

## ESM 1

Basidiomycota taxa identified with ITS1F and ITS4b-21, by sample type. Numbers indicate the number of trees or swabs in which each taxon was found. Sample sizes are listed for each sample type.

<sup>WD</sup> Indicates putative wood decay taxa

\* Indicates data that were originally reported in [14].

GenBank accession number	Taxon	Closest identified taxon with GenBank BLAST (accession number)	% Base pair match	% Query coverage	Inaccessible drilled starts (n = 30)	Accessible drilled starts (n = 30)	RCW swabs (n = 11)	Complete RCW cavities* (n = 36)	RCW cavity starts* (n = 42)	Non-excavated trees* (n = 60)	Total detections
KM103937	<i>Acaromyces ingoldii</i>	<i>Acaromyces ingoldii</i> (NR_073342.1)	100 %	100 %	15	4	0	8	3	0	30
KM103938	<i>Acaromyces</i> sp. 1	<i>Acaromyces ingoldii</i> (NR_073342.1)	98 %	100 %	8	8	0	10	0	0	26
KM104040	<i>Porodaedalea pini</i> SE <sup>WD</sup>	<i>Porodaedalea</i> sp. (JX110039.1)	100 %	100 %	0	2	1	8	13	2	26
KM104130	Exobasidiomycetes sp. 2	Exobasidiomycetidae sp. (DQ682574.1)	100 %	96 %	0	1	5	13	2	0	21
KM103972	<i>Cryptococcus</i> sp. 1	<i>Cryptococcus pinus</i> (NR_111269.1)	99 %	94 %	3	8	0	0	0	0	11
KM103971	<i>Cryptococcus neoformans</i>	<i>Cryptococcus neoformans</i> (KC254022.1)	100 %	100 %	0	0	10	0	0	0	10
KM103967	<i>Coniophora</i> sp. 1 <sup>WD</sup>	<i>Coniophora prasinoidea</i> (GU187519.1)	91 %	100 %	0	0	7	2	0	0	9
KM104041	<i>Postia sericeomollis</i> <sup>WD</sup>	<i>Postia sericeomollis</i> (KC585367.1)	98 %	100 %	0	0	6	2	0	0	8
KM103976	<i>Daedaleopsis confragosa</i> <sup>WD</sup>	<i>Daedaleopsis confragosa</i> (KC176348.1)	99 %	100 %	0	0	7	0	0	0	7
KM104071	<i>Trametes versicolor</i> <sup>WD</sup>	<i>Trametes versicolor</i> (KC176344.1)	99 %	100 %	2	3	1	1	0	0	7
KM104143	Unidentified Basidiomycete 7	<i>Bullera formosana</i> (AB118873.1)	88 %	70 %	1	1	0	4	1	0	7

