The Dynamics of Vegetation of the Re-cultivated and Eco-Restored Anthropogenically-Altered Landscapes in Krasnoye Settlement and in Its Vicinity (the Nenets Autonomous Area, 2016-2020)

Soboleva, Anastasia (School: Krasnovskaya Secondary School)

Desertification is supposed to be one of the main global problems. There are lots of sandy wastelands in Krasnoye settlement and in its surroundings. Recovery of vegetation and saving its diversity is the main goal of our project. In our research we monitored the restoration of sandy wastelands vegetation. We found out that reclamation of lands led to vegetation forming. In June 2018 we went on doing eco-restoration works in the sandy wastelands. We planted 200 plants of polemonium boreale Adams and tanacetum bippinatum. In 2019-2020 we monitored the process of overgrowing in the eco-restored anthropogenically-altered lands. We arrived at the conclusion that the plants strengthened the substrate and caused heavy vegetation growing. Comparing the way how polemonium boreale and tanacetum bippinatum developed in natural conditions, we noticed that polemonium boreale was more resistant to natural factors. In 2020 we started the experimental vegetation transplantation works. Polemonium boreale wasn’t seen among tundra species as it was replaced by some of them. We transplanted plants that were in a bad condition. As a result, 48% of polemonium boreale plants survived and 53% died because of anthropogenic factor. Our research shows that carrying out eco-restoration works is a must in order to restore damaged lands. Such works cause biodiversity increasing and ? faster process of overgrowing. We can use psammophyte seedlings when doing some activities on eco-restoration.

Awards Won: