L-Università ta' Malta

5MPCW CY-2025

UNEARTHING CEMETERIES: A META-ANALYSIS OF VASCULAR FLORA IN URBAN CEMETERIES

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AGENDA

- Introduction
- Selection of Studies
- Trends of Studies
- Preliminary Analysis
- Next Step

Why Cemeteries?

With extensive urbanisation and loss of species, cemeteries are possible urban green areas which can act as refuges for vascular plants

EU Nature Restoration Law

CORINE Land Cover Classification

Green Infrastructure Recognition

To explore how regional environmental factors shape cemetery floral diversity

To explore the consistency of cemetery flora as biodiversity reservoirs across urbanized regions worldwide

To quantify regional variation in the richness and composition of vascular flora in cemeteries

Types Of Cemeteries

a)

b)

c)

d)

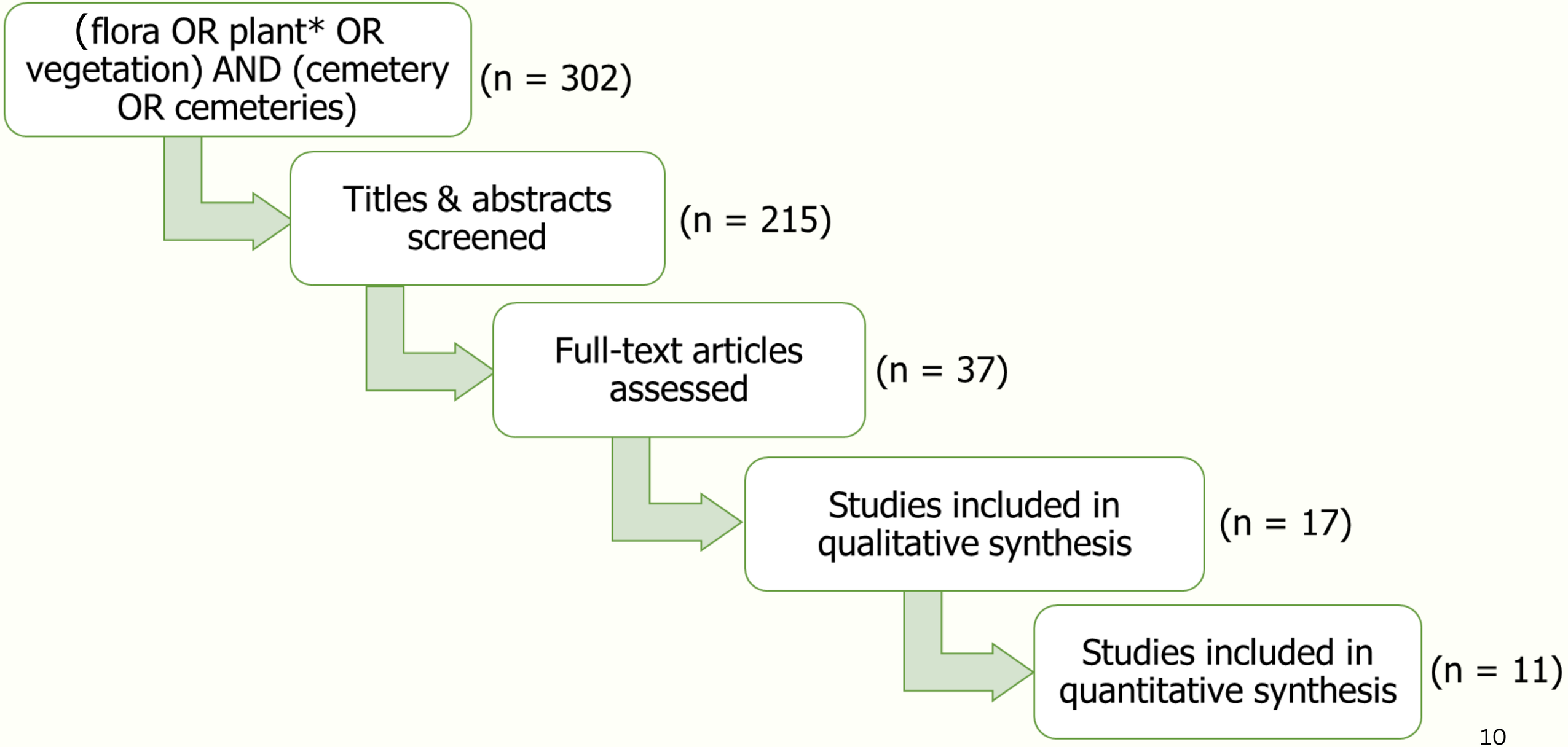
e)

