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Keywords
sustainable tourism, ecotourism

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Nothing new in research on environmentally sustainable tourism?

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Abstract
Sustainable tourism has become an area of great interest to both academia and industry over the past three decades, producing a large number of research studies designed to advance knowledge of the area. For tourist destinations concerned about the sustainability of tourism, the attraction of individuals who may have a lower ecological footprint/impact is desirable. However, a review of sustainable tourism and ecotourism literature reveals that over the past 15 years, there has been little advancement (or agreement) in regards to the definition of sustainable tourism/tourists or characteristics that may identify environmentally friendly (and sustainable) tourists. Given this lack of agreement and consistent research findings, it would be expected that current researchers would be providing a large number of recommendations for future work. Surprisingly this is not the case, with few of the reviewed papers presenting any recommendations at all. The review concludes with the authors' views on where more research in the area of ecologically sustainable tourism is needed.
Keywords: sustainable tourism, ecotourism

1 Introduction

Sustainable tourism is an area of study that has been researched extensively. Sustainable tourism typically refers to the recognition of minimal resources impacting on and environmental degradation resulting from, among others, tourism related activities (Bramwell & Lane 2005), and seeks to propose management strategies to ensure the long term continuation of the tourism industry in light of these issues. While the authors acknowledge there are many facets of sustainable tourism (Bramwell & Lanne, 2005, Sofield & Li, 1998), the focus of this paper is on the environmental component.

The Journal of Sustainable Tourism was established in 1993, with Bramwell and Lane as the editors. In their first editorial they stated the aim of the journal as being "…to foster both research and practice in sustainable tourism to help develop both a theoretical base for the subject and reliable empirical evidence of its results and impacts" (Bramwell & Lane 1993, p. 3). Bramwell and Lane (1993) accredit the origins of the concept of sustainable tourism to Europeans in the late 1970s, although claim it quickly disseminated internationally. This is supported by statistics related to the occurrence of papers published in tourism related journals listed by the key word "sustainable", from zero in 1976-1979 to 446 in 2000-2004 (Bramwell & Lane 2005).

Despite this rapid dissemination of the concept and increase in research studies some authors have expressed that research articles in this field do not seem to present any radically new directions or ideas. Bramwell and Lane (2005), for instance, state that there is general

agreement among editors that "there has been a proliferation of very descriptive case studies that add only modestly to advancing research frontiers and critical understanding" (p. 57). If this is the case, then the question arises as to what is new in sustainable tourism research?

In this study we aim to contribute to answering this question. More precisely we (1) review the way in which definitions of sustainable tourism have changed over the past 15 years, (2) review how environmentally friendly tourists have been profiled over the past 15 years, (3) review recommendations for future work made by authors in the field, and (4) make our personal suggestions for required future work.

2 Methodology

The methodology chosen for the study was bibliographic research, which is defined as "In its basic definition bibliographical studies encompasses the systematic description and history of printed material". We reviewed 27 articles, including both theoretical and empirical studies, concerned with sustainable tourism and ecotourism. We only focused on the main outlets for publication of work in this field and we also limited the review to journals which are generally acknowledged as the highest quality publications (Journal of Travel Research, Annals of Tourism Research, Tourism Management and the Journal of Sustainable Tourism). A full list of references of the reviewed articles is provided in the Appendix. Only articles published in the past 15 years (1990-2005) were included. Definition and operationalisation factors were extracted from each article and entered into an SPSS data set. The resulting variables form the basis of analysis.

Ecotourism literature was included in the review because it represents a valuable source of empirical research into the ecological aspect of sustainable tourism. Members of the industry concerned with the sustainability of tourism and the environment are concerned with the minimisation of the "ecological footprint" or impact of each tourist. A number of environmental studies have concluded that individuals differ in levels of environmentally friendly behaviour (Becker *et al,* 1981, Carrus, Bonaiuto & Bonnes, 2005, Kals, Schumacher & Montada, 1999). The identification and characterisation of sustainable tourists should thus be the focus of environmentally concerned tourist destinations, although the authors acknowledge the difficultly in accurately classifying high or low ecological footprints. Despite its importance to sustainable tourism, little research has been undertaken with the aim of identifying sustainable tourists within the general population. There has been, however, extensive research conducted in the area of ecotourism. Ecotourists represent a subset of sustainable tourists, and are usually identified by an interest in outdoor and nature based activities, as opposed to sustainable tourists who can appear across all contexts. Currently, due to the lack of research across the general population and other contexts, ecotourism literature provides the best source of research regarding tourists who may have low environmental impacts.

