

Bridge from observation to action:

Innovative tools from the LIFE RIPARIAS project in support of effective management frameworks

RESEARCH INSTITUTE
NATURE AND FOREST

Tim Adriaens & Sonia Vanderhoeven



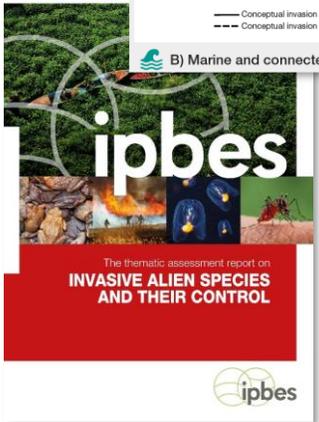
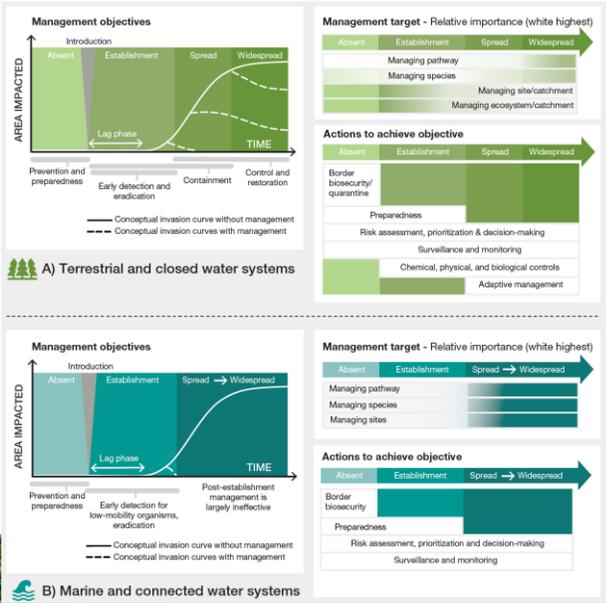
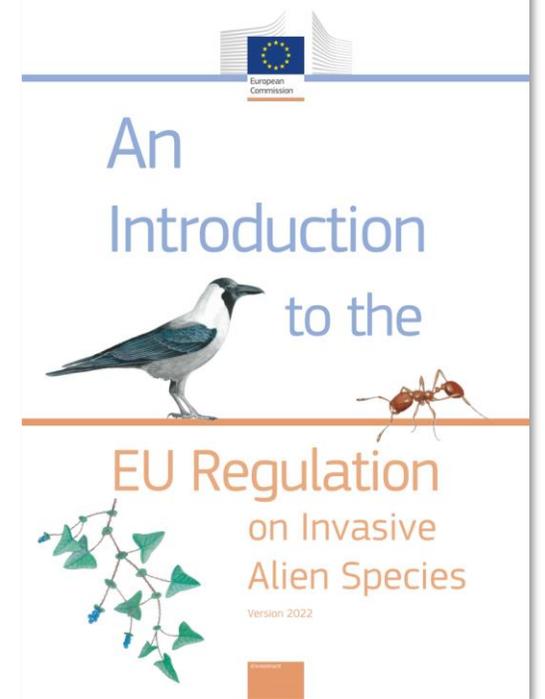
Biodiversity.be



The RIPARIAS project has received
funding from the LIFE Programme
of the European Union

RIPARIAS

Reaching Integrated and Prompt Action
in Response to Invasive Alien Species



Critical need to underpin IAS management with
a coherent, replicable and transparent framework for decision making

Objectives



Improving data flows from existing early warning and surveillance systems to IAS managers by ensuring interoperability

Developing guidelines and objective criteria for prioritising management actions and apply priority actions in pilot areas.

Objectives

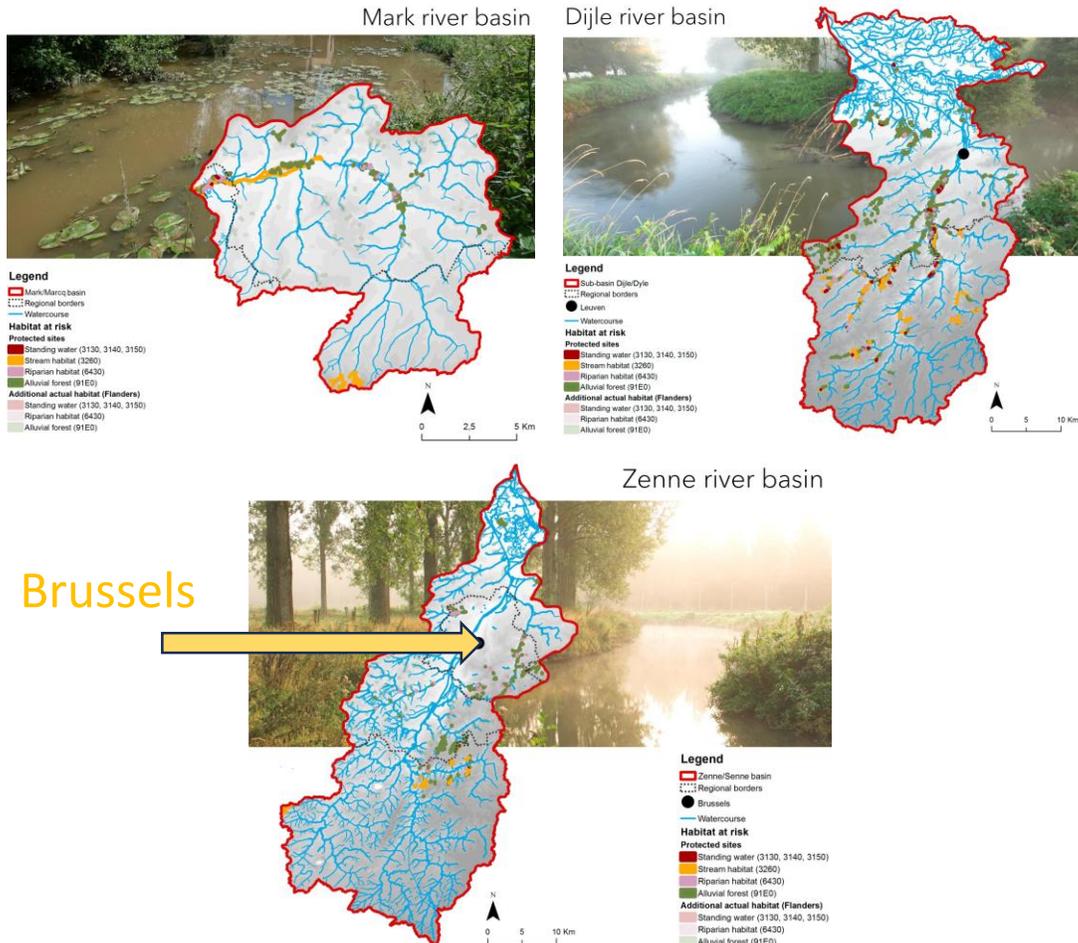


Improving data flows from management actions to policy-makers by monitoring and assessing IAS management efficiency



Promoting the replication of the evidence-based workflow for IAS management decision making in Europe

Pilot area



- 3 river basins
- 3 competent authorities
- 5 administrative management bodies
- Diversity of field management actors
- Diversity of stakeholders
- Diversity of occurrence data owners

Species: Aquatic and riparian plants, and crayfish species

Union concern and alert list

Belgian alert lists of alien aquatic
& riparian plants and crayfish
Improving data flow for early detection (A1)



RIPARIAS
Reaching Integrated and Prompt Action
in Response to Invasive Alien Species

Red swamp crayfish
(*Procambarus clarkii*)



Parrot's feather
(*Myriophyllum aquaticum*)



Himalayan balsam
(*Impatiens glandulifera*)



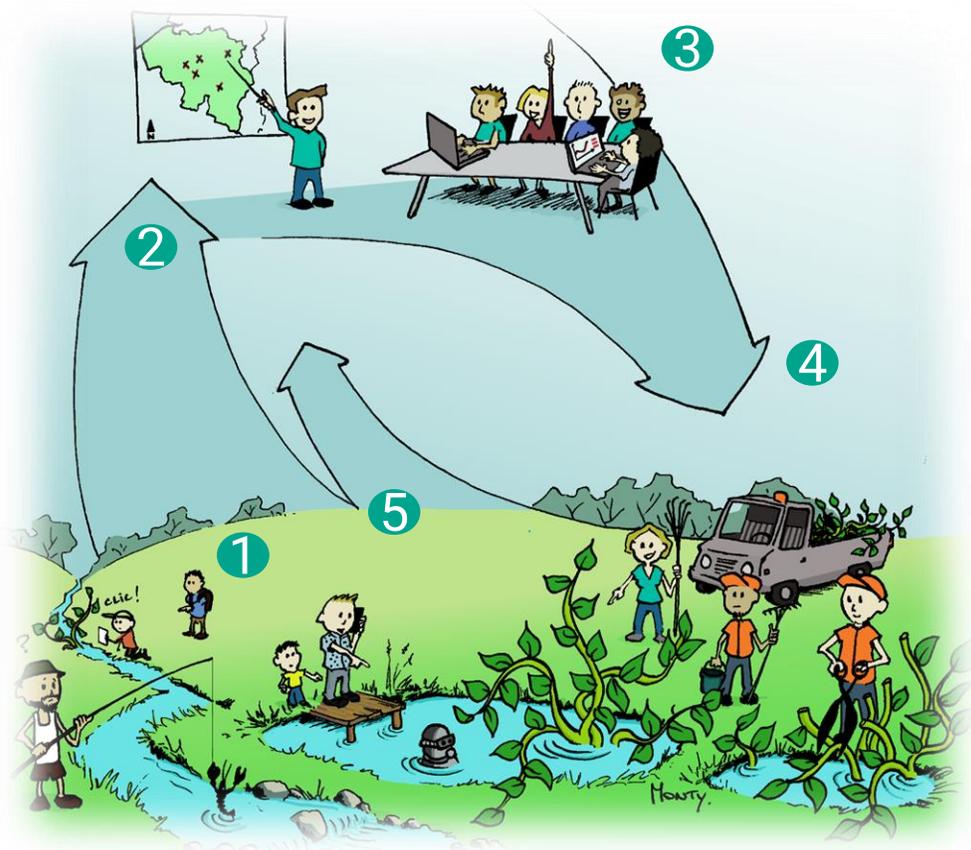
Floating pennywort
(*Hydrocotyle ranunculoides*)



Giant Hogweed
(*Heracleum mantegazzianum*)



The conceptual workflow



- 1 Observations made by citizens and key stakeholders
- 2 Data promptly available in support of decision making
- 3 Agreement on priorities for management & strategies:
Which species? Where? How?
- 4 Actions in the field
- 5 Management efficiency monitored

Technical tools to optimize the workflow



1. Early Alert

Belgian early warning hub
alert.riparias.be

LIFE RIPARIAS early alert [Explore all observations](#) [My alerts](#) [About this site](#) [About the data](#) peterdesmet

Hello

Manage invasive alien species? Want to know where they are? Sign in, configure your alerts and receive updates in your mailbox from all data sources.

