

Additional file 4: Table S4. Detailed information on PCR amplification and species identification of *Rickettsia* from *Triatoma rubrofasciata* , *Ctenocephalides felis* , *Rattus norvegicus* , and *Rhipicephalus microplus*

Species	Sample ID	Location	Host / Tissue	Closest similarity in GenBank according to rickettsial genes (accession numbers in parentheses)					
				<i>groEL</i>	<i>rrs</i>	<i>gltA</i>	<i>17kDa</i>	<i>ompA</i>	<i>ompB</i>
<i>Triatoma rubrofasciata</i>	GxTrRi-4	Qinzhou,Qinbei	heads/gut/feces	<i>R. felis</i> (MT019639.1) 98.87%	Not successful	Not successful	<i>R. felis</i> (MK242042.1)99.73%	<i>R. felis</i> (KY913641.1)99.56%	Not successful
<i>Triatoma rubrofasciata</i>	GxTrRi-10	Nanning,Qingxiu	heads/feces	<i>R. felis</i> (MT019639.1)98.94%	Not successful	Not successful	Not successful	Not successful	Not successful
<i>Triatoma rubrofasciata</i>	GxTrRi-11	Qinzhou,Qinbei	heads/gut/feces	<i>R. felis</i> (MT019639.1)99.44%	Not successful	Not successful	Not successful	Not successful	Not successful
<i>Triatoma rubrofasciata</i>	GxTrRi-24	Qinzhou,Qinbei	gut/feces	<i>R. felis</i> (MT019639.1)98.88%	<i>R. felis</i> (MT003287.1)99.88%	<i>R. felis</i> (KF242471.1) 100%	<i>R. felis</i> (MK242042.1)99.73%	Not successful	<i>R. felis</i> (PP820517.1)99.21%
<i>Triatoma rubrofasciata</i>	GxTrRi-26	Qinzhou,Qinbei	gut/feces	<i>R. felis</i> (MT019639.1)99.44%	Not successful	Not successful	Not successful	Not successful	Not successful
<i>Triatoma rubrofasciata</i>	GxTrRi-57	Chongzuo,Jiangzhou	gut/feces	<i>R. felis</i> (MT019639.1)98.95%	Not successful	Not successful	Not successful	<i>R. felis</i> (KY913646.1)99.57%	<i>R. felis</i> (PQ151995.1)100%
<i>Triatoma rubrofasciata</i>	GxTrRi-87	Chongzuo, Jiangzhou	gut/feces	<i>R. felis</i> (MT019639.1)98.88%	Not successful	Not successful	Not successful	Not successful	Not successful
<i>Triatoma rubrofasciata</i>	HnTrRi-5	Hainan,Lingao	feces	<i>R. felis</i> (MT019639.1)99.42%	<i>R. felis</i> (MT003287.1)99.88%	<i>R. felis</i> (KF242471.1) 100%	<i>R. felis</i> (MK242042.1)100%	<i>R. felis</i> (KY913639.1)100%	<i>R. felis</i> (PP820517.1)99.21%
<i>Ctenocephalides felis</i>	GxCfRi-2	Nanning, Xixiangtang	dog	<i>R. felis</i> (MT019639.1)96.28%	<i>R. felis</i> (MT003287.1)99.88%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (OM675973.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-3	Nanning, Xixiangtang	cat	<i>R. felis</i> (MT019639.1)96.69%	<i>R. felis</i> (MT003287.1)99.77%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (MK242042.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (PQ151995.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-12	Nanning, Xixiangtang	dog	<i>R. felis</i> (MT019639.1)98.31%	<i>R. felis</i> (MT003287.1)99.77%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (OM675973.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-13	Nanning, Xixiangtang	cat	<i>R. felis</i> (MT019639.1)99.45%	<i>R. felis</i> (DQ102712.1)99.88%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (OM675973.