

IMPLICATIONS OF ALTERNATIVE DEFINITIONS OF ECOTOURISTS

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Ecotourists have become popular subjects for research. However, a lack of agreement on the definition of ecotourists continues to challenge progress in research on this group. Different authors frequently use different criteria, often mixing both supply-side and demand-side concepts. This study examines the impact of two operational definitions, one using a mix of supply and demand variables, the other using an approach where tourists self-define their identity. These two approaches are tested with the visitors to Taroko National Park in Taiwan. Some significant differences in the profiles of the two groups are observed; the study concludes that any definition of ecotourism should include reference to motivations, activities, benefits sought, and measures of environmental attitudes.

Key words: Ecotourists; Tourist profiles; Nature tourism; Taiwan; National Park

Ecotourists have become a popular market segment for research. Research on this group, as well as on ecotourism itself, has grown dramatically in recent years as scholars, planners, consultants, and policy-makers attempt to better understand ecotourists and to manage the growth and impacts of their activities. A distinguishing and problematic characteristic of research on both ecotourists and ecotourism is the failure of researchers to reach a consensus on definitions of these concepts.

Ecotourism researchers mix, in varying degrees, a supply-side approach in which they emphasize the location or the nature of tourism services and products as a basis for defining ecotourism, and a demand-side perspective that includes tourist motives,

attitudes, and activities. This definitional confusion can generate controversy about which activities and operations should be deemed to be “true” ecotourism. It also constrains the consistent and comparable quantitative evaluation of the nature and magnitude of the ecotourism market in different locations and over time (Giannecchini, 1993; Woods & Moscardo, 1998). Similarly, different definitions of ecotourists can make coherent and consistent comparisons among ecotourists and non-ecotourists difficult.

The objectives of this article are to propose two alternative strategies for defining ecotourists and to examine the impact of these two strategies on the resulting profiles of ecotourists and non-ecotourists.

Defining Ecotourism and Ecotourists

The range of ecotourism definitions is seen in the following examples. The Canadian Environmental Advisory Council Market Demand Study (Scace, Grifone, & Usher, 1992) emphasizes the nature of the tourist's experience when it defines ecotourism as "an enlightening natural travel experience that contributes to conservation of the ecosystem, while respecting the integrity of host communities" (p. 14).

Ceballos-Lascurain (1991), in contrast, bases his definition on a combination of location and activity. Ecotourism is:

travelling to relatively undisturbed natural areas with the objective of admiring, studying, and enjoying the scenery and its wild plants and animals, as well as any cultural features found there. (p. 31)

Ziffer (1989) proposes a more restrictive definition with a stronger prescription about the types of activities that can be considered to be ecotourism. To her, ecotourism is:

a form of tourism inspired primarily by the natural history of an area, including its indigenous cultures. The ecotourist visits relatively undeveloped areas in the spirit of appreciation, participation and sensitivity. The ecotourist practices a non-consumptive use of wildlife and natural resources and contributes to the visited area through labour or financial means aimed at directly benefiting the conservation of the site and the economic well-being of the local residents. (p. 6)

Each of these definitions is conceptual in that it provides a general statement about the key qualities each author deems important for the phenomenon of ecotourism. For the purposes of this article, the following conceptual definition is proposed, synthesizing some of the common elements in the above definitions. Ecotourism is tourism occurring in a natural setting, providing environmental education, respecting natural conservation, and with a goal of integrated, sustainable environmental management.

The definition of ecotourism leads directly to the question of how to define an "ecotourist." As with the definition of ecotourism, definitions of ecotourists are diverse and typically involve a range of different components. A common approach is to list characteristics that a person should possess to be considered to be an ecotourist (Valentine, 1992a).

However, such definitions often are more a wish list of what ecotourists should be than what they really are (Ballantine & Eagles, 1994). Some authors have even questioned whether ecotourists actually constitute a distinct market segment, suggesting that they exist squarely in the ranks of the mainstream traveler and often have travel styles and seek many of the same benefits as other tourists (Reingold, 1993). Moreover, Wight (1996a) has observed that the travel motivations of ecotourists can overlap those of other types of tourists.

In a sense, when people attempt to define the ecotourist, a circular discussion rises: the ecotourist is one who engages in ecotourism, and the argument returns to defining ecotourism. This means the definition and analysis of ecotourists depends on what is deemed to be a valid ecotourism activity or experience (Woods & Moscardo, 1998).

Although Wight has suggested that travel motivations of ecotourists and non-ecotourists can overlap, it is likely that ecotourists do have certain distinctive motivations, such as those related to seeking certain types of nature-based experiences that can be used to characterize the nature of demand for ecotourism (Woods & Moscardo, 1998). Weiler and Richins (1995, p. 29), quoting Valentine (1992b), distinguish ecotourists from other tourists by their desire to enjoy the "relatively undisturbed phenomenon of nature," and that enjoyment of the ecotourism experience is dependent on, rather than incidental to, it occurring in a natural setting.

