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A COMPARATIVE STUDY OF NEMATODA FACILITIES OF SHORTAGE PLANTS AND TREES IN ZARAFSHAN FOREST BIOTOPES

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Annotation
The main goal of our research is to compare the nematodefauna of wild sugar cane root and rhizosphere growing in the Zarafshan tugai biotope with the nematodafauna of trees (black willow) growing in this biotope, and the degree of similarity is Mountford generality. was reported to be 25.81. Also, when we compared the nematodes found in the root and peripheral soil of wild sugar cane and rhubarb retail plants, it was found that there was a sharp difference between them. The results were recorded as 12.14 on the Mountford Overall Index.

Keywords: phytonematoda, fauna, generation, family, genus, species, eurybiont, xerophilous, mesophilic, hygrophilous, black willow, sugar cane, parasitic nematodes, pathogen, rhizosphere, Mountford general indicator.

Introduction

In Uzbekistan, a lot of work is being done in the field of biology, systematics, fauna, parasitic species of phytohelminths. The main task of phytonematology is to study the role of plant and soil nematodes in biogeocinosis and their interaction with various other organisms that enter the soil biota.
Phytonutrients not only cause great damage to the yield of cultivated plants, but also actively participate in the transmission of a number of viral, fungal and bacterial diseases. In some cases, the damage caused by phytohelments to agricultural crops is up to 20%.
Until now, phytohelminthologists of our country and abroad have extensively studied the roots of many plants and the composition of nematodes living in the surrounding soil, but a comprehensive study of

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the ecology of phytonematoids of tugai plants has been completely ignored. It should be noted that most parasitic species phytonematoda slow down the growth rate of tugai plants, causing the drying of the leaves, and some species can cause the loss of plants in these landscapes.

Materials and Methods

We examined the root system of plants according to the method of YS Kiriyanova and ELKrall (1969). Sampling takes into account the appearance of plants, physiological condition, soil and air temperature, humidity, irrigation methods, soil types and other factors.

Phythelminthology is one of the most convenient methods of separating nematodes from plants and soil, and is the Berman method. The procedure for using this method is as follows: take a glass funnel with a diameter of 9-12 cm, put a rubber tube 10-15 cm long on its long side, squeeze the open end of the rubber and clamp it with a Mor clamp. The funnel is mounted vertically on a wooden tripod with a rubber tube. The root and root soil of each plant taken for inspection were analyzed separately. Collected plant roots are washed one by one in clean water, cut into 0.5 cm pieces and then mixed well. An average of 10 g is taken from the resulting mixture. Similarly, soil samples are taken in a volume of 10 g. The samples are placed on a nylon or wire mesh and immersed in funnel water. The nematodes released from the soil are collected in front of the clamp through a nylon net. 12-18 hours at a temperature of 25-35 degrees Celsius are sufficient for complete separation of the nematodes. 4-5 to preserve the original nematode % is transferred to formalin liquid. Permanent micropreparations are prepared to determine the species composition of nematodes.

Permanent micropreparations were prepared as follows: nematodes stored in formalin using MBS-1 binoculars were transferred to a mixture of 96% alcohol and glycerin (1: 1) with a very fine needle. and 5-6 nematodes were transferred to it under a binocular with a fine needle and covered with a closed vial. The glycerin in the drug was then heated slightly to distribute the gelatin evenly. Once the glycerin-gelatin in the drug had solidified, the locations of the nematodes on the underside of the vial were marked using a dream. Information about nematodes was written on the upper two sides of the bottle. On one side was written the name of the plant, the term of the farm, the period of sampling, and the name of the person who collected it. On the other side, the name and sex of the species are indicated on the phytonemato.

In particular, the degree of similarity of wild sugar cane and common anise nematodefauna was calculated by the following formula according to the general index of Mountford (Mountford, 1962).

$$J = \frac{2\,\mathrm{j}}{2 \times \mathrm{a} \times \mathrm{b} - (\mathrm{a} + \mathrm{b}) \times \mathrm{j}} 1000$$

Here J is the total index, j is the number of species that are common in the plants being compared, and a x b is the number of nematode species encountered in each plant species being compared.

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Research Results

A comparison of the degree of similarity of nematodes found in the soil around the roots and roots of wild sugar cane and black willow plants yielded the following data: 4053 nematodes of 62 species were detected in black willow. When we compared the degree of similarity of these two plants on the Mountford commonality index, the following results were obtained:

$$J = \frac{2 \times 39}{2 \times 64 \times 62 - (64 + 62) \times 39} \times 1000 = 25{,}81$$

A total of 39 species of wild sugar cane and encountered species were found to have a similarity level of 25.81. The following species are common to the root and root soil of wild sugar cane and black willow plants:

Criconemoides pullus, Aglenchus Agricola, Filenchus orbus, F. polyhypnus, Lelenchus, discerepans, Ditylenchus triformis, Aphelenchus avenae, Aphelen-choides parietinus, Protorhabditis xylocola, Mesorhabditis monhystera, P. pylonus, Panagrolaimus armatus. latus, Cepnalobus parvus, Cepphalobus persegnis, Eucephalobus mucronatus, Eucephalobus oxyuroides, Acrobelodes labiatus, A. nanus, Acrobeles cylindricus, Ac. Ctenocephalus, Cervidellus hamatus, Prismatolaimus dolichurus, Mononchus truncates, Longidorella parva, Tylencholaimus proximus, Leptonchus obtusus, Aporcelaimellus obtusicaudatis, Paraxondvium lactficans, Eudorylaimus minutes, Alaimus jaulasali.