f)

Part of: Skobel N, Moysiyenko I, Sudnik-Wójcikowska B, Dembicz I, Zachwatowicz M, Zakharova M, Marushchak O, Dzerkal V (2023) Vascular plants of old cemeteries in the Lower Dnipro region (Southern Ukraine). Biodiversity Data Journal 11: e99004.

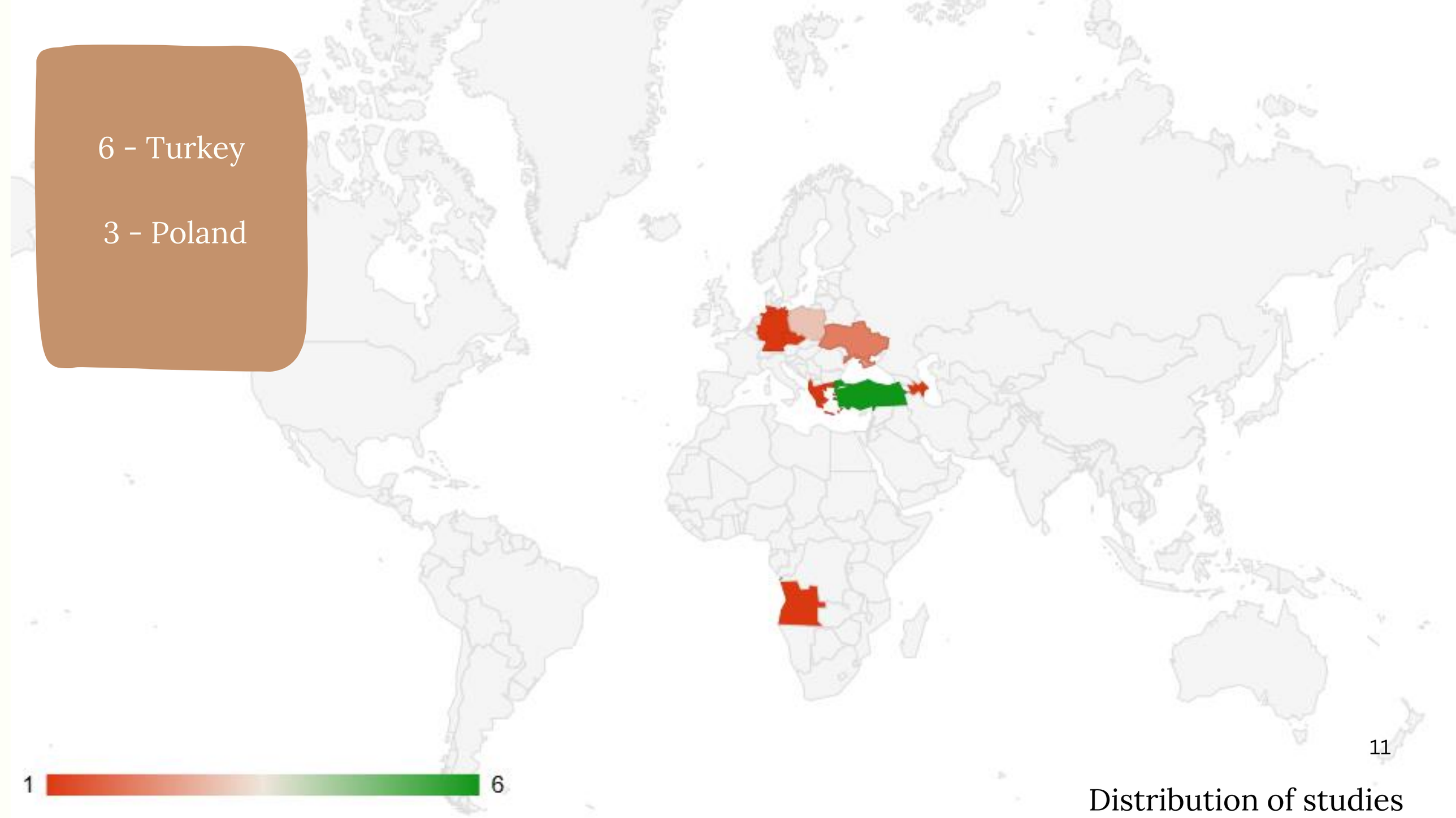
Calleja, C. (2024, June 21). Seven secrets from the Addolorata Cemetery. Times of Malta. https://timesofmalta.com/article/seven-secrets-from-the-addolorata-cemetery.745440

