	Babesia macropus (JQ437265)	*Babesia* sp.(JQ682875)	*Babesia* sp. BP1(MG251435)	*Babesia* sp. BP7 (MG251436)	*Babesia lohae* (MG593272)	*Babesia mackerrasorum* (MG593271)	*Babesia occultans* (HQ331479)	*Babesia caballi* (EU888904)	*Babesia odocoilei* (U16369)	*Babesia divergens* (FJ944826)	*Babesia gibsoni* (KC461261)	*Babesia canis* (AY272047)	*Babesia canis canis* (AY072926)	*Theileria annulata* (KF429800)	*Theileria lestoquardi* (AF081135)	*Theileria orientalis* (AB520958)	*Theileria* sp. (MG251440)	*Theileria orientalis* (FJ822144)	*Theileria uilenbergi* (JF719835)	*Theileria cervi* (HQ184412)	*Cytauxzoon manul* (AY485690)	*Cytauxzoon* sp. (AY309956)	*Theileria equi* (KF559357)	*Theileria* sp. K1 (JQ682879)	***Theileria* sp.TP8 - CLADE B**	***Theileria* sp.TP13 - CLADE B**	*Theileria paparinii* (MG758115)	***Theileria* sp. Q2031a - CLADE C**	***Theileria* sp.1051 - CLADE C**	*Theileria* sp. B16 (MG251437)	*Theileria* sp. B60 (MG251439)	*Theileria* sp. B43 (MG251438)	*Theileria apogeana* (MG758116)	*Theileria* sp. (MF576261)	*Theileria worthingtonorum* (MG758114)	***Theileria* sp. F92 - CLADE D**	***Theileria* sp. Q2367 - CLADE E**	*Theileria palmeri* (MG758113)	***Theileria* sp.TB105 - CLADE A**	***Theileria* sp. Q2377 - CLADE A**	*Theileria tachyglossi* (KY953251)	*Theileria ornithorhynchi* (KT937391)	*Babesia conradae* (AF158702)	*Babesia duncani* (HQ289870)	*Babesia microti* (LC005754)	*Babesia vulpes* (KT580785)	*Babesia felis* (AY452707)	*Babesia rodhaini* (M87565)	*Babesia bovis* (JX495403)
Babesia macropus (JQ437265)																																																											
Babesia sp.(JQ682875)	1.3%																																																										
Babesia sp. BP1(MG251435)	2.2%	2.1%																																																									
Babesia sp. BP7 (MG251436)	2.6%	2.3%	0.6%																																																								
Babesia lohae (MG593272)	2.6%	2.3%	0.6%	0.0%																																																							
Babesia mackerrasorum (MG593271)	2.2%	3.2%	3.6%	3.9%	3.9%																																																						
Babesia occultans (HQ331479)	2.3%	2.8%	3.1%	3.3%	3.3%	3.9%																																																				
Babesia caballi (EU888904)	6.9%	8.4%	9.0%	9.3%	9.3%	8.8%	8.0%																																																		
