

Additional file 2: Table S2. 16S rRNA genetic distance matrix showing percentage nucleotide sequence identity between *Borrelia* sp. from this study and other *Borrelia* spp., with the outgroup, *Spirochaeta americana*.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1. <i>Borrelia</i> sp. Aus A																									
2. <i>Borrelia</i> sp. Aus B	99.9																								
3. <i>Borrelia</i> sp. Aus C	99.9	99.8																							
4. <i>Borrelia</i> sp. NL230	99.9	99.8	99.8																						
5. <i>Borrelia</i> sp. tAG66M	98.7	98.6	98.6	98.6																					
6. <i>Borrelia</i> sp. Tortoise14M1	98.6	98.5	98.5	98.5	99.9																				
7. <i>Borrelia turcica</i> IST6	98.6	98.5	98.5	98.5	99.9	99.8																			
8. <i>Borrelia anserina</i> BA2	97.5	97.4	97.4	97.4	97.9	98.0	97.8																		
9. <i>Borrelia crocidurae</i> str. Achema	98.3	98.2	98.2	98.2	98.1	98.2	98.0	98.5																	
10. <i>Borrelia duttonii</i> Ly	98.3	98.2	98.2	98.2	98.1	98.2	98.0	98.5	100.0																
11. <i>Borrelia recurrentis</i> A1	98.0	97.9	97.9	97.9	97.8	97.9	97.7	98.3	99.7	99.7															
12. <i>Borrelia persica</i> H1039	98.0	97.9	97.9	97.9	97.8	97.7	97.7	98.1	99.2	99.2	98.9														
13. <i>Borrelia hermsii</i> DAH	98.7	98.6	98.6	98.6	98.4	98.5	98.3	98.6	99.0	99.0	98.7	98.5													
14. <i>Borrelia turicatae</i> 91E135	98.5	98.5	98.5	98.5	98.2	98.3	98.1	98.6	99.2	99.2	98.9	98.7	99.3												
15. <i>Borrelia hispanica</i> BHU42294	98.2	98.1	98.1	98.1	98.0	98.1	98.1	98.5	99.7	99.7	99.5	99.1	98.9	99.1											
16. <i>Borrelia lonestari</i> AY166715	97.5	97.4	97.4	97.4	97.0	97.1	96.9	97.3	98.0	98.0	97.7	97.4	97.9	98.3	98.0										
17. <i>Borrelia theileri</i> KAT	98.2	98.1	98.1	98.1	97.6	97.7	97.5	97.9	98.5	98.5	98.2	97.8	98.5	98.7	98.4	99.0									
18. <i>Borrelia miyamotoi</i> HT31	97.4	97.4	97.4	97.4	97.1	97.2	97.0	97.7	97.7	97.7	97.4	97.4	98.0	98.0	97.6	98.1	98.5								
19. <i>Borrelia</i> sp. LN1&7	96.2	96.1	96.3	96.1	96.8	96.7	96.7	96.2	95.9	95.9	95.6	96.3	96.2	96.2	95.9	95.4	95.8	95.6							
20. <i>Borrelia afzelii</i> PKo	96.2	96.1	96.3	96.1	96.8	96.7	96.7	96.2	95.9	95.9	95.6	96.3	96.2	96.2	95.9	95.4	95.8	95.6	100.0						
21. <i>Borrelia</i> sp. LN9	96.3	96.2	96.4	96.2	96.9	96.8	96.8	96.3	96.0	96.0	95.7	96.4	96.3	96.3	96.0	95.4	95.9	95.7	99.9	99.9					
22. <i>Borrelia valaisiana</i> Tom4006	96.6	96.5	96.7	96.5	97.1	97.0	97.0	96.1	96.0	96.0	95.7	96.4	96.4	96.4	96.0	95.6	96.1	95.7	99.4	99.4	99.5				
23. <i>Borrelia</i> sp. LN6	96.4	96.3	96.4	96.3	96.9	96.8	96.8	95.9	96.2	96.2	95.9	96.4	96.4	96.4	96.2	95.5	96.0	95.4	98.9	98.9	99.0	98.9			
24. <i>Borrelia burgdorferi</i> B31	96.4	96.3	96.4	96.3	96.9	96.8	96.8	95.9	96.2	96.2	95.9	96.4	96.4	96.4	96.2	95.5	96.0	95.4	98.9	98.9	99.0	98.9	100.0		
25. <i>Borrelia burgdorferi</i> N40	96.4	96.4	96.5	96.4	97.0	96.9	96.9	96.0	96.1	96.1	95.8	96.3	96.4	96.4	96.1	95.6	96.1	95.5	99.0	99.0	99.1	99.0	99.9	99.9	
26. <i>Spirochaeta americana</i> ASpG1	81.3	81.4	81.4	81.2	81.6	81.5	81.6	81.2	81.3	81.3	81.0	81.3	81.6	81.7	81.1	80.8	81.0	80.9	80.4	80.4	80.5	81.0	80.4	80.4	80.4