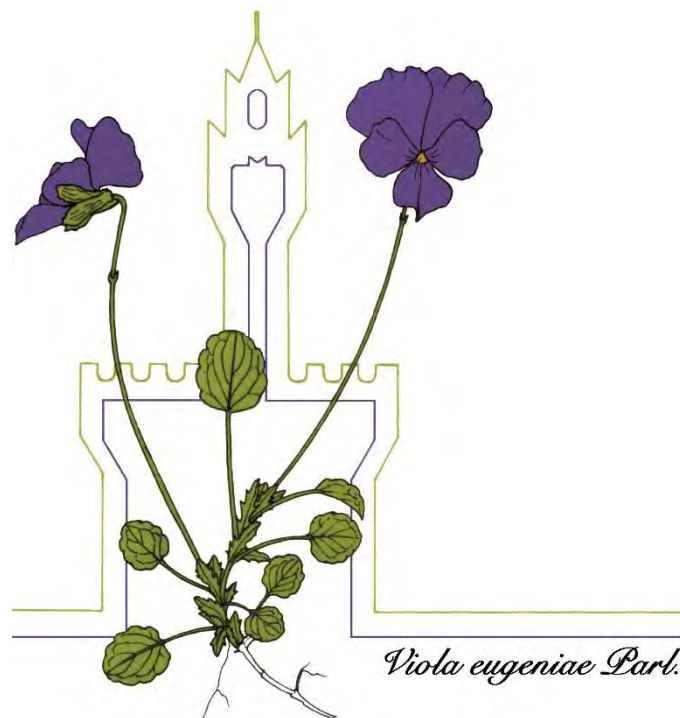


121° Congresso della Società Botanica Italiana

XII INTERNATIONAL PLANT SCIENCE CONFERENCE (IPSC)

REGGIO CALABRIA, 2 - 5 SEPTEMBER 2026



ABSTRACTS

KEYNOTE LECTURES, COMMUNICATIONS, POSTERS



Scientific Committee

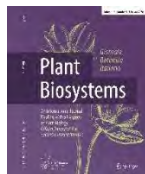
Antonella Canini (Università di Roma Tor Vergata)
 (Presidente)
 Barbara Baldan (Università di Padova)
 Anna Maria Mercuri (Univ. di Modena e Reggio Emilia)
 Anna Maria Mercuri (Università di Modena e Reggio Emilia)
 Gianni Sacchetti (Università di Ferrara)
 Giovanni Spampinato (Università di Reggio Calabria)
 Roberto Venanzoni (Università di Perugia)
 Giuseppe Venturella (Università di Palermo)
 Carmelo Maria Musarella (Università di Reggio Calabria)
 Giuseppina Alongi (Università di Catania)
 Gianni Bedini (Università di Pisa)
 Giulia Caneva (Università di Roma Tre)
 Daniela Ciccarelli (Università di Pisa)
 Annalena Cogoni (Università di Cagliari)
 Gianniantonio Domina (Università di Palermo)
 Gabriele Galasso (Comune di Milano)
 Marta Galloni (Università di Bologna)
 Salvatore Lenucci (Università del Salento)
 Guido Lingua (Università del Piemonte)
 Stefano Loppi (Università di Siena)
 Alessia Masi (Sapienza Università di Roma)
 Simone Orsenigo (Università di Pavia)
 Alessio Papini (Università di Firenze)
 Ferrucci Poli (Università di Bologna)
 Leonardo Rosati (Università della Basilicata)
 Francesco Tarantino (Lecce)
 Solveig Tosi (Università di Pavia)

Organizing Committee

Giovanni Spampinato
 Carmelo Maria Musarella
 Serafino Cannavò
 Valentina Lucia Astrid Laface
 Antonio Morabito
 Miriam Patti

Supported by:

Sponsored by:



Patronage by:



121° Congresso della Società Botanica Italiana ETS

XII INTERNATIONAL PLANT SCIENCE CONFERENCE (IPSC)