Within the broad definition of ecotourists, Weiler and Richins (1995) suggest that different types of ecotourists can be identified depending on how any given ecotourist fits within each of three dimensions:

- The level of commitment to be environmentally responsible (minimize impacts on natural environments or habitats);
- The level of intensity of interaction with the environment (passive observer/listener to active involvement); and
- The level of physical difficulty or challenge (low physical effort to high physical effort).

Other authors have segmented ecotourists on the basis of group type, level of nature-related interest, time in activity, and amount of physical rigor (Hvenegaard, 1994; Wight, 1996b). Woods and

Moscardo (1998) argue that ecotourists can be classified according to the types of activities and attributes important to them in a holiday destination. Lindberg (1991) suggested that there are four types of nature-based tourists (a term that, in Lindberg, is synonymous with “ecotourist”), based on their motives or interest level:

- hard core (scientific researchers or members of educational or conservation tours; tolerant of limited amenities);
- dedicated (people who visit protected areas to learn about local natural history; tolerant of limited amenities);
- mainstream (people who visit unique natural destinations just to take an unusual trip); and
- casual (people who partake of nature incidentally or as part of a broader trip).

Despite the variations in the type of ecotourist, there is a common desire to travel to a natural environment and enjoy nature-based activities. Thus, for this article, an ecotourist is conceptually defined as anyone traveling with the primary motivations of viewing, enjoying, and experiencing nature in a relatively undisturbed natural area and undertaking at least one ecotourism-related activity during his/her trip.

Many studies of ecotourists focus on motivations. Eagles (1992) suggests motivations to engage in ecotourism can be divided into two categories: “attraction motivation” and “social motivation.” Attraction motivations are related to the desire to experience certain types of natural environments, such as the mountains or a wetland, as well as experiential aspects of nature such as the opportunity to view wildlife. Social motivations include the desire to have the opportunity to meet others, to learn, and to challenge oneself. Fishman (1995) sees these two categories of motivations as similar to the “pull” and “push” factors of Willson (1991). Push factors (which are seen as similar to social motivations) are sociopsychological characteristics of tourists shaped by their personal environments that predispose them to travel. Some of the psychological motivators acting as push factors may include the desire for escape, rest and relaxation, prestige, health and fitness, adventure, and social interaction. Pull factors (analogous to attraction motivations) are those that emerge

as a result of the attractiveness of a destination and are thought to help to establish the actual destination choice (Bello & Etzel, 1985). These can include the desire to be in wilderness, water, mountains, parks, and rural environments.

Motivation studies often attempt to compare ecotourists to non-ecotourists. Ballantine (1991), Eagles (1991, 1992), and Fennell (1990) found that, compared to the average tourist, Canadian ecotourists are more interested in the attraction motivations of wilderness, water, mountains, parks, and rural areas. This finding is similar to that by Woods and Moscardo (1998) in connection with ecotourists from Australia, Japan, and Taiwan. Ecotourists consistently expressed stronger preferences for environments such as lakes and rivers, and were more likely to have participated in nature-based activities (e.g., visiting national parks/protected land/natural ecological sites). In addition to destination attributes, ecotourists tend to be more driven by the social motivations of learning about nature, photography of landscape and/or wildlife, being physically active, experiencing a new lifestyle, meeting people of similar interests, pursuing adventure, and seeing the maximum in the time available than other tourists (Ballantine, 1991; Eagles, 1991, 1992; Fennell, 1990).

Another way of looking at the forces that shape ecotourists’ behavior is to examine the benefits they seek from ecotourism. Benefits are defined as “gains or increased improvements in conditions” that result from travel behavior when measured after participation (Driver, 1990). The concept of “benefits sought” is one of the most widely perceived travel antecedent variables (Calantone & Johar, 1984; Coltman, 1989; Driver, Brown, & Peterson, 1991; Mill & Morrison, 1992). The role of benefits sought is that anticipated outcomes (benefits) determine part of tourists’ behaviors. Much tourism research supports the proposition that benefits sought drive choices of activity as well as the destination attributes (Gitelson & Kerstetter, 1990; Loker & Perdue, 1992).

Crossley and Lee (1994) developed a continuum of benefits sought that runs from “primitive nature” to “entertainment.” Ecotourists tend to cite “primitive nature” types of benefits, such as “visited uncrowded destinations off the beaten path,” “experienced remote and unspoiled nature,” “increased my knowledge about wildlife,” “interacted with native

people,” and “saw unusual plants and animals.” In contrast, mainstream tourists tended to seek entertainment benefits such as “enjoyed nightlife entertainment,” “enjoyed visiting famous attractions,” “enjoyed good food & drink,” and “engaged in good shopping opportunities.”

