Chapter Italiano dell'International Society of Arboriculture



# ISA EUROPEAN CONFERENCE OF ARBORICULTURE 2014

"Planning the green city: relationships between trees and infrastructures"

**Turin** 

26th -28th May 2014

# **SCIENTIFIC PROGRAM**

# Monday 26th May

| Time        | Program   |
|-------------|---|
| 10.00-14.00 | Participants registration   |
| 15.00-16.30 | Welcome and opening<br>Room Cavour  |
| 16.30-18.00 | Plenary and keynote session   |
|             | Room Cavour - Chairperson: Ferrini F.   |
|             | Trees of green – beyond the Green Infrastructure agenda Konijnendijk van den Bosch C. (invited speaker) |
|             | Why do trees fall down? Nicklas K.J. (invited speaker)  |
| 18.30-21.00 | Welcome cocktail  |

#### Conferenza Europea di Arboricoltura



Chapter Italiano dell'International Society of Arboriculture



# Tuesday 27<sup>th</sup> May

| Time       | Program  |
|------------|--|
| 8.45-10.45 | Concurrent session 1 - Trees and infrastructures and green infrastructures   |
|            | Room Giolitti - Chairperson: Smiley E.T.   |
| 8.45       | "GreenInUrbs": Green Infrastructure approach - linking environmental with social aspects in studying and managing urban forests  Calfapietra C. (invited speaker)  |
| 9.15       | The Green Infrastructure approach: from theory to case study <u>Sanesi G.</u> , Lafortezza R., Colangelo G.  |
| 9.30       | Urban forest policy and governance in the Green Infrastructure approach Krajter Ostoić S., Paloniemi R., <u>Jones N.</u>   |
| 9.45       | Tree protection regulations in town of Oakville, Ontario, Canada<br>Vava C.  |
| 10.00      | Linking people and landscapes: can understanding public perceptions help guide urban forest management? Ries P.D., Baur J., Driscoll A.  |
| 10.15      | Planting trees in the contemporary cities: understanding of the city functioning Bianchi T., Cantù A., <u>Cozzi V.</u> , Frangi P., Papponi L., Parisini M., Piatti V., Pusterla M., Strada M., Valagussa M., Balder H., Shears I. |
| 10.30      | The tree heritage in suburban landscape: criteria and strategies for conservation and management Bounous G., Beccaro G.L., <u>Devecchi M.</u> , Larcher F.   |
| 8.45-10.45 | Concurrent session 2 - Management of diseased, infested and declining trees  |
|            | Room Einaudi - Chairperson: Gonthier P.  |
| 8.45       | Dieback of ash and elm: current situation in north Europe <i>Vasaitis R.</i> (invited speaker)   |
| 9.15       | Detectives do the dirty work: diagnosing and managing the interaction of urban trees with associates, pests, and other humans<br>Meilleur G.   |
| 9.30       | Combining three specific site sustainability practices, in unison, improves overall tree health and reduces the need for pesticide applications for insects and disease Murphy J., Ap L.   |
| 9.45       | New and effective plant protection products and modes of delivery to control tree pests and diseases O'Callaghan D.P., Percival G.   |
| 10.00      | Overview on wood decay fungi of ornamental broadleaves and conifers in the city of Genoa Giordano L., Sillo F., Guglielmo F., Costa G., Gonthier P.  |

