

Supplementary Table S1 Sequence information of the viruses used in phylogenetic trees and multiple alignments.

Virus information used for phylogenetic tree and RdRp multiple sequence alignment						
Virus name	Abbreviation	Accession number	Host	Family	Genus	
Atlantic salmon calicivirus	ASCV	NC_024031	vertebrates	<i>Caliciviridae</i>	<i>Salivirus</i>	
Calicivirus	CCV	HQ010042	vertebrates	<i>Caliciviridae</i>	<i>Bavovirus</i>	
Calicivirus	CV-AB90	NC_012699	vertebrates	<i>Caliciviridae</i>	<i>Valovirus</i>	
Calicivirus strain NB	N1V	NC_004064	vertebrates	<i>Caliciviridae</i>	<i>Nebovirus</i>	
Fathead minnow calicivirus	FMCV	NC_035675	vertebrates	<i>Caliciviridae</i>	<i>Minovirus</i>	
Norovirus GI	NV	NC_001959	vertebrates	<i>Caliciviridae</i>	<i>Norovirus</i>	
Rabbit hemorrhagic disease virus	RHDV	NC_001543	vertebrates	<i>Caliciviridae</i>	<i>Lagovirus</i>	
Sapovirus	SV	NC_006269	vertebrates	<i>Caliciviridae</i>	<i>Sapovirus</i>	
Tulane virus	TV	EU391643	vertebrates	<i>Caliciviridae</i>	<i>Recovirus</i>	
Turkey calicivirus	TCV	JQ347522	vertebrates	<i>Caliciviridae</i>	<i>Nacovirus</i>	
Vesicular exanthema of swine virus	VESV	NC_002551	vertebrates	<i>Caliciviridae</i>	<i>Vesivirus</i>	
Acute bee paralysis virus	ABPV	NC_002548	invertebrates	<i>Dicistroviridae</i>	<i>Aparavirus</i>	
Cricket paralysis virus	CrPV	NC_003924	invertebrates	<i>Dicistroviridae</i>	<i>Cripavirus</i>	
Triatoma virus	TrV	NC_003783	invertebrates	<i>Dicistroviridae</i>	<i>Triatovirus</i>	
Infectious flacherie virus	IFV	NC_003781	invertebrates	<i>Iflaviridae</i>	<i>Iflavirus</i>	
Asterionellopsis glacialis RNA virus	AglaRNAV	NC_024489	algae	<i>Marnaviridae</i>	<i>Kusarnavirus</i>	
Aurantiochytrium single-stranded RNA virus 01	ASSRNAV01	NC_007522	algae	<i>Marnaviridae</i>	<i>Labymavirus</i>	
Chaetoceros tenuissimus RNA virus type-II	CtenRNAVII	NC_025889	algae	<i>Marnaviridae</i>	<i>Sogarnavirus</i>	
Heterosigma akashiwo RNA virus	HaRNAV	NC_005281	algae	<i>Marnaviridae</i>	<i>Marnavirus</i>	
Marine RNA virus BC-4	BC-4	MH171300	marine (S)	<i>Marnaviridae</i>	<i>Salishamavirus</i>	
Marine RNA virus JP-B	JP-B	NC_009758	marine (S)	<i>Marnaviridae</i>	<i>Locarnavirus</i>	
Rhizosolenia setigera RNA virus 01	RsRNAV01	NC_018613	algae	<i>Marnaviridae</i>	<i>Bacillamavirus</i>	
Bluegill picornavirus	BGPV	NC_018506	vertebrates	<i>Picornaviridae</i>	<i>Limnipivirus</i>	
Bovine picornavirus	BoPV	NC_026249	vertebrates	<i>Picornaviridae</i>	<i>Bopivirus</i>	
Canine picodistovirus	CaPd	NC_021178	vertebrates	<i>Picornaviridae</i>	<i>Dicpivirus</i>	
Chicken orivirus 1	ChOV	NC_025432	vertebrates	<i>Picornaviridae</i>	<i>Orivirus</i>	
Crohivirus B	BCrV	NC_033819	vertebrates	<i>Picornaviridae</i>	<i>Crohivirus</i>	
Duck aalivirus 1	DAV	NC_023985	vertebrates	<i>Picornaviridae</i>	<i>Aalivirus</i>	
Duck hepatitis A virus 1	DHAV	NC_008250	vertebrates	<i>Picornaviridae</i>	<i>Avihepatovirus</i>	
Eel picornavirus 1	EPV	NC_022332	vertebrates	<i>Picornaviridae</i>	<i>Potampivirus</i>	
Enterovirus C	PV-1	NC_002058	vertebrates	<i>Picornaviridae</i>	<i>Enterovirus</i>	
Falcovirus A1	FaV	NC_026921	vertebrates	<i>Picornaviridae</i>	<i>Harkavirus</i>	
Foot-and-mouth disease virus - type O	FMDV-O	NC_039210	vertebrates	<i>Picornaviridae</i>	<i>Aphthovirus</i>	
Hepatovirus A	HAV	NC_001489	vertebrates	<i>Picornaviridae</i>	<i>Hepatovirus</i>	
Human parechovirus 1	HPeV	NC_038319	vertebrates	<i>Picornaviridae</i>	<i>Parechovirus</i>	
Porcine sapelovirus 1	PSV	NC_003987	vertebrates	<i>Picornaviridae</i>	<i>Sapelovirus</i>	
Seal picornavirus type 1	SPV	NC_009891	vertebrates	<i>Picornaviridae</i>	<i>Aquamavirus</i>	
Senecavirus A	SVV	NC_011349	vertebrates	<i>Picornaviridae</i>	<i>Senecavirus</i>	
Shanbavirus A	BShV	NC_038961	vertebrates	<i>Picornaviridae</i>	<i>Shanbavirus</i>	
Tortoise picornavirus	ToPV	NC_025890	vertebrates	<i>Picornaviridae</i>	<i>Torchivirus</i>	
Tremovirus A	AEV	NC_003990	vertebrates	<i>Picornaviridae</i>	<i>Tremovirus</i>	
Turkey avisivirus	AsV-A	NC_038304	vertebrates	<i>Picornaviridae</i>	<i>Avisivirus</i>	
Turkey gallivirus	GV-A	NC_018400	vertebrates	<i>Picornaviridae</i>	<i>Gallivirus</i>	
Chironomus riparius	ChriV1	KA182589	invertebrates	<i>Polycipiviridae</i>	<i>Chipolycivirus</i>	
Hubei picorna-like virus 81	HpIV81	NC_033152	invertebrates	<i>Polycipiviridae</i>	<i>Hupolycivirus</i>	
Solenopsis invicta virus 2	SINV2	NC_039236	invertebrates	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	
Broad bean wilt virus 1	BBWV1	NC_005289	plants	<i>Secoviridae</i>	<i>Fabavirus</i>	
Cherry rasp leaf virus	CRLV	NC_006271	plants	<i>Secoviridae</i>	<i>Cheravirus</i>	
Cowpea mosaic virus	CPMV	NC_003549	plants	<i>Secoviridae</i>	<i>Cemovirus</i>	
Parsnip yellow fleck virus	PYFV	NC_003628	plants	<i>Secoviridae</i>	<i>Sequivirus</i>	
Rice tungro spherical virus	RTSV	NC_001632	plants	<i>Secoviridae</i>	<i>Walkavirus</i>	
Satsuma dwarf virus	SDV	NC_003785	plants	<i>Secoviridae</i>	<i>Sadwavirus</i>	
Tobacco ringspot virus	TRSV	NC_005097	plants	<i>Secoviridae</i>	<i>Nepovirus</i>	
Tomato torrado virus	ToTV	NC_009013	plants	<i>Secoviridae</i>	<i>Torradovirus</i>	
Aspergillus foetidus slow virus 2	AFV-S2	HE588148	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Aspergillus homomorphus yadokarivirus 1	AhoYV1	MK279487	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Fusarium poae mycovirus 2	FpMyV2	NC_030870	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Penicillium aurantiogriseum foetidus-like virus	PaFIV1	NC_028468	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Penicillium digitatum yadokarivirus 1	PdYV1	MK279488	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Picoa juniperi yado-kari virus 1	PjYV1	MT876192	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Plasmopara viticola lesion associated yadokari virus 1	PvLaYkV1	MN551121	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Rhizoctonia solani mycovirus 1	RsMV-1	KX349063	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
SsYkV1	SsYkV1	MZ867703	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Yado-kari virus 1	RnYkV1	NC_040360	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Yado-kari virus 2	RnYkV2	LC333755	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Yado-kari virus 3	RnYkV3	LC333757	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Yado-kari virus 4	RnYkV4	LC333741	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Virus information used for 2A-like motif multiple sequence alignment						
SsYkV1	SsYkV1	MZ867703	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Fusarium poae mycovirus 2	FpMyV2	NC_030870	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Yado-kari virus 2	RnYkV2	LC333755	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Yado-kari virus 3	RnYkV3	LC333757	fungi	<i>Yadokariviridae</i>	<i>Alphayadokarivirus</i>	
Aspergillus foetidus slow virus 2	AFV-S2	HE588148	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Penicillium aurantiogriseum foetidus-like virus	PaFIV1	NC_028468	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Aspergillus homomorphus yadokarivirus 1	AhoYV1	MK279487	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Yado-kari virus 1	RnYkV1	NC_040360	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Penicillium digitatum yadokarivirus 1	PdYV1	MK279488	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Rhizoctonia solani mycovirus 1	RsMV-1	KX349063	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Picoa juniperi yado-kari virus 1	PjYV1	MT876192	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Plasmopara viticola lesion associated yadokari virus 1	PvLaYkV1	MN551121	fungi	<i>Yadokariviridae</i>	<i>Betayadokarivirus</i>	
Foot-and-mouth disease virus - type O	FMDV-O	NC_039210	vertebrates	<i>Picornaviridae</i>	<i>Aphthovirus</i>	
Equine rhinitis A virus	ERAV	L43052	vertebrates	<i>Picornaviridae</i>	<i>Aphthovirus</i>	
Ectropis obliqua picorna-like virus	EoPV(2A1)	AY341824	invertebrates	<i>Iflaviridae</i>	<i>Iflavirus</i>	
Ectropis obliqua picorna-like virus	EoPV(2A2)	AY341824	invertebrates	<i>Iflaviridae</i>	<i>Iflavirus</i>	

