## MYCOFLORAL ANALYSIS OF AGARICS AND MEDICINAL MUSHROOMS DISTRIBUTED IN THE BOROVOE AND KOKSHETAU NATIONAL PARKS

## M. Ashikbayeva<sup>1</sup>, S. Abiev<sup>2</sup>, N. Altayeva<sup>1</sup>

<sup>1</sup>Astana Medical University, Republic of Kazakhstan, Astana <sup>2</sup>L.N. Gumilyov Eurasian National University, Republic of Kazakhstan, Astana email:ashikbayeva.m@amu.kz

The article provides a literature review of mycofloral analysis of agarics and medicinal mushrooms distributed in the Borovoe and Kokshetau national parks. As a result of the literature review, 15 species of fungi belonging to 4 genera and 9 genera of the genus Agaricales were identified. Of these, edible -5, inedible -3, poisonous -1 species.

Collection of Macromycetes during the expedition was collected by route method from Borovoe and Kokshetau national parks. The collection, sorting, drying, packaging and transportation of the collected material was carried out in accordance with the methods of mycology and Botany. 30-40 min at 45-50° t for the purpose of disinfection of the collected samples. in between, a heating cabinet (water heater) was used. Each processed sample is stored in a specially designed box with the date, place, time of collection and herbarium number. The external morphological description of the fruiting body of the fungus was made by visual observation, and for determining the microscopic structure, features of spores, we used the Mikmed-1 microscope and cameras connected to it Exilim-S880, SAM-SUNG-ES65, Canon-PC1474.

To separate the tissue particle from the fruit body of the fungi, a fertile, non-darkening, young specimen was obtained. A cube-shaped or triangular pyramidal «tissue» particle was cut out of the precleaned fruit bodies through a scalpel and planted in a nutrient medium (oblique agar) through an inoculation needle. Isolation was carried out from different parts of the fruit body: caps, legs, places of transition of the cap to the stem. The growth and development of the selected clean crop will depend on the composition of the nutrient medium. The cortical medium we used was diverse, including «Chapeka–Doxa», «Murashige Skuga» and potato-glucose agar.

As a result of the study, more than 25 mushroom samples were collected. As a result, 15 species from 9 relatives from 4 genera belonging to the family of cap mushrooms Agaricales were identified. 4 genera have been identified in the agaricales series: Agaricaceae, Russulaceae, Tricholomataceae, Strophariaceae.

As a result of summing up the results of the conducted research, we came to the following conclusions:

1. During the study, the characteristics of morphological forms of fungi were developed.

2. Based on the obtained morphometric characteristics, the species of fungi were determined using special determinants. As a result of studying all the collected mushrooms in the Kokshetau and Borovoe National parks, 15 species of fungi from 9 genera belonging to the genus Agaricales were identified. Of these, 1 is poisonous, 5 is edible, and 3 are inedible.

3. A species synopsis of Agaricales fungi in the Kokshetau and Borovoe National parks has been compiled.

4. All the results and data obtained are of great importance for the effective use of natural resources and their protection