

Table S1. Most prevalent insect pest species in forest trees and their characteristics.

Order	Family	Species	Hosts	Type of damage	Geographic distribution	Indigenous/ introduced	References
Coleoptera	Buprestidae	<i>Agrilus planipennis</i>	Ash	Subcortical feeders	Eurasia North America	Indigenous (ES) Introduced (NA)	[1]
	Cerambycidae	<i>Anoplophora glabripennis</i>	Poplar	Sapwood borers	Asia Europe/North America	Indigenous (AS) Introduced (EU/NA)	[2]
		<i>Oncideres cingulata</i>	Hickory , oak , poplar elm , black birch and pecan	Twig girdlers	North America	Indigenous	[3]
		<i>Phoracantha recurva</i> <i>Phoracantha semipunctata</i>	Eucalyptus	Wood borers	Australia Africa	Indigenous (AU) Introduced (AF)	[4]
	Curculionidae	<i>Dendroctonus brevicomis</i> <i>Dendroctonus ponderosae</i>	Pine	Subcortical feeders	North America	Indigenous	[5,6]
		<i>Dendroctonus frontalis</i> <i>Dendroctonus valens</i>	Pine		North America South America	Indigenous (NA) Introduced (SA)	[6]
		<i>Gonipterus scutellatus</i> <i>Gonipterus platensis</i>	Eucalyptus		Australia Asia/Africa/Europe	Indigenous (AU) Introduced(AS/AF/EU/SA)	[7,8]

					South America		
		<i>Ips sexdentatus</i>	Pine		Eurasia	Indigenous	[9]
		<i>Ips subelongatus</i>	Spruce and larch trees		Eurasia	Indigenous	[10]
		<i>Ips typographus</i>	Spruce		Eurasia	Indigenous	[11]
		<i>Megaplatypus mutatus</i>	Poplar		South America	Indigenous	[12]
		<i>Orthotomicus erosus</i>	Pine		North America	Indigenous	[13]
		<i>Platypus cylindrus</i>	Cork oak		Africa Eurasia	Indigenous	[14]
		<i>Tomicus piniperda</i>	Pine		Eurasia Africa/North America	Indigenous (ES) Introduced (AF/NA)	[15]
	Scarabaeidae	<i>Melolontha</i> spp	Oak and scots pine	Root feeders	Europe	Indigenous	[16]
Hemiptera	Aphididae	<i>Cinara cupressivora</i>	Cypress and pine	Sap feeders	North America	Indigenous (NA)	[17, 18]
		<i>Cinara pinivora</i>			Africa/South America	Introduced (AF/SA)	
	Eriococcidae	<i>Cryptococcus fagisuga</i>	Beech bark		Europe	Indigenous (EU)	[19]
					North America	Introduced(NA)	
	Psyllidae	<i>Heteropsylla cubana</i>	Broad-leaved trees	Sap feeders	South America Asia/Africa	Indigenous (SA) Introduced (AS/AF)	[20]

	Tingidae	<i>Corythucha arcuata</i>	Oak	Leaf feeders	North America Europe	Indigenous (NA) Introduced (EU)	[21]
Hymenoptera	Eulophidae	<i>Leptocybe invasa</i>	Eucalyptus	Gall inducers	Australia Africa/Asia North America	Indigenous (AU) Introduced (AF/AS/NA)	[22]
		<i>Ophelimus maskelli</i>	Eucalyptus		Australia Africa/Asia/Europe	Indigenous (AU) Introduced (AF/AS/EU)	[23]
	Siricidae	<i>Sirex noctilio</i>	Pine	Wood borers	Europe/Africa/Asia North and South America/ Australia	Indigenous (EU/AF/AS) Introduced (NA/SA/AU)	[24]
Lepidoptera	Geometridae	<i>Alsophila pometaria</i>	Oak	Defoliators	North America	Indigenous	[25]
	Lasiocampidae	<i>Dendrolimus sibiricus</i>	Spruce, pine, larix and tsuga		Eurasia	Indigenous	[26]
	Lasiocampidae	<i>Malacosoma disstria</i>	Poplar		North America	Indigenous	[27]
	Lymantriidae	<i>Lymantria dispar</i>	Holm oak and oak cork		Eurasia North America/Africa	Indigenous (ES) Introduced (NA/AF)	[28]
		<i>Leucoma salicis</i>	Poplar and willow		Europe	Indigenous (EU)	[29]

