

- Hadziabdic D., Bonello P., Hamelin R., Juzwik J., Moltzan B., Rizzo D., Stewart J., **Villari C.**, 2021. The future of forest pathology in North America. *Frontiers in Forests and Global Change* 4:737445. doi.org/10.3389/ffgc.2021.737445
- Aglietti C., Meinecke C.D., Ghelardini L., Barnes I., van der Nest A., **Villari C.**, 2021. Rapid detection of pine pathogens *Lecanosticta acicola*, *Dothistroma pini* and *septosporum* on needles by probe-based LAMP assays. *Forests* 12:479. doi.org/10.3390/f12040479
- Hamilton J.L., Fraedrich S.W., Nairn C.J., Mayfield A.E., **Villari C.**, 2021. A field-portable diagnostic approach confirms laurel wilt disease diagnosis in minutes instead of days. *Arboriculture & Urban Forestry* 47:98-109. doi.org/10.48044/jauf.2021.010
- McNichol B.H., Sullivan B., Munro, H., Montes C.R., Nowak J.T., **Villari C.**, Gandhi K.J.T. 2021. Density-dependent variability in an eruptive bark beetle and its value in predicting outbreaks. *Ecosphere* 12:e03336. doi.org/10.1002/ecs2.3336
- Pandit K., Smith J., Quesada T., **Villari C.**, Johnson D., 2020. Association of recent incidence of foliar disease in pine species in the southeastern United States with tree and climate variables. *Forests* 11:1155. doi:[10.3390/f11111155](https://doi.org/10.3390/f11111155)
- Hamilton J.L., Workman J.N., Nairn C.J., Fraedrich S.W., **Villari C.**, 2020. Rapid detection of *Raffaelea lauricola* directly from host plant and beetle vector tissues using loop-mediated isothermal amplification. *Plant Disease* doi:[10.1094/PDIS-02-20-0422-RE](https://doi.org/10.1094/PDIS-02-20-0422-RE).
- Hulcr J., Barnes I., De Beer Z.W., Duong T.A., Gazis R., Johnson A.J., Jusino M.A., Kasson M.T., Li, Y., Lynch S., Mayers C., Musvuugwa T., Roets F., Seltmann K.C., Six D., Vanderpool D., **Villari C.** Bark beetle mycobiome: collaboratively defined research priorities on a widespread insect-fungus symbiosis. *Symbiosis* 81:101-113. doi:[10.1007/s13199-020-00686-9](https://doi.org/10.1007/s13199-020-00686-9)
- Munro H.L., Gandhi K.J.K., Barnes B.F., Montes C.R., Nowak J.T., Shepherd W.P., **Villari C.**, Sullivan B.T, 2020. Electrophysiological and behavioral responses *Dendroctonus frontalis* and *terebrans* (Coleoptera: Curculionidae) to resin odors of host pines (*Pinus* spp.). *Chemoecology* doi:[10.1007/s00049-020-00311-7](https://doi.org/10.1007/s00049-020-00311-7).
- Bonello P., Campbell F.T., Cipollini D., Conrad A.O., Farinas C., Gandhi K.J.K., Hain F.P., Parry D., Showalter D.N., **Villari C.**, Wallin K.F., Invasive Tree Pests Devastate Ecosystems—A Proposed New Response Framework. *Frontiers in Forests and Global Change* 3:2. doi:<https://doi.org/10.3389/ffgc.2020.00002>
- Conrad A., **Villari C.**, Sherwood P., Bonello P., 2020. Phenotyping Austrian pine for resistance using Fourier-transform infrared spectroscopy. *Arboriculture & Urban Forestry* 46:276-286.
- Munro, H. L., Sullivan, B. T., **Villari, C.**, Gandhi, K. J. K. 2019. A review of the ecology and management of black turpentine beetle (Coleoptera: Curculionidae). *Environmental Entomology* 48:765-783 doi:[10.1093/ee/nvz050](https://doi.org/10.1093/ee/nvz050)
- McNichol, B. H., Montes, C. R., Barnes, B. F., Nowak, J. T., **Villari, C.**, Gandhi, K. J. K. 2019. Interactions between southern Ips bark beetle outbreaks, prescribed fire, and loblolly pine (*Pinus taeda* L.) mortality. *Forest Ecology and Management* 446:164-174 doi:[10.1016/j.foreco.2019.05.036](https://doi.org/10.1016/j.foreco.2019.05.036)
- Lopez-Goldar, X., **Villari, C.**, Bonello, P., Borg-Karlson, A. K., Grivet, D., Sampedro, L., Zas, R. 2019. Genetic variation in the constitutive defensive metabolome and its inducibility are geographically structured and largely determined by demographic processes in maritime pine. *Journal of Ecology* 107: 2464-2477 doi:[10.1111/1365-2745.13159](https://doi.org/10.1111/1365-2745.13159)

- Mayfiled 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 doi:[10.1094/PDIS-05-18-0871-PDN](https://doi.org/10.1094/PDIS-05-18-0871-PDN)
- 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. doi: doi.org/10.1111/afe.12292
- 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., Marčiulyne 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 doi: doi.org/10.1038/s41598-018-35770-0
- 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: [10.1111/pce.13449](https://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. doi: [10.1111/afe.12240](https://doi.org/10.1111/afe.12240)
- 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. doi: [10.1111/1365-2435.12911](https://doi.org/10.1111/1365-2435.12911)
- 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. doi: [10.1111/pce.12985](https://doi.org/10.1111/pce.12985)
- 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. doi: [10.1094/PDIS-06-16-0834-RE](https://doi.org/10.1094/PDIS-06-16-0834-RE)
- 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. doi: [10.1094/PDIS-09-16-1349-PDN](https://doi.org/10.1094/PDIS-09-16-1349-PDN)
- 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. doi: [10.1080/09583157.2016.1195335](https://doi.org/10.1080/09583157.2016.1195335)
- 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. doi: [10.1007/s10482-016-0700-y](https://doi.org/10.1007/s10482-016-0700-y)

- 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.
doi:[10.1111/nph.13604](https://doi.org/10.1111/nph.13604) [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.
doi:[10.1093/treephys/tpv026](https://doi.org/10.1093/treephys/tpv026) [* 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. doi:[10.1093/treephys/tpu063](https://doi.org/10.1093/treephys/tpu063) [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. doi:[10.1128/AEM.03612-12](https://doi.org/10.1128/AEM.03612-12)
- 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. doi:[10.1093/treephys/tps056](https://doi.org/10.1093/treephys/tps056)