

I. ГЕОГРАФІЯ РЕКРЕАЦІЇ ТА ТУРИЗМУ: ТЕОРЕТИЧНІ ТА ПРИКЛАДНІ ПИТАННЯ

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ІНТЕГРАЦІЯ УКРАЇНИ ДО СИСТЕМИ ТРАНС'ЄВРОПЕЙСЬКИХ ТУРИСТИЧНИХ ШЛЯХІВ

Мета. Стаття має на меті обґрунтувати передумови та перспективи інтеграції України до системи транс'європейських туристських маршрутів із розробкою проєкту української ділянки маршруту E8.

Методика. Дослідження ґрунтується на аналізі західної та української наукової туристської літератури, офіційних документів Європейської федерації пішохідного туризму (ERA), а також картографічних і цифрових даних туристських маршрутів. Застосовано метод порівняльного аналізу міжнародного досвіду, метод польових досліджень в Українських Карпатах, історичний метод (дозволив врахувати історичні матеріали з розвитку туристських шляхів у Карпатах), картографічний та метод моделювання туристського маршруту на основі ГІС.

Результати. Обґрунтовано можливість прокладання української ділянки транс'європейського маршруту E8 через Львівську, Івано-Франківську та Закарпатську області. Запропонований маршрут охоплює найвизначніші природні та культурні об'єкти Українських Карпат, поєднуючись з існуючими Закарпатським та Східно-Карпатським туристськими шляхами. Розроблено інтерактивну двомовну ГІС-карту української ділянки, доступну онлайн для практичного використання туристами. Аналіз показав потенційні соціально-економічні переваги розробленого маршруту, включаючи розвиток сталого туризму, транскордонну співпрацю та регіональний розвиток, а також виклики, пов'язані з інфраструктурою, стандартизацією маркування та безпекою.

Наукова новизна. Представлено цілісну концепцію української ділянки транс'європейського маршруту E8 як пілоотної моделі інтеграції України до мережі європейських туристських стежок ERA.

Практична значимість. Результати можуть бути використані в національних і регіональних стратегіях розвитку туризму, у проєктах відбудови туристської інфраструктури в післявоєнний період та для адаптації маршруту E8 до системи спортивного пішохідного туризму України. Отримані висновки мають значення для місцевих громад, органів влади та міжнародних туристських організацій, зацікавлених у розвитку співпраці та сталого розвитку.

Ключові слова: транс'європейські маршрути, Україна, ERA, маршрут E8, Карпати.

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INTEGRATION OF UKRAINE INTO THE SYSTEM OF TRANS-EUROPEAN TOURIST TRAILS

Purpose. The article aims to substantiate the prerequisites and prospects for Ukraine's integration into the system of trans-European tourist routes with the development of a project for the Ukrainian section of the E8 route.

Methods. The study is based on the analysis of Western and Ukrainian scientific tourist literature, official documents of the European Hiking Federation (ERA), as well as cartographic and digital data of tourist routes. The method of comparative analysis of international experience, the method of field research in the Ukrainian Carpathians were applied, the historical method (allowed us to take into account historical materials on the development of tourist routes in the Carpathians), the cartographic and GIS-based tourist route modeling method.

Results. The possibility of laying the Ukrainian section of the trans-European route E8 through the Lviv, Ivano-Frankivsk and Zakarpattia regions was substantiated. The proposed route covers the most significant natural and cultural sites of the Ukrainian Carpathians, connecting with the existing Transcarpathian and East Carpathian tourist routes. An interactive bilingual GIS map of the Ukrainian section has been developed, available online for practical use by tourists. The analysis has shown the potential socio-economic benefits of the developed route, including the development of sustainable tourism, cross-border cooperation and regional development, as well as challenges related to infrastructure, standardization of marking and safety.

Scientific novelty. A holistic concept of the Ukrainian section of the trans-European route E8 is presented as a pilot model for Ukraine's integration into the ERA network of European tourist trails.

Practical significance. The results can be used in national and regional tourism development strategies, in projects for the reconstruction of tourist infrastructure in the post-war period and for the adaptation of the E8 route to the system of sports hiking tourism in Ukraine. The conclusions obtained are important for local communities, authorities and international tourism organizations interested in the development of cooperation and sustainable development.

Keywords: trans-European routes, Ukraine, ERA, route E8, Carpathians.