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	Pyralidae	<i>Hypsipyla grandella</i>	Cedar		South America	Indigenous	[31]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Tortricidae	<i>Choristoneura fumiferana</i>	Pine, balsam fir and spruce		North America	Indigenous	[32,33,34]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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References

- 1) Lyttek, E.; Lal, P.; Nieddu, G.; Forgoston, E.; Wiczerak, T. Modeling *Agrilus planipennis* F. (Coleoptera: Buprestidae) spread in New Jersey. *J. Econ. Entomol* **2019**.112(5), 2482-2488.
- 2) Meng, P.S.; Hoover, K.; Keena, M.A. Asian longhorned beetle (Coleoptera: Cerambycidae), an introduced pest of maple and other hardwood trees in North America and Europe. *J. Integr. Pest Manag* **2015**. 6(1). 1-13.
- 3) Coppedge, B. R. Twig morphology and host effects on reproductive success of the twig girdler *Oncideres cingulata* (Say)(Coleoptera: Cerambycidae). *The Coleopterists Bull.* **2011**. 65(4), 405-410.
- 4) Villagran, J.; Kadik, B. **1981**.- Étude préliminaire sur l'évolution de *Phoracanthasemipunctata* Fab., ravageur des forêts en Algérie. CNREF, document interne n° 6.
- 5) Evangelista, P.H.; Kumar, S.; Stohlgren, T.J.; Young, N.E. Assessing forest vulnerability and the potential distribution of pine beetles under current and future climate scenarios in the Interior West of the US. *For. Ecol. Manag* **2011**.262(3), 307-316.

