

ALIENSCENARIOS & INVASIBES WORKSHOP

“Developing scenarios for the future management of invasive alien species”

1-2 April 2020 (Online part)

Keywords: alien species, global environmental change, impacts, management, policy, scenarios.

AlienScenarios (<https://alien-scenarios.org>) and InvasiBES (<http://elabs.ebd.csic.es/web/invasibes/>) are two EU-funded research projects under the joint Belmont Forum-BiodivERsA Call on “Scenarios of biodiversity and ecosystem services” (<https://www.biodiversa.org/1360>) with the support of the European Commission. They strive to improve our understanding of the effects of invasive alien species (abbreviated IAS) on biodiversity and ecosystem services, and improve our conception of possible developments in the future.

A central component of these two projects is the development of scenarios for the future management of invasive alien species in collaboration with stakeholders from different disciplines and sectors in order to integrate their perspectives and suggestions. To this end, both projects together organize a workshop, the first part of which (Sessions 1 and 2) will be held online 1-2 April 2020.

Scientific background

The future trajectories of biological invasions and the prospects of managing alien species are characterized by high levels of uncertainty. This is due to the multiple factors driving invasions (Le Maitre et al. 2004), the limited knowledge how they may change in the future, and how alien species management and policies may unfold. Such factors include political decisions that constrain the implementation of legislation, socio-economic developments that affect propagule pressure, and the degree of coordination between stakeholders (political, scientific, businesses and public communities) (Tollington et al. 2016).

Evaluating how the management of biological invasions might unfold in the future is an important, yet so far rarely undertaken task (but see Le Maitre et al. 2004, Roura-Pascual et al. 2011). This can best be achieved by developing consistent invasion storylines, similarly to the work undertaken for other components of global environmental change, such as climate change (Moss et al. 2010, IPCC 2013). These storylines provide a clear understanding of the potential consequences of global change for the environment and society, but also permit to examine the future implications of different responses. Such a scenario-based approach for constructing long-term trajectories for the management of biological invasions, linked to the socio-economic storylines developed in global change science, is currently lacking.

Objectives

The objective of our research mission is to develop continental-scale (Europe) scenarios of the future management of biological invasions based on an interdisciplinary approach that provide realistic guidelines for best practices, and to communicate these new tools and knowledge to policy makers and practitioners to enhance their implementation.

Methods

During this online workshop with stakeholders from a variety of sectors, we will first identify several priority management objectives and then use a method called backcasting to construct plausible futures for managing IAS in Europe to achieve those objectives. Backcasting is a way to develop plans, starting from the future vision (or a desired future) and working backwards in order to connect that future vision to the present. The principal question asked during a backcasting exercise is: "*If we want to attain a certain goal, what actions must be taken to get there?*" The advantage of backcasting as opposed to planning based on forecasting lies in the fact that reasoning from the present might limit one's ideas about the possible scope of action.

In later sessions of the workshop (after this online part), it is envisioned to stress-test the conceived management strategies within the framing conditions of different future scenarios of biological invasions. Such scenarios have been developed during a previous international workshop, held 6-7 October 2016 in Vienna (Austria). That previous workshop focused on the development of several scenarios of future *status and impact* of IAS on a *global* scale. In the present workshop, by contrast, we are interested in developing a refined set of strategies for the future *management* of IAS on the *EU level*. Consequently, one task of our workshop (Session 2) will be to downscale the global scenarios for biological invasions to the European level.

Constructing the management strategies will widen our perception of possible future outcomes and events that may not be immediately obvious (Korte & Chermack, 2007). Furthermore, we hope to identify the most crucial information and tools required to implement the strategies, and thereby give direction to future scientific research.

Benefits and outcomes of the workshop

- Advance our knowledge of the future plausible ranges of the relevant drivers affecting the management of biological invasions at the European level.
- Produce a scientific paper presenting the outcomes of the workshop.
- Establish a network of researchers interested in the future management of biological invasions, to continue the work initiated at the workshop.

References

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Programme of the online workshop

Wednesday, 1 April 2020 (given times are CET)

09.00-10.00	Introduction of project, workshop agenda and objectives, self-introduction by participants
	SESSION 1: MANAGEMENT STRATEGIES
10.00-10.25	Formulation of management objectives (breakout groups)
10.25-10.45	Selection of priority management objectives (plenary)
10.45-11.00	<i>Coffee break</i>
11.00-12.50	Development of management strategies (breakout groups)
12.50-13.00	Wrapping up Day 1 (plenary)

Thursday, 2 April 2020

	SESSION 2: REFRAMING / DOWNSCALING SCENARIOS
09.00-09.15	Introduction to global scenarios (plenary)
09.15-10.45	Reframing / downscaling global scenarios to European level (breakout groups)
10.45-11.00	<i>Coffee break</i>
11.00-12.30	Reframing / downscaling global scenarios to European level (breakout groups)
12.30-13.00	Wrapping up the workshop, planning future workshop activities (plenary)

Organization

- Núria Roura-Pascual, Universitat de Girona, Spain
- Jonathan Jeschke, Freie Universität Berlin & Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB), Berlin, Germany
- Wolf-Christian Saul, Freie Universität Berlin & Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB), Berlin, Germany

Participants

- Tim Adriaens, Research Institute for Nature and Forest, Belgium
- David Aldridge, University of Cambridge, United Kingdom
- Lluís Brotons, CREAF-CTFC (Centre de Ciència i Tecnologia Forestal de Catalunya), Spain
- François Diaz, World Organisation for Animal Health, France
- Spyridon Flevaris, European Commission, Directorate General for Environment, Unit D.2 - Biodiversity, Belgium
- Piero Genovesi, IUCN-ISSG Invasive Species Specialist Group, Italy
- Pablo González-Moreno, CABI - ISC (Invasive Species Compendium), United Kingdom
- Markus Hall, Department of Evolutionary Biology and Environmental Studies, Switzerland
- Petra Kutlesa, Institute for Environment and Nature, Croatia
- Teresa Pastor, EUROPARC Federation, Spain

- Garry Peterson, Stockholm Resilience Centre, Stockholm University, Sweden
- Jörg Priess, Helmholtz Centre for Environmental Research GmbH - UFZ, Germany
- Wolfgang Rabitsch, Environment Agency Austria, Austria
- Peter Robertson, Newcastle University, United Kingdom
- Helen Roy, UK Centre for Ecology & Hydrology, United Kingdom
- Lucas Rutting, University of Utrecht, Netherlands
- Wojciech Solarz, Institute of Nature Conservation, Polish Academy of Sciences, Poland
- Uwe Starfinger, Julius Kühn-Institut, Germany
- Rob Tanner, EPPO (European and Mediterranean Plant Protection Organization), France

Project participants

- Sven Bacher, University of Fribourg, Switzerland
- Ruben Bernardo, Doñana Biological Station EBD-CSIC, Spain
- Franz Essl, University of Vienna, Austria
- Belinda Gallardo, Pyrenean Institute of Ecology IPE CSIC, Spain
- Guillaume Latombe, University of Vienna, Austria
- Bernd Lenzner, University of Vienna, Austria
- Chunlong Liu, Universitat de Girona, Spain
- Montse Vilà, Doñana Biological Station EBD-CSIC, Spain

