

PROJECT In-Tree

Introduced tree species in European forests: challenges and opportunities

PROJECT IN-TREE

- History:
 - Emotional discussion, often not evidence based
 - Contradicting perspectives (forestry, gardening, nature conservation, society, hunting)
 - Definitions and terms are used in different ways
- Background:
 - Funded by the German Federal Ministry for Food and Agriculture (BMEL)
 - Coordinated by the European Forest Institute (Central European Regional Office EFICENT)
 - Scientific advisory board



PROJECT IN-TREE

Scientific advisory board

- Annemarie Bastrup-Birk (EEA)
- Marco Conedera (WSL, Switzerland)
- Franz Essl (University of Vienna, Austria)
- Andreas Rigling (WSL, Switzerland)
- Etienne Branquart (Biodiversity Platform Wallonie, Belgium)
- Hans-Gerhard Michiels (Forest Research Institute FVA, Germany)
- Jürgen Bauhus (University of Freiburg, Germany)
- Jan Wunder (WSL, Switzerland)

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• Major deliverables:

- Book publication
- Expert exchanges
- Media tools
- Expert database (Risk platform)
- Various events



Book publication

- <u>Topic</u>: Introduced tree species in European forests: opportunities and challenges
- Targeted audience:
 - All backgrounds (forestry, environmental science, ecology, etc.)
 - Politicians and decision makers
 - Academics
 - Practitioners
 - Students
 - Enthusiasts











Book publication: authors

- Selection of authors:
 - Proven track of:
 - Relevant experience
 - Academic record of relevant literature
 - EFI and *IN-TREE* team's network
 - Availability
 - Recommendations of experts and advisory board
 - International Symposium in July 2015
- What's expected:
 - Contribution by the end of 2015/beginning of 2016
 - Review other chapters
 - Translations into French and German
 - Facts and evidence based information



Integrative approaches as an opportunity for the conservation of forest biodiversity Daniel Kraus and Frank Krumm (eds.) E F I

Book publication: aims

- To synthesise current knowledge on introduced tree species across the European continent
- To comprehensively present key challenges and opportunities:
 - -Climate change
 - -Pests and diseases
 - -Ecosystem services

Fact and evidence based compilation of scientific knowledge









• To provide a <u>neutral</u> knowledge and evidence-based platform for future activities

Book publication

Added value:

- Comprehensive and concise publication
- Open access
- Directed at a wide range of audience
- Disseminated through a wide EFI network and others





Content

1) Introduction

- History of introduced tree species
- Terminology and definitions

2) Management concepts and approaches

- Risk assessment and theoretical framework
- Theoretical support and approaches aiding practical forest management
- Practical insights into management of introduced and invasive tree species

3) Key challenges

Changing climate	Pests and diseases	Ecosystems services
Social aspects	Economic aspects	Natural disturbances

4) <u>Case studies</u>

Robinia pseudoacacia	Picea sitchensis	Prunus serotina	Euc	calyptus globulus
Pseudotsuga menziesii	Ailanthus altis	sima Acer nega	undo	Acacia dealbata

5) Compilation of key messages







Content

Authors

- \checkmark 70 authors from research and practice
- \checkmark from 19 different countries across Europe and beyond
- ✓ Representing 40 different institutions







Douglas fir *Pseudotsuga menziesii* (Mirb.) Franco

- 1792: discovered and described
- 1827: seeds were first brought to Europe
- Areas in Europe (SOEF, 2015):
 - -France: 401,000 ha
 - -Germany: 217,600 ha
 - **-**UK: 48,000 ha
 - Belgium: 29,200 ha





Douglas fir Pseudotsuga menziesii (Mirb.) Franco

- Search for forest tree species

 - Higher yieldsQuality timber
 - -Lower windthrow risk
- Fulfil requirements **Douglas fir** Cope with climate change Better draught tolerance
- Debate: Nature conservationists vs. Foresters
 - -All evidence provided?
 - -Balanced picture? Invasive potential?
 - -Sufficient/sound evidence?