Data filtering: [All species](#) [All datasets](#) [Everywhere](#) [Imported at all time](#) Status: [All](#) [Seen 45,418](#) [Unseen 3,275](#) [Mark all observations as seen](#)

Enable date range filtering 48,693 matching observations

Map view [Table view](#)

Base layer [OSM HOT](#) Data layer opacity

1. Early Alert: data sources

Fragmented: ngo's, management actors, public authorities, projects and their apps

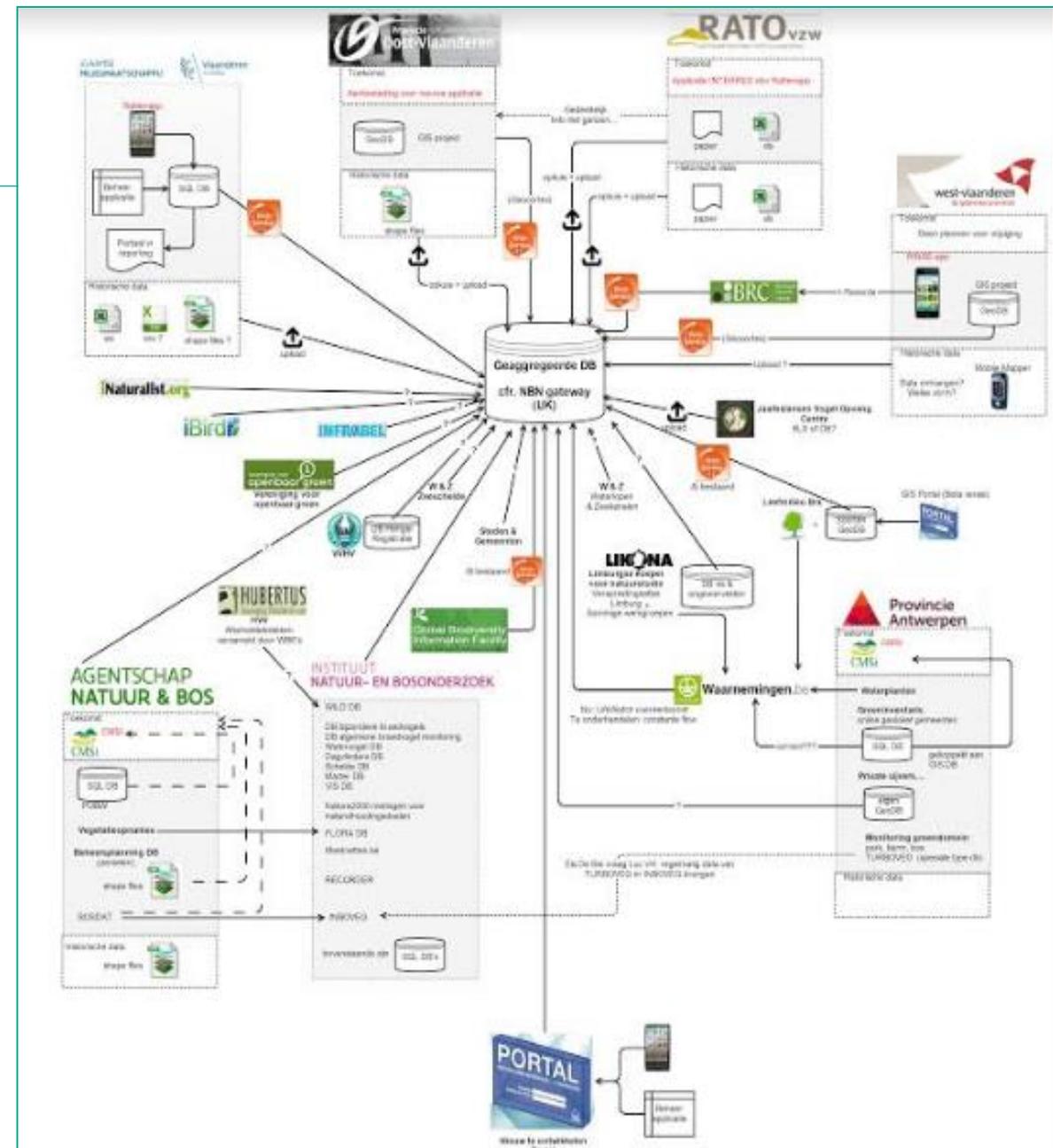
Often in isolation, sometimes linked

Rarely entirely open

Rarely mobilized

Rarely standardized

Technically a very complex ecosystem



1. Early Alert: data sources

Making the most of opportunities

Novel technologies & machine learning



©Axel Neukermans

<https://www.erda.au.dk/vgrid/Biodiversa/Camalien/>

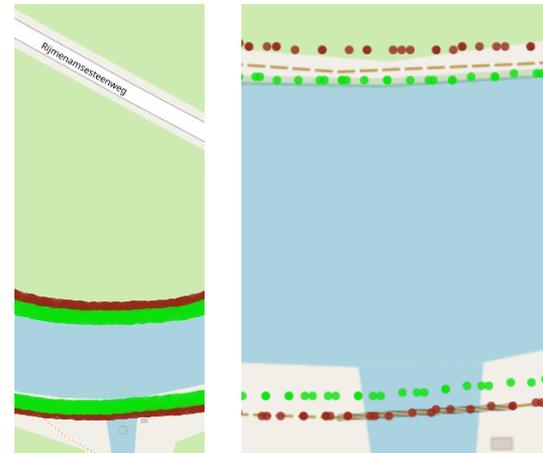


Image details

Timestamp: 2024-09-03T14:31:33.071Z
Position: 4.45794153213501, 51.036861419677734
Status: Processed

Classifications (3)

- REYNOUTRIA JAPONICA
Max score: 0.60291
- JUGLANS MIGRA
Max score: 0.40142
- REYNOUTRIA SACHALINENSIS
Max score: 0.1824

1. Early Alert: data sources

Making the most of opportunities

Citizen science projects



Er is dringend meer kennis nodig over de aanwezige invasieve uitheemse rivierkreeften in Vlaanderen. Het Instituut voor Natuur en Bosonderzoek (INBO) brengt met het Craywatch-project hun verspreiding in kaart.

Met de hulp van burgerwetenschappers onderzoeken we tussen 15 juni en 15 oktober welke uitheemse rivierkreeften al dan niet in Vlaanderen voorkomen. Deze informatie is noodzakelijk om gerichte maatregelen te kunnen nemen en de uitvoering ervan te verbeteren.

Wil jij bijdragen aan dit project? Klik dan hier voor [meer informatie](#) en om je te [registreren](#).



1. Early Alert: data sources

Business analysis with data providers

A.1.1



RIPARIAS
Reaching Integrated and Prompt Action
in Response to Invasive Alien Species

The RIPARIAS project has received funding from the LIFE Programme of the European Union

Dataset ID	data entry	data storage	flow speed	frequency
CRD-obs	Fulcrum app	Fulcrum	direct	-
CRD-imp-monitor	field notes	local	up to 6 months	-
CRD-imp-uproot	field notes	local	up to 6 months	-
CRS	Fulcrum app	Fulcrum	direct	-
CRDG	field notes	local	weekly	-
DEMNA-enquetes	web portal	PostgreSQL	direct	
DEMNA-hogweed	web portal	Access	direct	
DEMNA-encodage	web portal	Access	direct	irregular
DEMNA-aquabio	field sampling form	Oracle database	up to 1 year	irregular
INBO-MICA	web portal	PostgreSQL	> 1 month	irregular
INBO-florabank	webportal / waarnemingen.be	SQL Server	up to 1 year	biannually
INBO-bullfrog	Appsheet app	Appsheet	direct	yearly (up to 2018)
INBO-muntjac	reported by mail	SQL Server	> 1 day	irregular
INBO-VIS	spreadsheet	SQL Server	yearly	yearly
INBO-mittencrab	spreadsheet	SQL Server	yearly	irregular
VMM-pest	Ratten app, camera traps	database	direct	irregular
VMM-water	field sampling form	database	up to 6 months	irregular
BE-floristique	field notes	postgresql	yearly	-
BE-natura2000	field sampling form / spreadsheet	postgresql	> 1 month and < 8 months	-
BE-sonian	field sampling form / spreadsheet	postgresql	> 1 month and < 8 months	-
Natuurpunt	iObs, ObsMapp, ObsIdentify and Waarnemingen.be	database	direct	monthly (IAS)
Natagora	iObs, ObsMapp, ObsIdentify and Observations.be	database	direct	irregular (IAS)
RATO-operations	Ecosystem app	ArcGIS server	direct	-
RATO-IAS	Ecosystem app	ArcGIS server	direct	-
RATO-rat	Ecosystem app	ArcGIS server	direct	-
DIW-OV		SQL Server	1 day	-
BIOGEOnet	BIOGEOnet webportal	database	direct	yearly
iNaturalist	iNaturalist app, webportal		direct	weekly

1. Early Alert: the data flow



Early alert web application

INSTITUUT
NATUUR- EN
BOSONDERZOEK

VLAAMSE
MILIEUMAATSCHAPPIJ

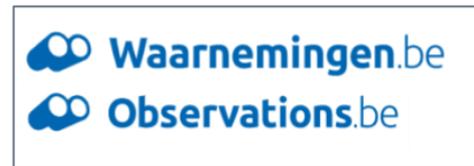
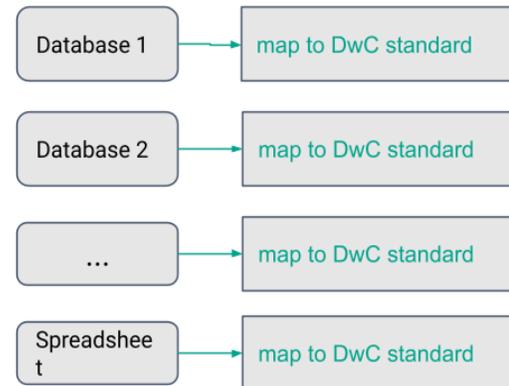
FORUM DE
RIVIERE
SENNE

RATO vzw
RATTENBESTRIJDING OOST-VLAANDEREN

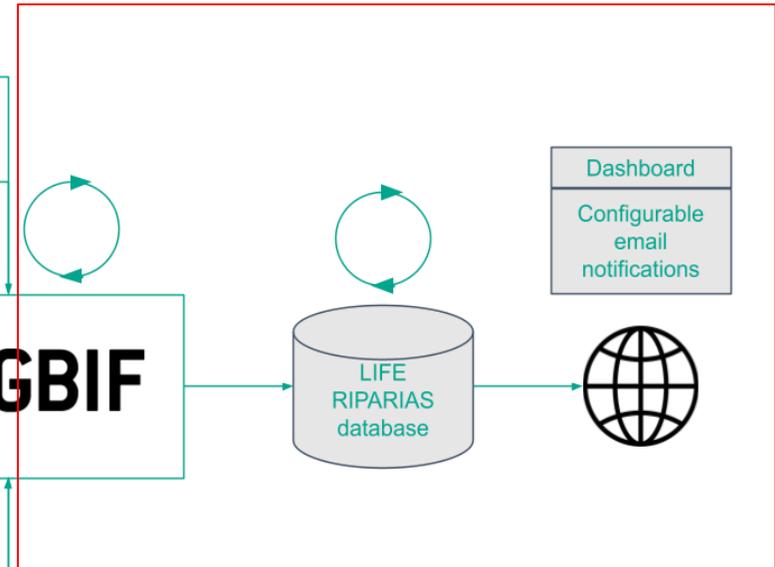
Wallonie
service public
SPW

provincie
Oost-Vlaanderen

Map data



Publish data



DwC: Darwin Core standard
GBIF: Global Biodiversity Information Facility



GBIF | Global Biodiversity Information Facility

Free and open access to biodiversity data

OCCURRENCES SPECIES DATASETS PUBLISHERS RESOURCES

What is GBIF? About GBIF Belgium

Sea-urchin hakea - *Hakea petiolaris* Meten. - observed in Lesmurdie, WA, Australia by Mick Davis (CC BY 3.0)



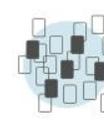
3 027 970 887
Occurrence records



110 329
Datasets



2 328
Publishing institutions



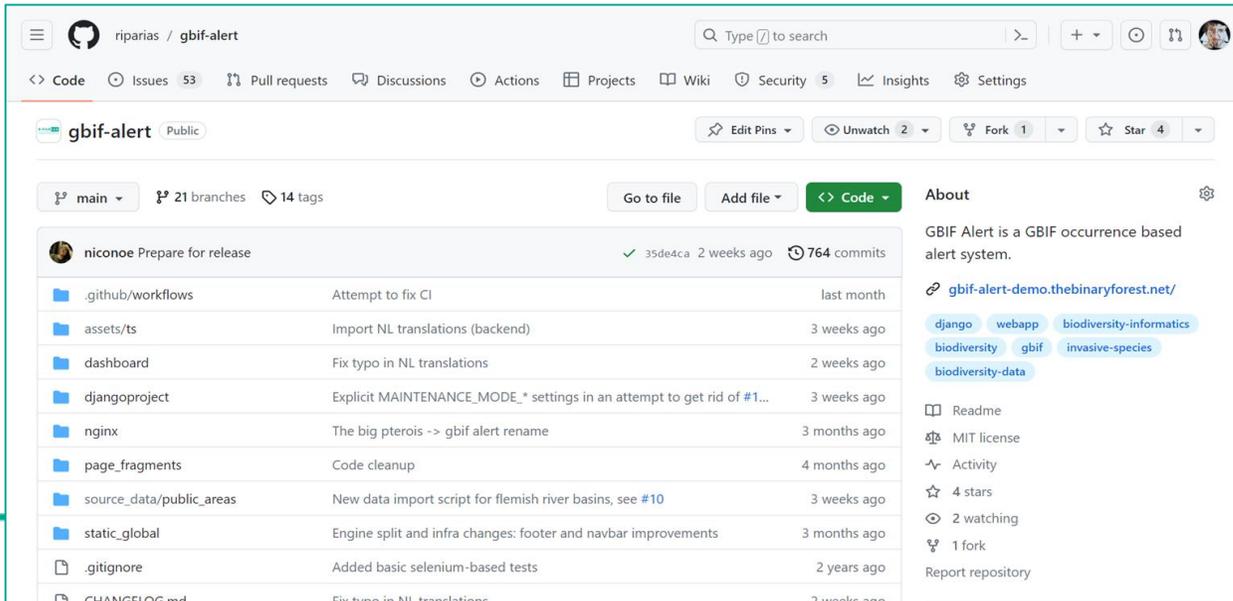
11 795
Peer-reviewed papers using data

1. Early Alert: an instance of GBIF alert

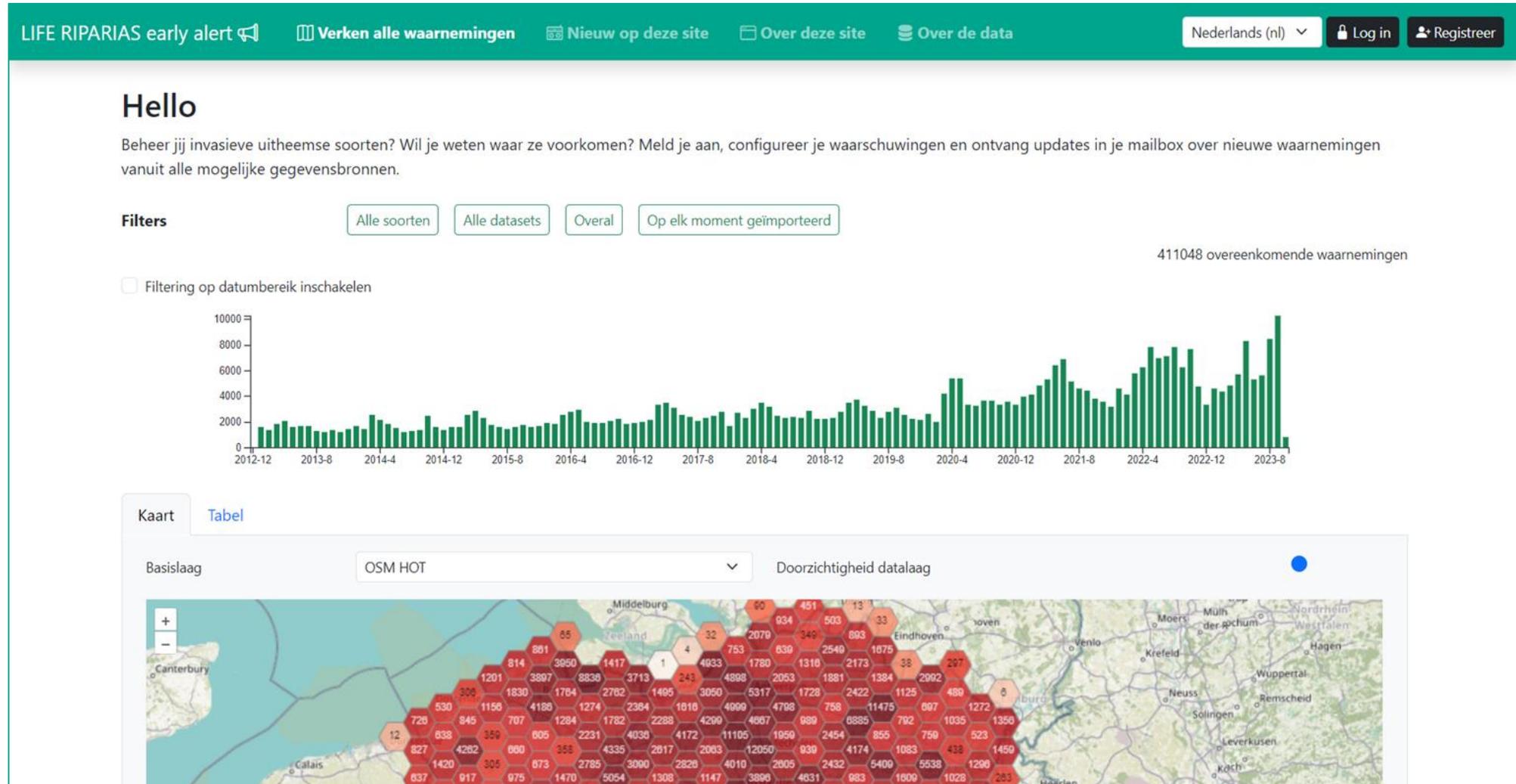
[GBIF Alert](#) is a **reusable** website engine to:

- **Monitor** a (list of) species
- Be **notified** of **new occurrences** on GBIF via email
- Build **multiple** websites (called **instances**) to target different communities.

GBIF – Alert has won the **1st prize** of the **Ebbe Nielsen Challenge 2023**

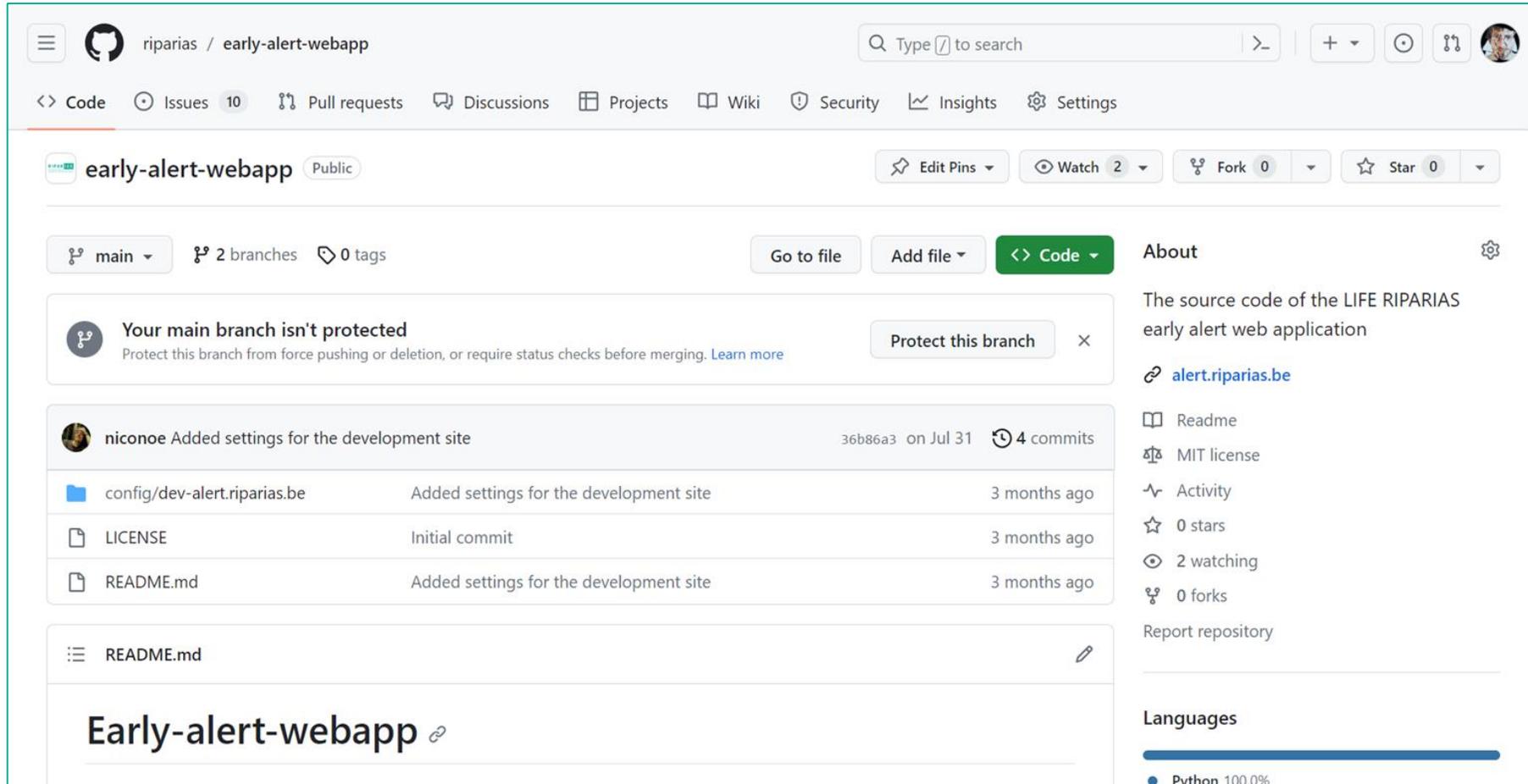


1. Early Alert: web application



1. Early Alert: web application

Open software: developed by Nicolas Noé with contributions of the Open science lab for biodiversity (INBO)



The screenshot shows the GitHub interface for the repository 'early-alert-webapp' by user 'riparias'. The repository is public and has 10 issues, 2 branches, and 0 tags. The main branch is currently not protected. A recent commit by 'niconoe' on July 31 is shown, with 4 commits in total. The commit history includes a folder 'config/dev-alert.riparias.be' and files 'LICENSE' and 'README.md'. The repository description is 'The source code of the LIFE RIPARIAS early alert web application'. The website 'alert.riparias.be' is listed. The repository has 0 stars, 2 watchers, and 0 forks. The language is Python 100.0%.

Commit	Author	Message	Time
36b86a3	niconoe	Added settings for the development site	3 months ago
		Initial commit	3 months ago
		Added settings for the development site	3 months ago



1. Early Alert: web application

GBIF-based: ALL data shown are imported daily from the Global Biodiversity Information Facility

The screenshot shows the 'Over de data' (About the data) section of the LIFE RIPARIAS early alert web application. The page has a green header with navigation links: 'Verken alle waarnemingen', 'Nieuw op deze site', 'Over deze site', and 'Over de data'. There are also language and user options: 'Nederlands (nl)', 'Log in', and 'Registreer'.

Over de data

Gegevens import

De data (waarnemingen) in deze applicatie worden frequent en automatisch vernieuwd vanuit [GBIF](#).

