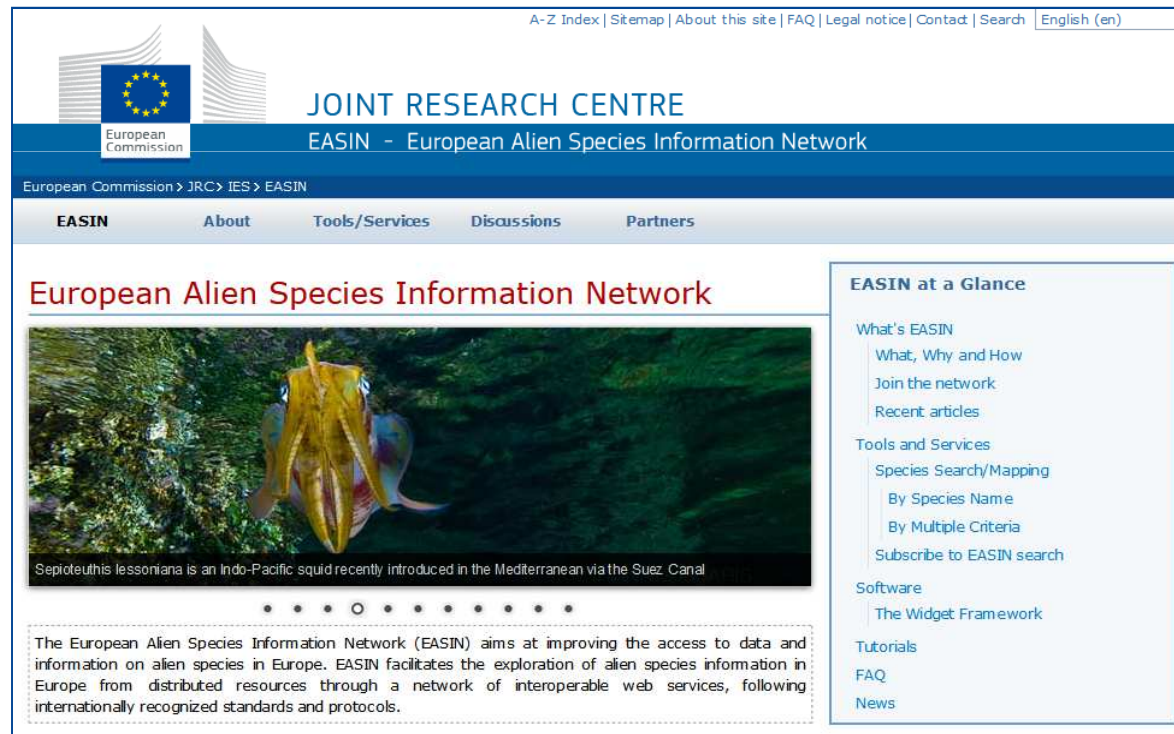


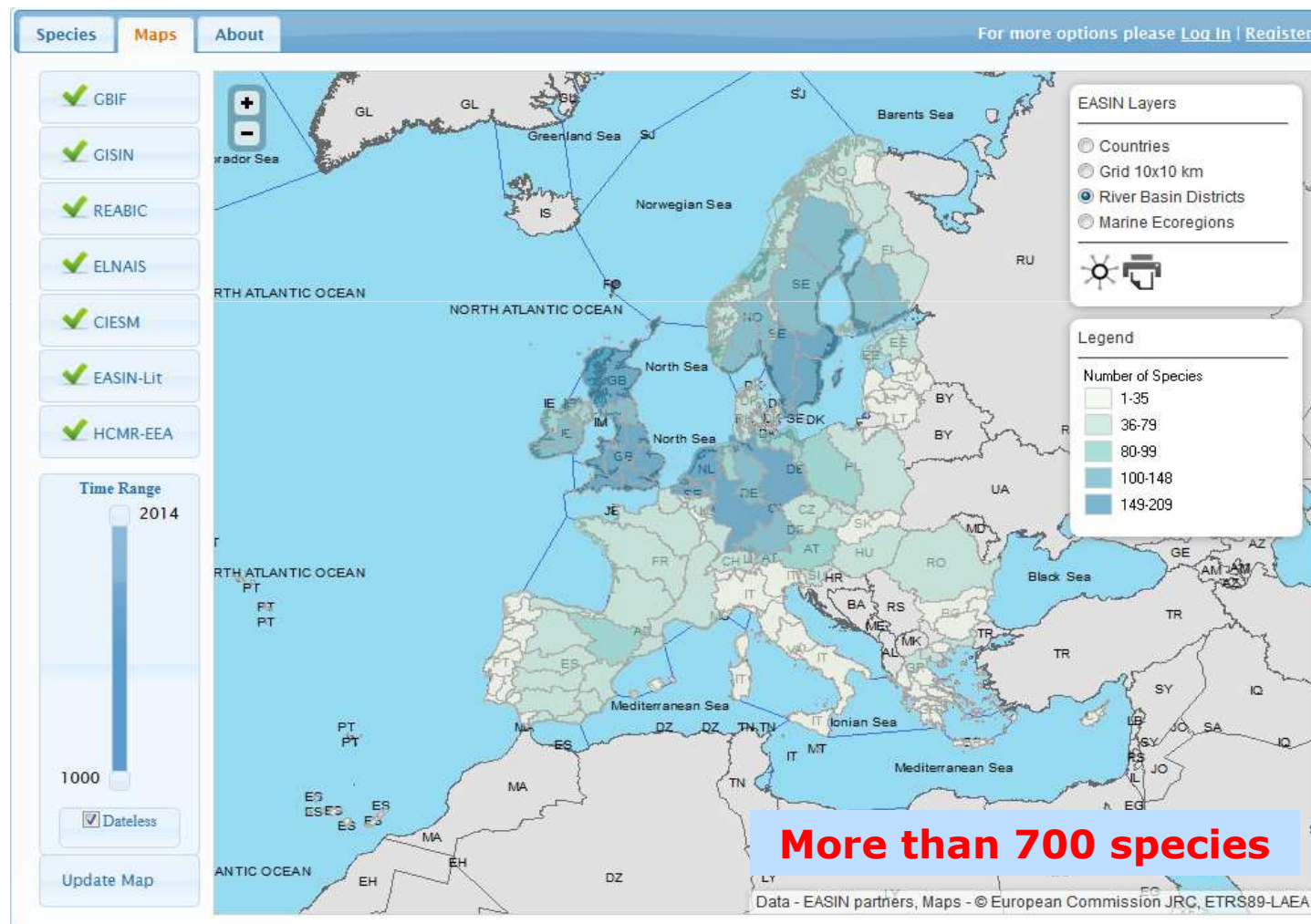
# EASIN in support of 'New strategies to fight invasive alien species in freshwaters'

**A.C. Cardoso, N. Cid and S. Katsanevakis**



The screenshot shows the EASIN website interface. At the top, there is a navigation bar with links: A-Z Index | Sitemap | About this site | FAQ | Legal notice | Contact | Search | English (en). Below this is the European Commission logo and the text "JOINT RESEARCH CENTRE" and "EASIN - European Alien Species Information Network". A breadcrumb trail reads: European Commission > JRC > IES > EASIN. The main navigation menu includes: EASIN, About, Tools/Services, Discussions, and Partners. The main content area features a large image of a squid, *Sepioteuthis lessoniana*, with the caption: "Sepioteuthis lessoniana is an Indo-Pacific squid recently introduced in the Mediterranean via the Suez Canal". Below the image is a paragraph: "The European Alien Species Information Network (EASIN) aims at improving the access to data and information on alien species in Europe. EASIN facilitates the exploration of alien species information in Europe from distributed resources through a network of interoperable web services, following internationally recognized standards and protocols." On the right side, there is a sidebar titled "EASIN at a Glance" with links: What's EASIN (What, Why and How; Join the network; Recent articles), Tools and Services (Species Search/Mapping: By Species Name, By Multiple Criteria; Subscribe to EASIN search), Software (The Widget Framework), Tutorials, FAQ, and News.