In brief, both travel motivations and benefits sought are important to understanding tourist behavior in the context of any given trip. Motivations and benefits sought tend to be transitory or changeable; the motivations that influence a person’s decision for one trip may be very different than those motivations that shape the next trip decision. As such, motivations and benefits sought are distinct from attitudes.

An attitude—whether to the environment, travel, or any thing else (known as the attitudinal object)—is a person’s enduring evaluation of people, objects, and ideas. Generally, there are three attitudinal components (Aronson, Wilson, & Akert, 1999):

- The affective component—one’s emotional reactions toward a specific situation or object. The affective component is essentially evaluative, on the basis of which the attitude holder judges the object to be good or bad.
- The cognitive component—one’s thoughts and beliefs about the attitudinal object. One’s thoughts and beliefs are cognition of the functions, implications, or consequences of the attitudinal object. This cognition derives from information, fact, or knowledge relevant to the attitudinal object.
- The behavioral component—one’s actions or one’s predisposition toward action. One’s behaviorally based attitude is founded on observations of behavior toward an attitude object.

Environmental attitudes are the stable predisposition of an individual towards environmental issues. Predispositions are shaped by a variety of forces such as the individual’s education, socialization, group affiliations (e.g., membership in conservation associations), other beliefs, and previous experiences including experiences in interacting with the natural environment, such as vacationing in national parks.

Environmental attitudes, as other attitudes, are not directly observable. They are, in fact, psychological

constructs that are inferred either from behavior or through the use of psychological instruments, usually in the form of a series of statements to which people express levels of agreement. For example, Stone, Barnes, and Montgomery (1995) developed an “Environmentally Responsible Consumers Ecoscale” consisting of 31 statements grouped into categories such as “opinions and beliefs,” “awareness,” “willingness to act,” and “action taken.” Attitudes thus provide another important insight into the reasons behind the forms and styles of tourism of individuals or, conversely, the styles and forms of tourism observed permit one to make inferences about the attitudes that shape those styles and forms.

This article utilizes a combination of behavior, motivation, and attitude to create an operational definition of ecotourist. It also uses a self-defined approach (essentially, asking the respondent to indicate whether he/she considers him/herself to be an ecotourist). Differences in the profiles of ecotourists and non-ecotourists for each type of definition are then identified statistically.

Methods

Study Site

Taroko National Park is located in northeastern Taiwan. It covers 92,000 ha, running 42 km inland from the Pacific and 36 km along the coast. The park’s landscape is one of the most dramatic in Taiwan, with steep mountains and deep gorges, on the edge of the Pacific. Six different climatic zones occur in the park as well as extensive natural flora and fauna. The park also has several prehistoric sites and contemporary settlements of the Atayal aborigines. Attendance in 1998 was 1,458,700 visitors.

Source of Data

A self-administered questionnaire was designed to collect data on visitor characteristics of Taiwanese tourists in Taroko National Park. The survey included a set of social and attraction motives relevant to ecotourism drawn from the Canadian Tourism Attitude and Motivation Study (CTAMS), with the addition of questions specific to ecotourism (Fennell, 1990; Tourism Canada, 1985). The pool of questions used in CTAMS have been extensively tested and applied to the measurement of travel attitudes

among Canadian residents. The questions thus have been carefully constructed to be culturally neutral in order to accommodate the diversity of cultures among Canadian residents (Canada is one of the most culturally diverse nations in the world). The 29 statements related to motives for visiting and 23 statements related to attractions were scored on a 4-point scale ranging from “very important” to “not at all important.”

A second section of the questionnaire was based on a set of nine environmental attitude statements developed by Ou and Hsiao (1998) for use in Taiwan. Their study profiled the characteristics of Taiwanese ecotourists who visited Fushan Botanical Garden in the northeast part of Taiwan in 1998. Those characteristics included personal characteristics, motivations, and environmental attitudes. Of relevance to this current study is Ou and Hsiao’s use of the “New Environmental Paradigm (NEP)” (Dunlap & Van Liere, 1978) as a conceptual foundation for their environmental attitude scale. The NEP-based scale is a popular tool for assessing attitudes towards the environment. The NEP scale has been criticized in recent years as being “unidimensional” (in that it addresses only human/nature relationships, and for using language that is “anachronistic” in that it uses 1970s-era language, Lalonde & Jackson, 2002). These criticisms notwithstanding, the scales used by Ou and Hsiao were inspired by the NEP and not simply a translation of the original statements into Chinese. The Ou and Hsiao scale uses wording and concepts appropriate for contemporary Taiwanese society. Further, empirical analysis of their scale reveals it is actually multidimensional—capturing three different aspects of environmental attitudes. The attitudinal statements were scored using a 5-point Likert-type scale ranging from “strongly agree” to “strongly disagree.”

