

# CATERINA VILLARI, PhD

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Warnell School of Forestry & Natural Resources  
University of Georgia  
180 E Green Street Athens, GA 30602

Phone: (+1) 706-542-2535  
E-mail: cvillari@uga.edu  
www.villarilab.com

## Education

- 2009 – 2012 University of Padua, Italy.  
PhD in Crop Science, Plant Protection Curriculum
- 2005 – 2008 University of Florence, Italy.  
M.Sc. in Plant Health Sciences and Technologies, *cum laude* (highest honors)
- 2001 – 2005 University of Florence, Italy.  
B.S. in Forest and Environmental Sciences, *cum laude* (highest honors)

## Academic and Research Experience

### *Academic Appointments*

- 2018 – present Southern Pine Health Research Cooperative, University of Georgia. Co-Director.
- 2018 – present Department of Plant Biology, Franklin College of Arts and Sciences, University of Georgia, Athens, Georgia. Adjunct Assistant Professor.
- 2018 – present Department of Plant Pathology, College of Agricultural & Environmental Sciences, University of Georgia, Athens, Georgia. Adjunct Assistant Professor.
- 2016 – present Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. Assistant Professor in Forest Pathology.

### *Post-Doctoral Research*

- 2013 – 2016 Department of Plant Pathology, The Ohio State University, Columbus, Ohio.  
Project: "Mechanisms of ash (*Fraxinus* spp) resistance to the emerald ash borer (EAB, *Agrilus planipennis* Fairmare)" – PI, Pierluigi Bonello.  
Project: "A new tool for the rapid identification of pest-resistant trees " – PI, Pierluigi Bonello.  
Project: "Development of a quantitative loop-mediated isothermal amplification (qLAMP) assay for the detection of airborne inoculum of *Magnaporthe oryzae* in turf ecosystems" – PI, Francesca Peduto Hand".

2013 Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padua, Italy.  
Project: " Development of a LAMP (Loop mediated isothermal AMPLification) diagnostic assay for the detection of parasitoids of the chestnut gall wasp *Dryocosmus kuriphilus* " – PI, Andrea Battisti.

### ***Doctoral Research***

2012 Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padua, Italy. Project: "Q-Detect: developing quarantine pest detection methods for use by National Plant Protection Organization (NPPO) and Inspection Services".

2012 School of Forest Science, Faculty of Science and Forestry, University of Eastern Finland, Joensuu, Finland. Visiting Scientist.

2012 The Food and Environment Research Agency (FERA, Government executive agency), Sand Hutton, York, United Kingdom. Visiting Scientist.

2009 – 2011 Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padua, Italy. Doctoral School of Crop Science, Plant Protection Curriculum - Advised by Dr. Massimo Faccoli, Co-advised by Prof. Andrea Battisti.

2010 – 2011 Department of Plant Pathology, The Ohio State University, Columbus, Ohio. Visiting Scholar.

2009 Department of Ecology, Swedish University of Agricultural Sciences, Uppsala, Sweden. Visiting Scientist.

### ***Undergraduate Research***

2007 Department of Plant Pathology, The Ohio State University, Columbus, Ohio.

2005 - 2006 Department of Agricultural Biotechnology, Plant Pathology Section, University of Florence, Italy.

### **Teaching Experience**

2019 – present Co-instructor of Forest Health Seminar Series (FORS 8080), University of Georgia.

2017 – present Co-instructor of Forest Health and Protection (FORS 4210/6210), University of Georgia.

2017 – present Co-instructor of Natural Resources Teaching Practicum (FANR 8900), University of Georgia.

- 2009 – 2013 Teaching Assistant for the Insect Ecology and Biodiversity Management Course (master level), Forestry and Environmental Science, University of Padua, Italy.
- 2009 – 2013 Teaching Assistant for the Entomological Biotechnologies Course (undergraduate level), Agricultural Biotechnologies, University of Padua, Italy.
- 2008 Teaching Staff Member for the Forest Pathology Course for Phytosanitary Regional Services, held by the Tuscany Region and ARSIA (Regional Agency for the Agricultural and Forestry Development and Innovation) at the Training Regional Center Against Wildfire "La Pineta", Siena, Italy.
- 2005 – 2009 Teaching Staff Member for the Forest Pathology section in the Intercalibration Classes in the Italian Program for the Intensive Monitoring of the Forest Ecosystems (CONECOFOR), held by the Italian Forest Service (Corpo Forestale dello Stato).

### **Teacher Professional Development**

- 2017-2018 Teaching Academy Fellowship, University of Georgia.
- 2017 Taking Mentoring to the Next Level, Faculty Learning Series, University of Georgia.

### **Grants, Awards and Fellowships**

- 2018-2020 USDA FS Challenge Cost Share Agreement, “Using traditional and next generation sequencing (NGS) approaches to investigate possible causal agents of the decline and mortality of sugarberry (*Celtis laevigata* Willd.) in the southeastern USA” (PI, \$30,000).
- 2017-2019 USDA FS Special Technology Development Program Grant, “Use of LAMP for in-field early detection of the laurel wilt disease causing agent” (PI, \$91,465).
- 2017-2020 USDA FS, Cooperative Agreement “Environmental Effects on Ips Beetle Breakouts in the Oconee Ranger District, Georgia” (Co-PI, \$22,632).
- 2017-2018 University of Georgia, Faculty Research Grant, “Characterization of the Phenolic Component of Loblolly Pine Defense Response to Blue-stain Fungi” (PI, \$9,791).
- 2013 Post-Doctoral Research Fellowship, Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padua, Italy (€7,000).
- 2012 Graduate Research Fellowship, Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padua, Italy (€19,000).
- 2009-2011 Doctoral Research Fellowship, Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padua, Italy (€41,000).

- 2006 Undergraduate Research Fellowship, Department of Agricultural Biotechnology, Plant Pathology Section, University of Florence, Italy (€3,000).
- 2005 Undergraduate Research Fellowship, Department of Agricultural Biotechnology, Plant Pathology Section, University of Florence, Italy (€2,000).

## **Publications**

### *Peer-reviewed papers*

Mayfield A.E., **Villari C.**, Hamilton J.L., Slye J., Langston W., Oten K., Fraedrich S. 2019. First Report of Laurel Wilt Disease caused by *Raffaelea lauricola* on Sassafras in North Carolina. *Plant Disease* 103:155

Rigsby C.M., **Villari C.**, Peterson D.L., Herms D.A., Bonello P., Cipollini D. 2019. Girdling increases survival and growth of emerald ash borer larvae on Manchurian ash. *Agricultural and Forest Entomology* 21:130-135.

Lopez-Goldar X., **Villari C.**, Bonello P., Borg-Karlson A.K., Grivet D., Zas R., Sampedro L. 2018. Inducibility of plant secondary metabolites in the stem predicts genetic variation in resistance against a key insect herbivore in maritime pine. *Frontiers in Plant Science* doi: doi.org/10.3389/fpls.2018.01651.

