# МАРКЕТИНГ УСЛУГ И ТЕРРИТОРИЙ

# MARKETING OF SERVICES AND TERRITORIES

UDC 159.98+502.1+ 911.3(075.8) DOI: 10.24411/1995-042X-2020-10308

**Mariam R. ARPENTIEVA** 

Russian academy of natural sciences (Kaluga, Russia) PhD (Dr.Sc.) of Psychology, Professor; e-mail: mariam\_rav@mail.ru

**Olga P. STEPANOVA** 

Nosov Magnitogorsk State Technical University (Magnitogorsk, Chelyabinsk region, Russia) PhD in Psychology, Associate Professor; e-mail: olga.psihea@mail.ru

**Oksana V. TOKAR** 

Nosov Magnitogorsk State Technical University (Magnitogorsk, Chelyabinsk region, Russia) PhD in Pedagogy, Associate Professor; e-mail: tokar.mgtu@mail.ru

Elena Yu. SHPAKOVSKAYA

Nosov Magnitogorsk State Technical University (Magnitogorsk, Chelyabinsk region, Russia) PhD in Pedagogy, Associate Professor; e-mail: sqvorez@mail.ru

**Olga N. DUVALINA** 

K. E. Tsiolkovskiy Kaluga State University (Kaluga, Russia) PhD in Psychology, Associate Professor; e-mail: gladis75@mail.ru

Natalya V. KUZNETSOVA

Moscow Lomonosov State University, (Moscow, Russia) Research Fellow; e-mail: ikio@ikio.msu.ru

# ENVIRONMENTAL CULTURE OF THE CITY AND RECREATIONAL TOURISM: REHABILITATION, EDUCATIONAL AND ENVIRONMENTAL PRACTICES

Abstract. The ecological culture of the city and town is a systemic indicator of the relationship between man and nature on the territory of an urban settlement. It reflects the level (intensity) and direction of environmental activities of city residents and specialists working in various areas of urban economy and business, for the preservation and development of urban flora and fauna. An important part of the ecological culture of the city is associated with urban studies, caring for trees and plantations in the city and around it. Such care is carried out both directly, in the course of activities related to the protection and development of forest plantations, and in the context of related practices, including recreational and tourist. One of the most popular and relevant measures of modern life is the saturation of space and time of a person's life, a citizen with contacts with flora and fauna, including with the help of urban forest plantations. As for the residents of the city and the suburbs, then in their life it is, most often, mainly about micro-tourism or weekend tourism. For tourists – city visitors – getting to know the city's planted forests can be an important part of their journey. The aim of the study is to analyze the problems of the ecological culture of the city in the context of the tasks of recreational tourism and related health, educational and environmental practices. The purpose of the study is carried out on the example of understanding the problems, opportunities and areas of activity in relation to the leading aspect of urban ecological culture – urban forest plantations. The research method is a theoretical analysis of the problems of the formation and development of the ecological culture of the city, the concerns of citizens and specialists about the flora and fauna of the city, its forest plantations, in the context of the tasks of recreational tourism and related health, educational and environmental practices. As the study showed, on the basis of urban forest plantations, educational, recreational and environmental activities of different groups of citizens and tourists from other regions can be and are being implemented. Urban forestry is a complex discipline about the development and functioning of forest areas located in close proximity or included in urban settlements, and is also an important part of modern recreational geography. Hikes in the forest, which are and are not part of purposeful and systemic recreational, including tourist activities,



are the most important means of maintaining the psychological, physical and other components of the health of citizens in the process of implementing recreational and health-improving and educational and environmental practices. This creates an opportunity for a person and society to survive and develop even in conditions of intense, uncontrolled technological changes.

Keywords: urban forestry, recreational geography, recreation, rehabilitation, ecology, tourism.

**Citation:** Arpentieva, M. R., Stepanova, O. P., Tokar, O. V., Shpakovskaya, E. Yu., Duvalina, O. N., & Kuznetsova, N. V. (2020). Environmental culture of the city and recreational tourism: rehabilitation, educational and environmental practices. *Servis v Rossii i za rubezhom [Services in Russia and Abroad]*, 14(3), 115-129. doi: 10.24411/1995-042X-2020-10308.

Article History Received 13 September 2020 Accepted 9 October 2020 **Disclosure statement** No potential conflict of interest was reported by the author(s).



© 2020 the Author(s)

This work is licensed under the Creative Commons Attribution 4.0 International (CC BY-SA 4.0). To view a copy of this license, visit https://creativecommons.org/licenses/by-sa/4.0/

УДК 159.98+502.1+ 911.3(075.8) DOI: 10.24411/1995-042X-2020-10308

## АРПЕНТЬЕВА Мариям Равильевна

Российская академия естествознания (Калуга, РФ) доктор психологических наук, доцент, член-корреспондент РАЕ; mariam\_rav@mail.ru СТЕПАНОВА Ольга Павловна Магнитогорский государственный технический университет им. Г.И. Носова (Магнитогорск,

итогорский госубарственный технический университет им. 1. и. посова (тагнитогорск, Челябинская обл., РФ); кандидат психологических наук, доцент; olga.psihea@mail.ru

## ТОКАРЬ Оксана Владимировна

Магнитогорский государственный технический университет им. Г.И. Носова (Магнитогорск, Челябинская обл., РФ); кандидат педагогических наук, доцент; tokar.mgtu@mail.ru

### ШПАКОВСКАЯ Елена Юрьевна

Магнитогорский государственный технический университет им. Г.И. Носова (Магнитогорск, Челябинская обл., РФ); кандидат педагогических наук, доцент; sqvorez@mail.ru

#### **ДУВАЛИНА** Ольга Николаевна

Калужский государственный университет им. К.Э. Циолковского (Калуга, РФ) кандидат психологических наук, доцент; gladis75@mail.ru

## КУЗНЕЦОВА Наталья Валентиновна

Московский государственный университет им. М.В. Ломоносова (Москва, РФ) научный сотрудник; ikio@ikio.msu.ru

# ЭКОЛОГИЧЕСКАЯ КУЛЬТУРА ГОРОДА И РЕКРЕАЦИОННЫЙ ТУРИЗМ: РЕАБИЛИТАЦИОННО-ОЗДОРОВИТЕЛЬНЫЕ И ОБРАЗОВАТЕЛЬНО-ЭКОЛОГИЧЕСКИЕ ПРАКТИКИ

Экологическая культура города — системный показатель взаимоотношений человек и природы на территории городского поселения. Она отражает уровень (интенсивность) и направленность экологических мероприятий жителей города и специалистов, трудящихся в разных сферах городского хозяйства и бизнеса, по сохранению и развитию



