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Paul F.J. Eagles^a

^a University of Waterloo, Recreation and Leisure Studies, 200 University Avenue, Waterloo, Ontario, N0B 1L0, Canada
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Research priorities in park tourism

Paul F.J. Eagles*

*University of Waterloo, Recreation and Leisure Studies, 200 University Avenue, Waterloo, Ontario
N0B 1L0, Canada*

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Park tourism is a large and important activity on which a substantial body of research work has been published. This paper reviews that work in the light of the issues now faced by parks and park tourism, and argues that there are significant research gaps that urgently need additional work. The paper outlines 10 such areas, including: visitor use monitoring; park tourism economic impact monitoring; park finance; professional competencies for tourism management; building public support; visitor satisfaction; licenses, permits, leases, and concessions for tourism; pricing policies; management capacity; and park tourism governance. The paper suggests that work in these areas is so important that the long term political and social relevance, effective management and sustainable future of many parks and protected areas depend on the results. It points to the park creation phase being over after about 150 years of growth, and the need to move more effectively into the long-term management phase. A number of key questions arise. The numerous parks must fulfill their conservation mandate and they must be financially secure. They almost certainly must forge links to tourism, yet not be dominated by tourism's demands, creating, therefore, a new and sustainable research-based relationship.

Keywords: park tourism; visitor use; economic impact; pricing policy; visitor satisfaction; national parks

Introduction

There is a well-established body of literature on outdoor recreation and park tourism, containing theoretical underpinnings, empirical findings and management implications. Some aspects are very well covered, including numerous studies on crowding, carrying capacity, environmental impact assessment, trail design and management, visitor impacts on wildlife, and methods of public participation. However, there are also aspects that are dealt with in much less depth.

This paper uses a broad definition for the term park, including all IUCN categories I to VI (Dudley, 2008). Park tourism is a very large endeavor indeed, but we do not know how big. Eagles, McLean, and Stabler (2000) found that in 1996 there was an estimated 2,626,275,241 visitor days of recreation activity in the parks and protected areas of Canada and the USA. This use level was considered an underestimate, due to structural and financial limitations that limit tourism monitoring within many park agencies. The associated economic impact was calculated as between US\$236 billion and \$370 billion for that year. Unfortunately, no international tabulation has been undertaken, so it is not possible to assign global figures for visitor use levels or the associated economic impact.

*Email: eagles@uwaterloo.ca

However, it can be assumed that the global visitation figures are very much larger than those for the USA and Canada: globally, this is a major tourism activity.

An activity this large and significant requires substantial research to inform its management. This paper attempts to reveal gaps in research by synthesizing the relevant literature and the author's perceptions of management needs. The paper outlines 10 areas in park tourism that need considerably more research work. The priority areas include:

- (1) Visitor use monitoring;
- (2) Park tourism economic impact monitoring;
- (3) Park finance;
- (4) Professional competencies for tourism management;
- (5) Building public support;
- (6) Visitor satisfaction;
- (7) Licenses, permits, leases, and concessions for tourism;
- (8) Pricing policy;
- (9) Management capacity; and
- (10) Park tourism governance.

This paper presents the personal views of one person who has worked as a researcher and consultant in park tourism planning and management in over 25 countries in all continents over 40 years, and who has worked closely with many other researchers in this field.

The outcomes from the research in these 10 areas may be so important that the findings will affect the future viability of park tourism activities as well as the viability of the parks themselves. These areas are not prioritized: they form an integrated system where work in one area will affect the others.

Research priority 1 – visitor use monitoring

Visitor monitoring involves the collection of data on important aspects of visitor use of parks, including use volumes, types of uses, the location of those uses, and various impact measurements, such as visitor satisfaction and environmental impacts. These data are critically important for virtually all management activities, for public reporting, and for communication with government. Most park agencies undertake some level of visitor use monitoring, ranging from simple guesses to very sophisticated programs.

There are several manuals available, designed to assist in the design of visitor use monitoring programs in parks. Watson, Cole, Turner, and Reynolds (2000) provide a manual for field managers for monitoring and describing visitor use in designated wilderness areas in the USA, with an emphasis on field methods. Hornback and Eagles (1999), under the auspices of the World Commission on Protected Areas, produced guidelines for visitor use monitoring and reporting. They propose a set of definitions of terms to guide statistical measurement and analysis. They also propose a five-level set of monitoring protocols, varying from simple measurements of park use done part time by park staff (Level 1), through more sophisticated methods with dedicated staff (Level 3), and on to very sophisticated visitor use, visitor distribution and visitor marketing data collection undertaken by specialists (Level 5). However, these guidelines have not been widely adopted, with a wide range of statistical definitions still being used and little upgradation in the sophistication of field methods. Muhar, Arnberger, and Brandenburg (2002) provide an overview of all the methods used for visitor monitoring in recreation areas. Kajala et al.

(2007) prepared a manual for the Nordic and Baltic countries, a remarkable example of cooperation aimed at developing coordinated visitor monitoring protocols across six countries (Denmark, Estonia, Finland, Lithuania, Norway and Sweden.) However, in many park agencies that undertake visitor monitoring, it is often difficult for the outside observer to gain access to manuals describing the methods utilized, suggesting that transparency and accountability are not high priorities. This makes the collection of harmonized data sets amongst countries difficult.

Monz and Leung (2006, p. 17) describe, for two United States National Park Service networks, an “initial effort to improve the methodology of the determination of appropriate measurement indicators”. They commented that this work is necessary as this critical process did not have sufficient rigor to satisfy scientific scrutiny or manager’s needs. Considering that the National Park Service of the USA has arguably the most sophisticated visitor monitoring activity in the world, it is important to note that Monz and Leung describe their work as being only “initial”. They outline the key issues that must be addressed; the collection of data with appropriate scientific rigor and collection of data that fulfills park management needs.