A third section collected trip profile data such as time away from home, time spent in Taroko National Park, and activities engaged in while in the Park. The final section collected demographic data as well as invited respondents to indicate whether they considered themselves to be ecotourists.

The questionnaire was originally developed in English by one of the authors, who is a Taiwanese citizen, and then translated into Mandarin. It was back-translated into English by an independent translator to ensure the reliability of the English-to-Man-

darin translation. The instrument was tested in the field with park staff who confirmed the clarity and cultural applicability of each item in the survey instrument. The instrument was then administered to park visitors during July 1999, using a cluster sampling design based on the four most popular recreation sites in the park. The personal interviews conducted in the field permitted continual monitoring of any ambiguity or other problems in application of the instrument. No significant sources of confusion were identified. Of a total of 452 visitors approached, 404 useable questionnaires were completed, for a response rate of 89.4%.

The two operational definitions of ecotourist were developed. The first was simply the respondent’s answer to the question, “Do you think of yourself as an ecotourist?” Those answering positively are referred to here as “self-defined ecotourists.” The second definition was a composite measure consisting of three characteristics of the respondent based on criteria suggested by Ballantine and Eagles (1994, p. 3): a social motive, an attraction motive, and a time threshold. Specifically, to be considered to be an ecotourist, the respondent must have answered either “very important” or “somewhat important” to the motive “learning about nature.” The respondent must also have indicated that the attraction of “wilderness/undisturbed areas” was “very important” or “somewhat important” in selecting Taroko National Park as a place to visit. Finally, the respondent must have indicated that he/she was planning to spend at least one third of the total trip time in the park. Those meeting all three criteria were labeled “designated ecotourists.”

A series of cross-tabulations, chi-square tests, and *t*-tests was conducted to explore the profiles of ecotourists versus non-ecotourists using the two different definitions. In the present study, only results that were statistically significant with the probability level less than 0.05 are shown.

Results

Sociodemographic Characteristics

Of the 404 respondents, 161 (39.3%) were designated ecotourists and 158 (39.1%) were self-defined ecotourists. The ages of designated and self-defined ecotourists ranged from 20 to 70, with average ages of designated ecotourists at 32.7 years and self-de-

financed ecotourists at 33.7 years. Both groups tended to be younger than the general Taiwanese population, with more males than females. Both types of ecotourists are highly educated, with more respondents with graduate school (designated ecotourists: 8.7%; self-defined ecotourists: 15.8%) or undergraduate education (designated: 43.5%; self-defined: 48.1%) than those in the general population (graduate: 0.9%; university: 7.4%). The majority of both self-defined and designated ecotourists were low-to middle-income earners. In brief, both categories of ecotourists were young, male, highly educated, and recent workforce entrants. This is an interesting and important finding for the future of park tourism in Taiwan, and suggests the potential for increased demand for domestic and foreign ecotourism travel by these people as they age and their incomes rise, assuming that those currently interested in ecotourism will retain their interest over time as their ability (time and money) to travel increases.

Trip Motives and Attractions Sought

As expected, both designated and self-defined ecotourists were more strongly interested in learning about nature by participating in activities such as plant and wildlife observation and bird watching than were non-ecotourists (Table 1). This finding is consistent with Crossley and Lee's (1994) finding that learning about and/or experiencing nature was

rated significantly higher by US ecotourists than by non-ecotourists, and Eagles's (1992) finding that learning and experiencing nature was ranked significantly higher by Canadian ecotourists than by non-ecotourists.

On the other hand, both groups of ecotourists in Taroko National Park ranked the following "escape" motives as important to them as did the general park tourists: being free to act the way they feel, getting a change from a busy job, seeing as much as possible in the time available, having fun, being entertained, being physically active, experiencing new and different lifestyles, and traveling to places they feel safe and secure. This finding, too, is consistent with the results found by Crossley and Lee (1994). Eagles (1992) found Canadian ecotourists ranked "seeing as much as possible in the time available" and "being physically active" much higher than non-ecotourists.

Both the designated and self-defined ecotourists were much more attracted by wilderness/undisturbed areas, ecological protection areas, and birds than were non-ecotourists (Table 2). This finding is consistent with several studies in which the benefits of "experience remote and unspoiled nature" and "experience undisturbed nature" and the destination attraction of "wilderness and undisturbed areas" were rated significantly higher by ecotourists than mass tourists (Ballantine, 1991; Crossley & Lee, 1994; Eagles, 1992; Fennell, 1990; Kretchman & Eagles, 1990).

