Pierluigi Bonello

List of Publications by Year
in descending order

84 papers	3,274 citations	147801 31 h-index	168389 53 g-index
86 all docs	86 docs citations	86 times ranked	3354 citing authors

#	Article	IF	Citations
1	Induced resistance to pests and pathogens in trees. New Phytologist, 2010, 185, 893-908.	7.3	256
2	Genetic structure of a natural population of the ectomycorrhizal fungus Suillus pungens. New Phytologist, 1998, 138, 533-542.	7.3	157
3	Pinus nigraâ€"Sphaeropsis sapinea as a model pathosystem to investigate local and systemic effects of fungal infection of pines. Physiological and Molecular Plant Pathology, 2003, 63, 249-261.	2.5	142
4	Phenolic Metabolites in Leaves of the Invasive Shrub, Lonicera maackii, and Their Potential Phytotoxic and Anti-Herbivore Effects. Journal of Chemical Ecology, 2008, 34, 144-152.	1.8	133
5	Nature and ecological implications of pathogen-induced systemic resistance in conifers: A novel hypothesis. Physiological and Molecular Plant Pathology, 2006, 68, 95-104.	2.5	132
6	Comparative Phloem Chemistry of Manchurian (Fraxinus mandshurica) and Two North American Ash Species (Fraxinus americana and Fraxinus pennsylvanica). Journal of Chemical Ecology, 2007, 33, 1430-1448.	1.8	110
7	Systemic induction of phloem secondary metabolism and its relationship to resistance to a canker pathogen in Austrian pine. New Phytologist, 2008, 177, 767-778.	7.3	106
8	Systemic induction of traumatic resin ducts and resin flow in Austrian pine by wounding and inoculation with Sphaeropsis sapinea and Diplodia scrobiculata. Planta, 2005, 221, 75-84.	3.2	91
9	Genetic Relationships and Cross Pathogenicities ofVerticillium dahliaeIsolates from Cauliflower and Other Crops. Phytopathology, 1995, 85, 1105.	2.2	91
10	Tissue-Specific Transcriptomics of the Exotic Invasive Insect Pest Emerald Ash Borer (Agrilus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 T	2.5	87
11	Progress and gaps in understanding mechanisms of ash tree resistance to emerald ash borer, a model for woodâ€boring insects that kill angiosperms. New Phytologist, 2016, 209, 63-79.	7.3	74
12	Interspecific Comparison of Constitutive Ash Phloem Phenolic Chemistry Reveals Compounds Unique to Manchurian Ash, a Species Resistant to Emerald Ash Borer. Journal of Chemical Ecology, 2012, 38, 499-511.	1.8	66
13	Ozone effects on rootâ€disease susceptibility and defence responses in mycorrhizal and nonâ€mycorrhizal seedlings of Scots pine (Pinus sylvestris L.). New Phytologist, 1993, 124, 653-663.	7.3	65
14	Organ-dependent induction of systemic resistance and systemic susceptibility in Pinus nigra inoculated with Sphaeropsis sapinea and Diplodia scrobiculata. Tree Physiology, 2007, 27, 511-517.	3.1	65
15	Distinguishing Defensive Characteristics in the Phloem of Ash Species Resistant and Susceptible to Emerald Ash Borer. Journal of Chemical Ecology, 2011, 37, 450-459.	1.8	62
16	Systemic effects of Heterobasidion annosum on ferulic acid glucoside and lignin of presymptomatic ponderosa pine phloem, and potential effects on bark-beetle-associated fungi. Journal of Chemical Ecology, 2003, 29, 1167-1182.	1.8	61
17	Defence syndromes in lodgepole â€" whitebark pine ecosystems relate to degree of historical exposure to mountain pine beetles. Plant, Cell and Environment, 2017, 40, 1791-1806.	5.7	61
18	Transcriptomic Signatures of Ash (Fraxinus spp.) Phloem. PLoS ONE, 2011, 6, e16368.	2.5	54

