✳️ cogent
social
sciences

LEISURE & TOURISM | RESEARCH ARTICLE

Characteristics of Iona National Park's visitors: Planning for ecotourism and sustainable development in Angola

Jorge Morais[1], Rui Alexandre Castanho[1,2,3], Carlos Pinto-Gomes[1,2] and Pedro Santos[1,2]*

*Corresponding author: Pedro Santos, ICAAM, group of Landscape, Biodiversity and Socio-ecological Systems, University of Évora, Évora, Portugal; Department of Landscape Environment and Planning, School of Science and Technology, University of Évora, Évora, Portugal
E-mail: aps@uevora.pt

Additional information is available at the end of the article

Abstract: To assess the characteristics of Iona National Park's visitors, we analyzed secondary data and conducted a survey by administering face-to-face interviews. We used information referring to a total of 354 visitors to assess tourists' personal characteristics (bio-data), their motivation for visiting, and their level of satisfaction. The majority of the visitors (60%) revealed a prevailing interest in natural and cultural attractions, and they predominantly fit a "wildlife tourist" profile. Within this profile, two possible different types of clientele were identified: (1) tourists who consider the visit as a learning opportunity but tend to exhibit low environmental and social awareness; and (2) visitors who consider the visit as a learning opportunity but also as a process where sustainability norms should be maintained. Using the study findings, we propose guidelines for the development of ecotourism in Iona National Park to advance sustainable development.

Subjects: Environment & Agriculture; Environmental Studies & Management; Tourism; Hospitality and Events; Development Studies

ABOUT THE AUTHORS

Jorge Morais holds a Master degree in Earth Sciences and currently he is a PhD student in Agrarian and Environmental Sciences, University of Évora. His research interests are Ecotourism and Rural Development.

Rui Alexandre Castanho holds a PhD degree in the field of Sustainable Urban Planning. He is interested in Social and Human Sciences and develops research concerning cross-border cooperation, territorial cohesion, and sustainable development.

Carlos Pinto Gomes is an Assistant Professor with Aggregation who teaches subjects in the field of Nature Conservation, such as Ecotourism. He has a particular interest in flora and vegetation and develops research concerning natural resources management and habitat conservation.

Pedro Santos is an Assistant Professor with Aggregation who teaches subjects in the field of Natural Resources Management, such as Ecotourism. He develops research concerning human-wildlife conflict aiming at the integration of human activities with the conservation of natural resources.

Jorge Morais

PUBLIC INTEREST STATEMENT

The central goal of our research is to contribute practical information needed to foster sustainable development in the Namibe province, Angola, anchored in ecotourism. The field work was developed in Iona National Park where 354 face-to-face interviews were conducted to characterize the visitors' profile. The majority of the visitors (60%) revealed a prevailing interest in natural and cultural attractions, and they predominantly fit a "wildlife tourist" profile. Within this profile, two possible different types of clientele were identified: (1) tourists who consider the visit as a learning opportunity but tend to exhibit low environmental and social awareness; and (2) visitors who consider the visit as a learning opportunity but also as a process where sustainability norms should be maintained. Using the study findings, we propose guidelines addressed to both tourism regulatory authorities and tour operators.

cogent ·· social sciences

1. Introduction

In the wake of the three-decade-long Angolan civil war, peace came to the country in 2002, the recovery of extensive wilderness areas begun and so new opportunities arise to develop and market nature-based tourism destinations (Martins, 2015). Moreover, private investment in tourism ventures and activities became more attractive after noticeable improvements to some fundamental infrastructure. In the light of this new situation, it is given that ensuring a balanced use of the nation's vast tourism resources is a matter of major complexity and thus requires general and specific regulations, the state of Angola promulgated the Tourism Law in 2015. This law clearly draws upon the comprehensive set of principles designed and adopted by the World Tourism Organization and acknowledged by the United Nations, particularly those addressed to governments. Two definitions in that law are central to this study: the definition of *nature tourism* and the definition of *ecotourism*. Regarding the *nature tourism*, it refers to the events that take place in *protected areas*, such as Iona National Park, and incorporates a large number of very different activities based on diverse motives and envisaging various purposes. On the other hand, *ecotourism* narrows the *spectrum* of outdoor tourism, making compulsory the observation of the following three principles, which are common to most ecotourism definitions (Fennell, 2008): (1) interest in natural/cultural areas; (2) contribution to nature conservation; and (3) benefits the local population. Thus, true ecotourists should contribute to the maintenance of species and habitats and provide revenue to the local community (Goodwin, 1996). Ecotourists tend to represent a small proportion of the population and are predominantly well educated, wealthy, long-staying and low-impact visitors (Fennell, 2008; Galley & Clifton, 2004). Nowadays, most developing countries promote some brand of nature tourism, while ecotourism is considered in many African nations to be an important tool for generating employment and economic benefits (Bluwstein, 2017; Chiutsi, Mukoroverwa, Karigambe, & Mudzengi, 2011; Kiss, 2004; Powell, Kazahe, & Kharuxab, 2017). Nevertheless, many public authorities and tourism-related organizations have been promoting ecotourism in Southern Africa without a clear understanding of its most basic principles and in the absence of guidelines specifically developed for the region (Chiutsi et al., 2011).

It remains to be seen whether *nature tourism* and *ecotourism* can really contribute to the sustainable development of the Namibe province. However, according to the IP resolved (SWOT) analysis on which the province's (Namibe) Tourism Master Plan (EDETA, 2013) is based, *nature tourism* in Iona National Park is a prominent *strength*, while *ecotourism* is highlighted amid the *strengths* as an anchor product; among the *opportunities*, the funding agreement signed by the European Union (EU) and the United Nations Development Programme (UNDP) for "the conservation of biodiversity in the largest trans-boundary national park in the country" (UNDP, 2016), i.e. Iona National Park, is given particular emphasis. Bearing in mind the several benefits that Cross-Border Cooperation (CBC) may offer (Castanho, Loures, Fernández, & Pozo, 2016; Castanho et al., 2017; Medeiros, 2015), we note that Iona National Park possesses unique characteristics for promoting a fruitful CBC. The aforementioned SWOT analysis was based on a preliminary outline of the current and potential tourism supply in the Namibe province. Conversely, there is gap regarding the knowledge of the demand-side of this emergent market at the provincial level, except for the information gathered through a questionnaire conducted by the central administration and responded to by senior technical stuff and tour operators (EDETA, 2013). According to the 64 obtained responses, which evidently allow only a limited and institutional perspective, Iona National Park is classed in second place, just behind the beaches, in the ranking of the most remarkable tourist experiences that the province has to offer. We are not aware of any study revealing consumers' perspectives, i.e. a study based not only on conjectures about consumers' preferences and needs but also on the lived experience of visitors to Iona National Park. There are few studies on nature-based tourists' demographic characteristics and motivations regarding other similar African tourist destinations, but an interest in wildlife has been consistently identified

by interviewed visitors as the main reason for their visit (Grünewald, Schleuning, & Böhning-Gaese, 2016; Lee & Du Preez, 2016; Lindsey, Alexander, Mills, Romañach, & Woodroffe, 2007; Mutanga, Vengesayi, Chikuta, Muboko, & Gandiwa, 2017). The impacts of visitors' behavioral characteristics on nature and local cultures are not a popular research theme regarding African wildlife tourist destinations, but frequent ecotourists and specialized wildlife tourists tend to cause smaller impacts on the environment and on the focal species (Diamantis, 1999; Duffus & Dearden, 1990).

