## Doctoral School of Earth Sciences Main theses of PhD dissertation

# An examination of the geographical features of canoe tourism in Hungarian rivers

Donka Attila

UNIVERSITY OF PÉCS
Faculty of Sciences
Pécs, 2022

#### 1. Introduction

According to one method in order to minimalize conflicts generated by tourism it is good to not only provide experiences to the tourists themselves, but to make tourism an experience for the receptive region and its inhabitants as well. This "experience" is primarily manifesting in material gains. If the income generated by tourism is not transferred away, but stays locally, it strengthens the local economy and community. Even though all segments of tourism have geographical features, this experience I mentioned first is mainly of an economical nature. My inquiries stem from another kind of experience though. Activities performed by tourists can match the needs of the local populace in case of certain touristic products. Recreation, i.e. the physical and mental recuperation of a human being first extends to everyday activities, thus happens in the area of residence, and secondly happens in foreign areas. Recreation combined with the thrills of a new area ready for discovery is usually the main drive of tourism itself. I believe it is necessary to examine a touristic activity which is primarily a leisure-recreational activity in nature, in which the geographical environment plays a pivotal role; with the primary goal to determine whether it is worthwhile to construct a separate touristic product out if such an activity.

Paddle tour (mostly used as canoe trips and canoe tourism<sup>1</sup>, but also includes kayak tourism) as a sport only weakly links to touristic services and is only of a small material value to the tourism sector. Probably this is the reason for it being an under researched field. Earlier research either looks at the sports and mainly the competitive sports side or only examines the recreational side without looking at the touristic features. In spite of all this, the activity is actively present in tourism in a way that through it we can examine numerous problems of tourism, because even though it has serious touristic potential, it did not develop dynamically as one could have assumed based on the favourable qualities it enjoys since decades.

There is a growing demand for certain touristic activities in Hungary, but services cannot always fulfil these demands. The novelty factor of the thesis lies in the fact that it tries to find a synthesis between the different geographical aspects of canoe tourism while it also examines it through the lens of leisure sport and its general role in tourism in order to transform it into a valuable touristic product.

## 2. GOALS

The research that serves as a basis for this thesis had the aim to determine whether canoe tourism is able (or can we enable it) to be transformed into a separate and stable touristic product in the Hungarian market based on its geographical traits. Due to this we have examined the traits and their exploitation by casting a look at active tourism in the wider sense. The primary field of exploring these traits is the examination of the natural

<sup>&</sup>lt;sup>1</sup> The use of the term canoe tourism is widespread in the international scientific literature so it will be used in the dissertation.

environmental features, factoring in the special needs of canoe tourism. In connection with this, putting spacial concerns in the centre, we evaluated the infrastructural features which are unique attributes of canoe tourism, including services on offer and further possibilities contained within them.

For my research, since we only have very limited research in this field available, I was also trying to find a place for canoe tourism in the taxonomy as well. This also included the exploration of interconnections stemming from the development history of the field. This way the misunderstandings could be avoided, which nowadays appear during services and in the scientific papers as well.

Furthermore, the aim of the research was to explore the necessary attributes, and the possible links between them, while also finding a sustainable cohesion towards recreational activities. While exploring the situation I wanted to also have a look at the different approaches of geography and economics, and also at the current situation and trends in active tourism and cance tourism.

## 3. METHODS

It became clear during the *study of the literature* of the field that there is only a relatively little number of sources which examine canoe tourism with diligent science. To build a basis for the thesis, the relevant scientific research of active tourism and canoe tourism was thoroughly explored.

It was necessary to explore the wider *legal environment*, which influences the field; apart from the touristic features a special care was given to the legal framework of transportation and education as well as to the relevant *developmental documentation*.

My research was primarily concentrating on exploring the attributes, and for this it was necessary to analyse current tourist traffic data. Up to this point in Hungary it was not customary to publish traffic numbers of individual attractions, thus I tried to explore the size of the clientele of the products relevant to our interest not only through direct accommodation statistics, but also through indirect means.

Data analysis also included an exploration of the hydrographic traits of water bodies and *weather* elements that are important in connection with canoe tourism.

Field examinations provided the basis for primary research. This includes not only the examination of basic geographical features of target areas, but also the defining traits of individual water bodies, sailing conditions, the connection of shoreline settlements towards the water and other features as well. Exploring these also led to the growing accuracy of the research data. Examining the presence of services and the activities of service providers also necessitated field research.