# Alien species in European freshwaters

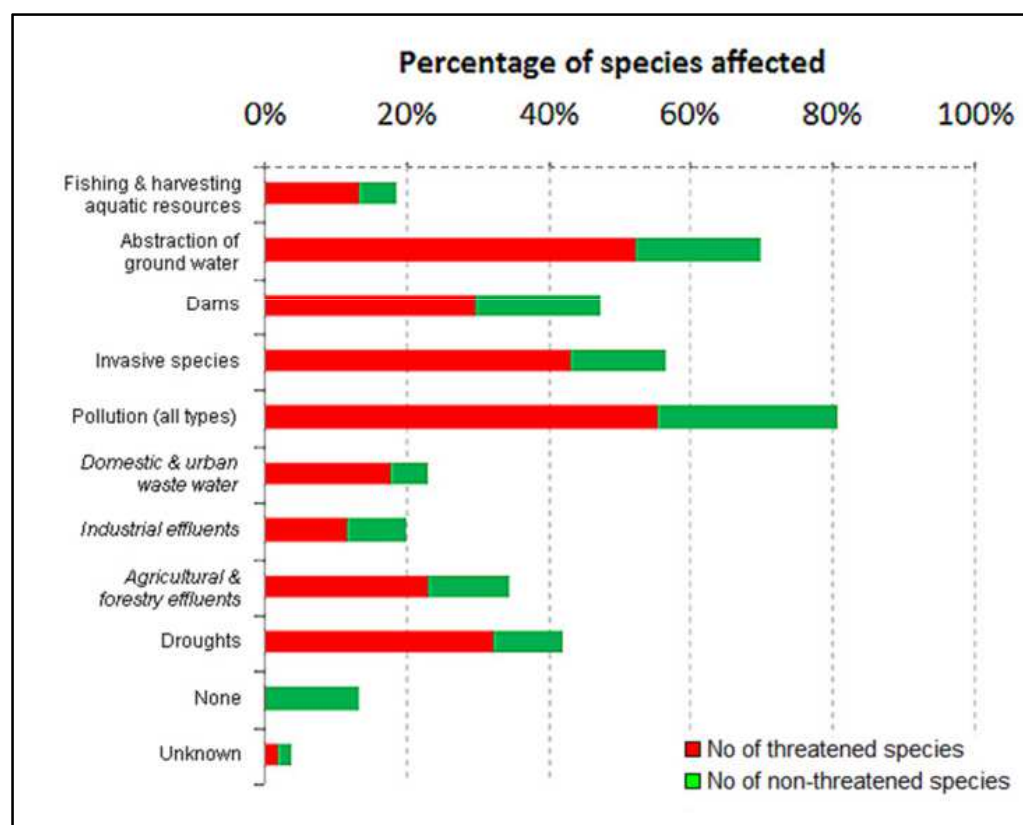


## Alien species in European freshwaters

- May have strong effects at the gene, species and ecosystems level
- Affect more than 40% of threatened freshwater fishes in Europe



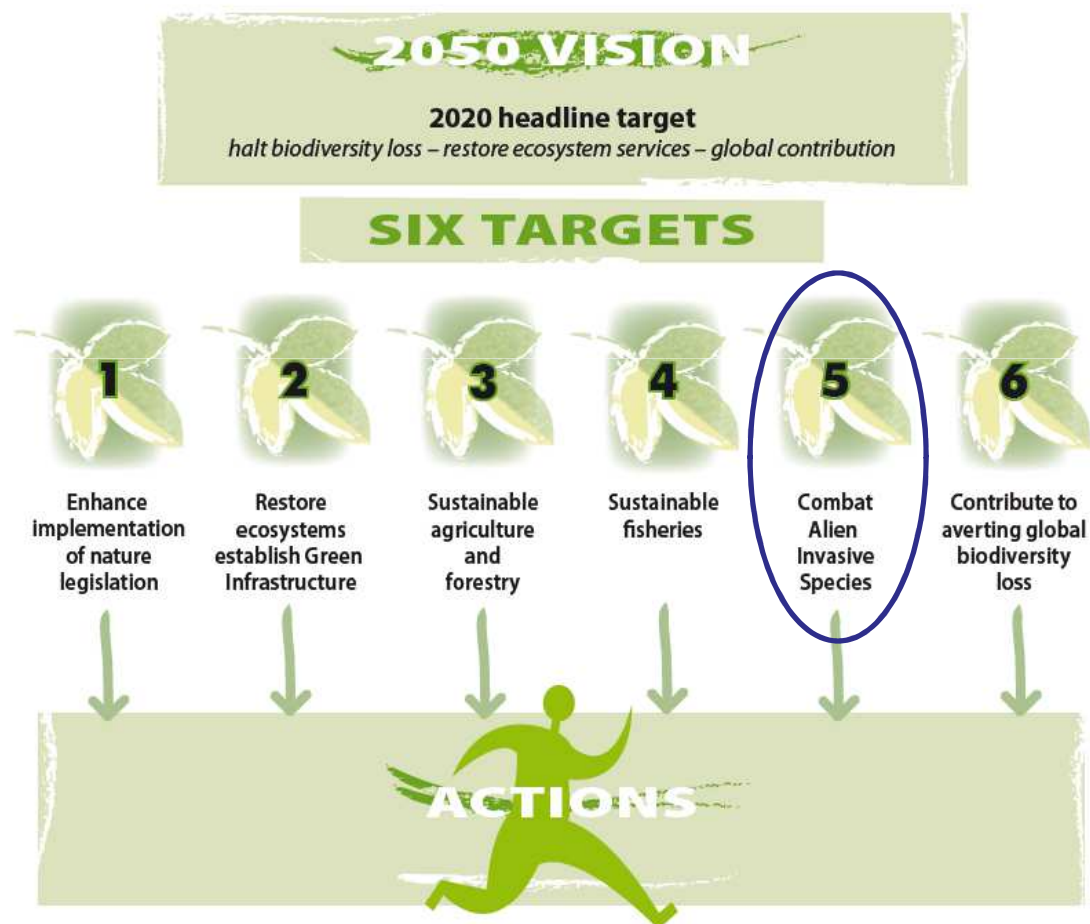
*Eriocheir sinensis*, Chinese mitten crab



