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U N I K A S S E L V E R S I T Ä T

biodiversa+ European Biodiversity Partnership

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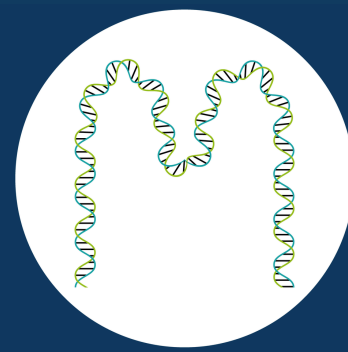
Metaplantcode

MetaPlantCode is supported by project partners from 10 different European countries, showcasing a collaborative framework designed to optimize plant metabarcoding practices. By tackling challenges like species complexity, contamination, and DNA degradation, we refine molecular plant monitoring through strategic European case studies by using AI and mobilizing non-digital existing knowledge.

Project Goals

Promoting Standardized Sampling Strategies
- Conducting European case studies to optimize metabarcoding protocols in the field and lab
- Testing and refining protocols for improved accuracy

Improving Analysis and Identification
- Developing easy-to-use analysis pipelines for enhanced species identification
- Mobilizing non-digital knowledge
- Improving accuracy and precision in species-level identification through machine learning and data fusion

Ensuring Data Accessibility and Transparency
- Publishing data under FAIR standards for open access in GBIF and INSDC
- Enhancing transparency and reproducibility in plant metabarcoding research

Fostering Community Engagement and Collaboration
- Engaging stakeholders through communication and community involvement
- Establishing plant metabarcoding as a collaborative and inclusive research field

Key Features:

- ✓ Data Integration and Enrichment: Seamlessly combine biodiversity data with automated pipelines to close knowledge gaps and enhance understanding of biodiversity dynamics.
- ✓ Advanced Monitoring Techniques: Enable large-scale, long-term, high-throughput monitoring for precision biodiversity assessments.
- ✓ Literature Integration: Enrich taxonomic literature and align botanical checklists with the Catalogue of Life for comprehensive species identification.

Innovative Approach:

Addressing Challenges in Plant Metabarcoding
- Advancing methods to address challenges in species identification within taxa with complex evolutionary histories and cryptic species.
- Developing effective solutions for analyzing DNA from different matrix materials, such as faeces and soil, and mitigating the effects of DNA degradation.

Promoting Broad Adoption and Routine Application
- Implementing training programs to equip researchers and practitioners with the skills and knowledge needed to apply plant metabarcoding effectively.
- Launching outreach efforts to raise awareness and promote the routine use of plant metabarcoding in biodiversity surveys and ecosystem research.

Our Network:

GSRI GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION · fct Fundação para a Ciência e a Tecnologia · INEB ΙΝΣΤΙΤΟΥΤΟ ΕΦΑΡΜΟΣΜΕΝΩΝ ΒΙΟΕΠΙΣΤΗΜΩΝ INSTITUTE OF APPLIED BIOSCIENCES ΕΘΝΙΚΟ ΚΕΝΤΡΟ ΕΡΕΥΝΑΣ & ΤΕΧΝΟΛΟΓΙΚΗΣ ΑΝΑΠΤΥΞΗΣ · BIOPOLIS · Hes·SO//GENÈVE Haute Ecole Spécialisée de Suisse occidentale · RÉPUBLIQUE FRANÇAISE Liberté Égalité Fraternité · anr agence nationale de la recherche AU SERVICE DE LA SCIENCE · UNIVERSITY OF OSLO · U N I K A S S E L V E R S I T Ä T · DFG Deutsche Forschungsgemeinschaft · KU LEUVEN · SBDI · NWO · The Research Council of Norway · ufscdi · PLAZI TAKING CARE OF FREEDOM · fwo · Naturalis Biodiversity Center · INCDSB National Institute of Research and Development for Biological Sciences · IRD Institut de Recherche pour le Développement FRANCE · CERTH CENTRE FOR RESEARCH & TECHNOLOGY HELLAS · Swiss National Science Foundation · INSTITUTO SUPERIOR D AGRONOMIA Universidade de Lisboa

Join the journey to enhance plant identification and biodiversity surveys. By working together, we can strengthen plant identification, improve ecosystem surveys, and support informed conservation decisions.
www.metaplantcode.eu

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