- 6) Kyre, B.R.; Rodrigues, T.B.; Rieske, L.K. RNA interference and validation of reference genes for gene expression analyses using qPCR in southern pine beetle, *Dendroctonus frontalis*. *Sci. Rep* **2019**, *9*(1), 1-8.
- 7) Jeger, M.; Bragard, C.; Caffier, D.; Candresse, T.; Chatzivassiliou, E.; Dehnen-Schmutz, K.; Gilioli, G.; Miret, J.; Anton, J.; MacLeod, A.; Navarro, M.N.; Niere, B.; Parnell, S.; Potting, R.; Rafoss, T.; Rossi, V.; Urek, G.; Van Bruggen, A.; Van der Werf, W.; West, J.; Winter, S.; Santolamazza-Carbone, S.; Kertesz, V.; Aukhojee, M.; Gregoire, J.-C. Pest categorisation of the *Gonipterus scutellatus* species complex. *EFSA J* **2018**, *16*(1), 5107.
- 8) Valente, C.; Afonso, C.; Gonçalves, C.I.; Branco, M. Assessing the competitive interactions between two egg parasitoids of the Eucalyptus snout beetle, *Gonipterus platensis*, and their implications for biological control. *Biol. Control* **2019**, *130*, 80-87.
- 9) Sevim, A.; Gökçe, C.; Erbaş, Z.; Özkan, F. Bacteria from *Ips sexdentatus* (Coleoptera: Curculionidae) and their biocontrol potential. *J. Basic Microbiol* **2012**, *52*(6), 695-704.
- 10) Shi, X.; Shen, J.C.; Zhang, S.F.; Liu, F.; Xu, F.Y.; Wang, G.L. et al. Comparative analysis of the type and number of larval sensilla on the antennae and mouthparts of *Ips typographus* and *Ips subelongatus* using SEM. *Zool. Anz* **2020**, *289*, 18-25.
- 11) Jakoby, O.; Lischke, H.; Wermelinger, B. Climate change alters elevational phenology patterns of the European spruce bark beetle (*Ips typographus*). *Global Change Biology* **2019**, *25*(12), 4048-4063. doi 10.1111/gcb.14766
- 12) Liguori, P.G.; Zerba, E.; Alzogaray, R.A.; Audino, P.G. 3-Pentanol: a new attractant present in volatile emissions from the ambrosia beetle, *Megaplatypus mutatus*. *J. Chem. Ecol* **2008**, *34*(11), 1446-1451.
- 13) Walter, A.J.; Kells, S.A.; Venette, R.C.; Seybold, S.J. Boring in response to bark and phloem extracts from North American trees does not explain host acceptance behavior of *Orthotomicus erosus* (Coleoptera: Scolytidae). *Environ. Entomol* **2010**, *39*(2), 661-669.
- 14) Henriques, J.; Inácio, M. L.; Pires, S., & Sousa, E. *Platypus cylindrus* Fab. (Coleoptera: Platypodidae) control strategies. *Platypus cylindrus* Fab. (Coleoptera: Platypodidae) control strategies **2010**, *57*, 103-106.
- 15) Öhrn, P.; Björklund, N., & Långström, B. Occurrence, performance and shoot damage of *Tomicus piniperda* in pine stands in southern Sweden after storm-felling. *J. Appl. Entomol.* **2018**, *142*(9), 854-862.
- 16) Woreta, D. Reduction of population numbers of *Melolontha* spp. adults – a review of methods. *Folia For. Pol* **2016**, *58*(2), 87–95.
- 17) Watson, G.W.; Voegtlin, D.J.; Murphy, S.T.; Footitt, R.G. Biogeography of the *Cinaracupressi* complex (Hemiptera: Aphididae) on Cupressaceae, with description of a pest species introduced into Africa. *Bull. Entomol. Res* **1999**, *89*, 271–283.
- 18) Lázari, F.N.; Trentini, R.F.; de Carvalho, R.C. Occurrence of *Cinara* spp. (Hemiptera, Aphididae) on *Pinus* spp. (Pinaceae), in the county of Lages-SC, Brazil. *Rev. Brasileira de Entomol* **2004**, *48*(2), 287-289.
- 19) Koch, J. L.; Carey, D.W. A technique to screen American beech for resistance to the beech scale insect (*Cryptococcus fagisuga* Lind.). *JoVE* **2014**, *87*, e51515.
- 20) Geiger, C.A.; Gutierrez, A.P. Ecology of *Heteropsyllacubana* (Homoptera: Psyllidae): psyllid damage, tree phenology, thermal relations, and parasitism in the field. *Environ. Entomol* **2000**, *29*(1), 76-86.
- 21) Mutun, S.; Ceyhan, Z.; Sözen, C. Invasion by the oak lace bug, *Corythucha arcuata* (Say) (Heteroptera: Tingidae), in Turkey. *Turkish J. Zool* **2009**, *33*(3), 263-268.
- 22) Zheng, X.; Zhang, D.; Li, Y. et al. Incompatible and sterile insect techniques combined eliminate mosquitoes. *Nature* **2019**, *572*, 56–61.
- 23) Burks, R. A., Mottern, J. L., Waterworth, R., & Paine, T. D. First report of the Eucalyptus gall wasp, *Ophelimus maskelli* (Hymenoptera: Eulophidae), an invasive pest on Eucalyptus, from the Western Hemisphere. *Zootaxa* **2015**, *3926*(3), 448-450.
- 24) Lombardero, M.J.; Ayres, M.P.; Krivak-Tetley, F.E.; Fitza, K.N.E. Population biology of the European woodwasp, *Sirex noctilio*, in Galicia, Spain. *Bull. Entomol. Res.* **2016**, *106*(05), 569–580.
- 25) Asaro, C.; Chamberlin, L.A. 2015. Outbreak history (1953-2014) of spring defoliators impacting oak-dominated forests in Virginia, with emphasis on gypsy moth (*Lymantria dispar* L.) and fall cankerworm (*Alsophila pometaria* Harris). *Am. Entomol* **2015**, *61*(3), 174-185.

