

Data flow & Quality control

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A Practical introduction to acquisition, validation,
quality control and access to (biodiversity) data

Vlissingen, Netherlands, 14.06.2015



data flow

from collection to publication



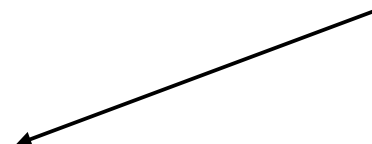
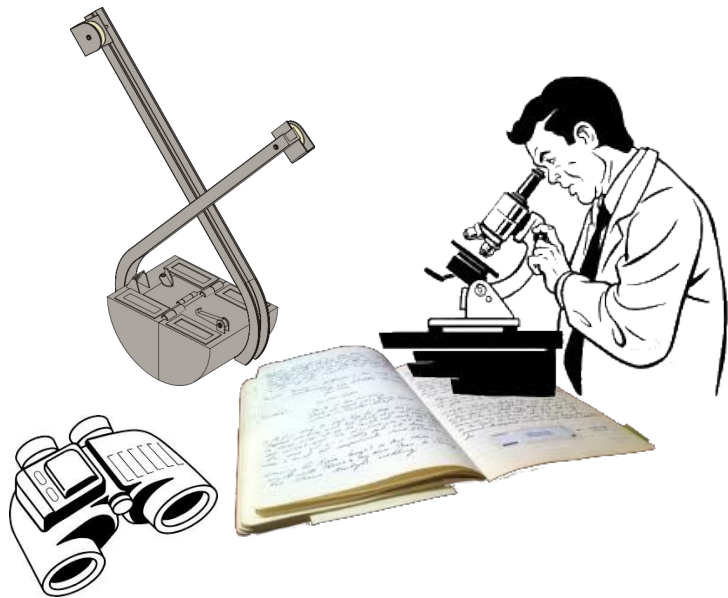
data flow