городской флоры и фауны. Важная часть экологической культуры города связана с урболесоведением, заботой о деревьях и лесопосадках в городе и вокруг него. Такая забота осуществляется как непосредственно, в ходе мероприятий, связанных с проведением работ по защите и развитию лесных насаждений, так и в контексте смежных практик, включая рекреационно-туристические. Одна из наиболее востребованных и актуальных мер современной жизни – насыщение пространства и времени жизни человека -горожанина контактами с флорой и фауной, в том числе – с помощью городских лесопосадок. Что касается жителей города и пригорода, то в их жизнедеятельности речь идет, чаще всего, в основном о микротуризме или туризме выходного дня. Для туристов – посетителей города – знакомство с городскими лесопосадками может быть важной частью их путешествия. Цель исследования – анализ проблем экологической культуры города в контексте задач рекреационного туризма и смежным с ним оздоровительных, и образовательных и экологических практик. цель исследования осуществляется на примере осмысление проблем, возможностей и направлений деятельности в отношении ведущего аспекта городской экологической культуры – городских лесопосадок. Метод исследования – теоретический анализ проблем формирования и развития экологической культуры города, заботы граждан и специалистов о флоре и фауне города, его лесопосадках в контексте задач рекреационного туризма и смежных с ним оздоровительных, образовательных и экологических практик. Как показало исследование, на базе городских лесопосадок может реализовываться и реализуется образовательная, рекреационная и экологическая деятельность разных групп горожан и туристов из иных регионов. Урболесоведение — комплексная дисциплина о развитии и функционировании лесных массивов, находящихся в непосредственной близости или включенных в городские поселения, выступает также важной частью современной рекреационной географии. Походы в лес, входящие и не входящие в состав целенаправленной и системной рекреационной, в том числе туристической деятельности, — важнейшее средство поддержания психологического, физического и иных компонентов здоровья горожан в процессе реализации рекреационно-оздоровительных и образовательно-экологических практик. Эта создает возможность человеку и обществу выживать и развиваться даже в условиях интенсивных, неконтролируемых технологических перемен.

**Ключевые слова:** урболесоведение, рекреационная география, рекреация, реабилитация, экология, туризм.

Для цитирования: Арпентьева М.Р., Степанова О.П., Токарь О.В., Шпаковская Е.Ю., Дувалина О.Н., Кузнецова Н.В. Экологическая культура города и рекреационный туризм: реабилитационно-оздоровительные и образовательно-экологические практики // Сервис в России и за рубежом. 2020. Т.14. №3. С. 115-129. DOI: 10.24411/1995-042X-2020-10308.

**Дата поступления в редакцию:** 13 сентября 2020 г. **Дата утверждения в печать:** 9 октября 2020 г.



Introduction. The ecological culture of the city and town is a systemic indicator of the relationship between man and nature on the territory of an urban settlement [24; 33; 50; 51]. It reflects the level (intensity) and direction of environmental activities of city residents and specialists working in various areas of urban economy and business, for the preservation and development of urban flora and fauna [53; 54; 55]. An important part of the ecological culture of the city is associated with urban studies, caring for trees and plantations in the city and around it. Such care is carried out both directly, in the course of activities related to the protection and development of forest plantations, and in the context of related practices, including recreational and tourist. One of the most popular and relevant measures of modern life is the saturation of space and time of a person's life, a citizen with contacts with flora and fauna, including with the help of urban forest plantations [21; 37; 40; 47]. As for the residents of the city and the suburbs, then in their life it is, most often, mainly about micro-tourism or weekend tourism. For tourists - city visitors - getting to know the city's planted forests can be an important part of their journey [3; 24; 37; 52].

Ecological education of townspeople is a task that must be solved directly "on the spot" and during the daily life of people. Each city, its inhabitants, has its own ecological culture: a set of personal, community, organizational and regional knowledge and skills, programs and projects of care for the preservation of the environment, harmony of human relations with oneself and the world around it, prevention of deformations and other violations leading to natural and man-made disasters. The ecological culture of the city manifests itself in the peculiarities and development of rehabilitation and health-improving and educational-ecological practices and programs implemented in the city and its suburbs. In addition to the daily care of the flora and fauna of the city, recreational tourism plays an important role in their implementation - a practice during which a person has the opportunity to enjoy the beauty and resources of nature to restore and preserve his strength, recovery. However, just enjoying the nature of the city and its suburbs is not enough, measures are needed to educate the townspeople as subjects of care for the city, its flora and fauna, its other natural and cultural resources, including in the context of various environmental (nature conservation) actions such as "green landings ", "Days without ... / days of cleaning from garbage", "marches of parks", collective "subbotniks and voskresniks" or other "Actions Z", competitions and schools, holidays and festivals, and other practices of planned state and unplanned community or even individual initiative urban improvement, etc. Recreational and health-improving (rehabilitation), educational and ecological practices in a city with a high ecological culture are often integrated, merged into one whole. In addition, there is a general trend of integration: recreational and sports, ecological tourism, rehabilitation, health and environmental practices in the digital era are becoming more important and more closely interconnected parts of human life [27; 28; 44; 48].

At the same time, a large-scale penetration of technologies into human life, including digital technologies, leads to an intensification of age trends: the desire to return "back to nature" is manifested in all aspects of everyday and recreational and rehabilitation activities of people. Not ending with rest and relaxation, sports and recreational activities and rehabilitation in the bosom of nature "untouched" by man and his technologies, man and society strives to maintain a connection with nature in everyday life. Such support leads a person to understand the importance and relationship of the recreational and environmental aspects of his life, as well as the relevant practices: taking care of the self is taking care of the natural world. One of the most demanded and urgent measures are the saturation of the space and time of life of a city dweller with contacts with flora and fauna. This includes both domesticated animals, the maintenance of which is not related to the needs of production, and green spaces, including more or less local forest plantations within the city or in the immediate vicinity of it,

care for natural and creation of artificial reservoirs, etc. Urban forestry is a complex discipline about the development and functioning of forest areas located in close proximity or included in urban settlements, and is also an important part of modern recreational geography. Hiking in the forest, which is and is not part of purposeful and systemic recreational, including tourist activities, is the most important means of maintaining the psychological, physical and other components of the health of citizens.

The purpose of the study is to analyze the problems of the ecological culture of the city in the context of the tasks of recreational tourism and related health, educational and environmental practices. The purpose of the study is carried out on the example of understanding the problems, opportunities and areas of activity in relation to the leading aspect of urban ecological culture – urban forest plantations.

