

Engaging with Wikidata

Benefits and impacts for botanists and institutions

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Wikidata is an important tool for botanists.

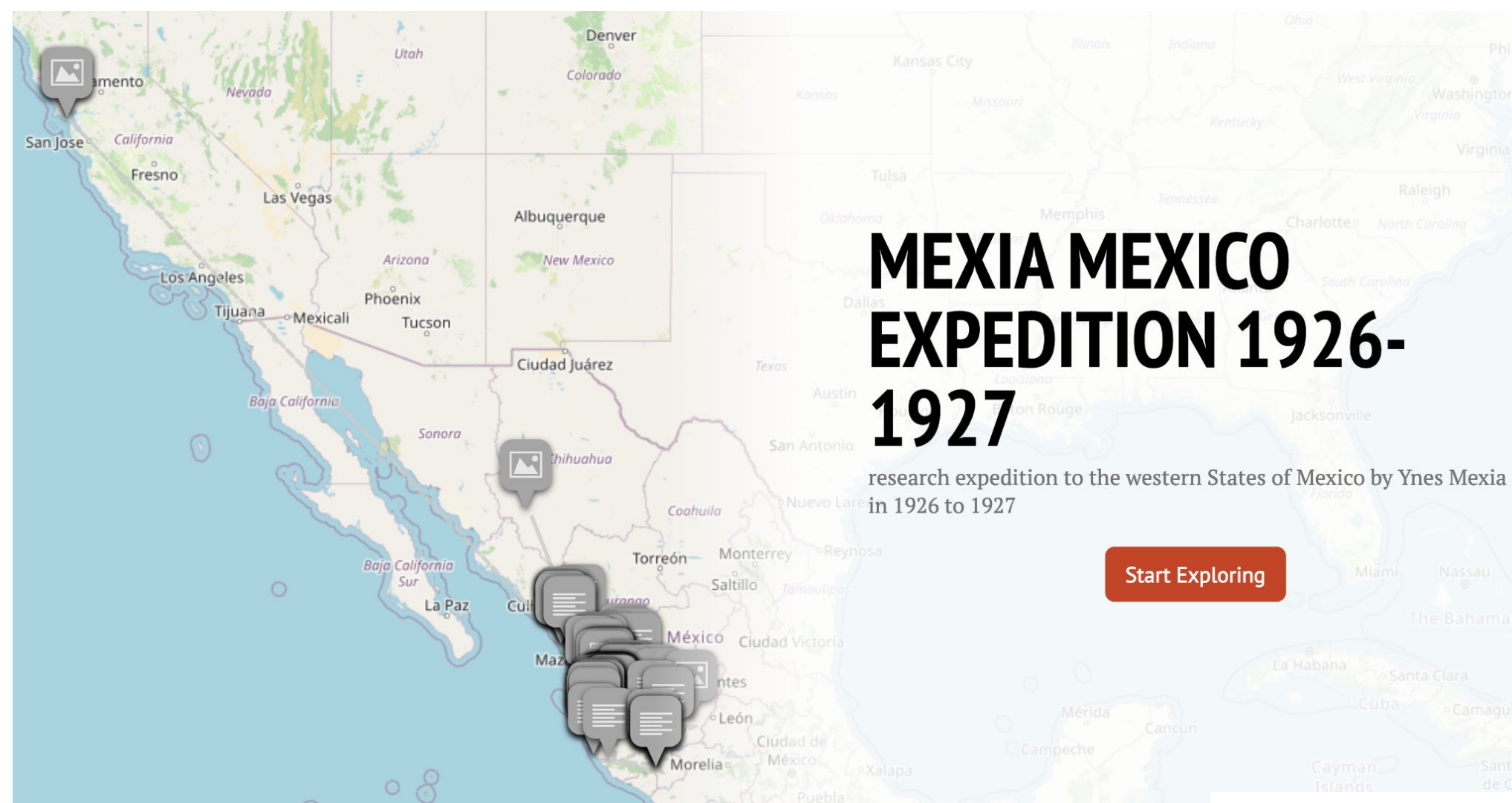


Fig. 1. Visualisation of one of Ynes Mexia's research expeditions based on Wikidata items, ODbL.

