

114° Congresso della Società Botanica Italiana
VI INTERNATIONAL PLANT SCIENCE CONFERENCE

Padova, Orto Botanico, 4 - 7 September 2019

XI Congresso della Società Italiana di Biologia Vegetale

Padova, Orto Botanico, 4 - 6 September 2019

Programme

Wednesday 4 September 2019

Auditorium

11.00-11.30	Registration SIBV
11.30-12.30	SIBV Lecture (Chairperson: A. Schubert) Ralph Reski , University of Freiburg, Germany <i>"Developmental novelties that facilitated the conquest of land by plants 500 MYA"</i>
12.00-13.30	Registration SBI
12.30-13.30	Welcome lunch
13.30-14.00	Opening ceremony

Symposium 1

JOINT SESSION SIBV - SBI

PLANTS IN AND FOR THE FUTURE

(Chairpersons: B. Baldan, T. Morosinotto, P.D. Perata)

14.00-14.40	Christine Raines , University of Essex, Colchester, United Kingdom <i>"Improving future plant productivity through manipulation of photosynthesis"</i>
14.40-15.00	Francesca Sparla , Università di Bologna, Italy <i>"The crystal structures of Arabidopsis and Chlamydomonas phosphoribulokinase complete the redox structural proteome of the Calvin-Benson cycle"</i>

- 15.00-15.20 **Zeno Guardini**, Università di Verona, Italy
"Single-generation genome editing of Arabidopsis thaliana to isolate complex mutants defective in the PSII antenna system"
- 15.20-15.40 **Claudio Varotto**, Fondazione Edmund Mach, San Michele all'Adige (TN), Italy
"Evolution and functional differentiation of recently diverged phytochelatin synthase genes from Arundo donax L."
- 15.40-16.00 **Gian Pietro Di Sansebastiano**, Università del Salento, Italy
"Plant cell downstream control of conventional and unconventional membrane traffic contribution to the tonoplast"
- 16.00-16.30 Coffee Break
- 16.30-17.10** **Christian Hardtke**, University of Lausanne, Switzerland
"Developing phloem – orchestrating plant organ formation"
- 17.10-17.30 **Cristina Votta**, Università di Torino, Italy
"The heterologous expression of the Rhizophagus irregularis RiPEIP1 gene in rice plants leads to enhanced growth and mycorrhizal colonization"
- 17.30-17.50 **Antonella Muto**, Università della Calabria, Italy
"Comparative transcriptomic profiling of peach and nectarine cultivars to elucidate chilling injury mechanisms"
- 17.50-18.10 **Beatrice Giuntoli**, Università di Pisa, Italy
"Synthetic tools for the genetic control of plant responses to oxygen"
- 18.10-18.30 **Raffaella Zampieri**, Università di Padova, Italy
"Released polysaccharides from cyanobacteria of the Euganean thermal mud have an in vivo antioxidant and anti-inflammatory activity"
- 18.30-20.30 Drinks and appetizers (possibility of visiting the Botanical Garden)

Thursday 5 September 2019

Symposium 2 SBI

Auditorium

**FOREST BIODIVERSITY AND FUNCTIONING IN A CHANGING WORLD: CHALLENGES
AND OPPORTUNITIES**

(Chairpersons: S. Casavecchia and G. Filibeck)

- 9.00-9.35** **Jean-Luc Dupouey**, INRA, Champenoux, France
"Forest ecological history for the future"
- 9.35-9.55 **Gabriele Casazza**, University of Avignon, Marseille, France
"Combining historical ecology, species distribution modelling and instrumental climate reconstruction to infer causes of change in forest distribution: the case of Monte Pisano"
- 9.55-10.15 **Andrea Coppi**, Università di Firenze, Italy
"Tree species diversity versus identity effects on understorey phylogenetic diversity in thermophilous deciduous forests"
- 10.15-10.35 **Chiara Lelli**, Università di Bologna, Italy
"Signs from the past: long-term changes in Italian mountain forests under changing management"
- 10.35-11.00 Coffee Break
- 11.00-11.35** **Tommaso Anfodillo**, Università di Padova, Italy
"The simple structure of forests: an allometric approach for assessing the degree of old-growthness"
- 11.35-11.55 **Claudia Angiolini**, Università di Siena, Italy
"Are the effects of the overstory on herb and shrub layers important in forest habitat monitoring? The case of Quercus suber woodlands"
- 11.55-12.15 **Silvia Assini**, SBI-4RH, Working group of SBI, Italy
"An overview of the Italian forest biodiversity and its conservation level, based on the first outcomes of the 4th Habitat Report ex-Art. 17"
- 12.15-12.35 **Simone Pesaresi**, Università Politecnica delle Marche, Ancona, Italy
"NDVI temporal pattern as functional responses of Mediterranean forest plant associations"
- 12.35-14.00 Lunch and posters

Symposium 3 SBI

Auditorium

HERBARIA: STILL RELEVANT IN THE 21TH CENTURY?