**Major threats to freshwater fishes in Europe (Source IUCN)**

<http://discover.iucnredlist.org/discover>

## Structure of the EU 2020 Biodiversity Strategy



European Commission 2011



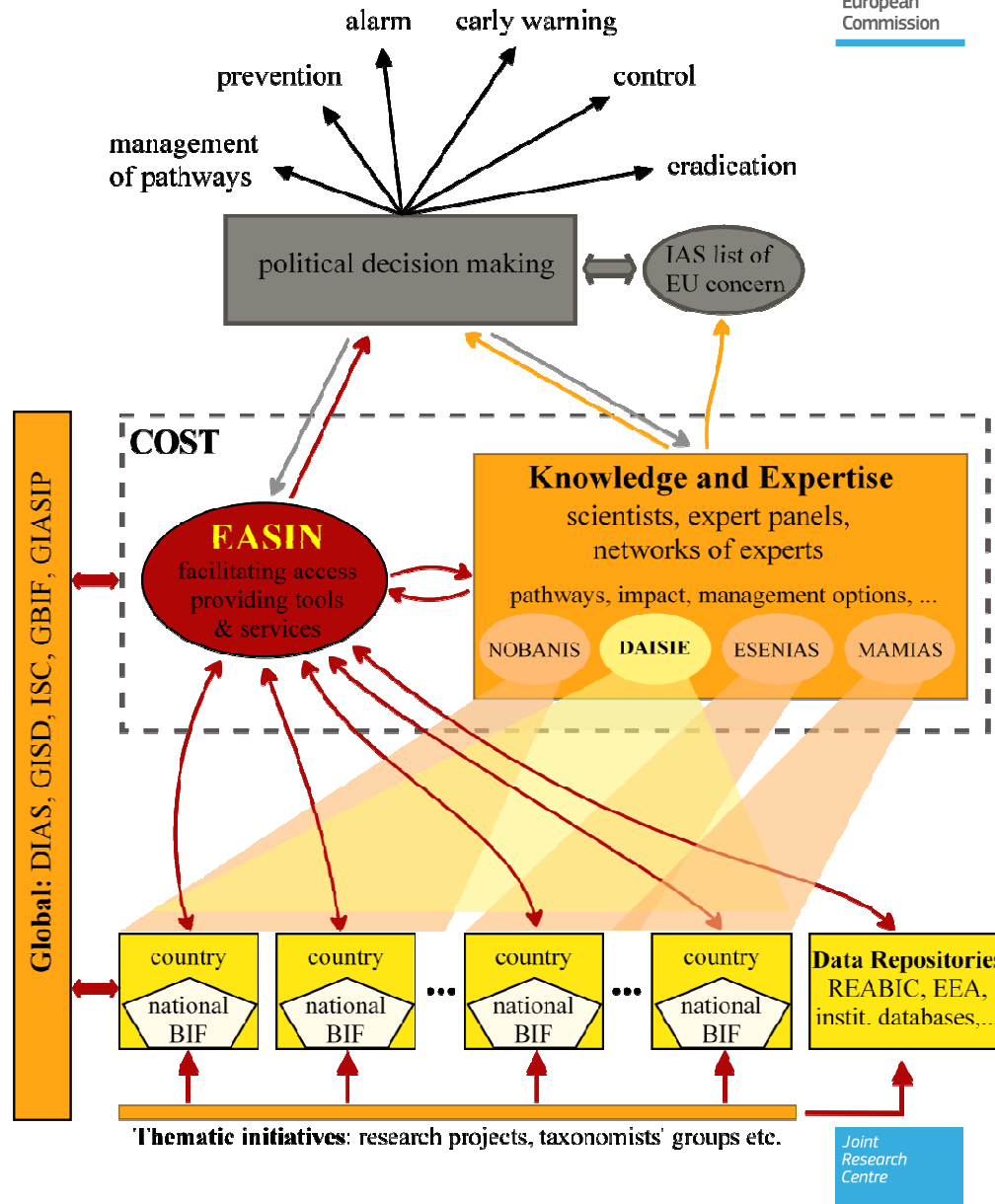
# An EU regulation on Invasive Alien Species

## Action 16 Establish a dedicated legislative instrument on Invasive Alien Species

16) The Commission will fill policy gaps in combating IAS by developing a dedicated legislative instrument by 2012.

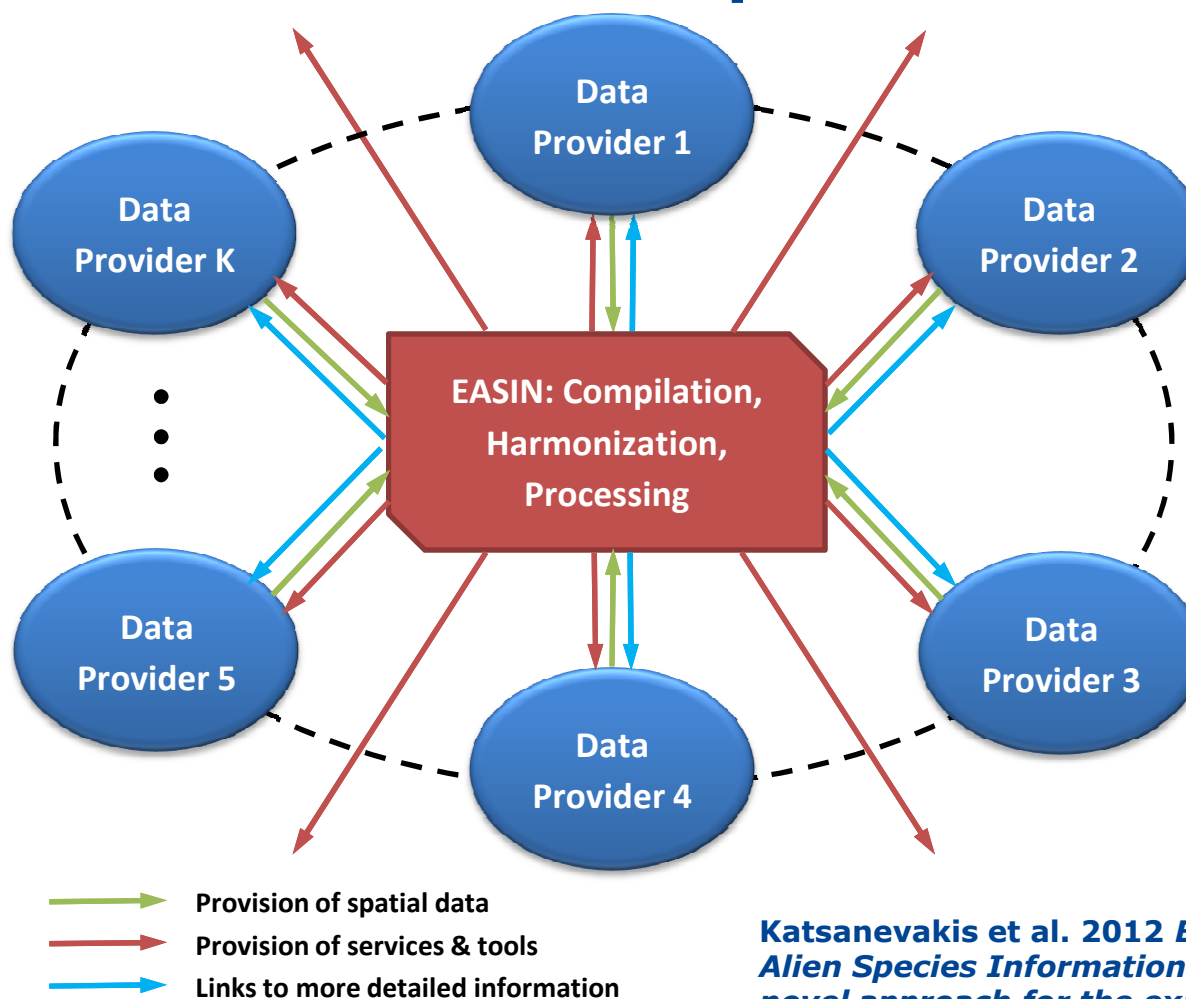
- Establishes rules to prevent, minimise and mitigate impacts of Invasive Alien Species on biodiversity and ecosystem services
- Seeks to limit social and economic damage
- **Exchange of information is crucial to support the new rules**