Scan to see a visualisation of this expedition →

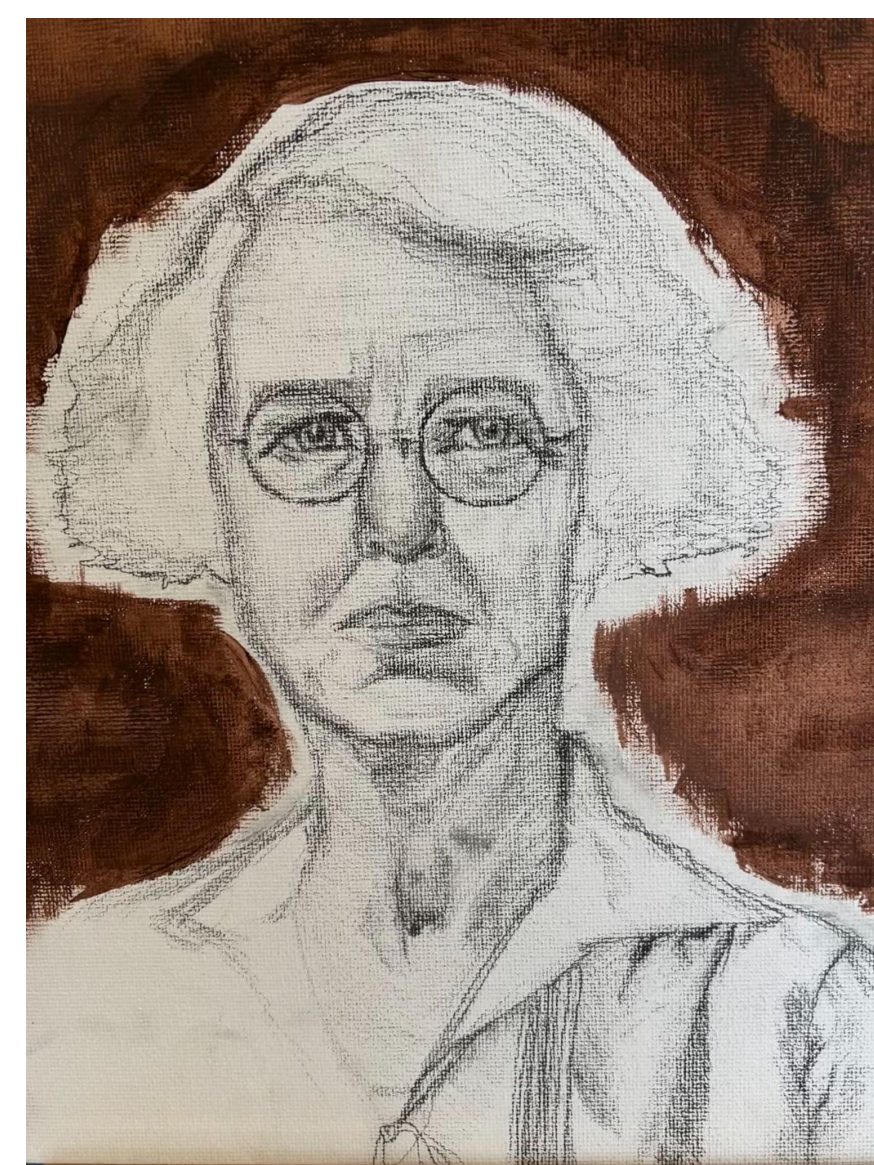


Fig. 3. Botanist Ynes Mexia (1870-1938), NPS Photo, Public domain.

- Wikidata is a **multilingual linked open knowledge base** to which anyone can contribute.
- It contains **CC0 licensed data** and empowers the **referencing** of this data thus showing the source of this information.
- Wikidata can help **disambiguate and enrich data on botanists** and collectors of botanical specimens.

Wikidata items on **plant taxa** contain data from multiple sources, with references.

