# Tourist typology research in protected areas

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## Abstract

Nature tourism is both a dynamic and heterogeneous phenomenon and causes new challenges for protected areas. Therefore, marketing becomes increasingly important for protected areas. A theoretical consideration analyses some nature tourist segmentation approaches to discuss the practicability and benefits of this marketing method for tourism management in protected areas. The necessary connection between tourist segmentation and tourism-impact research is highlighted by a suggested tourist typology.

## Keywords

nature-based tourism, tourist segmentation, tourist typology

## Introduction

The tourism demand is in constant change, as it is shown by the steady rise of international tourist arrivals, the emergence of new destinations and source markets (UNWTO 2012) and the appearance of new tourism trends. Acknowledged by many authors (e.g. COCHRANE 2006; STRASDAS 2001) the experience of nature during leisure time and holidays becomes more important. Due to this demand natural settings and protected areas are attractive tourism destinations (HAWKINS & LAMOUREUX 2001). The rising use of protected areas by tourists is expected to continue in the future (EAGLES 2007). International designations like „World Heritage" or „National Park" are seen as positively occupied trademarks. Therefore, they are of special interest for travellers (EAGLES 2007; JOB & WOLTERING 2009). Heterogeneous as tourists in general, the visitors of protected areas are a multifaceted demand type (ARNEGGER et al. 2010; WIGHT 2001). That tourism can have negative impacts, especially on the environment is undeniable. Whether outdoor activities cause environmental damage depends on various factors like intensity of use, carrying capacity, form of activity, behaviour of the individuals and tourism management (JOB & VOGT 2007; STRASDAS 2006).

To develop an ecologically sustainable tourism management that meets the needs of nature conservation as well as of tourism it is necessary to obtain information about the visitors. Thus, marketing - in the sense of market research - is very important for protected areas. This paper treats the segmentation method with respect to segmentation designs and segmentation criteria in order to discuss its practicability and usefulness as a marketing tool for tourism management in protected areas, and its contribution to tourism-impact research.

## Investigation design

The heterogeneity of tourism demand makes market segmentation a useful marketing tool for tourism management (HALLERBACH 2007; DOLNICAR 2002). There are two basic segmentation approaches, the a priori (commonsense) and the data-driven (a posteriori, post-hoc) segmentation. A priori segmentation is where the grouping criteria are known in advance or are specified beforehand. Data-driven segmentation, however, in order to derive a grouping, applies quantitative techniques of data analysis to an empirical data set (DOLNICAR 2002; UNWTO 2007). Typologies are conceptual, multidimensional segmentation approaches (DOLNICAR 2002). Data segmentation based on a typology may be regarded as a priori segmentation. Commonly used grouping criteria are demographic (age, gender, education), geographic (location of residence), psychographic (benefits, attitudes, values), and behavioural variables (UNWTO 2007).

The trend towards experiencing nature in leisure time and holidays can be considered as a sub-segment of tourism. For this sub-segment the different terms "nature(-based) tourism", "ecotourism" and "sustainable tourism" exist. There is no general agreement about the meanings of these terms. Referring to STRASDAS (2001; 2006), nature or nature-based tourism is "a form of travel to natural areas where nature is a key motivation of the tourist." The definitions of sustainable tourism and ecotourism describe not only the form of tourism but also imply effects of these tourism types. Sustainable tourism is tourism that meets the principles of sustainability (contribution to economic, ecological, social and infrastructural development), and ecotourism can be interpreted as sustainable nature tourism. STRASDAS (2001; 2006) claims tourists being ecological aware and interested in educational elements is not a criterion for ecotourism because the impacts of tourism depend also on management strategies. He considers sustainable and ecotourism more as a concept than a demand type.

To implement sustainable tourism in protected areas, detailed data on the visitors are necessary. It is important to gain information on all visitors, which means that protected areas have to consider the sub-segment of nature tourism. This way no useful information will be lost, especially regarding to the impacts of visitors.

As protected area visitors are a heterogeneous group, nature tourist segmentation in protected areas is a crucial marketing instrument to explore the demand structure. Due to the change of tourism market from producer to consumer market and multi-layered tourists, segmentation has become a complex task (ARNEGGER et al. 2010; HALLERBACH 2007). Traditionally used segmentation variables, like geographical or socio-demographical ones, are not sufficient anymore. Qualitative characteristics (e.g. motivation, attitude and activities) additionally should be used to segment nature tourism demand (HALLERBACH 2007; STRASDAS 2001).

