

Supplementary tables

Table S1. Details of tick sampling in Hulunbuir

Locations	Sampling date	Tick species	Sex	No.
Yiliekedede	2021.7	<i>H. longicornis</i>	♀	40
			♂	40
		<i>I. persulcatus</i>	♀	40
			♂	40
Wunuer	2021.6	<i>D. silvarum</i>	♀	25
			♂	25
Meitian	2021.6	<i>D. silvarum</i>	♀	25
			♂	25
Dayan	2021.6	<i>D. silvarum</i>	♀	15
			♂	15
Mianduhe	2021.6	<i>D. silvarum</i>	♀	15
			♂	15
Moguai	2021.6	<i>D. silvarum</i>	♀	30
			♂	30
Muyuan	2021.6	<i>D. silvarum</i>	♀	15
			♂	15
Tenihe	2021.6	<i>D. silvarum</i>	♀	15
			♂	15
Yakeshi	2021.6	<i>D. silvarum</i>	♀	15
			♂	15
Zhaluomude	2021.6	<i>D. silvarum</i>	♀	15
			♂	15
Total				500

Table S2. Pooling and sequencing information of the tick libraries

Library	Location	Tick species	Sex	No.	No. of total sequencing reads	No. of viral reads	Proportion of viral reads (%)
1	Yiliekedede	<i>I. persulcatus</i>	♂	20	103167516	297444	0.28831168
2	Yiliekedede	<i>I. persulcatus</i>	♂	20	122769954	247216	0.20136523
3	Yiliekedede	<i>I. persulcatus</i>	♀	20	122769954	191114	0.15566838
4	Yiliekedede	<i>I. persulcatus</i>	♀	20	145069758	119993	0.082714
5	Yiliekedede	<i>H. longicornis</i>	♂	20	128795488	67447	0.05236752

6	Yiliekedede	<i>H. longicornis</i>	♂	20	146046282	2843	0.00194664
7	Yiliekedede	<i>H. longicornis</i>	♀	20	150413092	21446	0.01425807
8	Yiliekedede	<i>H. longicornis</i>	♀	20	144980440	25521	0.01760306
9	Wunuer	<i>D. silvarum</i>	♂	10	155573416	10260	0.00659496
10	Wunuer	<i>D. silvarum</i>	♀	10	112236606	6071	0.00540911
11	Meitian	<i>D. silvarum</i>	♂	10	133354171	24516	0.01838413
12	Meitian	<i>D. silvarum</i>	♀	10	87775647	37338	0.04253799

Table S3. Primers used in this study

Virus	Primer	Position (bp)*	Sequence (5'→3')	Amplicon (bp)
SGLV-YL	SGLV-YL-F	4071	CTAGTCGTCTACTCGAAAGTAT	outer: 524 inner: 422
	SGLV-YL-R	4595	AGGACCTAGCAAAGCACTGA	
	SGLV-YL-F'	4173	CTTGCCATTGCTCTCCCTTCTA	
BJNV-YL	BJNV-YL-F	458	CTCACTGCAATCTTGGTCATTCA	outer: 692 inner: 379
	BJNV-YL-R	1150	ACCAGCCTATCAGTCATTGAAC	
	BJNV-YL-F'	771	TCATGCTTCAGAACAACCCTAAG	
YLTV1	YLTV1-F	523	GTCATCACCCCTCTGAGTCTGCT	outer: 540 inner: 353
	YLTV1-R	1063	AGTGGAAGTAACTTCGTTTCATTC	
	YLTV1-F'	710	GGTGCATGGCACTGCTGGCCAAT	
MtTV	MtTV-F	419	CTCCAGTGGGCCATGGATGCAAT	outer: 603 inner: 335
	MtTV-R	1022	GGTTGATGACCTTCGAGAACTCT	
	MtTV-F'	687	CAGAGAAGATGAAGAACCGCATGT	
NOMV-YL	NOMV-YL-F	533	GACATTACCGCACCATCTTAGAT	outer: 588 inner: 289
	NOMV-YL-R	1121	TTGTAGTTTCTGAGGGTCCTCT	
	NOMV-YL-F'	832	CAAGTCACACTCCAGCAAGCTG	