(Chairpersons: L. Peruzzi and S. Martellos)

- 14.00-14.35 Alexey P. Seregin**, M.V. Lomonosov Moscow State University, Russia
"Moscow Digital Herbarium: global approach through regional actions"
- 14.35-14.55 **Maria Zardini**, Università di Padova, Italy
"Digitization of the Lichenotheca Veneta"
- 14.55-15.15 **Simone Orsenigo**, Università di Pavia, Italy
"Plant de-extinction: the importance of herbaria for recovering genetic diversity back to the wild"
- 15.15-15.35 **Moreno Clementi**, Università di Padova, Italy
"A cross-disciplinary study of the work and collections by Roberto de Visiani (1800-1878)"
- 15.35-16.10 Charles Davis**, University of Harvard, USA
"Leveraging a global online herbarium to understand plant phenological response to climate"
- 16.10-16.30 **David Dolci**, Università di Pisa, Italy
"Back to the future: assessing the effectiveness of Species Distribution Models temporal projection through herbarium data"
- 16.30-16.50 **Niccolò Forin**, Università di Padova, Italy
"Importance of molecular studies involving nomenclatural types: the case of the Saccardo mycological collection"
- 16.50-17.10 **Ilaria Colzi**, Università di Firenze, Italy
*"Assessing metal hyperaccumulation using herbarium specimens: the case of *Odontarrhena sibirica* (Brassicaceae)"*
- 17.10-18.00 Joint SIBV-SBI Poster Session
- 18.00-19.30 General Meeting of the Italian Botanical Society (Auditorium, members only)
During the General Meeting an agreement with Society of Azerbaijan Botanists and the "Code of Conduct - Life ASAP" will be signed

Symposium 2 SIBV

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PLANT CELL SIGNALS

(Chairpersons: M. Zottini and F. Sparla)

- 9.00-9.40** **Jorg Kudla**, University of Münster, Germany
"The interplay of calcium and ROS signaling in plant development and stress responses"
- 9.40-10.00 **Simone Ferrari**, Sapienza Università di Roma, Italy
"Role of the Arabidopsis LysM-containing receptor-like kinase AtLYK2 in chitin signaling and in priming of defense responses"
- 10.00-10.20 **Annalisa Paradiso**, Università di Bari, Italy
"Genetic buffering of cAMP impairs heat stress response in tobacco BY-2 cells"
- 10.20-10.40 **Matteo Grenzi**, Università di Milano, Italy
"Flowers on Alert: GLRs based long-distance Ca²⁺ waves in Arabidopsis inflorescence"
- 10.40-11.00 **Edoardo Andrea Cutolo**, Università di Verona, Italy
"Differential protein phosphorylation in the thylakoid involves crosstalk between calcium and light signals"
- 11.00-11.30 Coffee Break

Symposium 3 SIBV

Aula Emiciclo

PLANTS FACING STRESS

(Chairpersons: S. Esposito and F. Secchi)

- 11.30-12.10** **Michel Havaux**, Centre CEA Cadarache, France
"Signaling apocarotenoids and key regulators involved in the chloroplast retrograde response to photo-oxidative stress"
- 12.10-12.30 **Elide Formentin**, Università di Padova, Italy
"A ROS and hormones tight regulation confers salt tolerance in rice"
- 12.30-14.00 Lunch
- 14.00-14.20 **Chiara Pucciarello**, Scuola Superiore Sant'Anna, Pisa, Italy
"Coleoptile elongation study in japonica rice under submergence through integrated genome wide association mapping and transcriptional analyses"

- 14.20-14.40 **Martina Tomasella**, Università di Trieste, Italy
"The influence of stem non-structural carbohydrates on hydraulic dynamics under drought and recovery in Populus nigra L."
- 14.40-15.00 **Alessio Aprile**, Università del Salento, Italy
"Physiological strategies for cadmium compartmentalization in durum wheat roots"
- 15.00-17.00** Elevator Pitch Session
 Lecture **Franca Rasi**
- 17.00-18.00 Joint SIBV-SBI Poster Session
- 18.00-20.00 General Meeting of SIBV (Aula Emiciclo, members only)
- 20.30-23.30 **Congress social dinner (SBI+SIBV), caffè Pedrocchi**