- 26) Kononov, A.; Ustyantsev, K.; Wang, B.; Mastro, V.C.; Fet, V.; Blinov, A.; Baranchikov, Y. Genetic diversity among eight *Dendrolimus* species in Eurasia (Lepidoptera: Lasiocampidae) inferred from mitochondrial COI and COII, and nuclear ITS2 markers. *BMC Genet* **2016**. 17(3), 157.
- 27) Hogg, E.H.; Brandt, J.P.; Kochtubajda, B. Growth and dieback of aspen forests in northwestern Alberta, Canada, in relation to climate and insects. *Canadian J. For. Res* **2002**. 32(5), 823-832.
- 28) McManus, M.; Csóka, G. History and impact of gypsy moth in North America and comparison to the recent outbreaks in Europe. *Acta Silv. Et Lignaria Hungarica* **2007**.3, 47-64.
- 29) Jakubowska, A.; van Oers, M.M.; Cory, J.S.; Ziemnicka, J.; Vlak, J.M. European *Leucoma salicis* NPV is closely related to North American *Orgyia pseudotsugata* MNPV. *J.Invertebr.Pathol* **2005**. 88(2), 100-107.
- 30) Keena, M.A. Survival and development of *Lymantria monacha* (Lepidoptera: Lymantriidae) on North American and introduced Eurasian tree species. *J. Econ. Entomol* **2003**.96(1), 43–52.
- 31) Mancebo, F.; Hilje, L.; Mora, G.A.; Salazar, R. Antifeedant activity of *Quassia amara*(Simaroubaceae) extracts on *Hypsipyla grandella* (Lepidoptera: Pyralidae) larvae. *Crop Protect* **2000**. 19(5), 301–305.
- 32) Volney, W.J.A.; Fleming, R.A. Climate change and impacts of boreal forest insects. *Agri. Ecosys. Environ* **2000**. 82(1-3), 283-294.
- 33) Fellin, D.G.; Dewey, J.E. Western spruce budworm [*Choristoneura occidentalis*, life cycle, range, natural control, damage to coniferous forests in the United States and Canada]. Forest insect and disease leaflet-US Department of Agriculture Forest Service (USA). 1982. No. 53, Rev.
- 34) Volney, W.J.A.; McCullough, D.G. Jack pine budworm population behaviour in north-western Wisconsin. *Canadian J. For. Res* **1994**. 24(3), 502-510.
- 35) Serra, G.; Tore, GBMS.; Casula, S.; Baratti, M. Host plant budburst and male-biased dispersal affect the genetic structure of the green oak leaf roller moth, *Tortrix viridana* (Lepidoptera: Tortricidae). *Biol. J. Linn. Soc* **2019**. 127(1), 56–74.
- 36) Rahim, N.; Chakali, G.; Battisti, A. Egg mortality in the cedar processionary moth, *Thaumetopoea bonjeani* (Lepidoptera: Notodontidae), in an outbreak area of Algeria. *Biocontrol Sci. Technol.* **2016**. 26(6), 849-860.
- 37) Kanat, M.; Alma, M.H.; Sivrikaya, F. Effect of defoliation by *Thaumetopoea pityocampa* (Den. and Schiff.)(Lepidoptera: Thaumetopoeidae) on annual diameter increment of *Pinus brutia* Ten. in Turkey. *Ann. For. Sci* **2005**. 62(1), 91-94.
- 38) Marzano, M.; Ambrose-Oji, B.; Hall, C.; Moseley, D. Pests in the City: Managing public health risks and social values in response to oak processionary moth (*Thaumetopoea processionea*) in the United Kingdom. *Forests* **2020**. 11(2), 199.

Table S2. Major fungal causal agents of forest tree diseases.

Division	Family	Species	Disease(s)	References
Basidiomycota	Physalacriaceae	<i>Armillaria</i> spp.	Broadleaf and conifer trees rot	[1]
	Coleosporiaceae	<i>Chrysomyxa ledicola</i>	Spruce needle rusts	[2]
	Pucciniaceae	<i>Gymnosporangium juniperi-virginianae</i>	Cedar-apple rust	[3]
	Bondarzewiaceae	<i>Heterobasidion irregulare</i> <i>Heterobasidion occidentale</i> <i>Heterobasidion annosum</i>	Conifer root rot	[4, 5]
	Melampsoraceae	<i>Melampsora larici-populina</i> <i>Melampsora allii-populina</i> <i>Melampsora medusae</i>	Poplar rust	[6]
		<i>Melampsora pinitorqua</i>	Pine-twisting rust	[6]
	Ceratobasidiaceae	<i>Rhizoctonia</i> sp.	Conifer root-dieback	[7]