Table 1
Summary of Benefits Sought by Ecotourists Versus Non-Ecotourists

	Designated		Self-Defined	
	Mean	<i>t</i>	Mean	<i>t</i>
Significantly different from non-ecotourists: Both designated and self-defined				
Learning about nature	1.60	-5.35	1.66	-3.92
Participating in recreation activities (e.g., hiking, bird watching)	1.91	-3.40	1.92	-3.34
Learning a new outdoor skill	2.25	-3.63	2.21	-4.24
Photography of landscape and/or wildlife	2.41	-2.77	2.32	-4.33
Significantly different between designated ecotourists and non-ecotourists				
Going places my friends have not been	2.54	-2.05		
Significantly different between self-defined ecotourists and non-ecotourists				
Meeting people with similar interests			2.34	-4.40
Rediscovering myself			2.12	-2.92
Being daring and adventuresome			2.35	-2.72
Visiting places that are important in history			2.14	-2.65

Scale runs from 1 = "very important" to 4 = "not important at all."

Table 2
Summary of Attractions Desired by Ecotourists Versus Non-Ecotourists

	Designated		Self-Defined	
	Mean	<i>t</i>	Mean	<i>t</i>
Significantly different from non-ecotourists: Both designated and self-defined				
Wilderness/undisturbed areas	1.59	-6.56	1.74	-2.30
Birds	1.99	-4.46	1.94	-5.64
Ecological protection areas	1.85	-4.17	1.83	-4.57
Insects	2.09	-5.04	2.15	-3.75
Activities offered by national parks	2.48	-3.50	2.49	-3.33
Trees and flowers	1.99	-3.46	2.02	-2.69
Mammals	2.26	-3.36	2.22	-4.40
Fish	2.37	-3.29	2.37	-3.15
Aboriginal Atayal culture	2.14	-2.51	2.12	-2.95
Significantly different between designated ecotourists and non-ecotourists				
Lakes and streams	1.76	-3.04		
Camping	2.53	-2.80		
Reptiles and amphibians	2.43	-2.49		
Sea of clouds, snow, or mountain fogs	1.74	-2.44		
Rural areas	2.12	-2.17		
Historic sites	2.15	-2.08		
Hot springs	2.28	-1.97		
Significantly different between self-defined ecotourists and non-ecotourists				
Landforms and geological features			1.54	-2.16

Scale runs from 1 = "very important" to 4 = "not important at all."

Both general park tourists and ecotourists looked for attractions such as waterfalls, scenic spots on the central cross-island highway, and the mountainous landscape that is the basis for Taroko National Park.

Self-defined ecotourists displayed fewer significant differences from their non-ecotourism counterparts than did designated ecotourists. While both types of ecotourists had significantly greater interest in a variety of nature-based destination attractions, designated ecotourists were also more attracted by the presence of rural landscapes, historic sites, and hot springs than were non-ecotourists.

Ecological protection areas were of significant interest to both self-defined ecotourists and designated ecotourists, but especially to the self-defined group. An ecological protection area is an area formally zoned within the National Parks in Taiwan to protect its unique ecology and its biotic communities. Access to these areas is for research only (Construction and Planning Administration, 1996). Permits for entering the areas are required from both the Conservation Division and the Police Corps of the National Park. The higher rating on this type of destination "attraction" (perhaps a misleading term

because these areas are not intended to attract tourists) may suggest that there may be some "hard core" nature tourists who are researchers within the study group (Lindberg, 1991). The higher rating may also imply that more self-defined ecotourists were aware of Taroko National Park as a protected area.

Self-defined ecotourists showed a statistically significant difference (compared with their non-ecotourism counterparts) on a longer list of benefits sought than did designated ecotourists. These "extra" benefits consisted of a range of benefits that include socialization, self-discovery and challenge, and historical interests. These same benefits, with the exception of "rediscovering myself," were found to be significantly more important to Canadian ecotourists compared with general Canadian tourists (Ballantine, 1991; Fennell, 1990; Kretchman & Eagles, 1990).

Activities

The activities in which both the designated and self-defined ecotourists participated that distinguish them from non-ecotourist visitors are plants/wild-

life observation, bird watching, mountain climbing, and astronomical observation (Table 3). These activities confirm that ecotourists not only have a strong motivation to learn about nature but also actively participate in activities that enhance their appreciation and understanding of nature.

Activity participation that resulted in significantly higher rates for self-defined ecotourists than for their non-ecotourist counterparts is landform and geologic features observation, plants/wildlife observation, nature study, bird watching, and astronomical observation. These activities focus on specific aspects of nature and offer significant learning opportunities. These activities are also consistent with self-defined ecotourists' desire for learning about nature through recreation activities and their destination attractions (e.g., landform and geologic features, plants and wildlife, and birds). However, the designated ecotourists' desire for learning did not translate into the activity participation. Although the motives of learning about nature, participating in recreation activities, and photography of landscape and/or wildlife were significantly more important to designated ecotourists than nondesignated ecotourists, it is surprising to find that designated ecotourists did not participate more frequently in the

activities of photography, nature study, and joining different interpretative programs.