According to a current concept of sustainable development, success strategies to help developing countries must be supported on three pillars—the economic, social, and environmental pillars of sustainability (Kajikawa, 2008; Rodríguez-Serrano, Caldés, De La Rúa, Lechón, & Garrido, 2017; World Commission on Environment and Development, 1987; Yigitcanlar, Dur, & Dizdaroglu, 2015). This study is developed in-line with this paradigm of thought. The central goal of our research is to contribute practical information needed to foster sustainable development in the Namibe province anchored in ecotourism. The study focuses on the demand-side and examines the characteristics of Iona National Park's visitors and their perceived image of the visit. Using empirical evidence, both primary and secondary data, we proceed in three stages. First, we disclose individual traits of visitors, such as age, gender, level of education, and nationality. Second, we focus on aspects relating to tourists' visits, such as sources of information and advertising/marketing they have recourse to, their reasons for coming, their preferred attractions, their needs regarding facilities, and transportation, and, as a corollary, their level of satisfaction. Third, we examine relationships between the discrete variables analyzed, measured on nominal and ordinal scales. Taking visitors' characteristics and their perceived image of the visit into account, we seek to answer two questions: *What are the current and prospective implications of tourism in Iona National Park for the economic, social and environmental dimensions of sustainability? and How to promote ecotourism in Iona National Park?*

2. Methods

2.1. Study area

Iona National Park is located in southwest Angola (Figure 1), in the Namibe province, and covers around 15.150 km^2 (UNDP, 2016). It is the largest protected area in Angola and was the first official Angolan National Park. It is bordered by the Atlantic Ocean, with about 150 km of coastline, and lies between the Curoca and Cunene Rivers. Along the coastline, the basins of these two rivers fit together, forming a Mesopotamia desert (Campos, 2013). The fact that Iona National Park is adjacent to the Namibian Skeleton Coast Park, which is itself contiguous with Namib-Naukluft National Park, is of major conservation and nature-based tourism importance. In fact, such a continuous block of Namib Desert coastline and adjacent dunes offers the potential to form one of the largest trans-boundary conservations and tourism areas in Africa.

According to the National Project on Biodiversity—Conservation of Iona National Park (UNDP, 2016), this relatively narrow tract of land, mostly less than 200 km wide, comprises two of the main ecosystems belonging to the Southwest arid biome of Angola: coastline with gulfs and estuaries; and coastal desert with mobile dunes, occupying about 5.000 km^2 and considered to be a summer rainfall desert (Ward, 1983). Other three ecosystems belonging to the aforementioned biome are present in this protected area: stony plain areas with no vegetation or with scattered herb cover; grassland communities composed of species with an ephemeral vegetative cycle, notably including the well-known *Welwitschia mirabilis*; and mountains with steep slopes and sharp-edged cliffs with sparse vegetation. This variety of semi-desert ecosystems is largely explained by the combination of different altitudes, from sea level to about 800 m at Posto do Iona and higher in the Tchamalinde Mountains, and with different rainfalls, from about 100 mm at the coast to 300 mm on the eastern boundary of the park (BirdLife International, 2016).

A long period of abandonment, driven by the civilian war, had devastating consequences for the original fauna of the park. Several species became regionally extinct due to human activities, such

Figure 1. Iona National Park is located in Namibe province, southwest Angola. The Park is bordered by the Atlantic Ocean and lies between the Curoca River and the Cunene River.

as the emblematic black rhinoceros (*Diceros bicornis*), which is a critically endangered species worldwide (Emslie, 2012). Recently, governmental and non-governmental organizations across southern Africa have joined efforts to ensure the population recovery of other iconic species such as the African wild dog (*Lycaon pictus*) and the cheetah (*Acinonyx jubatus*) (e.g. The Range Wide Conservation Program for Cheetah and African Wild Dogs). Success has already been achieved in Iona National Park with regard to the cheetah, as the return of this species to some areas of historic occurrence has recently been confirmed (CCF, 2014). A growing number of species preyed upon by large carnivores, including springbok (*Antidorcas marsupialis*) and oryx (*Oryx gazelle*), two species that are well adapted to the arid environment, is also a good news for nature-based tourism, particularly wildlife tourism. In terms of tourist facilities and qualified staff, the improvements to Iona National Park have been less consistent. However, the recent introduction of a corps of 11 guards with specific training is a firm step in the right direction.

2.2. Data collection and analysis

Visitors to Iona National Park over recent years make up the target population. In this study, we combined the use of primary and secondary data. Primary data were obtained through a random sample of tourists who visited the park in 2016. Given that a preliminary data analysis showed a relatively high homogeneity regarding the variables *motivation* and *satisfaction*, a sample of 50 visitors was considered large enough to obtain results with an acceptable margin of error for most of the analyzed variables. Respondents were chosen entirely by chance; thus, any visitor had the same probability of being selected during the study period. Secondary data were collected by the Angolan Foreign and Migration Service, an institution which allowed the research with full access to the records. Secondary data correspond to the cataloging of the 304 foreign tourists, registered

by nationality and gender, who visited the park in 2015. We used quantitative analytical techniques on such secondary data similar to those used on primary data, taking into account that: we know how, when and where the secondary data were collected; the response categories of the two analyzed variables, i.e. *nationality* and *gender*, are the same as those considered for these variables in the primary data; we can be certain that secondary data were accurately recorded. The software (SPSS Statistics) was used to conduct descriptive and inferential statistics.

2.3. Survey design and administering

To conduct the random sample, we developed a survey that was implemented via an interview with the visitors. The survey content was based on a straightforward identification of relevant personal information and of visit-related attributes directly connected to the research questions. In terms of personal information, also called demographic characteristics or bio-data, the following items that are essential to answer our research questions are considered: *nationality, gender, age, marital status,* and *level of education. Nationality* was presented as an open question; otherwise, an exhaustive list including all countries would have to be presented to responders. As for *gender, age,* and *marital status,* the response options were exhaustive and mutually exclusive. To avoid the social desirability problem, *level of education* was also presented as an open question—i.e. no category options were specified. As to the tourists' attributes related to the visit, three variables have been examined: (1) *information source*, (2) *motivation,* and (3) *satisfaction*. All of these variables were directly measured and related to a constructed definition that was presented in the survey. Regarding *information source*, the following question was asked: *How did you know that Iona National Park is a tourist destination that offers visits like this?* To avoid double-barreled questions, variables (2) and (3) were deployed in different items. To assess *motivation*, the following two questions have been asked: a) *What was the main reason for your visit to Iona National Park*; and b) *In your opinion, what is the most remarkable feature of Iona National Park?* The first question focuses on visitors' *intrinsic motivation*; whereas, the point of the second question is to find out what visitors consider to be the most notable tourist attractions in Iona National Park. The *satisfaction* variable covers markedly different topics, separately addressed by asking the subsequent three questions: a) *What suggestions would you make for improving this visit?* b) *How would you classify this tourist experience using a qualitative adjective?* and c) *Would you recommend this visit to a friend?* The last is a closed-up question, to be answered with either "yes" or "no," while a) and b) are open questions, although they do not require long answers.

