STATISTICAL ANALYSIS OF COLLEBOLALES OF APRICOT GARDEN AND CLOVER AGROSENOS

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Annotatsiya. Determine the representatives of soil fauna diversity of the world, they are holding meetings with the fertility of the soil, the form of the introduction of the production of assess the importance of the position and the group paid special attention to the issues. In this regard, various representatives associated with the spread of mikrofauna agrosenoz soil to determine the soil nutrient relations with the environment they work and who have undergone evaluation and crisis mainly affected agrosenozlar is one of the tasks prove the role of urgent condition.

Key words: Collembola, family Isotomadae, microfauna, soil, *Isotomuras palustris* type, agrosenoz.

In the course of our research, density indicators were statistically analyzed to determine the dominant species of the collembola community present in the soil fauna of apricot groves and Clover agrocenoses, which are part of the garden of the Faculty of Biology of the National University of Uzbekistan.

In our study, mainly apricot trees were found in the area of the apricot orchard, and their homeland is mainly Central Asia. Common types of apricots were cultivated in Central Asia 5 thousand years ago, and there are more than 500 varieties. The height of the normal apricot type is 5-8 m, the stem is wide, the leaf is wide ovate, the flower is white or pink, the flower opens before the leaves [2].

Apricot tree is heat-loving, light-loving, drought- and heat-resistant tree, but if there is not enough moisture, the branches will not bear fruit. Since this tree is damaged by spring frosts during flowering, apricot seedlings are planted in a 6x8 scheme in autumn and spring, and as a hedge tree in a 4x6 scheme [3]. This tree is given a spur-like shape, 1/3, 2/3 of its one-year branches are cut in the spring. This tree has been found to grow well in fertile, fertile, gray and gravelly irrigated soils.

Clover agrosenoses is the most universal and best-yielding crop in irrigated farming rotation. It accumulates 300-400 kg or more of nitrogen per hectare in 2-3 years, enriches the soil with organic matter, restores the soil structure, improves water and air conditions. and provides an opportunity to increase crop yield. Clover agrocenosis evaporates up to 12-15 thousand m3 of water per hectare to form underground and above-ground mass during one growing season, helps to increase the

efficiency of farming in areas with groundwater and significantly reduces soil salinity [4].

Clover (Medicago) is a leguminous herbaceous plant, the main fodder crop, with about 100 species. Blue clover (M. sativa L.) is the most widespread species in Central Asia, it was planted 5-7 thousand years ago and is currently considered the main crop of rotation. Clover grows well in non-saline, cultured, fertile, porous and well-drained soils, it is a crop that cleans the soil from wilt pathogens, and in three-year-planted fields, it is suitable for saprophytic microorganisms (fungi, bacteria, protozoa) in the rhizosphere of its root system. Antagonists that kill dangerous fungi are collected [5].

In the analysis, the density of species was determined, and the density of individual species was evaluated for each soil layer. In our research, when the dominant species were calculated for the total area, for a separate apricot orchard and alfalfa agrocenosis, and for individual soil layers of each agrocenosis, 6 species from the genus Tetracanthella were identified.

The species *T. strenzkei* of this generation is the dominant species in the 0-10 cm, 10-20 cm, 20-30 cm layers of the soil of the apricot orchard, correspondingly in the soil layers of the experimental area: on average 16.6± 1.0; 17.0±1.0; It was 15.1±1.0 ind/dm3. Also, it was observed that this species is the absolute dominant species of alfalfa from all three layers of agrocenosis soil, only in the 0-10 cm soil layer. As a result, it was found that the average species density in this area is 22.5±1.6 ind/dm3.

Belonging to the genus *Tetracanthella*, the body of *T. strenzkei* species is cylindrical or flattened, strongly developed macrochaetes are dark blue-black in color, their number is 8+8 and the number of hairs on the body is characteristic. meeting was statistically analyzed.

The absolute dominant genera *Pseudanurophorus* and species *P.psammophilus* in the 20-30 cm layer of apricot agrocenosis, as a result, according to the mentioned genera and species in the area: on average 21.5±1.8 ind/dm3; It was found that the density is 21.5±1.4 ind/dm3. The meeting of representatives of this generation mainly in the deep layers of the soil is directly related to its morphological characteristics.