Ascomycota	Xylariaceae	<i>Biscogniauxia mediterranea</i>	Oaks diseases	[8]
	Cryphonectriaceae	<i>Cryphonectria parasitica</i>	Chestnut blight	[6]
	Mycosphaerellaceae	<i>Dothistroma septosporum</i> <i>Dothistroma pini</i>	Pine needle blight	[9]
	Nectriaceae	<i>Fusarium circinatum</i> <i>Fusarium oxysporum</i> ff. spp.	Pine diseases Palm wilt	[10, 11]
	Helotiaceae	<i>Hymenoscyphus fraxineus</i>	Ash die-back	[12]
	Mycosphaerellaceae	<i>Lecanosticta acicola</i>	Pine brown spot needle blight	[13]
	Mycosphaerellaceae	<i>Mycosphaerella pini</i>	Red-band disease of pines	[6]
	Nectriaceae	<i>Neonectria coccinea</i>	Beech bark disease	[14]
	Ophiostomataceae	<i>Ophiostoma ulmi</i> <i>O. novo-ulmi</i>	Dutch elm disease	[15]
	Gnomoniaceae	<i>Ophiognomonia clavignenti-juglandacearum</i>	Butternut canker	[16]

	Botryosphaeriaceae	<i>Phyllosticta</i>	Leaf spots	[17]
	<i>'incertae sedis'</i>	<i>Sphaeropsis sapinea</i>	Pines diseases	[6]
	Plectosphaerellaceae	<i>Verticillium dahliae</i>	Chesnut and Ulmus wilt tree	[18]

Table S3. Major oomycete causal agents of forest tree diseases.

Order	Family	Species	Disease(s)	References
Oomycetes	Peronosporaceae	<i>Phytophthora cinnamomi</i>	Ink disease of Chestnut and oak	[19]
		<i>Phytophthora ramorum</i>	Sudden Oak Death	[29]
	Pythiaceae	<i>Pythium irregulare</i> , <i>Pythium mamillatum</i> , <i>Pythium ultimum</i> var. <i>ultimum</i>	Damping-off of Douglas-fir seedlings	[20]

Table S4. Major bacterial causal agents of forest tree diseases.

Phylum	Family	Species	Disease(s)	References
Proteobacteria	Pectobacteriaceae	<i>Brenneria</i> spp.	Acute oak decline	[21]
	Yersiniaceae	<i>Gibbsiella</i> spp.	Acute oak decline	[21]
	Pectobacteriaceae	<i>Lonsdalea quercina</i> subsp. <i>quercina</i>	Drippy blight of red oaks	[22]
		<i>Lonsdalea quercina</i> subsp. <i>populi</i>	Poplar canker	[23]
	Pseudomonadaceae	<i>Pseudomonas syringae</i> pv. <i>Aesculi</i>	Bleeding canker of chestnut (<i>Aesculus hippocastanum</i>)	[24]
	Yersiniaceae	<i>Rahnella victoriana</i>	Acute oak decline	[25]
	Rhizobiaceae	<i>Rhizobium radiobacter</i>	Crown gall disease of various trees	[26]
		<i>Rhizobium rhizogenes</i>		
Tenericutes	Xanthomonadaceae	<i>Xylella fastidiosa</i>	Olive trees decline	[27]
		<i>Xanthomonas populi</i>	Salix canker	[28]
		Alder yellows (AldY) phytoplasma	Alder yellows	[29]

		<i>Candidatus Phytoplasma fraxini</i>	Ash yellows	[30]
		<i>Candidatus Phytoplasma pini</i>	Pine witches'-broom phytoplasma	[31]

Table S5. Major viral causal agents of forest tree diseases.