The interviews were conducted from March to August 2016 in face-to-face mode, i.e. an interviewer asking questions of a respondent in person. The guards of the park, under the coordination and supervision of the authors, acted as interviewers. Responses were manually transferred into a spreadsheet. Numbers or "codes" were then assigned to each possible answer and manually entered into the spreadsheet going through each respondent's answers.

3. Results

Using official data referring only to foreign visitors, we grouped the tourist-generating *countries* into the following three unequally distributed categories (χ^2 = 238, 963 d.f. = 2, *P* < 0.001): *neighboring countries of Angola* (73%), *European countries* (26%), and *other countries* (1%). Tourists from *neighboring countries of Angola* are predominantly South Africans and Namibians; whereas, tourists originating from Europe are mainly from Mediterranean countries, such as Italy, Spain, and Portugal; USA and Argentina are examples of the *other countries* category. The same official data suggest that *gender* distribution of visitors is rather uneven (binomial test, *P* < 0.001), as men represent 75% of the international tourist population.

According to the random sample (Table 1), Angolans and Europeans make up about one-quarter of the total number of visitors each, whereas nearly half of the tourist population is composed of South Africans and Namibians (χ^2 = 6,280 d.f. = 2, *P* = 0.043). The sampling results suggest that *gender* distribution in the total tourist population, i.e. considering both domestic and foreign visitors, is also uneven. In fact, although the observed higher proportion of men cannot be

cogent · social sciences

Table 1. Percentage distribution of respondents regarding demographic characteristics	
Nationality	*Angola—24%*
	Neighboring countries of Angola—50%
	European countries—26%
Gender	*Men—62%*
	Women—38%
Age	*< 30 years—20%*
	30–39 years—26%
	40–49 years—30%
	≥ 50 years—24%
Marital status	*Single—14%*
	Married—54%
	Divorced—20%
	Widowed—12%
Level of education	*Primary education—14%*
	Secondary education/high school—52%
	Higher education/university degree—34%

considered statistically significant (binomial test, $P = 0,119$), the sampling of *gender* distribution is not significantly different from that obtained by random sampling the official record of foreign visitors to Iona National Park in 2015 ($G = 3.677$, d.f. = 1, $P = 0.055$). The responses to *age, marital status*, and *level of education* variables were grouped in categories (Table 1).

The different age cohorts seem to be similarly represented ($\chi^2 = 1,040$ d.f. = 3, $P = 0.792$), while the categories of *marital status* and *level of education* appear to be unequally distributed ($\chi^2 = 23,120$ d.f. = 3, $P < 0.001$ and $\chi^2 = 10,840$ d.f. = 2, $P = 0.004$, respectively). The dominant category in *marital status* is *married*, and regarding the *education level,* the vast majority of visitors are educated people; most of them have completed high school and a considerable proportion of those hold a university degree (Table 1). We found a significant association between *nationality* and both *age* (Fisher's exact test = 15.411; $P = 0.011$) and *marital status* (Fisher's exact test = 19.031, $P = 0.001$). The first relationship is a consequence of the following different trends: Angolan visitors predominantly belong to the 30–39 age cohort, European visitors predominantly belong to the last two age cohorts—i.e. the large majority were older than 39 years, while the visitors from countries neighboring Angola tend to be equally distributed across the four age cohorts (Figure 2). The relationship between *nationality* and *marital status* emerges from the following observed trends: singles form the largest group of Angolan visitors, while among European visitors none had that *marital status*; the *widowed* category is well represented among the European visitors, but it has no expression among the Angolan visitors and its expression among the visitors from *neighboring countries of Angola* is just residual; conversely to what happens with Angolan and European visitors, the vast majority of visitors belonging to *neighboring countries of Angola* are married.

Concerning visit-related details for the tourists, responses to the *information source* and to the items associated with the variables *motivation* and *satisfaction* were also grouped into categories (Table 2). Sample data enable the null hypothesis that *information source* categories are equally distributed to be rejected ($\chi^2 = 17.400$ d.f. = 4, $P = 0.002$), instead suggesting that *TV* and *family/ friends* are the most common sources of information. Furthermore, sample data analysis showed a significant relationship between *nationality* and *information source* (Fisher's exact test = 16.791 $P = 0.012$), which mainly arises from two observed trends: Angolans visitors predominantly use mass media, mainly *radio* and *newspaper,* as sources of information; Europeans visitors and

Figure 2. Relationship between *nationality* **and** *age* **among the respondents.**
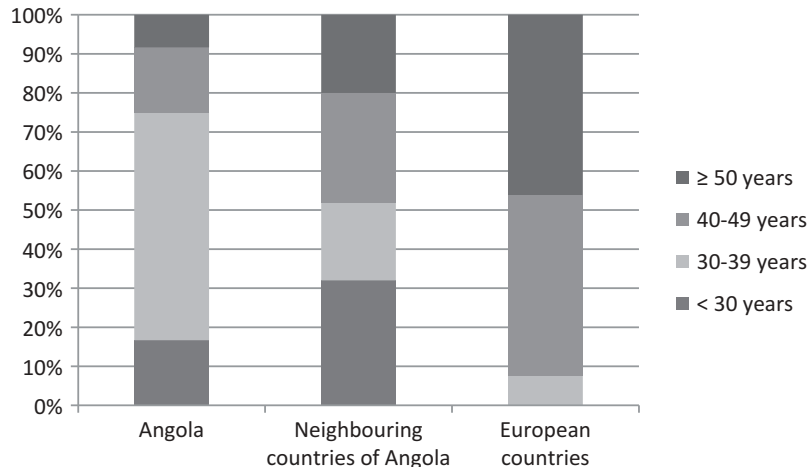

visitors from *neighboring countries of Angola* use *family/friends* as their prime sources of information (Figure 3). The answers to the two questions used to assess *motivation* showed clear preferences (Table 2).