There are some examples of very sophisticated monitoring, often stimulated by legal challenges to park management policies. Yosemite National Park, in California, USA, is an example of a very sophisticated monitoring program. It involves the collection of visitor use levels and data on the associated impacts, with the goal of guiding future management decisions. Not only are data collected at park entrances, but visitor use of sensitive environmental features is investigated. In sensitive areas, some of the activities monitored include: the development of informal trails in meadows, soundscape monitoring, trail use monitoring, wilderness encounters, and distribution of people in certain locales, amongst others (Yosemite National Park, 2012). However, this situation is an anomaly, stimulated by legal conflicts over land use planning in the park. Probably the most complete, multiagency tabulation available is the annual report from the National Association of State Park Directors in the USA (Leung, Siderelis, & Miller, 2012). It provides data on visitation, financing, and personnel.

Unfortunately many parks collect only visitor entrance data; many parks have no visitor monitoring at all. For example, Ontario has the third-largest park system in Canada. Of the 630 provincial parks and conservation reserves in the province, only 116 have gate control and some level of visitor use monitoring and reporting (Ontario Parks, 2011). The others have no visitor monitoring and therefore no reporting of use. Arnberger (2009) reports that in many cases the reported visitor use numbers are not reliable and should not be used for decision-making.

Cessford and Muhar (2003) and Cessford and Burns (2008) outlined the state of the art of visitor monitoring in New Zealand national parks and protected areas. They suggest that the fundamental baseline information in visitor monitoring deals with visitor use volumes. However, obtaining this basic data in a reliable and cost-effective manner has proven to be more difficult than expected. Interestingly, shortly after the summary report was completed in 2008, the research unit working on visitor monitoring activities in New Zealand was disbanded. Parks Canada has a monitoring and visitor information program in its national parks, national historic sites, and heritage canals that was approved in 2000 and subsequently implemented (Parks Canada, 2012). This program measures visitor use data largely through measurement of volumes at entrance points, as well as data obtained through surveys on visitor use of heritage presentation products, visitor understanding of the significance of the site, and visitor satisfaction with various aspects of their visit. McVetty (2002) described a study of visitor movements and behaviors from one group of Canadian National Parks. The

national program was managed by a cadre of approximately 35 individuals in head office and in field centers across the country. In 2012 a massive federal government budget cut removed 1689 agency staff overall (*National Post*, 2012) and reduced this visitor analysis unit to under 10 people and removed all field centers, severely impacting the ability of this program to function effectively. These events in New Zealand and Canada raise the interesting question of why the development and implementation of visitor use monitoring programs has seen reduced levels of emphasis.

The center of gravity of the work in this field has long been the USA, but is now shifting to Europe, with a concentration of effort presented in the publications of the Monitoring and Management of Visitor Flows set of conferences (MMV Sixth, 2012). For example, Arnberger and Hinterberger (2003) used mixed methods, video monitoring, visitor counts by observers, visitor interviews, and route analysis using GIS to develop a thorough analysis of public use patterns in a near-urban national park in Austria. The goal of the work was to identify a set of integrated monitoring methods that produced data to improve sustainable management. Probstl (2004) noted that the NATURA 2000 ecological network of sites required visitor use data in order to undertake ecological impact assessment for development, but often lacked such data. She developed a visitor monitoring protocol for a site in Austria and found the methods to be effective and the information to be useful. This led to a proposal that any “protected areas planning that strives to accommodate the legal context of the European Community also needs to include recreation research techniques” (Probstl, 2004, p. 259). This paper makes the important point that legally defined environmental impact assessment in protected areas should include data from effective visitor monitoring protocols. Vistad (2006) produced one of the few papers that outlined the constraints to visitor monitoring, using the example of Norwegian National Parks. The paper found that there was no tradition and therefore no policy emphasis on social monitoring in Norwegian National Parks. The only monitoring undertaken was biological, and that was done with very low funding. He identified a very low policy emphasis on visitor monitoring, an issue that is certainly of relevance in many park systems. Von Ruschowski, Valdeig, Jakob, and Homan (2008) worked in Harz National Park in Germany where no quantitative or qualitative visitor use statistics had existed for the entire park. They developed a visitor use monitoring protocol, then implemented the program and evaluated the results. Clark, Liley, and Sharp (2010) used mixed methods to assess visitation to heath lands in England. They were faced with the problem of assessing use at several separate sites scattered across the countryside. These European examples moved the field forward on many fronts, such as linking monitoring to legally required EIS procedures, the need for agency policy dictating visitor monitoring, the constraints to visitor monitoring in a park system, and the various methods that can be used for monitoring of entire parks or a fragmented set of parks.

Monz and Leung (2006) suggest that any park visitor monitoring program must achieve a balance between precision, accuracy and efficiency. The collection and interpretation of the data must be done in a cost effective manner. In addition, it is necessary to adopt standards that guide management action; otherwise there is much confusion about when a management action is needed given a specific set of impact measurements. Cessford and Burns (2008) call for work on outlining the advantages and disadvantages of each of the monitoring methods, such as step counters, road counters, infrared beams, etc. In the four mountain parks, Parks Canada uses a variety of methods to estimate visitor numbers, including gate entrance counts, electronic road counters, and intercept surveys. An independent evaluator found that “As a general conclusion, the results appear to provide the basis for developing reliable estimates of park visitors” (PRA Inc., 2004, p. 1).

The private sector in Europe has developed very sophisticated remote monitoring technologies for a wide variety of field applications. For example, Finnish National Parks use electronic counters that record the passage of people on trails, developed by the eco counter company, that report, using cell phone technology, data instantaneously to park managers in the park and elsewhere. North American parks have been very slow in adopting this technology.