**Villari C.**, Dowkiw A., Enderle R., Ghasemkhani M., Kirisits T., Kjaer E., Marčiulyrienė D., McKinney L., Metzler B., Muñoz F., Rostgaard Nielsen L., Pliūra A., Stener L-G, Suchockas V., Rodriguez-Saona L., Bonello P., Cleary M. 2018. Advanced spectroscopy-based phenotyping offers a potential solution to the ash dieback epidemic. *Scientific Reports* 8:17448

Mason C.J., Keefover-Ring K., **Villari C.**, Klutsch J.G., Cook S., Bonello P., Erbilgin N., Raffa K.F., Townsend P.A. 2018. Anatomical defenses against bark beetles relate to degree of historical exposure between species and are allocated independently of chemical defenses within trees. *Plant, Cell and Environment* doi: doi.org/10.1111/pce.13449.

Showalter D.N., **Villari C.**, Herms D.A., Bonello P., 2018. Drought stress increased survival and development of emerald ash borer larvae on coevolved Manchurian ash and implicates phloem-based traits in resistance. *Agricultural and Forest Entomology* 20:170-179.

Mason C.J., **Villari C.**, Keefover-Ring K., Jagemann S., Zhu J., Bonello P., Raffa K.F., 2017. Spatial and temporal components of induced plant responses in the context of herbivore life history and impact on host. *Functional Ecology* 31:2034-2050.

Raffa K.F., Mason C.J., Bonello P., Cook S., Erbilgin N., Keefover-Ring K., Klutsch J.G., **Villari C.**, Townsend P.A., 2017. Defense syndromes in lodgepole–whitebark pine ecosystems relate to degree of historical exposure to mountain pine beetles. *Plant, Cell & Environment* 40:1791-1806.

**Villari C.**, Mahaffee W.F., Mitchell T.K., Pedley K.F., Pieck M.L. & Peduto Hand F., 2017 Early detection of airborne inoculum of *Magnaporthe oryzae* in turfgrass fields using a quantitative LAMP assay. *Plant Disease* 101:170-177.

Farinas C., **Villari C.**, Martin D., Taylor N.J., Peduto Hand F., 2017 *Magnaporthe oryzae* perennial ryegrass pathotype causes leaf spots and blight on Japanese forest grass in Ohio. *Plant Disease* 101:507.

Colombari F., **Villari C.**, Simonato M., Cascone P., Ferracini C., Alma A., Guerrieri E., Battisti A., 2016. Rapid on-site identification of the biocontrol agent of the Asian chestnut gall wasp. *Biocontrol Science & Technology* 26:1285-1297.

Linnakoski R., Jankowiak R., **Villari C.**, Kirisits T., Solheim H., de Beer Z.W., Wingfield M.J., 2016., The *Ophiostoma clavatum* species complex: a newly defined group in the *Ophiostomatales* including three novel taxa. *Antonie van Leeuwenhoek* 109:987-1018.

**Villari C.**, Herms D.A. Whitehill J.G.A., Cipollini F.D., Bonello P., 2016. Progress and gaps in understanding mechanisms of ash tree resistance to emerald ash borer, a model for wood-boring insects that kill angiosperms. (Invited Tansley Review) *New Phytologist* 209:63-79 [featured in the New York Times, Matter, August 27 2015].

Sherwood P\*, **Villari C.\***, Capretti P., Bonello P., 2015. Mechanisms of induced susceptibility to *Diplodia* tip blight in drought-stressed Austrian pine. *Tree Physiology* 35:549-562 [\* Equally contributed].

**Villari C.**, Faccoli M., Battisti A., Bonello P., Marini L., 2014. Testing phenotypic trade-offs in the chemical defence strategy of Scots pine under growth-limiting field conditions. *Tree Physiology* 34:919-930 [see Commentary by Sampedro, 2014. *Tree Physiology* 34:915-918].

**Villari C.**, Tomlinson J.A., Battisti A., Boonham N., Capretti P., Faccoli M., 2013. Use of loop-mediated isothermal amplification for detection of *Ophiostoma clavatum*, the primary blue stain fungus associated with *Ips acuminatus*. *Applied and Environmental Microbiology* 79:2527-2533.

**Villari C.**, Battisti A., Chakraborty S., Michelozzi M., Bonello P., Faccoli M., 2012. Nutritional and pathogenic fungi associated with the pine engraver beetle trigger comparable defenses in Scots pine. *Tree Physiology* 32:867-879.

### ***Editor-reviewed papers***

Foust Z., **Villari C.**, Peduto Hand F., 2017. Evaluation of preventative fungicide sprays for control of anthracnose on geranium, 2016. *Plant Disease Management Reports* 11:OT028.

### ***Degree theses***

**Villari C.**, 2012. Fungi associated with the pine engraver beetle *Ips acuminatus* and their interactions with the host tree. Doctoral Thesis in Crop Science, Crop Protection Curricula, University of Padua, Italy.

**Villari C.**, 2008. Nuovi approcci metodologici per lo studio di alcune malattie fungine del pino: analisi della suscettibilità stress-indotta e quantificazione per via molecolare dell'inoculo diffuso da vettori

(New methodological approaches to study pine fungal diseases: analysis of drought-induced susceptibility and molecular quantification of the inoculum transported by vectors). Magistral Degree (Master equivalent) in Plant Health Sciences and Technologies, University of Florence, Italy.

**Villari C.**, 2005. Indagine sulle condizioni sanitarie del pino domestico nel Parco Regionale di Migliarino S. Rossore Massaciuccoli (Survey on the phytosanitary conditions of stone pine trees in Migliarino-San Rossore-Massaciuccoli Regional Park). First Level Degree (Bachelor equivalent) in Forest and Environmental Sciences, University of Florence, Italy.

### ***Technical notes, fact sheets and extension publications***

**Villari C.**, 2013. Nota tecnica per l'applicazione della LAMP (Loop Mediated Isothermal Amplification) ai fini dell'identificazione di *Torymus sinensis*, antagonista naturale del cinipide del castagno (Technical note for the application of a LAMP assay to identify *Torymus sinensis*, the natural enemy of the Asian chestnut gall wasp). Filed on November 13 2013 at the Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padua, and at the Phytosanitary Services of the Veneto Region, Italy.

Capretti P., Mazza G., **Villari C.**, Feducci M. e Luchi N., 2008. Le principali malattie dei pini (Major diseases of pines). Informative folder of META (Extensive Phytosanitary Monitoring of Tuscans Forests).

**Villari C.**, Capretti P., 2008. Carie e marciume radicale della Douglasia (Wood decay and root rot of Douglas fir). META News. <http://meta.arsia.toscana.it/meta/index.php/tutte-le-news/notizie-2008>.

**Villari C.**, 2006. Working party del gruppo Iufro Forest health, 07.03.10 10-14 Settembre 2006, Gmunden, Austria (Working party of the Forest Health IUFRO group 07.03.10, 10-14 September 2006, Gmunden Austria). L'Italia Forestale e Montana 6:545.

**Villari C.**, Capretti P., 2006. Il Bruciore non parassitario dell'Ippocastano nelle alberature cittadine (Abiotic stress of horse chestnut urban trees). META news. <http://meta.arsia.toscana.it/meta/index.php/tutte-le-news/notizie-2006>.

**Villari C.**, Capretti P., 2005. Stato sanitario dei pini di San Rossore (Phytosanitary conditions of pine trees in San Rossore Regional Park), META news. <http://meta.arsia.toscana.it/meta/tutte-le-news/notizie-2005>.

### **Presentations (presenting author underlined)**

#### ***Oral presentations***

**Villari C.** My first two years as a faculty: what I learnt and how I survived so far. Seminar at the Department of Plant Pathology Seminar Series, The Ohio State University, 5 December 2018, Columbus, Ohio, USA.

Munro H.L., Sullivan B.T., Barnes B.F., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Gandhi K.J.K. Electrophysiological and behavioral response of black turpentine beetle and southern pine beetle to resin constituents in Southern pine forests. 2018 Entomological Society of America, Entomological Society of Canada and Entomological Society of British Columbia Joint Annual Meeting, 11-14 November 2018, Vancouver, British Columbia, Canada.

McNichol B., Sullivan B., Nowak J., **Villari C.**, Gandhi K. Is there phenotypic variation between outbreak and non-outbreak phases of southern pine beetle populations? Society of American Foresters National Convention, 3-7 October 2018, Portland, Oregon, USA.

Conrad A., **Villari C.**, Sniezko R.A., Rodriguez-Saona L., Bonello P. Development of a tool for rapid identification of resistant trees in species affected by alien invasive pathogens. 6th International Workshop on the Genetics of Tree-Parasite Interactions: Tree Resistance to Insects and Diseases: Putting Promise into Practice, 5-10 August 2018, Mt. Sterling, Ohio, USA. Proceedings published.

Lopez Goldar X., **Villari C.**, Grivet D., Bonello P., Borg-Karlson A. -K., Zas R., Sampedro L. Variation across populations in resistance to a key herbivore and their relationship with constitutive and induced secondary metabolites in a Mediterranean pine tree. 6th International Workshop on the Genetics of Tree-Parasite Interactions: Tree Resistance to Insects and Diseases: Putting Promise into Practice, 5-10 August 2018, Mt. Sterling, Ohio, USA. Proceedings published.

Cipollini D., Rigsby C.M., Peterson D.L., **Villari C.**, Showalter D., Bonello P., Herms D. Ecological fits and misfits of emerald ash borer with alternate hosts and their phytochemical basis. 2018 Ecological Society of America Annual Meeting, 5-10 August 2018, New Orleans, Louisiana, USA.

McNichol B., Sullivan B., Nowak J., Barnes B., **Villari C.**, Gandhi K. Characterizing phenotypic differences between outbreak and non-outbreak phases of southern pine beetle populations. Southern Forest Insect Workshop Conference. 17-20 July 2018, San Antonio, Texas, USA. Proceedings published.

Munro H.L., Sullivan B.T., Barnes B.F., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Gandhi K.J.K. Electrophysiological and behavioral response of southern pine beetle and black turpentine beetle to resin constituents. Southern Forest Insect Workshop Conference. 17-20 July 2018, San Antonio, Texas, USA [Invited presentation]. Proceedings published.

Munro H.L., Sullivan B.T., Barnes B.F., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Gandhi K.J.K. *exo*-Brevicommin as a synergist for southern pine beetle pheromone. Southern Forest Insect Workshop Conference. 17-20 July 2018, San Antonio, Texas, USA.

Hamilton J. L., Fraedrich S., **Villari C.** Detecting the laurel wilt pathogen using LAMP. Southern Forest Insect Workshop Conference. 17-20 July 2018, San Antonio, Texas, USA. Proceedings published.

**Villari C.** and Niyas A.M.M. Surveying *Phytophthora cinnamomi* in roots and soil samples. Annual meeting of the Georgia Chapter of the American Chestnut Foundation, 5 May 2018, Waleska, Georgia, USA [Invited presentation].

Munro H.L., Sullivan B.T., Barnes B.F., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Gandhi K.J.K. Electrophysiological and behavioral response of southern pine beetles to semiochemicals

produced by sympatric black turpentine beetles. Joint Georgia Entomological Society and South Carolina Entomological Society Meeting, 4-6 April 2018, Helen, Georgia, USA.

Hamilton J. L., Fraedrich S., **Villari C.** Developing a LAMP assay for the in-field detection of the laurel wilt pathogen. Southern Appalachian Forest Entomology and Pathology Seminar. 15-16 March 2018, Newland, North Carolina, USA.

Buland M., Barnes B., Klepzig K., Gandhi K., **Villari, C.** Species composition of *Leptographium* and *Grosmannia* blue-stain fungi in Georgia loblolly pine stands. Southern Appalachian Forest Entomology and Pathology Seminar, 15-16 March 2018, Newland, North Carolina, USA.

Buland M., Barnes B., Klepzig K., Gandhi K., **Villari, C.** Species composition of *Leptographium* and *Grosmannia* blue-stain fungi in loblolly pine stands in Georgia. Warnell Graduate Student Symposium, 1 February 2018, Athens, Georgia, USA.

Munro H.L., Sullivan B.T., Barnes B.F., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Gandhi K.J.K. Semiochemical interaction between southern pine beetle and black turpentine beetles in southeastern U.S. Warnell Graduate Student Symposium, 1 February 2018, Athens, Georgia, USA.

**Villari C.** FT-IR advanced phenotyping as a solution to mitigate tree health crises. Invited seminar at the Department of Plant Biology, University of Georgia. 13 November 2017, Athens, Georgia, USA.

**Villari C.** Rapid Identification of Disease Resistant Trees Via FT-IR Spectroscopy. 2017 Annual Gypsy Moth Review Home - Continental Dialogue on Non-Native Forest Insects and Diseases, 6-9 November 2017, Savannah, Georgia, USA [Invited presentation].

**Villari C.** Research efforts by Dr. Caterina Villari. Building Resilient and Healthy Southern Forests Meeting, 1-2 November 2017, Athens, Georgia, USA [Invited presentation].

**Villari C.**, Dowkiw A., Enderle R., Ghasemkhani M., Kirisits T., Kjaer E., Marčiulyrienė D., McKinney L., Metzler B., Muñoz F., Rostgaard Nielsen L., Pliūra A., Stener L-G, Suchockas V., Rodriguez-Saona L., Bonello P., Cleary M. A Phoenix from the Ashes: Advanced phenotyping offers a solution to mitigate the current ash tree health crisis. 23th Pherodays, 28-29 September 2017, Angavallen, Malmo, Sweden [Invited presentation].

