

The Belgian Biodiversity Informatics Landscape

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Belgian Biodiversity Platform

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BIODIVERSITY RESEARCH



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NATURE AND FOREST



Gembloux Agro-Bio Tech
Université de Liège



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What is “Biodiversity Informatics”?

What if you could change this...

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and
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De Rode lijst van de libellen (2006)

Categorie O – Regionaal uitgestorven (Regionally extinct)

Mercurwaterjuffer (*Coenagrion mercuriale*)
Dwergjuffer (*Nehalennia speciosa*)
Noordse glazenmaker (*Aeshna subarctica*)
Tweevlek (*Epiptera bimaculata*)
Bronslibel (*Oxygastra curtisii*)
Sierlijke witsnuitlibel (*Leucorrhinia caudalis*)

Categorie 1 – Met uitsterven bedreigd (Critically endangered)

Speerwaterjuffer (*Coenagrion hastulatum*)
Vroege glazenmaker (*Aeshna isoeles*)
Gevlekte witsnuitlibel (*Leucorrhinia pectoralis*)

Categorie 2 – Bedreigd (Endangered)

Bosbeekjuffer (*Calopteryx virgo*)
Maanwaterjuffer (*Coenagrion lunulatum*)
Variabele waterjuffer (*Coenagrion pulchellum*)
Beekrombout (*Gomphus vulgatissimus*)
Gewone bronlibel (*Cordulegaster boltonii*)
Hoogveenglanslibel (*Somatochlora arctica*)
Bruine korenbout (*Libellula fulva*)



into this....


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	eventDate	taxonID	scientificName	rank	taxonomicStatus	accordingTo	phylum	kingdom	class	family	order	genus	canonicalName	authorship	synonym	threatStatus	vernacularName	nomenclatureCode	locality	country	rights
1	2006	dan	NBSY000000026121	Aeshna affinis Vander Linden, 1820 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Aeshna	Aeshna affinis	Vander Linden, 1820	ONWAAR	Data Deficient	Zuidelijke glazenmaker	ICZN	MVG0 2461 Flanders BE	http://	
2	2006	dan	NBSY000000026122	Aeshna cyanea Müller, 1764 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Aeshna	Aeshna cyanea	Müller, 1764	ONWAAR	Least Concern	Blauwe glazenmaker	ICZN	MVG0 2461 Flanders BE	http://	
3	2006	dan	NBSY000000026123	Aeshna grandis Linnaeus, 1758 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Aeshna	Aeshna grandis	Linnaeus, 1758	ONWAAR	Least Concern	Brune glazenmaker	ICZN	MVG0 2461 Flanders BE	http://	
4	2006	dan	NBSY000000026124	Aeshna isodora (J.F. Müller, 1787) (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Aeshna	Aeshna isodora	(J.F. Müller, 1787)	ONWAAR	Critically Endangered	Vroegere vliegenmaker	ICZN	MVG0 2461 Flanders BE	http://	
5	2006	dan	NBSY000000026125	Aeshna juncea Linnaeus, 1758 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Aeshna	Aeshna juncea	Linnaeus, 1758	ONWAAR	Vulnerable	Vengienmaker	ICZN	MVG0 2461 Flanders BE	http://	
6	2006	dan	NBSY000000026126	Aeshna mixta Latreille, 1805 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Aeshna	Aeshna mixta	Latreille, 1805	ONWAAR	Least Concern	Paarvleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
7	2006	dan	NBSY000000026127	Aeshna subarctica Walker, 1908 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Aeshna	Aeshna subarctica	Walker, 1908	ONWAAR	Regionally Extinct	Noordse glazenmaker	ICZN	MVG0 2461 Flanders BE	http://	
8	2006	dan	NBSY000000026128	Anax parthenope Leach, 1815 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Anax	Anax parthenope	Leach, 1815	ONWAAR	Least Concern	Grote keizerbel	ICZN	MVG0 2461 Flanders BE	http://	
9	2006	dan	NBSY000000026129	Anax parthenope Selys, 1839 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Anax	Anax parthenope	Selys, 1839	ONWAAR	Not Evaluated	Zuidelijke keizerbel	ICZN	MVG0 2461 Flanders BE	http://	
10	2006	dan	NBSY000000026130	Brachytron pratense Müller, 1764 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Brachytron	Brachytron pratense	Müller, 1764	ONWAAR	Vulnerable	Glaszetter	ICZN	MVG0 2461 Flanders BE	http://	
11	2006	dan	NBSY000000026131	Clopteryx splendens (Harris, 1780) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Clopterygidae	Odontat	Clopteryx	Clopteryx splendens	(Harris, 1780)	ONWAAR	Least Concern	Widdebeekvleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
12	2006	dan	NBSY000000026132	Clopteryx viridis Linnaeus, 1758 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Clopterygidae	Odontat	Clopteryx	Clopteryx viridis	Linnaeus, 1758	ONWAAR	Endangered	Bosbeekvleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
13	2006	dan	NBSY000000026133	Cerogaster tenebrum (De Villiers, 1789) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Cerogasteridae	Odontat	Cerogaster	Cerogaster tenebrum	(De Villiers, 1789)	ONWAAR	Rare	Koralsvleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
14	2006	dan	NBSY000000026134	Congonion hastulatum Charpentier, 1825 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Congonion	Congonion hastulatum	Charpentier, 1825	ONWAAR	Critically Endangered	Speerwaterjuffer	ICZN	MVG0 2461 Flanders BE	http://	
15	2006	dan	NBSY000000026135	Congonion lunulatum Charpentier, 1840 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Congonion	Congonion lunulatum	Charpentier, 1840	ONWAAR	Endangered	Maanwaterjuffer	ICZN	MVG0 2461 Flanders BE	http://	
16	2006	dan	NBSY000000026136	Congonion lunulatum Charpentier, 1840 (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Congonion	Congonion lunulatum	Charpentier, 1840	ONWAAR	Regionally Extinct	Meerwaterjuffer	ICZN	MVG0 2461 Flanders BE	http://	
17	2006	dan	NBSY000000026137	Congonion puelia Linnaeus, 1758 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Congonion	Congonion puelia	Linnaeus, 1758	ONWAAR	Least Concern	Azuurwaterjuffer	ICZN	MVG0 2461 Flanders BE	http://	
18	2006	dan	NBSY000000026138	Congonion puelia Linnaeus, 1758 (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Congonion	Congonion puelia	Linnaeus, 1758	ONWAAR	Least Concern	Azuurwaterjuffer	ICZN	MVG0 2461 Flanders BE	http://	
19	2006	dan	NBSY000000026139	Congonion pulchellum Vander Linden, 1825 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Congonion	Congonion pulchellum	Vander Linden, 1825	ONWAAR	Endangered	Variable waterjuffer	ICZN	MVG0 2461 Flanders BE	http://	
20	2006	dan	NBSY000000026140	Congonion scutellum Rambur, 1842 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Congonion	Congonion scutellum	Rambur, 1842	ONWAAR	Data Deficient	Gaffwaterjuffer	ICZN	MVG0 2461 Flanders BE	http://	
21	2006	dan	NBSY000000026141	Cordulia gortyna (Donovan, 1807) (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Corduliidae	Odontat	Cordulia	Cordulia gortyna	Donovan, 1807	ONWAAR	Endangered	Gewone bruinlibel	ICZN	MVG0 2461 Flanders BE	http://	
22	2006	dan	NBSY000000026142	Cordulia aenea Linnaeus, 1758 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Corduliidae	Odontat	Cordulia	Cordulia aenea	Linnaeus, 1758	ONWAAR	Least Concern	Smanglibel	ICZN	MVG0 2461 Flanders BE	http://	
23	2006	dan	NBSY000000026143	Crocothemis erythraea Brulle, 1832 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Crocothemis	Crocothemis erythraea	Brulle, 1832	ONWAAR	Least Concern	Vuurlibel	ICZN	MVG0 2461 Flanders BE	http://	
24	2006	dan	NBSY000000026144	Enallagma cyathigerum Charpentier, 1840 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Enallagma	Enallagma cyathigerum	Charpentier, 1840	ONWAAR	Least Concern	Waterstafel	ICZN	MVG0 2461 Flanders BE	http://	
25	2006	dan	NBSY000000026145	Enallagma cyathigerum Charpentier, 1840 (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Enallagma	Enallagma cyathigerum	Charpentier, 1840	ONWAAR	Least Concern	Waterstafel	ICZN	MVG0 2461 Flanders BE	http://	
26	2006	dan	NBSY000000026146	Ephedra bimaculata Charpentier, 1825 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Corduliidae	Odontat	Ephedra	Ephedra bimaculata	Charpentier, 1825	ONWAAR	Regionally Extinct	Tweelike	ICZN	MVG0 2461 Flanders BE	http://	
27	2006	dan	NBSY000000026147	Ephedra bimaculata Charpentier, 1825 (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Corduliidae	Odontat	Ephedra	Ephedra bimaculata	Charpentier, 1825	ONWAAR	Least Concern	Kanaalvleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
28	2006	dan	NBSY000000026148	Ephedra viridula Charpentier, 1825 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Corduliidae	Odontat	Ephedra	Ephedra viridula	Charpentier, 1825	ONWAAR	Least Concern	Grote roodvoegelaar	ICZN	MVG0 2461 Flanders BE	http://	
29	2006	dan	NBSY000000026149	Ephedra viridula Charpentier, 1825 (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Corduliidae	Odontat	Ephedra	Ephedra viridula	Charpentier, 1825	ONWAAR	Least Concern	Kleine roodvoegelaar	ICZN	MVG0 2461 Flanders BE	http://	
30	2006	dan	NBSY000000026150	Gomphus flavipes (Charp., 1825) (Life)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Gomphidae	Odontat	Gomphus	Gomphus flavipes	(Charp., 1825)	ONWAAR	Data Deficient	Rivierrombelaar	ICZN	MVG0 2461 Flanders BE	http://	
31	2006	dan	NBSY000000026151	Gomphus pulchellus (Metcalf, 1895) (Animalia)	SPECIES	van Tol J.	Arthropoda	Metazoa	Insecta	Gomphidae	Odontat	Gomphus	Gomphus pulchellus	(Metcalf, 1895)	ONWAAR	Least Concern	Pisiorombelaar	ICZN	MVG0 2461 Flanders BE	http://	
32	2006	dan	NBSY000000026152	Gomphus vulgatissimus (Linnaeus, 1758) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Gomphidae	Odontat	Gomphus	Gomphus vulgatissimus	(Linnaeus, 1758)	ONWAAR	Endangered	Beekrombelaar	ICZN	MVG0 2461 Flanders BE	http://	
33	2006	dan	NBSY000000026153	Hemianax ephippiger (Burmester, 1839) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Aeshnidae	Odontat	Hemianax	Hemianax ephippiger	(Burmester, 1839)	ONWAAR	Not Evaluated	Zadellibel	ICZN	MVG0 2461 Flanders BE	http://	
34	2006	dan	NBSY000000026154	Ischnura elegans Vander Linden, 1820 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Ischnura	Ischnura elegans	Vander Linden, 1820	ONWAAR	Least Concern	Lantaampje	ICZN	MVG0 2461 Flanders BE	http://	
35	2006	dan	NBSY000000026155	Ischnura pumilio Charpentier, 1825 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Ischnura	Ischnura pumilio	Charpentier, 1825	ONWAAR	Least Concern	Tengere grasvleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
36	2006	dan	NBSY000000026156	Lestes barbus (Fabricius, 1780) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Lestidae	Odontat	Lestes	Lestes barbus	(Fabricius, 1780)	ONWAAR	Least Concern	Zwerende pantsjervleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
37	2006	dan	NBSY000000026157	Lestes dryas Kirby, 1890 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Lestidae	Odontat	Lestes	Lestes dryas	Kirby, 1890	ONWAAR	Vulnerable	Tangpantsejuffer	ICZN	MVG0 2461 Flanders BE	http://	
38	2006	dan	NBSY000000026158	Lestes dryas Kirby, 1890 (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Lestidae	Odontat	Lestes	Lestes dryas	Kirby, 1890	ONWAAR	Least Concern	Gewone pantsjervleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
39	2006	dan	NBSY000000026159	Lestes virens (Charpentier, 1825) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Lestidae	Odontat	Lestes	Lestes virens	(Charpentier, 1825)	ONWAAR	Rare	Tengere pantsjervleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
40	2006	dan	NBSY000000026160	Lestes virens (Charpentier, 1825) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Lestidae	Odontat	Lestes	Lestes virens	(Charpentier, 1825)	ONWAAR	Least Concern	Houtpantsejuffer	ICZN	MVG0 2461 Flanders BE	http://	
41	2006	dan	NBSY000000026161	Leucorhinia caudalis (Vander Linden, 1820) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Leucorhinia	Leucorhinia caudalis	(Vander Linden, 1820)	ONWAAR	Regionally Extinct	Steriele vitsvutlibel	ICZN	MVG0 2461 Flanders BE	http://	
42	2006	dan	NBSY000000026162	Leucorhinia dubia Vander Linden, 1820 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Leucorhinia	Leucorhinia dubia	Vander Linden, 1820	ONWAAR	Rare	Vetsvutlibel	ICZN	MVG0 2461 Flanders BE	http://	
43	2006	dan	NBSY000000026163	Leucorhinia pectoralis Charpentier, 1825 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Leucorhinia	Leucorhinia pectoralis	Charpentier, 1825	ONWAAR	Critically Endangered	Gevleete vitsvutlibel	ICZN	MVG0 2461 Flanders BE	http://	
44	2006	dan	NBSY000000026164	Leucorhinia rubicunda Linnaeus, 1758 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Leucorhinia	Leucorhinia rubicunda	Linnaeus, 1758	ONWAAR	Vulnerable	Noordse vitsvutlibel	ICZN	MVG0 2461 Flanders BE	http://	
45	2006	dan	NBSY000000026165	Libellula depressa Linnaeus, 1758 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Libellula	Libellula depressa	Linnaeus, 1758	ONWAAR	Least Concern	Platlibel	ICZN	MVG0 2461 Flanders BE	http://	
46	2006	dan	NBSY000000026166	Libellula fulva Müller, 1764 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Libellula	Libellula fulva	Müller, 1764	ONWAAR	Endangered	Brune korenrombelaar	ICZN	MVG0 2461 Flanders BE	http://	
47	2006	dan	NBSY000000026167	Libellula quadrimaculata Linnaeus, 1758 (Animalia)	SPECIES ACCEPTED	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Libellula	Libellula quadrimaculata	Linnaeus, 1758	ONWAAR	Least Concern	Viervleugelaar	ICZN	MVG0 2461 Flanders BE	http://	
48	2006	dan	NBSY000000026168	Nehalennia speciosa (Charpentier, 1840) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Congonionidae	Odontat	Nehalennia	Nehalennia speciosa	(Charpentier, 1840)	ONWAAR	Regionally Extinct	Oeverjuffer	ICZN	MVG0 2461 Flanders BE	http://	
49	2006	dan	NBSY000000026169	Oxygophygus forficatus (Linnaeus, 1758) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Gomphidae	Odontat	Oxygophygus	Oxygophygus forficatus	(Linnaeus, 1758)	ONWAAR	Data Deficient	Kleine tanglibel	ICZN	MVG0 2461 Flanders BE	http://	
50	2006	dan	NBSY000000026170	Orthetrum brunneum (Fonscolombe, 1837) (Animalia)	SPECIES	van Tol J.	Arthropoda	Animalia	Insecta	Libellulidae	Odontat	Orthetrum	Orthetrum brunneum	(Fonscolombe, 1837)	ONWAAR	Data Deficient	Zuidelijke oeverlibel	ICZN	MVG0 2461 Flanders BE	http://	

