

https://alien-scenarios.org @AlienScenarios franz.essl@univie.ac.at <u>juillaume.latombe@univie.ac.at</u>

Good day!

We are pleased to present you the fourth newsletter of the AlienScenarios project. This newsletter is used to inform you twice a year on the project development and related activities. To avoid missing anything about upcoming events, the latest publications, outreach activities, etc., please subscribe to this newsletter by clicking here. Feel free to share this newsletter with everyone who might be interested. Additional information can also be found on the website and on Twitter.

Best regards,

The AlienScenarios team

WWF Living Planet Report 2020

The World Wildlife Fund (WWF) Living Planet Report 2020 has been published. The report sounds the alarm for global biodiversity, revealing an average 68% decline in animal population sizes tracked between 1970 and 2016 (46 years).

Bernd Lenzner, Franz Essl, Guillaume Latombe, Hanno Seebens and Brian Leung from AlienScenarios have contributed a section to explain the still underappreciated impacts of biological invasions on biodiversity, and the need for scenarios to address this issue.

"In contrast to other major drivers of global biodiversity loss, the lack of models and scenarios of biological invasions severely hampers the evaluation of ongoing and future rises in invasive alien species numbers."



Participation in the NeoBiota 2020 conference - The Human Role in Biological Invasions: a case of Dr Jekyll and Mr Hyde?



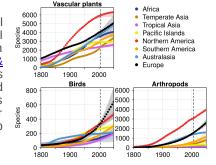
Despite the challenge posed by the current pandemic of Corona Virus, the NeoBiota conference took place in Vodice, Croatia, on September 15 - 18. It took the form of hybrid format, with most participants

Franck Courchamp and Jonathan Jeschke Franck Courchamp and Jonathan Jeschke gave keynotes on the economic costs of invasive alien species (see also the new article by Diagne & colleagues highlighted below), and on the online hub for a better understanding of science and nature <u>Hi Knowledge</u>, respectively. <u>Franz Essl</u>, <u>Bernd</u> Lenzner, Marina Golivets, Hanno Seebens and Guillaume Latombe

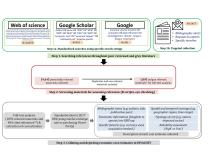
We want to thank **Sven Jelaska** and all the team who organized this great event despite these harsh conditions.

New article on future projections of alien species accumulation: Seebens et al. (2020)

The number of alien species has been increasing worldwide, but we still lack clear expectations about future developments of biological invasions. Using a model predicting alien species numbers based on observed developments and species pools, Hanno Seebens & colleagues provide the first quantitative projections of alien species numbers until 2050 worldwide for a range of taxonomic groups and regions. Their projections show that the rise in alien species numbers will continue to grow with little signs of slowdowns. Overall, the number of alien species is predicted to increase by 36 % with particularly steep increases expected for Europe and invertebrates.



New article on the global economic costs of invasive alien species: Diagne et al. (2020)



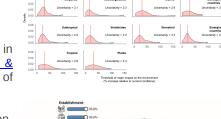
A new paper by Christophe Diagne & colleagues describing the InvaCost database is now published in Nature Scientific Data. This database is the most up-to-date, comprehensive, harmonised and updatable compilation and description of economic cost estimates associated with biological invasions worldwide. InvaCost provides an essential basis (2419 cost estimates currently compiled) for worldwide research, management efforts and, ultimately, for data-driven and evidence-based policymaking on alien species.

The article is open-access and the database is currently available in a figShare repository. Following the InvaCost workshop organized one year ago (November 12-15 2019, Paris, France), two InvaCost-related databases were created: one based on non-English sources and the other based on references collected, but not yet processed when building the original database. The next step will be to merge in a single database all information from these InvaCost and InvaCost-related

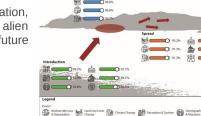
Two articles on drivers of future biological invasions: Essl et al. (2020) and Lenzner et al. (2020)

In two recent articles published in Global Change Biology and in Frontiers in Ecology and Evolution, Essl & colleagues and Lenzner & colleagues present expert-based assessments of the main drivers of

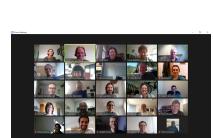
future biological invasions at the global level and for islands.



