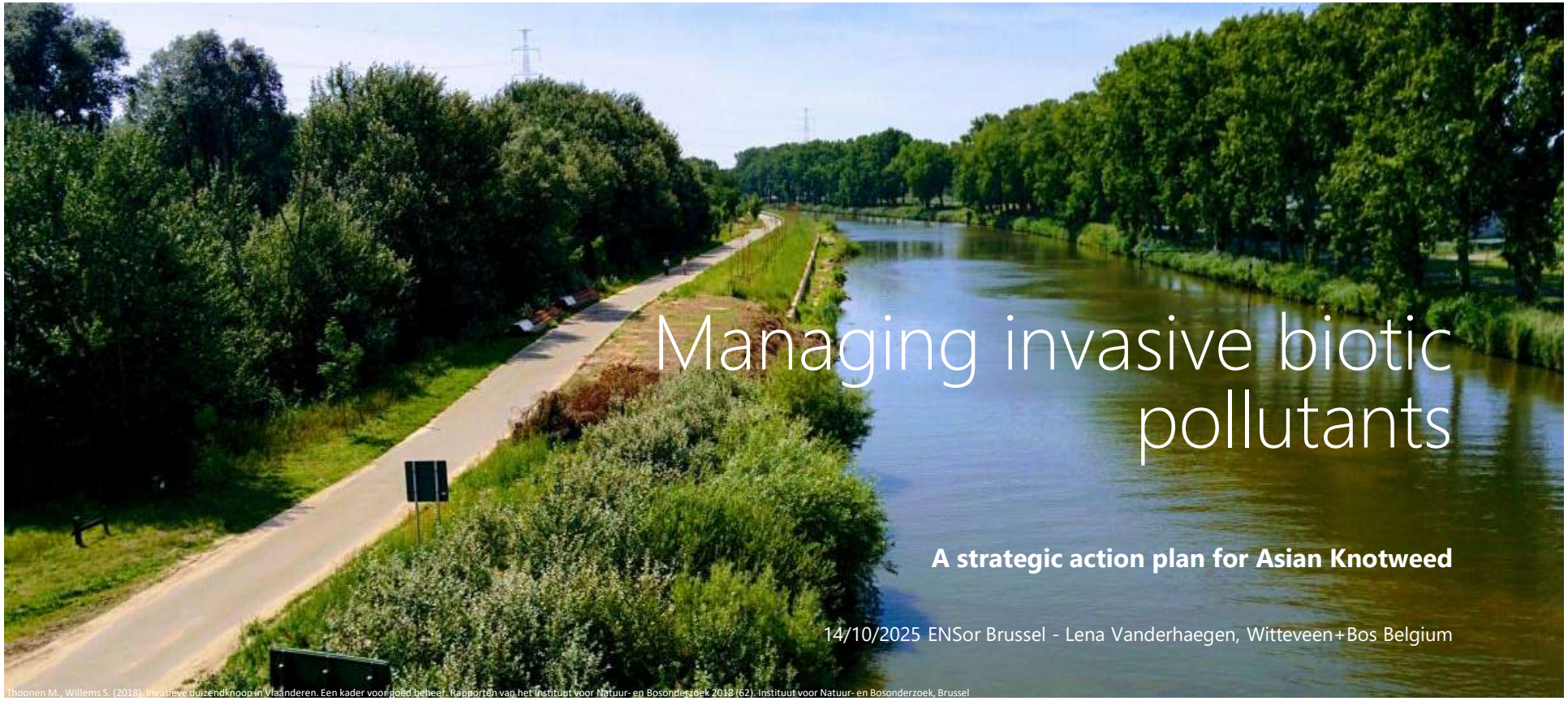
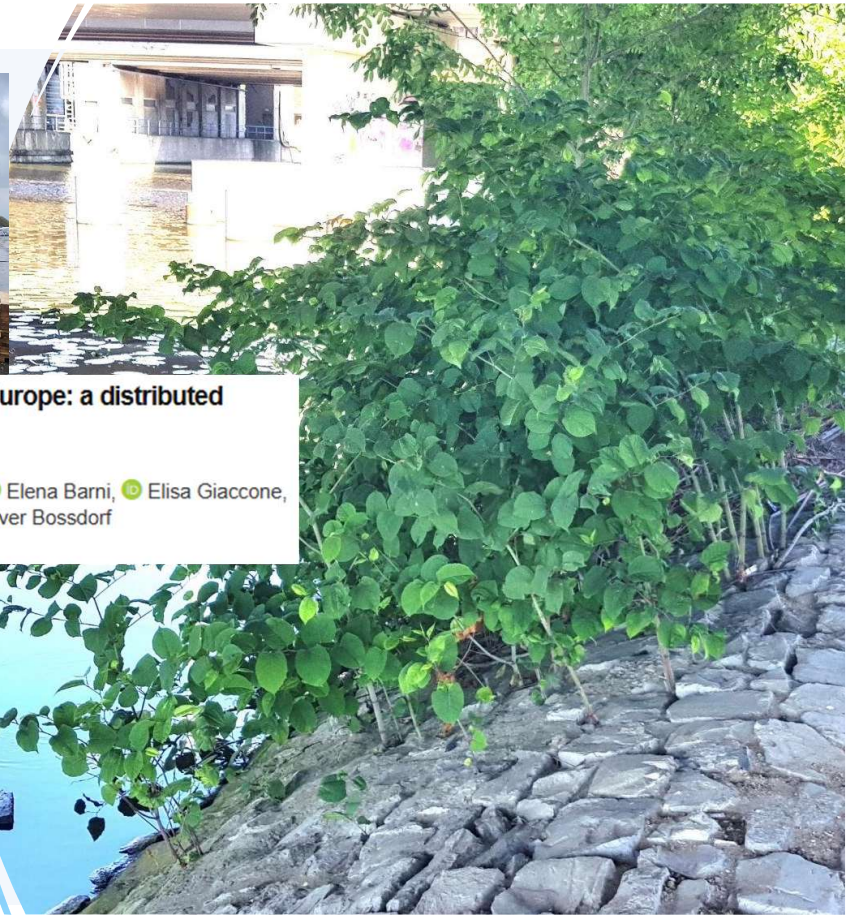


Managing invasive biotic pollutants

A strategic action plan for Asian Knotweed

14/10/2025 ENSor Brussel - Lena Vanderhaegen, Witteveen+Bos Belgium

Thoonen M., Willems S. (2018). Invasieve duizendknoop in Vlaanderen. Een kader voor goed beheer. Rapporten van het Instituut voor Natuur- en Bosonderzoek 2018 (62). Instituut voor Natuur- en Bosonderzoek, Brussel

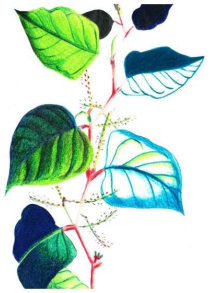


Phenotypic plasticity of invasive knotweed across Europe: a distributed common garden experiment

Ramona Elena Irimia, Madalin Parepa, Nicole Sebesta, Elena Barni, Elisa Giaccone, Yaolin Guo, Sophie Karrenberg, Christina Richards, Oliver Bossdorf

doi: https://doi.org/10.1101/2025.08.18.667133

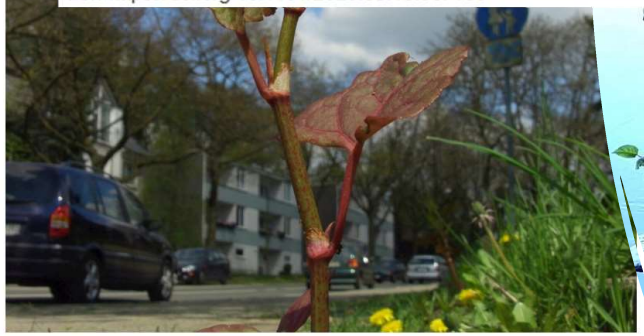
Hebt u de Japanese duizendknoop al zien woekeren?



ev © ev

Charlotte Van den Broeck is dichter en schrijver.