# Conferenza Europea di Arboricoltura



#### Chapter Italiano dell'International Society of Arboriculture



| 10.15       | Research on pests and diseases in urban trees and forests of Ljubljana City, Slovenia <u>Jurc M.</u> , Jurc D.  |
|-------------|---|
| 10.30       | European ash ( <i>Fraxinus excelsior</i> ) dieback as a biodiversity conservation challenge <u>Pautasso M.</u> , Aas G., Queloz V., Holdenrieder O.   |
| 10.45-11.15 | Coffee break  |
| 11.15-12.45 | Concurrent session 1 - Trees and infrastructures and green infrastructures  |
|             | Room Giolitti - Chairperson: Smiley E.T.  |
| 11.15       | Environmental services of Green Infrastructure and Urban Forests and implications of climate change <u>Samson R.</u> , Niinemets Ü., Calfapietra C.   |
| 11.30       | The certificate in arboriculture as a fundamental objective to achieve healthier and longer living trees in towns, parks, gardens, or where trees are grown to beautify Europe Nellen C., Read G., <u>Pestalozza A.</u> |
| 11.45       | Environmental index for the reduction of construction impact, the proposal of Modena's Institute of Agronomists and Forestry Professionals to regenerate an industrial area of Modena Di Paolo A.                       |
| 12.00       | The floristic diversity in the quarry San Giuseppe di Basovizza – Trieste Balbis P., <u>Bozzato F.</u>  |
| 12.15       | Geomatics applications for survey, management and tourism exploitation in the green areas. A case study: the Racconigi Royal Park Boniforte A., Garnero G.  |
| 12.30       | Retrenching hollow trees for life: fitting smaller and stronger trees into cities Meilleur G.   |
| 11.15-12.45 | Concurrent session 2 - Management of diseased, infested and declining trees   |
|             | Room Einaudi - Chairperson: Gonthier P.   |
| 11.15       | The North American invasive fungal pathogen <i>Heterobasidion irregulare</i> is a new threat to European parklands and urban pinewoods <u>Gonthier P.</u> , Anselmi N., Garbelotto M.                                   |
| 11.30       | Emerald ash borer management planning in a Canadian context van Wassenaer P.  |
| 11.45       | The parasite fungus <i>Ustulina deusta</i> : identification and way of decaying inside the tree <u>Pecollo D.</u> , Leone C., Fruscione C.  |
| 12.00       | A rapid molecular diagnostic assay for the detection and identification of wood decay fungi of conifers <u>Sillo F.</u> , Giordano L., Guglielmo F., Garbelotto M., Gonthier P.   |
| 12.15       | Use of the electronic nose for the detection of <i>Anoplophora chinensis</i> on standing trees: preliminary results Villa G., Bonanomi L., Guarino D., <u>Pozzi L.</u> , Maspero M.                                     |
| 12.30       | A special challenge: a pluriannual (2007-2014) project aimed at saving an historical tree and its associates Castiglioni M., Zanzi C., <u>Zanzi D.</u>  |

# Conferenza Europea di Arboricoltura



#### Chapter Italiano dell'International Society of Arboriculture



| 12.45-14.15                               | Free lunch and poster viewing   |
|---|---|
| 14.15-15.30                               | Concurrent session 1 - Trees and infrastructures and green infrastructures  |
|   | Room Giolitti - Chairperson: Sanesi G.  |
| 14.15                                     | Durable tree-growth in an UNESCO World Heritage Site: designing the growing site for trees along canals in the urban jungle of Amsterdam city centre Voeten I.J.G.W.F.  |
| 14.30                                     | The effects of the tree growth regulator Paclobutrazol (PBZ) on fast growing trees and application to utility arboriculture O'Callaghan D.P., Percival G.   |
| 14.45                                     | Growing trees in an urban plaza environment: a comparison of below pavement treatments and their impact on tree growth Smiley E.T.  |
| 15.00                                     | Tree response after severe root damage: monitoring the risk of failure, performing pulling tests after four years. Competition between crown growth and root restoration process <a href="Pestalozza A.">Pestalozza A.</a> , Guzzi D.   |
| 15.15                                     | Health treatments and measures taken to stability of the monumental <i>Platanus</i> x <i>acerifolia</i> of La Spezia (Italy) Fruscione C., Leone C., <u>Fantini L.</u>  |
|   |   |
| 14.15-15.45                               | Concurrent session 3 - Tree management in a global change scenario  |
| 14.15-15.45                               | Concurrent session 3 - Tree management in a global change scenario  Room Einaudi - Chairperson: Nowak D.  |
| <b>14.15-15.45</b><br>14.15               |   |
|   | Room Einaudi - Chairperson: Nowak D.  Gray city or Green City? Let's plan a green and sustainable future using trees wisely!  |
| 14.15                                     | Room Einaudi - Chairperson: Nowak D.  Gray city or Green City? Let's plan a green and sustainable future using trees wisely!  Ferrini F. (invited speaker)  Climate change and landscape modifications: re-thinking of urban vegetation   |
| 14.15<br>14.45                            | Room Einaudi - Chairperson: Nowak D.  Gray city or Green City? Let's plan a green and sustainable future using trees wisely! Ferrini F. (invited speaker)  Climate change and landscape modifications: re-thinking of urban vegetation Breganni F., Butté F.  A new national project - planning the green city in the global change era: urban tree species function and suitability for predicted future climates (TreeCity)   |
| 14.15<br>14.45<br>15.00                   | Room Einaudi - Chairperson: Nowak D.  Gray city or Green City? Let's plan a green and sustainable future using trees wisely! Ferrini F. (invited speaker)  Climate change and landscape modifications: re-thinking of urban vegetation Breganni F., Butté F.  A new national project - planning the green city in the global change era: urban tree species function and suitability for predicted future climates (TreeCity) Bussotti F.  Silvicultural and arboricultural management of a nineteenth century landscape  |
| 14.15<br>14.45<br>15.00                   | Room Einaudi - Chairperson: Nowak D.  Gray city or Green City? Let's plan a green and sustainable future using trees wisely! Ferrini F. (invited speaker)  Climate change and landscape modifications: re-thinking of urban vegetation Breganni F., Butté F.  A new national project - planning the green city in the global change era: urban tree species function and suitability for predicted future climates (TreeCity) Bussotti F.  Silvicultural and arboricultural management of a nineteenth century landscape Luison S., Sgrò S., Semenzato P.  Private trees management in urban areas: positive experiences  |
| 14.15<br>14.45<br>15.00<br>15.15<br>15.30 | Room Einaudi - Chairperson: Nowak D.  Gray city or Green City? Let's plan a green and sustainable future using trees wisely! Ferrini F. (invited speaker)  Climate change and landscape modifications: re-thinking of urban vegetation Breganni F., Butté F.  A new national project - planning the green city in the global change era: urban tree species function and suitability for predicted future climates (TreeCity) Bussotti F.  Silvicultural and arboricultural management of a nineteenth century landscape Luison S., Sgrò S., Semenzato P.  Private trees management in urban areas: positive experiences Malandrino P.F., Pascucci R., Della Torre D., Scifoni G., Lai N. |

