



Data management for ecological data

Status and steps for action 1

Johannes Peterseil

EnvEurope Data Management



Discover available dataset series, datasets and services: a catalogue service allows the user to view and query related meta-data.

View available datasets: an online data access client allows the user to view data (WMS layers or tabular).

Download available datasets: an online data access client allows the user to download data

- Data files
- OGC spatial services (WFS, WCS)
- OGC Sensor Web (SOS)
- Linked Data



Where are we now?

- Milestones
- Deliverables

Milestones

- M1 New database on available data
 - Deadline: 31.12.2010
 - Result: Data reporting format
- M2 Operational validated database of all data (historical and newly generated)
 - Deadline: 30.09.2012
 - Working steps
 - collection of data with reporting format
 - integration into one database

Deliverables – done

- D1 Report on data stored in the new database
 - Deadline: 30.06.2011
 - Status: done
 - Task: A1.4.4 Establishment of connection and/or upload of existing data from the beneficiaries
 - Involvement: A1 Core Team
 - Content:
 - Data reporting format
 - data model

Deliverables – to be completed

- **D2 Meta database**

- Deadline: 31.12.2011
- Status: open
- Tasks
 - A1.1.4 collection of meta information about the existing datasets
 - A1.1.1b Provide metadata for the available sites
- Involvement: all ABs!
- Content site description
 - SITE: Site description profile
 - Collection of Site Description
- Content dataset description
 - EnvEurope Community Profile Report
 - DEIMS Metadata Editor
 - Content of EnvEurope DEIMS

Upcoming deliverables 30/06/2013

- D3 Best practise guideline for data management of LTER sites and LTSER platforms
- D4 Guideline for method consistency
- D5 Best practise guideline for quality assurance and quality control for integrated data from LTER sites and LTSER platforms
- D6 Database on integrated data
- D7 Recommendations on SEIS relevance

