



# MODERNÍ ASPEKTY VĚDY

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Svazek XXXI mezinárodní kolektivní monografie

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## ODDÍL 7. EKOLOGIE

§7.1 EDUCATIONAL ASPECTS OF THE ORGANIZATION
316
OF ECOLOGICAL TOURISM IN THE ZAPORIZHIA
REGION (Yorkina N.V., Melitopol State Pedagogical
University named after Bohdan Khmelnitsky, Cherniak Ye.B.,
Melitopol State Pedagogical University named after Bohdan
Khmelnitsky)

### ODDÍL 8. HISTORICKÉ VĚDY

§8.1 МОРСЬКИЙ ЦЕНЗ ПЛАВАННЯ ЯК ЗАПОРУКА 336
МОРСЬКОЇ БЕЗПЕКИ (55 років на 5 флотах)
(Калініченко О.О., Національний університет «Одеська морська академія», Сімоненко О.О., Національна Академія СБУ)

§8.2 ПОТУШНИЙ ОСЕРЕДОК КУЛЬТУРИ ТА ДОСЛІД 384
ЖЕННЯ МИНУЛОГО - ВОЛИНСЬКИЙ КРАЄЗНАВЧИЙ
МУЗЕЙ (Кінд-Войтюк Н.В., Волинський національний університет імені Лесі Українки)

### ODDÍL 9. KULTURA A UMĚNÍ

§9.1 РОЗВИТОК ЖАНРІВ СКРИПКОВОЇ МУЗИКИ У ТВОРЧОСТІ КОМПОЗИТОРІВ ГАЛИЧИНИ КІНЦЯ ХІХ -ПОЧАТКУ ХХ СТОЛІТТЯ (Волощук Ю.І., Прикарпатський національний університет імені Василя Стефаника)

## ODDÍL 10. MEZINÁRODNÍ EKONOMIE

§10.1 ОЦІНКА ЕКОНОМІЧНИХ ПАРАМЕТРІВ В 411
КОМПЛЕКСНОМУ КРАЇНОЗНАВЧОМУ АНАЛІЗІ
(Єремєєва І.А., Дніпропетровський державний університет внутрішніх справ)





## **ODDÍL 7. EKOLOGIE**

§7.1 EDUCATIONAL ASPECTS OF THE ORGANIZATION OF ECOLOGICAL TOURISM IN THE ZAPORIZHIA REGION (Yorkina N.V., Melitopol State Pedagogical University named after Bohdan Khmelnitsky, Cherniak Ye.B., Melitopol State Pedagogical University named after Bohdan Khmelnitsky)

**Introduction.** The rapid growth of the Ukrainian state has led to the emergence of new approaches in the economic and cultural space. An important part of the implementation of the policy of national renewal of the country is leading to the development of a recreational complex and ecological tourism.

The works of modern scientists are devoted to the problem of the development of the economy of nature use in promising regions of Ukraine for recreational activities [1, 2, 7-11, 15]. Their results determine the importance of greening tourism in terms of sustainable development and the transition to "green" technologies, the need for educational approaches in the process of organizing ecological tourism. All this is due to the fact that at this time there has been no analysis of the potential of the natural protected areas of Melitopol region for the development of the recreational and tourist complex of Ukraine.

The term "eco-tourism" in the late 1980s is associated with such countries as Australia, Canada, France, and the USA. At the current stage, ecotourism is defined as "specific types of tourism and recreation in nature, which do not harm natural complexes, contribute to the protection of nature and improve the well-being of the local population." Nowadays, this definition includes measures aimed, first of all, at preserving nature reserves. The main goal of ecological tourism is recreational activity, which consists of travel, environmental education, organization of





ecological excursions. In addition to the recreational function, ecotourism should perform the following tasks:

1) to save natural and historically valuable objects;

2) to serve to expand the ecological outlook for tourists;

3) to minimizate the negative impact of tourists on the components of the natural environment;

4) to promote the scientific and cognitive study of biotic diversity of recreational areas [11, 14, 16].

Thus, ecological trails are organized so that their participants not only enjoy their rest, but also increase their knowledge of ecology, as well as carry out specific environmental protection actions.