#	Article	IF	Citations
19	Nutritional and pathogenic fungi associated with the pine engraver beetle trigger comparable defenses in Scots pine. Tree Physiology, 2012, 32, 867-879.	3.1	48
20	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, 2018, 9, 1651.	3.6	48
21	Effects of soil type, fertilization and drought on carbon allocation to root growth and partitioning between secondary metabolism and ectomycorrhizae of Betula papyrifera. Tree Physiology, 2010, 30, 807-817.	3.1	47
22	Effects of fertilization on red pine defense chemistry and resistance to Sphaeropsis sapinea. Forest Ecology and Management, 2005, 208, 373-382.	3.2	46
23	Mechanisms of induced susceptibility to Diplodia tip blight in drought-stressed Austrian pine. Tree Physiology, 2015, 35, 549-562.	3.1	43
24	Effects of water availability on emerald ash borer larval performance and phloem phenolics of Manchurian and black ash. Plant, Cell and Environment, 2014, 37, 1009-1021.	5.7	41
25	Testing phenotypic trade-offs in the chemical defence strategy of Scots pine under growth-limiting field conditions. Tree Physiology, 2014, 34, 919-930.	3.1	41
26	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, 2019, 107, 2464-2477.	4.0	41
27	Cross-induction of systemic induced resistance between an insect and a fungal pathogen in Austrian pine over a fertility gradient. Oecologia, 2007, 153, 365-374.	2.0	40
28	Austrian pine phenolics are likely contributors to systemic induced resistance against Diplodia pinea. Tree Physiology, 2013, 33, 845-854.	3.1	38
29	Phenolic Chemistry of Coast Live Oak Response to Phytophthora ramorum Infection. Journal of Chemical Ecology, 2007, 33, 1721-1732.	1.8	36
30	Decreased emergence of emerald ash borer from ash treated with methyl jasmonate is associated with induction of general defense traits and the toxic phenolic compound verbascoside. Oecologia, 2014, 176, 1047-1059.	2.0	35
31	Quantification of hydrogen peroxide in plant tissues using Amplex Red. Methods, 2016, 109, 105-113.	3.8	35
32	Water-deficit and fungal infection can differentially affect the production of different classes of defense compounds in two host pines of mountain pine beetle. Tree Physiology, 2017, 37, 338-350.	3.1	35
33	Interspecific Proteomic Comparisons Reveal Ash Phloem Genes Potentially Involved in Constitutive Resistance to the Emerald Ash Borer. PLoS ONE, 2011, 6, e24863.	2.5	34
34	Fungal species assemblages associated with Phytophthora ramorum-infected coast live oaks following bark and ambrosia beetle colonization in northern California. Forest Ecology and Management, 2013, 291, 30-42.	3.2	32
35	Application of Infrared and Raman Spectroscopy for the Identification of Disease Resistant Trees. Frontiers in Plant Science, 2015, 6, 1152.	3.6	32
36	Strategic Development of Tree Resistance Against Forest Pathogen and Insect Invasions in Defense-Free Space. Frontiers in Ecology and Evolution, 2018, 6, .	2.2	31