In the following some segmentation concepts are consulted in order to discuss the different segmentation designs and the used segmentation criteria with respect to their practicability and usefulness as a marketing tool for protected areas. For that matter, it was not the purpose to draw a complete picture of existing approaches; rather the concepts were used as the discussion basis. The consideration starts by a brief description of the segmentations, continues with the discussion on practicability and usefulness for protected area management and eventually ends in a suggestion of a new typology approach.

## Nature-based tourist segmentations

STRASDAS (2006) presents a segmentation that refers to Western European and North American nature-based tourists. He distinguishes six groups according to the tourists' commitment to ecology. To describe the categories five items (main interest, importance of intact nature, demands on guides, standards of comfort and quantitative demand potential) were used.

FENNELL (2001) discusses the areas and needs in ecotourism research and, amongst others, he points out the research dealing with the benefits attained through leisure activities. He highlights the recreation experience preference (REP) approach. REP scales are useful instruments to separate different kinds of nature tourism from each other.

ZIENER's (2001) investigation in five German national parks and biosphere reserves identified six groups with regard to visitors' activities. In her research she discusses the correlation between the recreational types and the interest in nature and nature conservation. Additionally she surveyed the tourists' estimation on conservation measures.

COCHRANE (2006) worked out a tourist typology to protected areas based on qualitative field research, mainly conducted in developing countries. To stereotype the visitors she uses demographic and behavioural characteristics and visitors' preferences for facilities and experiences. She argues that the perception of nature and attitude towards nature depend, amongst other reasons, on the tourist's cultural and social background. To highlight the differences between national and international visitors, she developed a seven-scale typology for international and a six-scale typology for domestic nature tourists.

The theoretical framework "a product-based typology for nature-based tourism" of ARNEGGER et al. (2010) is a product-oriented classification that uses a two-dimensional matrix for categorisation. The first dimension mirrors the relevance of nature for tourists. Four classes show whether nature is subject of participation (e.g. active participation in nature protecting programs), subject of interest, backdrop for activities, or only has a secondary background function. The second dimension shows "the degree of individuality inherent in service arrangements" (ARNEGGER et al. 2010). The four classes are called "independent", "á la carte", "customized" and "fully standardized".

SÆÞÓRSDÓTTIR (2010) investigates nature tourists in different nature destinations in Iceland. She classifies the tourists according to their nature- and service-orientation by using the so-called Purist Scale, consisting of the four groups "strong purists", "moderate purists", "neutralists" and "non-purists". She argues that with this typology (showing how close to nature the visitors are) in conjunction with the model of Recreation Opportunity Spectrum (showing how close to nature the areas are) and the concept of carrying capacity (showing the limits of tourism use in an area) a useful tourism management tool is given.

The research of ZOGRAFOS & ALLCROFT (2007) employs market segmentation to explore the potential ecotourism market in Scotland. They investigate how the individuals' environmental values influence the demand for ecotourism. Using the New Ecological Paradigm they identified four segments ranging from anthropocentric to ecocentric values. The research results show that anthropo- and ecocentric individuals have a similar understanding of ecotourism that not only ecocentric people are interested in ecotourism activities and that the four identified tourist types have different trip characteristics.

## Practical use of tourist segmentations for protected areas

Tourist segmentations can in different ways be useful for tourism management in protected areas. The practicability and benefits of segmentations depend partly on the chosen segmentation method.

The above mentioned concepts are (excluding the approach of ZOGRAFOS & ALLCROFT (2007), the REP approach and the Purist Scale) a priori segmentations as they treat the sub-segment of nature tourism or focus on visitors of special areas (DOLNICAR 2004). The segmentation of the potential ecotourism market in Scotland (ZOGRAFOS & ALLCROFT 2007) is pure data-driven as it analyses the entire Scottish tourism market. Segmentations like that can be understood as a planning tool because by characterising a potential demand structure needs can be identified, and the following implementation can be aligned accordingly. Potential visitor segmentation is also useful for sales policy. The Purist Scale and the REP approach, not exclusively designed for nature tourism, are a priori segmentations because the grouping criteria are pre-judged. The concept of ARNEGGER et al. (2010) is in two ways a commonsense segmentation; it refers to nature tourism and the grouping criteria are specified beforehand.