KM103987	<i>Exidia</i> sp. 1 <sup>WD</sup>	<i>Exidia</i> sp. (DQ241774.1)	100 %	90 %	1	2	2	0	0	0	5
KM104023	<i>Peniophora cinerea</i> <sup>WD</sup>	<i>Peniophora cinerea</i> (GU062269.1)	99 %	98 %	2	0	1	1	0	1	5
KM104061	<i>Stereum complicatum</i> <sup>WD</sup>	<i>Stereum complicatum</i> (KJ140563.1)	99 %	98 %	1	1	2	1	0	0	5
KM104021	<i>Peniophora incarnata</i> <sup>WD</sup>	<i>Peniophora</i> sp. (KC176330.1)	99 %	100 %	0	0	1	1	0	2	4
KM104086	<i>Trichosporon asahii</i>	<i>Trichosporon asahii</i> (AB369919.1)	100 %	99 %	0	0	0	2	1	1	4
KM104030	<i>Phlebia brevispora</i> <sup>WD</sup>	<i>Phlebia brevispora</i> (AB084616.1)	99 %	99 %	0	0	0	3	0	0	3
KM104033	<i>Pisolithus tinctorius</i>	<i>Pisolithus tinctorius</i> (EU718114.1)	99 %	99 %	1	2	0	0	0	0	3
KM104058	<i>Skeletocutis chrysella</i> <sup>WD</sup>	<i>Skeletocutis chrysella</i> (JQ673127.1)	99 %	100 %	0	0	0	1	1	1	3
KM104063	<i>Stereum</i> sp. 4 <sup>WD</sup>	<i>Stereum</i> sp. (JX460856.1)	98 %	100 %	2	0	0	0	1	0	3
KM104120	Tremellales sp. 12	<i>Cryptococcus</i> sp. (EF363148.1)	82 %	96 %	1	2	0	0	0	0	3
KM103955	<i>Athelia arachnoidea</i> <sup>WD</sup>	<i>Athelia arachnoidea</i> (GU187504.1)	99 %	100 %	0	0	0	1	0	1	2
KM103956	Atheliaceae sp. 1 <sup>WD</sup>	<i>Amphinema</i> sp. 7 (JN943925.1)	96 %	100 %	0	1	1	0	0	0	2
KM104112	<i>Bjerkandera adusta</i> <sup>WD</sup>	<i>Bjerkandera adusta</i> (KC176334.1)	99 %	100 %	1	0	1	0	0	0	2
KM103973	<i>Cryptococcus</i> sp. 2	<i>Cryptococcus gattii</i> (JN939462.1)	93 %	100 %	0	1	0	0	0	1	2
KM103999	<i>Heterobasidion irregulare</i> <sup>WD</sup>	<i>Heterobasidion irregulare</i> (KC492935.1)	100 %	100 %	1	0	1	0	0	0	2
KM104002	<i>Irpex lacteus</i> <sup>WD</sup>	<i>Irpex lacteus</i> (JX290578.1)	99 %	100 %	0	0	1	0	0	1	2
KM104036	<i>Peniophora</i> sp. 4 <sup>WD</sup>	Polyporales sp. (EF672293.1)	99 %	100 %	0	0	0	1	1	0	2
KM104032	<i>Phlebia tremellosa</i> <sup>WD</sup>	<i>Phlebia tremellosa</i> (AB811854.1)	99 %	100 %	2	0	0	0	0	0	2
KM104122	Polyporales sp. 8 <sup>WD</sup>	<i>Daedaleopsis confragosa</i>	82 %	89 %	0	0	2	0	0	0	2

(KJ140587.1)											
KM104055	<i>Serpula himantioides</i> <sup>WD</sup>	<i>Serpula himantioides</i> (GU187545.1)	99 %	100 %	0	0	1	1	0	0	2
KM104059	<i>Skeletocutis odora</i> <sup>WD</sup>	<i>Skeletocutis odora</i> (FJ903307.1)	100 %	98 %	1	0	0	0	0	1	2
KM104073	<i>Tremella encephala</i>	<i>Tremella encephala</i> (EU673083.1)	99 %	100 %	1	1	0	0	0	0	2
KM104113	Tremellales sp. 11	<i>Cryptococcus</i> sp. (AY518273.1)	93 %	90 %	1	1	0	0	0	0	2
KM104132	Unidentified Basidiomycete 45	<i>Cryptococcus</i> sp. (GU997163.1)	88 %	48 %	0	2	0	0	0	0	2
KM104152	<i>Vacellum pratense</i>	<i>Vacellum pratense</i> (DQ112554.1)	99 %	95 %	1	0	1	0	0	0	2
KM103939	Agaricomycetes sp. 1 <sup>WD</sup>	Polyporales sp. (EF694649.1)	99 %	97 %	0	0	0	0	1	0	1
KM103941	Agaricomycetes sp. 11 <sup>WD</sup>	<i>Grifola sordulenta</i> (GU222266.1)	90 %	100 %	0	0	0	1	0	0	1
KM104131	Agaricomycetes sp. 17 <sup>WD</sup>	<i>Amyloathelia crassiuscula</i> (DQ144610.1)	82 %	91 %	0	0	0	0	1	0	1
KM104137	Agaricomycetes sp. 18 <sup>WD</sup>	Agaricomycetes sp. 20KY06 (JX270560.1)	99 %	100 %	0	1	0	0	0	0	1
KM103945	Agaricomycetes sp. 3	<i>Entomocorticium</i> sp. (DQ118417.1)	97 %	97%	0	0	0	1	0	0	1
KM103957	Atheliaceae sp. 2 <sup>WD</sup>	<i>Athelia</i> sp. (GU187502.1)	96 %	97 %	0	0	0	1	0	0	1
KM103947	Atheliales sp. 3 <sup>WD</sup>	<i>Amphinema</i> sp. 5 (JN943909.1)	86 %	97 %	0	1	0	0	0	0	1
KM103943	Boletales sp. 1	<i>Boletus pulcherrimus</i> (EU669376.1)	88 %	84 %	1	0	0	0	0	0	1
KM103960	<i>Calvatia</i> sp. 1	<i>Calvatia fragilis</i> (AJ617493.1)	99 %	100 %	0	0	0	0	0	1	1
KM103966	<i>Collybia subnuda</i> <sup>WD</sup>	<i>Collybia subnuda</i> (U43780.1)	99 %	100 %	0	0	0	0	0	1	1
KM103968	<i>Coprinellus</i> sp. 1 <sup>WD</sup>	<i>Coprinellus radians</i> (AY461815.1)	99 %	100 %	0	0	0	1	0	0	1
KM104035	<i>Crustoderma</i> sp. 1 <sup>WD</sup>	<i>Crustoderma corneum</i> (KC585319.1)	93 %	100 %	0	0	0	0	1	0	1

