

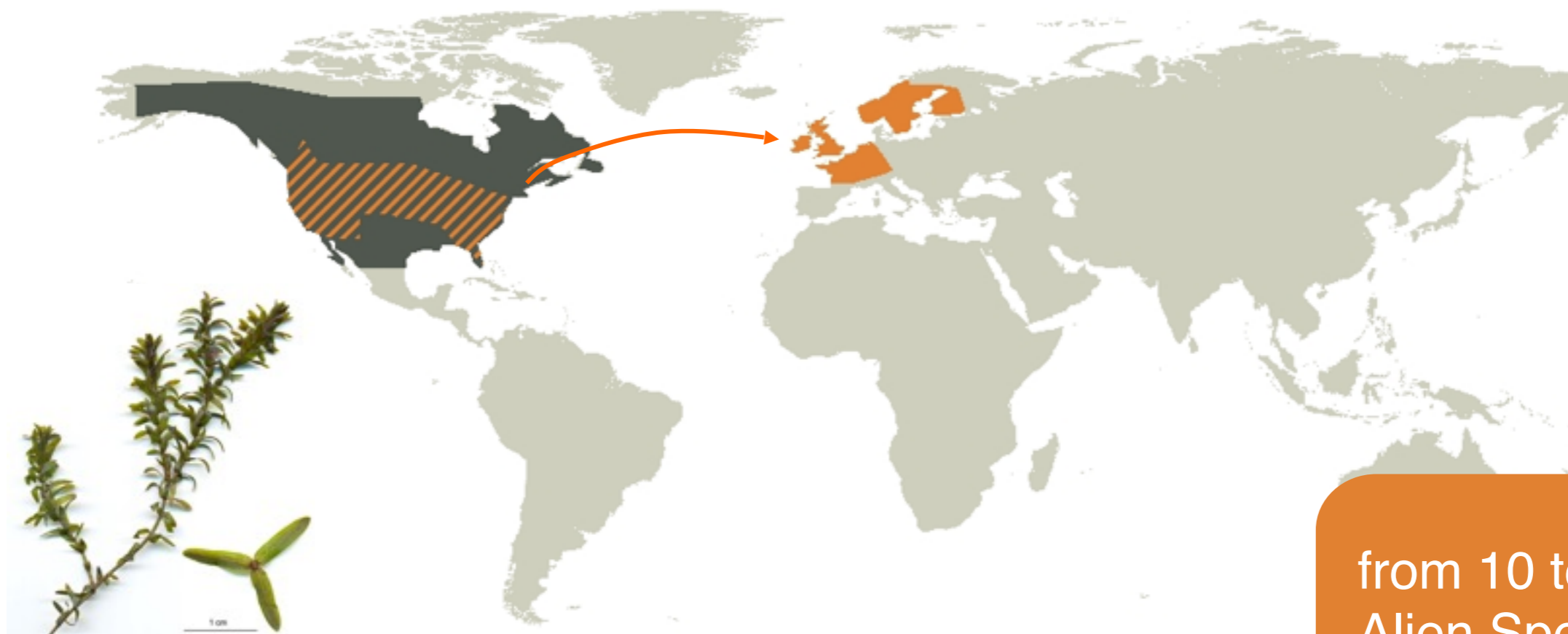


Building a data-driven framework to inform policy

Sonia Vanderhoeven - *Belgian Biodiversity Platform*

Invasive alien species in a nutshell ...

- Species introduced out of natural distribution range
- Threatening biodiversity and ecosystem services



from 10 to 15% of
Alien Species are
Invasive in Europe



© Etienne Branquart



GB NNSS



© Adraian Cabrero

When policy needs science ...

- CDB Aichi Target 9 : By 2020, IAS and pathways are identified and prioritized, priority species are controlled or eradicated, measures are in place to manage pathways to prevent their introduction and establishment



- EU Regulation on IAS
- National measures



IAS Regulation 1143/2014

EN

Official Journal of the European Union

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

Where we are in Belgium ...

Valuable decision support tools to inform invasive alien species (IAS) policy

- Information Systems
- Early warning initiatives
- Risk assessment protocols

Information system : ias.biodiversity.be



Biodiversity.be



Invasive species in Belgium



[Home](#) [About BFIS](#) [Species List](#) [Risk Analysis](#) [Harmonia⁺](#) [Resources](#) [Outputs](#) [Mailing List](#) [Registry](#)

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Species List

Welcome to *Harmonia*, an information system dedicated to alien species threatening native biodiversity in Belgium and in neighbour areas.

The species list presented hereafter can be sorted or filtered through different criteria including taxonomy, habitat, introduction date or hazard categories (black and watch lists). It gives access to detailed ecological information and references which have been used for assessing the environmental impact of the different species (see also the [ISEIA protocol](#)). Find more information about definitions, list categories, copyright and citation from [here](#).

Note that the species list is far to be complete and is updated on a regular basis. Today, only vascular plants and vertebrates have been subjected to risk assessment.