These two surveys highlight the potential for effective communication, scientific research and increased pro-active management of alien species at different scales for reducing consequences of future



Second joint AlienScenarios & InvasiBES workshop on management



invasions.

InvasiBES (1-2 April, 2020) concluded with the development of four scenarios for biological invasions at European scale according to potential socio-environmental changes and the creation of an overall management strategy of invasive alien species. The second part of the workshop was held online from 30 September to 2 October 2020, in which the common management strategy of invasive alien species was stress-tested under each scenario aiming to provide consistent management recommendations to future uncertainties and these recommendations were incorporated into the strategy for biological invasions. This workshop was co-organized by members of the AlienScenarios project (Núria Roura-Pascual, WP IV), and the InvasiBES project (Jonathan Jeschke & Wolf-Christian Saul, WP VII), with the collaboration of <u>Lucas Rutting</u> (scenarios facilitator, <u>Copernicus</u> Institute of Sustainable Development, Utrecht University) and Garry Peterson (Stockholm Resilience Centre, Stockholm University). The three-day workshop had about 35 participants from both projects, but also relevant stakeholders on the management of biological invasions across Europe. The organizers would like to thank the involvement and enthusiasm of the collaborators and all participants. Their commitment, time and expertise was paramount to achieve the objectives of the workshop.

The first online workshop co-organised between AlienScenarios and

In Memoriam: Professor Dame Georgina Mace

We are deeply saddened by the passing of Professor Dame Georgina Mace on 19 September 2019. Many of us have been lucky to interact and collaborate with Professor Mace over the years, and she was an advisory board member of AlienScenarios. We are all deeply grateful for the immeasurable impact that she had on conservation science and for making the world a better place.



AlienScenarios early career researchers in the spotlight

In each issue of the Newsletter, we will highlight two early career researchers who are part of the AlienScenarios team. In this third issue, meet Cristian and Bernd!



Cristian Pérez-Granados got my PhD on Environment Conservation and Restoration at University of Alicante, Spain, focused on the conservation of steppe birds. I am a postdoc in the Faculty of Sciences at University of Girona, Spain, within the AlienScenarios WP4, with Núria Roura-Pascual. The main goal is to assess the consequences of different levels of implementation of European regulations on invasive species. We will focus on the 49 species of European concern aiming to unravel the effect of different policy strategies and capacities may have on the analyzed species in each member state. In my free time I like riding my bike, see birds and play basketball.

If I were a song, I would be <u>Je Veux</u>, by Zaz.

If I were a painting, I would be <u>El aire</u>, by Marin de Vos. If I were a fictional character, I would (like to) be <u>Sheldon Cooper</u>. If I were an alien species, I would be Leiothrix lutea

Bernd Lenzner

I work as a postdoc at the Bioinvasions, Global Change, Macroecology Group at the University of Vienna, Austria. By training I am a biogeographer and macroecologist with a focus on biodiversity research, especially biological invasions. One of my main interest is to understand biodiversity change from a systemic perspective looking at the interactions of ecology, economy and society. I was involved in the development of the AlienScenarios project and now am associated with WP1 and thus the development of the AlienScenario narratives and the underlying conceptual framework. Within AlienScenarios, I really enjoy thinking about and understanding the interconnections of invasion science across disciplines and to envision how these connections might turn out in the future. Currently, I work on the future importance of drivers of biological invasions based on expert assessments and in down-scaling the global alien species narratives to the continental (i.e. European) level. Besides, I am involved in the currently ongoing IPBES - Invasive Alien Species Assessement where I support the scenarios and models task force. Being involved in both these initiatives is super interesting as they complement and strongly benefit each other.



If I were a song, I would be <u>Trickle Down</u> by Fat Freddy's Drop. If I were a painting, I would be La trahison des images, by René If I were a fictional character, I would be <u>Calvin</u> (or Hobbes!).

Check us on

If I were an alien species, I would be <u>a raccoon</u>.



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