**Villari C.** Take me with you! Portable tools for in-field real time detection of pathogens using LAMP. Invited seminar at the Horticum Seminar Series, Swedish University of Agricultural Sciences, 27 September 2017, Alnarp, Sweden.

**Villari C.** Forestry in Georgia: pines, industry and the Warnell School. Invited seminar at the Southern Swedish Forest Research Centre Seminar Series, Swedish University of Agricultural Sciences, 27 September 2017, Alnarp, Sweden.

**Villari C.**, Dowkiw A., Enderle R., Ghasemkhani M., Kirisits T., Kjaer E., Marčiulyrienė D., McKinney L., Metzler B., Muñoz F., Rostgaard Nielsen L., Pliūra A., Stener L-G, Suchockas V., Rodriguez-Saona L., Bonello P., Cleary M. Fourier-transform infrared (FT-IR) spectroscopy can rapidly phenotype European ash resistance levels to *Hymenoscyphus fraxineus*. IUFRO 125th Anniversary Congress, 18-22 September 2017. Freiburg, Germany [Invited presentation]. Abstract published.

Bonello P., **Villari C.**, Showalter D., Rigsby C., Whitehill J., Herms D., Cipollini D. Progress and gaps in understanding mechanisms of ash tree resistance to emerald ash borer. IUFRO 125th Anniversary Congress, 18-22 September 2017. Freiburg, Germany [Invited presentation]. Abstract published.

**Villari C.**, Workman J., Fraedrich S. A molecular tool for your backpack: In-field early detection of laurel wilt using LAMP. Joint Meeting of IUFRO Working Units 7.03.05 and 7.03.10, Forest Insects and Pathogen in a Changing Environment: Ecology, Monitoring and Genetics, 11-15 September 2017, Thessaloniki, Greece. Abstract published.

Benton E., **Villari C.**, Chamberlain L., Gandhi K. Grand challenges in forest health. 58<sup>th</sup> Southern Forest Insect Work Conference, 25-28 July 2017, Melbourne, Florida, USA. Proceedings published.

Workman J.N., Fraedrich S.W., **Villari C.** Rapid in-field early detection of the causal agent of laurel wilt disease through a LAMP based molecular assay. 58<sup>th</sup> Southern Forest Insect Work Conference, 25-28 July 2017, Melbourne, Florida, USA. Proceedings published.

McNichol B., Sullivan B., Nowak B., **Villari C.**, Gandhi K.J.K. Quantifying phenotypic variability in southern pine beetle populations. 58<sup>th</sup> Southern Forest Insect Work Conference, 25-28 July 2017, Melbourne, Florida, USA. Proceedings published.

Lopez Goldar X., **Villari C.**, Borg-Karlson A. -K., Bonello P., Sampedro L., Zas R. Estrategias defensivas en Pinus pinaster: variación genética dentro y entre poblaciones en su metaboloma defensivo constitutivo e inducido. 7<sup>o</sup> Congreso Forestal Español. Gestion del montes: servicios ambientales y bioeconomía, 26-30 June 2017, Placencia, Spain. Proceedings published.

Cleary M., **Villari C.**, Dowkiw A., Enderle R., Ghasemkhani M., Kirisits T., Kjaer E., Marčiulyrienė D., McKinney L., Metzler B., Muñoz F., Rostgaard Nielsen L., Pliūra A., Stener L-G, Suchockas V., Rodriguez-Saona L., Bonello P. Advanced phenotyping using FT-IR distinguishes disease resistance in *Fraxinus excelsior* against *Hymenoscyphus fraxineus*. IUFRO Working Party 7.02.02 – "Foliage, Shoot and Stem Diseases" Meeting, 7-11 May 2017, Niagara Falls, Ontario, Canada.

Raffa K., Bonello P., Cook S., Erbilgin N., Keefover-Ring K., Klutsch J., Mason C., **Villari C.**, Townsend P. Defense syndromes of lodgepole and whitebark pines against mountain pine beetle - fungal complexes. 67th Western Forest Insect Work Conference, 1-5 May 2017, Jackson, Wyoming, USA.

Workman J.N., Fraedrich S.W., **Villari C.** In-field early detection of laurel wilt disease with a LAMP based assay. Southern Appalachian Forest Entomology & Pathology Seminar, 2-3 March 2017, Newland, North Carolina, USA.

McNichol B., Sullivan B., Nowak B., **Villari C.**, Gandhi K.J.K. Quantifying phenotypic variability in southern pine beetle populations. Southern Appalachian Forest Entomology & Pathology Seminar, 2-3 March 2017, Newland, North Carolina, USA.

McNichol B., Sullivan B., Nowak B., **Villari C.**, Gandhi K.J.K. Improving the prediction and monitoring of population levels of southern pine beetle. Warnell Graduate Student Symposium, University of Georgia 8-10 February 2017, Athens, Georgia, USA. Abstract published.

**Villari C.** Take me with you! Advanced portable tools for in-field real time detection of pathogens and resistance phenotyping. Invited seminar at the Department of Plant Pathology, University of Georgia. 23 January 2017, Athens, Georgia, USA.

**Bonello P., Villari C.,** Sniezko R.A., Rodriguez-Saona L. FT-IR spectroscopy for the rapid identification of disease resistant trees. 9th Tripartite Meeting - Chemistry, Biochemistry and Molecular Biology for Wellness, 30 October - 2 November 2016, Maresias, Sao Paulo, Brazil.

**Villari C.** Interactions between trees, pathogens and herbivores: Looking at the problem from different points of view. The Plant Center at the University of Georgia 2016 Fall Retreat, 27-28 October 2016, Helen, Georgia, USA [Invited presentation].

**Showalter D.N., Villari C.,** Rigsby C.M., Cipollini F.D., Herms D.A., Wijeratne S., Wijeratne A., Bonello P. Transcriptional, enzymatic, and phenolic profiles of resistant and susceptible ash phloem in response to emerald ash borer larval feeding. 2016 Emerald Ash Borer National Research and Technology Development Meeting, 19-20 October 2016, Wooster, Ohio, USA.

**Villari C.,** Sniezko R.A., Rodriguez-Saona L., Bonello P. Fourier-transform infrared spectroscopy for the rapid identification of disease resistant trees. 2016 American Phytopathological Society Annual Meeting, 29 July - 3 August 2016, Tampa, Florida, USA. Proceedings published [Invited presentation].

**Peduto Hand F., Villari C.,** Mahaffee W.F., Mitchell T.K. Early detection of airborne inoculum of *Magnaporthe oryzae* in turfgrass fields: a LAMP lights the way. 2016 American Phytopathological Society Annual Meeting, 29 July - 3 August 2016, Tampa, Florida, USA. Proceedings published.

