

Table S1. The number of animals infested with ectoparasites as well as the number (percentage) of animals infested with *Rickettsia*-PCR positive fleas or ticks.

Type of animal host	N	Number of animals infested with ticks	Number of animals infested with <i>Rickettsia</i> -PCR positive ticks	Number of animals infested with fleas	Number of animals infested with <i>Rickettsia</i> -PCR positive fleas
Dogs	116	64	3 (4.7%)	84	68 (81.0%)
Cats	7	0	0	7	1 (14.3%)
Cattle	2	2	0	0	0

Table S2. The number of dogs infested with ectoparasites and screened for *Rickettsia* DNA as well as *Rickettsia* species detected from ectoparasites collected from them.

Ectoparasite types	Number of dogs infested with ectoparasites	Number of animals infested with <i>Rickettsia</i> -PCR positive ticks or fleas	Number of dogs infested with <i>Rickettsia</i> species-PCR positive fleas (N=68)		
			<i>R. asembonensis</i>	<i>Ca. R. senegalensis</i>	<i>R. asembonensis</i> and <i>Ca. R. senegalensis</i>
Ticks only	32	2 (6.3%)*	0	0	0
Fleas only	52	42 (80.8%)	31	5	6
Ticks and fleas	32	27 (84.4%)#	24	1	1
Total	116	71 (61.2%)	55	6	7

*One was infected with *Ca. R. senegalensis*, another was infected with *R. heilongjiangensis*; #Only one tick pool was positive for *R. heilongjiangensis*.