BULGARIAN DATA

ACCOMPANYING REPORT

Nutrient budget of ground vegetation

In order to implement the planned activities and apply the new methodological approaches, the project has been implemented at 3 field stations – Yundola, Vitinya and St. Oryahovo.

- **Sampling and analysis** - Samples per functional groups of plants have been taken to determine the biomass. For this purpose in the level 2 sample plots were installed at least 4 sample units (frames) with 2 m^2 surface. In SP Vitinia were installed 6, in Staro Oriahovo – 10 and in Yundola – 4 frames. The sampling was done in the period of peak of the growth in the vegetation season.

The analytical methods and units are given as follows:

Sequence number	**Parameter**	**Units**	**Standardized internal methods for analysis**
1	2	3	4
1	K	mg/g	XR – x-ray fluorescence spectrometry
2	Ca	mg/g	XR – x-ray fluorescence spectrometry
3	Mg	mg/g	*XR – x-ray fluorescence spectrometry*
4	N tot.	g/kg	ISO 11261
5	P	mg/kg	ISO 11466
6	C org.	g/100g	ISO 14235
7	S	mg/kg	XR – x-ray fluorescence spectrometry

- **Assessment of the nutrient budget of the ground vegetation** - The floristic richness in the three field stations is approximately equal. The greatest number of species is in Yundola field station – 43 species, followed by Vitinya field station - 40 species and St. Oryahovo field station - 38 species. The larger number of species in Yundola field station is connected with the presence of mosses and ferns – represented by 3 species of each group.

The content of total nitrogen in the functional group of miscellaneous herbs in Yundola and Vitinya field stations is approximately equal; in Staro Oryahovo field station this content is significantly lower; the content of total phosphorus and potassium is approximately equal in Vitinya and Staro Oryahovo field stations and higher in Yundola field station; the highest calcium content is in Staro Oryahovo field station, followed by Vitinya field station and the lowest content is in Yundola field station; the magnesium content is approximately equal in Vitinya and Staro Oryahovo field stations and considerably lower in Yundola field station. By the total content of the studied macroelements, the functional group of miscellaneous herbs can be arranged in the following order: Yundola field station, Vitinya field station and Staro Oryahovo field station. By the biomass per one reporting plot, the functional group of miscellaneous herbs in the field stations can be arranged in the following order – Vitinya, Staro Oryahovo and Yundola.

The content of total nitrogen in the functional group of wheat and sour grasses is approximately equal in Vitinya and Yundola field stations and considerably lower in Staro Oryahovo field station; the content of total phosphorus and potassium is approximately equal in Vitinya and Staro Oryahovo field stations, in Yundola field station the total phosphorus content is higher and the potassium content – lower; the highest calcium and magnesium content is in Staro Oryahovo field station, followed by Yundola field station; the lowest content is in Vitinya field station. By the total content of the studied macroelements, the functional group of “wheat and sour grasses” can be arranged in the following order: Yundola field station, Staro Oryahovo field station and Vitinya field station. By the biomass per one reporting plot, the functional group of wheat and sour grasses in the field stations can be arranged in the following order – Vitinya, Staro Oryahovo and Yundola.