

Supplementary material

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Supplementary Table 1. Basic information of each library for sequencing in this study

Library ID	Tick species	City	Gender	Blood-sucking state	Number of individuals	Number of viruses reads	Number of viral contigs
Hebei_001	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	22980	156
Hebei_002	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	93637	152
Hebei_003	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	12496	87
Hebei_004	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	14577	56
Hebei_005	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	47390	403
Hebei_006	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	51906	100
Hebei_007	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	3122	72
Hebei_008	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	15035	130
Hebei_009	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	6838	58
Hebei_010	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	9792	86
Hebei_011	<i>H. concinna</i>	Zhangjiakou	Female	Unfed	13	39057	253
Hebei_012	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	6	20061	141
Hebei_013	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	6	36704	99
Hebei_014	<i>H. concinna</i>	Zhangjiakou	Female	Unfed	12	60808	310
Hebei_015	<i>H. concinna</i>	Zhangjiakou	Male	Unfed	13	77066	400
Hebei_016	<i>H. concinna</i>	Zhangjiakou	Male	Unfed	14	154799	420
Hebei_017	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	107912	78
Hebei_018	<i>D. silvarum</i>	Zhangjiakou	Male	Fed	5	3015	96
Hebei_019	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	1559	75
Hebei_020	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	137713	134
Hebei_021	<i>H. concinna</i>	Zhangjiakou	Female	Unfed	13	47117	433
Hebei_022	<i>H. concinna</i>	Zhangjiakou	Male	Unfed	13	83712	440
Hebei_023	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	85815	83
Hebei_024	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	73400	80
Hebei_025	<i>D. silvarum</i>	Baoding	Female	Unfed	5	3038	67
Hebei_026	<i>H. longicornis</i>	Shijiazhuang	Female	Unfed	17	121755	254
Hebei_027	<i>H. longicornis</i>	Shijiazhuang	Male	Unfed	17	123074	255
Hebei_028	<i>H. longicornis</i>	Shijiazhuang	Male	Unfed	17	274447	163
Hebei_029	<i>H. longicornis</i>	Shijiazhuang	Female	Unfed	17	16637	141
Hebei_030	<i>H. longicornis</i>	Baoding	Female	Unfed	17	6289	273
Hebei_031	<i>H. longicornis</i>	Shijiazhuang	Female	Unfed	17	84794	81
Hebei_032	<i>H. longicornis</i>	Shijiazhuang	Male	Unfed	17	6924	190
Hebei_033	<i>H. longicornis</i>	Baoding	Female	Fed	17	8544	102
Hebei_034	<i>H. longicornis</i>	Baoding	Female	Unfed	17	10191	166
Hebei_035	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	4	6773	112
Hebei_036	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	4	22285	209
Hebei_037	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	3	86899	235
Hebei_038	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	3	3772	106
Hebei_039	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	4	36940	114
Hebei_040	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	81884	91
Hebei_041	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	4	44133	95
Hebei_042	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	4	54258	89
Hebei_043	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	3	15520	176
Hebei_044	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	6	29251	136
Hebei_045	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	38378	163

Hebei_046	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	6	15291	224
Hebei_047	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	3376	174
Hebei_048	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	165461	208
Hebei_049	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	3253	183
Hebei_050	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	5	13713	219
Hebei_051	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	4791	105
Hebei_052	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	4	7056	150
Hebei_053	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	5017	115
Hebei_054	<i>D. silvarum</i>	Zhangjiakou	Male	Unfed	4	14004	301
Hebei_055	<i>H. concinna</i>	Zhangjiakou	Female	Unfed	13	111982	540
Hebei_056	<i>H. concinna</i>	Zhangjiakou	Female	Unfed	13	48432	347
Hebei_057	<i>D. silvarum</i>	Zhangjiakou	Female	Unfed	5	137359	139
Hebei_058	<i>H. longicornis</i>	Handan	Female	Fed	8	28891	634
Hebei_059	<i>H. longicornis</i>	Handan	Male	Unfed	8	5451	124
Hebei_060	<i>H. longicornis</i>	Handan	Female	Unfed	17	653187	226
Hebei_061	<i>H. longicornis</i>	Handan	Female	Unfed	16	144683	116
Hebei_062	<i>H. longicornis</i>	Handan	Female	Unfed	16	26168	230
Hebei_063	<i>H. longicornis</i>	Handan	Male	Unfed	17	29985	275
Hebei_064	<i>H. longicornis</i>	Handan	Male	Unfed	15	113476	165
Hebei_065	<i>H. longicornis</i>	Handan	Male	Unfed	19	49821	130
Hebei_066	<i>H. longicornis</i>	Handan	Female	Unfed	12	10229	156
Hebei_067	<i>H. longicornis</i>	Handan	Female	Unfed	16	250792	353
Hebei_068	<i>H. longicornis</i>	Handan	Male	Unfed	18	28848	274
Hebei_069	<i>H. longicornis</i>	Handan	Male	Unfed	15	35175	138
Hebei_070	<i>H. longicornis</i>	Handan	Female	Unfed	14	5149	150
Hebei_071	<i>H. longicornis</i>	Handan	Female	Unfed	15	47694	280
Hebei_072	<i>H. longicornis</i>	Handan	Male	Unfed	18	7673	101
Hebei_073	<i>H. longicornis</i>	Handan	Female	Unfed	13	9794	99
Hebei_074	<i>H. longicornis</i>	Handan	Female	Unfed	15	31782	115
Hebei_075	<i>H. longicornis</i>	Handan	Female	Unfed	15	7162	127
Hebei_076	<i>H. longicornis</i>	Handan	Male	Unfed	12	49359	247
Hebei_077	<i>H. longicornis</i>	Handan	Female	Unfed	17	8590	250
Hebei_078	<i>H. longicornis</i>	Handan	Female	Unfed	12	164842	342
Hebei_079	<i>H. longicornis</i>	Handan	Male	Unfed	18	106525	155
Hebei_080	<i>H. longicornis</i>	Handan	Male	Unfed	16	266599	293
Hebei_081	<i>H. longicornis</i>	Handan	Male	Unfed	16	114093	111
Hebei_082	<i>H. longicornis</i>	Handan	Male	Unfed	17	64550	229
Hebei_083	<i>H. longicornis</i>	Handan	Male	Unfed	17	69829	144
Hebei_084	<i>H. longicornis</i>	Handan	Male	Unfed	17	8548	122
Hebei_085	<i>H. longicornis</i>	Handan	Female	Unfed	14	6536	244
Hebei_086	<i>H. longicornis</i>	Handan	Male	Unfed	12	14078	80
Hebei_087	<i>H. longicornis</i>	Handan	Female	Fed	13	43386	97
Hebei_088	<i>H. longicornis</i>	Handan	Female	Unfed	13	5641	116
Hebei_089	<i>H. longicornis</i>	Handan	Female	Unfed	14	5803	190
Hebei_090	<i>H. longicornis</i>	Handan	Female	Unfed	15	16039	285
Hebei_091	<i>H. longicornis</i>	Handan	Male	Unfed	20	42022	134
Hebei_092	<i>H. longicornis</i>	Handan	Male	Unfed	20	63663	145
Hebei_093	<i>H. longicornis</i>	Handan	Male	Unfed	20	6424	203
Hebei_094	<i>H. longicornis</i>	Handan	Female	Unfed	13	32845	200
Hebei_095	<i>H. longicornis</i>	Handan	Male	Unfed	13	393752	225

Hebei_096	<i>H. longicornis</i>	Baoding	Female	Unfed	20	52935	112
Hebei_097	<i>H. longicornis</i>	Qinhuangdao	Female	Unfed	15	156399	167
Hebei_098	<i>H. longicornis</i>	Qinhuangdao	Male	Unfed	17	226501	153
Hebei_099	<i>H. longicornis</i>	Baoding	Female	Unfed	17	44304	155
Hebei_100	<i>H. longicornis</i>	Baoding	Male	Unfed	22	115854	201
Hebei_101	<i>H. longicornis</i>	Baoding	Female	Unfed	14	13020	158
Hebei_102	<i>H. longicornis</i>	Baoding	Male	Unfed	21	5522	124
Hebei_103	<i>H. longicornis</i>	Baoding	Female	Unfed	16	5431	143
Hebei_104	<i>H. longicornis</i>	Tangshan	Female	Unfed	15	437672	126
Hebei_105	<i>H. longicornis</i>	Tangshan	Female	Unfed	14	11498	222
Hebei_106	<i>H. longicornis</i>	Baoding	Female	Unfed	17	92848	181
Hebei_107	<i>H. longicornis</i>	Baoding	Male	Unfed	21	22863	134
Hebei_108	<i>H. longicornis</i>	Qinhuangdao	Female	Unfed	16	33967	159
Hebei_109	<i>H. longicornis</i>	Qinhuangdao	Male	Unfed	20	745292	222
Hebei_110	<i>H. longicornis</i>	Baoding	Female	Unfed	16	146372	715
Hebei_111	<i>H. longicornis</i>	Qinhuangdao	Female	Unfed	14	36260	735
Hebei_112	<i>H. longicornis</i>	Qinhuangdao	Male	Unfed	19	138527	171
Tianjin_113	<i>H. longicornis</i>	Jizhou	Female	Unfed	16	3718	165
Tianjin_114	<i>H. longicornis</i>	Jizhou	Male	Unfed	18	524970	229
Hebei_115	<i>H. longicornis</i>	Qinhuangdao	Female	Unfed	15	99667	328
Hebei_116	<i>H. longicornis</i>	Qinhuangdao	Male	Unfed	20	1379317	284
Hebei_117	<i>R. sanguineus</i>	Qinhuangdao	Female	Unfed	6	174941	216
Hebei_118	<i>H. longicornis</i>	Cangzhou	Female	Unfed	14	15896	298
Beijing_119	<i>H. longicornis</i>	Mentougou	Female	Unfed	12	370680	162
Hebei_120	<i>D. silvarum</i>	Cangzhou	Female	Unfed	4	633114	445
Hebei_121	<i>R. sanguineus</i>	Cangzhou	Female	Unfed	5	79734	93
Hebei_122	<i>D. silvarum</i>	Cangzhou	Male	Unfed	5	6150	138
Tianjin_123	<i>H. longicornis</i>	Jizhou	Female	Unfed	14	5556	176
Tianjin_124	<i>H. longicornis</i>	Jizhou	Female	Unfed	16	9159	175
Tianjin_125	<i>H. longicornis</i>	Jizhou	Male	Unfed	19	37991	133
Hebei_126	<i>H. longicornis</i>	Tangshan	Female	Unfed	16	75725	287
Hebei_127	<i>H. longicornis</i>	Tangshan	Male	Unfed	22	1372213	971
Hebei_128	<i>R. sanguineus</i>	Hengshui	Male	Unfed	6	76514	438
Hebei_129	<i>H. longicornis</i>	Hengshui	Female	Unfed	14	121694	242
Hebei_130	<i>D. sinicus</i>	Hengshui	Male	Unfed	3	25041	157
Hebei_131	<i>H. longicornis</i>	Qinhuangdao	Female	Unfed	14	35408	288
Hebei_132	<i>H. longicornis</i>	Qinhuangdao	Male	Unfed	22	259957	202
Hebei_133	<i>H. longicornis</i>	Qinhuangdao	Female	Unfed	17	107036	164
Hebei_134	<i>H. longicornis</i>	Qinhuangdao	Male	Unfed	21	273197	239
Hebei_135	<i>H. longicornis</i>	Qinhuangdao	Female	Unfed	15	76377	235
Hebei_136	<i>H. longicornis</i>	Qinhuangdao	Male	Unfed	22	298772	193
Hebei_137	<i>H. longicornis</i>	Chengde	Female	Unfed	14	119807	239
Hebei_138	<i>H. longicornis</i>	Chengde	Male	Unfed	21	12181	128
Hebei_139	<i>H. longicornis</i>	Handan	Female	Fed	8	13864	154

Supplementary Table 2. The prevalence with 95% CI of viral families among three major tick species

Genome	Order_Family	<i>H.longicornis</i> (n=85)			<i>H.concinna</i> (n=8)			<i>D.silvarum</i> (n=42)		
		Estimated Prevalence (%)	95% Confidence Interval		Estimated Prevalence (%)	95% Confidence Interval		Estimated Prevalence (%)	95% Confidence Interval	
ssRNA(+)	<i>Amarillovirales_Flaviviridae</i>	9.41	4.15	17.71	62.50	24.49	91.48	45.24	29.85	61.33
	<i>Cryppavirales_Mitoviridae</i>	17.65	10.23	27.43	12.50	0.32	52.65	9.52	2.66	22.62
	<i>Durnavirales_Fusariviridae</i>	1.18	0.03	6.38	0.00			0.00		
	<i>Durnavirales_Partitiviridae</i>	3.53	0.73	9.97	12.50	0.32	52.65	0.00		
	<i>Durnavirales_Picobirnaviridae</i>	1.18	0.03	6.38	0.00			0.00		
	<i>Hepelivirales_Alphatetraviridae</i>	1.18	0.03	6.38	0.00			0.00		
	<i>Hepelivirales_Hepeviridae</i>	35.29	25.23	46.41	0.00			0.00		
	<i>Martellivirales_Bromoviridae</i>	1.18	0.03	6.38	0.00			0.00		
	<i>Martellivirales_Virgaviridae</i>	2.35	0.29	8.24	0.00			0.00		
	<i>Nodamuvirales_Sinhaliviridae</i>	0.00			0.00			2.38	0.06	12.57
	<i>Ourlivirales_Botourmiaviridae</i>	50.59	39.52	61.61	87.50	47.35	99.68	9.52	2.66	22.62
	<i>Picornavirales_Caliciviridae</i>	28.24	19.00	39.04	12.50	0.32	52.65	0.00		
	<i>Picornavirales_Dicistroviridae</i>	4.71	1.30	11.61	0.00			7.14	1.50	19.48
	<i>Picornavirales_Iflaviridae</i>	0.00			12.50	0.32	52.65	2.38	0.06	12.57
	<i>Picornavirales_Picornaviridae</i>	38.82	28.44	50.01	62.50	24.49	91.48	0.00		
	<i>Picornavirales_Secoviridae</i>	2.35	0.29	8.24	0.00			0.00		
	<i>Stellavirales_Astroviridae</i>	1.18	0.03	6.38	0.00			0.00		
	<i>Tolivirales_Tombusviridae</i>	1.18	0.03	6.38	0.00			0.00		
	<i>Tymovirales_Deltaflexiviridae</i>	1.18	0.03	6.38	0.00			0.00		