# Conferenza Europea di Arboricoltura



#### Chapter Italiano dell'International Society of Arboriculture



| 14.45       | Tree biomechanics: where are we now? van Wassenaer P.  |
|-------------|--|
| 15.00       | Urban tree heritage management: from visual tree assessment to tree life expectancy in an urban contest. The experience of city of Turin Cirulli G.  |
| 15.15       | Balancing risks from falling trees with the costs of risk control: quantified tree risk assessment validates balancing the likelihood and extent of potential harm from tree hazards with the many costs of risk mitigation Ellison M. |
| 15.30       | Tree hazard assessment and monitoring in Florence <a href="Degl'Innocenti C.">Degl'Innocenti C.</a> , Cantini C., Rubellini P., Cerchiarini S.   |
| 15.45-16.15 | Coffee break   |
| 16.15-16.45 | Concurrent session 3 - Tree management in a global change scenario   |
|             | Room Einaudi - Chairperson: Nowak D.   |
| 16.15       | Repeated pruning cycles differently affect tree structure and physiology of <i>Acer pseudoplatanus</i> , depending on how pruning is carried out <u>Fini A.</u> , Faoro M., Amoroso G., Piatti R., Frangi P., Ferrini F.               |
| 16.30       | Biogenic Volatile Organic Compounds emitted from peri-urban forest fires <u>Centritto M.</u> , Ciccioli P., Loreto F.  |
| 16.15-17.15 | Concurrent session 4 - Tree risk assessment and biomechanics   |
|             | Room Cavour - Chairperson: Rinn F.   |
| 16.15       | Tree stability evaluation: the importance of monitoring programs Cevenini L., Corradini M., Minelli A., Pasini I., <u>Zuffa D.</u>   |
| 16.30       | Procedures to manage tree risk assessment in extensive green areas <u>Fruscione C.</u> , Rezza G.  |
| 16.45       | Using the ISA Best Management Practice Method for tree risk assessment Smiley E.T.   |
| 17.00       | Views from the top: an expedition to the redwood canopy van Wassenaer P.   |
| 17.15-18.45 | Poster viewing <b>Workshop:</b> Manage the tree risk and public tree heritage renewal: open discussion between public administrators and professional technicians  |