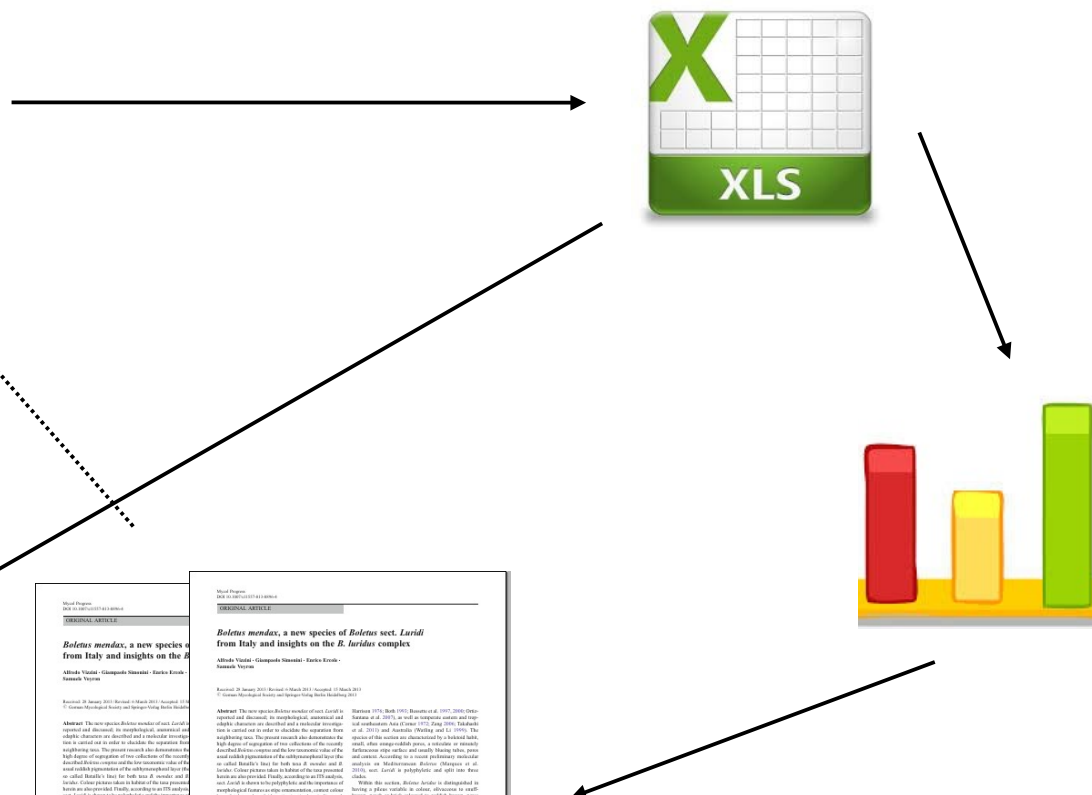
from collection to publication

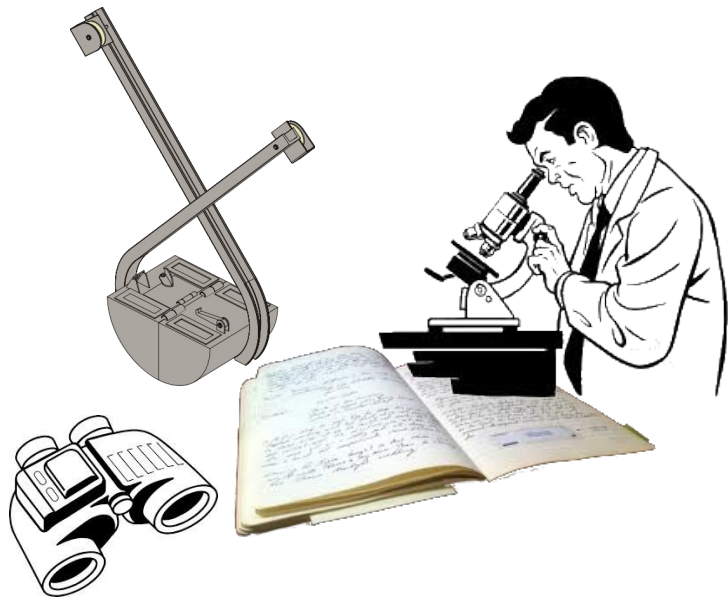


data managers











understanding the data

creation of metadata



quality control

standardization



publication of the data



understanding the data



- visual inspection of the data
- reading accompanying publications
- discussions with the data provider

