

Alternative tourism activities management in Argentinean-Chilean Great Lakes Corridor.

Publicado en "Global Ecotourism Policies and Case Studies. Perspectives and constraints. Ed. Luck. M; Kirstges, T. Current Themes in Tourism. Channel View publications, Clevedon, UK | 2003.

ALTERNATIVE TOURISM ACTIVITIES MANAGEMENT IN ARGENTINEAN-CHILEAN GREAT LAKES CORRIDOR

Rodrigo González * & Adriana Otero *

1. INTRODUCTION

Tourist and recreational use of natural and protected areas in Argentine-Chilean Great Lakes Tourist Corridor has experienced a remarkable growth during last years, following worldwide tourism growth tendency in this type of spaces. Notorious and continue changes in demand, not only quantitative but also qualitative, act influencing social variables (i.e. perception of quality of visitor recreational experience) and physical -biological variables (i.e. composition and the state of vegetal and animal species) that characterised this areas.

Although total use is still within the admission capacity of these areas, problems arise, derived from intensive use in certain places, and visitors management in some critical areas. Considering the vertiginous increase of non conventional tourism activities, and its different forms (natural tourism, ecotourism, adventure tourism, low impact tourism) the topic of limits to development appears as a serious concern for managers and researchers working on this kind of environments.

The expansion in the demand for tourist services makes some questions emerging, such as What kind of opportunities should be provided to tourists? What are the roles of each of the different parts involved in this process? (Parks' authorities, civil authorities, state offices, tourists and residents) What or who can satisfy this new and growing public necessities in an efficient way? How to prevent unacceptable changes derived from the increment in recreational use? . These are only some of the questions that claim the adoption of action strategies, based on planning and management approaches, that could respond to the complex and dynamic mosaic of situations in the field of tourism activities management.

In this context, this research approached the problem of management of alternative tourism activities considered critical, focusing on aspects referred to their management and administration in the area of the Argentinean and Chilean Lakes Corridor. Specifically, guidelines for environmental management were developed for a set of activities of notorious development in the Lakes Region: camping, rafting, trekking and hiking, mountain bike and fly fishing, through cases of study in the defined area.

The central idea has been to develop management options based on public consensus, as well as work guidelines to promote public-private interinstitutional cooperation, in the context of planning policies and instruments in these shared country spaces.

^{*} Graduate in Tourism. Research Scholar. School of Tourism. Universidad Nacional del Comahue. Buenos Aires 1400. 8300 –Neuquén. Argentina. E-mail: rgonzale@uncoma.edu.ar.

[♦] Graduate in Tourism. Ph D in Geography. Research Scholar Advisor. School of Tourism. Universidad Nacional del Comahue. Buenos Aires 1400. 8300. Neuquén. Argentina.E-mail: otero@uncoma.edu.ar

2. OBJECTIVES

General Objective

To develop management and control guidelines for rafting, camping sites, trekking, mountain bike and fly fishing in considered critical areas, with intensive use, within Argentinean-Chilean Lakes Corridor.

Specific objectives

- To make a revision of specific literature, related to the characteristics of each of the analysed activities, as well as impacts derived from those activities.
- To study factors affecting perception of quality of recreational experience of different tourist segments visiting the corridor.
- To evaluate the feasibility of implementation of management proposals, considering different types of restrictions affecting their practical implementation.

3. AREA OF STUDY

The tourist corridor or area in study is located in mountains and lakes sectors of the Lakes Region in Chile, and in the south end and NW of Neuquén and Rio Negro Provinces in Argentina. Between parallel 40° 38 ' and 41° 20 ' of south latitude and meridians 71° and 73° 10 ' of west longitude.

The corridor includes the following tourist centers: San Carlos de Bariloche, Villa La Angostura in Argentina, and Osorno, Puerto Octay, Frutillar, LLanquihue, Puerto Varas, Puerto Montt, Ensenada, Petrohué and Peulla in Chile.

3. METHODOLOGY

Selection of activities studied. / From the universe of activities developed in the corridor, were selected those that present a current or potential conflicting situation respecting its management and control implications. Although a variety of definitions exist around the concept of alternative tourism, for the present work, it was considered alternative activities those developed in a natural environment, with a low structured programming in relation to conventional tourism activities activities, but presenting a high level of user's independence to conform its own recreational experience.

The activities selected were camping, rafting, fly fishing and trekking in both countries. Later it was decided to incorporate the consideration of *mountain bike* in Argentinean sector, in attention to the importance that it is acquiring, and considering also tendencies that express a sustained growth for this segment for short and medium term.