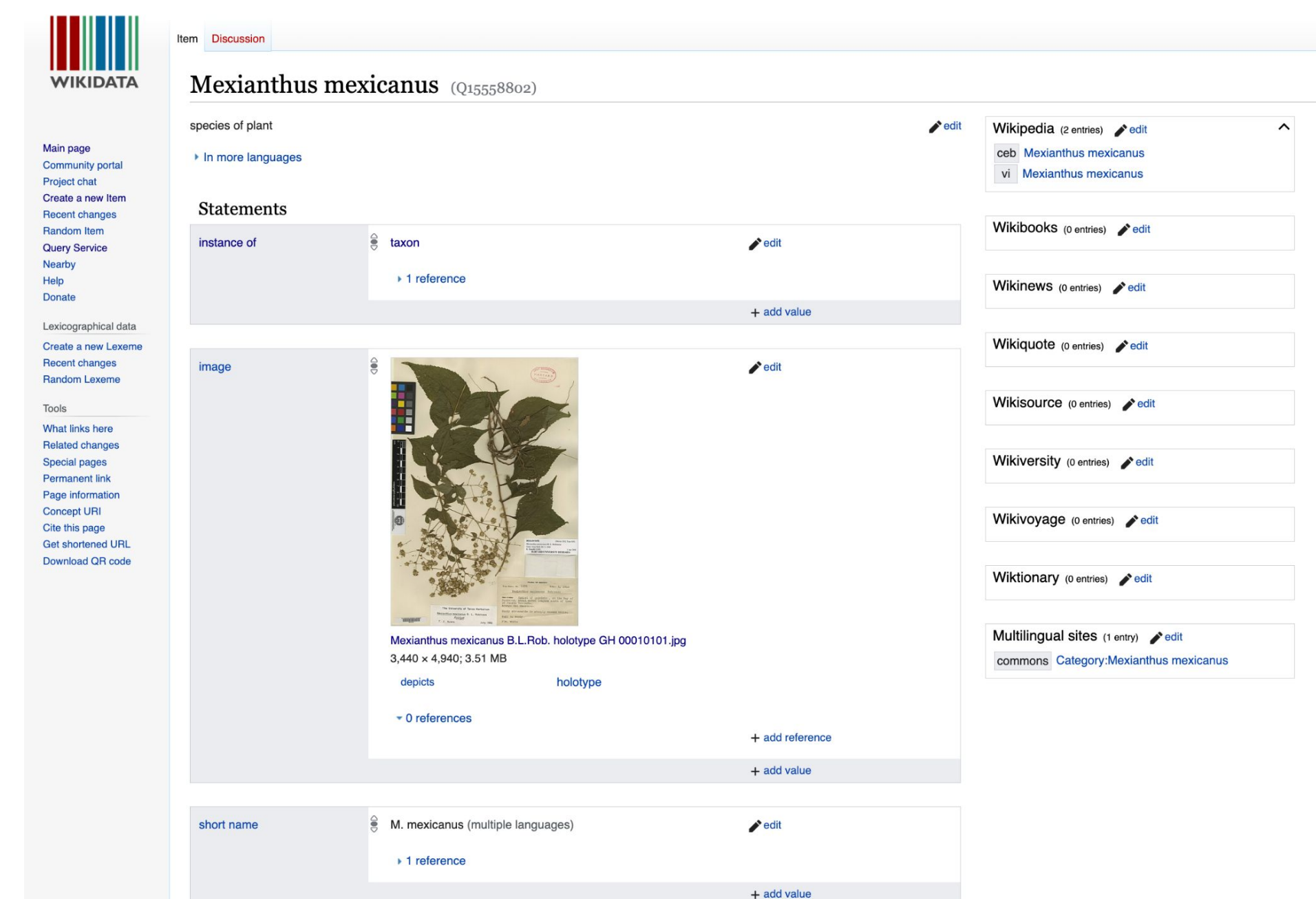


Fig. 4A. Wikidata item for the plant species *Mexianthus mexicanus*, CC BY-SA 4.0

Wikidata can illuminate connections of botanical research expeditions.

- **Research expeditions** are a major source of objects contained in natural history institutions (Fig. 1).
- Currently there is **no single database** that contains comprehensive data on the world's scientific expeditions.
- **Natural history institutions** are using Wikidata to help link historical and contemporary research expeditions to other entities such as participants, locations, publications, and institutions (Fig. 2).
- These **links** are being made within Wikidata as well as in **collection management systems and catalogues**.