ssRNA(-)	<i>Wolframvirales_Narnaviridae</i>	16.47	9.31	26.09	12.50	0.32	52.65	0.00		
	<i>Articulavirales_Orthomyxoviridae</i>	30.59	21.05	41.53	75.00	34.91	96.81	2.38	0.06	12.57
	<i>Bunyavirales_Arenaviridae</i>	56.47	45.28	67.20	62.50	24.49	91.48	71.43	55.42	84.28
	<i>Bunyavirales_Nairoviridae</i>	100.00	95.75	100.00	100.00	63.06	100.00	52.38	36.42	68.00
	<i>Bunyavirales_Peribunyaviridae</i>	9.41	4.15	17.71	0.00			0.00		
	<i>Bunyavirales_Phenuiviridae</i>	98.82	93.62	99.97	100.00	63.06	100.00	85.71	71.46	94.57
	<i>Bunyavirales_Tospoviridae</i>	1.18	0.03	6.38	0.00			0.00		
	<i>Jingchuvirales_Chuviridae</i>	0.00			0.00			2.38	0.06	12.57
	<i>Mononegavirales_Mymonaviridae</i>	3.53	0.73	9.97	0.00			0.00		
	<i>Mononegavirales_Paramyxoviridae</i>	0.00			62.50	24.49	91.48	0.00		
dsRNA	<i>Mononegavirales_Pneumoviridae</i>	5.88	1.94	13.20	75.00	34.91	96.81	0.00		
	<i>Mononegavirales_Rhabdoviridae</i>	2.35	0.29	8.24	100.00	63.06	100.00	28.57	15.72	44.58
	<i>Ghabrivirales_Totiviridae</i>	65.88	54.80	75.82	100.00	63.06	100.00	95.24	83.84	99.42
	<i>Martellivirales_Endornaviridae</i>	1.18	0.03	6.38	0.00			0.00		
	<i>Reovirales_Sedoreoviridae</i>	0.00			87.50	47.35	99.68	0.00		
ssDNA	<i>Cirlivirales_Circoviridae</i>	0.00			0.00			2.38	0.06	12.57
	<i>Petitvirales_Microviridae</i>	17.65	10.23	27.43	100.00	63.06	100.00	2.38	0.06	12.57
	<i>Piccovirales_Parvoviridae</i>	2.35	0.29	8.24	0.00			2.38	0.06	12.57
	unclassified_Anelloviridae	1.18	0.03	6.38	12.50	0.32	52.65	0.00		
	unclassified_viruses	98.82	93.62	99.97	75.00	34.91	96.81	21.43	10.30	36.81

dsDNA	<i>Algavirales_Phycodnaviridae</i>	1.18	0.03	6.38	0.00				0.00	
	<i>Caudoviricetes_Autographiviridae</i>	8.24	3.38	16.23	0.00				0.00	
	<i>Caudoviricetes_Chaseviridae</i>	91.76	83.77	96.62	0.00				0.00	
	<i>Caudoviricetes_Drexleriviridae</i>	1.18	0.03	6.38	0.00				0.00	
	<i>Caudoviricetes_Herelleviridae</i>	2.35	0.29	8.24	87.50	47.35	99.68	7.14	1.50	19.48
	<i>Caudoviricetes_Kyanoviridae</i>	8.24	3.38	16.23	0.00				0.00	
	<i>Caudoviricetes_Orlajensenviridae</i>	5.88	1.94	13.20	0.00				0.00	
	<i>Caudoviricetes_Rountreeviridae</i>	1.18	0.03	6.38	0.00				4.76	0.58
	<i>Caudoviricetes_Schitoviridae</i>	3.53	0.73	9.97	0.00				0.00	16.16
	<i>Caudoviricetes_Straboviridae</i>	49.41	38.39	60.48	12.50	0.32	52.65	0.00		
	<i>Chitovirales_Poxviridae</i>	1.18	0.03	6.38	75.00	34.91	96.81	0.00		
	<i>Herpesvirales_Alloherpesviridae</i>	0.00			37.50	8.52	75.51	0.00		
	<i>Herpesvirales_Orthoherpesviridae</i>	9.41	4.15	17.71	0.00			2.38	0.06	12.57
	<i>Imitervirales_Mimiviridae</i>	30.59	21.05	41.53	50.00	15.70	84.30	85.71	71.46	94.57
	<i>Imitervirales_Schizomimiviridae</i>	1.18	0.03	6.38	0.00				0.00	
	<i>Lefavirales_Baculoviridae</i>	1.18	0.03	6.38	0.00				0.00	
	<i>Pimascovirales_Ascoviridae</i>	1.18	0.03	6.38	0.00				0.00	
	<i>Pimascovirales_Marseilleviridae</i>	0.00			25.00	3.19	65.09	0.00		
	<i>Tectiliviricetes_Autolykiviridae</i>	1.18	0.03	6.38	0.00				0.00	
	<i>Zurhausenvirales_Papillomaviridae</i>	56.47	45.28	67.20	0.00				0.00	

Supplementary Table 3. Viral sequences of this study deposited in GenBank

Accession no.	Sample ID	Species	Gene	Sequence length (bp)
PQ150543	Hebei_128	<i>Agrostis stolonifera deltaflexivirus 1</i>	complete genome	8359
PQ180936	Hebei_111	<i>Apple ourmia-like virus 1</i>	complete genome	2206
PQ180937	Hebei_128	<i>Apple ourmia-like virus 1</i>	complete genome	2258
PQ180555	Hebei_101	<i>Bandavirus dabieense</i>	complete genome	6353
PQ180556	Hebei_135	<i>Bandavirus dabieense</i>	complete genome	6479
PQ180557	Hebei_101	<i>Bandavirus dabieense</i>	complete genome	3376
PQ180558	Hebei_135	<i>Bandavirus dabieense</i>	complete genome	3448
PQ180559	Hebei_101	<i>Bandavirus dabieense</i>	complete genome	1732
PQ180560	Hebei_135	<i>Bandavirus dabieense</i>	complete genome	1740
PQ150583	Tianjin_125	<i>Beijing Reovi tick virus 1</i>	complete genome	1613
PQ150584	Tianjin_125	<i>Beijing Reovi tick virus 1</i>	complete genome	2009
PQ150585	Tianjin_125	<i>Beijing Reovi tick virus 1</i>	complete genome	4079
PQ150586	Tianjin_125	<i>Beijing Reovi tick virus 1</i>	VP3 protein	1882
PQ150587	Tianjin_125	<i>Beijing Reovi tick virus 1</i>	non-structural protein 1	1675
PQ180926	Beijing_119	<i>Betascleroulivirus betaplasmaparae</i>	complete genome	2145
PQ180927	Hebei_059	<i>Betascleroulivirus betaplasmaparae</i>	complete genome	2147
PQ150497	Hebei_059	<i>Betascleroulivirus etaplasmaparae</i>	complete genome	2316
PQ180928	Hebei_111	<i>Botoulivirus etaplasmaparae</i>	complete genome	2273
PQ180929	Hebei_112	<i>Botoulivirus etaplasmaparae</i>	complete genome	2268
PQ150494	Beijing_119	<i>Botourmiaviridae sp.</i>	complete genome	2397
PQ150529	Hebei_058	<i>Ovine parvovirus</i>	complete genome	5501
PQ150640	Hebei_059	<i>Bremia lactucae associated splipalmivirus 1</i>	complete genome	2267
PQ150641	Hebei_112	<i>Bremia lactucae associated splipalmivirus 1</i>	RdRP	2154
PQ180561	Hebei_117	<i>Brown dog tick phlebovirus 1</i>	complete genome	6555
PQ180562	Hebei_121	<i>Brown dog tick phlebovirus 1</i>	complete genome	6570
PQ180563	Hebei_128	<i>Brown dog tick phlebovirus 1</i>	complete genome	6561

PQ180564	Hebei_117	Brown dog tick phlebovirus 1	complete genome	1535
PQ180565	Hebei_121	Brown dog tick phlebovirus 1	complete genome	1533
PQ180566	Hebei_128	Brown dog tick phlebovirus 1	complete genome	1539
PQ206367	Hebei_121	canine parvovirus	complete genome	4499
PQ180794	Hebei_129	canine parvovirus	complete genome	4749
PQ180567	Hebei_122	Changping Tick Virus 1	complete genome	6625
PQ180568	Hebei_122	Changping Tick Virus 1	complete genome	2167
PQ180569	Hebei_130	Changping Tick Virus 1	complete genome	6704
PQ180570	Hebei_130	Changping Tick Virus 1	complete genome	1486
PQ180882	Hebei_062	Cheeloo luteovirus 1	complete genome	2583
PQ180883	Hebei_072	Cheeloo luteovirus 1	complete genome	2597
PQ180884	Hebei_109	Cheeloo luteovirus 1	complete genome	2627
PQ180885	Tianjin_113	Cheeloo luteovirus 1	complete genome	2597
PQ180886	Tianjin_114	Cheeloo luteovirus 1	complete genome	2583
PQ180887	Hebei_135	Cheeloo luteovirus 1	complete genome	2581
PQ180795	Hebei_028	Cheeloo tick virus 3	complete genome	3342
PQ180796	Hebei_030	Cheeloo tick virus 3	complete genome	3336
PQ180797	Hebei_094	Cheeloo tick virus 3	complete genome	3353
PQ180798	Hebei_096	Cheeloo tick virus 3	complete genome	3354
PQ180799	Hebei_097	Cheeloo tick virus 3	complete genome	3366
PQ180800	Hebei_098	Cheeloo tick virus 3	complete genome	3349
PQ180801	Hebei_100	Cheeloo tick virus 3	complete genome	3372
PQ180802	Hebei_106	Cheeloo tick virus 3	complete genome	3352
PQ180803	Hebei_111	Cheeloo tick virus 3	complete genome	3369
PQ180804	Hebei_112	Cheeloo tick virus 3	complete genome	3354
PQ180805	Hebei_116	Cheeloo tick virus 3	complete genome	3372
PQ180806	Hebei_118	Cheeloo tick virus 3	complete genome	3365
PQ180807	Hebei_131	Cheeloo tick virus 3	complete genome	3349
PQ180808	Hebei_132	Cheeloo tick virus 3	complete genome	3352

PQ180809	Hebei_133	Cheeloo tick virus 3	complete genome	3352
PQ180810	Hebei_134	Cheeloo tick virus 3	complete genome	3355
PQ180813	Hebei_030	Cheeloo tick virus 3	complete genome	1600
PQ180814	Hebei_094	Cheeloo tick virus 3	complete genome	1609
PQ180815	Hebei_096	Cheeloo tick virus 3	complete genome	1612
PQ180816	Hebei_097	Cheeloo tick virus 3	complete genome	1608
PQ180817	Hebei_098	Cheeloo tick virus 3	complete genome	1609
PQ180818	Hebei_100	Cheeloo tick virus 3	complete genome	1609
PQ180819	Hebei_106	Cheeloo tick virus 3	complete genome	1602
PQ180820	Hebei_111	Cheeloo tick virus 3	complete genome	1611
PQ180821	Hebei_112	Cheeloo tick virus 3	complete genome	1611
PQ180822	Hebei_116	Cheeloo tick virus 3	complete genome	1612
PQ180823	Hebei_118	Cheeloo tick virus 3	complete genome	1612
PQ180824	Hebei_131	Cheeloo tick virus 3	complete genome	1609
PQ180825	Hebei_134	Cheeloo tick virus 3	complete genome	1608
PQ180827	Hebei_132	Cheeloo tick virus 3	complete genome	1610
PQ180828	Hebei_133	Cheeloo tick virus 3	complete genome	1611
PQ180811	Tianjin_113	Cheeloo tick virus 3	hypothetical protein 1, hypothetical protein 2	2924
PQ180812	Hebei_136	Cheeloo tick virus 3	hypothetical protein 1, hypothetical protein 2	2877
PQ180826	Hebei_136	Cheeloo tick virus 3	complete genome	1434
PQ180930	Hebei_059	Cladosporium magoulivirus 1	complete genome	2828
PQ180931	Hebei_069	Cladosporium magoulivirus 1	complete genome	2830
PQ180932	Hebei_111	Cladosporium magoulivirus 1	complete genome	2800
PQ180933	Hebei_024	Cladosporium magoulivirus 1	complete genome	2101
PQ150528	Hebei_004	Daqing Iflav tick virus 1	complete genome	9534
PQ180391	Hebei_001	Dermacentor pesti-like virus	complete genome	16505
PQ180392	Hebei_002	Dermacentor pesti-like virus	complete genome	16501

PQ180393	Hebei_003	Dermacentor pesti-like virus	polyprotein	16495
PQ180394	Hebei_005	Dermacentor pesti-like virus	complete genome	16499
PQ180395	Hebei_006	Dermacentor pesti-like virus	complete genome	16502
PQ180396	Hebei_012	Dermacentor pesti-like virus	complete genome	16502
PQ180397	Hebei_013	Dermacentor pesti-like virus	complete genome	16504
PQ180398	Hebei_017	Dermacentor pesti-like virus	complete genome	16525
PQ180399	Hebei_020	Dermacentor pesti-like virus	complete genome	16528
PQ180400	Hebei_023	Dermacentor pesti-like virus	complete genome	16505
PQ180401	Hebei_037	Dermacentor pesti-like virus	complete genome	16502
PQ180402	Hebei_039	Dermacentor pesti-like virus	complete genome	16501
PQ180403	Hebei_040	Dermacentor pesti-like virus	complete genome	16504
PQ180404	Hebei_041	Dermacentor pesti-like virus	complete genome	16500
PQ180405	Hebei_042	Dermacentor pesti-like virus	complete genome	16498
PQ180406	Hebei_044	Dermacentor pesti-like virus	complete genome	16495
PQ180407	Hebei_045	Dermacentor pesti-like virus	complete genome	16496
PQ180408	Hebei_048	Dermacentor pesti-like virus	complete genome	16494
PQ180409	Hebei_057	Dermacentor pesti-like virus	complete genome	16520
PQ150533	Hebei_059	Downy mildew lesion associated splipalmivirus 2	complete genome	2474
PQ150562	Hebei_128	Downy mildew lesion associated splipalmivirus 44	complete genome	1397
PQ150563	Hebei_128	Downy mildew lesion associated splipalmivirus 44	complete genome	2077
PQ180891	Hebei_111	Erysiphe necator associated mitovirus 21	complete genome	2727
PQ180892	Hebei_112	Erysiphe necator associated mitovirus 21	complete genome	2728
PQ180893	Hebei_111	Erysiphe necator associated mitovirus 22	complete genome	2232
PQ180894	Hebei_112	Erysiphe necator associated mitovirus 22	complete genome	2233
PQ180895	Hebei_111	Erysiphe necator associated mitovirus 7	complete genome	2444
PQ180896	Hebei_112	Erysiphe necator associated mitovirus 7	complete genome	2445
PQ180998	Beijing_119	Erysiphe necator associated narnavirus 6	complete genome	2068
PQ180999	Hebei_111	Erysiphe necator associated narnavirus 6	complete genome	2067
PQ181000	Hebei_112	Erysiphe necator associated narnavirus 6	complete genome	2070