What if you could change this...

1	id	nomenclaturalCode	eventDate	language	type	verbatimSRS	catalogNumber	continent	identifiedBy	coordinateUncertaintyInMeters	recordedBy	de
2	INBO:NB:N:BFN0017900000PBI	ICZN	2/07/1999	nl	Event	BD72	BFN0017900000PBI	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
3	INBO:NB:N:BFN0017900000PBJ	ICZN	2/07/1999	nl	Event	BD72	BFN0017900000PBJ	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
4	INBO:NB:N:BFN0017900000PBK	ICZN	2/07/1999	nl	Event	BD72	BFN0017900000PBK	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
5	INBO:NB:N:BFN0017900000PBL	ICZN	2/07/1999	nl	Event	BD72	BFN0017900000PBL	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
6	INBO:NB:N:BFN0017900000PBM	ICZN	13/07/1999	nl	Event	BD72	BFN0017900000PBM	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
7	INBO:NB:N:BFN0017900000PBN	ICZN	13/07/1999	nl	Event	BD72	BFN0017900000PBN	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
8	INBO:NB:N:BFN0017900000PBO	ICZN	13/07/1999	nl	Event	BD72	BFN0017900000PBO	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
9	INBO:NB:N:BFN0017900000PBP	ICZN	1/07/1999	nl	Event	BD72	BFN0017900000PBP	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
10	INBO:NB:N:BFN0017900000PBQ	ICZN	1/07/1999	nl	Event	BD72	BFN0017900000PBQ	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
11	INBO:NB:N:BFN0017900000PBR	ICZN	1/07/1999	nl	Event	BD72	BFN0017900000PBR	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
12	INBO:NB:N:BFN0017900000PBS	ICZN	1/07/1999	nl	Event	BD72	BFN0017900000PBS	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
13	INBO:NB:N:BFN0017900000PBT	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PBT	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
14	INBO:NB:N:BFN0017900000PBU	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PBU	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
15	INBO:NB:N:BFN0017900000PBV	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PBV	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
16	INBO:NB:N:BFN0017900000PBW	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PBW	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
17	INBO:NB:N:BFN0017900000PBX	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PBX	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
18	INBO:NB:N:BFN0017900000PBY	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PBY	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
19	INBO:NB:N:BFN0017900000PBZ	ICZN	13/07/1999	nl	Event	BD72	BFN0017900000PBZ	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
20	INBO:NB:N:BFN0017900000PC0	ICZN	13/07/1999	nl	Event	BD72	BFN0017900000PC0	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
21	INBO:NB:N:BFN0017900000PC1	ICZN	13/07/1999	nl	Event	BD72	BFN0017900000PC1	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
22	INBO:NB:N:BFN0017900000PC2	ICZN	26/07/1999	nl	Event	BD72	BFN0017900000PC2	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
23	INBO:NB:N:BFN0017900000PC3	ICZN	26/07/1999	nl	Event	BD72	BFN0017900000PC3	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
24	INBO:NB:N:BFN0017900000PC4	ICZN	26/07/1999	nl	Event	BD72	BFN0017900000PC4	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
25	INBO:NB:N:BFN0017900000PC5	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PC5	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
26	INBO:NB:N:BFN0017900000PC6	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PC6	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
27	INBO:NB:N:BFN0017900000PC7	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PC7	Europe	Stijn Vanacker	30	Stijn Vanacker	ht
28	INBO:NB:N:BFN0017900000PC8	ICZN	3/07/1999	nl	Event	BD72	BFN0017900000PC8	Europe	Stijn Vanacker	30	Stijn Vanacker	ht

into this....