... to create a documentation

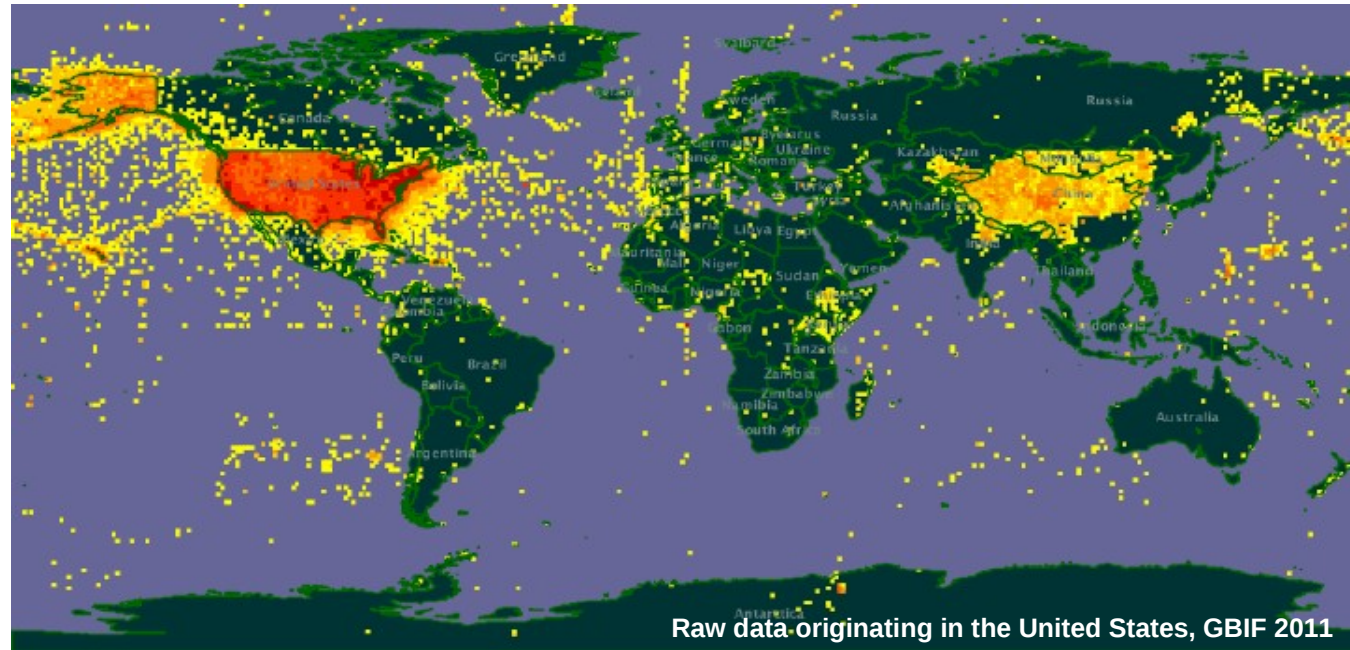
... to detect errors / inconsistencies