Field examinations took place in more than one turn from 1992 onwards. The first scientific examinations took place between 1994 and 1999, followed by another set of examinations partly leading to different geographical areas between 2001 and 2004. The third stage of field work began in 2014.

Apart from field research, current and former key players in canoe tourism were interviewed to provide a scientific basis for the results gained by the aforementioned

other methods. The interviewees were either in leading positions in country-wide organizations, or leaders or workers of service provider companies and associations, or tourism officers of different national parks, or accommodation providers, or members of the local administration.

A *survey of the services provided* also took place. This is partly based upon the interviews, and partly upon the *market presence* of the organizations.

#### 4. RESULTS OF THE RESEARCH

#### I. Results on the framework of canoe tourism

- Aquatic trips constitute a special part of canoe tourism, yet it is better to consider them to be a part of active sports tourism due to their similarities with other such touristic product in this category. Comparative studies have shown that similarly to other active touristic products this activity can produce much more income even if parallel to it there remain public services on the market as well.
- 2. The decades-long sports movement past and its characteristics defined the approach of the actors, especially on the service providers part that these characteristics are still present in canoe tourism today.
- There are many elements missing to make canoe tourism a valid touristic product.
   These elements primarily include a high quality infrastructure and complex services.
- 4. A modern basic infrastructure for canoe tourism is currently under development with the state taking part. Two factors constitute a risk: the basic infrastructural elements currently in development are not being established in a network-like fashion, and the cooperation between service providers in the market and local administrative actors with an interest in the development seems to be rather lacking.
- 5. Legal background is insufficient; there is a need for more accurate rules in which sports, tourism, transportation and their safety aspects all play a balanced role.

#### II. Result concerning target areas

Since natural environment serving as a basis for canoe tourism can be considered rather constant in long term, they were the primary focus of these observations together with an analysis of the shoreline settlement locations and the evaluation of accommodation close to the water. Through these we get a thorough picture of the location of potential target areas, as well as of the special attributes of each of these target regions.

Touristic usefulness is basically determined by hydrographic features. These are: speed of water, streambed width, water depth, number of bends, closeness to nature of the shores, currents and the surface coverage by plants. The result of examining these determined the eligibility for canoe tourism of individual canoe tourism according to the features (Figure 1).

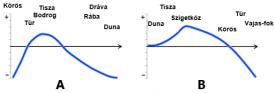


Figure 1.

The eligibility of rivers for canoe tourism shown according to the speed of water (A) and the plant coverage levels of the water surface (B), with relative values of some Hungarian bodies of water

Number of bends is determined by the sinuosity factor. The experience of the tourists in canoe tourism is not only dependent upon the speed of the water, thus I felt the necessity to introduce a new indicator. The indicator of diversity I have established incorporates sinuosity, average water speed and the speed attainable with a sports tool:

$$D = \frac{B}{L} \times (V_W + S_C)$$
, in wich elements are:

D (diversity): indicator of diversity based upon the course of the river (measurement unit: bend/hour),

B (bend): number of bends,

*L* (*length*): length of the examined river(course),

Vw (velocity of water): mean current velocity,

Sc (speed of canoe or kayak): speed of the water sport craft.

The rivers were evaluated according to the diversity indicator (Figure 2).

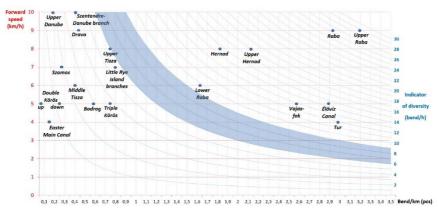
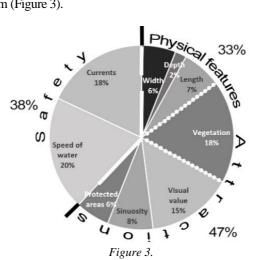


Figure 2.

A comparison of diversity indices of rivers in Hungary (by A. Donka)

I determined the hydrographical prerequisites of canoe tourism by using a weighting scale value system (Figure 3).



Weighted values of the natural features of rivers in connection with canoe tourism

Quantitative research based on the hydrographical qualities provided us with values showing the suitability of rivers for canoe tourism (Figure 4).

