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Blood Parasite Infections of Some Passerine Migratory Birds during Autumn Migration through West Bulgaria

***Peter Shurulinkov*[1*] *, Nayden Chakarov*[2]**

[1] Institute of Zoology, Bulgarian Academy of Sciences, 1, Tsar Osvoboditel Blvd., 1000 Sofia, Bulgaria;
E-mail: shurulinkov@mail.bg
[2] Polar Bird Ecology, Institute of Ecology, Friedrich-Schiller-University Jena, Dornburger Str. 159, D- 07743 Jena, Germany

Abstract: The blood parasite fauna of three species of passerine migrants (Sedge Warbler, *Acrocephalus schoenobaenus*, Reed Warbler, *Acrocephalus scirpaceus* and Willow Warbler, *Phylloscopus trochilus*) was studied during the autumn period at Dragoman Lake, West Bulgaria. We searched for differences in blood parasite fauna, prevalence, wing length, fat level, weight and condition between the birds of the different migratory waves (respectively sampling sessions) of these bird species. Finding such differences could be accepted as support for a more or less discrete temporal change of migrating birds of different origin at a study point along the migration routes.

The highest parasite diversity, including 4 species of 4 genera, was registered in the Sedge Warbler. The sampling session had significant influence on the prevalence of *Hepatozoon sylvae* in first-year Reed Warblers. Adult Sedge Warblers infected by *Haemoproteus belopolskyi* also tended to differ in infection rates between sampling sessions. There was no effect of sampling session (migratory wave) on blood parasites for the remaining host age groups and species. Mean wing length differed between the sampling sessions only for Reed Warblers and tentatively so for Sedge and Willow Warbler. The mean weight was different among migratory waves for adult Reed Warblers and first-year Sedge Warblers, but not for any of the other warbler-age groups.

According to our results the supposition for the discrete temporal substitution of migrating birds from different populations over the studied point could be confirmed only partially. This is possibly so, because of the considerable mixing of birds of different origin in each migratory wave of particular bird species as a result of weather, relief and other environmental influences on the migration process during the long migration route.

Key words: Blood parasites, birds, prevalence, migration, origin, migratory waves