

## Supplemental tables

**Table S1. Detection primers used in this study.**

Virus name	Primer name	Gene sequence	Amplified gene length(bp)
AMV	AMV-F	CCGCTTGGTATGGTTATCTTATC	468
	AMV-R	ATTATCCACACGCAAGGGCACTCAA	
PVCaV1	RNA1-FT	AGGAGATTTCCATGTCAAGTAGGTGT	468
	RNA1-RT	ATTAAACTGGCCTGCAATCGTAGC	
	RNA2-FT	TCCCTCTAAACATCACGCCTGG	518
	RNA2-RT	GTACGTGACAGTGCCAATTCGTT	
PVCV1	PVCV1-F	GCTTAACTCAGGATTAGTACAATCTAT	517
	PVCV1-R	GTGATGACTATTGCTTAAGGCAT	
PVCV2	PVCV2-F	CAAGCAGATTACAGATTTGGTTGTTACG	2195
	PVCV2-R	TATCGTTGCTGTGGTAGTTTAACTGC	
Contig-PVF	20685-F	TGGATGACAGCCACTTTCTTAGGATC	510
V- 20685	20685-R	TCAATCCAAAACCTTCCAAATCAAAAA	

**Table S2. Specific primers used to amplify DNA/RNA sequences of viral contigs in this study.**

Virus name	Primer name	Gene sequence	Amplified gene length(bp)
<i>(Fabavirus)</i>			
PVCaV1	RNA1-1F	GTGGTGTGATTCAAAGCGCACAA	1529
	RNA1-1R	AATCGCGGCAGTTTGTAGTTCTTT	
	RNA1-2F	GTCTAACCACCGGGGTTTCAGTG	1450
	RNA1-2R	CCGAATGTTACGGAATACATAATCAG	
	RNA1-3F	CTCTGTGGAATTTGGGAACTGGAC	1481
	RNA1-3R	CAGAAACTTCCTCCTAACAACCAAGT	
	RNA1-4F	CCCAAGACACGATTATTTTCTGTGC	1535

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	RNA1-4R	ATACACACTGGACTTTAATCAGTCCTT	
	RNA2-1F	CATCGTGCAGCGTTCTGGAAT	1457
	RNA2-1R	TGTTTAGAGGGATGTTTGCACGAACA	
	RNA2-2F	CAGGGTCAAGCTTTAATGGAAGAGGAT	1783
	RNA2-2R	CAACAGACGTGACCTTGTCAGCT	
<b>(Caulimovirus)</b>			
PVCV1	1-1-F	TGGTATCAGAGCCATGGAAAGAG	4000
	1-1-R	ACAGTTGTTGGATCTATGAGCTTAATG	
	1-2-F	GTTTAGAGAGGGGGAGATTGGAGTT	3949
	1-2-R	GGTTTTTAGAAACGCCTGAGGCTT	
PVCV2	2-1-F	TGGTATCAGAGCATGTTTCGCTGATC	4300
	2-1-R	TATTAGGGAGGTTGTGACCATCACC	
	2-2-F	AGAAATACTTGAAGTGGACAAGGTTT	4276
	2-2-R	AAGTGGGGCCAAGCTTACG	
<b>(Fijivirus)</b>			
Contig-PVfV-	20685-F1	CTAAAAAGCATGTAAGATGGATGAC	983
20685	20685-R1	ATCCTGAGATTGGTTTCGTACCATG	
	20685-F2	AGGATCAGTTTCAGTTCTTGAAGAGGG	1514
	20685-R2	CCGAAACATCCATTGATCTCCCG	
	20685-F3	AGCGGTTTCATGCAGCTAAAGTT	2081
	20685-R3	CTACGGAACATTATAAATACCTAAATTA	
Contig-PVfV-	5043-F1	GAAGACCAAACCACTCAACCAGT	934
5043	5043-R1	CTTCAGTTACTTGACGTCCTACCCT	
	5043-F2	CTGAGGATGAAGCTTTTAGGGTAGG	1331
	5043-R2	TGCCTGACCCAATAAATTCCGTTG	
	5043-F3	CCACAAAATCAACGGAATTTATTGGG	1480
	5043-R3	GTTCTGAAACCTACTCGCGC	
Contig-PVfV-	3081-F1	GTAAACTTAGGAAGTTTCCAATTATAC	1290
3081	3081-R1	TTTGAACGATATCATATGTCTCGAC	

