

# IV INTERNATIONAL SYMPOSIUM ON WOODY ORNAMENTALS OF THE TEMPERATE ZONE

3 – 4 March 2021 , Online Symposium

PROGRAM



## WELCOME

Dear colleague,

Welcome to the **IV International Symposium on Woody Ornamentals of the Temperate Zone**, hosted by the University of Torino and the International Society for Horticultural Science (ISHS) in Torino (Italy).

The symposium focuses on themes dealing with the research, the cultivation and production, and the public services related to woody ornamentals. State-of-art experiences in genetics, breeding, plant production, climate change, and ecosystem services will be brought together in order to promote fruitful discussion among participants, sharing different experiences.

Enjoy the symposium!

The conveners

Valentina Scariot and Gabriele Loris Beccaro



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## PROGRAM AT A GLANCE

<b>3<sup>rd</sup> March, Wednesday</b> <b>Oral Session 1</b>	<b>4<sup>th</sup> March, Thursday</b> <b>Oral Session 3</b>
<b>Genetic resources, conservation and breeding</b>	<b>Multifunctionality and ecosystem services</b>
9.00 - 9.15 Opening - welcome	9.00 - 9.30 Invited speaker
9.15 - 9.45 Invited speaker	9.30 - 10.45 Oral presentations (5 presentations)
9.45 - 10.45 Oral presentations (4 presentations)	10.45 - 11.00 Coffee Break
10.45 - 11.00 Coffee Break	11.00 - 11.15 Short communication presentations (3 presentations)
11.00 - 12.15 Oral presentations (5 presentations)	11.15 - 11.30 Question time
12.15 - 12.40 Short communication presentations (5 presentations)	11.30 - 12.15 Oral presentations (3 presentations)
12.40 - 13.00 Question time	12.15 - 12.30 Short communication presentations (3 presentations)
13.00 - 14.00 Lunch	12.30 - 13.00 Question time
	13.00 - 14.00 Lunch
<b>3<sup>rd</sup> March, Wednesday</b> <b>Oral Session 2</b>	<b>4<sup>th</sup> March, Thursday</b> <b>Oral Session 4</b>
<b>Cultivation techniques and plant growth</b>	<b>Climate change, pest and diseases</b>
14.00 - 15.15 Oral presentations (5 presentations)	14.00 - 15.00 Oral presentations (4 presentations)
15.15 - 15.30 Coffee Break	15.00 - 15.10 Short communication presentations (2 presentations)
15.30 - 16.00 Short communication presentations (6 presentations)	15.10 - 15.25 Coffee Break
16.00 - 16.30 Question time	15.25 - 16.25 Oral presentations (4 presentations)
16.30 - 17.30 Business Meeting	16.25 - 16.35 Short communication presentations (2 presentations)
	16.35 - 17.00 Question time
	17.00 - 17.30 Young Mind Awards & Closing Ceremony



## Program

3 <sup>rd</sup> March, Wednesday	
Oral Session 1	9.00 - 13.00
<b>Genetic resources, conservation, and breeding</b> <span style="float: right;"><b>Chair: Daniela Romano &amp; Johan Van Huylenbroeck</b></span>	
9.00 - 9.15	Opening – welcome <i>Valentina Scariot, Gabriele Beccaro, Margherita Beruto, Massimo Tagliavini</i>
9.15 - 9.45	Woody Ornamentals: A Review of Genetic Resources in the Mediterranean area <i><u>Daniela Romano</u></i>
9.45 - 10.45 Oral	A view from above: the use of drones and image-based phenotyping in breeding and production of woody ornamentals <i>Johan Van Huylenbroeck, <u>Katrijn Van Laere</u>, Leen Leus, Peter Lootens, Irene Borra-Serrano</i>
	DNA marker development for two different loci linked to double flower phenotype of <i>Hydrangea macrophylla</i> <i><u>Kenji Nashima</u>, Kenta Shirasawa, Hideki Hirakawa, Sachiko Isobe, Takuro Suyama, Takuya Wada, Takeshi Kurokura, Tatsuya Uemachi, Mirai Azuma, Midori Akutsu, Yoshiko Nakazawa, Masaharu Kodama, Kiyoshi Namai</i>
	A species wide genetic and horticultural characterization of wild collected <i>Hydrangea quercifolia</i> <i>Andrew Sherwood, <u>Stan C. Hokanson</u>, Matthew D. Clarck, Lisa W. Alexander, Steven McNamara</i>
	Selection and breeding of Magnolia "Xiaodian Jiafen" <i>Mingzhu Liu, Hu Zhou, Rui He, Yan Tian, Wen-Xiao Tian, Qing-Min Wang, Gong-Yuan Xu, Zhou Yu, Yong-Jun Yu, <u>Qinglin Liu</u></i>
10.45 - 11.00	Coffee Break