BD72	51.05933	5.70648	WGS84	30	Stijn Vanacker	Agonum dorsale [?] Anohomenus dorsalis (Metazoa) Choose new match	Anohomenus dorsalis Choose new match	2869121	http://eol.org/pages/2869121	108864292
BD72	51.05933	5.70648	WGS84	30	Stijn Vanacker	Agonum muelleri Herbst (Animalia) Choose new match	Agonum muelleri ✓ Agonum muelleri Herbst (1) ✓ Agonum muelleri unicolor Leoni, 1907 (1) ✓ Agonum muelleri muelleri (Herbst, 1784) (1) ✓ Create new topic			135539180
BD72	51.05933	5.70648	WGS84	30	Stijn Vanacker	Bembidion femoratum Sturm, 1825 (Animalia) Choose new match	Bembidion femoratum Sturm ✓ Bembidion femoratum Sturm 1825 (1) ✓ Bembidion femoratum femoratum Sturm 1825 (1) ✓ Create new			115030388
BD72	51.05933	5.70648	WGS84	30	Stijn Vanacker	Bembidion properans Stephens (Animalia) Choose new match	Bembidion properans Choose new match			
BD72	51.05933	5.70648	WGS84	30	Stijn Vanacker	Bembidion atrocaeruleum (Viruses) Choose new match	Bembidion atrocae Choose new match			
BD72	51.05933	5.70648	WGS84	30	Stijn Vanacker	Bembidion femoratum Sturm, 1825 (Animalia) Choose new match	Bembidion femorat ✓ Bembidion femoratum f 1825 (1) ✓ Bembidion femoratum femoratum f 1825 (1) ✓ Create new			


Encyclopedia of Life


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Bembidion

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EOL has data for 8 traits

type specimen repository	Wageningen National Institute for Nature Conservation (NIN)
habitat	non-marine
first appearance (older bound)	58.2 million years ago
first appearance (younger bound)	56.6 million years ago
last appearance (older bound)	0.13 million years ago
last appearance (younger bound)	0.0117 million years ago
has predator	Blattella germanica Blattella Blattella
extraction status	in-rant

Found in 2 classifications

Bembidion fuscum (Herbst)
 © 2006-2007. © President and Fellows of Harvard College
 Source: Species 360 Consortium, Zootaxa, Harvard

What if you could change this...

ID_macroinvertebrat	species	location	
PB:Ugent:AqE:1	<i>Astacus leptodactylus</i>	linkebeek	
PB:Ugent:AqE:10	<i>Astacus leptodactylus</i>	Stadswallen Damme	
PB:Ugent:AqE:11	<i>Astacus leptodactylus</i>	Hoeke (Damse vaart)	
PB:Ugent:AqE:12	<i>Astacus leptodactylus</i>	Hoeleden-Heibos	
PB:Ugent:AqE:13	<i>Astacus leptodactylus</i>	Loonbeek (Margijsbosweg)	
PB:Ugent:AqE:2	<i>Astacus leptodactylus</i>	De Pinte-Hageland	
PB:Ugent:AqE:3	<i>Astacus leptodactylus</i>	Linkebeek (Drève des Etangs)	
PB:Ugent:AqE:4	<i>Astacus leptodactylus</i>	Damme (Damse Vaart)	
PB:Ugent:AqE:5	<i>Astacus leptodactylus</i>	Damse vaart	
PB:Ugent:AqE:6	<i>Astacus leptodactylus</i>	Hoeilaart (Duboislaan)	
PB:Ugent:AqE:7	<i>Astacus leptodactylus</i>	Oud-Heverlee (Langerodestraat, hazenfonteinstraat)	
PB:Ugent:AqE:8	<i>Astacus leptodactylus</i>	Hoegaarden (Kloosterstraat)	
PB:Ugent:AqE:9	<i>Astacus leptodactylus</i>	Linkebeek	
PB:Ugent:AqE:14	<i>Atyaephyra desmaresti</i>	Westbeke	
PB:Ugent:AqE:15	<i>Atyaephyra desmaresti</i>	Sluis, monding in de Schelde	
PB:Ugent:AqE:16	<i>Atyaephyra desmaresti</i>	Metropoolstraat, aan overkant Inza	
PB:Ugent:AqE:17	<i>Atyaephyra desmaresti</i>	Metropoolstraat, aan overkant Inza	
PB:Ugent:AqE:18	<i>Atyaephyra desmaresti</i>	Wijnegembaan-kanaalpad, tgo "Houthandel Segel"	
PB:Ugent:AqE:19	<i>Atyaephyra desmaresti</i>	Zuut, tussen inlaat AWW en brug	
PB:Ugent:AqE:20	<i>Atyaephyra desmaresti</i>	Oelegem; thv inlaat AWW-bekkens	
PB:Ugent:AqE:21	<i>Atyaephyra desmaresti</i>	Oelegem; thv inlaat AWW-bekkens	
PB:Ugent:AqE:22	<i>Atyaephyra desmaresti</i>	Oelegem; thv inlaat AWW-bekkens	
PB:Ugent:AqE:23	<i>Atyaephyra desmaresti</i>	70 m afw brug Bauwelsesteenweg/Nijverheidslaan	
PB:Ugent:AqE:24	<i>Atyaephyra desmaresti</i>	Heiken(zijstr.), opw brug	
PB:Ugent:AqE:25	<i>Atyaephyra desmaresti</i>	Olympiadelaan, opw(BIO) en afw(FC) brug	
PB:Ugent:AqE:26	<i>Atyaephyra desmaresti</i>	FC:zijweg Geelsebaan (einde zandweg tgo Honing)	
PB:Ugent:AqE:27	<i>Atyaephyra desmaresti</i>	FC:zijweg Geelsebaan (einde zandweg tgo Honing)	
PB:Ugent:AqE:28	<i>Atyaephyra desmaresti</i>	FC:zijweg Geelsebaan (einde zandweg tgo Honing)	
PB:Ugent:AqE:29	<i>Atyaephyra desmaresti</i>	FC:zijweg Geelsebaan (einde zandweg tgo Honing)	
PB:Ugent:AqE:30	<i>Atyaephyra desmaresti</i>	thv sluis Olen	
PB:Ugent:AqE:31	<i>Atyaephyra desmaresti</i>	thv sluis Olen	
PB:Ugent:AqE:32	<i>Atyaephyra desmaresti</i>	thv sluis Olen	
PB:Ugent:AqE:33	<i>Atyaephyra desmaresti</i>	thv sluis Olen	



into...

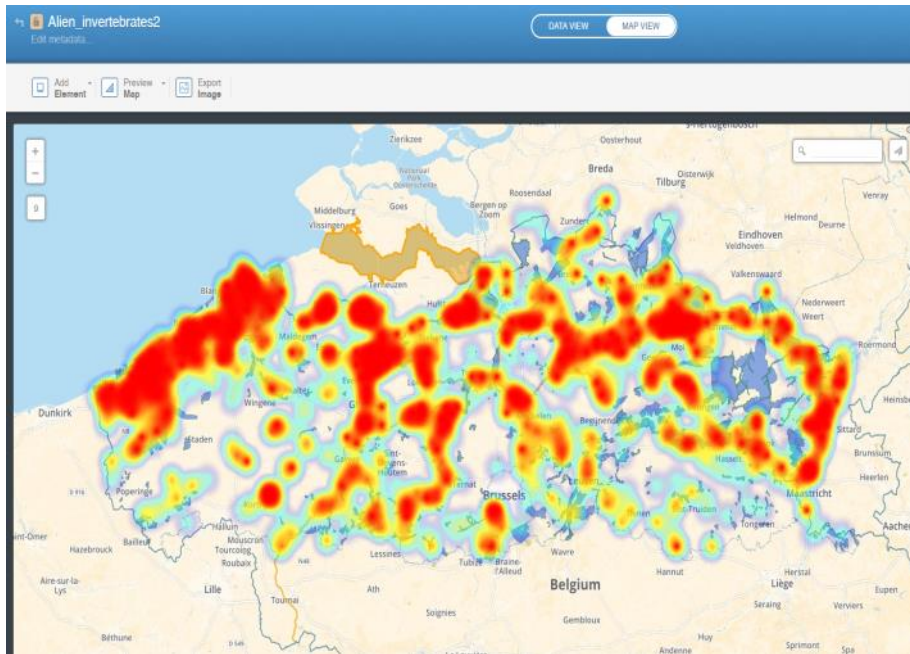
1	occurrenceID	scientificName	locality	decimalLatitude	decimalLongitude
2	PB.Ugent.AqE:1	Astacus leptodactylus	linkebeek	50,768131	4,332759
3	PB.Ugent.AqE:10	Astacus leptodactylus	Stadswallen Damme	51,253862	3,282165
4	PB.Ugent.AqE:11	Astacus leptodactylus	Hoek (Damse vaart)	51,290805	3,335209
5	PB.Ugent.AqE:12	Astacus leptodactylus	Hoelieden-Heibos	50,862224	5,015018
6	PB.Ugent.AqE:13	Astacus leptodactylus	Loonbeek (Marqisbosweg)	50,799597	4,603006
7	PB.Ugent.AqE:2	Astacus leptodactylus	De Pinte-Hageland	50,95484722	3,20726111
8	PB.Ugent.AqE:3	Astacus leptodactylus	Linkebeek (Drève des Etangs)	50,768131	4,332759
9	PB.Ugent.AqE:4	Astacus leptodactylus	Damme (Damse Vaart)	51,253862	3,282165
10	PB.Ugent.AqE:5	Astacus leptodactylus	Damse vaart	51,22617778	3,21480000
11	PB.Ugent.AqE:6	Astacus leptodactylus	Hoelaart (Duboislaan)	50,543379	4,411367
12	PB.Ugent.AqE:7	Astacus leptodactylus	Oud-Heverlee (Langerodestraat, hazenfonteinstraat)	50,543377	4,411522
13	PB.Ugent.AqE:8	Astacus leptodactylus	Hoegaarden (Kloosterstraat)	50,543374	4,41179
14	PB.Ugent.AqE:9	Astacus leptodactylus	Linkebeek	50,543364	4,412637
15	PB.Ugent.AqE:14	Atyaephyra desmaresti	Westbeke	51,093154	3,675453
16	PB.Ugent.AqE:15	Atyaephyra desmaresti	Sluis, monding in de Schelde	51,018205	3,980336
17	PB.Ugent.AqE:16	Atyaephyra desmaresti	Metropoolstraat, aan overkant Inza	51,240058	4,475313
18	PB.Ugent.AqE:17	Atyaephyra desmaresti	Metropoolstraat, aan overkant Inza	51,240058	4,475313
19	PB.Ugent.AqE:18	Atyaephyra desmaresti	Wijnegembaan-kanaalpad, tgo "Houthandel Segers"	51,242413	4,502283
20	PB.Ugent.AqE:19	Atyaephyra desmaresti	Zuut, tussen inlaat AWW en brug	51,116515	4,562959
21	PB.Ugent.AqE:20	Atyaephyra desmaresti	Oelegem, thv inlaat AWW-bekkens	51,199387	4,621577
22	PB.Ugent.AqE:21	Atyaephyra desmaresti	Oelegem, thv inlaat AWW-bekkens	51,199387	4,621577
23	PB.Ugent.AqE:22	Atyaephyra desmaresti	Oelegem, thv inlaat AWW-bekkens	51,199387	4,621577
24	PB.Ugent.AqE:23	Atyaephyra desmaresti	70 m afw brug Bauwelsesteenweg/Nijverheidslaan	51,179699	4,743856
25	PB.Ugent.AqE:24	Atyaephyra desmaresti	Heiken(zijstr.), opw brug	51,184897	4,783287
26	PB.Ugent.AqE:25	Atyaephyra desmaresti	Olympiadelaan, opw(BIO) en afw(FC) brug	51,186424	4,831917
27	PB.Ugent.AqE:26	Atyaephyra desmaresti	FC zijweg Geelsebaan (einde zandweg tgo Honingstr.), 30m afw. Prima-Lux; BIO aan houten stijger na sas	51,171605	4,851115
28	PB.Ugent.AqE:27	Atyaephyra desmaresti	FC zijweg Geelsebaan (einde zandweg tgo Honingstr.), 30m afw. Prima-Lux; BIO aan houten stijger na sas	51,171605	4,851115
29	PB.Ugent.AqE:28	Atyaephyra desmaresti	FC zijweg Geelsebaan (einde zandweg tgo Honingstr.), 30m afw. Prima-Lux; BIO aan houten stijger na sas	51,171605	4,851115
30	PB.Ugent.AqE:29	Atyaephyra desmaresti	FC zijweg Geelsebaan (einde zandweg tgo Honingstr.), 30m afw. Prima-Lux; BIO aan houten stijger na sas	51,171605	4,851115
31	PB.Ugent.AqE:30	Atyaephyra desmaresti	thv sluis Olen	51,158906	4,861476

