
4th International Workshop on the quantification of ecological impacts of biological invasions

(InvaPact IV workshop)

Manage Invasive Alien Species, Ensure Biosafety and Ecosafety

November 24th – 27th 2025 | Beijing, China

Dear Colleagues,

We are excited to announce the upcoming the 4th International Workshop on the standardization of Ecological Impacts of Invasive Alien Species (**InvaPact IV workshop**), the most-up-to-date in a series of international workshops dedicated to advancing the understanding of ecological impacts of biological invasions. This workshop will be hosted by the **Chinese Academy of Agricultural Sciences, Institute of Plant Protection (CAAS-IPP)**, in Beijing, China, from **November 24 to 27, 2025**.



The InvaPact Journey

The InvaPact initiative builds upon the success of the **InvaCost** project (<https://invacost.fr/en/accueil/>) led by Prof. **Franck Courchamp** from Université

Paris-Saclay, France. The InvaCost project for the first time standardized the economic costs of biological invasions worldwide, but also raising awareness by demonstrating that invasions are a real, concrete issue, and that is unfortunately more easily done with figures in dollars than in number of threatened species when outside academia.



In 2019, the research team led by Prof. Franck Courchamp had constructed the standardisation procedure (**Diagne et al. 2021, Nature**) and the first InvaCost database (**Diagne et al. 2020, Scientific data**), which allowed them to organise an international and interdisciplinary workshop, with colleagues from 27 countries, to analyse together this database and produce studies on its content. With a group of amazing colleagues, they then continued to refine and feed the InvaCost database, and **Prof. Franck Courchamp** organised a second workshop (**InvaCost II**, in 2022) with similar objectives. As of now, they have gathered over 130 from 45 countries and InvaCost has yield 87 studies (with a few more in process). They continue to refine the database, as there are always errors, biaises and gaps to correct.

Recognizing the need to similarly standardize ecological impacts—a far more complex challenge due to the diversity of impact types—the first **InvaPact workshop (InvaPact I)** was convened in 2023. Through collaborative effort, participants have

successfully developed a **unifying metric** that enables quantitative comparison of diverse ecological impacts across taxa, ecosystems, and regions.



This breakthrough was followed by **InvaPact II (2024)**, which focused on refining an automated process for extracting impact data from the vast scientific literature. Using a proto-database derived from something like 15 000 references, the workshop laid the groundwork for creating the world’s most comprehensive database of ecological impacts of biological invasions.

The upcoming **InvaPact III workshop (November 2025, Northern Spain)** will bring together early-career researchers and data-oriented scientists in a “datathon” format to collaboratively analyze the growing InvaPact database, develop analytical scripts, and initiate high-impact studies.

InvaPact IV: A New Chapter in China

China has been severely affected by biological invasions, and the cost of invasions to agroforestry has been particularly high. According to the 2020 Bulletin of Ecological-Environmental Situation issued by the Ministry of Ecological Environment, the number of invasive alien species (IAS) in China has reached 660, over 80% of which

adversely affect agroforestry. In response to increasing IAS invasions, the Chinese government has implemented extensive management policies at various levels since 1980s. Wang et al. (2024) indicated that the total economic cost of 11 major IAS in China amounted to US\$ 236.35 billion, with US\$ 223.25 billion attributable to hidden cost, revealing severe underestimation of current cost assessments. Furthermore, they found the economic costs exhibited a strong positive correlation with the number of national IAS management policies, indicating synchronized growth between economic costs and regulatory interventions.



InvaPact IV will place particular emphasis on Chinese researchers and continue this pioneering initiative with a strong focus on **large-scale data analysis, collaborative coding, and cross-taxonomic synthesis**. Hosted by CAAS-IPP in Beijing, the workshop will provide a unique opportunity for early-career researchers and established scientists to:

- Work directly with the global InvaPact ecological impact database;
- Develop and share analytical scripts in a supportive, collaborative environment;
- Lead and contribute to multi-author papers addressing key questions in invasion biology;
- Strengthen international and interdisciplinary networks.