Aula Magna “A. Quistelli” *Mediterranean* University of Reggio Calabria

2nd - 5th September 2026

Programme

Wednesday 2nd September 2026

08:30 – 09:30 Registration

09:30 – 10:00 Opening ceremony and institutional greetings

Prof. Giuseppe Zimbalatti: Rector of the *Mediterranean* University of Reggio Calabria

Prof. Marco Poiana: Director of the AGRARIA Department

Prof. Massimo Finocchiaro Castro: Director of the DiGiES Department

On. Francesco Cannizzaro: Mayor of Reggio Calabria

Col. Giovanni Misceo: Regional Commander of the Carabinieri Forestale of Calabria

Sen. Vincenzo D’Anna: National Federation of the Professional Orders of Biologists

Dr. Domenico Luca Laurendi: Professional Order of Biologists of Calabria

Dr. Michele Rocco Valenzise: Professional Order of Agronomists and Foresters of Calabria

Prof. Antonella Canini: President of Italian Botanical Society

In memory of Sandro Pignatti

(Chairpersons: Franco Pedrotti and Francesco Maria Raimondo)

10:00 – 10:30 **Enrico Feoli**

"Sandro Pignatti: un professore, uno scienziato, un maestro"

10:30 – 11:00 Coffee Break

I Symposium

PLANT DIVERSITY AND BIOLOGICAL CONSERVATION IN A CHANGING WORLD

(Chairpersons: Alessandro Chiarucci and Gianniantonio Domina)

Key words: Plant conservation, Climate change, Land-use change, Archaeobotany, Biological invasion, Natural selection, Taxonomic advances, Vegetation, Functional traits and Life strategies, Agrobiodiversity, Biodiversity informatics, Phylogeography, Plant macroecology, Biodiversity modelling (SDMs – Species Distribution Models), Conservation policies, CITES

11:00 - 11:35 • Invited lecture: **Thomas Wohlgemuth**, Swiss Federal Institute for Forest, Snow and Landscape Research WSL (25 + 10 min)

“Global change effects on plant species are context-dependent”

11.35 - 13:05

Communications

- **Giovanni-Breogán Ferreira-Lera**, Norma-Yolanda Ochoa-Ramos, Ángel Penas et al. (10 + 5 min)
“Species-specific climate vulnerability in four protected Euro-Mediterranean orchids revealed by distribution modelling”
- **Emanuele Pelella**, Diego Cantini, Simona Ceschin et al. (10 + 5 min)
“Tracing plant invasions in freshwater habitats: spatial and temporal insights from herbarium metadata”
- **Michele Lussu**, Leonardo Ancillotto, Ilaria Bonini et al. (10 + 5 min)

“Spatial mismatch between orchid diversity, land-use change and conservation coverage in Italy”

- **Emanuele Del Guacchio**, Daniele De Luca, Adriana De Luca et al. (10 + 5 min)
“Too far from home: The disjunct range of *Cephalaria joppensis* explained by introduction”
- **Ricardo Jorge Quinto-Canas**, D. Xarepe, A. Cano-Ortiz et al. (10 + 5 min)
“Micro-reserves as a strategic tool for the conservation of threatened flora and habitats in a Mediterranean biodiversity hotspot (Algarve, Portugal)”
- **Diana Maria Cruz Tejada**, Efisio Mattana, Clara Espinosa del Alba et al. (10 + 5 min)
“Warming enhances photoinhibition of seed germination under water stress in Mediterranean back-dune annuals”

13:05 - 14:30 Lunch break

14:30 - 16:30

Communications

- **Claudia Moricca**, Erasmo Di Fonso, Rachele Nicolini et al. (10 + 5 min)
“Digital Archaeobotany: Standardizing Macro-remain Data for Central Italy using the ARBOREA System”
- **Domenico Amantea**, Massimo Guccione, Claudia Ferraro et al. (10 + 5 min)
“A QGIS-based tool for implementing ensemble multi-scale Species Distribution Models for planning plant conservation under global change”
- **Antonio Morabito**, Carmelo Maria Musarella, Domenico Caridi et al. (10 + 5 min)
“Bioclimatic Mapping of Calabria: An Integrated Model Combining Climate Analysis and Habitat Distribution”
- **Antonio Zumbo**, Salvatore F. Papandrea, Angelo Mammoliti et al. (10 + 5 min)
“Management and Monitoring of Monumental Trees: Investigative experiences for Conservation and Valorization”
- **Eliane Sayde**, Daniela Gigante, Adele Tironi et al. (10 + 5 min)
“Ecogeographic diversity analysis to identify priority sites for *in-situ* conservation and ex-situ collection of Crop Wild Relatives”