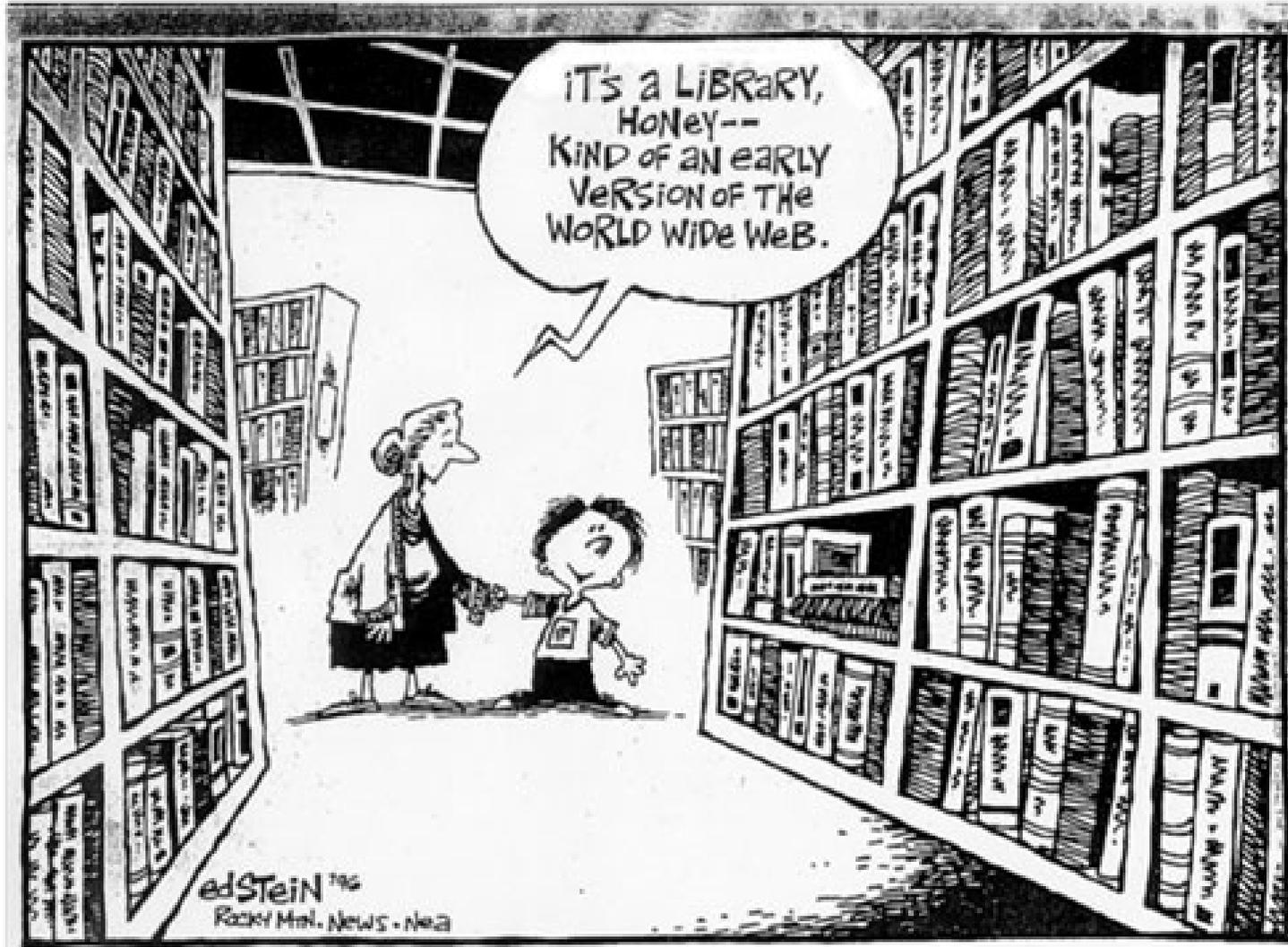


Where are we now?

- DEIMS Metadata Editor
- EnvThes – common vocabulary
- Data reporting
- Data quality assurance and data quality control



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Deliverables – to be completed

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Dataset metadata

- EnvEurope (LTER-Europe) Metadata Specification for Dataset Level Draft v3.0
- EnvEurope Drupal Ecological Information Management System – DEIMS, version 2.0
- Most comments processed and incorporated
- URL: <http://enveurope.geocatalogue.ise.cnr.it/deims>

