

# The CETAF „Botany Pilot“

Anton Güntsch  
Freie Universität Berlin  
Botanic Garden and Botanical Museum Berlin

# CETAF „Botany Pilot“

To demonstrate ...

- principles
- usefulness, and
- feasibility

... of semantic annotation of collection data.



# What's the problem?

<http://herbarium.bgbm.org/object/B100249116> (EasyRdf\_Resource)

- **dc:title** → "Mesosetum arenarium Swallen"
- **dc:description** → "A herbarium specimen of Mesosetum arenarium Swallen collected by Chase,A."
- **dc:creator** → "Chase,A."
- **dc:created** → "1929-12-27"
- **dc:type** → "Specimen"
- **dc:publisher** → "BGBM"
- **http://rs.tdwg.org/dwc/terms/materialSampleID** → "https://herbarium.bgbm.org/object/B100249116"
- **http://rs.tdwg.org/dwc/terms/basisOfRecord** → "Specimen"
- **http://rs.tdwg.org/dwc/terms/collectionCode** → "B"
- **http://rs.tdwg.org/dwc/terms/catalogNumber** → "B 10 0249116"
- **http://rs.tdwg.org/dwc/terms/scientificName** → "Mesosetum arenarium Swallen"
- **http://rs.tdwg.org/dwc/terms/previousIdentifications** → "Mesosetum arenarium Swallen"
- **http://rs.tdwg.org/dwc/terms/family** → "Gramineae"
- **http://rs.tdwg.org/dwc/terms/genus** → "Mesosetum"
- **http://rs.tdwg.org/dwc/terms/specificEpithet** → "arenarium"
- **http://rs.tdwg.org/dwc/terms/country** → "Brazil"
- **http://rs.tdwg.org/dwc/terms/countryCode** → "BR"
- **http://rs.tdwg.org/dwc/terms/locality** → "Brazil: Minas Geraes; Diamantina; Serra de San Antonio. Alt.: 1200-1300 m. 27.-30.12.1929, Leg.: A. Chase 10403."
- **http://rs.tdwg.org/dwc/terms/eventDate** → "1929-12-27"
- **http://rs.tdwg.org/dwc/terms/recordNumber** → "10403"
- **http://rs.tdwg.org/dwc/terms/recordedBy** → "Chase,A."
- **http://rs.tdwg.org/dwc/terms/fieldNumber** → "10403"
- **http://rs.tdwg.org/dwc/iri/recordedBy** → <http://www.wikidata.org/entity/Q3822242>
- **http://rs.tdwg.org/dwc/terms/associatedMedia** → [https://pictures.bgbm.org/digilib/Scaler/IIIF/B110102149111B\\_10\\_0249116.jpg/full/2048,/0/default.jpg](https://pictures.bgbm.org/digilib/Scaler/IIIF/B110102149111B_10_0249116.jpg/full/2048,/0/default.jpg)
- **dc:relation** → <http://herbarium.bgbm.org/iiif/B100249116>

# What's the problem?

```
→ dc:description → A herbarium  
→ dc:creator → "Chase,A."  
→ dc:created → "1929-12-27"
```

- Data are represented as free texts.
- The same “thing” (e.g. person) can have different representations.
- Different “things” can have the same representation.
- A major problem for data integration and analyses.

```
→ http://rs.tdwg.org/dwc/terms/countryCode → BR  
→ http://rs.tdwg.org/dwc/terms/locality → "Brazil: Minas Geraes; Diamantina; Serra de San Antonio."  
→ http://rs.tdwg.org/dwc/terms/eventDate → "1929-12-27"
```

# How we would like to publish data



# How we ~~would like to~~ publish data



# CETAF semantic annotation campaign

- Annotation of collection data with links to semantic resources.
- Starting with persons (collectors).
- Resources: WikiData, VIAF, ORCID, HUH.