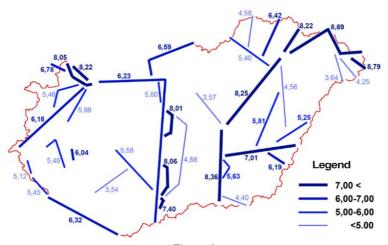


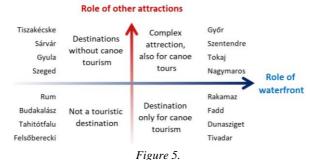
Figure 4.

The results of the quantitative research examining the effect of hydrographic features of rivers and river courses which are eligible for canoe tourism on canoe tourism itself

- 1. The numeric results of the natural features shows a strong parallel with the water bodies already in use by canoe tourism, which further prove the assertion that the defining factors are not of a social nature in canoe tourism.
- The regions where natural qualities were suitable for them to become popular, frequented destinations for canoe tourism did in the meantime establish basic infrastructural prerequisites.
- 3. Social attributes in some of the regions do not favour tourism, yet in the case of canoe tourism the attractiveness of natural elements usually overwrites this and tourists appear on these rivers as well.
- 4. The total length of the water courses where tourism is theoretically possible is 4117 km long. Taking natural features into account, the total length suitable for canoe tourism is 3050 km (74%).
- 5. River courses which already developed canoe tourism make up for 2555 km. River courses with a potential for larger traffic make up for 318 km, while those with a potential for smaller traffic make up for 177 km. Since the natural features of the latter one are adequate, these are highly suitable for further development.
- According to the numerical evaluation the river courses with the best values in Hungary make up for 1231 km in total, on 13 different rivers. Rivers with lower ratings also have canoe tourism traffic though.
- 7. Current destinations are in many cases very crowded. Research however found new potential target areas too. Guest prefer the water bodies with a smaller traffic, yet tourists show only meagre interest in newly found destinations. We can summarise the question of adding to the target areas by stating: the addition of newer target areas can only be met favourably if current popular destinations already offer canoe tourism as a valid tourism product.
- 8. Service infrastructure (or the lack thereof) next to the rivers is the greatest obstacle in turning canoe tourism into a touristic product. In many cases the settlements themselves have a good attitude towards canoe tourism, yet an open-minded, developing settlement is not enough, since touring is linear service without services along the whole course the destination itself is not attractive. Settlements leading the way can affect others, but they still might be seriously lagging behind, thus worsening the reception of the whole river on the market.

### III. The receptiveness of settlements

 Earlier canoe tourism only meant wild camping or camping where it was possible, but the demand for better accommodation arose since; tourists are attracted by higher quality services as well. It is not clear yet however, if an accommodation service can live only off canoe tourism, so settlements and accommodation service providers must also offer other products, leading to the complexity of offered services, since they can sell other touristic products to canoe tourism as well. 2. The examination of shoreline settlements leads to a standardisation in connection with the shore itself and with canoe tourism. According to these, shoreline settlements can be put into four groups (Figure 5).



A standardisation according to the relation of settlements towards the shoreline

### IV. Conclusions regarding service providers

- The majority of service providers have their roots in the movements era, before
  the fall of socialism. This does not affect service quality, but does affect elements
  in their viewpoints. Even if they put emphasis on economic points following their
  self-interests, they often lack a service provider viewpoint, a certain client-centric
  thinking.
- 2. Service providers are still characterised by a duality. Apart from service providers who clearly live off the market, there is still a great number of communities, associations, which also mainly perform activities on the market, but due to the viewpoints of the old system, they believe it better if their non-profit face is in the foreground. There is a vast difference between the majority that simply offers sport services and some tourist agents too (Figure 6).



Types of canoe tourism service providers according to the nature of their activities

#### V. The supply side

Apart from physical constraints there are no other defining factors in the reason why canoe tourism does not spread to certain rivers. The lack of touristic infrastructure does not stop canoe tourism to appear on a river, even despite the fact that in order for canoe tourism to become a true, economically sustainable touristic product quality services are necessary. Thus, it is imperative while turning canoe tourism into a touristic product to show local communities the opportunities which make this natural and therefore sustainable kind of tourism achievable primarily by exploring the natural values. Furthermore, the touristic expertise of the destinations and the experiences of service providers have to be integrated.

### VI. The duality of demand – Results laying the foundation for further research

Research concerning demand can be summarised like this.