When we compared the nematodafauna of wild sugar cane and black willow plants by category, it was found that they differed sharply from each other (Table 1). In particular, 767 nematodes (21.9%) of 19 species from the genus *Tylenchida were detected in* wild sugar cane , while 1836 nematodes (45.2%) belonging to 24 genera were recorded in the soil of black willow root and root zone. Wild from the representatives of the genus *Rhabditida* 1,500 nematodes (42.9%) of 26 species were detected in the soil of sugar cane root and root area, while 989 nematodes (24.4%) of 21 species were detected in black willow.

7 nematodes (0.2%) of the genus Plectus parie-tinus were recorded in *wild sugar* cane from the Araelaimidae family. Black willow root belongs to the genus *Proteroplectus longicaudatus in the surrounding soil* Detected in 2 nematodes (0.04%). Representatives of the *Chromadorida* family were not found, and black willow was recorded in 872 nematodes (21.5%) belonging to the species *Achromadorida ruricola, A. terricola, A. nax, Microlaimus dlobiceps. 1 nematode (0.02%) of the* genus *Prismatolaimus dolichurus from the genus Enoplida was found* in the soil around wild sugar cane roots, and 5 nematodes (0.1%) were found in the soil around the black willow root. 8 (0.2%) mononchus truncatus were recorded in the soil around the wild sugar cane root and 9 (0.2%) in the *black willow* . From the representatives of the *Dorylaimida* family, 1174 nematodes (33.6%) belonging to 16 species of wild sugar cane root and root soil were detected, and 411 nematodes (11.4%) of 11 species were detected in the soil.

When we compared the nematodes found in the root and peripheral soil of wild sugar cane and rhubarb retail plants, it was found that there was a sharp difference between them. Wild sugar cane was recorded in 3,490 nematodes of 64 species, and 4,811 nematodes of 93 species in rhinoceros retails, of which 37 species were common to both plants, with the following results in terms of Mountford generality:

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$$J = \frac{2 \times 37}{2 \times 64 \times 93 - (64 + 93) \times 37} \times 1000 = 12{,}14$$

The following species were common to wild sugar cane and cherry retail plants:

Criconemoides pullus, Aglenchus costatus, Filenchus orbus, Ditylenchus triformus, Aphelench avenae, Aphelenchoides dactylocercus, Aph. parietinus, Aph. sacchari, Aph. saprophilus, Aph. scalacaudatus, Aph. subparietinus longicaudatus, P. rigidus, Heterocephalobus elongatus, E. oxyuroides, E. striatus. Acrobeloides labiatus, A. nanus, Acrobeles cylindricus, Cervidellus hamatus, Plectus parietinus, Prismatolaimus dolichurus, Mononchus truncates, Mesodorylaimus musae, Longidorella parva, Tylencholaimus proimus, Leptonusus paraimus, Leptonudus obtusus, Aporsus, Aporsus, Aporus. The results of the comparison of nematodes found in the soil around the roots and rhizomes of wild sugar cane and alfalfa are as follows*:* 2546 nematodes (52.9%) belonging to 34 species were recorded in the soil of root rot and root rot. In the soil of wild sugar cane root and root zone, 1500 nematodes (26.9%) of 26 species and 1737 nematodes (35.1%) of 32 species were recorded in the rhubarb. *Representatives of the Araeolamida family recorded 7 nematodes (0.2%) belonging to the genus Plectus parietinus in the* soil around wild sugar cane roots, and 21 nematodes (0.4%) belonging to 4 species in the soil around the rhizome. These are *Plectus geophilus, P. parietinus, Proteroplectus inguirendus, Pr. It* consists of larvae belonging to the *genus Longicaudatus* and *Rhabditida. Representatives of the Chromadorida* genus are not found in wild sugar cane, and in the soil around the root of the chromadoridae chakanda of this genus. *Microlaimus was found* in 2 nematodes (0.04%) belonging to the globiceps type. Representatives of the genus *Enoplida recorded* 1 nematode (0.02%) belonging to the genus *Prismatolaimus dolichurus in the* soil around the roots of wild sugar cane , 12 nematodes (0.2%) belonging to the genus *Prismatolaimus dolichurus, P. intermededius in the soil around the rootstock.* done. Of the *mononchidae , only* 8 nematodes (0.2%) of the *Mononchus truncatus species were found in* the soil around the wild sugar cane root , and *Mononchus truncatus, Clarus papillatus,* and *Mylonchulus lacustrius necustrius* (11 %) were found in the soil around the rootstock. %) found. Wild sugar cane root and root soil were found in 1174 nematodes (33.6%) belonging to 16 species and 502 nematodes (10.4%) belonging to 18 species in the genus Doryimida. (Table 1)

(Table 1) Distribution of nematodes found in tugai forests of Zarafshan oasis by categories

Categories	Wild sugar cane			Black willow			Chakanda		
	number of species	number of nema-toda	% cal-culates	number of species	number of nema-toda	% cal-culates	number of species	number of nema-toda	% cal-culates
1.Tylenchida	19	767	21.97	24	1836	45.29	34	2564	52.92
2. Rhabditida	26	1500	42.97	21	989	24.4	32	1737	36.1
3. Aracolaimida	1	7	0.2	1	2	0.04	4	21	0.43
4. Chromadorida	_	_	_	4	872	21.51	1	2	0.04
5.Enoplida	1	1	0.02	1	5	0.12	2	12	0.24
6.Monanchida	1	8	0.22	1	9	0.22	2	11	0.22
7.Dorylaimida	16	1174	33.63	10	338	8.33	18	502	10.43
Total:	64	3490	100	62	4053	100	93	4811	100

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Conclusion

Thus, in the soil of the root and root zone of the rhubarb, the representatives of the genus Tylenchida, Rhabditida are more common, in the soil around the roots and rhizomes of wild sugar cane, the representatives of the genus Dorylaimida, on the contrary, are more abundant in the wild sugar cane than in the retail less common.

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