PRISMA Workflow

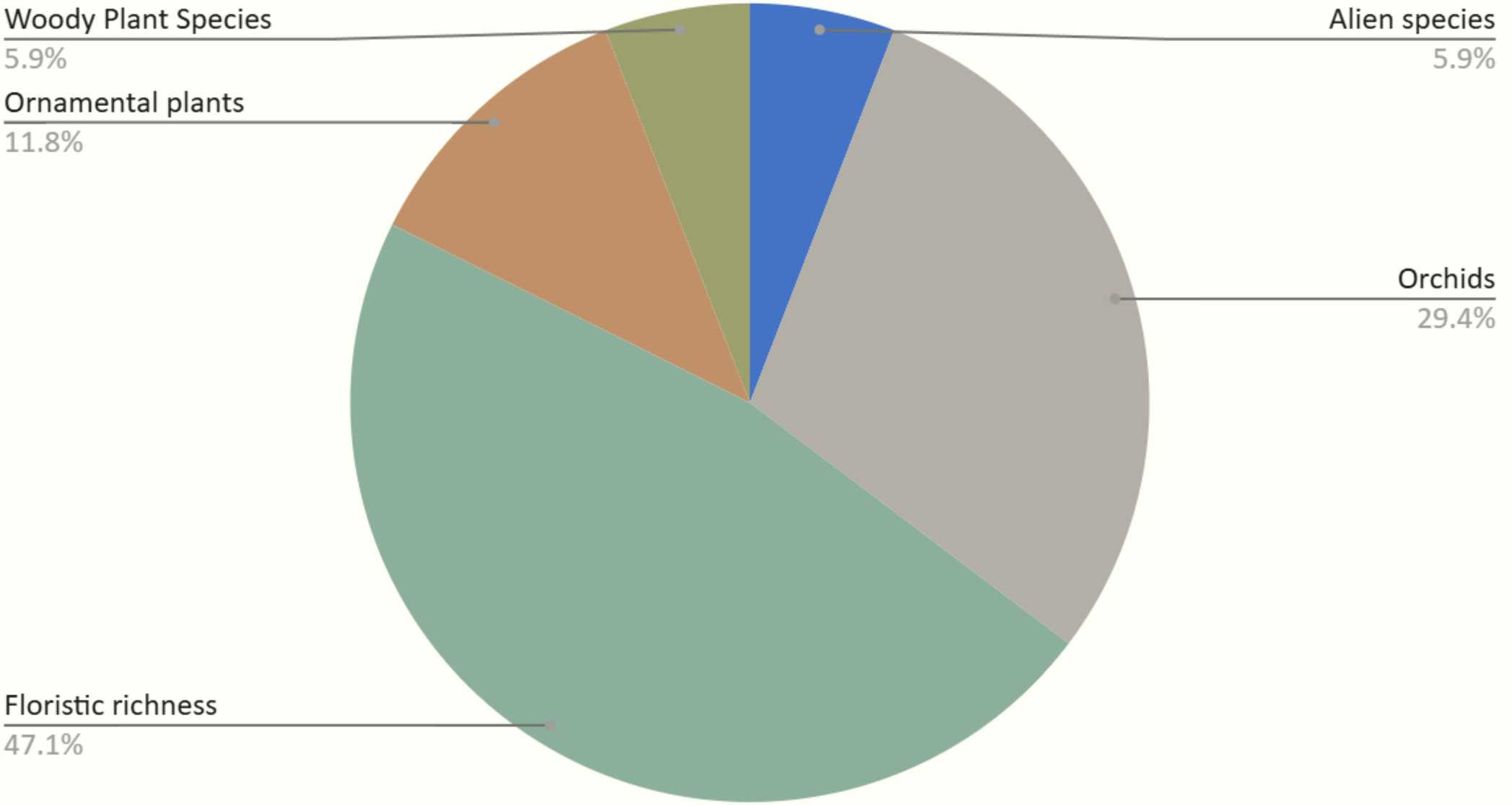

(flora OR plant* OR vegetation) AND (cemetery OR cemeteries)
(n = 302)
Titles & abstracts screened
(n = 215)
Full-text articles assessed
(n = 37)
Studies included in qualitative synthesis
(n = 17)
Studies included in quantitative synthesis
(n = 11)

6 - Turkey

3 - Poland



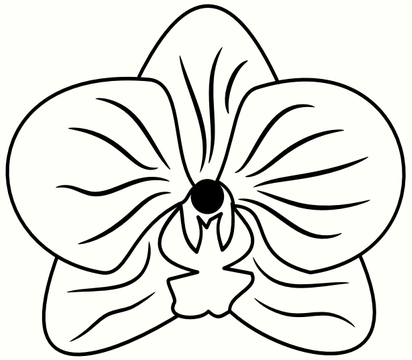
Distribution of studies


Woody Plant Species
5.9%
Ornamental plants
11.8%
Floristic richness
47.1%
Alien species
5.9%
Orchids
29.4%

Analysis

Full Species List

Turkey (1 cemetery)
Poland (78 cemeteries)
Ukraine (13 cemeteries)
Germany (1 cemetery)



Orchid List

Azerbaijan (96 cemeteries)
Turkey (316 cemeteries)
Albania (166 cemeteries)
Germany (1 cemetery)