De huidig beschikbare data in de applicatie zijn gebaseerd op deze gegevensimport:

Gegevens import: #539

Datum/tijd
16 oktober 2023 23:43 - 17 oktober 2023 01:20

Geïmporteerde waarnemingen
411.048

Nieuwe waarnemingen in deze import
[30](#)

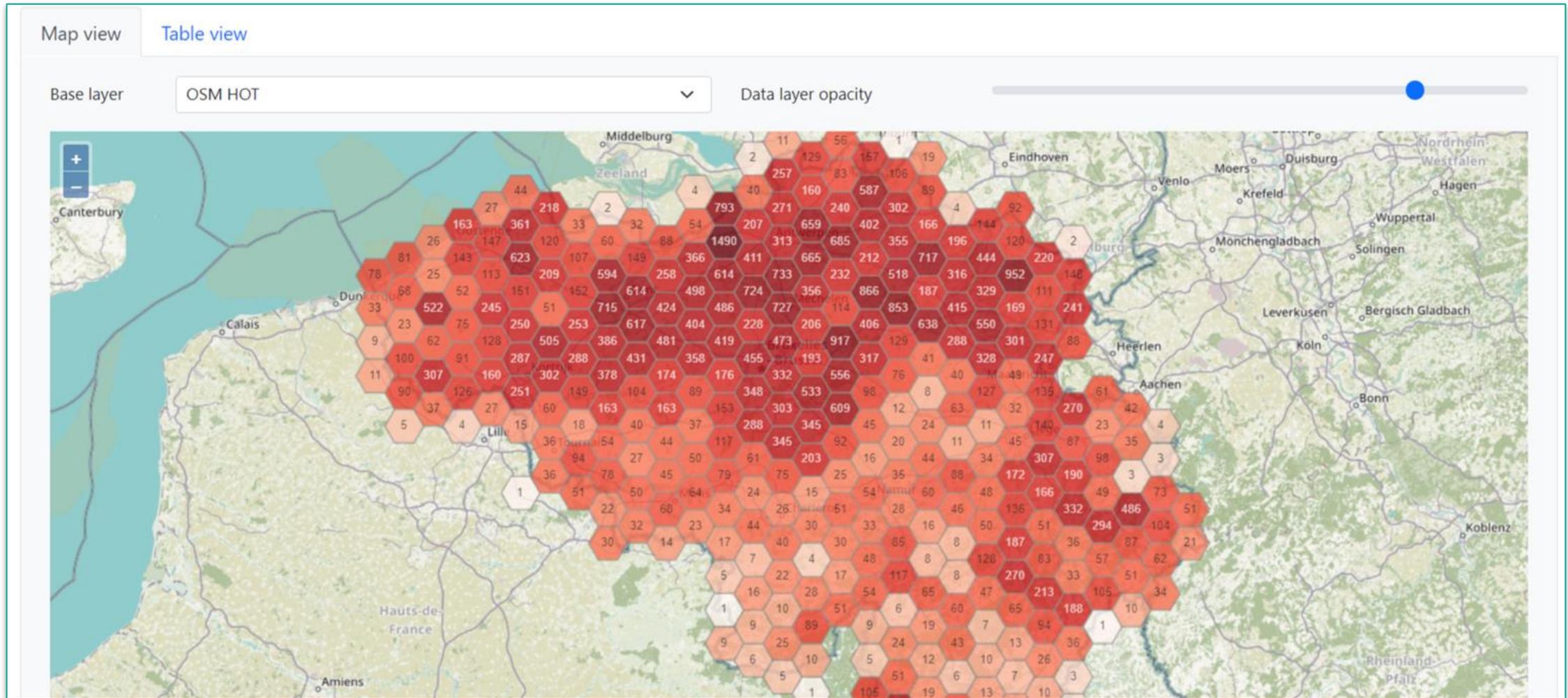
Overgeslagen waarnemingen in [GBIF download](#)
2.707

GBIF predicate

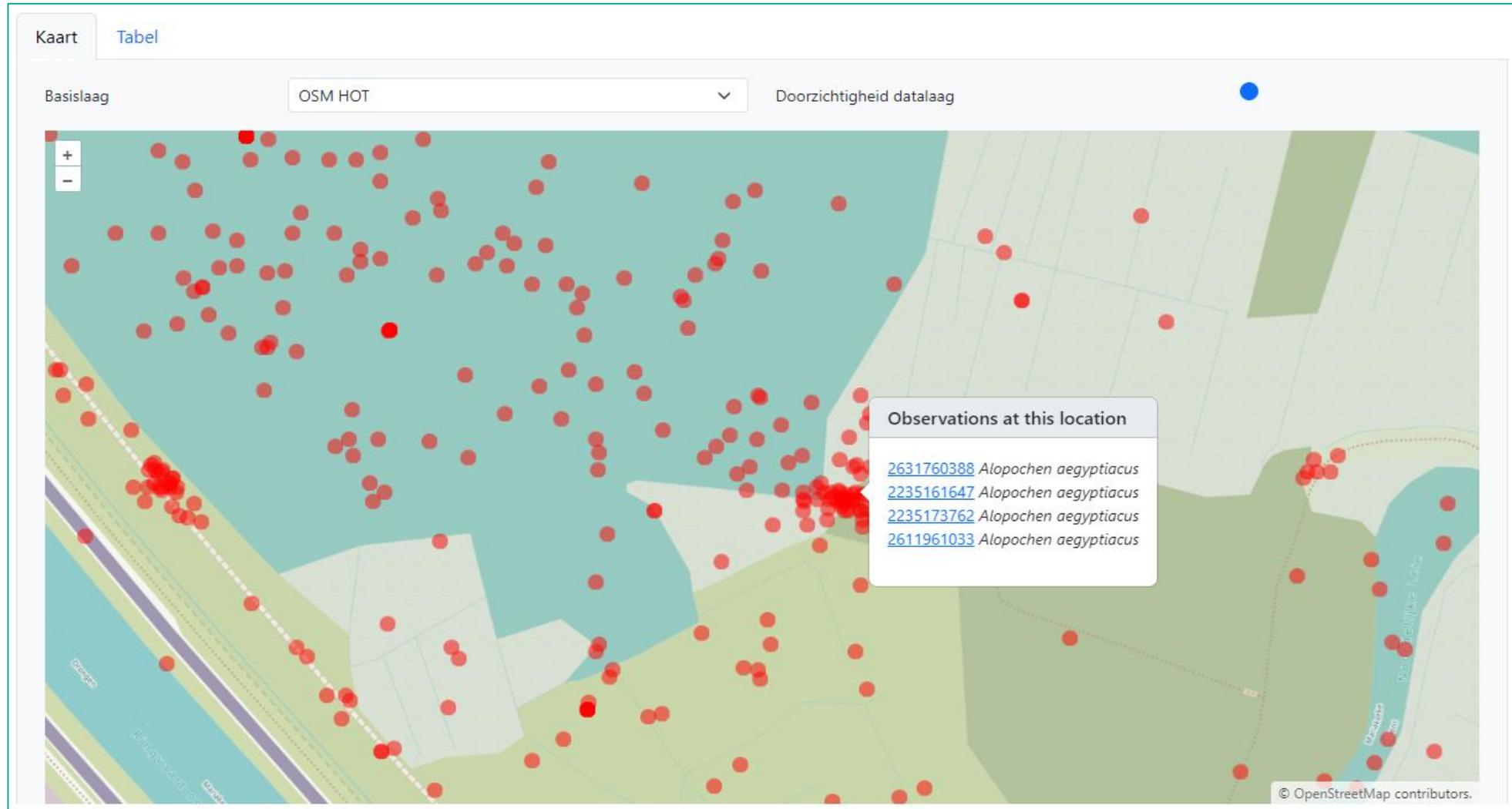
```
{'predicate': {'type': 'and', 'predicates': [{'key': 'COUNTRY', 'type': 'equals', 'value': 'BE'}, {'key': 'TAXON_KEY', 'type': 'in', 'values': ['2978552', '2489005', '3190653', '2498252', '3084923', '2340977', '2706080', '5328593', '2502792', '3170247', '2440934', '3129663', '2882443', '2437394', '2437399', '3189935', '3169169', '4284921', '4417558', '2704521', '2482499', '5362054', '5329263', '2702865', '2765942', '5329212', '2225776', '7346102', '8930656', '8721209', '8909595', '8979506', '8971201', '5712056', '2350580', '2350570', '2984306', '6063677', '7287606', '3034825', '3628745', '3642949', '2434271', '5384931', '2984537', '7978544', '2891770', '8848208', '2865565', '9799308', '2394486', '8114276', '5855350', '2427091', '5421039', '5420991', '2650436', '2869311', '5289808', '2394604', '2440946', '4264680', '5361785', '5361762', '2433536', '2434552', '5219858', '2498305', '2226990', '3086784', '5828232', '2390064', '4033648', '3088310', '2870583', '7965247', '2766030', '2227289', '2227300', '9442269', '5218786', '5358460', '2362868', '2977647', '2486131', '5824863', '5274863', '5384932', '5219681', '5219683', '5035187', '5035230', '5035017', '2437450', '2480764', '2443002', '3054399', '1311477', '1315391', '5217334', '10919373']}, {'key': 'OCCURRENCE_STATUS', 'type': 'equals', 'value': 'present'}, {'key': 'YEAR', 'type': 'greaterThanOrEquals', 'value': 2013}]}}
```

[Toon alle gegevens imports](#)

1. Early Alert: web application



1. Early Alert: web application



1. Early Alert: web application

- GBIF ID: link to full observation on GBIF
- Species: scientific name (vernacular name)
- Individual count
- Source dataset: link to GBIF dataset
- Basis of record, type of record
- Date of observation
- Recorded by: recorder details
- References: link to extra information
- Map with location details: coordinates, municipality, coordinates uncertainty
- User comments
- Validation status

Observation of *Impatiens glandulifera* (reuzenbalsemien) on 29 augustus 2023

[Go back to previous page](#)

GBIF ID

[4404784451](#)

Soort

Impatiens glandulifera (reuzenbalsemien)

Individual count

1

Source dataset

[Waarnemingen.be - Non-native plant occurrences in Flanders and the Brussels Capital Region, Belgium](#)

Basis of record

HUMAN_OBSERVATION

Date

29 augustus 2023

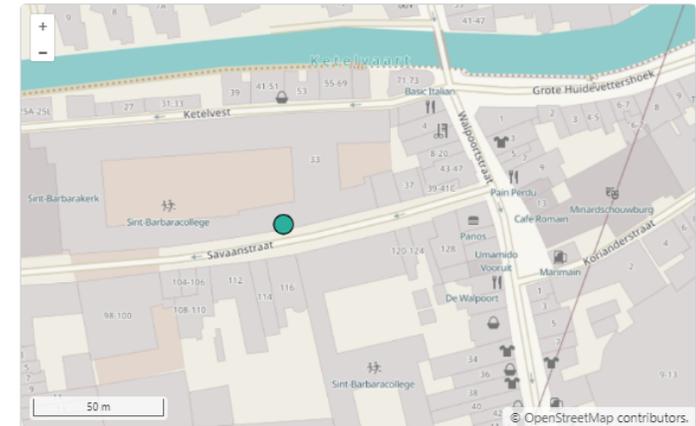
Recorded by

References

<https://waarnemingen.be/observation/286112690>

First imported during

Data import #502 (9 september 2023 23:14)