The research method is a theoretical analysis of the problems of the formation and development of the ecological culture of the city, the concerns of citizens and specialists about the flora and fauna of the city, its forest plantations, in the context of the tasks of recreational tourism and related health, educational and environmental practices. As the study showed, on the basis of urban forest plantations, educational, recreational and environmental activities of different groups of citizens and tourists from other regions can be and are being implemented [36; 45; 46; 55].

**Results.** One of the leading aspects in the interaction between man and nature is the recreational and geographical aspect. In modern science and practice, the recreational direction in geography is one of the priorities. Recreational geography is a complex science and practices those studies and forms recreational-tourist complexes and other aspects of recreational-tourist and healthimproving activities of a person [5; 12; 13; 37; 44]. It explores the territorial issues of treatment, sports, tourism and recreation, aimed at the formation, accumulation or restoration of physical, psychological, spiritual and moral forces of a person. It also studies the interaction of the tourism

industry with components of nature and society. Scientists, practitioners and theorists believe that it is necessary to approach the organization of rehabilitation and health-improving and tourist-recreational activities in a comprehensive manner. For the success of ecological tourism [6; 7; 8; 10; 11], including in its recreational sphere, it is necessary to establish a well-coordinated interaction of all constituent elements: natural complexes, potential tourists, the service sector, labor resources, technical infrastructure, etc. Recreational geography as a science and practice, the theoretical basis of tourism and recreation, has been successfully developing since the middle of the twentieth century, its development in the USSR (Russia) was especially productive [11; 12; 13]. The tasks of recreational geography, including in relation to forests located near urban settlements and / or included in them, in the opinion of its creators and researchers, are very numerous and varied: first of all, it is the study of geographic differences in the development of recreation and tourism, as well as other types of rehabilitation and health improvement activities. Since the specifics of the industry significantly depend on natural conditions, the level of economic development and even the political regime of the country in which services in this area are provided, since this is the main task. The second task is the scientific substantiation of the territorial and economic organization of recreational-tourist and rehabilitation, health-improving activities, the organization of treatment, sports, recreation and tourism. The third task is to ensure a harmonious combination of recreational activities with permissible modes of nature management in the direction of "sustainable development", etc. [12; 13]. Domestic recreational geography managed to go through a number of significant stages back in the days of the USSR. The first serious developments in the field of recreation and tourism appeared in the fourth quarter of the 20th century. Then these issues were dealt with by such researchers as N. S. Mironenko, I. T. Tverdokhlebov, A. A. Mints [8; 10; 12; 14; 18]. S. Preobrazhenskiy, N. S. Mironenko, I. T. Tverdokhlebov, A. A. Mints and other





scientists have repeatedly spoken about the need to protect nature and develop a system of national parks in the Soviet Union [3; 8; 10; 12; 14]. The concept of "park" refers us to the understanding that urban forestry has become a significant part of recreational geography.

Forests are an important part of the planet's recreational resources. Modern forest is of many types. It still occupies a large place not only on the Earth as a whole, but also in human life, in maintaining the ecological balance and in the recreation of people, including the recreation of townspeople. It is not surprising that urban forestry (urban forest science), a complex discipline about the development and functioning of forest areas in close proximity or included in urban settlements, is also an important part of modern recreational geography. L. P. Rysin notes that "Urban forestry is a direction of science that investigates the peculiarities of forest life in urbanized areas. Forest plantations play a critical role in ensuring the sustainable development of cities, performing many environmental, protective, sanitary and hygienic and recreational functions. The specificity of the urban environment affects all components of forest communities, and this should be taken into account when planning and carrying out forestry activities" [15, p.3]. L. P. Rysin and S. L. Rysin believe that "Natural ecosystems have the ability to self-regulation, i.e. restoration of internal properties after any external (natural or anthropogenic) impact. On the contrary, the so-called urban ecosystems (ecosystems of urbanized areas), as a rule, do not reach a state of equilibrium. Urban ecosystem is artificially created as a result of degradation, destruction and / or replacement of natural systems [16, p. 45-46]. The term "ecosystem" usually means a natural complex formed by living organisms and their habitat, in which living and inert (nonliving) components are interconnected by the exchange of matter and energy. This type of relationship between the components of an ecosystem determines its stability and prospects for existence.

Urban forestry, it's studies were carried out in Russia by V. V. Dokuchaev, A. V. Abaturov, L. P. Rysin, G. P. Rysina, S. L. Rysin, L. I. Abramova, M. S. Ignatov, K. V. Avilova, G. S. Eremkin, B. P. Dementyev, I. V. Karmanova, E. G. Mozolevskaya, N. N. Sidorenko, L. V. Lysak, P. A. Kozhevin. "Urban forestry" (developing in abroad science) is the direction of forestry, which includes "the art, science and technology of managing trees and forest resources within the city and its environs in order to meet the physiological, sociological, economic and aesthetic needs of society" [1; 15; 16; 26; 27; 29; 34; 38; 39; 41; 43; 49].

Urban forestry includes monitoring, maintaining and managing individual trees and tree populations in an urban setting to improve the urban environment. Urban forestry understands trees as an essential part of urban infrastructure. Urban foresters plant and maintain trees, support the proper conservation of trees and forests, conduct research and promote the benefits and benefits of trees and forest plantations in and around the city. Urban forestry is run by municipal and commercial forestry and utilities specialists, also it is the focus of environmental policymakers, urban planners, environmental consultants and educators, researchers and public figures.

Urban forests fulfill ecological, economic and recreational functions. Thus, they mitigate the effects of temperature differences as a result of evapotranspiration and shading of streets and buildings. This increases human comfort, reduces the risk of heat stroke and frostbite, and reduces the cost of building care. Urban forests improve air quality by absorbing pollutants such as ozone, nitrogen dioxide, ammonia and particulate matter. Urban forests are important for absorbing storm and other water: they absorb and store water, and they slow down and filter runoff with their roots. Urban forests also contribute to a more active lifestyle for city dwellers in general, providing them with spaces for recreation and sports. Their presence leads to a decrease in stress and the general psychological well-being of the population. Urban forests can also provide products such as wood or food and provide economic benefits such as real estate values and tourism, business and investment [1; 15; 27; 38;

39]. Residents of the city, who live or work near "green" areas, speak of a decrease in negative, including depressive states and experiences [30].

Unfortunately, the numerous restrictions that a typical urban environment imposes on trees limit the average life expectancy of an urban tree to only a few decades, and, in the city center, to a decade and a half, which is significantly less than the 150-year average life span of trees in rural areas [29]. Urban forestry also reflects a multitude of social issues that need to be addressed in order to allow urban forestry to be understood by people and organizations as an advantage rather than a curse on their environment.