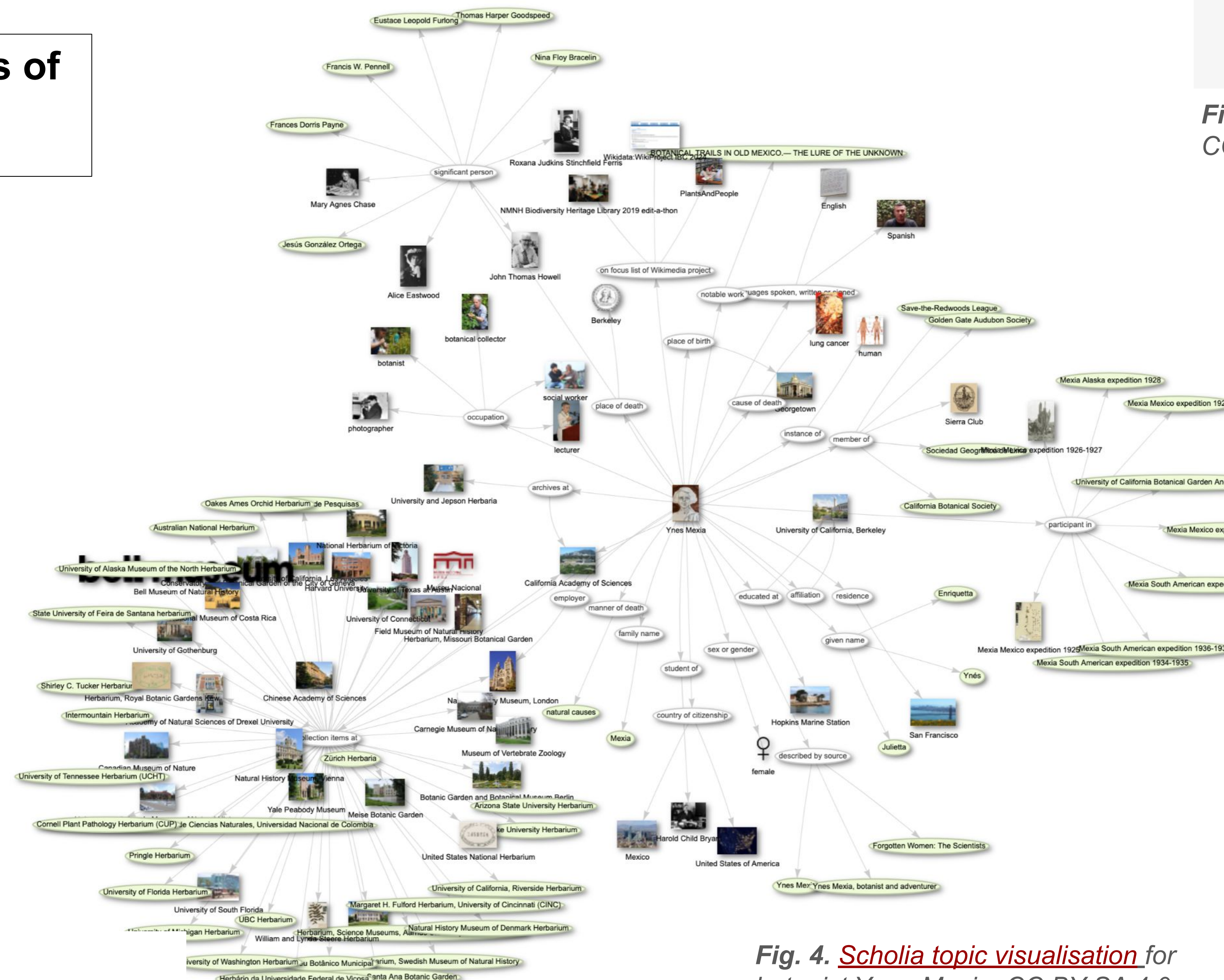


Fig. 4. Scholia topic visualisation for botanist Ynes Mexia, CC BY-SA 4.0.

- Sources can include links to the **original description** of the taxon.
- Wikidata may also have items for alternative names for a plant species and can **link synonyms to their publications**.
- An **image** of the species can also be added (Fig. 4A).

Wikidata acts as a **database hub and a universal identifier**.

Identifiers		
Catalogue of Life ID	42KPT	+ 1 reference
Encyclopedia Britannica Online ID	plant/Mexianthus-mexicanus	subject named as Mexianthus mexicanus
GBIF taxon ID	3105472	+ 1 reference
Google Knowledge Graph ID	/g/12gh4706	+ 0 references
Naturalist taxon ID	289141	+ 0 references
IPNI plant ID	158852-2	+ 1 reference
Open Tree of Life ID	7629800	+ 1 reference

Fig. 4B. Wikidata item for the species *Mexianthus mexicanus* showing links to other identifiers, CC BY-SA 4.0

Information in Wikidata can be queried & visualised.

- The Wikidata identifier for a botanist can be used in **Scholia** to generate a **topic visualisation graph** (Fig. 4).
- The website **Bionomia** uses a botanist's Wikidata identifier or ORCID to create a **profile linking them to specimens, dates, taxa, and institutions** (Fig. 5).