Babesia odocoilei (U16369)	10.1%	9.4%	9.9%	10.0%	10.0%	11.3%	10.4%	8.0%																																																	
Babesia divergens (FJ944826)	9.6%	8.8%	9.7%	9.7%	9.7%	10.5%	10.1%	7.7%	1.6%																																																
Babesia gibsoni (KC461261)	10.7%	10.5%	11.2%	10.9%	10.9%	12.5%	10.6%	9.4%	4.6%	5.2%																																																
Babesia canis (AY272047)	11.2%	12.3%	12.9%	12.9%	12.9%	13.4%	11.9%	9.4%	6.5%	6.7%	6.3%																																															
Babesia canis canis (AY072926)	11.5%	12.7%	13.3%	13.3%	13.3%	13.8%	12.3%	9.3%	6.5%	6.7%	6.0%	0.8%																																															
Theileria annulata (KF429800)	16.4%	18.2%	18.4%	18.5%	18.5%	18.1%	18.4%	17.9%	14.8%	14.7%	17.7%	17.8%	17.6%																																														
Theileria lestoquardi (AF081135)	16.5%	18.2%	18.5%	18.6%	18.6%	17.8%	18.5%	18.1%	14.8%	14.5%	17.3%	17.1%	17.3%	0.3%																																														
Theileria orientalis (AB520958)	15.0%	16.6%	16.3%	16.4%	16.4%	17.9%	16.6%	17.5%	14.6%	14.3%	16.3%	16.7%	16.8%	2.9%	2.9%																																														
Theileria sp. (MG251440)	15.0%	16.6%	16.3%	16.4%	16.4%	17.9%	16.6%	17.5%	14.6%	14.3%	16.3%	16.7%	16.8%	2.9%	2.9%	0.0%																																													
Theileria orientalis (FJ822144)	15.0%	16.7%	16.7%	16.5%	16.5%	17.2%	17.0%	16.7%	14.6%	13.7%	15.4%	16.5%	16.3%	2.3%	2.5%	0.6%	0.6%																																													
Theileria uilenbergi (JF719835)	17.5%	17.7%	18.0%	17.3%	17.3%	18.6%	17.9%	20.6%	14.4%	15.1%	14.6%	15.6%	16.8%	3.9%	3.6%	4.0%	4.0%	3.7%																																												
Theileria cervi (HQ184412)	16.4%	17.0%	16.8%	16.6%	16.6%	17.7%	17.4%	19.7%	13.8%	13.8%	15.9%	16.4%	16.9%	2.7%	2.6%	3.2%	3.2%	2.7%	2.0%																																											
Cytauxzoon manul (AY485690)	18.3%	18.7%	18.8%	18.6%	18.6%	20.0%	18.2%	18.9%	13.9%	15.2%	14.3%	17.8%	17.8%	7.6%	7.7%	7.8%	7.8%	7.3%	8.2%	7.9%																																											
Cytauxzoon sp. (AY309956)	20.6%	20.9%	21.0%	20.8%	20.8%	21.9%	20.4%	20.0%	14.7%	16.0%	15.8%	18.8%	18.8%	8.0%	8.1%	9.0%	9.0%	8.3%	9.1%	8.7%	0.5%																																									
Theileria equi (KF559357)	16.5%	17.5%	17.5%	17.3%	17.3%	18.5%	17.8%	17.5%	14.0%	14.7%	16.2%	17.3%	17.0%	7.1%	6.8%	6.5%	6.5%	6.8%	7.9%	7.8%	6.4%	7.4%																																									