Elimination of these problems and the solution of many issues of urban forestry require coordinated efforts between cities, regions and countries [36; 39].

1) urban transformation of forest ecosystems leads to the fact that the loss of green spaces continues as cities expand; especially often in city centers there are few places for growing forests, which is aggravated by the need to transform green spaces, parks, etc. into construction and other temporary and permanent sites [26];

2) the wrong choice of trees, poor nurseries and failures of care lead to problems in the future: in urban science there is little information about the permissible deviations of the development conditions and the necessary care for urban varieties of trees in conditions of general environmental restrictions;

3) trees in the city are characterized by a limited genetic diversity of urban plantings, which reduces the resistance of the forest, its adaptive capabilities, although they are very important; often adaptive trees, traditionally growing in a given area, are more resistant to the local environment than "genetically" created hybrids. Therefore, it is preferable to use adaptive plants, and then plant a small number of "genetically modified", in most cases exotic;

4) the tolerance of the main forest-forming species in the conditions of recreational forest use is different; not all trees are the same in their ability to capture different species of pollution or

noise, the choice of different types of vegetation can significantly change the effects that occur during the development of forest plantations in and around the city [40; 41]; in the urban environment, due to its pollution, the competitiveness and stability of trees of different species change, as a result of which there can be a significantly changed nature of the relationship when they grow together, the strategies of behavior and survival of various plant species change, which requires monitoring and stationary long-term observations and experiments (modeling of normalized loads, forest pathological monitoring, etc.);

СЕТЕВОЙ НАУЧНЫЙ ЖУРНАЛ

5) the soils of urbanized areas (urban soils) are a man-made surface layer with a thickness of more than 50 cm, obtained as a result of filling, mixing, burial or pollution with materials of urbanogenic origin. Contamination of soils and their asphalting transforms a significant part of the soil covers of urbanized areas into biologically inactive and sometimes abiotic [15; 16];

6) a significant role is played by spontaneous (i.e., spontaneously arising) vegetation of cities as a component of the autotrophic block of urban systems, which does not require material and labor costs and special care, but plays an important role in maintaining the urban environment; in the city and around the city the role of aboriginal plant and animal species is decreasing. But there are many synanthropic species that owe their appearance and settlement to man, the numerous negative consequences of which are sometimes described as catastrophic [15; 16];

7) high urbanization leads to the degradation of the existing flora, often urban plantings have little room for the normal development of the root system, crown, etc., often bad soil is used when planting, and improper placement leads to damage to the bark and other parts of the tree;

8) large, mature trees are often used to provide scale and feel to the landscape, but these trees grow slower and do not thrive on alien soils, while smaller specimens can more easily adapt to existing conditions;

9) an acute problem is unproductive and ineffective tree care practices by citizens and



untrained foresters, with very few urban communities having working tree inventories and very few having urban forest management plans. Often, there is even a lack of public awareness of the benefits and conditions for the development of healthy urban forests among citizens;

10) monitoring of forest biota in an urbanized environment and urban transformation of forest ecosystems, new and productive technologies for forest planting and reforestation activities in urbanized areas is necessary.

Hikes in the forest (as a part or not part of purposeful and systematic tourism activities) are the most important means of maintaining the psychological, physical and other components of the health of citizens. However, their efficiency and productivity can be significantly increased in the context of recreational tourism and other types of rehabilitation and health improvement activities. The data and methods of recreational geography, including in the context of urban studies, serve as the theoretical basis for recreational tourism, allowing optimizing tourist activity, directing the efforts of travel companies and destinations in the most productive direction. The forest in the era and in the conditions of urbanization is not only and not so much a part of the "urban environment", it is an independent habitat for the townspeople, located in the border areas of urban settlements. This is a kind of border, the movement to which symbolizes the transition to another state of consciousness and being. This mechanism is actively used in travel therapy and other recreationally oriented methods and types of tourist activity. Therefore, an important issue of urban forestry is the study of the effects of interaction between the city and the forest, including in the context of tourism and, more broadly, recreational and rehabilitation and health-improving activity of the population.

Such activity can be carried out as a purposeful, independent activity aimed at restoring the dialogue between a person and nature, destroyed by everyday life saturated with technologies, and as part of everyday interaction, which allows a person to maintain contact with nature and himself, including his body and soul, as parts of nature. In the first case, we are talking about more or less long trips and a purposeful choice of routes and destinations for tourist or actually rehabilitation and recreational activity. In the second case, we are talking about maintaining contact with nature in the process of more or less conscious "communication" with its "elements" in the context of the urban environment: this also includes rare "ecological houses", greenhouses and other urban forest plantations, zoos and zoo corners, and etc. This dialogue is regulated and maintained with the help of urban forestry services, veterinary stations, etc. The concept of urban forestry was developed in response to the need for integrated, problem-oriented approaches to caring for urban trees and other green spaces, improving the health-improving, recreational and preventive-rehabilitation capacity of the city's green spaces. R. Miller (1997) [39] defined urban forestry as an integrated, city-wide approach to planting, caring for and managing trees in the city to ensure various ecological and social functions in the lives of urban residents. A more detailed definition was given by G. Gray and F. Denecke [27], who emphasize the multifaceted nature of urban forestry, as it deals with forests, groups of trees and individual trees planted in areas where dense conglomerates of people live. Urban forest includes a wide variety of places, flora and fauna, and its development and care is associated with a wide range of benefits and problems [34; 35].

(Trans)formation of urban flora and fauna is an example of the processes of transformation of the animal and plant worlds under the influence of anthropogenic factors, called "synanthropization of flora and fauna." The usual processes lead to a decrease in the diversity of flora and fauna, that is, to the replacement of poorly tolerant plant and animal species under climatic conditions with more hardy ones, including "xerophytic" ones. For example, the urban fauna is a combination of domestic and domesticated animals, and insects, animals and birds (crows, pigeons, jackdaws) adapted for urban life (crows,

pigeons, jackdaws), many of which are "pests" that have a destructive effect on the quality of the environment (many rodents, insects). As elsewhere, the animal world in the city is changeable, there is a tendency to speciation, and nutrition, instincts, and behavior in general change in animals and plants. Thus, many migratory birds become sedentary, animalspredators become orderlies, and orderlies become predators. An important feature of the animal and plant world in the urban environment is associated with more or less isolation of their habitats and growth, therefore, many populations of urban animals and even plants can be considered "island", applying the rules of island biography to them. To weaken such an "island" habitat, it is recommended to prevent the rigid fragmentation of forest parks, create natural "green zones" in the form of "islands" in and around cities and connect them with central parks and suburban green zones with ecological "corridors" (at least, alleyways, living hedges, and ideally, fragments of protected areas and water areas that are inaccessible or inaccessible to humans and, moreover, production and technologies, for example, digital equipment, etc.). In parks and forest parks, the diversity and number of plants and animals is largely determined by the structure and content of the tree stand, the age of parks and plantings in them, the presence of a multilevel plantings, reservoirs and, which is very important, the greater or lesser isolation of these habitats, as well as the ecological culture of the population of the city and the suburbs. Unfortunately, the last point often turns out to be the most problematic, the modern relations of people in the urban environment are becoming more complex and confusing. This is largely due to the fact that over time, the results and processes of urbanization are becoming more and more ambiguous, multidirectional, multilevel and multidimensional. Researchers believe that the modern configuration of the territorial and settlement structure of society is the result of the centrifugal and centripetal tendencies of human settlement.