The purpose of the study: to define the ecological trails of Melitopol region and outline promising directions for the development of ecological tourism in the Zaporizhzhia region.

Objectives of the study:

1. To assess the natural and recreational potential of the Melitopol district in order to develop educational tourism;

2. Outline the role of the objects of the nature reserve fund of Melitopol region in the formation of a network of ecological routes;

3. Determine the main stages of the organization of ecological trails as a component of ecotourism;

4. To establish the most promising directions for the development of ecological tourism in the Melitopol district of the Zaporozhia region.

Object of study: the natural reserve fund of the Melitopol region as the basis for the formation of ecological routes.

Subject of research: current development of eco-tourism facilities in the Zaporizhia region.

The role of the objects of the natural reserve fund of the Melitopol region in the formation of ecological routes and their significance in ecological and educational tourism has been





christened in work. The most promising directions for the development of eco-tourism in the Zaporizhia region have been established.

#### **Results and discussions.**

An important role in the formation of ecological routes in the Melitopol region may be the objects of the natural reserve fund. It is known that the nature reserve fund of the Melitopol region was formed without taking into account the principle of creating a single ecological network. Therefore, it currently includes a number of territorially isolated protected objects that perform the function of "passive" conservation of biological diversity. In order to increase the "active" role of the NRF objects of the Melitopol district, it is advisable to form a single network of ecological routes. Outstanding Ukrainian scientist S.M. Stoyko notes that in order to create a protected biogeocenotic system, it is necessary that the NRF objects are connected to each other by ecological corridors and form a single functional network. At the same time, the main goal of creating such a system is to ensure ecosystem integrity, create optimal conditions for the migration settlement of species, preserve and reproduce rare and representatives of flora and fauna, and maintain ecological links between isolated nature reserve objects.

In the Melitopol region, the main elements of the natural reserve fund system are the national nature park "Priazovsky", the nature reserves of national importance "Molochnyi Liman" and "Staroberdyanskyi", the national historical and archaeological reserve "Kamyana Mohyla", the park-monument of garden and park art Oleksandrivskyi, arboretum of local importance "Elita".

The function of ecological corridors within the NRF can be performed by the beds of the rivers Molochnaya and its tributaries, Malyi Utlyuk, Tashchenak, as well as green spaces along railways and highways, artificially created cultural ecosystems.





Table 1.

#### The structure of the nature reserve fund of Melitopol

region		
Nature reserve territory	Name	Area, ha
Group A		
National nature park	"Priazovskyi"	Total – 78,127 (19,531 – in the Melitopol district)
Reserves of national	"Molochnyi Liman"	0,02
significance	"Staroberdyanskyi"	1132
National historical and architectural reserve	Kamyana Mohyla	3,84
Group B		
The park is a monument of garden and park art of national importance	Oleksandrivskyi Park of Culture and Recreation (Melitopol)	12
Arboretum of local importance	"Elite" (Zarichne village)	5
In total		20684
Bequest percentage		11 %

In Ukraine, the objects of the nature reserve fund, which are an important component of the international system of nature protection areas, are protected at the legislative level. For this purpose, special borders are established, as well as a special regime of use, reproduction and protection is introduced.

"Priazovskyi" National Nature Park

The founding date of the Azov National Nature Park is considered to be February 10, 2010, when the President of Ukraine, Viktor Yushchenko, initiated a decree aimed at preserving, restoring and rationally using the unique steppe and water natural complexes of northwestern Azov [12].

The newly created park covers Berdyanskyi, Melitopolskyi, Priazovskyi and Yakymivskyi districts. The total area is 78,127





hectares. The park also includes the Molochnyi Liman, which has a special protection status of wetlands of international importance according to the Ramsar Convention.

Thanks to the creation of the Priazovskoye NNP, Lake Molochnyi Liman, Utliukskyi Liman, which includes the Bolgrad Sivashik and the Atmanai River, were saved. 4 fragments of the coastline of the Sea of Azov were bequeathed. The first is a twokilometer coastal zone from Fedotova Kosa to the place where the Korsak River flows into the sea. The second plot is the area of the Petrovska creek. The third fragment is the southwestern part of the Berdyanska spit. The fourth sector is several nameless estuarine lakes with the mouths of the Berda and Zelena rivers.