Theileria sp. K1 (JQ682879)	16.2%	16.5%	16.4%	16.7%	16.7%	17.8%	16.0%	14.3%	12.0%	12.5%	14.5%	14.7%	13.8%	6.8%	7.0%	7.4%	7.4%	6.9%	6.4%	6.9%	8.7%	9.1%	7.5%																																								
***Theileria* sp.TP8 - CLADE B**	16.6%	16.9%	16.8%	17.1%	17.1%	18.2%	16.4%	14.6%	12.3%	12.7%	14.8%	15.0%	14.1%	6.9%	7.2%	7.6%	7.6%	7.1%	6.6%	7.0%	8.9%	9.3%	7.7%	0.1%																																							
***Theileria* sp.TP13 - CLADE B**	16.9%	17.3%	17.1%	17.5%	17.5%	18.5%	16.7%	14.9%	12.5%	13.0%	15.1%	15.3%	14.3%	7.1%	7.4%	7.8%	7.8%	7.3%	6.8%	7.2%	9.1%	9.6%	7.9%	0.2%	0.1%																																						
Theileria paparinii (MG758115)	17.2%	17.2%	17.0%	17.3%	17.3%	19.2%	16.6%	15.0%	12.8%	12.9%	15.3%	15.2%	14.5%	7.2%	7.5%	7.7%	7.7%	7.5%	6.6%	7.1%	8.9%	9.3%	7.8%	0.5%	0.4%	0.5%																																				
***Theileria* sp. Q2031a - CLADE C**	17.3%	16.9%	15.8%	16.4%	16.4%	18.9%	16.3%	15.0%	12.8%	12.9%	15.4%	15.2%	14.2%	7.3%	7.5%	8.1%	8.1%	7.6%	7.1%	7.5%	8.8%	9.2%	8.2%	0.7%	0.7%	0.8%	0.8%																																			
***Theileria* sp.1051 - CLADE C**	17.7%	17.3%	16.3%	16.8%	16.8%	19.3%	16.7%	15.4%	13.2%	13.3%	15.8%	15.6%	14.6%	7.5%	7.8%	8.4%	8.4%	7.9%	7.4%	7.8%	9.1%	9.5%	8.5%	0.8%	0.9%	1.0%	1.0%	0.2%																																		
Theileria sp. B16 (MG251437)	17.9%	17.5%	17.0%	17.4%	17.4%	20.1%	16.3%	15.6%	12.6%	12.3%	15.0%	14.2%	14.1%	8.2%	8.3%	8.2%	8.2%	8.0%	7.7%	7.7%	7.4%	8.0%	8.2%	1.7%	1.8%	1.9%	1.5%	2.1%	2.3%																																
Theileria sp. B60 (MG251439)	17.7%	17.3%	16.8%	17.1%	17.1%	19.9%	16.1%	15.4%	12.4%	12.1%	14.8%	14.0%	13.9%	8.1%	8.2%	8.0%	8.0%	7.9%	7.5%	7.6%	7.3%	7.9%	8.1%	1.6%	1.7%	1.8%	1.4%	2.0%	2.2%	0.1%																														
Theileria sp. B43 (MG251438)	17.7%	17.3%	16.8%	17.2%	17.2%	20.2%	16.1%	15.4%	12.4%	12.7%	15.1%	14.1%	14.1%	7.8%	8.1%	7.9%	7.9%	7.8%	7.8%	7.9%	7.4%	8.0%	7.8%	1.7%	1.8%	1.9%	1.7%	2.1%	2.3%	0.6%	0.5%																												
Theileria apogeana (MG758116)	18.7%	17.8%	16.2%	16.5%	16.5%	20.2%	17.3%	15.9%	13.3%	13.4%	16.2%	16.3%	15.3%	8.9%	9.1%	9.0%	9.0%	8.8%	8.0%	9.0%	9.0%	9.4%	9.1%	2.2%	2.4%	2.5%	1.9%	2.3%	2.5%	2.8%	2.7%	2.7%																										