Location

Coordinates

3.7258100000000005, 51.04888

Coordinates uncertainty

6 meters

① the green circle accurately represents the coordinates uncertainty

Municipality

Gent

Locality

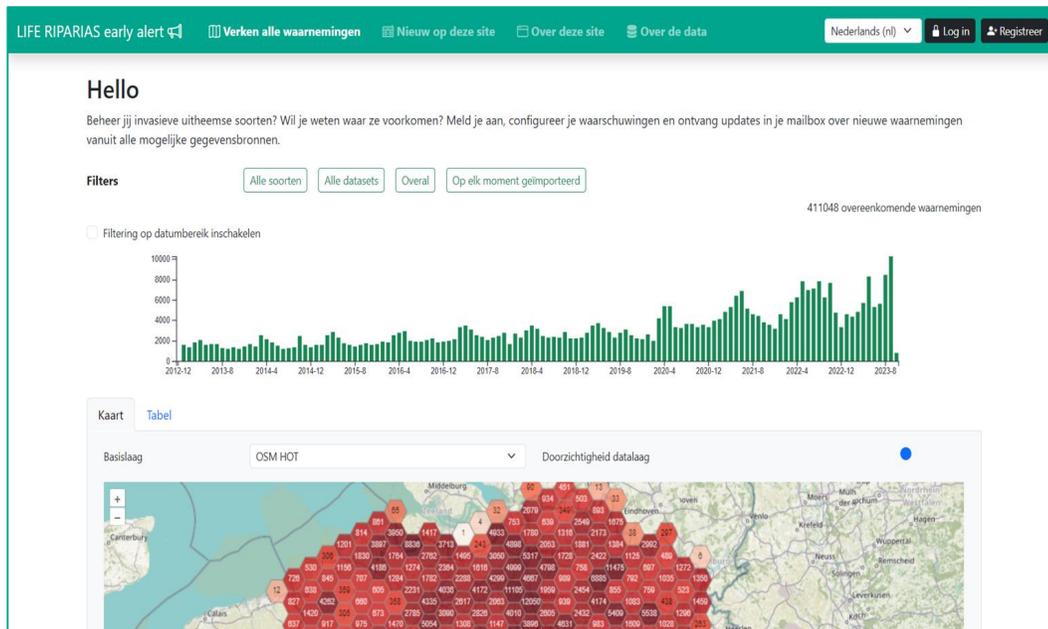
unknown

User comments

No comments yet for this observation!

[Please sign in to be able to post comments.](#)

1. Early Alert: open source for wider use



Guarding European Waters from Invasive Alien Species (GuardIAS)

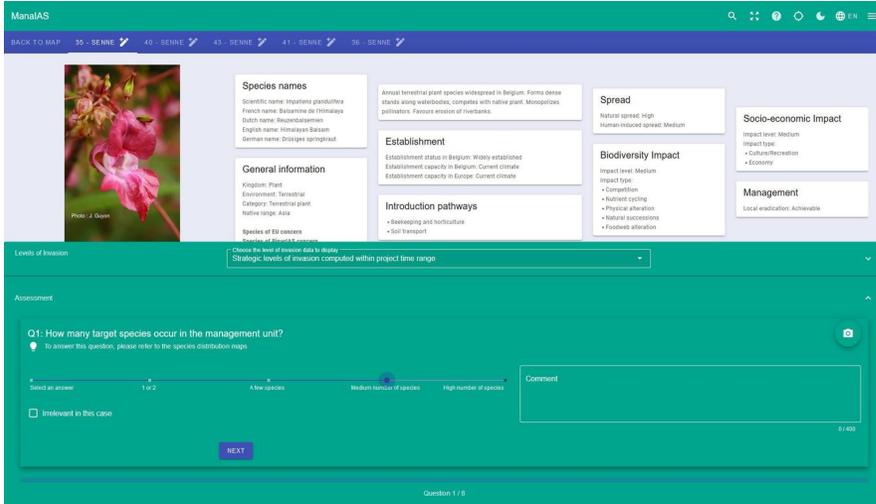
OneBiosecurity Systems and Technology for People, Places and Pathways (OneSTOP)

Technical tools to optimize the workflow

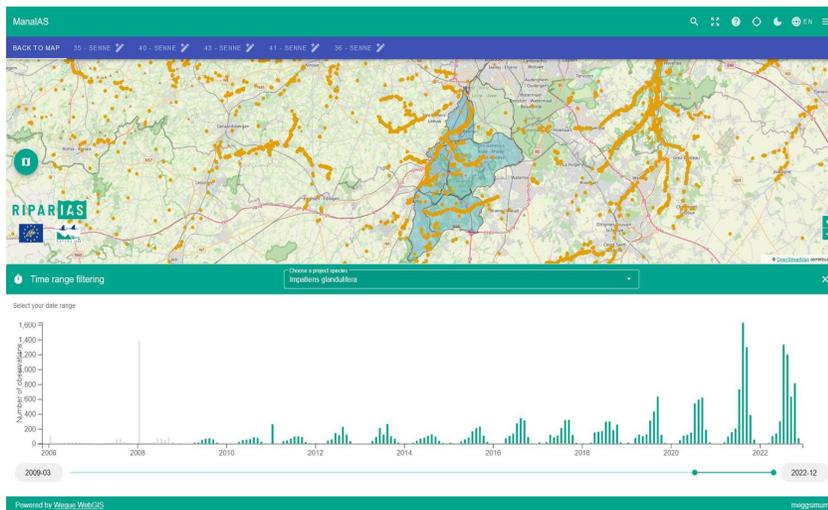


2. ManalAS: supporting decision making on management

- ✓ Common decision framework
- ✓ Spatially explicit
- ✓ Generic across diverse taxonomic groups
- ✓ Open source
- ✓ Prioritisation of actions:
 - Which species?
 - Where?
 - How?



The screenshot displays the ManalAS web interface. At the top, there's a navigation bar with 'BACK TO MAP' and several 'SENNE' buttons. The main content area is divided into several panels: 'Species names' (with scientific and common names), 'General information' (including Kingdom, Environment, and Category), 'Establishment' (status and capacity), 'Introduction pathways' (like seedling and soil transport), 'Spread' (natural and human-induced), 'Biodiversity Impact' (impact level and types), 'Socio-economic Impact' (level and types), and 'Management' (local mediation). Below these panels, there's a 'Levels of invasion' dropdown and an 'Assessment' section with a question: 'Q1: How many target species occur in the management unit?'. A progress bar shows '1 of 2' and a 'NEXT' button is visible.



2. ManaIAS: criteria for prioritisation

Who are the workshop participants?

Ice breaker activity ...



26 participants

International

1. Emmanuelle Sarat – Centre de ressources des EEE (France)
2. Madeleine Freudenreich – Centre de ressources des EEE (France)
3. Eithne Davis – IT Sligo, Invasivesnet (Ireland)
4. Olaf Booy – Non Native Secretariat, APHA (United Kingdom)
5. Elena Tricarico – University of Florence, Life RARITY (Italy)
6. Johan van Valkenburg - Nederlandse Voedsel- en Warenautoriteit (the Netherlands)
7. Alexia Fish – APHA, Life RAPID (United Kingdom)
8. Jane Reniers – NSS IAS (Belgium)
9. Manou Pfeiffenschneider – Efor-Ersa (Luxemburg)
10. Alain Klein – Naturpark Our (Luxemburg)

RIPARIAS - content users

1. Etienne Branquart - DEMNA-SPW
2. Adrien Lattli - DEMNA-SPW
3. Tim Adriaens - INBO
4. Bram D'hondt - INBO
5. Dido Gosse - Contrat de rivières
6. Jeremie Guyon - Contrat de rivières
7. Xavier Vermeersch - Brussels Environment
8. Arnaud Monty - ULiège
9. Stijn Van Onsem - VMM

RIPARIAS - developers

1. Sonia Vanderhoeven - BBPF
2. André Haughebaert - BBPF
3. Julien Cigar - BBPF
4. Divija Jata - BBPF
5. Marie Patinet - ULiège
6. Damiano Oldoni - INBO
7. Florence Limet - Brussels Environment

Why are we all here today?



Created by Adrien Coquet from Noun Project

In order to **collaboratively** identify the **criteria** to be taken into account for the development of a **decision support tool** on IAS **management** at the scale of a river basin

The screenshot shows a Zoom meeting in progress. The main window displays a grid of 16 participants, including 'You', 'Madéline Freudenreich', 'Olaf Booy', 'Johan van Valkenburg', 'Alexia Fish', 'Dram D'hondt', 'Dido Gosse', 'Jeremie Guyon', 'Alain Klein', 'Emmanuelle Sarat', 'Sonia Vanderhoeven', 'Emmanuelle Sarat', 'Tim Adriaens', and 'Adrien Lattli'. A chat window on the right shows a list of participants and a message: 'appel en cours'. The shared screen displays a board with several cards related to IAS management criteria, such as 'Hazardous stage concerning the workshop IAS', 'Legal obligations (European and national legislations)', 'Manageability', 'IAS ecological impact', 'Legal obligations', 'Position on the upstream components continuum', 'Chance of getting agreement from multiple stakeholders in the watershed', 'Consideration value of the species generated by the management measures', 'Dispersal risk', 'Presence of multiple IAS', 'Position on the upstream components continuum', 'Ownership or responsibility of management for the', 'Distribution data of other IAS with the same habitat requirements', 'Filterability of IAS if the confined', 'Missed systems of private rivers', and 'Using structured representation'. The board also includes a section for 'after workshop next steps'.

2. ManalIAS: web application

Welcome to ManalIAS - the Life RiparIAS decision support tool

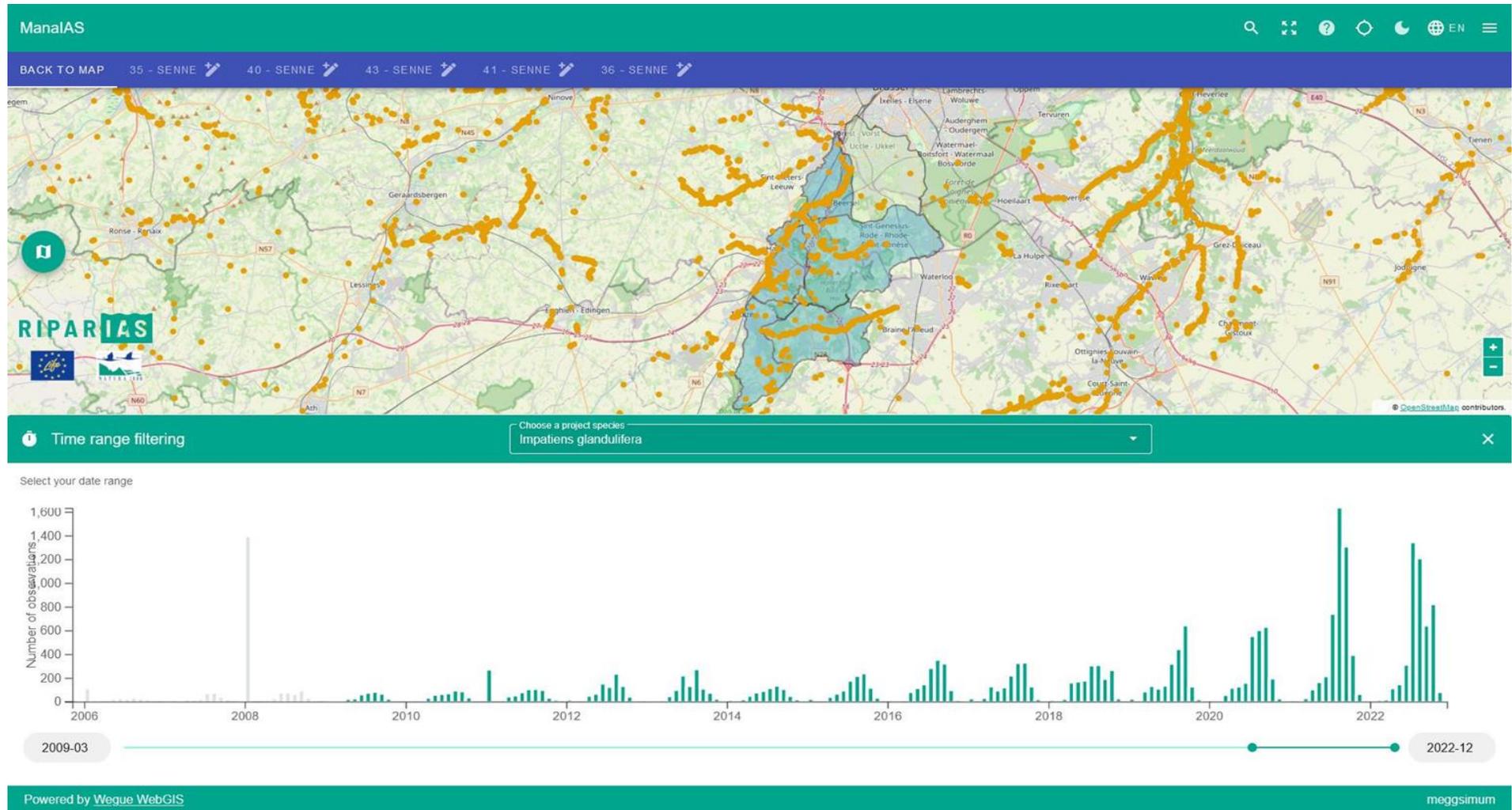
ManalIAS is an online system aiming to guide managers and decision makers involved in decision making processes on invasive alien species management. This tool has been developed as part of the [Life RIPARIAS project - Reaching Integrated and Prompt Response to Invasive Alien Species](#).

