Yuriy Zinko*, Marta Malska**, Tetyana Bila***, Volodymyr Bilanyuk****, Yuriy Andreychuk****, Iryna Kriba******

Tourist-recreational Regionalization of the Lviv Agglomeration

Abstract. The article describes the methodology and methods of examining the tourist-recreational activity in urban agglomerations, also in the territorial dimension. The authors present maps showing the regional development of the tourist and recreational economy of the Lviv agglomeration taking into account its functional zones. They also provide a justification for selecting existent and prospective tourist-recreational complexes and places of interests (tourist localities) situated within the functional zones of the agglomeration – urban, suburban and peripheral ones. A number of possible tourist activities and services (products) are proposed for functional zones and selected places of interest. The authors argue that tourist-recreational regionalization must be taken into account when implementing administrative-territorial reforms in the Lviv agglomeration. In particular, it is important to create a standard set of spatial units and develop criteria for selecting them that account for the development of urban and suburban tourism in these areas.

Keywords: agglomeration, tourism, recreation, functional zones, tourism complexes, places of interest

^{*} Ivan Franko National University of Lviv (Ukraine), Faculty of Geography, Department of Tourism, e-mail: zinkoyuriy@gmail.com, orcid.org/0000-0001-5546-6308.

^{**} Ivan Franko National University of Lviv (Ukraine), Faculty of Geography, Department of Tourism, e-mail: malskym@ukr.net, orcid.org/0000-0001-8887-6565.

^{***} Ivan Franko National University of Lviv (Ukraine), Faculty of Geography, e-mail: teti-anab@gmail.com, orcid.org/0000-0001-8330-4496.

^{****} Ivan Franko National University of Lviv (Ukraine), Geography Faculty, Physical Geography Department, e-mail: bilanyukvolodymyr2@gmail.com, orcid.org/0000-0002-6327-6907.

^{*****} Ivan Franko National University of Lviv (Ukraine), Faculty of Geography, Constructive Geography and Cartography Department, e-mail: yuriy.andreychuk@lnu.edu.ua, orcid.org/0000-0002-4940-4319.

^{******} Ivan Franko National University of Lviv (Ukraine), Faculty of Foreign Languages, e-mail: ikriba@yahoo.com, orcid.org/0000-0002-2362-2959.

1. Introduction

The development of recreation and tourism in metropolitan areas is most often considered in structural, functional and spatial terms. The problem also concerns urban [Mika 2008] and suburban [Faracik 2008] tourism. Because agglomerations exercise various functions (administrative, economic, cultural, educational), they are also involved in a wide range of recreational and tourist activities that generate various kinds of tourist flows [Mika 2008].

From the spatial perspective, metropolitan areas are associated with a special type of tourism-oriented regions, namely metropolitan ones. Regions of metropolitan tourism can be described as nodes with a multidimensional development [Liszewski 2003]. A separate issue in the spatial organization of regions of metropolitan tourism is the analysis of their internal differences, which can be reflected by creating rankings of spatial entities. Such studies are important to address the inventorying and spatial planning of recreational activity and tourism in metropolitan areas. The most common approaches to the regionalization of tourism and recreational in metropolitan areas are those that focus on administrative-territorial, functional, and hierarchical-spatial (geospatial) considerations.

The relevance of research on tourism and recreational activity in Ukrainian metropolitan areas stems from the fact that these problems still do not receive anough attention [Kiptenko et al. 2017] but are important for implementing the administrative-territorial reform. The study described in the article, which focuses on the Lviv agglomeration, examines the question of selecting spatial units that are relevant from the perspective of tourist and recreational economy of the metropolitan region. The goal is to identify the current territorial structure of municipal and suburban tourism and recreational activity in the Lviv agglomeration and future directions of development in the identified spatial units. The study is based on the analysis of tourism resources, infrastructure and forms of tourism and recreational activities / services in the metropolitan center (urban zone) and in suburban and peripheral zones of the metropolis, enabling further generalizations and planning at the level of operating geospatial units – tourist-recreational complexes and points of interest (tourist localities).

The study included the following main tasks:

- delimit the Lviv agglomeration and justify its division into basic functional economic zones;
- assess the tourism-recreational potential of the basic metropolitan zones urban, suburban and peripheral ones;
- justify the delimitation of spatial structures from the perspective of tourism and recreation within the metropolitan zones, taking into account their specialization and future directions of development.

Works of Polish researchers, in particular those related to the Poznan agglomeration, were used during the study of the territorial structure and functioning of the tourism and recreational economy of the Lviv agglomeration.

2. Methods and methodology in the study of tourist-recreational activity in metropolitan areas

From the methodological point of view, the concept of tourism space [Liszewski 1995] within metropolitan areas is important in the analysis of tourism and recreation. Three types of factors that determine the organization of tourism space (formal, functional and perceptional), as well as different types of tourism space related to certain functions (penetration, assimilation, colonization, and urbanization). Following the classification of tourism-recreational space proposed in [Liszewski 2005], a structural spatial model of a region of metropolitan tourism and recreation can be developed. In this model, the following concepts are distinguished: municipal space, the space of urbanization, the space of tourist colonization, the space of penetration, the space of tourist assimilation and quality tourism. Therefore, when studying tourist-recreational regionalization in metropolises it is important to take into account both the character of urban processes and the directions of the tourist-recreational development of these areas.

Recreational tourism activity in metropolises is often examined as an integrated form of urban and suburban tourism [Faracik 2003, 2008; Mika 2008; Makowska-Iskierka 2009, 2013]. Therefore, when addressing problems of tourist-recreational regionalization in metropolises, it is important to use the concept of a tourist business district [Getze 1993] when referring to agglomerations, and the concept of an area of tourist reception (area with a high level of tourist flows) in the context of suburban tourism [Żemła 2011; Makowska-Iskierka 2009]. In accordance with the concept proposed by P. Getze [1993], in large and medium-sized cities tourist destinations are centrally located (old part of the city) and include a considerable set of cultural and architechtural objects and services. Trade and business centers also facilitate the development of areas of tourist activity in the city. Suburbs can also play a role in tourism, if they are rich in tourist attractions that is easily accessible, and if they have additional infrastructure [Makowska-Iskierka 2009]. These factors are responsible for the spatial differentiation of recreation and tourism in suburban zones.

The following research directions can be identified in the studies of tourism and recreation in Polish metropolistan areas that take into account the spatial dimension:

- studies of the characteristics of tourist flows and forms of tourist activities in municipal and suburban areas of agglomerations [Iwicki 2002; Faracik 2003, 2008; Liszewski 2005; Mika 2008; Makowska-Iskierka 2009, 2013];
- studies focusing on forms of tourism and recreation in the spatial-functional constituents of agglomerations, in particular urban, suburban and peripheral zones [Zamelska, Kaczor 2017];
- studies to facilitate the planning of tourism and recreation development of metropolian areas for basic spatial units: larger areas (tourism areas, tourist-recreational complexes), local destinations (tourist localities) and linear formations (tourist routes) [Bródka, Miedzińska 2016].

When studying the current state of recreation and tourism and planning its future development in metropolises, one often relies on cartographic inventories of tourist attractions, infrastructure, forms of tourist activities and services (products). GIS databases provide necessary data for the purpose of regionalization in the metropolitan area. Recreational-tourist spatial units in agglomerations should be selected by applying certain principles such as constructiveness, economic and social efficiency, specialization, integrated use of regionalization and administrative division [Kuzyk 2018], inclusion of the underlying structure (zoning) of the metropolis.

In the geography of tourism, Polish researchers distinguish areas four basic territorial units: areas of tourist reception, tourist complexes, tourist localities, tourist regions as [Kurek, Mika 2008; Faracik 2008; Mika 2008; Liszewski 1995, 2003; Żemła 2011; Żabińska 2013; Basińska-Zych, Hołderna-Mielcarek 2017; Zamelska, Kaczor 2017], while Ukrainian authors use five-category classification: tourist points, tourist centers, tourist knots, tourist districts and tourist regions [Kuzyk 2018]. In the context of tourism, metropolitan areas are treated as metropolitan tourist regions in the Polish literature, while Ukrainian sources view them as tourist knots [Liszewski 2005; Kuzyk 2018].

To justify the territorial division of tourist-recreational activity in the Lviv agglomeration, the following methods were used:

- analysis of recreational-tourist resources (attractions, infrastructure, dominant forms of activities and services) in the basic functional-economic zones (urban, suburban and peripheral). They were selected taking into account the use of elements of spatial structure of urban planning set out in the General plan of Lviv [Shabliy (ed.) 2012];
- classification of units for purposes of regionalization: recreational-tourist units in the agglomeration, recreational-tourist complexes, encompassing a certain homogeneous and interconnected set of attractions, infrastructure and offering specialised forms of activities/services; tourist points (tourist localities) as specific objects with certain tourist-recreational functions.

– future forms of recreational-tourist activities and services for the basic functional-economic zones of the Lviv agglomeration and indentified complexes and points (localities) were planned using documents describing the development of the city of Lviv and other units of suburban areas (territorial communities and administrative units) [Gabrel, Hromyak, Lysiak 2007; *Shema planuvannia terytorii Lvivskoyi oblasti*... 2009; Zinko, Malska, Mandiuk 2009; Lozynskiy, Kostiuk 2011; Dubyna 2013].

In the process of developing approaches to regionalization and planning the future development of tourist-recreational resources in the Lviv agglomeration, the authors also considered recommendations for the development of the tourism industry in the Lviv region¹ until 2031 [Shema planuvannia terytorii Lvivskoyi oblasti... 2009; Zinko, Malska, Mandiuk 2009]. In this context, nature conservation and recreational zones analogical with the reception and recreational territories in plan developments in the Poznan agglomeration [Kaczmarek, Mikuła (eds.) 2016; Bródka, Miedzińska 2016] were used as a basic unit of territorial planning.