**Villari C.,** Herms D.A. Whitehill J.G.A., Rigsby C.M., Cipollini F.D., Showalter D.N., Bonello P. Progress and gaps in understanding mechanisms of ash tree resistance to emerald ash borer, a model for wood-boring insects that kill angiosperms. Entomological Society of America, North Central Branch meeting. 05-08 June 2016, Cleveland, Ohio, USA [Invited presentation].

**Raffa K.,** Bonello P., Cook S., Erbilgin N., Keefover-Ring K., Klutsch J., Mason C., **Villari C.,** Townsend P. Integrated analysis of pine defense systems as a foundation to understand and enhance resilience of conifer ecosystems. 2016 North American Forest Insect Work Conference, 31 May - 3 June 2016, Washington, D.C., USA.

**Villari C.,** Sniezko R.A., Rodriguez-Saona L., Bonello P. Accelerating dynamic genetic conservation efforts: use of FT-IR spectroscopy for the rapid identification of trees resistant to destructive pathogens. Gene Conservation of Tree Species – Banking on the Future Workshop. 16-19 May 2016, Chicago, Illinois, USA. Proceedings published.

**Villari C.,** Mahaffee W.F., Mitchell T.K., Peduto Hand F. Early detection of airborne inoculum of *Magnaporthe oryzae* in turfgrass fields using a quantitative LAMP assay. Seminar at the Kowlett Seminar Series, The Ohio State University, 28 April 2016, Columbus, Ohio, USA.

**Villari C.** Mechanisms of ash tree resistance to emerald ash borer. 2016 Minnesota Shade Tree Short Course. 15-16 March 2016, Saint Paul, Minnesota, USA [Invited presentation].

**Villari C.**, Snieszko R.A., Rodriguez-Saona L., Bonello P. New technology to fast-track finding genetic resistance to destructive pathogens: FT-IR spectroscopy. Seminar at the Kowlett Seminar Series, The Ohio State University, 04 February 2016, Columbus, Ohio, USA.

**Villari C.** Protecting our trees against pathogens - From defense theories to diagnosis and management. Invited seminar at the Warnell School of Forestry and Natural Resources, University of Georgia. 01 February 2016, Athens, Georgia, USA.

**Villari C.**, Snieszko R.A., Rodriguez-Saona L., Bonello P. New technology to fast-track finding genetic resistance to destructive pathogens: FT-IR spectroscopy. 27th USDA Interagency Research Forum on Invasive Species. 12-15 January 2016, Annapolis, Maryland, USA.

**Villari C.**, Herms D.A. Whitehill J.G.A., Rigsby C.M., Cipollini F.D., Showalter D.N., **Bonello P.** Progress and gaps in understanding mechanisms of ash tree resistance to emerald ash borer, a model for wood-boring insects that kill angiosperms. 27th USDA Interagency Research Forum on Invasive Species. 12-15 January 2016, Annapolis, Maryland, USA.

**Rigsby C.M.**, Showalter D., **Villari C.**, Hill A.L., Herms D.A, Bonello P., Cipollini D. Identification and characterization of putative defense mechanisms of ash to emerald ash borer and insect physiological responses. 2014 Entomological Society of America Annual Meeting. 15-19 November 2014, Portland, Oregon, USA.

**Villari C.**, Whitehill J.G.A., Cipollini F.D., Herms D.A, Bonello P. Mechanisms of ash resistance to emerald ash borer: progress and gaps. 2014 Emerald Ash Borer National Research and technology Development Meeting, 15-16 October 2014, Wooster, Ohio, USA. Proceedings published.

**Villari C.**, Chakraborty S., Rigsby C., Cipollini F.D., Herms D.A., Bonello P. Potential role of alkaloids and monoamines in ash resistance to emerald ash borer. XXIV IUFRO World Congress, 5-11 October 2014, Salt Lake City, Utah, USA. Abstract published.

**Villari C.**, Colombari F., Faccoli M., Bonello P., Marini L., Battisti A. Living on the edge: Outbreaks of a bark beetle at its range margins – life-history, associated fungi and host defenses. XXIV IUFRO World Congress, 5-11 October 2014, Salt Lake City, Utah, USA. Abstract published.

**Sherwood P.W.**, **Villari C.**, Capretti P., Bonello P. Examining mechanisms of enhanced susceptibility to *Diplodia* tip blight in drought-stressed Austrian pine. 2014 American Phytopathological Society and Canadian Phytopathological Society Joint Meeting, 9-13 August 2014, Minneapolis, Minnesota, USA. Abstract published.

**Linnakoski R.**, **Villari C.**, de Beer Z.W., Kirisits T., Jankowiak R., Wingfield M.J. Phylogenetic relationships between species in the *Ophiostoma clavatum* complex. X International Mycological Congress, 3-8 August 2014, Bangkok, Thailand. Abstract published.

**Villari C.** Defense strategy of *Pinus sylvestris* against bark beetle associated fungi. Seminar at the Department of Plant Pathology Seminar Series, The Ohio State University, 13 January 2014, Columbus, Ohio, USA.

**Villari C.** Detection of blue-stain fungi associated with *Ips acuminatus* in the southern Alps. Seminar at the Kowlett Seminar Series, The Ohio State University, 24 October 2013, Columbus, Ohio, USA.

Sherwood P.W., **Villari C.**, Capretti P., Bonello P. Examining mechanisms of enhanced susceptibility to Diplodia tip blight in drought stressed Austrian pine. International Conference on Climate Change and Tree Responses in Central European Forests, 1-5 September 2013, Zurich, Switzerland. Abstract published.

**Villari C.** Defense strategy of *Pinus sylvestris* against bark beetle associated fungi. Seminar at the Department of Biological Science, Dartmouth College, 12 April 2013, Hanover, New Hampshire, USA.

**Villari C.**, Tomlinson J.A., Battisti A., Capretti P., Faccoli. Detection of blue-stain fungi associated to *Ips acuminatus* in the Italian Alps using LAMP technology. Q-DETECT 5th EU Project Meeting, 12-13 June 2012, Vienna, Austria.

Colombari F., Faccoli M., D'Ambros E., Finozzi V., **Villari C.**, Battisti A. Outbreaks of *Ips acuminatus* in the Eastern Dolomites. IUFRO Working Unit 7.03.11: Tree Resistance to Insects, 30 August- 3 September 2009, San Vito di Cadore, Belluno, Italy. Abstract published.

Luchi N., **Villari C.**, Capretti P. Real Time PCR monitoring of forest tree pathogens. Meeting "A Universal Language, decoding the communication among living organisms to develop new biotechnological control strategies for diseases", 12 March 2008, Florence, Italy. Abstract published.

