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SPECIALLY PROTECTED NATURAL AREAS AS AN EDUCATIONAL RESOURCE

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Abstract

The article considers the features of the ecological culture formation, outlines the need for increased attention to the issues of its development. The problem of environmental education and upbringing in the context of a mounting crisis in relations between nature and a human is revealed, the forms of work in specially protected natural areas (SPNA) are considered, depending on the goals and objectives, the composition of participants, general training, characteristics of a natural object and its availability. The study presents a three-level model for the environmental enlightenment, education and upbringing implementation based on the specially protected natural areas. The model is implemented on the university basis and allows to combine the interests of schoolchildren, students, undergraduates, volunteers and everyone interested in their native land's nature. One of the described system functions is environmental education and the population's ecological culture formation. The results of some experience in implementing the described model during training the students, studying at the geography direction (the recreational geography and tourism profile) are presented.

Keywords: Specially protected natural areas, environmental education, upbringing, enlightenment, ecological tourism, educational resource

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1. Introduction

Scientific and technological progress and social development in the XX-XXI century led to an inevitable change in the system of relationships between human and nature. The increased impact on the environment at the end of the last century, primarily negative, the transformation of ecosystems, the active use of natural resources, the reciprocal impact of the altered nature on a human himself allowed scientists to talk about the onset of the ecological crisis. The concept of an ecological crisis is predominantly of a biosocial and physical nature. This process is habitually marked by such phenomena as irreversible changes in biogeocenosis, disfigurement of landscapes and pollution of all their components, natural resources depletion up to complete disappearance, natural cycles disturbance, public health deterioration and natural people's environment degradation. At the same time, it is necessary to understand that behind each physical manifestation there are also psychological changes in a human's attitude to the world around him. With a sharp decrease in people's dependence on natural influences due to the civilization achievements, there is a loss of the moral and mental connection between human and nature. The urban explosion has given birth to a whole generation of children and youth who grew up and were bought up in the urban conditions of the "refined" nature of parks and squares, or even their absence.

The growing interest in environmental issues observed in recent years, the ethical side of relations between human and nature, suggests that an understanding of not only the ecological crisis physical side acuteness, but also its moral and ethical component is gradually coming into public consciousness.

The solution to this problem lies in the enlightenment, education and upbringing perspective, that is, the all-sided ecological culture formation. A wide range of enlightenment and educational activity methods allows you to carry out this important task at various levels and for all age and social groups.

The basis for these tasks implementation can be not only schools, kindergartens, studios, cultural and educational centers, but also natural objects themselves. The use of natural objects as educational resources has a number of advantages, proven both theoretically and practically through the experience of ecological tourism organizing. Specially protected natural areas (SPNA) are of particular importance among natural educational resources.

2. Problem Statement

Based on the relevance of the identified problems, it is possible to formulate the main tasks associated with studying the possibilities of protected areas as an educational resource for scientific and scientific and educational tourism, developing certain activity types aimed at attracting attention to the nature protection tasks, involving unique natural objects in tourism and recreation activities, developing volunteering activities and ecological tourism.

In domestic and foreign scientific practice, there are many works devoted to the SPNA assessment of certain regions and localities as objects of tourist interest, for example: Sevastopol (Kashirina & Golubeva, 2018), Perm Territory and Republic of Bashkortostan (Gilmanova & Oborin, 2013), Buryatia (Chizhova & Shlyakova, 2017), the Far East (Bocharnikov & Egidarev, 2019), Southern Federal District (Mitrofanova et al., 2016), Ulyanovsk region (Provalova et al., 2019), Romania (Geacu et al., 2018),

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Serbia (Glavonjić et al., 2018) and others. Much attention is paid to studying, monitoring and identifying the problems of protected areas in certain countries or geographical areas, for example: in Cameroon (Panlasigui et al., 2018) and East Africacountries (Wei et al., 2018), in Brazil (Lopes & Villasante, 2018), Iraq (Hashim et al., 2019), Chile (Petit et al., 2018), tropical lands area (Tabor et al., 2018).

Many works are devoted to the ecological and cultural and educational tourism development in protected areas, for example, some studies consider tourism development in Russian national parks (Dzhandzhugazova et al., 2019), in the Baikal region (Abalakov & Pankeeva, 2020) and in mountainous areas (Dunets et al., 2020). There are works devoted to certain areas of ecological tourism (Istomina et al., 2016), problems related to human activity in protected areas, including tourism (Chung et al., 2018; Baker & Leberg, 2018).

There are few works that reveal the pedagogical aspects of the SPNA use and the educational and ecological tourism organization. Among them are the studies of Zivert and Babenko (2008), Byashkina and Shulgina (2020), representing the experience of using natural objects for educational purposes.

3. Research Questions

3.1. What are the possibilities of using SPNA as an educational and tourist resource?

3.2. Is there a resource potential for the development of environmental enlightenment, education and upbringing based on SPNA in Novgorod region?