The version currently available is *ManalIAS V1.0*

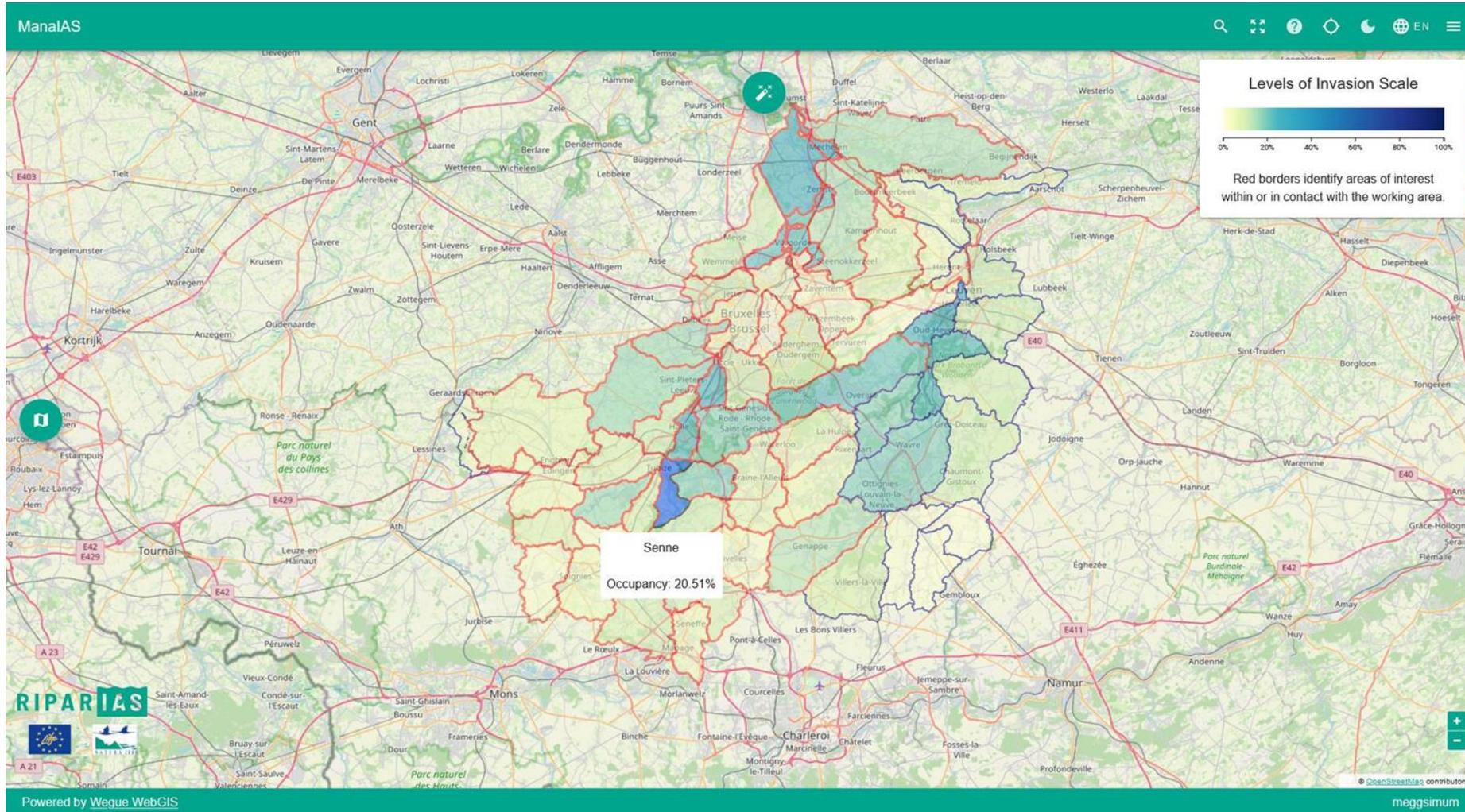
Create a project to:	PRIORITIZE SPECIES	This module allows the prioritisation of species to be managed in an area of interest.
	PRIORITIZE AREAS	This module allows the identification of priority areas to be managed for an individual species or for a selection of species.
Open an existing project:	YOUR PROJECTS	
Identify species management techniques:	MANAGEMENT TECHNIQUES	This page will present you the best management practice guides that were produced as part of the RiparIAS project.



2. ManaIAS: web application using GBIF alert



2. ManaIAS: web application – Invasion levels



2. ManaIAS: web application - layers

The screenshot displays the ManaIAS web application interface. At the top, there is a navigation bar with the title "ManaIAS" and several utility icons (search, home, help, settings, language, and menu). Below this is a dark blue bar containing navigation links: "BACK TO MAP" and five "35 - SENNE" through "36 - SENNE" buttons, each with a small map icon. The main area is a map of a region in Belgium, showing towns like Bierghes, Tubize, Clabecq, and Braine-le-Comte. The map features various colored overlays: orange dots for species, blue hatched areas for strategic refinement, and green hatched areas for sites perimeters. A "Layers" panel is open on the right side, listing the following layers with their respective visibility and styling options:

- My Species - Hexbins
- My Species - Dots
- Levels of Invasion
 - Impatiens glandulifera - project time range
 - Impatiens glandulifera - your time range
- My Area
 - Strategic Refinement
 - Geographic Units
- Geographic Units
- Strategic Units
- Corine Land Cover
- Nature Conservation
- Natura 2000
 - Sites Perimeters
 - Management Units

At the bottom left, there is a logo for "RIPARIAS" and the text "Powered by Weque WebGIS". At the bottom right, the name "meggsimum" is visible.

2. ManaIAS: web application – species ID sheets

Vue.js / OpenLayers WebGIS

BACK TO MAP IMPATIENS GLANDULIFERA



Impatiens glandulifera

Species names

Scientific name: *Impatiens glandulifera*
French name: Balsamine de l'Himalaya
Dutch name: Reuzenbalsemien
English name: Himalayan Balsam
German name: Drüsiges springkraut

General information

Kingdom: Plant
Environment: Terrestrial
Category: Terrestrial plant
Native range: Asia

Species of EU concern
Species of RiparIAS concern

Annual terrestrial plant species widespread in Belgium. Forms dense stands along waterbodies, competes with native plant. Monopolizes pollinators. Favours erosion of riverbanks.

Establishment

Establishment status in Belgium: Widely established
Establishment capacity in Belgium: Current climate
Establishment capacity in Europe: Current climate

Introduction pathways

- Beekeeping and horticulture
- Soil transport

Spread

Natural spread: High
Human-induced spread: Medium

Biodiversity Impact

Impact level: Medium
Impact type:

- Competition
- Nutrient cycling
- Physical alteration
- Natural successions
- Foodweb alteration

Socio-economic Impact

Impact level: Medium
Impact type:

- Culture/Recreation
- Economy

Management

Local eradication: Achievable

Levels of Invasion: Choose the level of invasion data to display Strategic levels of invasion computed within project time range

Assessment

2. ManaIAS: web application – questionnaire

The screenshot displays the ManaIAS web application interface. At the top, there is a navigation bar with the title "ManaIAS" and various utility icons. Below this is a breadcrumb trail: "BACK TO MAP" followed by several location-based links like "35 - SENNE".

The main content area is divided into several informational panels for the species *Impatiens glandulifera* (Himalayan Balsam):

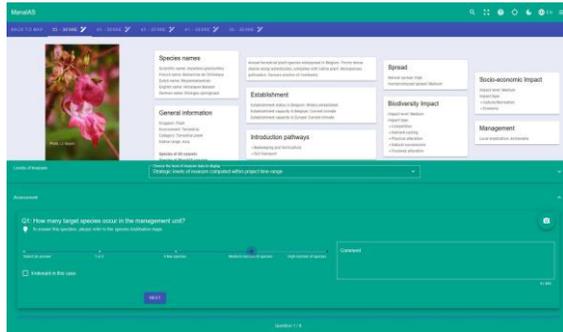
- Species names:** Lists scientific, French, Dutch, English, and German names.
- General information:** Provides taxonomic details like Kingdom (Plant), Environment (Terrestrial), and Native range (Asia).
- Annual terrestrial plant species:** Describes its prevalence in Belgium and its impact on pollinators and riverbanks.
- Establishment:** Details its status and capacity in Belgium and Europe.
- Introduction pathways:** Lists methods like beekeeping, horticulture, and soil transport.
- Spread:** Indicates high natural spread and medium human-induced spread.
- Biodiversity Impact:** Notes a medium impact level with effects on competition, nutrient cycling, physical alteration, natural successions, and foodweb alteration.
- Socio-economic Impact:** Shows a medium impact level affecting culture/recreation and the economy.
- Management:** States that local eradication is achievable.

Below the information panels, there is a section for "Levels of Invasion" with a dropdown menu set to "Strategic levels of invasion computed within project time range".

The "Assessment" section contains a questionnaire question: "Q1: How many target species occur in the management unit?". It includes a tip to refer to species distribution maps and a horizontal scale with markers for "1 or 2", "A few species", "Medium number of species", and "High number of species". A "NEXT" button is positioned below the scale. To the right of the scale is a "Comment" text area with a character count of "0 / 400".

At the bottom of the interface, it indicates "Question 1 / 8".

2. ManaIAS: web application – questionnaire



Criteria

- Species of EU concern
- Regional concern
- Level of infestation
- Level of environmental impact
- Level of socio-economic impact
- Risk of further spread
- Risk of spread in neighbouring areas/countries
- Risk of re-invasion
- Invasion in high conservation areas
- Feasibility of eradication

2. ManaIAS: reporting, transparency and replicability

Life RiparIAS project report

Project name Species Gembloux
 Created by Sébastien Ronveaux (Belspo)
 Created on 7/11/2023
 Closed on 7/11/2023

Have contributed to the project
 οὐκ οὐκ (vixit)

This project is giving priority to Species
 At this time, the effective questionnaire was the Beta RiparIAS - Species 1.0



Selected species and areas to prioritize

You have chosen to work with the following species:

- *Heracleum mantegazzianum*
- *Impatiens glandulifera*

You have chosen to work at the river basin scale.
 The table below lists the selected areas and the levels of invasion that were computed at that moment:

Area	Occupancy	Level of Invasion
Zenne - Senne	33 %	Heavily invaded

Table of contents

Selected species and areas to prioritize	3
Relative weights of questions	4
Assessments	
• <i>Heracleum mantegazzianum</i>	5
• <i>Impatiens glandulifera</i>	8
Conclusions	
Your priorities	10
Annexes	
Species ID Cards	
• <i>Heracleum mantegazzianum</i>	12
• <i>Impatiens glandulifera</i>	13

Your priorities

Here are the results computed based on your answers:

Target Name	Score
<i>Heracleum mantegazzianum</i>	33
<i>Impatiens glandulifera</i>	30

From the previous table, you've selected the following targets to be your priorities:

Target Name	Score
<i>Heracleum mantegazzianum</i>	33

Here are the conclusions regarding your priorities:

Pas assez d'argent pour gérer les deux...