Capretti P., Luchi N., Feducci M., Mazza G. L., **Villari C.** Funghi patogeni di piante forestali: dalle segnalazioni al monitoraggio fitopatologico (Fungal pathogens of forest trees: from reports to phytopathological monitoring). XVI National Congress of Mycology, 4-6 December 2006, Florence, Italy. Abstract published.

### **Poster presentations**

Franić I., Prospero S., Adamson K., Allan E., Attorre F., Auger-Rozenberg M-A., Augustin S., Avtzis D., Baert W., Barta M., Bauters K., Bellahirech A., Boroń P., Bragança H., Brestovanská T., Brurberg M.B., Burgess T., Burokienė D., Cleary M., Corley J., Coyle D.R., Csóka G., Černý K., Davydenko K., de Groot M., Diez J.J., Doğmuş Lehtijärvi H.T., Drenkhan R., Elsafy M., Eötvös C.B., Fan J., Fürjes-Mikó A., Grad B., Hartmann M., Havrdova L., Hrabetova M., Justesen M.J., Kacprzyk M., Kenis M., Kirichenko N., Kramarets V., Lacković N., Lazarević J., Leskiv M., Li H., Madsen C.L., Malumphy C., Matošević D., Matsiakh I., Meffert J., Migliorini D., Nikolov C., O'Hanlon R., Oskay F., Paap T., Parpan T., Petrakis P.V., Piškur B., Ravn H.P., Ronse A., Roques A., Sivickis K., Talgø V., Tomoshevich M.A., Uimari A., Ulyshen M., Vettraino A.M., **Villari C.**, Wang Y., Witzell J., Zlatković M., Eschen R. Global patterns in insects and fungi of dormant twigs of native and exotic tree species. 3<sup>rd</sup> Croatian Symposium on invasive species, 26-27 November 2018, Zagreb, Croatia.

Munro H.L., Sullivan B.T., Barnes B.F., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Gandhi K.J.K. *exo*-Brevicommin as a synergist for southern pine beetle pheromone in Southeastern United States. 2018 Entomological Society of America, Entomological Society of Canada and Entomological Society of British Columbia Joint Annual Meeting, 11-14 November, Vancouver, British Columbia, Canada.

Franić I., Prospero S., Adamson K., Allan E., Attorre F., Auger-Rozenberg M-A., Augustin S., Avtzis D., Baert W., Barta M., Bauters K., Bellahirech A., Boroń P., Bragança H., Brestovanská T., Brurberg M.B., Burgess T., Burokienė D., Cleary M., Corley J., Coyle D.R., Csóka G., Černý K., Davydenko K., de Groot M., Diez J.J., Doğmuş Lehtijärvi H.T., Drenkhan R., Elsafy M., Eötvös C.B., Fan J., Fürjes-Mikó A., Grad B., Hartmann M., Havrdova L., Hrabetova M., Justesen M.J., Kacprzyk M., Kenis M., Kirichenko N., Kramarets V., Lacković N., Lazarević J., Leskiv M., Li H., Madsen C.L., Malumphy C., Matošević D., Matsiakh I., Meffert J., Migliorini D., Nikolov C., O'Hanlon R., Oskay F., Paap T., Parpan T., Petrakis P.V., Piškur B., Ravn H.P., Ronse A., Roques A., Sivickis K., Talgø V., Tomoshevich M.A., Uimari A., Ulyshen M., Vettraino A.M., **Villari C.**, Wang Y., Witzell J., Zlatković M., Eschen R. Global patterns in insects and fungi of dormant twigs of native and exotic tree species. COST conference - Sentinel plantings for detecting alien, potentially damaging tree pests, 9-12 October 2018, Sursee, Switzerland.

Munro H.L., Sullivan B.T., Barnes B.F., McNichol B., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Gandhi K.J.K. Black turpentine beetle pheromone component exo-brevicomin as a synergist for southern pine beetle pheromone. Society of American Foresters National Convention, 3-7 October 2018, Portland, Oregon, USA.

Parker Z., Barnes B., **Villari C.** Characterization of the phenolic defense response of loblolly pine to insect vectored blue-stain fungi. The Plant Center at the University of Georgia 2017 Fall Retreat, 27-28 September 2018, Helen, Georgia, USA.

Reyes J., **Villari C.**, Brewer M., McGregor C. Species-specific detection of *Stagonosporopsis* species causing Gummy Stem Blight on watermelon using LAMP and the SNP-typing approach. The Plant Center at the University of Georgia 2017 Fall Retreat, 27-28 September 2018, Helen, Georgia, USA

Niyas A.M.M., Cram M.M., Fraedrich S.W., **Villari C.** Using a metabarcoding approach to investigate the causal agent of the sugarberry decline and mortality (SBDM) in southeastern US. The Plant Center at the University of Georgia 2017 Fall Retreat, 27-28 September 2018, Helen, Georgia, USA.

Buland M., Barnes B., Klepzig K., Gandhi K., **Villari C.** Metabarcoding elucidation of the fungal community in loblolly pine roots in Georgia. The Plant Center at the University of Georgia 2017 Fall Retreat, 27-28 September 2018, Helen, Georgia, USA.

Hamilton J.L., Fraedrich S., **Villari C.** A rapid, molecular method for detecting the laurel wilt pathogen directly in-field. The Plant Center at the University of Georgia 2017 Fall Retreat, 27-28 September 2018, Helen, Georgia, USA.

Parker Z., Barnes B., **Villari C.** Phenolic component of loblolly pine defense response to blue-stain fungi associated with root-feeding beetles. 6th International Workshop on the Genetics of Tree-Parasite Interactions: Tree Resistance to Insects and Diseases: Putting Promise into Practice, 5-10 August 2018, Mt. Sterling, Ohio, USA. Proceedings published.

**Villari C.**, Dowkiw A., Enderle R., Ghasemkhani M., Kirisits T., Kjaer E., Marčiulyrienė D., McKinney L., Metzler B., Muñoz F., Rostgaard Nielsen L., Pliūra A., Stener L-G, Suchockas V., Rodriguez-Saona L., Bonello P., Cleary M. Use of FT-IR for rapid phenotyping of European ash resistance levels to ash dieback. 6th International Workshop on the Genetics of Tree-Parasite Interactions: Tree Resistance to Insects and Diseases: Putting Promise into Practice, 5-10 August 2018, Mt. Sterling, Ohio, USA. Proceedings published.

Buland M., Barnes B., Klepzig K., Gandhi K., **Villari, C.** Root-feeding beetles and *Leptographium* and *Grosmannia* blue-stain fungi in loblolly pine stands with differing management practices. 2018 International Congress of Plant Pathology, 29 July- 3 August 2018, Boston, Massachusetts, USA. Proceedings published.

