



# Nature-based travel motivations for people with disabilities

Dr. Oliver Chikuta  
North-West University, South Africa

\*Prof. Engelina du Plessis  
(Tourism, Research in Economic Environs and Society (TREES),  
North-West University  
Private bag x6001  
Potchefstroom, 2520, RSA  
E-mail: [Lindie.DuPlessis@nwu.ac.za](mailto:Lindie.DuPlessis@nwu.ac.za)

Prof. Melville Saayman  
(Tourism, Research in Economic Environs and Society (TREES),  
North-West University, South Africa

Corresponding author\*

## Abstract

This paper investigated the travel motives of people with disabilities to national parks. The study was motivated by the fact that people with disabilities (PwDs) are increasingly interested in visiting natural areas today, but park marketers barely understand the reasons for this growing phenomenon and cannot with certainty design the right strategies to attract people with disabilities to their national parks. A quantitative approach was employed to solicit information from 210 persons with disabilities using a computer generated questionnaire. The study was unique in the sense that it was cross-dimensional in nature where people with mobility, visual and hearing impairments were used. Exploratory factor analyses and ANOVAs were performed to analyse the responses and the results revealed that people with disabilities, to a larger extent, have the same motivation for nature-based travel as the able-bodied which includes enjoying nature, spending time with family and escaping the mundane city life. They, however, have other unique motivations which include proving a point and experiencing the healing effect of nature.

**Keywords:** Nature-based; travel motives; disabilities; tourism

## Introduction

Just like many other tourism-related terms, nature-based tourism is fraught with some definitional confusion. Certain authors define nature-based tourism as nature travel (Laarman & Durst, 1987) while Wight (2001), Boo (1990:11), and Mehmetoglu (2007) call it 'eco-tourism', that is, travelling to relatively undisturbed or uncontaminated natural areas with the aim of studying, admiring and enjoying scenery. According to Lucas *et al.* (1990:483), nature based tourism is tourism based on the enjoyment of natural areas and observation of nature, which normally has a low environmental impact, is labour intensive as well as socially and economically viable. While Laarman and Durst (1987) emphasised education, recreation and adventure and Boo (1990) emphasised the same issues (studying and enjoyment), Lucas *et al.*



(1990) shifted the focus to aspects of sustainability. The latter is an important differentiating factor between nature-based tourism and other forms of tourism.

After interrogating a number of definitions, Fredman and Tyrvaianen (2010:179) defined nature-based tourism as "travelling to and staying overnight in locations close to protected areas, forests, lakes or the sea or the countryside and participating in activities compatible with the location's natural qualities". Van der Merwe and Du Plessis (2014:11), in their book '*Game farm and hunting tourism*'; however, appropriately place wildlife tourism into the nature-based tourism equation. Their argument is that nature-based tourism includes wildlife tourism and both the consumptive and non-consumptive elements.

To sum up all the above definitions, nature-based tourism can be defined as tourism primarily concerned with direct enjoyment of some relatively undisturbed phenomenon of nature for at least an overnight stay at the destination. The three recurrent themes in the definitions are (i) paying a visit to a natural area, (ii) experiencing the natural environment, and (iii) sustaining the natural environment. Having defined nature-based tourism, it is important to understand the nature of nature-based tourism from a global perspective. The following section looks at this.

Nature-based tourism is the fastest growing segment in tourism today with its demand growing faster than that of the tourism industry at large worldwide (Wight, 2001; Bell *et al.*, 2008; UNWTO, 2009a; Buckley, 2003; Fallon, 2000; Hall & Boyd, 2005; Mehmetoglu, 2007). In fact, nature-based tourism has been reported to be growing three times faster than the tourism industry as a whole (WTO 2004, cited in Hill & Gale, 2009:54). Nature-based tourism has become big business worldwide, especially due to its claims of sustainability (Valentine, 1992; Research Services, 2005:7). According to the World Tourism Organisation, approximately 10-20% of all international visitors travel for nature-based experiences (UNWTO, 2012).

Natural resources have been identified as the dominant feature when tourists decide on a destination to visit (Van der Merwe & Du Plessis, 2014; Ferrairo, 1982:16). Fifty-eight percent of visitors to Australia indicated that nature was one of the major reasons for visiting the country (Buckley & Sommer, 2001:26). A survey conducted in the United States revealed that a total of 29 million Americans took approximately 310 million nature-based tourism trips in 1980 (Balmford *et al.*, 2009:4; Boo, 1990:3). It is further estimated that one million people make four million international nature trips to countries with great natural endowments. Africa's connection with wildlife is well known with Rwanda receiving more than a third of its foreign currency from nature based tourists who visit the Volcano National Park to see gorillas (Valentine, 1992).

When the so-called able bodied people travel for leisure, nobody asks any questions, because it is considered to be normal, but when persons with disabilities talk of travelling for the same purpose, many questions arise. This unfortunate phenomenon is a result of the skewed perception that people with disabilities are not normal beings and their needs are different from those of their able-bodied counterparts. This paper interrogates the motivations of people with disabilities, especially when they travel to natural places such as national parks. Do people with disabilities visit national parks? If yes, what motivates them to travel? Are their travel motivations different from those of the so called 'normal' persons? The problem is that very little is known about the travel motives of people with disabilities, especially to natural areas. This study addresses this problem.