# Conferenza Europea di Arboricoltura



#### Chapter Italiano dell'International Society of Arboriculture



# Wednesday 28th May

| Time       | Program  |
|------------|--|
| 8.45-10.45 | Concurrent session 4 - Tree risk assessment and biomechanics   |
|            | Room Cavour - Chairperson: Niklas K.J.   |
| 8.45       | From biomechanics to tree-statics  |
|            | Rinn F. (invited speaker)  |
| 9.15       | R3 TREES: an innovative tool for the integrated management of urban green areas  |
|            | <u>Viskanic P.</u> , Cattaneo N.   |
| 9.30       | Orebla, a simple model for tree risk assessment  |
|            | Sani L., Strazzabosco L., Blotta V.  |
| 9.45       | Study of Italian stone pine assessment in urban environment  |
|            | Morelli G., Moretti G., Duntemann M.   |
| 10.00      | A protocol for risk assessment of veteran trees  |
|            | Strazzabosco L.  |
| 10.15      | Development of a tree risk index associated to ornamental trees inside historic parks. Case study of Villa Lante, Bagnaia (VT), Italy  |
|            | Tomao A., Giuliarelli D., Quatrini V., Saccoccia D., Agrimi M.   |
| 10.30      | Checktrees.com – collect, update and share data about trees  |
|            | Kolařík J., Szórádová A.   |
| 8.45-10.45 | Concurrent session 5 - Tree benefits and tree value in the urban context   |
|            | Room Giolitti - Chairperson: Ries P.D.   |
| 8.45       | Assessing urban forest ecosystem services and values in Europe   |
|            | Nowak D. (invited speaker)   |
| 9.15       | Rationale for the increased use of evergreen and deciduous conifers in terms of urban ecosystem benefits   |
|            | Clapp J.C., Ryan H.D.P. III, Bloniarz D., Harper R.  |
| 9.30       | Vegetal evolution as renewed relationship between nature and mankind. Analysis and development of tangency scenarios between industrial design and vegetation in contemporary cities |
|            | Ceraolo S.   |

# Conferenza Europea di Arboricoltura



Meilleur G.

#### Chapter Italiano dell'International Society of Arboriculture



| 9.45        | Sustainable urban regeneration and Green Infrastructure (GI) implementation: competitive gains from tree planting at an economic, environmental and social level |
|-------------|--|
|             | Andreucci M.B.   |
| 10.00       | Complementarity of functional traits in urban trees and ecosystem services   |
|             | Bussotti F., Pollastrini M.  |
| 10.15       | Urbanization vs rooting: the city that moves "around" the silent work of the trees   |
|             | <u>Farronato S.</u> , Nichele P.   |
| 10.30       | Cultivations and divisions inside of Tusculum agrarian landscapes, further on archaeology and villas. The role of the vegetation in the course of time           |
|             | Marani M.E., Fabrini G.  |
| 10.45-11.15 | Coffee break   |
| 11.15-12.45 | Concurrent session 4 - Tree risk assessment and biomechanics   |
|             | Room Cavour - Chairperson: Niklas K.J.   |
| 11.15       | The Neto Park renovation project using the digital method – Calenzano (Florence, Italy)  |
|             | Martelli S., Mainardi P., Poli J., Lutri A., Grassi M.   |
| 11.30       | Installing cables did not affect annual radial increment in co-dominant stems of red oaks  |
|             | Kane B.  |
| 11.45       | Designing special anchoring systems for special trees  |
|             | Passola G.   |
| 12.00       | The effect of leaves and steel support cables on the dynamic properties of northern red oak ( $Quercus rubra$ ) with co-dominant trunks                          |
|             | Reiland M., Kane B., Modarres Sadeghi Y., Ryan D.  |
| 12.15       | Determining strength limits for standing tree stems from bending tests   |
|             | Detter A., Rust S., Rust C., Risse M.  |
| 12.30       | Determination of the tree safety factor – error source analysis  |
|             | Divos F.   |
| 11.15-12.45 | Concurrent session 5 - Tree benefits and tree value in the urban context   |
|             | Room Giolitti - Chairperson: Ries P.D.   |
| 11.15       | Valuing and managing veteran trees: the VETree Project   |
|             | M (III ) C   |