JACQ	
DETAIL	
Stored under taxonname	Mesosetum arenarium Swallen
Family	Poaceae
Det./rev./conf./assigned	Anonymous
Ident. history	orig.: Mesosetum; Anon.: Mesosetum arenarium
Typus for	Mesosetum arenarium Swallen
	Typified by: Anonymous
	Brittonia 2 (4): 380-381 (1937-06)
Collector	Chase, A. Plants of Brazil 10403 <a href="https://www.wikidata.org/wiki/Q5827242">https://www.wikidata.org/wiki/Q5827242</a>
Date	1929-12-27
Location	Brazil, Minas Gerais <a href="https://www.geonames.org/3457153">https://www.geonames.org/3457153</a>
Label	Brazil, Diamantina, Serra de San Antonio, Minas Geraes. <a href="https://www.geonames.org/6324701">https://www.geonames.org/6324701</a>

# Result of the annotation campaign so far

1,460,000 annotated specimens

Item Discussion

## Mary Agnes Chase (Q3822242)

U.S. botanist, botanical collector and scientific illustrator (1869–1963)  
Chase | Agnes Chase | Mary Agnes Chase | M. A. Chase | Mary Agnes Meara Chase

Configure


In more languages

Language	Label	Description
English	Mary Agnes Chase	U.S. botanist, botanical collector and scientific illustrator (1869–1963)
German	Mary Agnes Chase	US-amerikanische botanische Illustratorin & Botanikerin (1869–1963)
French	Mary Agnes Chase	botaniste américaine (1869–1963)
Bavarian	No label defined	No description defined

All entered languages

### Statements

instance of human  
1 reference

Image 








# The „Botany Pilot“ on the web


- A dynamic web page on which information from various sources are pulled together for variable Wikidata IDs referring to botanists:
  - Wikidata (biography)
  - Specimens from participating collections
  - BIONOMIA (more specimens)
  - EUROPEANA (multimedia content)
  - BHL (Literature)
  - ...




# The „Botany Pilot“ on the web



**JACQ**  
DETAIL

Stable identifier	<a href="http://herbarium.bgbm.org/object/B200125071">http://herbarium.bgbm.org/object/B200125071</a>
Collection Herb.#	B 20 0125071
Stored under taxonname	<b>Alsophila camerooniana (Hook.) R. M. Tryon</b> 
Family	Cyatheaceae
Det./rev./conf./assigned	
Ident. history	orig.: <b>Alsophila camerooniana (Hook.) R.M.Tryon</b>
Collector	   <b>Chase,A. 6842</b> ( <a href="#">link to CETAF Botany Pilot</a> ) 
Date	1958-03-01
Location	Mozambique
Label	Bandula Mt., Alt.: 665 m.





 **Biography**  
**Mary Agnes Chase**  
\* 1869 + 1963  
U.S. botanist, botanical collector and scientific illustrator (1869–1963)  
*Chase, Agnes Chase, M. A. Chase, Mary Agnes Meara Chase, Mary Agnes Merrill*





**Specimen data from herbarium databases**


   
[Berlin Botanic Garden and Botanical Museum](#)  
[Natural History Museum Vienna](#)

**Linked data from other information systems**

 [BHL](#)  
 [BIONOMIA](#)  
 [VIAF](#)  
 [Europeana](#)

**Specimens from Berlin Botanic Garden and Botanical Museum (11)** 

**Specimens from Natural History Museum Vienna (25)** 

 **Publications by Mary Agnes Chase**

- [Plantae Yucatanae \(Regionis Antillanae\) : plants of the insular, coastal and plain regions of the Peninsula of Yucatan, Mexico.](#) Chicago, 1903-1904.
- [Old and new plant lore; a symposium](#) [New York, Smithsonian Institution Series, inc.] 1931.
- [Revisions of North American grasses](#) Washington : G.P.O., 1920.
- [Notes on genera of Paniceae : I-IV](#) s.l. : s.n., 1906-1911.
- [Tropical North American species of Panicum.](#) Washington, Govt. Print. Off., 1915.

# Next steps

- Work on geographical annotation has started.
- Bachelor thesis (Marcus Ernst):  
'Development of a service endpoint integrating semantic collection data from botanical databases and other information systems.'
- DFG Proposal : 'Priority-driven semantic annotation of collection data'
- Publication (submitted)





- Mathias Dillen Botanic Garden Meise
- Marcus Ernst BGBM
- David Fichtmüller BGBM
- Anton Güntsch BGBM
- Elspeth Haston Royal Botanic Garden Edinburgh
- Jörg Holetschek BGBM
- Roger Hyam Royal Botanic Garden Edinburgh
- Heimo Reiner Vienna Natural History Museum
- Dominik Röpert BGBM
- Quentin Groom Botanic Garden Meise
- Andreas Plank BGBM
- David Shorthouse Agriculture and Agri-Food Canada
- Maarten Trekels Botanic Garden Meise