EMPOWERING
BIODIVERSITY RESEARCH



Biodiversity.be

Or even this...



<http://cdb.io/1F4yOUY> (*Harmonia axyridis*)

What if your publications would not only depend on your own data?

Journal of Biogeography (J. Biogeogr.) (2009) 36, 2264–2278

ORIGINAL ARTICLE



Establishment success of invasive ring-necked and monk parakeets in Europe

Diederik Strubbe* and Erik Matthysen

Evolutionary Ecology Group, Department of Biology, University of Antwerp, Antwerp, Belgium

ABSTRACT

Aim Invasive alien species are a growing threat to biodiversity. The mechanisms that enable these species to establish in a new environment is paramount for management of the invasion. Using an unusually large number of both failed and successful introductions of parakeets (Aves: Psittacidae) in Europe, we hypothesised on the establishment success of invading species matching and the human-activity hypothesis.

Location European human population centres where (ring-necked) and/or monk parakeet (*Myiopithecus m.*) have occurred.

Methods Data on ring-necked and monk parakeet introductions gathered from various sources, including published books and from unpublished reports and local grey literature. Inform

OPEN ACCESS Freely available online

PLOS ONE

Beyond a Climate-Centric View of Plant Distribution: Edaphic Variables Add Value to Distribution Models

Frieda Beauregard¹, Sylvie de Blois^{2*}

¹ Department of Plant Science, McGill University, Sainte Anne-de-Bellevue, Quebec, Canada, ² Department of Plant Science and McGill School of Environment, McGill University, Sainte Anne-de-Bellevue, Quebec, Canada

Abstract

Both climatic and edaphic conditions determine plant distribution, however many species distribution models do not include edaphic variables especially over large geographical extent. Using an exceptional database of vegetation plots ($n = 4839$) covering an extent of $\sim 35000 \text{ km}^2$, we tested whether the inclusion of fine scale edaphic variables would improve model predictions of plant distribution compared to models using only climate predictors. We also tested how well these edaphic variables could predict distribution on their own, to evaluate the assumption that at large extents, distribution is governed largely by climate. We also hypothesized that the relative contribution of edaphic and climatic data would vary among species depending on their growth forms and biogeographical attributes within the study area. We modelled 128 native plant species from diverse taxa using four statistical model types and three sets of abiotic predictors: climate, edaphic, and edaphic-climate. Model predictive accuracy and variable importance were compared among these models and for species' characteristics describing growth form, range boundaries within the study area, and prevalence. For many species both the climate-only and edaphic-only models performed well, however the edaphic-climate models generally performed best. The three sets of predictors differed in the spatial information provided about habitat suitability, with climate models able to distinguish range edges, but edaphic models able to better distinguish within-range variation. Model predictive accuracy was generally lower for species without a range boundary within the study area and for common species, but these effects were buffered by including both edaphic and climatic predictors. The relative importance of edaphic and climatic variables varied with growth forms, with trees being more related to climate whereas lower growth forms were more related to edaphic conditions. Our study identifies the potential for non-climate aspects of the environment to pose a constraint to range expansion under climate change.

Citation: Beauregard F, de Blois S (2014) Beyond a Climate-Centric View of Plant Distribution: Edaphic Variables Add Value to Distribution Models. PLoS ONE 9(8): e102642. doi:10.1371/journal.pone.0102642

Editor: Bruno Hérault, CNRS, FRANCE

Received: March 25, 2013; **Accepted:** February 25, 2014; **Published:** March 21, 2014

Copyright: © 2014 Beauregard, de Blois. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Funding: The authors acknowledge funding from the Fonds de Recherche en Biologie – Nature et Technologies (www.frbn.ulb.ac.be) to F. Beauregard and from the Natural Sciences and Engineering Research Council of Canada (http://www.nrc-nrc.gc.ca) to S. de Blois. The funders had no role in study design, data

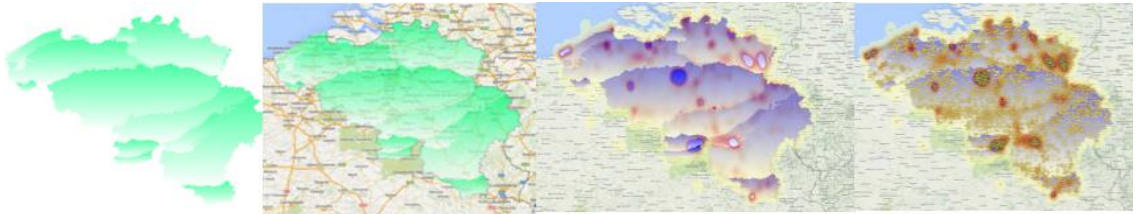


What is “Biodiversity Informatics”?

- The application of informatics techniques to biodiversity information for **improved management, presentation, discovery, exploration and analysis**
- Builds on a foundation of taxonomic, biogeographic or ecological information stored in a digital form which, with application of comp. techniques, can yield new ways **to view and analyse** existing information, as well as **predictive models**

>> COMPUTERIZED HANDLING OF ANY BIODIVERSITY INFORMATION

To answer Biodiversity-related Qs!



Biodiversity Informatics landscape in Belgium

KEYPLAYERS

FLAGSHIP INITIATIVES

**STRONG INTERACTION
& COLLABORATION**



**Open Biodiversity
Knowledge
Management**

Biodiversity Informatics landscape in Belgium



Biodiversity.be

Belgian Biodiversity Platform (www.biodiversity.be)

Belgian Biodiversity Platform



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Publish your data



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Think with us

The Belgian Biodiversity Platform is a science-policy interface.

We offer a privileged access to primary biodiversity data and research information.

We encourage interdisciplinary cooperation among scientists and serve as an interface between researchers and science policy organisations.

We advise on the designation of biodiversity research priorities.

We promote Belgian biodiversity research at international fora.