According to E. V. Solovyov, in the early stages of history, centrifugal forces prevailed, which gave rise to such large-scale historical processes as the Great Migration of Nations, the era of great geographical discoveries and its the mass settlement consequences, and development of Siberia and the Far North, the development of the Wild West and many others. However, after a period of intense urbanization, mankind moved to centripetal processes. Further, again, humanity, scattered over vast, more or less suitable for living spaces, begins to concentrate again in separate large settlements. As a result, a relative minority of the population remains on the periphery, while the majority of people are concentrated in cities [19, p. 74]. Therefore, urbanization can be considered "as a process that promotes the integration of peoples in various social spheres, the mutual enrichment of the contacting parties" [19, p. 74-75]. At the same time, there is a redistribution of the urban population itself or suburbanization. Examples are Boswash in the USA, Tokaido in Japan, etc. [19, p.76]. This problem is also joined by the problems of mass desolation of rural and urban settlements from small to huge size as a result of ethnic, religious, economic, medical (for example, AIDS epidemic and other socially dangerous diseases) and general social, natural and manmade disasters, wars and terrorist attacks, as well as as a result of disasters associated with environmental violations in the process of human activity.

CETEBOV

ЖУРНАЛ

҄Ҥ҅Ѧ҄ӮҸҤ҅ӸҊ

In general, researchers distinguish two main understandings of urbanization, including 1) the spatial paradigm (M. Yeates, B. Garner, L. King, R. Golledge) – the interpretation of urbanization as a quantitative increase in urban and urban population growth, an increase in its share in the region, region, country; 2) phenomenological, existential paradigm – a qualitative interpretation of urbanization as the evolution of forms and types of urban settlement, a multifaceted, multi-level and multidirectional social process and the result of changes in forms of settlement, the ratio of immigration and emigration, transformation of



social structures, lifestyles and norms of behavior, type of culture and values, etc., the emergence of an urbanized culture, significantly transforming ethnic culture, etc .; 3) the radicalist paradigm, represented by the works of V. Bunge, D. Harvey, R. Peet, R. Johnston, L. Baurn and others (D. Harvey, R. Palm, P. Knox, M. Yeates, etc.). In parallel with this fragmentation of the city population, the fragmentation of flora and fauna is taking place. In some districts, industrial zones and zones of compact residence of townspeople, forest plantations and water bodies practically disappear. In other regions, on the contrary, people strive for their active exploitation, increase, which, in the absence of ecological culture, also leads to deformations and death of aquatic and terrestrial flora and fauna. In Russia, this process is especially noticeable. Here there is a hard-surviving corps of specially protected However, the institution of indigenous community protected areas is practically not developed. The existing territories and water areas are intensively "privatized" and used I am completely ecologically illiterate and indifferent "owners", including foreign "tenants". An example is the forests of Siberia, including the forests of Lake Baikal. Businessmen do this in such a way that neither city dwellers nor suburban residents can practically influence the destruction of sometimes entire regions, and not only the destruction, barbaric exploitation and pollution of individual forests, lakes and rivers. Entire natural (forest) complexes, instead of being taken care of by local residents, are either subjected to the most severe exploitation or direct destruction.

Violence against nature is part of man's violence against himself, other people. According to the works of T.F. Kuznetsova and a number of other researchers who have considered the most famous theories of cultural interaction (N. Ya. Danilevskiy, A. J. Toynbee, P. A. Sorokin, S. Huntington), a number of more or less intersecting and more or less nonviolent types of intercultural relations [9]: 1) along the line of cultural "transgeographic" orientations, Westernization or colonization (Europeanization and Americanization), the cultivation of crops, the existence and formation of "third cultures" and interaction with them; 2) along the line of modernization and fusion of cultures and production - modernization, globalization as mondialization, and creolization / transculturalization. All these processes of mutual influence of cultures are characterized by a certain ratio of violence and non-violence in the relationship between man and culture, man and nature [11; 19]. For cities, the problems of modernization are especially important [22; 23; 25; 32], including the introduction of digital and other industrial technologies. However, it is also important to preserve the achievements of the domestic theory and practice of caring for nature, not succumbing to the stereotypes of "globalization", which presupposes an irresponsible and violent attitude of a human "king" to nature, it's cruel exploitation for the sake of the benefits of the "European" or "American" "civilized world", the fusion of people of different cultures and the loss of national and cultural identity, which leads to the collapse of the culture of human relations, attitudes to work and production, technology, and nature.

Russia and many other countries have unique practices and experience in caring for nature reserves and protected areas, as well as the indigenous community protected areas and the "native land" in general. Orientalization, as well as Westernization, and, especially, the formation of "third-fourth" cultures and pseudo-cultures, lead to the fact that a person loses his "roots". He breaks away from his family, clan, nation and those territories and waters that are associated with the life of his ancestors. They lose value, which gives rise to the illusion of lack of need and need to take care of them. That is why in Russia and in many other countries there is such an alienated and careless attitude towards nature: even the most "untouched" corners of nature without any doubt turn into landfills, "industrial zones", etc., to defend the life of such corners turns out to be a difficult matter: the powers and efforts of the veterinary and forestry services of the city and the suburbs, as well as the personnel of reserves, etc., to resist negative trends in the

life of the flora and fauna of the city and the suburbs, other territories and water areas, clearly not enough.