Given the importance of visitor monitoring and reporting in park management, more research is needed. Areas of particular importance include:

- (1) Identification of the constraints to visitor use monitoring;
- (2) The development of methods that combine accuracy and efficiency;
- (3) The utilization of electronic monitoring methods;
- (4) Methods to enhance the policy emphasis of monitoring in park agencies and governments; and
- (5) Enhanced methods of reporting.

Research priority 2 – park tourism economic impact monitoring

Many governments see park management as expenditure only. Economic impact monitoring provides valuable information on the income earned from park activities, at the park and elsewhere. This information can show that government investment in protected areas provides economic benefits to national and local economies. The concept of total economic value identifies the societal values that can be identified as products from parks, enabling the capture of revenues by parks, the tourism industry, and local communities. With proper management, these products can be sold in a sustainable fashion indefinitely.

Thomas (1998, p. xi) states that economic impact valuation can be useful for protected areas since it can help to:

- support requests for funding from traditional sources;
- identify additional sources of finance;
- expose marginalized stakeholders who may impose threats to protected areas;
- indicate ways of capturing values of beneficiaries; and
- guide management practices.

There is a body of literature on estimating the economic contribution of visitor spending on parks (Saayman & Saayman, 2006). These tend to be one-off studies of the economic impact of spending or studies that discuss related research methods. Huhtala (2007) notes that no generally accepted method exists for measuring the economic impact of park tourism.

Some park agencies have stimulated research into developing economic impact measurement and modeling. Ken Hornback initially developed the Money Generation Model for estimating the economic impacts of visitor spending on a local region for the National Park Service of the USA. This was updated into the Money Generation Model 2 by D. Stynes and D. Propst of Michigan State University. This is a county-level, input-out model identifying how visitor expenditures flow through a local economy. These calculations typically require accurate input information on visitor use levels, obtained from monitoring protocols, and associated spending, acquired by surveys. The outputs from the spreadsheets can be used for planning, concessions management, budgeting, marketing, community involvement, and policy analysis (Stynes, 2012). In Canada, the federal government developed an economic

model which provided provincial-level economic impact. This was criticized as being too conservative and not providing local impact assessments. Recent revisions produced a new Economic Impact Model for Parks under the auspices of the coordinating body, the Canadian Parks Council (Canadian Parks Council, 2011). The Province of British Columbia in Canada initially hired consultants to produce economic impact estimates in 1985, 1995, 1996, and 2001 (British Columbia's Ministry of Water, Land and Air Protection, 2001). The province now uses the model developed nationally. Therefore, the USA has a model used in national parks to estimate local impact levels and Canada has a model used for both national and provincial parks to estimate provincial impact levels. Job (2008), working on national parks in Germany, provides an approach, the value-added technique, that can be used with different kinds of economic data in order to provide economic estimates at regional scales. Huhtala (2007) finds that the visitor survey/input-output method is effective in Finland. Huhtala, Kajala, and Vatanen (2010) built an application for estimating the local economic impact of national parks in Finland, modeled on the Money Generation Model 2 approach. Mayer, Muller, Woltering, Arnegger, and Job (2010) used the Keynesian multiplier approach in six national parks in Germany. It would be very useful if international collaboration could build a common/universal set of recommendations on the methods that could be used in various situations of data acceptability, funding availability, and scale needs. It is important, however, to stress that economic impact estimates are dependent upon data from park visitor monitoring programs. Weak or non-existent monitoring makes economic impact calculations impossible.

Globally, most park agencies do not have a policy of developing and reporting economic impacts on a consistent, on-going basis. Given the importance of such studies, the lack of data can have negative long-term consequences on a society's perceptions of the economic value of parks, and inhibit the creation of new parks. The lack of such studies can be used to imply that the economic impact of parks is close to zero.

The poor state of park economic impact reporting in many parks and park systems contrasts remarkably with the massive effort undertaken internationally in the 1980s and 1990s to develop tourism satellite accounting procedures for countries (European Commission, 2012). Currently, virtually every country undertakes such work. More recently, regional tourism satellite accounting is being developed, with Australia taking the lead (Tourism Research Australia, 2012). It would be desirable to extend this work to park systems, making them a module in the satellite accounting methodology. This should lead to standardized definitions of terms, methods, and reporting. Dwyer and Spurr (2010) recommend that computable general equilibrium modeling is preferable to the input-out models used for tourism satellite accounting. These models enable tourism policy makers to analyze scenarios of future actions.

Given the importance of economic impact estimates and reporting to the societal perceptions of parks, more research is needed. Areas of particular importance include:

- (1) Identification of the constraints to the on-going economic impact assessment in parks;
- (2) The development of economic assessment methods that combine accuracy and efficiency;
- (3) Methods to enhance the policy emphasis of economic assessment in park agencies and governments;
- (4) Enhanced methods of reporting;
- (5) Exploration of linkages to regional and national tourism satellite accounting;

- (6) Development of models that enable planners to understand the economic impacts of changes in tourism volume and types; and
- (7) International collaboration to build a set of recommendations on the methods that could be used in various situations of data acceptability, funding availability, and scale needs.

Research priority 3 – park finance

All park management is ultimately dependent upon suitable levels of finance. Globally, the money available for park management is substantially less than that which is needed to achieve basic conservation needs. Therefore, many parks are paper parks, appearing on government maps but lacking real planning or management. Merkl (2003) suggests that the marine national parks of Indonesia are largely paper parks due to a lack of funding. Emerton, Bishop, and Thomas (2006) reviewed the funding mechanisms for parks, the major obstacles and opportunities for each mechanism, and the potentials for improvement. Many park systems, such as those of New Zealand and Sweden, have a policy of not charging entrance fees. This results in reduced ability to earn income from tourism and removes a useful method for monitoring visitor flows entering the park.