Employees of the "Priazovskyi" park protect and study the coastal landscapes of the Azov Sea coast, provide decent conditions for tourist and recreational activities, create conditions for the rational exploitation of balneological resources of local estuarine lakes within the protected zone [13].

An important role in the formation of the appearance of the park is given to biocenoses – unique areas with typical desert and steppe vegetation that grows on chestnut chernozems with interspersed salt marshes. On soils saturated with sodium, you can find Lessing's feather grass, fescue, bluegrass, astragalus, Schrenka's tulip, and various herbs. This is one of the three areas of the real virgin steppe of Ukraine, where small rodents and bird colonies feel great. Squirrels and hamsters, desman and hedgehogs, water lizards and lake frogs become victims of steppe vipers, yellow-bellied snake, ferrets and foxes. Caspian terns, short-tailed skuas, black-headed gulls and silver martins feed on numerous representatives of the ichthyofauna.

Requirements for tourism and recreational activities in various zones is different. For example, hunting, fishing, constructions and mass events are prohibited in the protected zone of the Priazovskyi NNP. It is possible to set up tents and





light bonfires only in specially designated places, for recreation there are special parking lots and bicycle paths located in the zone of regulated recreation.

In the zone of stationary recreation, which is the territory of resorts with mud springs, the construction of hotels and sanatoriums is allowed. Routes for travel are marked throughout the zone, which are limited by a 25-meter protective zone, beyond which it is forbidden to enter. This zone is also closed for business activities, except for hotel and sanatorium service activities.

The economic (fourth) zone is open for economic activity, and it may even have other owners or users. The entire park belongs to the state structure and to the state fund of Ukraine, subordinate to the Ministry of Environmental Protection of Ukraine [10].

The structure of the Pryazovskyi NNP also includes Molochnyi liman an unique water body of the Zaporizhzhia region, where rare species of birds nest, fourteen of which are listed in the Red Book, and industrially valuable species of fish also come to spawn. Since 1974, the estuary has been considered a hydrological reserve of national importance. Molochnaya River is a unique estuary in the Zaporizhzhia region. Now its length is 32 km, width - up to 8 km, and depth - about 3 km. The total area of the estuary is 170 km2. It got its name thanks to the Molochnaya River, which flows into it. Also, the Tashchenak River flows into the estuary from the territory of the Kirovskyi District, and the Jackelnya River flows into the estuary from the Priazovskyi District [13].

The estuary was separated from the Sea of Azov by the Peresyp spit, and in the Kyrylivka area it is connected to it only by a small strait, which was clogged for a long time and, as a result, dried up.

Until the 15th century, the Molochnyi Liman was a bay of the Sea of Azov. At the end of the 15th century, the strait



### MODERNÍ ASPEKTY VĚDY Svazek XXXI mezinárodní kolektivní monografie

connecting the estuary with the sea closed, and the Molochnyi Liman became a lake. Its salinity reached 60 g/l. In 1943, the Molochnyi Liman was connected to the Sea of Azov by an artificial strait. This stabilized hydrochemical indicators, in particular, water salinity. In the 1950s and 1960s, a high biodiversity of fish was recorded in the estuary. Since 1974, the strait connecting the estuary with the sea has opened irregularly. Duties for clearing the strait were assigned to the Kirill fishing collective farm "Sons of the Sea", but the necessary work was practically not carried out. In April 2011, the connection of the Molochnyi Liman with the Sea of Azov was restored. During this time, several thousand pilengas entered the estuary to spawn [7].

Nowdays, there are children's camps and recreation centers on the banks of the estuary. It is considered one of the promising places for the development of recreational facilities and ecological tourism in Ukraine.

Reserve of national significance "Staroberdyanskyi"

Staro-Berdyanskyi Forestry is a green massif of the Melitopol District, located on the banks of the Molochnaya River in the northeast of Melitopol (18 km), bordering the villages of Novopylypivka and Voznesenka.