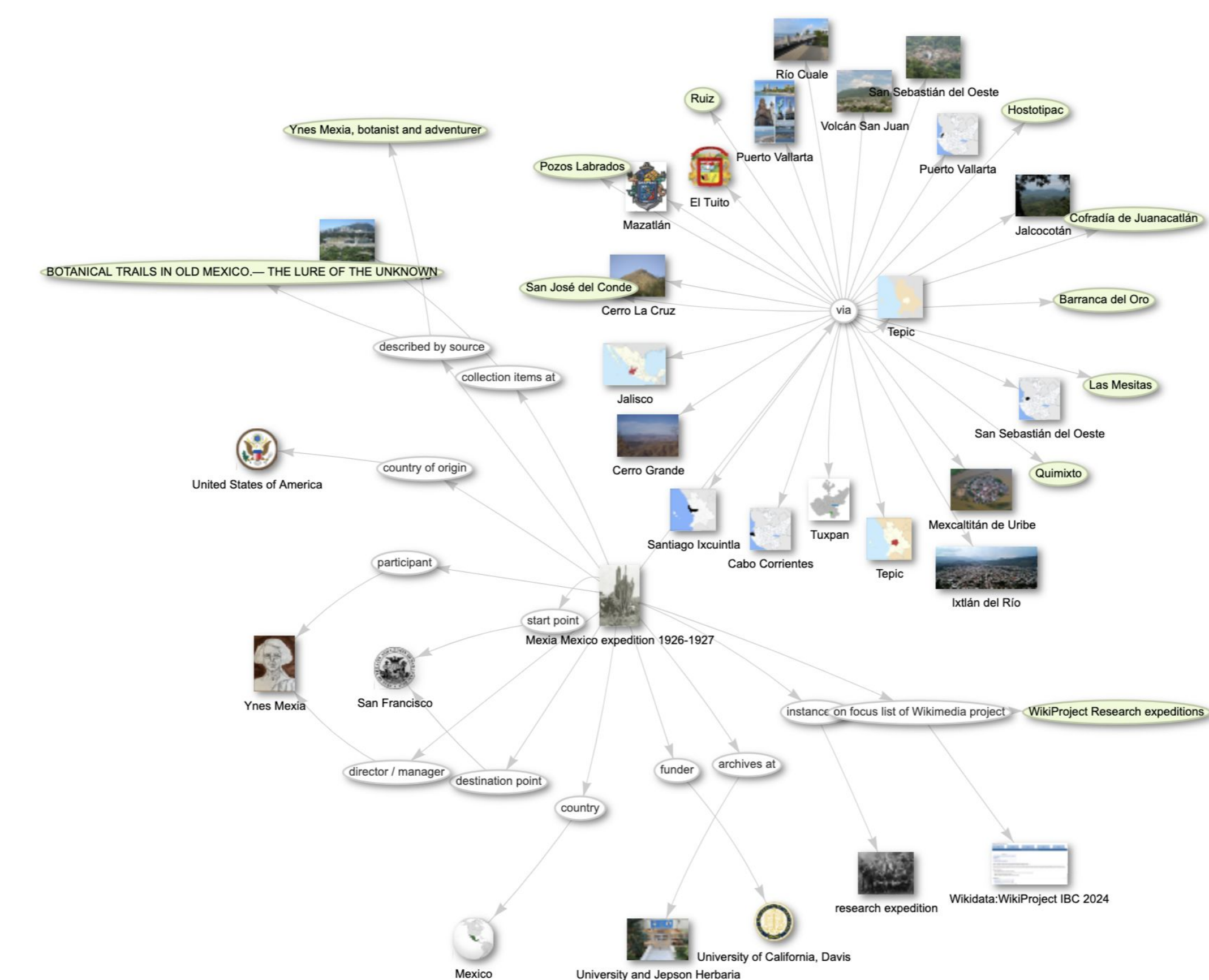


Fig. 2. Scholia topic visualisation graph for the Mexia Mexico Expedition 1926-1927, CC BY-SA 4.0.