## Literature review

Disability is described as any restriction or lack (resulting from impairment) of ability to perform an activity in the manner or within the range considered normal for a human being (WHO, 2007). This has been the widely-accepted definition of disability, although in recent years some authors have argued that disability is not necessarily a result of impairment, but rather a social construct (Barnes, 1996; Oliver, 1990, 1996; Chikuta, 2015; Darcy, 1998). This new thinking is premised on the understanding that it is society that disables individuals with impairments, not the impairment itself. People with disabilities (PwDs) are therefore victims of a disabling society.

Currently, there are far more PwDs globally than a decade ago. The World Health Survey, as cited in the summary of the World Report on Disability 2011, reported that PwDs now constitute approximately 15% of the world population; a 5% increase since the estimate of 10% during the 1990s (WHO, 2012). The same survey also revealed that approximately 785 million persons above 15 years of age have a disability. Of the children below the age of fifteen, 5.1% also have disabilities. With the increase in the aged population, it is expected that there will be more people with disabilities in the future. According to the Disabled World, for countries with a life expectancy of above 70 years, disabilities are rife, since the majority of people above 70 live 11.5% of their lives with disabilities (Disability World, n.d.). This indicates that there is a positive relationship between ageing and disabilities. According to the Organisation for Economic Cooperation and Development (OECD), the number of people above 80 is expected to double by 2050 compared with the 2010 figure of about 4% (OECD, 2010). Apart from ageing, the number of people with disabilities is also expected to surge due to the global increase in chronic health conditions that include diabetes, cardiovascular diseases and poor mental health (WHO, 2012).

The above statistics reveal the magnitude of the disability market globally. Despite the disabled community being the largest minority group in the world (Etravelblackboard.com), countries and companies have not been keen to unlock the potential in this market. It is critical to note that promoting inclusion and accessibility is not merely an act of charity, but a business opportunity for various sectors (UNESCAP, 2007). Tourism is one such sector that can benefit immensely from this market. People with disabilities, their caregivers, family and friends collectively constitute a substantial and largely untapped niche market worth billions of dollars for the tourism sector (Var et al., 2011:602).

According to studies carried out in Australia, the US and the European Union, PwDs are becoming an important market (Dwyer & Darcy, 2010). In Australia, in 2002, tourists with disabilities comprised 11 percent of the total tourist arrivals, while senior citizens constituted a significant number with an average expenditure of approximately 21 percent of the total tourism expenditure (Buhalis & Darcy 2011:187). Further, ENAT (2010) estimated that in 2009, 12 percent of the UK domestic tourists were disabled. Buhalis et al. (2005) revealed that in Europe, tourists with disabilities spend up to 80 billion pounds per year, while German tourists with disabilities contribute 2.5 billion Euro to the economy.

The above figures demonstrate that the disabilities market is a potentially viable market for tourism operators. This is particularly true with nature-based tourism, a product of interest for people with disabilities. Like other tourist segments, PwDs are greatly interested in exploring nature (Lais, 1992:14). According to McAvoy *et al.* (2006:2), having a disability by no means precludes someone from visiting the wilderness. Research has shown that PwDs participate in



nature-based tourism for the same reasons as their so-called able-bodied counterparts (Yau *et al.*, 2004; Lais, 1992; Roggenbuck & Driver, 2000; Brown *et al.*, 1999). It is noteworthy that PwDs sometimes participate in more adventurous nature-based tourism activities compared to their able bodied counterparts (Lais, 1992).

In New Zealand, nature-based tourism is regarded as the country's key drawcard for international visitors (Ministry of Tourism, 2009). In 2008 alone, two million tourists took part in nature-based activities and these produced over 11 million trips, of which 70% were international and 22% were domestic. The propensity of international tourists participating in at least one nature-based activity has remained high and stable (Ministry of Tourism, 2009:1). In Finland, the national tourism board estimates that at least a third of all inbound tourists participate in nature-based tourism activities (MEK, 2009). In Norway, an increase in nature-based tourism activities was reported between 1970 and 2004 (Odden, 2008:1). More recent statistics are required in this regard.

### *Motives of Nature-Based Tourists*

Motivation, according to Slabbert and Du Plessis (2013:4), is the force within the tourist, which drives him/her to take action in order to satisfy tourism needs. The motives of ecotourists are believed to be different from the needs of any other tourists. According to studies conducted by Saayman, Slabbert and Van der Merwe (2009), Saayman and Saayman (2009), Kruger and Saayman (2010), Van der Merwe, Slabbert and Saayman (2011), Bashar and Abdelnaser (2011), nature-based tourists seek to be free, physically active, nostalgic, and novel, as well as to escape from routine, enjoy undisturbed nature, explore new learning experiences and spend time with family and friends. This was also found to be the case in New Zealand where 64% of nature-based tourists travel for holidays while 25% visit friends and relatives (Fredman & Tyrainen, 2010:180).