Some park systems receive very little or no government funding, thus management funding must come from other sources, most often tourism fees and charges. This includes most African park systems. Mabunda (2007) outlines the situation of national parks in South Africa which have only 20% of their funding from government sources.

There are many possible sources of income for park management, including: government allocations, entrance fees, recreation activity fees, accommodation for visitors, accommodation for staff, concessions, equipment rental to visitors, food sales, merchandise sales, campfire wood sales, sales of intellectual property, cross-product marketing, interest on income, land sales, foreign aid, debt for nature swaps, donations, carbon offsets, lotteries, and payment for ecosystem services (Athanas, Vorhies, Ghersi, Shadie, & Shultis, 2001; Drumm, 2007; Eagles, McCool, & Haynes, 2002; Eagles & McCool, 2002; Emerton et al., 2006; Phillips, 2000; Spergel, 2001; Verweij, 2004). Many of these sources are related to tourism flows. More research is needed on a “comprehensive system of tourism-based income-generation mechanisms to at least cover the cost that visitation creates for protected areas” (Drumm, 2007, p. 191). Crompton (1999; 2009) outlined the options involved in financing park resources. Bovarnick (2008) created a scorecard approach to help identify the health and status of the financing of a park system, and to move toward a better financing system.

Moving beyond lists of potential park tourism income sources, case studies of how parks and park systems actually earn income is needed. It is important to understand the mix of income sources used, the pricing policies, and the potential income potential of these sources. One recent example comes from Ontario Provincial Parks where the park agency is now 86% funded by tourism-based income, replacing government grants (Eagles, in press).

Given the importance of tourism to park finance, research areas of particular importance include:

- (1) Identification of the full range of financing mechanisms available and in use;
- (2) Understanding the pricing policies;
- (3) Identifying the potential of existing and possible tourism fees and charges; and
- (4) Links to ecological accounting and to regional development.

Research priority 4 – professional competencies for tourism management

The management of human resources is important in the leisure industry (Minten, 2010). Virtually all parks require some level of visitor and tourism management. Common issues include: pricing, allocation of access, service quality, marketing, communication, and enforcement. Hurd, Barcelona, and Meldrum (2008) emphasize the importance of competency-based management theory. Surprisingly, the literature on the training and competency needs of a park agency staff complement is quite small in the area of visitor and tourism management. Eagles et al. (2002) emphasize the importance of human resource planning in tourism, but do not deal with the types of competencies needed. For efficient and effective tourism planning and management in a park or a park agency, the relevant expertise must be identified. Eagles (2001) states that in parks much of the visitor management is reactive, with “take it or leave it” levels of tourism service. Most park agencies are weak in tourism competencies within their own staff complement, with many of the officials being trained in resource management, then learning about visitor and tourism management on the job. This is one of the factors that moves park tourism services into the private sector, with its more specialized expertise. Stokke, Bjørnstad, Clemetsen, and Haukeland (2011) note that Norwegian national park agencies lacked both the professional competence and the desire to include tourism services in the parks, even though the parks have visitation. Inglis, Whitelaw and Pearlman (2005, p. 18) conclude that Australian park agencies are “still coming to terms with the range of skills required for park management”. They also recommend that staff training must be tied to management planning in parks.

Lemon, Longhurst, and Jeffery (1997) assessed the competencies and skills for many aspects of management within the Peak National Park in the United Kingdom. This is one of the few studies that attempts to identify competencies in several fields in parks, including: environmental education, recreation, marketing, economic development, administration, land use planning, built environment, and landscape design.

The National Recreation and Park Association (2012) of the USA accredits undergraduate programs in the fields of park, recreation, and leisure services, while individuals can be certified. Clearly this organization feels that it has sufficient knowledge of what is needed. Many university programs provide information on the programs that they offer in park and tourism management, and provide this on their website. However, it is much more difficult to find information on what competencies park agencies require in the field of visitor and tourism management. Do the parks’ needs match the current educational curriculum?

Hyslop and Eagles (2007) found 30 discrete topics involved in the tourism component of park planning and management policies. A park agency and many parks could need staff trained in each of these areas. Kopylova and Danilina (2011) provide brief outlines of some topics that could be covered by park staff training in many areas, including tourism.

Eagles, Halpenny, and McCarville (2004) suggest that park agencies should develop tourism management capacities in their organization in areas such as:

- (1) Financial management and planning (including business plans);
- (2) Marketing and communications planning and strategies;
- (3) Pricing policies;
- (4) Understanding the visitor (includes measuring visitor use);
- (5) Service quality and responsiveness;
- (6) Regional and park tourism infrastructure and services;
- (7) Integrated regional tourism planning and community development;
- (8) Comprehensive park planning;

- (9) Volunteers, community outreach, and constituency building;
- (10) Risk management; and
- (11) Park personnel management and policies.

These 11 management capacities could serve as a basis for future research in a variety of situations. Given the importance of competency in visitor and tourism management in parks, research is needed in the areas of:

- (1) Identification of the visitor and tourism management competencies required within a park agency;
- (2) Understanding the distribution of those competencies at the park, regional, and head office levels; and
- (3) Development of delivery mechanisms to provide the identified competencies.

Research priority 5 – building public support

Parks and protected areas are created by government for public policy reasons. Typically, the creation is the result of lobbying by sectors of society that value the benefits derived from these institutions (Sheail, 2010). Governments respond with money when those sectors provide sufficient justification, in direct competition with other sectors that also demand money for their purposes. It is felt by many that visitation by citizens is fundamental for the creation of public support of these sites. Eagles and McCool (2002) identify a tourism and conservation cycle, whereby the action of park visitation and the associated development of appreciation of the park lead to actions such as new park creation and further visitation. They state that only “when sufficiently large numbers of people in a society visit and value parks are sufficient public resources made available for establishment and management” (p. 24). Balmford et al. (2009, p. 1) suggest that nature-based tourism in parks has “considerable potential both to generate funds for conservation and to shape people’s attitudes to the environment”.

