

- 1 **Table S1.** Results of univariate test between covariates and mouse infection by *B.*  
 2 *burgdorferi*

<b>Variables</b>	<b>Description</b>	$\chi^2$	<b>Df</b>	<b>P-value</b>	<b>VIF CI95</b>
Year	3 levels factor	1.54	2	0.463	Excluded
Zone	3 levels factor	9.51	2	0.009	2.32 - 3.41
Period	Binary	6.40	1	0.011	1.00 - 2.01
Age	Binary	54.74	1	< 0.001	1.00 - 2.49
Sex	Binary	0.30	1	0.584	Excluded
Plots	11 levels factor	14.21	10	0.164	Random

- 3 CI95 = 95% confidence interval, Df = Degree of freedom, VIF = variance inflation factor.

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5 **Table S2.** Results of univariate test between covariates and the density of questing nymphs

<b>Variables</b>	<b>Description</b>	$\chi^2$	<b>Df</b>	<b>P-value</b>	<b>VIF CI95</b>
Year	4-level factor	77.82	3	< 0.001	8.09 - 11.05
Month	4-level factor	373.00	3	< 0.001	1.01 - 1.34
Zone	3-level factor	37.60	2	< 0.001	2.50 - 3.28
Cohort	Binary	13.13	1	< 0.001	1.50 - 1.89
Plot	11-level factor	37.00	10	< 0.001	Random

6 CI95 = 95% confidence interval, Df = Degree of freedom, VIF = variance inflation factor.

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8 **Table S3.** Results of univariate test between covariates and the prevalence of *B.*  
 9 *burgdorferi* infected nymphs

<b>Variables</b>	<b>Description</b>	$\chi^2$	<b>Df</b>	<b>P-value</b>	<b>VIF CI95</b>
Year	4-level factor	30.81	3	< 0.001	5.66 - 5.54
Month	4-level factor	11.53	3	0.009	1.09 - 1.22
Zone	3-level factor	1.88	2	0.390	Excluded
Plot	11-level factor	37.00	10	0.129	Random

10 CI95 = 95% confidence interval, Df = Degree of freedom, VIF = variance inflation factor.