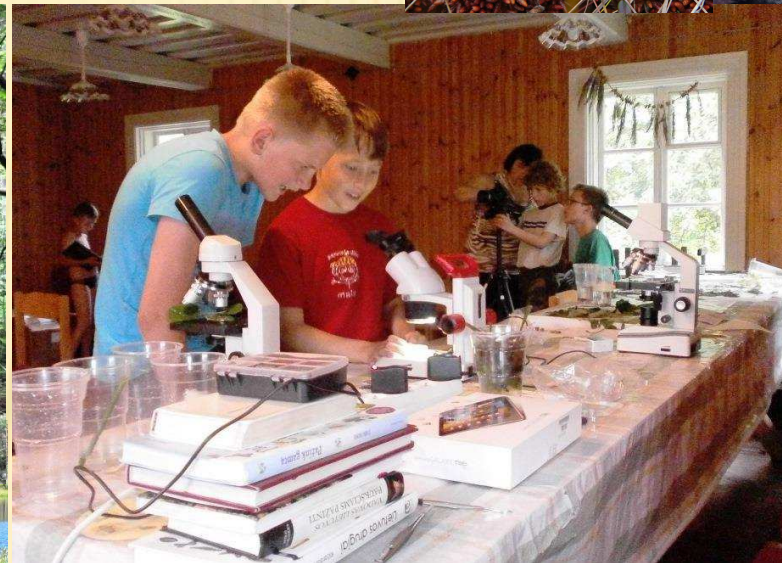
<https://www.youtube.com/watch?v=9-wCROG-fl0>





## „DEVELOPMENT OF A NATIONAL SCIENCE COMMUNICATION SYSTEM IN LITHUANIA”.

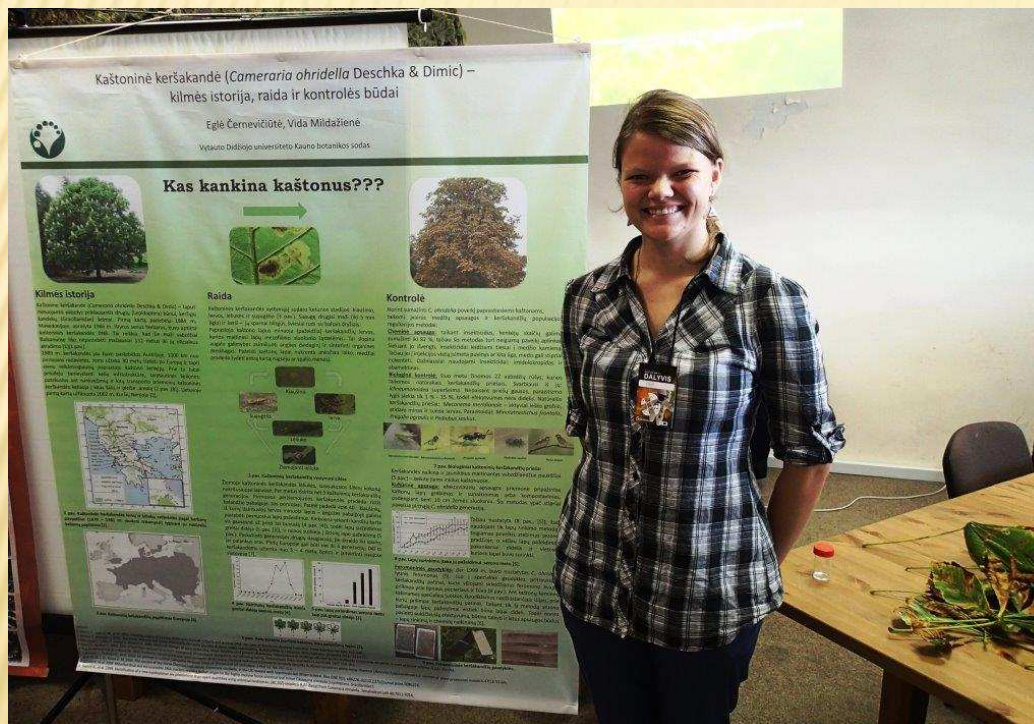
Summer field expedition camps for schoolchildren:





# NATIONAL SCIENCE FESTIVAL „ERDVELAIVIS ZEME“ (SPACECRAFT EARTH):

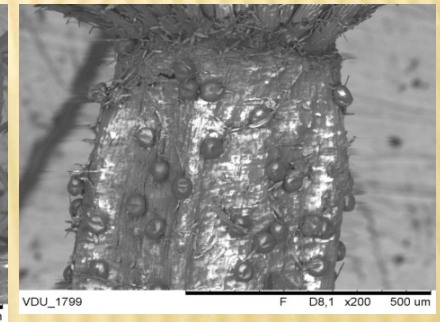
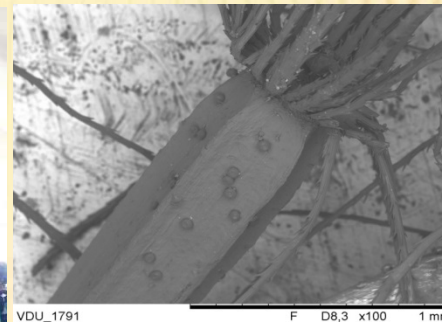
## 1. Story on control methods of *Cameraria ohridella* with microscopic demonstrations of pupae.



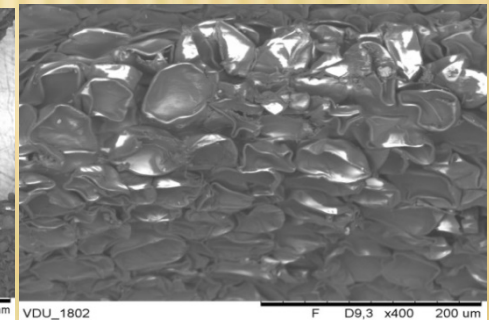
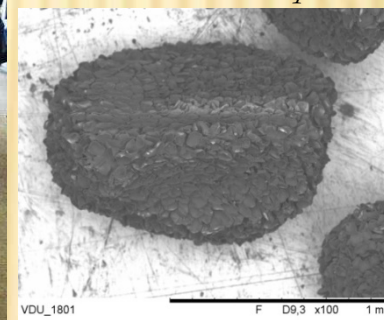


# NATIONAL SCIENCE FESTIVAL „ERDVELAIVIS ZEME“ (SPACECRAFT EARTH):

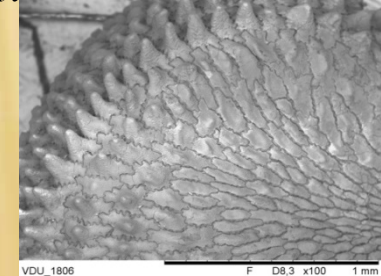
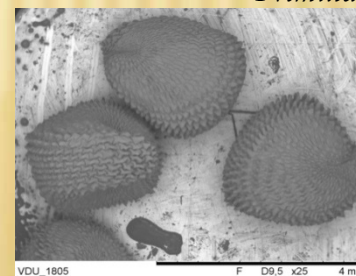
## 2. Story on seed SEM analysis „Seed portraits“.