Harmonia includes **101 species** (43 on the **black list**, 38 on the **watch list** and 14 on the **alert list**).

Display:

Scientific Name	Common Name <input type="text" value="EN"/>	Taxonomic Group	Habitat	Since	Range	Category
<i>Acer negundo</i>	Box-elder, Ash-leaved maple	Vascular plants	terrestrial	1955	restricted	B2
<i>Acer rufrinerve</i>	Red veined maple	Vascular plants	terrestrial	1990	isolated	B1
<i>Ailanthus altissima</i>	Tree of heaven	Vascular plants	terrestrial	1952	restricted	A2
<i>Aix galericulata</i>	Mandarin duck	Birds	freshwater	1953	widespread	
<i>Akebia quinata</i>	Five-leaf	Vascular plants	terrestrial			B0

Early warning initiatives :


www.observations.be
www.waarnemingen.be

Waarschuwingssysteem Invasieve Exoten

- [Homepage Invasieve exoten](#)
- [Waarnemingen](#)
- [Melding instellen](#)

Door toedoen van de mens komen steeds meer exotische soorten in onze omgeving terecht. De meeste van deze soorten vormen geen problemen, of kunnen hier niet overleven. Maar naar schatting 1 op 1000 exotische soorten worden na vestiging 'invasief'.

Deze invasieve exoten verdrrukken inheemse dieren en planten, veroorzaken gezondheidsproblemen en verstoppert onze waterlopen. Hoe langer ze ongestoord uitbreiden, hoe moeilijker en duurder om ze te bestrijden. Een snelle opsporing is dus nodig om te kunnen ingrijpen.

Vrijwilligers kunnen tegelijk op veel plaatsen uitkijken naar deze probleemsoorten. Daarom lieten het Vlaamse, Waalse en Brusselse gewest door Natuurpunt en Natagora een systeem uitwerken om meldingen van invasieve exoten snel tot bij terreinbeheerders en bevoegde overheden te krijgen. Doel is om op basis van de lessen uit dit project het hele proces van observatie en melding tot ingrijpen en opvolgen te stroomlijnen. Je kan hier meldingen van exoten [invoeren](#), [raadplegen](#) of je [inschrijven op het meldsysteem](#).  We onderscheiden drie types invasieve exoten:

- **Alarmlijst:** soorten die nog niet of slechts op een paar plaatsen gevestigd zijn.
- **Opkomende soorten:** soorten die bij ons of in het buitenland in volle uitbreiding zijn
- **Gevestigde soorten:** soorten die al een ruime verspreiding kennen in ons land, maar nog steeds uitbreiden.

Deze lijsten bevatten niet alle probleemsoorten. Momenteel wordt slechts voor sommige soorten een beheer gevoerd. Voor meer informatie over het huidige beleid en beheer van invasieve exoten kan u terecht bij: [Vlaanderen](#), [Brussel](#), [Wallonië](#)

Selecteer Lijst Soortgroep

Alarm lijst:


Huiskraai
Corvus splendens



© Ellen de Lange

 Herkenning

Nog niet waargenomen


Zie ook: 


Kuifmaina
Acridotheres cristatellus



© Job Strumpel

 Herkenning

 Toon verspreidingskaart


Zie ook: 


Rosse Stekelstaart
Oxyura jamaicensis



© dantal deschepper

 Herkenning

 Toon verspreidingskaart


Zie ook: 


Heilige Ibis
Threskiornis aethiopicus



© Dieder Piu

 Herkenning

 Toon verspreidingskaart


Zie ook: 


Amerikaanse Voseekhoorn
Sciurus niger



© Rick Swartzentrov...

