

Supplementary Table S1. DNA accession numbers of *Bionectriaceae* taxa used in the phylogenetic analyses in this study.

Taxon	GenBank accession number		
	ITS	<i>rpb2</i>	<i>tef1</i>
<i>Acremonium sclerotigenum</i>	-	KC998999	KC998988
<i>Clonostachys buxi</i>	KM231840	KM232416	-
<i>Clonostachys rosea</i>	AF210686	DQ522415	AY489611
<i>Emericellopsis alkalina</i>	KC987171	KC999029	KC998993
<i>Emericellopsis maritima</i>	KC987175	KC999033	KC998997
<i>Emericellopsis minima</i>	AY632660	KC999031	KC998996
<i>Emericellopsis pallida</i>	AY632667	KC999034	KC998998
<i>Flammocладиella decora</i>	MF611693	-	-
<i>Geosmithia langdonii</i>	KF808298	HG799928	HG799879
<i>Geosmithia microcorthyli</i>	MT955334	FM986794	-
<i>Geosmithia pallida</i>	AJ578486	HG799930	HG799871
<i>Geosmithia putterillii</i>	AJ628350	HG799907	HG799853
<i>Gliomastix murorum</i>	AB540540	FJ238363	-
<i>Heleococcum aurantiacum</i>	MH855645	JX158463	JX158397
<i>Heleococcum japonense</i>	JX158420	JX158464	JX158398
<i>Hydropisphaera erubescens</i>	MH864904	AY545731	DQ522344
<i>Hydropisphaera peziza</i>	MH858575	DQ522444	AY489625
<i>Hypocreales</i> sp.	GU017489	-	-
<i>Ijuhya dentifera</i>	KY607540	-	-
<i>Lasionectria lecanodes</i>	MH393446	-	-
<i>Lasionectria mantuana</i>	HM484858	-	-
<i>Myrothecium inundatum</i>	AY254152	-	-
<i>Nectria cinnabarina</i>	AF163025	JQ014125	AF543785
<i>Nectriella atrorubra</i>	MH863298	-	-
<i>Nectriopsis sporangiicola</i>	AF210661	-	-
<i>Ochronectria calami</i>	-	EF692515	AY489612
<i>Ochronectria thailandica</i>	KU564071	-	-
<i>Peethambara sundara</i>	KU846470	KU846508	-
<i>Protocreopsis freycinetiae</i>	MH861003	-	-
<i>Roumegueriella rufula</i>	-	EF469116	EF469070
<i>Stachybotrys chartarum</i>	KU846684	AY489642	AY489609
<i>Stromatonectria caraganae</i>	MH863716	HQ112290	HQ112286
<i>Stilbocrea colubrensis</i>	MN497406	-	-
<i>Stilbocrea gracilipes</i>	MN497407	-	-
<i>Stilbocrea macrostoma</i>	MN497404	EF692520	AY489620
<i>Stilbocrea walteri</i>	MH562717	MH577042	MH562714
<i>Striatibotrys oleronensis</i>	KF777192	-	-
<i>Striatibotrys yuccae</i>	KU846770	-	-
<i>Trichonectria rectipila</i>	MH862058	-	-
<i>Thyronectria rhodochlora</i>	KJ570701	KJ570751	KJ570768
<i>Valsonectria pulchella</i>	KR014357	-	-
<i>Valsonectria simpsonii</i>	MH862742	-	-

Supplementary Table S2. Base pair (bp) differences across ITS, *tef1*, and *rpb2* sequences showing the inter- and intraspecific variation of *Stilbocrea banihashemiana* sp. nov., and other related species, including *S. walteri* and *S. macrostoma*.

Region	Alignment length (bp)	Differences <i>S. banihashemiana</i> / <i>S. walteri</i> (bp)	Differences <i>S. banihashemiana</i> / <i>S. macrostoma</i> (bp)	Differences within <i>S. banihashemiana</i> (bp)
ITS	538	15	87	0-6
<i>tef1</i>	1287	82	59	0-2
<i>rpb2</i>	994	55	50	0-1
Total	2819	152	196	9