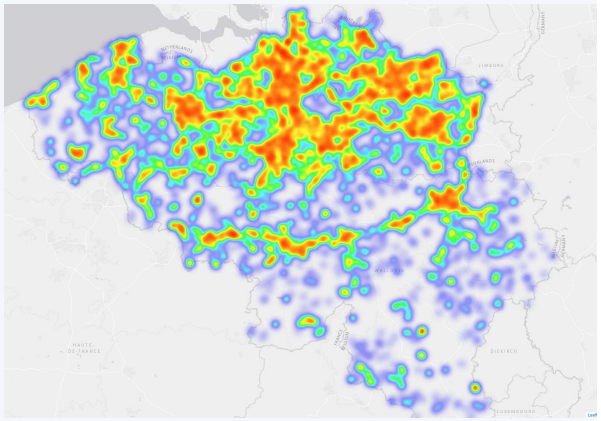
18 september 2021 om 05:25



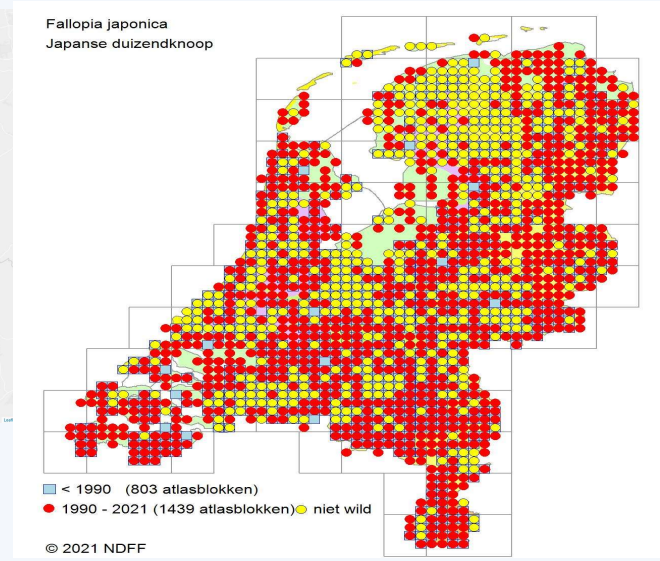
Ook in België woekert de invasieve plant. A. Jagel © A. Jagel

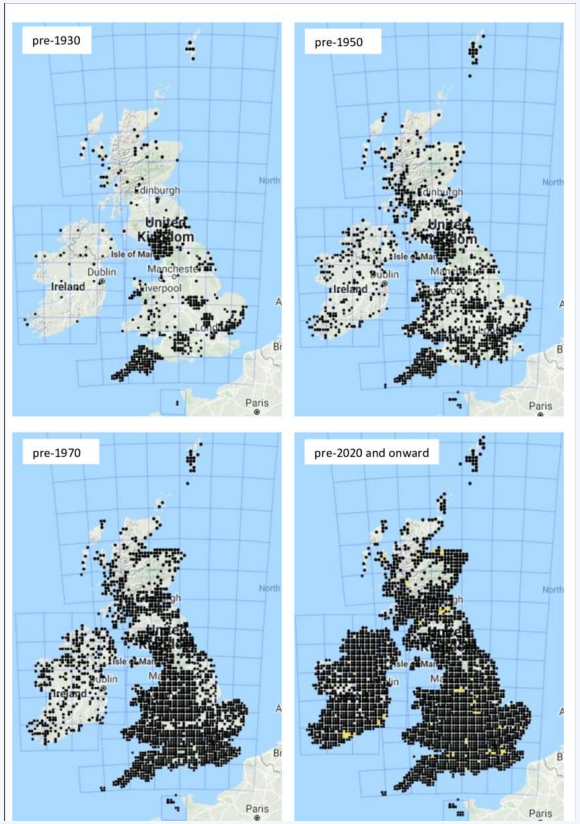
2 juni 2018 om 05:25

Delen

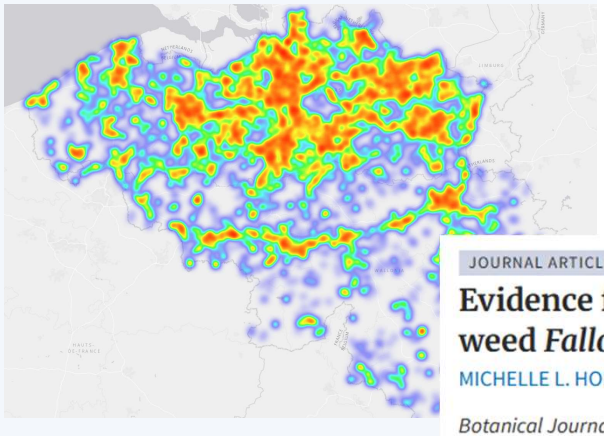


Heatmap Belgie – waarnemingen JDK (2000 – 2021)
https://waarnemingen.be/species/6781/maps/?start_date=2000-05-05&interval=15552000&end_date=2021-12-01&map_type=heat