Heracleum mantegazzianum



Species Names

Scientific name: *Heracleum mantegazzianum*
 French name: Berce du Caucase
 Dutch name: Reuzebereide
 English name: Giant hogweed
 German name: Riesenbärenklau

General Information

Kingdom: Plant
 Environment: Terrestrial
 Category: Terrestrial plant
 Native range: Eastern Europe, Western Asia

Species of EU concern
 Species of RiparIAS concern

Monocarpic perennial herbaceous plant widespread in Europe. Famous as an ornamental, and also occurring as a contaminant of food produce in international trade. Tends to form monospecific stands with large standing biomass and extensive litter production, impacting ecosystem properties. Public health concern as it causes serious burnings.

Introduction pathways

- Escape from confinement, horticulture
- Soil transport

Establishment

Establishment status in Belgium: Widely established
 Establishment capacity in Belgium: Current climate
 Establishment capacity in Europe: Current climate

Spread

Natural spread: High
 Human induced spread: High

Biodiversity Impact

- Impact level: High
 Impact type:
- Competition
 - Nutrient cycling
 - Physical alteration
 - Natural successions
 - Foodweb alteration
 - Genetic effect

Socio-economic Impact

- Impact level: High
 Impact type:
- Health
 - Culture/Recreation
 - Economy

Management

Local eradication: Achievable

Heracleum mantegazzianum

12

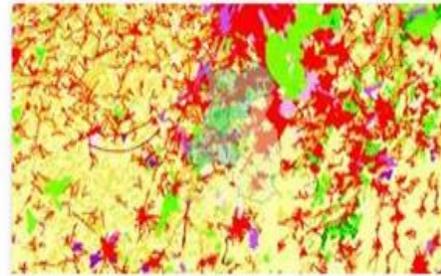
2. ManaIAS: reporting, transparency and replicability

Project name	Framework	Workflow	Created on	Status	Report	Features
ELMEN field visit	RiparIAS	Area	13/2/2024	Open		 
Test crispy	RiparIAS	Species	5/2/2024	Open		
Test Luxembourg 2	Luxemburg	Species	2/2/2024	Open		
Test présentation novembre	Development	Species	9/11/2023	Open		
Species Gembloux	RiparIAS	Species	7/11/2023	Closed		 
Tests Hover Tooltips	Development	Species	16/10/2023	Open		
Copy of Test JSON features	Development	Species	4/10/2023	Open		
Test JSON features	Development	Species	4/10/2023	Closed		
Test Luxembourg - target_id	Luxemburg	Area	28/9/2023	Closed		
Test Luxembourg Framework - Species	Luxemburg	Species	11/9/2023	Open		
SummaryTest	Development	Species	29/8/2023	Closed		
Test area with more species	Development	Area	23/8/2023	Open		
Test Wegue 1.2.1	Development	Species	4/8/2023	Closed		 
Test with framework - RiparIAS	RiparIAS	Species	3/7/2023	Open		 
Test with framework - Species	Development	Species	26/6/2023	Open		
Test Dunias Species	Development	Species	6/6/2023	Closed		 
Copy of Test project Luxembourg - Species	Development	Species	17/5/2023	Closed		 

ManaIAS: reporting, transparency and replicability



Type: Snapshot



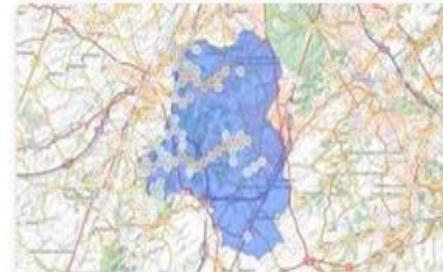
Type: Snapshot



Type: Snapshot



Type: Snapshot

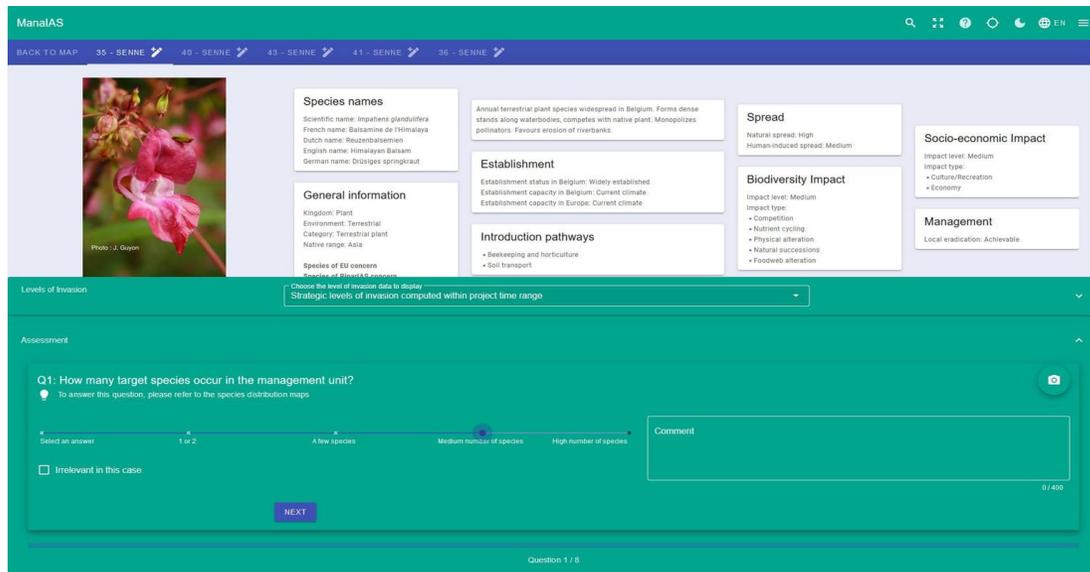


Type: Snapshot



2. ManaIAS: open source for wider use

<https://manaias.biodiversity.be>



The screenshot displays the ManaIAS web application interface. At the top, there is a navigation bar with a search icon, a home icon, a user profile icon, and a language selector set to 'EN'. Below the navigation bar, there is a breadcrumb trail: 'BACK TO MAP' > '35 - SENNE' > '40 - SENNE' > '43 - SENNE' > '41 - SENNE' > '36 - SENNE'. The main content area is divided into several sections:

- Species names:** Scientific name: *Impatiens glandulifera*; French name: Balsamite de l'Himalaya; Dutch name: Reuzenbalsemien; English name: Himalayan Balsam; German name: Dickegiges Springkraut.
- General information:** Kingdom: Plant; Environment: Terrestrial; Category: Terrestrial plant; Native range: Asia; Species of EU concern: Yes.
- Spread:** Annual terrestrial plant species widespread in Belgium. Forms dense stands along waterbodies, competes with native plant. Monopolizes pollinators. Favours erosion of riverbanks.
- Establishment:** Establishment status in Belgium: Widely established; Establishment capacity in Belgium: Current climate; Establishment capacity in Europe: Current climate.
- Introduction pathways:** • Beekeeping and horticulture; • Soil transport.
- Biodiversity Impact:** Impact level: Medium; Impact type: • Competition; • Nutrient cycling; • Physical alteration; • Natural successions; • Foodweb alteration.
- Socio-economic Impact:** Impact level: Medium; Impact type: • Culture/Recreation; • Economy.
- Management:** Local eradication: Achievable.

Below the information sections, there is a 'Levels of invasion' dropdown menu set to 'Strategic levels of invasion computed within project time range'. The 'Assessment' section contains a question: 'Q1: How many target species occur in the management unit?' with a sub-note: 'To answer this question, please refer to the species distribution maps.' The question has a progress indicator showing '1 of 2' and a 'NEXT' button. A comment box is also present.



Co-creation of river-basin management strategies



Secrétariat de la Conférence
Interministérielle de l'Environnement
Avenue Galilée 5/2-1210 Bruxelles
Email: ccpie-ccim@health.fgov.be

PV de la CIE du 28/09/2023 par
procédure écrite

Point 1. Suivi des points de décision
des CIE précédentes

Voir tableau Excel en annexe

Point 2. Transposition du Règlement
(UE) 2023/1542 du Parlement
européen et du Conseil du 12
juillet 2023 relatif aux batteries et
aux déchets de batteries,
modifiant la directive 2008/98/CE
et le Règlement (UE) 2019/1020,
et abrogeant la directive
2006/66/CE

Décision :

Les membres de la CIE :

[1] Prennent connaissance du projet de cette note et
du tableau de transposition ci-joint ;

[2] Statuent sur l'approbation du tableau de
transposition.

Point 3. Validation de stratégies
interrégionales de gestion de
certaines espèces exotiques
envahissantes dans le cadre du
projet LIFE RIPARIAS

Décision :

[1] La CIE prend note du document qui comporte les
3 stratégies de gestion des EEE à l'échelle des bassins
versants interrégionaux de la Dyle, la Senne et la
Marq, qui a été élaboré dans le cadre du projet LIFE
RIPARIAS;

[2] La CIE valide les 3 stratégies susmentionnées en
point [1].

Vos personnes de contact

S. Hugelier Tél. 02 524 96 88
D. Lazon Tél. 02 524 96 95

Secretariaat van de Interministeriële
Conferentie voor Leefmilieu
Galileelaan 5/2-1210 Brussel
E-mail: ccpie-ccim@health.fgov.be

PV van de ICL van 28/09/2023 via
schriftelijke procedure

Punt 1. Opvolging van vorige ICL
beslissingen

Zie Excel tabel in bijlage

Punt 2. Omzetting van Verordening (EU)
2023/1542 van het Europees Parlement
en de Raad van 12 juli 2023 inzake
batterijen en afgedankte batterijen, tot
wijziging van Richtlijn 2008/98/EG en
Verordening (EU) 2019/1020 en tot
intrekking van Richtlijn 2006/66/EG

Beslissing :

De leden van de ICL :

[1] Nemen kennis van het ontwerp van deze nota en de
bijbehorende omzettafel in bijlage ;

[2] Beslissen over de goedkeuring van de omzettafel.

Punt 3. Validatie van interregionale
beheerstrategieën voor bepaalde
invasieve uitheemse soorten in het kader
van het LIFE RIPARIAS project

Beslissing :

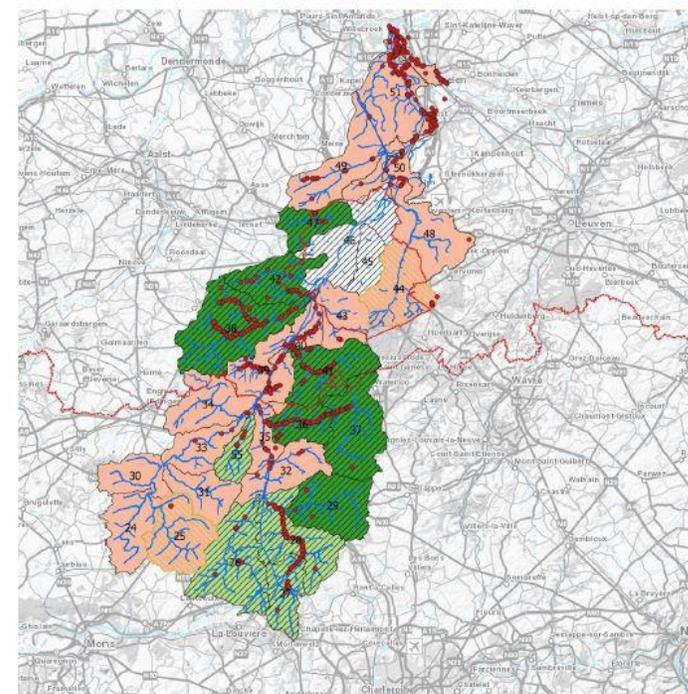
[1] De ICL neemt kennis van het document die de 3
strategieën voor het beheer van IUS voor de
interregionale stroomgebieden van de Dijle, de Zenne
en de Mark bevat, en die werd opgesteld in het kader
van het LIFE RIPARIAS-project;

[2] De ICL valideert de 3 strategieën vermeld in punt
[1].