 Herkenning

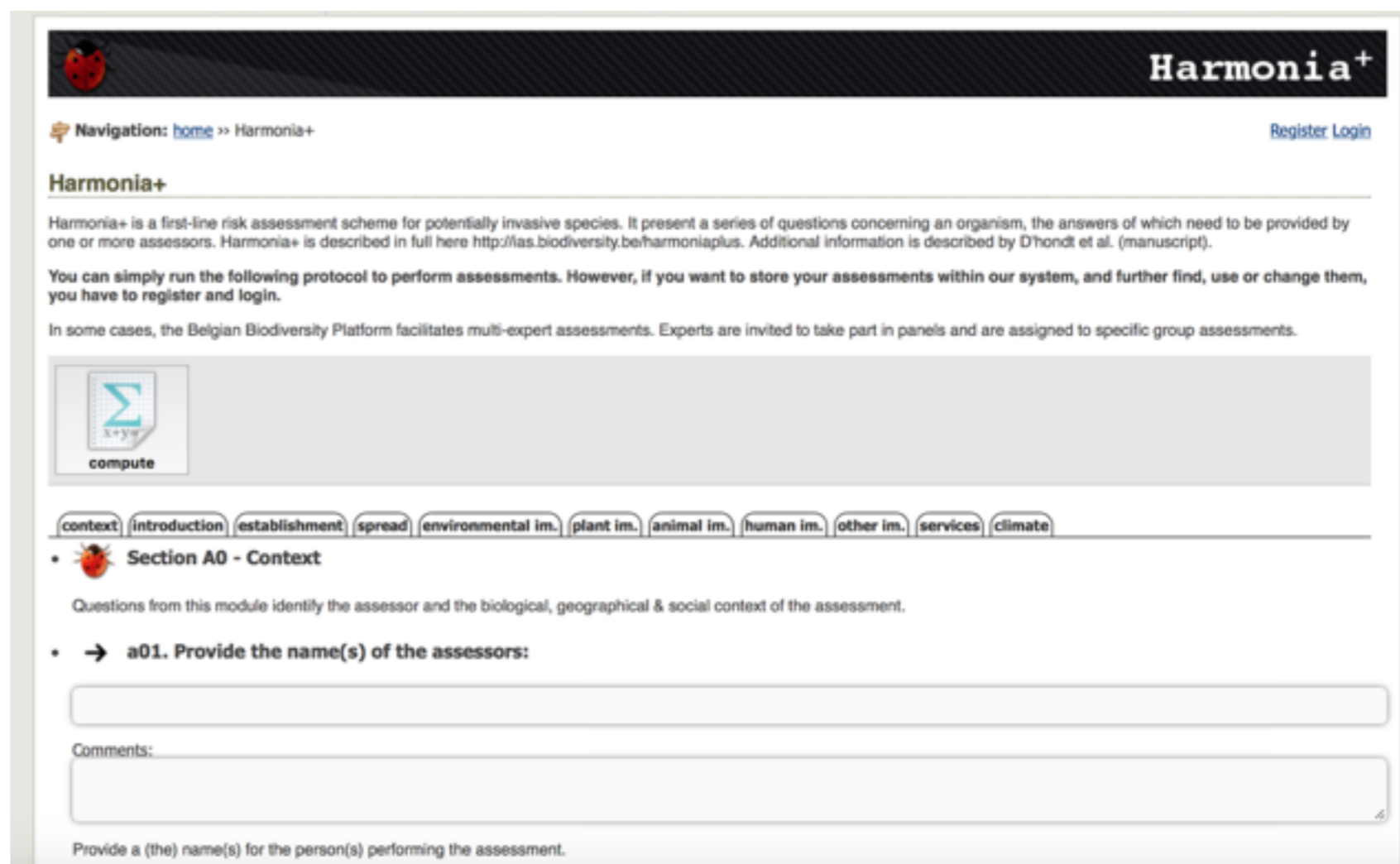
 Toon verspreidingskaart

Zie ook: 

ORIGINAL PAPER

Harmonia⁺ and *Pandora*⁺: risk screening tools for potentially invasive plants, animals and their pathogens

Bram D'hondt · Sonia Vanderhoeven · Sophie Roelandt · François Mayer ·
Veerle Versteirt · Tim Adriaens · Els Ducheyne · Gilles San Martin ·
Jean-Claude Grégoire · Iris Stiers · Sophie Quoilin · Julien Cigar ·
André Heughebaert · Etienne Branquart



Harmonia⁺

Navigation: [home](#) >> Harmonia+


Register Login

Harmonia+


Harmonia+ is a first-line risk assessment scheme for potentially invasive species. It present a series of questions concerning an organism, the answers of which need to be provided by one or more assessors. Harmonia+ is described in full here <http://ias.biodiversity.be/harmoniaplus>. Additional information is described by D'hondt et al. (manuscript).

You can simply run the following protocol to perform assessments. However, if you want to store your assessments within our system, and further find, use or change them, you have to register and login.

In some cases, the Belgian Biodiversity Platform facilitates multi-expert assessments. Experts are invited to take part in panels and are assigned to specific group assessments.

 compute

[context](#) [introduction](#) [establishment](#) [spread](#) [environmental im.](#) [plant im.](#) [animal im.](#) [human im.](#) [other im.](#) [services](#) [climate](#)

-  **Section A0 - Context**

Questions from this module identify the assessor and the biological, geographical & social context of the assessment.

- → **a01. Provide the name(s) of the assessors:**

Comments:

Provide a (the) name(s) for the person(s) performing the assessment.

What do we need



Timely evidence

Automated workflow

Transparency

Standardization

Reusability

Sustainability

What do we need

Timely evidence

Automated workflow

Transparency

Standardization

Reusability

Sustainability



Tr **IAS** ▶▶
Tracking **Invasive Alien Species**

The 17 partners ...

