# Migratory birds spread their haemosporidian parasites along the world's major migratory flyways

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**Résumé**

Parasites circulate on a large scale through migrating hosts, which encounter a greater diversity of parasites along their travels, all of which can shape the dynamics of host-parasite interactions. This should result in lower turnover of parasite communities between regions linked by major migratory routes and higher importance (i.e. network centrality) of migratory species within host-parasite networks. Here, we used globally recorded data on interactions between birds and avian malaria parasites (i.e. *Plasmodium* and *Haemoproteus* spp.) to determine whether the turnover of haemosporidian parasite community is lower between two biogeographic realms linked by an avian migratory flyway, and whether the centrality of migratory bird species is higher than others in the interaction network of the Americas and African-Eurasian flyways. Despite a high overall dissimilarity in haemosporidian parasite community compositions between biogeographic realms, we found lower values between areas connected by a known migratory flyway. Our results indicate that migratory, when compared to resident species, are more central both because they are connected to more parasites (high degree) and serves as a key broker between other species (high betweenness centrality) in the interaction network of both the Americas and African-Eurasian flyways. Migrants may directly affect the communities they visit by introducing higher number of haemosporidian parasites, while at the same time becoming infected with the parasites present in these communities. Migrants therefore facilitate the spread of pathogens to some extent, and their presence can directly influence the dynamics and structure of local host-parasite networks.

**Mots-Clés:** Avian malaria, Plasmodium, Haemoproteus, host, parasite network, species degree, betweenness centrality

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