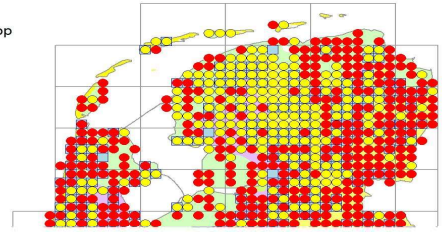


Uitbreiding GB: http://news.bbc.co.uk/2/hi/science/nature/8555378.stm



Heatmap Belgie – waarnemingen JDK (2000 -
https://waarnemingen.be/species/6781/maps/?start_date=
05&interval=15552000&end_date=2021-12-01&map_type=

Fallopia japonica
Japanse duizendknoop



JOURNAL ARTICLE

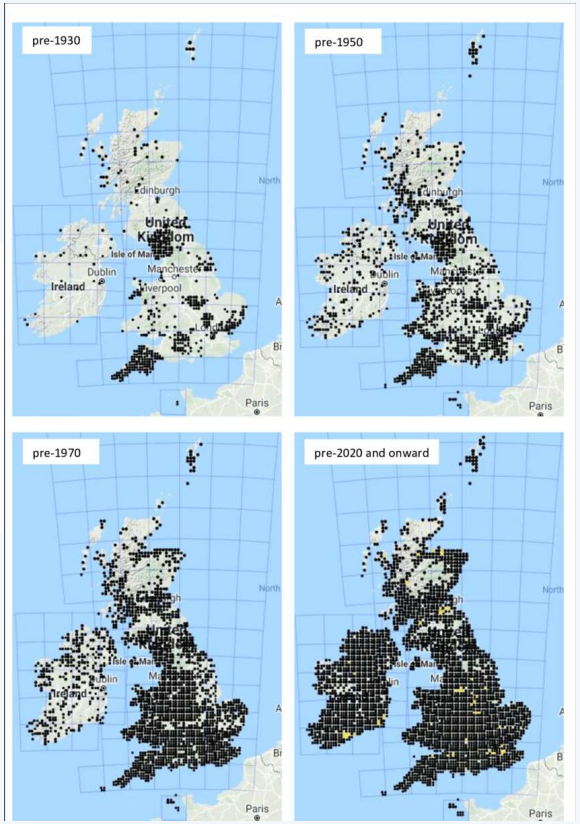
Evidence for massive clonal growth in the invasive weed *Fallopia japonica* (Japanese Knotweed)

Get access

MICHELLE L. HOLLINGSWORTH ✉, JOHN P. BAILEY

Botanical Journal of the Linnean Society, Volume 133, Issue 4, August 2000, Pages 463–472, https://doi.org/10.1111/j.1095-8339.2000.tb01589.x

Published: 28 June 2008 **Article history** ▾



Uitbreiding GB: http://news.bbc.co.uk/2/hi/science/nature/8555378.stm

Impact of the Asian knotweed

Ecological harms

Economical harms

ZELFS GLYFOSAAT HELPT NIET TEGEN JAPANSE PLANTENSOORT

Duizendknoop valt niet uit te roeien

Ook in België woekert de invasieve plant. A. Jagel © A. Jagel

2 juni 2018 om 05:25

Delen

Legal framework EU and Belgium

4.11.2014 EN Official Journal of the European Union L 317/35

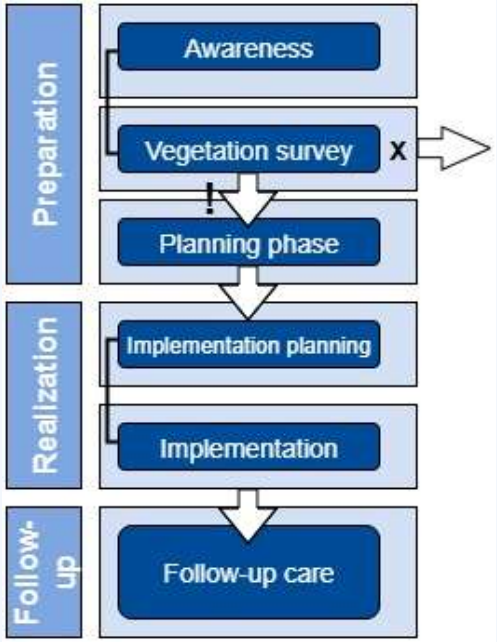
REGULATION (EU) No 1143/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 22 October 2014

on the prevention and management of the introduction and spread of invasive alien species

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Project based actionplan



Implementation planning:
- Remediation is needed; what is the best method (customized approach)
- In line with local policy?
- Agreements with the competent authorities?