In the light of the tasks of recreational geography in general and ecological tourism in particular, issues of urban forestry as issues of caring for flora and fauna, which is in more or less close and (non)destructive contact with humans, can be formulated as follows:

1. City residents, employees of city nature conservation services, etc., the city's media and its leadership, as well as other stakeholders should have the opportunity to have real influence and cooperation in protecting the flora and fauna of the city. There is a need for programs and organizational structures that aim at ecology of urban flora and fauna;

2. forest plantations and water areas (reservoirs) within the city and outside the city should be correlated with the overall assessment of the tourist, recreational and rehabilitation and health potential of the region and adjacent regions. It is obvious that forest plantations and water areas can and should be strengthened where the recreational potential of the region is small, where there are phenomena that are uncomfortable for the existence and activity of man as a natural and cultural being;

3. Urban forests and water bodies are an important component of harmonizing the mesoclimatic living conditions of the city's population and tourists. Forest plantations and water bodies within the city and outside the city must be appropriately assessed and enriched for their tourist, recreational and rehabilitation and health potential, including through the creation and implementation of targeted and long-term investment programs in planting and construction / creation or support of relevant travel destinations or individual companies;

4. it is necessary to carry out a comprehensive scientific study of the urbanogenic impact on forest biota both at the organismic and ecosystem levels and, conversely, a comprehensive study of the forest biont at different levels of the city's existence [16; 17]; 5. forest plantations and reservoirs within the city and outside the city boundaries should become the concern of citizens who, in parallel, perform forest protection and forest protection functions, the functions of rehabilitation, health improvement, sports, recreation and recreation. Natural "reserves" of greater or lesser size and significance should be understood as places of a person's knowledge of himself and the world, of participation and social service,

СЕТЕВОЙ НАУЧНЫЙ

ЖУРНА́Л

6.In correcting the negative consequences of globalization and multiculturalism, forest plantations within the city and outside the city can be used as a platform for socially and psychologically significant and aimed at establishing a dialogue, a "meeting" of representatives of multicultural communities, their unification in a single natural complex, its creation and maintenance its vitality in the interests of all citizens; care for nature and survival, environmental friendliness and quality of life in general, can and should become a common concern – a platform for uniting different people;

7.forest plantations and water areas within the city and outside the city can and should become a platform for the development of ecological tourism, attracting the population of neighboring regions and countries to the city and region, on the terms of tourism, rehabilitation, sports, recreational and other forms of activity (volunteering, etc.) etc.). Forest plantations and reservoirs within the city and outside the city are still in little demand in modern recreational and ecological tourism, however, the development of such types of tourism as sports, psychotherapeutic and event tourism will significantly increase its popularity;

8. forest plantations within the city and outside the city can be supported through the socalled event tourism: holding individual events such as camps, festivals, congresses in clearly defined forest plantations will attract more tourists to the region, combine recreational and wider ecological tourism, with other types of tourism.

9. The rehabilitation and health-improving functions of the urban flora and fauna should be understood much more broadly and thoughtfully:



the saturation of the urban environment with representatives of the "indigenous" and alien flora and fauna should be consciously, systematically, it is necessary to monitor the transformation of relations between man and nature, including when, when a person takes on the function of caring for a specific "representative" or a group of "representatives" of flora and fauna ("home zoos", front gardens, etc.). Landscape (psycho)therapy is very productive and interesting for future models of the "garden city". It is an important direction of improving the garden and park and forest activity of city services, with its development can be linked to the future of recreational and ecological tourism and travel in an increasingly active modernization urban and other life activities of people;

10. sports tourism in the territory of forest plantations and water bodies of the city and suburbs can significantly affect the activity of citizens in relation to taking care of their health (health preservation and health development), as well as attract the resources of sports tourism to the sphere of urban forestry in general;

11. It is necessary to develop and implement the ideas of "ecopolis" as cities with the associated development of nature and society (culture), aimed at preserving and increasing the urbanized territories of the natural biotic component, primarily forest plantations. This process is now implicitly supported by the processes of deurbanization, suburbanization, encouraging the population to combine "urban" and "village" life in order to survive and harmony. Forestry works should be oriented towards the recreational purpose of future forests [17, p. 145].

12. It is important to work directed towards the development of digital culture and the reduction of the "digital homelessness" of citizens, who now practically isolate people from themselves, other people, culture and, moreover, nature, reducing human life to the screen of a digital device. Such information turns out to be the most dangerous factor: a person becomes indifferent to life as such, not to mention the life of animals and plants, his connection with nature and even with culture is broken.

**Conclusion.** Recreational and sports, ecological tourism, rehabilitation, health and environmental practices in the digital age are becoming more and more important and increasingly closely interconnected parts of human life. They are implemented in two main formats:

1) purposeful travel of people, including in the territory and water area, protected areas and indigenous community protected areas, more or less untouched or slightly affected by the processes and results of human technological activity;

2) everyday life of a person in conditions of more or less direct and close contact with the flora and fauna of the city and the suburbs. Both formats are part of urban studies as a branch of recreational geography and other sciences about recreation and rehabilitation, health improvement and travel of a person.

This problem is, therefore, in the digital age, complex in nature. In the digital age, the development and correlation of the digital and ecological culture of citizens is becoming an important task. This task enables a person and society to survive and develop even in the face of intense, uncontrolled technological changes. A person's concern for nature becomes self-concern in the most direct sense: focusing on technological achievements by themselves practically destroys a person, his or her life: first, a person ceases to appreciate the value of nature and life, in which there are no digital and other technological devices, and then begins consciously or unconsciously destroy this world and yourself. Recreation, tourism, rehabilitation, health improvement and sports, and other productive contacts with flora and fauna save a person from self-destruction. Recreational, educational and ecological practices merge into one whole: structures and programs that protect flora and fauna, including within cities, protect the entire community from self-destruction.

The ecological culture of the city and town is an important integral indicator of the relationship between man and nature on the territory of an urban settlement. This indicator denotes the general activity and orientation of the



environmental activities of the city residents and specialists working in various areas of the city economy and business, for the preservation and development of the city's flora and fauna. A significant part of the ecological culture of the city is associated with urbanism, with the care of residents and specialists for trees and other forest plantations in and around the city. Such care is carried out both directly, in the course of activities related to the protection and development of forest plantations, and in the context of recreationaltourist and educational-environmental. As for the residents of the city and the suburbs as "domestic tourists", then for them it is, most often, mainly about micro-tourism or weekend tourism. As for the "outside" tourists and other guests of the city, getting to know the city's green forests can be an important part of their journey. It is important to note that some large and ancient cities have extensive parks around and inside, including specially protected areas. On the basis of these forest plantations, very large-scale educational, recreational and environmental activities of various groups of citizens and tourists from other regions can be and are being implemented. However, small cities can also actively participate in improving the life of the population of the city and the city, taking care of the urban forest.

