

В результате исследования было установлено, что у данного насаждения II класс устойчивости, средний балл состояния древостоя – 1,5, I стадия дигрессии, а фаутоность деревьев составляет 13 %. На территории пробных площадок наблюдается увеличение облесённости насаждений с ухудшением общего состояния самих насаждений (наличие раковых болезней, корневой губки). Также наблюдалось усыхание кроны (около 3 % деревьев от количества исследуемого древостоя) и отдельных ветвей (около 15 % деревьев от количества исследуемого древостоя) у исследованных видов на данных пробных площадках.

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**СОСТОЯНИЕ ТРАВЯНИСТОЙ РАСТИТЕЛЬНОСТИ РОССОШАНСКОГО РАЙОНА  
ВОРОНЕЖСКОЙ ОБЛАСТИ****THE STATE OF THE HERBACEOUS VEGETATION OF THE ROSSOSHANSKY DISTRICT  
OF THE VORONEZH REGION**

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**Аннотация:** в данной статье представлены сведения о состоянии травянистой растительности Россошанского района Воронежской области. Исследования проводились на 2 пробных площадках. Для этого был использован глазомерный метод учета напочвенного покрова — учет обилия отдельных представителей напочвенного покрова по шкале Друде и по шкале Ж. Браун-Бланке. Благодаря этому удалось выявить виды растений, которые преобладают на данном участке, и виды, которые встречаются только в единичном экземпляре.

**Abstract:** this article presents information about the state of the herbaceous vegetation of the Rossoshansky district of the Voronezh Region. The studies were conducted on 2 trial sites. For this purpose, the eye — measuring method of ground cover accounting was used- accounting for the abundance of individual representatives of the ground cover on the Drude scale and on the Zh. Brown-Blanquet scale. Thanks to this, it was possible to identify plant species that predominate in this area, and species that occur only in a single instance.

**Ключевые слова:** травянистая растительность, разнообразие, напочвенный покров, шкала Друде, Россошанский район, Воронежская область.

**Keywords:** herbaceous vegetation, diversity, ground cover, Drude scale, Rossoshansky district, Voronezh region.

**Introduction**

Recent decades have been characterized by an aggravation of environmental problems of nature management and life support, an increase in environmental tension in the regions that people

are actively developing. This problem is also relevant for this reserve. For example, changes in the ecological situation in the region have a huge impact on the state of not only tree species, but also on herbaceous vegetation.

**The purpose of the study:** to study the state of the herbaceous vegetation of the Rossoshansky district of the Voronezh region.

**The object of the study** was the herbaceous vegetation located on the territory of the Rossoshansky district of the Voronezh region. The studies were conducted in the summer of 2020 at 2 test sites, since it was on them that a more diverse species composition of the ground cover was revealed [1, 2]. In the studies, the ocular method of accounting for ground cover was used — accounting for the abundance of individual representatives of the ground cover on the Drude scale and on the Zh. Brown-Blanquetscale [3]. The abundance on the Drude scale is determined on the test area at 2 standing points: the first point is selected under the canopy of the stand, the second—in the lumen of the canopy of the stand. The tiers of these plantings were also determined.

For each plant species, the abundance was determined according to the Drude scale (Table1).

Table 1 — The Drude scale

Soc (socialis)	Plants cover the soil completely or almost completely, usually at least 75 %.
Cop (copiasae)	Plants do not form a background, but it is very abundant, occupying at least 20 % of the area. In descending order, this indicator has gradations Cop <sup>3</sup> (very abundant) - from 75 % to 50 %; Cop <sup>2</sup> (abundant) - from 50 % to 35 %; Cop <sup>1</sup> (quite abundant) — from 35% to 20 %.
Sp (sporsae)	Plants cover less than 20 % of the soil surface, occurs scattered.
Sol (solitariae)	Plantsarerare.
Un (unicum)	The plant is found on the test area in one copy.

### The results of the study and their discussion.

On the territory of the protected area "Voronezh upland oak grove" grows a huge number of species of herbaceous vegetation. The list of their species that were observed as a result of the study is presented in Table 2.

