Project Update: August 2010

Data collected during 2009 research season on the Dagi were analyzed for application to the future Conservation Action Plan (CAP) for the Dagi River. This research is essential to prepare necessary data for biological justification of a regional level protected area (zakaznik or natural monument) in the Dagi River basin. WSC and SSI Center will bring the proposal to the regional Ministry of Forestry and Protected Areas in the near future. The proposed protected area will protect one of the last known strongholds for endangered Sakhalin taimen, an instrumental step towards the possible recovery of this ancient and endemic species. Because the results of the 2009 surveys were obtained late in the year, we are providing detailed reports of conducted studies as attachments. Following is a brief synopsis of this work.

The current health assessment and biological and ecological status of the Dagi River was based on freshwater algae samples and studies of aquatic invertebrates. In sections of the Dagi River surveyed in 2009, 75 species of algae were found: 2 species of blue-green algae (*Cyanoprokaryota, Cyanoprocaryota*) and 73 species of diatoms (*Bacillariophyta*). The presence of these groups of algae indicates high quality aquatic habitat. The similarity of the proportions of groups of organisms studied at three stations reflects stable hydro-ecological and hydro-chemical conditions in surveyed river segments. In summary, data on the composition and nature of the aquatic biota of the Dagi River indicate very good ecological health of its aquatic ecosystems.

Further studies conducted in the Dagi River identified 78 species of aquatic invertebrates, and again, species composition indicated good conditions of the river ecosystem. The larvae of mayflies and stoneflies, which were found in abundance, are of critical importance in that they are the main food source of young fish. The mayfly larvae, genera *Cinygmula, Baetis, Leptophlebia, Drunella* and *Ephemerella*, and stonefly genera *Leuctra, Pteronarcys, Isoperla* and *Capnia* have the highest dietary significance for the Dagi river fish species.

Flora of the territory is characterized by conspicuous wealth of species composition and taxonomic diversity in general. This wealth is a result of ecotope diversity, the complexity and variations of mesoand microclimatic factors, as well as historical geological factors. Surveys of flora and vegetation showed that the Dagi River basin supports 204 species of vascular plants.



Left: Taimen fry. © T Boyle. Right: Dagi midstream aerial.



Bear and salmon. © Arbuzov