Balmford et al. (2009) found that there is an increase in park visitation in many countries. There is, however, considerable concern in the USA and Japan that a long-term, 25-year-long decline in per capita visitation to the national parks may mean a loss of profile with the federal government (Pergams & Zaradic, 2008). Canada has also seen a decline at the national level and Parks Canada created a special public engagement program to address this issue. Parks Canada has recognized the link between visitation and public support, and established goals for visitor involvement in interpretation programs and understanding of the significance of the park (Parks Canada, 2012). Ontario Parks’ marketing unit established goals for “encouraging visits to under-used parks, increasing the number of core park users (visitors who use parks frequently), encouraging non-users to visit parks, and using corporate partnerships to enhance marketing efforts” (Moos, 2002, p. 20).

Given the link between park visitation and public support, research is needed in several key areas as follows:

- (1) Understanding the key factors that link park visitation and public support for parks;
- (2) Understanding the role that education and interpretation play in developing public support;

- (3) Gaining an understanding of the methods that could be used to deal with new immigrants whose cultural background may not involve a focus on outdoor recreation; and
- (4) Investigation of the types of programs most likely to create public support for parks.

Research priority 6 – visitor satisfaction

Understanding a tourist's satisfaction is important for the long-term success of any tourism attraction (Alegre & Garau, 2010; Neal & Gursoy, 2008). Eagles (2002) notes that satisfaction with the experience in nature-based tourism is based on two fundamental components: "(1) appropriate levels of environment quality, and (2) suitable levels of consumer service" (p. 132). Return visitation and positive reports to others require good levels of visitor satisfaction with park environments, facilities, and programs.

The concept of satisfaction with services and programs is multidimensional. It is a complex construct that takes into account visitor motivations, visitor expectations, visitor knowledge, the interactions between the visitor and the various elements of the destination, and the measurement device used to measure satisfaction. The construction of a measurement device must anticipate the attributes of the services, programs, and facilities that are important to the visitor experience (Noe & Uysal, 1997; Yuksel & Yuksel, 2001).

O'Neill, Riscinto-Kozub, and Van Hyfte (2010, p. 142) comment that "little work has been undertaken aimed at defining the satisfaction construct in nature-based settings and those forces that make a real difference in evaluating overall satisfaction . . .". Weiler and David (1993) state that on-site interpretation may enhance visitors' level of satisfaction with the site and the experience. Banyai (2012) investigated the visitor satisfaction measurement program used by Parks Canada and found support for this suggestion. Banyai (2012, p. 115) concluded that: "Overall experience satisfaction in a national park is highly dependent on visitors' satisfaction with the site-specific elements". She criticized the instrument used by Parks Canada and recommended the development of a more discriminate, valid and reliable satisfaction measurement instrument. Kwan, Eagles, and Gebhardt (2010) found that the users of ecolodges in Belize had high levels of satisfaction with virtually all services and facilities. These findings contrast the much more negative rankings, using a similar importance performance research instrument, by ecotourists at the national parks in Tanzania (Wade & Eagles, 2003) and the ecotourists to the provincial parks in Ontario (Eagles, 2012). These latter studies suggest that some park agencies have much lower service quality and satisfaction ratings than similar institutions in the private sector. This is a potential threat to the public-sector parks as private-sector ecolodges will attract those visitors who desire higher service quality services in ecotourism.

Both the National Parks Service of the USA and Parks Canada in Canada undertake on-going, continuous, visitor satisfaction monitoring. They are unusual in this respect. Most park agencies do not. Even those that do monitor, typically do not have visitor satisfaction standards that field managers must meet.

Given the importance of visitor satisfaction to return visitation, to word of mouth recommendations, and to long-term park agency public profile and funding, more research work is needed, in the following areas:

- (1) Development of theoretical structures to underpin satisfaction measurement of park visitor experiences;

- (2) Development of an understanding of the barriers that keep park agencies and parks from undertaking on-going visitor satisfaction measurement;
- (3) Development of an appropriate measurement instrument that can be used widely and inexpensively; and
- (4) Creation of satisfaction assessment programs that can be implemented effectively and efficiently.

Research priority 7 – licenses, permits, leases, and concessions for tourism

There are five alternatives for the management institution that provides tourism services in a park: (1) a government agency; (2) a parastatal, which is a corporation owned or wholly controlled by government; (3) a non-profit corporation; (4) a for-profit corporation, either public or private; or (5) a community (Eagles, 2008). A decision must be made whether to in-source the program within the agency, options 1 and 2 above, or to out-source to another organization, options 3 to 5.

Private sector involvement in tourism in parks tends to be concentrated in:

- accommodations, such as cabins, lodges, and campgrounds;
- food provision, such as restaurants, and grocery stores;
- equipment provision, through sales, or rental;
- tour operations;
- waste collection;
- transit;
- facility and site maintenance; and
- information provision.

Virtually every park agency does some level of outsourcing. Some park agencies use third party providers because the agency does not have the legal ability to function like a business, does not have the internal expertise, or does not have the necessary up-front capital. Others use local operators in order to stimulate local economic development. Some park agencies stimulate the development of associated non-governmental organizations, often called Friends Groups, in order to take advantage of volunteer labor, financial donations, and to create a cadre of park supporters.