Table 2 — List of types of grass cover of the Voronezh upland oak forest

Family	View name
Compoundcolors	<i>Leucanthemum vulgare L.</i>
Compoundcolors	<i>Artimisia absinthium L.</i>
Compoundcolors	<i>Artemisia vulgaris L.</i>
Cloves	<i>Stellaria mediaL.</i>
Lipotsvetnye	<i>Lamium Maculatum L.</i>
Nettleplants	<i>Urtica dioica L.</i>
Borageroad	<i>Pulmonaria obscura Dum.</i>
Kirkazonovye	<i>Asarum europaeum L.</i>
Sedgefields	<i>Carexpilosa Scop.</i>
Cloves	<i>Stellaria holostea L.</i>
Lipotsvetnye	<i>Glechoma hederaceaL.</i>
Lilac	<i>Poligonatum multiflorum L</i>
Balsamic	<i>Impatiens noli-tangere L.</i>
Buttercupflowers	<i>Anemonoides ranunculoides L.</i>
Rosaceae	<i>Geumur banum L.</i>
Umbrellaboxes	<i>Aegopodium podagraria L.</i>
Poppies	<i>Chelidonium majus L.</i>

Madderleaves	<i>Galium rubioides L.</i>
Cruciferous	<i>Alliaria petiolata L.</i>
Violetflowers	<i>Viola mirabilisMurr.</i>
Astrovye	<i>Taraxacum officinale Wigg.</i>
Moths	<i>Lathyrus vernus L.</i>
Plantaintrees	<i>Plantago major L.</i>
Buckwheat	<i>Polygonum aviculare L.</i>
Lilypads	<i>Scilla sibirica</i>
Dymyankovye	<i>Corydalis marschalliana L.</i>
Dymyankovye	<i>Corydalis halleri L.</i>
Cereals	<i>Elytrigia repens L.</i>
Cereals	<i>Bromus inermis L.</i>
Rosaceae	<i>Fragaria vesca L.</i>

On the test area, 2 sites were laid with a size of 2x5 m (10 m<sup>2</sup>) and, having established the weight participation of each representative of the ground cover for 20 m<sup>2</sup>, we determined its reserve for 1 ha. The ground cover data obtained by the weight method are presented in Table 3.

Table 3 — Description of herbaceous vegetation

№ п/п	Наименование видов растений	Обилие по Друде	Обилие по Ж. Браун-Бланке	Ярусы
1	<i>Elytrigia repens L.</i>	Cop <sup>2</sup>	3	1
2	<i>Bromus inermis L.</i>	Cop <sup>2</sup>	3	1
3	<i>Taraxacum officinale Wigg.</i>	Cop <sup>1</sup>	2	2
4	<i>Viola arvensis Murr.</i>	Sp	1	2
5	<i>Glechoma hederacea L.</i>	Sp	1	1
6	<i>Lamium maculatum L.</i>	Sp	1	1
7	<i>Fragaria vesca L.</i>	Cop <sup>1</sup>	2	3
8	<i>Arctium Lappa L.</i>	Sol	+	2
9	<i>Aegopodium podagraria L.</i>	Cop <sup>3</sup>	4	1
10	<i>Anemonoides ranunculoides L.</i>	Cop <sup>1</sup>	2	1
11	<i>Pulmonaria obscura Dum.</i>	Sp	1	2
12	<i>Plantago major L.</i>	Sol	+	2
13	<i>Galium rubioides L.</i>	Sp	1	2

Table 3 shows that the *Plantago major L.* and *Arctium Lappa L.* on the selected test sites are found only in a single instance. The *Aegopodium podagraria L.* is very abundant, the *Bromus inermis L.* and the *Bromus inermis L.* are boneless. *Taraxacum officinale Wigg.*, *Fragaria vesca L.* and *Anemonoides ranunculoides L.* are quite abundant. The remaining species are scattered.

### Conclusions

On the territory of the Rossoshansky district of the Voronezh Region, a huge number of species of herbaceous vegetation grow. In the studies, the ocular method of accounting for ground cover was used — accounting for the abundance of individual representatives of the ground cover on the Drude scale and on the Zh. Brown-Blanquetscale. Plantain large and burdock large on the selected test sites are found only in a single copy. The common snout is very abundant, the bonfire is boneless, and the wheatgrass is plentiful. Dandelion officinalis, wild strawberry and buttercup anemone are quite abundant. The remaining species are scattered. On the territory of the test sites,