List of symbols:

ERA – European Hiking Federation

E-paths – Trans-European Tourist Routes

E8 – Trans-European Tourist Route E8

ECTT – East Carpathian Tourist Trail

TCTT – Trans-Carpathian Tourist Trail

FSTU – Federation of Sports Tourism of Ukraine

Introduction. European integration has acquired the status of a constitutional priority for Ukraine, encompassing all spheres of public life, including tourism. Tourism is considered one of the most dynamic sectors of the global economy, capable of contributing to regional development, preserving cultural and natural heritage, generating employment, and facilitating the integration of Ukraine into international communities. For a country facing full-scale war and preparing for post-war recovery, the development of sustainable tourism is not only an economic task but also an essential component of social stability and international positioning. Within this context, the establishment of a modern tourism infrastructure, particularly marked hiking trails as part of the broader European network, gains special significance.

Globally, successful examples of such projects include the Appalachian Trail in the United States and the system of trans-European long-distance paths (E-paths), created under the auspices of the European Ramblers' Association (ERA). These trails have become not only popular tourist destinations but also important instruments of sustainable development, cross-border cooperation, and the preservation of natural and cultural heritage.

Ukraine possesses a unique natural and cultural potential to be integrated into this system, particularly through the Carpathian region, which serves as a natural bridge between Central and Eastern Europe. However, no European long-distance path currently crosses the territory of Ukraine, while the nearest segments, such as the E8 trail between Poland and Romania, remain incomplete. This situation limits Ukraine's opportunities for international tourism cooperation and reduces its level of integration into the European tourism space.

In the conditions of post-war reconstruction, a key task is the restoration and modernization of tourism infrastructure in accordance with European standards of sustainable development. The creation of a Ukrainian section of the E8 long-distance trail could serve as a pilot project of integration into the E-paths system, simultaneously fostering regional development, intensifying cross-border cooperation, and attracting European visitors.

Analysis of recent research and publications. The development of hiking tourism and the creation of trail networks has been the subject of research in many countries worldwide. In American tourism literature, particular attention is paid to the Appalachian Trail, the first specialized long-distance hiking route, established in the early 20th century (Official website AT). Its experience demonstrated the importance of volunteerism, cross-sectoral cooperation, and the integration of conservation, recreational, and community interests. Subsequent studies emphasized not only its recreational function but also the socio-economic impact of long-distance trails on regional development (Bauer & John, 2020).

The European experience is reflected in works dedicated to the activities of the ERA, which since the second half of the 20th century has initiated the creation of a system of trans-European trails connecting almost all European countries (ERA, 2020). These publications highlight their significance for sustainable tourism, cross-border integration, and the preservation of natural and cultural environments.

The history of marked hiking routes in the Carpathians has been examined by both Polish and Ukrainian scholars. Particular attention is given to the activities of the Polish Tatra Society, which at the turn of the 19th and 20th centuries initiated systematic trail marking in the Eastern Carpathians (Lesyk & Lavruk, 2015). During the interwar period, the Eastern Carpathian Tourist Trail (ECTT) was created, becoming one of the largest tourism infrastructure projects in Central and Eastern Europe (Krzemien, 2016).

In contemporary Ukrainian scholarship, the problems of sports and amateur hiking tourism are studied in the context of sports tourism, active recreation, and local history (Kolotukha, 2015a). More recent works focus on adapting the Ukrainian system of sports tourism to European standards, developing regional

routes, and introducing digital technologies for navigation and safety. At the same time, scholars underline insufficient integration of Ukrainian trails into the international network, as well as challenges in the unification of trail marking and the financing of their maintenance. The author of the present study has been systematically engaged in the study of hiking routes since 2015 and has a series of relevant publications (Kolotukha, 2015b; Kolotukha, 2021; Kolotukha & Myrhorodska, 2021; Kolotukha & Polishchuk, 2024; Kolotukha, 2025).

Thus, a considerable body of knowledge has been accumulated regarding the organization of hiking trails worldwide and in Ukraine. However, the question of Ukraine's integration into the trans-European trail system, in particular through the construction of the E8 section, has not yet received comprehensive scientific treatment. This gap underscores the relevance of the present research.

Unresolved Aspects of the Problem. Despite the considerable historical experience of creating and maintaining marked hiking trails in the Carpathians, Ukraine still remains outside the European system of trans-European trails (E-paths). This situation generates several unresolved issues that require comprehensive scientific analysis and practical solutions.