EnvEurope DEIMS 2.0

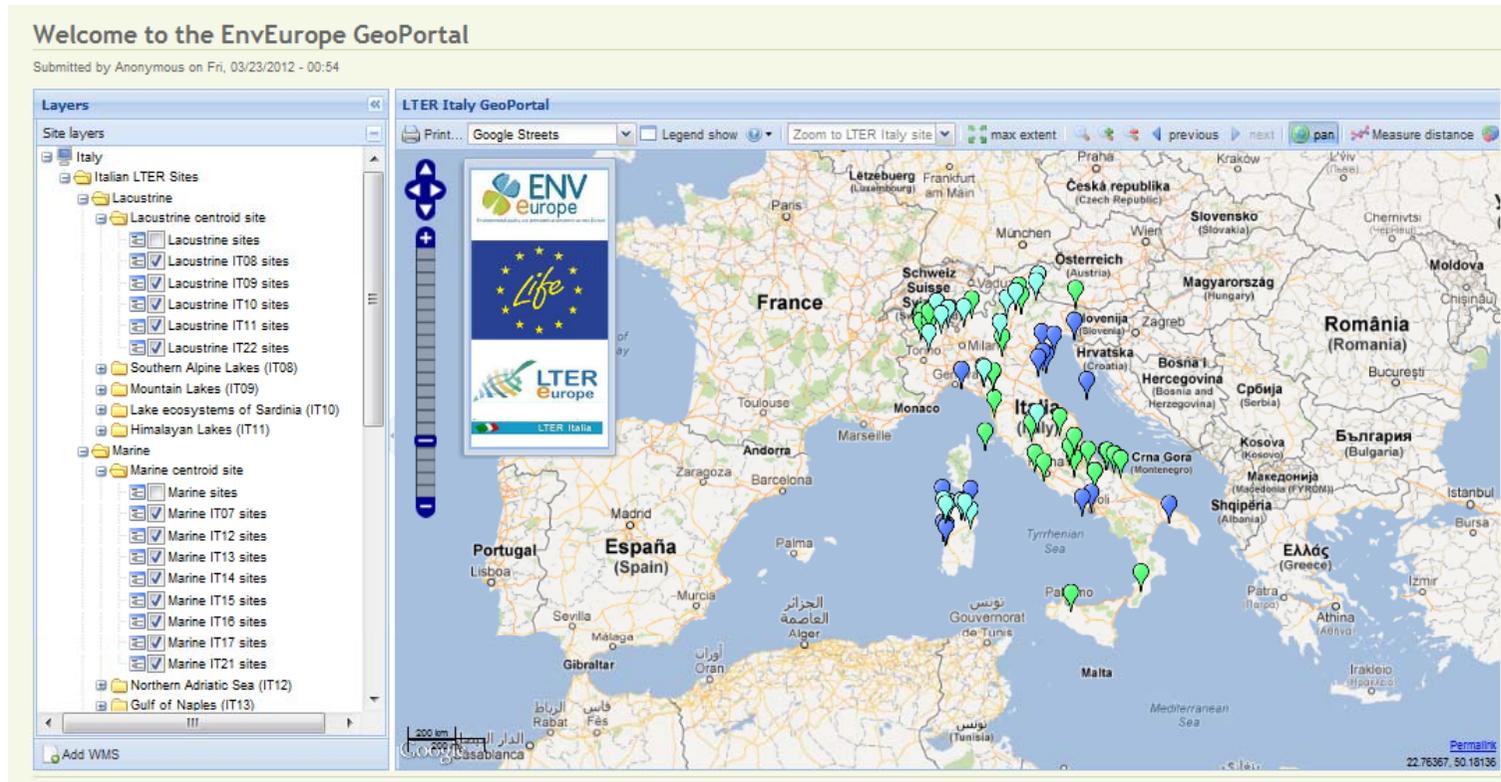


<http://enveurope.geocatalogue.ise.cnr.it/deims>

- Metadata editor
 - EnvEurope dataset, US-LTER dataset, Person
- Discovery
 - Advanced metadata search, Person search
- Geoviewer – EnvEurope GeoPortal