Theileria sp. (MF576261)	16.3%	17.5%	17.4%	17.0%	17.0%	17.7%	16.1%	15.1%	13.7%	13.3%	15.5%	16.1%	15.3%	8.7%	8.7%	8.9%	8.9%	8.8%	9.5%	9.8%	9.5%	10.1%	8.1%	3.8%	3.7%	3.8%	3.6%	4.6%	4.8%	4.3%	4.2%	4.5%	4.1%																								
Theileria worthingtonorum (MG758114)	15.5%	15.9%	16.5%	16.1%	16.1%	17.5%	15.5%	14.0%	12.7%	12.1%	14.5%	14.6%	13.8%	9.4%	9.4%	9.4%	9.4%	9.4%	8.7%	9.8%	9.3%	9.9%	8.3%	3.2%	3.1%	3.2%	3.0%	3.9%	4.1%	3.4%	3.3%	3.5%	3.0%	1.0%																						
***Theileria* sp. F92 - CLADE D**	15.2%	15.6%	16.5%	16.2%	16.2%	17.2%	15.2%	13.8%	12.6%	11.9%	14.0%	14.1%	13.4%	9.1%	9.1%	9.0%	9.0%	9.0%	8.4%	9.4%	8.9%	9.6%	8.0%	3.0%	2.9%	3.0%	2.8%	3.6%	3.8%	3.1%	3.0%	3.2%	2.9%	1.0%	0.1%																						
***Theileria* sp. Q2367 - CLADE E**	15.4%	15.9%	16.8%	16.4%	16.4%	17.5%	15.4%	14.4%	13.0%	12.3%	14.1%	14.3%	13.5%	9.0%	9.3%	9.4%	9.4%	9.0%	8.1%	9.2%	9.3%	10.0%	8.3%	3.1%	2.9%	3.1%	2.8%	3.7%	3.9%	3.2%	3.1%	3.3%	3.0%	1.4%	0.4%	0.5%																				
Theileria palmeri (MG758113)	18.4%	18.0%	18.2%	18.0%	18.0%	19.2%	17.0%	16.5%	13.2%	13.3%	15.7%	16.0%	15.4%	8.8%	9.1%	9.5%	9.5%	9.6%	10.8%	10.5%	7.9%	8.3%	8.2%	4.4%	4.3%	4.4%	3.9%	4.5%	4.7%	4.0%	3.9%	4.2%	4.1%	3.5%	3.7%	3.8%	3.3%																				
***Theileria* sp.TB105 - CLADE A**	15.2%	16.8%	16.2%	16.7%	16.7%	16.7%	15.8%	14.6%	13.4%	13.0%	15.3%	14.7%	14.1%	6.8%	7.0%	6.7%	6.7%	6.7%	8.3%	8.5%	8.6%	9.3%	7.0%	2.8%	2.9%	3.0%	3.1%	3.0%	3.2%	4.2%	4.1%	3.7%	3.9%	4.7%	4.3%	4.1%	4.2%	4.7%																				
***Theileria* sp. Q2377 - CLADE A**	15.6%	17.2%	16.5%	17.1%	17.1%	17.0%	16.1%	14.9%	13.6%	13.2%	15.6%	14.9%	14.4%	7.1%	7.3%	6.9%	6.9%	7.0%	8.6%	8.8%	8.8%	9.5%	7.2%	2.8%	2.9%	3.0%	3.2%	3.0%	3.2%	4.2%	4.1%	3.7%	4.1%	4.8%	4.4%	4.2%	4.3%	4.9%	0.2%																		
Theileria tachyglossi (KY953251)	20.0%	21.7%	21.4%	21.6%	21.6%	21.4%	22.4%	18.9%	15.8%	17.7%	19.7%	19.4%	18.9%	9.3%	9.6%	10.4%	10.4%	9.9%	10.1%	10.3%	9.1%	9.6%	10.1%	7.1%	7.3%	7.5%	7.4%	7.3%	7.5%	7.4%	7.3%	7.2%	7.4%	8.7%	8.1%	7.8%	7.9%	8.5%	8.0%	8.2%																		
Theileria ornithorhynchi (KT937391)	18.6%	19.8%	18.0%	18.1%	18.1%	20.4%	18.8%	17.3%	14.5%	16.0%	17.9%	17.0%	17.3%	8.2%	8.5%	8.9%	8.9%	8.9%	10.0%	9.5%	8.4%	9.0%	9.9%	7.2%	7.4%	7.6%	7.6%	7.1%	7.4%	8.1%	7.9%	7.8%	8.3%	8.8%	9.1%	8.7%	9.4%	9.4%	7.4%	7.6%	4.5%																	