Analysis of demand, tourist operators and institutions in charge of visitors management in protected areas. / In order to achieve an integral approach, it was

decided to focus the analysis in three dimensions: demand (tourists), tourist operators and institutions responsible for management and control actions in protected areas .

Demand analysis allowed to establish segments and users' niches, generating qualitative information that characterized their behaviour, through the consideration of sociodemographic, behavioural variables, as well as activity specific characteristic, market tendencies, among others.

Tourist operators analysis was carried out in order to examinate the operation conditions and benefit derived from these tourist activities, as well as to know main conflict sources in their practice.

Finally, an institutional analysis of the organism in charge of tourism activities management in those National Parks included in the corridor was developed.

Data collection instruments /A variety of data collection instruments were used, including surveys to tourists, non-structure interviews to government officials and private operators, participant and non participant in field observation, revision of specific literature and documental analysis about administration instruments and visitor management in protected areas.

- *Demand analysis* / Surveys to tourists practising the activities studied were applied. Different Surveys were designed for camping, rafting and fly fishing. Experiences of participant observation for fishing and rafting were carried out. Interviews to key informants were applied, in order to corroborate information from surveys.
- Tourist Operators analysis /It was selected, both in San Carlos de Bariloche (Argentina) and Puerto Varas (Chile) those tourist operators of largest trajectory and syndicated by their own colleagues as the most appropriate for giving truthful information required. A non-structured interview was designed, with a list of topics on which each interviewee would be extended.
- *Institutional analysis* / At first, extracted information from interviews with informants of different hierarchical level, Parks Administrators, technical personnel and rangers from both countries, made in advance by the research group, was gathered. Later, another non-structured interview was applied to informants from National Parks Administration (APN) in Argentina, and CONAF in Chile, in order to obtain detailed information about alternative tourism activities management and control actions.

4. RESULTS

Trying to achieve an integral approach, it was decided to focus the analysis in three dimensions: demand (tourists), tourist operators and institutions in charge of visitor management and control in protected areas.

4.1. Descriptive aspects of the alternative tourism activities analyzed

As a result of surveys, interviews and in field observation, generated information related to each of the activities considered in this study is presented next. It is consigned in each case if results belong to Argentinean or Chilean sectors. When it is not specified, it refers to information that presents similar values in both sectors.

4.1.1. Segmentation analysis

The following are the most relevant aspects concerning the activities studied:

Rafting

- It is one of the activities that presents a wide potential market, since its expansible demand
- Segmentation variables that more discriminate are the *origin* national and foreigners and the level of *previous experience*.
- Security conditions are one of the most important perceived product components in operator's election, for all identified segments.
- The main factor influencing visitor satisfaction is the achievement of "experience adrenaline."
- The range of users' age oscillates among 12 to 45/50 years. Group composition in relation to user age, is heterogeneous.
- Key management issues are clearly differentiated and determined by both motivation
 and previous experience of each segment. For unexperienced tourists, management
 actions should address security conditions during the trip; for tourists with previous
 experience, the observance of foreseen conditions should be assured and to control an
 appropriate organization level for tourist operators selling products and services for
 foreign tourists.

Mountain Bike

- Even the activity volume is low, there is a sustained growing tendency.
- Potential environmental impact of this activity is high in medium and long term, related to relative easiness to practise it, the cost of equipment, lack of current controls methods, and space dispersion inherent to this activity.
- Tourist guides plays a decisive role in visitors satisfaction. They are also a decisive factor in controlling impacts on environment.
- Short distance journeys, with low level of difficulty fit to whole family groups interests.
- Given these conditions, it is imperative to direct management actions to the establishment of a regulation that orders and foresees growth that this activity could experience in the following years.

Fly fishing

- Captures objective and the main motivation of each segment influence other variables that characterize the activity, as satisfaction with a recreational experience, fidelity with fishing places, requirements for recreational facilities and services, and finally, key management aspects for each identified niche.
- Previous experience as a fisherman, notoriously influences fishing modality practised by each sportsman. Together, previous experience and fishing modality, conform two

strong conditions of fishermen environmental behaviour. Related to this point, factors that influence recreational experience satisfaction, differ for fishing modality, previous experience and motivation