DEIMS: EnvEurope GeoPortal

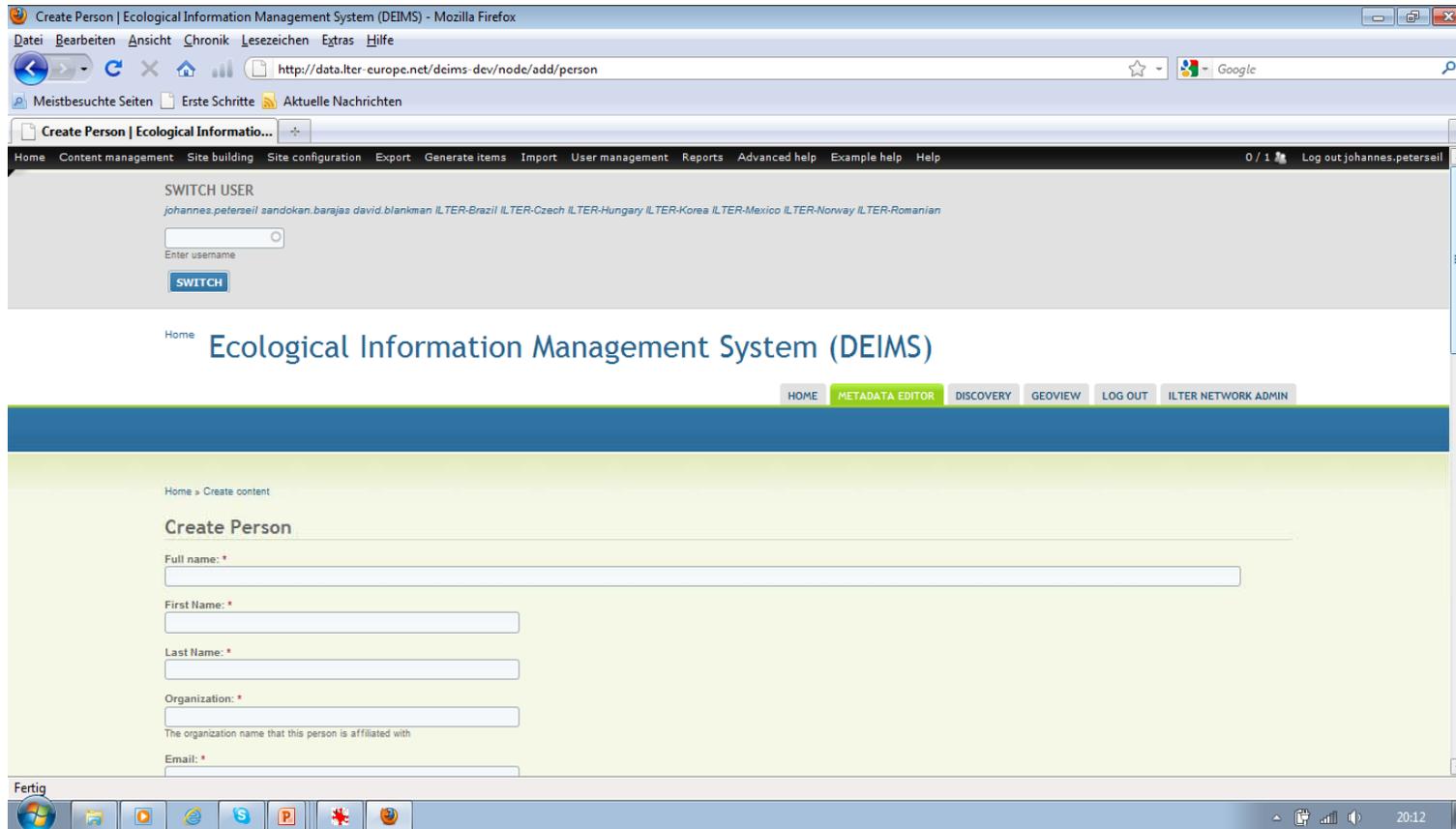
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- Under development – with data from LTER Italy
- Providing site information for EnvEurope site network based on the collected metadata for the site description