A priori segmentation with fixed limits of each category is a suitable instrument to compare tourist types in different regions or settings (SÆPÓRSDÓTTIR 2010). The advantage of data-driven segmentation is that the classification process may consider site-specific factors, whereas a priori segmentation has to stick to the predefined variables. Thus, the classification criteria must be chosen wisely. Referring to the process of segmentation, DOLNICAR & GRUN (2011) acknowledge commonsense segmentation as the simpler method because there are no methodological traps.

To what extent segmentations give insights into tourism demand that are relevant for tourism management in protected areas depend on the selected classification criteria.

Segmenting tourists according to their practised activities (=behavioural variable), like ZIENER (2001), "may be seen as an essential accounting procedure for tracking, maintaining or improving a destination's tourism performance" (UNWTO 2007). Knowing the activities practiced by tourists in protected areas, it is possible to draw conclusions about how nature is used. Approaches that segment tourists according to the value the tourists assign to nature during their stay (=psychographic variable), like the concepts of STRASDAS (2006) and ARNEGGER et al. (2010), can add further information how nature is stressed by tourism. Segmentations based on psychographic variables are also valuable to show whether the tourism demand is consistent with the preconditions of an area, as is shown by the research of SÆPÓRSDÓTTIR (2010) who with the Purist Scale engaged a benefit segmentation. Benefit segmentations like that or the REP approach, allow to identify that visitors of one and the same destination or apparently homogenous segments may in reality be different benefit seekers (UNWTO 2007). Classification based on geo-demographical variables is also a kind of psychographic segmentation, as it is assumed that people of the same origin may share similar characteristics and also may have similar consumption patterns (UNWTO 2007). Being attractive destinations for international tourism, protected areas should distinguish national and international tourism demand, like COCHRANE (2006) did. ARNEGGER et al.'s (2010) approach in the second dimension segments tourists based on trip patterns (=behavioural variable). According to UNWTO (2007) "trip structures and patterns form the heart of the tourism experience." Knowing the frame conditions of tourists' trip patterns, can help to reveal the starting point for tourism management strategies.

Segmentations may be used differently for tourism management in protected areas, they may hold planning, promotional, inventory or monitoring functions. ZIENER (2001) acknowledges that tourist typifications in protected areas should focus primarily on two aspects: (i) activity specific use-requirements on the area (ii) ecological impacts of outdoor activities. Generally spoken, tourist segmentations can be considered as an interface between research and practice. Thereby segmentations should be as complex as necessary and as practical as possible (ARNEGGER et al. 2010).

## An approach to discuss

Due to the sought practicability and the claim of ZIENER (2001) an a priori segmentation is proposed which includes the consideration of tourism impacts. It is suggested to employ the "product-based typology for nature-based tourism" (ARNEGGER et al. 2010) to show how visitors "consume nature" and how they organise their trips. To draw conclusions about the impacts, the four "nature-consumption groups" shall be further subdivided according to whether the tourists comply with conservation measures. Since eight groups for one dimension is a lot, the groups shall be reorganised to maintain the four groups. The groups of this dimension shall be labelled "true ecotourist" (interested and engaged in nature (protection), compliance with the measures), "pretended ecotourist" (interested and engaged in nature (protection), no compliance with the measures), "hidden nature sound tourist" (not or barely interested in nature, compliance with the measures) and "anti-ecotourist" (not or barely interested in nature, no compliance with the measures). Agreeing in COCHRANE's opinion (2006) about the correlation between cultural/social background and the attitude towards nature, it is suggested to observe domestic and international tourists separately. Additionally, it is considered reasonable to distinguish the local from the domestic tourists. Empirical testing of this approach is needed to decide whether this approach is as complex as necessary and as practical as possible.

## Conclusion

Tourist segmentation is an essential marketing tool for protected areas due to the heterogeneous nature tourism demand. Tourist segmentations offer the opportunity to illustrate the demand side in a compacted manner. In addition to a target-oriented identification of the tourism demand, segmentation can be used for monitoring, sales policy or planning processes. In combination with approaches such as the carrying capacity, or by selecting appropriate classification criteria tourist segmentations can contribute to tourism-impact research. Tourism use-requirements and ecological impacts of tourism are of particular interest for protected areas. This should be considered for the development of a tourist typology for protected areas.

