

Contributing to the MedPlants4Vet project: Ethnoveterinary plant knowledge in the Catalan linguistic area

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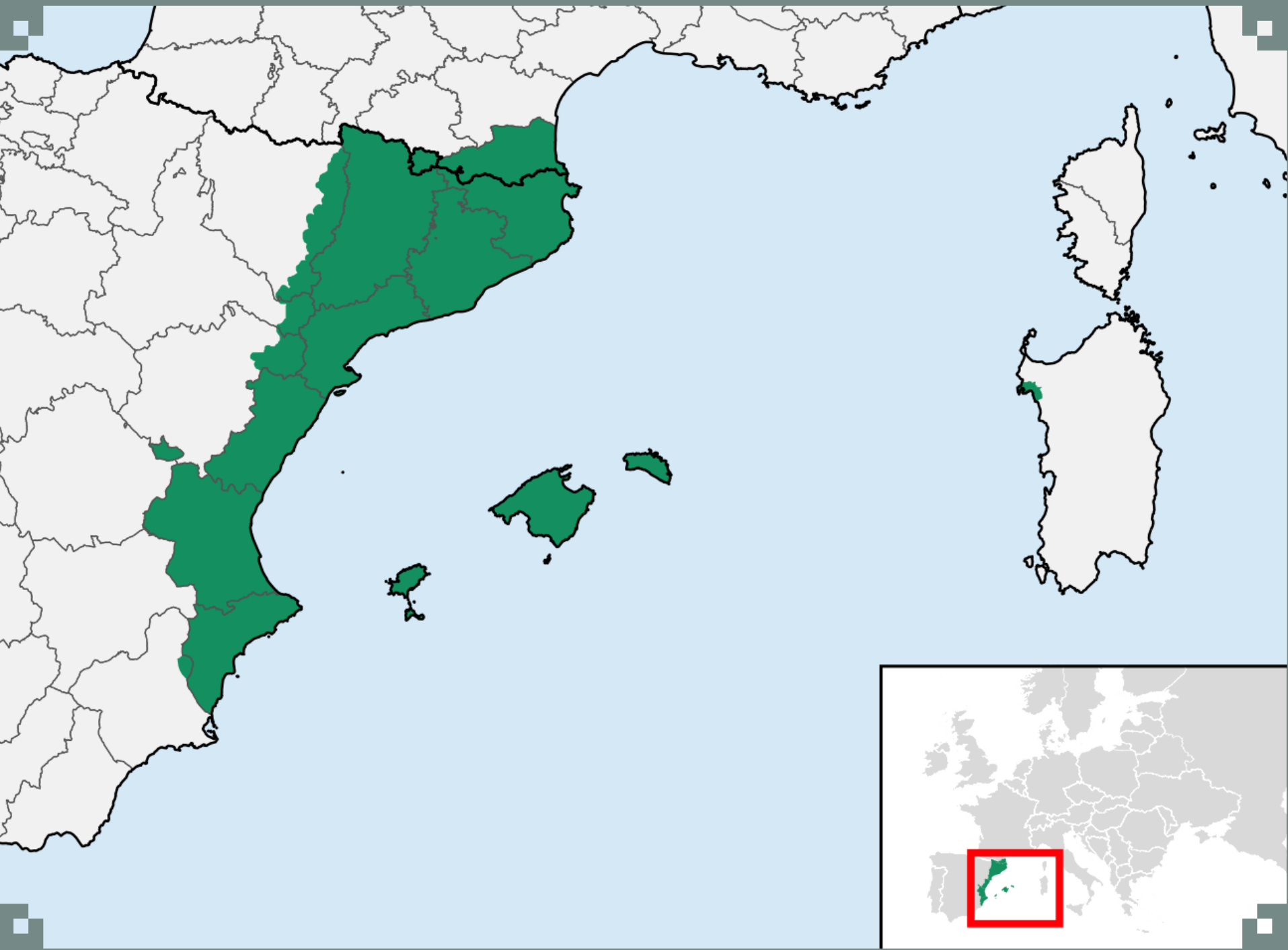
Background

For centuries, **traditional ethnoveterinary practices** have been essential for **animal health**. Shaped by **pastoralism** and **local flora**, this deep-rooted knowledge is increasingly at **risk of being lost**, making its **preservation** a critical scientific priority.