quality control

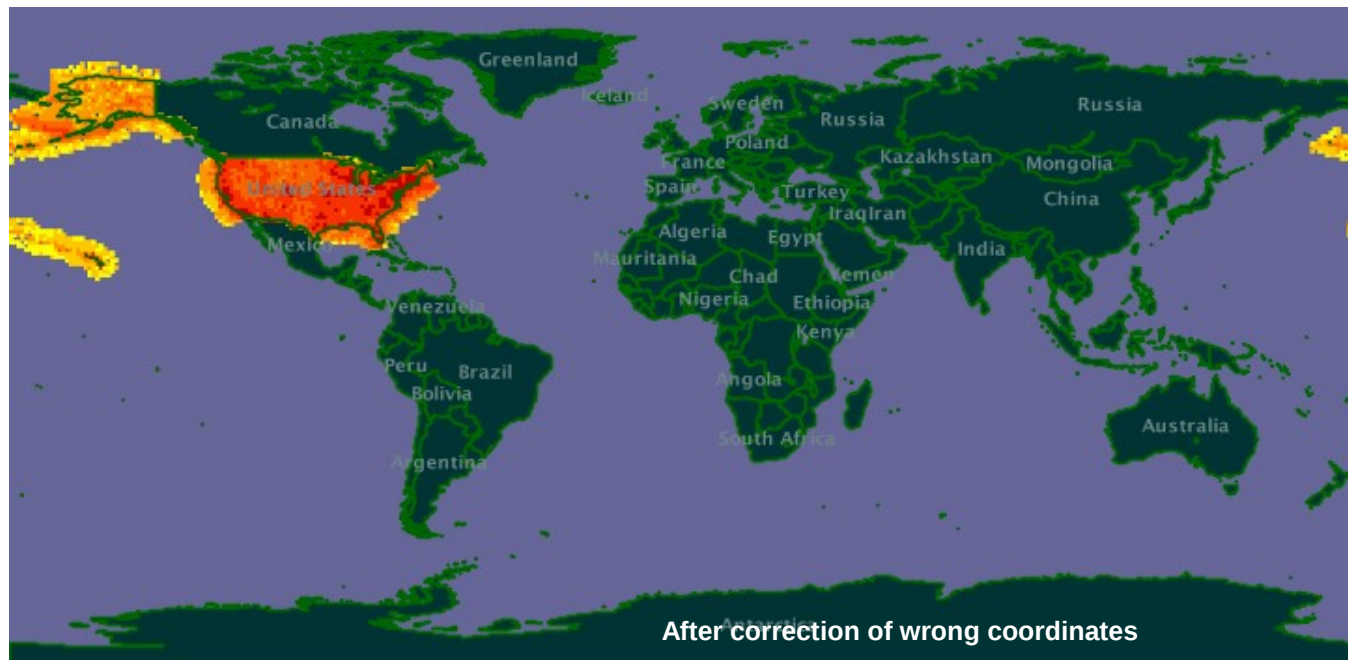
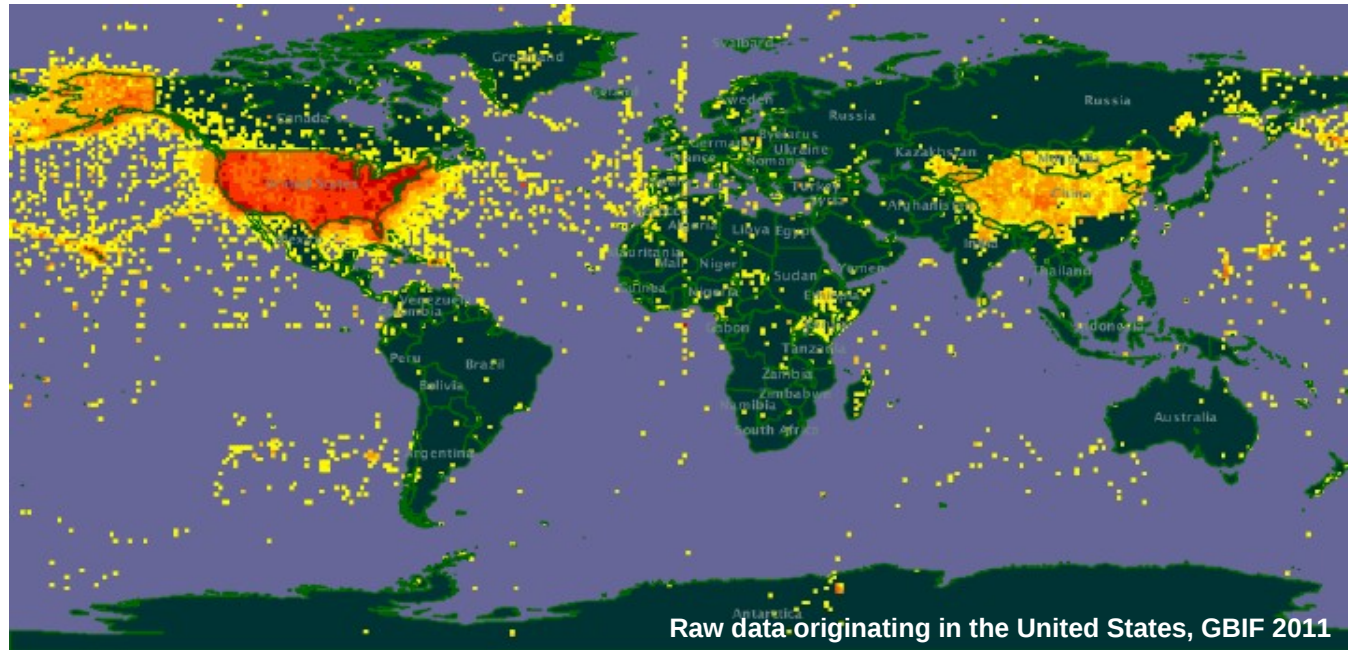


