



EnvThes - Environmental Thesaurus

Short description

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The multilingual thesaurus EnvThes¹ is going to be developed inter alia in the framework of the current Life+ project EnvEurope (Life08 ENV/IT/000399)². It tries to collect the important terms relevant for long term ecological monitoring, observation and experiments and shall thus act as the semantic basis for data integration and harmonisation within the project and beyond. It is based on existing thesauri and is using SKOS/RDF as formal language.



Fig. 1 Viewing EnvThes (<http://vocabs.lter-europe.net/EnvThes.html>) with PoolParty

¹ See <http://vocabs.lter-europe.net/EnvThes.html>

² See <http://www.enveurope.eu/>

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Within the Life+ project EnvEurope the establishment of a common controlled vocabulary was decided, which shall serve as the base for semantic integration of the data resulting from long term ecological research and monitoring in Europe. It is based on existing thesauri, extended according to further needs of LTER Europe.

The general aims of EnvThes are to:

- provide thematic terms for categorizing LTER information made available via EnvEurope services and clients.
- support establishment, finding and understanding of LTER data and LTER metadata related information.
- enable semantic interoperability of data and metadata within the EnvEurope project in general and its services and clients in particular.

Use cases

Use case1: discovery and lookup services

Discovery and lookup services need keys to search for metadata and data. Those keys shall not be entered as free text, since differing spellings, heterogeneous wordings, synonyms and homonyms would create a high barrier for a common lookup of data sets. Instead of inserting free text, the keys shall be selected out of a list provided by EnvThes. Thus a homogenous set of keys can later on be used by the data user to search for needed data.

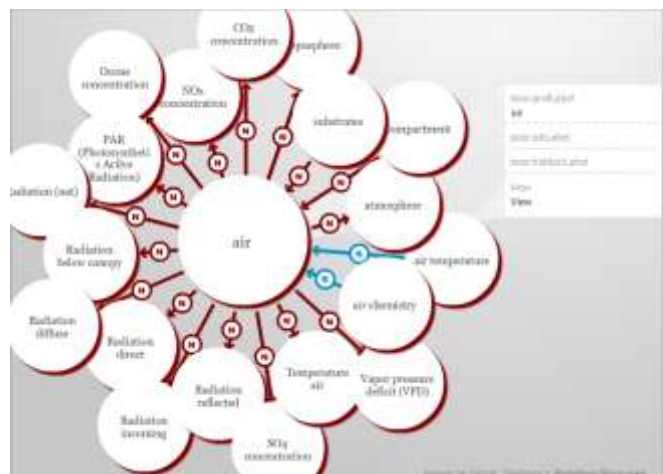
Use case2: use of correct vocabulary in daily work

No matter, whether the work is done by using common software or by editing a word document or spreadsheet or what so ever, it is useful to rely on a common controlled vocabulary. EnvThes shall allow for looking up the correct wording for special concepts in different European languages.

Content

EnvThes integrates together important terms used in long term ecological monitoring, research and experiments. Multilinguality will be supported by providing translations of the concepts into native languages occurring in the project context. The backbone for EnvThes is the [US LTER Controlled Vocabulary](#)³.

According to the state of the art of SKOS/RDF thesauri, links to other existing thesauri like [GEMET](#)⁴, [EARth](#)⁵, [AgroVoc](#)⁶ and [EuroVoc](#) as well as



³ See <http://im.lternet.edu/VocabTOR>

⁴ See <http://www.eionet.europa.eu/gemet>

⁵ See http://uta.ii.cnr.it/earth_eng.htm

⁶ See <http://aims.fao.org/standards/agrovoc/about>

[Wikipedia](#)⁷ are established (e.g. exact match, close match, narrower match, broader match, related match). If a long term maintenance can be guaranteed, links from those thesauri to EnvThes can also be inferred, thus creating a web of linked thesauri, an important step forward to a general harmonization of semantics.

Workflow

Based on the US LTER Controlled Vocabulary the terms are checked for completeness and relevance. Gaps are identified and additional terms introduced and described. Links to existing vocabularies are provided to avoid double definition.

The Units of the NASA sweet ontology, extended by some ecology specific units and the EUNIS habitat lists serve as further bases for the coming establishment of the LTER specific vocabulary

The **EnvEurope project** is focusing on long term ecological research and monitoring for the terrestrial, freshwater and marine domain. Working groups for the domains are established. The EnvEurope project had an EnvThes workshop in August 2012 and will have one in February 2013.

The **ExpeER project** is focusing on long term experiments and the resulting data and will take EnvThes as basis and extend it according to this focus.

The ILTER community expressed its intention to take over EnvThes as the long desired multilingual thesaurus.

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⁷ See http://en.wikipedia.org/wiki/Main_Page