Sample data enable the null hypotheses that the frequencies of these variables are equally distributed across their categories to be rejected (*What was the main reason for your visit to*

Table 2. Percentage distribution of respondents regarding *information source* and concerning different aspects of *motivation* and *satisfaction*	
Information source	
How did you know that Iona National Park is a tourism destination that offers visits like this?	*Newspaper—14%*
	TV—32%
	Radio—12%
	Family/friends—36%
	Other—6%
Motivation	
What was the main reason for your visit to the Iona National Park?	*Leisure—40%*
	Activities in nature—56%
	Cultural activities—4%
In your opinion, what is the most remarkable feature of Iona National Park?	*Landscape—15%*
	Fauna—64%
	Flora—21%
Satisfaction	
What suggestions would you make for improving the visit?	*Invest more in the ecotourism sector—50%*
	Enhance roadways −28%
	Signage for tourism attractions and improving tourism infrastructure—22%
How you classify this tourist experience, using a qualitative adjective?	*Fair—6%*
	Good—63%
	Very good/excellent—31%
Would you recommend this visit to a friend?	*Yes −100%*
	No—0%

cogent · social sciences

Figure 3. Relationship between *nationality* and *source of information* among the respondents.
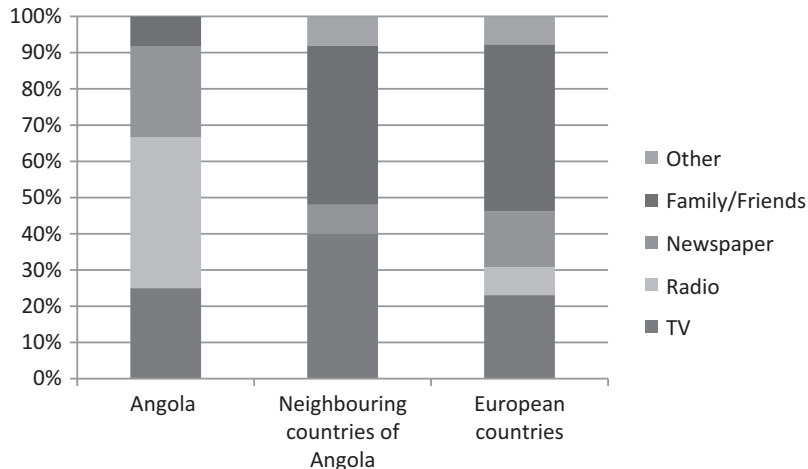
the Iona National Park?—χ^2 = 21.280 d.f. = 2, P < 0.001; *In your opinion what is the most remarkable feature of Iona National Park?*—χ^2 = 30,583.400 d.f. = 2, P < 0.001). *Activities in nature* and *casual leisure*, rather than *cultural activities*, are the preferred options for the *main reason for your visit; fauna* is the dominant option in relation to the *most remarkable feature of Iona National Park* (Table 2). Noteworthy is the significant relationship between *marital status* and the *main reason for your visit* (Fisher's exact test = 11.804, P = 0.028), which arises from the following observed trends: single and widowed visitors predominantly prefer *casual leisure*, and both show some interest in *cultural activities*; conversely, married and divorced visitors predominantly prefer *activities in nature*, and both categories show no interest in *cultural activities*.

The answers to the questions used to assess *satisfaction* showed a considerable convergence of opinions. Visitors' responses to both open questions were easily grouped into a few categories (Table 2). Moreover, sample data enable the null hypotheses that the frequencies of these variables are equally distributed across their categories to be rejected (*What suggestions would you make for improving the visit*—χ^2 = 6.520, d.f. = 2, P = 0.038; *How you classify this tourism experience, using a qualitative adjective?*—χ^2 = 24.163, d.f. = 2, P < 0.001). As to the closed question: "Would you recommend this visit to a friend?" a total consensus was verified—all the respondents said yes. Regarding the item *suggestions for improving the visit*, the category *invest more in the ecotourism sector*, a rather generalist proposal, had twice as many preferences as the categories *enhance roadways* and *signage for tourism attractions and improving tourism infrastructure* combined. Visitors' level of satisfaction was generally high since the vast majority of the respondents considered that their visit experience was *good* or *very good/excellent* (Table 2). Sample data enable the null hypothesis that these levels of satisfaction categories are equally distributed to be rejected (χ^2 = 24.163 d.f. = 2, P < 0.001). Moreover, we did not find any statistically significant effect (ordinal regression analysis, link function: l*ogit*) of bio-data variables on the responses to the question: "How would you classify this tourist experience, using a qualitative adjective?"

4. Discussion

We assembled information from a total of 354 visitors to Iona National Park. By analyzing institutional information, we got to know the nationality and gender of the 304 foreign tourists who visited the park in 2015, and interviewing 50 visitors in 2016 allowed us to investigate tourists' personal traits, the reasons for their visit and their levels of satisfaction. Below we discuss visitors' characteristics and their implications for the economic, social, and environmental dimensions of sustainability, seeking to contribute practical information useful to promote ecotourism in the Iona National Park.

4.1. Visitors' characteristics

The official record of foreign visitors to Iona National Park in 2015 shows that the majority of these tourists are from *neighboring countries of Angola*, particularly South Africa and Namibia. Thus, the opportunities to growth within a strategy of CBC are remarkable. The collected data suggest that these two countries account for about half of the total number of visitors, domestic and international combined, and that the other half originate, in equal parts, from Angola and European countries. Except for the number of Angolan visitors, our study figures are in agreement with official statistics on tourist arrivals to Africa by regions of origin (Nation Master, 2016). In fact, South Africa is the origin country of the majority of tourists visiting the African continent. Besides South Africa, more three neighboring countries of Angola, including Namibia, are in the top 10 list of the countries with the most tourists visiting Africa. The number of visitors coming to Iona National Park from European countries is also in accordance with official statistics on tourist arrivals to Africa by region of origin (Nation Master, 2016), with the exception of UK, whose number of visitors is much lower than expected; in fact, not a single tourist from this country was registered in the official record of visitors in 2015. Possibly, a strong sense of belonging to their country and culture triggers a need to maintain a solid bound with their native environment throughout the visit. Tourists originating from this region seem to prefer other African destinations to Angola, apparently tending to opt for former British colonies and countries where English is a native/official language. Plausibly, similar reasons may explain why the number of Portuguese visitors coming to Iona National Park is slightly higher than that would be expected according to the same statistical reference (Nation Master, 2016). Unsurprisingly, the number of Angolan visitors surpasses the quota expected for domestic tourists according to the same official statistics by a large amount. Geographic proximity, economic advantages, and cultural issues may easily explain this discrepancy. Certainly, it is no mere coincidence that the share of the different countries in the total number of tourists visiting Iona National Park is exactly in-line with the Angolan government priorities for tourism development (Minhotur, 2013). In all likelihood, this fact is both the cause and the consequence of those priorities, which were established entirely with a view to the origins of recent tourists. The government set out the following order of priorities: (i) encourage and promote domestic tourism, then regional tourism—i.e. to target Angola's neighboring countries; and (ii) reach for the international markets that favor tourism destinations in sub-Saharan Africa. The relationship identified between *nationality* and *information source* seems to reflect this governmental policy. In fact, visitors from Angola's neighboring countries and European visitors were aware of the existence of Iona National Park mostly through family and friends, whereas newspapers and radio were the main sources of information about the park's existence for Angolan visitors. On the other hand, the relationship found between *nationality* and both *age* and *marital status* may reflect both the government's advertising strategy and the demographic structure of the target population. Apparently, the government is conducting an effective tourism campaign under the slogan 'Angola: a young and fun country' (Minhotur, 2013), which has captured the attention of a young population. Conversely, the persistence of low birth rates and high life expectancies has led to demographic aging in European countries (Eurostat, 2016), to the point where the number of single people has been surpassed by the number of married people (Pordata, 2017). These population trends may easily lie at the root of the lower than expected number of singles found among European visitors, as well as the higher than expected number of widows and number of tourists belonging to the last two age cohorts. The higher than expected number of married visitors among the tourists from Angola's neighboring countries may partially explain why the majority of the tourists in these areas are younger than 30 years, suggesting that couples tend to bring their children with them, both minors and young adults. Taking tourists from the different origins as a whole, the population of Iona National Park visitors may be considered to be relatively young, and it is clearly younger than common ecotourism populations (Fennell & Smale, 1992). This trait is not surprising bearing in mind the aforementioned demographic features of Iona National Park visitors, but it also combines well with a "wildlife tourism" profile, which is an easy fit for middle-aged to younger tourists (Fennell, 2008; Kellert, 1985). Regarding the *education level*, sample data analysis also points to a "wildlife tourism" profile that is characterized by a strong prevalence of well-educated people (Fennell, 2008; Loker-Murphy, 1996; Meric & Hunt, 1998;