The first plantings were carried out by I. Cornius in 1846, later the nursery became part of the Berdyanskyi Steppe Forestry. In 1879, the collection of trees presented by P. Savitskyi won a bronze award at the Paris World Exhibition. The outstanding soil scientist H. Vysotskyi worked in the "Staroberdyansk" forestry, who studied hydroclimatic and soil conditions and their influence on the development of forest vegetation. Based on his research, the scientist developed an oroclimatic classification of soils, proposed criteria for dryness and humidity of the climate, and outlined the main reasons for the forestlessness of the steppes.

Modern tourists and scientists want to visit Staro-Berdyansk Forestry to admire the wealth of exotic species -





virginian bird cherry, Japanese sophora, yellow-hot maclura, Indian rose, forsythia, gledichia, as well as 14 varieties of willow. Hares, moose, martens, roe deer, wild boars, and foxes live here. Among the birds, the short-eared owl, the gray owl, the shrike, the yellow-headed kingfisher are the smallest birds of Ukraine [6, 8].

In 2014, the ecological route "Horse Walk" was opened in the Staro-Berdyan Forestry, which contributed to the development of active tourism in the Melitopol region. The route passes along a unique part of the Staro-Berdyansk Forestry - an oak alley and the bank of the Molochnaya River. A possible infrastructure object for carrying out tourist activities can be a parking lot for active recreation of excursionists, a boat station, a tent town, "Green Manor" in the village of Novopylypivka.

National Historical and Architectural Reserve "Kamyana Mohyla"

Since ancient times, people have paid attention to territories that had a special topography, diverse animal or plant life, reservoirs and watercourses. Using them for economic purposes, the settlers gave them names that emphasized the special features of the territory.

The "Kamyana Mohyla" reserve is one of the wonders of the Melitopol region, it is a cluster of stone rocks and mounds twelve meters high. It is located near the village Mirne and Terpenia, in the floodplain of the Molochnaya River. The ancient name of the reserve – Bogur-dag – Is of Nogai origin and is connected with an ancient story about a strong hero named Bogur, who created a unique array of stones.

The first written mention of the phenomenal monument dates back to 1778, when the outstanding commander O. Suvorov left a Cossack post near the Kamyana Mohyla to protect the postal route during the Russo-Turkish conflict.

Geologically speaking, the Kamyana Mohyla is the remains of sandstone, which after the departure of the waters of the



Sarmatian Sea strongly settled and gradually split into huge fragments. Hills, caves and grottoes were formed at this place. According to the scientist-archaeologist M. Veselovskyi, ancient tribes of the Mesolithic and Bronze Age lived on the territory of the Kamyana Mohyla, who turned the natural wonder into a Sanctuary. In 1951, Doctor of Historical Sciences M. Rudinsky found more than 50 stone slabs with petroglyphs – the first written samples, as well as images of mammoths, bison, and people. It is recorded that the rock images span the time period from the Paleolithic to the Middle Ages.

A huge contribution to the study of the natural phenomenon was made by V. Danylenko, P. Köppen, and O. Bader. The efforts of scientists proved that the hill appeared as a result of the action of the glacier millions of years ago. According to another hypothesis, the "Stone Tomb" appeared as a result of the fall of a meteorite [5].

Nowdays, the "Kamyana Mohyla" has the status of a National Historical and Archaeological Reserve, and the main task of the managers is the study, preservation and protection of the unique past of the Ukrainian land. The archaeological complex "Kamyana Mohyla" claims to be included in the UNESCO World Heritage List. Possible objects of tourist infrastructure on the territory of the "Kamyana Mohyla" can be the stylized tourist parking lot "Tourist Camping", a stage for holding historical and ethnographic festivals, "Street of Craftsmen", where folk crafts workshops are located, reconstruction town "Scythian State" on the base of the sport school in the village of Tambovka, observation tower.

Of great importance in the formation of ecological routes in the Melitopol region are parks-memorials of gardening and park art, as important recreational objects of local and national significance. Created for the saving valuable natural objects, as well as improving the health of the population. Scientific work is



carried out on the territory of the monument parks of Melitopol region, and any actions that may lead to degradation or change of their natural composition are prohibited. In the Melitopol district, such areas include: Oleksandrivsky Park of Culture and Recreation of national importance, as well as local parks -Krasnohirskyi and Zaliznychnyi. Arboretum "Elita" operates in the village of Zarychny [5].

