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Pathogen name	Country of detection	Host species	References
<i>Allantophomopsiella pseudotsugae</i> (M. Wilson) Crous	Russia	<i>P. sibirica</i> , <i>P. strobus</i> , <i>P. pumila</i>	1
<i>Ascocalyx abietina</i> (Lagerb.) Schläpf.-Bernh.	Poland	<i>P. sylvestris</i>	2
<i>Botryosphaeria</i> Ces. & De Not.	Slovakia	<i>P. sylvestris</i>	3
<i>Botryosphaeria iberica</i> A.J.L. Phillips, J. Luque & A. Alves	Italy	<i>P. nigra</i>	4
<i>Botryosphaeria ribis</i> Grossenb. & Duggar.	Russia	<i>P. nigra</i> , <i>P. pumila</i>	5
<i>Caliciopsis pinea</i> Peck	Italy, France	<i>P. radiata</i> , <i>P. halepensis</i> <i>P. pinaster</i> <i>P. pinea</i> , <i>P. nigra</i> var. <i>austriaca</i>	6, 7, 8, 9, 10
<i>Cenangium abietis</i> (Pers.) Duby	Russia	<i>Pinus</i> spp.	5
<i>Cenangium ferruginosum</i> Fr.	Bulgaria, France, Germany, Italy, Macedonia, Portugal, Slovakia, Spain, Ukraine	<i>Pinus</i> spp., <i>P. nigra</i> , <i>P. halepensis</i> , <i>P. radiata</i> , <i>P. sylvestris</i> , <i>P. mugo</i> , <i>P. strobus</i> , <i>P. peuce</i> , <i>P. pinaster</i> , <i>P. pinea</i>	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22
<i>Cronartium ribicola</i> J.C. Fisch.	Germany, Lithuania, Romania, Slovakia, United Kingdom	<i>P. cembra</i> , <i>P. monticola</i> , <i>P. peuce</i> , <i>P. strobus</i> , <i>P. flexilis</i> , <i>P. lambertiana</i>	3, 23, 24, 25, 26, 27

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<i>Crumenulopsis sororia</i> (P. Karst.) J.W. Groves	France, United Kingdom	<i>P. contorta</i>	28, 29, 30
<i>Cyclaneusma minus</i> (Butin) DiCosmo, Peredo & Minter	Bulgaria, Germany, Italy, Lithuania, Portugal, Romania, Russia, Spain, United Kingdom	<i>P. sylvestris</i> , <i>P. uncinata</i> , <i>P. mugo</i> , <i>P. radiata</i> , <i>P. pinaster</i> , <i>Pinus</i> spp.	5, 7, 8, 13, 18, 15, 31, 11, 32, 33, 34, 35, 26
<i>Cyclaneusma niveum</i> (Pers.) DiCosmo, Peredo & Minter	Bulgaria, Slovakia, Spain	<i>P. halepensis</i> , <i>P. nigra</i> , <i>P. radiata</i> , <i>P. sylvestris</i> , <i>Pinus</i> spp.	36, 13, 18
<i>Cytospora</i> Ehrenb.	France, Portugal, Spain	<i>P. sylvestris</i> , <i>P. nigra</i> , <i>P. pinaster</i> , <i>P. pinea</i> , <i>P. radiata</i> , <i>P. halepensis</i>	37, 38, 39, 22
<i>Cytospora pinastri</i> Fr.	Romania	<i>P. sylvestris</i>	40
<i>Cytospora pini</i> Desm.	Portugal, Slovakia	<i>P. pinaster</i> , <i>P. griffithii</i>	3, 17
<i>Dasyscyphus pini</i> (Brunch.) G.G. Hahn & Ayers	Russia	<i>Pinus</i> spp.	41

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<i>Diplodia africana</i> Damm & Crous	Italy	<i>P. nigra</i> , <i>P. pinea</i>	4, 42
<i>Diplodia coryli</i> Fuckel	Italy	<i>P. nigra</i>	4
<i>Diplodia cupressi</i> A.J.L. Phillips & A. Alves	Italy	<i>P. nigra</i>	4
<i>Diplodia sapinea</i> (Fr.) Fuckel	Bulgaria, Estonia, France, Greece, Italy, Lithuania, Portugal, Romania, Russia, Slovakia, Spain, Turkey, Ukraine, United Kingdom	<i>Pinus</i> spp., <i>P. nigra</i> , <i>P. halepensis</i> , <i>P. radiata</i> , <i>P. sylvestris</i> , <i>P. leucodermis</i> , <i>P. mugo</i> , <i>P. pinaster</i> , <i>P. pinea</i> , <i>P. pithyusa</i> , <i>P. bungeana</i> , <i>P. uncinata</i> , <i>P. brutia</i> , <i>P. contorta</i> , <i>Pseudotsuga menziesii</i>	3 , 4, 5, 12, 13, 20, 26, 38, 39, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 33, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64
<i>Diplodia scrobiculata</i>	France	<i>Pinus</i> sp.	46
<i>Diplodia seriata</i> De Not.	Italy	<i>P. nigra</i> <i>P. sylvestris</i>	4
<i>Fusarium circinatum</i> Nirenberg & O'Donnell	France, Italy, Portugal, Spain	<i>Pinus</i> spp, <i>P. halepensis</i> , <i>P. pinea</i> , <i>P. radiata</i> , <i>P. pinaster</i>	65, 66, 67, 68, 69, 70, 71
<i>Gremmeniella abietina</i> (Lagerb.) M. Morelet	Bulgaria, Denmark, Estonia, Finland, France, Germany, Italy, Lithuania, Romania, Russia, Spain, Sweden, Turkey, Ukraine, United Kingdom	<i>Pinus</i> spp., <i>P. nigra</i> , <i>P. sylvestris</i> , <i>P. contorta</i> , <i>P. mugo</i> , <i>P. griffithii</i> , <i>P. ponderosa</i> , <i>P. rigida</i> , <i>P. halepensis</i> , <i>P. pinea</i> , <i>P. cembra</i> , <i>P. sibirica</i>	5, 39, 72, 73, 74, 75, 22, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 63, 86

