

GBA Thesaurus - more than a controlled vocabulary for GBA associates...

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The open accessible Thesaurus of the Geological Survey of Austria (GBA) was primarily designed as a knowledge representation of the Geological Survey.

Further the Thesaurus is used as a base for web applications and modules like the DataViewer, an integrated and very powerful tool. It visualizes already harmonized concepts of geological maps.

The GBA Thesaurus does not claim to be any standard. Nevertheless, it offers geologists, students and all other interested people a simple opportunity to find geological terminology and the related definition us used at the Geological Survey for further use.

Links to high quality data resources and integrated web applications make the GBA Thesaurus to a powerful tool for geologists requiring controlled vocabulary.

1 The GBA-Thesaurus has its own web address:
<http://resource.geolba.ac.at/>

2 The hosted geological vocabularies are organized as concepts in six domains:
1 GEOLOGIC TIME SCALE
2 GEOLOGIC UNITS
3 GEOLOGIC STRUCTURES
4 LITHOLOGY
5 MINERALS
6 TECTONIC UNITS

3 The content is provided bilingual in German and English as usually used in all GBA publications as reports and maps.

Example: „Tristel Formation“

GBA Thesaurus – a controlled vocabulary for geosciences, ...

- on the domains of Geologic Time Scale, Geologic Units, Geologic Structures, Lithology, Minerals and Tectonic Units
- bilingual in German and English as used in geoscientific text publications and geological maps of the Geological Survey of Austria
- designed as a knowledge representation of the geological survey, in contrast to national and international classifications or dictionaries
- formatted as SKOS concepts/terms, including synonyms, each with their own web addresses → URIs
- specified by polyhierarchical relationships as broader, narrower, and related concepts within the domain including descriptions and → litographic relevance
- as Linked Data resource semantically linked to other web resources → DIBa, INSPIRE, GeoSciML
- machine-readable published using web services (endpoints) according to the standards of W3C → RDF, SparQL
- to be used in Linked Data web applications such as hyperlinks for online texts or as encoding for geospatial data → harmonizing data/DataViewer

With the creation of semantic and technically interoperable geodata sets the Geological Survey implements the legal requirements of the EU directive 2007/2/EC (INSPIRE) or rather the Austrian Geodateninfrastrukturgesetz 2010 (GeoDGI). Therefore the datasets of the Geological Survey are coded with Thesaurus terms, while the Thesaurus is linked to INSPIRE terminology (and other internationally standardized vocabularies) at the same time. The DataViewer (beta) extension provides a way for testing selected concepts applied to the harmonization of map data.

Internet-Sources:

- http://palstrat.uni-graz.at/Stratigraphische_Tabelle_von_Oesterreich_2004.pdf
- http://litholex.bgr.de/gesamt_ausgabe_neu.php?id=2008131
- <http://www.strati.ch/de/search?language=de&query=Tristel>

Author: ebmrar

Last modified: 2015-11-06T07:58:22Z

Contributor: haivik

Related Concepts: Neokom Flysch

GBA Status: 1

Longitude: 9.607067

Broader Concepts: [Falknis-, Sulzfluh-, Tasnadenke]

RDF Type: Concept

Created on: 2011-08-05T13:08:50Z

DataViewer: true

Preferred Label: Tristel Formation

Latitude: 47.060767

SKOS-Definition: Formalization by SCHWIZER (1984), named after the Tristel Mountain, which marks the border between Austria, Switzerland and Liechtenstein. The formation consists of calcarenites and calcareous breccias which are intercalated in turbiditic limestone successions containing varying amounts of silt in an event of sediment gravity flow conglomerates, breccias, turbidites) pelagic non-turbiditic claystone. Chronostratigraphic Age: Late Barremian to Early Aptian. (after Schwizer, 1984)

Concepts with exact match: Tristel, Tristel

Location in Google Maps → Info

Each concept of the GBA Thesaurus contains a description 4 followed by a reference list 5 directly linked to the online catalogue of the GBA library. Links to related pdfs are available too, provided that they are open source.

Where possible, the concepts are specified by semantic relationships as broader, narrower, or related concepts within the domain 6.