DEIMS: Person module



The screenshot shows a web browser window displaying the 'Create Person' form in the DEIMS application. The browser address bar shows the URL: <http://data.ilter-europe.net/deims-dev/node/add/person>. The page title is 'Create Person | Ecological Information Management System (DEIMS)'. The navigation menu includes: Home, Content management, Site building, Site configuration, Export, Generate items, Import, User management, Reports, Advanced help, Example help, Help. The user is logged in as 'johannes.petersell'.

SWITCH USER
johannes.petersell sandokan.barajas david.blankman ILLER-Brazil ILLER-Czech ILLER-Hungary ILLER-Korea ILLER-Mexico ILLER-Norway ILLER-Romanian

Enter username

SWITCH

Home **Ecological Information Management System (DEIMS)**

HOME **METADATA EDITOR** DISCOVERY GEOVIEW LOG OUT ILLER NETWORK ADMIN

Home > Create content

Create Person

Full name: *

First Name: *

Last Name: *

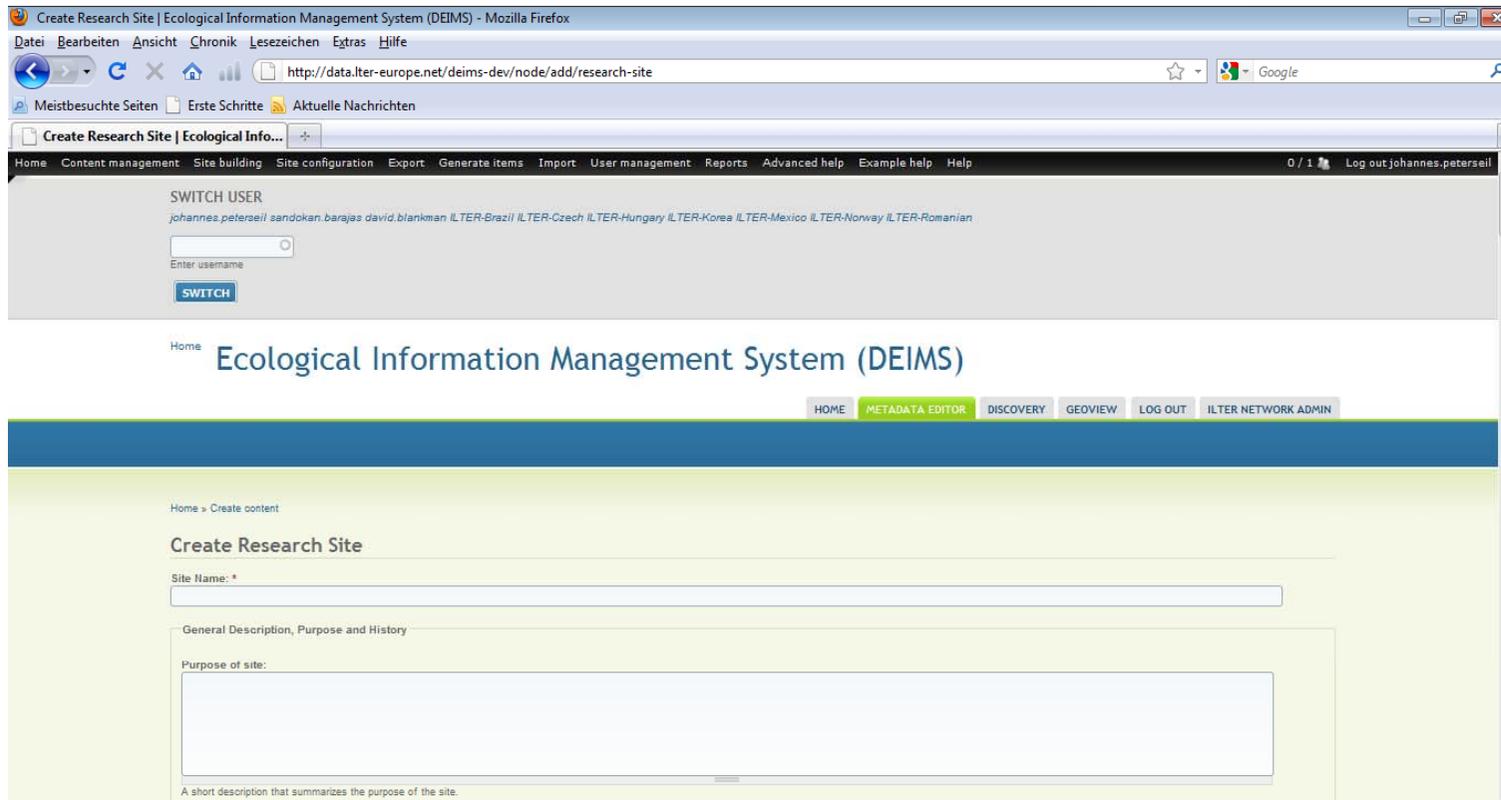
Organization: *
The organization name that this person is affiliated with

Email: *

Fertig

- Allow the description of persons (e.g. site manager)

DEIMS: Site description



The screenshot shows a web browser window displaying the DEIMS (Ecological Information Management System) interface. The browser address bar shows the URL <http://data.lter-europe.net/deims-dev/node/add/research-site>. The page title is "Create Research Site | Ecological Information Management System (DEIMS)". The interface includes a navigation menu with options like "Home", "Content management", "Site building", "Site configuration", "Export", "Generate items", "Import", "User management", "Reports", "Advanced help", "Example help", and "Help". A "SWITCH USER" section is visible, listing users such as "johannes.peterseil", "sandokan.barajas", "david.blankman", and various ILTER network members. Below this, there is a "Create Research Site" form with a "Site Name" field and a "General Description, Purpose and History" section containing a "Purpose of site:" text area. A small note at the bottom of the text area reads: "A short description that summarizes the purpose of the site."

<http://data.lter-europe.net/deims-dev/>

- Implementation of the site description developed in EnvEurope for the available sites

DEIMS EnvEurope 2.0

Next steps to be done:

- **Testing phase** has to be launched for dataset already collected or to be collected within the EnvEurope project
- **Metadata entry** for provided datasets
- To incorporate site level description and establish a link with data set level description
- To establish password policy for partners - options
 - Site level
 - Network level
- CSW Service implementation (EML/ISO19115)



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EnvEurope Thesaurus

https://secure.umweltbundesamt.at/envThes/en/hierarchical_concepts.html

EnvEurope Thesaurus

[Hierarchical listings](#) [Alphabetical listings](#) [Collections](#) [Search](#) [About](#)

Concepts

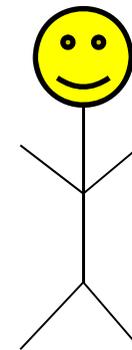
Please select one of the Concept listed below.

