

**INVASION  
BIOLOGY**  
D I V I S I O N

26 — 28

FEBRUARY

2025



**C O N F E R E N C E  
O N I N V A S I O N  
B I O L O G Y A N D  
O N E B I O -  
S E C U R I T Y**



**HUN  
REN**



**CENTRE FOR  
ECOLOGICAL  
RESEARCH**



# FOREWORD

The massive and continuous introduction of invasive non-native species is threatening our health, our crops, our livestock and our natural environment in unprecedented ways. We cannot prevent the appearance of invasive non-native species, but we can slow the invasion and mitigate its impact. This is necessary because it gives nature and society time to adapt. Managing invasions is a complex social learning process in which natural and social scientists, policy makers, farmers and all citizens have an important role to play.

The One Biosecurity concept provides a suitable framework for understanding invasion and actions, according to which the health of nature, humans and their livestock cannot be separated. The conference aims to provide an opportunity to share theoretical and practical knowledge on invasive species between researchers, practitioners and policy makers.

## Organizing committee

**László Zsolt Garamszegi**

**Zoltán Botta-Dukát**

**James Dickey**

**Eszter Fodor**

**Róbert Gallé**

**Erika Juhász**

**Krisztián Katona**

**Orsolya Kiss**

**Kornélia Kurucz**

**Előd Márton**

**Gábor Lövei**

**Zsolt Molnár**

**Tamara Szentiványi**

**Zsóka Vásárhelyi**

**Orsolya Valkó**

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**9:20-9:50 COFFEE BREAK****9:50-10:00 WELCOME**

by László Zsolt Garamszegi

**10:00-11:00** Plenary talk by **Philip E. Hulme**:  
Why we need a One Biosecurity approach to One Health

**11:00-12:00 SESSION 1**

## REGULAR TALKS

**Judit Sonkoly**

The role of garden centres and plant nurseries in alien plant invasions

**Ali Omer**

Climatic suitability direct and indirect effects on naturalization success of alien plants in Southern Africa

**Krisztián Katona**

Wild boar rooting impact on grasslands: how much could betoo much?

## SPEED TALKS

**Márton Bence Balogh**

Human impact on landscapes (land use change) as a driving force of biological invasion

**James Dickey**

The pet trade as a vector for non-native species spread: insights from Germany

**12:00-14:00 LUNCH****14:00-16:00 SESSION 2**

## REGULAR TALKS

**Julie Augustine**

Assessing the invasive risk of medically important mosquito species in Hungary with the TAS-ISK toolkit

**Péter Borza**

The trophic roles of invasive Ponto-Caspian mysids (Crustacea: Mysida)

**Enrico Ruzzier**

Improving SDM predictive performance for global invasive species: the *Lycorma delicatula* (Hemiptera: Fulgoridae) study case.

**Zsolt Biró**

Population biology parameters of the raccoon (*Procyon lotor*) and the raccoon dog (*Nyctereutes procyonoides*) in Hungary

**Tamara Szentiványi**

Urban adaptation, host behavior, and distribution affects the presence of *Dirofilaria* parasites: a phylogenetic comparative study of wild carnivores

## SPEED TALKS

**Lilla Szendrei**

Significance of plant pathogen fungi “hitch-hiking” on imported tropical fruits to Hungary

**Melinda Halassy**

Reducing risks to human health by reducing invasion through ecological restoration

**Ivett Kocsis**

Impact of plant pollen on the early development of plant pathogen: Implications for agricultural health and food safety

**Károly Erdélyi**

Investigation of Flaviviruses in Invasive Mosquitoes in Hungary

**Gergely Tholt**

Exploiting the weirdness of aliens – how can you make a selective bait to catch invasive leafhoppers?

