

також віднесена ландшафтна місцевість терасованого широкого днища долини цієї ріки. Заповідну зону сформовано з лісових заказників Бучок, Ліски I, Ліски II, Сянський I, Сянський II та ділянки оліготрофного пухівково-сфагнового болота з рідкісними видами в урочищі «Мішок».

Окрім територіального планування ландшафтна карта може бути використана для розробки репрезентативної мережі пробних площ, пунктів фенологічних спостережень і розташування гідрометеостів, простягання ландшафтно-геохімічних і ландшафтно-геофізичних профілів при організації подальших наукових досліджень на території парку. Відзначимо, що частину території РЛП планується включити до проєктованого на Львівщині національного природного парку «Бойківщина».

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NATURAL RESERVED AREAS AS OBJECTS FOR THE FORMATION OF ENVIRONMENTALLY COMPETENT SOCIETY

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Стаття присвячена вивченню природно-заповідних територій та їх впливу на формування екологічно грамотного суспільства. Увага зосереджена на природних і антропогенних змінах, які відбулися в природній флорі за останні століття. Проаналізовано основні екологічні проблеми національного природного парку «Кременецькі гори» та Голицького ботаніко-ентомологічного заказника. Запропоновано основні шляхи вирішення цих проблем. Зазначена необхідність захисту рідкісних і зникаючих видів рослин як невід'ємної частини більш загальної проблеми - збереження і

відновлення природного середовища та раціонального використання його багатств і ресурсів, а також формування гармонійної, мислячої, що піклується про майбутнє особистості людини.

Ключові слова: природно-заповідні території, види, генофонд, рослини, людина.

Modern nature is a consequence of centuries-old ecological and historical changes. Along with natural conditions, various forms of anthropresia had a significant influence on the formation of vegetation cover. The history of vegetation is a reflection not only of climate change, but also of the intensity and opportuneness of human activity in the natural environment. Changes in forest phytocenosis, under the influence of human, are indicated by the history of some species of trees, exclusively associated with anthropogenic influence, for example, the expansion of the *Carpinus betulus* L. [1]. Thanks to the estimates of paleobotanists and ecologists, one can identify natural changes in vegetation, as well as those that have arisen under the influence of human. The greatest changes, namely the destruction, were forest groups [2].

Anthropogenic changes in vegetation cover have a different character, take place in a different rhythm and time [4]. There are new groups - anthropogenic, previously unknown in the region (for example, groups of weeds, which disappear with the change of human activity). So, the synanthropic processes form the modern vegetative cover and will further influence its changes [3].

The protection of rare and endangered plant species is an integral component of a more general problem - the preservation and restoration of the natural environment and the rational use of its wealth and resources, as well as the formation of a harmonious, thinking, caring person for the future. Analyzing the current rates of extinction of biological species, it can be argued that in the post-glacial period for the first time on Earth, they were ahead of the pace of evolution [2]. This creates a threat to the normal functioning of the biosphere as a planetary ecosystem. Therefore, the rationale for the preservation of regional genofond of the vegetable world, phytodiversity and natural ecosystems on a legal basis is a priority task of sozologiya [6].

Proceeding from the ecosystem position, the preservation of the genofond can be ensured only when at least the geobiocoenosis, of which it is a component, and the ecotopes corresponding to them, or entire landscapes, as is customary in Europe, are protected [5].

During the last centuries, significant changes, both natural and anthropogenous, took place in the natural flora. Atropogenous include: agrarization and urbanization of landscapes, the transformation of natural ecosystems into artificial ones, the exploitation of rare useful species (medicinal, food, essential oil, decorative) [7]. Technogenic changes took place - pollution of the environment with chemicals and toxic chemicals (the use of mineral fertilizers, pest control agents). The development of settlements, highways, etc., dismembered landscapes.

Nature reserve areas are of important phytocenotic, ecological, landscape-aesthetic, educational and even economic importance. One of these are the National Nature Park "Kremenetsky Mountains" and Holytsky Botanical Reserve.

The study areas are characterized by the uniqueness of the vegetable world. It is enough to note that these territories are rich in rare and endangered species. In the Kremenetsky Mountains National Park, we identified 37 species (4.5%) enrolled in the Red Book of Ukraine, 51 species (6.2%) regionally rare, and in the flora of the Holytsky Botanical Reserve, respectively - 23 species (8.1%) and 27 species (9.5%).

In the National Park "Kremenetsky Mountains", the most numerous such species of Red Book plants are families: Orchidaceae - 15 species (40.5% of the total number of Red Book plants); Poaceae - 3 species (8.1%); Lamiaceae - 3 species (8.1%); Betulaceae - 2 species (5.4%); Solanaceae - 2 species (5.4%).

On the territory of the Holytsky botanical reserve, the most numerous species of the Red Book of the Orchidaceae family are 9 species (39.1%); Asteraceae - 3 species (13%); Ranunculaceae - 2 species (8.7%).