- Use is more concentrated in certain intensive use locations in Chile than in Argentina.
- In both countries, same segments were recognized, according to fishing modality: fly fishing, spinning and trolling. However, some important differences can be remarked:
- In Argentina, on board fishermen (those who practise trolling) use their own boats. In Chile, the majority of them hires the trip through recognized guides in the area.
- It is important to highlight eminently recreational character of anglers segment in Chilean sector, due to short distances from main cities in the region (Puerto Montt and Puerto Varas) to the circuit. This produces high fidelity levels with fishing places, for those that converge to the area every week during high summer season.
- In both cases a clear difference capture objectives for each group was noticed. Fly fishermen, with reduced capture objectives, look for *quality of pieces* in weight, size and ability to fight. They are extremely careful about natural resources. On board and recreational fishermen, on the contrary, are characterized by moderate to high capture objectives, trying to capture the biggest number of pieces, showing predators attitudes that endanger resource stability.

Trekking

- It is the most practised recreational activity.
- A notable difference in the practice of this activity in Chile and Argentina was appreciated. In Chilean sector it doesn't appear to have the magnitude neither the importance that it was found in Argentinean sector.
- In Argentina, this activity is associated to camping, and it is very diffused, mainly for the possibility of accessing to tourist circuits and attractions near camping areas. In Chile it is still an incipient activity in the studied area, at least in its non-commercial form. Management actions should assure transit conditions and security for short and medium distance trails with low level of difficulty.

Camping

- In Chile, camping areas demand is clearly segmented according to their level of service and prices. In Argentina, there are more alternatives of free camping areas with good environmental and landscape conditions.
- One of the most important differences in demand characteristics is given by the higher level in previous experience of Argentinean campers. It could be argued that there is a tradition of visiting these mountain areas as holiday destination; most of the tourists visiting these areas have a certain experience in this type of accommodation. On the other hand, in Chile, tourists have little previous experience in visiting camping sites, at least in this kind of environment.
- Related to this point, it is important to pay attention to differentiated service
 requirements of Chilean and Argentinean campers. Chilean tourists are particularly
 interested in keeping good maintenance conditions in particular sites (conservation,
 maintenance, cleanness, visual separation, access and privacy, interior space, among
 the most important). In the case of Argentinean campers, main service requirements
 are linked to The existence of clean bathrooms, hot water, shower and little shops

supplying neccesary goods. Consideration of particular sites characteristics doesn't seem to appear as a relevant matter for them, even in cases where camping sites conditions are clearly under expected quality levels.

- Related to the attachment to recreational settings, most of the interviewees manifested
 to have developed feelings of attachment of different magnitude and intensity to those
 places where they have camped. The most common attachment feeling is that when
 sentimental bonds to a place is developed. This can be called "identification with a
 place" .Tourists feel pride to develop emotional bonds with certain places, as they
 visit them in repetitive occasions during a lifetime.
- Bonds related to the facility a place offers for the development of certain activity were also mentioned, but in a second relevance place in relation to emotional bonds.
- Conflicts among users appear as one of the factors composing a satisfaction pattern, but always as a single element acting together with another variables in the process. Conflicts were assigned mainly to lack of education for coexistence, as well as lack of environmental conscience of many tourist groups visiting these areas.
- As tourists increase their experience in a place and then generating bigger place attachment feelings, they develop "growing exigency levels" toward physical and social environment, by means of the establishment of personal evaluation patterns for each area attributes. In case of an increase in the level of a tourist's exigency, an increase in the perception of negative attributes toward recreational experience is produced. These factors directly influence perception of recreational experience quality.

4.2. Institutional analysis of Organisms in charge of Tourism Management in Protected Areas within the Corridor

The interest of addressing issues related to institutions in charge of tourism management in protected areas within the studied corridor was based in the fact that use conditions offered by tourist attractions, as well as the way in which tourist activities are operated, are intimately related to conditions imposed by those institutions regulating and controlling its public use.

Information on this topic summarised below, is the result of applying interviews to key informants working within management institutions in Chile (CONAF) and Argentina (APN), park rangers to Managers and Administrators. These non-structured format interviews allowed to achieve a set of interesting preliminary conclusions:

• Planning and research

Management plans - Tourism activities management- Policies and programs: Parks receiving majority of tourist use within Argentine Patagonia, have already already updated management plans. Management programs and actions are recognized, but in most of the cases, execution of foreseen actions is not formally instructed yet, although it is considered to be a part of Annual Operative Plans (POA)). In Chile, all management units have an updated plan, which are supposed to be regularly revised every ten years. The execution of plans programs and actions is controlled through a general revision of the whole plan, every three years.