According to Yoon and Uysal (2005), as cited in Slabbert and Du Plessis (2013:642), the above factors can actually be categorised into pull and push factors which influence one's decision to travel. Push factors are demand oriented and include socialisation, seeking novelty and adventure, dream fulfilment, relaxation and rest, fitness and health, among others (Dann, 1977; Iso-Ahola, 1982; Uysal *et al.*, 1994; Wang, 2004; Jang & Wu, 2006). Pull factors, on the other hand, are more supply driven and they make travellers realise their need to travel. Slabbert and Du Plessis (2013) classified pull factors into three categories, namely:

- Static factors - these are not easily altered and include history and culture, climate, distance and landscape.
- Dynamic factors - these may change from time to time and include accommodation and catering services, entertainment, personal attention, trends in tourism and political situations.
- Current decision factors - these deal with the current situation, e.g., marketing strategies, prices and value for money.

Table 1 summarises the travel motivations for nature-based tourists and the appropriate demographic aspects of these motivations.



**Table 1: Travel motives and demographic aspects of nature-based tourists**

Author/Title	Travel motives	Demographic Aspects
Weaver & Lawton (2002) <i>Overnight ecotourist market segmentation in the Gold Coast winter land of Australia</i>	-Harder • Strong desire to learn • Enjoy visiting wild & remote destination challenges • Backpacker accommodation	• Younger • Highly educated • High income
	-Softer • Less committed to the environment • Nature settings • Accommodation with good service	• Travel with family • Highly educated • High income
	Structured (blend of hard & soft) • Committed to environment	
Weaver (2002) <i>Hard-core ecotourist in Lamington National Park</i>	-High level of service and facilities -High levels of environment commitment • Supported sustainability wanted • Physically active and challenging experiences • Demand fewer services • Active in search for information	• Travel in small groups • Take longer trips
Kwan, Eagles & Gebhardt (2008) <i>A Comparison of Ecolodge patrons' characteristics and motivations based on price level: A case study of Belize.</i>	Budget • Meet people with similar interest • Visiting friends and relatives • Value for money	• Least educated • Long trips • 16-35 age group
	Mid price • Warm climate • Nature settings • Family togetherness • Visiting friends and relatives • Seeing as much as possible • Being physically active • Value for money	• 36-55 age group • Middle educated • Employed full-time
	Upscale • Being together as family • Quality of environment	• 36-55 age group • Educated • Employed full-time
van der Merwe, Slabbert & Saayman (2011) <i>Travel motivations of tourists to selected marine destinations</i>	Family experience • Destination attractiveness • Escape and relaxation • Time utilisation • Personal attachment	• Average age is 38 • Married • Well educated
Saayman, Slabbert & van der Merwe (2009) <i>Travel motivation: A tale of two marine destinations in South Africa.</i>	Relaxation • Destination attractiveness • Socialisation • Personal attachment • Site attributes • Trip features	• Age between 37-42 • Married • Well educated • 8 night stay

Adapted from Slabbert & du Plessis (2013: 644)



Nature-based tourists tend to travel alone in some cases. A study conducted by Fredman and Tyrainen (2010:181) revealed that the majority of nature-based tourists prefer to travel alone. In 2008, 34% of the respondents (international tourists) travelled alone, while 31% travelled with a partner or spouse. Among the domestic tourists, 36% travelled with family, 18% with friends and 17% with a spouse. The case is different when we deal with tourists with disabilities and the aged. The mere fact that they have some form of impairment makes travelling alone a little difficult; hence a helper/assistant or supporter is needed. In other words, in the majority of cases, people with disabilities travel in the company of friends, partners or assistants (Jaquette, 2008; Lais, 1992).

Considering the length of stay, a study of nature-based tourists in New Zealand revealed that nature-based tourists stay slightly longer than other international tourists (Fredman & Tyrainen, 2010). In terms of expenditure at the destination, nature-based tourists spend an average of \$3040 compared to the \$2680 by ordinary tourists. The expenditure per day is however almost the same as that of other tourists (\$130.00) and the increase in total expenditure could simply be a result of the prolonged stay. The study conducted by Fredman and Tyrainen (2010) also revealed that nature-based tourists are less conventional and they are comfortable with less luxurious accommodation. These tourists, however, preferred hotels for their accommodation (47%) while others preferred private accommodation (40%) and motels (30%).

In order to better appreciate nature-based tourism and how any economy can benefit from it as well as the implications for universal accessibility, it is important for one to consider the problems associated with nature-based tourism. This appreciation will also assist the researcher to develop a framework for universal accessibility in national parks. The following section looks at the problems of nature-based tourism.

### **Method of study**

This research adopted a quantitative approach for data collection and analysis. It sought to establish what motivates tourists with disabilities to travel to national parks. The study is unique in the sense that it was cross dimensional in nature. It looked at three dimensions of disabilities, that is, the mobility, hearing and visual disabilities across the globe. A self-administered questionnaire was employed to gather data for this study. The questionnaire was both electronic and manual in order to cater for both online and offline respondents.

