

Problems and prospects preservation of wetlands of international importance "Yagorlytska Bay" within the National Park "Beloberezhya Svyatoslava"

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General information on the park and wetland

- ▶ The park was established on December 16, 2009 in order to preserve, reproduce and rationally use valuable natural and unique complexes and objects of the steppe zone, which have important environmental, recreational and cultural-educational significance. The inclusion of 35,223.15 hectares of state-owned lands has been agreed in the territory of the National Park in accordance with the established procedure.





- ▶ Wetland of international importance "Yagorlytska Bay", as the main habitat of waterfowl, located within the Kherson and Mykolaiv regions. One of the first wetlands of international importance both in the Soviet Union and in Ukraine together with Tendrivska Bay. The park includes only a part of wetland with an area of 2900 ha. The approximate total area of "Yahorlytska Bay" is 34000 ha. Within the Mykolaiv area - 10600 hectares. Wetland is known as the main nesting place of the Arctic species of waterfowl, populations of common gulls and a number of waterfowl, mullet feeding grounds and others.



Conducted surveys

- ▶ In June of the pre-crisis 2013, an expedition of scientists from the Institute of Marine Biology of Odessa together with National Park "Beloberezhya Svyatoslava" conducted a comprehensive study and analysis of the state of biological stability of Yavorlyk Bay.





- ▶ As a result, it was found that in comparison with all estuarine ecosystems of the north-western Black Sea coast, Yavorlytska Bay has one of the highest natural potentials for resilience. High value of the index of natural stability of Yavorlyk Bay -0.835 , status class "High". It is formed due to free water exchange with the Black Sea through the straits and Tendrivka Bay; significant size of the bay (water volume and water surface area); insignificant influence of terrigenous processes on inland reservoir processes; intensive hydrodynamics as a consequence of morphometric features of the water lay of the bay.



- ▶ Assessment of the current ecological status of the class (ESC), based on orthofunctional indicators showed that in general and mainly in the waters of the bay, it is marked as "Excellent" (High) ESC. Lower ESC categories are recorded in coastal shallow water areas. According to these data, we state the fact of the situation at wetlands as of June 2013 as consistently positive.



- ▶ According to long-term observations, since 2012, on the territory of wetland "Yagorlyk Bay", on the area of about 2900 hectares, which was part of National Park "Beloberezhya Svyatoslava", the following **negative factors have been identified**:
- ▶ Anthropogenic impact of a general nature. In the village Pokrovka is actively developing green tourism, private estates and recreation centers are being built and continue to operate, which carry out tourist and recreational activities.



Traffic of land and water vehicles on the territory of wetlands

- ▶ These include driving on inter-quarter roads, jeep tours are popular in recent years. They cause a factor of disturbance and damage to wildlife both on the roads and on detours. Also quite intensive in the summer are illegal boat tours and not controlled in the prescribed manner with the national park directory.





The use of biological resources

- ▶ , including illegal, is not the territory of the national park, where only regulated recreational areas and protected areas are defined in the bay where commercial fishing is not allowed but there is a temptation in the form of earlier forage migration of shrimp due to faster warming of Yavorlyk waters.





Climate change

- ▶ peak and new weather phenomena such as tornadoes or strong tornadoes, which are periodically recorded annually in the waters of Yavorlyk Bay.



The invasion of species

- ▶ found on the territory of the wetlands and having the greatest impact on natural ecosystems are the main ones: The narrow-leaved olive tree was first discovered on the territory of the Kinburn Spit in the 1960s.
- ▶ In recent decades, it has formed a stable population along the coast of Yavorlyk Bay. This plant displaces local aboriginal species, including fruit stalks (genus orchids), in particular in the Orchid field, which is part of the land. Plant. *Cenchrus anchor*, discovered in the 1980s and mainly distributed in mineralized fire bands. It is a quarantine species and harms herbivores when they eat plants in the final period of their growing season.



- ▶ *Mia sandy*, which began to appear in the Odessa Bay of the Black Sea in 1966, was discovered in the Yavorlyk Bay in the early 1990s and has no established negative impact.
- ▶ *Rapana venosa*. For two years now, the expansion of the *Rapana* into the waters of the southern part of the Yavorlyk Bay has been recorded, previously it was only in the waters of the Black Sea





Predation.

- ▶ The critical number of foxes and raccoons, which now exceeds the estimated normative number in the Park by almost 17-20 times, makes it almost impossible to successfully nest many species of birds. nests on the ground which are quite accessible to predators. On January 18, 2019, the staff of the National Park for the first time on the territory found a jackal animal *Canis aureus*, with signs of rabies and this diagnosis was confirmed in the laboratory. In 2021, representatives of this species have already been recorded repeatedly.



Mosaicity of the territory,

- ▶ both on subjects of property and performance of security and administrative functions. multidirectional tasks in adjacent territories does not increase the level of protection but rather reduces it many times over. As an example of the location of summer recreation centers on the territory of "Kinburn Spit". Very low sanitary level of activity of almost all recreation points, waste accumulates within a few weeks can become and probably becomes a bait feed station for the expansion of the same jackal in the territory of wetlands "Yahorlyk Bay". The location of tent camps in the coastal areas in this area may be a kind of signal to such activities of the official owners of land shares that are also located in the area of and on the border with the protected area of Mullah Lakes,



The threat of complete destruction

- ▶ of a complex of buildings called the subsidiary farm "Yagorlyk" of the former mussel-oyster farm - a complex of large-scale buildings of the Soviet era, which was handed over to the national park for use. distorting the landscape of wetlands.





Problematic issue

- ▶ the eastern part of the Pokovska Spit is a very active landscape in its genesis, it continues to grow both at the expense of Yahorlytska Bay and at the expense of the Black Sea, which creates a kind of confusion during protection measures.



- ▶ A new risk factor both for wetlands in Yagorlyk Bay and, first of all, for the neighboring wetland of international importance Tendrivska Bay is a significant increase in the intensity and number of military shooting exercises and others. The photo shows traces of the 2018 shootings.



- ▶ But we, even in such conditions, need at least significantly not to lose those indicators of the stability of the reservoir of land that I mentioned above.



Employees of NATIONAL PARK "Beloberezhya Svyatoslava" not only state but also carry out a number of measures of both monitoring and protection plan, biotechnical measures, information and preventive work. We would like to establish the results of these measures objectively. To this end, our national park plan to conduct another large-scale expedition with scientists from the Institute of Marine Biology in Odessa in 2023, which we would like to dedicate to the bright memory of Borys Oleksandrov, a correspondent of the Academy of Sciences of the National Academy of Sciences of Ukraine. his teacher, Academician Juvenal Zaitsev.

▶ THANK YOU FOR ATTENTION