Orchids

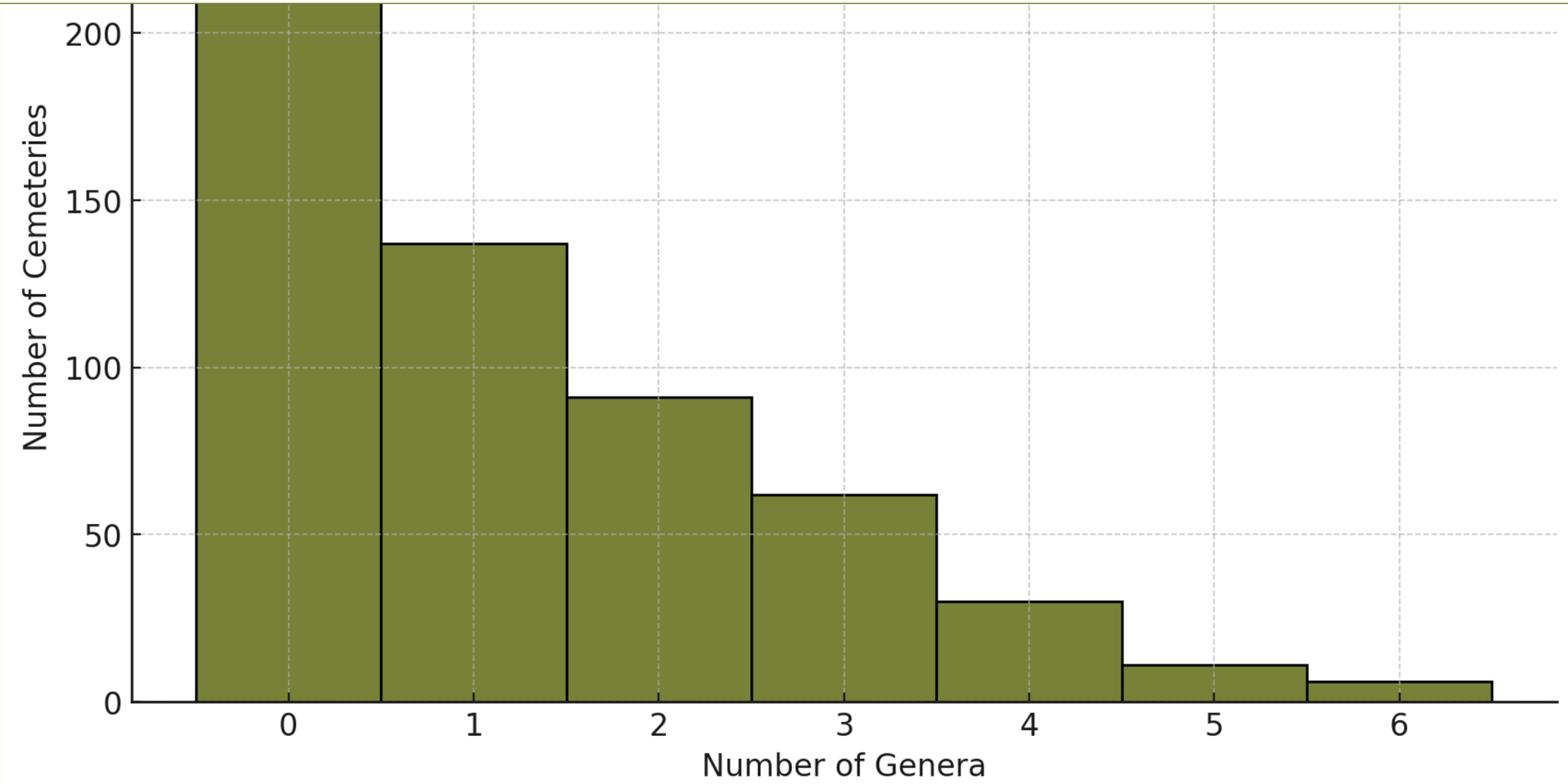
High species richness and abundance

- High elevation and latitude
- Low management
- Older cemeteries with ecological continuity