3. Tourism and recreation in the functional-economic zones of the Lviv agglomeration

The formation and management of the Lviv agglomeration is in its initial stage. At present, the document "Preliminary location of the Lviv agglomeration" [Gabrel, Hromyak, Lysiak 2007] is being developed. The structure and delimitation of the Lviv agglomeration has not been finalised yet. To justify the delimitation of the Lviv agglomeration different criteria and indexes are applied: population density and employment rates, accessibility of infrastructure [Lozynskiy, Kostiuk 2011; Glynskiy 2012; Dubyna 2013; Natalenko (ed.) 2017]. All this research work has resulted in the formulation of a few different functional-spatial models of the Lviv agglomeration. Taking into account population density and functional connections with the center of the metropolis, Lozynskiy, Kostiuk[2011] suggest including settlements adjacent to the city of Lviv with a considerable population density, in particular the towns of Vynnyky and Dubliany, the settlement of Rudno and 14 rural councils. In its justification of the General plan of Lviv (2011-2025), the research institute "Mistoproekt" (Lviv), distinguishes between the core and the external zone as a compound of the Lviv agglomeration within the limits of the 2-3-kilometre zone of influence of the ring road zone

¹ An *oblast* (Ukrainian: *οδιαςmь*), usually translated as a region in English, is one of Ukraine's 24 primary administrative units.

[Shabliy (ed.) 2012; Dubyna 2013]. In the design plan these zones are treated as a metropolitan system knwon as Greater Lviv. Lviv (the center of the system), the towns of Vynnyky and Dubliany, the settlements of Briukhovychi and Rudno and 22 rural councils with a general area of 30 thousands hectars are included in this system. The total population of the metropolitan Greater Lviv is 816 thousand, including 83 thousand living outside the city [Dubyna 2013]. The project document of the "Mistoproekt" institute specifies Lviv's zone of suburban settlement [Shabliy (ed.) 2012] – a special peripheral zone of the Lviv agglomeration. It includes the following settlements of adjacent to administrative districts: Pustomyty (with the town of Pustomyty and the urban-rural Shchyrets), Horodok (with the Horodok town and the urban-rural Lyubin), Mykolaiv, Kamianka Buska, Peremyshliany, Zhovkva (with the urban-rural of Kulykiv), Yavoriv (with the urban-rural of Ivano-Frankove). The zone of suburban construction is located within the 15-25 kilometre distance from the borders of Lviv. In the study of the

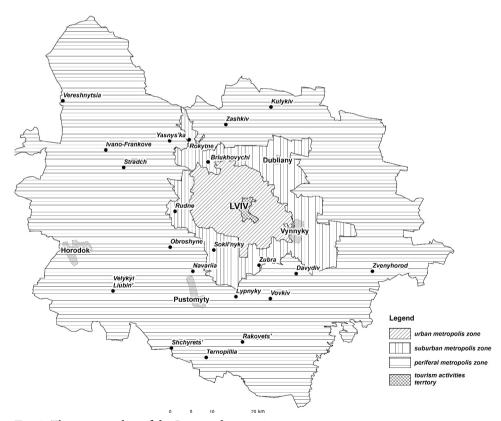


Fig. 1. The zoning plan of the Lviv agglomeration

Source: based on Shabliy (ed.) 2012.

territorial structure of tourist-recreational resources in the Lviv agglomeration, the authors used the above-mentioned spatial model of the metropolis, proposed by the "Mistoproekt" Institute including some corrections by the corresponding research author (Fig. 1).

By analogy with the territorial division of metropolitan areas into functional-economic zones, which is used in tourist-recreational research of metropolises [Bródka, Miedzińska 2016; Basińska-Zych, Hołderna-Mielcarek 2017; Zamelska, Kaczor 2017] the territory of the Lviv agglomeration was divided into: ZI – the *urban zone*, including the territory of the Lviv City Council; the *external zone* – suburban area, including Lviv's zone of influence, specifically, 2 urban, 2 urban-rural and 22 rural councils; and the *peripheral zone*, encompassing housing developments in the suburban areas of 7 adjacent administrative districts. Each metropolitan zone is characterised by a set of tourist attractions, infrastructure and dominant types of tourist-recreational activities and services (products). It is possible to argue that the urban zone can be treated as an area with the prevalence of municipal tourism, while the suburban and peripheral zones exhibit features typical of suburban tourism.

Tourism is an important type of activity in metropolitan areas. With regard to tourism and recreation, a metropolis offers a number of different products [Żemła 2011]. Spatial heterogeneity in the development of basic constituents of the tourist-recreational economy is a characteristic feature of any metropolis. What follows below is a description of the current development of the dominant types of tourism – municipal and suburban, in the basic functional-economic zones of the Lviv agglomeration.

According to A. Matczak [Matczak, Płoński 2008], in the analysis of municipal tourism one should distinguish between primary (surroundings, entertainment), secondary (infrastructure) and additional elements. Urban tourism in the urban zone of the Lviv agglomeration is primarily determined by the architectural heritage, history and the urban character of the city of Lviv, as well its places of cultural heritage (theatres and museums). In the last decades places of worship, festivals, restaurants, places of entertainment, shopping centers, as well as thematic fairs and conference events have become increasingly important for the growth of tourism. This is manifested by the rapid increase in the accommodation infrastructure: between 2008 and 2013 the number of hotels grew from 28 to 78, and reaching 113 at the beginning of 2019 [Pandiak 2018]. The number of budget accommodation facilities, such as hostels, is growing particularly fast. At present there are about 120, with the highest concentration in the centre of the city. With respect to the main types of urban tourism in Lviv, the following ones can be listed: cultural tourism, festival and gastronomic tourism, business tourism, sentimental tourism and recreation in the city. These forms of tourism have become the basis for the development of branded, basic and niche tourism products in Lviv.