When tourism services within parks are provided by third parties they can be governed by licenses, permits, leases, or concessions. A license gives permission to operate to anyone who has met minimum standards. A permit is permission to operate by anyone who can pay the fee. A concession is a contract with a specialized operator who meets a set of criteria for long-term provision of a service, and usually has a monopoly. There may be land or facility leases that allow the private use of government property. The management of third-party providers within parks is complex (Eagles & Legault, 2012). The National Park Service of the USA (2012) administers more than 500 concession contracts. Havitz and Crompton (1999) outline the issues involved with contracting out recreation and tourism services. Some of the issues involved include:

- (1) Competitive or exclusive rights;
- (2) Pricing policy, fees, and payments;
- (3) Expertise and accreditation;
- (4) Leasing versus ownership of facilities;

- (5) The contract length;
- (6) Trading times and hours;
- (7) Customer service standards;
- (8) Environmental practices;
- (9) Public access to programs and facilities; and
- (10) Monitoring and enforcement (Eagles et al., 2009).

More (2005) is critical of user fee programs and public-private partnerships as they move parks toward the privatization of public resources. Kerstetter et al. (2010) found that park visitors to the state parks in Pennsylvania accepted the concept of economic efficiency as a primary reason for privatization of tourism programs.

Eagles and Legault (2012) provide a set of guidelines to assist park officials in operating outsourcing programs. They call for more research into this vitally important component of park management. There is a paucity of research to inform decision-makers of the advantages and disadvantages of each of the options within parks.

Research is needed on issues such as:

- (1) The identification of the successes and failures of various approaches;
- (2) The development of an understanding of the management skills necessary;
- (3) The identification of the most desirable methods in various circumstances; and
- (4) Development of an understanding of the types of expertise needed and the associated training programs.

Research priority 8 – pricing policy

All tourism programs in parks cost money to produce. The most direct way to pay for the programs is through visitor fees and charges of the users. There is a solid level of research on options of park tourism pricing policy (Alpizar, 2006; Krug, 2000; Laarman & Gregersen, 1996). However, there is a lack of comparative analysis to guide managers in their choice of options.

Many park tourism prices are set by governments, often independent from market demand or the cost of provision. Some parks and recreation programs have a simple pricing policy; charge a little more than last year. This policy, based on some remote historical pricing decision, often means the price is not related to the actual cost of providing the program. Upon detailed analysis, one city found that their cost recovery for programs varied from 13% for natural sport fields to 1427% for artificial sport fields (dmA and Mississauga, 2011). When programs are not financially self-sufficient, then tax revenues are used, leading to a tax subsidy. Tax subsidies are common in parks in the developed world. The vast majority of major park systems in the world require tax subsidies. However, in developing countries such subsidies usually do not exist and the entire park budget must come from tourism fees and charges. Generally, there are political forces requiring higher levels of user contributions to park programs. This leads to issues of pricing policy.

When the fees earned from a service are lower than the production cost for that service, the costs of fee and data collection may outweigh the perceived benefits, leading to poor reporting. This is one price to pay when fees are too low.

Major issues involved in setting prices include: the socio-economic status of the users, the cost of service provision, the level of social benefit of the program, the visitor's ability to pay, the capital costs of the facilities, and comparable programs elsewhere. Buckley (2003) argues that knowledge of the use of the funds is an important aspect of users' willingness

to pay. Walpole, Goodwin, and Ward (2001) found that only 6.9% of park management costs of the Komodo National Park in Indonesia were covered by tourism fees. However, the visitors expressed a willingness to pay substantially more for the experience. South African National Parks have two entrance fees, a usage fee and a conservation fee. The conservation fee varies with the nationality of the visitor: South African nationals pay the lowest fee, SADC (Southern African Development Community block of nations) nationals higher fees, and others a much higher amount.

Research in pricing policies should consider the following questions:

- (1) How much of the program's cost should be borne by the user or the tax payer?
- (2) How should the fees be assigned?
- (3) How are new fees introduced?
- (4) How should willingness to pay be measured?
- (5) What effects does the use of charges have on park usage and on local economies?

Research priority 9 – management capacity

Outdoor recreation planning and management is an ongoing activity to provide a high-quality natural environment for sustained and satisfying recreational use (Jenkins & Pigram, 2003). A common approach to the planning and management of this activity uses Manning's (1999) Outdoor Recreation Management Structure, which contains four stages: (1) inventory existing recreation conditions; (2) determine management objectives; (3) develop management prescriptions; and (4) monitor and evaluate implementation (Figure 1).

Manning's approach is a standard, normative planning model that has been widely used in parks and outdoor recreation. It might also be called a rational, comprehensive model (Seasons, 2003). Manning's approach assumes that the organization has the capacity to implement this structure.

The hallmarks of any successful organization are its ability to set objectives and the capacity to attain those objectives (Hough, 2006). In order for an organization to attain sufficient capacity to effectively set and implement objectives within protected areas, it is

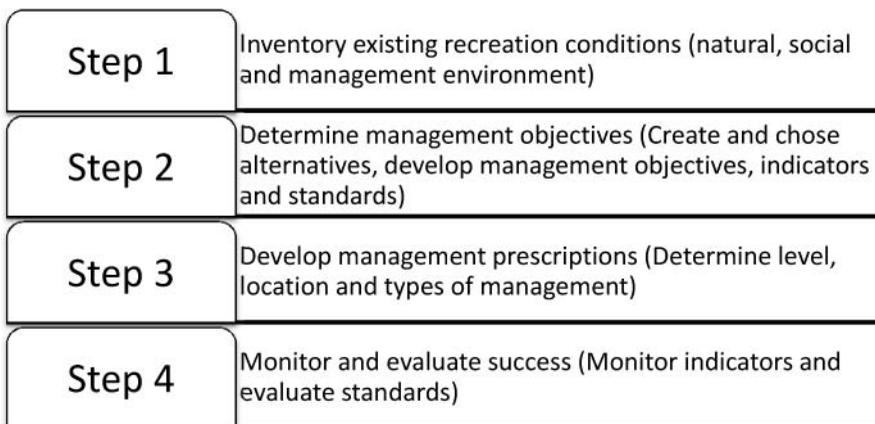


Figure 1. Outdoor recreation management structure. (Adapted from Manning, 1999, p. 283).