Low species richness and abundance

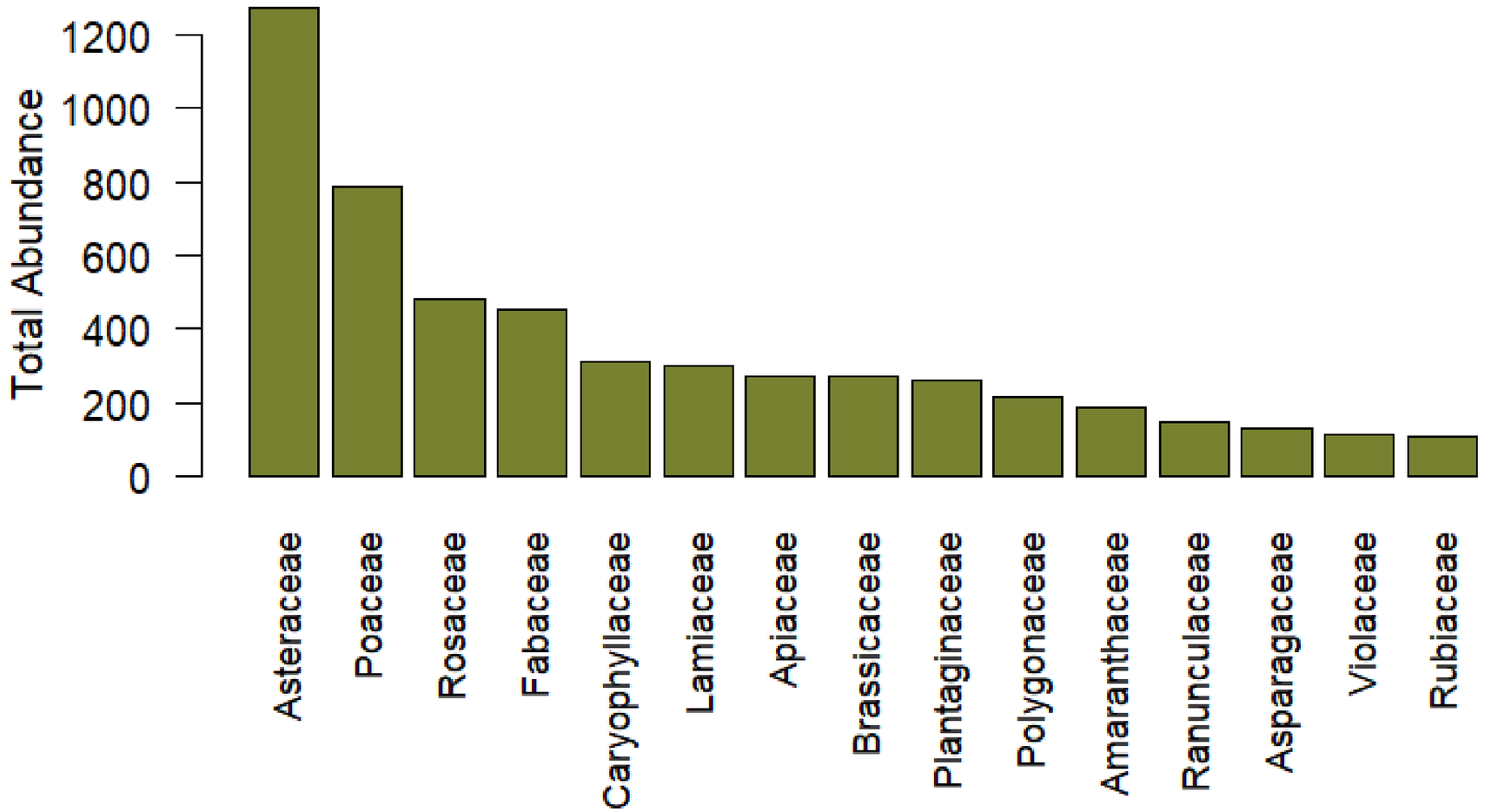
- Intensive human disturbance
- Lack of tree cover or habitat complexity
- Young cemeteries