## References

- 1. Abaturov, A. V. (2006). Tolerantnost' osnovnykh lesoobrazuyushchikh porod v usloviyakh rekreatsionnogo lesopol'zovaniya [Tolerance of the main forest-forming species in the conditions of recreational forest use]. *Dinamika i ustoychivost' rekreatsionnykh lesov [Dynamics and sustainability of recreational forests*]. Moscow: Partnership of scientific publications KMK, 25-35. (In Russ.).
- Arpentieva, M. R., Arshinova, V. V., Kuznetsova, N. V., & Novakov, A. V. (2019). Rekreatsionnyy turizm, reabilitatsiono-ozdorovitel'nyye praktiki i urbolesovedeniye v tsifrovuyu epokhu Recreational tourism, rehabilitation and health practices and urban studies in the digital age]. Innovatsionnaya ekonomika: global'nyye i regional'nyye trendy [*Innovative economy: global and regional trends*]: Materials of the XI International Scientific and Practical Conference. Nizhny Novgorod, May 31-June 01, 2019. Nizhny Novgorod: National Research N. I. Lobachevskiy Nizhny Novgorod State University, 12-17. (In Russ.).
- Bagrova, L. A., Bagrov, N. V., & Preobrazhenskiy, V. S. (1977). Rekreatsionnyye resursy (podkhody k analizu ponyatiy) [Recreational resources, approaches to the analysis of concepts]. *Izvestiya AN SSSR. Ser. Geograficheskaya [News of the AS SSSR. Ser. Geographic], 2,* 7-12. (In Russ.).
- 4. Belkin, A. N., & Dormidontova V. V. (2018). Zachem Parizhu Promenade plantee [Why Paris Promenade plantee]. *Lesnoj vestnik* [*Forestry Bulletin*], 22(1), 58-63 (In Russ.).
- 5. Ivlieva, O. V. (2020). *Teoriya i praktika ekologicheskogo turizma* [*Theory and practice of ecolog-ical tourism*]. Rostov-on-Don, Taganrog: Publ. house of the Southern Federal Univ. (In Russ.).
- 6. **Kiprina, E. N.** (2014). *Turistskoye resursovedeniye [Tourism resource studies]*. Tyumen: Tyumen State University Publl. (In Russ.).
- 7. Kolbovskiy, E. Yu. (2006). Ekologicheskiy turizm i ekologiya turizma [Ecological tourism and ecology of tourism]. Moscow: Academy Publ. (In Russ.).
- 8. Kolotova, E.V. (2004). *Rekreatsionnoye resursovedeniye* [*Recreational resource science*]. Moscow: RMAT Publ. (In Russ.).
- 9. Kuznetsova, T. F. (2003). Sotsiokul'turnyye vzaimodeystviya i mezhkul'turnyye kommunikatsii [Sociocultural interactions and intercultural communications]. *Filosofskiye nauki* [*Philosophical Sciences*], *5*, 129-135. (In Russ.).
- 10. **Kosolapov, A. B.** (2017). *Teoriya i praktika ekologicheskogo turizma* [*Theory and practice of ecological tourism*]. Moscow: KNORUS Publ. (In Russ.).
- 11. **Maksanova, L. B.-J.** (ed.) (2018). *Luchshiye praktiki ekologicheskogo turizma v Rossiyskoy Federatsii* [*Best practices of ecological tourism in the Russian Federation*]. Moscow: Plekhanov Russian University of Ecomnomics Publ. (In Russ.).

# СЕРВИС В РОССИИ и за рубежом

- 12. Mironenko, N. S., & Tverdokhlebov, I. T. (1981). *Rekreatsionnaya geografiya* [*Recreational geography*]. Moscow: Moscow State University. (In Russ.).
- 13. Nikolaenko, D. V. (2001). *Rekreatsionnaya geografiya* [*Recreational geography*]. Moscow: VLA-DOS. (In Russ.).
- 14. Reimers, N. F. (1990). Prirodopol'zovaniye [Nature management]. Moscow: Mysl. (In Russ.).
- 15. Rysin, L. P., & Rysin, S. L. (2018). Urbolesovedeniye [Urban forestry studies]. Moscow: KMK Publ., 1-240. (In Russ.).
- 16. Rysin, L. P., & Rysin, S. L. (2007). Perspektivy razvitiya urbolesovedeniya v Rossii [Prospects for the development of urban forestry in Russia]. *Lesnoj vestnik [Forestry Bulletin], 4,* 45-49. (In Russ.).
- 17. **Rysin, S. L.** (2006). Dinamika i rekreatsionnyy potentsial iskusstvennykh nasazhdeniy na urbanizirovannykh territoriyakh [Dynamics and recreational potential of artificial plantations in urbanized areas]. *Dinamika i ustoychivost' rekreatsionnykh lesov [Dynamics and sustainability of recreational forests]*. Moscow: KMK Publ., 142-164. (In Russ.).
- 18. Snytko, V. A., & Sobisevich, A. V. (2018). Vklad I. P. Gerasimova, Yu. A. Izrael'iya i V. Ye. Sokolova v sozdaniye biosfernykh zapovednikov [Contribution of I. P. Gerasimov, Yu. A. Israel' and V. E. Sokolov in the creation of biosphere reserves]. Dobrodeyevskiye chteniya 2018 [Dobrodeevskie readings 2018]: International scientific-practical conference October 18-19, 2018. Moscow, 104-107. (In Russ.).
- 19. Soloviev, E. V. (2012). Urbanizatsiya i etnogenez [Urbanization and ethnogenesis]. Mariyskiy yuridicheskiy vestnik [Mari legal bulletin], 9, 74-81 p. (In Russ.).
- 20. Tikhonov, A. (2017). Lesovedeniye [Forestry]. Moscow: Infra-M. (In Russ.).
- 21. Churakov, B. P., & Churakov, D. B. (2018). *Lesovedeniye* [*Forestry*]. Ulyanovsk: Ulyanovsk State University. (In Russ.).
- 22. **Appadurai, A.** (1990). Disjuncture and Difference in the Global Cultural Economy. In: Featherstone. *Global Culture*. London, 1990.
- 23.Bennett, M. J. (1986). A developmental Approach to Training for Intercultural Sensitivity. *Intercultural Journal of Intercultural Relations, 10*(2), 179–196.
- 24.**Bell, S., Simpson, M., Tyrväinen, L., Sievänen, T., & Pröbstl. U.** (eds.). (2009). *European Forest Recreation and Tourism: A Handbook*. New York: Taylor & Francis.
- 25. Giddens, A. (1990). The Consequences of Modernity. Stanford: Stanford University Publ.
- 26. Glickman, D. (1999). Building Cities of Green. 1999 National Urban Forest of Conference American Forests. Washington: American Forests, 4–7.
- 27. Guo, Sh., Jiang, Ya., & Long, W. (2019). Urban tourism competitiveness evaluation system and its application: Comparison and analysis of regression and classification methods, *Procedia Computer Science*, *162*, 429-437. doi: 10.1016/j.procs.2019.12.007.
- 28. Grey, G. W., & Deneke, F. J. (1986). Urban forestry. New York: J. Wiley & Sons.
- 29. Herwitz, E. (2001). *Trees at Risk: Reclaiming an Urban Forest.* Worchester: Chandler House Press.
- 30.Hui, M. (2018). Study: When a city's trashy lots are cleaned up, residents' mental health improves. Washington Post, August 17, 1. URL: https://www.washingtonpost.com/news/inspired-life/wp/2018/08/17/study-when-a-citys-trashy-lots-are-cleaned-up-residents-mental-health-improves/?noredirect=on&utm\_term=.402f3cecaf86 (Accessed on December 10, 2020).
- 31. Jacobs, W. R. (1968). Wider Frontiers-Question of War and Conflict in American History: The Strange Solution by F. J. Turner. California: California Historical Society Quarterly, 219 236.
- 32. Janse, G., & Konijnendijk, C. C. (2007). Communication between science, policy and citizens in public participation in urban forestry. *Urban Forestry & Urban Greening*, *6*(1), 23-40.
- 33.Jonnes, J. (2017). Urban Forests: A Natural History of Trees and People in the American Cityscape. New York, London: Penguin Books.
- 34.Konijnendijk, C. C. (2003). A decade of urban forestry in Europe. *Forest Policy and Economics, 5(3),* 173-186.
- 35. Konijnendijk, C. C. (2009). Urban forestry innovations in science-practice collaboration. *Vestnik Povolzhskogo gosudarstvennogo tekhnologicheskogo universiteta. Seriya: Les. Ekologiya.*