- CO2 surface flux
- Ecosystem Structures
- Eunis habitats
 - Coastal habitats
 - Constructed, industrial and other artificial habitats
 - Grasslands and lands dominated by forbs, mosses or lichens
 - Alpine and subalpine grasslands
 - Dry grasslands
 - Inland salt steppes
 - Mesic grasslands
 - Seasonally wet and wet grasslands
 - Mediterranean short humid grassland
 - Mediterranean tall humid grassland
 - Moist or wet eutrophic and mesotrophic grassland
 - Moist or wet oligotrophic grassland
 - Sub-mediterranean humid meadows
 - Sparsely wooded grasslands
 - Woodland fringes and clearings and tall forb stands
 - Habitat complexes
 - Heathland, scrub and tundra
 - Inland surface waters
 - Inland unvegetated or sparsely vegetated habitats
 - Marine habitats
 - Mires, bogs and fens

Keyword set

Controlled Vocabulary

EnvEurope
Metadata System
Data services



EnvEurope

EnvEurope Components

https://secure.umweltbundesamt.at/envThes/en/hierarchical_concepts.html

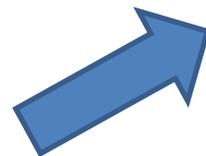
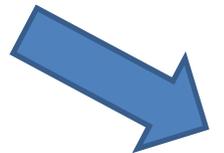
EnvEurope Working Groups

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US LTER
Controlled
Vocabulary

Eunis
Habitats

NASA
SWEET units



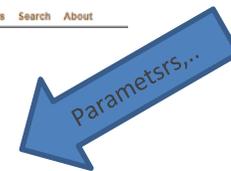
EnvEurope Thesaurus

Hierarchical listings Alphabetical listings Collections Search About

Concepts

Please select one of the Concept listed below.

- CO2 surface flux
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 - [-] Marine habitats
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Terrestrial ecology
• Miki Kertesz

Freshwater ecology
• Alessandro Oggioni
• Stefan Stoll

Marine ecology
• Mauro Bastianini

Exchange of information
• Using iQVoc
• Using Microsoft Excel

INSPIRE
Themes



Links to other Thesauri

SKOS / RDF Standard

GEMET
(EEA – INSPIRE)

INSPIRE Themes

EUNIS Habitats
(EIONET)

EuroVoc
(European
Comission)

EnvEurope Thesaurus

[Hierarchical listings](#)
 [Alphabetical listings](#)
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Concept: acid rain

https://secure.umweltbundesamt.at/envThes/USLterCV_10 (Turtle, RDF/XML)

Main

Broader terms
pollution » substances

Narrower terms
-

Assigned collections
- • US LTER Controlled Vocabulary

Definitions
-

Labels

Preferred labels
(English) acid rain

Concept mappings

Close Matches -

Exact Matches http://en.wikipedia.org/wiki/acid_rain,
 <http://www.eionet.europa.eu/gemet/concept/51>,
<http://linkeddata.ge.imati.cnr.it/2020/resource/EARTH/76160>,
http://aims.fao.org/aos/agrovoc/c_15933,
 <http://eurovoc.europa.eu/4165>