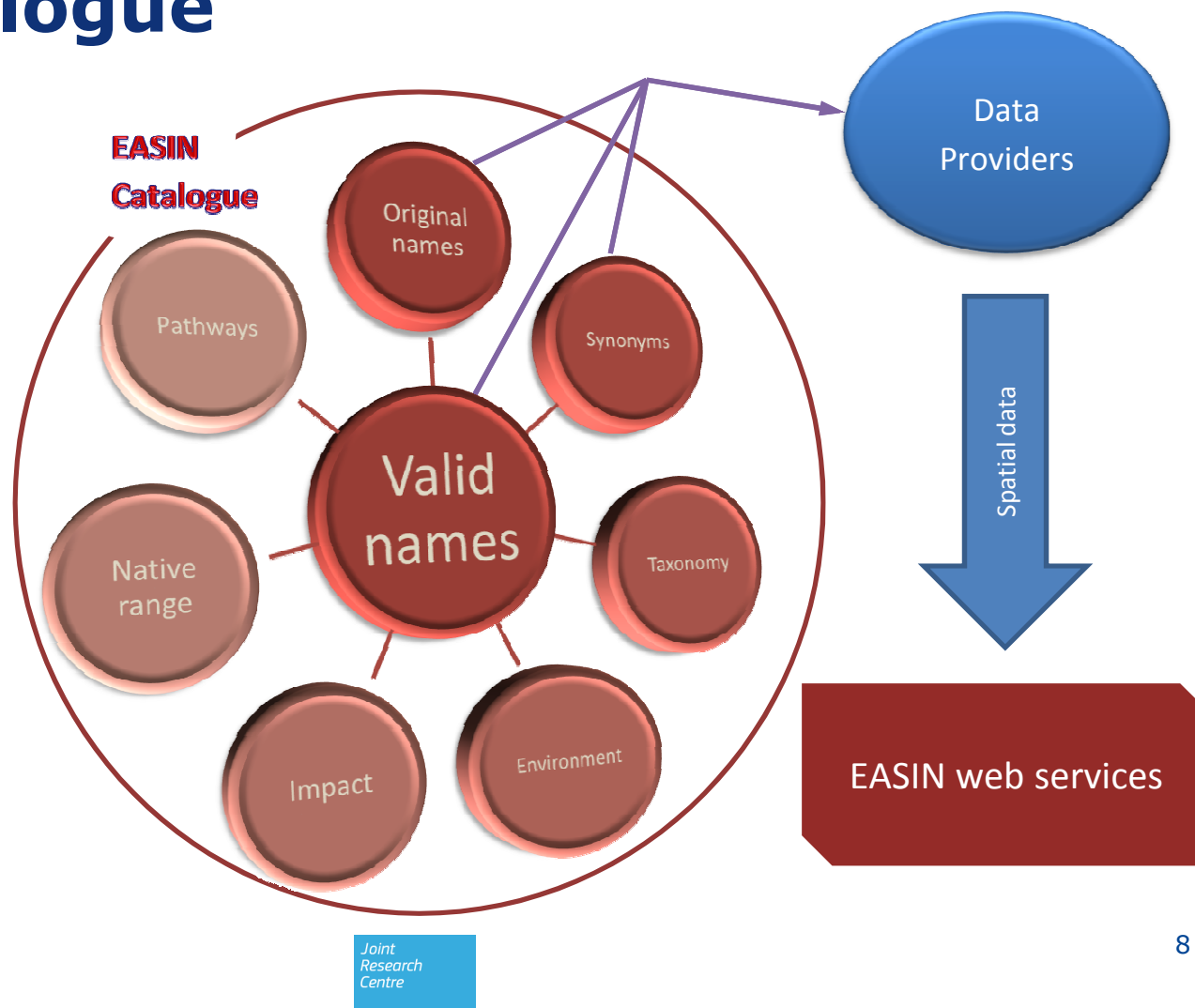
Katsanevakis S, Genovesi P, Gaiji S, Nyegaard Hvid H, Roy H, Nunes AL, Sánchez Aguado F, Bogucarskis K, Debusscher B, Deriu I, Harrower C, Josefsson M, Lucy FE, Marchini A, Richards G, Trichkova T, Vanderhoeven S, Zenetos A, Cardoso AC, 2013. Implementing the European policies for alien species – networking, science, and partnership in a complex environment. *Management of Biological Invasions* 4(1): 3–6.

## Network of online interoperable web services



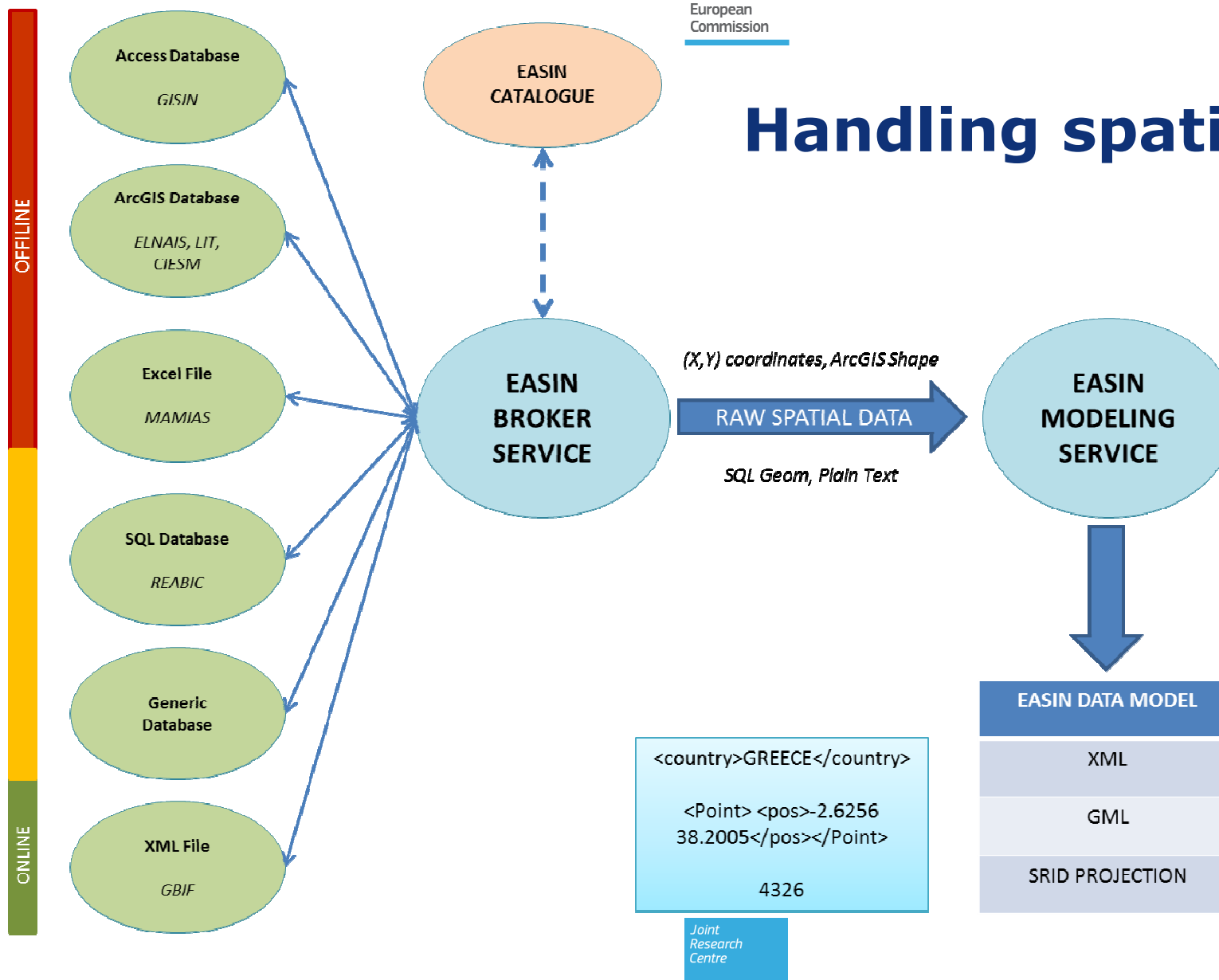
**Katsanevakis et al. 2012 *Building the European Alien Species Information Network (EASIN): a novel approach for the exploration of distributed alien species data. BioInvasions Records 1: 235–245***

