

## EVALUATION OF BACTERIAL COMMUNITY AND OF ACTINOMYCETES COMPOSITION FROM THE *ALLIUM URSINUM* L SPECIES RHIZOSPHERE

Aurica Breica BOROZAN<sup>1</sup>, Diana RABA<sup>1</sup>

e-mail: borozan\_a@yahoo.com

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### Abstract

Soil's microbiota is an effective recycling instrument of organic matter, of nutritional resources providance for living organisms, an instrument of atmospheric nitrogen fixation in forests biomes. This one changes under the action of some abiotic and biotic factors.

In this research, we have studied the impact of the plant of *Allium ursinum* L, the soil moisture and the way to prepare the soil in the laboratory condition, upon bacterial community and the composition of actinomycetes from the *Streptomyces* genus, from the forest soil.

The soil studied belongs to a deciduous forest, located in the western part of the country. The soil's samples have been taken from the top layer of the soil (0-20 cm), from the *Allium ursinum* L. plants rhizosphere, plants which have been in their blossoming period. The microbial groups of interest have been isolated in specific environments resulted from soil's samples prepared beforehand by plants residue removal (SC) and sifting, as well as from original soil's samples which had no prior preparation (SN).

The results show that the bacteria in the soil sample SC compared to the bacteria in the soil sample SN has dominated numerically. The bacterian species which predominated in both types of soil was *Bacillus cereus* var. *mucoydes*. The actinomycetes have been equal numerically in both soil's samples mentioned below, but their diversity has been reduced. The highest number of species belonging to the genus of *Streptomyces* was isolated from soil sample SC. The species of actinomycetes, common for both soil samples were: *S. albosporeus* and *S. albus*. In the soil sample SC, *S. albosporeus* species dominated, and in the soil sample SN, *S. chromogenes* was the most representative.

**Key words:** bacterial community, actinomycetes, *Allium ursinum* L., rhizosphere, forest soil