It is important to highlight that, for this study, the total population was not known since disability statistics are not readily available, even in national statistics of many countries. A non-probability sampling approach was therefore adopted for this study where emails were sent to organisations that deal with PwDs in Zimbabwe (N=10), South Africa (N=12) and internationally (N=4) requesting permission for their members to participate in the survey. Organisations that represent people with mobility, hearing and visual disabilities were included since these were the targeted groups. Twelve out of the 26 organisations (Zimbabwe N=3, South Africa N=6, International N=3) responded positively and promised to email the online questionnaire to members of their organisations as well as to post it on their websites.

In order to complement the efforts of the identified disability organisations, online disability forums were sought. These are platforms where PwDs exchange ideas and experiences. Five international disability forums were found on Facebook: (i) Disabled People's Movement; (ii) Wheelchair Users Group; (iii) ENAT Accessibility Group; (iv) "I thank God for my handicaps, for through them, I have found myself"; and (v) Spinal Cord. The questionnaire was further posted



to the official website of the South African National Parks (SANParks) in order to attract nature-based tourists with disabilities.

It was very difficult to establish the total number of potential participants who would constitute a sample, since the actual population was not known. Thus, the sample was based on the guidelines set by Krejcie and Morgan (1970:608) and the work of Marpsata and Razafindratsimab (2010:4) and Shaghaghi, Bophal and Sheikh (2011). Krejcie and Morgan recommended a sample size of 384 for a population of 1 000 000 or more, while Marpsata and Razafindratsimab talked about the hard-to-reach population. According to Marpsata and Razafindratsimab (2010:4) and Shaghaghi et al. (2011), hard-to-reach populations include people who feel they are disconnected from the mainstream society and those living in disadvantaged social and economic situations. Marpsata and Razafindratsimab (2010:4) further argue that the hard-to-reach populations also include those who might not be very comfortable to expose their condition to the public and others whose cases are a little sensitive and emotional. Persons with disabilities, in one way or another, fit into any of these categories (Jones & Newburn, 2001:5; Chitima, 2013:16). These people may avoid participating in surveys because of the social pressure they feel from other members of the broader community (Duncan, White & Nicholson, 2005). For such, there is no given sample size (Crosby, 2010:14).

By the end of the survey, 210 questionnaires had been received. This number is acceptable based on the fact that people with disabilities constitute a hard-to-reach population (Marpsata & Razafindratsimab, 2010:4; Chitura, 2012:16; Shaghaghi et al. (2011). Further, according to Gitonga, Ndirangu and Githeko (2013:17) and Kline (1994), for quantitative studies, the acceptable minimum sample size is 100 units, especially where factor analysis is to be used. Based on these authors, the sample of 210 responses is acceptable.

### **Data analysis and results**

Exploratory factor analysis and an ANOVA were conducted for this study. A one-way ANOVA was performed for accessibility expectations. The Spearman's rank order coefficients were calculated for the ordinal demographics. In order to ensure the reliability of the data, Cronbach's Alphas and Mean Inter-item correlations were calculated.

#### *Demographics*

A total of 190 out of 210 questionnaires were considered valid after data cleaning. Of the 190 respondents, males constituted (53%), while the remainder were female (47%). This means that more men were available and willing to respond to the questionnaire than women. The average age of the respondents was 42 while the minimum age was 19 and the maximum age was 83 years. The largest number of respondents stemmed from South Africa (56.8%), followed by Zimbabwe (13.7%), and the UK (9%), USA (3%) and Australia (2%), in that order. There were also respondents from Israel, Pakistan, India, Kenya and other countries, although in very small numbers. The majority of the respondents were English speaking followed by Afrikaans (18.9%), and Shona (9.50%). Other minority languages combined contributed to the remainder (about 1%).

The majority of the respondents were married (49%), followed by those who were single (36%). It was noteworthy that sixty-nine percent of the respondents had a tertiary qualification. This is not surprising since the majority were most likely white South Africans (English and Afrikaans speaking) who could generally afford education to tertiary level. The second largest category



consisted of those with secondary education (26%), followed by those with no formal education (3%). The last group comprised people who had obtained only primary education (2%). This suggests that the majority of people who responded to the questionnaire were fairly educated despite their disabilities.

Fifty-nine percent of the respondents were employed, while 18% were unemployed and the remainder were self-employed. There is usually a positive correlation between education level and employment; this is confirmed by these results. The respondents were employed in various fields including teaching, consultancy work, engineering, and nursing, to name but a few.

The majority of the respondents had mobility impairments (N=121) followed by those with visual impairments (N=31), and hearing (N=20). While a significant number of respondents had disabilities other than mobility, visual or hearing, these are not the main focus of attention in this study. However, it is important to note that this distribution has an influence on the overall conclusions and recommendations.

### *Travel motivation*

This survey sought to establish the motivation for visiting national parks by persons with disabilities. Enhancement of ego (54%) and health (36%) were considered to be important motivating factors by persons with disabilities. The need for relaxation (39%) and escape from everyday life (32%) were regarded as very important while the love for nature (48%) and relaxation (39%) were regarded as extremely important by people with disabilities. Previous studies have established that nature-based tourists in general also travel for the same reasons as the ones listed above (Slabbert & Du Plessis, 2013:4; Saayman *et al.*, 2009; Saayman & Saayman, 2009; Kruger & Saayman, 2010; Van der Merwe *et al.*, 2011; Bashar & Abdelnaser, 2011). The only difference is that enhancement of ego and health related reasons were rated as most important by people with disabilities.