3.3. What methods and ways of using SPNA for educational and upbringing purposes can be implemented in the region?

4. Purpose of the Study

The purpose of the study is to assess the educational the SPNA potential in the region, develop and test a three-level model for the environmental enlightenment, education and upbringing implementation based on SPNA.

5. Research Methods

For the purposes of the study, an oral comprehensive assessment of the Novgorod region SPNA educational potential is sufficient, therefore the main methods are the study of literary and cartographic sources, field research and description.

The presented model has been created using the design and simulation method. In turn, it serves as the basis for a long pedagogical experiment implementation.

Observation and conversations, analysis of the students' research work results (term papers and graduation qualification works, scientific publications, conference reports, project research) are the methods for assessing the results of the model implementation. Since the approbation is carried out on students, it is possible to monitor the environmental culture formation, environmental education

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improvement and cognitive activity increasing continuously during four years of studying each group and even for several years after graduation.

6. Findings

According to the Federal Law of the Russian Federation "On Specially Protected Natural Areas" dated March 14, 1995: "Specially Protected Natural Areas (SPNA) are pieces of land, water surface and air space above them where natural complexes and objects, which have special environmental, scientific, cultural, aesthetic, recreational and health-improving significance and which have been in whole or in part withdrawn by state authorities decisions from economic use and for which a special protection regime has been established, are situated. Specially protected natural areas belong to the national heritage sites" (Federal Law, 1995). Therefore, the SPNA importance as an educational resource is legally defined and codified.

On the territory of Novgorod region, according to the Ministry of Natural Resources, Forestry and Ecology, as at January 1, 2020, there are 126 SPNA of regional significance (13 of which are wildlife sanctuaries and 113 natural monuments) and one SPNA of local importance. Among them there are geological, hydrological, botanical and complex objects of scientific and cognitive interest with aesthetic appeal.

SPNA can be divided into the following categories: "Rdeysky" state nature reserve, Valdaysky National Park, state wildlife sanctuaries, state natural monuments, an arboretum in Opechensky Posad village, the Starorussky spa resort with a mud treatment profile.

It is important to mention that SPNA are rather evenly distributed throughout the region, in contrast to cultural, historical and socio-economic resources. Organizing activities based on them is able to smooth out the tourism development disproportions in Novgorod region districts, avoiding concentration in several centers, as in the case of educational, eventful, sports and other popular areas of recreational activity. Involving natural objects which have value as educational resources will allow not only to develop scientific and educational activities, but also to draw attention to the problems of the functioning and protection of special territories.

The forms of work on SPNA can be different and depend on the goals and objectives, the composition of the participants, general training, the natural object's characteristics and its accessibility. It is possible to designate the basic methods of organizing enlightenment, educational and upbringing activities at natural sites:

- lectures, lectures-presentations, narrations about the object / objects;
- information stands, publications;
- educational events (systematic and one-time) of a wide direction or dedicated to a specific problem;
- interactive conversations, quizzes, games;
- excursions, walks;
- organizing independent recreation at the object;
- interactive excursions, excursions-quests, excursions-games combined with sports events;

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- ecological trails, weekend tours;
- multi-day tours with a scientific and / or volunteer focus;
- organizing field practice for the specialized educational institutions' students.

If the first five forms are of a cognitive and entertaining nature, the rest presuppose a deeper object study, involvement in vigorous activity including volunteering, the ecological tourism organization.

In the framework of ecotourism, cognition can be carried out either during the educational process or during a simple introduction. The difference between the first type of cognition and the second one is that the educational process is associated with the purposeful and thematic acquisition of information about the ecosystem elements, and the introductory process is associated with a non-professional nature observation. In Russian ecotourism, the educational aspect is poorly developed: most often a tour or excursion is aimed only at demonstrating natural and historical-cultural sights, and not at comprehending environmental problems and ways to solve them.

The use of unique natural objects seems to be convenient for organizing events which combine the principles of educational and ecological tourism. This causes a variety of forms and methods for people of different ages, education and interests getting to know natural phenomena, the environmental education and upbringing implementation.

Organizing events at various levels of cognitive activity should be carried out considering the product consumers segment (Table 01).

Table 1. Three-level system of ecological education, upbringing and enlightenment organization

Level	Type of cognitive activity	Consumers segment	Forms of activities
Basic (enlightenment)	Receptive-reproductive	A wide consumers segment: people of different ages, children and families with children, tourists for whom entertainment needs prevail over cognitive	Participation in events such as: – lectures, lectures-presentations about the object / objects; – information stands, publications; – educational events; – interactive conversations, quizzes, games; – excursions, walks; –organizing independent recreation at the object
Medium (active / interactive)	Partially searching	Schoolchildren and students, active consumers whose interests are associated with a deeper knowledge of natural regularities	Participation in events such as: – interactive excursions, excursions-quests, excursions-games combined with sports events; – ecological trails, weekend tours; – multi-day tours with a scientific and / or volunteer focus; – organizing field practices for the specialized educational institutions' students
Advanced (creative)	Imaginative	Students of specialized areas, people with an active life position, specialists, volunteers	Organizing and implementing all the activities listed, routes development, working as guides

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Therefore, in this model, all the event participants are maximally involved in the enlightenment and upbringing work. When implementing such a model, the complexity factor is important; it allows (and even implies) the possibility of transiting from basic steps to higher ones.