[Read more](#)



Biodiversity.be

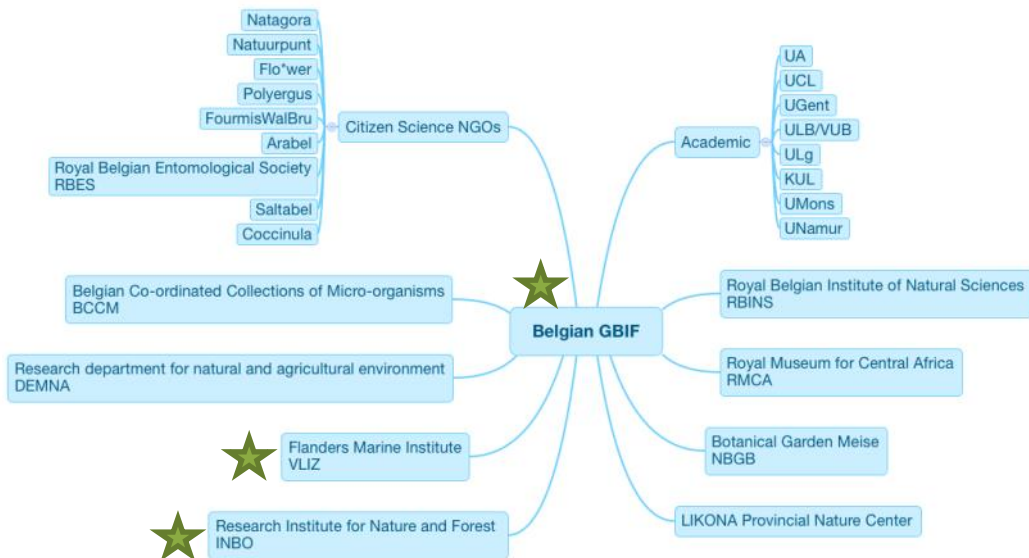
National node of the Global Biodiversity Information Facility (GBIF)

... an international open data infrastructure, funded by governments.
... allowing anyone, anywhere to access data about all types of life on Earth, shared across national boundaries through the Internet.
... a single point of access to more than 500 million records, shared freely by hundreds of institutions worldwide, making it the biggest biodiversity database on the Internet.

GBIF's vision: *"A world in which biodiversity information is freely and universally available for science, society and a sustainable future."*



Belgian GBIF Participation



GBIF data from Belgium cover various parts of the world...



- [71 occurrence datasets](#) with [8,821,522 records](#).
- [8 checklist datasets](#) with 148,162 records.
- Belgium publishes data covering [228 countries, territories and islands](#).



GBIF IMPACT

Monitoring of scientific research literature suggests 35% increase in 2014 in the use of biodiversity data accessed via GBIF

Similar trend in Belgium



Customized web portals that showcase occurrence data



Belgian Ants



Vascular Plants



African rodentia



Afrotropical moths



Invasive Species



Central African Plants



Freshwater diversity



Paraguayan Ants



European datasets

- user-friendly websites that showcase occurrence data for specific taxonomic groups, allowing users to make the most efficient use of data.
- crafted by our IT expertise on databases development, geographic information system (GIS) and web design.

Biodiversity Informatics landscape in Belgium



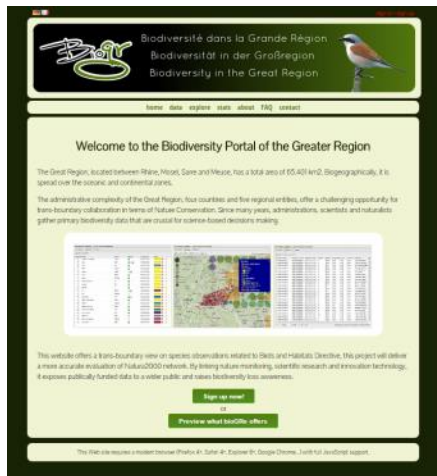
Wallonie



Service public
de Wallonie

Bio-GR – Biodiversity in the Great Region (www.bio-gr.eu)

- i.e. region located between Rhine, Mosel, Sarre and Meuse; 4 countries & five regional entities; both continental and oceanic zones
- Offers a transboundary view on species observation related to the Birds and Habitats directive, and as such, delivers a more accurate evaluation of the Natura2000 Network
- Exposes publicly funded data to a wider public and raises biodiversity loss awareness





Espèces	Biotopes / Habitats	Sites
<p>Rechercher par nom</p> <p>Ex : Papill*, Renard*... <input type="button" value="Ok"/></p> <p>+ de critères</p> <p>Accès par l'arbre de classification </p> <p>Tout sur les espèces</p>	<p>Rechercher par nom</p> <p>Ex : Tourbière*, Hétraies*... <input type="button" value="Ok"/></p> <p>+ de critères</p> <p>Accès par l'arbre de classification </p> <p>Tout sur les biotopes</p>	<p>Rechercher par nom</p> <p>Ex : Lesse, carrière*... <input type="button" value="Ok"/></p> <p>+ de critères</p> <p>Accès par carte </p> <p>Tout sur les sites</p>



Les PCDN en Wallonie

Tout savoir sur les Plans Communaux de Développement de la Nature



Le programme européen Life+

Les projets LIFE+ Nature en Wallonie.
Le Méta-projet "Restauration des tourbières en Haute-Ardenne"

Portail de la Biodiversité en Wallonie : 700 espèces, 500 biotopes et 2000 sites de grand intérêt biologique recensés

Actualités

Bilan des observations de Libellules en 2013 et 2014

Un bilan des observations de la saison 2013 et 2014 est disponible. Celui-ci détaille les faits marquants des 2 saisons.



27/04/2015

Actualisation des cartes de distribution des Libellules en Wallonie

Les cartes de distribution de nos espèces de libellules ont été actualisées à partir des données encodées et validées jusqu'au 01/01/2015! Merci pour vos contributions!



23/04/2015

Amateurs de Libellules, le calendrier 2015 des excursions organisées par le GT Gomphus est disponible.

Les excursions sont ouvertes à tous, que vous soyez débutants ou observateurs confirmés.



03/04/2015

Réseau écologique : Quel modèle pour demain ?

Les Journées européennes des Parcs se déroulent les 20 et 21 mai dans le Parc naturel Haute-Sûre Forêt d'Anlier (Moulin Klapper - Neufchâteau). La thématique abordée cette année sera « Réseau écologique : Quel modèle pour demain ? ».



01/04/2015

LIFE-Lomme : Rapport final simplifié



19/03/2015

[Consulter d'autres actualités](#)

dataportal on biodiversity in Wallonie, with information on over 700 species, 500 biotopes and 2000 sites of great biological interest



Biodiversity Informatics landscape in Belgium

museum





OPEN
UP!



Freshwater Animal Diversity Assessment (FADA)



Informal network of scientists specialized in freshwater biodiversity

First activities – 2005:

- Estimate based on literature study and contacts with experts; ca. 100'000 freshwater species
- Need for assessing the status of inland water biodiversity

Hydrobiologia (2005) 542:39–67
H. Segers & K. Martens (eds), Aquatic Biodiversity II
DOI 10.1007/s10750-004-5522-7

Review Paper

An assessment of animal species diversity in continental waters

C. Lévêque¹, E.V. Balian² & K. Martens^{3,4,*}

ISSN 0013-7717 (print) / ISSN 1573-5133 (electronic)

Hydrobiologia

The International Journal of Aquatic Sciences

Volume 695, Number 1, 2012

ISSN 0013-7717 (print) / ISSN 1573-5133 (electronic)

fada.biodiversity.be

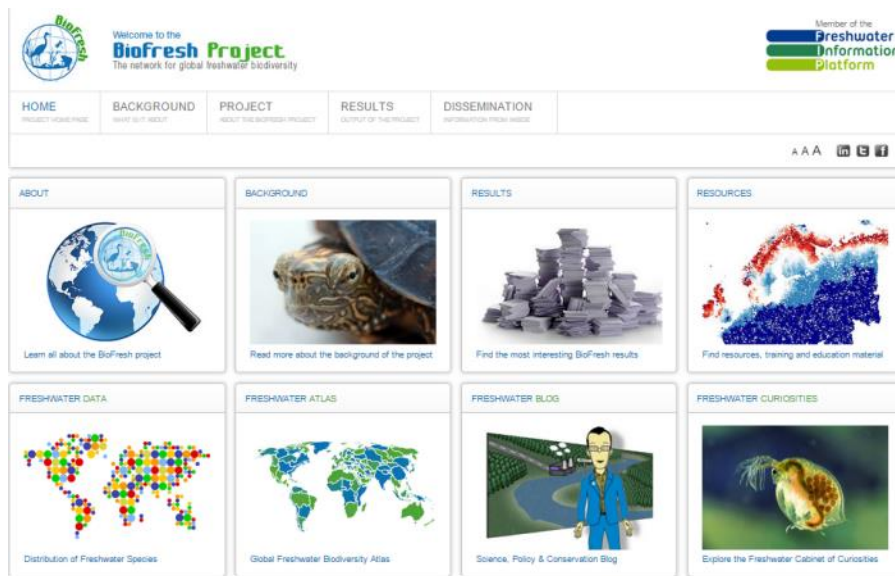


an information system dedicated to freshwater animal species diversity and distribution. The system provides access to authoritative species lists and global distribution compiled by world experts for the FADA book. You can Browse or Search the database online.

The BioFresh project (2010-2014)



Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities



project.freshwaterbiodiversity.eu

Freshwater Information Platform

- Central hub for freshwater resources and information - <http://www.freshwaterplatform.eu> uniting the efforts of previous projects and initiatives.
- Major platform components include:
 - Metadatabase
 - Biodiversity Data portal
 - Global Freshwater Biodiversity Atlas
 - Species traits
 - ...



Antarctic Biodiversity Data Portal (www.biodiversity.aq)

The screenshot shows the homepage of the BIODIVERSITY.AQ portal. The header is blue with the text 'BIODIVERSITY.AQ' and navigation links: WWW, APG, IPT, DATA, ATLAS, MARS. Below the header, there's a section for 'ANTARCTIC BIODIVERSITY' with links: HOME, NEWS, CONTACT, DATA, RESOURCES, PROJECTS, SPONSORS. The main content area is divided into two columns. The left column is titled 'About biodiversity.aq' and contains text about the portal's funding by the Belgian Science Policy Office, its role as an official SCAR Product, and its integration with SCAR-MarBIN and the Australian Antarctic Division. It also mentions the Princess Elisabeth Station and the International Steering Committee. The right column is titled 'DATA' and features two buttons: 'Find data (beta)' and 'Publish data', both with icons and brief descriptions. The footer contains logos for the Belgian Science Policy Office (belspo), SCAR, Biodiversity.be, museum, and BIODIVERSITY.AQ.

