

Table S1. *flaB* gene mean genetic distance within individual *Borreliaceae* species detected in host seeking ticks from Northern Poland.

Spirochete species	Mean genetic distance within species
<i>Bl. garinii</i>	0.0076
<i>Bl. valaisiana</i>	0.0035
<i>Bl. afzelii</i>	0.0023
<i>Bl. spielmanii</i>	0.0034
<i>Bl. burgdorferi</i>	0.0051
<i>Bl. finlandensis</i>	0.0025
<i>Bl. americana</i>	0.0
<i>Bl. californiensis</i>	0.0064
<i>Bl. bissettiae</i>	0.0025
<i>Bl. carolinensis</i>	0.0006
<i>Bl. lanei</i>	0.0
<i>Bl. lusitaniae</i>	0.0051
<i>B. turcica</i>	0.004
<i>B. miyamotoi</i>	0.0119

Table S2. MEGA 11 results of mean distance between *Borreliaceae* species obtained on the basis of *flaB* gene sequence fragment comparison.

	BG	BV	BA	BS	BB	BF	BAM	BCL	BBi	BCR	BLN	BL	BTC
<i>Bl.valaisiana</i>	0.0468												
<i>Bl.afzelii</i>	0.0539	0.0456											
<i>Bl.spielmanii</i>	0.0532	0.0538	0.0473										
<i>Bl.burgdorferi</i>	0.0653	0.0570	0.0627	0.0637									
<i>Bl.finlandensis</i>	0.0675	0.0606	0.0691	0.0711	0.0253								
<i>Bl.americana</i>	0.0567	0.0523	0.0621	0.0621	0.0290	0.0325							
<i>Bl.californiensis</i>	0.0619	0.0524	0.0606	0.0622	0.0334	0.0417	0.0355						
<i>Bl.bissettiae</i>	0.0549	0.0495	0.0536	0.0574	0.0389	0.0430	0.0423	0.0317					
<i>Bl.carolinensis</i>	0.0560	0.0472	0.0520	0.0522	0.0382	0.0447	0.0400	0.0303	0.0080				
<i>Bl.lanei</i>	0.0518	0.0445	0.0511	0.0525	0.0277	0.0285	0.0245	0.0289	0.0310	0.0287			
<i>Bl.lusitaniae</i>	0.0590	0.0571	0.0654	0.0587	0.0589	0.0612	0.0581	0.0562	0.0554	0.0555	0.0459		
<i>B.turcica</i>	0.1650	0.1588	0.1684	0.1778	0.1702	0.1709	0.1653	0.1664	0.1643	0.1640	0.1634	0.1599	
<i>B.miyamotoi</i>	0.1930	0.1813	0.1836	0.1908	0.1970	0.1984	0.1875	0.1988	0.1972	0.1955	0.1863	0.1730	0.1460

BG – *Borreliella garinii*, BV – *Bl. valaisiana*, BA – *Bl. afzelii*, BS – *Bl. spielmanii*, BB – *Bl. burgdorferi*, BF – *Bl. finlandensis*, BAM – *Bl.*

*americana*, BCL – *Bl. californiensis*, BBi – *Bl. bissettiae*, BCR – *Bl. carolinensis*, BLN – *Bl. lanei*, BL – *Bl. lusitaniae*, BTC – *Borrelia turcica*.

Table S3. *mag-trnI* intergenic spaces mean genetic distance within individual *Borreliaceae* species detected in host seeking ticks from Northern Poland.

Spirochete species	Mean genetic dinstance within species
<i>Bl. garinii</i>	0.0377
<i>Bl.valaisiana</i>	0.0079
<i>Bl.afzelii</i>	0.011
<i>Bl.spielmanii</i>	0.009
<i>Bl.burgdorferi</i>	0.0123
<i>Bl.finlandensis</i>	0.0054
<i>Bl.americana</i>	0.0087
<i>Bl.californiensis</i>	0.0013
<i>Bl.bissettiae</i>	0.0112
<i>Bl.carolinensis</i>	0.009
<i>Bl.lanei</i>	0.008
<i>Bl.lusitaniae</i>	0.0
<i>B.turcica</i>	0.0022
<i>B.miyamotoi</i>	0.027

Table S4. MEGA 11 results of mean distance between *Borreliaceae* species obtained on the basis of intergenic spacer (IGS) of 3-methyladenine glycosylase (*mag*) and tRNA-Ile (*trnI*) genes sequence fragment comparison.

	BG	BV	BA	BS	BB	BF	BAM	BCL	BBI	BCR	BLN	BL	BTC
<i>Bl.valaisiana</i>	0.2002												
<i>Bl.afzelii</i>	0.2003	0.2185											
<i>Bl.spielmanii</i>	0.1938	0.2080	0.1555										
<i>Bl.burgdorferi</i>	0.1554	0.1662	0.2168	0.2168									
<i>Bl.finlandensis</i>	0.1496	0.1571	0.2040	0.2055	0.0320								
<i>Bl.americana</i>	0.1376	0.1724	0.2320	0.2245	0.0650	0.0569							
<i>Bl.californiensis</i>	0.1320	0.1524	0.1664	0.1663	0.1256	0.1102	0.1282						
<i>Bl.bissettiae</i>	0.1812	0.2103	0.2433	0.2218	0.1267	0.1209	0.1379	0.1226					
<i>Bl.carolinensis</i>	0.1557	0.1971	0.2287	0.1907	0.1014	0.0937	0.1172	0.1088	0.0836				
<i>Bl.lanei</i>	0.1448	0.1382	0.2096	0.1873	0.0635	0.0582	0.0583	0.0911	0.1175	0.1038			
<i>Bl.lusitaniae</i>	0.2164	0.1374	0.2216	0.2033	0.1218	0.1270	0.1318	0.1461	0.1667	0.1471	0.1244		
<i>B.turcica</i>	0.3784	0.4089	0.4075	0.4429	0.3806	0.3954	0.3754	0.4062	0.3768	0.4026	0.3804	0.4181	
<i>B.miyamotoi</i>	0.4259	0.4176	0.4540	0.4287	0.4098	0.3956	0.4007	0.4390	0.4357	0.4304	0.3940	0.4014	0.2674

BG – *Borreliella garinii*, BV – *Bl. valaisiana*, BA – *Bl. afzelii*, BS – *Bl. spielmanii*, BB – *Bl. burgdorferi*, BF – *Bl. finlandensis*, BAM – *Bl.*

*americana*, BCL – *Bl. californiensis*, BBI – *Bl. bissettiae*, BCR – *Bl. carolinensis*, BLN – *Bl. lanei*, BL – *Bl. lusitaniae*, BTC – *Borrelia turcica*.