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	3081-F2	ATATTTGCGTGCTAGGTTTAAACAAT	1305
	3081-R2	ATATCCCTATGACCAAATTTAAACATC	
	3081-F3	AACATCTTGCAGTCAATTCAACA	1321
	3081-R3	TATAGGTTGTTCCCCTTAAAGTCCTG	
Contig-PVfV-	8459-F1	CCATCTTCGATTGATCCGGC	2028
8459	8459-R1	GGTCCCAATTTTCACTCTGCCT	
	8459-F2	GGTCAAATTGGTGATTCAGATG	2099
	8459-R2	GTCATATCATCCTGAGAAGGGTT	
Contig-PVfV-	36481-F1	CTCTCATTAATAAATTAAGTGGGTAAG	1212
36481	36481-R1	ACTCAACAGAACAGAAATTTGTTG	
	36481-F2	GTTGTTTCGATCAAGTTATGCTAAGA	1856
	36481-R2	GTGACCGGTCATGTCCTCGT	
Contig-PVfV-	2375-F1	CGTGGACGAAAAGAACCGAT	1992
2375	2375-R1	CCGTGAACATATCTCCATACCATGAA	
Contig-PVfV-	7856-F1	TCTGACATGTCTAGCTCGAATACAG	1805
7856	7856-R1	CGGAATACAGAATTAAACTGCACAGG	
	7856-F2	GTGTGGACTTGATTCTGGATTACC	1215
	7856-R2	TTTAAATCTTATTTTGGCGGGGCCTT	
Contig-PVfV-	33929-F	CCTCCTTGAGAACTCATAGCGGA	1631
33929	33929-R	CCCACCACCTCGCTTACAAAG	
Contig-PVfV-	25766-F	CTACGATGGATCTTACAACAGTTCAAG	2028
25766	25766-R	GTGCTTATCAACACGGGATTCTGAAT	

**Table S3. Specific primers used to amplify the full-length genomes of the three novel viruses**

Virus name	Primer name	Gene sequence
PVCaV1	RNA1-5'GSP-681	ATGCAAAAGTGTTGGTGCACGCACCATG
	RNA1-3'GSP-5324	GCAATTGATGGCGAACGTGTACGCTGCG
	RNA2-5'GSP-559	CCGTGGTCTCTGGGAGAATACTGTG

	RNA2-3'GSP-2796	ACACTCTCCCGTGACGCGGATT
PVCV1	1-F1	CAGGAAGAAGGCAATAATCTAG
	1-R1	AAGTGCATCTTCTCTTTTGTG
	1-F2	GGGTAAGCGGTAAACATAAAT
	1-R2	AAATTTGGACTGTCAGAGCCA
PVCV2	2-F1	AAGGGCGTATCTTGTAAGTCTGTTG
	2-R1	ACAAACACATAGCAGAGAGAAG
	2-F2	TGCGAACAAGTAAGTTCTTGG
	2-R2	AGAACCATCCAACACTACAAGGA