In the parks, over 80 types of trees grow with an average height of about thirty meters. Some specimens are over a hundred years old. On the plots decorated in a landscape style, artificial plantings of various types of maples (Canadian, Tatar), oriental maples, pseudoacacia robinia, poplar, wild pears, apple trees, shrubs with steppe vegetation are naturally combined. Thanks to the grass, a favorable microclimate is created, the spread of dust is delayed. Some park plants have adapted well not only to arid conditions, but also to saline soils. In the Melitopol region, you can find plantations of silver poplar or poplar of Bolle, smallleaved elm or European elm, brittle willow, Babylonian willow, common pear, Crimean pine, Virginian juniper, and white acacia. All these natural objects are of interest for the creation of ecological trails and routes of health and recreational tourism.

Prospective objects for the development of "green" tourism are homesteads and ethnic estates, where walks in the forest, acquaintance with the apiary, fishing and other types of active recreation are carried out. Among them are "Rose Alley" (Myrne village), "Sosnovy Amber" (Sosnivka village), rural tourism estate (Novopylypivka village) [5].

Therefore, in order to implement "green" tourism in Melitopol region, the following ecological routes can be formed:

Route No. 1 "Pearls of the Melitopol District"

Hydrological reserve "Molochnyi Liman" - "Healing springs" (Terpinya village) - Arboretum "Elita" - Staro-Berdyansk Forestry - Kamyana Mohyla.



Route No. 2 "Melitopol region is green"

Oleksandrivsky park-monument park art - Kiziyarska balka - Feliber's gardens - "Healing springs" - Arboretum "Elita" -"Kamyana Mohyla" - oak alley in Staro-Berdyansk forestry.

Route No. 3 "Horseback ride in the Staro-Berdyan Forestry"

Savytsky's house - "Lagerna hill" (ponds) - Pine meadow - a walk along the Molochnaya River.

Route No. 4 "Sightseeing excursion: nature reserve fund of Melitopol region"

National NP "Priazovskyi" (Molochniy Liman) - Reserve "Kamyana Mohyla" - Reserve "Staroberdyanskyi" -Oleksandrivsky Park of Culture and Recreation - Arboretum "Elita" - "green" homestead (by choice).

Organization of ecological trails as a component of ecotourism

According to the researchers, all the variety of ecological trails are classified according to different categories, the main of which are the duration and length of the route. In addition, there is no single, accepted classification, because these criteria (distance/duration) are very indicative. For example, a path with a length of 4-6 kilometers will be considered long for the small Arboretum "Elita" (Terpinya village), and for the national nature park "Priazovsky" it will be classified as short.

In the urbanized environment of the city, eco-paths of medium length will be considered routes from a hundred meters to a kilometer [15, 18]. In the natural conditions of wild landscapes, the average length of eco-trails can reach hundreds of kilometers. For example, the well-known Appalachian eco-trail in America has a length of almost 3500 km (!).

Like any tourist route, the eco-trail can be linear, semicircular, circular or radial. From the point of view of visual perception of the territory and obtaining cognitive and research





information, the first three types (linear, semi-circular and ring) are preferable to the last.

Eco-trails are divided according to the complexity of the route and the perception of the information offered. Specialists do not recommend dividing eco-trails according to the age of people who walk them. When developing a route for younger schoolchildren and children under the age of 7, as well as elderly visitors, preference should be given to shorter and easier paths for passage. On the contrary, eco-trails for young students or active middle-aged tourists should be interesting, and may even contain some obstacles.

It is very difficult to develop an eco-trail only for a certain category of visitors. Usually, when outlining an ecological route, they focus on the "average tourist", who can be offered various excursion programs for people of different ages and other categories of citizens.

The means of passing the route is another important criterion for the classification of eco-trails. Most of the eco-paths in cities are intended for pedestrians, in developed countries there are often special paths for people who are fond of cycling. If there are special conditions, eco-trails are created for skiers, fans of water tourism, equestrian sports, etc. At the same time, various means of transportation may change periodically during the entire route.

