

AN INTEGRATED APPROACH TO THE CONSERVATION OF AQUATIC ECOSYSTEMS OF SMALL RESERVOIRS IN THE CONTEXT OF CLIMATE CHANGE

Melnychenko Sofiia

Kherson State Agrarian and Economic University, Ukraine

melnychenko_s@ksaeu.kherson.ua

Small water reservoirs in southern Ukraine face numerous environmental problems that not only deteriorate their original condition but also affect Ukraine's economy and the food security of its population. In particular, these problems include [1-5]:

✓ waters of small reservoirs in southern Ukraine can be polluted by industrial and agricultural waste, municipal waste, and other anthropogenic impacts. This leads to a decrease in the water level in reservoirs, deterioration of water quality and threats to human and animal health;

✓ eutrophication is the process of excessive vegetation growth in water bodies, which contributes to increased levels of nutrients such as nitrogen and phosphorus. This can lead to the development of algae and a decrease in the amount of oxygen in the water, which threatens the lives of fish and other aquatic organisms;

✓ small reservoirs in southern Ukraine are often targeted by illegal fishing, which leads to a decrease in fish populations and threats to the biodiversity of aquatic ecosystems;

✓ climate change can affect the water level and temperature in small reservoirs, which can have consequences for aquatic life and biodiversity.

Areas for the development of small reservoirs in southern Ukraine may include the creation of new reservoirs and the restoration and modernization of existing ones. To increase the resilience of aquatic ecosystems, it is also necessary to ensure the protection of protected areas around reservoirs, which are a source of biodiversity and ecological balance.

Thus, the development of small reservoirs in southern Ukraine should be aimed at preserving and restoring aquatic ecosystems, raising environmental awareness among the population, and conducting research to study and preserve the natural environment. Only comprehensive measures can ensure the sustainable development of small reservoirs and the conservation of biodiversity in southern Ukraine.

REFERENCES

1. Ковальова І. В. Зміни хімічного складу води у гідроекосистемах різного типу. *Acta Carpathica*. 2023. № 1. С. 28 – 33. Doi: <https://doi.org/10.32782/2450-8640.2023.1.3>

2. Лошкова Ю. М. Гідробіологічний режим ставів при вирощуванні дволітків коропових як рибопосадкового матеріалу для вселення у пониззя Дніпра. *Таврійський науковий вісник. Серія: Сільськогосподарські науки*. 2014. №. 89. С. 171–175.

3. Мельниченко С. Г., Бабушкіна Р. О., Маркелюк А. В. Аналіз сучасного стану водних біоресурсів України. *Водні біоресурси та аквакультура*. 2020. № 2. С. 42 – 47. DOI: <https://doi.org/10.32851/wba.2020.2.4>

4. Melnychenko S., Bohadorova L., Okhremenko I., Kozychar M., Reznikova V. The dynamics of catching aquatic bioresources in the south of Ukraine: Analysis, challenges, and prospects for their solution in the context of sustainable development. *Scientific Horizons*. 2024. № 27 (8). P. 158-167. DOI: [10.48077/scihor8.2024.158](https://doi.org/10.48077/scihor8.2024.158)

5. Гончарова О., Шевченко В., Мельниченко С. Aspects of optimization of fisheries exploitation of small reservoirs in southern Ukraine on the example of danilivsky reservoir. *European Science*. 2024. 2(sge29-02). Pp. 170–178. DOI: <https://doi.org/10.30890/2709-2313.2024-29-00-011>