PQ181001	Hebei_135	Erysiphe necator associated narnavirus 6	complete genome	2067
PQ181002	Hebei_128	Erysiphe necator associated narnavirus 6	RdRP	1710
PQ150550	Hebei_008	Erysiphe necator associated ourmia-like virus 25	complete genome	2167
PQ150549	Hebei_128	Erysiphe necator associated ourmia-like virus 41	complete genome	1984
PQ150548	Hebei_059	Erysiphe necator associated ourmia-like virus 42	complete genome	2462
PQ150547	Hebei_081	Erysiphe necator associated ourmia-like virus 62	hypothetical protein	2355
PQ150546	Beijing_119	Erysiphe necator associated ourmia-like virus 82	complete genome	2560
PQ150545	Hebei_059	Erysiphe necator associated ourmia-like virus 94	complete genome	2608
PQ150524	Beijing_119	Erysiphe necator associated partitivirus 2	complete genome	1708
PQ150537	Hebei_078	Fusarium andiyazi mitovirus 2	RdRP	1734
PQ180899	Hebei_050	Fusarium asiaticum mitovirus 5	complete genome	2613
PQ180900	Hebei_057	Fusarium asiaticum mitovirus 5	complete genome	2552
PQ180901	Hebei_047	Fusarium asiaticum mitovirus 5	RdRP	1828
PQ180902	Hebei_048	Suillus luteus mitovirus 8	RdRP	1894
PQ180905	Hebei_107	Fusarium mangiferae mitovirus 5	complete genome	2394
PQ180906	Hebei_078	Suillus luteus mitovirus 8	RdRP	1077
PQ180907	Hebei_111	Fusarium mangiferae mitovirus 5	RdRP	1394
PQ180908	Hebei_112	Fusarium mangiferae mitovirus 5	RdRP	1446
PQ180909	Hebei_098	Fusarium oxysporum mitovirus 1	complete genome	2437
PQ180910	Hebei_107	Fusarium oxysporum mitovirus 1	complete genome	2435
PQ180911	Hebei_106	Fusarium oxysporum mitovirus 1	RdRP	1707
PQ150535	Hebei_107	Fusarium proliferatum mymonavirus 1	complete genome	9476
PQ150541	Hebei_048	Fusarium sambucinum mitovirus 5	complete genome	2198
PV157291	Beijing_119	Gammapartitivirus.sp	putative replicase	629
PQ180770	Hebei_011	Guyuan Rhabd tick virus 1	complete genome	11532
PQ180771	Hebei_014	Guyuan Rhabd tick virus 1	complete genome	11463
PQ180772	Hebei_015	Guyuan Rhabd tick virus 1	complete genome	11479
PQ180773	Hebei_016	Guyuan Rhabd tick virus 1	complete genome	11506
PQ180774	Hebei_021	Guyuan Rhabd tick virus 1	complete genome	11479

PQ180775	Hebei_022	Guyuan Rhabd tick virus 1	complete genome	11500
PQ180776	Hebei_055	Guyuan Rhabd tick virus 1	complete genome	11544
PQ180777	Hebei_056	Guyuan Rhabd tick virus 1	complete genome	11542
PQ150530	Hebei_112	Hebei alphayadokarivirus 1	RdRP	2382
PQ150579	Hebei_027	Hebei alternavirus	complete genome	1361
PQ150580	Hebei_027	Hebei alternavirus	complete genome	2393
PQ150581	Hebei_027	Hebei alternavirus	complete genome	2694
PQ150582	Hebei_027	Hebei alternavirus	RdRP	3184
PQ150496	Hebei_008	Hebei betascleroulivirus	complete genome	2090
PQ180996	Hebei_111	Hebei betayadokarivirus	complete genome	3205
PQ180997	Hebei_112	Hebei betayadokarivirus	complete genome	3211
PQ150498	Hebei_135	Hebei birna-like virus 1	RdRP	2510
PQ150495	Hebei_112	Hebei botoulivirus	complete genome	2189
PQ150629	Hebei_030	Hebei botourmia-like virus 1	complete genome	2429
PQ150624	Hebei_111	Hebei botourmia-like virus 10	complete genome	2462
PQ150619	Hebei_112	Hebei botourmia-like virus 11	complete genome	2381
PQ150623	Hebei_111	Hebei botourmia-like virus 11	complete genome	2436
PQ150622	Hebei_111	Hebei botourmia-like virus 12	complete genome	2438
PQ150614	Hebei_055	Hebei botourmia-like virus 12	complete genome	1809
PQ150615	Hebei_128	Hebei botourmia-like virus 13	complete genome	2447
PQ167992	Beijing_119	Hebei botourmia-like virus 14	complete genome	2033
PQ150616	Hebei_121	Hebei botourmia-like virus 15	complete genome	2205
PQ150618	Hebei_129	Hebei botourmia-like virus 15	complete genome	2206
PQ150617	Hebei_133	Hebei botourmia-like virus 16	complete genome	2287
PQ150630	Beijing_119	Hebei botourmia-like virus 2	complete genome	2019
PQ150631	Hebei_015	Hebei botourmia-like virus 3	complete genome	2431
PQ150628	Hebei_059	Hebei botourmia-like virus 4	complete genome	2177
PQ150627	Hebei_095	Hebei botourmia-like virus 5	complete genome	2732
PQ150626	Hebei_110	Hebei botourmia-like virus 6	complete genome	2565

PQ150625	Hebei_110	Hebei botourmia-like virus 7	complete genome	2626
PQ150621	Hebei_112	Hebei botourmia-like virus 8	complete genome	2715
PQ150620	Hebei_112	Hebei botourmia-like virus 9	complete genome	2473
PQ180649	Hebei_120	Hebei bunya-like virus 1	complete genome	5681
PQ180650	Hebei_116	Hebei bunya-like virus 1	complete genome	5681
PQ180651	Hebei_131	Hebei bunya-like virus 1	complete genome	5676
PQ180652	Hebei_132	Hebei bunya-like virus 1	complete genome	5697
PQ150522	Hebei_135	Hebei bunya-like virus 2	complete genome	2708
PQ180540	Hebei_102	Dandong tick virus 1	complete genome	7693
PQ150523	Hebei_128	Hebei Phenui-like virus	complete genome	6625
PQ150636	Hebei_121	Hebei hypo-like virus 1	complete genome	11163
PQ150634	Tianjin_124	Hebei hypo-like virus 2	RdRP	2237
PQ150635	Hebei_111	Hebei hypo-like virus 3	RdRP	6652
PQ150505	Hebei_016	Hebei luteovirus	RdRP	2604
PQ180934	Hebei_111	Hebei magoulivirus	complete genome	2477
PQ180935	Hebei_112	Hebei magoulivirus	complete genome	2482
PQ180903	Hebei_111	Hebei mito-like virus 1	complete genome	2189
PQ180904	Hebei_112	Hebei mito-like virus 1	complete genome	2232
PQ180897	Hebei_111	Hebei mito-like virus 2	complete genome	2298
PQ180898	Hebei_112	Hebei mito-like virus 2	complete genome	2120
PQ150559	Hebei_008	Hebei mito-like virus 3	RdRP	1159
PQ150539	Hebei_069	Hebei mito-like virus 4	complete genome	3050
PQ150556	Hebei_069	Hebei mito-like virus 5	complete genome	1340
PQ180919	Hebei_068	Hebei mito-like virus 6	complete genome	2484
PQ180920	Hebei_111	Hebei mito-like virus 6	complete genome	2482
PQ180921	Hebei_112	Hebei mito-like virus 6	complete genome	2485
PQ180922	Hebei_128	Hebei mito-like virus 6	complete genome	2495
PQ180923	Hebei_077	Hebei mito-like virus 6	RdRP	1713
PQ150561	Hebei_059	Hebei mito-like virus 7	complete genome	2451

PQ150558	Hebei_030	Hebei mito-like virus 8	RdRP	1930
PQ150560	Hebei_069	Hebei mito-like virus 9	complete genome	2264
PQ180765	Hebei_117	Hebei mivirus 1	complete genome	11306
PQ180766	Hebei_121	Hebei mivirus 1	complete genome	11271
PQ180767	Hebei_128	Hebei mivirus 1	complete genome	11315
PQ180768	Hebei_130	Hebei mymona-like virus	complete genome	10286
PQ180769	Hebei_121	Hebei mymona-like virus	complete genome	10300
PQ180987	Hebei_136	Hebei narnavirus 1	RdRP	2976
PQ180988	Hebei_135	Hebei narnavirus 1	complete genome	2983
PQ180989	Hebei_128	Hebei narnavirus 1	complete genome	3051
PQ150569	Hebei_132	Hebei narnavirus 10	complete genome	3350
PQ268477	Hebei_100	Hebei narnavirus 11	RdRP	2351
PQ268478	Hebei_110	Hebei narnavirus 11	RdRP	2370
PQ268458	Hebei_111	Downy mildew lesion associated splipalmivirus 3	RdRP	2177
PQ268456	Hebei_112	Downy mildew lesion associated splipalmivirus 3	RdRP	2436
PQ268457	Hebei_112	Downy mildew lesion associated splipalmivirus 3	complete genome	2127
PQ150564	Hebei_135	Hebei narnavirus 12	RdRP	2194
PQ150570	Hebei_112	Hebei narnavirus 13	hypothetical protein	2353
PQ150565	Hebei_111	Hebei narnavirus 14	RdRP	2195
PQ180990	Hebei_120	Hebei narnavirus 2	complete genome	3099
PQ180991	Hebei_130	Hebei narnavirus 2	complete genome	3120
PQ180992	Hebei_129	Hebei narnavirus 2	complete genome	3119
PQ180993	Hebei_133	Hebei narnavirus 2	complete genome	3116
PQ180994	Hebei_134	Hebei narnavirus 2	complete genome	3114
PQ180995	Hebei_121	Hebei narnavirus 2	complete genome	3129
PQ150566	Hebei_111	Hebei narnavirus 3	RdRP	1233
PQ150567	Tianjin_124	Hebei narnavirus 4	complete genome	2446
PQ150568	Hebei_135	Hebei narnavirus 5	complete genome	2274
PQ181003	Hebei_111	Hebei narnavirus 6	complete genome	3429

PQ181004	Hebei_112	Hebei narnavirus 6	complete genome	3382
PQ150571	Hebei_111	Hebei narnavirus 7	complete genome	3327
PQ181005	Hebei_111	Hebei narnavirus 8	RdRP	2242
PQ181006	Hebei_112	Hebei narnavirus 8	RdRP	2241
PQ150572	Hebei_107	Hebei narnavirus 9	complete genome	3344
PQ150632	Hebei_081	Hebei ourmiavirus 1	complete genome	1348
PQ150633	Beijing_119	Hebei ourmiavirus 2	RdRP	2253
PQ180660	Hebei_115	Hebei partiti-like virus 1	complete genome	1969
PQ180661	Hebei_116	Hebei partiti-like virus 1	complete genome	2004
PQ180662	Hebei_121	Hebei partiti-like virus 1	complete genome	1992
PQ180667	Hebei_117	Hebei partiti-like virus 2	complete genome	1756
PQ180668	Hebei_117	Hebei partiti-like virus 2	complete genome	1562
PQ150576	Hebei_128	Hebei partiti-like virus 3	complete genome	1660
PQ150578	Hebei_128	Hebei partiti-like virus 3	complete genome	1745
PQ150575	Hebei_128	Hebei partiti-like virus 4	complete genome	1504
PQ150577	Hebei_128	Hebei partiti-like virus 4	complete genome	1671
PQ150490	Beijing_119	Hebei scleroulivirus	complete genome	2369
PQ150514	Hebei_015	Hebei solemo-like virus	complete genome	1398
PQ150594	Hebei_136	Hebei tick virus 10	complete genome	1758
PQ150595	Hebei_136	Hebei tick virus 10	complete genome	2516
PQ150596	Hebei_135	Hebei tick virus 10	complete genome	1777
PQ150597	Hebei_135	Hebei tick virus 10	complete genome	2519
PQ150592	Tianjin_124	Hebei tick virus 11	complete genome	1756
PQ150593	Tianjin_124	Hebei tick virus 11	complete genome	2549
PQ150607	Hebei_059	Hebei tick virus 12	complete genome	4681
PQ150610	Hebei_139	Hebei tick virus 12	complete genome	3688
PQ150557	Hebei_061	Hebei tick virus 13	RdRP	1898
PQ180924	Hebei_111	Hebei Aspi-like virus 2	complete genome	7214
PQ180925	Hebei_112	Hebei Aspi-like virus 2	RdRP	7026

PQ150598	Hebei_133	Hebei Aspi-like virus 1	complete genome	7492
PQ180653	Hebei_030	Hebei tick virus 2	complete genome	1859
PQ150588	Hebei_128	Hebei tick virus 3	complete genome	1787
PQ150589	Hebei_128	Hebei tick virus 3	complete genome	2583
PQ150590	Tianjin_124	Hebei tick virus 3	complete genome	1812
PQ150591	Tianjin_124	Hebei tick virus 3	complete genome	2545
PQ150602	Hebei_112	Hebei tick virus 3	complete genome	1754
PQ150611	Hebei_112	Hebei tick virus 3	putative RdRP	2239
PQ150609	Hebei_025	Hebei tick virus 4	complete genome	2593
PQ150600	Hebei_112	Hebei tick virus 5	complete genome	1705
PQ150601	Hebei_112	Hebei tick virus 5	complete genome	1679
PQ150605	Hebei_111	Hebei tick virus 5	complete genome	1693
PQ150606	Hebei_111	Hebei tick virus 5	complete genome	1677
PQ150608	Hebei_015	Hebei tick virus 6	complete genome	1600
PQ150599	Hebei_112	Hebei tick virus 7	complete genome	1694
PQ150604	Hebei_111	Hebei tick virus 7	complete genome	1693
PQ150637	Hebei_139	Hebei tick virus 8	complete genome	1714
PQ150603	Hebei_111	Hebei tick virus 9	complete genome	1730
PQ180669	Hebei_121	Hebei toti-like virus 1	hypothetical protein, RdRP	9029
PQ180670	Hebei_128	Hebei toti-like virus 1	hypothetical protein, RdRP	9007
PQ150613	Hebei_116	Hebei toti-like virus 2	complete genome	5091
PQ150542	Hebei_067	Hebei orthoflavivirus	complete genome	10918
PQ206370	Hebei_026	Henan tick virus	complete genome	4351
PQ206371	Hebei_061	Henan tick virus	complete genome	4351
PQ206372	Hebei_095	Henan tick virus	complete genome	4351
PQ206373	Hebei_115	Henan tick virus	complete genome	4351
PQ206369	Hebei_135	Henan tick virus	complete genome	4350
PQ180541	Hebei_026	Henan tick virus	complete genome	12086
PQ180542	Hebei_061	Henan tick virus	complete genome	12099