# EASIN Catalogue



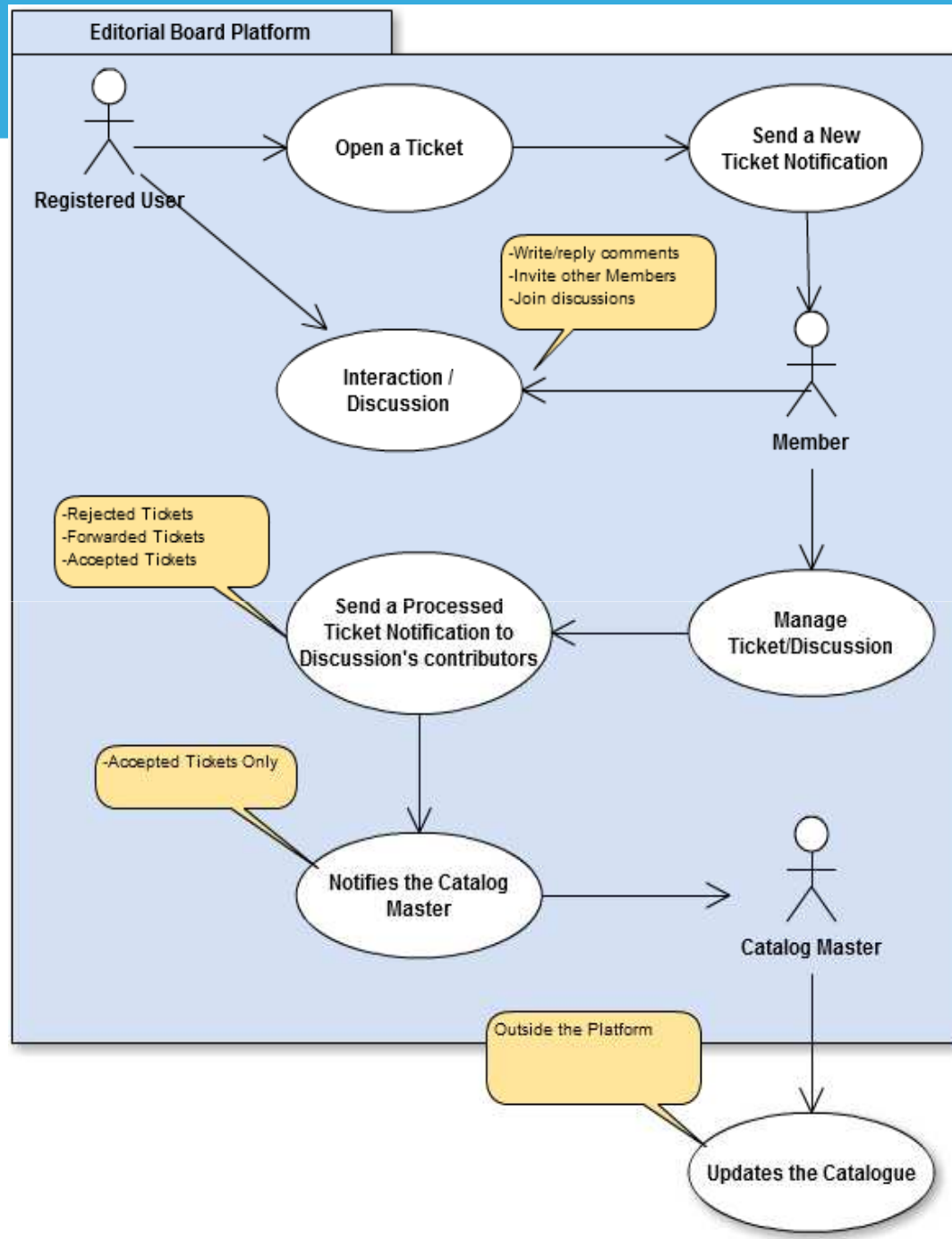


# Handling spatial info



# EASIN Catalogue: Validation + species-specific information

	appointment of external experts	revision in progress	EASIN updated
Marine species			
Freshwater species			
Terrestrial mammals			
Nematodes			
Terrestrial arthropods			
Fungi			
Chromista			
Terrestrial Mollusca			
Birds			
Amphibians and Reptiles			
Plants			
Bacteria/Viruses			



## Editorial Board

- Continuous update
- Quality assurance
- Participatory approach



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## JOINT RESEARCH CENTRE

### EASIN - European Alien Species Information Network

[European Commission](#) > [JRC](#) > [IES](#) > [EASIN](#) > [Tools/Services](#) > [Species Search](#) > [Species Search by Name](#)

[EASIN](#)

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#### Tools/Services

[Species Search](#)

[Species Search by Name](#)

[Combined Criteria Search](#)

[Search Provider](#)

[Widget Framework](#)

[Web Services](#)

### Species Search using Scientific or Common Name



[Search](#)

[About](#)

For more options please [Log In](#) | [Register](#)

Type scientific or common name

[Search](#)

Environment

Impact

[Terrestrial](#)

[FreshWater](#)

[Marine](#)

[High](#)

[Low/Unknown](#)

[All](#)

Show  entries

[Ext](#)

[Name by EASIN Catalog](#)

[Environment](#)

[Impact](#)


No species found

Last update: 25/09/2012 | [Top](#)

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## *Procambarus clarkii*

A-Z Index | Sitemap | About this site | FAQ | Legal notice | Contact | Search
English (en)



# JOINT RESEARCH CENTRE

## EASIN - European Alien Species Information Network

European Commission > JRC > IES > EASIN > Tools/Services > Species Search/Mapping > By Species Name

**EASIN**   About   **Tools/Services**   Discussions   Partners

### Tools/Services


Species Search/Mapping

**By Species Name**

By Multiple Criteria

Search Provider

Web Services



### Species Search using Scientific or Common Name

Search   My Queries   About   For more options please [Log In](#) | [Register](#)

Type scientific or common name


Procambarus clarkii   Search

Environment   Impact

Terrestrial   FreshWater   Marine   High   Low/Unknown   All

Disclaimer  
The terrestrial and freshwater parts of the EASIN catalogue have not been yet validated. Use with caution.