Total Number Of Distinct Species Per Genus Across Surveyed Sites

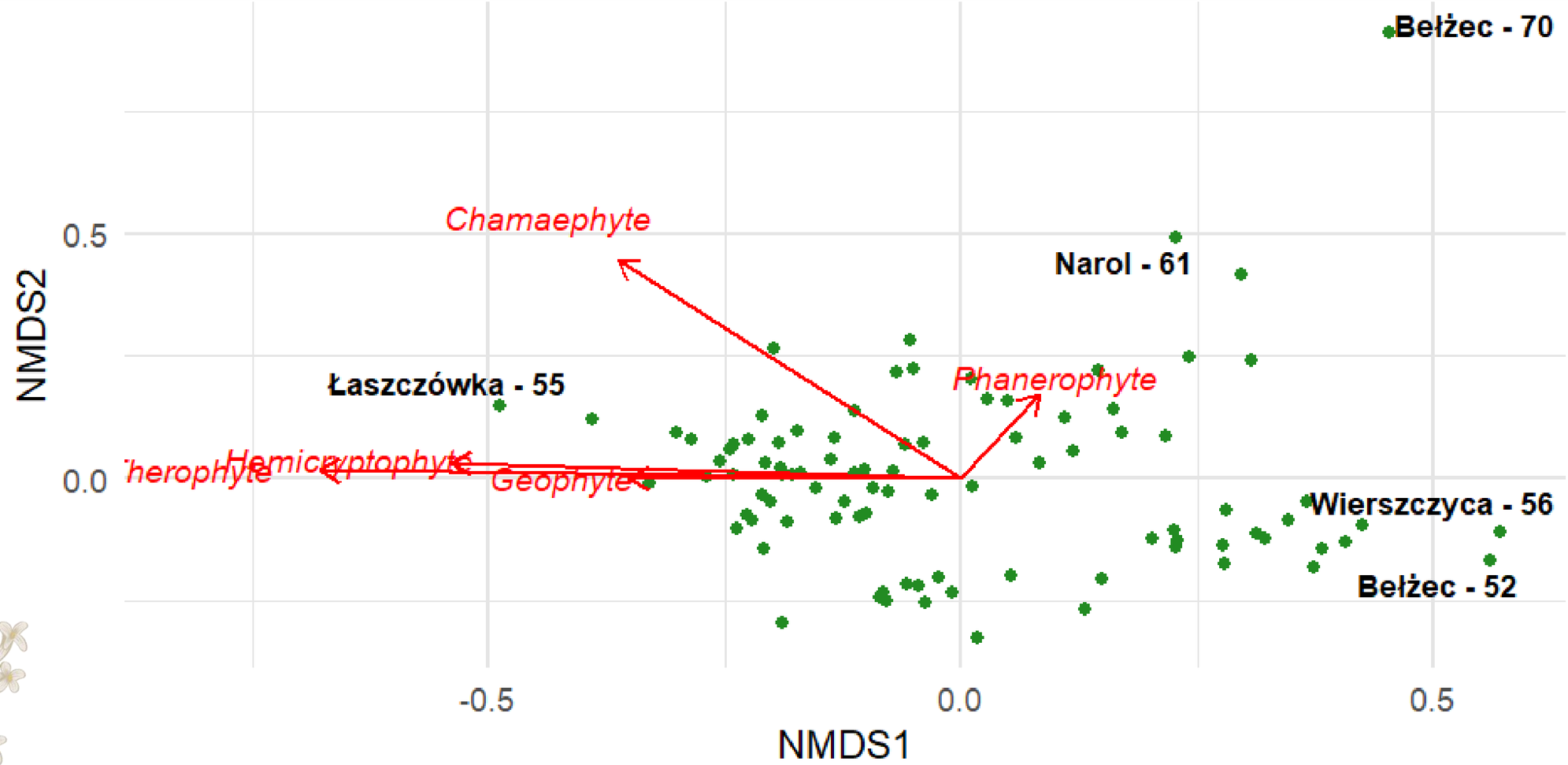


Floristic Inventory

Representation Of Families Across Cemeteries



NMDS(Bray-Curtis): Life Form Across Cemeteries



Non-Native

Country	% Non-Native
Poland	19.7%
Turkey	38.9%
Ukraine	15.2%
Germany	33.1%

To Summarise

What Are The Trends

Cemeteries Studied

Park -Like
Built

Dominant Families

Ruderals

Orchid Abundance

Low Management
Colder Climate

Life-Form

Phanerophytes
and Therophytes

Non-Native Species

Urban Areas

Expanding On The Study

Regional Floral Lists

Cemetery Characteristics

Expand Search

Ecological Variance

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Thank You

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