Friday 6 September 2019

Symposium 4 SBI Auditorium

PLANT-ANIMAL INTERACTIONS: FROM MOLECULES TO LANDSCAPE

(Chairpersons: M. Galloni and G. Aronne)

- 9.00-9.35** **Lilach Hadany**, University of Tel Aviv, Israel
"Can plants hear their pollinators?"
- 9.35-9.50 **Massimo Nepi**, Università di Siena, Italy
"Effects of non-protein amino acids of floral nectar on survival and locomotion of pollinators"
- 9.50-10.05 **Luca Pegoraro**, Queen Mary University of London, UK
"Pollinator monitoring in a mixed-ploidy population of Senecio doricum in Alpes maritimes"
- 10.05-10.20 **Angela Etcheverry**, Universidad Nacional de Salta, Argentina
"Asymmetrical flowers of Papilionoideae: functional morphology, morphometrics, and interactions with its pollinators"
- 10.20-10.35 **Edy Fantinato**, Università Ca' Foscari, Venezia, Italy
"Using pollination networks to detect tourism sustainability"

- 10.35-10.50 **Giovanna Aronne**, Università Federico II, Napoli, Italy
*"Aerial seed bank benefits *Primula palinuri* Petagna in avoiding seed predation and run-off"*
- 10.50-11.05 **Stefano Vitti**, Università di Trieste, Università di Udine, Italy
"Seagrass - waterbirds interactions in a lagoon ecosystem of the northern Adriatic Sea"
- 11.05-11.25 Coffee Break

Symposium 5 SBI

Auditorium

PLANT SPECIALIZED METABOLISM: CHEMISTRY AND BIOLOGICAL FUNCTIONS

(Chairpersons: R. Caniato and L. Pistelli)

- 11.25-12.00 **Oliver Kayser**, TU Dortmund University, Germany
*"Understanding cannabinoid biosynthesis by learning lessons from *Cannabis sativa*, *Helichrysum umbraculigerum* and *Radula marginata*"*
- 12.00-12.15 **Manuela Mandrone**, Università di Bologna, Italy
"NMR-based metabolomics approach to detect frauds and adulterations of oregano samples"
- 12.15-12.30 **Laura De Martino**, Università di Salerno, Italy
*"Chemical composition and biological activities of the essential oils of two different cultivars of *Citrus medica* L."*
- 12.30-12.45 **Daniela De Vita**, Sapienza Università di Roma, Italy
"Antifungal activity of amaranth seed extract in combination with known antifungal drugs"
- 12.45-13.00 **Giuseppe Malfa**, Università di Catania, Italy
*"Anti-adipogenic and anti-oxidant effects of a standardized extract of *Citrus sinensis* (L.) Osbeck 'Moro' (Rutaceae) during adipocyte differentiation of 3T3-L1 pre-adipocytes"*
- 13.00-13.15 **Giuseppina Chianese**, Università Federico II, Napoli, Italy
*"Discovery of a selective and potent gametocytocidal antimalarial agent from *Lophira lanceolata*"*
- 13.15-13.30 **Roberta Ascrizzi**, Università di Pisa, Italy
*"Phytochemical and physiological evaluations of four *Citrus* species from the horti simplicium of the Charterhouse of Pisa over one year of analyses"*
- 13.30-14.00 **Congress Closure**

Symposium 4 SIBV

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PLANT MICRO AND MACRONUTRIENTS

(Chairpersons: I. Murgia and A. Pompa)

- 9.00-9.40** **Stanislav Kopriva**, University of Cologne, Germany
"Control of sulfur partitioning between primary and secondary assimilation"
- 9.40-10.00 **Andrea Tagliani**, Scuola Superiore Sant'Anna, Italy
"A Calcineurin β -Like Interacting Protein Kinase regulates potassium homeostasis under hypoxia"
- 10.00-10.20 **Monirul Islam**, Università di Torino, Italy
"Near null magnetic field (NNMF) affects metals homeostasis in plants"
- 10.20-10.40 **Ivan Visentin**, Università di Torino, Italy
*"The regulation of phosphate starvation responses by strigolactones in *Solanum lycopersicum*"*
- 10.40-11.00 **Piero Morandini**, Università di Milano, Italy
*"*A. thaliana* Gulono-1,4 γ -lactone oxidase 2 (GULLO2) is involved in iron transport from endosperm into developing embryos"*
- 11.00-11.30 Coffee Break

