

PREVALIEN: an open-access database for Invasive Alien Plants of Union Concern in Italy

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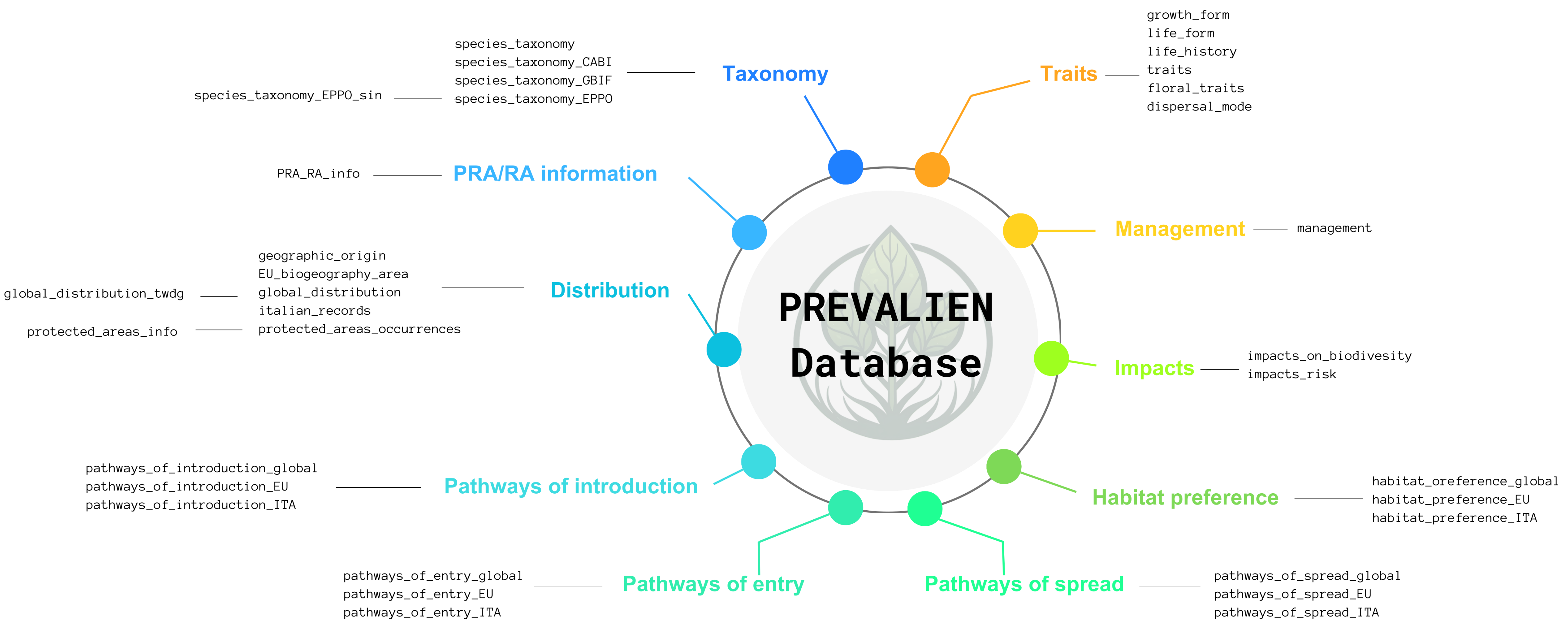
PREVALIEN Database

Project: Italian Project of National Interest (PRIN 2022, Ministry of Universities and Research)
Purpose: Prevention and early detection of *Invasive Alien Plants of Union Concern (IAPUC)*
Scope: Protected areas across Italy
Implementation: PostgreSQL
Sources: Authoritative European and global datasets
Goal: Provide a comprehensive, structured tool for biodiversity management

Key Features

Content: 41 vascular plant and algal species listed as *IAPUC*
Structure: 31 interconnected relational tables
Functions: Supports, advanced queries, scalable ecological analyses
Applications: Risk modelling, early-warning systems, prioritization of monitoring & eradication, conservation strategies tailored to local contexts

Structure of PREVALIEN database



Habitat Preference Analysis

Method: Paired comparisons between global and European occurrences

Main findings:

- 🌳 Species globally associated with forests often expand into → sparsely vegetated inland areas
- man-made vegetated habitats
- 🌊 Coastal areas and grasslands show differential occurrence
- 💧 Wetlands and inland waters show no significant differences

National relevance and open-access approach

Despite increasing attention to *Invasive Alien Species (IAS)* in Europe, Italy lacks a centralised, open repository integrating ecological, spatial, and management data for protected areas.
 → Collaborative, open-access database designed to fill this national gap.

🔄 Dynamic structure

