

## **STUDY OF HUMAN INFLUENCE ON PHYTOCOENOSES**

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### **Анотація**

*Фітоценоз – це сукупність рослинних організмів на відносно однорідній ділянці, які перебувають у взаємодії між собою, з тваринами і навколишнім середовищем. Фітоценози будь-якої місцевості у своїй сукупності становлять її рослинність. Кожний фітоценоз характеризується певним видовим складом. Людська діяльність у природному середовищі наносить невідправну шкоду для природи взагалом. Для фітоценозів це може загрожувати вимиранням видів.*

**Ключові слова:** рослинність, забруднення, природокористування, людина.

### **Abstract**

*Phytocenosis is a set of plant organisms on a relatively homogeneous area that interact with each other, with animals and the environment. Phytocoenoses of any area in their totality constitute its vegetation. Each phytocenosis is characterized by a certain species composition. Human activity in the natural environment causes irreparable damage to nature in general. For phytocoenoses, this can threaten the extinction of species.*

**Key words:** vegetation, pollution, nature use, human

### **Introduction**

Active human activity is the reason for natural landscapes being gradually transformed into technogenically transformed ones. The increase in the degree of anthropogenic load leads to the disturbance of the vegetation cover, the synanthropization of the floral composition, the destruction of places of growth and the disappearance of certain species. As a result of anthropogenic changes in phytocoenoses, unstable species disappear and intensively grow tolerant to the conditions of the urbogenic environment. One of the priority directions of Ukraine's national security is to ensure ecologically and technogenically safe living conditions of citizens and society, preservation of the environment and rational use of natural resources. The study of human influence on phytocoenoses is an important tool for developing strategies for the preservation and restoration of biodiversity and ecological sustainability in natural environments, since a constant negative impact on the environment can lead to the degradation of phytocoenoses, soils, the disappearance of rare species, etc.

### **Research Results**

Preservation of phytocoenoses and natural resources is a long-standing task for the whole world. Currently, there is still a lot of discussion as to the introduction of measures for saving and conserving resources.

Many aspects affect the use of natural resources including the changes in the distribution and diversity of species. One can examine how human activities affect the distribution and diversity of plant species in a particular region. For example, changes in the composition of forests due to felling or the introduction of foreign plant species can be studied.

Structural changes in the plant community mean that some changes occur in the structure of phytocoenoses under the influence of various anthropogenic factors, such as pollution, changes in land use, or changes in the hydrological regime.

Functional changes in ecosystems show how human activities affect the functioning of phytocoenoses, such as biological productivity, nutrient cycling, or self-purification capacity.

Impact of climate change and pollution investigates the interaction between anthropogenic factors and natural factors, such as climate change, and their combined effects on phytocoenoses.

Monitoring and assessment of ecological status is connected with the health and resilience of plant communities and assess the ecological status of different ecosystems.

Also, an important role is assigned to the introduction of restrictions for human activities in areas that are the natural habitat of rare plants, as well as increasing the introduction of such objects to the state conservation fund.

### Conclusions

Anthropogenic activity can have a significant impact on phytocenoses, changing their structure, biodiversity, increasing the risk of the greenhouse effect, functioning and resistance to external influences. These changes have a direct negative impact on the ecosystem and rich biodiversity, so it is important to control the activity of the anthropogenic factor. Therefore, in order to preserve the balance between nature and man, it is important to take appropriate measures, preserve and pass on natural resources to future generations.

### REFERENCES

1. Кучерявий В. П. Загальна Екологія : підручник. / В. П. Кучерявий. – Львів :Світ. 2000. 267с. URL : [https://pdf.lib.vntu.edu.ua/books/Kucheryaviy\\_2010\\_520.pdf](https://pdf.lib.vntu.edu.ua/books/Kucheryaviy_2010_520.pdf) (дата звернення 06.05.2024)
2. Оцінка впливів техногенно небезпечних об'єктів на навколишнє середовище: науково-теоретичні основи, практична реалізація. / Адаменко Я. О. – Івано-Франківськ. 2006. URL : [https://tourlib.net/aref\\_tourism/adamenko.htm](https://tourlib.net/aref_tourism/adamenko.htm) (дата звернення 06.05.2024)
3. Структура антропогенно-змінених фітоценозів (на прикладі м. Чернівці) URL : <http://oldconf.neasmo.org.ua/node/2899> (дата звернення 06.05.2024)

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