### *Results of factor analysis for travel motivations*

A factor analysis was performed for travel motivations. This factor analysis sought to establish the most important factors that influence people with disabilities to travel to national parks. Three factors were identified, namely enrichment, family/escape and adventure. The pattern matrix for this factor analysis is displayed in Table 2 below.

**Table 2: Factor analysis for travel motivations**

Pattern Matrix <sup>a</sup>			
	Factors		
	Enrichment	Escape	Adventure
To challenge yourself	.854		
To enhance your ego	.810		
To learn something new	.610		
To celebrate your ability to travel	.449		





To spend time with family		.816	
For health/Well being		.591	
To relax		.588	
To escape from everyday routine		.554	
For the love of adventure			-.722
Because it is an exciting thing to do			-.688
For the love of nature			-.676
<b>Cronbach's Alpha</b>	.630	.650	.760
<b>Mean of inter-item correlation</b>	.358	.318	.453
<b>Mean</b>	3.04	3.75	3.71
<b>Standard deviation</b>	1.03	.82	.88

The KMO measure of sampling adequacy yielded a value of 0.79, higher than the recommended 0.60. The  $p$ -value was statistically significant since it was  $<0.01$ , while the total variance explained by the three factors was 58.9%. The results of the three factors will be discussed in this section.

### **Factor 1: Enrichment**

With a mean value of 3.04 (SD=1.03), enrichment is the least important of the three factors in this analysis. The mean is however on the high side, making it an important motivator for people with disabilities. Variables included in this factor are: to challenge yourself, to enhance your ego, to learn something new and to celebrate your ability to travel. The Cronbach's Alpha was 0.63, while the mean inter-item correlation was 0.358. While the alpha value may be lower than the recommended 0.7, Kline (1999), as cited in Field (2005:668), argues that values below 0.7 can realistically be accepted because of the diversity of the constructs being measured. Based on this argument, the 0.63 value can be considered to be acceptable. The mean inter-item correlation for this factor is also acceptable since it is above the minimum of 0.15. Enrichment has also been identified by previous researchers as an important travel motivation (Bashar & Abdelnaser, 2011).

### **Factor 2: Escape/family**

Items within this factor included the following: to spend time with family, for health/wellbeing, to relax and to escape from everyday routine. This was the most important factor with a mean value of 3.75 and the lowest standard deviation (0.82). This finding is supported by literature (Slabbert & Du Plessis, 2013:4; Saayman *et al.*, 2009; Saayman & Saayman, 2009; Kruger & Saayman, 2010; Van der Merwe *et al.*, 2011) which indicates that escape is a very important motivational factor among tourists. It is therefore becoming clear that what motivates the able-bodied to travel to natural environments is the same as that which motivates people with disabilities (Shi *et al.*, 2012:229-231; Bashar & Abdelnaser, 2011). The  $\alpha$  value for this factor (0.65) is greater than that of enrichment, but smaller than that of adventure. As in the case of enrichment above, the value is still acceptable as a good measure of internal consistency (Field,



2005:668). The mean inter-item correlation of 0.318 also falls within the acceptable region, which means that the items in the factor are well correlated.

### **Factor 3: Adventure**

In this factor, the following items were identified: for the love of adventure, because it is an exciting thing to do, for the love of nature. The mean value for this factor was 3.71 (SD=0.88) which is the second highest of the three means. This explains that seeking adventure is a very important factor motivating persons with disabilities to travel to national parks. The Cronbach's alpha of this factor is the highest (0.76) which is supported by a relatively higher mean inter-item correlation of 0.453. These figures confirm a high level of internal consistency and a strong correlation between items in the factor. The fact that people with disabilities seek adventure has been supported by many scholars (Jaquette, 2007; Anderson *et al.*, 1997; McAvoy *et al.*, 1989; Robb & Ewert, 1987). These scholars argued that people with disabilities sometimes seek to do the most challenging activities in the outdoors.

### **ANOVA for travel motivations**

One-way analysis of variances (ANOVA) was performed in order to determine whether or not there are statistically significant differences in the means of the motivation factors in question.

For the travel motivations,  $p$ -values  $<0.01$  were considered to be statistically significant. Effect sizes were also calculated in order to establish the differences between values that were practically significant among the disability categories with Cohen's  $d$ -value, with  $d=0.2$  being small;  $d=0.5$ , medium and  $d=0.8$ , large. As in the factor analysis, the disability category labelled as "others" was not considered in interpreting the results. Table 3 below presents a summary of the variances.

Statistically significant differences between the different disability categories were noted in Adventure ( $p=0.055$ ) and Enrichment ( $p=0.018$ ). Using Cohen's  $d$ -values, it was established that people with hearing impairments seek adventure more than those with mobility and visual impairments.

This is evident in the effect size of 0.67 which means that the difference between the way the hearing and the mobility impaired value adventure as a travel motivation is practically significant. The effect size of 0.41 between hearing and visual also indicates that the difference is practically significant. This is further supported by the means where hearing has a mean value of 4.215, while mobility and visual impairments have 3.62 and 3.86 respectively.