necessary for it to develop capacity within specific areas: (1) defining its mission; (2) performance assessment; (3) accountability; (4) effective management structure; (5) effective management processes; (6) sufficient human resources; (7) sufficient financial resources; (8) sufficient information; and (9) appropriate infrastructure (Hough, 2006). The evaluation of management effectiveness has emerged over the last 15 years to become an important subfield within protected areas management (Hockings, Stolton, & Dudley, 2000; Hockings, 2003; Hockings, Leverington, & James, 2006; Hockings, Stolton, Leverington, Dudley, & Courrau, 2006). There are three strands of interest in the evaluation of management effectiveness: design, management processes, and ecological integrity (Erwin, 2003; Hockings, 2003).

A study in Australia found that the effectiveness of protected area management is rarely monitored (Buckley, Robinson, Carmody, & King, 2008). A study of protected areas in Tanzania noted that “existing conservation areas require urgent strengthening of governance structures and capacity to support effective implementation of management” (Caro, Gardner, Stoner, Fitzherbert, & Davenport, 2009, p. 181). That study did not provide details of what components might constitute this management capacity. Hockings (2003, p. 831) states that the ultimate test of management effectiveness assessment should be to create management processes that “deliver improved management on the ground”. However, Hockings does not discuss the issue of the management capacity of the park agency, but does outline the allocation of resources that input into management. The World Wildlife Fund (Erwin, 2003) rapid assessment and prioritization methodology does not mention management capacity directly, but adopts the approach of assessing inputs to management. Increasing management capability is important for many protected areas (Cary, Dudley, & Stolton, 2000). Since successful management is ultimately dependent upon the capacity of the organization to undertake management, the issue of management capacity is vital to planning, management, and ultimately management effectiveness.

At a basic level, the tools and approaches for visitor and tourism management should be geared toward: “(i) influencing visitor decision processes; (ii) controlling visitor behavior; or (iii) mitigating the impacts of visitors” (Eagles & McCool, 2002, p. 132). When individuals visit a recreational area or participate in recreational pursuits, managers should focus their attention on the provision of these pursuits, in addition to the potential problems that may come about from these recreational endeavors. Managers can do this by managing visitor participation and by developing techniques that manage the overall impact of recreational participation (Eagles & McCool, 2002).

The first edition of the IUCN guidelines on management effectiveness evaluation noted five inputs to management: staff numbers, staff skills, funds, infrastructure, and equipment (Hockings et al., 2000). These inputs can come from the management agency or from cooperating bodies. The inputs to management include: staff, funds, equipment, and facilities (Hockings et al., 2006). The second edition of the IUCN guidelines on management effectiveness evaluation, outlined types of inputs to management: staff (numbers, functions, location, and skills); funds (source, purpose); infrastructure; equipment; and access to information (Hockings et al., 2006). An evaluation of these inputs assesses whether the site has sufficient resources to meet the management objectives and if the resources are being used in the best manner. As can be seen, the identified inputs to management became more in number and gradually more complex as this literature developed. Much more work is needed in this area.

Research is needed in the area of management capacity for tourism in parks in the following areas:

- (1) What is the minimum level of capacity needed to effectively manage tourism in parks?
- (2) What are the necessary areas of management that must be present?
- (3) What happens if the necessary areas or the minimum levels are not achieved?

Research priority 10 – park tourism governance

All park management is ultimately determined by the overall governance structure such as: (1) legislation, (2) policies, (3) finance, (4) management arrangements, and (5) public support. Governance is the means for achieving direction, control, and coordination. Governance is the process whereby organizations make their decisions, determine whom to involve, and how they render account of their performance (Graham, Amos, & Plumtre (2003). Eagles, Havitz, McCutcheon, Buteau-Duitschaever, and Glover (2010), following the United Nations Development Program (1997), suggested that good governance is understood through the following 10 areas:

- (1) Public participation: all people should have a voice in decision-making, either directly or through legitimate intermediate institutions that represent their interests;
- (2) Consensus orientation: the ability to mediate differing interests to reach a broad consensus on what is in the best interest of the group;
- (3) Strategic vision: looking constructively toward the future, with consideration of the historical, cultural, and social complexities of each situation;
- (4) Responsiveness: when institutions and processes try to serve all stakeholders using a proactive manner regarding complaints and criticism;
- (5) Effectiveness: the capacity to realize organizational objectives;
- (6) Efficiency: making the best use of resources or the capability of acting or producing effectively with a minimum amount or quantity of waste, expense, or unnecessary effort;
- (7) Accountability: officials answer to stakeholders on the disposal of their owners and duties, act on criticisms, or requirements made of them and accept responsibility for failure, incompetence, or deceit;
- (8) Transparency: sharing of information and acting in an open manner;
- (9) Equity: just treatment; requiring that similar cases be treated in similar ways; and
- (10) Rule of law: legal frameworks being fair and enforced impartially.

Graham et al. (2003) proposed that these 10 principles could be merged into five, but statistical analysis of the stakeholders' view in Ontario and British Columbia did not support this merging, as the 10 principles expanded into 11, as equity split into equity-fairness and equity-finance (Eagles et al., in press). Lockwood (2010) suggests seven principles and performance outcomes:

- (1) legitimacy;
- (2) transparency;
- (3) accountability;
- (4) inclusiveness;
- (5) fairness;

- (6) connectivity; and
- (7) resilience.