PQ180543	Hebei_095	Henan tick virus	complete genome	12098
PQ180544	Hebei_115	Henan tick virus	complete genome	12098
PQ180545	Hebei_135	Henan tick virus	complete genome	12112
PQ180546	Hebei_026	Henan tick virus	complete genome	2149
PQ180547	Hebei_061	Henan tick virus	complete genome	2153
PQ180548	Hebei_095	Henan tick virus	complete genome	2151
PQ180549	Hebei_115	Henan tick virus	complete genome	2187
PQ180550	Hebei_135	Henan tick virus	complete genome	2196
PQ180722	Hebei_027	Hepelivirales sp.	complete genome	5389
PQ180723	Hebei_028	Hepelivirales sp.	complete genome	5389
PQ180724	Hebei_029	Hepelivirales sp.	complete genome	5389
PQ180725	Hebei_059	Hepelivirales sp.	complete genome	5426
PQ180726	Hebei_061	Hepelivirales sp.	complete genome	5420
PQ180727	Hebei_062	Hepelivirales sp.	complete genome	5423
PQ180728	Hebei_063	Hepelivirales sp.	complete genome	5422
PQ180729	Hebei_064	Hepelivirales sp.	complete genome	5425
PQ180730	Hebei_065	Hepelivirales sp.	complete genome	5424
PQ180731	Hebei_066	Hepelivirales sp.	complete genome	5421
PQ180732	Hebei_068	Hepelivirales sp.	complete genome	5425
PQ180733	Hebei_069	Hepelivirales sp.	complete genome	5438
PQ180734	Hebei_070	Hepelivirales sp.	complete genome	5425
PQ180735	Hebei_072	Hepelivirales sp.	complete genome	5421
PQ180736	Hebei_075	Hepelivirales sp.	complete genome	5410
PQ180737	Hebei_077	Hepelivirales sp.	complete genome	5426
PQ180738	Hebei_079	Hepelivirales sp.	complete genome	5426
PQ180739	Hebei_080	Hepelivirales sp.	complete genome	5409
PQ180740	Hebei_081	Hepelivirales sp.	complete genome	5406
PQ180741	Hebei_092	Hepelivirales sp.	complete genome	5426
PQ180742	Hebei_093	Hepelivirales sp.	complete genome	5421

PQ180743	Hebei_096	Hepelivirales sp.	complete genome	5422
PQ180744	Hebei_099	Hepelivirales sp.	complete genome	5426
PQ180745	Hebei_100	Hepelivirales sp.	complete genome	5421
PQ180746	Hebei_104	Hepelivirales sp.	complete genome	5411
PQ180747	Hebei_105	Hepelivirales sp.	complete genome	5419
PQ180748	Hebei_107	Hepelivirales sp.	complete genome	5424
PQ180749	Hebei_110	Hepelivirales sp.	complete genome	5424
PQ180750	Hebei_116	Hepelivirales sp.	complete genome	5420
PQ180751	Hebei_126	Hepelivirales sp.	complete genome	5422
PQ180752	Hebei_127	Hepelivirales sp.	complete genome	5423
PQ180753	Hebei_131	Hepelivirales sp.	complete genome	5424
PQ180754	Hebei_132	Hepelivirales sp.	complete genome	5424
PQ180755	Hebei_135	Hepelivirales sp.	complete genome	5422
PQ180756	Hebei_136	Hepelivirales sp.	complete genome	5437
PQ180757	Hebei_137	Hepelivirales sp.	complete genome	5426
PQ180758	Hebei_138	Hepelivirales sp.	complete genome	5424
PQ180759	Hebei_139	Hepelivirales sp.	complete genome	5424
PQ180760	Tianjin_113	Hepelivirales sp.	complete genome	5424
PQ180761	Hebei_033	Hepelivirales sp.	complete genome	5299
PQ180829	Hebei_027	Hubei sobemo-like virus 15	complete genome	3042
PQ180830	Hebei_028	Hubei sobemo-like virus 15	complete genome	3040
PQ180831	Hebei_061	Hubei sobemo-like virus 15	complete genome	3058
PQ180832	Hebei_066	Hubei sobemo-like virus 15	complete genome	3058
PQ180833	Hebei_067	Hubei sobemo-like virus 15	complete genome	3043
PQ180834	Hebei_075	Hubei sobemo-like virus 15	complete genome	3058
PQ180835	Hebei_077	Hubei sobemo-like virus 15	complete genome	3058
PQ180836	Hebei_081	Hubei sobemo-like virus 15	complete genome	3058
PQ180837	Hebei_082	Hubei sobemo-like virus 15	complete genome	3058
PQ180838	Hebei_088	Hubei sobemo-like virus 15	complete genome	3059

PQ180839	Hebei_092	Hubei sobemo-like virus 15	complete genome	3059
PQ180840	Hebei_096	Hubei sobemo-like virus 15	complete genome	3059
PQ180841	Hebei_098	Hubei sobemo-like virus 15	complete genome	3056
PQ180842	Hebei_100	Hubei sobemo-like virus 15	complete genome	3059
PQ180843	Hebei_111	Hubei sobemo-like virus 15	complete genome	3058
PQ180844	Hebei_118	Hubei sobemo-like virus 15	complete genome	3056
PQ180845	Hebei_120	Hubei sobemo-like virus 15	complete genome	3058
PQ180846	Hebei_126	Hubei sobemo-like virus 15	complete genome	3062
PQ180847	Hebei_127	Hubei sobemo-like virus 15	complete genome	3046
PQ180848	Hebei_134	Hubei sobemo-like virus 15	complete genome	3057
PQ180849	Hebei_135	Hubei sobemo-like virus 15	complete genome	3055
PQ180850	Hebei_136	Hubei sobemo-like virus 15	complete genome	3058
PQ180856	Hebei_027	Hubei sobemo-like virus 15	complete genome	1577
PQ180857	Hebei_028	Hubei sobemo-like virus 15	complete genome	1583
PQ180858	Hebei_061	Hubei sobemo-like virus 15	complete genome	1590
PQ180859	Hebei_066	Hubei sobemo-like virus 15	complete genome	1588
PQ180860	Hebei_067	Hubei sobemo-like virus 15	complete genome	1554
PQ180861	Hebei_075	Hubei sobemo-like virus 15	complete genome	1589
PQ180862	Hebei_077	Hubei sobemo-like virus 15	complete genome	1584
PQ180863	Hebei_081	Hubei sobemo-like virus 15	complete genome	1592
PQ180864	Hebei_082	Hubei sobemo-like virus 15	complete genome	1586
PQ180865	Hebei_088	Hubei sobemo-like virus 15	complete genome	1597
PQ180866	Hebei_092	Hubei sobemo-like virus 15	complete genome	1595
PQ180867	Hebei_096	Hubei sobemo-like virus 15	complete genome	1589
PQ180868	Hebei_098	Hubei sobemo-like virus 15	complete genome	1600
PQ180869	Hebei_100	Hubei sobemo-like virus 15	complete genome	1588
PQ180870	Hebei_111	Hubei sobemo-like virus 15	complete genome	1545
PQ180871	Hebei_118	Hubei sobemo-like virus 15	complete genome	1544
PQ180872	Hebei_120	Hubei sobemo-like virus 15	complete genome	1590

PQ180873	Tianjin_125	Hubei sobemo-like virus 15	complete genome	1543
PQ180874	Hebei_126	Hubei sobemo-like virus 15	complete genome	1589
PQ180875	Hebei_133	Hubei sobemo-like virus 15	complete genome	1572
PQ180876	Hebei_134	Hubei sobemo-like virus 15	complete genome	1592
PQ180877	Hebei_135	Hubei sobemo-like virus 15	complete genome	1573
PQ180878	Hebei_136	Hubei sobemo-like virus 15	complete genome	1583
PQ180851	Hebei_058	Hubei sobemo-like virus 15	hypothetical protein	2936
PQ180852	Hebei_063	Hubei sobemo-like virus 15	complete genome	2889
PQ180853	Hebei_112	Hubei sobemo-like virus 15	hypothetical protein	3045
PQ180854	Tianjin_125	Hubei sobemo-like virus 15	hypothetical protein	3000
PQ180855	Hebei_133	Hubei sobemo-like virus 15	hypothetical protein	3046
PQ180879	Hebei_058	Hubei sobemo-like virus 15	hypothetical protein	1479
PQ180880	Hebei_112	Hubei sobemo-like virus 15	hypothetical protein	906
PQ180881	Hebei_127	Hubei sobemo-like virus 15	hypothetical protein	1492
PQ180889	Hebei_120	Hubei tick virus 1	complete genome	8423
PQ180890	Hebei_122	Hubei tick virus 1	polyprotein	8403
PQ180888	Hebei_130	Hubei tick virus 1	polyprotein	9498
PQ150493	Hebei_128	Hulunbuir Botou tick virus 1	complete genome	2864
PQ180956	Hebei_059	Hulunbuir Botou tick virus 2	complete genome	2980
PQ180957	Hebei_107	Hulunbuir Botou tick virus 2	complete genome	2611
PQ180958	Hebei_108	Hulunbuir Botou tick virus 2	complete genome	2610
PQ180959	Hebei_109	Hulunbuir Botou tick virus 2	complete genome	2609
PQ180960	Hebei_110	Hulunbuir Botou tick virus 2	complete genome	2618
PQ180961	Hebei_112	Hulunbuir Botou tick virus 2	complete genome	2609
PQ180962	Hebei_132	Hulunbuir Botou tick virus 2	complete genome	2607
PQ180963	Hebei_135	Hulunbuir Botou tick virus 2	complete genome	2605
PQ180964	Hebei_138	Hulunbuir Botou tick virus 2	complete genome	2587
PQ180965	Tianjin_123	Hulunbuir Botou tick virus 2	complete genome	2583
PQ180966	Hebei_136	Hulunbuir Botou tick virus 2	RdRP	2139

PQ150492	Hebei_059	Hulunbuir Botou tick virus 7	complete genome	2310
PQ180663	Hebei_005	Hulunbuir Totiv tick virus 1	complete genome	5377
PQ180664	Hebei_020	Hulunbuir Totiv tick virus 1	complete genome	5385
PQ180665	Hebei_037	Hulunbuir Totiv tick virus 1	complete genome	5391
PQ180666	Hebei_042	Hulunbuir Totiv tick virus 1	hypothetical protein, RdRP	5047
PQ150504	Hebei_128	Hulunbuir Totiv tick virus 2	hypothetical protein 1, hypothetical protein 2, hypothetical protein 3, RdRP	6636
PQ150540	Hebei_059	Inner Mongolia grassland mitovirus 8	complete genome	2564
PQ150527	Hebei_016	Jilin tick iflavivirus	complete genome	9299
PQ180967	Hebei_099	Kashgar Botou tick virus 1	complete genome	2522
PQ180968	Hebei_100	Kashgar Botou tick virus 1	complete genome	2481
PQ180969	Hebei_102	Kashgar Botou tick virus 1	complete genome	2469
PQ180970	Hebei_115	Kashgar Botou tick virus 1	complete genome	2506
PQ180971	Hebei_116	Kashgar Botou tick virus 1	complete genome	2525
PQ180972	Hebei_117	Kashgar Botou tick virus 1	complete genome	2511
PQ180654	Hebei_135	Kashgar Parti tick virus 1	capsid protein	1103
PQ180657	Hebei_130	Kashgar Parti tick virus 1	complete genome	1627
PQ180655	Hebei_130	Kashgar Parti tick virus 1	complete genome	1409
PQ180656	Hebei_121	Kashgar Parti tick virus 1	complete genome	1411
PQ180658	Hebei_135	Kashgar Parti tick virus 1	RdRP	1624
PQ180659	Hebei_121	Kashgar Parti tick virus 1	complete genome	1664
PQ180973	Hebei_016	Lianyungang Botou tick virus 2	complete genome	2432
PQ180974	Beijing_119	Lianyungang Botou tick virus 2	complete genome	2226
PQ180975	Hebei_059	Lianyungang Botou tick virus 2	complete genome	2432
PQ150491	Hebei_112	Lianyungang Botou tick virus 4	complete genome	2115
PQ150544	Hebei_122	Changping Tick Virus 3	complete genome	10023
PQ180938	Hebei_097	Nanning Botou tick virus 2	complete genome	2088
PQ180939	Hebei_098	Nanning Botou tick virus 2	complete genome	2086

PQ180940	Hebei_099	Nanning Botou tick virus 2	complete genome	2085
PQ180941	Hebei_100	Nanning Botou tick virus 2	complete genome	2087
PQ180942	Hebei_102	Nanning Botou tick virus 2	complete genome	2086
PQ180943	Hebei_107	Nanning Botou tick virus 2	complete genome	2286
PQ180944	Hebei_110	Nanning Botou tick virus 2	complete genome	2003
PQ180945	Hebei_112	Nanning Botou tick virus 2	complete genome	2301
PQ180946	Hebei_116	Nanning Botou tick virus 2	complete genome	2068
PQ180947	Hebei_126	Nanning Botou tick virus 2	complete genome	2305
PQ180948	Hebei_131	Nanning Botou tick virus 2	complete genome	2320
PQ180949	Hebei_132	Nanning Botou tick virus 2	complete genome	2305
PQ180950	Hebei_135	Nanning Botou tick virus 2	complete genome	2088
PQ180951	Hebei_136	Nanning Botou tick virus 2	complete genome	2085
PQ180952	Hebei_136	Nanning Botou tick virus 2	complete genome	2308
PQ180953	Hebei_117	Nanning Botou tick virus 2	complete genome	2089
PQ180954	Hebei_128	Nanning Botou tick virus 2	complete genome	2088
PQ180955	Hebei_128	Nanning Botou tick virus 2	complete genome	2303
PQ150532	Hebei_128	Neofusicoccum parvum namavirus 2	complete genome	1972
PQ180507	Hebei_028	<i>Orthonairovirus huangpiense</i>	complete genome	11933
PQ180508	Hebei_028	<i>Orthonairovirus huangpiense</i>	complete genome	4814
PQ180509	Hebei_028	<i>Orthonairovirus huangpiense</i>	complete genome	1700
PQ180510	Hebei_031	<i>Orthonairovirus huangpiense</i>	complete genome	11921
PQ180511	Hebei_031	<i>Orthonairovirus huangpiense</i>	complete genome	1702
PQ180512	Hebei_031	<i>Orthonairovirus huangpiense</i>	complete genome	4849
PQ180513	Hebei_062	<i>Orthonairovirus huangpiense</i>	complete genome	11958
PQ180514	Hebei_062	<i>Orthonairovirus huangpiense</i>	complete genome	4878
PQ180515	Hebei_062	<i>Orthonairovirus huangpiense</i>	complete genome	1711
PQ180516	Hebei_105	<i>Orthonairovirus huangpiense</i>	complete genome	11940
PQ180517	Hebei_105	<i>Orthonairovirus huangpiense</i>	complete genome	4832
PQ180518	Hebei_105	<i>Orthonairovirus huangpiense</i>	complete genome	1716