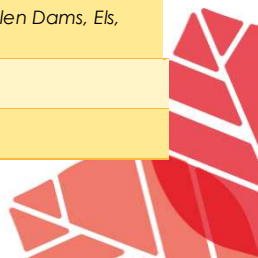




11.00 - 12.15 Oral	The Camellia library <u>Andrea Corneo</u>
	Cross-breeding program in the genus <i>Camellia</i> involving the "everblooming" camellia ( <i>C. azalea</i> C.F. Wei) <u>Anna Lenzi</u> , Stefano Biricolti, Roberto Vivoli, Federico Bulleri, Ada Baldi
	Preliminary phenotypic characterization of <i>Sorbus domestica</i> L. under selection for timber and fruit production in Slovakia <u>Ladislav Bakay</u> , Katarína Rovná
	Ornamental traits of <i>Lavandula angustifolia</i> Mill. are affected by geographical origin and cultivation substrate <u>Sonia Demasi</u> , Matteo Caser, Michele Lonati, Walter Gaino, Valentina Scariot
	Origin of old Japanese hydrangea cultivars identified by morphological and SSR analysis <u>Takashi Handa</u> , Sho Yamamoto, Hirokazu Yamamoto
12.15 - 12.40 Short communications	Pollen flow in a flowering dogwood ( <i>Cornus florida</i> ) orchard: using SSRs to develop a quantitative trait loci mapping population <u>Erin Pfarr</u> , Jennifer Vaiciunas, Christine Kubik, John Capik, Josh Honig, Thomas Molnar
	The possession of cpDNA of <i>Rhododendron ripense</i> Makino in evergreen azalea cultivars <u>Nobuo Kobayashi</u> , Akira Nakatsuka, Yuji Kurashige, Valentina Scariot, Matteo Caser, Sonia Demasi, Jan De Riek, Ellen De Keyser, Johan Van Huylenbroeck
	The first in Polen rose trial garden in PAS Botanical Garden CBDC in Powsin <u>Marta Mander</u> , Robert Zsłazkiewicz
	Botanical, molecular and agronomical description of Narcea Rose, an ancient cultivated rose variety from Northern Spain Maria-Carmen Martínez, José-Luis Santiago, Susana Boso, <u>Pilar Gago</u> , Matteo Caser, Valentina Scariot, Daniel Gómez-García
A histological and histochemical examination of the petals of the Narcea rose, <u>Rafael Ivarez-Nogal</u> , <u>Pilar Molist</u> , José-Luis Santiago, Susana Boso, Pilar Gago, Maria-Carmen Martínez	
12.40 - 13.00	Question time
13.00 - 14.00	Lunch



3 <sup>rd</sup> March, Wednesday	
Oral Session 2	14.00 - 17.30
Cultivation techniques and plant growth	Chair: Marie-Christine Van Labeke & Traud Winkelmann
14.00 - 15.15 Oral	Evaluating plant performance in a changing world <u>Sabatino Urzo</u>
	Photoprotective strategies employed by overwintering evergreens during winter cold acclimation <u>Bing Liu</u>
	Genotype x cultivation system interaction on the rose architecture <u>Thomas Amoroso</u> , <u>Mateo Gabriel Unda Ulloa</u> , <u>Camille Le Bras</u> , <u>Soulaiman Sakr</u> , <u>Philippe Morel</u> , <u>Laurent Crespel</u>
	The effects of humic acid on morphological traits, root growth, and nutrition absorption of azalea seedlings <u>Bing Liu</u>
	Screening and evaluation of Rhododendron progenies for alkaline pH tolerance <u>Shusheng Wang</u> , <u>Yanyan Zheng</u> , <u>Leen Leus</u> , <u>Marie-Christine Van Labeke</u> , <u>Johan Van Huylbroek</u>
15.15 - 15.30	Coffee Break
15.30 - 16.00 Short communications	The Development of Nursery Industry in North China <u>Qinglin Liu</u> , <u>Hu Zhou</u>
	Effect of exogenous auxin application on starch concentration in deciduous azalea cuttings during the adventitious root development <u>Inga Apine</u> , <u>Dace Megre</u> , <u>Kristine Dokane</u> , <u>Uldis Kondratovics</u> , <u>Signe Tomson</u>
	Rootstocks used for historical citrus cultivated in pot. I. in vitro propagation <u>Fabrizio Cinelli</u> , <u>Beatrice Pulignani</u> , <u>Grazia Fiaschi</u>
	Evaluation of root-associated fungi of evergreen azalea Rhododendron ripense Makino in its Japanese native habitat <u>Sonia Demasi</u> , <u>Valeria Bianciotto</u> , <u>Andrea Berruti</u> , <u>S. Ghignone</u> , <u>Erica Lumini</u> , <u>Dai Hirose</u> , <u>T. Ban</u> , <u>Nobuo Kobayashi</u> , <u>Valentina Scariot</u>
	Morpho-physiological response of garden roses to saline aerosol stress <u>Roberta Paradiso</u> , <u>Stefania De Pascale</u>
	Effect of seaweed extracts on biomass and quality traits of Hydrangea under water deficit <u>Marie-Christine Van Labeke</u> , <u>Paulien De Clercq</u> , <u>Jarinda Viane</u> , <u>Ellen Dams</u> , <u>Els Pauwels</u>
16.00 - 16.30	Question time
16.30 - 17.30	Business meeting