NovSU students studying the "Recreational geography and tourism" specialty have experience in implementing events of all levels. While attending junior courses, they take part in the first two levels programs. Therefore, field practices in such SPNA as Ilmensky glint and Valdaysky National Park are mandatory. Excursions and expeditions are organized to the Poneretka karst river, a boulder near Kamen village, the Krivets erratic mass, to the Belaya river valley, to the "Khlebalovo" landscape park, etc. As part of their volunteer activities, students participate in general university and city environmental events. Interest in protected natural objects is also manifested in the topics of reports and publications at various conferences. As a result of conversations with students, it has been revealed that the aesthetic appeal of some objects, such as the Ilmensky glint or the arboretum in Opechensky Posad village, stimulate organizing independent trips for children in their free time in order to relax and get to know them more deeply, to attract friends and family members to ecological tourism. The projects showcase for second year students includes topics related to the SPNA study.

In senior years, the SPNA study and the ecotourism routes development becomes the goal of some students' scientific research work. So, within the framework of graduation and course projects, multi-day ecological tours around Novgorod region, routes through the Valdaysky National Park territory have been developed, the assessment of the ecological state and various natural objects tourist and recreational opportunities has been made, a unique map of the SPNA location in Novgorod region landscapes has been created (on request of the Regional Center for Natural Resources and Ecology of Novgorod Region, 2016), an educational bus excursion route has been developed and tested around the region's most popular protected natural objects for the scientific conference participants – guests of Veliky Novgorod.

The observation results show the following features of the environmental education and upbringing implementation. Over the last years, little attention has been paid to science education in school curricula. Simply put, even those children who have chosen such areas as geography and ecology for admission are initially little aware of the SNPA network functioning in the region and, in general, the existence of unique natural objects. Isolated cases of students being well-prepared in this topic are the result of some teachers', under whose guidance the students carry out research activities at certain objects, personal contribution.

Studying specialized disciplines, participating in conferences and other scientific and scientific and educational events, summer field practice and excursions allow students to expand knowledge in this area and arouse interest among most of them. The result is activating independent cognitive activity, choosing for reports and abstracts, scientific articles devoted to SPNA, individual or group trips to objects, popularizing the results of their observations through the publishing photos and videos on social networks.

Individual students come to the creative level, choosing problems related to nature protection and ecological tourism organization as the topics for their graduation qualification works. Over the eight years of the two-stage education system existence, several graduates went into further master's study and continued scientific work in this direction.

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7. Conclusion

The presented model for the environmental enlightenment, education and upbringing implementation consists of three components (levels):

Level 1 (educational) is designed for a mass consumer, a wide segment, without age and other restrictions. The receptive level methods are used. Forms: lectures, information stands, educational events, etc.

Level 2 (active / interactive) deeper acquaintance with natural objects. Reproductive and partially search levels methods. Segment: schoolchildren, active youth, families. Forms: ecological trails, interactive activities, games, quests, active tourism, etc.

Level 3 (creative) direct participation in developing first and second levelactivities. Research-level methods. Segment: specialized courses students (geography, ecology, tourism, pedagogy), tourism market subjects, active people. Forms: development and organization of educational, active and interactive events for the purposes of SPNA environmental education and upbringing, scientific excursions, for example, for specialized courses students from other regions practical training.

The experience of geography students described above allows us to conclude that this model provides certain results. What is more, it is potentially possible to expand the circle of participants, go beyond educational organizations, integrate schools and preschool institutions, specialized enterprises, tourism market and management structures subjects in order to promote these events, popularize environmental education campaigns, volunteering, family recreation and ecological tourism.

Further development of the environmental education, upbringing and enlightenment system for a new worldview and way of life formation is possible as follows: improving the created model; developing the system of scientific and methodological support for environmental education and enlightenment; creating the system of environmental education, upbringing and enlightenment, including through the municipal program simple mentation; monitoring environmental education, upbringing and enlightenment.

The three-level model implementation will cover the widest possible segment, attract the various population groups' attention to environmental problems, expand knowledge in the field of geography, ecology, local history, carry out environmental, patriotic and aesthetic education, develop cognitive activity, creativity, help the active youth and children self-realization, develop volunteering, interregional exchange, ecological, educational and scientific tourism, receive additional funds to solve the problems of the SPNA functioning.

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