PQ150573	Hebei_068	<i>Orthonairovirus nairobiense</i>	nucleocapsid	1330
PQ150574	Hebei_068	<i>Orthonairovirus nairobiense</i>	RdRP	12003
PQ180551	Hebei_128	Peribunyaviridae sp.	complete genome	6487
PQ180552	Hebei_121	Peribunyaviridae sp.	complete genome	6487
PQ180553	Hebei_101	Peribunyaviridae sp.	complete genome	6465
PQ180554	Hebei_130	Peribunyaviridae sp.	complete genome	6478
PQ180912	Hebei_026	Plasmopara viticola lesion associated mitovirus 7	complete genome	2363
PQ180913	Hebei_027	Plasmopara viticola lesion associated mitovirus 7	complete genome	2368
PQ180914	Hebei_106	Plasmopara viticola lesion associated mitovirus 7	complete genome	2335
PQ180915	Hebei_112	Plasmopara viticola lesion associated mitovirus 7	complete genome	2353
PQ180916	Hebei_135	Plasmopara viticola lesion associated mitovirus 7	complete genome	2378
PQ180917	Hebei_121	Plasmopara viticola lesion associated mitovirus 7	complete genome	2381
PQ180918	Hebei_128	Plasmopara viticola lesion associated mitovirus 7	complete genome	2383
PQ150554	Hebei_091	Plasmopara viticola lesion associated narnavirus 35	complete genome	1774
PQ150553	Hebei_128	Plasmopara viticola lesion associated narnavirus 43	RdRP	2316
PQ150555	Hebei_016	Plasmopara viticola lesion associated narnavirus 9	RdRP	1520
PQ150552	Hebei_111	Plasmopara viticola lesion associated ourmia-like virus 41	complete genome	2206
PQ150551	Hebei_069	Plasmopara viticola lesion associated ourmia-like virus 84	complete genome	2188
PQ150501	Hebei_059	Psittaciform parvoviridae sp.	complete genome	2544
PQ180445	Beijing_119	Qingyang Ortho tick virus 1	complete genome	2405
PQ180446	Hebei_033	Qingyang Ortho tick virus 1	complete genome	2435
PQ180447	Hebei_062	Qingyang Ortho tick virus 1	complete genome	2645
PQ180448	Hebei_063	Qingyang Ortho tick virus 1	complete genome	2409
PQ180449	Hebei_065	Qingyang Ortho tick virus 1	complete genome	2396
PQ180450	Hebei_079	Qingyang Ortho tick virus 1	complete genome	2415
PQ180451	Hebei_080	Qingyang Ortho tick virus 1	complete genome	2488
PQ180452	Hebei_084	Qingyang Ortho tick virus 1	complete genome	2406

PQ180453	Hebei_085	Qingyang Ortho tick virus 1	complete genome	2406
PQ180454	Hebei_094	Qingyang Ortho tick virus 1	complete genome	2393
PQ180455	Hebei_102	Qingyang Ortho tick virus 1	complete genome	2398
PQ180456	Beijing_119	Qingyang Ortho tick virus 1	complete genome	2411
PQ180457	Hebei_033	Qingyang Ortho tick virus 1	complete genome	2403
PQ180458	Hebei_062	Qingyang Ortho tick virus 1	complete genome	2440
PQ180459	Hebei_063	Qingyang Ortho tick virus 1	complete genome	2416
PQ180460	Hebei_065	Qingyang Ortho tick virus 1	complete genome	2416
PQ180461	Hebei_079	Qingyang Ortho tick virus 1	complete genome	2439
PQ180462	Hebei_080	Qingyang Ortho tick virus 1	complete genome	2419
PQ180463	Hebei_084	Qingyang Ortho tick virus 1	complete genome	2459
PQ180464	Hebei_085	Qingyang Ortho tick virus 1	complete genome	2418
PQ180465	Hebei_094	Qingyang Ortho tick virus 1	complete genome	2414
PQ180466	Hebei_102	Qingyang Ortho tick virus 1	complete genome	2444
PQ180467	Beijing_119	Qingyang Ortho tick virus 1	complete genome	2414
PQ180468	Hebei_033	Qingyang Ortho tick virus 1	complete genome	2371
PQ180469	Hebei_062	Qingyang Ortho tick virus 1	complete genome	2368
PQ180470	Hebei_063	Qingyang Ortho tick virus 1	complete genome	2370
PQ180471	Hebei_065	Qingyang Ortho tick virus 1	complete genome	2365
PQ180472	Hebei_079	Qingyang Ortho tick virus 1	complete genome	2376
PQ180473	Hebei_080	Qingyang Ortho tick virus 1	complete genome	2366
PQ180474	Hebei_084	Qingyang Ortho tick virus 1	complete genome	2367
PQ180475	Hebei_085	Qingyang Ortho tick virus 1	complete genome	2373
PQ180476	Hebei_094	Qingyang Ortho tick virus 1	complete genome	2361
PQ180477	Hebei_102	Qingyang Ortho tick virus 1	complete genome	2363
PQ180478	Beijing_119	Qingyang Ortho tick virus 1	complete genome	1643
PQ180479	Hebei_033	Qingyang Ortho tick virus 1	complete genome	1729
PQ180480	Hebei_062	Qingyang Ortho tick virus 1	complete genome	1630
PQ180481	Hebei_063	Qingyang Ortho tick virus 1	complete genome	1718

PQ180482	Hebei_065	Qingyang Ortho tick virus 1	complete genome	1633
PQ180483	Hebei_079	Qingyang Ortho tick virus 1	complete genome	1651
PQ180484	Hebei_080	Qingyang Ortho tick virus 1	complete genome	1718
PQ180485	Hebei_084	Qingyang Ortho tick virus 1	complete genome	1639
PQ180486	Hebei_085	Qingyang Ortho tick virus 1	complete genome	1709
PQ180487	Hebei_094	Qingyang Ortho tick virus 1	complete genome	1649
PQ180488	Hebei_102	Qingyang Ortho tick virus 1	complete genome	1706
PQ180443	Hebei_062	Qingyang Ortho tick virus 1	nucleoprotein	866
PQ180444	Hebei_094	Qingyang Ortho tick virus 1	nucleoprotein	450
PQ150521	Hebei_088	Qingyang Rhabd tick virus 1	complete genome	11737
PQ150500	Hebei_106	Rabbit hemorrhagic disease virus	Polyprotein 1, polyprotein 2, VP10 protein	7392
PQ150507	Beijing_119	Rice Tombus-like virus 3	complete genome	3388
PQ150534	Hebei_128	<i>Sclerotimonavirus fusarii</i>	complete genome	9071
PQ180519	Hebei_065	Shanxi tick virus 2	complete genome	1840
PQ180520	Hebei_080	Shanxi tick virus 2	complete genome	2150
PQ180521	Hebei_081	Shanxi tick virus 2	complete genome	2138
PQ180522	Hebei_133	Shanxi tick virus 2	complete genome	2206
PQ180523	Hebei_134	Shanxi tick virus 2	complete genome	1939
PQ180524	Hebei_065	Shanxi tick virus 2	complete genome	4580
PQ180525	Hebei_080	Shanxi tick virus 2	complete genome	4415
PQ180526	Hebei_081	Shanxi tick virus 2	complete genome	4421
PQ180527	Hebei_133	Shanxi tick virus 2	complete genome	4478
PQ180528	Hebei_134	Shanxi tick virus 2	complete genome	4467
PQ180529	Hebei_065	Shanxi tick virus 2	complete genome	12170
PQ180530	Hebei_080	Shanxi tick virus 2	complete genome	12083
PQ180531	Hebei_081	Shanxi tick virus 2	complete genome	12105
PQ180532	Hebei_133	Shanxi tick virus 2	complete genome	12137
PQ180533	Hebei_134	Shanxi tick virus 2	complete genome	12090

PQ150499	Hebei_128	Solanum melongena bastro-like virus	complete genome	7418
PQ150536	Hebei_078	Soybean leaf-associated mitovirus 1	RdRP	1803
PQ180778	Hebei_014	Tahe rhabdovirus 1	complete genome	11341
PQ180779	Hebei_015	Tahe rhabdovirus 1	complete genome	11342
PQ180780	Hebei_016	Tahe rhabdovirus 1	complete genome	11341
PQ180781	Hebei_021	Tahe rhabdovirus 1	complete genome	11335
PQ180782	Hebei_022	Tahe rhabdovirus 1	complete genome	11341
PQ180783	Hebei_055	Tahe rhabdovirus 1	complete genome	11372
PQ180784	Hebei_056	Tahe rhabdovirus 1	complete genome	11339
PQ180489	Hebei_066	<i>Thogotovirus thogotoense</i>	complete genome	1401
PQ180490	Hebei_096	<i>Thogotovirus thogotoense</i>	complete genome	1422
PQ180491	Hebei_098	<i>Thogotovirus thogotoense</i>	complete genome	1389
PQ180492	Hebei_066	<i>Thogotovirus thogotoense</i>	complete genome	2418
PQ180493	Hebei_096	<i>Thogotovirus thogotoense</i>	complete genome	2348
PQ180494	Hebei_098	<i>Thogotovirus thogotoense</i>	complete genome	2340
PQ180495	Hebei_066	<i>Thogotovirus thogotoense</i>	complete genome	971
PQ180496	Hebei_096	<i>Thogotovirus thogotoense</i>	complete genome	942
PQ180497	Hebei_098	<i>Thogotovirus thogotoense</i>	complete genome	934
PQ180498	Hebei_066	<i>Thogotovirus thogotoense</i>	complete genome	1562
PQ180499	Hebei_096	<i>Thogotovirus thogotoense</i>	complete genome	1560
PQ180501	Hebei_066	<i>Thogotovirus thogotoense</i>	complete genome	1938
PQ180502	Hebei_096	<i>Thogotovirus thogotoense</i>	complete genome	1910
PQ180503	Hebei_098	<i>Thogotovirus thogotoense</i>	complete genome	1897
PQ180504	Hebei_066	<i>Thogotovirus thogotoense</i>	complete genome	2188
PQ180505	Hebei_096	<i>Thogotovirus thogotoense</i>	complete genome	2198
PQ180500	Hebei_098	<i>Thogotovirus thogotoense</i>	glycoprotein	1534
PQ180506	Hebei_098	<i>Thogotovirus thogotoense</i>	PB1 protein	2122
PQ180976	Hebei_130	Tianjin Botou tick virus 1	complete genome	2205
PQ180977	Hebei_099	Tianjin Botou tick virus 1	complete genome	2204

PQ180978	Hebei_100	Tianjin Botou tick virus 1	complete genome	2204
PQ180979	Hebei_115	Tianjin Botou tick virus 1	complete genome	1991
PQ180980	Hebei_127	Tianjin Botou tick virus 1	complete genome	2203
PQ180981	Hebei_135	Tianjin Botou tick virus 1	complete genome	2175
PQ180982	Hebei_136	Tianjin Botou tick virus 1	complete genome	2203
PQ180983	Hebei_117	Tianjin Botou tick virus 1	complete genome	2190
PQ180984	Hebei_059	Tianjin Botou tick virus 1	complete genome	2450
PQ180762	Hebei_009	Tick borne tetravirus-like virus	complete genome	5451
PQ180763	Hebei_023	Tick borne tetravirus-like virus	complete genome	5463
PQ180764	Hebei_024	Tick borne tetravirus-like virus	complete genome	5412
PQ180571	Hebei_116	Tick phlebovirus	complete genome	6498
PQ180572	Hebei_117	Tick phlebovirus	complete genome	6507
PQ180573	Hebei_121	Tick phlebovirus	complete genome	6506
PQ180574	Hebei_128	Tick phlebovirus	complete genome	6504
PQ180575	Hebei_116	Tick phlebovirus	complete genome	1959
PQ180576	Hebei_117	Tick phlebovirus	complete genome	1963
PQ180577	Hebei_121	Tick phlebovirus	complete genome	1963
PQ180578	Hebei_128	Tick phlebovirus	complete genome	1961
PQ150489	Beijing_119	Tonghua Botou tick virus 2	complete genome	2290
PQ150612	Hebei_022	Toti-like virus 4	hypothetical protein	4428
PQ150538	Hebei_030	<i>Unuamitovirus alar1</i>	complete genome	2428
PQ180615	Hebei_063	<i>Uukuvirus dabieshanense</i>	complete genome	6525
PQ180616	Hebei_082	<i>Uukuvirus dabieshanense</i>	complete genome	6523
PQ180617	Hebei_083	<i>Uukuvirus dabieshanense</i>	complete genome	6525
PQ180618	Hebei_084	<i>Uukuvirus dabieshanense</i>	complete genome	6527
PQ180619	Hebei_097	<i>Uukuvirus dabieshanense</i>	complete genome	6538
PQ180620	Hebei_098	<i>Uukuvirus dabieshanense</i>	complete genome	6523
PQ180621	Hebei_105	<i>Uukuvirus dabieshanense</i>	complete genome	6525
PQ180622	Hebei_108	<i>Uukuvirus dabieshanense</i>	complete genome	6524

PQ180623	Hebei_109	<i>Uukuvirus dabieshanense</i>	complete genome	6530
PQ180624	Hebei_112	<i>Uukuvirus dabieshanense</i>	complete genome	6529
PQ180625	Hebei_115	<i>Uukuvirus dabieshanense</i>	complete genome	6522
PQ180626	Hebei_116	<i>Uukuvirus dabieshanense</i>	complete genome	6521
PQ180627	Hebei_126	<i>Uukuvirus dabieshanense</i>	complete genome	6519
PQ180628	Hebei_131	<i>Uukuvirus dabieshanense</i>	complete genome	6523
PQ180629	Hebei_132	<i>Uukuvirus dabieshanense</i>	complete genome	6521
PQ180630	Hebei_137	<i>Uukuvirus dabieshanense</i>	complete genome	6535
PQ180631	Tianjin_113	<i>Uukuvirus dabieshanense</i>	complete genome	6512
PQ180632	Hebei_063	<i>Uukuvirus dabieshanense</i>	complete genome	1754
PQ180633	Hebei_082	<i>Uukuvirus dabieshanense</i>	complete genome	1756
PQ180634	Hebei_083	<i>Uukuvirus dabieshanense</i>	complete genome	1760
PQ180635	Hebei_084	<i>Uukuvirus dabieshanense</i>	complete genome	1757
PQ180636	Hebei_097	<i>Uukuvirus dabieshanense</i>	complete genome	1726
PQ180637	Hebei_098	<i>Uukuvirus dabieshanense</i>	complete genome	1763
PQ180638	Hebei_105	<i>Uukuvirus dabieshanense</i>	complete genome	1757
PQ180639	Hebei_108	<i>Uukuvirus dabieshanense</i>	complete genome	1758
PQ180640	Hebei_109	<i>Uukuvirus dabieshanense</i>	complete genome	1760
PQ180641	Hebei_112	<i>Uukuvirus dabieshanense</i>	complete genome	1752
PQ180642	Hebei_115	<i>Uukuvirus dabieshanense</i>	complete genome	1760
PQ180643	Hebei_116	<i>Uukuvirus dabieshanense</i>	complete genome	1757
PQ180644	Hebei_126	<i>Uukuvirus dabieshanense</i>	complete genome	1756
PQ180645	Hebei_131	<i>Uukuvirus dabieshanense</i>	complete genome	1756
PQ180646	Hebei_132	<i>Uukuvirus dabieshanense</i>	complete genome	1757
PQ180647	Hebei_137	<i>Uukuvirus dabieshanense</i>	complete genome	1758
PQ180648	Tianjin_113	<i>Uukuvirus dabieshanense</i>	complete genome	1749
PQ180985	Hebei_057	XiangYun narna-levi-like virus 2	RdRP	1105
PQ180986	Hebei_030	XiangYun narna-levi-like virus 2	RdRP	1964
PQ150516	Hebei_015	Xinjiang tick associated virus 1	complete genome	2609