Babesia conradae (AF158702)	17.6%	18.0%	18.3%	18.1%	18.1%	20.4%	19.2%	18.1%	14.1%	15.3%	15.7%	17.5%	17.8%	12.7%	13.0%	12.3%	12.3%	12.3%	11.5%	12.6%	9.3%	10.1%	10.9%	8.8%	9.0%	9.2%	8.9%	9.4%	9.7%	8.0%	7.8%	7.7%	8.8%	9.9%	9.1%	9.1%	9.3%	10.3%	9.7%	9.9%	9.9%	11.2%																
Babesia duncani (HQ289870)	17.4%	17.8%	17.5%	17.2%	17.2%	18.9%	18.0%	17.9%	14.0%	14.0%	16.5%	16.8%	17.1%	10.3%	10.6%	11.4%	11.4%	10.6%	10.7%	11.4%	8.9%	9.8%	9.1%	8.5%	8.8%	9.0%	9.6%	9.4%	9.7%	8.4%	8.2%	8.1%	9.3%	9.4%	8.6%	8.6%	8.7%	10.6%	9.5%	9.8%	9.9%	10.7%	2.3%														
Babesia microti (LC005754)	20.6%	21.5%	22.5%	22.2%	22.2%	21.5%	21.6%	21.9%	17.5%	17.8%	18.2%	19.9%	19.7%	11.8%	12.2%	12.9%	12.9%	12.6%	11.9%	13.5%	10.6%	11.5%	11.4%	10.5%	10.7%	10.9%	11.6%	11.1%	11.4%	11.9%	11.8%	11.7%	11.3%	12.4%	11.7%	11.3%	11.5%	11.0%	10.3%	10.4%	11.0%	10.9%	11.8%	12.3%												
Babesia vulpes (KT580785)	18.7%	19.3%	20.5%	20.7%	20.7%	19.5%	19.5%	19.9%	15.2%	15.9%	16.5%	18.2%	18.1%	11.5%	11.3%	12.4%	12.4%	12.0%	11.2%	12.4%	9.5%	10.3%	10.7%	10.1%	10.3%	10.6%	11.3%	10.7%	11.0%	11.3%	11.1%	11.0%	10.4%	11.6%	10.9%	10.5%	10.7%	9.8%	10.0%	10.2%	10.8%	10.5%	10.8%	11.1%	1.6%										
Babesia felis (AY452707)	16.5%	16.8%	17.6%	18.0%	18.0%	18.0%	17.0%	17.7%	14.2%	14.8%	16.0%	18.0%	17.6%	10.6%	10.9%	11.4%	11.4%	11.0%	10.5%	12.2%	10.5%	11.4%	10.9%	9.2%	9.4%	9.6%	9.9%	9.8%	10.1%	10.3%	10.2%	9.9%	8.9%	10.5%	9.2%	8.9%	9.0%	10.3%	10.2%	10.3%	9.8%	10.8%	10.6%	10.8%	3.1%	2.6%									
Babesia rodhaini (M87565)	20.0%	21.5%	21.5%	21.8%	21.8%	22.1%	20.9%	21.5%	16.6%	18.0%	16.7%	19.6%	19.1%	11.9%	12.2%	13.2%	13.2%	12.9%	12.0%	12.5%	11.6%	12.7%	10.9%	10.8%	11.0%	11.2%	11.1%	11.4%	11.7%	11.4%	11.2%	10.9%	10.6%	12.6%	11.9%	11.5%	11.2%	11.4%	11.3%	11.4%	9.8%	11.4%	10.3%	11.1%	4.0%	4.2%	3.5%								
Babesia bovis (JX495403)	27.3%	28.5%	25.0%	25.5%	25.5%	30.3%	29.0%	33.2%	32.1%	33.6%	33.3%	37.6%	36.4%	44.9%	45.4%	40.7%	40.7%	38.5%	45.0%	41.1%	38.5%	43.2%	40.8%	39.1%	39.1%	40.0%	41.3%	39.7%	40.5%	38.0%	37.5%	38.0%	43.1%	44.8%	43.2%	43.0%	43.8%	46.2%	41.4%	41.5%	52.9%	53.0%	39.4%	39.3%	49.8%	48.8%	46.6%	46.2%						
Cardiosporidium cionae (EU052685)	33.6%	34.8%	36.3%	36.6%	36.6%	35.0%	35.1%	33.2%	29.2%	28.5%	31.5%	31.4%	32.6%	21.6%	22.2%	21.5%	21.5%	20.1%	21.0%	22.6%	20.4%	20.9%	22.5%	20.4%	20.8%	21.2%	21.4%	20.9%	21.4%	21.4%	21.2%	21.7%	22.6%	25.3%	23.7%	23.0%	22.5%	23.8%	19.2%	19.6%	24.3%	23.3%	23.0%	21.7%	23.0%	21.8%	23.2%	23.0%	58.7%					