# Conferenza Europea di Arboricoltura



#### Chapter Italiano dell'International Society of Arboriculture



| 11.30       | Protection of monumental trees: the implementation of law n. 10, January 14 <sup>th</sup> 2013, and new profiles of collaboration between government and stakeholders |
|-------------|---|
|             | Farina A.   |
| 11.45       | The Smart Tree initiative and permanent polycyclic plantations in the city of Turin   |
|             | Motta R., Berretti R., Boetto G., Vacchiano G., Miglietta P., Cirulli G.  |
| 12.00       | Treegraphy (Arborgraphia - Alberografia): a way to appreciate and popularize the existence of our urban trees, a way to enlighten our towns                           |
|             | Fratus T.   |
| 12.15       | Georol: a partecipative approach to input and output data of VTA urban trees census   |
|             | Maroé A., Stampanato A., Favero A., Bobbera A.  |
| 12.30       | The influence of forest areas on the Urban Heat Island effect: a case study in Italy  |
|             | Mariani L., Parisi S.G., Cola G., Craveri L., Colangelo G., Lafortezza R., Sanesi G.  |
| 12.45-14.15 | Free lunch and poster viewing   |
| 14.15-15.45 | Concurrent session 4 - Tree risk assessment and biomechanics  |
|             | Room Cavour - Chairperson: Niklas K.J.  |
| 14.15       | Interpretation of instrumental data in tree stability evaluation: limitations of tools to obtain scientifically correct results                                       |
|             | Cevenini L., Corradini M., <u>Minelli A.</u> , Pasini I., Zuffa D.  |
| 14.30       | Pruning did not affect sway response of large sugar maples  |
|             | Kane B., Seyed-Aghazadeh B., Reiland M., Modarres-Sadeghi Y.  |
| 14.45       | Results of a 20 year assessment of damage to the roots of street trees in London  |
|             | Crane B.G.  |
| 15.00       | Assessing the impact of root loss on tree stability   |
|             | Smiley E.T.   |
| 15.15       | Effect of aspect ratio and included bark on branch attachment strength  |
|             | Miesbauer J.W., Gilman E.F., Harchick C., Paz M.  |
| 15.30       | Improving sprout attachment strength for crown restoration of storm damaged trees   |
|             | Miesbauer J.W., Gilman E.F., Harchick C.  |
| 14.15-15.45 | Concurrent session 5 - Tree benefits and tree value in the urban context  |

Conferenza Europea di Arboricoltura

Room Giolitti - Chairperson: Cirulli G.



