Supplementary S2. Regression analysis between composition, richness and abundance and the predictors: host identity, host body mass, use of vertical stratification, host sex and seasonality in host captures. The predictors that showed the highest R2 and were analyzed in variance partitioning analysis are in bold. E1 e E2: first and second PCoA axes.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Identity | |  | Body mass | |  | Vertical stratification | |  | Sex | |  | Seasonally of captures | |
| Ectoparasite | R2 | P |  | R2 | P |  | R2 | P |  | R2 | P |  | R2 | P |
| *Mites* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Composition | **E1:0.850 E2:0.925** | **E1: <0.001 E2: <0.001** |  | **E1:0.083 E2:0.087** | **E1:<0.001 E2:0.334** |  | **E1:0.019 E2:0.184** | **E1:<0.001 E2:<0.001** |  | E1:0.001 E2:0.010 | E1:0.182 E2:<0.001 |  | **E1:0.019 E2:0.000** | **E1:<0.001 E2:0.346** |
| Richness | **0.743** | **<0.001** |  | **0.061** | **<0.001** |  | **0.007** | **0.003** |  | 0.001 | 0.168 |  | **0.008** | **0.002** |
| Abundance | **0.807** | **<0.001** |  | **0.105** | **<0.001** |  | **0.065** | **<0.001** |  | 0.001 | 0.152 |  | **0.004** | **0.023** |
| *Ticks* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Composition | **E1:0.285 E2:0.161** | **E1:<0.001 E2:<0.001** |  | **E1:0.139 E2:0.109** | **E1:<0.001 E2:<0.001** |  | **E1:0.078 E2:0.065** | **E1:<0.001 E2:<0.001** |  | E1:0.001 E2:0.000 | E1:0.176 E2:0.451 |  | **E1:0.010 E2:0.001** | **E1:<0.001 E2:0.170** |
| Richness | **0.406** | **<0.001** |  | **0.229** | **<0.001** |  | **0.116** | **<0.001** |  | 0.001 | 0.155 |  | **0.013** | **<0.001** |
| Abundance | **0.390** | **<0.001** |  | **0.207** | **<0.001** |  | **0.101** | **<0.001** |  | 0.002 | 0.072 |  | **0.010** | **<0.001** |
| *Lice* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Composition | **E1:0.691 E2:0.207** | **E1:<0.001 E2:<0.001** |  | **E1:0.145 E2:0.016** | **E1:<0.001 E2:<0.001** |  | **E1:0.091 E2:0.024** | **E1:<0.001 E2:<0.001** |  | **E1:0.007 E2:0.003** | **E1:0.005 E2:0.038** |  | E1:0.001 E2:0.005 | E1:0.215 E2:0.010 |
| Richness | **0.583** | **<0.001** |  | **0.120** | **<0.001** |  | **0.077** | **<0.001** |  | **0.004** | **0.019** |  | 0.002 | 0.089 |
| Abundance | **0.558** | **<0.001** |  | **0.110** | **<0.001** |  | **0.080** | **<0.001** |  | **0.006** | **0.006** |  | 0.000 | 0.272 |