Phylum	Family	Species	Disease(s)	References
Kitrinoviricota	Viurgaviridae	Tomato mosaic virus	Brown necrotic lesions on the leaves	[32]
Negarnaviricota	Fimoviridae	European mountain ash associated virus (EMARaV)	Ring spots of European mountain ash	[33]

Table S6. Major parasitic nematodes of forest trees.

Phylum	Family	Species	Disease(s)	References
Nematoda	Parasitaphelenchidae	<i>Bursaphelenchus Xylophilus</i>	Pine wilt disease	[34]
	Meloidogynidae	<i>Meloidogyne</i> spp.	Root deformation	[35]
	Belonolaimidae	<i>Tylenchorhynchus claytoni</i>	Red Pine root damage	[36]
	Pratylenchidae	<i>Pratylenchus brachyurus</i>	Poplar and eucalyptus root lesions	[37]
	Hoplolaimidae	<i>Hoplolaimus galeatus</i>	Pine and oak root system damage	[38]
		<i>Helicotylenchus dihystra</i>	Acacia root damage	[39]
		<i>Rotylenchus pumils</i>	Conifer seedling injury	[40]
	Longidoridae	<i>Xiphinema bakeri</i>	Corky root disease	[41]

References

1. Baumgartner, K.; Coetzee, M.P.A.; Hoffmeister, D. Secrets of the subterranean pathosystem of *Armillaria*. *Mol. Plant Pathol.* **2011**, *12*, 515–534.
2. Crane, P.E. Morphology, taxonomy, and nomenclature of the *Chrysomyxa ledi* complex and related rust fungi on spruce and Ericaceae in North America and Europe. *Canadian J. Bot.* **2001**, *79*(8), 957-982.
3. Mims, C.W. Ultrastructure of teliospore formation in the cedar-apple rust fungus *Gymnosporangium juniperi-virginianae*. *Canadian J. Bot.* **1977**, *55*(17), 2319-2329.
4. Hu, Y.; Elfstrand, M.; Stenlid, J.; Durling, M.B.; Olson, Å. The conifer root rot pathogens *Heterobasidion irregulare* and *Heterobasidion occidentale* employ different strategies to infect Norway spruce. *Sci. Rep.* **2020**, *10*(1), 1-10.
5. Dalman, K.; Olson, Å.; Stenlid, J. Evolutionary history of the conifer root rot fungus *Heterobasidion annosum* sensu lato. *Mol. Ecol.* **2010**, *19*(22), 4979-4993.

