S3 Table. Model 2 results. Adjusted odds ratios and 95\% confidence intervals for pathogen occurrence in $R$. norvegicus from Chanteraines park calculated using the best-fitted general linear model identified using a stepwise backward selection on the Akaike Information Criterion.

| Variables | Categories | Flea | S. muris | H. spumosa | Leptospira sp. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Site | Site 1 | / | Ref | 1 | Not included |
|  | Site 2 | / | $\begin{aligned} & 0.03(0.00-0 . \\ & 48)^{*} \\ & \hline \end{aligned}$ | / | Not included |
| Sex | Female | Ref | Ref | Ref | / |
|  | Male | 0.40 (0.13-1.17) | 3.16 (0.98-11.18) | 0.20 (0.04-0.80)* | / |
| Age | Adult | 1 | Ref | Ref | Ref |
|  | Subadult | / | $\begin{array}{\|l\|} \hline 21.34 \\ (3.58-414.26)^{*} \\ \hline \end{array}$ | 0.50 (0.12-2.13) |  |
|  | Juvenile | 1 | 3.76 (0.84-21.24) | 0.02 (0.00-0.18)* |  |
| WBC count (x $1,000 / \mathrm{mm}^{3}$ ) | < 6.6 | Ref | 1 | Ref | Ref |
|  | [6.6-9.2[ | 0.27 (0.07-0.93)* | / | $\begin{array}{\|l\|} \hline 8.52 \\ (2.06-43.23)^{*} \\ \hline \end{array}$ | 1.07 (0.28-4.13) |
|  | $\geq 9.2$ | 0.29 (0.08-1.00) | 1 | 3.23 (0.81-13.89) | 0.12 (0.00-0.80)* |
| $\begin{aligned} & \text { RBC count (x } \\ & \left.1,000 / \mathrm{mm}^{3}\right) \end{aligned}$ | < 7.0 | 1 | 1 | 1 | / |
|  | [7.0-8.8[ | / | / | 1 | / |
|  | $\geq 8.8$ | 1 | 1 | 1 | / |
| Platelet count (x $1,000 / \mathrm{mm}^{3}$ ) | < 452.0 | 1 | 1 | 1 | 1 |
|  | [452.0-645.0[ | / | / | 1 | / |
|  | $\geq 645.0$ | 1 | / | 1 | 1 |

No model can be fitted for Trypanosoma sp . and Bartonella sp . occurrence with the explanatory variables considered. "Not included" means that the variable was not included in the GLM because the contingency table between the dependent variable and an explanatory variable presented zero cells. Significant adjusted odds ratio are shown by asterisks.