The main criterion for the classification of ecological trails is primarily their functional purpose. According to this characteristic, it distinguishes walking, cognitive-tourist and educational-ecological trails. Each of the routes has its own specific features.

Walking eco-trails

Educational walking ecological trails are called "weekend" trails. As a rule, their length does not exceed 8-10 kilometers. To get acquainted with natural biodiversity, rare species of flora and



fauna, visitors are grouped by interests. Accompanied by a leader or tour guide, they take an interesting walk through the forest or park. On such eco-trails, issues of harmonious coexistence of man and the surrounding nature, the impact of anthropogenic or economic activity on ecosystems are considered, and ideas are formed about how to preserve and protect the natural biodiversity of the native land [17-19].

Educational and tourist eco-trails

The length of cognitive-tourist eco-trails can range from 10 to 100 or more kilometers. Such routes are often laid in areas of reserves and national natural parks specially designated for tourism. The trip lasts on average from two days to a week. Like walking eco-trails, educational tourist routes can be taken in a group led by a guide or independently. Before setting out on the route, tourists are required to undergo a briefing on safety techniques and rules of behavior in nature, have a map of the area and other necessary devices. As a rule, cognitive-tourist eco-trails have clear markings on the terrain, so tourists will never get lost [20].

Educational eco-trails

Educational ecological trails are represented by specialized routes, the main purpose of which is environmental education and obtaining new knowledge of local history. The length of educational eco-trails, as a rule, does not exceed two kilometers and takes 2-3 hours. This time is considered the most productive for learning new knowledge. Educational eco-trails are designed for schoolchildren, university students and citizens who are interested in studying the ecology and nature of their native land. Therefore, the chosen route should be interesting and accessible to any tourist. To walk the trail, groups are formed depending on the educational goal, which go through a pre-designed route under the guidance of a tour guide. In the role of the latter, both a teacher of an educational institution and an employee of the





nature conservation area, where the trip is carried out, can act. The route of the educational eco-trail can be developed together with students, who can also take an active part and even independently conduct an educational excursion [20].

The educational trail must be equipped with signposts and an information stand. Special information booklets are available for tourists. Specialized eco-trails are being developed for people with developmental disabilities or limited perception of the surrounding world (invalids in wheelchairs, visually impaired, blind, deaf, etc.). For this purpose, the routes must be adapted so that citizens with physical disabilities can use them. In Ukraine, as in many countries of the world, this type of eco-trails is becoming more and more widespread.

Requirements for the construction of an ecological trail:

- it is important to include data on the landscape, topography, main types of soil and parent rocks, main water bodies and climatic characteristics in the excursion narrative, as well as to outline the relationship of these natural components, not limited to the geobotanical characteristics of the region;

- to explain the cause-and-effect relationships that determine the diversity of ecosystems, the transition of a forest massif to a steppe, an estuary to the sea, etc.;

- reveal the dynamics of ecosystems, show the difference between primary and secondary successions, as well as identify changes caused by anthropogenic activity;

- explain the ecological functions of ecosystems (for example, forests and meadows), small and large local watercourses, outline the meaning of ecotones (for example, the Molochnyi Liman), demonstrate specific manifestations of ecologically irresponsible behavior (accumulation of garbage in parks) [15, 18, 19];

- emphasize the importance of nature conservation work using the example of a reserve or park, involve in it and show positive results;



- familiarize with the rules of visiting nature conservation areas and behavior during "green excursions" [5, 9, 19]. When organizing tourist routes, special attention should be paid to the synthesis of cultural and ecological values, efforts should be directed not only to the protection of "wild nature" corners, but also to all natural landscapes in general. Thus, Ukraine with its rich natural potential, regional diversity of forms of nature use and significant tourist experience can become an attractive country for the development of a renewed strategy of world tourism, where ecologically oriented nature use is intertwined with a flexible policy of sustainable development.

#### **Conclusions.**

So, ecological tourism is one of the most promising types of ecological tourism in the Melitopol district of Zaporizhzhya region. Thus, it is estimated that in 2008 "green tourism" developed three times more dynamically than other branches of the tourism industry. The number of visitors to protected areas increases by 20% every year. According to experts, the share of ecotourism is about a fifth of the entire tourism market in the world [5].

