Table S1. Fungal identity determined by best BLAST match (%) to genus/species using ITS sequence or RPB2 for *Didymellaceae* and *Fusarium* species. Relative abundance recorded for each genus/species as the number of buckthorn trees from which the genus/species was isolated.

Fungal Taxa	Coverage	Best Blast Match	Relative abundance	Accession # ITS	Accession # RPB2
Ascomycota					
Nothophoma quercina	100.00%	99.61%	25	PV073893	PV247568
Clonostachys sp.	100.00%	100.00%	21	PV073845	
Diaporthe fibrosa	99.00%	99.82%	16	PV073852	
Fusarium acuminatum	100.00%	100.00%	16	PV073864	PV247564
Alternaria sp.	100.00%	100.00%	15	PV073835	
Veronaea japonica	100.00%	97.73%	9	PV073913	
Phaeoacremonium scolyti	100.00%	99.17%	8	PV073899	
Cladosporium sp.	100.00%	100.00%	6	PV073844	
Karstenula rhodostoma	100.00%	99.21%	6	PV073876	
Diplodia seriata	100.00%	100.00%	5	PV073856	
Nectria cinnabarina	100.00%	100.00%	5	PV073888	
Phaeoacremonium iranianum.	99.00%	99.65%	5	PV073898	
Diaporthe eres	100.00%	100.00%	4	PV073851	
Epicoccum sp.	100.00%	99.81%	4	PV073859	
Exophiala sp.	99.00%	95.25%	4	PV073863	
Lithohypha catenulata	96.00%	97.87%	4	PV073881	
Phaeoacremonium sp.	100.00%	95.49%	4	PV073900	
Beauveria sp.	100.00%	100.00%	3	PV073837	
Neocucurbitaria rhamni	100.00%	100.00%	3	PV073890	
Phaeoacremonium hungaricum	99.00%	100.00%	3	PV073897	
Clypeosphaeria sp.	99.00%	92.98%	2	PV073846	
Cytospora pruinosa	100.00%	97.47%	2	PV073850	
Fusarium avenaceum	100.00%	100.00%	2	PV073865	PV247565
Gonatophragmium epilobii	100.00%	100.00%	2	PV073868	
Neocosmospora petroliphila	100%	98%	2	PV073878	PV247567
Phaeobotryon negundinis	100.00%	100.00%	2	PV073901	
Prosthemium sp.	100.00%	96.94%	2	PV073903	
Trichomerium flexuosum	95.00%	98.59%	2	PV073912	
Xylaria polymorpha	100.00%	100.00%	2	PV073915	
Aplosporella ginkgonis	100.00%	99.82%	1	PV073836	
Cadophora ferruginea	97.00%	98.97%	1	PV073838	
Cadophora melinii	99.00%	99.64%	1	PV073839	
Camarosporomyces flavigenus	100.00%	98.20%	1	PV073841	

Cladophialophora sp.	100.00%	96.96%	1	PV073843	
Corniculantispora psalliotae	100.00%	100.00%	1	PV073847	
Didymella segeticola	100.00%	99.42%	1	PV073853	PV247563
Diplodia corticola	100.00%	99.82%	1	PV073854	
Diplodia sapinea	100.00%	100.00%	1	PV073855	
Dothiorella americana	94.00%	99.79%	1	PV073858	
Dothiorella gregaria	99.00%	99.81%	1	PV073857	
Eutypella sp.	100.00%	95.65%	1	PV073861	
Exophiala asiatica	99.00%	99.69%	1	PV073862	
Fusarium sambucinum	100.00%	99.81%	1	PV073866	PV247566
Hormodochis aggregata	100.00%	99.86%	1	PV073870	
Jattaea sp.	98.00%	94.80%	1	PV073875	
Keithomyces carneus	100.00%	99.84%	1	PV073877	
Lasionectriella herbicola	100.00%	97.64%	1	PV073879	
Leptodontidium camptobactrum	98.00%	99.63%	1	PV073880	
Marquandomyces marquandii	100.00%	100.00%	1	PV073882	
Metapochonia bulbillosa	100.00%	99.50%	1	PV073884	
Metapochonia suchlasporia	100.00%	99.83%	1	PV073885	
Microcera larvarum	100.00%	97.17%	1	PV073886	
Mycoleptodiscus terrestris	100.00%	99.66%	1	PV073887	
Neoroussoella solani	100.00%	100.00%	1	PV073891	
Neosetophoma rosigena	100.00%	99.58%	1	PV073892	
Paraconiothyrium brasiliense	100.00%	100.00%	1	PV073894	
Pestalotiopsis jesteri	100.00%	97.28%	1	PV073896	
Pseudocamarosporium sp.	98.00%	89.09%	1	PV073904	
Pseudocosmospora rogersonii	100.00%	100.00%	1	PV073905	
Ramularia robusta	100.00%	100.00%	1	PV073906	
Rhinocladiella sp.	100.00%	92.52%	1	PV073907	
Sporothrix inflata	100.00%	98.69%	1	PV073908	
Talaromyces funiculosus	100.00%	99.61%	1	PV073909	
Thyridium oculorum	99.00%	99.35%	1	PV073910	
Thyronectria chrysogramma	100.00%	99.11%	1	PV073911	
Veronaea sp.	99.00%	93.00%	1	PV073914	
Basidiomycota					
Irpex lacteus	100.00%	100.00%	10	PV073873	
Peniophora cinerea	100.00%	99.33%	3	PV073895	
Candolleomyces candolleanus	100.00%	99.05%	2	PV073842	
Cylindrobasidium evolvens	100.00%	100.00%	2	PV073848	
Lachnella alboviolascens	100.00%	99.71%	2	PV073878	
Calocera sp.	99.00%	86.81%	1	PV073840	

Cylindrobasidium torrendii	100.00%	99.43%	1	PV073849	
Erythricium sp.	78.00%	85.00%	1	PV073860	
Ganoderma sp.	100.00%	99.83%	1	PV073867	
Heteroacanthella acanthophysa	99.00%	98.93%	1	PV073869	
Hymenochaete sp.	94.00%	96.90%	1	PV073871	
Hyphodermella rosae	100.00%	99.82%	1	PV073872	
Irpex latemarginatus	99.00%	98.77%	1	PV073874	
Merulius tremellosus	100.00%	99.85%	1	PV073883	
Phanerochaete livescens	100.00%	99.82%	1	PV073902	
Xylobolus frustulatus	99.00%	99.07%	1	PV073916	