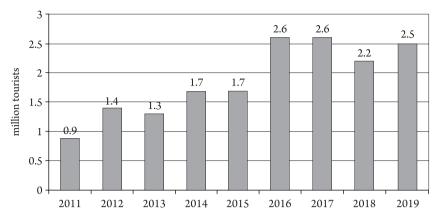


Fig. 2. Number of tourists arriving in Lviv in 2011-2019

Source: based on Publichnyi zvit Upravlinnia turyzmu... 2019.

Statistical data about tourist flows to the city confirm positive dynamics. For the last decade the number of visitors has grown from 0.9-1.4 million in 2011-2013 to 2.2-2.6 million in 2016-2019 (Fig. 2). At the same time, the number of tourists arriving by air is growing: the total number of passengers passing through by King Danylo airport in Lviv reached 1.9 million people. Categorised by the country of origin, the majority of the tourist traffic is generated by domestic tourists (56%), while foreign tourists mostly arrive from Poland, Belarus, Turkey [*Publichnyi zvit Upravlinnia turyzmu...* 2019].

The *suburban and peripheral zones* of the Lviv agglomeration are home to various types of suburban tourism. Most suburban administrative districts include a considerable proportion of wooded areas (from 17 to 33%), and large areas of these forests have a recreational and curative value. Protected areas – the Yavoriv national park, the "Roztochchya" nature reserve, the regional landscape park "Stilsk highlands" and a number of forest wildlife reserves increase the tourist attractiveness of metropolitan suburban areas.

The amin attractions of these zones include forest parks (Vynnyky, Briukhovuchi), water reservoirs with waterfront infrastructure (Briukhovuchi, Rodatychi, Navariya, Vynnyky) or partly reclaimed quarry water reservoirs (Yasnyska, Zadorozhne), and ponds for amateur fishing.

Resources of historical and cultural tourism in the suburban-peripheral zones are represented by architectural complexes, places of worhip, historical monuments, ethnographic settlements. The most famous sites include Horodok architectural complexes, Zvenyhorod Museum Complex, the Stradch Cave Monastery. A large number of religious objects – historical and cultural monuments are situated in Horodok, Shchyrets, Kulykiv, Navariya, Sokilnyky. A number of suburban cultural heritage sites are of great value for Polish and German history:

burial places of prominent historical people (Ivano-Frankove, former Yaniv), German colonies (Vizenberg, Khorosno, Ternopillya, Sokolivka).

The well-developed accommodation, sport-recreational and catering infrastructure is an important factor that stimulates the development of tourism in the suburban and peripheral zones of the metropolis. The accommodation facilities include different types of establishments, such as hotels, motels, holiday resorts and hotel-recreation complexes (Table 1). On the whole, there are 103 tourist establishments with total capacity 5120 beds [Bila 2012].

Hotels provide most of the available beds (32.6%), but the proportion of beds at hotel-recreation complexes is growing rapidly. As evident from Table 1, most accommodation facilities are located in areas adjacent to the districts of the city of Lviv, such as Pustomyty (34.7%) having the longest border with Lviv, with a number of hotel-recreation complexes (64.9%) and motels (59.9%). 13% of all available beds, hotel establishments, hotel-recreation complexes (Vynnyky) and holiday resorts are concentrated in the Vynnyky urban council and Briukhovychi urban council adjacent to the city of Lviv.

Table 1. Beds available in tourist establishments located in the suburban and peripheral zones of the Lviv agglomeration

	p-	n,	Total number				и		er
No.	Administrative districts and urban-rural coun- cils of Lviv	Number of town, urban-rural and rural councils	Total	%	Hotels	Motels	Hotel-recreation establishments	Holiday resorts	Children summer camps
1.	Briukhovychi urban-rural council	1	383	7,5	155	138	25	65	_
2.	Vynnyky urban council	1	284	5.6	136	28	120	_	_
3.	Horodok district	28	438	8.6	65	75	98	200	_
4.	Zhovkva district	31	740	14.5	338	60	-	106	236
5.	Kamianka-Buska district	17	127	2.4	127	_	_	_	-
6.	Mykolaiv district	19	350	6.8	290	-	-	60	-
7.	Premyshliany district	11	289	5.6	-	15	-	210	64
8.	Pustomyty district	41	1776	34.7	403	661	394	273	45
9.	Yavoriv district	20	773	14.3	156	136	_	441	-
Total		169	5120	100	1670	1113	637	1355	345

Source: personal collection.

The analysis of recreational-tourist activities in the external and peripheral zones of the Lviv agglomeration indicates that they exploit the existing tourism resources, infrastructure and cater for demand from the urban population [Bila 2012]. The most popular form of tourism involves short-term stays (1-2 days) to rest in forests and near water reservoires. This rest can take place both in forest-park and forest areas with or without recreational infrastructure.

Tourists travelling along the ring road are catered for by a number of hotels and restaurants. A richer leisure product is offered by the suburban hotel-recreation complexes: "Bukhta Vikinhiv", "Ozernyi Krai", "Uzlissya", "Drevniy Hrad", where in addition to comfortable stay, visitors can enjoy active types of tourist activities (water, equestrian, bicycle). The balneological resort in Liubin Velykyi, which has a long history, provides recreational services. Tourists can also take advantage of marked bicycle and pedestrian thematic routes. Special water reservoirs provided by hotel-recreational complexes make it possible to practise amateur fishing.