6. Desprez-Loustau, M.L.; Robin, C.; Reynaud, G.; Déqué, M.; Badeau, V.; Piou, D. et al. Simulating the effects of a climate-change scenario on the geographical range and activity of forest-pathogenic fungi. *Canadian J. Plant Pathol.* **2007**, *29*(2), 101-120.
7. Hietala A.M.; Sen R. *Rhizoctonia* associated with forest trees. In *Rhizoctonia Species: Taxonomy, Molecular Biology, Ecology, Pathology and Disease Control*. Sneh, B., Jabaji-Hare, S., Neate S., Dijst G. Eds. Springer: Dordrecht. doi :10.1007/978-94-017-2901-7_32
8. Desprez-Loustau, M.L.; Marçais, B.; Nageleisen, L.M.; Piou, D.; Vannini, A. Interactive effects of drought and pathogens in forest trees. *Ann. For. Sci.* **2006**, *63*(6), 597-612.
9. Mullett, M.S.; Adamson, K.; Bragança, H.; Bulgakov, T.S.; Georgieva, M.; Henriques, J. et al. New country and regional records of the pine needle blight pathogens *Lecanosticta acicola*, *Dothistroma septosporum* and *Dothistroma pini*. *For. Pathol.* **2018**, *48*(5), e12440.
10. Wingfield, M. J.; Hammerbacher, A.; Ganley, R.J.; Steenkamp, E.T.; Gordon, T.R.; Wingfield, B.D.; Coutinho, T.A. Pitch canker caused by *Fusarium circinatum*—a growing threat to pine plantations and forests worldwide. *Australas. Plant Pathol.* **2008**, *37*(4), 319-334.
11. Giesbrecht, M.; McCarthy, M.; Elliott, M.L.; Ong, K.L. First report of *Fusarium oxysporum* f. sp. *palmarum* in Texas causing *Fusarium* wilt of *Washingtonia robusta*. *Plant Dis.* **2013**, *97*, 1511.
12. Baral, H.O.; Queloz, V.; Hosoya, T. *Hymenoscyphus fraxineus*, the correct scientific name for the fungus causing ash dieback in Europe. *IMA fungus.* **2014**, *5*(1), 79-80.
13. Mullett, M.S.; Adamson, K.; Bragança, H.; Bulgakov, T.S.; Georgieva, M.; Henriques, J. et al. New country and regional records of the pine needle blight pathogens *Lecanosticta acicola*, *Dothistroma septosporum* and *Dothistroma pini*. *For. Pathol.* **2018**, *48*(5), e12440.
14. Hirooka, Y.; Rossman, A.Y.; Zhuang, W.Y.; Salgado-Salazar, C.; Chaverri, P. Species delimitation for *Neonectria coccinea* group including the causal agents of beech bark disease in Asia, Europe, and North America. *Mycosystema.* **2013**, *32*(3), 485-517.
15. Brasier, C.M.; Kirk, S.A.; Pipe, N.D.; Buck, K.W. Rare interspecific hybrids in natural populations of the Dutch elm disease pathogens *Ophiostoma ulmi* and *O. novo-ulmi*. *Mycol. Res.* **1998**, *102*(1), 45-57.
16. Moore, M.J.; Ostry, M.E. Influence of temperature and humidity on the viability of *Ophiognomonium clavignenti-juglandacearum* conidia. *Plant Dis.* **2015**, *99*(12), 1841-1846.
17. Wikee, S.; Udayanga, D.; Crous, P.W.; Chukeatirote, E.; McKenzie, E.H.; Bahkali, A.H. et al. *Phyllosticta*—an overview of current status of species recognition. *Fungal Divers.* **2011**, *51*(1), 43-61.
18. Xiong, D.; Wang, Y.; Tian, C. Transcriptomic profiles of the smoke tree wilt fungus *Verticillium dahliae* under nutrient starvation stresses. *Mol. Genet. Genom.* **2015**, *290*(5), 1963-1977.
19. Ireland, K.B.; Hüberli, D.; Dell, B.; Smith, I.W.; Rizzo, D.M.; Hardy, G.S.J. Potential susceptibility of Australian native plant species to branch dieback and bole canker diseases caused by *Phytophthora ramorum*. *Plant Pathol.* **2012**, *61*(2), 234-246.
20. Weiland, J.E.; Beck, B.R.; Davis, A. Pathogenicity and virulence of *Pythium* species obtained from forest nursery soils on Douglas-Fir seedlings. *Plant Dis.* **2013**, *97*, 744–748.
21. Denman, S.; Doonan, J.; Ransom-Jones, E.; Broberg, M.; Plummer, S.; Kirk, S. et al. Microbiome and infectivity studies reveal complex poly species tree disease in Acute Oak Decline. *ISME J.* **2018**, *12*(2), 386-399.
22. Sitz, R.A.; Zerillo, M.M.; Snelling, J.; Caballero, J.I.; Alexander, K.; Nash, K.; Tisserat, N.A.; Cranshaw, W.S.; Stewart, J.E. Drippy blight, a disease of red oaks produced from the combined effect of the scale insect, *Allokermes galliformis* and the bacterium *Lonsdalea quercina* subsp. *quercina*. *Arboricultur. Urban For.* **2018**, *44*, 146-153.
23. Li, Y.; He, W.; Ren, F.; Guo, L.; Chang, J.; Cleenwerck, I. et al. A canker disease of *Populus × euramericana* in China caused by *Lonsdalea quercina* subsp. *populi*. *Plant Dis.* **2014**, *98*(3), 368-378.
24. Steele, H.; Laue, B.E.; MacAskill, G.A.; Hendry, S.J.; Green, S. Analysis of the natural infection of European horse chestnut (*Aesculus hippocastanum*) by *Pseudomonas syringae* pv. *aesculi*. *Plant Pathol.* **2010**, *59*(6), 1005-1013.

25. Bakhshi Ganje, M.; Shams-Bakhsh, M.; Mackay, J.; Rahimian, H. Identification and characterization of bacterial strains associated with diseased oak trees in Northern Iran. *For. Pathol.* **2020**, *50*(1), e12571.
26. Hwang, E.E.; Wang, M.B.; Bravo, J.E.; Banta, L.M. Unmasking host and microbial strategies in the *Agrobacterium*-plant defense tango. *Front. Plant Sci.* **2015**, *6*, 200.
27. Fierro, A.; Liccardo, A.; Porcelli, F. A lattice model to manage the vector and the infection of the *Xylella fastidiosa* on olive trees. *Sci. Rep.* **2019**, *9*(1), 1-14.
28. De Kam, M. *Xanthomonas populi* subsp. *salicis*, cause of bacterial canker in *Salix dasyclada*. *European J. For. Pathol.* **1978**, *8*(5-6), 334-337.
29. Holz, S.; Duduk, B.; Büttner, C.; Kube, M. Genetic variability of Alder yellows phytoplasma in *Alnus glutinosa* in its natural Spreewald habitat. *For. Pathol.* **2016**, *46*(1), 11-21.
30. Sinclair, W.A.; Griffiths, H.M. Variation in aggressiveness of ash yellows phytoplasmas. *Plant Dis.* **2000**, *84*(3), 282-288.
31. Schneider, B.; Torres, E.; Martín, M.P.; Schröder, M.; Behnke, H.D.; Seemüller, E. 'Candidatus Phytoplasma pini', a novel taxon from *Pinus silvestris* and *Pinus halepensis*. *Int. J. Sys. Evol. Microbiol.* **2005**, *55*(1), 303-307.
32. King, A.M.; Lefkowitz, E.; Adams, M.J.; Carstens, E.B. Virus taxonomy: ninth report of the International Committee on Taxonomy of Viruses. 2011. (Vol. 9). Elsevier.
33. Elbeaino, T.; Digiaro, M.; Mielke-Ehret, N.; Muehlbach, H.P.; Martelli, G.P. ICTV virus taxonomy profile: Fimoviridae. *J. Gen. Virol.* **2018**, *99*(11), 1478-1479.
34. Futai, K. Pine wood nematode, *Bursaphelenchus xylophilus*. *Ann. Rev. Phytopathol.* **2013**, *51*, 61-83.
35. Jones, J.T.; Haegeman, A.; Danchin, E.G.; Gaur, H.S.; Helder, J.; Jones, M.G. et al. Top 10 plant-parasitic nematodes in molecular plant pathology. *Mol. Plant Pathol.* **2013**, *14*(9), 946-961.
36. Sutherland, J.R.; Adams, R.E. The parasitism of red pine and other forest nursery crops by *Tylenchorhynchus claytoni* Steiner 1. *Nematologica*. **1964**, *10*(4), 637-643.
37. Kavitha, P.G.; Devanand, P.S.; Kumaran, K.; Suresh, K.K. Distribution of plant parasitic nematodes associated with tree crop nurseries. *Intern. J. Plant Anim. Environ. Sci.* **2017**, *7*(1), 94-100.
38. Crow, W.T.; Brammer, A.S. Lance nematode, *Hoplolaimus galeatus* (Cobb, 1913) Thorne, 1935 (Nematoda: Secernentea: Tylenchida: Tylenchoidea: Hoplolaimidae). *EDIS*, 2002. 9.
39. Villenave, C.; Cadet, P. Interactions of *Helicotylenchus dihystera*, *Pratylenchus pseudopratensis*, and *Tylenchorhynchus gladiolatus* on two plants from the Soudano-Sahelian zone of West Africa. *Nematropica*. **1998**, *28*(1), 31-39.
40. Mancini, G.; Moretti, F.; Cotroneo, A. Nematological problems in the production of conifers. *Eur. J. Forest Pathol.* **1981**, *11*, 411-424.
41. Cram, M.M.; Fraedrich, S.W. Nematode damage and management in North American forest nurseries. *Tree Planters' Notes*. **2012**, *55*, 27-35.