Provenance & Linked Open Data
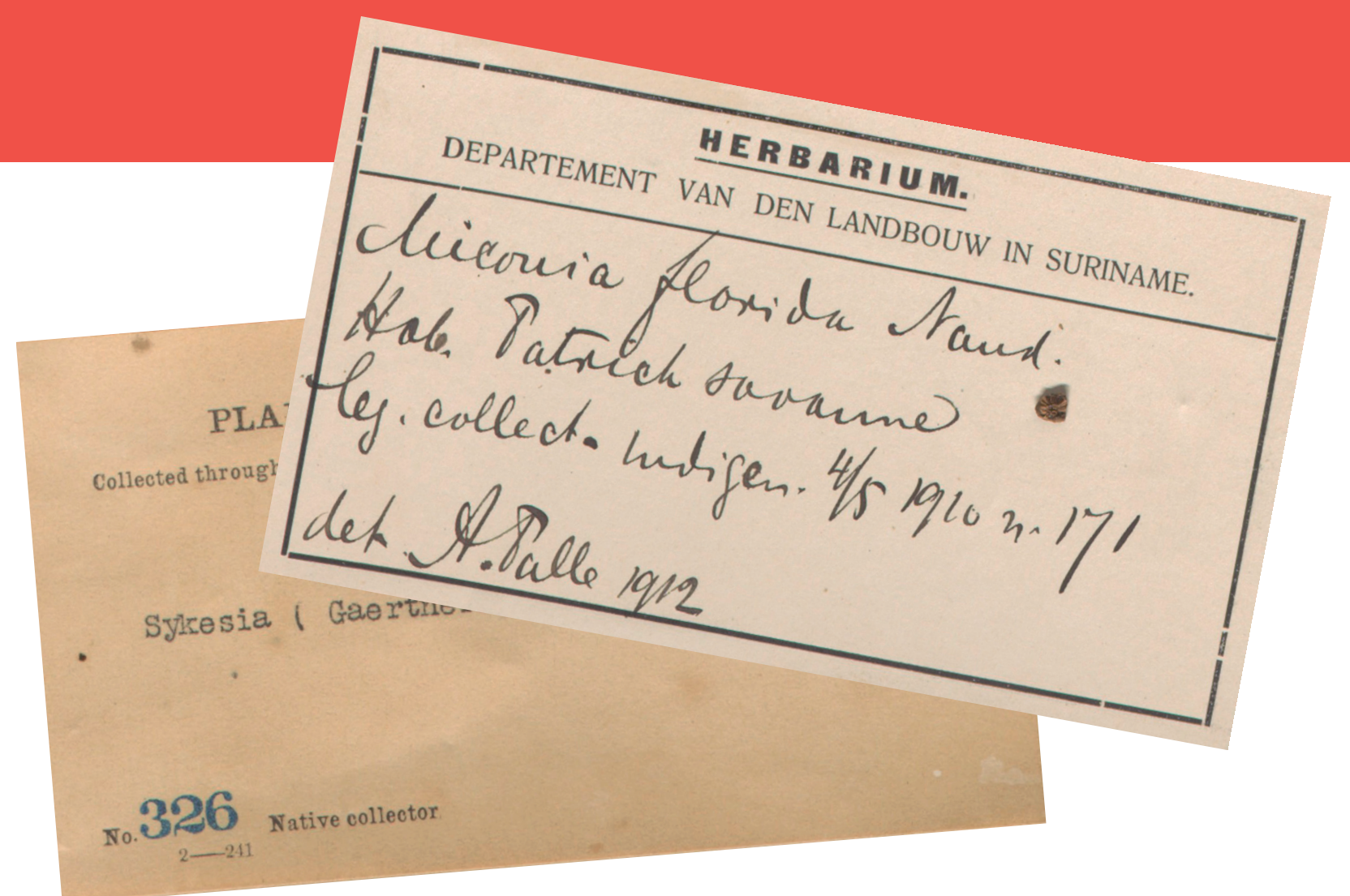
Two international initiatives

E-COST ACTION PROPOSAL: BOTANICAL LEGACIES REIMAGINED
(TRANSFORMING HERBARIA INTO TOOLS FOR EQUITY AND ACTON)
ROXALI BIJMOER (NATURALIS)

Herbaria are not just scientific archives; they are societal, cultural, and ecological touchstones needing reconnection and revitalization.

Botanical collections, particularly herbaria, have historically been centralized in Global North institutions, often removed from the biodiverse regions they represent. This dislocation limits access, research equity, and local benefits, particularly in addressing today's grand challenges like biodiversity loss, climate change, food security, and cultural knowledge erosion (the gradual loss and diminishment of a community's unique cultural characteristics, traditions, knowledge systems, and practices).

Crucially, decolonization should not be seen only as a challenge. It is an opportunity to reimagine botanical collections in ways that redress past injustices while creating mutual benefits. By working together, all partners, regardless of geography, stand to gain from more ethical, connected, and impactful collections that better serve both science and society.

cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

WORKING GROUP 2: DIGITIZATION AND DATA FUTURES

This Working Group addresses the rapidly evolving landscape of herbarium digitization and the need to move beyond the technical act of scanning specimens toward workflows that enable meaningful, ethical, and inclusive reuse of botanical data. It will focus on making digitized collections more interoperable and aligned with both the FAIR (Findable, Accessible, Interoperable, Reusable) and CARE (Collective Benefit, Authority to Control, Responsibility, Ethics) principles, while recognizing that these values must be context-sensitive and culturally grounded.

A particular focus will be placed on respecting provenance and ethical obligations where traditional or Indigenous knowledge is involved. The group will also explore how AI and data science tools—such as machine learning and natural language processing—can support the transcription, enrichment, and integration of legacy data. To support broad and equitable adoption of these practices, the group will develop training materials and capacity-building activities, particularly aimed at institutions and researchers in Inclusiveness Target Countries.

RESEARCH EXPEDITIONS
ANNIKA HENDRIKSEN (NATURALIS)
A Wikidata project and TDWG Taskgroup: Sabine von Mering, Siobhan Leachman, Joaquim Santos, Dag Andresen, Robert Cubey, Annika Hendriksen et al. (with many thanks to all Wikidata editors worldwide)

A multitude of objects have been gathered in the past during research expeditions, often in former colonial areas. After inclusion in museum collections, these objects have become distributed among institutions, resulting in fragmented and dispersed information.

Source: https://commons.wikimedia.org/wiki/File:Archbold_expeditie_in_de_Baliem-vallei_KITLV_11384.tiff

Example: Siboga Expedition
Wikidata-item Q4201627
https://www.wikidata.org/wiki/Q4201627

Objects, specimens and archives at NMVW and Naturalis

An international working group addresses this challenge by using Wikidata, a community-curated and multilingual knowledge base, that creates unique identifiers for the expeditions and connects these to participants, locations, museum collections, archive material and publications.

More information: Wikidata Project Page
https://www.wikidata.org/wiki/Wikidata:WikiProject_Research_expeditions/

TDWG Taskgroup:
https://www.tdwg.org/community/cd/expeditions/

If this identifier is stored in the local collection management system and published, collections can be traced back to the expeditions' origin. Reversibly, collections can be added to the Wikidata-item; this makes historical information more transparent and accessible, and it helps to contextualise and recognize colonial impact.

https://commons.wikimedia.org/wiki/File:COLLECTIE_TROPENMUSEUM_Zeilvis_(Histiopterus_orientalis_of_mal_ikan_layer)_268_m_lang_gevangen_aan_boord_van_het_schip_H.M._Siboga_te_Banda_TMnr_10006545.jpg

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