Nature tourism for educational groups is organized in the Yavoriv national park and the Roztochchya reserve. Some suburbs specialize in cultural and religious tourism. Most popular excursions involves trips to historical and architectural complexes and places of worship: the Stradch cave, historical and architectural complexes of Horodok, Ivano-Frankove (Yaniv), Zvenyhorod.

Based on the archived sources and maps of different periods, 5 historical stages of suburban tourism were indentified [Bila 2013: 1] the beginning of 14th – the end of 18th century: the origins of suburban tourism; 2) early 19th century – early 20th century: suburban tourism as a complementary element of urban tourism; 3) the inter-war period: suburban tourism as an independent type of recreational-tourist activities; 1950s-1980s: the Soviet period characterised by an active development of the infrastructure and mass tourism; 5) the modern period associated with the formation of the territorial subsystem of the Lviv agglomeration.

4. Tourist-recreational regionalization of the functional zones of the Lviv agglomeration

Regionalization of tourist-recreational resources of the Lviv agglomeration consisted in identifying within the basic zones (urban, suburban and peripheral) various types of units characterised by a tourist-recreational specialization. Taking into account tourist attractions, the infrastructure of services and dominant forms of tourist-recreational resources and services (products), two types of spatial structures can be distinguished: tourist-recreational complexes and tourist-

recreational points (tourist localities). From the functional point of view, they can be divided into existing and prospective one.

In the *urban zone*, taking into account the concept of *Tourist Business District* [Getze 1993] the following tourist-recreational types and subtypes of complexes can be distinguished:

- a) existing tourist-recreational complexes (Table 2):
- the old town, characterised by a high intensity of cultural-gastronomic tourism based on a well-developed (spatially compact) accommodation, catering and entertainment infrastructure,
- clusters of parks and places of worship, used for recreation and dark tourism (visiting memorial places) and recreational-excursion infrastructure,
- clusters of areas with summer houses, which are used for recreation and gardening activities, with the dominance of temporal economic cottages.
 - b) prospective tourist-recreational complexes:
- sport-entertainment tourism exploting the possibilities offered by the Lviv stadium and adjacent (spatially compact) areas,
- shopping tourism, entertainment activities and business tourism that exploits clusters of shopping, entertainment and business centers.

One can also expect considerable possibilities regarding certain new specialized forms of tourist-recreational resources in relation to the construction of

Table 2. Future directions of development of existing tourist-recreational complexes in the urban zone of the Lviv agglomeration

	Proposed forms of tourist-	Future forms of tourist-recrea-		
Tourist-recreational complexes	recreational resources	tional resources		
	and products/services	and products/services		
Compact complex "Old city"	Forms of activities: cultural and	Forms of activities: religious		
based on the historical city cen-	festival tourism	and business tourism		
tre – UNESCO world heritage	Types of products and services:	Types of products and services:		
site	gastronomic, entertainment,	specialized gastronomic and		
	excursions	ecological transport		
Cluster complex including	Forms of activities: short-term	Forms of activities: ecologi-		
parks and memorial places	rest, memorial and sentimental	cal tourism and sport in parks,		
	tourism	country studies		
	Types of products and services:	Types of products and services:		
	excursions	ecological and informational-		
		educational		
Cluster complex consisting of	Forms of activities: short-term	Forms of activities: seasonal		
summer house plots	rest, gardening activities	rest based on the constructed		
_		"second homes"		

Source: own elaboration.

a congress center in Lviv and infrastructural development around the King Danylo airport and railway station.

In the nearest future in the downtown of Lviv, conditions for specialized gastronomic and conference tourism along the peripheries of the city should be created. Also, the trend consisting in suburban summer houses being used as second homes for rest and leisure is going to continue.

When trying to conduct regionalization of the urban zone one is faced with the problem of delimiting existing types of tourist-recreational complexes. For example, the limits of the tourist-recreational complex "Old city" were on the basis of the borders of the pedestrian zone which are used for outlining areas of tourist activity in historical-cultural places. In addition, the limits of historical-cultural reserve of Lviv included in the UNESCO world heritage list were taken into consideration. For cluster tourist-recreational complexes including parks and memorial sites (cemeteries) and territories used for summer houses, spatial configuration was determined on the basis of the location of the main attractions and places of concentration of tourists.

As for future directions of development of existing tourist-recreational complexes within the limits of the urban zone, they should be associated with innovative and modern forms of tourist activities, as well as development of existing tourist products and expansion of specialized services (e.g. Table 2).

In the nearest future, it is very important for the "Old city" complex to implement programs for business and religious tourism, to develop new specialized gastronomic and ecological transport services. Cluster complexes including parks and memorial places should focus on developing infrastructure for sport and ecological activities in parks and providing other local activities. With respect to existing areas used for summer houses at the outskirts of the city, one can observe a trend of converting them into the second homes for long-term seasonal rest.