Virus name	Abbreviation	Accession number	Host	Family	Genus
Cricket paralysis virus	CrPV	NC_003924	invertebrates	Dicistroviridae	<i>Cripavirus</i>
Providence virus	PrV(2A1)	GU991616	invertebrates	Carmotetraviridae	<i>Alphacarmotetravirus</i>
Providence virus	PrV(2A2)	GU991616	invertebrates	Carmotetraviridae	<i>Alphacarmotetravirus</i>
Dendrolimus punctatus cypovirus 1	DpCPV1	AY185594	invertebrates	Reoviridae	<i>Cypovirus</i>
Lymantria dispar cypovirus 1	LdCPV1	AF389466	invertebrates	Reoviridae	<i>Cypovirus</i>
Bombyx mori cypovirus 1	BmCPV1	AF433660	invertebrates	Reoviridae	<i>Cypovirus</i>
Penaeid shrimp infectious myonecrosis virus	IMNV(2A1)	EF061744	invertebrates	Totiviridae	
Penaeid shrimp infectious myonecrosis virus	IMNV(2A2)	EF061744	invertebrates	Totiviridae	
Armigeres subalbatus virus SaX06-AK20	AsTV	ACH85915	invertebrates	Totiviridae	

Supplementary Table S3 The *S. sclerotiorum* strains and their related mycoviruses were used in this study.

Strain	Virulence	SsYkV1	SsBV3	SsBV1	SsDFV1	SsDFV3	SsReV1
SCH941	weak	✓	✓	✓	✓	✓	✓
SCH941R6	strong	✓	✓	✓	✓	✓	-
SCH941R115	strong	✓	✓	✓	-	-	-
AT3, AT4, AT5, AT6	strong	✓	✓	-	-	-	-
PT18, PT19	strong	-	✓	-	-	-	-
SCH941R117	strong	-	-	-	-	-	✓
SCH941A1, SCH941A1 ^{hyg}	strong	-	-	-	-	-	-

Note: The symbol "✓" indicates that the virus was detected in the strain, the symbol "-" indicates that the virus was not detected in the strain.

Supplementary Table S4 List of primers used in this study.

The primers for detection of six mycoviruses in strain SCH941		
Primer Name	Primer Sequence(5'-3')	Product size (bp)
SsYkV1-F	GACATTGATCAAGCGACGGC	837
SsYkV1-R	TGCATATGCGAATTTGCCCG	
SsBV1-S1-F	AGAGTCCTTCCACGCTGTTG	863
SsBV1-S1-R	TGCGCTCTACCTCCTTACCT	
SsBV1-S2-F	TGACCTCCGGTATTGCCAAC	770
SsBV1-S2-R	GTCGCGAAGAGACTCGTAGG	
SsBV3-S1-F	ACCTAAAGGTGCTGACGAGC	692
SsBV3-S1-R	TCATGCCAAAAGGCACGTTG	
SsBV3-S2-F	CGCTTATGGCAAAGATGGGC	915
SsBV3-S2-R	GCTGCGCGTTATGTAGTTGG	
SsReV1-S2-F	TGCCATTGAGTCCGTTTCGC	649
SsReV1-S2-R	CGTTTGGACGGCAGTTGAATG	
SsDFV1-F	GCTGGAGGTTCCGCTTTCT	538
SsDFV1-R	CGATACTTTGCTGTAGGGTCTTC	
SsDFV3-F	CACGCCAACTAAACAGGACG	484
SsDFV3-R	GCACATGACGAGCAAGGGTAT	

The primers for detection of SsYkV1 circular genome		
Primer Name	Primer	Product size (bp)
SsYkV1-circular-F	TGTCACCAGCGTCCAGAAGT	1029
SsYkV1-circular-R	TCGTCCTGTTTCCAGTCCGT	
SsYkV1-linear-F	TCACCGCCAAGAAGAAGCA	430
SsYkV1-linear-R	AAGGGGTCAGTAGCCGAATT	

The primers for confirmation viral linear and circular genome of SsYkV1		
Primer Name	Primer Sequence(5'-3')	Product size (bp)
SsYkV1-qCF	GAACCAAGTGTTAATTGATAG	203
SsYkV1-qCR	TTACCGTCTAACCATAACC	
SsYkV1-qLF	CTCTACATAAGCGATTAC	142
SsYkV1-qLR	CTAACTCTCTGGATACTT	
Ss-Actin-qF	GCTTGGAGAAGTCATACG	144
Ss-Actin-qR	TGATGGAGTTGAAGGTAGT	
Ss-Actin-F	CTGGAAGATTGACTGGCGGTTTG	419
Ss-Actin-R	AGCACCAGAGGAGCACCCAGTTT	