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Conference Abstract

Engaging stakeholders in the detection and monitoring of alien species – the OneSTOP Living Lab network

Katharina Dehnen-Schmutz[‡], Helen R Bayliss[‡], Alex Franklin[‡], Laura Abraham[§,§], Heidi Blom[|], Soria Delva[¶], Carla Gavrilescu[#], Louise Hendrickx[§], Miia Jauni[|], Eva Malta-Pinto[¤,«,»], Daniyar Memedemin[#], Anna Poimala[|], Cristina Preda[#], Laurentiu Rozylowicz[^], Cândida G. Vale[˅], Joana Vicente[¦]

‡ Coventry University, Coventry, United Kingdom
§ Meise Botanic Garden, Meise, Belgium
| Natural Resources Institute Finland, Helsinki, Finland
¶ INBO, Brussels, Belgium
# Ovidius University of Constanta, Constanta, Romania
¤ CIBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos, InBIO Laboratório Associado, Vairão, Portugal
« Departamento de Biologia, Faculdade de Ciências, Universidade do Porto, Porto, Portugal
» BIOPOLIS Program in Genomics, Biodiversity and Land Planning, CIBIO, Vairão, Portugal
^ University of Bucharest, Bucharest, Romania
˅ CIBIO - BIOPOLIS, Vairão, Portugal
¦ CIBIO – Research Centre in Biodiversity and Genetic Resources - InBIO Associate Laboratory, Vairão, Portugal

Corresponding author: Katharina Dehnen-Schmutz (ab6340@coventry.ac.uk)

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Abstract

Involving stakeholders in the management of invasive alien species has long been known to be essential for successful outcomes. This process starts with the development of tools and methods where stakeholders can play a crucial role to improve their efficacy through iterative feedback loops as well as testing their usefulness. Living labs provide the space and collaboration where this can happen by bringing together researchers, local authorities, businesses, citizens and conservation organisations involved in invasive alien species management in the Living Lab area.

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In the OneSTOP project a network of five Living Labs has been established across Europe (Belgium, Finland, Portugal, Romania, United Kingdom) to provide the experimental space for testing emerging technologies in real live settings. The Living Lab communities work with scientists in the project to test computer vision camera technologies for the automatic detection of invasive plants and insects and air eDNA sampler technologies. Based on their local knowledge suitable sites and species are selected in the Living Lab areas, and they can then use the equipment in hands on experiences. Living Lab communities are also involved in the project by suggesting species relevant for them to be included in surveys exploring people's perceptions of invasive alien species and for project tasks modelling potential distributions of species of concern. Other activities include citizen science focused on gardens as early warning system for emerging invasive ornamental plants and invertebrates.

All species record data collected through these activities feed into the project's data pipelines (i.e., to GBIF) and contribute to OneSTOP's automated alert systems that notify relevant stakeholders, such as local conservation managers, about emerging invasive species threats. In follow-on activities, Living Lab communities will also test these alert systems and develop scenarios for potential responses.

Presenting author

Katharina Dehnen-Schmutz

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Conflicts of interest

The authors have declared that no competing interests exist.