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[Review article]

Contributions of Russian Scientists to the Research of Aquatic Ecosystems in Mongolia

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Abstract

The article gives the overview of the studies of the aquatic fauna and flora of Mongolia by the Russian (and Soviet) scientists for the period of more than a century. This history is divided into three periods: the first period covers the end of the 19th and the beginning of the 20th centuries, the second one – the middle of the 20th century and the third one – the last one third of the 20th and the beginning of the 21th centuries. The first period is connected with the research of Hubsugul Lake and Selenge River basin completely, the second period – with the works of Mongolian Commission and Science Committee of the Mongolian People's Republic. The third period started in 1970's with simultaneous organization of two important expeditions: the Joint Hubsugul Lake Expedition by the Irkutsk and Mongolian State Universities, and Joint Soviet-Mongolian Complex Biological Expedition by the Academy of Sciences of the USSR and the Mongolian Academy of Sciences. The latter expedition celebrates 40th anniversary of its permanent activity this year. In the second part of this paper the results of hydrobiological studies of this expedition led in 2000-2009 in the Selenge River basin are given.

Key words: Mongolia, aquatic ecosystems, hydrobionts, fishes

Introduction

The history of Mongolian water-bodies and waterways research began more than 100 years ago, and covers the end of the 19th whole 20th and the beginning of 21th centuries. Superiority in the studies of natural conditions of Mongolia with simultaneous research on hydrofauna and hydroflora of its water-bodies belongs mainly to outstanding Russian travelers. The data on animal communities in the lakes and rivers of Mongolia are present in the papers by Potanin (1883), Pevtsov (1883), Peretolchin (1903) and Grum-Grzhimaylo (1914).

Historical overview of the hydrobiological investigations in Mongolia

The history of hydrobiological and ichthyological studies of Mongolian water-bodies is divided by Russian scientists into three main periods.

First of them refers to the beginning of the last century and is connected with the study of Hubsugul Lake (Kosogol), largest freshwater lake in Mongolia, which is one of the main sources of the river Selenge and through it is directly connected with Baikal Lake. The first paper worth to mention is that of Peretolchin (1903), in which the author gives the data about streams, depths, coastline of the lake, as well as fishes and fishery in the lake Hubsugul.

The first hydrobiological material from the basin of Hubsugul Lake was collected by Elpatievsky in 1903 during his work on expedition of the Zoological Museum, Moscow State University. His collections were processed by several well-known scientists, as Dorogostayskiy (1904), Ostenfeld (1907), Oestrup (1908) and Daday (1906, 1913).

In the work of Dorogostayskiy (1904) the list of 52 algae species in Hubsugul Lake were given for the first time, and a great similarity of algae flora with that of Baikal Lake was marked. Only a few number of Hubsugul algae species

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