PQ150506	Hebei_048	Xinjiang tick associated virus 1	RdRP	1808
PQ150508	Hebei_050	Xinjiang tick associated virus 1	complete genome	1373
PQ150509	Hebei_048	Xinjiang tick associated virus 1	complete genome	1367
PQ150510	Hebei_038	Xinjiang tick associated virus 1	complete genome	1365
PQ150511	Hebei_037	Xinjiang tick associated virus 1	complete genome	1373
PQ150512	Hebei_036	Xinjiang tick associated virus 1	complete genome	1367
PQ150513	Hebei_024	Xinjiang tick associated virus 1	complete genome	1370
PQ150515	Hebei_038	Xinjiang tick associated virus 1	complete genome	2575
PQ150517	Hebei_036	Xinjiang tick associated virus 1	complete genome	2614
PQ150518	Hebei_050	Xinjiang tick associated virus 1	complete genome	2614
PQ150519	Hebei_024	Xinjiang tick associated virus 1	complete genome	2614
PQ150520	Hebei_037	Xinjiang tick associated virus 1	complete genome	2614
PQ180534	Hebei_022	Xue-Cheng virus	complete genome	1853
PQ180535	Hebei_056	Xue-Cheng virus	complete genome	1842
PQ180536	Hebei_022	Xue-Cheng virus	complete genome	4428
PQ180537	Hebei_056	Xue-Cheng virus	complete genome	4420
PQ180538	Hebei_022	Xue-Cheng virus	complete genome	12285
PQ180539	Hebei_056	Xue-Cheng virus	complete genome	11957
PQ206368	Hebei_055	Yanbian Ortho tick virus 1	complete genome	2345
PQ180410	Hebei_014	Yanbian Ortho tick virus 1	complete genome	2345
PQ180411	Hebei_015	Yanbian Ortho tick virus 1	complete genome	2343
PQ180412	Hebei_016	Yanbian Ortho tick virus 1	complete genome	2351
PQ180413	Hebei_021	Yanbian Ortho tick virus 1	complete genome	2345
PQ180414	Hebei_022	Yanbian Ortho tick virus 1	complete genome	2348
PQ180415	Hebei_014	Yanbian Ortho tick virus 1	complete genome	1602
PQ180416	Hebei_015	Yanbian Ortho tick virus 1	complete genome	1604
PQ180417	Hebei_016	Yanbian Ortho tick virus 1	complete genome	1616
PQ180418	Hebei_021	Yanbian Ortho tick virus 1	complete genome	1607
PQ180419	Hebei_022	Yanbian Ortho tick virus 1	complete genome	1615

PQ180420	Hebei_014	Yanbian Ortho tick virus 1	complete genome	1701
PQ180421	Hebei_015	Yanbian Ortho tick virus 1	complete genome	1705
PQ180422	Hebei_016	Yanbian Ortho tick virus 1	complete genome	1706
PQ180423	Hebei_021	Yanbian Ortho tick virus 1	complete genome	1728
PQ180424	Hebei_022	Yanbian Ortho tick virus 1	complete genome	1709
PQ180425	Hebei_015	Yanbian Ortho tick virus 1	complete genome	2381
PQ180426	Hebei_016	Yanbian Ortho tick virus 1	complete genome	2387
PQ180427	Hebei_021	Yanbian Ortho tick virus 1	complete genome	2378
PQ180428	Hebei_022	Yanbian Ortho tick virus 1	complete genome	2396
PQ180429	Hebei_016	Yanbian Ortho tick virus 1	complete genome	2351
PQ180430	Hebei_021	Yanbian Ortho tick virus 1	complete genome	2387
PQ180436	Hebei_055	Yanbian Ortho tick virus 1	complete genome	1614
PQ180437	Hebei_056	Yanbian Ortho tick virus 1	complete genome	1604
PQ180438	Hebei_055	Yanbian Ortho tick virus 1	complete genome	1710
PQ180439	Hebei_056	Yanbian Ortho tick virus 1	complete genome	1700
PQ180440	Hebei_056	Yanbian Ortho tick virus 1	complete genome	2349
PQ180441	Hebei_055	Yanbian Ortho tick virus 1	complete genome	2388
PQ180442	Hebei_056	Yanbian Ortho tick virus 1	complete genome	2380
PQ180431	Hebei_014	Yanbian Ortho tick virus 1	complete genome	2343
PQ180432	Hebei_015	Yanbian Ortho tick virus 1	complete genome	2351
PQ180433	Hebei_022	Yanbian Ortho tick virus 1	complete genome	2384
PQ180434	Hebei_055	Yanbian Ortho tick virus 1	polymerase basic 1 protein	1736
PQ180435	Hebei_056	Yanbian Ortho tick virus 1	polymerase basic 1 protein	2344
PQ150525	Hebei_055	Yanbian Rhabd tick virus 3	complete genome	11123
PQ150503	Hebei_022	Yanbian Totiv tick virus 1	complete genome	7850
PQ150526	Hebei_134	Youcai mosaic virus	RdRP, coat protein, movement protein	6197
PQ180580	Hebei_002	Zhangjiakou Phenu tick virus 1	complete genome	6648
PQ180581	Hebei_003	Zhangjiakou Phenu tick virus 1	complete genome	6629

PQ180582	Hebei_006	Zhangjiakou Phenu tick virus 1	complete genome	6624
PQ180583	Hebei_009	Zhangjiakou Phenu tick virus 1	complete genome	6625
PQ180584	Hebei_013	Zhangjiakou Phenu tick virus 1	complete genome	6626
PQ180585	Hebei_017	Zhangjiakou Phenu tick virus 1	complete genome	6629
PQ180586	Hebei_020	Zhangjiakou Phenu tick virus 1	complete genome	6619
PQ180587	Hebei_023	Zhangjiakou Phenu tick virus 1	complete genome	6620
PQ180588	Hebei_024	Zhangjiakou Phenu tick virus 1	complete genome	6621
PQ180589	Hebei_035	Zhangjiakou Phenu tick virus 1	complete genome	6623
PQ180590	Hebei_036	Zhangjiakou Phenu tick virus 1	complete genome	6630
PQ180591	Hebei_040	Zhangjiakou Phenu tick virus 1	complete genome	6627
PQ180592	Hebei_043	Zhangjiakou Phenu tick virus 1	complete genome	6634
PQ180593	Hebei_045	Zhangjiakou Phenu tick virus 1	complete genome	6623
PQ180594	Hebei_046	Zhangjiakou Phenu tick virus 1	complete genome	6624
PQ180595	Hebei_053	Zhangjiakou Phenu tick virus 1	complete genome	6627
PQ180596	Hebei_057	Zhangjiakou Phenu tick virus 1	complete genome	6628
PQ180597	Hebei_002	Zhangjiakou Phenu tick virus 1	complete genome	2009
PQ180598	Hebei_003	Zhangjiakou Phenu tick virus 1	complete genome	1923
PQ180599	Hebei_006	Zhangjiakou Phenu tick virus 1	complete genome	1938
PQ180600	Hebei_009	Zhangjiakou Phenu tick virus 1	complete genome	1671
PQ180601	Hebei_013	Zhangjiakou Phenu tick virus 1	complete genome	1887
PQ180602	Hebei_017	Zhangjiakou Phenu tick virus 1	complete genome	1953
PQ180603	Hebei_020	Zhangjiakou Phenu tick virus 1	complete genome	1853
PQ180604	Hebei_023	Zhangjiakou Phenu tick virus 1	complete genome	1938
PQ180605	Hebei_024	Zhangjiakou Phenu tick virus 1	complete genome	1899
PQ180606	Hebei_035	Zhangjiakou Phenu tick virus 1	complete genome	1886
PQ180607	Hebei_036	Zhangjiakou Phenu tick virus 1	complete genome	2012
PQ180608	Hebei_040	Zhangjiakou Phenu tick virus 1	complete genome	2018
PQ180609	Hebei_043	Zhangjiakou Phenu tick virus 1	complete genome	1930
PQ180610	Hebei_045	Zhangjiakou Phenu tick virus 1	complete genome	1922

PQ180611	Hebei_046	Zhangjiakou Phenu tick virus 1	complete genome	1931
PQ180612	Hebei_049	Zhangjiakou Phenu tick virus 1	complete genome	1784
PQ180613	Hebei_053	Zhangjiakou Phenu tick virus 1	complete genome	1921
PQ180614	Hebei_057	Zhangjiakou Phenu tick virus 1	complete genome	1918
PQ180579	Hebei_049	Zhangjiakou Phenu tick virus 1	RdRP	6599
PQ180793	Hebei_003	Zhangjiakou Rhabd tick virus 1	complete genome	10682
PQ180785	Hebei_004	Zhangjiakou Rhabd tick virus 1	RdRP, nucleocapsid protein, hypothetical protein, hypothetical protein	10596
PQ180786	Hebei_023	Zhangjiakou Rhabd tick virus 1	RdRP, nucleocapsid protein, hypothetical protein, hypothetical protein	10606
PQ180787	Hebei_044	Zhangjiakou Rhabd tick virus 1	RdRP, nucleocapsid protein, hypothetical protein, hypothetical protein	10585
PQ180788	Hebei_046	Zhangjiakou Rhabd tick virus 1	RdRP, nucleocapsid protein, hypothetical protein, hypothetical protein	10333
PQ180789	Hebei_047	Zhangjiakou Rhabd tick virus 1	RdRP, nucleocapsid protein, hypothetical protein, hypothetical protein	10454
PQ180790	Hebei_050	Zhangjiakou Rhabd tick virus 1	RdRP, nucleocapsid protein, hypothetical protein, hypothetical protein	10591
PQ180791	Hebei_051	Zhangjiakou Rhabd tick virus 1	RdRP, nucleocapsid protein, hypothetical protein, hypothetical protein	10399
PQ180792	Hebei_052	Zhangjiakou Rhabd tick virus 1	RdRP, nucleocapsid protein, hypothetical protein, hypothetical protein	10614
PQ180703	Hebei_004	Zhangjiakou Totiv tick virus 1	complete genome	9048

PQ180704	Hebei_006	Zhangjiakou Totiv tick virus 1	complete genome	9046
PQ180705	Hebei_010	Zhangjiakou Totiv tick virus 1	complete genome	9047
PQ180706	Hebei_017	Zhangjiakou Totiv tick virus 1	complete genome	9044
PQ180707	Hebei_018	Zhangjiakou Totiv tick virus 1	complete genome	9032
PQ180708	Hebei_020	Zhangjiakou Totiv tick virus 1	complete genome	9052
PQ180709	Hebei_036	Zhangjiakou Totiv tick virus 1	complete genome	9038
PQ180710	Hebei_038	Zhangjiakou Totiv tick virus 1	complete genome	9037
PQ180711	Hebei_040	Zhangjiakou Totiv tick virus 1	complete genome	9040
PQ180712	Hebei_044	Zhangjiakou Totiv tick virus 1	complete genome	9052
PQ180713	Hebei_046	Zhangjiakou Totiv tick virus 1	complete genome	9041
PQ180714	Hebei_047	Zhangjiakou Totiv tick virus 1	complete genome	9044
PQ180715	Hebei_052	Zhangjiakou Totiv tick virus 1	complete genome	9046
PQ180716	Hebei_001	Zhangjiakou Totiv tick virus 1	RdRP,structural protein	6260
PQ180717	Hebei_002	Zhangjiakou Totiv tick virus 1	RdRP,structural protein	5702
PQ180718	Hebei_007	Zhangjiakou Totiv tick virus 1	RdRP,structural protein	5243
PQ180719	Hebei_024	Zhangjiakou Totiv tick virus 1	RdRP,structural protein	5867
PQ180720	Hebei_043	Zhangjiakou Totiv tick virus 1	RdRP,structural protein	5522
PQ180721	Hebei_049	Zhangjiakou Totiv tick virus 1	RdRP,structural protein	5688
PQ180671	Hebei_002	Zhangjiakou Totiv tick virus 2	polyprotein	9211
PQ180672	Hebei_004	Zhangjiakou Totiv tick virus 2	polyprotein	9182
PQ180673	Hebei_005	Zhangjiakou Totiv tick virus 2	polyprotein	9194
PQ180674	Hebei_006	Zhangjiakou Totiv tick virus 2	polyprotein	9204
PQ180675	Hebei_007	Zhangjiakou Totiv tick virus 2	polyprotein	9201
PQ180676	Hebei_008	Zhangjiakou Totiv tick virus 2	polyprotein	9208
PQ180677	Hebei_013	Zhangjiakou Totiv tick virus 2	polyprotein	9205
PQ180678	Hebei_017	Zhangjiakou Totiv tick virus 2	polyprotein	9207
PQ180679	Hebei_020	Zhangjiakou Totiv tick virus 2	polyprotein	9202
PQ180680	Hebei_023	Zhangjiakou Totiv tick virus 2	polyprotein	9137
PQ180681	Hebei_024	Zhangjiakou Totiv tick virus 2	polyprotein	9199

PQ180682	Hebei_035	Zhangjiakou Totiv tick virus 2	polyprotein	9199
PQ180683	Hebei_036	Zhangjiakou Totiv tick virus 2	polyprotein	9204
PQ180684	Hebei_037	Zhangjiakou Totiv tick virus 2	polyprotein	9190
PQ180685	Hebei_038	Zhangjiakou Totiv tick virus 2	polyprotein	9190
PQ180686	Hebei_039	Zhangjiakou Totiv tick virus 2	polyprotein	9191
PQ180687	Hebei_040	Zhangjiakou Totiv tick virus 2	polyprotein	9211
PQ180688	Hebei_041	Zhangjiakou Totiv tick virus 2	polyprotein	9166
PQ180689	Hebei_042	Zhangjiakou Totiv tick virus 2	polyprotein	9195
PQ180690	Hebei_043	Zhangjiakou Totiv tick virus 2	polyprotein	9194
PQ180691	Hebei_044	Zhangjiakou Totiv tick virus 2	polyprotein	9184
PQ180692	Hebei_047	Zhangjiakou Totiv tick virus 2	polyprotein	9196
PQ180693	Hebei_048	Zhangjiakou Totiv tick virus 2	polyprotein	9217
PQ180694	Hebei_050	Zhangjiakou Totiv tick virus 2	polyprotein	9195
PQ180695	Hebei_051	Zhangjiakou Totiv tick virus 2	polyprotein	9203
PQ180696	Hebei_053	Zhangjiakou Totiv tick virus 2	polyprotein	9171
PQ180697	Hebei_057	Zhangjiakou Totiv tick virus 2	polyprotein	9191
PQ180698	Hebei_034	Zhangjiakou Totiv tick virus 2	polyprotein	9226
PQ180699	Hebei_001	Zhangjiakou Totiv tick virus 2	RdRP	9090
PQ180700	Hebei_012	Zhangjiakou Totiv tick virus 2	RdRP	8773
PQ180701	Hebei_019	Zhangjiakou Totiv tick virus 2	RdRP	9129
PQ180702	Hebei_025	Zhangjiakou Totiv tick virus 2	RdRP	9059
PQ150502	Hebei_117	Zhangzhou Totiv tick virus 1	RdRP	6071
PQ150531	Hebei_035	Zhejiang mosquito virus 3	RdRP	2821

RNA-dependent RNA polymerase gene, RdRp.