First, the absence of an officially recognized Ukrainian section of a trans-European trail – particularly the E8 – creates a “geographical gap” between the Polish and Romanian segments of the route. Consequently, Ukraine loses the opportunity to be fully integrated into the European trail network, which plays a crucial role in the development of cross-border tourism.

Second, there exists a problem of infrastructural inconsistency between Ukrainian hiking trails and European standards. Most contemporary trails in the Carpathians lack standardized trail marking, an adequate number of information boards, or properly equipped rest areas, which significantly reduces their competitiveness at the international level.

Third, the issue of cross-border hiking crossings remains insufficiently regulated. Without them, the functioning of a coherent E-paths network is impossible.

Fourth, mechanisms for integrating trans-European routes into the national system of sports tourism remain underdeveloped. Although the Federation of Sports Tourism of Ukraine (FSTU) has established methodologies for route categorization and a training system for tourism professionals, there is a lack of practical experience in adapting international trails to this framework.

Finally, comprehensive research that combines geographical, cultural-historical, socio-economic, and safety dimensions of Ukraine's integration into the ERA E-paths network is almost absent in both scientific and practical discourse. This gap complicates the formation of a coherent state policy in this field and limits the potential for effective cross-border cooperation.

Thus, the incompleteness of Ukraine's integration into the E-paths system, infrastructural and organizational shortcomings, as well as the absence of a scientifically substantiated concept for the Ukrainian section of the E8, define the scope of problems addressed in this study.

Purpose of the Article. The purpose of this article is to provide a scientific substantiation of the concept of Ukraine's integration into the system of trans-European tourist trails through the development of a project for the Ukrainian section of the E8 path. The study aims to identify the prerequisites for establishing this route, to assess its recreational-tourist, natural-geographical, and cultural-historical potential, to propose a route design, and to highlight the problems and prospects of adapting it to the standards of the European Ramblers' Association (ERA).

Main Results

1. Theoretical Foundations of the Concept of Hiking Trails. In contemporary academic literature, a hiking trail is considered a spatially organized form of active tourism that combines health, recreational, educational, cultural, and environmental functions. According to O. Kolotukha, a hiking trail is defined as “a pedestrian trail of controlled length and moderate physical demands, equipped with on-site markings, designated rest areas, and observation points. Such trails are usually self-guided, designed for independent hikes according to the principle: walk – interact (observe, listen, feel) – learn” (Kolotukha, 2024).

A hiking trail provides opportunities not only for organized groups but also for amateur hikers and individual travelers. Trail markings and signposts indicating distances to key objects, as well as equipped shelters, weather refuges, and water sources, minimize the risk of getting lost. For the convenience of visitors, special observation decks and scenic glades are arranged. Tourists can access all necessary information through brochures with maps and detailed descriptions, information boards, explanatory panels, and directional signs. These trails are developed in accordance with ecological requirements to

minimize damage to the natural environment, while ensuring visitor safety, which is particularly important in national parks and protected areas (Kolotukha, 2024).

In academic practice, hiking trails are regarded as a tool of spatial planning that integrates diverse tourism resources into a single route-based thematic complex. Their development increasingly relies on modern methods of geoinformation analysis, digital cartography, and navigation technologies, enabling the integration of traditional hiking practices into contemporary information realities. Interactive GIS maps, mobile applications, and satellite navigation systems significantly improve the accessibility and safety of self-guided tourist routes. This makes hiking trails one of the most promising instruments for the development of tourism infrastructure in Ukraine, particularly in the context of joining the European network of E-paths.

2. Historical Development of Hiking Trails. The history of hiking trails is closely linked to the evolution of active tourism and humanity's aspiration to systematically explore surrounding environments. The first modern hiking trails appeared in the late 19th and early 20th centuries, when tourism organizations and conservation societies began introducing the practice of marking self-guided routes for visiting natural and cultural sites (Yakovchuk, 2024).

The first large-scale project of this kind worldwide was the Appalachian Trail in the United States, initiated in 1921 by forester Benton MacKaye. His idea was to create a "refuge for tourists" – a space where people could safely and sustainably enjoy nature. The first section was opened in 1923, and eventually the route extended over 3,500 km along the Appalachian mountain range. The Appalachian Trail became not only a pioneering long-distance route but also a volunteer-based project, as its maintenance and development were entrusted to hiking clubs operating on a voluntary basis (Official website AT). Its success later inspired the creation of other iconic American trails, such as the Pacific Crest Trail and the Continental Divide Trail.