P.psammophilus is shorter than 1.0 mm in body size, has weak pigmentation and simple number of eyes 2+2, postantennal organ, mandibles are fully developed and the body is covered with short and smooth hairs and macrochaetae are almost not developed.

A. laricis from the genus *Anurophorus* dominates the distribution of apricot and alfalfa agrocenosis. It is found in the 0-10 cm and 10-20 cm layers of the soil, and representatives of this genus were not detected in the 20-30 cm soil layers. Statistical analysis of the density of *A.laricis* species representatives in the general soil community in the 0-10 cm, 10-20 cm, and 20-30 cm layers of apricot agrocenosis soil, respectively: average 17.0±1.1; 18.3±1.3; It is found that it has a density of 0 ind/dm3.

Also, it was observed that the *A. laricis* species of this generation is absolutely dominant in the middle layers of the soil, that is, in the soil community of 10-20 cm, when the density of meeting in the three soil layers of the agrocenosis was statistically analyzed.

A representative of the species *A. laricis* from the genus Anurophorus is up to 1.4 mm in size, blue and black in color. The body shape is thin, cylindrical, and the body hair is short and smooth. The mandibles have a normal, strong molar plate. We observed that the number of hairs on the body is not more than macrochaeta and the number of eyes is 4+4.

The only *M. musci* species of the next genus *Micranurophorus* belonging to the soil collembola was found to be distributed in the agrocenosis of apricot and alfalfa. As a result, the average of 11.6±0.6 from the soil layers in these experimental areas only in the distance of 20-30 cm; It was determined based on the results of the study that it does not live in the 0-10 cm, 10-20 cm soil layers with a density of 17.1±0.6 ind/dm3.

The unique morphological features of this genus are body size 0.4 mm, white color, simple eyes and no furka, postantennal organ is small and round, body hair is smooth, pointed, erect, but on the basis of its short development, samples were taken from all three layers of the soil, the soil was sifted and filtered, and the density of the soil was determined.

In apricot and alfalfa agrocenosis, 11 species of the Folsomides genus of soil collembola were identified in different soil layers, and only F. minor species was found to be the absolute dominant species in all three soil layers based on statistical analysis. As a result, the soil fauna community of this type has an average density of 17.1 ± 1.1 ind/dm3 in the 0-10 cm, 10-20 cm layers of apricot agrocenosis, and 10.0 ± 10.0 in the 20-30 cm layer. It is equal to 0.8 ind/dm3.

Also, the average density of this species in all three soil layers in alfalfa agrocenosis is 18.3±1.3; 19.1±1.3; 12.0±0.8 ind/dm3, F. minor's body size is 0.9 mm, tube-shaped, fine white color, elongated postantennal organ, normal eyes 2+2, it was easily determined based on morphological characteristics.

Archisotoma, the sixth generation of soil collembola identified in the research, is distributed only in alfalfa agrocenosis, and the only *Archisotoma* megalops species representative of this generation dominates the 0-10 cm and 10-20 cm layers of the soil, and the average density compared to the soil fauna community is 20.3±1, 4; It is equal to 18.2±1.3 ind/dm3.

As a result of the conducted research, representatives of this species are not found in the 20-30 cm layers of the alfalfa agrocenosis soil and in all three soil layers of the apricot orchard agrocenosis. The body size is up to 1.5 mm, the color is gray-brown, and the eyes are normal. 2+2 was easily identified based on morphological