Ynes Mexia

Julietta Mexia; Ynes Regalado; Ynes Mexia; Ynes Encineta; Julietta Mexia; Mrs. Augustin A. de Regalado; Y. E. J. Mexia; Y. Mexia; Ynes Encineta Julietta Mexia; Ynes Mexia de Regalado
May 24, 1870 – July 12, 1938
botanist, botanical collector, lecturer, social worker, photographer
botanist (1870-1938)
data:ontology:Q2600470
en:wiki/Ynes_Mexia [View]
en:wiki/Ynes_Mexia [View]
Julietta, 2024. Natural history specimens collected and/or identified and deposited. [Data set]
en:wiki/Ynes_Mexia:Q2600470

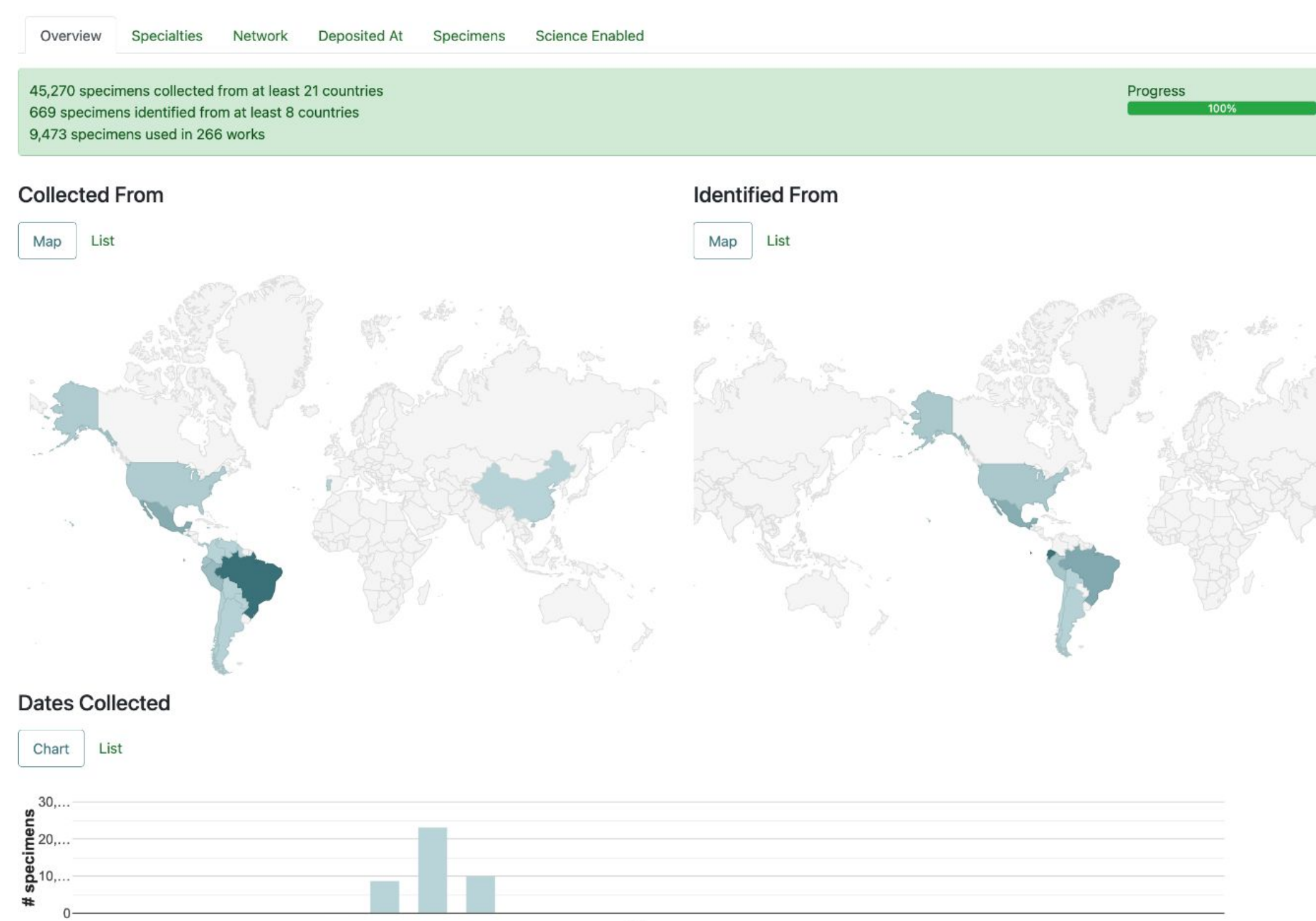


Fig. 5. Bionomia profile for botanist Ynes Mexia, with permission.

- Wikidata links to identifiers such as the **Catalogue of Life**, **GBIF**, **IPNI**, **POWO**, and **Tropicos**, among others (Fig. 4B).
- Wikidata can **facilitate access** to information in different source databases from natural history institutions, herbaria and data aggregators.



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