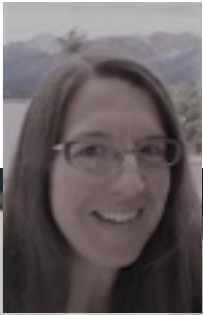
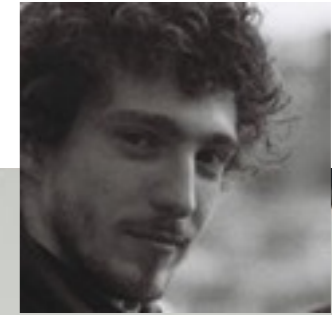


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TrIAS

Tracking Invasive Alien Species

2017-2020

Automated data mobilization framework

from diverse data sources

Trends and indicators

Analyses

Data driven procedures for risk evaluation

- Risk maps
- Risk assessments

Timely inform IAS policy

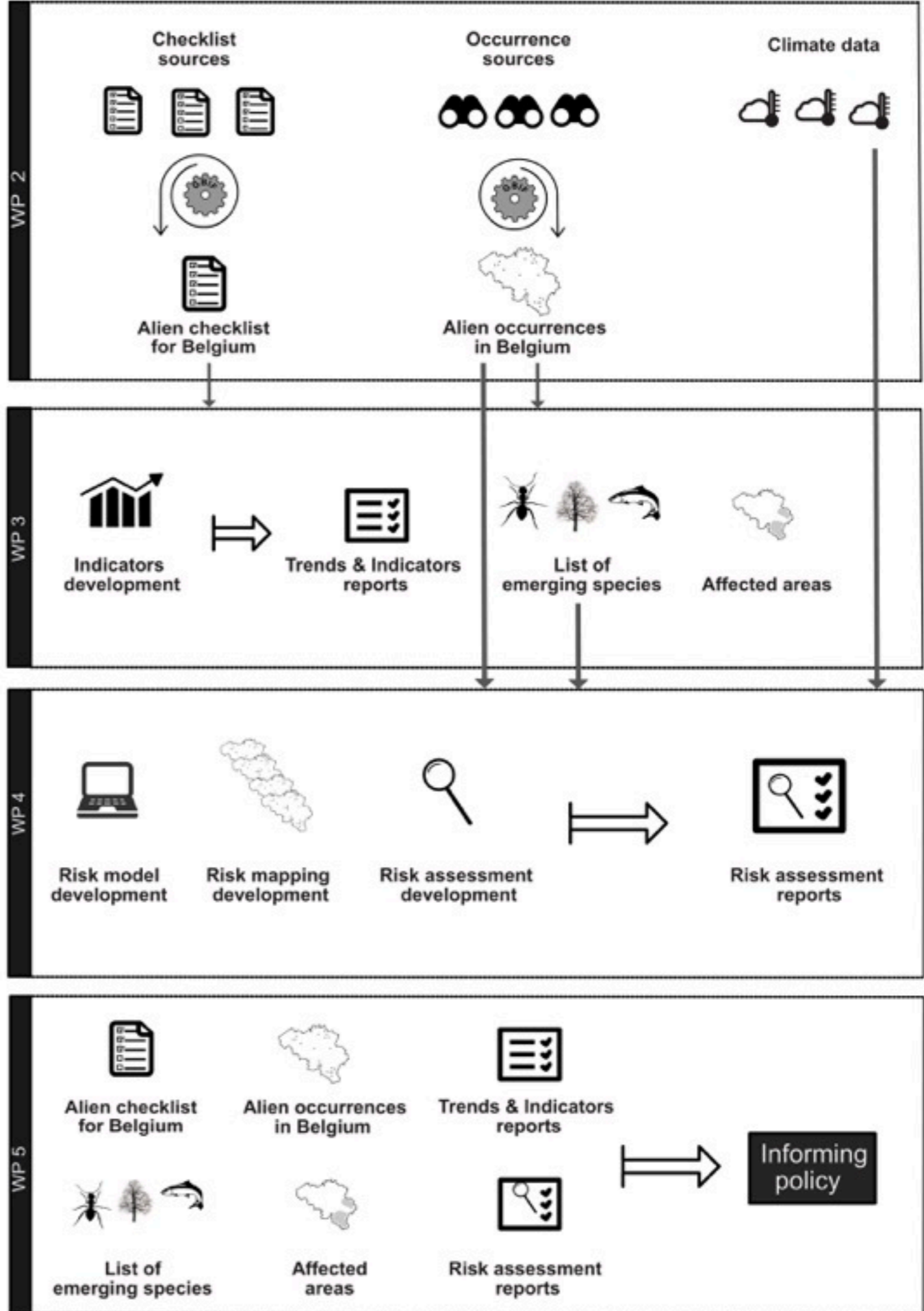
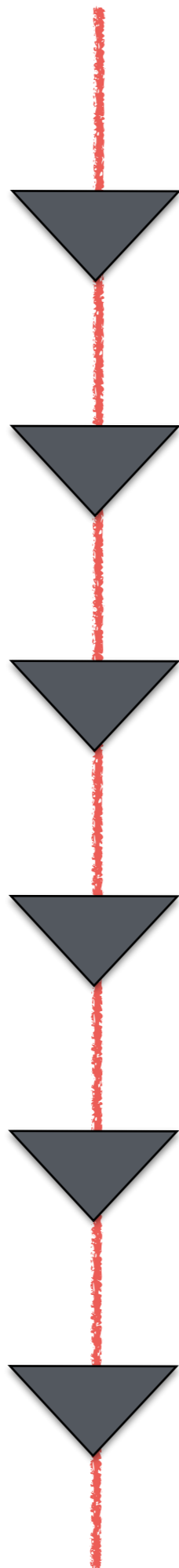
- Regional
- Belgian
- EU
- International