The proposed typology offers an approach that is easy in application, and with the treatment of tourists' compliance with conservation measures it joins tourism-impact research. The empirical testing of this approach in different kinds of protected areas and different countries is needed to figure out whether this typology is a practicable, international valuable marketing instrument. Future research in the field of tourist segmentation in protected areas should emphasise the impacts of tourism. A cross-cultural and cross-national practicability of the approaches should also be considered to enable comparisons of tourist types at different regions and settings.

# References

ARNEGGER, J., M. WOLTERING, & H. JOB 2010. Toward a product-based typology for nature-based tourism: a conceptual framework. Journal of sustainable tourism 18(7): 915-928.

COCHRANE, J. 2006. A typology of tourists to protected areas. Parks 16(2): 10-17.

DOLNICAR, S. 2002. A review of data-driven market segmentation in tourism. Journal of travel and tourism marketing 12(1):1-22.

DOLNICAR, S. 2004. Beyond "commonsense segmentation" - A systematics of segmentation approaches in tourism. Journal of travel research 42(3): 244-250.

DOLNICAR, S. & B. GRUN 2011. Three good reasons NOT to use factor-cluster segmentation. Conference abstract. Available at: http://ro.uow.edu.au/commpapers/774/. (accessed: 18/03/2013).

EAGLES, P.F.J. 2007. Global trends affecting tourism in protected areas. In: BUSHELL, R. & P.F.J. EAGLES (eds.), Tourism in protected areas; benefits beyond boundaries: 27-43. Wallingford.

FENNELL, D.A. 2001. Areas and needs in ecotourism research. In: WEAVER, D.B. (eds.), The encyclopedia of ecotourism: 639-651. Wallingford.

HALLERBACH, B. 2007. Marktsegmentierung und der Trend zum hybriden Urlauber. In: BECKER, C., HOPFINGER, H. & A. STEINECKE (eds.), Geographie der Freizeit und des Tourismus: 171-180. München, Wien.

HAWKINS, D.E. & K. LAMOUREUX 2001. Global growth and magnitude of ecotourism. In: WEAVER, D.B. (eds.), The encyclopedia of ecotourism: 63-72. Wallingford.

JOB, H. & L. VOGT 2007. Freizeit/Tourismus und Umwelt – Umweltbelastungen und Konfliktlösungsansätze. In: BECKER, C., HOPFINGER, H. & A. STEINECKE (eds.), Geographie der Freizeit und des Tourismus: 851-864. München, Wien.

JOB, H. & M. WOLTERING 2009. Nationalparke und Naturtourismus – Eine ökonomisch tragfähige Allianz? Naturschutz und biologische Vielfalt 79: 105-122. Bonn, Bad Godesberg.

SÆÞÓRSDÓTTIR, A.D. 2010. Planning nature tourism in Iceland based on tourist attitudes. Tourism Geographies 12(1): 25-52.

STRASDAS, W. 2001. Ökotourismus in der Praxis. Ammerland.

STRASDAS, W. 2006. The global market for nature-based tourism. Münchner Studien zur Sozial- und Wirtschaftsgeographie 45: 55-63. Kallmünz, Regensburg.

UNWTO 2007. Handbook on tourism market segmentation. Brussels.

UNWTO 2012. Tourism Highlights. Available at:
http://dtxtq4w60xqpw.cloudfront.net/sites/all/files/docpdf/unwtohighlights12enhr_1.pdf (accessed: 09/03/13)

WIGHT, P.A. 2001. Ecotourists: Not a homogeneous market segment. In: WEAVER, D.B. (eds.), The encyclopedia of ecotourism: 37-61. Wallingford.

ZIENER, K. 2001. Das Bild des Touristen in Nationalparken und Biospährenreservaten im Spiegel von Befragungen. Praxis Kultur- und Sozialgeographie 26. Potsdam.

ZOGRAFOS, C. & D. ALLCROFT 2007. The environmental values of potential ecotourists: a segmentation study. Journal of sustainable tourism 15(1): 44-66.

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