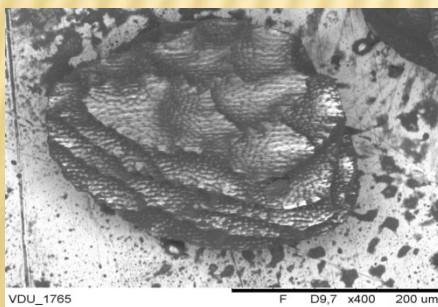
*Eupatorium cannabinum*



*Primula veris*



*Agrostemma githago*

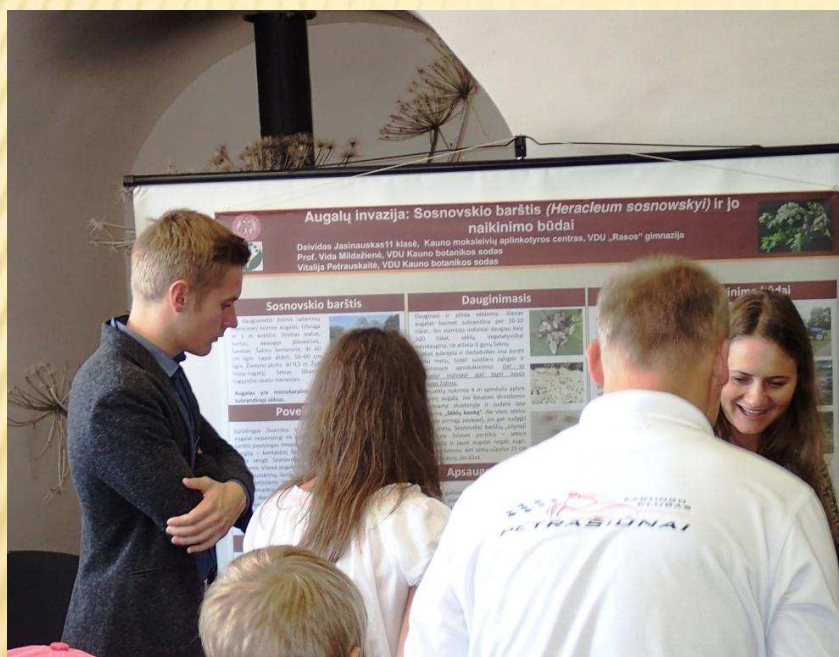


*Centaurium erythraea*



# NATIONAL SCIENCE FESTIVAL „ERDVELAIVIS ZEME“ (SPACECRAFT EARTH):

## 3. Story on control methods of *Heracleum sosnowskyi*.



This story was presented by the young exporer Deividas Jasinauskas.

In 2015 Deividas took the 3rd place in the National contest of the Young explorers of Lithuania. He presented the study: „Elimination of the invasive plant *Heracleum sosnowskyi* by covering with a black polyethylene film“.

Lectures and demonstrations on this topic are also main activities of the project „The campaign agains *Heracleum Sosnowskyi*“ (2014-2015).

Movie: <https://www.youtube.com/watch?v=yQD8ssWpUZ4>





- ✗ Public awareness and environmental education mean VP3-1.4-AM-09-K Project „Green Aleksotas“ <http://zaliasisaleksotas.lt>

#### Public events

##### Cleaning environment



##### Planting Oak grove with prof. Birute Galdikas



##### Extermination of *Heracleum Sosnowskyi* Manden.





# TYPES OF EDUCATIONAL ACTIVITIES:

## Traditional:

- ✗ Guided excursions presenting botanical collections
- ✗ Traditional or occasional small projects for preschool child and school children education
- ✗ Green classes

## Big educative projects:

- ✗ Innovative,
- ✗ Interactive,
- ✗ Include multiple activities

Not concentrated only on botany



Mini Zoo + rising exotic butterflies in the Green House





## SCIENCE COMMUNICATION ACTIVITIES BRING NUMEROUS BENEFITS FOR KBG:

Can increase an efficiency of BG functions since:

- Helps to diversify forms for education in BG;
- Is perfectly suited for topics on increasing public awareness;
- Increases visibility of the garden,
- Attracts visitors,
- Helps in finding more partners for projects,
- Decreases seasonal dependence,
- Provides additional financial resources.



Science communication - it gives fun or everyone!



## HOW ARE WE PLANNING TO TAKE THIS WORK FORWARD IN THE FUTURE?

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- ✗ To extend human resources for science communication;
- ✗ To develop NSO laboratory to small science museum center - oriented not only towards botany;
- ✗ To develop more activities for young explorers (individual or group projects, summer camps, etc.);
- ✗ To participate in larger scale Science communication projects with foreign partners;
- ✗ To develop collaboration with regional parks and nature reservations.



## WHAT ARE OUR TOP TIPS FOR OTHER GARDEN'S WANTING TO DEVELOP THEIR SCIENCE COMMUNICATION WORK?

- ✗ Research is not an elitary occupation – everyone may be scientists;
- ✗ Curiosity and eager for knowledge is natural for all ages, thus we need to create a proper place for making fun of gaining knowledge and exploratory skills;
- ✗ Finding relevant stories and simple tools for making things by own hands (interactive);
- ✗ Help of scientists, students and gifted schoolchildren is very much appreciated;
- ✗ Science communication activities are mostly fuelled by voluntary initiatives.





## **ACKNOWLEDGEMENTS: TO ALL STAFF OF KBG**

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**THANK YOU FOR ATTENTION!**