Weiler & Richins, 1995). In fact, almost two-thirds of the visitors have completed secondary education and more than one-third holds a graduate degree.

Considering both the official record of registered foreign visitors to Iona National Park in 2015 and the sample analysis results, it is possible to reach a consistently uneven distribution of visitors' *gender*, with the proportion of *men* significantly higher. The male/female ratio revealed by this study is in accordance with some of the earliest data concerning ecotourism in Latin America countries and Canada, which pointed to a predominantly male population (Fennell, 2008; Fennell & Smale, 1992; Wilson, 1987). The recent trend towards an ecotourism feminization (Fennell, 2008; Galley & Clifton, 2004; Weaver, 2001) has not been observed in Iona National Park, with the present research results suggesting, yet again, that visitors fit a "wildlife tourism" profile, which traditionally attracts more men than women (Applegate & Clark, 1987; Kellert, 1985). The answers to the question *In your opinion, what is the most remarkable feature of Iona National Park?* which was used to assess visitors' *motivation* reinforce that notion as *fauna* was the predominant response. Such a predominant "wildlife tourism" profile is also compatible with the answers to the other question used to assess *motivation: What was the main reason for your visit to Iona National Park?* In effect, nature-based activities, albeit closely followed by *casual leisure*, were the main reason given for the visit, whereas *cultural activities* appear in a distant third place. *Casual leisure* percentage may be partially explained by the high number of single people, mostly Angolans, who declared this as the main reason for their visit. This trend suggests that protected areas such as Iona National Park can compete with *sun & sea tourism*, the strongest brand image of tourism in the Namibe province, for leisure purposes. Regarding *cultural activities*, Iona National Park seems to fall far short of its great potential. However, the growing of cultural heritage tourism in recent years in developing countries (Timothy & Nyaupane, 2009) and the emphasis that several African countries are placing on this branch of tourism (Rivett-Carnac, 2011; Rogerson, 2012; Saarinen, 2015) are signs that may not be ignored by either the public administration or private investment.

The absolute unanimity in response to the question *Would you recommend this visit to a friend?* to which all interviewed visitors responded *yes* reveals that the visit is considered worthwhile. However, the answers to the question *What suggestions would you make for improving this visit?* show that the respondents' expectations were not entirely met and that they feel that some fundamental services and facilities are still missing. The lack of tourism infrastructure, specifically of roadways and signage for tourist attractions, were the downsides most frequently specifically cited, but half of the respondents gave a broader answer, stating that more investment is needed in the whole ecotourism sector. The Angolan administration openly acknowledges the need to reinforce investment in this strategic niche of the market (Minhotur, 2013), but the on-going Biodiversity National Project: Conservation of Iona National Park (UNDP, 2016) already marks a major step forward in obtaining funding for that purpose. The deficiencies felt by respondents in relation to services and facilities seem to have affected their level of satisfaction, as no more than one-third used words such as *excellent* to answer the question *How would you classify this tourist experience, using a qualitative adjective?* In spite of those weaknesses, the number of respondents that used the word *fair* or a synonym to answer the same question was a very small minority, whereas the majority of respondents used the word *good* or a synonym to rate their tourism experience. With a few exceptions, there was a noteworthy convergence of favorable opinions, which may explain why we did not find any statistically significant effect from bio-data variables for the responses to the question *How would you classify this tourist experience, using a qualitative adjective?*

The results of this study strongly suggest that visitors to Iona National Park predominantly fit a "wildlife tourist" profile. Such a dominant profile seems to be prevalent in other similar African tourist destinations (Grünewald et al., 2016; Lee & Du Preez, 2016; Lindsey et al., 2007; Mutanga et al., 2017).

cogent ·· social sciences

4.2. Current and future tourism implications for sustainability

Visitor's satisfaction level and their willingness to return, which is similar to recommend the visit to a friend, are two common criteria used for assessing future economic sustainability of nature-based tourism activities (Bentz, Lopes, Calado, & Dearden, 2016; Pearce, 2006). Although all respondents said that they would recommend the visit to a friend, the implicit good impression they retained from the visit should be regarded with caution, since only about one-third indicated a very high level of satisfaction. If the quality of most visitors' experience does not improve, what means to substantially minimize the above-mentioned downsides in a timely manner, there is a risk of losing tourism revenues to other emerging competitive markets. On the other hand, investing in infrastructural development may represent social benefits to local populations, creating more equity and improving education and working conditions. British tourists are an example of potential visitors from developed countries that presently show no interest in Iona National Park. To change this situation, some supply-side adjustments must be made, involving both public authorities and tour operators. Satisfying most of those tourists' needs seem an important step to increase Iona National Park's attractiveness to them, and so to increase the Park's economic sustainability.

A large proportion of visitors (40%) declared that the main reason for visiting the Park was *casual leisure*. These Park's customers are certainly nature-based tourists, but they cannot be considered *true* ecotourists since their interest in understanding the area's natural and cultural systems is secondary. These visitors, like occasional ecotourists, should not be expected to show a high concern about the damage that their visit may inflict in both the natural environment and local population (Diamantis, 1999). The majority of the visitors (60%) seem to comply with the first ecotourism principle, showing a prevailing interest in natural and cultural attractions. Most of these tourists consider that fauna is the most remarkable feature of Iona National Park and fit a "wildlife tourist" profile.