Supplementary Table 4. Summary of the viruses detected in this study

Species	Novel or known virus	Order	Family	Genome type	Best-hit accession	aa identity to refer sequence
Dermacentor pesti-like virus	Known	<i>Amarillovirales</i>	<i>Flaviviridae</i>	ssRNA(+)	ON811708	99.8
Hebei orthoflavivirus	Novel	<i>Amarillovirales</i>	<i>Flaviviridae</i>	ssRNA(+)	OP699738	73
Qingyang Ortho tick virus 1	Known	<i>Articulavirales</i>	<i>Orthomyxoviridae</i>	ssRNA(-)	ON872617	100
<i>Thogotovirus thogotoense</i>	Known	<i>Articulavirales</i>	<i>Orthomyxoviridae</i>	ssRNA(-)	ON872622	100
Yanbian Ortho tick virus 1	Known	<i>Articulavirales</i>	<i>Orthomyxoviridae</i>	ssRNA(-)	ON872624	100
<i>Bandavirus dabieense</i>	Known	<i>Bunyavirales</i>	<i>Phenuiviridae</i>	ssRNA(-)	JQ670934	98.9
Brown dog tick phlebovirus 1	Known	<i>Bunyavirales</i>	<i>Phenuiviridae</i>	ssRNA(-)	ON812407	99.4
Changping Tick Virus 1	Known	<i>Bunyavirales</i>	<i>Phenuiviridae</i>	ssRNA(-)	KM817665	99
Hebei bunya-like virus 1	Novel	<i>Bunyavirales</i>		ssRNA(-)	MK440644	20.2
Hebei bunya-like virus 2	Novel	<i>Bunyavirales</i>		ssRNA(-)	MG256514	40.9
Hebei Phenui-like virus	Novel	<i>Bunyavirales</i>	<i>Phenuiviridae</i>	ssRNA(-)	OR224974	24.4
Henan tick virus	Known	<i>Bunyavirales</i>		ssRNA(-)	MW721844	99.6
<i>Orthonairovirus huangpiense</i>	Known	<i>Bunyavirales</i>	<i>Nairoviridae</i>	ssRNA(-)	ON811872	99.8
<i>Orthonairovirus nairobiense</i>	Known	<i>Bunyavirales</i>	<i>Nairoviridae</i>	ssRNA(-)	OQ581155	93.71
Peribunyaviridae sp.	Known	<i>Bunyavirales</i>	<i>Peribunyaviridae</i>	ssRNA(-)	ON812126	96.4
Shanxi tick virus 2	Known	<i>Bunyavirales</i>	<i>Nairoviridae</i>	ssRNA(-)	ON811888	99.7
Tick phlebovirus	Known	<i>Bunyavirales</i>	<i>Phenuiviridae</i>	ssRNA(-)	ON812393	99.2
<i>Uukuvirus dabieshanense</i>	Known	<i>Bunyavirales</i>	<i>Phenuiviridae</i>	ssRNA(-)	ON812366	100
Xue-Cheng virus	Known	<i>Bunyavirales</i>	<i>Nairoviridae</i>	ssRNA(-)	ON811878	99.5
Zhangjiakou Phenu tick virus 1	Known	<i>Bunyavirales</i>	<i>Phenuiviridae</i>	ssRNA(-)	ON746500	99.82
Erysiphe necator associated mitovirus 21	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MN611667	93.5
Erysiphe necator associated mitovirus 22	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MN611668	94.9
Erysiphe necator associated mitovirus 7	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	PP140373	93.2
Fusarium andiyazi mitovirus 2	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MZ969052	95.2
Fusarium asiaticum mitovirus 5	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MZ969052	97.3

Fusarium mangiferae mitovirus 5	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	OQ862552	98.9
Fusarium oxysporum mitovirus 1	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MW690927	96.7
Fusarium sambucinum mitovirus 5	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	OQ862552	98.6
Hebei mito-like virus 1	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MZ969055	89
Hebei mito-like virus 2	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MN611686	59.5
Hebei mito-like virus 3	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	ON164047	42.9
Hebei mito-like virus 4	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	OP441675	79.5
Hebei mito-like virus 5	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	NC_076555	53.8
Hebei mito-like virus 6	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	PP171853	86.5
Hebei mito-like virus 7	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	PP171853	85.4
Hebei mito-like virus 8	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MN295972	77.1
Hebei mito-like virus 9	Novel	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MW454888	50.7
Inner Mongolia grassland mitovirus 8	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	MN539772	91.4
Plasmopara viticola lesion associated mitovirus 7	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	ON811825	98.5
Soybean leaf-associated mitovirus 1	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	KT598238	93.8
<i>Unuamitovirus alar1</i>	Known	<i>Cryppavirales</i>	<i>Mitoviridae</i>	ssRNA(+)	NC_030747	95.8
Erysiphe necator associated partitivirus 2	Known	<i>Durnavirales</i>	<i>Partitiviridae</i>	dsRNA	NC_003710	91.3
Gammapartitivirus.sp	Known	<i>Durnavirales</i>	<i>Partitiviridae</i>	dsRNA	PP744776	95.93
Hebei hypo-like virus 1	Novel	<i>Durnavirales</i>	<i>Hypoviridae</i>	ssRNA(+)	MZ822102	43.6
Hebei hypo-like virus 2	Novel	<i>Durnavirales</i>	<i>Hypoviridae</i>	ssRNA(+)	LC596830	68.1
Hebei hypo-like virus 3	Novel	<i>Durnavirales</i>	<i>Hypoviridae</i>	ssRNA(+)	OQ862556	76.3
Hebei partiti-like virus 1	Novel	<i>Durnavirales</i>	<i>Partitiviridae</i>	dsRNA	OP080556	45.3
Hebei partiti-like virus 2	Novel	<i>Durnavirales</i>	<i>Partitiviridae</i>	dsRNA	NC_004018	69.1
Hebei partiti-like virus 3	Novel	<i>Durnavirales</i>	<i>Partitiviridae</i>	dsRNA	MK279452	85.46
Hebei partiti-like virus 4	Novel	<i>Durnavirales</i>	<i>Partitiviridae</i>	dsRNA	MT035912	68.88
Kashgar Parti tick virus 1	Known	<i>Durnavirales</i>	<i>Partitiviridae</i>	dsRNA	ON812118	99.1
Hebei alternavirus	Novel	<i>Ghabrivirales</i>	<i>Alternaviridae</i>	dsRNA	NC_079109	70.6
Hebei toti-like virus 1	Novel	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	ON812812	81.7
Hebei toti-like virus 2	Novel	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	MN035631	62.7
Hulunbuir Totiv tick virus 1	Known	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	ON746558	99.8

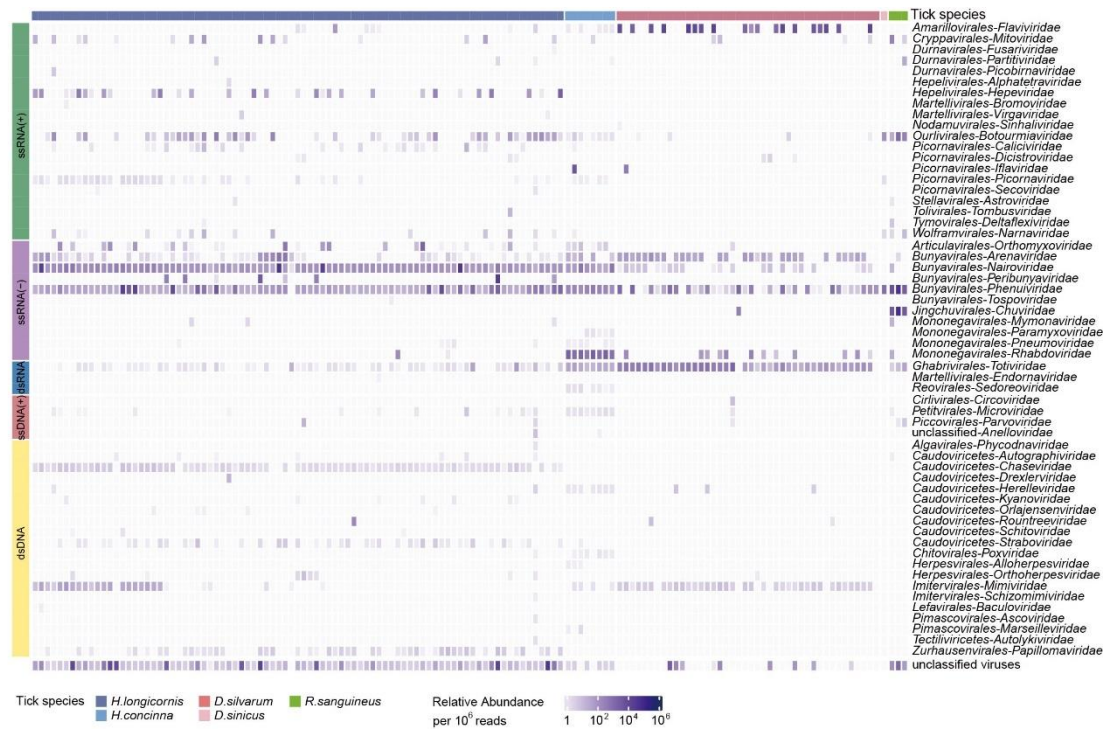
Hulunbuir Totiv tick virus 2	Known	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	ON746550	98.24
Toti-like virus 4	Known	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	ON812756	99.5
Yanbian Totiv tick virus 1	Known	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	ON812595	99.5
Zhangjiakou Totiv tick virus 1	Known	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	ON812798	100
Zhangjiakou Totiv tick virus 2	Known	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	ON746546	99.9
Zhangzhou Totiv tick virus 1	Known	<i>Ghabrivirales</i>	<i>Totiviridae</i>	dsRNA	ON812810	98.6
Hepelivirales sp.	Known	<i>Hepelivirales</i>		ssRNA(+)	MW334982	99.8
Tick borne tetravirus-like virus	Known	<i>Hepelivirales</i>	<i>Hepeviridae</i>	ssRNA(+)	OP863278	98.6
Hebei mivirus 1	Known	<i>Jingchuvirales</i>	<i>Chuviridae</i>	ssRNA(-)	MZ244262	99.7
Changping Tick Virus 3	Known	<i>Jingchuvirales</i>	<i>Chuviridae</i>	ssRNA(-)	NC_028261	99.8
Youcai mosaic virus	Known	<i>Martellivirales</i>	<i>Virgaviridae</i>	ssRNA(+)	AF254924	97.3
Fusarium proliferatum mymonavirus 1	Known	<i>Mononegavirales</i>	<i>Mymonaviridae</i>	ssRNA(-)	OQ685977	93.35
Guyuan Rhabd tick virus 1	Known	<i>Mononegavirales</i>	<i>Rhabdoviridae</i>	ssRNA(-)	ON812538	100
Hebei mymona-like virus	Novel	<i>Mononegavirales</i>	<i>Mymonaviridae</i>	ssRNA(-)	ON746413	78.8
Qingyang Rhabd tick virus 1	Known	<i>Mononegavirales</i>	<i>Rhabdoviridae</i>	ssRNA(-)	ON812477	99.5
<i>Sclerotimonavirus fusarii</i>	Known	<i>Mononegavirales</i>	<i>Mymonaviridae</i>	ssRNA(-)	MZ969067	99.9
Tahe rhabdovirus 1	Known	<i>Mononegavirales</i>	<i>Rhabdoviridae</i>	ssRNA(-)	ON408166	99
Yanbian Rhabd tick virus 3	Known	<i>Mononegavirales</i>	<i>Rhabdoviridae</i>	ssRNA(-)	ON812558	99.8
Zhangjiakou Rhabd tick virus 1	Known	<i>Mononegavirales</i>	<i>Rhabdoviridae</i>	ssRNA(-)	ON812541	100
Apple ourmia-like virus 1	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	NC_076771	96
<i>Betascleroulivirus betaplasmodiae</i>	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON813014	98.6
<i>Betascleroulivirus etaplasmodiae</i>	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON813049	92.43
<i>Botoulivirus etaplasmodiae</i>	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	NC_076810	95.5
Botourmiaviridae sp.	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON585106	94.02
Cladosporium magoulivirus 1	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812998	99.7
Erysiphe necator associated ourmia-like virus 25	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	NC_076770	91.1
Erysiphe necator associated ourmia-like virus 41	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812988	94.1
Erysiphe necator associated ourmia-like virus 42	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812852	96.6
Erysiphe necator associated ourmia-like virus 62	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON813013	98.8
Erysiphe necator associated ourmia-like virus 82	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812890	98.5

Erysiphe necator associated ourmia-like virus 94	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812933	98.5
Hebei betascleroulivirus	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	NC_076769	87.8
Hebei botoulivirus	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	MZ679372	38.8
Hebei botourmia-like virus 1	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812907	83.5
Hebei botourmia-like virus 10	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	MZ679360	52.6
Hebei botourmia-like virus 11	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	NC_076810	57.8
Hebei botourmia-like virus 12	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812857	88.3
Hebei botourmia-like virus 13	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON746358	86.8
Hebei botourmia-like virus 14	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON585077	84.1
Hebei botourmia-like virus 15	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON746358	87.2
Hebei botourmia-like virus 16	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON746358	87.2
Hebei botourmia-like virus 2	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	MN611558	87.5
Hebei botourmia-like virus 3	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON585092	49.9
Hebei botourmia-like virus 4	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	NC_076762	43.3
Hebei botourmia-like virus 5	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812947	60
Hebei botourmia-like virus 6	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	OQ862553	73
Hebei botourmia-like virus 7	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812899	64.7
Hebei botourmia-like virus 8	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812050	57.8
Hebei botourmia-like virus 9	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON746360	62.6
Hebei magoulivirus	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	NC_076741	77.7
Hebei ourmiavirus 1	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	MN565693	89.6
Hebei ourmiavirus 2	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	MN611637	86.3
Hebei scleroulivirus	Novel	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	MN611541	85.8
Hulunbuir Botou tick virus 1	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON813057	94.5
Hulunbuir Botou tick virus 2	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON813012	97.6
Hulunbuir Botou tick virus 7	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON813053	98.2
Kashgar Botou tick virus 1	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812979	96.92
Lianyungang Botou tick virus 2	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812857	96.6
Lianyungang Botou tick virus 4	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812857	97.2
Nanning Botou tick virus 2	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON813070	99.1