In the suburban and peripheral zones of the Lviv agglomeration the following tourist-recreational complexes (Table 3) can be distinguished: complexes including suburban forests and parks used for rest and recreation and for active tourism in sites with and without recreational infrastructure (suburban zone), complexes providing services for tourists travelling along the ring road (suburban zone), complexes exploiting water reservoirs used for rest and active tourism (peripheral zone): specialized complexes (hotel-restaurant, rest) with a wide spectrum of tourist-recreational resources (suburban and peripheral zones). In addition, a number of tourist points (tourist localities), used for cultural tourism (Ivano-Frankove, Zvenyhorod), recreational-curative activities (resort Liubin Velykyi), rural, ethnographic, sentimental tourism as well as complex services for tourists (accommodation and catering) is distinguished in the suburban and peripheral zones of the metropolis.

Table 3. Future directions of development of existent tourist-recreational complexes in the suburban and peripheral zones of the Lviv agglomeration

Tourist-recreational complexes	Existing forms of tourist activities and products	Future forms of tourist activities and products							
Suburban zone									
Complexes including suburban forests and parks (Vynnyky, Briukhovychi)	Forms of activities: rest in the forest and near the water, active tourism Types of products and services: Complex services on the rest sites	Forms of activities: pedestrian and bicycle tourism with marked roads Types of products and services: Rest and recreation on the equipped water reservoirs (Vynnyky, Briukhovychi)							
Complexes including hotels and restaurants along the ring road	Forms of activities: services for travelling tourists Types of products and services: accommodation, gastronomic	Forms of activities: short-term rest on the equipped sites by the roads Types of products and services: expanding range of services (shopping, entertainment)							
	Peripheral zone								
Complexes including water reservoirs with waterfront infrastructure	Forms of activities: rest by the water Types of products and services: accommodation, gastronomic, rental of equipment	Forms of activities: different forms of active tourism Types of products and services: niche products for water reservoirs with waterfront infrastructure							
Suburban-peripheral zone									
Specialized complexes with leasure tourist products (hotel-restaurant and recreational complexes "Bukhta Vikinhiv", "Ozernyi Krai", "Uzlissya", "Drevniy Hrad",	Forms of activities: rest in the forest and by the water, active tourism, leisure Types of products and services: recreation and rest product and night lodging, gastronomic services	Forms of activities: conference tourism and visiting thematic parks and expositions Types of products and services: expanding services and recre- ation and rest product							

Source: own elaboration.

There are certain prerequistes (resource, infrastructural) for the development of future tourist-recreational complexes of nature and local tourism (peripheral zone) that exploit protected areas – the Yavoriv national park and regional land-scape park "Stilsk highlands" and recreation complexes including forested areas (Obroshyno-Lapaivka, Lypnyky) and reclaimed quarry water reservoirs (Yasnyska, Zadorozhne) in the peripheral zone.

The tourist-recreational complexes indentified in the suburban-peripheral zones are examples of clusters. As a rule, complexes including forest-parks and forested areas and protected areas are relatively large. Complexes including water reservoirs and rest places are relatively small and considerably dispersed.

5. Problems associated with spatial differentiation of tourist-recreational resources in metropolitan areas

The regionalization of tourist-recreational resources in metropolitan areas can be conducted by taking into consideration various aspects, such as:

- specifying hierarchical spatial units, from metropolitan tourist region (knot) and to tourist points (localities);
- specifying limits and optimal sets of indexes and descriptions for tourist-recreational spatial units (complexes, localities) at different levels;
- indicating criteria for selecting spatial units for basic functional-economic zones of a metropolis: urban, suburban and peripheral ones.

It is necessary to stress that regionalisation of tourist-recreational resources in metropolitan areas is important for identifying existing and future resources of the studied areas for the purpose of spatial planning [Liszewski 2005; Bródka, Miedzińska 2016].

While conducting regionalization in the urban (central) zone of a metropolis, special attention should be paid to delimitation criteria that are used to idetify spatial tourist-recreational units. These can include resource and infrastructural descriptions and features of tourist movement. At the same time, one should also consider modern trends in the development of new spatial recreational-tourist structures in metropolises, such as business centers, shopping and entertainment centers and transport objects (train stations, airports) [Mika 2008]. They are special kernels for potential spatial structures.

With respect to suburban and peripheral zones of metropolitan areas, the challenge associated with the regionalization of tourist-recreational resources, both when it comes to creating an inventory of resources and planning, is the uneven and dispersed location of natural and cultural tourist resources, tourist and auxiliary infrastructure, as well as tourist movement. This requires the use of bigger spatial units (reception territories, complexes, localities). Point spatial units (tourist points) with various attractions and monofunctional and multifunctional services provide detailed informations about the spatial structure of the tourist-recreational resources in these zones [Kaczmarek, Mikuła (eds.) 2016;

Bródka, Miedzińska 2016]. In this context, it is important to rely on multidimensional research of tourist flows from city cores in order to validate and plan the configuration of basic destination areas and points.

6. Conclusions

For the tourist-recreational reorganization of metropolises it is important to develop a standard set of spatial units and criteria for their selection. These spatial units should have certain features specific for urban tourism in the urban zone and for suburban tourism in the suburban and peripheral zones of the metropolis. There are two basic models of how to conduct tourist-recreational reorganization of metropolitan areas as tourist regions: using spatial units applied in the geography of tourism ($1^{\rm st}$ model), and units of metropolitan zoning ($2^{\rm nd}$ model). Reorganization must become an essential component both for diagnostics of the modern state and for future spatial management of tourist-recreational resources in metropolitan areas.