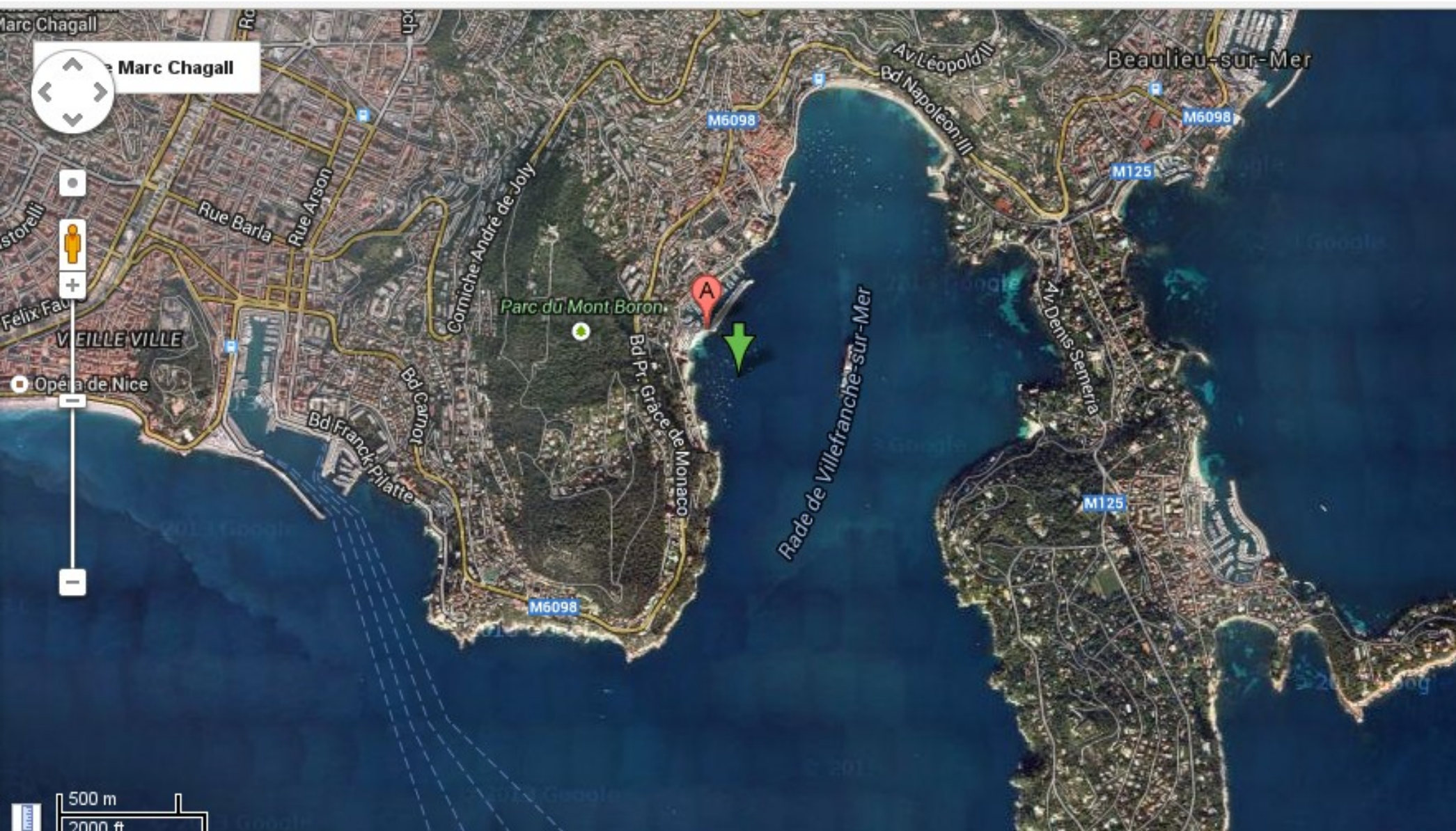
spatial

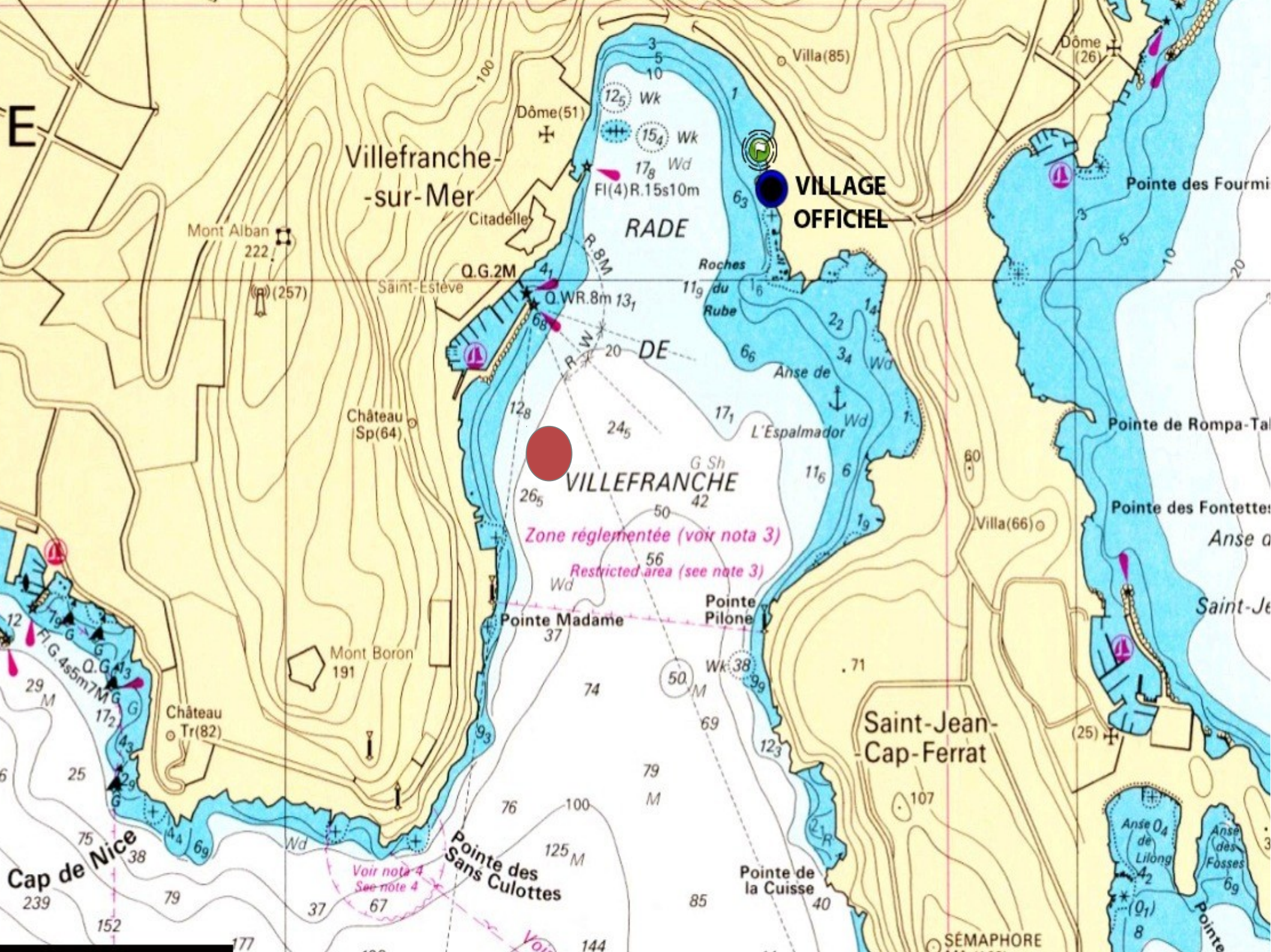




spatial



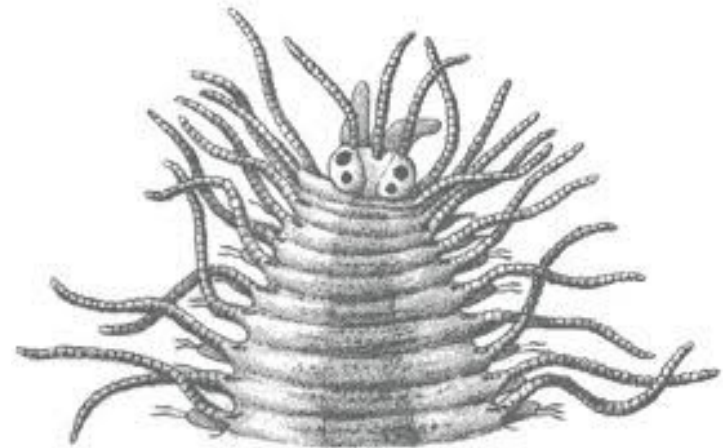






taxonomic

- orthographical errors
- misidentifications
(deduced from known occurrence)
- synonyms/ outdated names





temporal

	A	B	
1			
2	Sample 1	21.01.2001	
3	Sample 2	21.01.2001	
4	Sample 3	22.01.2001	
5	Sample 4	22.01.2001	
6	Sample 5	23.01.2001	
7	Sample 6	23.01.2010	
8	Sample 7	24.01.2001	
9			
10			



inconsistencies

	A	B	C	D
1	Replicate	Sample	Depth	Temperature
2	1a	Sample 1	15	17.8
3	1b	Sample 1	15	17.9
4	1c	Sample 1	15	27.9
5	2a	Sample 2	20	18
6	2b	Sample 2	20	18.1
7	2c	Sample 2	30	17.9
8				



data gaps

2	integrate (0-75m)	FR-PTB_2_MS_0-75m	<u>Ciliophora</u>	<u>Non-Loricata Ciliate</u>	<u>40 micron oligotrich</u>
2	~~integrate (0-75m)~~	~~FR-PTB_2_MS_0-75m~~	<u>Ciliophora</u>	<u>Non-Loricata Ciliate</u>	<u>10 micron Balanion sp.</u>
2	integrate (0-75m)	FR-PTB_2_MS_0-75m	<u>Ciliophora</u>	<u>Non-Loricata Ciliate</u>	<u>50 Tontonia sp.</u>
			<u>Radiolaria</u>	<u>other protozoa</u>	



Never delete!

Always keep the original values!



[New job](#)
[Results](#)
[User guide](#)
[Use cases](#)

1. Upload your file

Select one of the demo data files and choose from several web services, models and applications to process the data.

To work with other data files, please log in.

If you are new to this service, please read the manual.

File No file selected.