Since 1990, when the Kremenetsky Mountains (with an area of 1000 hectares) were declared a branch of the Medobory State Reserve, a restriction of protected areas was carried out with the establishment of extremely economic pillars, typical security signs and information notices. Management and protection in these territories was carried out by the forest guards. December 11, 2009 created the national natural park "Kremenetsky Mountains", in order to preserve valuable natural and historical and cultural complexes and objects. To the territory of the national natural park agreed in the prescribed manner included 6951.2 hectares of state-owned land. Since 1982, the relevant measures were introduced with respect to mountain Holytsia with an area of 60 hectares; it was granted the status of a state botanical reserve of national importance.

Unfortunately, the corresponding work is not carried out with the locals, therefore, on the mountains the Divochi Skeli, Strakhova, Masliatyn, and Chercha, the security signs and information boards are destroyed, people sneak into reserved places, graze cattle and litter the territory. In this regard, it is necessary everywhere to achieve strict observance of the protected regime in the areas that are protected. It is necessary to monitor the tearing out of flowering plants, digging out their underground organs (rhizomes, bulbs, tubers) for replanting into small holdings, into flower-gardens. It would be worthwhile to select places in the reserve for tourists and for reproducing the genofond, access to which is strictly limited.

In the actual protection of rare and endangered plant species, forestry workers should play an active role. After all, a significant number of rare and endangered plant species, including members of the Orchidaceae family, grows in the forests of the state forest resource. When carrying out forestry work, the importance of plant species protection should also be taken into account. At the same time, it is necessary to abandon the forestation of open grassy areas, stone slopes (southern expositions of Masliatyn, Strakhova, and Divochi Skeli), bush thickets on the lands of state forest resource, if plant species need protection on them.

It is necessary to increase the number of information notices, the number of observers. Introduce a significant mulct (monetary) punishment for the damage caused to nature. Control the kindling of fires, camping tents.

An important role in the conservation of plants is played by the Kremenetsky State Botanical Garden, the creation of which was started by Besser and Mikler in 1806. Now a kind of genofond storage is organized here - a special seed bank of endemic, relict, rare and endangered plant species. Thus, the botanical garden is intended to become, on the one hand, a center for preserving and studying the biology of endangered plants, in artificial cultivation conditions, and on the other hand, a source of planting material for further testing and distribution in culture, as well as for repatriation to natural habitats. This will help restore endangered populations in nature. The garden promotes its sowing material in the cultivation of rare plant species in other botanical gardens, at the stations of young naturalists, school sites, agrobiostation, etc.

Responsible role in the protection of the vegetable world, including certain species, should be played by biology teachers of secondary and elementary schools, university professors, and the active public.

To preserve the unique florotsenokompleks of national nature park «Kremenetsky Mountains», it is necessary:

1. To establish environmental monitoring on the Divochi Skeli, Strakhova, Masliatyn, and Chercha mountains, that is, to carry out long-term continuous monitoring of the state of ecosystems and the course of natural processes in them. In different ecosystems, create a system of stationary monitoring sites, expand a network of permanent sample areas, phenological, meteorological and hydrological posts, permanent accounting routes.

2. Carry out activities in order to implement anti-erosion, anti-landslide and fire-fighting works, to restore damaged natural complexes. For example, to update the main valuable forest-forming species, to install informational signs «It is forbidden to use open fire».

3. Carry out work to restore the integrity of calcetophilic cenocomplexes and the general landscape of the Divochi Skeli, mountain Chercha.

4. To stop the expansion of the *Acer negundo* L. on the plot of the phryganoid steppe at the foot of the Divochi Skeli, and similar signs in other places.

5. Strictly to control and deal with violations of the law of Ukraine «On the natural reserve fund of Ukraine» (Article 16), namely: grazing, harvesting medicinal raw materials, tearing off flowering plants, construction in nature conservation areas.

6. Attract students and pupils of schools, the public to promote the protection of the unique flora of protected areas.

7. Intensify the promotion of the protection of rare plants through the press, radio, television, lectures, conversations.

8. Support the activities of the Kremenetsky Botanical Gardens to create a bank of rare species.

The National Nature Park «Kremenetsky Mountains» should become the base of the genofond of rare plants for distribution to botanical gardens, reserves of Ukraine and the world.

The Holytsky Botanical Reserve of state importance is a scientific and educational base of the Ternopil Volodymyr Hnatiuk National University. Here, under the direction of V. Chernyak, Doctor of Biological Sciences, scientific work on the acclimatization of rare and endangered species of trees, shrubs and herbaceous plants was founded to create their bank. On the territory of the reserve, springs are regularly cleaned, livestock grazing, harvesting of medicinal raw materials, tearing down of plants are prohibited, access for tourists is allowed - only under the supervision of guides, sanitary cleaning of the forest is carried out, plant populations listed in the Red Book of Ukraine are marked.

In our opinion, in the long term, it is advisable to raise the status of this natural protected object. It will work on the creation of uterine plantations of rare species, expanding the genofond of relics, endems, and endangered regionally rare species.

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БІОЕТИЧНІ ТА ЕКОЛОГО-ЕТИЧНІ ПРОБЛЕМИ СУЧАСНОСТІ

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