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SPECIES SPREAD OF ORDER LEPTOSPHAERIA Ces. & De Not. IN KASHKADARYA OASIS

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Annotasiya. Ushbu maqolada Qashqadaryo vohasida zamburug‘larning Leptosphaeria Ces. & De Not. turkumiga mansub Leptosphaeria baggei (Auersw. & Niessl) Sacc., Leptosphaeria sp., Leptosphaeria pini (Cruchet) E. Müll kabi turlari uchrashi bayon etilgan. Tadqiqot natijalariga ko‘ra aniqlangan turlari orasida Leptosphaeria pini (Cruchet) E. Müll. O‘zbekiston mikobiotasi uchun yangi tur ekanligi yoritib berilgan.

Kalit so‘zlar: psevdotesiylar, spora, saprofit, parazit, Leptosphaeria

Аннотация. В этой статье описывается грибы *Leptosphaeria baggei* (Auersw. &Niessl) Sacc., *Leptosphaeria* sp., *Leptosphaeria pini* (Cruchet) E. Müll. *Leptosphaeria* Ces. & De Not. Из рода *Leptosphaeria* Ces. & De Not.в Кашкадарьинского оазиса. В результате исследования выявлена *Leptosphaeria pini* как новый вид для микобиоты Узбекистана.

Ключевые слова: псевдотеций, спора, сапрофит, паразитирующих, *Leptosphaeria*

Abstract. The article studies species spreading of order Leptosphaeria Ces. & De Not., ecology and founding of plant species *Salix alba* L., *Tilia cordata* Mill. and *Picea pungens* Engelm. in Kashkadarya oasis. It is defined that 3 species of fungi such as *Leptosphaeria baggei* (Auersw. & Niessl) Sacc., *Leptosphaeria* sp., *Leptosphaeria pini* (Cruchet) E. Müll. belonging to the genus *Leptosphaeria* Ces. & De Not. are found. It was observed that *Leptosphaeria pini* (Cruchet) E. Mull. which among the identified species are a new species for the mycobiota of Uzbekistan.

Key words: psevdotsiyum, spore, saprophyte, parasitic, *Leptosphaeria*

Introduction. The genus *Leptosphaeria* is a branch of Ascomycota, class Dothideomycetes, saprophytes and facultative parasites belonging to the order

Leptosphaeriaceae, which are grown on the leaves, twigs and woody parts of plants and cause various diseases.

Some species of the leptospheric family have shown new signs of disease in the leaves of sugar cane (*Saccharum oficinarum*) in western Kenya. The leaves of the plant are in the form of various spots resembling burns, which eventually enlarge and coalesce, causing burns on the leaves [2].

More than 500 species of fungi of the genus *Leptosphaeria* are found, their representatives live in different climatic conditions in all climatic zones, and some species are at a conidial stage of development [3]. Most species develop in the dried surface organs of herbaceous plants and are pathogenic to these fungal plants in the conidial stage [2]. The sacs and spores of the genus *Leptosphaeria* are often formed during the teleomorphic phase in the dried parts of plants [1].

The *Leptosphaeria* order includes a number of species whose parasitism in cultivated plants has a significant effect on the decline in plant productivity. This type of fungus causes morphological and anatomical changes in the structure of the plant as a result of the disease. Under the influence of all the changes caused by the disease, the plants grow slowly, the yield decreases, and the landscape status of ornamental plants is lost, and often the plant dies completely [2].

In Uzbekistan, the species of the genus Leptosphaeria were originally studied by N. G. Zaprometov (1926, 1928) [7], [8], Ya. S. Solieva (1989) [9], Gulyamova et al., (1990) [10], Sh. G. Kamilov (1991) [11], H. H. Nuraliev (1998) [12], Sh. Yu. Gafforov (2017) [13], Mustafaev (2018) [14], and others. However, species of the genus Leptosphaeria have not been studied in introduced ornamental trees distributed in the territory of Southern Uzbekistan.

Research methods. Scientific research was conducted in some cities of the Kashkadarya oasis, namely Karshi and Shakhrisabz. Herbarium samples from affected plants in these areas were collected and mycologically analyzed. Microscopes such as MBS-9 binocular, MBI-3, Motic B1, and B-380ALC were used [6]. Determination of the species composition of micromycetes was carried out on the basis of a number of methodological programs, identifiers and scientific literature [3], [4], [5]. The modern nomenclature of micromycetes is given as Mycobank (http://www.mycobank.org/quicksearch.aspx), and the names of the host plants are http://www.theplantlist.org/tpl/search?q and the order of herbariums JPQ i.e. Jamila Payanovna Karshi and JPSh Jamila Payanovna Shahrisabz.