Use demo file: View demo file

Allowed filetypes: Plain text [TXT] | Plain text [CSV] | excel [XLS] | excel [XLSX]

Maximum rows in file: 10000

Heading ☒ First row contains column names

Column delimiter

Decimal symbol

Data format

2. Select webservices

Name	Source	Description	Environmen	Status
☒ Data validation and QC services				
☒ MarineRegions gazetteer services				
☐ Taxon observations				
☐ Taxon services				
☐ Tidal services				
☐ Geographical services - Administrative boundaries				
☐ Geographical services - Bathymetry				
☐ Geographical services - Biogeographical classification				
☐ Geographical services - Environmental data				
☐ Geographical services - Features				
☐ Geographical services - Protected areas				
☐ Geographical services - Total biological valuation				

3. Verify order, change order if necessary and run

Selected services



standardization

standards for content

standards for format

data exchange standards /
protocols

Biodiversity
Information
Standards
TDWG

<http://www.tdwg.org/>

Taxonomy & nomenclature

taxonomic name (binomial)



Mus musculus Linnaeus, 1758



genus
name



specific
epithet



author



year of first
description

taxonomic name (binomial)



Mus musculus Linnaeus, 1758



genus
name



specific
epithet



author



year of first
description



Hermodice carunculata (Pallas, 1766)



author & year in parenthesis

Aphrodita carunculata Pallas, 1766



taxonomic name (binomial)



