

MANAGING THE INVASIVE THREAT TO EUROPE'S FORESTS

Locations	Europe
Dates	01/10/2018 - 30/09/2022

Summary

Over the last few decades, European trees and forests have experienced dramatic losses caused by introduced non-native invasive pests and pathogens. As part of an international project, CABI is developing cost-effective and environmentally friendly tools for the prevention, detection and control of the invasive threats to Europe’s forests.

The problem

Human population growth and associated environmental stresses, are putting severe strain on Europe’s forests. These delicate ecosystems cover 40% of the continent supplying millions of people with ecological, political, social and cultural ecosystem services, while having to cope with a number of environmental threats.

Most of the species affecting trees in Europe, such as chestnut blight and ash dieback, were harmless or even unknown in their region of origin but as they have continued to establish themselves, the threat they pose to current and future forest management objectives and ecosystem services has become

increasingly significant.

New methodologies and approaches are needed for detecting, diagnosing and monitoring those threats, as well as their containment and control.

What we are doing

HOlistic Management of Emerging forest pests and Diseases (HOMED), funded by EU Horizon 2020 Research and Innovation, provides a full set of science-based, innovative practical methods and tools to assess and control emerging or invasive pests and pathogens threatening European forests. The research team involved is composed of 23 partner organizations across 15 countries.

As part of HOMED, CABI led a work package for the development of tools and best practices to carry out safe and efficient biological control operations, as well as developing an early warning system to protect European forests from possible pest and pathogen invasions.

Results so far

The project finished in 2022 – results are gradually being published.

The following three papers have been published as outputs from the project:

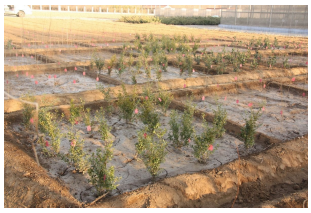
- Seehausen et al. (2020) Evidence for a cryptic parasitoid species reveals its suitability as a biological control agent. https://doi.org/10.1038/s41598-020-76180-5
- Seehausen et. Al. (2021) Classical biological control against insect pests in Europe, North Africa, and the Middle East – What influences its success? https://doi.org/10.3897/neobiota.65.66276
- Seehausen et al. (2022) Large-arena field cage releases of a candidate classical biological control agent for spotted wing drosophila suggest low risk to non-target species. https://doi.org/10.1007/s10340-022-01487-3

Additional publications are due to be released.

Donors European Commission, Horizon 2020

Partners Consortium of 23 partners (institutes, universities, organisations, and private for-profit entities) from 15 countries

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https://www.cabi.org/what-we-do/cabi-projects/