• Education and awareness programs

Although there is not a specific regulation or norms, environmental education have begun to be seriously considered for at least the last three years. In Argentina Patagonian Parks. In Chile, environmental education is formally incorporated into public use management, through Education Programs, conforming one of the parts of Park Management Plans. However, infield observation has demonstrated that, although the existence of such programs, visitor education and awareness actions are rather rudimentary and even nonexistent in considered critical sites.

• Control management

In Argentine Patagonia Parks, control system is still in an early stage of development. Control activities are restricted to mere observation of certain practices, without considering aspects inherent, for instance to service quality. Control tasks are carried out only by rangers. Main restrictions regarding control and surveillance refer to the lack of a appropriate normative that guides rangers in their daily practices, in case they need specific solutions or even criteria for potential conflicting situations.

In Chilean Parks, control and surveillance actions are included in each Management Plan *Protection Program*. Control is mainly a concern of Rangers corp, which are assisted by the figure of "Guards", local residents to whom are paid to reinforce the tasks inherent to Rangers. Nevertheless, a number of disruptions can be pointed out in Chilean sector, most of them related to lack of appropriate number of control personnel working in conflicting areas.

• *Legal and jurisdictional concerns*

Argentine National Parks Law 22.351 can be considered an useful, operative tool. Although a number of regulations can be cited (about tourism guides, tours operators, high mountain and trekking guides, fishing, camping sites), in fact they have a limited utility at present, since they don't cover the wide variety of activities being offered at Parks nowadays. It is also very important to consider an improvement in communication channels with concessionaires, in order to establish effective operative rules based on "codes of conduct" and mutual agreement.

In Chile, Law 18.362 of Protected Areas National System in Chile is not applied yet. has not still entered in validity. The lack of a protected areas law of has been recognized as one of the most severe restrictions this parks have to face.

The Alternative Tourism Activities practice conditions are regulated by an Alternative Tourism Regulation Act. This document is product of a consent process between private operators and CONAF working together in searching for common solutions.

The Act, being consented, establishes clear rules of action, diminishing or even eliminating potential communication conflicts among parts involved.

This point conforms one of the most remarkable differences between the administration of protected areas in both sectors within the corridor.

Finally, a number of serious deficiencies were found related the administration of permits, licenses, and concessions of tourist services.

5. CONCLUSIONS

A number of points are outlined below, summarising main issues emerging from this research. They are management actions suggestions, good practices to implement, as well as topics for the discussion of those concepts related to alternative tourism planning and management in natural landscape within the context of Northern Patagonian Andes Region. Nevertheless, the need of further discussion is emphasised, as starting points for future research that could help to enrich the state of knowledge about certain matters linked to the development of alternative tourism activities in natural landscape.

- → First, and closely related to alternative tourism activities management and control, it is considered very important to outline rules or normatives of those activities that, up to date, have not been regulated, those which real practice is by now done in spontaneously way, causing actual and potential conflicts. This must act as the foundation for constructing policies addressing public use in protected areas.
- → Related to the last point, it is essential to instrument valid consent mechanisms, capable to promote higher coordination and communication levels between public and private sector interacting in visitor management process. Authority of Parks, should be in charge of initiate an interactive dialogue that would permit the creation of action scenarios based on mutual work. Agenda should start. The process building up a meeting and grupal work schedule, devoted to the discussion of different aspects based on participative schemes. All groups involved should be invited, and encouraged to participate. This would be helpful during initial tasks of getting to each other concerns and objectives. Normative resultants from these work methodologies implies recognition of all parts involved.

The process can be structured through the following steps:

- 1. On the identification of tour operators working in the area of work (in charge of National Parks Authority)
- 2. On the coordination between National Parks Administration and different operators organisation and institutions, in order to design a work schedule and scheme for establishing consent management rules.
- 3. On workshops. Qualitative instruments have to be designed to conduct meetings and to organize emerging information.
- 4. On designing management rules. Each of them have to be done balancing conservation priorities with activity operators opinion, concerns and objectives.
- → Consented Rules proposal suggested above can be valid background. The vision guiding this work should be based in *being partners in common issues and solutions*.
- → One of the main conclusions referring institutional issues related to alternative tourism activity management is the need to manage their development paying special attention to similar cases in analogue situations, which have proved to have relative success in their practical implementation. Analysing, understanding and even implementing processes, practices and specific actions developed by other institutions could result in benefits, not only liked to solutions of actual problems, but also as a practical way to start working in consent binational management of natural resources.