KM103988	Cryptobasidiaceae sp. 1	<i>Clinoconidium</i> sp. (AB245088.1)	93 %	92 %	0	0	1	0	0	0	1
KM103974	<i>Cryptococcus</i> sp. 5	<i>Cryptococcus</i> sp. (HQ890370.1)	99 %	100 %	0	0	1	0	0	0	1
KM103942	Entolomataceae sp. 1	<i>Entoloma</i> sp. (JX029939.1)	96 %	100 %	1	0	0	0	0	0	1
KM103986	<i>Exidia glandulosa</i> <sup>WD</sup>	<i>Exidia glandulosa</i> (AY509555.1)	98 %	100 %	0	1	0	0	0	0	1
KM103989	<i>Fibroporia radiculosa</i> <sup>WD</sup>	<i>Fibroporia radiculosa</i> (KC585339.1)	100 %	100 %	0	0	1	0	0	0	1
KM103990	<i>Fibulorhizoctonia</i> sp. 1	<i>Fibulorhizoctonia</i> sp. (AY854062.1)	92 %	100 %	1	0	0	0	0	0	1
KM103994	<i>Ganoderma</i> sp. 1 <sup>WD</sup>	<i>Ganoderma meredithae</i> (JQ520191.1)	99 %	96 %	0	1	0	0	0	0	1
KM103996	<i>Gymnopilus</i> sp. 1 <sup>WD</sup>	<i>Gymnopilus</i> sp. (AY281019.1)	95 %	100 %	1	0	0	0	0	0	1
KM103997	<i>Gymnopus spongiosus</i> <sup>WD</sup>	<i>Gymnopus spongiosus</i> (AF505784.1)	99 %	96 %	0	1	0	0	0	0	1
KM104000	<i>Hyphoderma setigerum</i> <sup>WD</sup>	<i>Hyphoderma setigerum</i> (KJ140750.1)	99 %	100 %	0	0	1	0	0	0	1
KM103969	<i>Hyphodontia</i> sp. 1 <sup>WD</sup>	<i>Hyphodontia</i> sp. (DQ340319.1)	99 %	95 %	0	0	0	1	0	0	1
KM103970	<i>Hypochnicium</i> sp. 1 <sup>WD</sup>	<i>Hypochnicium punctulatum</i> (AF429412.1)	92 %	90 %	0	0	0	1	0	0	1
KM104008	<i>Mycena clavicularis</i> <sup>WD</sup>	<i>Mycena clavicularis</i> (JF908466.1)	99 %	100 %	0	0	1	0	0	0	1
KM103963	<i>Mycocacia fuscoatra</i> <sup>WD</sup>	<i>Mycocacia fuscoatra</i> (KJ140744.1)	99 %	99 %	0	0	0	0	0	1	1
KM104009	<i>Neolentinus lepideus</i> <sup>WD</sup>	<i>Neolentinus lepideus</i> (AB615456.1)	98 %	98 %	1	0	0	0	0	0	1
KM104010	Outerspace Basidio 1	<i>Exobasidium symploci-japonicae</i> (AB180351.1)	95 %	31 %	0	0	0	1	0	0	1
KM104011	Outerspace Basidio 2	<i>Tremella polyporina</i> (JN053501.1)	88 %	56 %	0	0	1	0	0	0	1
KM104012	<i>Oxyporus</i>	<i>Oxyporus populinus</i>	99 %	99 %	1	0	0	0	0	0	1