Show 10 entries

Ext	Name by EASIN Catalog	Environment	Impact
	Procambarus clarkii	FW	High

Showing 1 to 1 of 1 entries

Last update: 13/01/2014 | [Top](#)







JOINT RESEARCH CENTRE

EASIN - European Alien Species Information Network

European Commission > JRC > IES > EASIN > Tools/Services > Species Search/Mapping > By Multiple Criteria

**EASIN**   About   **Tools/Services**   Discussions   Partners

[Click here to go back](#)

**Species Search using Combined Criteria** f t e y +

[Search](#)   [My Queries](#)   [About](#)   [For more options please Log In | Register](#)

Environment: **Terrestrial**   **FreshWater**   Marine   Impact: **High**   Low/Unknown   All

Taxonomy: ☒ Select all

- ☐ Animalia
- ☐ Chromista
- ☐ Fungi
- ☐ Plantae
- ☐ Protozoa

Pathways: for aquatic species and terrestrial mammals only

☒ Select all   ☐ Primary only

- ☐ CONTAMINANT
- ☐ CORRIDOR
- ☐ ESCAPE
- ☐ RELEASE
  - ☐ Biocontrol
  - ☐ Game animals
  - ☐ Pets, Terrarium-Aquarium
  - ☐ Other
- ☐ STOWAWAY
- ☐ NOT ASSESSED
- ☐ OTHER

Ext	Scientific Name	Taxonomy	Kingdom	Phylum	Class	Order	Family	Environment	Impact
	Abramis brama	Animali..	Chordat..	Actinop..	Cyprini..	Cyprini..	Cyprini..	FW	Low/Unkn
	Abramis sapa	Animali..	Chordat..	Actinop..	Cyprini..	Cyprini..	Cyprini..	FW	Low/Unkn
	Acanthocephalus lucii	Animali..	Acantho..	Palaeac..	Echinor..	Echinor..	Echinor..	FW	Low/Unkn
	Acanthomysis trauchi	Animali..	Arthrop..	Malacos..	Mysida	Mysidae	Mysidae	FW	Low/Unkn
	Achillea ptarmica	Plantae	Magnoli..	Magnoli..	Asteral..	Asterac..	Asterac..	TER-FW	Low/Unkn
	Achillea salicifolia	Plantae	Magnoli..	Magnoli..	Asteral..	Asterac..	Asterac..	FW	Low/Unkn
	Acipenser gueldenstaedtii	Animali..	Chordat..	Actinop..	Acipens..	Acipens..	Acipens..	FW	Low/Unkn
	Acipenser naccarii	Animali..	Chordat..	Actinop..	Acipens..	Acipens..	Acipens..	FW	Low/Unkn

### Species Search using Combined Criteria

EASIN Species, Maps & Services LSID: [urn:lsid:alien.jrc.ec.europa.eu:query:03FFN3LEhUeFT04Bm1s4Wg:3.2] [\[close\]](#)

**Species** **Maps** **About** [For more options please Log In | Register](#)

LSID: urn:lsid:alien.jrc.ec.europa.eu:query:03FFN3LEhUeFT04Bm1s4Wg:3.2

Ext	Scientific Name	Catalog Status	Indexed
+	Abramis brama	Valid	Yes
+	Abramis sapa	Valid	Yes
+	Acanthocephalus lucii	Valid	Yes
+	Acanthomysis strauchi	Valid	Yes
+	Achillea ptarmica	Valid	Yes
+	Achillea salicifolia	Valid	Yes
+	Acipenser gueldenstaedtii	Valid	Yes
+	Acipenser naccarii	Valid	Yes
+	Acipenser ruthenus	Valid	Yes
+	Acipenser stellatus	Valid	Yes
+	Acipenser transmontanus	Valid	Yes
+	Acorus calamus	Valid	Yes
+	Acorus gramineus	Valid	Yes
+	Actinocleidus oculatus	Valid	No
+	Actinocleidus recurvatus	Valid	No
+	Actinocyclus normanii	Valid	Yes
+	Aedes albopictus	Valid	Yes
+	Aedes japonicus	Valid	No
+	Aedes koreicus	Valid	No
+	Aeolosoma headleyi	Valid	Yes
+	Aeschynomene indica	Valid	Yes