It is possible to mention some examples of this. Consent management of rafting in Chile, as well as above mentioned Alternative Tourism Management Regulation Act, can be an incentive to implement such strategies in Argentina. On the other hand, there is a growing professional approach in tourism management field in Argentina, a sort of gradual awareness of the importance of this activities within the context of Northern Patagonian Andes areas. This has been translated into a number of tourism graduates, gaining a considerable portion of tourism job market in the region. As an example in contrary, CONAF authorities could consider the possibility to promote tourism jobs within their organization.

- → Alternative tourism management and control should be based on the consideration of a sustained growth tendency in the number of tourists arriving to the region to practice this activities. This is the case, for instance, of mountain bike and other ones, that are already showing overuse conditions and then conflicting situations. A reflexive, conscious, and serious position should be adopted, in order to implement management criteria oriented to solve conflicting situation in a near future.
- → Addressing this need, it is authors' belief that alternative tourism market segmentation process, which results are shown above, constitutes a research result itself. Based on this advance, segmentation methodologies and techniques must be constantly reviewed, adapted and even improved, in order to continue developing this type of analysis in coming years, as a one of the best ways found to deal with continues changes in alternative tourism activities scenario. Even with an notorious growth in the amount of tourist motivated for practising alternative activities, antecedents of research work were not identified in Patagonia at the moment. As it was said, these advances impost the need of new researches that bring new knowledge on these topics.
- → One of the most promissory research fields is the one linked to in deep studies addressing direct and indirect environmental impacts derived from the practice of these activities. Although literature reviews have been carried out, and most relevant direct impact were outlined and characterized, it is considered extremely important to advance in the knowledge of those indirect impacts derived from the activities considered. Their proper analysis and approach would permit to understand alternative tourism activities impacts as a whole, then designing and implementing more accurate guidelines and proposals for managing and preventing unacceptable conditions.

BIBLIOGRAPHY

- Anderson, D. (1981)

"The effect of user experience on displacement." In: *Proceedings of Applied Geography Conference*. pp. 272-278. Tempe. Arizona

- Becker, (1981)

"Displacement of recreational users between the lower St. Croix and upper Mississippi rivers." In: *Journal of Environmental Management*. Vol 13. N°3. pp.259-267

- Boullón, R. (1985)

"Planning of the tourist space" Editorial Trillas. Mexico.

- Boullón R. & Otero A. et al (1995)

"Standards for Leisure Activities" School of Tourism. National University of the Comahue Neuquén. Argentina.

- Boyd S. W. & Butler R. (1996)

"Managing ecoturism: an opportunity spectrum approach." In: *Tourism Management*. Vol. 17 N°8 pp 557-566

- Clark, R.; Stankey, G. (1979)

"The recreation opportunity spectrum: to framework for planning, management and research." USDA Forest Service.General Technical Report. PNW-98. December, 1979.

- Cole, D.; Schreiner, E. (1981)

"Impacts of backcountry recreation. Site management and rehabilitation. An anotated bibliography." USDA Forest Service. Intermountain Forest and Range Experiment Station. General Technical Report INT-121. Ogden, Utah.

- Eagles, P, F, J. (1994)

"Understanding the market for sustainable tourism." In: S. Mc. Cool, A. Watson, (comps.) 1995. *Linking tourism, the environment, and sustainability - Topical volume of compiled papers from to special session of the annual meeting of the National Recreation and Park Association*. Gene. Tec. Rep. INT-GTR-323, Ogden, UT. U.S. Departament of Agriculture, Forest Service, Intermountain Research Station.

- Graham, R.; Nilsen, P.; Payne, R. (1987)

"Visitor activity planning and management in canadian National Parks. Marketing within to context of integration." In: *Social Science in Natural Resource Management Systems*. Westview Press. Boulder, Colorado.

- Healy, R. (1994)

" The "common pool problem in tourism landscape." In: *Annals of Tourism Research.* Vol. 21 N° 3. pp. 596-611

- Hendee, J.(1974)

"To multiple-satisfaction approach to game management." In: Wildlife Society Bulletin. Vol 2 N° 3 pp. 104-113.

- Jacob, G.; Schreyer, R.(1980)

"Conflict in outdoor recreation: To theoretical perspective." In: *Journal of Leisure Research* 12 (4) pp. 368 380.

- Kozlowski, J. & Hill, G. (1993)

"Towards Planning Sustainable Development: To Guide for the you Finish yourself Environmental Threshold (UET) Method." Avebury. Aldershot. Great Britain.