Melitopol district of Zaporizhzhya region is one of the most promising territories of Ukraine for the development of both domestic and international ecotourism. Among the prerequisites contributing to this process is the presence of protected nature conservation territories of high rank - the national nature park "Priazovsky", reserves of national significance "Molochnyi Liman" and "Staroberdyansky", the national historical and architectural reserve "Kamyana Mohyla".

Active development of ecotourism is facilitated by various forms of its implementation:

- ecological trails are the optimal means by which you can get maximum impressions from communication with nature. The



"green route" developed in advance allows minimizing damage to the natural environment;

- bicycle tourism is possible in parks and forest park areas, where special bicycle paths are laid. On the territory of nature protection objects, this type of tourism is allowed only in specially designated places;

- horse riding is one of the most exotic types of ecological tourism. Trained animals that walk along the paved eco-path do not harm the environment. In addition, horseback riding is a source of unforgettable experiences for tourists. In the Melitopol district, a similar ecological route appeared in the Staro-Berdyan Forestry;

- water trips – this type of ecotours also takes place in Melitopol region, where you can sail on yachts, boats, kayaks, boats with a transparent bottom, as well as scuba diving.

World ecotourism is dynamically developing in two main directions - "North American" and "Western European" [1]:

- in the first case, ecological tourism is carried out within nature conservation areas or "wild-type" water areas, where undisturbed and little-changed biogeocenoses prevail. At the same time, the development of routes and conducting ecotours is considered a classic direction in ecotourism;

- the "Western European" or "German" model of ecotourism involves the organization of excursions outside the protected areas - in cultural or agricultural landscapes for educational, recreational or other purposes. All the above types of ecological tourism have significant prospects for further development in the Melitopol district of the Zaporizhzhia region due to the existence of the necessary natural, cultural and other resources, such as the Molochna River, the "Kamyana Mohyla" reserve, parks and monuments of garden and park art , numerous green massifs and private estates. In our opinion, the development of ethno-ecological tourism is one of the promising



directions of tourism in Melitopol region. This is a type of tourism that is organized in living natural landscapes with traditional settlements of representatives of various national minorities. Such trips involve, first of all, familiarization with ethnographic culture and local natural attractions [7].

Therefore, the development of the outlined tourism directions will allow for the formation of a clearly defined network of ecological routes in the Melitopol district of the Zaporizhzhya region, which in turn will help tourists to comprehensively familiarize themselves with the natural sights of their native land, to experience its original beauty and diversity.

Melitopol region is considered a kind of center for the development of the tourist and recreational complex in the Zaporizhzhia region. The objects of the nature reserve fund, located on the territory of the Melitopol district (23), cover an area of 17,286.4 hectares. This is 11% of the total area of the district.

The most promising objects of the NPF of the Melitopol region from the point of view of forming a network of ecological routes are: national nature park "Priazovsky", Staro-Berdiansky Forestry, reserve "Kamyana Mohyla", "Healing Springs" (Terpinia village), Arboretum "Elita" and Oleksandrivskyi Melitopol Park of Culture and Recreation. All routes should be formed taking into account the principle of creating a single ecological network.

According to the complexity of the route and the perception of the proposed information, all eco-trails are divided into walking, tourist-cognitive and educational. It is important to include data on the landscape, topography, main types of soil and parent rocks, water bodies and climatic characteristics in the excursion narrative, as well as outline the relationship of these natural components, not limited to the geobotanical characteristics of the region. All eco-trails must be equipped with





signposts or an information stand and have facilities for visitors with developmental or physical disabilities.

The most promising directions for the development of ecological tourism in the Melitopol district of the Zaporizhia region are the following:

- walking ecological trails (all objects of the NPF Melitopol region);

- bicycle tourism (parks-sights of garden and park art);

- equestrian sport (Staro-Berdyansk forestry);

- water trips (Molochna River, "Molochnyi Liman" hydrological reserve);

- ethno-ecological tourism (historical and architectural reserve "Stone Tomb", private estates of the Melitopol district);

- educational tourism (all objects of the NPF of Melitopol region).

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