- 1. The quantitative examination of demand can only be done indirectly.
- Classic canoe tourists have not too many demands. Time spent in nature and the feelings associated with this play the major role in their decisions. So they primarily do wild camping and do not necessarily require other services, but are rather price sensitive.
- 3. Newly appearing segments (adapting to the dynamic growth of other fields in active tourism) demand complex services and are ready to pay more to get them. Renting sports tools is not enough for them, and they usually want to buy quality accommodation, food and other additional elements meaning a travel package.
- 4. Tour length also shows demand well. Earlier, until the end of the 1990 longer tours of 10-14 days were typical, but this changed until the end of the 2000s to one week long tours. Nowadays the typical tour is even shorter, takes 2-4 days or only just one day which is easier to fit into a weekend. This process of becoming shorter is in harmony with the global trends of tourism, the ever quicker lifestyle and especially with the arrival of new segments with less specialised interests.
- 5. Due to the strong dependence on nature, seasonality is a strong factor, but there is a growing demand for special destinations of the winter season as well. But since there is only one such canoe tourism destination in Hungary, seasonal traffic means a great strain for this creek.

#### List of publications on this topic

- 1. DONKA A.-GYURICZA L. (accepted for publication): *A method to assess the suitability of lowland rivers for paddle tours*. Regional Statistics, 17 p.
- DONKA A. 2021: Tömegturizmus és nemzeti park Egy világörökség helyszín kínálata Liguriában. Folytatás vagy újrakezdés a turizmusban, XII. Nemzetközi Turizmus Konferencia, Absztrakt füzet, Széchenyi Egyetem, Kautz Gyula Gazdaságtudományi Kar Turizmus Tanszék, Győr, p. 5.
- DONKA A.-GYURICZA L. 2021: A hazai lassú turizmus esélyei a gyorsuló világban. X. Magyar Földrajzi Konferencia absztrakt kötete, Eötvös Loránd Tudományegyetem Természettudományi Kar, Budapest, p. 102.
- 4. DONKA A. 2021: *A lassú turizmus szemlélet megjelenése a vidéki aktív turizmusban*. In: GONDA T. (szerk.): A vidéki örökségi értékek szerepe az identitás erősítésében, a turizmus- és vidékfejlesztésben. Orfúi Turisztikai Egyesület, Orfú, pp. 169–177.
- DONKA A. 2018: A szerepek változása az aktív turizmus fejlesztésében. In: Reisinger A. et al. (szerk.): "Sport Gazdaság Turizmus" Kautz Konferencia Emlékkonferencia tanulmánykötete, Széchenyi István Egyetem, Győr. Elektronikus formában megjelent kötet. 11 p.
- 6. DONKA A.-GYURICZA L. 2017: *Az állam szerepe az aktív turizmus fejlesztésében.* Polgári Szemle, 13. évf. 1-3. sz. pp. 176–187.
- DONKA A. 2017: A biztonság mint szolgáltatási elem az aktív turizmusban. In: NÉ-METH K. et al. (szerk.): II. Turizmus és Biztonság Nemzetközi Konferencia Absztrakt kötete. Pannon Egyetem, Nagykanizsa. p. 21.
- 8. GYURICZA L.–DONKA A. 2016: *Az állam szerepe a jelenlegi aktív turisztikai fejlesztésekben Magyarországon*. In: VERES L.–HARTL M. (szerk.): Társadalmi–gazdasági kohézió a Kárpát-medence határmenti térségeiben. Nemzetközi tudományos konferencia absztrakt füzete. p. 15.
- DONKA A. 2016: Az aktív turizmus és az egészségturizmus kapcsolata Verhältnisse unter dem Aktivtourismus und Gesundheitstourismus. In: TURCSÁN J. (szerk.): Tudomány – Egészség – Turizmus – Társadalom: Nemzetközi Hét a tudomány jegvében. Gyula, pp. 14–15.
- DONKA A. 2016: A hazai vízitúrázás történeti alakulásának vizsgálata. START folyóirat, 1. évf. 2. sz. pp. 33–49.
- 11. DÖVÉNYI Z.–DONKA A. (szerk.) 2013: *A geográfia változó arcai*. Acta Pannonica Nova 14. kötet, Pécs, 230 p. (11 ív)
- 12. DONKA A. 2013: *The effect of urban geography factors on water tourism.* In: DÖ-VÉNYI Z.—DONKA A. (szerk.): A geográfia változó arcai. Acta Pannonica Nova 14. kötet, Pécs, pp. 189–197.
- 13. DONKA A.—GILA CS. 2013: *Kísérlet az Élővíz-csatorna víziturisztikai értékelésére*. Modern Geográfia, VIII. évf. 4. sz., pp. 9–32.
- DONKA A. 2012: A vízitúrázás célterületeinek természeti szempontú értékelése. Természetföldrajzi Közlemények a Pécsi Tudományegyetem Földrajzi Intézetéből. Pécs. pp. 3–40.