Related Matches -

Broader Matches -

Narrower Matches -

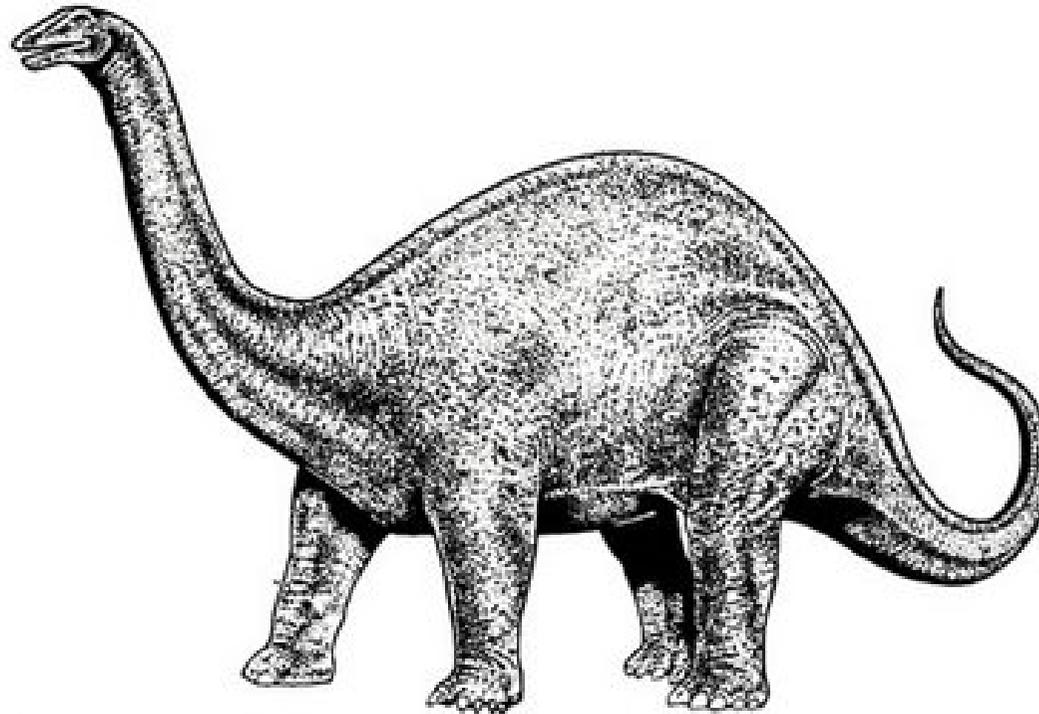
Wikipedia

EARTH
(CNR)

AGROVOC
(FAO)

??????

Completeness – Relations – Definitions - Translations



having great vocabulary didn't save the

THESAURUS

from extinction / eradication / extirpation



Request on data reporting and data flow ...

Milestones

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Data reporting: General idea

- Urgent need of data (e.g. projects)
- Provide an easy format for data exchange
 - for bio-geochemical data as well as for biological data
 - for different sampling intervals and aggregation levels (e.g. monthly average data)
 - Which can be easily extended (e.g. new parameters are required)
 - Which contains all information to use the data right now (even part of the metadata → will be separated / solved later)
- Evaluation of existing data reporting formats and select the useful parts of it
 - UNECE ICP Integrated Monitoring
 - UNECE ICP Forest
 - UNECE ICP Waters

Data reporting: Status

	Observations	AIR	PREC	BIOCOM	SOIL	SOILWAT	WATER	Files
Bulgaria	254	0	1	0	0	0	1	2
Finland	41	0	0	0	0	0	1	1
Germany	2039	0	0	1	0	0	1	1
Hungary	743	0	0	0	0	0	1	1
Italy	27	1	0	1	0	0	0	2
Lithuania	1200	1	1	0	0	0	1	1
Poland	16081	0	0	4	0	1	1	6
Romania	205	0	0	1	0	0	0	1
Spain	497	1	0	1	2	0	0	3
Sweden	9312	1	0	1	1	1	1	1
	30399	4	2	9	3	2	7	19

- Status 2012-05-17

- Problems with the upload of data?
- More time needed? Task not clearly defined?
- Started to integrate the data into a common database.



Quality assurance/Quality control

- Collection of quality assurance and quality control procedures from the beneficiaries
 - started
 - already some replies from beneficiaries and ICP Forest, ICP Integrated Monitoring, other networks to address?
- Compilation and development of a best practise guideline as a result from EnvEurope
 - Contribution to the reports
 - D4 Guideline for method consistency
 - D5 Best practise guideline for quality assurance and quality control for integrated data from LTER sites and LTSE platforms
 - any volunteers?



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We want

YOU!

ENVIRONMENT
AGENCY AUSTRIA **umwelt**bundesamt^U

We want you ...



- Test of EnvEurope DEIMS 2.0
 - Volunteers 06/2012 → Tomas Kliment
- Metadata description of existing and newly generated datasets within EnvEurope
 - All beneficiaries → 06/2012
- Providing general and project data sets for A3
 - All beneficiaries → 06/2012
- Work together on a common vocabulary for long term ecological research and monitoring
 - Check for completeness
 - Provide definitions and relations
 - Provide translations
- Best practise on QA/QC of long term datasets
 - Task leader and contributors
- Technical meeting 09/2012 Place?



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We want

YOU!

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