Rhodomela confervoides (Hudson) P.C.Silva

↑
genus
name

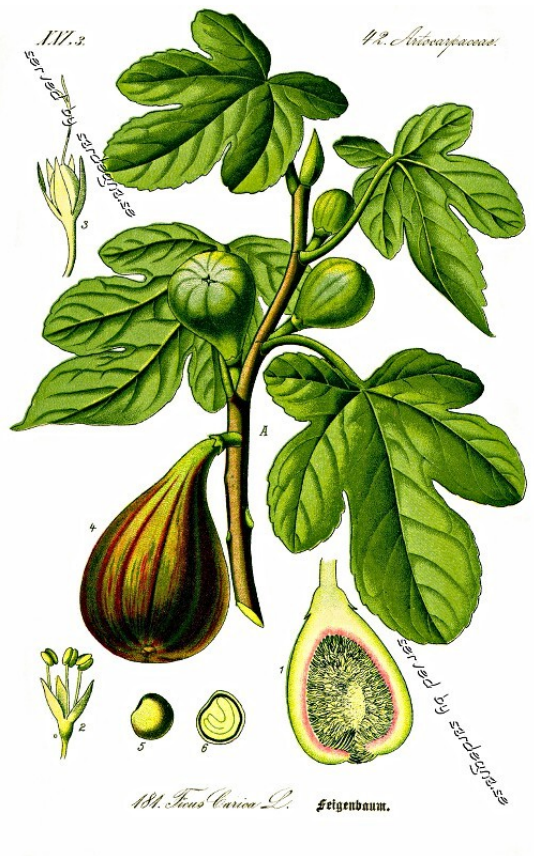
↑
specific
epithet

↑ ↑
authority information

Hudson: Original author (*Fucus confervoides*)

P.C.Silva: placed the species in the genus *Rhodomela*

Why authority information?



Ficus L.



Ficus Röding, 1798

Homonyms

(same name applied to more than one taxon)

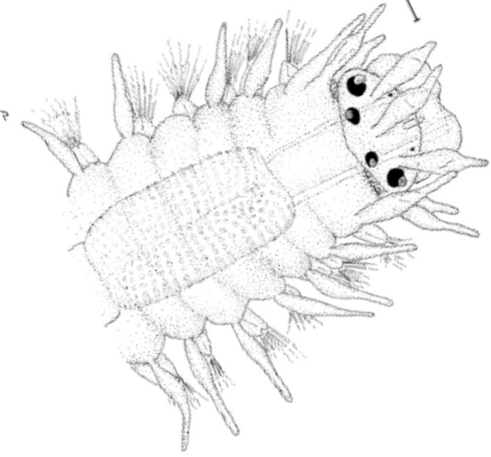
Homonyms

(same name applied to more than one taxon)

&

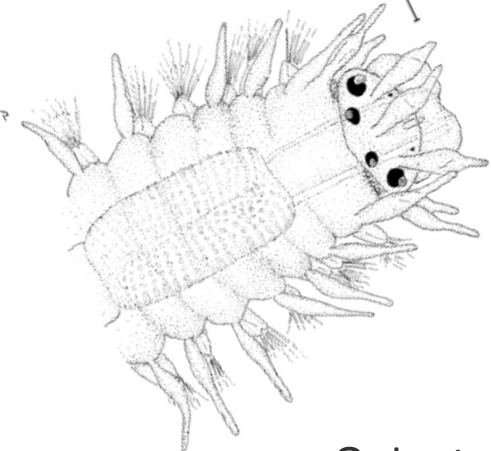
Synonyms

(two names referring to the same taxon)



Salvatoria clavata (Claparède, 1863)





Salvatoria clavata (Claparède, 1863)

Salvatoria clavata (Claparède, 1863)	302
Brania clavata (Claparède, 1863)	132
Grubea clavata (Claparède, 1863)	3
Grubea dolichopoda Webster, 1879	1
Grubea fusifera Quatrefages, 1866	0
Grubea websteri Verrill, 1882	1
Grubeosyllis clavata (Claparède, 1863)	88
Pseudobrania clavata (Claparède, 1863)	2
Salvatoria dolichopoda (Marenzeller, 1874)	4
Syllis clavata Claparède, 1863	0