The Cohen's  $d$ -values also revealed that there is a practically significant difference between the hearing and mobility ( $d=0.73$ ) and hearing and visual ( $d=0.74$ ) in terms of the power of enrichment as a motivational factor for visiting national parks. This means that people with hearing impairments consider enrichment as a very strong motivational factor (mean=3.66) compared to people with mobility (mean=2.95) and visual impairments (mean=2.79). The practical significance is also very strong as shown by the effect sizes that are closer to 0.8 ( $d=0.73$  and  $d=0.74$ ).



### Findings and implications of the study

The first finding was that, just like the able-bodied, people with disabilities travel to natural areas due to the need to escape from the mundane and spending time with family among other motivations. This implies that having a disability does not make one less normal or human than others. Marketers of nature-based tourism products have to bear in mind that a market that

		N	Mean	Std. Deviation	P-value	Effect size		
						1 with 2	2 with 3	3 with 4
Adventure	1Mobility	114	3.6213	.89335				
	2Hearing	17	4.2157	.85749		0.67		
	3Visual	30	3.8667	.71973		0.27	0.41	
	4Other	19	3.6842	1.00906		0.06	0.53	0.18
	Total	180	3.7250	.88831	0.055			
Enrichment	1	105	2.9540	.97182				
	2	15	3.6611	.92821		0.73		
	3	27	2.7963	1.17063		0.13	0.74	
	4	19	3.3991	1.04917		0.42	0.25	0.51
	Total	166	3.0432	1.03380	0.018			
Escape	1	109	3.7332	.83594				
	2	17	3.9461	1.04580		0.20		
	3	29	3.8563	.65386		0.15	0.09	
	4	19	3.5702	.80998		0.19	0.36	0.35
	Total	174	3.7567	.82717	0.503			

**Table 3** One Way Anova for travel Motivation and Disability

loves nature exists despite the fact that it is usually excluded, either deliberately or unknowingly.

Another important finding was that people with disabilities travel to natural places in order to enhance their ego or to prove a point. Normally, society relegates people with disabilities to a level of useless, unproductive and passive beings, yet this is a mistaken conception. In order to prove society otherwise, PWDs want to travel off-the-beaten track and participate in much more challenging activities than their able-bodied counterparts. This implies that operators of nature-based tourism products should avoid viewing people with disabilities as being unable to participate in challenging activities. In fact, offering more challenging activities may result in



better business. Marketing communications regarding accessibility has to include the aspect of challenge.

Since PWDs are also attracted by the healing effect that is associated with being in the wild, it is important that emphasis be placed on the healing effect of nature when marketing nature-based tourism products. This must, however, be communicated without giving the impression that people with disabilities are sick people (the medical model).

The variances regarding different categories of disabilities considered to be valuable (as outlined in ANOVAs) should never be taken for granted. Knowing how people with hearing disabilities are different from those with mobility impairments is a sure way of ensuring that both types of people are satisfied when they visit natural areas. A one-size-fits-all approach may unfairly disadvantage one category while pleasing another.

## Conclusions

The major contribution of this study is that it exposed the travel motivations of people with disabilities to national parks by applying a multi-dimensional approach where PwDs from three dimensions (mobility, visual and hearing) were involved. One can conclude that just like anybody else, PwDs have an unquenched desire to travel to natural places. Their motivations are, to a larger extent the same as those of the so-called able bodied which implies that as park managers decide on their new product development as well as renovation of existing facilities, they should seriously consider PwDs. Further, as they coin marketing strategies, park marketers have to bear in mind the fact that there are tourists with disabilities. The differences that exist in the travel motivations among people with disabilities should also be taken into account. One may be correct to suppose that the few national parks that will take these motivations seriously and consider people with disabilities are likely to enjoy unrivaled patronage from this growing tourist market. Future studies may have to focus on the extent to which park management and other nature-based tourism operators are willing to adjust in order to accommodate tourists with disabilities.

## References

- Anderson, L., Schleien, S.J., McAvoy, L., Lais, G. & Seligmann, D. (1997). Creating positive change through an integrated outdoor adventure program. *Therapeutic recreation journal*, 21(4):214-229.
- Balmford, A., Beresford, J., Green, J., Naidoo, R., Walpole, M. & Manica, A. (2009). A global perspective on trends in nature-based tourism. *Plos Biology*, 7(6):100-114.
- Barnes, C. & Mercer, G. (2003). *Disability policy*. Cambridge: Polity Press.
- Barnes, C., Mercer, G. & Shakespeare, T. (1999). *Exploring disability: a sociological introduction*. Malden, Mass: Polity Press.
- Bashar, A.A.M. & Abelnaser, O. (2011). An investigation into motivational factors that influenced foreign tourists to Jordan: push and pull factors. *Journal of Environmental Management and Tourism*, 1(3):16-23.