- DONKA A. 2012: A vízitúrázás gazdasági hatásai a folyó menti településeken. Kitekintés Perspective, XVI. évf. 18. sz., Szent István Egyetem Gazdasági, Agrárés Egészségtudományi Kar, Békéscsaba. pp. 253–258.
- DONKA A. 2012: A vízitúrázás célterületeinek differenciált vizsgálata. In: Lő-RINCZ I. (szerk.): A gazdasági és társadalmi átalakulás perspektívái Magyarországon. Nyugat-magyarországi Egyetem Apáczai Csere János Kar, Győr. pp. 62–69.
- 17. DONKA A. 2012: A víziturizmus speciális formája Kelet-Európában A vízitúrázás, mint turisztikai termék. In: BERGHAUER S. et al. (szerk.): Társadalomföldrajzi kihívások a XXI. század Kelet-Közép-Európájában. pp. 166–172.
- DONKA A. 2012: Szabadidősportból turisztikai termék a vízitúrázás átalakulása.
   In: MAJOROS P. (szerk.): Útkeresés és növekedés. BGF Tudományos Évkönyv,
   Budapesti Gazdasági Főiskola, Budapest, pp. 279–287.
- 19. DONKA A. 2012: *A folyók szerepe a turizmusfejlesztésben*. In: NYÁRI D. (szerk.): Kockázat Konfliktus Kihívás. Tanulmánykötet. Szeged, pp. 181–193.
- 20. DONKA A. 2012: *Szabadidősportból turisztikai termék a vízitúrázás átalakulása*. In: MAJOROS P. (szerk.): Útkeresés és növekedés konferencia, Budapesti Gazdasági Főiskola, Budapest, Elektronikus kiadvány, p. 142. Absztrakt
- 21. DONKA A. 2012: *A folyók szerepe a turizmusfejlesztésben*. In: BLANKA V. (szerk.): Kockázat Konfliktus Kihívás. Absztraktkötet. Szeged, p. 38. Absztrakt
- DONKA A. 2012: Túrázás vagy turizmus: A természetjárás értékmegőrző szerepe.
   In: XVI. Apáczai-napok Tudományos Konferencia: Szolidaritás és párbeszéd a nemzedékek között. Nyugat-magyarországi Egyetem Apáczai Csere János Kar, Győr. p. 10. Absztrakt
- 23. DONKA A. 2011: A turizmus a vidéki területek fejlődésében: A vízparti települések és a víziturizmus kapcsolatának vizsgálata. In: NFA Füzetek, 2. sz., pp. 88–93.
- 24. DONKA A. 2011: Sportmozgalomból turisztikai termék. A vízitúrázás társadalmi hasznossága. Magyar Edző XIV. évf. 3. sz. p. 55. Absztrakt
- DONKA A. 2011: Gondolatok a víziturizmus településföldrajzi aspektusairól. A Turizmus Ünnepe Nemzetközi Konferencia. Pécsi Tudományegyetem Illyés Gyula Kar, Szekszárd, pp. 10–18.
- 26. DONKA A. 2011: Érdekek és értékek A termékké válás nehézségei a vízitúrázásban. In: SMITH, M. (ed.): Responsible Tourism Responsible Tourist Conference, Budapest Business School College of Commerce, Catering and Tourism, Budapest, DVD. p. 11. Absztrakt
- DONKA A. 2011: Research of the touristic potential at the borderland of the EU Supply and demand in the Upper-Tisza Region. Pangeea. 2011/11. Environmental Department "1 Decembrie 1918" University of Alba Iulia, Gyulafehérvár. pp. 15– 23.
- 28. BALOGH F. 2004: *Magyarország. Országismeret*. Kereskedelmi és Idegenforgalmi Továbbképző Kft., Budapest, 404 p. Alkotó szerkesztő: DONKA Attila
- 29. DONKA A.-GYURICZA L. 2004: Geomorfológiai értékek a turizmusban. In: DOBOS A.-ILYÉS Z. (szerk.): *Földtani és felszínalaktani értékek védelme*. Eger, pp. 223–239.