- Kuiken, M. (1993)

"The environmental thresholds in the planning of the landscape: a synthesis of the focus." Towards Planningfor Sustainable Development. Avebury. England

- Kuss, F.; Graefe, A.; Vaske, J. (1990)

"Visitor Impact Management. To review of research." National Parks and Conservation Association. Washington, D.C.

- Liddle, M.; Greig Smith, P. (1975)

"To survey of tracks and paths in to sand dune ecosystem, I Soil, and II, Vegetation." *Journal of Applied Ecology.* 12. Pp. 893-930

- Mc Ewen, D.; Cole, D.; Simón, M. (1996)

"Campsite impacts in four wildernesses in the Central South United States." USDA Forest Service. Gene. Tec. Rep. INT-RP-490.

- Moore, R.; Graefe, A. (1994)

"Attachments to recreation settings: The marries of rail trail users." In: *Leisure Sciences*. Vol. 16 N° 1. pp. 17-31

- Nielsen, P.; Endo, R. (1977)

"Where have all the purists go?. An empirical examination of the displacement process hypothesis in wilderness recreation." In: Western Sociological Review. Vol 8 No 1 pp. 61-74

- Liddle, M.; Greig Smith, P. (1975)

"Ä survey of tracks and paths in to sand dune ecosystem." In: Journal of Applied Ecology. 12. Pp. 893-930

- Otero, A. & Della Cha, C. (1996)

"Actual and Potential use of the main Patagonian National Parks" School of Tourism. National University of Comahue. Neuquén. Argentina.134 pp.

-Otero, A.; Boullón, R. et al (1998)

Tourism Activities Management in binational Argentinean and Chilean Corridor" Tourism Faculty. National University of Comahue. Neuquén. Argentina. 170 pp.

- Propst, D.; it Files, D. (1982)

"How satisfying is satisfaction research?. To look at where we it plows going." In: *Forest and and river recreation: research Update.* pp. 124-133. University of Minnesota. Agricultural Experiment Station. Miscellaneous Publication 18. St. Paul

- Proshansky, H.; Fabian, A.; Kaminof, R. (1983)

"Place identity: Physical world and socialization of the self." In: *Journal of Environmental Psychology.* Vol 3 pp. 57-83

- Schreyer, R. (1976)

"Succession and displacement in river recreation." USDA Forest Service. Central North Forest Experiment Station. St. Paul. Minnesota.

- Shafer, AND (1969)

"The average camper who doesn't exist." USDA Forest Service. Norheast Forest Experiment Station. Research Paper NE-142. Upper Darby, PA.

- Shelby, B.; Heberlein, T. (1986)

"Carrying capacity in recreational settings." Corvallis: Oregon State University Press.

- Stankey, G.; Cole, D.; Lucas, R.; Petersen, M.; Frisell, S. (1985)

"The limits of acceptable change LAC system for wilderness planning." Gene. Tech. Rep. INT-176. Ogden, Ut. U.S. Department of Agriculture, Forest Service, Intermountain research Station.

- Stohlgren, T.; Parsons, D. (1986)

"Vegetation and soil recovery in wilderness campsites closed to visitor uses." In: *Environmental Management.* 10 (3) pp. 375-380

- Stokols, D.; Shumaker, S. (1981)

"People and places: To transactional view of settings." In: *J. Harvey (Ed.) Cognition, social behaviour and the environment.* pp 441-448. Hillsdale, NJ.

- Vaske, J.; Graefe, A.; Dempster, A. (1982)

"Social and environmental influence on perceived crowding." In: *Proceedings: Wilderness Psychology Group Conference*. pp.211-227

- Wagar, J. (1964)

"The carrying capacity of wildlands for recreation." *Society of American Foresters.* Forest Science Monograph 7. Washington, D.C.

- Wall, G.; Wright, C. (1977)

"The environmental impact of outdoor recreation." University of Waterloo. Department of Geology. Publication Series 11. Waterloo, Ontario.

- Wallace, G, Mc Farland C., Wurz, J. to the (1997)

"Hybrid system of Planning and Control of Impacts in Protected Areas" Report in *I Latin American Congress of National Parks and other Protected Areas*. Sacred Marta. Colombia.

- Williams, D.; Roggembuck, J. (1989)

"Measuring place attachment: Some preliminary results." In: *Proceedings Symposium on Outdoor recreation Planning and Management*, NRPA Symposium on Leisure Research, San Antonio.