- Bell, S., Simpson, M., Tyrväinen, L., Sievänen, T. and Pröbstl, U. eds., (2009). *European forest recreation and tourism: a handbook*. Taylor & Francis.
- Boo, E. (1990). *Ecotourism: the potentials and pitfalls*. Washington, D.C.: World Wildlife Fund.
- Borst, B. (1990). Ecotourism: environment friendly international travel. *International Herald Tribune*: 3-4.
- Brown, T.J., Kaplan, R. & Quaderer, G. (1999). Beyond accessibility: preferences for natural areas. *Therapeutic Recreation Journal*, 33:209-221.
- Buckley, R. & Sommer, M. (2001). *Tourism and protected areas: partnerships in principle and practice*. Sydney: CRC for Sustainable Tourism and Tourism Council Australia.
- Buhalis, D. (2005). Disability tourism-OSSATE links. <http://www.ossate.org/> Date of access: 18 Sept 2012.
- Buhalis, D. & Darcy, S. (2011). *Accessible tourism concepts and issues*. Toronto: Channel View Publications.
- Chitima, S.S. (2013). Promoting an inclusive ethos: improving access opportunities for persons with disabilities to museums in Zimbabwe. Gwero, Zimbabwe: Midlands State University. (Dissertation - MA.)
- Research Services. (2005). [http://www.wilderness-tourism.bc.ca/docs/Commercial\\_Nature-Based%20Tourism.pdf](http://www.wilderness-tourism.bc.ca/docs/Commercial_Nature-Based%20Tourism.pdf) Date of access: 2 Jan 2013.
- Dann, G.M.S. (1977). Anomie, ego-enhancement and tourism. *Annals of Tourism Research*, 4(4):184-194.
- Darcy, S. (1998). *Anxiety to access: the tourism patterns and experiences of New South Wales people with a physical disability*. Sydney: Tourism New South Wales.
- Dwyer, L. & Darcy, S. (2008). Chapter 4 - Economic contribution of disability to tourism in Australia. (In Darcy, S., Cameron, B., Dwyer, L., Taylor, T., Wong, E. & Thomson, A., ed. Visitor accessibility in urban centres. Gold Coast: Sustainable Tourism Cooperative Research Centre, 15-21.) (Technical Report 90040).
- ESCAP (Economic and Social Commission for Asia and the Pacific). (2002). Asian and Pacific decade of disabled persons 1993 - 2002. United Nations. Economic and Social Commission for Asia and the Pacific. <http://www.unescap.org/decade/> Date of access: 20 December 2002.
- Fallon, F. (2000). *Nature tourism: managing for the environment*. Washington, D.C.: Island Press.
- Ferrario, F.F. (1982). Method approach for evaluating tourist resources: case of South Africa. (In Singh, T.V. & Kaur, J., ed. Studies in tourism and wildlife parks conservation, Metropolitan Book Company, New Delhi. p. 114-135.)



- Field A. (2005). *Discovering Statistics Using SPSS*. London: Sage.
- Fredman, P. & Tryainen, L. (2010). Trontiers in nature-based tourism. *Scandanavian Journal of Hospitality and Tourism*, 10(3):177-189.
- Gitonga, R.K., Ndirangu, M. & Githeko, J.M. (2013). The perceived extent of ICT integration in intra-university communication among the Kenyan universities. *Communications*, 1(2):6-21.
- Hall, C.M. & Boyd, S. (2005). *Nature-based tourism in peripheral areas: development or disaster?* Ontario: Channel View Publishers.
- Iso-Ahola, E. (1982). Toward a social psychological theory of tourism motivation: a rejoinder. *Annals of Tourism Research*, 9(2):256-262.
- Jang, S.C. & Wu, C.E. (2006). Seniors' travel motivation and the influential factors: an examination of Taiwanese seniors. *Tourism Management*, 27(1):306-316.
- Jaquette, S. (2005). Maimed away from the earth: disability and wilderness. *Ecotone Spring: Journal of Environmental studies*, 8-11
- Jones, T. & Newburn, T. (2001). *Widening access: improving police relations with hard to reach groups*. London: Home Office Policing and Reducing Crime Unit. (Police Research Series. Paper 138.)
- Kline, P. (1994). *An easy guide to factor analysis*. New York: Routledge.
- Krejcie, R.V. & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30:607-610.
- Kruger, M. & Saayman, M. (2010). Travel motivation of tourists to Tsitsikamma and Kruger National Parks. *SA Journal of Wildlife Research*, 40(1):93-102.
- Kwan, P., Eagles, P.F.J. & Gebhardt, A. (2008). A comparison of ecolodge patrons' characteristics and motivations based on price levels: a case study of Belize. *Journal of sustainable tourism*, 16(6):698-718.
- Laarman, J.G. & Durst, P.B. (1987). Nature travel in the tropics. *Journal of Forestry*, 85(5):43-46.
- Lais, G., McAvoy, L. & Frederickson, L. (1992). Wilderness accessibility for people with disabilities: a report to the President and Congress of the United States on Section 507(a) of the Americans with Disabilities Act. Washington, D.C.: National Council on Disability.
- Lane, B. (1990). Spreading the tourist load. *The Observer, Travelwatch*, 4 February.
- Lucas, R.C., Hendee, J.C. & Stankey, G.H. (1990). The wilderness experience and managing factors that influence it. *Wilderness Management*: 469-499.



