Participation to the project Linbi : Linking Biodiversity and Culture Information : https://linbi.eu/

"LinBi - Linking Bioheritage and culture information" is a Europeana Generic Service Project funded under CEF Telecom Programme. The project aims at supporting scientific and bio-cultural institutions and other public and private partners to increase the amount of content and metadata accessible through Europeana that is of high quality and suitable for reuse and to increase awareness and usage of Europeana.

The project will enhance the discoverability and reuse of 8.8 million existing biodiversity objects within Europeana which are overwhelmingly described by scientific data. The project will bridge the gap by providing new methods of linking information objects using the LinBi enrichment platform. The project will also create a new aggregation pathway to Europeana for biodiversity content and supply 1.3 million new high-quality biodiversity content into Europeana.

The project also aims to create an online exhibition which will enhance the reuse of biodiversity content from Europeana among the cultural and natural history community, researchers, educators and professionals in the creative industries.

Learn more about the project: www.linbi.eu

Project partners:

1. Rundfunk Berlin-Brandenburg (RBB) - Germany (coordinator)
2. Royal Botanical Garden of Madrid (RJB-CSIC) - Spain
3. Naturhistorisches Museum Wien (NHM) -Austria
4. Angewandte Informationstechnik Forschungsgesellschaft (AIT) - Austria
5. Agentschap Plantentuin Meise (APM)- Belgium

Exploring biodiversity with the LinBi project

The Europeana Generic Services project LinBi - Linking Biodiversity and culture information - came to an end in October 2020. Project coordinator Martin Gordon (Rundfunk Berlin-Brandenburg) explores what the project achieved.

The [LinBi project](#), which ran between February 2019 and October 2020, focused on biodiversity and the documentation of the enormous variety of biological life on earth. This diversity is preserved in an equally wide range of formats - books, illustrations, specimen scans, glass plate photographs, sound recordings, herbarium sheets, video and more. LinBi brought together botanists, researchers, the media and the public in a collaborative effort to enhance and support appreciation and use of this essential European biodiversity material.

Unveiling the data

Tasked with adding new items, enriching existing data and creating new connections between them, LinBi delivered over 1.5 million biodiversity data records to Europeana during the project. These records were enriched by crowdsourcing activity (read on for more information), and new, and sometimes surprising, links between content items were created by the newly developed content-clustering function of LinBi's [enrichment platform](#). Biodiversity data was enriched with new vocabularies aimed at making it more accessible to the non-scientific community and general public, and to support reuse of the content. LinBi developed a [Simple](#)

[Vocabulary](#) which attached everyday terms such as 'flower', 'plant' and 'animal' to scientific biodiversity data.

Demonstrating the potential use of such material, LinBi created three well-received virtual exhibitions for the Europeana collections website. The first ([Edible Plants from the Americas](#)) dealt with the often-surprising Latin American origins of common European foods; the second was [François Crépin and the Study of Wild Roses](#), telling the story of Belgian rose expert Crépin and his lifelong, and ultimately unsuccessful, struggle to classify the enormous variety of roses.

# François Crépin and the Study of Wild Roses

A ROSE IS A ROSE IS A ROSE

The third, published in September 2020, dealt with [Magical, Mystical and Psychoactive Plants](#) and their various uses and history. Exhibitions were published in a variety of languages, and the third exhibition is also now presented on panels at the [Real Jardín Botánico in Madrid](#).

Engaging the crowd

Citizen scientists contributed to the quality of this enormous amount of data. They pored over herbarium specimens, transcribed handwritten label information and examined camera trap images to identify species. Crowdsourced enrichment was carried out on the multilingual [DoeDat crowdsourcing platform](#) from [Meise Botanic Garden (MBG)](#). There was close collaboration between the [Naturhistorisches Museum Wien (NHM)](#) and MBG, focussed on transcribing herbarium specimens from the [University of Vienna](#). This collaboration resulted in a successful sub-project (focussed on butterworts) in July 2020, and a second task (focussed on Brazilian coffee plants) was carried out in October. Results from these quality-enhancing projects are available to a broad audience via Europeana.
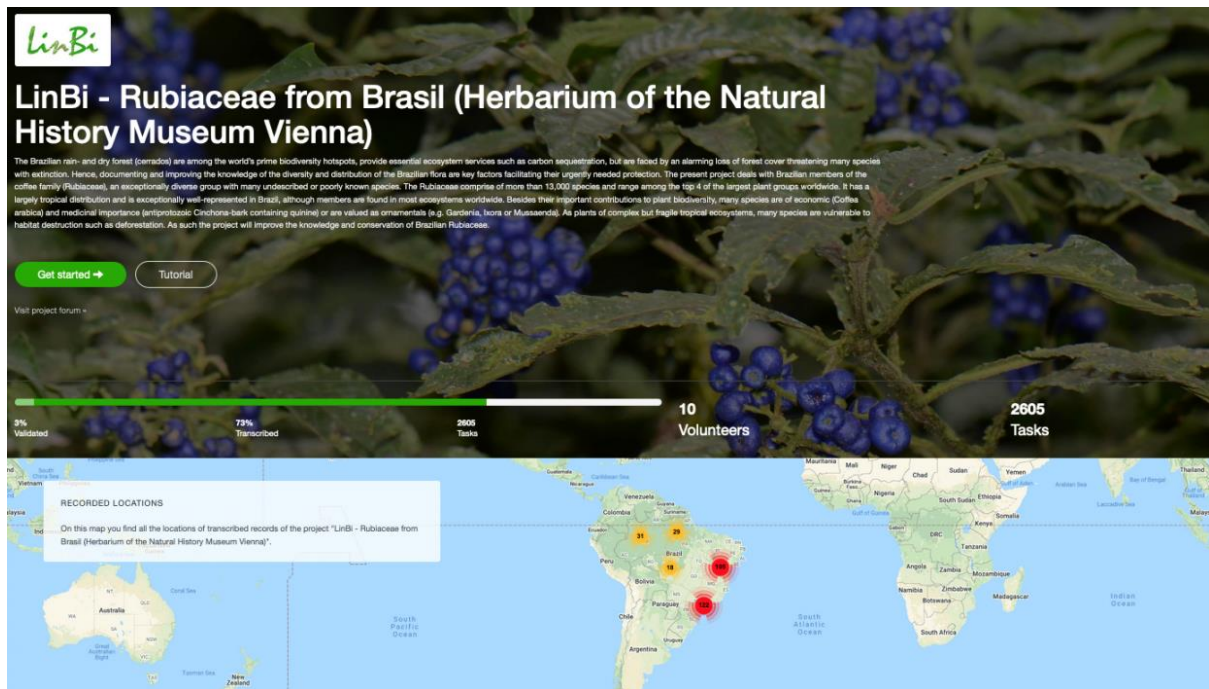
Adopting and adapting