The **MedPlants4Vet project** (COST Action CA22109) is an international network promoting medicinal plants in veterinary care. By addressing current knowledge gaps, the project aims to provide evidence-based resources and guide policymakers in regulating **herbal veterinary medicinal products**. Within this initiative, the **ETNOBIOFIC research group** (UB-IBB) collaborates in Working Group 3 to compile an **inventory** of European herbal remedies, integrating **historical** and **modern knowledge**.

Material & methods

Study area



The Catalan linguistic area (CLA), highlighted in green, represents the territories where the Catalan language is spoken. Located in the western Mediterranean basin, this culturally and linguistically united region politically spans across four European states: Andorra, Spain (including Catalonia, the Valencian Community, the Balearic Islands, Eastern Aragon, and *El Carxe* in the Murcia region), France (Northern Catalonia), and Italy (the city of *l'Alguer* in Sardinia).

Results & discussion

General data

2,873 ethnoveterinary use-reports

- **95.0%** Spain (75.6% Catalonia, 13.0% Valencian Community, 6.1% Balearic Islands, 0.3% Eastern Aragon)
- **3.6%** France
- **1.4%** Andorra

369 plant taxa

81 botanical families

47 sources (33 academic theses, 2 technical reports, 11 books, and 1 article in Catalan)

Top cited plants



Olea europaea L. - 5.7%



Thymus vulgaris L. - 4.2%



Ruta chalepensis L. - 3.9%



Malva sylvestris L. - 5.7%

Extraction methods

Water extract (decoction) - 32.9%

Fresh raw material - 31.7%

Water extract (not specified) - 12.6%

Oil/fatty extract - 7.4%

Plant parts

Herb/aerial part - 41.1%

Fruit/infructescence/pseudofructus - 14.4%

Leaf - 10.6%

Flower/inflorance - 7.0%

Data collection



Interviews

Documenting traditional knowledge on ethnoveterinary uses of native flora through semistructured interviews with local informants.



Botanical identification

Plant species mentioned by informants are collected and taxonomically identified using the *Flora Manual dels Països Catalans*. Herbarium vouchers are subsequently prepared and deposited at the BCN herbarium (Centre de Documentació de Biodiversitat Vegetal, Universitat de Barcelona).

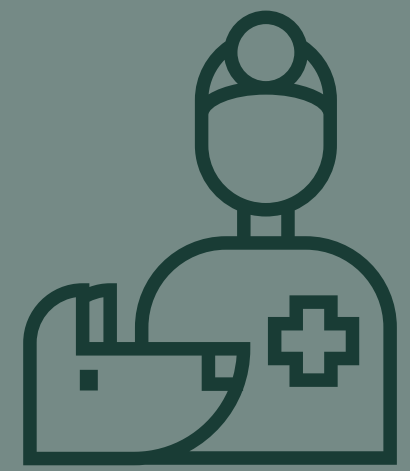


Digital repository

All findings are digitized and stored in an internal database, while a part of these traditional plant uses is integrated into the *Etnobotànica dels Països Catalans* database (etnobotanica.iec.cat), a freely accessible public webpage.



54,893 Medicinal uses



32,839 Exclusive veterinary uses



MedPlants4Vet standardization

Ethnoveterinary data from this CLA repository were standardized according to MedPlants4Vet Working Group 3 criteria. Botanical nomenclature was aligned with Kew's Plants of the World Online (POWO) and treatment intentions with the ATCvet index, while other major categories were globally regrouped.

Route of administration

Oral - 51.7%

Topical - 30.5%

Bath - 10.6%

Other - 2.2%

Botanical families

Asteraceae - 11.3%

Lamiaceae - 9.6%

Oleaceae - 6.5%

Rutaceae - 5.7%

Composition

Single - 95.0%

Phyto mixture - 3.6%

Mixture phyto plus - 1.4%

Top animals

*50.9% do not specify the exact animal.