Punt 4. Voorstel betreffende een
jaarplanning voor de vergaderingen van
de (Uitgebreide) Interministeriële
Conferentie voor het Leefmilieu (U)ICL
voor het jaar 2024

Uw contactpersonen

S. Hugelier Tél. 02 524 96 88
D. Lazon Tél. 02 524 96 95



LIFE RIPARIAS - Beheerprioriteiten
Impatiens glandulifera

Legenda :

- /// PEST FREE AREA (gebied dat moet beheerd worden om vrij van de soort te zijn)
- Populaties buiten de uiterwaarden :
- Populaties binnen de uiterwaarden :
- Beheerprioriteiten :
- RSU vrijhouden van de soort
- Te beheren RSU (zeer hoge prioriteit)
- Te beheren RSU (hoge prioriteit)
- RSU met lagere prioriteit voor beheer
- Andere symbolen :
- Riviersysteem
- Regionale grenzen
- Waarnemingen vande soort

0 5 10 km

Bron : WMM, SPW, Leefmilieu Brussel, gdf.org, CarboWeb.be (2023)

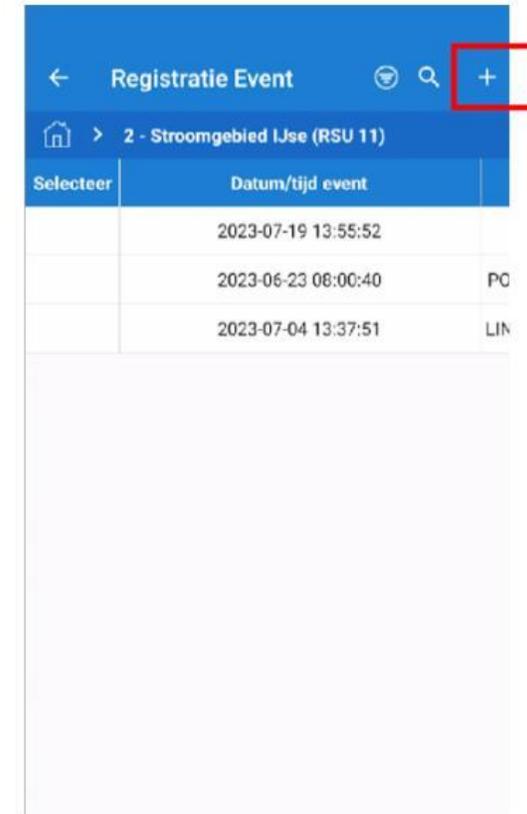
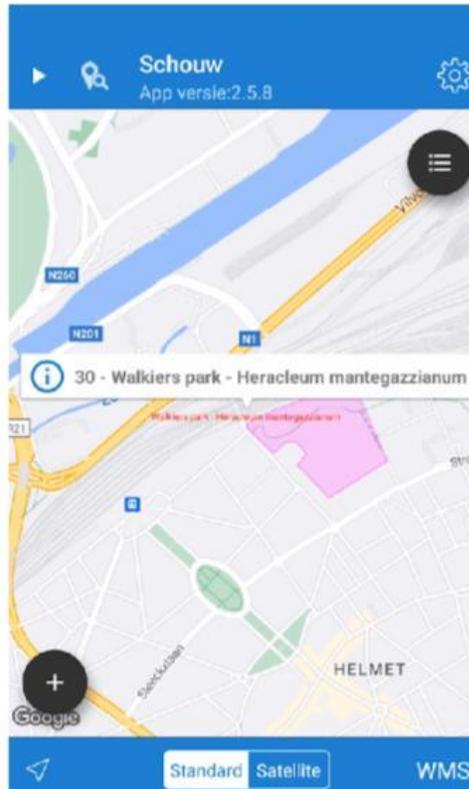
Figuur 9: Beheerprioriteiten voor *Impatiens glandulifera* in het stroomgebied van de Zenne.

Technical tools to optimize the workflow



3. iAsset: reporting on management actions

Enregistrement de nouveaux événements



3. iAsset: reporting on management actions

The screenshot displays the iASSET software interface. At the top, there is a navigation bar with tabs for 'Kaart', 'Paspoort', 'Decompositie', 'Inspectie', 'Overzicht', and 'Instellingen'. A search bar on the left contains the text 'Zoek adres'. Below the search bar is a table listing objects with columns for 'Nummer' and 'Naam'. The map area shows a street view of Brussels with various locations marked with icons and labels. A yellow line highlights a specific path on the map. The text 'Alle 3 objecten in het zichtbare gebied worden getoond. Zoomniveau is 16.' is visible above the map.

Nummer	Naam
00000002	Écrevisse Leyb...
00000004	Écrevisse Silex
00000005	Écrevisse AXA
00000006	Écrevisse Tenre...
00000007	Écrevisse Seny...
00000008	Écrevisse Parc...
00000009	Écrevisse Parc...
00000010	Écrevisse Petit ...
00000011	Écrevisse Gra...
00000012	Écrevisse Gran...
00000018	test lineaire
00000027	Hain
1	Parc Seny - Lys...
1	Test object VMM
10	Court-Saint-Eti...
11	Genappe - Még...
12	Ottignies-LLN - ...
13	Parc Meylemee...
13	Senefte - Bief 17
14	Meylemeersch ...

3. iAsset: reporting on management actions

Inspecties / Event-registration

Opslaan Annuleren

Algemeen Objecten

General

Registered by: lreyserhove Date/time event: 2024-02-15 15:48:55

GPS: External manag... Nee Ja

Detail

Species group: Riparian plant Species: Heracleum mantegazzianum

Activity: intervention Intervention:

Quantity: Other inverventi... Unit: Selecteer... Scale (add unit):

Comments:

Images

Image 1: Selecteer Image 2: Selecteer

Image 3: Selecteer Image 4: Selecteer

Image 5: Selecteer

Working hours

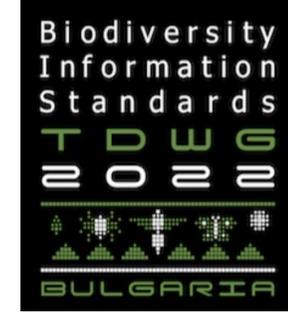
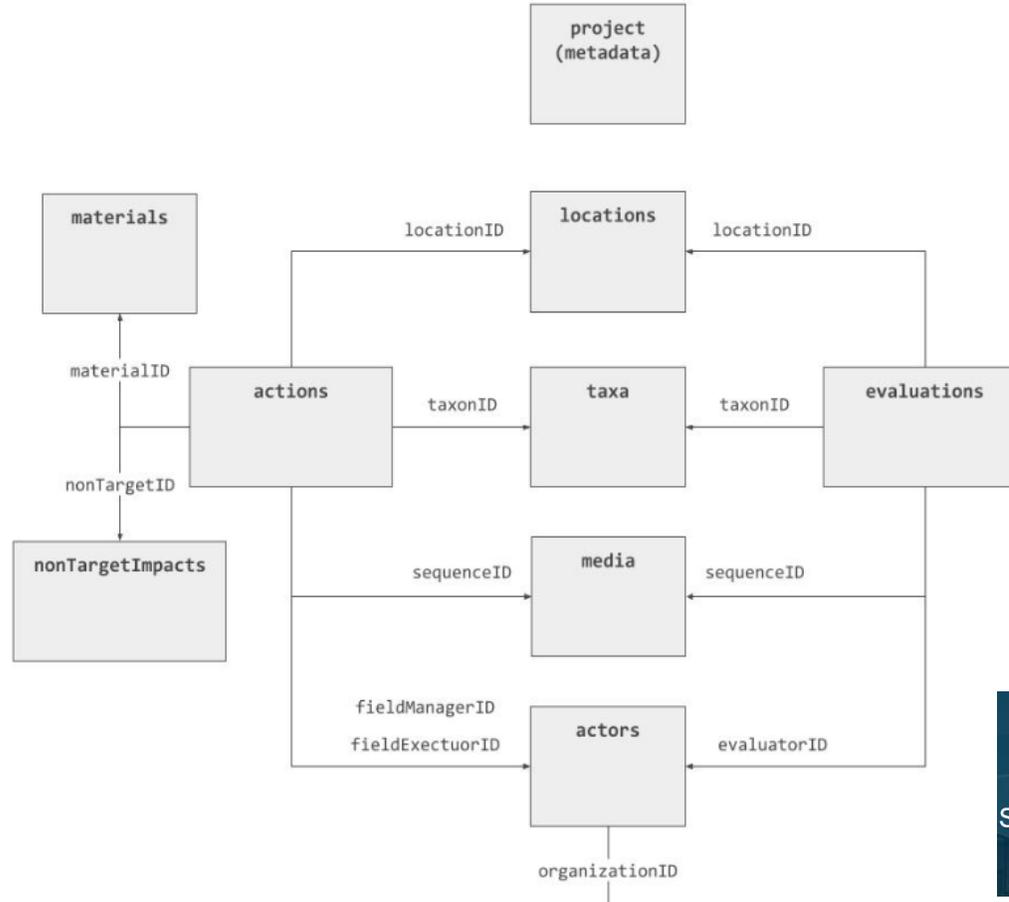
Time (hours): # employees: Total time:

Working on data standard for managing IAS and Wildlife



Joint workshop LIFE RIPARIAS / LIFE MICA

Towards a data standard for reporting on IAS management interventions



SPNHC-TDWG 2024

SPNHC & TDWG Joint Conference - A hybrid conference in Okinawa, Japan, 2-6 September 2024

4. Tracking progress: RIPARIAS dashboard

 D1 dashboard [Home](#) [Distribution](#) [Surveillance](#) [Species trends](#) [Management](#) [Site-level monitoring](#)

Welcome to the RIPARIAS Dashboard

This dashboard gathers data related to work performed within the [LIFE RIPARIAS project](#) (LIFE19 NAT/BE/000953). It allows project partners to consult basic information, and to track the project's progress.

On Data & Development

Most information shown on these webpages is publicly available through [GBIF](#), but some is internally stored on our systems. Data are analysed and visualised using [Shiny for R](#). The [Git repository](#) is accessible [here](#).

On Species

The dashboard relates to all species of the [RIPARIAS target species list](#).

Contact

The dashboard is maintained by the Research Institute for Nature and Forest (INBO), as part of action D1. The contact address for inquiries or suggestions is faunabeheer@inbo.be.



Houttuynia cordata by © Meneerke bloem



Erythranthe guttata



Procambarus clarkii by © Arnoud Monty



Zizania latifolia by © Dido Gosse



From concept to reality: difficulties encountered

- ✓ Early alert does not work without data → keep up the survey effort
- ✓ Willingness from ALL actors to publish data openly
- ✓ Decision support tool IS NOT a decision tool
- ✓ Reporting on management requires data standards
- ✓ Having the tools being used in real life
- ✓ Sustainability of the tools and their continuous improvement



Demos from 15:30 to 17:00
With Lien, Sébastien and Maxime



Thank you for your attention

For more information, please visit:
www.riparias.be