Fondo Sociale Europeo Plus 2021/2027

FSE+

Sportello 2025 P.S. 20/24

Sostegno alla realizzazione di dottorati di ricerca

With Decree No. 9526/GRFVG of February 28, 2025, the Friuli Venezia Giulia Region published the Notice regarding the submission of operations for Specific Program No. 20/24, which aims to support higher education through the realization of PhD programs.

Specific Programme 20/24, through the funding of doctoral scholarships, contributes to the achievement of the objectives of the Sustainable Smart Specialisation Strategy (S4). It supports the development or strengthening of integration with the regional production system and/or research organisations, through coordination and collaboration mechanisms with regional enterprises or research bodies, or by leveraging the potential for technology transfer of processes, products, applications, or, more broadly, research outcomes.

- Sportello **2025**
- **Ciclo 41**
- CUP **J93C25000640008**
- Progetto **2025/6525/29**

Dottorato in **Enviromental Life Sciences**

"**Analysis of the potential of botanical gardens to preserve the global functional diversity of woody species "**

Traditionally, botanical gardens have played a central role in plant biodiversity conservation, focusing on taxonomic and genetic diversity through living collections and germplasm banks. However, the conservation efforts of botanical gardens have often overlooked functional diversity—the variety and distribution of the morpho-functional characteristics of species—a dimension of biodiversity that can be largely independent of taxonomic diversity. This doctoral project aims to verify whether the living collections of Italian botanical gardens adequately represent global functional diversity. In the first year, the doctoral student will quantify the fraction of global functional diversity contained within a set of Italian botanical gardens, using metrics (functional richness, dispersion, redundancy) obtained through advanced multivariate analyses and comparing them with the diversity observed in nature (information obtained from scientific literature). Functional data will be retrieved from international databases and applied to pre-compiled floristic lists, based on a sample of botanical gardens distributed along a latitudinal and environmental gradient, with different management and dimensional typologies. In the second year, multivariate statistical models will be developed to identify the factors (size, management, climate, socio-economic context) that influence the effectiveness of botanical gardens in conserving global functional diversity. In the third year, an interactive platform (Shiny App) will be created to visualize the distribution and representativeness of functional diversity in Italian botanical gardens, for dissemination and information purposes aimed at stakeholders and the public. Expected results include indicators to evaluate conservation effectiveness, optimal management criteria, and digital tools to communicate and enhance functional diversity.