BIODIVERSITY.AQ WWW APG IPT DATA ATLAS MARS

WWW | ANTARCTIC BIODIVERSITY

HOME NEWS CONTACT DATA RESOURCES PROJECTS SPONSORS

About biodiversity.aq

Funded by the [Belgian Science Policy Office](#), biodiversity.aq is building an innovative Antarctic biodiversity information system, giving access to a distributed network of contributing database, according to the principles of the [Global Biodiversity Information Facility](#). It is building a new data discovery tool using two complementary networks and will expand these by using an advanced technical architecture, capable of linking with many potential data resources.

Biodiversity.aq is recognised as an official SCAR Product and integrates [SCAR-MarBIN](#) (Scientific Committee on Antarctic Research - Marine Biodiversity Information Network), with the biodiversity databases managed by the [Australian Antarctic Division](#), bringing together data from marine and terrestrial realms.

biodiversity.aq is the data management tool and repository for the biodiversity-related research conducted at the [Princess Elisabeth Station](#).

Biodiversity.aq will use the best available technology to integrate, share and disseminate all available information on Antarctic Biodiversity. Its implementation by the Belgian Biodiversity Platform ascertains that biodiversity.aq can take advantage of the relevant experience of the Belgian [GBE](#) node.

biodiversity.aq is steered by an [International Steering Committee](#) composed of selected experts in the field of Polar biodiversity.

[CONTACT US](#)

DATA

[www.biodiversity.aq](#)

Find data (beta)
Use data.biodiversity.aq to search for data.

Publish data
Use apt.biodiversity.aq to publish your data.

- SCAR-MarBIN, ANTABIF and ANTABIS
- Both Marine & Terrestrial realms in the Antarctic
- Science, conservation and management
- Networked community developments



Antarctic Biodiversity Data Portal (www.biodiversity.aq)

The screenshot displays the Antarctic Biodiversity Data Portal (Biodiversity.AQ). The header includes the site name and navigation links: WWW, AFD, IPT, DATA, ATLAS, MAPS. The main content area shows the 'DATA' section with the text 'FIND ANTARCTIC BIODIVERSITY DATA' and a list of links: home, search, tools, contact, data policy, help. Below this, the species 'Acodontaster Verrill, 1899' is highlighted. The 'TAXONOMIC INFORMATION' section lists the 'Taxonomic provider' as the 'World Register of Marine Species (WoRMS)' and provides a 'Classification' path: Bala (superclass) > Antenna (phylum) > Echinodermata (phylum) > Asterozoa (phylum) > Asteroidea (class) > Verrillina (subclass) > Verrillidae (order) > Acodontasteridae (family). The 'Status' section lists 'accepted', 'proposed', and 'obsolete'. A large, semi-transparent 'SHOWCASE' watermark is overlaid on the page. On the right, a map titled 'OCCURRENCE DISTRIBUTION MAP' shows the distribution of the species in the Southern Ocean around Antarctica. The map includes a scale bar (Scale = 1 : 30M), a coordinate system (EPSG:3031), and latitude/longitude coordinates (Latitude(DD): -47.82951 and Longitude(DD): -127.9711).

- tools (distribution maps etc.), access to literature/image database/related projects etc.
- Ongoing efforts are directed to getting it established as a LIFEWATCH Contribution

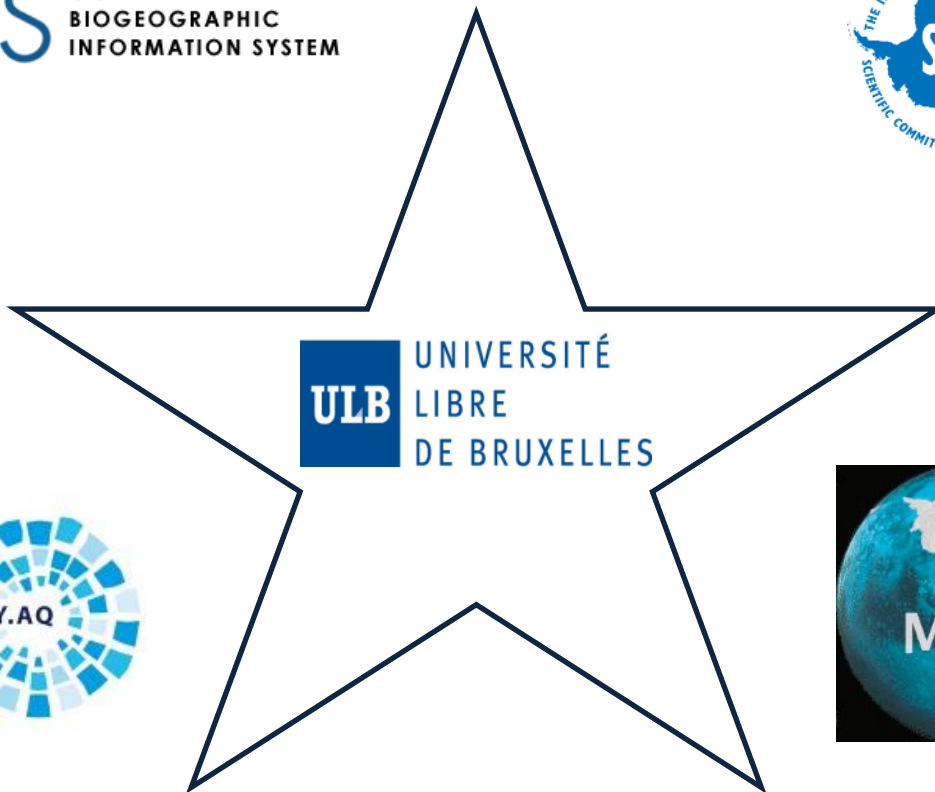


Biodiversity Informatics landscape in Belgium



ULB

UNIVERSITÉ
LIBRE
DE BRUXELLES



Biodiversity Informatics landscape in Belgium

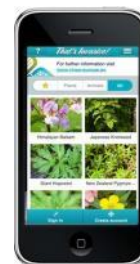


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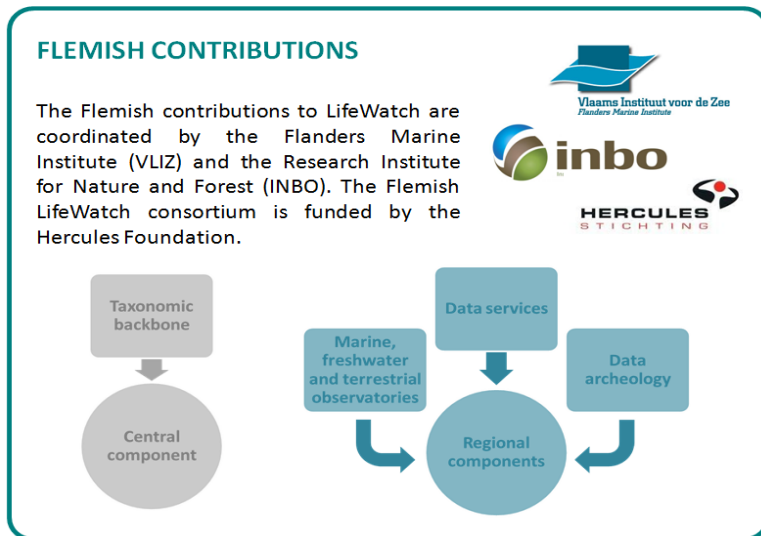


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Flemish LIFEWATCH contributions

LifeWatch is a **European infrastructure for biodiversity research**. It is a **virtual laboratory** consisting of observation stations, databases, web services and modelling tools installed across Europe. This network **facilitates** the generation, processing, integration and analysis of biodiversity data.



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Flemish LIFEWATCH contributions – threefold...

1. Construction of a Central (European) Taxonomic Backbone

- Facilitates the standardization of species information and the integration of the distributed biodiversity facilities.
- Aims to align several existing taxonomic databases (WoRMS, PESI, CoL, etc.) to make them more compatible
- Aims to (virtually) bring together different component databases and data systems, all of them related to taxonomy, biogeography, ecology, genetics and literature

SHOWCASE

Central data management workflow for providing technical, logistic and financial support for upgrading and completing the component databases (WoRMS, FADA, SCAR-MarBIN, etc.).