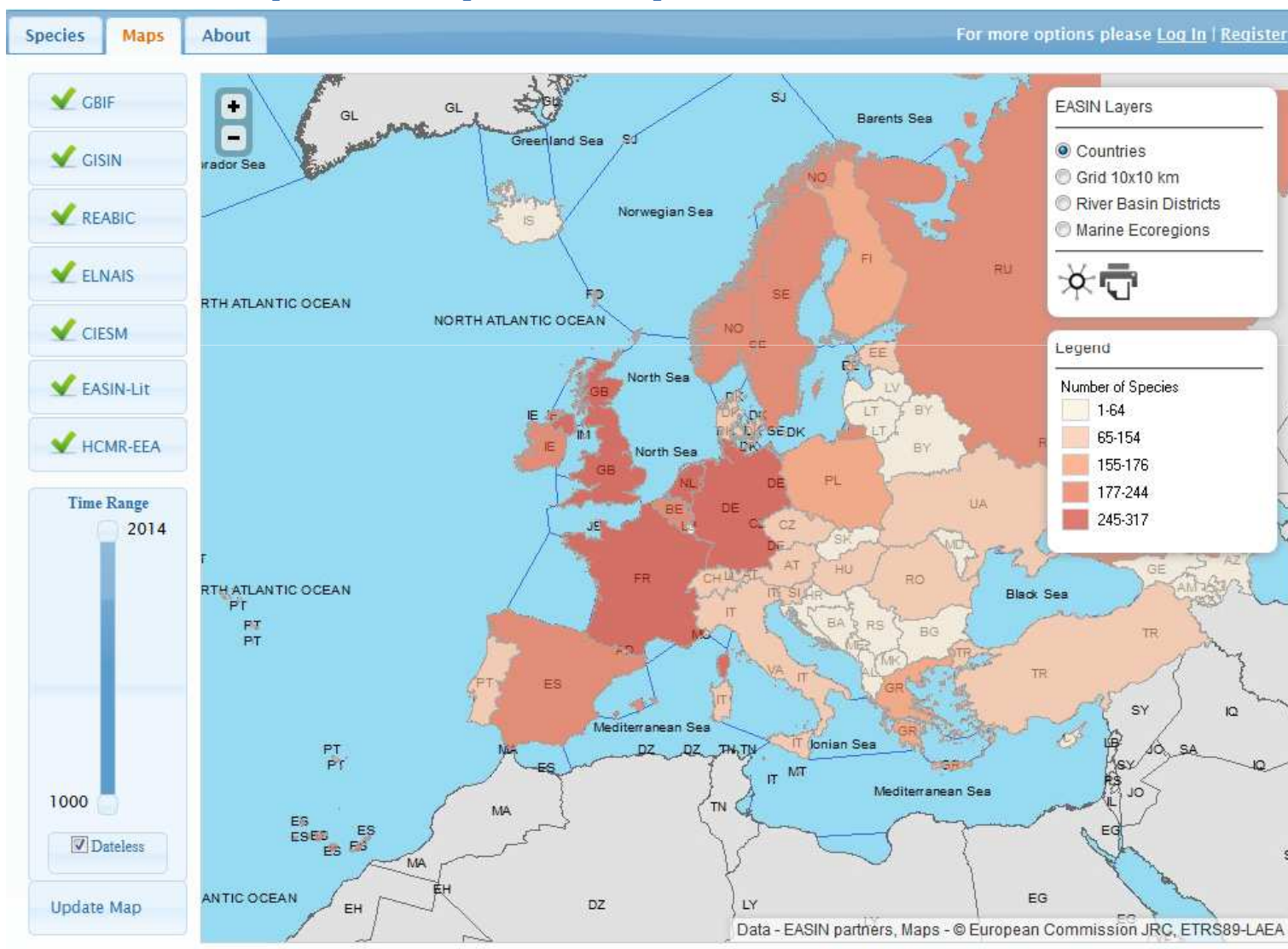
Showing 1 to 20 of 783 entries



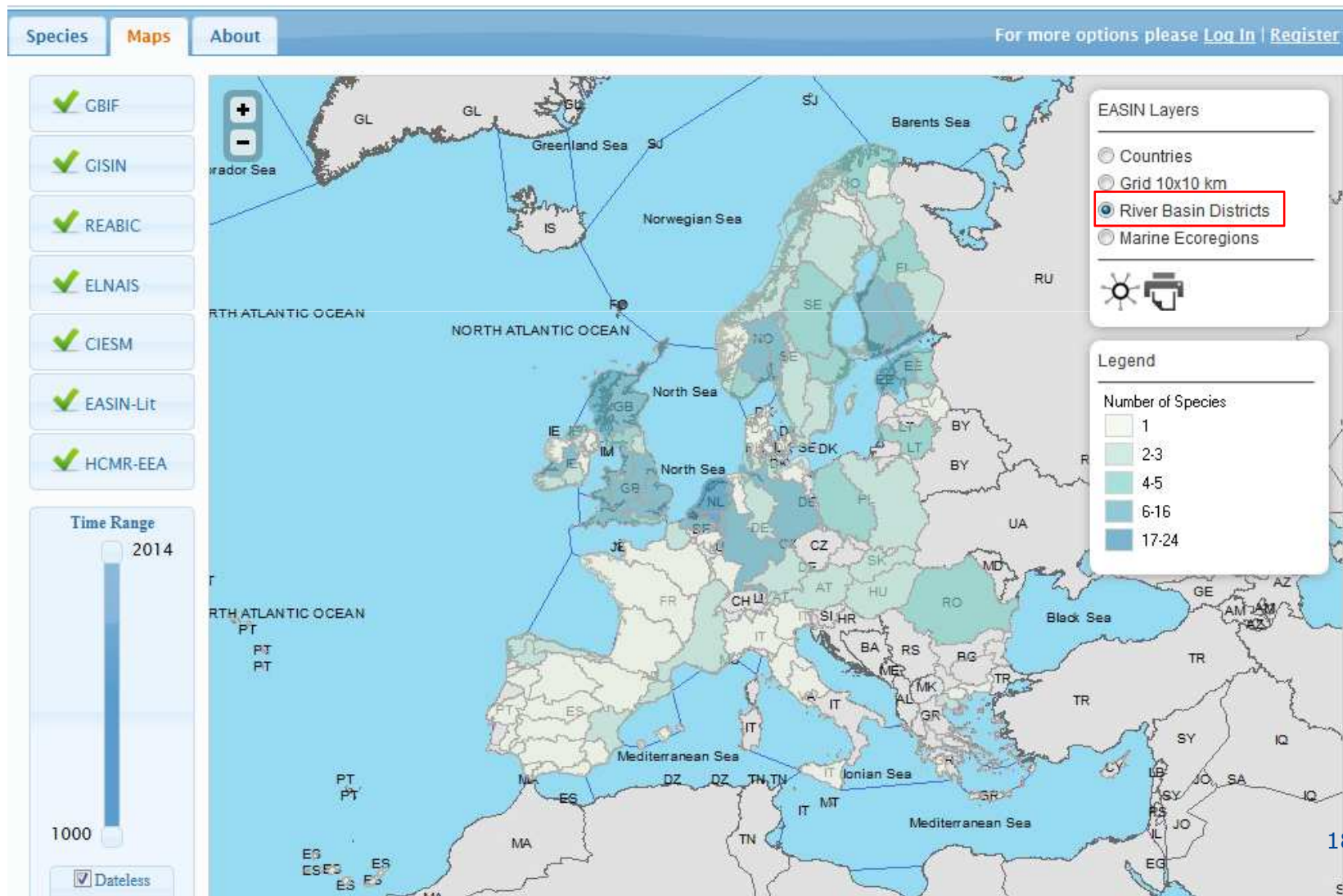


European  
Commission

## All freshwater species by country

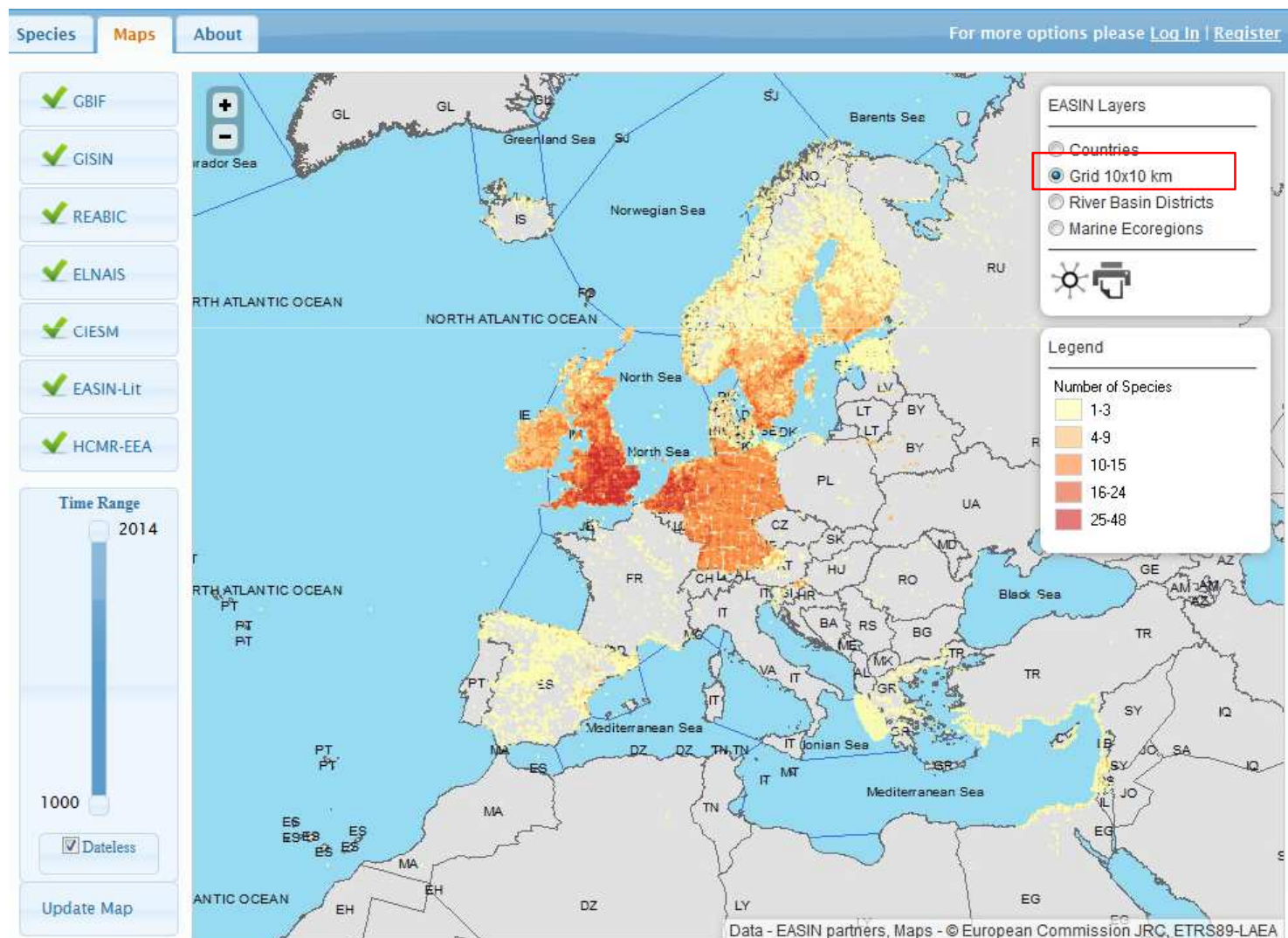


## Species by pathway: inland canals



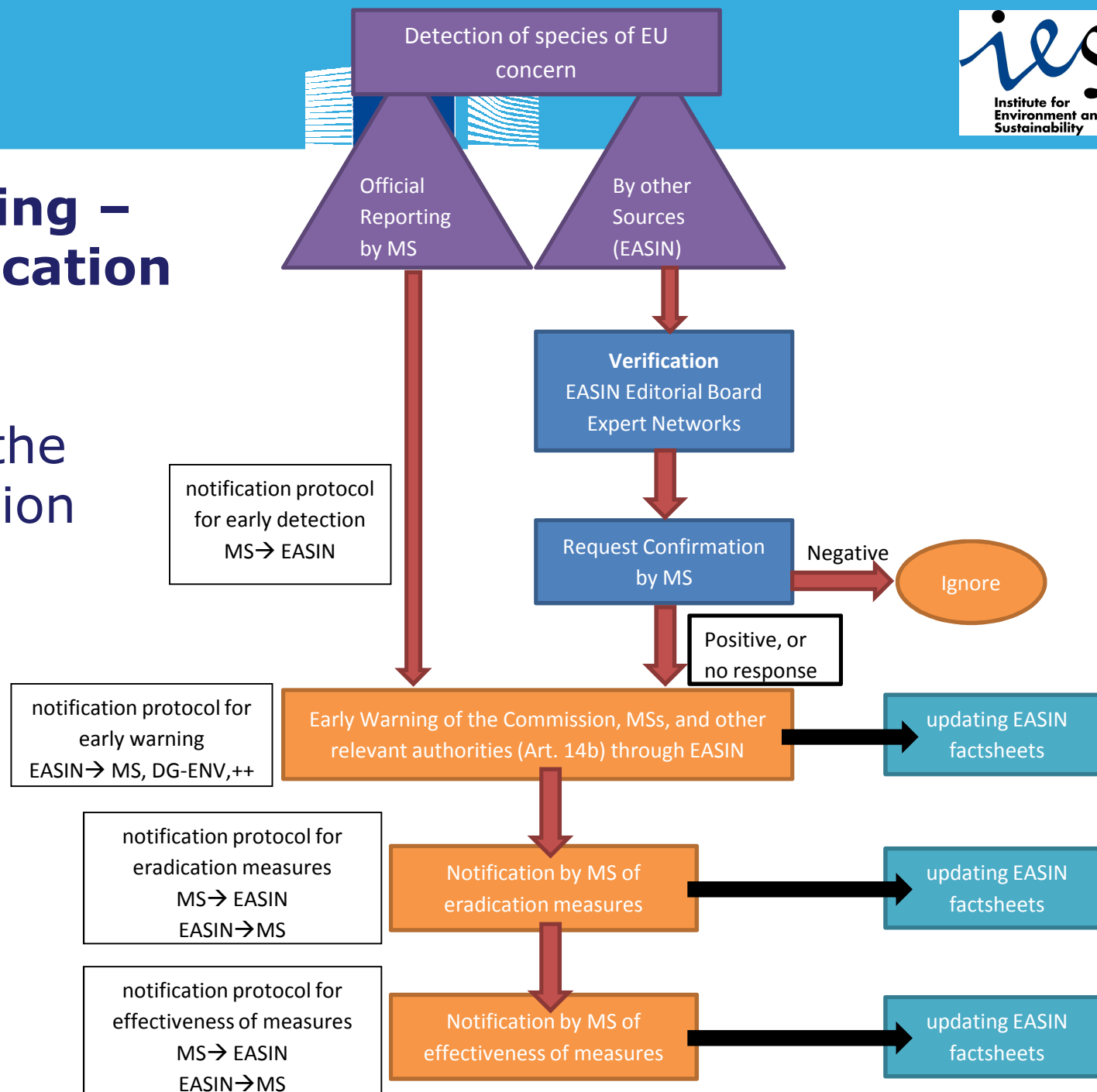


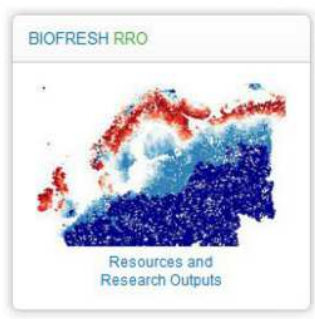
## Species by pathway: escape



# Early warning – rapid notification system

Supporting the  
new Regulation



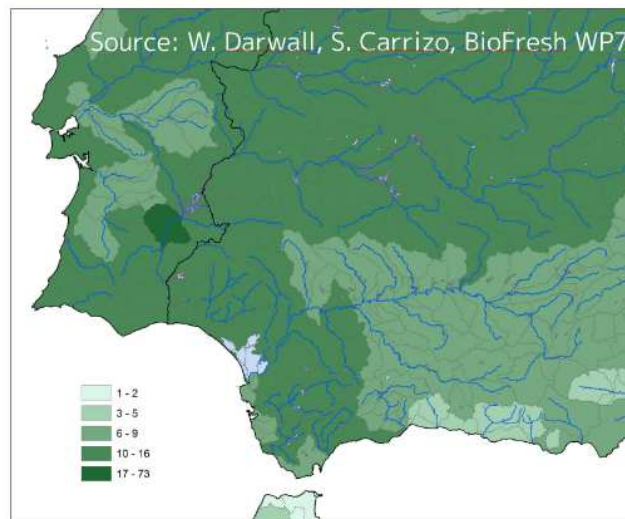