- Marpsata, M. & Razafindratsimab, N. (2010). Survey methods for hard-to-reach populations: introduction to the special issue. *Methodological Innovations Online*, 5(2):3-16.
- McAvoy, L., Holman, T., Goldenberg, M. & Klenosky, D. (2006). Wilderness and persons with disabilities: transferring the benefits to everyday life. *International Journal of Wilderness*, 12(2):23-35.
- McAvoy, L., Schatz, C., Stutz, M., Schleien, S. & Lais, G. (1989). Integrated wilderness adventure: effects on personal and lifestyle traits of persons with and without disabilities. *Therapeutic Recreation Journal*, 23(3):50-64.
- Mehmetoglu, M. (2007). Typologising nature-based tourists by activity: theoretical and practical implications. *Tourism Management*, 28:651-660.
- Odden, B. (2008). Comparison of a hyperspectral classification method implemented in two remote sensing software packages: a study based on a CHRIS/PROBA dataset in Switzerland. Zurich: Geographisches Institut der Universität Zürich.
- Oliver, M. (1990). *The politics of disablement*. Houndmills: Macmillan.
- Oliver, M. (1996). *Understanding disability: from theory to practice*. Basingstoke, Houndmills: Macmillan.
- Robb, G. & Ewert, A. (1987). Risk recreation and persons with disabilities. *Therapeutic recreation journal*, 21(1):58-69.
- Roggenbuck, J.W. & Driver, B.L. (2000). Benefits of non-facilitated uses of wilderness. (In McCool, S.F., Cole, D.N., Borrie, W.T. & O'Loughlin, J., comps. Wilderness science in a time of change. Conference. USDA Forest Service Proceedings RMRS, v. 3:15.)
- Saayman, M. & Saayman, A. (2009). Why travel motivation and socio-demographics matter in managing a national park. *Koedoe*, 51(1):1-9.
- Saayman, M., Slabbert, E. & Van der Merwe, P. (2009). Travel motivation: a tale of two marine destinations in South Africa. *South African Journal for Research In Sport, Physical Education and Recreation*, 31(1):81-94.
- Shaghghi, A., Bhopal, R. & Sheikh, A. (2011). Approaches to recruiting hard-to-reach populations into research: a review of literature. *Health Promotion Perspectives*, 1(2):86-94.
- Slabbert, E. & Du Plessis, E. (2013). Do socio-demographic factors influence the travel behaviour of visitors to nature-based tourism products in South Africa? *African Journal for Physical, Health Education, Recreation and Dance (Ajpherd)*, 19(3):639-660.
- United Nations. Economic and Social Commission for Asia and the Pacific (UNESCAP). (2007). Promoting tourism for people with disabilities. (Press release 22.11.2007.) [http://www.scoop.co.nz/stories/ wo0711/s00956.htm](http://www.scoop.co.nz/stories/wo0711/s00956.htm). Date of access: 27 November 2007.



UNWTO. (2009a). Annual report, 2009. Madrid: UNWTO. <http://www2.unwto.org/annual-reports>  
Date of access: 20 March 2013. 223.

UNWTO. (2012). Annual Report, 2012. Madrid: UNWTO. <http://www2.unwto.org/annual-reports>  
Date of access: 7 May 2012.

Uysal, M. & Jurowski, C. (1994). Testing the push and pull factors. *Annals of Tourism Research*, 21(4):844-846.

Valentine, P.S. (1992). *Review: nature based tourism*. (In Weiler, B. & Hall, C.M., ed. Special interest tourism. London. Belhaven Press. p. 105-127).

Van der Merwe, P. & Du Plessis E. (2014). *Game farm and hunting tourism*. Stellenbosch: Sun Media Metro.

Var, T., Yeşiltaş, M., Yayli, A. & Öztürk, Y. (2011). A Study on the travel patterns of physically disabled people. *Asia Pacific Journal of Tourism Research*, 16(6): 599-618.

Wang, D.G. (2004). Push-pull factors in mountain resorts: a case study of Huangshan Mountain as world heritage. *Chinese Geographical Science*, 14(4):368-376.

Weaver, D.B. (2002). Hard-core ecotourists in Lamington National Park, Australia. *Journal of ecotourism*, 1(1):19-35.

Weaver, D.B. & Lawton, J.L. (2002). Overnight ecotourists market segmentation in the Gold coast hinterland of Australia. *Journal of travel research*, 40(3):270-280.

Wight, P.A. (2001). Ecotourists: not a homogeneous market segment. (In Weaver, D.B., ed. Encyclopedia of ecotourism. New York: CABI. p. 37-62.)

World Health Organization. (2007). Global age: friendly cities guide. Geneva: World Health Organization. [http://www.who.int/ageing/age\\_friendly\\_cities/en/index.html](http://www.who.int/ageing/age_friendly_cities/en/index.html) Date of access: 17 June 2012.

World Health Organization. (2012). What is disability? <http://www.who.int/topics/disabilities/en/>  
Date of access: 17 June 2012.

Yau, K.S.M., McKercher, B. & Packer, T.L. (2004). Traveling with a disability: more than an access issue. *Annals of Tourism Research*, 31(4):946-960.

Yoon, Y. & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: a structural model. *Tourism Management*, 26(1):45-56.