4 <sup>th</sup> March, Thursday	
Oral Session 3	
9.00 - 13.00	
Multifunctionality and ecosystem services	
Chair: Alessio Fini & Nobuo Kobayashi	
9.00 - 9.30	Ecosystem services of urban trees: how can planning enhance CO2 assimilation, microclimate improvement and air quality amelioration? <u><a href="#">Alessio Fini</a></u>
9.30 - 10.45 Oral	Urban hedges for the delivery of multiple environmental benefits: focus on air quality improvement <u><a href="#">Tijana Blanusa</a></u> , <u><a href="#">James Hadley</a></u> , <u><a href="#">Zeenat Qadir</a></u>
	The project VERDECITTÁ <u><a href="#">Gianluca Burchi</a></u>
	Non-traditional alley tree species for urban conditions <u><a href="#">Marek Hus</a></u> , <u><a href="#">Viera Paganová</a></u> , <u><a href="#">Marcel Raček</a></u>
	Cemeteries as important Urban Green Spaces: Ecosystem Services Provided by Trees in Cimitero Parco (Turin, Italy) <u><a href="#">Federica Larcher</a></u> , <u><a href="#">Luca Battisti</a></u> , <u><a href="#">Paola Gullino</a></u> , <u><a href="#">Umberto Pagotto</a></u> , <u><a href="#">Marco Devecchi</a></u>
	The role of olive trees in the city. Urban strategies for management of natural capital, and for innovation and social cohesion. A case study of the city of Pesaro, Italy <u><a href="#">Pantoloni Monica</a></u> , <u><a href="#">Giovanni Marinelli</a></u> , <u><a href="#">Matteo Zucchini</a></u> , <u><a href="#">Stefano Bibbò</a></u> , <u><a href="#">Alberto Minelli</a></u> , <u><a href="#">Davide Neri</a></u>
10.45 – 11.00	Coffee Break
11.00 - 11.15 Short communications	Use of evergreen grey-leaved shrubs from Mediterranean garrigue for greening extensive living roofs <u><a href="#">Maria E. Giorgioni</a></u>
	Woody species and supporting ecosystem services: the case study of the City of Turin (Italy) <u><a href="#">Federica Larcher</a></u> , <u><a href="#">Luca Battisti</a></u> , <u><a href="#">Enrico Pomatto</a></u> , <u><a href="#">Marco Devecchi</a></u>
	Dendroremediation perspectives to improve and restore urban and periurban heavy metals-contaminated soils <u><a href="#">Luana Giordano</a></u> , <u><a href="#">Achille Giorcelli</a></u> , <u><a href="#">Pier Mario Chiarabaglio</a></u> , <u><a href="#">Guglielmo Lione</a></u> , <u><a href="#">Nadia Massa</a></u> , <u><a href="#">Graziella Berta</a></u> , <u><a href="#">Guido Lingua</a></u> , <u><a href="#">Paolo Gonthier</a></u> , <u><a href="#">Maria L. Gullino</a></u>
11.15 - 11.30	Question time