In Europe, the tradition of marked hiking trails has different historical roots. The earliest marked trails emerged in the Alps and the Sudetes, where local tourism associations began systematically marking routes in mountainous regions at the end of the 19th century. These initiatives promoted active recreation, increased safety for travelers, and contributed to the preservation of cultural landscapes. During the interwar period, the network of marked routes expanded significantly across Central Europe, including Poland, Czechoslovakia, Austria, and Germany.

In the second half of the 20th century, the development of hiking trails gained new momentum with the establishment of the European Ramblers' Association (ERA), which initiated the formation of the trans-European long-distance trail system (E-paths). This made it possible to integrate national and regional trails into a single network, covering tens of thousands of kilometers and connecting most European countries (ERA, 2020). As a result, hiking trails evolved from local routes into instruments of cross-border integration and sustainable tourism, gaining recognition as one of the key elements of modern tourism infrastructure.

3. History of the Development of Hiking Trails in Ukraine. The development of hiking trails in Ukrainian territories has deep historical roots dating back to the late 19th century. One of the earliest examples of organized trail marking appeared in the Eastern Carpathians through the initiative of the Polish Tatra Society. In 1880, the first hiking route was established, and by 1884 more than fifty signposts had been installed on the way to Mount Hoverla and adjacent peaks (Istoriia shliakhiv, 2011). These initiatives marked the beginning of a systematic tradition of trail marking in the Carpathians.

During the interwar period, when the Eastern Carpathians were part of Poland, the trail network expanded rapidly. Between 1925 and 1935, the Eastern Carpathian Tourist Trail (ECTT) was created as a major infrastructure project. It stretched from the Sudetes to the Romanian border and included over 600 km of marked routes in what are today Lviv and Ivano-Frankivsk regions (Istoriia shliakhiv, 2011). At that time, a well-developed system of mountain shelters and rescue services operated, including the Chornohora Volunteer Rescue Service.

In terms of organization, the ECTT was comparable to the Appalachian Trail in the United States, which was being developed during the same period. It consisted of eight one-day sections equipped with shelters and infrastructure. The total length of marked trails in the Polish Carpathians of the interwar period reached nearly 2,300 km (Krzemien, 2016).

During the Soviet period, the development of hiking trails declined. Markings disappeared, shelters deteriorated, and many routes became overgrown. Tourism organization was centralized and primarily focused on mass organized recreation rather than the development of individual or active tourism.

The revival of marked trails in Ukraine began in the 1990s and 2000s, when enthusiasts and tourism organizations partially restored historical routes. A landmark initiative was the creation of the Transcarpathian Tourist Trail (TCTT), which crosses the main Carpathian ranges – Borzhava, Svydovets, Chornohora, and the Maramureş massif (Lesyk & Lavruk, 2015). Its modern length exceeds 390 km. In 2010, the TCTT was re-marked according to Czech standards.

Thus, Ukraine has longstanding traditions in the development of hiking trails, which evolved in parallel with leading international examples. However, due to political and historical circumstances, these processes were interrupted and only partially revived. Today, these historical foundations represent an important argument for Ukraine's integration into the European E-paths network.

4. The System of Trans-European Hiking Trails (E-paths). The E-paths system represents a unique example of integrating national hiking routes into a single network covering nearly all European countries. Its formation began in the second half of the 20th century on the initiative of the ERA, which brought together national organizations with the aim of creating long-distance trails crossing national borders and connecting Europe's most significant natural and cultural sites (ERA, 2020).

Currently, the system consists of 12 main routes, with a total length of more than 75,000 km. Their paths stretch across Europe from Scandinavia to the Mediterranean, and from the Atlantic coast to the Balkans and Asia Minor. Each route has its own designation (the letter "E" and a number) and integrates local and national hiking trails. Among them, the E8 trail is one of the most popular: it begins in Ireland and ends in Bulgaria at the Turkish border, with a total length of about 6,140 km (ERA, 2020).

The core idea behind the E-paths is not only to promote active tourism but also to foster cross-border cooperation, preserve cultural heritage, and advance the principles of sustainable tourism. A significant feature of the system is the standardized marking that enables tourists to navigate trails easily regardless of the country they are in. Moreover, the maintenance of the routes is ensured through partnerships among national organizations, local authorities, and volunteer associations.

Despite its scale, none of the trans-European routes currently pass through Ukrainian territory. At the same time, several trails approach Ukraine's borders but terminate prematurely – for example, the E8 (between Poland and Romania) and the E4 (near Ukraine's western frontier). These gaps in the network represent a missing link, the elimination of which would significantly improve the connectivity of the system and strengthen integration processes within the European tourism space.