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-28	Nanning, Xixiangtang	cat	<i>R. felis</i> (MT019639.1)99.45%	<i>R. felis</i> (MT003287.1)99.88%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (PQ151995.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-34	Nanning, Xixiangtang	cat	<i>R. felis</i> (MT019639.1)99.44%	<i>R. felis</i> (MT003287.1)99.77%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (MF175774.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (OM675973.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-36	Nanning, Xixiangtang	cat	<i>R. felis</i> (MT019639.1)98.31%	<i>R. felis</i> (MT003287.1)99.42%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (PQ151995.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-39	Nanning, Xixiangtang	cat	<i>R. felis</i> (MT019639.1)99.44%	<i>R. felis</i> (MT003287.1)99.88%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (PQ151995.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-44	Nanning, Xixiangtang	cat	<i>R. felis</i> (MT019639.1)99.44%	<i>R. felis</i> (MT003287.1)99.53%	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (OM675973.1)100%
<i>Ctenocephalides felis</i>	GxCfRi-52	Nanning, Xixiangtang	cat	<i>R. felis</i> (MT019639.1)98.87%	Not successful	<i>R. felis</i> (MW864276.1)100%	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (MT036381.1)100%	<i>R. felis</i> (PQ151995.1)100%
<i>Rattus norvegicus</i>	GxRaRi-33	Nanning, Xixiangtang	heart	Not successful	Not successful	Not successful	<i>R. felis</i> (OR567478.1)99.73%	<i>R. felis</i> (OR083232.1)97.48%	Not successful
<i>Rattus norvegicus</i>	GxRaRi-36	Nanning, Xixiangtang	heart	Not successful	<i>R. felis</i> (MT003287.1)99.73%	Not successful	<i>R. felis</i> (OR567478.1)100%	<i>R. felis</i> (KM006812.1)97.95%	Not successful
<i>Rattus norvegicus</i>	GxRaRi-66	Nanning, Xixiangtang	heart	Not successful	<i>R. felis</i> (MT003287.1)99.42%	<i>R. felis</i> (MW864275.1)100%	<i>R. felis</i> (OR567478.1)99.73%	Not successful	<i>R. felis</i> (PQ151995.1)100%
<i>Rhipicephalus microplus</i>	GxPcRi-7	Liuzhou, Rongshui	cattle	<i>Rickettsia</i> sp. (GQ499936.1)100%	Candidatus <i>R. jingxinensis</i> (OP764497.1)99.77%	Candidatus <i>R. jingxinensis</i> (OP080659.1)99.84%	Candidatus <i>R. jingxinensis</i> (PP117206.1)99.48%	Candidatus <i>R. jingxinensis</i> (OP776196.1)99.59%	Candidatus <i>R. jingxinensis</i> (PP922937.1)100%
<i>Rhipicephalus microplus</i>	GxPcRi-9	Liuzhou, Rongshui	cattle	<i>Rickettsia</i> sp. (GQ499936.1)99.43%	Candidatus <i>R. jingxinensis</i> (OP047983.1)100%	Candidatus <i>R. jingxinensis</i> (OQ702262.1)99.84%	Candidatus <i>R. jingxinensis</i> (OQ581084.1)99.74%	Candidatus <i>R. jingxinensis</i> (OP776196.1)99.59%	Candidatus <i>R. jingxinensis</i> (PQ151996.1)99.37%

<i>Rhipicephalus microplus</i>	GxPcRi-13	Liuzhou, Rongshui	cattle	<i>Rickettsia</i> sp. (GQ499936.1)96.11%	Candidatus <i>R. jingxinensis</i> (MH923219.1)99.88%	Candidatus <i>R. jingxinensis</i> (OP080659.1)99.84%	Candidatus <i>R. jingxinensis</i> (OQ702257.1)100%	Candidatus <i>R. jingxinensis</i> (OP776196.1)99.59%	Candidatus <i>R. jingxinensis</i> (PP922937.1)100%