Special Announcement

Stefano Martellos, Ilaria Rosati, Gabriele Bucci et al. (10 + 5 min)
“Italy joins the GBIF: new opportunities for botanical data mobilization”

16:30 – 17.00 Coffee Break

17:00 - 19:00

Public event (in Italian)

ALBERI MONUMENTALI E BOSCHI VETUSTI UN PATRIMONIO DA CONOSCERE E PROTEGGERE

(Chairperson: Francesco Tarantino)

Participant: Antonella Canini (Presidente della Società Botanica Italiana); Laura Canini (Ministero dell'Agricoltura, della Sovranità alimentare e delle Foreste - MASAF); Giovanni Misceo (Comandante regionale dei Carabinieri “Forestale” della Calabria); Gianluca Piovesan (Università della Toscana); Francesco Iovino (Accademia Italiana Scienze Forestali); Francesco Besio (Servizio Aree protette, Foreste e Sviluppo della Montagna - Regione Emilia-Romagna); Vincenzo Malacrino (Giornalista); Giovanni Aramini (Settore Tutela del Patrimonio naturale, Parchi e aree naturali protette - Dipartimento Territorio e Tutela dell'Ambiente - Regione Calabria); Donato Salvatore La Mela Veca (Università of Palermo); Andrea Proto (Università Mediterranea di Reggio Calabria)

19:00-20:30 “Ensemble Mediterranea” Jazz concert and welcome cocktail

Thursday, 3rd September 2026

II Symposium

PLANT AND HABITAT MONITORING

(Chairpersons: Roberto Canullo and Daniela Gigante)

Key words: Bioindicators, Natura 2000 Network, EEC 42/93 Habitat Directive, Plant and community dynamics, Phytoremediation, Habitat restoration, Conservation priorities and Habitat assessments, Red list, Field and

remote monitoring, Floristic knowledge, Forestry, Monumental trees, Old growth forests, Palynology, Vegetation resurvey, Long-term ecological monitoring, Citizen science in plant monitoring, Forest ecology and management

- 9:00 - 9:35 • **Invited lecture: František Máliš**, University in Zvolen, Slovakia (25 + 10 min)
“Europe-wide spatial patterns of forest vegetation responses to environmental changes”

9.35 - 11:05 **Communications**

- **Luana Bertolotti**, Paolo Mazzetto, Valeria Fochi et al. (10 + 5 min)
“Primary succession and grazing shape biodiversity patterns along alpine deglaciation gradients”
- **Raffaella Margherita Zampieri**, Riccardo Cicchi, Giulia Adembri et al. (10 + 5 min)
“Delayed tree mortality assessment after wildfires using biosensors”
- **Chiara Scalet**, Marco Cervellini, Giandiego Campetella et al. (10 + 5 min)
“Contrasting responses of understory plant functional groups to canopy cover in Italian forests”
- **Mattia Bosio**, Fulvio Amato, Elisa Sanguineti et al. (10 + 5 min)
“Role of Urban Green in Particulate Matter Capture and Allergenic Risk Mitigation: A Multifactorial Approach for Sustainable Urban Green Infrastructure”
- **Matteo Vita**, Mattia Soppelsa, Fabio Mondello et al. (10 + 5 min)
“DNA barcoding reveals the diversity of biomass-forming *Cladophoraceae* (*Chlorophyta*) in two Natura 2000 sites in Sicily (Italy)”
- **Leopoldo de Simone**, Mauro Lo Brutto, Luigi Naselli-Flores et al. (10 + 5 min)
“A new approach to sample orthophoto vegetation plots using Structure from Motion photogrammetry”

11:05 – 11:30 Coffee Break

III Symposium

BIOLOGICAL INTERACTIONS

(Chairpersons: Stefano Loppi)