3 Results

3.1 Changes in definitions of sustainable tourism over the past 15 years

A common problem with studies investigating ecological sustainability – which has been frequently acknowledged by experts in the area (Juric, Cornwell & Mather, 2002; Lindberg, Enriquez & Sproule, 1996; Meric & Hunt, 1998; Weaver, 1999; Weaver, 2005; Weaver & Lawton, 2002) - is the lack of general agreement as to what defines sustainable tourism. As of yet, there is no single accepted definition that is generally agreed upon.

This is evidenced by the extraction of seventeen different definitional variables from the reviewed literature. Very few definitional components are used in a large number of articles on sustainable tourism. In the ideal case in which a field of research jointly aims at moving forward in developing knowledge in a field, one would expect most definitional components to be included in all (100%) of the studies. In sustainable tourism, however, only one single aspect (learning about nature) is mentioned by more than half of the researchers.

In order to assess the developments in the definition of sustainable tourism over the last 15 years, the articles included in the literature review were divided into three categories, (1) 1990-1994, (2) 1995-1999, and (3) 2000-2005. The results are provided in Figure 1.

Figure 1: Changes in definitions (absolute numbers)

	1990-1994	1995-1999	2000-2005	Total
Leaning about nature	3	5	6	14
Natural Location	3	4	4	11
Cultural interactions	0	5	6	11
Nature Based	1	5	4	10
Conservation of nature	3	3	3	9
Sustainability of nature	2	3	3	8
Economic contribution to host community	1	3	4	8
Protection of nature	2	3	2	7
Undisturbed location	2	1	3	6
Appreciation of nature	2	3	1	6
Experiencing nature	1	0	3	4
Escape from pressured pace of living	1	2	1	4
Physical Activities	0	2	1	3
Understanding nature	1	0	0	1
Observation of nature	1	0	0	1
Interacting with nature	0	0	1	1
Long trip	1	0	0	1

The definitions provided in these three groups of publications were then cross-tabulated and a Chi squared test was performed to determine whether definitional components changed over time. The Chi squared test is the appropriate test of significance given that both the groups of years and the definitional components are not metric in nature. None of the Chi squared test returned a significant result with all p values being above 0.05. Consequently it can be concluded that – although there is little agreement on the aspects that should be used to define sustainable tourism – no major changes have taken place over the past 15 years. This could be an indication of "stable insecurity" about what precisely sustainable tourism means. Alternatively this may indicate that not much development in research on the very fundamental aspect of sustainable tourism (the definition) has occurred during this period of time.

3.2 Changes in characteristics of sustainable tourists over the past 15 years

The empirical sustainable tourism research outcomes of interest to this literature review were the identification of specific characteristics of sustainable tourists. This specific area was chosen for two reasons: (1) there seems to be a focus in environmentally sustainable tourism research

on profiling environmentally friendly tourists, and (2) it appears that understanding who environmentally friendly tourists are provides a promising opportunity for destination management to selectively attract pro-environmental visitors.

The reviewed articles were divided into the three date categories (1990-1994, 1995-1999 and 1999-2005) to assess whether the characteristics of sustainable tourists have changed over the past 15 years. Results are provided in Figure 2.

Figure 2: Changes in operationalisations (absolute numbers)

		1990-1994	1995-1999	2000-2005	Total
Age	Middle	1	1	2	4
	Older	0	1	1	2
Health Concerns	Yes	1	0	0	1
Physically active	Yes	1	0	0	1
Adventure seeking	Yes	1	0	0	1
Interest in learning	Yes	3	2	2	7
Income	High	2	1	1	4
Higher/tertiary education	Yes	2	2	3	7
Willing to forgo comforts	Yes	1	0	0	1
Higher expenditure	Yes	1	0	1	2
High environmental awareness	Yes	2	0	0	2
Environmental concern	High	1	0	1	2
Interest in Culture	Yes	1	1	0	2
Gender	Female	1	1	0	2

Chi-squared test results indicate that no changes have taken place over time. This result is even more surprising than the comparison of definitional components because it is reasonable to assume that the general awareness of population for matters of environmental sustainability would have changed dramatically over the last 15 years (Dunlap *et al.*, 2000, p.426). It is surprising that such major changes in the population are not reflected in research findings on sustainable tourists.

3.3 Items of future work proposed by experts

The surprising result of our review was that – despite general agreement among researchers that sustainable tourism research is one of the most important areas of research within the field of tourism as it centres on protecting the very foundation of what is offered and sold to tourists – very few recommendations for future work were proposed. Even fewer of these recommendations represent more than marginal changes of direction from what has been done in the past.

In the area of improving the definition of sustainable tourism or arriving at a definition that is generally accepted, there were few recommendations. However, Blamey (1997) and Palacio and McCool (1997) are two worth noting. Blamey states there is a need to identify attributes that differentiate ecotourism from nature based tourism, and a need for greater discussion of the purpose and nature of ecotourism (p. 128). Palacio and McCool provide more specific recommendations, suggesting research should focus on pursuing “descriptive rather than normative” definitions, based not on where sampling occurs or a priori accounts of what they

should be doing, but based on motivations or benefits experienced (p. 242).