*Prirodopol'zovaniye* [Bulletin of the Volga State Technological University. Series: Forest. Ecology. Nature management], 2, 34-39.

- 36.Köse, M. (2020). Factors affecting the planning and management of urban forests: A case study of Istanbul, *Urban Forestry & Urban Greening, 54,* 126739. doi: 10.1016/j.ufug.2020.126739.
- 37.Lee, H. J., Son, Y.-H., Kim, S., & Lee, D. K. (2019). Healing experiences of middle-aged women through an urban forest therapy program, Urban Forestry & Urban Greening, 38, 383-391. doi: 10.1016/j.ufug.2019.01.017
- 38. Pröbstl, U., Wirth, V., & Elands, B. H. M. (eds.) (2010). *Management of Recreation and Nature Based Tourism in European Forests*. New York: Springer, 2010. 343 p.
- 39. Meza, H. M. B. (1992). Current Situation of the Urban Forest in Mexico City. *Journal Arbortists, 18,* 33-36.
- 40. Miller, R. W., Hauer, R. J., & Werner, L. P. (2015). Urban Forestry: Planning and Managing Urban Greenspaces. New York: Waveland Inc., 1-560.
- 41.Nillsson, K., Randrup, T. B., & Wandell, B. I. M. (2000). *Trees in the Environment*. New York: Oxford University Press.
- 42. Nowak, D. J., & Greenfield, E. J. (2019). US Urban Forest Statistics, Values, and Projections. *Journal of Forestry*, *116* (2), 164-169. doi: 10.1093/jofore/fvx004.
- 43. Nowak, D. J. (2018). Urbanization and Urban Forest Impacts on the American People and Forest Industry. *S. J. Hall Lecture in Industrial Forestry, October 12,* 1. URL: https://nature.berke-ley.edu/sjhall/2018/nowak (Accessed on December 10, 2020).
- 44. Ohe, Y., Ikei, H., Song, Ch., & Miyazaki, Yo. (2017). Evaluating the relaxation effects of emerging forest-therapy tourism: A multidisciplinary approach. *Tourism Management, 62,* 322-334. doi: 10.1016/j.tourman.2017.04.010.
- 45. Ostoić, S. K., Salbitano, J., Borelli, S., & Verlič, A. (2018). Urban forest research in the Mediterranean: A systematic review, Urban Forestry & Urban Greening, 31, 185-196. doi: 10.1016/j.ufug.2018.03.005.
- 46.Pierri Daunt, A. B., Freire Silva, Th. S., Bürgi, M., & Hersperger, A. M. (2021). Urban expansion and forest reserves: Drivers of change and persistence on the coast of São Paulo State (Brazil). *Land Use Policy, 101,* 105-189. doi: 10.1016/j.landusepol.2020.105189.
- 47. Ferrini F., Konijnendijk Cvan den Bosch C.C., Fini A. (Eds.) (2019). *Routledge Handbook of Urban Forestry*. New York: Routledge, 1- 548.
- 48. Terkenli, T. S., Bell, S., Tošković, O., Dubljević-Tomićević, J., Panagopoulos, T., Straupe, I., Kristianova, K., Straigyte, L., O'Brien, L., & Živojinović, I. (2020). Tourist perceptions and uses of urban green infrastructure: An exploratory cross-cultural investigation, *Urban Forestry & Urban Greening, 49,* 126624. doi: 10.1016/j.ufug.2020.126624.
- 49. Helms, J. A. (ed.). (1998). *The Dictionary of Forestry*. New York: The Society of American Foresters, CAB International.
- 50. Egerer, M., & Cohen, H. (2020). Urban Agroecology (Advances in Agroecology). New York: CRC Press.
- 51. Sandberg, L. A., Bardekjian, A., & Butt, S. (2016). Urban Forests, Trees, and Greenspace: A Political Ecology. New York: Routledge.
- 52.**Roloff, A.** (Ed.) (2015). Urban Tree Management: For the Sustainable Development of Green Cities. New York: Wiley-Blackwell.
- 53. Vogt, J. (2020). Urban Forests as Social-Ecological Systems. In: Goldstein, M. I., DellaSala, D. A. (eds.). *Encyclopedia of the World's Biomes.* London: Elsevier, 58-70. doi: 10.1016/B978-0-12-409548-9.12405-4.
- 54. Wirtz, Z., Hagerman, Sh., Hauer, R. J., & Konijnendijk, C. C. (2020). What makes urban forest governance successful? A study among Canadian experts. *Urban Forestry & Urban Greening*, 126901. doi: 10.1016/j.ufug.2020.126901.
- 55. Yuan, J., Deng, J., Pierskalla, Ch., & King, B. (2018). Urban tourism attributes and overall satisfaction: An asymmetric impact-performance analysis, *Urban Forestry & Urban Greening, 30,* 169181. doi: 10.1016/j.ufug.2018.02.006.