Taxonomic data systems



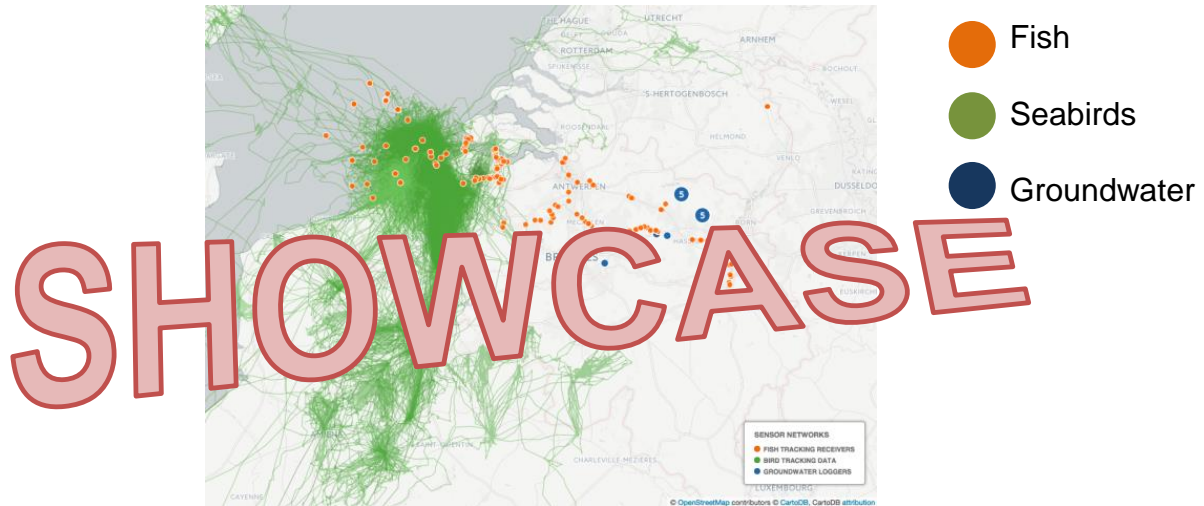
WoRMS Currently holds:
229,383 accepted species, of which
96% checked [more stats]



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2. Construction of a marine-freshwater-terrestrial observatory (observatories and sensor networks)

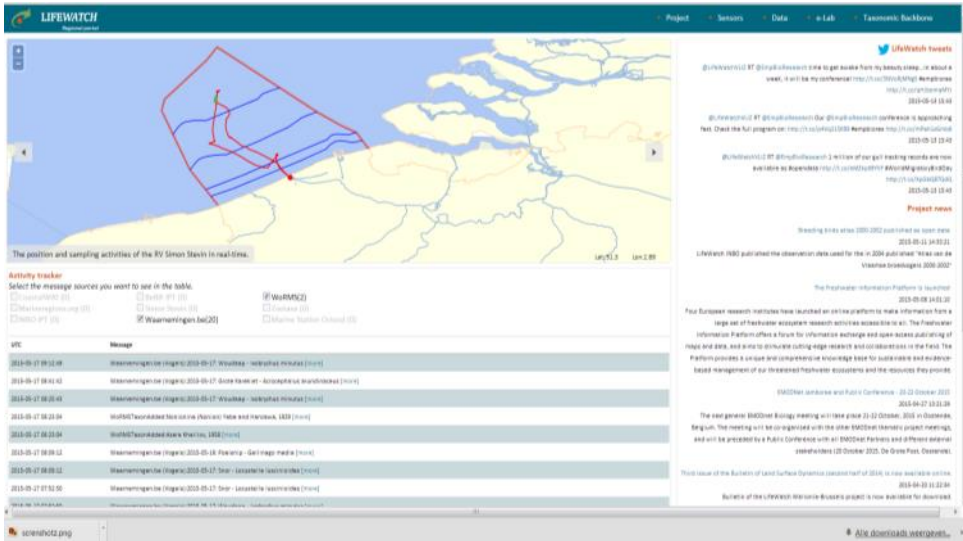


All real time data available through www.lifewatch.be

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3. Facilitate access to data through data services, data publication and data archeology activities – [LIFEWATCH.BE](https://lifelwatch.be) (hosted by VLIZ)



Access to these data is provided through

- local,
- regional and
- global data systems

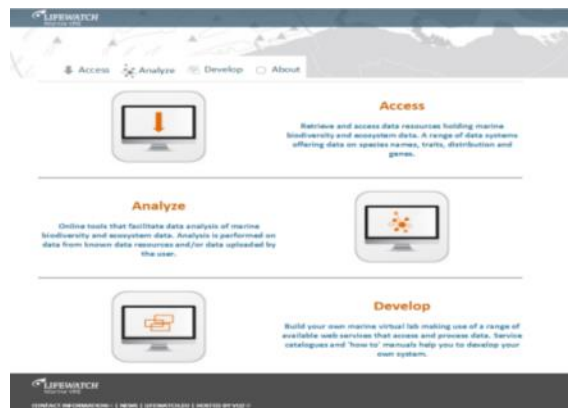
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Lifewatch Marine Virtual Research Environment (VRE)



Marine.lifewach.eu

- **Brings together marine resources**, data bases, data systems, web services, tools, etc. into one platform
- **Access:** Retrieve and access a range of data systems offering data on species names, traits, distribution and genes.
- **Analyze:** Online tools for data analysis making use of LifeWatch web services.
- **Develop:** **Build your own marine virtual lab** making use of a range of available web services that access and process data.



Biodiversity Informatics landscape in Belgium



Earth and Life Institute/environmental sciences



Gembloux Agro-Bio Tech
Université de Liège

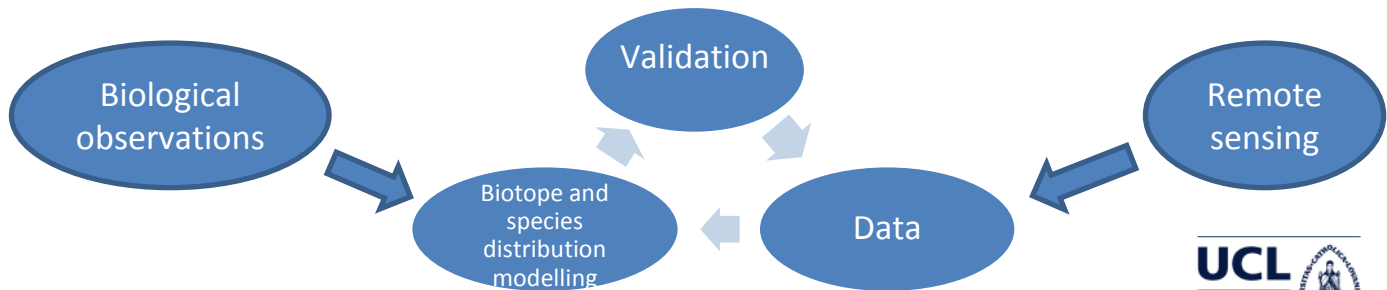
Gembloux Agro-bio Tech/Biodiversity and landscape

LIFEWATCH WALLONIE-BRUSSELS (Lifewatch-WB)

Funded by the Wallonia-Brussels Federation to develop and gather geographic datasets about European biotic and abiotic factors.

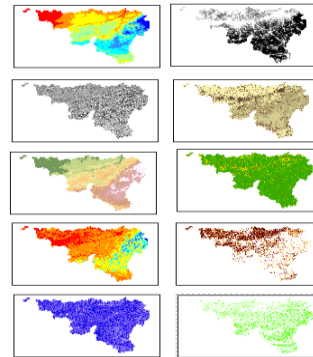
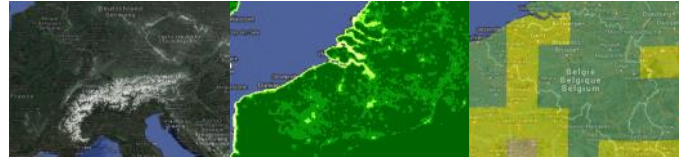
Strong experience in two complementary research fields:

- land cover and land use mapping through integrated GIS analysis and remote sensing image analysis and
- biodiversity, ecosystem services and landscape ecology

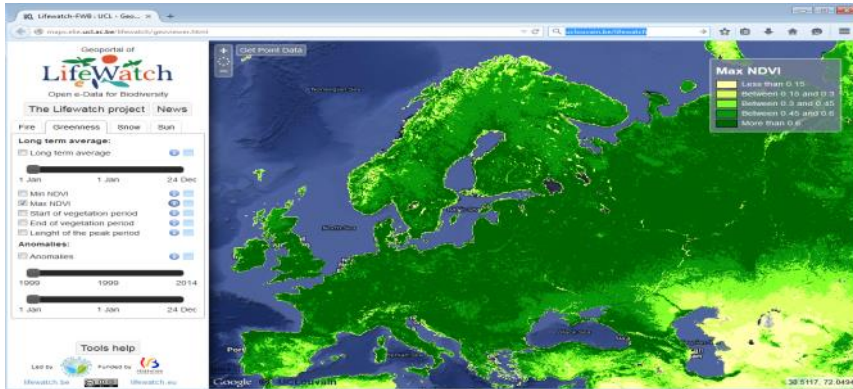


Two types of open datasets

- [Land cover dynamics in Europe](#)
 - Fires
 - Vegetation greenness
 - Snow
- High resolution database in Wallonia
 - Land cover and land use
 - Abiotic factors (e.g. soils, topography, climate...)
 - Contextual information



Monitoring and synthesizing of ecosystem dynamic descriptors,
viewable through a **geoportal**



SHOWCASE

Biodiversity Informatics landscape in Belgium



**Botanic Garden
Meise**



Botanic Garden
Meise





Mass Digitization of the Herbarium collection BR

at the Botanic Garden Meise

- ❖ Digitization of 700,000 vascular plant specimens
- ❖ From Belgium & central Africa
- ❖ Optimisation of scanning and IT infrastructure
- ❖ Better access to images and data



*In the future we want to crowdsource transcription
and georeferencing of these images*



**Botanic Garden
Meise**

SHOWCASE



Botanic Garden Meise

Communicating information on Alien Species



biodiversity e-infrastructures to better communicate information on introduced plants that grow wild in Belgium