Ruhanen, Scott, Ritchie, and Tkaczynski (2010) found that the literature identified 40 separate dimensions of governance, of which six were used most frequently:

- (1) accountability;
- (2) transparency;
- (3) involvement;
- (4) structure;
- (5) effectiveness; and
- (6) power.

Dearden, Bennett, and Johnson (2005) reviewed protected area governance in 41 countries and found increased levels of participation by stakeholders in management, and greater use of formal accountability mechanisms. The authors indicated an improvement in protected area governance over the 1990s. Eagles (2009), when comparing various tourism management models found in parks and protected areas, found that the highest-ranked model was the public, non-profit combination model. Conversely, those models with high degrees of for-profit operations ranked lower. The lowest-ranked model was the aboriginal and government model.

Bramwell (2011) suggested that research on governance in sustainable tourism could benefit from the use of one social theory, the strategic-relational political economy approach.

In 2010 the Government of the United Kingdom undertook consultation to “review governance arrangements of National Parks in order to increase local accountability” (DEFRA, 2012). In England and Wales, the national parks are privately owned, including many human uses and settlements. These landscapes are managed by appointed boards. Each board serves as the local planning authority for the park. All members of these boards are appointed, either locally or nationally. Consultation was undertaken on the issue of including some directly elected members on the board. This measure was considered in order to increase accountability to people in local areas. The method used was through solicitation of written public comments on discrete proposals.

Buteau-Duitschaever, McCutcheon, Eagles, Havitz, and Glover (2010) found that stakeholders provided higher scores toward good governance for the parastatal model of park management found in Ontario Provincial Parks compared to the British Columbia Provincial parks model having private, profit-making companies providing all the visitor services. Additionally, the members of three important stakeholder groups, the park visitors (Buteau-Duitschaever et al., 2010); the park staff (Eagles, Buteau-Duitschaever, McCutcheon, Havitz, & Glover, 2011); and members of associated non-government organizations (Eagles et al., in press), indicated that the parastatal model provide higher scores toward good governance. Kerstetter et al. (2010) found in the state parks in Pennsylvania that the visitors accepted the concept of economic efficiency as a primary reason for privatization of tourism programs. These studies reveal that stakeholders involved with parks have views in regards to governance and that these views may vary. They also suggest that a valuable method of assessing governance can involve stakeholders indicating their views. Another method, of course, would be to have experts assign a score for each criterion against a standard. However, no such standard has been developed for park tourism governance. Interestingly, private corporate governance standards have existed for some time (OECD, 2004).

Beaumont and Dredge (2010) noted, when studying the governance of tourism in local areas, tensions between efficiency and inclusiveness, internal and external legitimacy, and flexibility and stability. Eagles (2009) concluded that: "The analysis suggests that the 10 criteria for governance are not treated equally in practice; financial efficiency may be a pivotal criterion given more importance". This research highlights the fact that governance criteria may be in conflict, as emphasis on one may decrease the value of another. They also suggested that further research is needed on the advantages and disadvantages of different approaches.

Brenner and Job (2011) used an actor-oriented approach in their work in Mexican Biosphere Reserves. They noted that governance occurs simultaneously at several scales: global, national, regional, and local. Accordingly, any investigation of governance must consider scale, and work at the appropriate scale.

In dealing with outsourcing in parks, Eagles and Legault (2012) were unable to access the associated contracts used in national or provincial parks in Canada. They were routinely withheld from public review by park authorities. This reveals a lack of transparency and accountability on this important aspect of park management.

Important research areas on park tourism governance include:

- (1) What is the overall governance structure that creates the most resilient system that can ensure that management undertakes good governance?
- (2) How does governance compare between and amongst various park tourism management models?
- (3) Can governance standards be developed for park tourism?

Discussion

This paper has outlined research needs in 10 areas of park and protected area tourism. With declining park use in Canada and the USA, there is much concern that the political profile of national parks will decline (Shultis & More, 2011). One way to address this problem is through creating a more thoughtful and research-based management regime. However, the same logic can be used for the parks that have increases in use, as is occurring in most of the world (Balmford et al., 2009).

The 10 areas form an integrated system where work in one area will affect the others. The research recommendations have an underlying assumption of improvement in practice. The research should lead to better financial returns, visitor satisfaction, tourism management, governance, and, critically, conservation.

There are many influences affecting tourism demand and supply that are not covered in this paper, such as human population growth, climate change, Asian economic growth, world agricultural prices, etc. This paper has dealt with those 10 areas that are amenable to park policy, planning, and management activities.

This paper seeks to stimulate debate on park tourism research needs, and encourage such research. The world is near the end of the 150 year-long park creation phase. It must now move more effectively into the long-term management phase. A number of key questions arise. The numerous park sites must be politically and societally relevant if their conservation mandate is to be accomplished. They must be effectively managed. They must be financially secure. They almost certainly must forge links to tourism, yet not be dominated by tourism's demands. It is the author's opinion that the research is so badly needed that the future welfare of many parks will be dependent upon the findings.

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Notes on contributor

Paul F.J. Eagles is a professor at the University of Waterloo. His primary appointment is to the Department of Recreation and Leisure Studies, with cross appointment to the School of Planning. He specializes in environmental recreation and tourism planning, with 40 years of planning experience. He has undertaken planning and research in this field in over 25 countries and has 360 publications. He was Chair of the Global Task Force on Tourism and Parks for the World Commission on Protected Areas of the World Conservation Union (IUCN) from 1996 to 2008. He has been a consultant on tourism for numerous agencies in Canada, and for the World Bank, the World Tourism Organization, the United Nations Development Program, the United Nations Environment Program, the Forestry and Agricultural Organization of the United Nations, and the Nordic-Baltic countries.

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