With respect to the characteristics of sustainable tourists - an area for which we have demonstrated above that there is little agreement in findings and that findings may well be context dependent – some authors nevertheless state that more of this kind of research would be valuable. For example, Meric and Hunt (1998) state that "Research is still needed in the areas of demographics and psychographics as well as attitudinal and motivational characteristics of ecotourists" (p. 60), believing this will generate greater understanding and lead to the establishment of agreed upon definitions and classifications (p. 60). Likewise, Uysal *et al* (1994) state that "Future research is needed to identify and characterise this market [ecotourists]" (p. 293), without giving any direction as to how this can take place, or how this would advance the current state of research knowledge concerning the characterisation of sustainable tourists.

A large number of studies did not provide any general recommendations for future work. Instead their recommended future work was very tightly linked to their particular study. For instance, Hong, Kim and Kim (2003) focused on green tourism and suggested more in depth research be undertaken in regards to whether green tourists expect new seasonal experiences, and recommend sensation seeking be considered as an alternative segmentation variable in follow up studies (p. 339). Likewise, Reynolds and Braithwaite (2001) provide some very specific areas for future research in regards to wildlife tourism, such as "…the analysis of visitor satisfaction with various types of wildlife experiences, determining carrying capacity of sites, economic implications for tourism and conservation, and the impacts on society and education" (pp. 39-40).

Only very few researchers articulate that the main aspect currently missing in the sustainable tourism research field is increased analytic, systematic or better operationalised work which would enable the management of sustainable tourism just as other tourism aspects are managed, and would provide a tool for managers rather than a philosophy. Hvengaard (1994) recommends that future work be based on existing frameworks, as this will enable research to enhance the analytical capability in managing sustainable tourism (p. 32). Hvengaard states that "Only with a clear understanding of the parameters of ecotourism can it be promoted as a viable method of conservation and sustainable development" (p. 32), indicating that it is necessary to make sustainable tourism more measurable in order to compare results and aid management in implementing results. In line with this, Pennington-Gray and Kerstetter (2002) present a constraints framework through which to analyse sustainable tourism, and they suggest future work should focus on developing this model further to identify what constrains travellers from participating in sustainable tourism, in a variety of situations and destinations (pp 421). Weaver and Lawton (2002), while making recommendations quite specific to their study of ecolodge guests, also suggest that research should be extended in relation to context, destinations and participants to study "how the ecolodge patrons fit within a larger ecotourist market framework" (p. 279).

4 Discussion and conclusion

The aim of this paper was to review literature concerning sustainable tourism and ecotourism, in order to determine to what extent research is adding to the current level of knowledge in these areas. In particular, this paper focuses on the definition and characterisation of sustainable tourists, two of the main streams of research in sustainable tourism, and assesses the development of sustainable tourism in the past 15 years.

The literature review suggests that very few radically new directions or ideas have been proposed over the last fifteen years, despite (or perhaps as a consequence of) the lack of agreement concerning a definition of sustainable tourists, or a consistent profile of these individuals. This is in agreement with statements made by Page (2005), who claims that "if only 25% of the current tourism outputs were produced, our knowledge base in the subject would not be adversely affected" (p. 665) and that "a fear of "breaking the mould" and being rejected has led to research becoming formulaic, less creative, dull and less interesting" (p. 664). This is an extremely serious issue for not only sustainable tourism researchers, but for all work concerning the wider tourism context. Upon its establishment in 1993, the Journal of Sustainable Tourism stated an intention to "foster an *increasing* understanding of the subject [sustainable tourism] amongst the industry" (Bramwell & Lane, 1993, p. 3 [italics added by authors]). Based on the findings from our review it is questionable whether this aim has been achieved in the field of sustainable tourism research in general.

The current state of knowledge regarding definitions of sustainable tourists still reveals a major lack of agreement. Given the remarkable increase in acknowledgment of the importance of sustainable tourism to the industry, and increased amount of work being done on the subject, it is hard to believe that there is no generally accepted definition – as all work done in the area must be first based on some sort of explicit or implicit classification of what sustainable tourism, and a sustainable tourist, is. A suitable working definition could be that of Bramwell and Lane (2005), who state that sustainable tourism is associated with "…tourism development and management patterns that provide people with lasting livelihoods with minimal resource depletion and environmental degradation" (p. 52). While this definition does not cover all of the 17 definition variables extracted from the reviewed literature, it contains the central aspect of ecologically sustainable tourism without any unnecessary restrictions. It consequently lends itself very well for a common definition which could be generally used and enforced by reviewers rather than encouraging every author to propose a new version of a definition.

