Table S2. 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					
Pezicula frangulae subsp. frangulae	100.00%	99.55%	8	PV073946	
Alternaria sp.	100.00%	100.00%	5	PV073917	
Clonostachys sp.	100.00%	99.62%	4	PV073920	
Epicoccum sp.	100.00%	100.00%	4	PV073929	
Fusarium paeoniae	95.00%	99.71%	4	PV073934	PV247573
Cladosporium sp.	100.00%	99.79%	3	PV073919	
Fusarium lateritium	100.00%	99.81%	3	PV073933	PV221095
Paraconiothyrium brasiliense	100.00%	99.61%	3	PV073943	
Phaeoacremonium fraxinopennsylvanicum	100.00%	100.00%	3	PV073947	
Metapochonia bulbillosa	99.00%	100.00%	2	PV073938	
Mollisia albogrisea	100.00%	99.65%	2	PV073939	
Neocucurbitaria rhamni	100.00%	100.00%	2	PV073941	
Nothophoma quercina	100.00%	100.00%	2	PV073942	PV247575
Beauveria sp.	100.00%	99.82%	1	PV073918	
Colletotrichum fioriniae	100.00%	99.56%	1	PV073921	
Cosmospora berkeleyana	99.00%	100.00%	1	PV073922	
Daldinia childiae	100.00%	99.82%	1	PV073924	
Diaporthe eres	100.00%	99.82%	1	PV073925	
Didymella glomerata	100.00%	99.60%	1	PV073926	PV247569
Diplodia corticola	100.00%	98.50%	1	PV073927	
Diplodia seriata	100.00%	100.00%	1	PV073928	
Exophiala sp.	99.00%	91.97%	1	PV073954	
Fusarium brachygibbosum	100.00%	99.81%	1	PV073930	PV247570
Fusarium graminearum	100.00%	100.00%	1	PV073931	PV247571
Fusarium juglandicola	100.00%	100.00%	1	PV073932	PV247572
Jattaea sp.	97.00%	96.92%	1	PV073935	
Karstenula rhodostoma	100.00%	99.79%	1	PV073936	
Leptodontidium camptobactrum	100.00%	100.00%	1	PV073937	
Neocosmospora quercicola	97.00%	99.25%	1	PV073940	PV247574
Pestalotiopsis neglecta	100.00%	99.43%	1	PV073945	
Phaeoacremonium hungaricum	100.00%	100.00%	1	PV073948	
Phialocephala helenae	97.00%	98.89%	1	PV073949	

Phragmocamarosporium qujingensis	100.00%	99.00%	1	PV073951	
Rhinocladiella quercus	100.00%	99.36%	1	PV073952	
Talaromyces amestolkiae	100.00%	99.82%	1	PV073953	
Basidiomycota					
Phlebia acerina	100.00%	100.00%	2	PV073950	
Cylindrobasidium torrendii	100.00%	99.46%	1	PV073923	
Peniophora albobadia	100.00%	98.83%	1	PV073944	