**Botanic Garden
Meise**

Biodiversity informatics permeates into all aspects of research at the garden

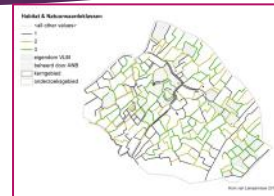
Taxonomy



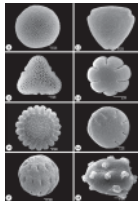
Conservation



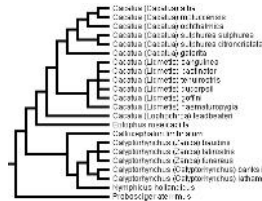
Landscape Ecology



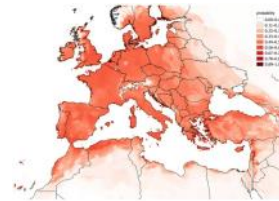
Imaging



Evolution



Biogeographic Modelling



30 servers holding over 100 TB of data and images, and growing rapidly



Botanic Garden
Meise

Biodiversity Informatics landscape in Belgium





Biodiversity
Information
Standards
T D W S



Catalogue of Life

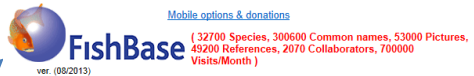


Africa
Africa
TERVUREN

international
BARCODE
OF LIFE



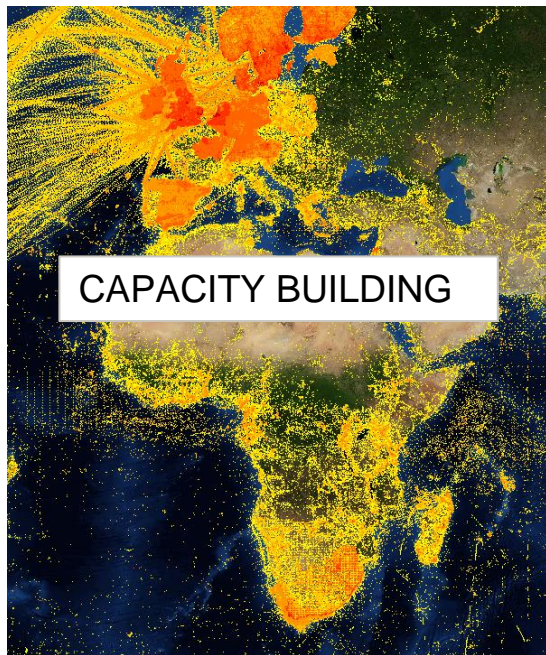
The **Congo Biodiversity Initiative (CBI)** is an **open knowledge platform** providing a venue to people and organisations involved in the **conservation, protection, sustainable use**, and **study** of the unique **biodiversity of the Congo basin**.



www.fishbaseforafrica.org

Africa
TERVUREN

CABIN (Central African Biodiversity Information Network)



Collaboration with GBIF – aiming at the development, the installation and the maintenance of a network of databases on biodiversity, in cooperation with scientific institutions located in DR Congo, Rwanda, Burundi

More info at :

<http://cabin.cybertaxonomy.africamuseum.be/>



Biodiversity
Information
Standards
T D W G



LA COOPÉRATION
BELGE AU DÉVELOPPEMENT



Africa
TERVUREN



Biodiversity Informatics landscape in Belgium


NGO




NGO



Citizen science initiatives

**Waarnemingen.be**

Signed in as [Brosens Dimitri](#) | [Sign out](#) | [Forum](#) | [Help](#) | [Select language and/or site](#) 

[natuurpunt](#) | [Add](#) | [Observations](#) | [All species](#) | [Overviews](#) | [My Waarnemingen.be](#) | [Projects](#)

Waarschuwing

Door toedoen van de met deze invasieve exoten ingrijpen.

Vrijwilligers kunnen tege bevoegde overheden te Je kan hier meldingen v

- Alarmlijst: soorten die
- Opkomende soorten:
- Gevestigde soorten:

Deze lijsten bevatten n Voor meer informatie ov

Select list:

ALARM_LIST:

African Sacred Ibis
Threskiornis aethiopicus

Algae, Weeds and other unicellular organisms

Galls

Exoten


De 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'. Ze kunnen gezondheidsproblemen en verstopen 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.

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 project het hele proces van observatie en melding tot ingrijpen en opvolgen te stroomlijnen.

[Op het meldsysteem](#). We onderscheiden drie types invasieve exoten:


- 1. Soorten die al in België aanwezig zijn, maar nog steeds uitbreiden.
- 2. Soorten die voor sommige soorten een beheer gevoerd.
- 3. Soorten die ten kan u terecht bij: [Vlaanderen](#), [Brussel](#), [Wallonië](#)


- [homepage INVASIVE_SPECIES](#)
- [Observations](#)
- [Toevoegen Alert Invasieve exoten](#)




© Olivier Piu

RECOGNITION

 Show distributionmap


See also: 




© Elien de Lange

RECOGNITION


Not yet observed


See also: 




© Jos Dronck

RECOGNITION

 Show distributionmap


See also: 




© Jürgen Reimers

RECOGNITION

Not yet observed


See also: 




© Johan op den Dries

RECOGNITION


Not yet observed


See also: 




© Dethmingsen

RECOGNITION


 Show distributionmap


See also: 



© Dethmingsen

RECOGNITION

 Show distributionmap

See also: 



Recent Rarities

Birds

Mammals

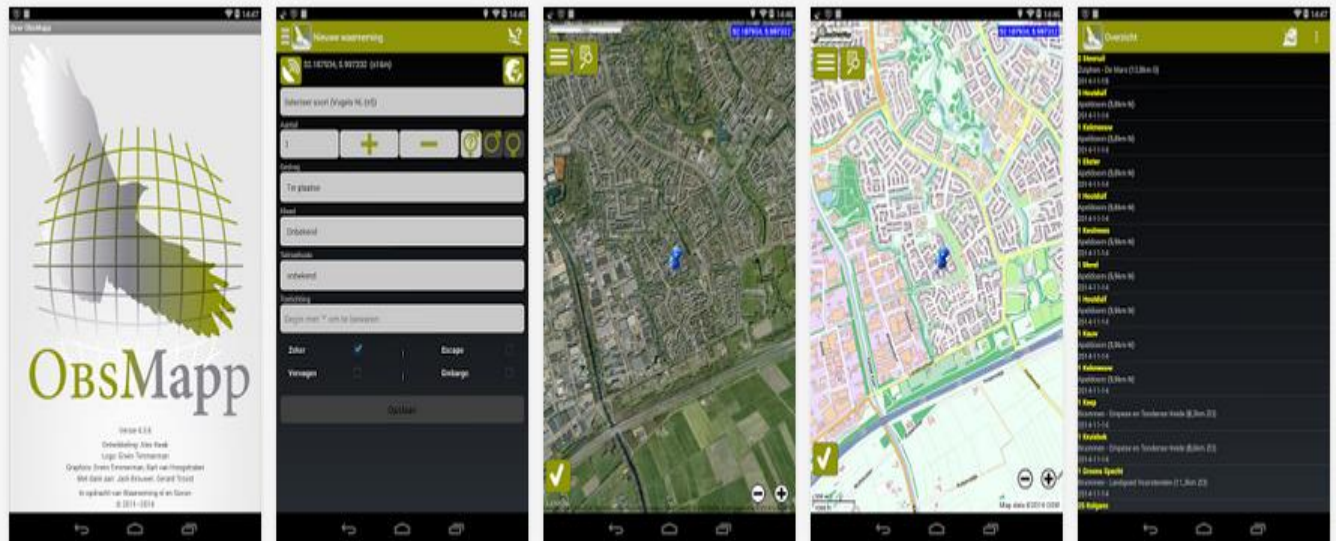
Reptiles and Amphibians

Butterflies

<select>

Generated: 14-05-2015 16:42 next refresh: 14-05-2015 17:12

Date	#	Species	Area
14-05-2015 10:10	1	Black-browed Albatross - <i>Thalassarche melanophris</i>	BRD - Helgoland - Oberland [DE]
14-05-2015 07:53	3	Grey-sided Thrush - <i>Turdus feae</i>	China - Qinhuangdao [CN]
14-05-2015	1	Rusty Blackbird - <i>Euphagus carolinus</i>	Canada- Montreal [CA]
13-05-2015 13:28	1	Gadwall - <i>Anas strepera</i>	Finland -Hailuoto [FI]
13-05-2015 14:32	2	Water Pipit - <i>Anthus spinoletta</i>	Ireland, Sweden
13-05-2015 17:17	1	European Herring Gull - <i>Larus argentatus</i>	Hungary-Gyor-Moson-Sopron [HU]
13-05-2015	1	Great Bustard - <i>Otis tarda</i>	Spain - Santa Marta de Magasca [ES]
13-05-2015 12:37	2	Eastern Imperial Eagle - <i>Aquila heliaca</i>	Georgia - Dedoplistskaro [GE]
13-05-2015 15:14	2	Eurasian Black Vulture - <i>Aegypius monachus</i>	Armenia, Georgia
13-05-2015 20:20	1	Red-footed Falcon - <i>Falco tinnunculus</i>	BRD - Murnauer Moos [DE]
13-05-2015 20:20	1	Short-toed Eagle - <i>Circus pygmaeus</i>	BRD - Murnauer Moos [DE]
13-05-2015	1	Griffon Vulture - <i>Gyps fulvus</i>	Croatia - Cres [HR]
13-05-2015 20:02	1	White-winged Tern - <i>Chlidonias leucopterus</i>	Spain - Bassa del Garxal [ES]
13-05-2015 10:11	1	Ferruginous Duck - <i>Aythya nyroca</i>	Georgia - Chorokhi wetlands [GE]
13-05-2015 13:30	1	Green-winged Teal - <i>Anas carolinensis</i>	Sweden - Vilhelmina [SE]
13-05-2015 13:00	1	Red-breasted Flycatcher - <i>Ficedula parva</i>	BRD - Helgoland - Unterland [DE]
13-05-2015 10:42	1	Calandra Lark - <i>Melanocorypha calandra</i>	France - Saint-Martin-de-Crau [FR]



App allowing to record your field observations (automatically coupled to date/time/GPS location), and to upload them to data portals

Thank You!

EMPOWERING
BIODIVERSITY RESEARCH



Africa
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