We agree that the direction of characterising and profiling tourists with a small ecological footprint should be a focal point for sustainable tourism research, as individuals with reduced environmental impacts are a desirable target market for environmentally concerned destinations. However, the reviewed literature revealed sixteen different characteristics attributed to sustainable tourists, with only four of these (age, education, interest in learning and income) appearing in a majority of papers. In addition to this, inconsistencies did not decrease over the past 15 years, indicating that only very limited additional knowledge concerning characteristics of sustainable tourists has been gained. One of the reasons is, once again, a lack of a definition of ecologically sustainable tourism - which leads to each study operationalising ecological sustainability differently, consequently generating inconsistent findings.

Based on these results one would expect that long lists would have been published containing future work requirements. Surprisingly, this is not the case. Of the limited number of papers that did recommend areas for future study, few suggestions were likely to lead to more than marginal advances in knowledge or marginal changes in direction. Those that should be noted include Palacio and McCool's (1997) recommendation that definitions of sustainable tourists move away from the geographic location where sampling occurs or a prior statements of what sustainable tourists should be doing, and instead be based more on the factors motivating these individuals to act in environmentally friendly ways while in the tourism context. Despite the prevalence of current literature researching the demographic, psychographic, behavioural and attitudinal characteristics of sustainable tourists – which has been shown to have led to inconsistent and limited results – a number of experts felt the need to recommend that more of this type of research is needed. However, propositions for future work by Hvengaard (1994), Pennington-Gray and Kerstetter (2002) and Weaver and Lawton (2002) are more encouraging, as they have the potential to further the ability of sustainable tourism research in advancing

current knowledge by more than marginal increments, and enable the application of research results in the industry.

From our review of the literature we feel that – at the very least - the following directions of research are urgently needed in the field of ecologically sustainable tourism research:

1. Agreement on a generally accepted working definition for environmentally sustainable tourism. This recommendation is based on our findings that – despite many calls by researchers for a unified definition – researchers in the field of sustainable tourism still use a wide variety of alternative definitions, making their research les comparable and consequently less valuable in terms of knowledge contribution. We recommend the definition by Bramwell and Lane (2005) as it represents a common denominator containing the essence of ecologically sustainable tourism without imposing unnecessary restrictions.

2. Environmental sustainability (as a reduced impact on a destination's environmental resources) and environmentally friendly tourists need to be made measurable. This recommendation is based on our empirical finding that a wide variety of alternative operationalisations was used to profile sustainable tourists and ecotourists, some of which in fact do not seem to reflect the core idea of sustainable tourism. Guided by the definition agreed upon, a consistent operationalisation will significantly strengthen the insight derived from empirical work in the field. Such an operationalisation should then be used in replication studies in different contexts to enable the derivation of empirically generalisable knowledge that represents not only theoretical advancement but also provides destination management with a reliable stating point for their work. Currently a destination manager only knows to target highly educated people who want to learn, as all other characteristics appears to vary from study to study.

3. Definition of environmentally sustainable behaviour at a destination. While sustainable tourism aims at making tourists behave in a more environmentally friendly manner (by educating them, by highlighting the option that they can reuse their towels, by restricting the number of visitors in certain areas etc.) no attempt has ever been made to systematize environmentally friendly behaviour and try to quantify which kind of behaviour is relevant to which tourism setting and which kind of behaviour has weak, medium or strong positive or negative effects on the environmental footprint. This recommendation results from the conclusions drawn from the review that most of the work on sustainable and ecotourism is based on respondents attitudes rather than their actual behaviours. When environmentally friendly behaviour is the very focus of research, however, it is obviously important to actually measure behaviour and – at least – validate attitudinal scales used.

4. Development of a model that is able to predict environmentally friendly behaviour. To date environmentally friendly behaviour – the most essential dependent variable for this field of research – has never been attempted to be measured. At the most, intentions or attitudes are measured and used as a substitute operationalisation for behaviour. A number of theories for understanding and predicting human behaviour have been proposed in the past, which perform very well in a wide range of contexts. Environmentally friendly behaviour at a tourism destination should be studied in the same way. One theory that lends itself to this task and has been extensively empirically validated is the Theory of Planned Behaviour (Ajzen, 1988). This recommendation is based on the fact that most fields of research that are interested in a certain kind of behaviour (purchasing, healthy eating, etc.) develop models and try to identify factors that explain the behaviour under study. To the authors' knowledge no such attempt has been made in the context of environmentally friendly behaviour at tourism destinations.

Research into these recommended areas is hoped to lead to significant advancements in the definition of sustainable tourists, characterisation of sustainable tourists, and a greater understanding of those individuals with lower environmental impacts.

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