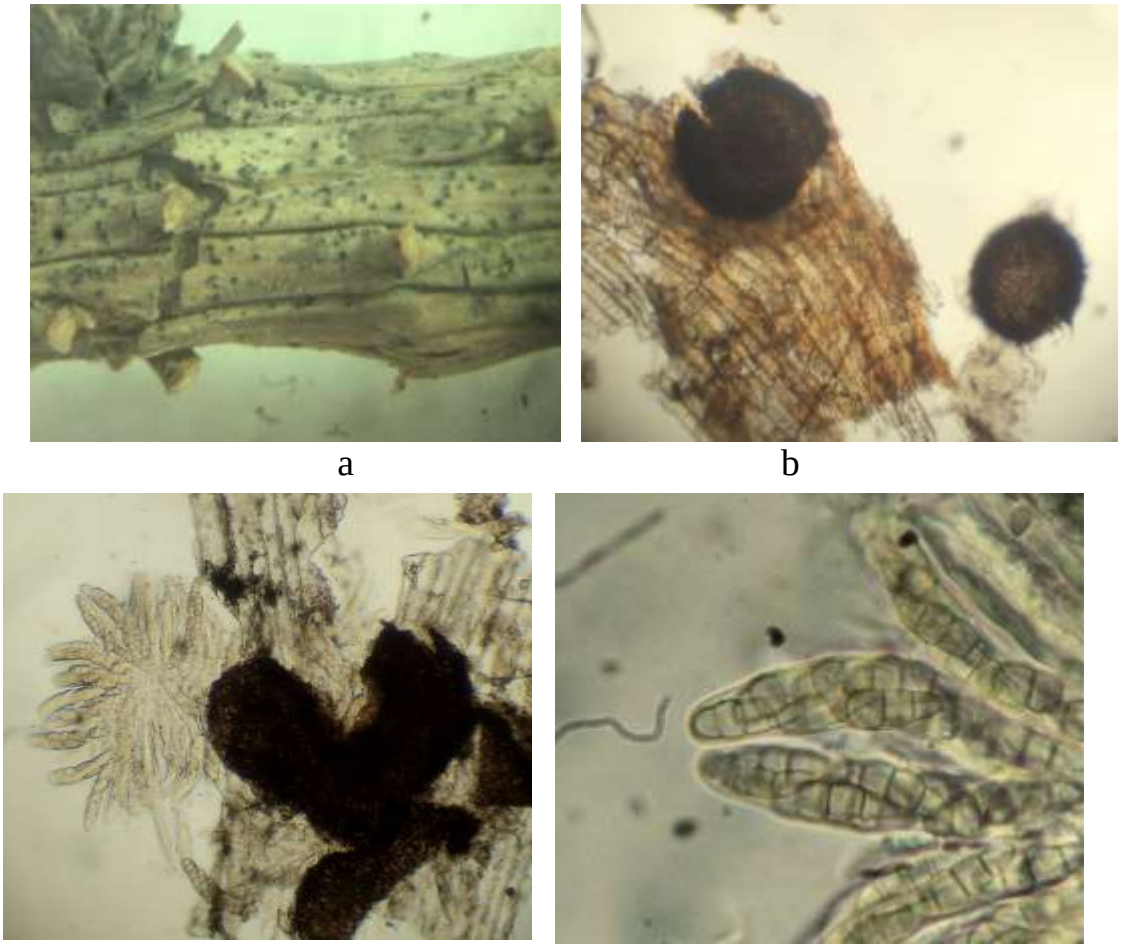
Analysis and results. In a result of study, 3 species of *Leptosphaeria baggei* (Auersw. & Niessl) Sacc., *Leptosphaeria* sp. and *Leptosphaeria pini* (Cruchet) E. Müll. the occurrence of fungal species was observed. Of these, *Leptosphaeria pini* (Cruchet) E. Müll. It has been identified as a new species for the mycobiota of Uzbekistan.

The following is a list of species in this category.

Leptosphaeria baggei (Auersw. & Niessl) Sacc., Sylloge Fungorum 2:35 (1883) [MB # 212264]. It was observed that this fungus is found in the woody part of the plant. The host plant is Salix alba L. Karshi, 28.07.2017, JPQ149.

***Leptosphaeria* sp.** This fungus is a facultative saprophytic parasite, and it was observed that the pseudocysts that grow on the stem of the plant are spherical black. The host plant - Tilia cordata Mill. Shahrisabz city, 8.07.2017, JPSh 155.

Leptosphaeria pini (Cruchet) E. Müll., Sydowia 4 (1-6): 277 (1950) [MB # 299630]. The host plant - *Picea pungens* Engelm. This fungus is saprotrophic and is mainly found in the stems of the plant. Herbarium specimens Shahrisabz, (8.07.2017, JPSh116) (Fig. 1).



a b v g

Figure 1. *Leptosphaeria pini* (Cruchet) E. Müll .: a - substrate; b - psevdotsiyum; v, g – ackspores

The pseudotheciums of the fungus *Leptosphaeria pini* spend the winter dormancy period, swelling on the stem and branch of the plant. Pseudocysts - spherical, round, black, 350-400 microns in diameter. On the inside of the pseudocysts are bags, which are thickened at the tip in a cylindrical shape. the spores in the sacs are mostly surrounded by a large number of pseudo-paraphyses. Spores are 4-8 in a bag. Spores are cylindrical, oval or elliptical in shape, yellowish in color. The spores are divided transversely by three barriers, the spores are arranged in rows 1 and 2 in the ackspores

Conclusion. Thus, the study clarified that Leptosphaeria Ces. & De Not. 3 species of fungi belonging to the genus *Leptosphaeria baggei* (Auersw. & Niessl) Sacc., *Leptosphaeria* sp., *Leptosphaeria pini* (Cruchet) E. Mull. were observed, which were found in *Salix alba* L., *Tilia cordata* Mill. and *Picea pungens* have been found to occur in plants such as Engelm. Among the identified species, Leptosphaeria pin (Cruchet) E. Mull. was observed to be a new species for the mycobiota of Uzbekistan.

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