11.30 - 12.15 Oral	The edible flowers from woody ornamental plants <i>Andrea Copetta, Ilaria Marchioni, <u>Barbara Ruffoni</u></i>
	Mulberry: an ornamental tree that gives bioactive compounds for human health <i>Dario Donno, Maria Gabriella Mellano, Giovanni Gamba, Isidoro Riondato, Gabriele L. Beccaro</i>
	Bud-derivates from woody ornamental trees and shrubs: the FINNOVER project <i>Federica Turrini, <u>Raffaella Boggia</u>, Dario Donno, Paola Zunin, Gabriele L. Beccaro, Anna Pittaluga, Maddalena Guido Margherita Beruto</i>
12.15 - 12.30 Short communications	Aromatic composition of the petals of the Narcea rose cultivated in the mountains of Asturias (northern Spain) <i>Susana Boso, <u>José-Luis Santiago</u>, María-Estela De Vega, Miguel Martínez-Bartolomé, Pilar Gago, María-Carmen Martínez</i>
	Polyphenol content of the petals of the Narcea rose cultivated in the mountains of Asturias (northern Spain) <i>José-Luis Santiago, <u>Pilar Gago</u>, Susana Boso, Inmaculada Álvarez-Acero, Miguel Martínez-Bartolomé, María-Carmen Martínez</i>
	Edible roses as novel food with healthy value <i>Barbara Ruffoni, Ilaria Marchioni, Andrea Copetta, Rosanna Dimita, Sophie Descamps, Laurent Cambournac, Laura Pistelli</i>
12.30 - 13.00	Question time
13.00 - 14.00	Lunch
<b>4<sup>th</sup> March, Thursday</b>	
<b>Oral Session 4</b>	<b>14.00 - 17.30</b>
<b>Climate change, pest, and diseases</b> <span style="float: right;"><b>Chair: Stan Hokanson &amp; Vladimiro Guarnaccia</b></span>	
14.00 - 15.00 Oral	Fruit trees for urban and landscape horticulture: implications for water management <i>Mark Gush</i>
	Physiological and morpho-anatomical traits used as markers for the selection of drought tolerance of ornamental plants <i>Antonio Ferrante, Stefania Toscano, Daniela Romano, Ilda Vagge</i>
	SMRT sequencing of full length transcriptome or in-depth understanding of genes under heat stress of <i>Rhododendron hainanense</i> <i>Zheng Li</i>
	BambApp: a citizen science project for the re-evaluation of invasive potential of bamboo species in Piedmont and Aosta Valley regions (Italy) <i>Marco Pittarello, Simone Ravetto Enri, Ginevra Nota, Giampiero Lombardi, Michele Lonati</i>





15.00 - 15.10 Short communications	Response of sclerophyllous and non sclerophyllous plant species to saline aerosol <u><i>Daniela Romano</i></u> , <i>Stefania Toscano</i> , <i>Antonio Ferrante</i>
	Evaluation of frost resistance rambler roses based on electrolytes leakage <u><i>Marta Monder</i></u> , <i>Maciej Niedzielski</i>
15.10 - 15.25	Coffee Break
15.25 - 16.25 Oral	High fungal species diversity in association with woody ornamental plants: Colletotrichum as a case study <u><i>Vladimiro Guarnaccia</i></u> , <i>Ilaria Martino</i> , <i>Giovanna Gilardi</i> , <i>Angelo Garibaldi</i> , <i>Maria Lodovica Gullino</i>
	Utilizing Volunteers to Conduct Tree Surveys in Local Communities <u><i>Pamela Bennett</i></u> , <i>James Chatfield</i>
	Increasing Confidence in Master Gardener Volunteers Assisting in Plant Diagnostics <i>Pamela Bennett</i> , <u><i>James Chatfield</i></u>
16.25 - 16.35 Short communications	Estimating leaf area index for 10-years of simultaneous or gradual renewal of an exhausted poplar tree avenue <u><i>Alberto Minelli</i></u> , <i>Emanuele Marinnelli</i> , <i>Enrico Felice</i> , <i>Ilaria Pasini</i> , <i>Davide Neri</i>
	Fungal and bacterial diseases on ornamental trees, shrubs, hedges and climbing plants detected in the last 20 years in northern Italy <u><i>Maria-Lodovica Gullino</i></u> , <i>Domenico Bertetti</i> ; <i>Angelo Garibaldi</i>
	Plant virus causing variegation in camellia <u><i>Kento Terada</i></u> , <i>Hironori Katayama</i> , <i>Chiyomi Uematsu</i>
16.35 - 17.00	Question time
17.00 - 17.30	Young Mind Awards & Closing Ceremony