Symposium 5 SIBV

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PLANT DEVELOPMENT IN A CHANGING ENVIRONMENT

(Chairpersons: A. Nardini and M.C. De Pinto)

- 11.30-12.10** **Jordi Martínez -Vilalta**, Universitat Autònoma de Barcelona, Spain
"Advances and challenges in predicting drought-induced forest mortality"
- 12.10-12.30 **Matteo Ballottari**, Università di Verona, Italy
"Effect of CO₂ concentration on photosynthetic and respiratory pathways in different green algal species"
- 12.30-12.50 **Claudio Lovisolo**, Università di Torino, Italy
"Two integrated platforms to detect source-sink carbon movements in grapevine"
- 12.50-13.10 **Francesco Petruzzellis**, Università di Trieste, Italy
"Novel insights into the physiology of plant invasions"
- 13.10-13.30 **Barbara Molesini**, Università di Verona, Italy
"Novel insights on the role of tomato cystine-knot proteins in the regulation of fruit set"
- 13.30-14.00 **Congress Closure**

Simposio Post Congresso SBI

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**GLI ORTI BOTANICI UNIVERSITARI:
NUOVE OPPORTUNITÀ DI COORDINAMENTO E INDIRIZZO**

(a cura del Gruppo di Lavoro per gli Orti Botanici e i Giardini Storici)

**The university botanical gardens:
new opportunities for coordination and common objectives**

(Symposium organized by The Working Group on Botanical and Historical Gardens)

(Moderatore: F. Pedrotti)

15.00-15.05 Apertura dei lavori e indirizzi di saluto del presidente della Società Botanica Italiana, del coordinatore del Gruppo di Lavoro per gli Orti Botanici e i Giardini Storici, del prefetto dell'Orto Botanico di Padova

15.05-15.15 **Annalena Cogoni**, Università di Cagliari
"Le piante aliene invasive e il riscatto degli Orti Botanici: da siti di introduzione e acclimatazione a promotori di buone pratiche. Gli Orti Botanici Italiani aderiscono al Codice di Condotta - Life ASAP"

Comunicazioni, parte prima: Gli Orti botanici in una prospettiva internazionale

15.15-15.45 **Gerda van Uffelen**, Hortus botanicus Leiden, The Netherlands
"Hortus botanicus Leiden: 429 years of stability and change"

15.45-16.15 **Brian Lainoff**, Botanic Gardens Conservation International, Kew, United Kingdom
"The largest global network of Botanic Gardens and setting international standards for Botanic Gardens through accreditation"

Comunicazioni, parte seconda: Esperienze italiane

16.15-16.25 **Barbara Baldan**, Università di Padova
"L'Orto Botanico di Padova: dal 1545 al futuro"

16.25-16.35 **Gianluigi Bacchetta**, A. Caddeo, G. Iriti, F. Meloni, M. Porceddu, Università di Cagliari
"Hortus Botanicus Karalitanus: un Orto Botanico universitario in cammino verso la sostenibilità sociale e ambientale"

16.35-16.45 **Alessandro Chiarucci**, U. Mossetti, Università di Bologna
"Il rinnovamento dell'Orto Botanico di Bologna, dalla gestazione dell'idea alla gestione"

16.45-16.55 **Lorenzo Peruzzi**, Università di Pisa
"La sottile linea tra divulgazione e snaturamento, ovvero dell'importanza che degli Orti Botanici si occupino i Botanici. Evoluzione recente dell'Orto e Museo Botanico di Pisa"

- 16.55-17.05 **Consolata Siniscalco**, Università di Torino
"Gli Orti Botanici oggi tra priorità di comunicare la conoscenza delle piante e... mille altre richieste e necessità. Una Rete per condividere le scelte"
- 17.05-17.15 **Mauro Mariotti**, L. Minuto, Università di Genova
"I Giardini Botanici Hanbury: un orto botanico di frontiera con ruolo transdisciplinare nella formazione, nella ricerca scientifica e nella gestione del territorio"
- 17.15-18.00 Discussione e conclusioni

Saturday 7 September 2019

- 8.00-17.00 Escursione sociale al Bosco del Cansiglio e al Giardino Botanico Alpino G. Lorenzoni
(Social excursion to the Cansiglio Wood and Orto Botanico G. Lorenzoni)