# BIOFRESH Research

## WP7: Freshwater Conservation

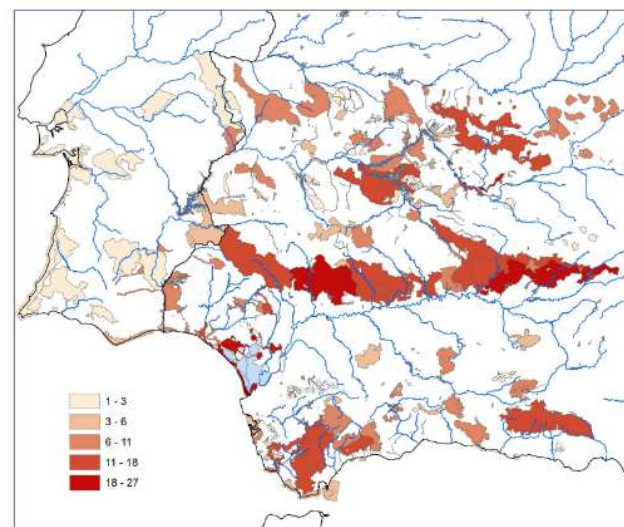
Alien species considered as scenario in the prioritization of Key Biodiversity Areas (KBAs)

Key Biodiversity Areas



Efficacy of Protected Areas using the presence of alien species as criteria

Number of Freshwater Alien Species within NATURA2000



# European Alien Species Information Network

## EASIN



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## EASIN TEAM

Ana Cristina Cardoso

Fabio D'Amico

Ivan Deriu

Marco Trombetti

Stelios Katsanevakis

<http://easin.jrc.ec.europa.eu>