Further information about internet-sources, author, contributor, modification, etc. is "hidden" behind the extension of <+Details> 7.

A link to the DataViewer 8 as well as to the location in GoogleMaps is also provided 9.

The DataViewer module is presented on a separate poster (No. 131) by Christine Hörfarther.

Geologic Units

Geologic Time Scale

Tectonic Units

Lithology

Minerals

Geologic Structures

Tristel Formation

URI: <http://resource.geolba.ac.at/GeologicUnit/892>

Description 4

Formalization by SCHWIZER (1984), named after the Tristel Mountain, which marks the border between Austria, Switzerland and Liechtenstein. The formation consists of calcarenites and calcareous breccias which are intercalated in turbiditic limestone successions containing varying amounts of silt in an event environment of sediment gravity flows (conglomerates, breccias, turbidites) and hemipelagic non-turbiditic claystone. Chronostratigraphic Age: Late Barremian to Early Aptian. (after Schwizer, 1984)

5

6 Semantic Relations

Broader Concepts:

- [Falknis-, Sulzfluh-, Tasnadenke]
- [Tauernfenster, Engadiner Fenster, Rechnitzer Fenster]

Related Concepts:

- Neokom Flysch

7 + Details

10 + LinkedData

12 RDF/XML Download

Geologische Einheiten 13

SPARQL Endpoint

SPARQL Endpoint

Query valid!

Format: HTML Table

URI	Label_de	GBA_Status
http://resource.geolba.ac.at/GeologicUnit/440	"Blasseneck Porphyroid"	"2"
http://resource.geolba.ac.at/GeologicUnit/99	"Bundschuh-Orthogneis"	"2"
http://resource.geolba.ac.at/GeologicUnit/98	"Bundschuh-Priedröf-Komplex"	"1"
http://resource.geolba.ac.at/GeologicUnit/464	"Bzenec-Formation"	"1"
http://resource.geolba.ac.at/GeologicUnit/474	"Crinoiden-Stromatoporen-Kalke"	"2"
http://resource.geolba.ac.at/GeologicUnit/12	"Gault-Flysch"	"2"
http://resource.geolba.ac.at/GeologicUnit/12	"Gault-Flysch"	"3"
http://resource.geolba.ac.at/GeologicUnit/12	"Gault-Flysch"	"1"
http://resource.geolba.ac.at/GeologicUnit/12	"Gault-Flysch"	"2"
http://resource.geolba.ac.at/GeologicUnit/12	"Gault-Flysch"	"2"
http://resource.geolba.ac.at/GeologicUnit/12	"Gault-Flysch"	"1"

Additional available as "Linked Data" 10 and semantically linked to other web resources as INSPIRE, GeoSciML, DBpedia, etc.

To increase the content quality, all concepts are formatted as SKOS concept and are bound to a Uniform Resource Identifier (URI) 11, a unique web address.

The content of the GBA Thesaurus is published machine-readable due to the content is related to the standards of W3C, RDF and SparQL. The RDF of all concepts can be easily downloaded 12.

Selected information can be collected as table with the provided SPARQL Endpoint 13.

Another very useful Thesaurus extension is the „Network Diagram“ 14, displaying the concept of interest 15, the broader/narrow concepts 16, and if available also the related concepts 17.

The related description of the GBA-Thesaurus appears at the right side of the diagram-window with a single mouse click on any concept inside the bubble.

Additionally, it is possible to adjust any other concept as the basic concept by a double mouse click and get a new reordered Network Diagram.

[Hauptflysch Nappe, Grafsen Nappe, Nordrandzone]

'Gault Flysch'

Neokom Flysch

[Falknis-, Sulzfluh-, Tasnadenke]

Couches rouges

Tristel Formation

Lithostratigraphic units of the Mesozoic

Malmrainza sequence

Furcla d'Alp Formation

Brennkogelserie, 'Kasererschiefer' of the Tauern window

[Tauernfenster, Engadiner Fenster, Rechnitzer Fenster]

Neokom Slate

Bündnerschiefer of the Engadin window

Bündnerschiefer of the Rechnitz window

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