

## B02-O18

### **SPECIALLY PROTECTED NATURE AREAS OF NORTHEAST EURASIA AS POSSIBLE CENTERS OF KNOWLEDGE ON CONSERVATION OF ARCTIC ECOSYSTEMS STABILITY**

*Nikita Gavrilovitsch Solomonov (North-East Federal University, Russian Federation)*

*Innokentiy Michailovitsch Okhlopkov (Institute for Biological Problems of Cryolithozone Siberian Branch of Russian Academy of Sciences, Russian Federation)*

*Nikolai Ivanovitsch Germogenov (North-East Federal University, Russian Federation)*

*Arkadiy Petrovitsch Isaev (North-East Federal University, Russian Federation)*

*Shirow Tatsuzava (Hokkaido University, Japan)*

*Maria Vsevolodovna Vladimirtseva (Institute for Biological Problems of Cryolithozone Siberian Branch of Russian Academy of Sciences, Russian Federation)*

*Roman Vasiljevitsch Desyatkin (Institute for Biological Problems of Cryolithozone Siberian Branch of Russian Academy of Sciences, Russian Federation)*

imokhlopkov@yandex.ru

A network of specially protected nature areas was created in the Northeast in recent decades. Among them, there are the largest federal state reserves Great Arctic, Taimyr, Putoransky, Ust-Lensky, Wrangel Island, the International Biological Station "Lena-Nordenskiold" which holds a permanent scientific work on the study of ecosystems and monitoring of the Arctic Russian sector biological resources. As a result, many-years extensive research factual material is accumulated and some fundamental scientific results on the structure and functioning of the sub-Arctic/Arctic ecosystems are established and major work on the protection and enrichment of biological resources is undertaken and a unique study on the introduction of muskoxen on the Taimyr Peninsula, Wrangel Island and Arctic Yakutia mainland is made. Furthermore, in the North-East Yakutia, a network of Resource Reserves of Regional Importance across the Yakutia Arctic part ("Terpey-Tumus", "Lena-Delta", "Mammoths of Yana", "Kytalyk", "Chaygurgino", "Kurdigino-Krestovaya" "Medveshyi Islands" and "Kolyma-Koren") were created. Regional Reserves "Avtatkuul", "Tanyurersky", "Chaunskaya Bay" and the Regional Natural and Ethnic Park "Beringia" function in Chukotka. Among them, Reserve "Kytalyk" and Park "Beringia" has now become the centers of knowledge on tundra ecosystems sustainability and the conservation of rare species. The territory of particular interest Reserve "Kytalyk" includes International tundra research station "Chokurdakh" for study of the global climate change parameters and polygons of monitoring for the breeding of rare bird species of the world fauna, Siberian white crane. We propose to develop a unified program on study of the Northeast Eurasia Arctic Ecosystems stability on the example of the model area - Reserve "Kytalyk" in the Republic Sakha (Yakutia). In the future, it is possible to create the same program for all Protected Areas of Arctic region, including Protected Natural Territories of the Russian Federation, Scandinavia, USA and Canada. The foundation of the program should be based on observations of a single system with a common system of devices. The main goal of the program will be the study of the structure, functioning and prediction of Arctic ecosystems stability under current climate changes and the development of mineral resources. The objectives of the study should include monitoring of all components of the ecosystem - soil cover with its micro- and mesobiota, vegetation with its general and terrestrial biological productivity and diversity, wildlife with definition of the role of its diversity in ecosystems, rare and endangered species. The base objects of the study should also be aquatic ecosystems with the definition of their biodiversity, productivity and sustainability. On the basis of these studies, fundamental scientific results on the stability of the biotic components of Arctic ecosystems to natural, including weather and climate, disasters, and rising human impacts, will be obtained.