GUARDIAS CONFERENCE

Panel Discussion

Cost-efficient Invasive Alien Species Detection and Monitoring: Novel Tools and Citizen Science

Friday 20 November | 9:30-10.15am

Join us for a panel discussion exploring innovative and cost-efficient approaches to invasive alien species (IAS) detection and monitoring, including the use of novel technologies, environmental DNA and citizen science.

Panel Chair

Tim Adriaens

Research Institute for Nature and Forest (INBO)



Tim Adriaens is a conservation ecologist and senior scientist at the Research Institute for Nature and Forest (INBO), specialising in invasive alien species monitoring and management.

His work focuses on horizon scanning and risk assessment, surveillance systems using citizen science and technologies, and risk management, particularly for species covered by the EU IAS Regulation. Tim coordinates a community of practice on invasion management and has a strong understanding of the challenges faced by managers when responding to IAS.

Within the GuardIAS project, Tim leads a work package focused on developing tools to assess the feasibility of eradication and control.

Q&A Facilitator

Frances Lucy

Atlantic Technological University



Frances Lucy is Atlantic Technological University's Lead for the EU GREEN European University Alliance. Previously, she was Head of the Department of Environmental Science and Director of the CERIS research centre.

She has extensive experience in education and quality assurance across all levels of tertiary education. Her main research interests include aquatic invasive species, fisheries science and water quality.

Frances is President of INVASIVESNET and is involved in a range of environmental projects and forums across Europe and North America. She was until recently a member of Ireland's EPA advisory committee and is currently a Board member of the Loughs Agency.

Meet the Panellists

Anastasija Zaiko

Director and Lead Scientist, Sequench Ltd and Sequench Lithuania | President, Southern eDNA Society



Dr Anastasija Zaiko is Director and Lead Scientist at Sequench Ltd and Sequench Lithuania and President of the Southern eDNA Society.

Her work focuses on environmental DNA and RNA applications for biodiversity assessment, biosecurity surveillance, ecological monitoring and environmental decision-support. Her research spans marine, freshwater and terrestrial systems, with particular emphasis on translating complex molecular datasets into outputs that are useful for environmental managers, regulators and industry practitioners.

Within the GuardIAS project, she co-leads Work Package 1 and is actively involved in Work Package 2, contributing to the development and optimisation of eDNA-based tools for the detection and monitoring of non-indigenous species.

Her broader work focuses on making molecular surveillance more scalable, cost-efficient and operationally practical, including the development of field sampling approaches, targeted detection tools and workflows that can be integrated into routine monitoring and biosecurity programmes.

Lisandro Benedetti-Cecchi

Professor of Ecology, University of Pisa



Lisandro Benedetti-Cecchi (LBC) is Professor of Ecology at the University of Pisa and was Vice-Rector for European and International Research from 2016–2022.

His laboratory uses marine coastal plants and animals as experimental model systems to address fundamental ecological questions, including the causes and consequences of biodiversity

loss, the ecological impacts of climate change and the role of Marine Protected Areas in the conservation of marine life.

LBC is a member of the Biology & Ecosystem Panel of the Global Ocean Observing System (GOOS) and served on the European Research Council (ERC) Review Panel LS8 of the IDEAS programme from 2012–2019.

He has coordinated national and international projects and is Coordinator of the Biodiversa+ project BioBoost+. He has published more than 190 papers in peer-reviewed ecological journals and 10 book chapters, with more than 16,500 citations according to Google Scholar.

In 2019, he received the International Temperate Reef Symposium Award for his lifelong contribution to marine sciences.

Anna Nunes

Senior Programme Officer IUCN



Ana is a biologist who has been working on invasive alien species for several years, many of which in freshwater ecosystems. She works at IUCN at the science-policy interface, primarily on projects related to the implementation of the European Union IAS Regulation. At IUCN, Ana also contributes to national and international IAS policy efforts, including through supporting the implementation of Target 6 of the KM Global Biodiversity Framework and through the application of the IUCN EICAT standard (Environmental Impact Classification for Alien Taxa).

She has previously worked at organisations such as the Centre for Agriculture and Biosciences International (UK), the Centre for Invasion Biology (South Africa), the Joint Research Centre of the European Commission (Italy), as well as the Centre for Ecology, Evolution and Environmental Changes (Portugal).

She is an Associate/Subject Editor for the journals Aquatic Invasions, BioInvasions Records and NeoBiota.



Daniel Nuijten

Daniel Nuijten, The IAS Team, DG Environment, European Commission

Daniel Nuijten works for the European Commission's DG Environment and is working on the invasive alien species Regulation. In this role he works with Member States and stakeholders to address all issues with these species.