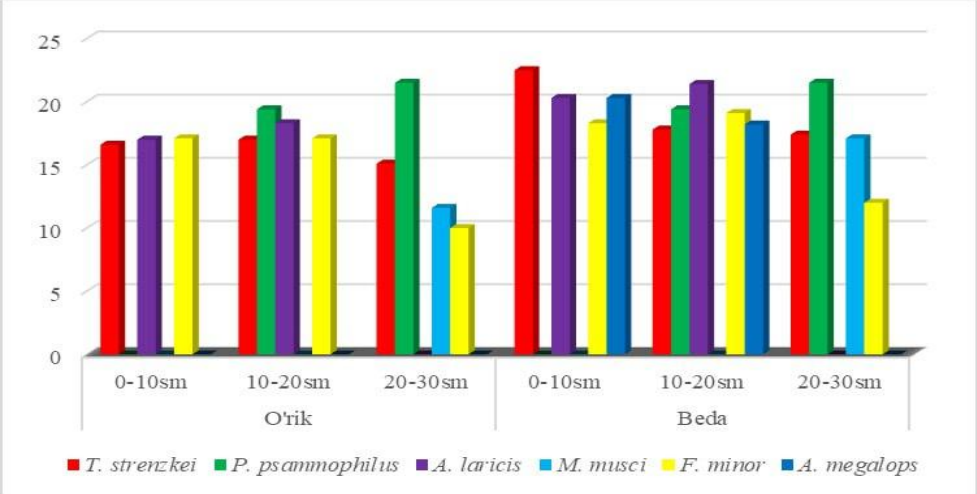
characters such as the narrowness of the postantennal organ. The research results are described in table -1.

Table -1

Statistical analysis of population density of collembola communities distributed in apricot garden and alfalfa agrocenosis

	Apricot garden							Clover agrosenoses						
	Min	Max	M	a v	D	C%	P<8%	Min	Max	M	a v	d	C%	P<8%
Generation: *Tetracanthella* Type: *Tetracanthella strenzkei*														
0-10	1	32	16,6±1,0	80,3	9,0	0,5	6,0	1	53	22,5±1,6	196,1	14,0	0,6	7,0
10-20	1	33	17,0±1,0	81,2	9,0	0,5	5,9	1	35	17,8±1,0	84,4	9,2	0,5	5,8
20-30	1	30	15,1±1,0	78,4	8,9	0,6	6,5	1	34	17,4±1,0	82,6	9,1	0,5	5,8
Generation: *Pseudanuroforus* Type: *Pseudanuroforus psammophilus*														
0-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-20	2	38	19,4±1,4	101,1	10,1	0,5	7.3	2	38	19,4±1,4	101,1	10,1	0,5	7.3
20-30	1	44	21,5±1,8	163,0	12.8	0,6	8.0	1	44	21,5±1,4	163,0	12.8	0,6	8.0
Generation: *Anurophorus* Type: *Anurophorus laricis*														
0-10	1	33	17,0±1,1	88,6	9,4	0,6	6,2	1	48	20,3±1,4	153,9	12,4	0,6	6.8
10-20	1	42	18,3±1,3	126,7	11.3	0,6	6,9	1	49	21,4±1,4	167,8	13,0	0,6	6.8
20-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation: *Micranurophorus* Type: *Micranurophorus musci*														
0-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-30	1	30	11.6±0,6	49,1	7,0	0,6	6.7	1	35	17,1±0,6	90.3	9.5	0,6	6,2
Generation: *Folsomides* Type: *minor Folsomides*														
0-10	1	35	17,1±1,1	89,5	9.5	0,6	6,2	1	42	18,3±1,3	127,6	11.3	0,6	6,9
10-20	1	38	17,1±1,1	93,3	9,7	0,6	6,3	1	45	19,1±1,3	143,1	12,0	0,6	7,0
20-30	0	30	10.0±0,8	56,6	7.5	0.7	8.0	1	30	12,0±0,8	46,8	6.8	0,6	6,4
Generation: *Archisotoma* Type: *Archisotoma megalops*														
0-10	0	0	0	0	0	0	0	1	46	20,3±1,4	150,6	12,3	0,6	6.8
10-20	0	0	0	0	0	0	0	1	41	18,2±1,3	126,4	11,2	0,6	6,9
20-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0

As a result of the research carried out in the apricot grove and alfalfa agrocenosis, the population density of soil collembola was statistically analyzed (picture-1), and it was found that the average number and occurrence of dominant species in the alfalfa agrocenosis was higher than in the apricot orchard. . This is explained by the fact that no plowing was carried out in the alfalfa agrocenosis for two years, the population density of collembola increased, and the number of species increased.



1-picture. Apricot and clover agrosenoses are dominant species in agrocenosis.

In short, in the alfalfa agrocenosis, the average number and frequency of the population density of dominant species of Collembola is higher, as a result of which the soil fertility, functional and structural properties are higher compared to the soil of the apricot orchard.

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