Wildlife tourists tend to differ according to the nature of their activity: activities requiring more investment and knowledge of the target species tend to be practiced by tourists more concerned over environmental issues (Duffus & Dearden, 1990). To discuss current and near-future tourism possibilities for Iona National Park in the field of "wildlife tourism," and thus discuss those activities' predictable implications, we used the list of seven product categories proposed by Reynolds and Braithwaite (2001) as point of reference: (1) *Nature-based tourism and wildlife component*, where wildlife watching is a key but incidental part of the overall nature-based product; (2) *Locations with good wildlife opportunities*, where accommodation establishments are located in close proximity to wildlife-rich habitat and frequently animals are attracted through the regular artificial provision of food; (3) *Artificial attractions based on wildlife*, where the wild animals are kept in captivity; (4) *Specialist animal watching*, tours for special-interest groups, like birders; (5) *Habitat specific tours*, which focus on areas particularly rich in wildlife generally accessed by specialized vehicles; (6) *Thrill-offering tours*, which are based in the exhibition of dangerous or large animals in areas where they are expected to engage in spectacular behavior; and (7) *Hunting/fishing tours*.

Considering that ecotourists are interested in visiting natural areas, product categories (2) and (3) fall outside the scope of our discussion. The same goes for product category (7), because consumptive forms of outdoor recreation such as hunting and fishing are not encompassed by ecotourism in a strict sense. Nevertheless, hunting, particularly trophy hunting, has repeatedly proven to be a highly profitable activity in many African tourist destinations, capable of generating revenue that benefits local population while simultaneously supporting biodiversity conservation (Lindsey, Alexander, Frank, Mathieson, & Romañach, 2006), which are two main goals of ecotourism. Products fitting category (6) tend to rank high among visitors' preferences (Grünewald et al., 2016). These authors have shown that an abundance of large predators, especially lions (*Panthera leo*) and leopards (*Panthera pardus*), increases the numbers of wildlife tourists. As such, they suggest that wildlife management should focus on the conservation of those predators' ecosystems. This management strategy allows the creation of revenue for protected areas that may

support biodiversity conservation while securing wildlife tourism. However, in Iona National Park, together with vast swathes of west Africa, large predators like the lion currently meet the criteria for critically endangered status (Bauer, Packer, Funston, Henschel, & Nowell, 2016; Henschel et al., 2014); indeed, there are reasons to suspect the recent extinction of this species within the park. Indiscriminate killing in defense of human life and livestock, habitat loss and prey base depletion due to poaching and the bushmeat trade have been highlighted as the foremost causes of the decline (Bauer et al., 2016; Wolf & Ripple, 2016). Thus, thrilling tours based on the spectacular behavior of large predators are currently totally out of reach as tourism products in Iona National Park. Such tours should only be considered as part of a long-term strategy, with the aim of ensuring the recovery of populations of large carnivores and allowing them to reach their carrying capacity. Recent reliable observations of cheetahs, a species once thought to be extinct from Angola, in Iona National Park (CCF, 2014) are hoped to be a sign that the full recovery of populations of large predators has already began.

Within a short-term perspective, the products fitting in category (1), which mainly combines game viewing and photographic excursions with other nature-based activities, appear to be the most promising ecotourism products in Iona National Park. Populations of several large ungulates have finally recovered from drastic declines suffered in the recent past and are now relatively abundant in some areas of the park. The conspicuousness of those gregarious large animals results in a much-appreciated "game reserve" ambience for visitors. Based on anecdotal evidence collected informally during the interviews, the black-faced impala (*Aepycerus melampus petersi*) and the oryx (*Oryx gazelle*) are two examples of wildlife species that visitors like to observe in their habitats as a recreational activity. Iona National Park already provides excellent opportunities for the successful viewing of interesting wildlife species, either with the naked eye or through visual enhancement, and this experience forms part of the larger nature-based ecotourism product. These activities do not require courses, training, special equipment, or skills. The typical clientele may be considered occasional and generalist wildlife tourists, who may see ecotourism as a learning process but generally show low environmental and social awareness (Diamantis, 1999; Duffus & Dearden, 1990).

The park also offers exceptional natural conditions for developing ecotourism products from categories (4) and (5). As to category 4, the Cunene River estuary is an example of a tourism destination that is able to satisfy the highest expectations of the most exigent birders. Regarding category (5), the fact that the park comprises five of the main ecosystems belonging to the southwest arid biome of Angola makes it ideal for the development of a variety of habitat-specific tours. Wildlife tourists looking for categories (4) and (5) products are generally not only more committed to nature conservation, but are also more knowledgeable about the area they are visiting and more skilled at the activity in which they are engaging. They tend to be very specialized visitors, frequently demanding sophisticated equipment and approaches, while also depending on minimal infrastructure and interpretative materials to achieve a rewarding wildlife experience (Bentz et al., 2016). This clientele may be considered frequent and specialized wildlife tourists, who see ecotourism as a learning process but also as process where sustainability norms should be maintained (Diamantis, 1999; Duffus & Dearden, 1990).

5. Conclusion

Herein, we try to answer the study's last question, proposing guidelines for the development of ecotourism in the Iona National Park to advance sustainable development. The final goal is to improve regional and national development while promoting nature conservation and benefits to rural communities in Iona National Park.

In the Iona National Park, there are striking differences in terms of clientele profile and areas location for developing the main potential wildlife tourism activities. The respondents that have indicated *casual leisure* to be their main motivation to the visit are not expected to understand and comply with the three above-mentioned ecotourism principles. Conversely, they are expected to behave like mass tourism visitors, and thus, a great effort should be made to prepare those travelers to minimize environmental and social impacts. We propose the following guidelines for tourism regulatory authorities: visitors

whose main motivation is *casual leisure* should not travel independently but under the guidance of an accredited operator; operators should make a strong appeal for visitors' sense of responsibility; operators should maintain visitors in small groups and tours across the most sensitive habitats should be avoided. Both the clients of products fitting in category (1) and the clients of products fitting in categories (4)/(5) comply with the first principle of ecotourism. However, clients of products fitting in category (1) are expected to differ significantly from clients of products fitting in categories (4)/(5) regarding compliance with the second and third principles of ecotourism. The clients of category (1) products are supposed to be little aware of the social and environmental impacts that their visits may cause, whereas the clientele of categories (4)/(5) is expected to be fully committed with all principles of ecotourism. These differences have important implications for the definition of management directions and for setting *ad hoc* guidelines. To minimize the negative impacts of category (1) products clientele, preventing degradation of the environment and the local cultures, we propose the following guidelines for tour operators: provide visitors with literature on the importance of local habitats conservation and give them detailed instructions on how to behave in the most sensitive natural and cultural settings; lead by example and whenever necessary take corrective actions. For managing visitors, tour operators should also adopt a comprehensive concept of carrying capacity such as *Limits of Acceptable Change* (Stankey, Cole, Lucas, Petersen, & Frissell, 1985), designing goals for the Park according to the acceptable changes in the existing biophysical and social conditions. As to facilities, our guidelines for tour operators include offering site-sensitive accommodations that do not waste local resources and provide ample opportunity for learning experiences and interchanges with local communities. Managing visitors interested in products of categories (4)/(5) may be easier in what regards maintaining environmental and social standards, but that management will certainly be much more challenging in what concerns meeting those visitors high expectations. To make this market niche thrive, i.e. to foster sustainable development trough ecotourism in the Namibe province, it is necessary to avoid visitors crowding in the most sensitive ecosystems and that the tourism in the Park becomes dominated by a clientele with little regard for sustainability. The ultimate challenge is that nature-base tourism grows in popularity while attracting clients fitting an ecotourism profile, who tend to be a small proportion of the population but are generally high-yielding, discerning, and low-impact visitors (Fennell, 2008; Galley & Clifton, 2004).