**Botond Zsombor Pertics**

Development of reliable and swift detection methods of wheat dwarf virus and identification of new virus reservoir grasses in Hungary

**15:30-16:00 COFFEE BREAK** **16:00-17:30 WORKSHOP** **17:30 DINNER** **19:00 SOCIAL EVENING AND GAME NIGHT** 

**8:00-9:00 BREAKFAST**

**9:00-10:00** Plenary talk by **Petr Pyšek**: Macroecology and biogeography of plant invasions: what have we learned from large databases?

**10:00-11:00 SESSION 1**

## REGULAR TALKS

**Patrícia Elisabeth Diaz-Cando**

Enemy behind the gates? Predicted climate change might facilitate C4 grass invasion in European grasslands

**György Kröel-Dulay**

The invasion of sand dropseed (*Sporobolus cryptandrus*), a C4 perennial bunchgrass, in sand grasslands of Central Europe

**Péter Török**

Soil seed bank of the invasive sand dropseed (*Sporobolus cryptandrus*) poses a future challenge for its suppression

**Anikó Csecserits**

Estimating the dispersal potential and impact of *Opuntia humifusa*, a new alien plant: the basis of early warning and management

## SPEED TALKS

**András Kelemen**

Mapping cacti that have escaped human control in Hungary

**Dávid Schmidt**

A strong invasion wave of mediterranean grass species has reached the Carpathian Basin

**11:00-11:30 COFFEE BREAK****11:30-12:30 SESSION 2**

## REGULAR TALKS

**Richard Mally**

Historical invasion rates vary among insect trophic groups

**Gergely Shally**

Changes in population size and distribution areas of game species in Hungary between 1997–2022

**Attila Rigó**

Non-native and potentially invasive plants in Budapest

**Nathanael J.Litlekalsoy**

Hungry Hungry Harmonia – Using Functional Genomics to Measure the Predatory Impact of Invasive Ladybirds *Harmonia axyridis*

**Péter Szilassi**

Artificial intelligence-based methods in invasion biology research: case studies from Hungary

**12:30-14:00 LUNCH****14:00-15:00**

Plenary talk by **Piero Genovesi**: Management of invasive alien species: challenges and opportunities to mitigate the impacts of biological invasions

**15:00-16:00 SESSION 3**

## REGULAR TALKS

**Fabio Mologni**

Time since first naturalization is key to explaining non-native plant invasions on islands

**Zsombor Márk Bányai**

The signal and the red swamp crayfish in the Carpathian Basin: present status, distribution and the impacts of the colonised ecosystems

**András Weiperth**

Are we really able to do anything, or are we just sitting back and watching? The present status and real effects of non-native decapod, fish, amphibian and reptile species in Hungary

**Eszter Fodor**

Traditional ecological knowledge and local value categorization of invasive alien plant species of herders and farmers in the Kiskunság

**Erika Juhász**

Short-term response of an invasive fish species on the beaver-made landscape alterations

**Róbert Gallé**

Milkweed (*Asclepias syriaca*) invasion, forest-steppe fragment size and isolation jointly constrain arthropod communities and their functional traits

SPEED TALKS

**Éva Szita**

Dispersal of the invasive Indian wax scale (*Coccomorpha*, Coccidae, *Ceroplastes ceriferus*) in Hungary

**Orsolya Kiss**

The threats of the colonization of an alien perennial grass, *Paspalum distichum* L. to the native floodplain vegetation in Hungary

**Viktor Ulicsni**

Everything can be useful – invasive and alien animal species in local ecological knowledge in the Pannonian Biogeographic Region

**16:30-17:00 COFFEE BREAK**

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17:00-18:45

SESSION 4

REGULAR TALKS

**Anna Cseperke Csonka**

Invasion control by sowing native species – effects of propagule pressure, priority effect and trait similarity

**Csaba Tölgyesi**

Perspectives in the application of hemiparasites to control invasive plants in Hungary

**Jean-Marc, Dufour-Dror**

Controlling *Ailanthus altissima* with the hack & squirt technique in Israel

**Arnold Erdélyi**

Chances of controlling Hungary's worst invasive tree species in forest-steppe forests: from planning to setting up defenses