Physeter macrocephalus Linnaeus, 1758

Catodon australis Wall, 1851

Tursio vulgaris Fleming, 1822

Physeterus sulcatus Lacépède, 1818

Physeter tursio Linnaeus, 1758

Physeter orthodon Lacépède, 1804

Physeter novaeangliae Borowski, 1780

Physeter microps subsp. rectidentatus Kerr, 1792

Physeter microps sp. rectidentatus Kerr, 1792

Physeter microps Linnaeus, 1758

Physeter maximus G. Cuvier, 1798

Physeter catodon Linnaeus, 1758

Physeter australis Gray, 1846

Physeter australasiensis Desmoulins, 1822

Physeter australasianus Desmoulins, 1822

Physeter andersonii Borowski, 1780

Physalus cylindricus Lacépède, 1804

Phiseter trumpo Bonnaterre, 1789

Phiseter mular Bonnaterre, 1789

Phiseter cylindricus Bonnaterre, 1789

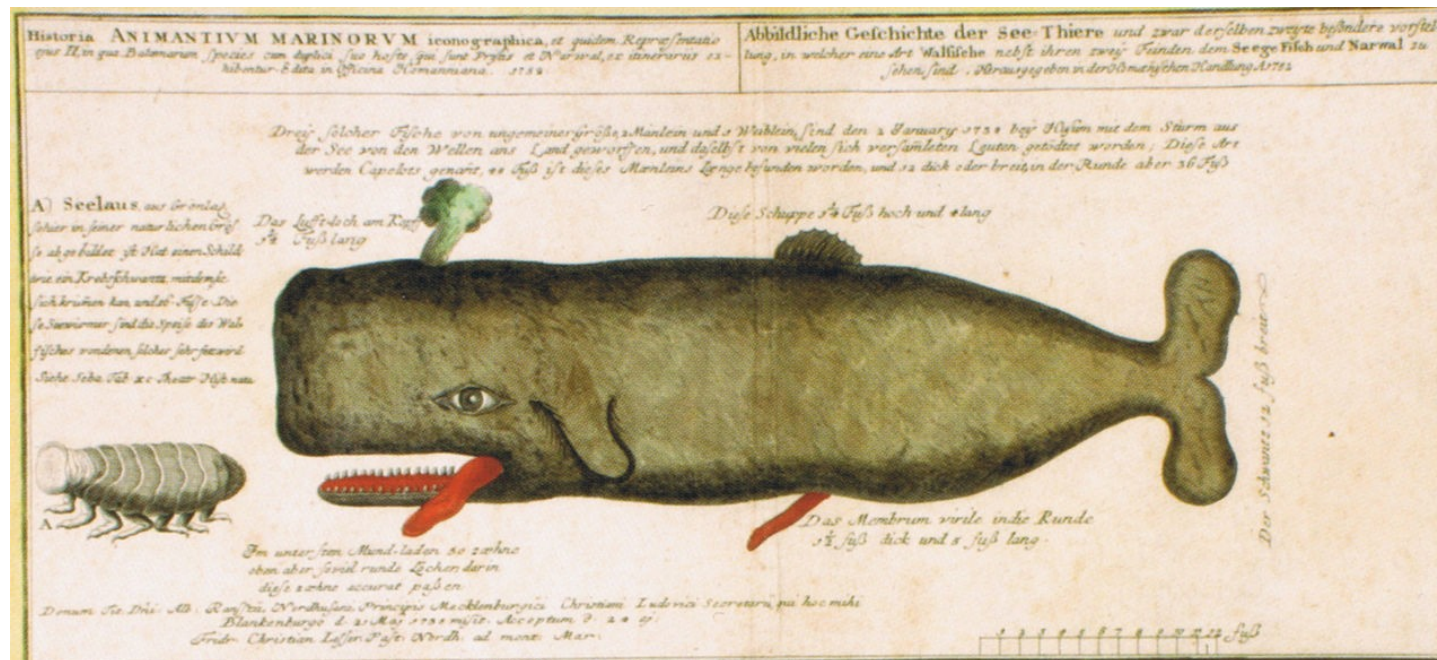
Delphinus bayeri Risso, 1826

Cetus cylindricus Billberg, 1828

Catodon macrocephalus Lacépède, 1804

Catodon krefftii Gray, 1865

Catodon colneti Gray, 1850



Zostera marina Linnaeus, 1753

Lugworm

Acacia angustissima (P. Mill.) Kuntze var. *cuspidata* (Schlecht.) L. Benson

H. diversicolor

Echinodermata sp.1

Grammatophora oceanica oceanica subtilissima

Syllis cf. *gracilis*

? *Prosphaerosyllis tetralix*

Eunicidae indet.

2D Stress: 0.01

Estonia

France
Croatia

Spain

Greece

Lithuania

575 “original” names

2D Stress: 0.01

Estonia

France
Croatia

Spain

Greece

Lithuania

575 “original” names

2D Stress: 0.01

Greece

Lithuania

France
Spain
Croatia

Latvia
Estonia

424 standardized names



<http://www.marinespecies.org>

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Common name

contains ▼

Search

e.g. fish, whale

Scientific name

begins with ▼

Search

e.g. Delphinus delphis

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News



Chinese Register of Marine Species - Cha

Added on: 2016-05-03 18:48:08 by Vandepitte, Leen

WoRMS is pleased to announce the launch of the Chinese Register of Marine Species (ChARMS).