To encourage the use and reuse of biodiversity data by the media, LinBi created a multilingual search platform specifically tailored to journalistic use, and integrating the Europeana API. This platform enables journalists to search Europeana content and specify selected requirements including rights and format type before their search. Using this tool, broadcaster Rundfunk Berlin-Brandenburg (RBB) integrated content from Europeana into a number of video reports on current biodiversity issues, also subtitled in English and German. As an example, you can watch a short 60-second piece about how the fox is adopting new tactics and adapting to changes in his circumstances, filmed in Berlin's Botanical Gardens: The Fox is Coming to Town (watch the video on RBB online - click UT in the player for ENG subtitles).

Enrichment platform

Gerda Koch, technical coordinator for the project, is best placed to give a technical overview of the LinBi enrichment platform, which has been in full operation since the end of summer 2020. She says, 'It provides tools for linking, enriching and creating new objects in the Europeana Data Model (EDM) format. Following a free registration, users can create clustered content sets on a specific topic, for automatic aggregation by OpenUp!. Sets can be optionally forwarded to the Europeana collections website via the new Europeana User Set API.'
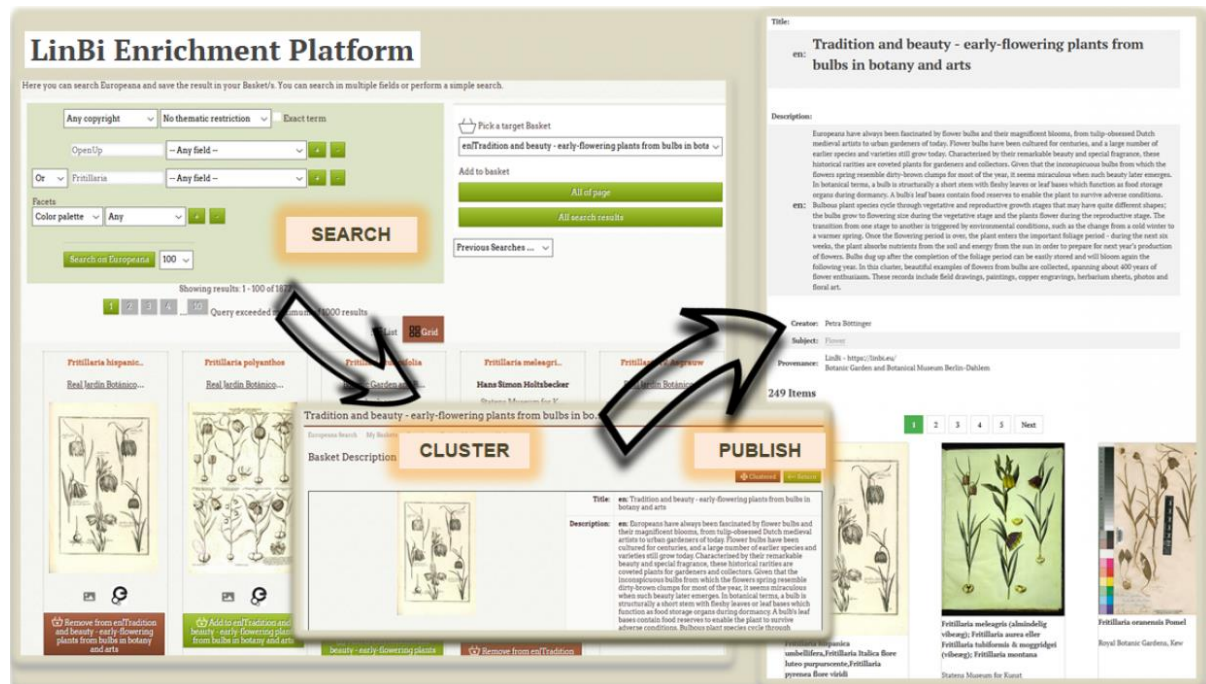
'The platform also includes a powerful enrichment tool, enabling users to create new web resources and enrichment elements by selecting image and text regions or video and audio segments. Resulting data can be used as training sets for Convolutional Neural Network (CNN). All LinBi content was processed by OpenUp!'

Find out more

This intention of the LinBi project was to heighten awareness of Europe's biodiversity heritage material. It needs no great insight into the human condition to understand that the future of the planet depends greatly upon maintaining rich biodiversity. LinBi's goal was to direct public and media attention to existing and new material which documents such diversity, by pointing users to the wealth of material available, and to create connections between content items. We hope that we have contributed in some small way to greater awareness of the rich detail, long history and essential importance of biodiversity.

To find out more about the project and to contribute to enrichment, explore the LinBi project site.