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<i>Helvella calycina</i> Skrede, T.A. Carlsen & T. Schumach.	Germany	<i>P. mugo</i>	87
<i>Lachnellula fuscosanguinea</i> (Rehm) Dennis	Germany	<i>P. mugo, P. cembra</i>	87
<i>Lachnellula occidentalis</i> (G.G. Hahn & Ayers) Dharne	Germany	<i>P. mugo</i>	87
<i>Lachnellula rehmii</i> Ferd. & C.A. Jørg.	Spain	<i>P. radiata, P. pinaster</i>	88
<i>Lachnellula suecica</i> (de Bary ex Fuckel) Nannf.	Germany	<i>P. mugo</i>	87
<i>Leptographium wingfieldii</i> M. Morelet 1988	Israel	<i>P. halepensis, P. brutia</i>	89

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<i>Melampsora populnea</i> (Pers.) P. Karst.	Lithuania, Poland	<i>P. contorta</i> , <i>P. mugo</i> , <i>P. sylvestris</i>	90, 91, 27
<i>Neofusicoccum australe</i> (Slippers, Crous & M.J. Wingf.) Crous, Slippers & A.J.L. Phillips	Italy, Portugal	<i>P. nigra</i> , <i>P. pinaster</i> , <i>P. pinea</i>	4, 55
<i>Neofusicoccum luteum</i> (Pennycook & Samuels) Crous, Slippers & A.J.L. Phillips	Italy, Portugal	<i>P. nigra</i> , <i>P. pinea</i>	4, 55
<i>Neofusicoccum parvum</i> (Pennycook & Samuels) Crous, Slippers & A.J.L. Phillips	Portugal	<i>P. pinea</i>	55
<i>Neofusicoccum vitifusiforme</i> (Van Niekerk & Crous) Crous, Slippers & A.J.L. Phillips 2006	Italy	<i>P. nigra</i>	4

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<i>Pachyramichloridium pini</i> (de Hoog & Rahman) C. Nakash., Videira & Crous	United Kingdom	<i>P. contorta</i>	63, 85
<i>Pesotum</i> J.L. Crane & Schokn.	Switzerland	<i>P. sylvestris</i>	92
<i>Pezicula livida</i> (Berk. & Broome) Rehm	Poland	<i>P. sylvestris</i>	93
<i>Phomopsis occulta</i> Traverso	Poland, Romania	<i>P. nigra, P. sylvestris, Pseudotsuga menziesii</i>	94, 64
<i>Phomopsis</i> Sacc. & Roum.	Poland, Spain	<i>P. nigra, P. sylvestris, P. halepensis</i>	39, 94, 95
<i>Phytophthora cinnamomi</i> Rands	Poland	<i>P. sylvestris</i>	96
<i>Phytophthora plurivora</i> T. Jung & T.I. Burgess	Poland	<i>P. sylvestris</i>	97
<i>Plagiostoma</i> Fuckel	Poland, Spain	<i>P. sylvestris, P. radiata</i>	95, 98
<i>Sarea difformis</i> (Fr.) Fr.	Russia	<i>Pinus</i> spp.	99

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<i>Sarea resinae</i> (Fr.) Kuntze	Poland	<i>P. sylvestris</i>	93
<i>Sydiowia polyspora</i> (Bref. & Tavel) E. Müll.	Italy	<i>P. sylvestris</i>	15
<i>Trichoscyphella fuckelii</i> (Bres. ex Rehm) Svrček	Germany	<i>P. mugo</i>	87
<i>Truncatella hartigii</i> (Tubeuf) Steyaert	Italy, Portugal	<i>P. sylvestris, P. pinea, P. radiata</i>	15, 54

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Table S2: Common pathogens causing cankers on pines in European forest stands

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