#	Article	IF	Citations
37	The role of olfactory stimuli in the location of weakened hosts by twig-infesting Pityophthorus spp.. Ecological Entomology, 2001, 26, 8-15.	2.2	28
38	Systemic effects of Heterobasidion annosum s.s. infection on severity of Diplodia pinea tip blight and terpenoid metabolism in Italian stone pine (Pinus pinea). Tree Physiology, 2008, 28, 1653-1660.	3.1	28
39	Machine Learning-Based Presymptomatic Detection of Rice Sheath Blight Using Spectral Profiles. Plant Phenomics, 2020, 2020, 8954085.	5.9	28
40	Systemic aspects of hostâ€“pathogen interactions in Austrian pine (Pinus nigra): A proteomics approach. Physiological and Molecular Plant Pathology, 2006, 68, 149-157.	2.5	27
41	Anatomical defences against bark beetles relate to degree of historical exposure between species and are allocated independently of chemical defences within trees. Plant, Cell and Environment, 2019, 42, 633-646.	5.7	27
42	An induced papilla response in primary roots of Scots pine challenged in vitro with Cylindrocarpon destructans. Physiological and Molecular Plant Pathology, 1991, 39, 213-228.	2.5	26
43	Association of <i>Phytophthora cinnamomi</i> with White Oak Decline in Southern Ohio. Plant Disease, 2010, 94, 1026-1034.	1.4	26
44	Reserves Accumulated in Non-Photosynthetic Organs during the Previous Growing Season Drive Plant Defenses and Growth in Aspen in the Subsequent Growing Season. Journal of Chemical Ecology, 2014, 40, 21-30.	1.8	24
45	Biochemical defence responses in primary roots of Scots pine challenged in vitro with Cylindrocarpon destructans. Plant Pathology, 1993, 42, 203-211.	2.4	23
46	<I>Ips pini</I> (Curculionidae: Scolytinae) Is a Vector of the Fungal Pathogen, <I>Sphaeropsis sapinea</I> (Coelomycetes), to Austrian Pines, <I>Pinus nigra</I> (Pinaceae). Environmental Entomology, 2007, 36, 114-120.	1.4	23
47	Nutrient and water availability alter belowground patterns of biomass allocation, carbon partitioning, and ectomycorrhizal abundance in Betula nigra. Trees - Structure and Function, 2012, 26, 525-533.	1.9	23
48	Identification of Quercus agrifolia (coast live oak) resistant to the invasive pathogen Phytophthora ramorum in native stands using Fourier-transform infrared (FT-IR) spectroscopy. Frontiers in Plant Science, 2014, 5, 521.	3.6	23
49	Spatial and temporal components of induced plant responses in the context of herbivore life history and impact on host. Functional Ecology, 2017, 31, 2034-2050.	3.6	23
50	Differential Response in Foliar Chemistry of Three Ash Species to Emerald Ash Borer Adult Feeding. Journal of Chemical Ecology, 2011, 37, 29-39.	1.8	22
51	Antioxidant genes of the emerald ash borer (Agrilus planipennis): Gene characterization and expression profiles. Journal of Insect Physiology, 2011, 57, 819-824.	2.0	21
52	Feeding response of Ips paraconfusus to phloem and phloem metabolites of Heterobasidion annosum-inoculated ponderosa pine, Pinus ponderosa. Journal of Chemical Ecology, 2003, 29, 1183-1202.	1.8	20
53	Higher Activities of Defense-Associated Enzymes may Contribute to Greater Resistance of Manchurian Ash to Emerald Ash Borer Than A closely Related and Susceptible Congener. Journal of Chemical Ecology, 2016, 42, 782-792.	1.8	20
54	Identification of biochemical features of defective Coffea arabica L. beans. Food Research International, 2017, 95, 59-67.	6.2	20