Author details
Jorge Morais[1]
E-mail: jorgemoraismachado@gmail.com
Rui Alexandre Castanho[1,2,3]
E-mail: alexdiazbrown@gmail.com
Carlos Pinto-Gomes[1,2]
E-mail: cpgomes@uevora.pt
Pedro Santos[1,2]
E-mail: aps@uevora.pt
ORCID ID: http://orcid.org/0000-0001-7907-5133
[1] ICAAM, group of Landscape, Biodiversity and Socio-ecological Systems, University of Évora, Évora, Portugal.
[2] Department of Landscape Environment and Planning, School of Science and Technology, University of Évora, Évora, Portugal.
[3] Environmental Resources Analysis Research Group (ARAM), University of Extremadura, Badajoz, Spain.

Citation information
Cite this article as: Characteristics of Iona National Park's visitors: Planning for ecotourism and sustainable development in Angola, Jorge Morais, Rui Alexandre Castanho, Carlos Pinto-Gomes & Pedro Santos, *Cogent Social Sciences* (2018), 4: 1490235.

References
Applegate, J. E., & Clark, K. E. (1987). Satisfaction levels of birdwatchers: An observation on the consumptive-nonconsumptive continuum. *Leisure Sciences, 9,* 129–134. doi:10.1080/01490408709512152

Bauer, H., Packer, C., Funston, P. F., Henschel, P., & Nowell, K. (2016). *Panthera leo.* The IUCN red list of threatened species 2016, e.T15951A107265605.

Bentz, J., Lopes, F., Calado, H., & Dearden, P. (2016). Managing marine wildlife tourism activities: Analysis of motivations and specialization levels of divers and whale watchers. *Tourism Management Perspectives, 18,* 74–83. doi:10.1016/j.tmp.2016.01.004

Bird Life International. (2016). *Important bird areas factsheet: Iona national park.* Bird Life International. Retrieved December 16, 2016, from http://www.birdlife.org

Bluwstein, J. (2017). Creating ecotourism territories: Environmentalities in Tanzania's community-based conservation. *Geoforum, 83,* 101–113. doi:10.1016/j.geoforum.2017.04.009

Campos, N. (2013). Das potencialidades arqueológicas da bacia do Curoca/Deserto do Namibe para um estudo diacrónico desde a pré-história africana ao período colonial: Algumas notas. [The archaeological potential of the basin Curoca/Namib Desert for a diachronic study from African prehistory to the colonial period: Some notes]. *Africana Studia, 20,* 31–53.

Castanho, R., Loures, L., Fernández, J., & Pozo, L. (2016). Identifying critical factors for success in Cross Border

Cooperation (CBC) development projects. *Habitat International.* doi:10.1016/j.habitatint.2016.10.004

Castanho, R. A., Vulevic, A., Cabezas, J., Fernández-Pozo, L., Goméz-Naranjo, J., & Loures, L. (2017). Accessibility and connectivity – Movement between cities, as a critical factor to achieve success on cross-border cooperation (CBC) projects. A European analysis. *Sustainable Cities and Society, 32,* 181–190. doi:10.1016/j.scs.2017.03.026

CCF. (2014). *After 30-year civil war, Cheetah presence in Angola confirmed.* Cheetah Conservation Fund. Retrieved December 19, 2016, from http://cheetah.org/press-release/after-30-year-civil-war-cheetah-presence-in-angola-confirmed-press-release/on

Chiutsi, S., Mukoroverwa, M., Karigambe, P., & Mudzengi, B. K. (2011). The theory and practice of ecotourism is Southern Africa. *Journal of Hospitality Management and Tourism, 2,* 14–21.

Diamantis, D. (1999). The characteristics of UK's ecotourists. *Tourism Recreation Research, 24,* 99–102. doi:10.1080/02508281.1999.11014884

Duffus, D. A., & Dearden, P. (1990). Non-consumptive wildlife-oriented recreation: A conceptual framework. *Biological Conservation, 53,* 213–231. doi:10.1016/0006-3207(90)90087-6

EDETA. (2013). *Plano Director do Turismo do Namibe (Vol. 1)* [Namibe's tourism master plan (Vol.1)]. Namibe: Author.

Emslie, R. (2012). Diceros bicornis. The IUCN Red List of Threatened Species 2012: e.T6557A16980917. Retrieved December 19, 2016, from http://dx.doi.org/10.2305/IUCN.UK.2012.RLTS.T6557A16980917.en

Eurostat. (2016). Population structure and ageing. Retrieved December 16, 2016, from http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing

Fennell, D. (2008). *Ecotourism* (3rd ed.). London and New York: Routledge.

Fennell, D. A., & Smale, B. J. A. (1992). Ecotourism and natural resource protection: Implications of an alternative form of tourism for host nations. *Tourism Recreation Research, 17*(1), 21–32. doi:10.1080/02508281.1992.11014638

Galley, G., & Clifton, J. (2004). The motivational and demographic characteristics of research ecotourists: Operation Wallacea Volunteers in Southeast Sulawesi, Indonesia. *Journal of Ecotourism, 3,* 69–82. doi:10.1080/14724040408668150

Goodwin, H. (1996). In pursuit of ecotourism. *Biodiversity and Conservation, 5,* 277–291. doi:10.1007/BF00051774

Grünewald, C., Schleuning, M., & Böhning-Gaese, K. (2016). Biodiversity, scenery and infrastructure: Factors driving wildlife tourism in an African savannah national park. *Biological Conservation, 201,* 60–68. doi:10.1016/j.biocon.2016.05.036

Henschel, P., Coad, L., Burton, C., Chataigner, B., Dunn, A., MacDonald, D., … Hunter, L. T. B. (2014). The lion in West Africa is critically endangered. *PLoS ONE, 9*(1), e83500. doi:10.1371/journal.pone.0083500

