**Determinants of haemosporidian single- and co-infection risks in western Palearctic birds**

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**Supplementary Table S1**. Table of avian ecology and life history traits.This table summarizes the number of individuals per species along with the infection prevalence and the co-infection prevalence (within infected individuals) per bird species both globally (i.e. the three parasite genus confounded) and for each parasite genus. It also includes information on bird characteristics: reproductive traits (e.g. incubation period, egg mass), maximum lifespan, behavioral traits (e.g. nest type, migration status), climatic niche area and position, the coordinates of each species on the two principal component analysis (PCA) axes performed on birds’ reproductive traits and the coordinates on the axes of the Hill-Smith ordination (trophic niche). This table is available in figshare.com: [10.6084/m9.figshare.17491460](https://doi.org/10.6084/m9.figshare.17491460).

**Supplementary Table S2.** Table of avian trophic niche traits.This table is available in figshare.com: [10.6084/m9.figshare.17491460](https://doi.org/10.6084/m9.figshare.17491460).

**Supplementary Table S3.** Prevalence of haemosporidian infection and co-infection.

|  |  |  |  |
| --- | --- | --- | --- |
| Infetion status | Haemosporidian genus | % of total |  |
| Uninfected | - | 64.30% |  |
| Single-infected (28.56%) | *Plasmodium* | 9.62% | 34% of single-infected host |
| *Haemoproteus* | 6.22% | 22% of single-infected host |
| *Leucocytozoon* | 12.45% | 44% of single-infected host |
| Co-infected (7.14%) | *Plasm / Leuco* | 3.78% | 51% of co-infected host |
| *Haemo / Leuco* | 3.34% | 45% of co-infected host |
| *Plasm / Haemo* | 0.22% | 3% of co-infected host |
| *Plasm / Haemo / Leuco* | 0.07% | 1% of co-infected host |

*Plasm*, *Plasmodium*; *Leuco*, *Leucocytozoon*; *Haemo*, *Haemoproteus*.

**Supplementary Table S4.** Number of haemosporidian lineages detected.

|  |  |
| --- | --- |
| **Haemosporidian genus** | **Number of lineages detected** |
| *Plasmodium* | 22 lineages (of which 9 are associated with 7 described morpho-species) |
| *Haemoproteus* | 37 lineages (of which 19 are associated with 14 described morpho-species) |
| *Leucocytozoon* | 62 lineages (of which 2 are associated with 2 described morpho-species) |