BLOOD PARASITES AND MIGRATION. STUDY OF BLOOD PARASITES IN FOUR BIRD SPECIES DURING THEIR SPRING MIGRATION IN ANTIKYTHERIAN BIRD OBSERVATORY

Nikolaos Tsirigotakis ¹, Christos Barboutis ², Petar Shurulinkov ³ & Petros Lymberakis ²

¹ University of Crete, Faculty of Medicine, Laboratory of Clinical Bacteriology, Parasitology, Zoonoses, and Geographical Medicine, Herakleion, Greece. Email: nitsirigo@hotmail.com
² Natural History Museum of Crete, University of Crete, Knosos Ave, Herakleion, Greece
³ National Museum of Natural History of Sofia, Institute of Zoology, Vertebrates Department , Sofia, Bulgaria

Migratory birds are important reservoirs of blood parasites which transfer and distribute pathogen microorganisms in great distances around the world. The aim of this study was to enrich our knowledge about the blood parasites carried by birds migrating over Greece and to create bird - parasite catalogues. Additionally, we studied if there is any difference among the parasite diversity that every species of bird carries, as well as the prevalence, intensity and level of infection. Four bird species were chosen during their spring migration (Acrocephalus schoenobaenus, Anthus trivialis, Oriolus oriolus, Sylvia borin) and the collection of blood took place on the island of Antikythera. A drop of blood of each bird (100 individuals per species) was collected on microscopic slides. All slides were examined under the microscope in the laboratory. Parasites were observed in all four bird species. In descending order of abundance the genera that were found are Haemoproteus, Plasmodium, Leucocytozoon, Trypanosoma, Hepatozoon as well as very few nematodes. A. schoenobaenus had the highest intensity and level of infection. Regarding prevalence of infection, A. schoenobaenus and O. oriolus indicated the highest values of the four species. Examining each bird species separately, regarding arrival periods, no difference was observed in intensity or prevalence of infection. Neither inter nor intraspecific results indicate that parasites affect the time of arrival of the species studied. Preliminary comparisons with similar studies suggest that infected birds do not follow exactly the same migratory pattern as non infected ones.