Kajikawa, Y. (2008). Research core and framework of sustainability science. *Sustainability Science, 3,* 215–239. doi:10.1007/s11625-008-0053-1

Kellert, S. R. (1985). Birdwatching in American society. *Leisure Sciences, 7,* 343–360. doi:10.1080/01490408509512129

Kiss, A. (2004). Is community-based ecotourism a good use of biodiversity conservation funds? *TRENDS in Ecology and Evolution, 19,* 232–237. doi:10.1016/j.tree.2004.03.010

Lee, D. E., & Du Preez, M. (2016). Determining visitor preferences for rhinoceros conservation management at private, ecotourism game reserves in the Eastern Cape Province, South Africa: A choice modeling experiment. *Ecological Economics, 130,* 106–116. doi:10.1016/j.ecolecon.2016.06.022

Lindsey, P. A., Alexander, R., Frank, L. G., Mathieson, A., & Romañach, S. S. (2006). Potential of trophy hunting to create incentives for wildlife conservation in Africa where alternative wildlife-based land uses may not be viable. *Animal Conservation, 9,* 283–291. doi:10.1111/j.1469-1795.2006.00034.x

Lindsey, P. A., Alexander, R., Mills, M. G. L., Romañach, S., & Woodroffe, R. (2007). Wildlife viewing preferences of visitors to protected areas in South Africa: Implications for the role of ecotourism in conservation. *Journal of Ecotourism, 6,* 19–33. doi:10.2167/joe133.0

Loker-Murphy, L. (1996). Backpackers in Australia: A motivational-based segmentation study. *Journal of Travel and Tourism Marketing, 5*(4), 23–45. doi:10.1300/J073v05n04_02

Martins, S. (2015). *Labirintos Mundiais: As revoluções pós-modernas e os caminhos da incerteza global* [World mazes: Postmodern revolutions and the paths of global uncertainty]. Lisboa: Silabo.

Medeiros, E. (2015). Territorial impact assessment and cross-border cooperation. *Reg Studies Reg Sciences, 1,* 97–115.

Meric, H. J., & Hunt, J. (1998). Ecotourists' motivational and demographic characteristics: A case study of North Carolina travellers. *Journal of Travel Research, 36*(4), 57–61. doi:10.1177/004728759803600407

Minhotur. (2013). *Plano Director do Turismo de Angola* [Angola tourism master plan]. Angola: PM Media.

Mutanga, C. N., Vengesayi, S., Chikuta, O., Muboko, N., & Gandiwa, E. (2017). Travel motivation and tourist satisfaction with wildlife tourism experiences in Gonarezhou and Matusadona National Parks, Zimbabwe. *Journal of Outdoor Recreation and Tourism, 20,* 1–18. doi:10.1016/j.jort.2017.08.001

Nation Master. (2016). Tourist arrivals by region of origin, Africa: Countries compared. Retrieved December 16, 2016 from http://www.nationmaster.com/country-info/stats/Economy/Tourist-arrivals-by-region-of-origin/Africa

Pearce, P. L. (2006). The value of a benchmarking approach for assessing service quality satisfaction in environmental tourism. In B. Prideaux, G. Moscardo, & E. Laws (Eds.), *Managing tourism and hospitality services: Theory and international applications* (pp. 282–299). Oxfordshire, UK: CAB International.

Pordata. (2017). *População residente segundo os censos: Total e por estado civil -Portugal* [Resident population by census: Total and by marital status – Portugal]. Retrieved January 25, 2017, from http://www.pordata.pt/Portugal/Popula%C3%A7%C3%A3o+residente+segundo+os+Censos+total+e+por+estado+civil++-17

Powell, L. A., Kazahe, U., & Kharuxab, R. (2017). Livestock farmers engage in ecotourism as a result of beliefs and attitudes toward wildlife on communal lands in Namibia. *Human Dimensions of Wildlife, 22,* 217–230. doi:10.1080/10871209.2017.1295490

Reynolds, P. C., & Braithwaite, D. (2001). Towards a conceptual framework for wildlife tourism. *Tourism Management, 22,* 31–42. doi:10.1016/S0261-5177(00)00018-2

Rivett-Carnac, K. (2011). *Cultural world heritage site scan: Lessons from four sites* (Working Paper Series Nº 19).

cogent •• social sciences

Halfway House: Development Bank of Southern Africa Limited.

Rodríguez-Serrano, I., Caldés, N., De La Rúa, C., Lechón, Y., & Garrido, A. (2017). Using the framework for integrated sustainability assessment (FISA) to expand the multiregional input–output analysis to account for the three pillars of sustainability. *Environment, Development and Sustainability*, *19*, 1981–1997. doi:10.1007/s10668-016-9839-y

Rogerson, C. M. (2012). The tourism-development nexus in sub-Saharan Africa: Progress and prospects. *Africa Insight*, *42*(2), 28–45.

Saarinen, J. (2015). Setting cultural tourism in Southern Africa. *Nordic Journal of African Studies*, *24*, 207–220.

Stankey, G. H., Cole, D. N., Lucas, R. C., Petersen, M. E., & Frissell, S. S. (1985). The Limits of Acceptable Change (LAC) system for wilderness planning (General Technical Report INT-176). Ogden/Utah: United States Department of Agriculture Forest Service Intermountain Forest and Range Experiment Station.

Timothy, D. J., & Nyaupane, G. P. (Eds.). (2009). *Cultural heritage and tourism in the developing world: A regional perspective*. London and New York: Routledge.

UNDP (2016). *Projecto Nacional de Biodiversidade. Conservação do Parque Nacional Iona* [National Biodiversity Project: Conservation of Iona National Park]. United Nations Development Programme, UNDP GEF PIMS 4581/GEFSEC Project ID 4082 (Unpublished manuscript).

Ward, J. D. (1983). On the antiquity of Namib. *South African Journal of Sciences*, *79*, 175–183.

Weaver, D. B. (2001). *Ecotourism*. Milton, Queensland: John Wiley & Sons.

Weiler, B., & Richins, H. (1995). Extreme, extravagant and elite: A profile of ecotourists on earthwatch expeditions. *Tourism Recreation Research*, *20*(1), 29–36. doi:10.1080/02508281.1995.11014730

Wilson, M. A. (1987). *Nature-orientated tourism in Ecuador: Assessment of industry structure and development needs* (FPEI Working Paper Series, Nº 20). Raleigh, North Carolina: North Carolina State University.

Wolf, C., & Ripple, W. J. (2016). Prey depletion as a threat to the world's large carnivores. *Royal Society Open Science*, *3*, 160252. doi:10.1098/rsos.160131

World Commission on Environment and Development (1987). *Our common future, the Brundtland report*.

Yigitcanlar, T., Dur, F., & Dizdaroglu, D. (2015). Towards prosperous sustainable cities: A multiscalar urban sustainability assessment approach. *Habitat International*, *45*, 36–46. doi:10.1016/j.habitatint.2014.06.033

Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com