	<i>populinus</i> <sup>WD</sup>	(KJ140633.1)									
KM104022	<i>Peniophora</i> sp. 1 <sup>WD</sup>	<i>Peniophora pini</i> (EU118651.1)	97 %	100 %	0	1	0	0	0	0	1
KM104047	<i>Peniophora</i> sp. 5 <sup>WD</sup>	<i>Peniophora</i> sp. (JN198493.1)	98 %	95 %	0	0	0	1	0	0	1
KM104031	<i>Phlebia radiata</i> <sup>WD</sup>	<i>Phlebia radiata</i> (KF156332.1)	99 %	100 %	0	1	0	0	0	0	1
KM104037	<i>Phlebiella</i> sp. 1 <sup>WD</sup>	<i>Phlebiella christiansenii</i> (EU118659.1)	92 %	98 %	0	1	0	0	0	0	1
KM104129	Polyporales sp. 9 <sup>WD</sup>	<i>Trametes versicolor</i> (JN164975.1)	85 %	83 %	0	0	0	1	0	0	1
KM104039	<i>Polyporus squamosus</i> <sup>WD</sup>	<i>Polyporus squamosus</i> (AF516589.1)	100 %	100 %	0	0	0	0	0	1	1
KM104054	<i>Schizophyllum commune</i> <sup>WD</sup>	<i>Schizophyllum commune</i> (JN882337.1)	99 %	99 %	0	0	0	0	0	1	1
KM104083	<i>Schizopora</i> sp. 1 <sup>WD</sup>	<i>Schizopora</i> sp. (JQ673190.1)	99 %	100 %	0	0	0	0	0	1	1
KM104144	Septobasidiaceae sp. 1	<i>Septobasidium ramorum</i> (DQ241450.1)	87 %	83 %	0	0	1	0	0	0	1
KM104056	<i>Sistotrema brinkmannii</i> <sup>WD</sup>	<i>Sistotrema brinkmannii</i> (DQ899094.1)	99 %	100 %	1	0	0	0	0	0	1
KM104139	<i>Sistotremastrum</i> sp. 2 <sup>WD</sup>	<i>Sistotremastrum</i> sp. (KJ140723.1)	92 %	98 %	0	0	0	0	1	0	1
KM104057	<i>Skeletocutis</i> sp. 10 <sup>WD</sup>	<i>Skeletocutis diluta</i> (JF692198.1)	99 %	95 %	0	0	1	0	0	0	1
KM103948	Stereaceae sp. 1 <sup>WD</sup>	<i>Acanthophysium lividocaeruleum</i> (AY618666.1)	94 %	96 %	0	0	0	1	0	0	1
KM104060	<i>Stereum sanguinolentum</i> <sup>WD</sup>	<i>Stereum sanguinolentum</i> (KF996533.1)	98 %	100 %	0	1	0	0	0	0	1
KM103944	Strophariaceae sp. 1	<i>Psilocybe</i> sp. (AB968235.1)	92 %	100 %	0	1	0	0	0	0	1
KM104066	<i>Thelephora terrestris</i>	<i>Thelephora terrestris</i> (JQ711777.1)	98 %	100 %	0	0	1	0	0	0	1