5. Prerequisites for the Creation of the E8 Route in Ukraine. An analysis of the current state of the E-paths system demonstrates that Ukraine possesses favorable geographical, historical, and socio-economic prerequisites for establishing a section of the E8 route on its territory. The inclusion of a Ukrainian section into the E-paths network would not only eliminate the existing gap between the Polish and Romanian segments of the trail but also strengthen Ukraine's integration into the European tourism space.

Geographical prerequisites. The Ukrainian Carpathians serve as a natural corridor connecting Poland and Romania. The relief of this region encompasses numerous mountain ranges (Bieszczady, Gorgany, Svydovets, Chornohora, and the Maramureş massif), which already have a tradition of tourist use. The uniqueness of the Carpathian region lies in the combination of natural and cultural diversity, fully consistent with the concept of long-distance hiking trails and attractive to European tourists (Kolotukha, 2015a).

Historical prerequisites. The Carpathians are home to historically established routes, such as the ECTT and the TCTT, which were revived in the 2000s. These trails can serve as a foundation for integration into the E-paths system. The historical experience of trail marking in the Carpathians confirms the region's capacity to meet international standards of hiking route management (Lesyk & Lavruk, 2015).

Institutional prerequisites. The current infrastructure of sports tourism in Ukraine is managed by the FSTU and the Central Route Qualification Commission. These institutions have developed mechanisms for route categorization, training personnel, and ensuring tourist safety. In addition, units of the State Emergency Service of Ukraine operate in the Carpathian region, carrying out search and rescue operations in mountainous areas, thereby providing a foundation for ensuring the safety of international hikers (Kolotukha, 2015a).

Cross-border prerequisites. The Polish section of the E8 ends in the village of Wołosate, which is located only 2 km from the Ukrainian village of Lubnia (Zakarpattia region). On this segment, the creation of a pedestrian border crossing "Lubnia-Wołosate" is feasible; it has long been included in national and regional development programs but has not yet been implemented. On the Ukrainian-Romanian border,

several potential exit points exist: the “Dilove-Valea Vişeuului” railway crossing and the “Solotvyno-Sighetu Marmăției” pedestrian-automobile crossing, both of which provide opportunities to logically connect the Ukrainian section with the Romanian one (Yakovchuk, 2024).

Socio-economic prerequisites. The creation of the E8 route in Ukraine has the potential to become an important factor in post-war regional recovery. Tourism infrastructure would stimulate job creation, the development of small businesses, cross-border mobility, and the international visibility of Ukraine among European tourists. This directly corresponds to the sustainable development goals defined both at the national and European levels.

Thus, the integration of a Ukrainian section of the E8 trail is based on a set of favorable factors: geographical, historical, institutional, cross-border, and socio-economic. Their realization requires coordinated action by state authorities, local communities, and international organizations, primarily the ERA.

6. Project of the Ukrainian Section of the E8 Route. The proposed Ukrainian section of the trans-European E8 route envisions the integration of existing and partially restored historical hiking trails of the Carpathian region into a single transboundary corridor. The total length of the route within Ukraine will be approximately 420 km. The authors’ team substantiates the feasibility of routing the Ukrainian segment of the E8 through Lviv, Ivano-Frankivsk, and Zakarpattia regions. The proposed route includes the most significant natural and cultural landmarks of the Ukrainian Carpathians, aligning with the existing TCTT and ECTT networks.

Entry point. The logical starting point of the Ukrainian section is the “Lubnia-Wołosate” border crossing on the Ukrainian-Polish border. This option provides a direct connection between the Polish segment of the E8 and Ukrainian territory, integrating the route into the broader Carpathian trail network (Fig. 1).

Exit point. The optimal endpoint of the Ukrainian section is the village of Dilove (Rakhiv district), where a pedestrian crossing to the Romanian village of Valea Vişeuului could be established. An alternative option is an exit through Solotvyno to the town of Sighetu Marmăției, which possesses developed transport infrastructure and could provide logistical support for tourists (Fig. 1).