Key words: Interspecific and Intraspecific Interactions, Plant–Microbe Interactions, Reproductive Strategies, Pollination, Facilitation, Competition, Applied symbiotic interactions, Functional and integrative biology, Plant–soil feedback, Trophic networks, Co-evolution, Chemical ecology, Invasion ecology

11:30 – 13:00 **Communications**

- **Silvia Mazzuca**, Amalia Piro, Daniela Oliva et al. (10 + 5 min)
“Root hair differentiation and microbial consortium promote early anchorage strategies in *Posidonia oceanica* seedlings”
- **Miriam Patti**, Agostino Sorgonà, Carmelo Maria Musarella et al. (10 + 5 min)
“Evaluating Native Species Performance and Substrate Interaction for Mediterranean Green Walls: A Morpho-Physiological Study”
- **Gabriele Briganti**, Carolina Elena Girometta, Simone Buratti et al. (10 + 5 min)
“What is a DSE? A global synthesis of diversity and host association in Dark Septate Endophytes”
- **Valentina Lucia Astrid Laface**, Giovanni Spampinato, Carmelo Maria Musarella et al. (10 + 5 min)
“The role of seed priming in promoting growth and abiotic stress tolerance in the endemic and rare *Salvia ceratophylloides*”
- **Diletta Bisonni**, Andreea Daniela Dam, Leonardo Baciarelli Falini et al. (10 + 5 min)
“Differences in the mycorrhization evolution of *Tuber melanosporum* Vittad. of two plant species in a long-term unmanaged truffle orchard”

13:00 – 14:00 Lunch break

14:00 – 16:30 **Public event (in Italian)**

RESTORATION ECOLOGY, REGOLAMENTO PER IL RIPRISTINO DELLA NATURA E PIANO DELLA NATURA PER IL FUTURO DELLE CITTÀ

(Chairperson: Carlo Blasi)

(Centro Interuniversitario di Ricerca "Biodiversità, Servizi Ecosistemici e Sostenibilità" – CIRBISES, Sapienza Università di Roma)

Participant: Francesco Tomas (Direttore Generale “Tutela della Biodiversità e del Mare” - MASE); Marco Franchini (Assessore con delega alle infrastrutture strategiche, rigenerazione urbana, decoro urbano e turismo del Comune di Reggio Calabria); Antonella Canini (Presidente della Società Botanica Italiana); Giorgio Centurelli (Capo della Segreteria Tecnica del MASE); Antonio Maturani (Dirigente della Direzione Generale “Tutela della Biodiversità e del Mare” - MASE); Michele Munafò (Responsabile del Servizio per il Sistema Informativo Nazionale Ambientale (DG-SINA) - ISPRA); Massimo Labra (National Biodiversity Future Center, Università di Milano Bicocca); Simona Maccherini (Università degli Studi di Siena); Rodolfo Filippo Gentili (Università degli Studi di Milano-Bicocca); Carmelo Maria Musarella (Università degli Studi Mediterranea di Reggio Calabria)

16:30 – 17:00 Coffee Break

17:00 – 18:30 **General Meeting of the Italian Botanical Society (members only)**

21:00 **Congress Social Dinner**
L'Accademia Gourmet - Via Largo Cristoforo Colombo, 9, 89125 Reggio di Calabria RC

Friday, 4th September 2026

IV Symposium

PLANT CELLULAR AND MOLECULAR BIOLOGY, GENETICS AND BIOTECHNOLOGIES

(Chairpersons: Marcello Salvatore Lenucci and Anna Maria Mercuri)

Key words: Plant breeding, Gene regulation, Genome editing, Stress responses, Plant growth, Morphogenesis, Biotechnologies, Transcriptomics, Proteomics, Metabolomics, Epigenetics, Single-cell biology, Plant signaling pathways, Plant developmental genetics, Synthetic biology, Plant phenotyping platforms, Conservation genomics