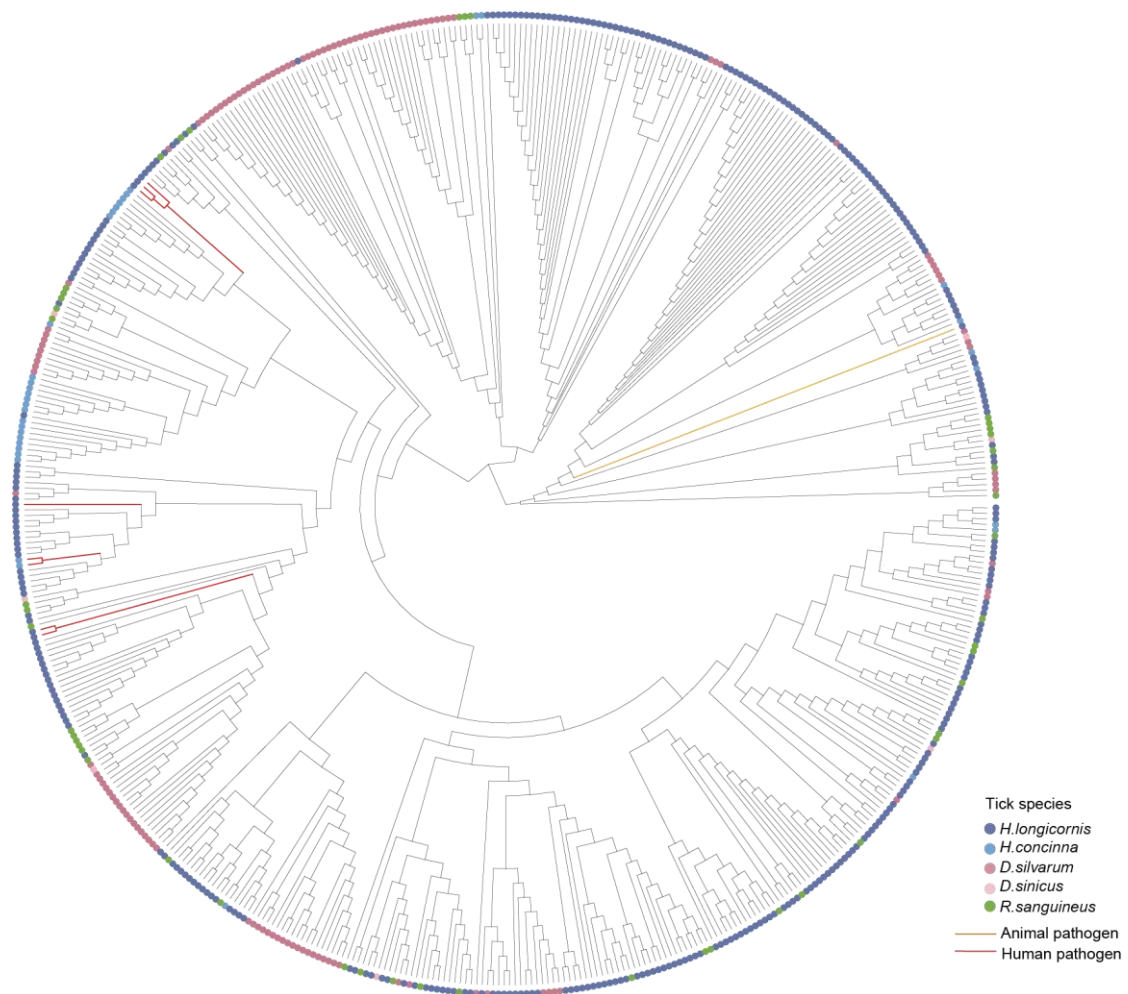
Plasmopara viticola lesion associated ourmia-like virus 41	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	NC_076771	95.7
Plasmopara viticola lesion associated ourmia-like virus 84	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812876	94
Tianjin Botou tick virus 1	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON746358	98.2
Tonghua Botou tick virus 2	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	ON812848	93.81
XiangYun narna-levi-like virus 2	Known	<i>Ourlivirales</i>	<i>Botourmiaviridae</i>	ssRNA(+)	OL700138	98.1
Ovine parvovirus	Known	<i>Piccovirales</i>	<i>Parvoviridae</i>	ssDNA(+)	MZ244301	94.74
canine parvovirus	Known	<i>Piccovirales</i>	<i>Parvoviridae</i>	ssDNA(+)	MF510157	100
Psittaciform parvoviridae sp.	Known	<i>Piccovirales</i>	<i>Parvoviridae</i>	ssDNA(+)	OP577481	99.6
Daqing Iflav tick virus 1	Known	<i>Picornavirales</i>	<i>Iflaviridae</i>	ssRNA(+)	ON811773	99.4
Jilin tick iflavirus	Known	<i>Picornavirales</i>	<i>Iflaviridae</i>	ssRNA(+)	OR126303	99.8
Rabbit hemorrhagic disease virus	Known	<i>Picornavirales</i>	<i>Caliciviridae</i>	ssRNA(+)	KT308115	95.28
Beijing Reovi tick virus 1	Known	<i>Reovirales</i>	<i>Sedoreoviridae</i>	dsRNA	ON746514	99.7
Dandong tick virus 1	Known	Riboviria		ssRNA(-)	ON746491	99.53
Hebei Aspi-like virus 1	Novel	Riboviria	<i>Aspiviridae</i>	ssRNA(-)	MN585281	78.5
Hebei tick virus 10	Novel		Ormycovirus	NA	OM272935	34.1
Hebei tick virus 11	Novel		Ormycovirus	NA	OM272935	31.2
Hebei tick virus 12	Novel		Ormycovirus	NA	OM262449	14.17
Hebei tick virus 13	Novel	Riboviria		ssRNA(+)	MN611686	60.38
Hebei Aspi-like virus 2	Novel		<i>Aspiviridae</i>	ssRNA(-)	OR224970	58.46
Hebei tick virus 2	Novel	Riboviria		ssRNA(+)	MN611681	87.9
Hebei tick virus 3	Novel		Ormycovirus	NA	PQ000872	54.5
Hebei tick virus 4	Novel		Ormycovirus	NA	OM272937	27.4
Hebei tick virus 5	Novel	Riboviria		ssRNA(+)	MT646404	12.2
Hebei tick virus 6	Novel	Riboviria		ssRNA(+)	OR870351	59.4
Hebei tick virus 7	Novel	Riboviria		ssRNA(+)	MT646404	52.31
Hebei tick virus 8	Novel	Riboviria		ssRNA(+)	MN557013	59.5
Hebei tick virus 9	Novel		Ormycovirus	NA	LC671619	70.5
Hubei tick virus 1	Known	<i>Picornavirales</i>	<i>Picornavirales</i>	ssRNA(+)	OQ513638	99.8

Zhejiang mosquito virus 3	Known	Riboviria	<i>Narnaviridae</i>	ssRNA(+)	KX883537	98.9
Hebei solemo-like virus	Novel	<i>Sobelivirales</i>	<i>Solemoviridae-Tombusviridae</i>	ssRNA(+)	ON408204	78.12
Xinjiang tick associated virus 1	Known	<i>Sobelivirales</i>	<i>Solemoviridae-Tombusviridae</i>	ssRNA(+)	ON408203	98.83
Solanum melongena bastro-like virus	Known	<i>Stellavirales</i>	<i>Astroviridae</i>	ssRNA(+)	MN841288	99.4
Cheeloo luteovirus 1	Known	<i>Tolivirales</i>	<i>Tombusviridae</i>	ssRNA(+)	KM048319	99.76
Cheeloo tick virus 3	Known	<i>Tolivirales</i>	<i>Tombusviridae</i>	ssRNA(+)	OR148393	100
Hebei luteovirus	Novel	<i>Tolivirales</i>	<i>Solemoviridae-Tombusviridae</i>	ssRNA(+)	KM048319	78.6
Hubei sobemo-like virus 15	Known	<i>Tolivirales</i>	<i>Solemoviridae-Tombusviridae</i>	ssRNA(+)	NC_032208	100
Rice Tombus-like virus 3	Known	<i>Tolivirales</i>	<i>Tombusviridae</i>	ssRNA(+)	MT317175	99.1
Agrostis stolonifera deltaflexivirus 1	Known	<i>Tymovirales</i>	<i>Deltaflexiviridae</i>	ssRNA(+)	ON811605	98.6
Bremia lactucae associated splipalmivirus 1	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MZ926717	92.3
Downy mildew lesion associated splipalmivirus 2	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	OM514592	99.3
Downy mildew lesion associated splipalmivirus 3	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539820	91.3
Downy mildew lesion associated splipalmivirus 44	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	OQ990762	98.9
Erysiphe necator associated namavirus 6	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	ON811954	99.7
Hebei namavirus 1	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MT338026	49.7
Hebei namavirus 10	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539851	80.9
Hebei namavirus 11	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539860	83.2
Hebei namavirus 12	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539860	62.5
Hebei namavirus 13	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	PP174049	22.6
Hebei namavirus 14	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	ON791664	65.4
Hebei namavirus 2	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	OK165495	60.1
Hebei namavirus 3	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MK584836	71.4
Hebei namavirus 4	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN736965	58.5
Hebei namavirus 5	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MT119676	43.2
Hebei namavirus 6	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539829	76.7
Hebei namavirus 7	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539829	63.4
Hebei namavirus 8	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539835	26.5
Hebei namavirus 9	Novel	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539851	79.5
Neofusicoccum parvum namavirus 2	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	ON812031	99

Plasmopara viticola lesion associated narnavirus 35	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539852	97.1
Plasmopara viticola lesion associated narnavirus 43	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539860	95.6
Plasmopara viticola lesion associated narnavirus 9	Known	<i>Wolframvirales</i>	<i>Narnaviridae</i>	ssRNA(+)	MN539826	93.9
Hebei alphayadokarivirus 1	Novel	<i>Yadokarivirales</i>	<i>Yadokariviridae</i>	ssRNA(+)	NC_076822	54.8
Hebei betayadokarivirus	Novel	<i>Yadokarivirales</i>	<i>Yadokariviridae</i>	ssRNA(+)	MN585288	23.7
Hebei birna-like virus 1	Novel		<i>Birnaviridae</i>	dsRNA	ON038387	77.36

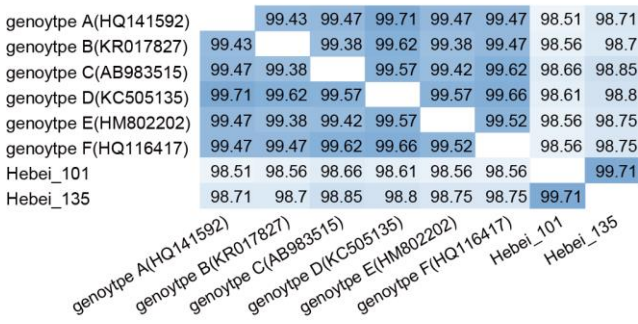


Supplementary Figure 1. Viral relative abundance in RNA libraries. Each square in the heat map represents the normalized number of reads that belong to a given virus order or family according to the Kraken2 annotation. Tick species information for each sample is indicated by the corresponding color at the top.

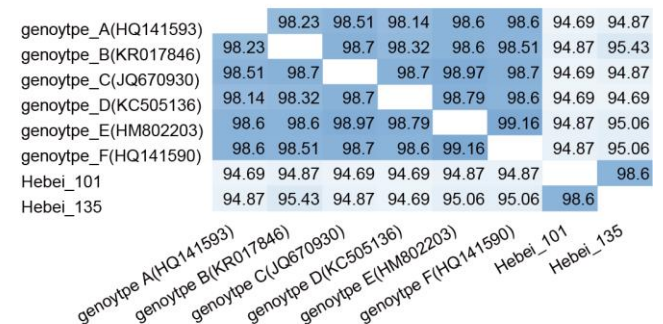


Supplementary Figure 2. Circular phylogenetic tree of RNA viruses identified based on RdRP protein. The colored outer ring represents different tick species. Viral taxa with human pathogenic viruses are shown in red branches and animal pathogenic viruses are shown in orange branches.

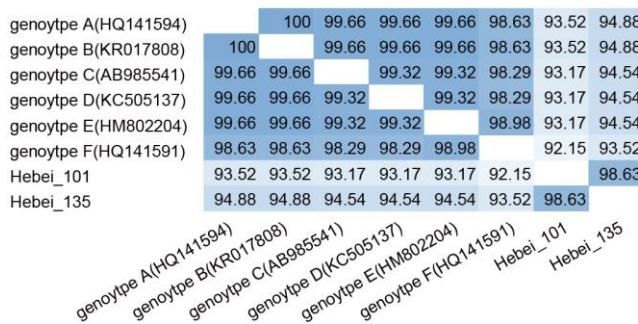
a *Bandavirus dabieense* (L) aa



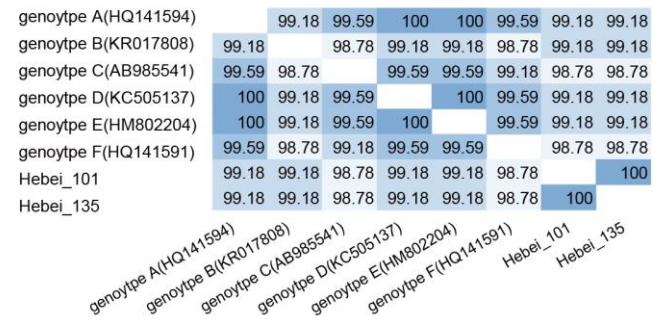
b *Bandavirus dabieense* (M) aa



c *Bandavirus dabieense* (NS) aa



d *Bandavirus dabieense* (NP) aa



Supplementary Figure 3. Heatmaps showed the pairwise identities of different genotype for *Bandavirus dabieense* based on alignment and comparison of full-length coding sequences. a) Similarity matrix of *Bandavirus dabieense* based on RdRP protein. b) Similarity matrix of *Bandavirus dabieense* based on glycoprotein polyprotein. c) Similarity matrix of *Bandavirus dabieense* based on NS protein. d) Similarity matrix of *Bandavirus dabieense* based on nucleocapsid protein. Darker blue shading represented higher similarity values.