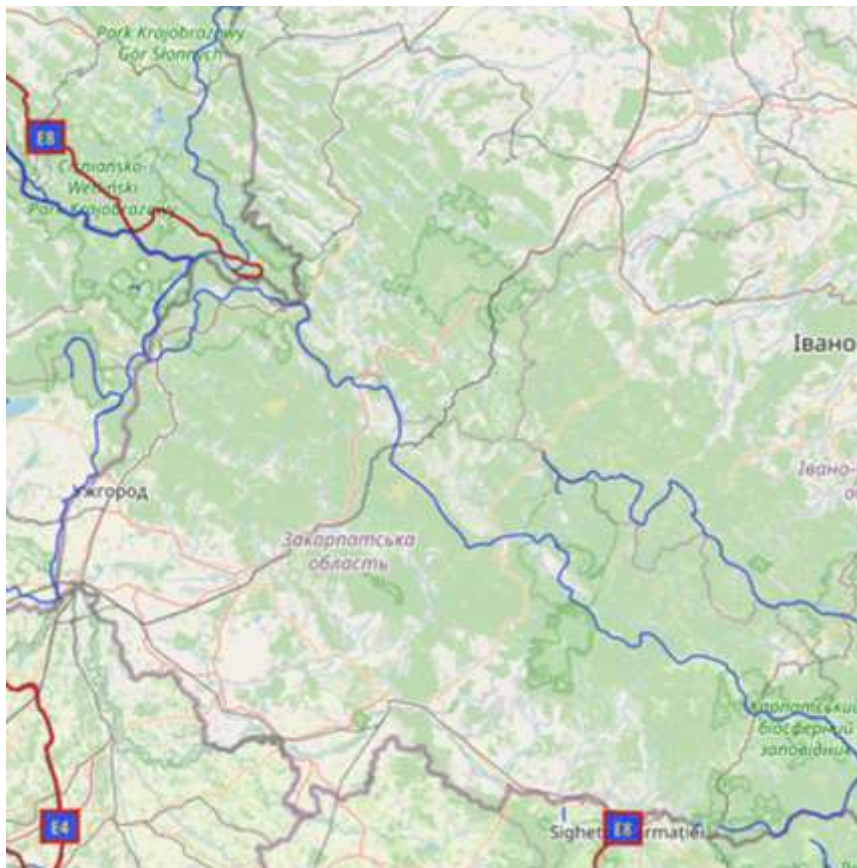


Fig. 1. Route E 8, which approaches the territory of Ukraine from the side of Poland and Romania (source: Waymarked Trails, 2024)

Key landmarks of the route. The Ukrainian section of the E8 trail is designed to pass through the most prominent peaks and settlements of the Carpathians, combining natural diversity with accessibility for tourists. The proposed sequence of key points is as follows: *Lubnia village (Zakarpattia region) – Mount Plishka (1067 m) – Mount Pikui (1408 m) – Mount Trostian (1232 m) – Slavske settlement – Mount Chorna Ripa (1285 m) – Mount Vyshkivskiy Horhan (1440 m) – Mount Moloda (1724 m) – Mount Popadia (1740 m) – Osmoloda village – Mount Ihrovets (1804 m) – Mount Velyka Syvulia (1836 m) – Bystrytsia village – Mount Khomiak (1542 m) – Yablunysia village – Vorokhta settlement – Mount Hoverla (2061 m) – Mount Pip Ivan Chornohorskyi (2020 m) – Mount Pip Ivan Maramureș (1933 m) – Dilove settlement.* The total length of the route from Lubnia to Dilove is **399 km**; if extended to **Solotvyno settlement**, the length will increase to **428 km**. The estimated duration of the entire hike ranges between **106 and 118 hours of active walking**.

To facilitate practical navigation, an **interactive bilingual GIS map** of the Ukrainian section of the E8 trail has been developed and made available online for public use (Fig. 2).