9:00 – 10:30

Communications

- **Amalia Piro**, Dante Matteo Nisticò, Daniela Oliva et al. (10 + 5 min)
“Proteomic insights into *Limnospira maxima*: photosynthetic pigment valorisation and stress responses to emerging environmental pollutants”
- **Lorenzo Ferroni**, Laura Brancaloni, Edi Simoni et al. (10 + 5 min)
“Unveiling the reflectance profile of *Selaginella martensii* Spring (Lycopodiophyta) microphylls via hyperspectral dark-field microscopy”
- **Emanuela Talarico**, Marina Camoli, Eleonora Greco et al. (10 + 5 min)
“Exploring inflorescence diversity in wild *Oryza* species through comparative developmental analysis”
- **Pietro Giovannelli**, Faustino Scarcelli, Silvia Mazzuca et al. (10 + 5 min)
“Local thermal history drives the resilience of *Posidonia oceanica* to present and future marine heatwaves: physiological and molecular features”
- **Daniele Torre**, Viviana Bressi, Claudia Espro et al. (10 + 5 min)
“From Excess Algal Biomass to High-Value Bioproducts: Hydrothermal Carbonization as a Circular Biotechnology Platform for Sustainable Resource Recovery”

10:30 – 11:00 Coffee Break

V Symposium

ETHNOBOTANY AND NATURAL PRODUCTS THROUGH SUSTAINABILITY

(Chairpersons: Maria Paola Germanò and Gianni Sacchetti)

Key words: Biomolecules, Plant products, Plant biostimulants, Medicinal plants, Food plants, Cultural heritage, Phytochemistry, Plant metabolites, Chemotaxonomy, Traditional Ecological Knowledge, Sustainable harvesting, Green extraction technologies, Pharmacognosy, Nutraceuticals, Crop Wild Relatives, Agroecology

11:00 - 11:35 • Invited lecture: **Milen I. Georgiev**, Bulgarian Academy of Sciences (25 + 10 min)
“Unveiling anti-obesity and longevity potential of natural products”

11.35 - 13:05

Communications

- **Valentina Parisi**, Maryam Kharatha, Giuliana Donadio et al. (10 + 5 min)
“*Ferula ammoniacum*, the plant of one thousand and one nights: new chromandione sesquiterpenoids and antibacterial activity of gum ammoniacum”
- **Chiara Fanciari**, Donya Bashiri, Roberta Di Lecce et al. (10 + 5 min)
“Sustainable valorisation of fruit agro-industrial by-products for phenolic compound recovery as potential plant biostimulants”
- **Anna Cacciola**, Emanuele Rosa, Shiva Pouramin Arabi et al. (10 + 5 min)
“Phytochemical analysis, antioxidant activity and toxicity evaluation of an extract from *Crataegus laciniata* fruits”
- **Benedetta Galletta**, Maria Fernanda Taviano, Federica Davì et al. (10 + 5 min)
“Phenolic content, antioxidant properties, and brine shrimp toxicity of wild *Hirschfeldia incana* (L.) Lagr.-Foss. from Sicily (Italy): comparative study of leaf, flower, and stem extracts”
- **Gianniantonio Domina**, Giulio Barone, Emilio Di Gristina (10 + 5 min)
“Giuseppe Pitre's contribution to the ethnobotanical knowledge of Sicily”
- **Maria Vitiello**, Marinella De Leo, Vera M. S. Isca et al. (10 + 5 min)
“Skin-related bioactivity of *Teucrium flavum* subsp. *flavum* aligned with its ethnobotanical use”

13:05 – 14:00

Lunch break

PARALLEL SESSIONS OF ORAL POSTER PRESENTATIONS

14:00 – 16:00

Oral poster presentations (2 + 1 minutes) in 3 parallel sessions

Parallel session A (Chairperson: Stefano Martellos) 1.1 Plant conservation, 1.2 Climate change, 1.5 Biological invasion, 1.7 Taxonomic advances, 1.8 Vegetation, 2.15 Vegetation resurvey, 1.9 Functional traits and Life strategies, 1.10 Agrobiodiversity, 1.11 Biodiversity informatics