In the map showing the reorganized division of recreational-tourist activities in the Lviv agglomeration, the current state and prospects for future development are presented stage-by-stage for basic functional-economic zones – urban, suburban and peripheral ones, – as well as for the identified spatial tourist units – tourist complexes and tourist points (localities) treated as metropolitan components. For specific functional and tourist spatial units of the metropolis, basic descriptions are provided by listing tourist resources and infrastructure, forms of tourist activities and products. These spatial units should become the basis for planning future directions of development of tourism in the metropolis, specifically, tourist products for zones and complexes, and tourist (service) functions for tourist points (localities).

Specific details of the spatial structure of tourist-recreational resources in the Lviv agglomeration derive from a special combination of existing and prospective territorial structures related to urban and suburban tourism. The modern state and future development of tourism in the identified territorial units should be taken into account in the process of implementing the administrative-territorial reform within the agglomeration: the creation of the "Big Lviv" system and large territorial communities in the suburban zone.

Long-term research of the development of tourism and recreation in metropolitan areas, realized under the aegis of Poznan School of Banking, focused on three Polish agglomerations: Poznan, Wroclaw and Cracow. Interdisciplinary research of tourism and recreation in these agglomerations made it possible to

obtain interesting results that are important both for current management and future planning. The participation of scientific institutions from Ukraine in the project, which investigate the tourist-recreational resources of the Lviv agglomeration (Ivan Franko National University of Lviv) and the Kyiv metropolis (Taras Shevchenko National University of Kyiv), will help to extend the geographical scope of the research (Central-Eastern Europe) and strengthen its interdisciplinary character thanks to the involvement of specialists in geography, economy and spatial planning.

References

- Basińska-Zych A., Hołderna-Mielcarek B., 2017, Social and economic conditioning of recreational activity and migration of inhabitants of the Poznań Metropolis, *Studia Periegetica*, 4(20): 39-64.
- Bila T., 2012, Prymiskiy turyzm m. Lvova, Geografia ta turyzm, 19: 121-130.
- Bila T., 2013, Etapy rozvytku rekreacii i turyzmu prymiskoyi zony mista Lvova (vid XIV do seredyny XX st.), *Istoriya ukrainskoji geografii. Vseukrainskiy naukovo-teoretychnyi chasopys*, 27: 132-142.
- Bródka S., Miedzińska I., 2016, Turystyka i rekreacja, in: T. Kaczmarek, Ł. Mikuła (eds.), Koncepcja kierunków rozwoju przestrzennego metropolii Poznań, Poznań: Centrum Badań Metropolitalnych Uniwersytet im. Adama Mickiewicza w Poznaniu, 85-114.
- Gabrel M., Hromyak J., Lysiak N., 2007, Osnovni vymogy do Projektu "Tymchasovogo polozhennia pro Lvivsku aglomeraciyu", Visnyk Nacionalnogo universytetu "Lvivska Politehnika", 605: 66-70.
- Getze P., 1993, Planing for tourism business districts, *Annales of Tourism Research*, 20(4): 583-600.
- Glynskiy N., 2012, Harakterystyka Lvivskoi aglomeracii yak megatovaru, Lviv Polytechnic National University Institutional Repository, http://ena.lp.edu.ua [accessed: 13.10.2019].
- Dubyna V., 2013, Rozvytok Lvova za Generalnym planom 2011-2025 rr., *Istoriya ukrainskoji geografii. Vseukrainskiy naukovo-teoretychnyi chasopys*, 27: 53-55.
- Faracik R., 2003, The state of research on tourism and recreation in suburban zones of major polish cities, *Prace Geograficzne*, 111: 105-127.
- Faracik R., 2008, Turystyka podmiejska, in: W. Kurek (ed.), *Turystyka*, Warszawa: Wydawnictwo Naukowe PWN, 328-330.
- Iwicki S., 2002, Przyrodnicze i ekonomiczne uwarunkowania rozwoju rekreacji w strefach podmiejskich dużych miast, *Zeszyty Naukowe Wyższej Pomorskiej Szkoły Turystyki i Hotelarstwa w Bydgoszczy*, 2: 121-130.
- Kaczmarek T., Mikuła Ł. (eds.), 2016, Koncepcja kierunków rozwoju przestrzennego metropolii Poznań, Poznań: Centrum Badan Metropolitarnych Uniwersytet im. Adama Mickiewicza w Poznaniu.
- Kiptenko V., Lyubitsewa O., Malska M., Rutynskyi M., Zan'ko Yu., Zinko Yu., 2017, Geography of tourism of the Ukraine, in: K. Widawski, J. Wyrzykowski (eds.), *Geo-*