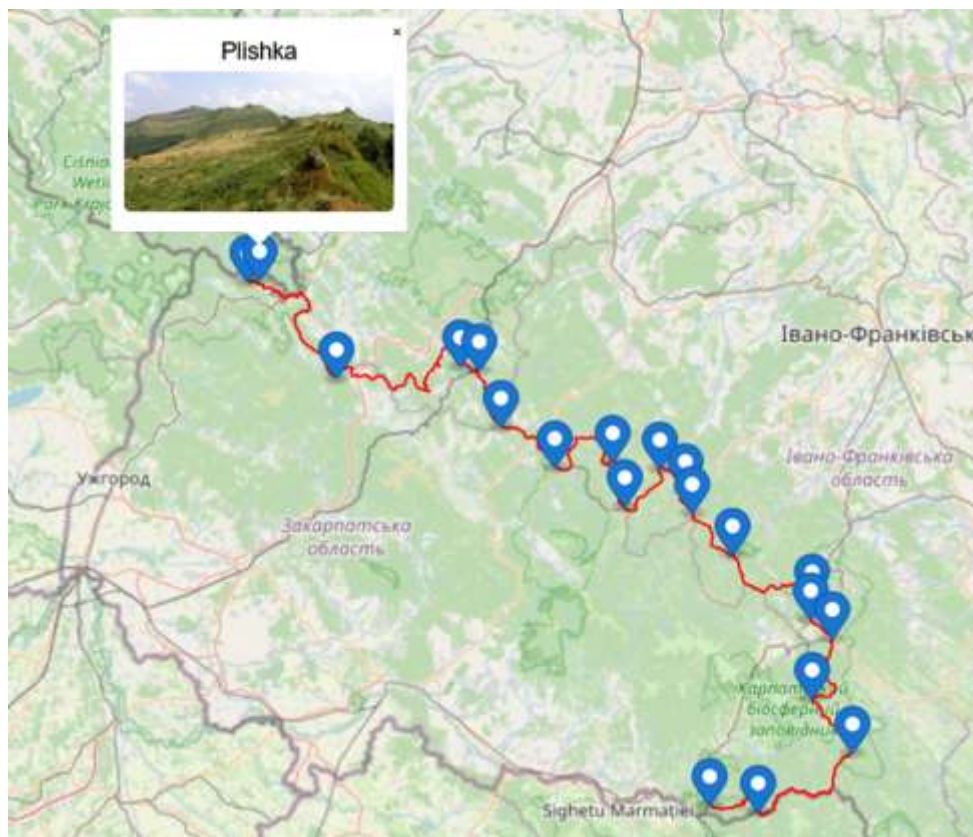


Fig. 2. Interactive web map of the Ukrainian section of the trans-European route E-8 (source: Kolotukha & Matsibora, 2024)

Infrastructure Nodes. Along the proposed route, existing tourist shelters, recreation bases, and settlements are designated as logistical hubs. In particular, Slavske, Osmoloda, Bystrytsia, Yablunysia, and Vorokhta are identified as key nodes. These localities have significant potential for the development of service infrastructure, including hotels, campsites, information centers, and transport accessibility, which are essential for international hikers.

Route Features. The Ukrainian section of the E8 trail is unique due to the combination of natural and cultural resources it encompasses. The route passes through territories of national parks (Uzhanskyi, Synevyr, and Carpathian National Parks), UNESCO biosphere reserves (Carpathian Biosphere Reserve), as well as numerous cultural heritage sites, including the wooden churches of the Carpathian region inscribed on the UNESCO World Heritage List.

Therefore, the proposed Ukrainian section of the E8 trail is not only a transit corridor between Poland and Romania but also an independent tourism product of international significance. Its

implementation will integrate Ukraine into the European E-paths system, foster regional development, and promote the rich natural and cultural heritage of the Carpathians.

7. Integration of the E8 into Ukraine's Sports Tourism System. Ukraine's sports tourism system possesses a well-developed organizational and methodological framework, which provides a strong basis for combining national traditions with international practices in hiking and outdoor recreation. The inclusion of the Ukrainian section of the E8 trail in this system will not only promote active leisure but also enhance safety, standardize hiking practices, and harmonize them with European requirements.

Organizational and Methodological Framework. The FSTU plays a key role in coordinating regional branches, approving routes, and categorizing their difficulty levels. It also oversees the training and certification of tourists and conducts expert evaluations of tourism projects. This institutional base creates favorable conditions for incorporating the E8 into Ukraine's official system of sports tourism.

Route Categorization. In Ukrainian practice, hiking routes are classified according to categories of difficulty, determined by length, relief, seasonality, and technical challenges. The Ukrainian section of the E8 can be classified as a Category I-II route, depending on the chosen segment. This makes it compatible with the national system of sports tourism and allows its inclusion in the framework of hiking expeditions of varying levels of complexity (Kolotukha, 2015a).

Infrastructure and Safety Support. An essential component of the E8's integration is the involvement of existing rescue and tourism services. In the Carpathian region, specialized units of the State Emergency Service of Ukraine operate mountain search and rescue teams, ensuring visitor safety. This corresponds to European practices for the functioning of E-paths, where safety is a top priority.

Educational Dimension. Ukraine's sports tourism system actively engages youth through clubs, sections, and extracurricular activities. Integrating the E8 into training and educational programs will create opportunities for nurturing a new generation of hikers familiar with international standards and practices. This will also harmonize Ukrainian training curricula with European ones and enhance the cross-border mobility of young tourists.