**Table S4. Viruses used to analyze the amino acid identity and construct phylogenetic trees of PVCaV1**

Virus name	Abbreviation	Family	Accession No.
Broad bean wilt virus 1	BBWV1	<i>Fabavirus</i>	AB084450 & AB084451
Broad bean wilt virus 2	BBWV2	<i>Fabavirus</i>	AF225953 & AF225954
Cucurbit mild mosaic virus	CuMMV	<i>Fabavirus</i>	EU881936 & EU881937
Peach leaf pitting-associated virus	PLPaV	<i>Fabavirus</i>	MK460243 & MK460244
Gentian mosaic virus	GeMV	<i>Fabavirus</i>	AB084452 & AB084453
Grapevine fabavirus	GFabV	<i>Fabavirus</i>	KX241482 & KX241485
Lamium mild mosaic virus	LMMV	<i>Fabavirus</i>	KC595304 & KC595305
Prunus virus F	PrVF	<i>Fabavirus</i>	KX192389 & KX192393
Cowpea mosaic virus	CPMV	<i>Comovirus</i>	X00206 & X00729
Bean pod mottle virus	BPMV	<i>Comovirus</i>	U70866 & M62738
Cherry rasp leaf virus	CRLV	<i>Cheravirus</i>	AJ621357 & AJ621358
Strawberry mottle virus	SMoV	<i>Sadwavirus</i>	AJ311875 & AJ311876
Lettuce star mosaic virus	LSMV	<i>Sequivirus</i>	MT348706

Beet ringspot virus	BRSV	<i>Nepovirus</i>	D00322 & X04062
Cherry leaf roll virus	CLRV	<i>Nepovirus</i>	FR851461 & FR851462
Strawberry latent ringspot virus	SLRSV	<i>Stralarivirus</i>	AY860978 & AY860979
Motherwort yellow mottle virus	MYMoV	<i>Torradovirus</i>	KM229700 & KM229701
Oat mosaic virus	OMV	<i>Bymovirus</i>	NC_004016.1

**Table S5. Viruses used to analyze the nucleotide and amino acid identity and construct phylogenetic trees of PVCV1 and PVCV2**

Virus Name	Abbreviation	Family	Accession No.
Angelica bushy stunt virus	AnBSV	<i>Caulimovirus</i>	KU508800
Atractylodes mild mottle virus	AMMV	<i>Caulimovirus</i>	ALD49090
Carnation etched ring virus	CERV	<i>Caulimovirus</i>	X04658
Cauliflower mosaic virus	CaMV	<i>Caulimovirus</i>	V00141
Dahlia mosaic virus	DaMV	<i>Caulimovirus</i>	JX272320
Figwort mosaic virus	FMV	<i>Caulimovirus</i>	X06166
Lamium leaf distortion-associated virus	LLDAV	<i>Caulimovirus</i>	EU554423
Horseradish latent virus	HLV	<i>Caulimovirus</i>	JX429923
Mirabilis mosaic virus	MMV	<i>Caulimovirus</i>	AF454635
Soybean putnam virus	SPuV	<i>Caulimovirus</i>	JQ926983
Strawberry vein banding virus	SVBV	<i>Caulimovirus</i>	X97304
Banana streak GF virus	BSGFV	<i>Badnavirus</i>	AY493509
Badnavirus castaneae	ChMV	<i>Badnavirus</i>	MT269853
Commelina yellow mottle virus	CoYMV	<i>Badnavirus</i>	X52938
Epiphyllum virus 4	EpV4	<i>Cavemovirus</i>	MN153807
Sweet potato collusive virus	SPCV	<i>Cavemovirus</i>	HQ694978
Cassava vein mosaic virus	CsVMV	<i>Cavemovirus</i>	U59751
Dioscorea nummularia-associated virus	DNUaV	<i>Dioscavirus</i>	MG944237
Petunia vein clearing virus	PVCV	<i>Petuvirus</i>	U95208
Rose yellow vein virus	RYVV	<i>Rosadnavirus</i>	JX028536
Tobacco vein clearing virus	TVCV	<i>Solendovirus</i>	AF190123
Sweet potato vein clearing virus	SPVCV	<i>Solendovirus</i>	HQ694979

Soybean chlorotic mottle virus	SbCMV	<i>Soymovirus</i>	X15828
Rice tungro bacilliform virus	RTBV	<i>Tungrovirus</i>	X57924
Blueberry fruit drop-associated virus	BFDaV	<i>Vaccinivirus</i>	KT148886