#### Chapter Italiano dell'International Society of Arboriculture



| 14.15                                | The role of bioarchitecture on the carbon sequestration of urban greening: the "Ecovillaggio" case study  |
|--------------------------------------|---|
|                                      | Minelli A., <u>Minelli M.</u> , Santi F.  |
| 14.30                                | Environmental benefits derived by urban parks: carbon dioxide (CO <sub>2</sub> ) lowering and microclimate amelioration   |
|                                      | <u>Gratani L.</u> , Bonito A., Naimoli M., Varone L.  |
| 14.45                                | Analysis of surface temperature under different ground cover and shading condition: a case study in Florence  |
|                                      | Napoli M., Brandani G., Massetti L., Petralli M., Orlandini S.  |
| 15.00                                | Urban surface temperature patterns in relation to vegetation within the metropolitan area of Palermo  |
|                                      | <u>Pipitone G.</u> , Motisi A., Georgiadis T.   |
| 15.15                                | Gardens without pollen – Examples of allergy-free green realizations  |
|                                      | Zangari F.  |
| 15.30                                | <i>Cupressus sempervirens</i> and allergy: genetic improvement and plant selection to reduce pollen production  |
|                                      | Barberini S., Della Rocca G., Lambardi M., Danti R.   |
| 15.45-16.15                          | Coffee break  |
| 10.10 10.10                          | Cornec break  |
| 16.15-17.00                          | Concurrent session 4 - Tree risk assessment and biomechanics  |
|                                      |   |
|                                      | Concurrent session 4 - Tree risk assessment and biomechanics  |
| 16.15-17.00                          | Concurrent session 4 - Tree risk assessment and biomechanics  *Room Cavour - Chairperson: Niklas K.J.*  Residual growth stresses in *Acer pseudoplatanus* and *Tilia cordata* enhance the breaking resistance   |
| 16.15-17.00                          | Concurrent session 4 - Tree risk assessment and biomechanics  *Room Cavour - Chairperson: Niklas K.J.*  Residual growth stresses in *Acer pseudoplatanus* and *Tilia cordata* enhance the breaking resistance of tree stems   |
| <b>16.15-17.00</b> 16.15             | Concurrent session 4 - Tree risk assessment and biomechanics  *Room Cavour - Chairperson: Niklas K.J.*  Residual growth stresses in *Acer pseudoplatanus* and *Tilia cordata* enhance the breaking resistance of tree stems  *Brudi E.*, Kaczensky T.*, Woodward S.*  |
| <b>16.15-17.00</b> 16.15             | Concurrent session 4 - Tree risk assessment and biomechanics  *Room Cavour - Chairperson: Niklas K.J.*  Residual growth stresses in *Acer pseudoplatanus* and *Tilia cordata* enhance the breaking resistance of tree stems  *Brudi E.*, Kaczensky T.*, Woodward S.*  Risk assessment of maple trees subjected to wind and decay effects on that risk   |
| <b>16.15-17.00</b> 16.15 16.30       | Concurrent session 4 - Tree risk assessment and biomechanics  *Room Cavour - Chairperson: Niklas K.J.*  Residual growth stresses in *Acer pseudoplatanus* and *Tilia cordata* enhance the breaking resistance of tree stems  *Brudi E., Kaczensky T., Woodward S.*  Risk assessment of maple trees subjected to wind and decay effects on that risk  *Ciftci C.,* Brena S., Kane B., Arwade S.*  Wood decay fungi associated with standing and failed conifer and broadleaf trees as detected   |
| <b>16.15-17.00</b> 16.15 16.30       | Concurrent session 4 - Tree risk assessment and biomechanics  *Room Cavour - Chairperson: Niklas K.J.*  Residual growth stresses in *Acer pseudoplatanus* and *Tilia cordata* enhance the breaking resistance of tree stems  *Brudi E.*, Kaczensky T.*, Woodward S.*  Risk assessment of maple trees subjected to wind and decay effects on that risk  *Ciftci C.*, Brena S.*, Kane B.*, Arwade S.*  Wood decay fungi associated with standing and failed conifer and broadleaf trees as detected through molecular assays: inferences on their host preference and their role on tree stability  |
| <b>16.15-17.00</b> 16.15 16.30 16.45 | Concurrent session 4 - Tree risk assessment and biomechanics  *Room Cavour - Chairperson: Niklas K.J.*  Residual growth stresses in *Acer pseudoplatanus* and *Tilia cordata* enhance the breaking resistance of tree stems  *Brudi E., Kaczensky T., Woodward S.*  Risk assessment of maple trees subjected to wind and decay effects on that risk  *Ciftci C., Brena S., Kane B., Arwade S.*  Wood decay fungi associated with standing and failed conifer and broadleaf trees as detected through molecular assays: inferences on their host preference and their role on tree stability  *Gonthier P., Sillo F., Guglielmo F., Giordano L.*   |
| <b>16.15-17.00</b> 16.15 16.30 16.45 | Concurrent session 4 - Tree risk assessment and biomechanics  Room Cavour - Chairperson: Niklas K.J.  Residual growth stresses in Acer pseudoplatanus and Tilia cordata enhance the breaking resistance of tree stems  Brudi E., Kaczensky T., Woodward S.  Risk assessment of maple trees subjected to wind and decay effects on that risk  Ciftci C., Brena S., Kane B., Arwade S.  Wood decay fungi associated with standing and failed conifer and broadleaf trees as detected through molecular assays: inferences on their host preference and their role on tree stability  Gonthier P., Sillo F., Guglielmo F., Giordano L.  Concurrent session 5 - Tree benefits and tree value in the urban context |

# Conferenza Europea di Arboricoltura



#### Chapter Italiano dell'International Society of Arboriculture



Some native, rare and endemic tree species with ornamental potential in Turkish forests

Yilmaz M., Yavuz Z.

17.00-18.45 Poster viewing

Workshop: Tree Risk Assessment (TRA)

# Conferenza Europea di Arboricoltura