Tracking Invasive Alien Species (TrIAS): Building a data-driven framework to inform policy

Sonia Vanderhoeven[†], Tim Adriaens[§], Peter Desmet[§], Diederik Strubbe[‡], Thierry Backeljauf^{§*}, Yvan Barbier[¶], Dimitri Brosens^{§*}, Julien Cigar^{*}, Maxime Coupremagne[‡], Rozemien De Troch^{*}, Hilde Eggemont^{¶*}, André Heughebaert^{*}, Kris Hostens^{*}, Pierre Huybrechts^{*}, Anne-Laure Jacquemart^{*}, Luc Lens[‡], Arnaud Monty[‡], Jean-Yves Paquet[‡], Céline Prévot[‡], Tim Robertson[‡], Piet Termonia^{¶*}, Ruben Van De Kerchove[‡], Gert Van Hoey[¶], Bert Van Schaeybroeck^{*}, Diemer Vercayle[¶], Thomas Jethro Verleye[¶], Sarah Welby[‡], Quentin John Groom[‡]

TrIAS

Tracking Invasive Alien Species



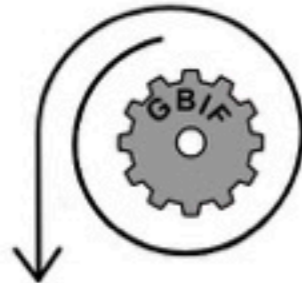


Automated data mobilization framework from diverse data sources



GBIF
Global Biodiversity Information Facility

Checklist sources



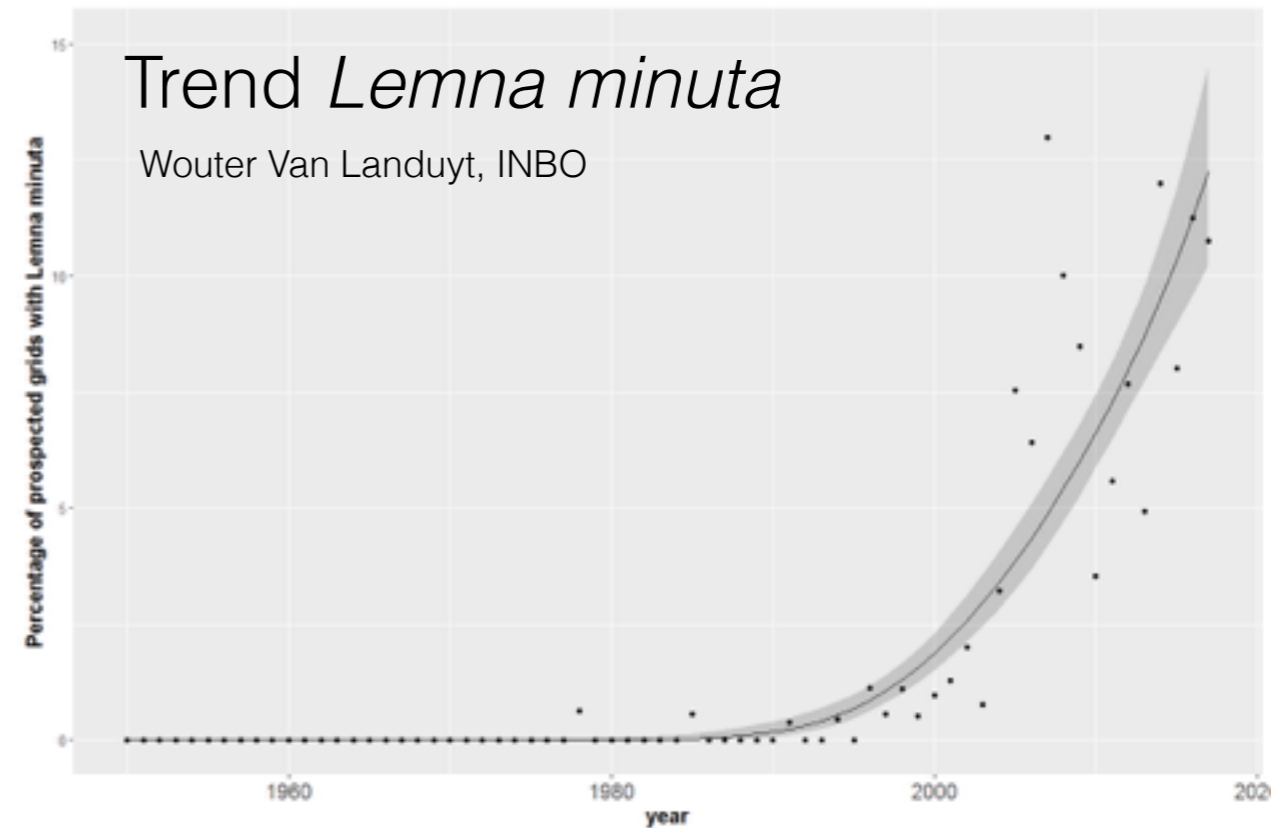
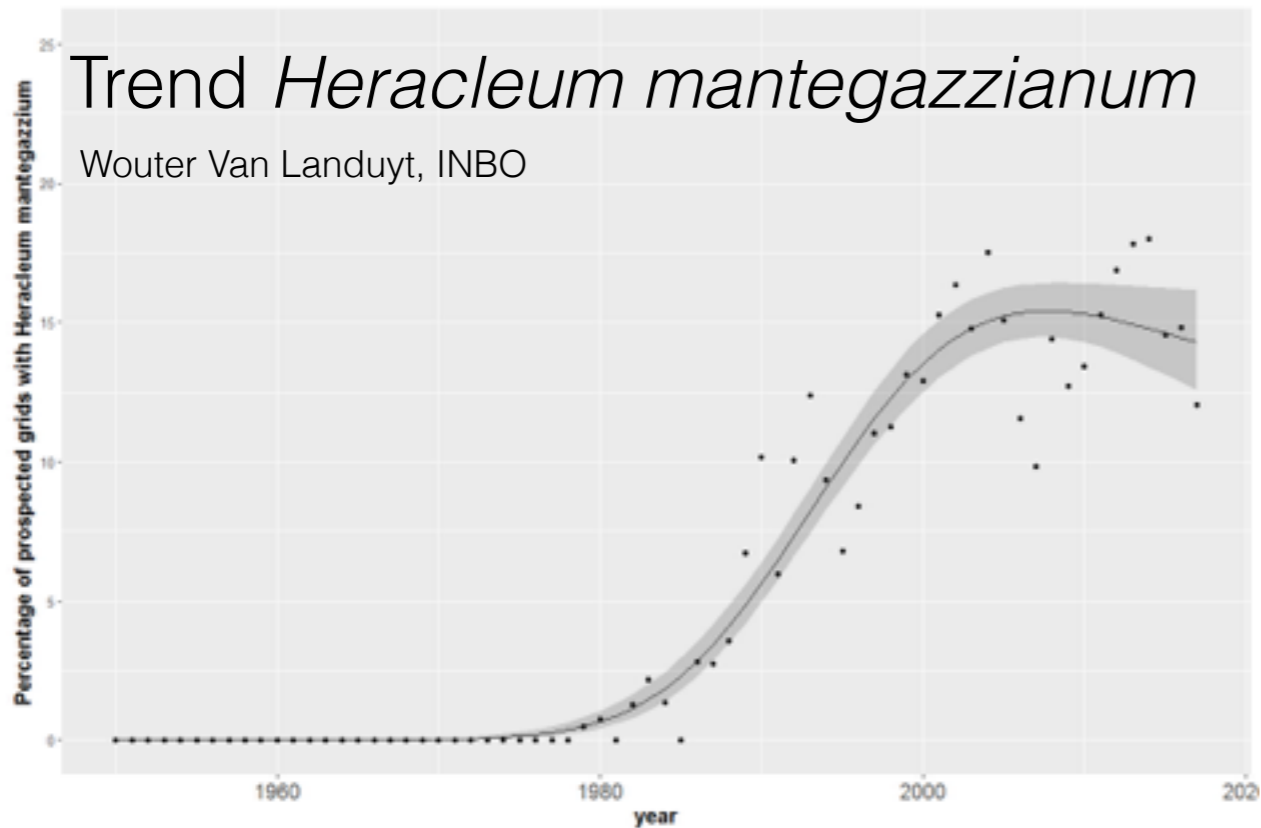
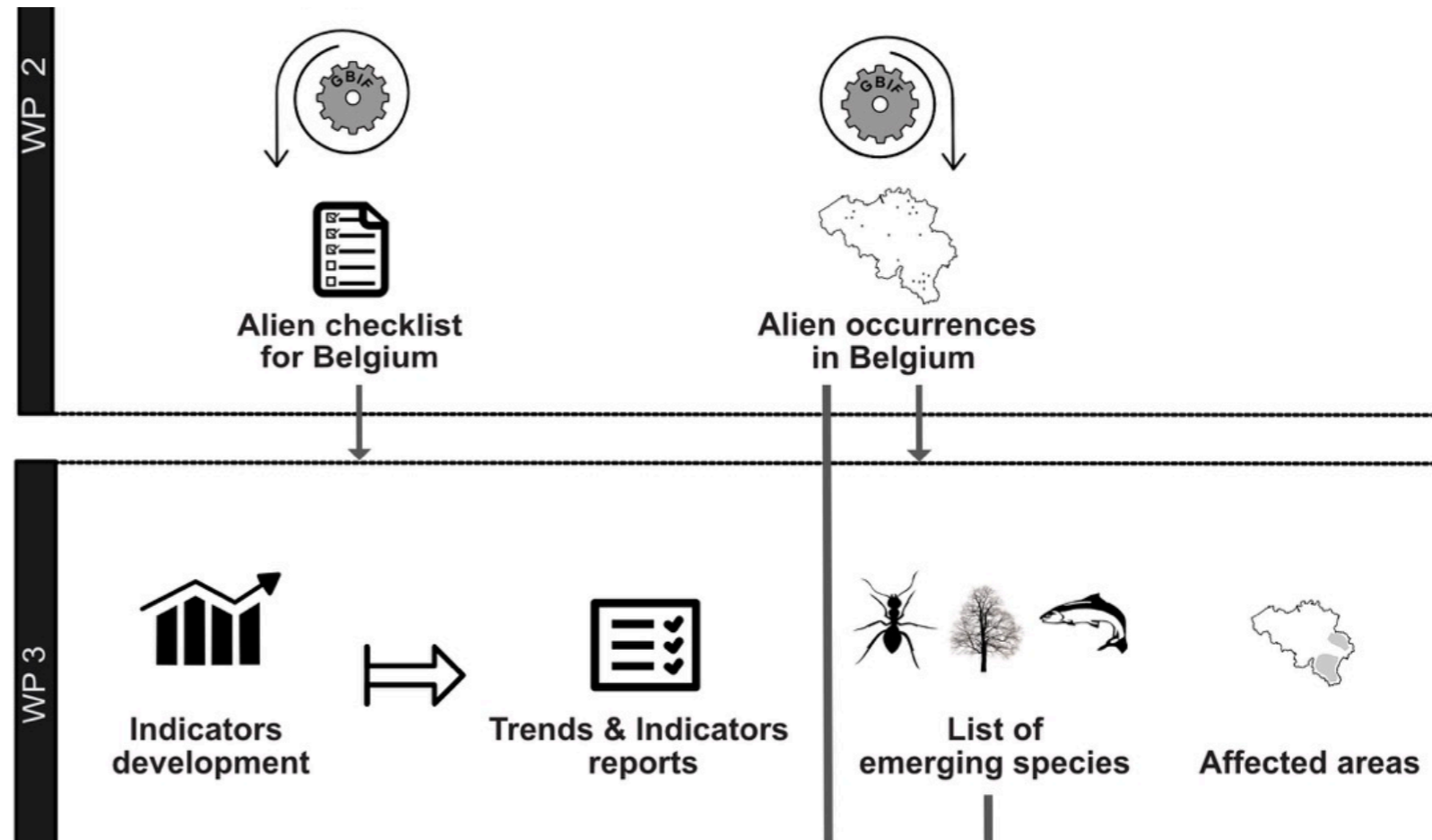
Unified Checklist