Environmental Attitudes

A summary comparison of the environmental attitudes of self-defined and designated ecotourists and their non-ecotourism counterparts is provided in Table 4. There was a remarkable degree of proenvironmental attitudes amongst the park visitors, among designated and self-defined ecotourists, and their non-ecotourism counterparts. For every environmental attitude statement, a majority of the designated non-ecotourists expressed a proenvironmental attitude, ranging from a low of 57.3% who disagreed with the statement, "for the sake of improved leisure opportunities, it is good to develop more recreation areas," to an extraordinary 98.8% for the statement, "when human beings engage in any leisure and recreational activities, they should avoid disturbing local environment." Other statements highly ranked that indicated a strongly proenvironmental attitude by all four subgroups are "when economic growth is in conflict with environmental conservation, environmental conservation should be given the prior-

Table 3
Summary of Activities Desired by Ecotourists Versus Non-Ecotourists

	Designated		Self-Defined	
	%	Sig.	%	Sig.
Significantly different from non-ecotourists: Both designated and self-defined				
Plants/wildlife observation	50.9	0.002	51.9	0.001
Bird watching	36.6	0.001	40.5	0.000
Mountain climbing	34.2	0.002	34.8	0.001
Astronomy observation	30.4	0.001	27.8	0.024
Significantly different between designated ecotourists and non-ecotourists				
Hiking/walking	87.0	0.026		
Playing in water, swimming	52.8	0.001		
Hot spring bathing	47.8	0.006		
Sitting still, meditation	31.7	0.034		
Picnicking	31.1	0.000		
Going upstream	27.3	0.036		
Drinking alcohol	6.8	0.016		
Significantly different between self-defined ecotourists and non-ecotourists				
Observing landform and geological features			77.8	0.000
Nature study			48.7	0.000

Percent (%) refers to the percentage of respondents indicating participation in activity.

Table 4

Environmental Attitude Statement Scores for Designated and Self-Defined Ecotourists and Non-Ecotourists

Statement	Segment	Mean	SD
1. The supply of natural resources is inexhaustible and will not be used up.	designated ecotourist	1.95	1.29
	designated non-ecotourist	1.86	1.11
	self-defined ecotourist	1.87	1.21
2. For the sake of improved leisure opportunities, it is good to develop more recreational areas.	self-defined non-ecotourist	1.91	1.17
	designated ecotourist	2.37	1.27
	designated non-ecotourist	2.52	1.17
3. When economic growth is in conflict with environmental conservation, environmental conservation should be given priority.	self-defined ecotourist	2.40	1.25
	self-defined non-ecotourist	2.50	1.18
	designated ecotourist	1.65	0.99
4. Living space is a severe problem in Taiwan; therefore it is appropriate to convert farmland to build public housing.	designated non-ecotourist	1.60	0.82
	self-defined ecotourist	1.52	0.89
	self-defined non-ecotourist	1.68	0.88
5. At present, the implementation of environmental conservation in Taiwan is well done.	designated ecotourist	2.06	0.91
	designated non-ecotourist	2.04	0.95
	self-defined ecotourist	2.01	0.96
6. Taiwan has limited land and is crowded with people; therefore it is inappropriate to establish endangered animal sanctuaries.	self-defined non-ecotourist	2.07	0.92
	designated ecotourist	1.87	0.80
	designated non-ecotourist	1.84	0.74
7. Enjoying natural resources is a personal right. It is inappropriate for the government to make laws to control people's use of natural resources.	self-defined ecotourist	1.84	0.79
	self-defined non-ecotourist	1.86	0.75
	designated ecotourist	1.70	0.65
8. Human beings have the right to satisfy their own needs by altering the natural environment.	designated non-ecotourist	1.59	0.66
	self-defined ecotourist	1.60	0.59
	self-defined non-ecotourist	1.65	0.70
9. When human beings engage in any leisure or recreational activities, they should avoid disturbing the local natural environment.	designated ecotourist	1.72	0.86
	designated non-ecotourist	1.68	0.79
	self-defined ecotourist	1.66	0.87
	self-defined non-ecotourist	1.72	0.79
	designated ecotourist	1.56	0.72
	designated non-ecotourist	1.52	0.66
	self-defined ecotourist	1.52	0.66
	self-defined non-ecotourist	1.55	0.71
	designated ecotourist	1.42	0.84
	designated non-ecotourist	1.27	0.47
	self-defined ecotourist	1.33	0.73
	self-defined non-ecotourist	1.33	0.59

Means are based on a scale from 1 = "strongly disagree" to 5 = "strongly agree" for all statements except 3 and 9, which are reverse coded.

ity" and "human beings have the right to satisfy their own needs by altering the natural environment."

Another finding of note is that statements concerning general environmental issues (1, 3, 8, and 9) received stronger environmental support while statements concerning environmental issues specifically in Taiwan (2, 4, 5, 6, and 7) generated responses that were less strongly proenvironmental. This suggests that respondents may be more ready to espouse positive environmental attitudes when these are couched in general or abstract terms but are cautious about expressing strong attitudes regarding specific situations in Taiwan.