Consistent with previous workshops, the guiding principles of InvaPact IV are **benevolence, cooperation, and shared growth**. We particularly encourage applications from early-career researchers and women from all over China or taxonomic expertise backgrounds.

Venue & Participation Fee

The workshop will be held at a venue in Beijing, with details to be confirmed. A participation fee (approximately 1500 RMB) will apply to cover accommodation, meals, and workshop materials. Limited funding may be available for early-career researchers from underfunded regions. Please indicate your interest early, as spaces are limited.

How to Apply

If you are an early-career researcher or data-literate scientist available from November 24–27, 2025, and committed to contributing to this collaborative effort, please send your CV and a brief description of your research interests to **Yibo Zhang** at zhangyibo@caas.cn, **Chunlong Liu** at liuchunlong@ouc.edu.cn, and **CC Franck Courchamp** at franck.courchamp@cnrs.fr. InvaPact has been described as “the most exciting project” of its lead organizer’s career. We invite you to join this growing community and help shape the future of invasion impact science.

We look forward to welcoming you to Beijing in 2025!

Warm regards,

InvaPact IV Organizing Committee

Institute of Plant Protection, Chinese Academy of Agricultural Sciences

Sponsors:

Chinese Academy of Agricultural Sciences



French Embassy in China



French Cultural Center in Beijing



Co-organizers:

Institute of Plant Protection, Chinese Academy of Agricultural Sciences



Ocean University of China



Université Paris-Saclay, France



Agenda

Beijing Time	Agenda Item	Chair
First day: November 24th 2025 Session 1: Workshop Opening Session chair- Fang Tian (IPP, CAAS)		
14:00-14:10	Welcome Address: IPP leader (10 mins)	Jie Zhang (IPP, CAAS)
14:10-14:20	Welcome Address: French Cultural Center in Beijing leader (10 mins)	
14:20-14:30	Welcome Address: Researcher leader out of China (10 mins)	Franck Courchamp (Université Paris-Saclay, France)
14:30-14:40	Take photo together	
14:40-15:00	Coffee break	
15:00-16:00	Introduce InvaPact Journey, containing the project, the database, the AI-driven process, the expected format, and the overall workshop plan	Franck Courchamp (Université Paris-Saclay, France)
16:00-16:10	Coffee break	
16:10-17:30	Introduce InvaPact Journey, containing the project, the database, the AI-driven process, the expected	Franck Courchamp (Université Paris-

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	format, and the overall workshop plan	Saclay, France)
17:30-20:00	Dinner time	
Second day: November 25 th 2025		
Session Chair - Chunlong Liu		
09:00-12:00	Developing scripts and analyzing data, with time also reserved for identifying additional relevant literature as needed	Chunlong Liu (Ocean University of China)
12:00-14:00	Lunch time	
14:00-17:30	Developing scripts and analyzing data, with time also reserved for identifying additional relevant literature as needed	Boris Leroy (Université Paris-Saclay, France)
17:30-20:00	Dinner time	
Third day: November 26 th 2025		
Session Chair - Boris Leroy		
09:00-12:00	Developing scripts and analyzing data, with time also reserved for identifying additional relevant literature as needed	Shengyu Wang (Université Paris-Saclay, France)

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12:00-14:00	Lunch time	
14:00-17:30	Developing scripts and analyzing data, with time also reserved for identifying additional relevant literature as needed	Laís Carneiro (Université Paris-Saclay, France)
17:30-20:00	Dinner time	
Fourth day: November 27 th 2025 Session Chair - Shengyu Wang		
09:00-12:00	Developing scripts and analyzing data, with time also reserved for identifying additional relevant literature as needed	Shengyu Wang
12:00-14:00	Lunch time	
14:00-16:00	Prepare and deliver the research restitution	Franck Courchamp
16:00-17:30	Workshop Closing	Yibo Zhang
17:30-20:00	Dinner time	