- graphy of tourism of Central and Eastern Europe countries, 2nd ed., Basel: Springer International Publishing AG, 509-551.
- Kurek W., Mika M., 2008, Turystyczne jednostki przsestrzenne, in: W. Kurek (ed.), *Turystyka*, Warszawa: Wydawnictwo Naukowe PWN, 27-30.
- Kuzyk S., 2018, Osnovy regionalizacii turyzmu, in: D. Kadnichanskiy (ed.), Geografia, ekonomika i turyzm: nacionalnyi i mizhnarodnyi dosvid, Lviv, 171-177.
- Liszewski S., 1995, Przestrzeń turystyczna, Turyzm, 5(2): 87-103.
- Liszewski S., 2003, Region turystyczny, Turyzm, 13(1): 43-54.
- Liszewski S., 2005, Koncepcje zintegrowanych badań nad turystyką, in: B. Domański, S. Skiba (eds.), *Geografia i sacrum*, vol. 2, Kraków: IGiGP UJ, 105-113.
- Lozynskiy R., Kostiuk I., 2011, Suchasni mezhi Lvivskoyi miskoyi aglomeracii, Naukovi zapysky Ternopilskogo nacionalnogo pedagogichnogo universytetu im. Volodymyra Gnatiuka, Seriya: Geografia, 2: 55-60.
- Makowska-Iskierka M., 2009, Procesy urbanizacyjne na terenach turystyczno-wypoczynkowych strefy podmiejskiej Łodzi (koncepcja pracy doktorskiej), Prace Geograficzne, 121: 117-224.
- Makowska-Iskierka M., 2013, Konsekwencje przestrzenno-fizjonomiczne urbanizacji turystycznej w Łódzkim Obszarze Metropolitalnym, *Turyzm*, 23(2): 35-45.
- Matczak A., Płoński A., 2008, Badania turystyki miejskiej w Wielkiej Brytanii, in: A. Matczak (ed.), *Turystyka miejska*, Bydgoszcz: Wydawnictwo Uczelniane WSG.
- Mika M., 2008, Turystyka miejska, in: W. Kurek (ed.) *Turystyka*, Warszawa: Wydawnictwo Naukowe PWN, 319-328.
- Natalenko N. (ed.), 2017, Aglomeracii: mizhnarodnyi dosvid, tendencii, vysnovky dla Ukrainy. Analitychna zapyska, Kyiv: Instytut gromadianskogo suspilstva.
- Pandiak I., 2018, Stalyi rozvytok hotelnoyi industrii, Naukovyi visnyk Hersonskogo derzhavnogo universytetu. Seriya geograf. nauk, 8: 276-281.
- Publichnyi zvit Upravlinnia turyzmu ta LKP "Centr rozvytku turyzmu m. Lvova", 2019, Lvivska miska Rada, https://city-adm.lviv.ua/lmrdownloads/zvitturyzm2019.pdf [accessed: 23.11.2019].
- Shabliy O. (ed.), 2012, Lviv: kompleksnyi atlas, Kyiv: DNVP "Kartografia".
- Shema planuvannia terytorii Lvivskoyi oblasti do 2031 roku, 2009, Kyiv: Ukrainskiy derzhavnyi naukovo-doslidnyi instytut proektuvannia mist "Dipromisto".
- Zamelska M., Kaczor B., 2017, Social and geographical conditions influencing tourist and recreational migrations of inhabitants of the Poznań Metropolis, *Studia Periegetica*, 4(20): 87-109.
- Zinko Yu., Malska M., Mandiuk N., 2009, Model terytorialnoji organizacii sanatorno-kurotnoji ta rekreacijno-turystychnoji galuzi Lvivshchyny do 2031 roku, in: M. Malska (ed.), Geografia i turyzm: europejskiy dosvid, Lviv, 442-449.
- Żabińska T., 2013, Turystyka w dużych miastach i metropoliach. Wybrane problemy rozwoju i zarządzania, in: T. Żabińska (ed.), Studia Ekonomiczne. Zeszyty Naukowe Wydziałowe Uniwersytetu Ekonomicznego w Katowicach, 147: 133-153.
- Żemła M., 2011, Rola mieszkańców w budowie produktu obszaru recepcji turystycznej przyczynek do dyskusji, *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 157: 1072-1081.

Regionalizacja turystyczno-rekreacyjna metropolii lwowskiej

Streszczenie. W artykule wzięto pod uwagę metodologię i metody badania sfery turystyczno-rekreacyjnej aglomeracji miejskich, także w wymiarze terytorialnym. Na mapie ukazano rozwój regionalny gospodarki turystyczno-rekreacyjnej metropolii lwowskiej, z uwzględnieniem jej stref funkcjonalno-ekonomicznych. Na tej podstawie wybrano istniejące i potencjalne kompleksy turystyczno-rekreacyjne oraz punkty turystyczne (obszary turystyczne) w strefach funkcjonalnych metropolii – miejskiej, podmiejskiej i peryferyjnej. Zaproponowano formy aktywności i usługi turystyczne (produkty), które mogą być wykorzystane przez władze lokalne i innych interesariuszy. Autorzy argumentują, że przy wdrażaniu reformy administracyjno-terytorialnej w metropolii lwowskiej należy mieć na uwadze regionalizację turystyczno-rekreacyjną. Dla regionalizacji sfery turystyczno-rekreacyjnej metropolii szczególnie ważne jest opracowanie standardowego zestawu jednostek przestrzennych i kryteriów ich alokacji, z uwzględnieniem specyfiki rozwoju turystyki miejskiej i podmiejskiej na tych obszarach.

Słowa kluczowe: aglomeracja, turystyka, rekreacja, strefy funkcjonalne, ośrodki turystyczne, miejsca o charakterze turystycznym