As might be expected, self-defined ecotourists had slightly stronger proenvironmental attitudes than their non-ecotourist counterparts. On the other hand, it is surprising that general park visitors (non-ecotourists based on the designation criteria) had stronger proenvironmental attitudes than designated ecotourists. It suggests that when the sample is separated into ecotourists and non-ecotourists using the three criteria provided by Ballantine and Eagles (1994) (i.e., learning about nature is an important travel motive, wilderness/undisturbed areas are important destination qualities, and one third of their trip time is spent in Taroko National Park), environmental attitude is missed. Such a conclusion is also

reflected in the result that self-defined ecotourists perceived a higher level of responsibility to the environment than designated ecotourists.

Discussion

Self-defined ecotourists and designated ecotourists not only are different from each other but differentiate themselves from their counterparts in different ways. As Figure 1 illustrates, more than half of the respondents were jointly defined as an ecotourist or as a non-ecotourist by both methods. Specifically, nearly 40% ($n = 160$) of respondents who were designated as non-ecotourists by this study did not consider themselves to be ecotourists. Nearly 20% ($n = 75$) of respondents who were designated as ecotourists did categorize themselves as ecotourists. However, slightly over 20% ($n = 83$) of respondents who were not designated as ecotourists thought of themselves as ecotourists while the remaining 20% ($n = 86$) who were designated as ecotourists did not think of themselves ecotourists. Why is there such difference in the classification of ecotourists between the respondents and researchers?

Of the one fifth of the respondents who thought of themselves as ecotourists but were designated as non-ecotourists, about two thirds did not meet the time criterion (spending at least one third of their trip in Taroko National Park). Approximately another 10% did not meet the destination attraction criterion (ranking wilderness/undisturbed areas as important). About 8% did not meet the benefit-sought criterion (ranking learning about nature as impor-

tant). A few respondents did not meet either the "time" and "wilderness/undisturbed areas" criteria, or the "time" and "learning about nature" criteria. One respondent did not meet both "learning about nature" and "wilderness/undisturbed areas" criteria.

The reasons for a divergence for the one fifth who were designated as ecotourists but did not think of themselves as ecotourists is unknown because these people were not asked why did not they think of themselves as ecotourists. This may represent an area for further research.

The Issue of Time

Ballantine and Eagles (1994), in their study of Canadian ecotourists in Kenya, argued that "a minimum amount of time spent on safari is chosen to represent dedication to firsthand field experience in Kenya" (p. 3), because safaris are generally recognized as an ecotourism activity. The study sample was supplied by the Toronto African Safari Club (ASC), who provides organized tours that offer only full board (all accommodation and meals included). This suggests that although tourists have a choice of recreational activities during the trip, their itinerary structure is set by ASC. Safari is one major activity offered by the company and nearly two thirds of all ASC guests go on safari. According to Ballantine (1991), Canadian ASC tourists in Kenya spent an average of 21.4 days on vacation, of which 9.7 days were spent on safari. Thus, a time criterion was useful in the Kenya case to distinguish ecotourists from other tourists. However, the time criterion excluded a substantial number of the Taiwanese park tourists from the designated ecotourist category, which suggests that this criterion poses some problems in the current study. There appear to be several reasons why the use of time in this study is problematic.

First, it may have been difficult for respondents to estimate reliably the time they would be spending in Taroko National Park because the surveys were done before they completed their visit. Visitors to Taroko are independent tourists with no fixed schedule. There also may have been some uncertainty about when the respondent actually crossed park boundaries because the park boundaries are not clearly marked on some approaches.

Time spent in the park was reported in hours on the questionnaire, but many trips were multiday in

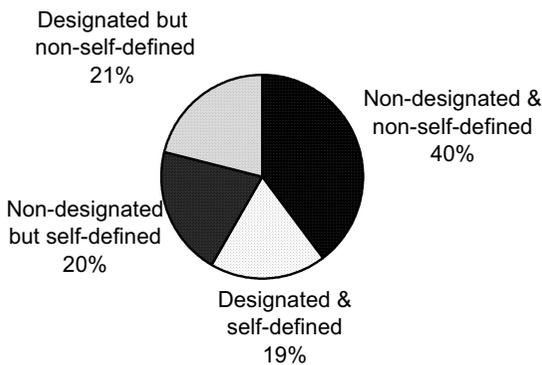


Figure 1. Distributions of respondents by definitional combinations.

duration and calculation of the ratio of hours in the park to hours away from home, based on multiplying the number of nights away by 24 hours, could yield inaccurate results. Many overnight visitors stayed in accommodation outside the park, thus reducing the time available to be tabulated as being in the park. However, one could argue that such time should actually be attributed to the park visit—time spent sleeping during safari was counted by Ballantine and Eagles (1994) in their time threshold.