Implementation:
- Clearly mark contaminated zones and monitor them
- Implement Site hygiene practices and work protocols
- Increased attention and monitoring when working in contaminated zones.
- Track work areas; soil and material flows represent a dispersion risk.

Follow-up care:
- Essential for a succesful remediation
- Early detection of recontamination.

Remediation methods

Impact of remediation methods

What can we gain vs what could we lose

Source photos: kennisnetwerk invasieve exoten

Remediation methods

LIFE-Resilias project

Interview: Managing rather than fighting seems to work

Trade magazine My Nature interviewed Jessica Snoek, the new project leader of LIFE Resilias for the autumn issue of 2025. The article 'New insights argue for different approach to invasive exotics - Managing rather than fighting seems to work' talks about the (now) six years of experience that Bosgroep Zuid Nederland and Stichting Bargerveen have with [...]

24 September 2025

Impact of remediation methods

What can we gain vs what could we lose

Source photos: kennisnetwerk invasieve exoten

Recommendations

- Focus on raising awareness
- Monitor invasive alien species
- Stimulate project based actionplans
- Define (basic) rules for working in contaminated areas
- Implement obligations about invasive alien species in tenders from public authorities
- Stay open to the question: “Is extermination always necessary”

Data sources and references

- Kerckvoorde et al. (2001: Natuurfocus 2021-2-N&T Lokaal beheer van Japanse duizendknoop
- MICHELLE L. HOLLINGSWORTH, JOHN P. BAILEY, Evidence for massive clonal growth in the invasive weed Fallopia japonica (Japanese Knotweed), Botanical Journal of the Linnean Society, Volume 133, Issue 4, August 2000, Pages 463–472, https://doi.org/10.1111/j.1095-8339.2000.tb01589.x
- RamonaElena Irimia, Madalin Parepa, Nicole Sebesta, Elena Barni, Elisa Giaccone, Yaolin Guo, Sophie Karrenberg, Christina Richards, Oliver Bossdorf: Phenotypic plasticity of invasive knotweed across Europe: a distributed common garden experiment bioRxiv 2025.08.18.667133; doi: https://doi.org/10.1101/2025.08.18.667133
- Snoek, Jessica (2025): Niet bestrijden maar juist beheren lijkt te werken, vakblad mijnnatuur, P22-24 herfst 2025

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Volg Witteveen+Bos op

Abstract

Biotic pollutants, such as invasive plant species, are increasingly recognised as novel sources for diffuse soil pollution. Since they often impact extensive areas, classic remediation techniques are typically unsuitable or extremely costly. We present an evaluation of promising alternative risk management strategies, through an extensive cost-benefit analysis and compile a strategic action plan for dealing with diffuse biotic pollutants. Ultimately we aim to fuel policy recommendations and help build a realistic framework for treating this type of emerging pollution.

As a specific case study we tackle the problem of the 'Asian knotweed'. This plant species is among the most distributed and visible biotic pollutants in our environment and causes enormous damage to both natural ecosystems and infrastructure across the EU. Despite its socio-economic significance, adequate treatment methods are lacking and the legal framework to deal with knotweed-associated soil pollution is deficient. Therefore, many studies are currently undertaken to devise treatment methods for infected areas and policy recommendations are called for. Here, we perform an integrative exercise and distil a generic action plan from the state-of-the art.

Uitbreiding GB: http://news.bbc.co.uk/2/hi/science/nature/8555378.stm


14/10/2025 ENSor Brussel - Lena Vanderhaegen
Witteveen+Bos Belgium
Thoonen M., Willems S. (2018). Invasieve duizendknoop in Vlaanderen. Een kader voor goed beheer. Rapporten van het Instituut voor Natuur- en Bosonderzoek 2018 (62). Instituut voor Natuur- en Bosonderzoek, Brussel