complained of distorted tastes, namely the inability to distinguish between sour, salty and sweet.

Complete or partial loss of sense of smell in the typical course of the disease develops on day 3 to 5. Complete recovery of the sense of smell usually occurs from 3 weeks to 4–6 months. Some patients who have previously suffered from anosmia show distortion of the taste buds even 6 months after the disease. Doctors attribute this to the gradual recovery of the olfactory nerve function.

So far, scientists have proven that patients with anosmia or hyposmia are more prone to develop neurological complications after Covid-19.

In order for the sense of smell to be restored more quickly, it should be exercised. To do this, you can use aromatic oils of lemon, peppermint and eucalyptus. It is necessary to inhale them 3 times a day for 20 seconds. You can also use strongly smelling products and objects, such as garlic or perfume.

General recommendations for Covid-19 include:

1. Adherence to a sleep regimen, since nerve activity is restored at night;

- 2. Proper diet and drinking regime;
- 3. The absence of stress;

4. Breathing exercises.

Conclusion: The hallmark of Covid-19 is a complete or partial loss of sense of smell and taste. Since anosmia is an early symptom of coronavirus infection, special testing for anosmia can help early diagnosis of Covid-19 and, accordingly, timely treatment. This can help to avoid serious consequences of this disease.

- Neuropathogenesis and Neurologic Manifestations of the Coronaviruses in the Age of Coronavirus Disease 2019. A Review / A. S. Zubair [et al.] // JAMA Neurology. -2020. - Vol. 77, № 8. - P. 1018-1027.
- 2. COVID-19: angiotensin-converting enzyme 2 (ACE2) expression and tissue susceptibility to SARS-CoV-2 infection [Electronic resource]. Mode of access: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7778857/. Date of access: 07.11.2021.

ECOSYSTEM SERVICES OF GREEN PLANTS OF PECHERSKY FOREST PARK, MOGILEV

Victoria Nikifarenka

VSU named after P.M. Masherov, Vitebsk, Belarus

Keywords: green spaces of general use, characteristics of green spaces, ecosystem services, element-by-element and integral valuation of green spaces.

Depending on their properties (structures and processes), ecosystems have the ability to provide certain services for human society.

Ecosystem services (ES) are the benefits that people receive from ecosystems [2]. The rationale for ES is to better integrate environmental services (free natural resources) into decision-making processes and to ensure sustainable land use in order to counteract overextension and degradation of natural living conditions.

The appeal of the ES concept is based on its integral, intra- and interdisciplinary nature, as well as its connection with ecological and socio- economic concepts. The concept of ecosystem services focuses on the users of ecosystem services. Merely offering a service when there is no demand for it does not mean economic benefit and is not considered an ecosystem service. There is no uniform classification of ES, but the structure outlined in the Millennium Ecosystem Assessment [3] has been widely recognized. According to this classification, EIs are divided into providing services, regulating services, cultural services and supporting services.

Materials and methods. The first mention of the Pechersky forest park dates back to 1632, when the Golovchinsky prince Alexei Lakhtynovich bequeathed his estate to the Kiev-Pechersky monastery, which was located near the road to Mogilev. Pechersky forest park is located in the north-west of Mogilev, along the Zagorodnoye highway. The area of the forest park is about 337 hectares, on its territory there is Lake Pecherskoye, as a continuation of the Dubrovenka river, which flows along the entire length of the forest park.

Findings and their discussion. There are many different approaches to the valuation of ecosystem services, both foreign and domestic. Some of these approaches are based on the relationship of ecosystem services to the well-being of the population. Others use a cascade model that takes into account spatial and temporal aspects [4].

In Belarus, the methodology for calculating the valuation of ecosystem services is spelled out in the TCP 17.02-10-2013 (02120) "Procedure for the valuation of ecosystem services and determination of the value of biological diversity". According to the TCP, the valuation of ES is a monetary expression of the economic value of ecological resources that ensure the satisfaction of the ecological needs of society and the preservation of ecological balance [1].

Green spaces are climate-regulating ecosystem services. By releasing oxygen, absorbing and retaining carbon, dust, etc. in its phytomass, green spaces regulate the local climate and contribute to the purification of the atmosphere.

Results. In the Pechersky forest park, the average age of pine, spruce and oak forests is over 70 years. Almost a third of the pine forests of the forest park (27.5%) and half of the oak forests (44.0%) are over 100 years old. Oxalis pine forests (97.7%) and spruce forests (97.8%), which reflected in Picture 1, dominate the woodland.

Forest stands of V and IV age classes prevail (35.1 and 28.6%). This explains the dominance of ripening and mature stands in the forest park. The proportion of young growth in the forest park is only 3.6% of the territory. An indicator of the productivity of plantings is their bonitet. In the Pechersky forest park, highly productive stands prevail, which corresponds to the conditions of the site of growth. Plantations 1B-1 of quality classes are 91.6%, of lower classes of quality - 8.4%.



Picture 1 – The predominant plantations of the Pechersky forest park

To calculate the ecosystem services of the Pechersky forest park, the element-by-element and integral cost estimate was used [1]. The assessment was carried out at 59 blocks, according to the data of the KPUP "Mogilevzelenstroy".

The average accumulation of carbon dioxide in the presented deposits is 7.2 t / year. The values vary from 0.1 to 47.3 t / year, depending on the area of the stand and the age of the stands.

The monetary value of the value directly depends on the purposes and methods of using a given territory in terms of the benefits that people can get. Monetary, the total element-by-element cost estimate from all 59 divisions turned out to be 12792.6 BYN. The integral cost estimate was 25470.7 BYN.

Conclusion. The climate-regulating function of forest plantations plays an important role in balancing the powerful emissions of carbon dioxide into the atmosphere. By accumulating carbon in their phytomass, the green spaces of the Pechersky Forest Park have a significant potential to influence the magnitude and direction of carbon fluxes in the local carbon cycle.

Determining the monetary value of ecosystem services is an incentive to change the ways of economic use of a given territory or the path to decision-making.

- The procedure for the valuation of ecosystem services and determination of the value of biological diversity (TKP 17.02-10-2013) - Minsk: Ministry of Natural Resources, 2013 - p. 25
- 2. Tikhonova, T.V. Ecosystem Services: Role in the Regional Economy and Approaches to Assessment / T.V. Tikhonova // Izvestia of the Komi Scientific Center of the Ural Branch of the Russian Academy of Sciences No. 3, Syktyvkar, 2016. S. 134-144.
- Grunewald K., Bastian O. / Accounting and assessment of ecosystem services (the experience of Russia and Germany) // K. Grunewald, 2014 - p.373
- 4. Millennium Ecosystem Assessment // Convention on Biological Diversity Bangkok, February 7-11 2005.