#	Article	IF	Citations
55	Advanced spectroscopy-based phenotyping offers a potential solution to the ash dieback epidemic. Scientific Reports, 2018, 8, 17448.	3.3	20
56	Spatial and temporal patterns of morel fruiting. Mycological Research, 2007, 111, 339-346.	2.5	18
57	Inter- and Intra-Specific Variation in Stem Phloem Phenolics of Paper Birch (Betula papyrifera) and European White Birch (Betula pendula). Journal of Chemical Ecology, 2011, 37, 1193-1202.	1.8	18
58	Invasive Tree Pests Devastate Ecosystemsâ€"A Proposed New Response Framework. Frontiers in Forests and Global Change, 2020, 3, .	2.3	17
59	Effects of Fertilization and Fungal and Insect Attack on Systemic Protein Defenses of Austrian Pine. Journal of Chemical Ecology, 2008, 34, 1392-1400.	1.8	16
60	Association between resistance to an introduced invasive pathogen and phenolic compounds that may serve as biomarkers in native oaks. Forest Ecology and Management, 2014, 312, 154-160.	3.2	16
61	First Report of Phytophthora insolita and P. inflata on Rhododendron in Ohio. Plant Disease, 2005, 89, 1128-1128.	1.4	16
62	Determination of quercetin concentrations in fish tissues after feeding quercetin-containing diets. Aquaculture International, 2009, 17, 537-544.	2.2	14
63	Comparative Herbivory Rates and Secondary Metabolite Profiles in the Leaves of Native and Non-Native Lonicera Species. Journal of Chemical Ecology, 2015, 41, 1069-1079.	1.8	14
64	Testing the systemic induced resistance hypothesis with Austrian pine and Diplodia sapinea. Physiological and Molecular Plant Pathology, 2016, 94, 118-125.	2.5	14
65	Constitutive phenolic biomarkers identify naÃ¯ve Quercus agrifolia resistant to Phytophthora ramorum, the causal agent of sudden oak death. Tree Physiology, 2017, 37, 1686-1696.	3.1	14
66	Drought stress increased survival and development of emerald ash borer larvae on coevolved <scp>M</scp>anchurian ash and implicates phloemâ€based traits in resistance. Agricultural and Forest Entomology, 2018, 20, 170-179.	1.3	14
67	Fourier-transform infrared (FT-IR) spectroscopy analysis discriminates asymptomatic and symptomatic Norway spruce trees. Plant Science, 2019, 289, 110247.	3.6	14
68	Why do entomologists and plant pathologists approach trophic relationships so differently? Identifying biological distinctions to foster synthesis. New Phytologist, 2020, 225, 609-620.	7.3	14
69	Feeding by emerald ash borer larvae induces systemic changes in black ash foliar chemistry. Phytochemistry, 2011, 72, 1990-1998.	2.9	13
70	Failure under stress: the effect of the exotic herbivore Adelges tsugae on biomechanics of Tsuga canadensis. Annals of Botany, 2014, 113, 721-730.	2.9	13
71	Nutritional attributes of ash (Fraxinus spp.) outer bark and phloem and their relationships to resistance against the emerald ash borer. Tree Physiology, 2012, 32, 1522-1532.	3.1	10
72	Effects of defoliation and site quality on growth and defenses of Pinus pinaster and P. radiata. Forest Ecology and Management, 2016, 382, 39-50.	3.2	10

#	ARTICLE	IF	CITATIONS
73	Resistance of European ash (<i>Fraxinus excelsior</i>) saplings to larval feeding by the emerald ash borer (<i>Agrilus planipennis</i>). Plants People Planet, 2020, 2, 41-46.	3.3	9
74	A Native Parasitic Plant Systemically Induces Resistance in Jack Pine to a Fungal Symbiont of Invasive Mountain Pine Beetle. Journal of Chemical Ecology, 2017, 43, 506-518.	1.8	7
75	Disease incidence and spatial distribution of host resistance in a coast live oak/sudden oak death pathosystem. Forest Ecology and Management, 2019, 433, 618-624.	3.2	7
76	Comparative transcriptional and metabolic responses of Pinus pinea to a native and a non-native Heterobasidion species. Tree Physiology, 2019, 39, 31-44.	3.1	6
77	Girdling increases survival and growth of emerald ash borer larvae on Manchurian ash. Agricultural and Forest Entomology, 2019, 21, 130-135.	1.3	6
78	Avenacin Production in Creeping Bentgrass (Agrostis stolonifera) and Its Influence on the Host Range of Gaeumannomyces graminis. Plant Disease, 2006, 90, 33-38.	1.4	5
79	Effect of the Growth Regulator Paclobutrazol and Fertilization on Defensive Chemistry and Herbivore Resistance of Austrian Pine (Pinus nigra) and Paper Birch (Betula papyrifera). Arboriculture and Urban Forestry, 2011, 37, 278-287.	0.6	5
80	Characterization of wound responses of stems of paper birch (Betula papyrifera) and European white birch (Betula pendula). Trees - Structure and Function, 2013, 27, 851-863.	1.9	4
81	Desarmillaria caespitosa, a North American vicariant of D. tabescens. Mycologia, 2021, 113, 776-790.	1.9	4
82	Lignin concentrations in phloem and outer bark are not associated with resistance to mountain pine beetle among high elevation pines. PLoS ONE, 2021, 16, e0250395.	2.5	3
83	Mechanisms of Pine Disease Susceptibility Under Experimental Climate Change. Frontiers in Forests and Global Change, 0, 5, .	2.3	3
84	Modern approaches for early detection of forest pathogens are sorely needed in the United States. Forest Pathology, 2018, 48, e12445.	1.1	1