Parker Z., Barnes. B, **Villari C.** Defense response of loblolly pine to insect vectored blue-stain fungi. Southern Forest Insect Workshop Conference. 17-20 July 2018, San Antonio, Texas, USA. Proceedings published.

Buland M., Barnes B., Klepzig K., Gandhi K., **Villari, C.** Elucidating the fungal community associated with root-feeding beetles using a metabarcoding approach. Southern Forest Insect Workshop Conference. 17-20 July 2018, San Antonio, Texas, USA. Proceedings published.

Morris L., Gandhi J.K.K, Barnes B., **Villari C.**, Beard T. Soil mediated interactions between southern pine trees and bark beetles. 13th North American Forest Soils Conference –International Symposium on Forest Soils, 10-16 June 2018, Quebec City, Quebec, Canada.

Munro H.L., Sullivan B.T., Barnes B.F., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Gandhi K.J.K. Olfactory receptor responses of southern pine beetle and black turpentine beetle to semiochemicals in southern pine forests. IRIS 2018: Integrative Research and Ideas Symposium, 18 April 2018, Athens, Georgia, USA.

McNichol B., Sullivan B., Nowak J., Barnes B., **Villari C.**, Gandhi K. Regional phenotypic variation in southern pine beetle populations. Joint Georgia Entomological Society and South Carolina Entomological Society Meeting, 4-6 April 2018, Helen, Georgia, USA.

Hamilton J. L., Fraedrich S., **Villari C.** Finding the Way: Using LAMP to rapidly detect laurel wilt in the field. Warnell Graduate Student Symposium, 1 February 2018, Athens, Georgia, USA.

Munro H.L., Sullivan B.T., Barnes B.F., Montes C.R., Nowak J.T., **Villari C.**, Gandhi K.J.K. Antennal activity of southern pine beetle and black turpentine beetles to semiochemicals associated with black turpentine beetle attacks in southern pine forests. Warnell Graduate Student Symposium, 1 February 2018, Athens, Georgia, USA.

**Villari C.**, Dowkiw A., Enderle R., Ghasemkhani M., Kirisits T., Kjaer E., Marčiulyrienė D., McKinney L., Metzler B., Muñoz F., Rostgaard Nielsen L., Plūra A., Stener L-G, Suchockas V., Rodriguez-Saona L., Bonello P., Cleary M. Use of FT-IR for rapid phenotyping of European ash resistance levels to ash dieback. 2017 California Forest Pest Council Annual Meeting, 15-16 November 2017, Davis, California, USA.

Parker Z., Barnes B **Villari C.** Characterization of the phenolic component of loblolly pine defense response to blue-stain fungi. Building Resilient and Healthy Southern Forests Meeting, 1-2 November 2017, Athens, Georgia, USA.

Buland M., Barnes B., Klepzig K., Gandhi K., **Villari C.** Species composition of root-feeding beetle associated *Leptographium* and *Grosmannia* blue-stain fungi with potential implications for loblolly pine stands in Georgia. The Plant Center at the University of Georgia 2017 Fall Retreat, 26-27 October 2017, Helen, Georgia, USA.

Buland M., Barnes B., Klepzig K., Gandhi K., **Villari C.** Species diversity of root-feeding beetle associated blue-stain fungi in loblolly pine stands. University of Georgia Institute of Bioinformatics Symposium, 25 September 2017, Athens, Georgia, USA. Abstract published.

Workman J.N., Fraedrich S.W., **Villari C.** Use of LAMP for in-field early detection of *Raffaelea lauricola*, the causal agent of laurel wilt disease. 2017 American Phytopathological Society Annual Meeting, 5-9 August 2017, San Antonio, Texas, USA. Proceedings published.

**Villari C.**, Dowkiw A., Enderle R., Ghasemkhani M., Kirisits T., Kjaer E., Marčiulyrienė D., McKinney L., Metzler B., Muñoz F., Rostgaard Nielsen L., Plūra A., Stener L-G, Suchockas V., Rodriguez-Saona L., Bonello P., Cleary M. Use of FT-IR for rapid phenotyping of European ash resistance levels to ash dieback. 2017 American Phytopathological Society Annual Meeting, 5-9 August 2017, San Antonio, Texas, USA. Proceedings published.

Buland M., Barnes B.F., Klepzig K.D., Gandhi K.J.K, **Villari C.** Species diversity of *Leptographium* and *Grossmannia* blue-stain fungi associated with root-feeding beetles in loblolly pine stands. 2017 American Phytopathological Society Annual Meeting, 5-9 August 2017, San Antonio, Texas, USA. Proceedings published.

Munro H., Sullivan B., Barnes B.F., Nowak J., **Villari C.**, Gandhi K.J.K. Semiochemical communication between sympatric southern pine beetle and black turpentine beetles in southern pine forests. 58<sup>th</sup> Southern Forest Insect Work Conference, 25-28 July 2017, Melbourne, Florida, USA. Abstract published.

Workman J.N., Fraedrich S.W., **Villari C.** Development of a LAMP-based assay for rapid in-field detection of *Raffaelea lauricola*, the causal agent of laurel wilt disease. 85<sup>th</sup> Meeting of the Mycological Society of America, 16-19 July 2017, Athens, Georgia, USA. Abstract published

Buland M., Barnes B.F., Klepzig K.D., Gandhi K.J.K, **Villari C.** Species composition of root-feeding beetle associated *Leptographium* and *Grossmannia* blue-stain fungi in loblolly pine stands in Georgia. 85<sup>th</sup> Meeting of the Mycological Society of America, 16-19 July 2017, Athens, Georgia, USA. Abstract published.

Buland M., Barnes B.F., Klepzig K.D., Gandhi K.J.K, **Villari C.** Composition of *Leptographium* species associated with root-feeding beetles in loblolly pine stands. Southern Appalachian Forest Entomology & Pathology Seminar, 2-3 March 2017, Newland, North Carolina, USA.

Buland M., Barnes B.F., Dahlen J., Eberhardt T.L., Klepzig K.D., Gandhi K.J.K, **Villari C.** Etiology of root-feeding beetles and blue-stain fungi in managed loblolly pine stands. Warnell Graduate Student Symposium, University of Georgia 8-10 February 2017, Athens, Georgia, USA. Abstract published.

Munro H., Sullivan B., Barnes B.F., **Villari C.**, Gandhi K.J.K. Semiochemical interaction between black turpentine beetle and southern pine beetles in the southeastern U.S. Warnell Graduate Student Symposium, University of Georgia 8-10 February 2017, Athens, Georgia, USA. Abstract published.

**Villari C.**, Sniezko R.A., Conrad A.O., Rodriguez-Saona L., Bonello P. New Technology to Fast-Track Finding Genetic Resistance to Destructive Pathogens: FT-IR Spectroscopy. 2015 Society of American Foresters National Convention, 3-7 November 2015, Baton Rouge, LA, USA. Abstract published.