Cattle - 15.0%

Sheep - 10.1%

Pig - 4.7%

Goat - 4.1%

Equids - 3.8%

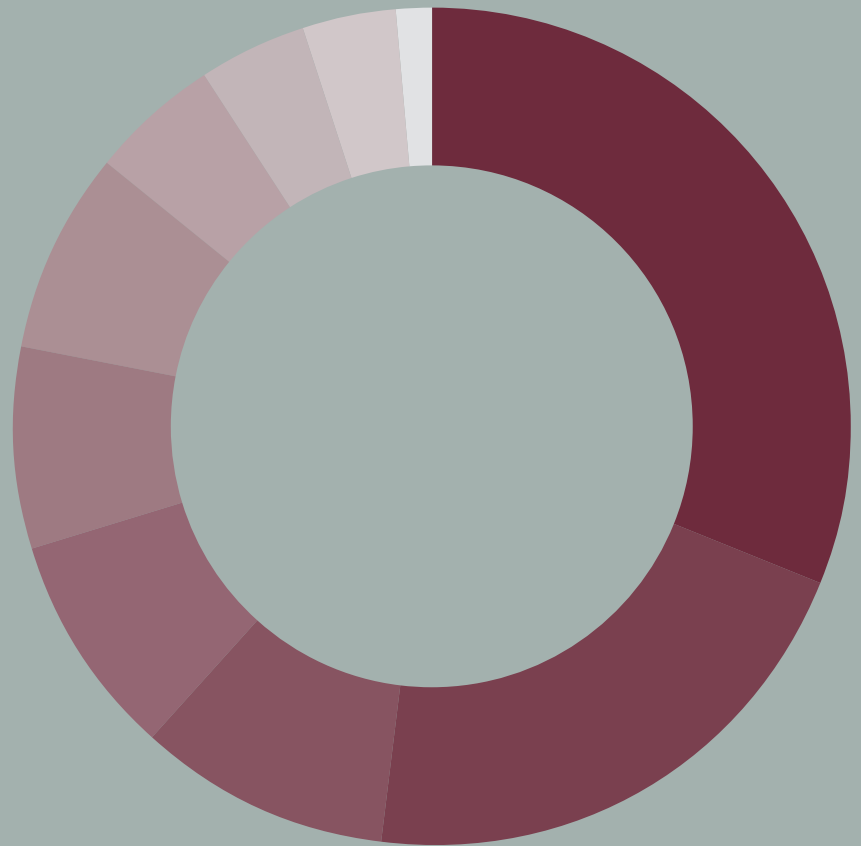
Chicken - 3.7%

Dog - 2.4%

Rabbit - 2.0%

Horse - 1.8%

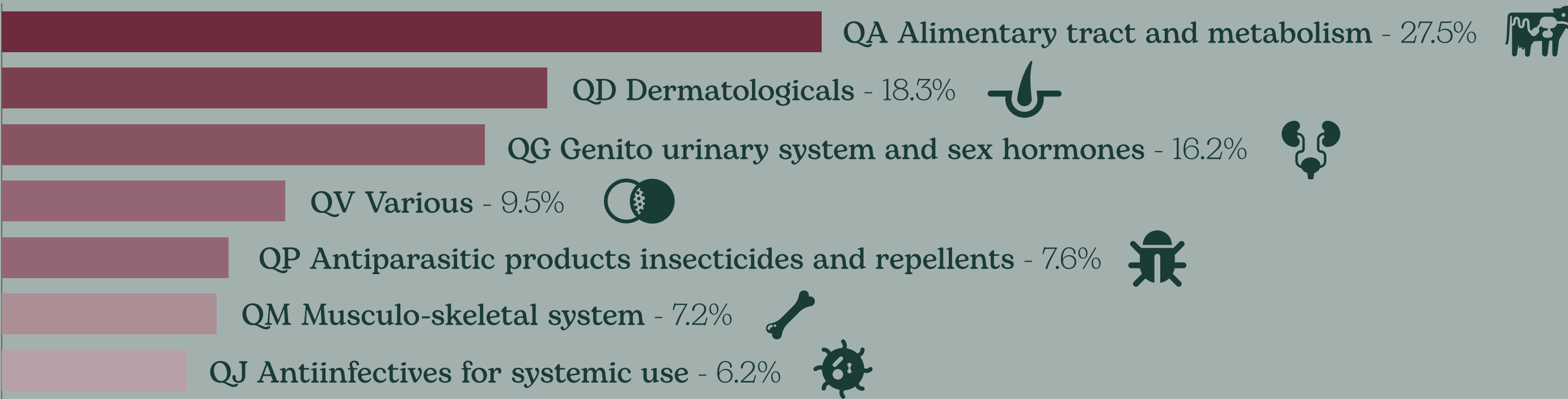
Others - 0.6%



Conclusions

- Shows exceptionally **rich ethnoveterinary knowledge** in the Catalan linguistic area (2,873 use-reports).
- Highlights a **great plant biodiversity** applied to **animal health** (369 taxa).
- Guides ethnodirected research to precisely identify **promising target plants**.
- Enriches the **MedPlants4Vet inventory** and **supports future regulations** for herbal veterinary medicinal products.

Top 7 treatment intentions



Funding