Occurrence sources



Unified occurrences database

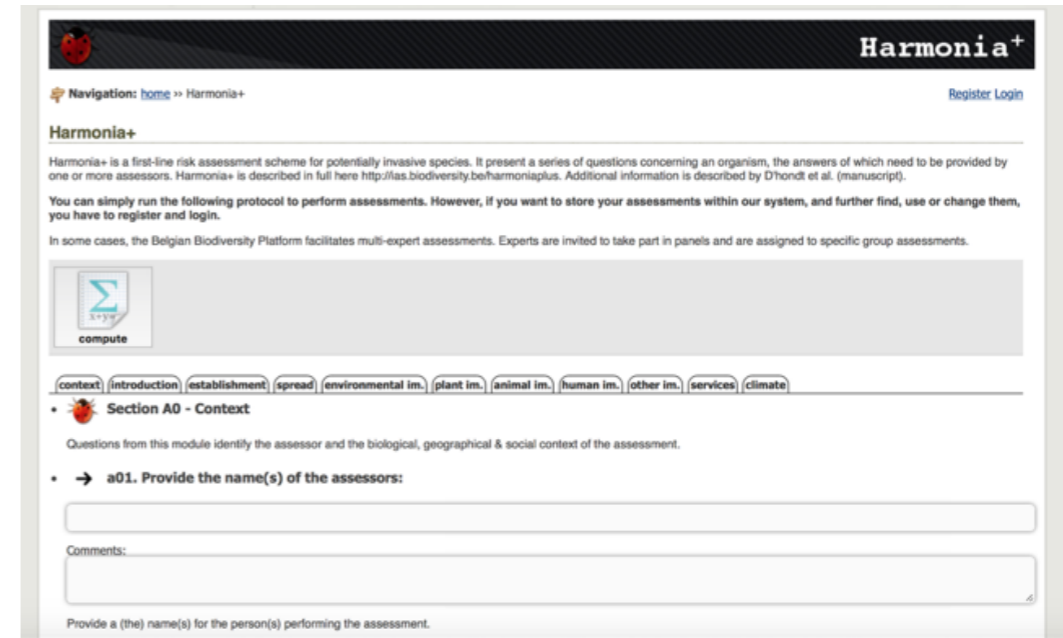
Trends and indicators
Analyses





Data driven procedures for risk evaluation

- Risk maps
- Risk assessments



Risk evaluation : characterization of the risk associated with the introduction, the establishment and spread of an alien species, and their consequences.