Key terms and definitions

Term	Definition	Source
Introduction	A process (or an action) that enables a species (or its propagule) to	Amended from
	overcome, through a human agency, a major geographical barrier.	Richardson et al. (2000)
Introduced	A species in a given area whose presence there is due to intentional or	Gassmann and Weber
species	accidental introduction as a result of human activity.	(2006)
Native species	Species that have evolved in a given area or that arrived there by natural	Amended from Pyšek et
	means without the intentional or accidental intervention of humans from	al. (2004)
	an area where they are (or had been) native.	
Naturalisation	Process whereby the species establishes new self-perpetuating populations,	Richardson et al. (2000)
	undergoes widespread dispersal and becomes incorporated within the	
	resident flora.	
Invasion	A process whereby a species must overcome a series of barriers to be able	Amended from Valéry et
	to spread into novel areas in which it becomes dominant.	al. (2008)
Invasive species	A species that has been naturally reproducing in large numbers over	-
-	considerable distances causing negative impact on local ecosystems; i.e. by	
	direct competition for natural resources.	

- Avoid confusion and misunderstanding
- Ensure clarity of the definitions

Ensure consistency of the terms used throughout the book

Expert exchanges

- Themed on-site discussions
 - Facilitate the transfer of skills and experience
 - Based on knowledge and experiences from other countries

















Expert exchanges - aims

- Allow for on-site discussions and exchanges between various groups
- Showcase management scenarios
- Facilitate the adoption of specific management practices
- Enhance contacts network

















Expert exchanges: participants

- Group size: 4 8 participants
- About participants:
 - -Willingness to learn
 - Active engagement & contribution in constructive discussion
 - -Consider incorporating management strategies















Expert exchanges

- Topics
 - -Wildlife management
 - –Forest risks
 - -Biodiversity
- Groups
 - Ireland <-> Germany
 - Czech Republic <-> Germany















Media tools

- Call for proposal to Film Academy
- Aim: transfer of scientific findings in the most comprehensive and effective way to a wide range of audience
- Means:
 - Short film
 - Cartoon
 - Acoustic/musical means







Media tools – content

- Reasons for species introductions
- Spread of ITS in their non-native environment
- Risks, opportunities and challenges regarding ITS
- The role of climate change in the context of ITS
- The link between ITS and their potential to become invasive



Past events

- Advisory Board Meeting (9th June 2015)
 - Jürgen Bauhus (University of Freiburg, Germany)
 - Marco Conedera (WSL, Switzerland)
 - Hans-Gerhard Michiels (FVA, Germany)
 - Andreas Rigling (WSL, Switzerland)
 - Jan Wunder (WSL, Switzerland)
 - Annemarie Bastrup-Birk (EEA, Denmark)
 - Etienne Branquart (Biodiversity Platform, Belgium)
 - Franz Essl (University of Vienna, Austria)

• Authors' workshop (29 – 30th June 2015)







Future events - Conference

Various backgrounds

• <u>Topic</u>:

Introduced tree species to European forests: challenges and opportunities

- Audience:
 - Policy makers ⁻
 - Researchers
 - Academics
 - Practitioners

Autumn 2016









An information exchange platform for experts

Christop Suter

Geotest AG

GEOTEST

About us

GEOTEST AG was founded in 1962 public limited company head office: Zollikofen (Bern), Switzerland

around 130 employees

- geologists
- geographers
- AAA engineers
- geophysicists
- pedologists / natural scientists
- specialists in geographic information systems (GIS)
- technicians in measurement \geq technology

accredited according to SN EN ISO 9001:2000 accredited laboratory according to ISO/IEC 17025

internet: www.geotest.ch



The art of communication



Who is an expert?





Linking the relevant contacts

Risk Platform's 'Expert Database' will provide suggestions of the most relevant contacts for a specific scenario



- Users have a **profile** and are connected to other users.
- Users can create, upload content and connect to **Use Cases**.
- Users can **rate** the experience of others based on their contribution to a scenario



Chaos? Who is an expert?

•Users can rate other users and comments

•A user with a high rating (= expert) has bigger influence with his rating than others

•Observations with high rating are more important and will be showed on top





Possibilities

- Use RISKPlatform as an expert database. Share, collaborate and enhance your network.
- Get most useful information from the field. E.g. observations documented with photos
- Use the information from other networks, not only the scientific view
- Use your rating for your CV



With support from

by decision of the German Bundestag

of Food



www.in-tree.org

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