Digital Integration. Particular attention should be paid to the use of geoinformation technologies, digital maps, and mobile applications. While some digital navigation services already exist in the Carpathians, the integration of the E8 requires the development of a unified online resource synchronized with ERA platforms. Such a resource would not only facilitate navigation but also allow monitoring of tourist flows and infrastructure conditions.

The integration of the E8 trail into Ukraine's sports tourism system is a multidimensional process encompassing organizational, educational, infrastructural, and digital aspects. It ensures the adaptation of the Ukrainian section to international standards while enriching national tourism practices and enhancing Ukraine's visibility in the European tourism space.

8. Prospects for Cross-Border Cooperation and Sustainable Development. The integration of the Ukrainian section of the E8 trail into the European system of trans-European hiking paths opens broad opportunities for cross-border cooperation and the implementation of sustainable development principles. Trails of this level are regarded not only as infrastructural projects but also as instruments of socio-economic integration, connecting territories with diverse historical and cultural traditions and varying levels of development.

Cross-Border Dimension. Routing the trail through the Carpathian region creates a foundation for strengthening cooperation between Ukraine, Poland, Slovakia, and Romania. The implementation of the E8 will foster the development of joint tourism products, coordination in trail marking and maintenance, and cooperation between rescue services in neighboring countries. A key task is the opening of new pedestrian border crossings, particularly Lubnia-Wołosate and Dilove-Valea Vișeului, which will significantly enhance tourist mobility and deepen contacts between border communities.

Economic Prospects. The experience of Central European countries demonstrates that the development of international trails stimulates local economies by creating small enterprises in hospitality, transport, and souvenir production. For Ukraine, this is particularly relevant in the context of post-war recovery, as investments in tourism infrastructure can act as a catalyst for the development of mountain areas traditionally affected by depopulation and lack of employment opportunities.

Socio-Cultural Aspects. The E8 trail connects numerous cultural heritage sites, including wooden churches of the Carpathian region, ethnographic museums, and traditional Hutsul and Boyko settlements. This opens up opportunities for the development of cultural tourism, preservation of intangible heritage,

and promotion of Ukrainian culture in the European context. Such initiatives foster intercultural dialogue and strengthen Ukraine's positive image (Council of Europe, 2019).

Environmental Dimension. A critical requirement for the project is compliance with the principles of sustainable tourism. Since the route will pass through national parks and UNESCO biosphere reserves, it is essential to balance the development of tourism infrastructure with the preservation of natural ecosystems. The introduction of restrictions on mass tourism, the use of modern monitoring technologies, and the promotion of ecological awareness among hikers will be key elements of sustainable trail management.

Institutional Prospects. The implementation of the Ukrainian section of the E8 can serve as a pilot project for Ukraine's accession to the ERA. This would ensure not only formal membership but also access to financial and expert resources necessary for infrastructure development. Furthermore, participation in international programs such as Interreg, Horizon Europe, and UNESCO's "Man and the Biosphere" programme will open additional opportunities for cross-border cooperation (Paskova, 2018).

Thus, the Ukrainian section of the E8 has the potential to become not only a hiking trail but also an integration corridor that will foster sustainable development, revitalize mountain regions, and strengthen European unity through tourism.

Conclusions. This study has shown that Ukraine possesses significant historical, geographical, and institutional prerequisites for integration into the trans-European hiking trails system. An important outcome of the project will be the deepening of cross-border cooperation between Ukraine, Poland, Slovakia, and Romania. The establishment of the E8 trail will support the opening of new border crossings, the development of joint tourism products, and the preservation of cultural and natural heritage.

The proposed Ukrainian section of the E8, with a length of approximately 420 km, logically connects the Polish and Romanian segments while encompassing the most valuable natural and cultural areas of the Ukrainian Carpathians. It will not only eliminate a "white gap" in the E-paths system but also emerge as an independent tourism product of international importance.

The integration of the E8 into Ukraine's sports tourism system creates additional opportunities for the development of both domestic and international tourism. It ensures the harmonization of route categorization, strengthens safety through rescue services, introduces modern digital navigation and monitoring tools, and incorporates an educational dimension by using the trail in the training of tourism specialists and the dissemination of European standards among youth.

Future research should focus on the detailed development of infrastructural solutions, the design of digital services, and the establishment of long-term partnerships with the ERA.

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