SPEED TALKS

**Csaba Vadász**

Control and containment of woody invasive species in The Peszér-forest

**Ágnes Tóth**

Laundry washing can support plant invasion by influencing the germination potential of cloth-dispersed seeds



**Orsolya Valkó**

Human-vectored seed dispersal on clothing can contribute to the spread of invasive and weedy species

**Balázs Bócsi**

Nutria (*Myocastor coypus*) eradication program in Northern Hungary

**László Szabó**

The diet composition of two invasive carnivores, the raccoon (*Procyon lotor*) and the raccoon dog (*Nyctereutes procyonoides*) based on stomach analysis

**Katalin Török**

Multi-species seeding may improve resistance against invasion in a sandy habitat

**Miklós Kertész**

Frequency of biological invasion in different habitat types in Hungary

**Georgina Vizsra**

Usability of citizen science data for research on invasive plant species in urban cores and fringes: A Hungarian case study

**Márton J Paulin**

*Erythmelus klopomor* – Promising candidate for classical biological control against the invasive oak lace bug

**Jakab Máté Scherman**

Habitat-driven differences in pollen-spore interactions: preliminary results of an invasive weed (*Ambrosia artemisiifolia*)

**Alen Kiš**

Example of transnational cooperation for efficient IAS management

**18:45 DINNER**

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# WORKSHOPS

Living together with invasive species?  
REAL WORLD ISSUES

The day aims to bring together practitioners and researchers to discuss how the knowledge accumulated in practice and national and international research can help each other. In other words, the main objective, to strengthen joint knowledge co-production that can be used to more effectively manage invasive species.

During the day we will work in 3-4 rounds and 4-6 groups around the issues identified in the application identified as the most important by participants during the registration process.

Workshops will be held in Hungarian, with the formation of a group in English.

Moderators of the Day:

**Zsolt Molnár, Krisztián Katona, Ferenc Sipos, and László Darányi**

## 8:00-9:00 BREAKFAST

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**9:00-9:30** Welcome Speech, Summary of the last two days, Introduction of groups and topics

**9:30-10:30** First Round of Group Discussions

**10:30-10:50** Coffee break and switch between groups

**10:50-11:50** Second Round of Group Discussions

## 11:50-13:00 LUNCH

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**13:00-13:30** Group Presentations

**13:30-14:30** Third Round of Group Discussions

**14:30-14:50** Coffee break and switch between groups

**14:50-15:50** Fourth Round of Group Discussions

**16:00-16:30** Group Presentations and Closing Remarks

## WORKSHOP TOPICS

(MAY CHANGE SLIGHTLY):

- What is considered native, neo-native, or alien?
- The state of habitats and the effect of invasion
- Prediction, invasion pathways, new species, examples for successful early eradication
- Climate Change and Invasion
- What to research, what to educate, and what to publish about invasion?
- Long-term population dynamics of invasive species, their roles and the change of their roles in communities
- Eradication by utilisation - i.e., use of invasive species as food in sustainable dining (“Invasivorism”)
- How not to plant invasive species in our gardens and parks: from cultivation to regulations
- Invasive animals and strategies to deal with them (fishes, birds, the raccoon, and alligator turtles)
- Concrete examples for effective methods vs recognised failed attempts, and their recorded history
- The cons of chemical control methods, glyphosate and its potential substitute products
- Invasive mosquito species
- When does the extermination of an invasive species become harmful?
- Can an invasive species replace an ecological function instead of displacing it?
- Climate Change (cont.): crops and forests in suboptimal climate, and the future of C4 plants
- When to start managing an invasive species - and the case of the North American sand dropseed
- The role of Government in defence, developing strategies, supporting impacted sectors (i.e., via comparing countries, such as Serbia vs Hungary)
- Involving locals and learning from them about invasive species
- Where to place eradication of invasive species in the list of conservation priorities