Parallel session B (Chairperson: Roberto Venanzoni): 1.11 Biodiversity informatics, 2.1 Bioindicators, 2.2 Natura 2000 Network, 2.3 EEC 42/93 Habitat Directive, 2.4 Plant and community dynamics, 2.6 Habitat restoration, 2.7 Conservation priorities and Habitat assessments, 2.9 Field and remote monitoring, 2.10 Floristic knowledge, 2.12 Monumental trees, 2.13 Old growth forests, 2.18 Forest ecology and management

Parallel session C (Chairperson: Silvia Mazzuca): 2.14 Palynology, 3.6 Competition, 3.9 Plant–soil feedback, 4.4 Stress responses, 4.5 Plant growth, 4.15 Conservation genomics, 5.2 Plant products, 5.4 Medicinal plants, 5.6 Cultural heritage, 5.7 Phytochemistry, 5.8 Plant metabolites, 5.13 Pharmacognosy, 5.15 Crop Wild Relatives, 5.16 Agroecology

16:00 – 16:30

Coffee Break

16.30

Italian Botanical Society awards

16:45

Introduction to the excursion

17:00

Congress Closure

Saturday, 5th September 2026

Post-Congress Event

07:30 - 16:30

Field trip in the Aspromonte National Park

2.1 = Towards an integrated checklist and forest affinity assessment of the Italian woodland flora

Federico Selvi¹, Elisa Carrari¹, Cristina Gasperini¹, Giovanni Iacopetti¹, Ilaria Santi¹

¹Department of Agriculture, Food, Environment and Forestry, PlantDive Lab, University of Florence, Florence, Italy

In the framework of research projects on forest biodiversity, it recently came out the need for a reasoned checklist of the vascular plant species that are constituent to, or associated with, the Italian woodlands. A nomenclaturally updated floristic compilation was therefore initiated by integrating relevant lists and datasets in the literature, on-line repositories and personal unpublished data collected across Italian woodlands during the last 30 years. The question of “what is a forest” was central to this work. Two slightly different forest definitions were considered, that in the National Forest Inventory (1) and that in (2), which largely follows those adopted in the central European countries. However, defining the limits of the “forest” habitat in the contrasting biogeographical contexts of the Italian territory remained sometimes doubtful and required subjective decisions, ultimately influencing the number of species included the checklist. In this context, a preliminary evaluation of the degree of affinity of species for forest habitats was carried out using the system recently proposed the central and northern European flora (2). This information is of primary relevance when evaluating forests in terms of biodiversity, naturalness, dynamic stage and impact of disturbances. The system distinguishes two main groups, forest specialists (group 1) and generalists (group 2). The former includes species of forest interiors (1.1) and species of forest edges and forest openings (1.2); the second includes species that can be found in forest as well as open vegetation (2.1) and species that can be found partly in forest, but mainly in open vegetation (2.2). An additional “O” category is distinguished, covering species typical for non-forest vegetation. Since the category of a species may shift among the different biogeographic contexts of Italy, the evaluation will be implemented separately for the northern, central-southern and insular regions, also involving expert botanists from these areas. Other species-level information will be integrated in the checklist, such as, life-form, main morpho-functional group, Ellenberg indicator values, and other. The preliminary checklist includes around 1400 species (native and naturalized alien) in the four main forest affinity categories depicted above. Adding those in the “O” category considerable increases the checklist, as many habitats technically representing “forests” are rich in species of primarily open-habitat, due to anthropic disturbances and low levels of naturalness. The list will be continuously integrated with data from the understory diversity monitoring implemented in the National Forest Inventory 2025 (3). Overall, this work will contribute to expand the European forest species list to the Mediterranean region and support the evaluation of the Italian woodland plant diversity for management and conservation purposes.

1) Gasparini P. et al. (2022). Italian National Forest Inventory. Methods and Results of the Third Survey. Springer <https://doi.org/10.1007/978-3-030-98678-0>

2) Heinken T. et al. 2022 (2022). The European Forest Plant Species List (EuForPlant): Concept and applications. *J. Veg. Sci.*, 33(3), e13132. <https://doi.org/10.1111/jvs.13132>

3) Mattioli W. et al. (2026). Inventario forestale nazionale italiano. Manuale dei rilievi in bosco. Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria, Roma 2026. ISBN 978-88-33854-52-6. In press