**Table S6. Viruses used to analyze the nucleotide and amino acid identity and construct the phylogenetic tree of PVFV**

Virus name	Family/Genus	Accession No.
Mammalian orthoreovirus 1	<i>Spinareoviridae/Orthoreovirus</i>	KX263307
Mammalian orthoreovirus 3	<i>Spinareoviridae/Orthoreovirus</i>	HM159613
Ndelle virus	<i>Spinareoviridae/Orthoreovirus</i>	AF368033
Avian orthoreovirus	<i>Spinareoviridae/Orthoreovirus</i>	AB914761
Mahlapitsi Orthoreovirus	<i>Spinareoviridae/Orthoreovirus</i>	KU198604
Reptilian orthoreovirus	<i>Spinareoviridae/Orthoreovirus</i>	KT696549
Broome reovirus	<i>Spinareoviridae/Orthoreovirus</i>	GQ258979
Chum salmon reovirus/aquareovirus A	<i>Spinareoviridae/Aquareovirus</i>	AF418295
Golden shiner reovirus/aquareovirus C	<i>Spinareoviridae/Aquareovirus</i>	AF403399
Cryphonectria parasitica mycoreovirus 1	<i>Spinareoviridae/Mycoreovirus</i>	AY277888
Rosellinia necatrix mycoreovirus 3	<i>Spinareoviridae/Mycoreovirus</i>	AB102674
Eyach virus	<i>Spinareoviridae/Coltivirus</i>	AF282467
Colorado tick fever virus	<i>Spinareoviridae/Coltivirus</i>	AF133428
Rice black-streaked dwarf virus	<i>Spinareoviridae/Fijivirus</i>	AJ294757
Maize rough dwarf virus	<i>Spinareoviridae/Fijivirus</i>	KU984966
Southern rice black-streaked dwarf virus	<i>Spinareoviridae/Fijivirus</i>	FN563989
Mal de Rio Cuarto virus	<i>Spinareoviridae/Fijivirus</i>	AF499925
Fiji disease virus	<i>Spinareoviridae/Fijivirus</i>	AY029520
Nilaparvata lugens reovirus	<i>Spinareoviridae/Fijivirus</i>	D49693
Aedes pseudoscutellaris reovirus	<i>Spinareoviridae/Dinovernavirus</i>	DQ087277
Rice ragged stunt virus	<i>Spinareoviridae/Oryzavirus</i>	U66714
Dendrolimus punctatus cypovirus 1	<i>Spinareoviridae/Cypovirus</i>	AY147187
Lymantria dispar cypovirus 14	<i>Spinareoviridae/Cypovirus</i>	AF389452
Tobacco mosaic virus	<i>Virgaviridae/Tobamovirus</i>	V01408.1

**Table S7. Sixteen contig obtained from RNA-seq**

Contig name	Consensus length	Total read count	Average coverage
Contig- AMV-RNA1	3631	406930	16787.99
Contig-AMV-RNA2	2590	101655	5880.81
Contig-AMV-RNA3	2039	184602	13561.07
Contig-PVCaV1-RNA1	5801	230999	5942.10
Contig-PVCaV1-RNA2	3341	447315	19739.84
Contig-PVCoV1	7765	104146	2005.81
Contig-PVCoV2	7887	30954	587.30
Contig-PVCoV-36481	2946	236	11.74
Contig-PVCoV-8459	3430	158	6.44
Contig-PVCoV-3081	3457	204	8.80
Contig-PVCoV-5043	3738	231	9.23
Contig-PVCoV-20685	4356	270	9.14
Contig-PVCoV-25766	2015	241	17.72
Contig-PVCoV-2375	1976	181	13.60
Contig-PVCoV-7856	2936	201	10.19
Contig-PVCoV-33929	1650	116	10.27