Approximately equal numbers of respondents were “designated ecotourists” (161) and self-defined ecotourists (158). If the time criterion were removed from the designated criteria, many more respondents would have qualified as designated ecotourists, raising the number from 161 to 216. This implies that people who defined themselves as ecotourists have their own standards of what an ecotourist should be and such standards are apparently more rigorous than the empirical criteria used to designate ecotourists.

Conclusion

The purpose of this study was to explore the impacts of two definitional strategies on developing profiles of ecotourists versus non-ecotourists. Traditionally, studies to profile ecotourists have drawn samples from nature-based group tour programs on the assumption that all or a substantial number of the participants are ecotourists (Ballantine, 1991; Crossley & Lee, 1994; Fennell, 1990; Kretchman & Eagles, 1990; Wight, 1996b; Williacy & Eagles, 1990). In most of the cases, the tour groups also visited multiple sites of interest to those seeking a nature-based tourism experience. The resulting profiles apply only to ecotourists; that is, the studies do not always permit direct comparison of non-ecotourists in the same setting as ecotourists. In a break with this tradition, the present study examined independent tourists visiting a single site (Taiwan’s Taroko National Park). A National Park offers a setting that is consistent with the definition of ecotourism proposed in this study: a natural setting that provides environmental education, respects natural conservation, and maintains sustainable management of integrated environment as its goal. Further, it was assumed (and the validity of the assumption was borne out) that a substantial portion

of visitors to the Park is not ecotourists, thus providing the opportunity to compare characteristics of ecotourists with non-ecotourists in the same setting.

This study also represents a first attempt at comparing researchers’ and respondents’ perceptions of different variables influencing the characteristics of ecotourists within one sample. The purpose of using more than one method to measure the psychological traits of ecotourists and non-ecotourists can be seen as similar in spirit to Campbell and Fiske’s (1959, p. 81) argument that multiple traits and multiple methods should be used when assessing the validity of respondents’ psychological profiles. This concept can be illustrated in Figure 2. Using benefits sought as an example, although designated and self-defined ecotourists have different benefits sought compared with their counterparts, both value “learning about nature” and “participating in recreation activities.” These two benefits can be considered to be the core characteristics of Taiwanese ecotourists because they emerge from both definitions.

As noted previously, the three criteria used to designate respondents as ecotourists did not include any information about environmental attitudes. Further, self-defined ecotourists appeared to have a more restrictive concept of what it means to be an ecotourist (because fewer respondents defined themselves as ecotourists than did the researchers using the three criteria) and also had stronger proenvironmental attitudes. Thus, inclusion of some measure of environmental attitudes may be a useful component in a definition of an ecotourist. Environmental attitudes are important, not just because they can shape choices and behaviors, but because they may provide evidence of a fundamental environmen-

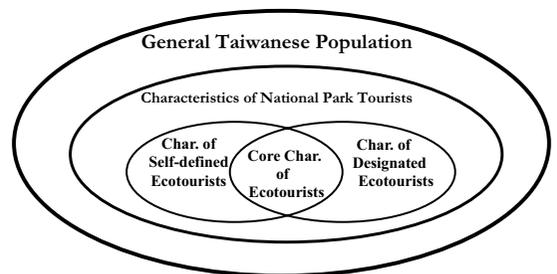


Figure 2. The concept of core characteristics of ecotourists.

tal ethic. As Jaakson (1997) notes, an environmental ethic “deals with our relationship, both as individuals and as members of a society, to the earth, to the natural environment” (p. 39). In the context of ecotourism, an environmental ethic shapes not only the motivations, benefits sought, and activities enjoyed during an ecotourism trip, it should define the very essence of what it means to be an ecotourist regardless of other characteristics identified in any operational definition.

In other words, the self-defined approach is not particularly satisfactory as a strategy in that one cannot be sure, a priori, about why an individual may classify her/himself as an ecotourist. On the other hand, at least in the case of the Taiwanese visitors to Taroko National Park, the self-defined approach apparently captured an implicit environmental ethic. The designated approach provides an objective and replicable approach to defining ecotourists, and did classify many respondents as ecotourists who also defined themselves to be ecotourists. The designated approach, however, missed the environmental ethic component. This omission appears to explain at least some of the differences in classification and profiles of the two groups. Another limitation recognized in hindsight with the designated approach is that it did not include any activity component. The results show a mixed pattern of linkage between benefits sought and activities engaged in at the park.

In conclusion, then, the two strategies examined here have both strengths and weaknesses in defining ecotourists. The “best” definition of an ecotourist should be one that includes not only empirical measures of motivations, activities, and benefits sought, but also an explicit recognition of the centrality of an environmental ethic to ecotourism.

Acknowledgement

The authors would like to acknowledge the Pacific Cultural Foundation in Taiwan for their interest and generosity in support of this research.

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