<i>Rhipicephalus microplus</i>	GxPcRi-60	Baise, Youjiang	cattle	<i>Rickettsia</i> sp. (GQ499936.1)100%	Candidatus <i>R. jingxinensis</i> (OP047983.1)100%	Candidatus <i>R. jingxinensis</i> (OP080659.1)99.68%	Candidatus <i>R. jingxinensis</i> (PP117206.1)99.48%	Candidatus <i>R. jingxinensis</i> (OP776196.1)99.60%	Candidatus <i>R. jingxinensis</i> (PP922937.1)99.71%
<i>Rhipicephalus microplus</i>	GxPcRi-67	Baise, Youjiang	cattle	<i>Rickettsia</i> sp. (GQ499936.1)100%	Candidatus <i>R. jingxinensis</i> (MH923219.1)99.88%	Candidatus <i>R. jingxinensis</i> (OQ702261.1)99.52%	Candidatus <i>R. jingxinensis</i> (PQ133377.1)100%	Candidatus <i>R. jingxinensis</i> (OP776196.1)99.40%	Candidatus <i>R. jingxinensis</i> (PP922937.1)99.42%
<i>Rhipicephalus microplus</i>	GxPcRi-68	Baise, Youjiang	dog	<i>Rickettsia</i> sp. (EU402927.1)100%	Candidatus <i>R. jingxinensis</i> (OP047983.1)100%	Candidatus <i>R. jingxinensis</i> (OQ702261.1)99.84%	Candidatus <i>R. jingxinensis</i> (OQ581084.1)99.74%	Candidatus <i>R. jingxinensis</i> (OP776196.1)99.60%	Candidatus <i>R. jingxinensis</i> (PP922937.1)100%
<i>Rhipicephalus microplus</i>	GxPcRi-81	Baise, Youjiang	dog	<i>Rickettsia</i> sp. (GQ499936.1)100%	Candidatus <i>R. jingxinensis</i> (OR922297.1)99.88%	Candidatus <i>R. jingxinensis</i> (OQ702262.1)99.84%	Candidatus <i>R. jingxinensis</i> (OQ581084.1)99.74%	Candidatus <i>R. jingxinensis</i> (OP776196.1)99.60%	Candidatus <i>R. jingxinensis</i> (PP922937.1)100%
<i>Rhipicephalus microplus</i>	GxPcRi-90	Hechi, Duan	cattle	<i>Rickettsia</i> sp. (GQ499936.1)100%	Candidatus <i>R. jingxinensis</i> (OR922297.1)99.88%	Candidatus <i>R. jingxinensis</i> (OQ702261.1)99.84%	Candidatus <i>R. jingxinensis</i> (PQ133377.1)100%	Candidatus <i>R. jingxinensis</i> (OP296526.1)100%	Candidatus <i>R. jingxinensis</i> (ON600653.1)99.46%
<i>Rhipicephalus microplus</i>	GxPcRi-94	Hechi, Duan	cattle	<i>Rickettsia</i> sp. (GQ499936.1)100%	Candidatus <i>R. jingxinensis</i> (OP047983.1)100%	Candidatus <i>R. jingxinensis</i> (OP080659.1)99.36%	Candidatus <i>R. jingxinensis</i> (OQ581084.1)99.74%	Candidatus <i>R. jingxinensis</i> (OP296526.1)100%	Candidatus <i>R. jingxinensis</i> (ON600653.1)99.46%
<i>Rhipicephalus microplus</i>	GxPcRi-127	Beihai, haicheng	cattle	<i>Rickettsia</i> sp. (GQ499941.1)100%	Candidatus <i>R. jingxinensis</i> (OP047983.1)100%	Candidatus <i>R. jingxinensis</i> (OP080659.1)99.52%	Candidatus <i>R. jingxinensis</i> (PP117210.1)99.48%	Candidatus <i>R. jingxinensis</i> (OL856107.1)99.78%	Candidatus <i>R. jingxinensis</i> (PP922932.1)99.38%
<i>Rhipicephalus microplus</i>	GxPcRi-136	Beihai, hepu	cattle	<i>Rickettsia</i> sp. (GQ499954.1)100%	Candidatus <i>R. jingxinensis</i> (MH923219.1)99.88%	Candidatus <i>R. jingxinensis</i> (OQ702262.1)99.68%	Candidatus <i>R. jingxinensis</i> (PP117210.1)99.48%	Candidatus <i>R. jingxinensis</i> (PP116501.1)99.78%	Not successful

Not successful, PCR amplification failed.