KM104069	<i>Trametes conchifer</i> <sup>WD</sup>	<i>Trametes conchifer</i> (JN164988.1)	99 %	100 %	0	1	0	0	0	0	1
KM104070	<i>Trametes cubensis</i> <sup>WD</sup>	<i>Trametes cubensis</i> (JN164922.1)	100 %	100 %	0	0	1	0	0	0	1
KM104072	<i>Trechispora</i> sp. 1	<i>Trechispora alnicola</i> (DQ411529.1)	92 %	99 %	0	0	0	1	0	0	1
KM104074	<i>Tremella</i> sp. 1	<i>Tremella phaeophysciae</i> (JN053479.1)	93 %	98 %	0	0	1	0	0	0	1
KM104075	Tremellales sp. 1	<i>Cryptococcus bromeliarum</i> (EU386359.1)	99 %	85 %	0	1	0	0	0	0	1
KM104076	Tremellales sp. 10	<i>Cryptococcus</i> sp. (EF363146.1)	88 %	96 %	0	0	1	0	0	0	1
KM104078	Tremellales sp. 6	<i>Hannaella</i> sp. (JQ753983.1)	99 %	94 %	0	0	0	1	0	0	1
KM104079	Tremellales sp. 7	<i>Bullera psuedoalba</i> (NR_073231.1)	100 %	98 %	0	0	0	1	0	0	1
KM104080	Tremellales sp. 8	<i>Tremella foliacea</i> (AF444431.1)	94 %	98 %	0	0	0	1	0	0	1
KM104082	<i>Trichaptum abietinum</i> <sup>WD</sup>	<i>Trichaptum abietinum</i> (U63475.1)	98 %	100 %	0	0	0	0	1	0	1
KM104081	<i>Trichaptum birforme</i> <sup>WD</sup>	<i>Trichaptum birforme</i> (U63473.1)	99 %	100 %	0	0	0	0	0	1	1
KM104142	<i>Typhula</i> sp. 1	<i>Typhula</i> sp. (AF193390.1)	99 %	98 %	0	0	1	0	0	0	1
KM104116	Unidentified Basidiomycete 15 <sup>WD</sup>	<i>Brevicellicium exile</i> (HE963779.1)	91 %	41 %	1	0	0	0	0	0	1
KM104117	Unidentified Basidiomycete 17 <sup>WD</sup>	<i>Athelia bombacina</i> (U85795.1)	87 %	98 %	0	0	0	0	1	0	1
KM104119	Unidentified Basidiomycete 19	<i>Meira geulakonigii</i> (NR_073343.1)	93 %	42 %	0	0	0	1	0	0	1
KM104127	Unidentified Basidiomycete 33	<i>Acaromyces ingoldii</i> (NR_073342.1)	94 %	75 %	0	0	0	1	0	0	1
KM104133	Unidentified Basidiomycete 46 <sup>WD</sup>	<i>Sidera vulgaris</i> (FN907918.1)	87 %	46 %	0	0	0	0	0	1	1
KM104134	Unidentified Basidiomycete 48 <sup>WD</sup>	<i>Stereum</i> sp. (EU009970.1)	98 %	66 %	1	0	0	0	0	0	1
KM104135	Unidentified	<i>Botryobasidium</i>	90 %	54 %	0	0	0	1	0	0	1

	Basidiomycete 49 <sup>WD</sup>	<i>botryosum</i> (DQ267124.1)									
KM104140	Unidentified Basidiomycete 57	Tremellales sp. (EF060778.1)	91 %	50 %	0	0	1	0	0	0	1
KM104141	Unidentified Basidiomycete 58 <sup>WD</sup>	<i>Coniophora</i> <i>prasinoides</i> (GU187519.1)	90 %	69 %	0	0	1	0	0	0	1
KM104147	Unidentified Basidiomycete 63 <sup>WD</sup>	<i>Dendrophora</i> <i>albobadia</i> (AF119522.1)	99 %	91 %	0	1	0	0	0	0	1
KM104145	Unidentified Basidiomycete 9 <sup>WD</sup>	<i>Dichostereum</i> <i>granulosum</i> (KJ010078.1)	92 %	95 %	1	0	0	0	0	0	1
KM104154	<i>Xeromphalina</i> <i>campanella</i> <sup>WD</sup>	<i>Xeromphalina</i> <i>campanella</i> (HQ604741.1)	98 %	100 %	0	0	0	1	0	0	1