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Macroinvertebrates of Paravani and Saghamo Lakes, South Georgia

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Abstract : Paravani and Saghamo Lakes are oligotrophic lentic systems located in Javakheti plateau (South Georgia) at 2073 m and 1996 m a.s.l. respectively. Javakheti plateau is known as a lakes region as there are located almost 60 small and medium size lakes. Paravani Lake is the biggest lake by its surface area in Georgia, 37 km 2. The Saghamo Lake is smaller and its surface area consists 4.58 km2. These two lakes are connected with Paravani River, because of this the main hydrobiological and ichthyological features are the same. More than 15-30 years were not studied macroinvertebrates of these lakes. Even the existing information is lack and very limited. The aim of our study was to identify main macroinvertebrate groups inhabiting both lakes and to compare obtaining results to existing information. Our investigation was carried out during 2014 and 2015, in 3 seasons of the year, in winter because of severe condition samples were not taken. Kick-net and Petersen grab were used for material collecting, 4 sites from Paravani Lake and 3–from Saghamo Lake were sampled. Collected invertebrates were fixed in ethanol and late taken to the laboratory, where organisms were identified to the lowest taxon possible, usually family. By our results identified 14 taxa for Paravani Lake and 12 taxa for Saghamo Lake. Our results differ from previous information; for Saghamo Lake previously 13 taxa and for Paravani Lake 12 taxa were described. The percentage of the groups also differ from existing information. Our investigation showed that in Paravani Lake most abundant are Apmhipoda, Hydrachnidae, and Hemiptera, in our samples the number of individuals for those 3 taxa was more than thousand, in each. For Saghamo Lake numerous taxon was Amphipoda-36.3%, following by Ephemeroptera-11.37%, Chironomidae-10.5% and Hydrachnidae-7.03% respectively. We also identified the dominant taxon for all studied seasons. Autumn is the period when the diversity of macroinvertebrates are higher in both lakes.

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