**Villari C., Sniezko R.A., Conrad A.O., Savin D.P., Rodriguez-Saona L., Bonello P.** Fourier-transform infrared (FT-IR) spectroscopy discriminates *Chamaecyparis lawsoniana* (Port-Orford-cedar) individuals that are resistant and susceptible to the invasive pathogen *Phytophthora lateralis*. 63rd Western International Forest Disease Work Conference, 21-25 September 2015, Newport, Oregon, USA.

**Villari C., Sniezko R.A., Conrad A.O., Savin D.P., Rodriguez-Saona L., Bonello P.** Fourier-transform infrared (FT-IR) spectroscopy discriminates *Chamaecyparis lawsoniana* (Port-Orford-cedar) individuals that are resistant and susceptible to the invasive pathogen *Phytophthora lateralis*. IUFRO Fifth International Workshop on the Genetics of Tree-Parasite Interactions, 23-28 August 2015, Orléans, France.

**Villari C., Mahaffee W.F., Mitchell T.K., Pedley K.F., Pieck M.L., Peduto Hand F.** Development of a quantitative loop-mediated isothermal amplification assay to detect *Magnaporthe oryzae* airborne inoculum in turf ecosystems. 2015 American Phytopathological Society Annual Meeting, 1-5 August 2015, Pasadena, California, USA. Abstract published.

**Colombari F., Villari C., Simonato M., Haack R., Battisti A.** Il cinipide del castagno in Veneto: metodi e strumenti per sostenere la lotta biologica (The Asian chestnut gall wasp in Veneto region: tools and techniques for biological control). XXIV Italian National Congress of Entomology, 9-14 June 2014, Orosei, Nuoro, Italy. Abstract published.

**Villari C., Faccoli M., Battisti A., Bonello P., Marini L.** Testing trade-offs in the chemical defense strategy of Scots pine under growth-limiting conditions. XIII Annual International Scholar Research Exposition of the Ohio State University, 12 November 2013, Columbus, Ohio, USA. Abstract published.

**Chakraborty S., Hill A., Gambone K., Villari C., Bonello P.** A fluorimetric method for detection of reactive oxygen species in pine phloem tissue. Ohio Plant Biotechnology Consortium annual meeting, 8 October 2011, Columbus, Ohio, USA. Abstract published.

**Villari C., Battisti A., Bonello P., Faccoli M.** Induced responses of *Pinus sylvestris* to fungi associated with *Ips acuminatus* (Coleoptera Scolytinae). IUFRO Working Party 7.03.05: Novel risks with bark and wood boring insects in broadleaved and conifer forests, 7-9 September 2011, Sopron, Hungary. Abstract published.

**Villari C., Battisti A., Bonello P., Faccoli M.** Risposte del Pino silvestre alla colonizzazione da parte di *Ips acuminatus* (Coleoptera Scolytinae) e funghi associati (Induced responses of Scots pine to *Ips acuminatus* (Coleoptera Scolytinae) and its associated fungi colonization). XXIII Italian National Congress of Entomology, 13-16 June 2011, Genoa, Italy. Abstract published.

**Villari C., Battisti A., Capretti P., Faccoli M.** Ophiostomatoid fungi associated with *Ips acuminatus* (Coleoptera curculionidae) in the Italian Alps. XVI National Congress of the Italian Phytopathological Society, 14-17 September 2010, Florence, Italy. Abstract published.

**Villari C., Battisti A., Bonello P., Capretti P., Faccoli M.** Symbiotic fungi associated with *Ips acuminatus* (Coleoptera Curculionidae) in the Italian Alps. IUFRO Working Unit 7.03.11: Tree Resistance to Insects, 30 August- 3 September 2009, San Vito di Cadore, Belluno, Italy. Abstract published.

**Villari C.**, Battisti A., Capretti P., Faccoli M. Funghi associati a *Ips acuminatus* (Coleoptera Scolytidae): ruolo nella simbiosi e tecniche di campionamento (Fungi associated with *Ips acuminatus* (Coleoptera Scolytidae): role in the symbiosis and sampling techniques). XXII Italian National Congress of Entomology, 15-18 June 2009, Ancona, Italy. Abstract published.

**Villari C.**, Capretti P., Bonello P. Is proline involved in drought-induced susceptibility of Austrian pine to *Diplodia pinea* shoot blight? IX International Congress of Plant Pathology, 24-29 August 2008, Tourin, Italy. Abstract published.

**Villari C.**, Sabbatini Peverieri G., Tiberi R., Capretti P. The occurrence of fungal diseases on pine trees and their relationship with bark beetles. 9th European Forum on Urban Forestry, 22-27 May 2006, Vallombrosa, Florence, Italy. Abstract published.

Sabbatini Peverieri G., **Villari C.**, Tiberi R., Capretti P. Occurrence of fungal root rot in Pine trees in Tuscany and its relationship with *Tomicus destruens*. XII National Congress of the Italian Phytopathological Society, 29 September - 1 October 2005, Reggio Calabria, Italy. Abstract published.

## **Editorial Review Service**

### ***Editorial Board Member***

2018 – present    Frontiers in Forests and Global Change

### ***Peer Reviewer***

2018                Forest Ecology and Management; Fungal Biology, Plant Disease, PlosONE, Annals of Forest Science, Journal of Chromatography A.

2017                Tree Physiology; Forests; Forest Ecology and Management

2016                Forest Pathology; Journal of Plant Pathology; Journal of Insect Behavior; iForest.

2015                Canadian Journal of Plant Pathology; Annals of Forest Science.

2014                Journal of Invertebrate Pathology; Annals of Forest Science.

2013                AoB Plants.

## **Professional Academic and Community Service**

2018 – present    Member of the steering committee of the Bark Beetle Mycobiome Network

2017 – present    Coordinator of the International Union of Forest Research Organizations (IUFRO) 7.03.11 Working Party - Resistance to Insects and Pathogens.

- 2017 – 2018 Chair of the Forest Pathology Committee, American Phytopathological Society (APS).
- 2017 – present Member of the Southern Forest Insect Work Conference (SFIWC).
- 2017 – present Member of the Advisory Committee of The Plant Center, University of Georgia.
- 2017 – present Member of the University Council, University of Georgia.
- 2017 – present Member of the International Union of Forest Research Organizations (IUFRO).
- 2017 – present Judge for the Warnell Graduate Student Symposium, University of Georgia.
- 2016 – present Member of The Plant Center, University of Georgia.
- 2016 – 2017 Vice-chair of the Forest Pathology Committee, American Phytopathological Society (APS).
- 2015 – present Member of the American Phytopathological Society (APS).
- 2014, 2016 Judge for the Ohio Agricultural Research and Development Center (OARDC) Annual Research Conference Poster Competition.
- 2014 Judge for the Denman Undergraduate Research Forum, The Ohio State University.