+ climate change !



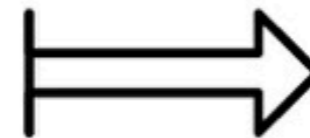
Risk model development



Risk mapping development



Risk assessment development



Risk assessment reports



Timely inform IAS policy

- Regional
- Belgian
- EU
- International



Alien checklist for Belgium



Alien occurrences in Belgium



Trends & Indicators reports



List of emerging species



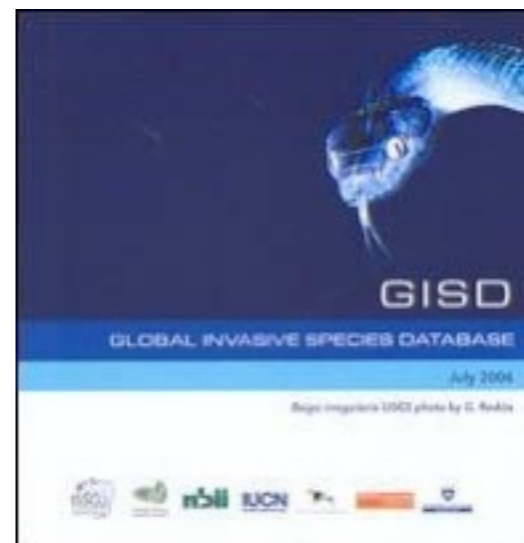
Affected areas



Risk assessment reports



International Association for Open Knowledge on Invasive Alien Species



Tracking Invasive Alien Species (TrIAS)

Public

0



Contributors: [Quentin Groom](#), [Tim Adriaens](#), [Peter Desmet](#), [Diederik Strubbe](#), [Thierry Backeljau](#), [Etienne Branquart](#), [Dimitri Brosens](#), [Maxime Coupremanne](#), [Rozemien De Troch](#), [Valérie De Waele](#), [Sander Devisscher](#), [Hilde Eggermont](#), [Andre Heughebaert](#), [Kris Hostens](#), [Pierre Huybrechts](#), [Jacquemart Anne-Laure](#), [Arnaud Monty](#), [Damiano Oldoni](#), [Thierry Onkelinx](#), [Jean-Yves Paquet](#), [Prévot céline](#), [Lien Reyserhove](#), [Toon Van Daele](#), [Ruben Van De Kerchove](#), [Gert Van Hoey](#), [Wouter Vanreusel](#),

Date created: 2017-01-06 03:02 PM | Last Updated: 2018-03-03 10:29 AM

Category: Project

Description: Building an open data-driven framework to support policy on invasive species

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Wiki



Filter



Name ^ v

Modified ^ v

Tracking Invasive Alien Species (TrIAS)

- OSF Storage

- WP1 - Management

- OSF Storage

Citation

osf.io/7dpgr v

Components

WP1 - Management

[Groom, Desmet, Adriaens & 25 more](#)

WP leader: BGM

Recent Activity

[Quentin Groom](#) reordered contributors for [Tracking Invasive Alien Species \(TrIAS\)](#)

2018-03-03 10:29 AM

[Tim Adriaens](#) added [Yasmine Verzelen](#) as contributor(s) to [Tracking Invasive Alien Species \(TrIAS\)](#)

2018-02-21 04:10 PM

[Tim Adriaens](#) added [Sander Devisscher](#) as contributor(s) to [Tracking Invasive](#)

Our vision



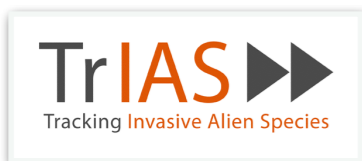
We need **evidence** to inform policy on invasive species

- The evidence is based on **timely data**
- The evidence is based on **timely analyses** of invasions
- The evidence is based on **timely risk evaluation**
- The evidence has to be **communicated to policy**



We need a **semi-automated workflow** to obtain evidence

- The workflow is built to feed evidence from **distributed data sources**
- The workflow is **semi-automated** to speed up the process
- The workflow is **repeatable** to update evidence



We need this workflow to be **open for transparency and reusability**

- The methodology of the workflow is open for **transparency**
- The data are open and **standardized**
- The software is open so it can be **used by anyone**
- The publications are open so they are **accessible to anyone**
- By having these components open, it ensures their **sustainability**



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TrIAS
Tracking Invasive Alien Species

Tweets **37** Following **50** Followers **87** Likes **13** Lists **0** Moments **0** [Edit profile](#)

TrIAS
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Building an open, data-driven framework to support policy on invasive species
#ias #openscience
Belgium
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Joined March 2017
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Who to follow · Refresh · View all

- EPP** @EPP · Follow · Promoted
- EmpowerBiodiversityR** ... · Follow
- WiebeLammers** @WiebeL... · Follow

Find people you know

Trends for you · Change

- #Driedaagse
- #EuropeMatters
- #InvestEUresearch

F-16

rir « https://twitter.com/trias_project/media » dans un nouvel onglet